

Johnson & Johnson Vision Care, Inc.

Clinical Study Protocol

Initial Evaluation of Investigational Lenses Manufactured on a New Production Line

Protocol: CR-6283

Version: 3.0, Amendment 2.0

Date: 09 Aug 2018

Investigational Products: Senofilcon-based contact lens containing new-UV blocker

Key Words: senofilcon A, Subjective Performance, Fitting Characteristics, Dispensing, Daily Wear

Statement of Compliance to protocol, GCP and applicable regulatory guidelines:

This trial will be conducted in compliance with the protocol, the International Conference on Harmonization Good Clinical Practice E6 (ICH-GCP),¹ ISO 14155,² the Declaration of Helsinki,³ and all applicable regulatory requirements.

Confidentiality Statement:

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PROTOCOL TITLE, NUMBER, VERSION

Title: Initial Evaluation of Investigational Lenses Manufactured on a New Production Line
Protocol Number: CR-6283
Version: 3.0, Amendment 2.0
Date: 09 August 2018

SPONSOR NAME AND ADDRESS

Johnson & Johnson Vision Care, Inc. (JJVC)
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MEDICAL MONITOR

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The Medical Monitor must be notified by the clinical institution/site by e-mail, fax, or telephone within 24 hours of learning of a Serious Adverse Event. The Medical Monitor may be contacted during business hours for adverse event questions. General study related questions should be directed towards your assigned clinical research associate.

The Medical Monitoring Plan is maintained as a separate document and included in the Trial Master File.

AUTHORIZED SIGNATURES

The signature below constitutes the approval of this protocol and the attachments, and provides the necessary assurances that this trial will be conducted according to all stipulations of the protocol, including all statements regarding confidentiality, and according to local legal and regulatory requirements and applicable U.S. federal regulations,⁴ ICH guidelines,¹ ISO 14155² and the Declaration of Helsinki.³

Author	<u>See Electronic Signature Report</u> Name: John R. Buch, O.D., M.S. Title: Principal Research Optometrist	_____
Clinical Operations Manager	<u>See Electronic Signature Report</u> Name: [REDACTED] Title: Clinical Operations Manager	_____
Biostatistician	<u>See Electronic Signature Report</u> Name: [REDACTED] Title: Biostatistician II	_____
Biostatistician Reviewer	<u>See Electronic Signature Report</u> Name: [REDACTED] Title: Manager of Biostatistics	_____
Reviewer	<u>See Electronic Signature Report</u> Name: [REDACTED] Title: Clinical Research Fellow	_____
Data Management	<u>See Electronic Signature Report</u> Name: [REDACTED] Title: Clinical Project Manager, Data and Systems	_____
Approver	<u>See Electronic Signature Report</u> Name: [REDACTED] Title: Reusable Platform Lead	_____

CHANGE HISTORY

Version	Originator	Description of Change(s) and Section Number(s) Affected	Date
1.0	John Buch	Original Protocol	01 August 2018
2.0	John Buch	Updated 'Eligible presbyopes will be those that wear full distance contact lenses in both eyes, then wear reading glasses over them,' to an individual inclusion criteria. Moved Inclusion Criteria after Baseline # 7-10 to Inclusion Criteria after Screening. Moved Exclusion Criteria after Baseline # 13-14 to Exclusion Criteria After Screening	07 August 2018
3.0	John Buch	Update 'The subject must have visual acuity best correctable to 20/25+3 or better for each eye.' To an individual inclusion criteria	09 August 2018

SYNOPSIS

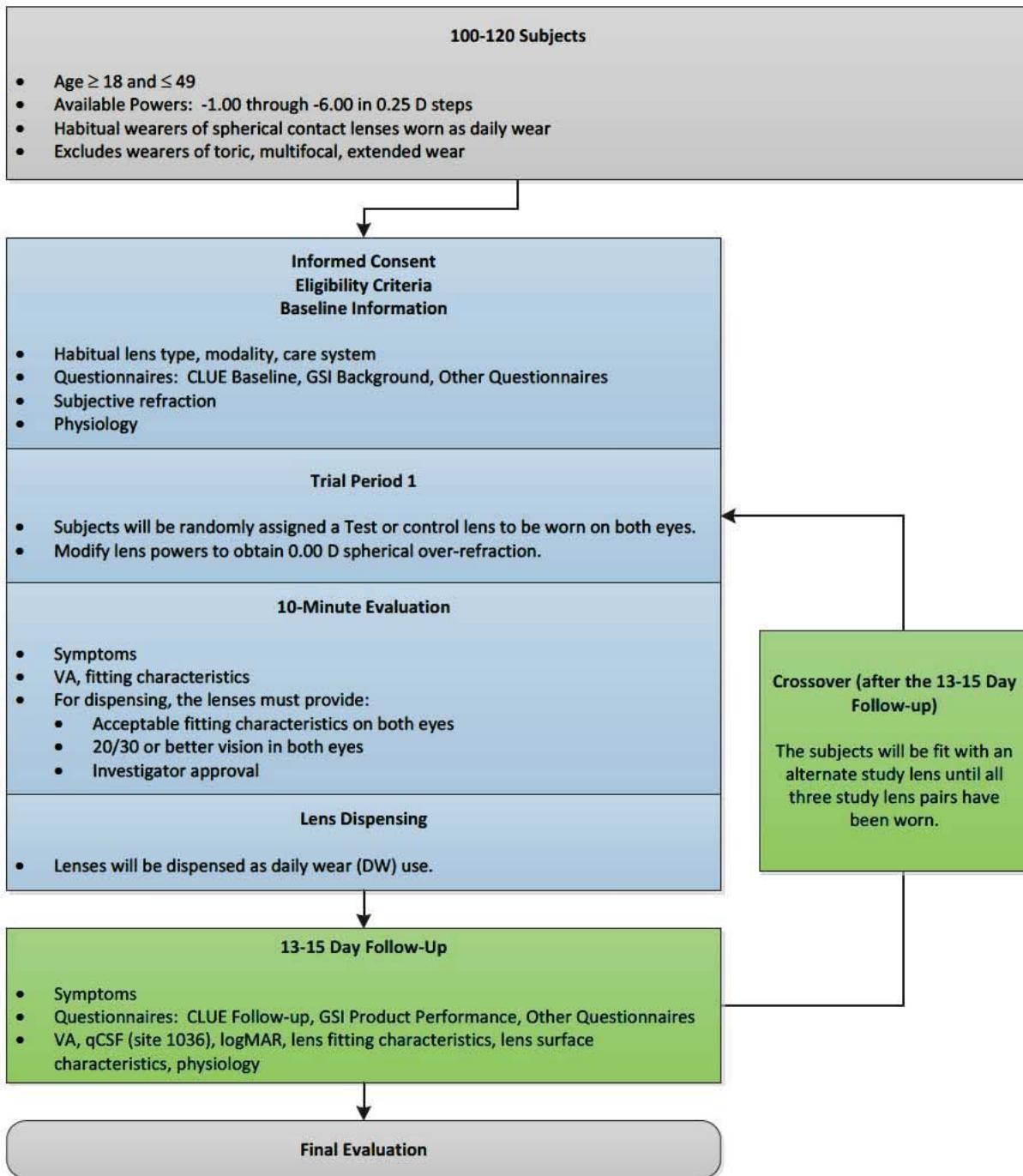
Protocol Title	Initial Evaluation of Investigational Lenses Manufactured on a New Production Line
Sponsor	JJVC, 7500 Centurion Parkway, Jacksonville, FL 32256
Clinical Phase	Development Phase 2b
Trial Registration	This study will be registered on ClinicalTrials.gov
Test Article(s)	Investigational Products: Senofilcon-based contact lens containing new-UV blocker (Test lens) Control Products: Commercial ACUVUE® OASYS®
Wear and Replacement Schedules	Wear Schedule: daily wear (DW) Replacement Schedule: approximately 2 weeks
Objectives	The primary objective of this study is to demonstrate non-inferiority of the Test lens compared to the Control lens with respect to CLUE comfort, Slit Lamp Findings and Monocular Distance Visual Acuity (logMAR). This study will also aim to show the Fit Acceptance rate of the Test lens is at least 90%.
Study Endpoints	<p>Primary Endpoints:</p> <ul style="list-style-type: none"> Monocular distance visual acuity (logMAR) Slit Lamp Findings (Grade 3 or Higher) Fit acceptance rate Overall CLUE comfort Vision satisfaction in bright lighting <p>Secondary Endpoints:</p> <ul style="list-style-type: none"> Overall CLUE vision Overall CLUE handling
Study Design	<p>This study is a randomized, 4-visit, partially subject-masked, 2×3 bilateral crossover, dispensing trial. The study lenses will be worn as DW for a period of 2 weeks each with one of the study lenses being worn twice. Each study lens is expected to be worn at least five (5) days per week for at least six (6) hours per day. There will be no washout period between study lenses. There will be an interim analysis after 100 or more subjects have completed the first wearing period (2-weeks after initial lens dispensing).</p> <p>See the flow chart at the end of the synopsis table for the schematic of the study visits and procedures of main observations (Figure 1).</p>

Sample Size	Approximately 120 eligible subjects will be enrolled and randomized into the study with a target of approximately 105 subjects to complete the study. A replacement subject may be enrolled if a subject discontinues from the study prematurely; the decision whether to enroll replacement subjects will be made by the joint agreement of the Investigator and Sponsor.
Study Duration	Subjects will wear the Test and Control lenses for 2 weeks each in random order with one of the study lenses being worn twice for a total of 6 weeks per subject. The enrollment period will be 2 weeks, making the entire study approximately 8 weeks in duration.
Anticipated Study Population	Approximately 120 subjects will be enrolled to ensure that at least 105 subjects will complete the study. Enrolled subjects will be habitual wearers of spherical contact lenses. All subjects will be the age of ≥ 18 and ≤ 49 years.
Eligibility Criteria (Inclusion Criteria)	<p>Potential subjects must satisfy all of the following inclusion criteria to be enrolled in the study:</p> <ol style="list-style-type: none"> 1. The subject must read and sign the Informed Consent form. 2. The subject must appear able and willing to adhere to the instructions set forth in this clinical protocol. 3. Healthy adult males or females age ≥ 18 and ≤ 49 years of age with signed informed consent. 4. Eligible presbyopes will be those that wear full distance contact lenses in both eyes, then wear reading glasses over them 5. The subject's optimal vertexed spherical equivalent distance correction must be between -1.00 and -6.00 D. 6. The subject's refractive cylinder must be ≤ 1.00 D in each eye. 7. The subject must have visual acuity best correctable to $20/25^{+3}$ or better for each eye. 8. Subjects must own a wearable pair of spectacles. 9. The subject is a current spherical soft contact lens wearer (defined as a minimum of 6 hours of DW per day, at least 5 days per week, for a minimum of 1 month prior to the study) and willing to wear the study lenses on a similar basis. 10. Subjects must be able and willing to wear the study lenses at least 6 hours a day, a minimum of 5 days per week 11. The subject must have normal eyes (i.e., no ocular medications or infections of any type).

Eligibility Criteria (Exclusion Criteria)	<p>Potential subjects who meet any of the following criteria will be excluded from participating in the study:</p> <ol style="list-style-type: none"> 1. Currently pregnant or lactating (subjects who become pregnant during the study will be discontinued). 2. Any systemic disease, autoimmune disease, or use of medication, which may interfere with contact lens wear. This may include, but not be limited to, diabetes, hyperthyroidism, recurrent herpes simplex/zoster, Sjögren's syndrome, xerophthalmia, acne rosacea, Stevens-Johnson syndrome, and immunosuppressive diseases or any infectious diseases (e.g. hepatitis, tuberculosis). 3. Use of any of the following medications within 1 week prior to enrollment: oral retinoid isotretinoin (e.g. Accutane), oral tetracyclines, topical scopolamine, oral (e.g., Chlor-Trimeton, and Benadryl) and ophthalmic antihistamines, oral phenothiazines (e.g., Haldol, Mellaril, Thorazine, Elavil, Pamelor, Compazine), oral and ophthalmic Beta-adrenergic blockers (e.g., Propranolol, Timolol, and Practolol), systemic steroids, and any prescribed or over the counter (OTC) ocular medication. 4. Entropion, ectropion, extrusions, chalazia, recurrent styes, glaucoma, history of recurrent corneal erosions, aphakia, or moderate or above corneal distortion. 5. Any previous, or planned, ocular or intraocular surgery (e.g., radial keratotomy, PRK, LASIK, etc.). 6. Any Grade 3 or greater slit lamp findings (e.g., edema, corneal neovascularization, corneal staining, tarsal abnormalities, conjunctival injection) on the FDA classification scale, any previous history or signs of a contact lens-related corneal inflammatory event (e.g., past peripheral ulcer or round peripheral scar), or any other ocular abnormality that may contraindicate contact lens wear. 7. Any known hypersensitivity or allergic reaction to Optifree® PureMoist® multi-purpose care solution or Eye-Cept® rewetting drop solution. 8. Any ocular infection, allergy or clinically significant ocular disease (e.g. corneal edema, uveitis, severe keratoconjunctivitis sicca, ocular hypertension), or ocular conditions (e.g. strabismus), which might interfere with the study. 9. Any corneal distortion resulting from previous hard or rigid gas permeable contact lens wear.
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	<ol style="list-style-type: none"> 10. Toric, extended wear, monovision or multi-focal contact lens correction. 11. Participation in any contact lens or lens care product clinical trial within 30 days prior to study enrollment. 12. Participation in clinical trials involving the Test lens within 3 months prior to study enrollment. 13. History of binocular vision abnormality or strabismus. 14. Employee, relative or friends of employees of any ophthalmic company, or investigational clinic (e.g., Investigator, Coordinator, Technician).
Disallowed Medications/Interventions	Use of any of the following medications within 1 week prior to enrollment: oral retinoid isotretinoin (e.g. Accutane), oral tetracyclines, topical scopolamine, oral (e.g. Seldane, Chlor-Trimeton, and Benadryl) and ophthalmic antihistamines, oral phenothiazines (e.g., Haldol, Mellaril, Thorazine, Elavil, Pamelor, Compazine), oral and ophthalmic Beta-adrenergic blockers (e.g., Propranolol, Timolol, and Practolol), systemic steroids, and any prescribed or over the counter (OTC) ocular medication
Measurements and Procedures	Monocular distance visual acuity on logMAR scale using ETDRS charts, physiological responses, lens fitting characteristics, individual performance metrics, CLUE comfort, vision and handling.
Microbiology or Other Laboratory Testing	The optical bench will be used to measure the light transmission characteristics for all worn test lenses. The findings are for internal information only and will not be part of the final report.
Study Termination	The occurrence of one or more Unanticipated Adverse Device Effect (UADE), or any SAE where relationship to study agent cannot be ruled out, will result in stopping further dispensing investigational product. In the event of a UADE or SAE, the Sponsor Medical Monitor may unmask the Control lens of subject(s) and may discuss this with the Principal Investigator before any further subjects are enrolled.
Ancillary Supplies/ Study-Specific Materials	Opti-Free® PureMoist®, Preservative free rewetting drops/artificial tears
Principal Investigator(s) and Study Institution(s)/Site(s)	A full list of Principal Investigators, clinical sites, and institutions is kept separately from the Study Protocol and is included in the study Trial Master File.

Figure 1: Study Flowchart



COMMONLY USED ABBREVIATIONS AND DEFINITIONS OF TERMS

ADD	Plus Power Required For Near Use
ADE	Adverse Device Effect
AE	Adverse Event/Adverse Experience
BCVA	Best Corrected Visual Acuity
BSCVA	Best Spectacle Corrected Visual Acuity
CFR	Code of Federal Regulations
CLUE	Contact Lens User Experience
COAS	Complete Ophthalmic Analysis System
COM	Clinical Operations Manager
CRA	Clinical Research Associate
CRF	Case Report Form
CRO	Contract Research Organization
CT	Center Thickness
■■■■■	■■■■■
D	Diopter
DMC	Data Monitoring Committee
DW	Daily Wear
eCRF	Electronic Case Report Form
EDC	Electronic Data Capture
ETDRS	Early Treatment Diabetic Retinopathy Study
FDA	Food and Drug Administration
GCP	Good Clinical Practice
HIPAA	Health Insurance Portability and Accountability Act
IB	Investigator's Brochure
ICF	Informed Consent Form
ICH	International Council for Harmonization
IDE	Investigational Device Exemption
IEC	Independent Ethics Committee
IRB	Institutional Review Board
ISO	International Organization for Standardization
ITT	Intent-to-Treat
JJVC	Johnson & Johnson Vision Care, Inc.
LC	Limbus Center
logMAR	Logarithm of Minimal Angle of Resolution
MedDRA [®]	Medical Dictionary for Regulatory Activities
MOP	Manual of Procedures
NIH	National Institutes of Health
OD	Right Eye
OHRP	Office for Human Research Protections
OHSR	Office for Human Subjects Research
OS	Left Eye
OU	Both Eyes
PD	Protocol Deviation
PHI	Protected Health Information
PI	Principal Investigator

PIG	Patient Instruction Guide
PQC	Product Quality Complaint
PRO	Patient Reported Outcome
QA	Quality Assurance
QC	Quality Control
SAE	Serious Adverse Event/Serious Adverse Experience
SAP	Statistical Analysis Plan
SAS	Statistical Analysis System
SD	Standard Deviation
SLF	Slit Lamp Findings
SOP	Standard Operating Procedure
UADE	Unanticipated Adverse Device Effect
USADE	Unanticipated Serious Adverse Device Effect
VA	Visual Acuity
UV	Ultraviolet
HEV	High energy visible

1. INTRODUCTION AND BACKGROUND

ACUVUE® OASYS Transitions with Light Intelligent Technology was approved by the FDA in April 2018. The contact lenses will be produced on a new manufacturing line and clinically evaluated for the first time in this study.

1.1. Name and Descriptions of Investigational Products

Senofilcon-based contact lens containing a new-UV blocker.

1.2. Intended Use of Investigational Products

The intended use of the investigative product in this study is for correcting myopia and providing visual benefits in lighting situations where UV-A and/or High Energy Visible (HEV) light is present in the environment. During the study, each test article will be worn bilaterally in a daily wear (DW) modality for at least 6 hours per day and 5 days per week for approximately 2 weeks each. The subject will wear either the Test or Control article twice and the other study article once.

1.3. Summary of Findings from Nonclinical Studies

All previous pre-clinical findings were deemed satisfactory prior to proceeding with clinical trials on humans. For the most comprehensive nonclinical information regarding senofilcon A - based soft contact lens containing the new UV-blocker, refer to the latest version of the Investigator's Brochure for this study.

1.4. Known Risks and Benefits to Human Subjects

The risks of wearing soft contact lenses are well known and are described in the Investigator's Brochure and Informed Consent. The material safety testing/lens release criteria was determined based on the Risk Assessment.

1.5. Relevant Literature References and Prior Clinical Data Relevant to Proposed Clinical Study

Prior clinical data is summarized in the Investigator's Brochure.

The literature is absent of any articles pertaining to soft contact lenses containing the new type of UV-blocker. A list of relevant literature references pertaining to glare, eyestrain, and light filtering is provided:

1. Agarwal S, Goel D, Sharma A. Evaluation of the factors which contribute to the ocular complaints in computer users. *J Clin Diagn Res.* 2013;7(2):331-335.
2. Eperjesi F, Fowler CW, Evans BJ. Do tinted lenses or filters improve visual performance in low vision? A review of the literature. *Ophthalmic and Physiological Optics.* 2002;22(1):68-77.
3. Hickox KS, Narendran N, Bullough JD, Freyssinier JP. Effect of different coloured luminous surrounds on LED discomfort glare perception. *Lighting Research and Technology.* 2013;1477153512474450.

4. Leguire LE, Suh S. Effect of light filters on contrast sensitivity function in normal and retinal degeneration subjects. *Ophthalmic and Physiological Optics*. 1993;13(2):124-128.
5. Morse RS. Glare filter preference: influence of subjective and objective indices of glare, sharpness, brightness, contrast and color. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. 1985;Vol. 29, No. 8, pp. 782-786. SAGE Publications.
6. Pérez-Carrasco MJ, Puell MC, Sánchez-Ramos C, López-Castro A, Langa A. Effect of a yellow filter on contrast sensitivity and disability glare after laser in situ keratomileusis under mesopic and photopic conditions. *Journal of Refractive Surgery*. 2005;21(2):158-165.
7. Sheedy JE, Hayes J, Engle J. Is all asthenopia the same? *Optometry & Vision Science*. 2003;80(11):732-739.
8. Steen R, Whitaker D, Elliott DB, Wild JM. Age-related effects of glare on luminance and color contrast sensitivity. *Optometry & Vision Science*. 1994;71(12):792-796.
9. Vincent AJ, Spierings EL, Messinger HB. A controlled study of visual symptoms and eye strain factors in chronic headache. *Headache: The Journal of Head and Face Pain*. 1989;29(8):523-527.
10. Wilkins AJ, Evans BJ. Visual stress, its treatment with spectral filters, and its relationship to visually induced motion sickness. *Applied Ergonomics*. 2010;41(4):509-515.

2. STUDY OBJECTIVES, ENDPOINTS AND HYPOTHESES

2.1. Objectives

Primary Objective

The primary objective of this study is to demonstrate non-inferiority of the Test lens compared to the Control lens with respect to CLUE comfort, Slit Lamp Findings (Grade 3 or Higher) and Distance Monocular logMAR Visual Acuity. This study will also aim to show that the Fit Acceptance rate is at least 90% while wearing the Test lens.

Secondary Objective

The secondary objective of this study is to demonstrate non-inferiority of the Test lens compare to the Control lens with respect to CLUE Overall quality of Vision and Handling.

Exploratory Objective

This study also aims to explore the performance of Indoor, Outdoor and Driving performance using individual questionnaire items.

2.2. Endpoints

Primary Endpoints

Primary Efficacy Endpoints:

CLUE Overall Comfort

Overall comfort scores will be assessed using the Contact Lens User Experience (CLUE™)⁵ questionnaire at the two-week follow-up. CLUE is a validated patient-reported outcomes questionnaire to assess patient-experience attributes of soft, disposable contact lenses (comfort, vision, handling, and packaging) in a contact-lens wearing population in the US, ages 18-65. Scores follow a normal distribution with a population average score of 60 (SD 20), where higher scores indicate a more favorable/positive response.

Distance Monocular Contact Lens Visual Acuity

Distance monocular contact lens visual performance (logMAR) is assessed for each subject eye at the two-week follow-up evaluation using EDTRS charts under two lighting conditions, (1) Bright illumination low contrast and (2) Dim Illumination High Contrast.

Vision Satisfaction in Bright Lighting

Vision satisfaction in bright lighting will be assessed using the individual item (Item ID: V015_1) "I was satisfied with the quality of my vision in bright lighting" from the CLUE™ questionnaire. This item uses the response scale, 1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree and 5: Strongly Agree.

Primary Safety Endpoints:

Slit Lamp Findings (Grade 3 or Higher)

Slit Lamp Findings will be assessed for each subject eye at all study visits (scheduled and unscheduled). The percentage of eyes with Grade 3 or higher slit lamp findings will be analyzed and will include corneal infiltrates.

Fit Acceptance Rate

Acceptable lens fit will be assessed at all study visits (scheduled and unscheduled) for each subject eye. Fit acceptance rate will be based on the lens fit acceptance of eyes wearing the Test lens only. Fit rates of the Control lens will also be collected but are not a primary endpoint.

Secondary Endpoints

CLUE Overall Quality of Vision and Handling

Overall Quality of vision and handling scores will be assessed using the Contact Lens User Experience (CLUE)⁵ questionnaire at the two-week follow-up.

Overall Quality of Vision Outdoors

Overall quality of vision outdoors will be assessed using the individual item (Item ID: MIS00622) "Overall quality of vision outdoors" from the market research questionnaire. This item uses the response scale, 0: Not Applicable, 1: Excellent, 2: Very Good, 3: Good, 4: Fair and 5: Poor.

Other Observations

Lens Preferences

Lens preferences will be assessed by patient reported outcome (PRO) questions regarding lens preference at the two-week follow-up of the second wearing period (Visit 3). Subjects will be asked to choose for each preference item one of the following responses: Strongly Prefer the first lens, Prefer the first lens, no preference, prefer the second lens, strongly prefer the second lens. Lens preference questions consist of:

1. Overall lens preference [REDACTED]
2. Overall comfort [REDACTED]
3. Overall vision [REDACTED]
4. Overall reduction of glare [REDACTED]
5. Overall preference indoors [REDACTED]
6. Overall preference outdoors [REDACTED]
7. Overall preference while driving during the day [REDACTED]
8. Overall preference while driving at night [REDACTED]
9. Overall preference while using computer screens & digital devices [REDACTED]
[REDACTED]

Driving Performance

Driving performance will be assessed by two individual patient reported outcome (PRO) questions at the two-week follow-up evaluation. The individual items are as follows:

1. Reduction in glare while driving during the day [REDACTED]
2. Reduction in glare while driving during the night [REDACTED])

Indoor Performance

Indoor performance will be assessed by three individual patient reported outcome (PRO) questions at the two-week follow-up evaluation. The individual items are as follows:

1. Reduction in glare from the computer screen or digital devices [REDACTED]
2. Reduction in glare caused by bright indoor lights [REDACTED]
3. Reduction in glare caused by bright light coming through the window [REDACTED]
[REDACTED]

Outdoor Performance

Outdoor performance will be assessed by four individual patient reported outcome (PRO) questions at the two-week follow-up evaluation. The individual items are as follows:

1. Ability to see comfortably in bright sunlight [REDACTED]
2. Reduction in glare in bright sunlight [REDACTED]
3. Reduction in squinting in bright sunlight [REDACTED]
4. Reduction in eye strain in bright sunlight [REDACTED]

All driving, indoor and outdoor (PRO) items above will be assessed using the same excellence scale of; 0: Not Applicable, 1: Excellent, 2: Very Good, 3: Good, 4: Fair and 5: Poor.

Quick Contrast Sensitivity will also be evaluated during this study.

2.3. Hypotheses

Primary Hypotheses

All primary and secondary hypotheses must be met to satisfy the objective the study.

Primary Hypotheses	
Endpoint	Hypothesis
Monocular logMAR visual acuity	The Test lens will be non-inferior to the Control lens with respect to Distance Monocular logMAR Visual Acuity at the two-week follow-up evaluation under both lighting conditions (Bright illumination low contrast and dim illumination high contrast). A non-inferiority margin of 0.05 logMAR will be used.
Biomicroscopy	The Test lens will be non-inferior to the Control lens with respect to the percentage of eyes with Grade 3 or higher Slit Lamp Findings (Biomicroscopy) across all follow-up visits (scheduled and unscheduled). A non-inferiority odds ratio margin of 2 will be used.
Fit acceptance rate	The proportion of eyes with acceptable fit will be greater than 90% across all visits (scheduled and unscheduled) for all subjects wearing the Test lens.
Overall CLUE comfort	The Test lens will be non-inferior to the Control lens with respect to CLUE Overall Comfort at the two-week follow-up evaluation. A non-inferiority margin of -5 points will be used
Vision Satisfaction in Bright Lighting	The Test lens will be non-inferior to the Control lens with respect to Vision satisfaction in bright lighting at the two-week follow-up evaluation. A non-inferiority cumulative odds ratio margin of 0.67 will be used.

Secondary Hypotheses

Secondary Hypotheses	
Endpoint	Hypothesis
Overall CLUE Vision	The Test lens will be non-inferior to the Control lens with respect to CLUE Overall quality of vision at the two-week follow-up evaluation. A non-inferiority margin of -5 points will be used.
Overall CLUE handling	The Test lens will be non-inferior to the Control with respect to CLUE Handling at the two-week follow-up evaluation. A non-inferiority margin of -5 points will be used.
Overall Quality of Vision Indoors	The Test lens will be non-inferior the Control lens with respect to Overall quality of vision indoors at the 2-week follow-up evaluation. A non-inferiority cumulative odds ratio margin of 0.67 will be used.

Other Hypotheses

Other Observations	
Endpoint	Hypothesis
Lens Preferences	<p>The Test lens will be superior to the Control lens in all 9 of the following lens preference items at the two-week follow-up evaluation of the second wearing period.</p> <ol style="list-style-type: none"> 1. Overall lens preference 2. Overall comfort 3. Overall vision 4. Overall reduction of glare 5. Overall preference indoors 6. Overall preference outdoors 7. Overall preference while driving during the day 8. Overall preference while driving at night 9. Overall preference while using computer screens & digital devices

Other Observations	
Endpoint	Hypothesis
Indoor Performance Measures	<p>The Test lens will be superior to the Control lens in at least 2 of the following 4 indoor performance measure(s) at the two-week follow-up evaluation.</p> <ol style="list-style-type: none"> 1. Reduction in squinting while using computer screens or digital devices 2. Reduction in glare from the computer screen or digital devices 3. Reduction in glare caused by bright indoor lights 4. Reduction in glare caused by bright light coming through the window
Driving Performance Metrics	<p>The Test lens will be non-inferior to the Control lens with respect to both of the following driving performance metrics at the two-week follow-up evaluation. A cumulative odds ratio margin of 0.67 will be used.</p> <ol style="list-style-type: none"> 1. Reduction in glare while driving during the day 2. Reduction in glare while driving during the night
Outdoor Performance Measures	<p>The Test lens will be superior to the Control lens in at least 2 of the following 4 outdoor performance measure(s) at the two-week follow-up evaluation.</p> <ol style="list-style-type: none"> 1. Ability to see comfortably in bright sunlight 2. Reduction in glare in bright sunlight 3. Reduction in squinting in bright sunlight 4. Reduction in eye strain in bright sunlight
Quick Contrast Sensitivity	<p>At the 2-week follow-up evaluation, the difference in the area under the contrast sensitivity function curve (measured by the quick Contrast Sensitivity Function (qCSF) method) between the Test lens and the Control lens is more than -0.3 log unit.</p>

3. TARGETED STUDY POPULATION

3.1. General Characteristics

Approximately 120 subjects will be enrolled to ensure that at least 105 subjects will complete the study. Enrolled subjects will be habitual wearers of spherical contact lenses. All subjects will be the age of 18 and ≤ 49 years old. Eligible presbyopes will be those that wear full distance contact lenses in both eyes, then wear reading glasses over them. Subjects will wear the Test and Control contact lenses approximately 2 weeks each bilaterally on a DW basis, then wear either the Test or Control lens again for 2 weeks, for a total study duration of approximately 42 days (6 weeks) per subject.

3.2. Inclusion Criteria

Potential subjects must satisfy all of the following criteria to be enrolled in the study:

Inclusion Criteria after Screening

1. The subject must read and sign the Informed Consent form.
2. The subject must appear able and willing to adhere to the instructions set forth in this clinical protocol.
3. Healthy adult males or females age ≥ 18 and ≤ 49 years of age with signed informed consent.
4. Eligible presbyopes will be those that wear full distance contact lenses in both eyes, then wear reading glasses over them
5. Subjects must own a wearable pair of spectacles.
6. The subject is a current spherical soft contact lens wearer (defined as a minimum of 6 hours of DW per day, at least 5 days per week, for a minimum of 1 month prior to the study) and willing to wear the study lenses on a similar basis
7. Subjects must be able and willing to wear the study lenses at least 6 hours a day, a minimum of 5 days per week
8. The subject must have normal eyes (i.e., no ocular medications or infections of any type).

Inclusion Criteria after Baseline

9. The subject's optimal vertexed spherical equivalent distance correction must be between -1.00 and -6.00 D.
10. The subject's refractive cylinder must be ≤ -1.00 D in each eye.
11. The subject must have visual acuity best correctable to 20/25+3 or better for each eye.

3.3. Exclusion Criteria

Potential subjects who meet any of the following criteria will be excluded from participating in the study:

Exclusion Criteria after Screening:

1. Currently pregnant or lactating (subjects who become pregnant during the study will be discontinued).
2. Any systemic disease, autoimmune disease, or use of medication, which may interfere with contact lens wear. This may include, but not be limited to, diabetes, hyperthyroidism, recurrent herpes simplex/zoster, Sjögren's syndrome, xerophthalmia, acne rosacea, Stevens-Johnson syndrome, and immunosuppressive diseases or any infectious diseases (e.g. hepatitis, tuberculosis).
3. Use of any of the following medications within 1 week prior to enrollment: oral retinoid isotretinoin (e.g. Accutane), oral tetracyclines, topical scopolamine, oral (e.g. Seldane, Chlor-Trimeton, and Benadryl) and ophthalmic antihistamines, oral phenothiazines (e.g., Haldol, Mellaril, Thorazine, Elavil, Pamelor, Compazine), oral and ophthalmic

Beta-adrenergic blockers (e.g., Propranolol, Timolol, and Practolol), systemic steroids, and any prescribed or over the counter (OTC) ocular medication.

4. Entropion, ectropion, extrusions, chalazia, recurrent styes, glaucoma, history of recurrent corneal erosions, aphakia, or moderate or above corneal distortion.
5. Any known hypersensitivity or allergic reaction to Optifree® PureMoist® multi-purpose care solution or Eye-Cept® rewetting drop solution.
6. Any previous, or planned, ocular or interocular surgery (e.g., radial keratotomy, PRK, LASIK, etc.).
7. Participation in any contact lens or lens care product clinical trial within 30 days prior to study enrollment.
8. Participation in clinical trials involving the Test lens within 3 months prior to study enrollment.
9. Employee, relative or friends of employees of any ophthalmic company, or investigational clinic (e.g., Investigator, Coordinator, Technician).
10. Toric, extended wear, monovision or multi-focal contact lens correction.
11. History of binocular vision abnormality or strabismus.

Exclusion Criteria after Baseline

12. Any Grade 3 or greater slit lamp findings (e.g., edema, corneal neovascularization, corneal staining, tarsal abnormalities, conjunctival injection) on the FDA classification scale, any previous history or signs of a contact lens-related corneal inflammatory event (e.g., past peripheral ulcer or round peripheral scar), or any other ocular abnormality that may contraindicate contact lens wear.
13. Any ocular infection, allergy or clinically significant ocular disease (e.g. corneal edema, uveitis, severe keratoconjunctivitis sicca, ocular hypertension), or ocular conditions (e.g. strabismus), which might interfere with the study.
14. Any corneal distortion resulting from previous hard or rigid gas permeable contact lens wear.

3.4. Enrollment Strategy

Study subjects will be recruited from the Institution/clinical site's subject database and/or utilizing Independent Ethics Committee (IEC) or Institutional Review Board (IRB) approved materials.

4. STUDY DESIGN AND RATIONALE

4.1. Description of Study Design

This study is a randomized, 4-visit, partially subject-masked, 2x3 bilateral crossover, dispensing trial. Approximately 120 subjects will be screened and enrolled to ensure that at least 105 subjects to complete.

The study begins with an initial visit (Visit 1). If a subject is found to meet all eligibility criteria, they will be randomized to one of two lens wear sequences (Test/Control/Control or Control/Test/Test).

If the subject is dispensed study lenses at the initial visit, 3 follow-up visits will be conducted. The follow-up visits occur approximately 2, 4 and 6 weeks after the initial visit. Unscheduled follow-up visits may occur during the study. Subjects will be advised to wear the study lenses at least five (5) days per week for at least six (6) hours per day for a period of two weeks each. Lens replacement is scheduled at 2 and 4-week follow-up visits.

4.2. Study Design Rationale

Crossover designs are a well-established study design in which subjects are exposed to multiple treatments during different time periods. This design was considered since the study period is relatively short the design can be cost effective and more efficient comparisons between treatments can be made than compared a parallel study since fewer subjects are required to achieve the same pre-specified statistical power. In previous studies involving the Test lens [REDACTED] [REDACTED] [REDACTED]), significant carryover effects were observed when assessing clinically relevant differences between the Test lens and a comparator while using a 2×2 crossover study design. Therefore, a higher order 2×3 crossover will be utilized since in this design we are able to obtain within-subject estimators of the carryover effect and the direct-by-period interaction of these effects are not aliased with each other.

4.3. Enrollment Target and Study Duration

Approximately 120 subjects will be enrolled to ensure that at least 105 subjects will complete the study. Enrolled subjects will be habitual wearers of spherical contact lenses. All subjects will be the age of 18 and ≤ 49 years old. Eligible presbyopes will be those that wear full distance contact lenses in both eyes, then wear reading glasses over them. Subjects will wear the Test and Control contact lenses bilaterally approximately 2 weeks each on a DW basis, then wear either the Test or Control lens again for 2 weeks, for a total study duration of approximately 42 days (6 weeks) per subject.

5. TEST ARTICLE ALLOCATION AND MASKING

5.1. Test Article Allocation

Using a computer-generated randomization scheme will be used to randomly assign subjects, in blocks of 2, to one of the two possible lens wear sequences (TEST/CONTROL/CONTROL or CONTROL/TEST/TEST). The random scheme will be generated using the PROC PLAN procedure from SAS Software Version 9.4 or higher (SAS Institute, Cary, NC).

The study site must follow the randomization scheme provided and complete enrollment according to the randomization list and not pre-select or assign subjects. The randomized assignment of subjects will be performed at the first visit prior to the first fitting. The following must have occurred prior to randomization:

- Informed consent has been obtained
- Subject meets all the inclusion / exclusion criteria
- Subject history and baseline information has been collected.

5.2. Masking

Complete masking is impossible due to the functioning nature of the Test lens. The Control lens will be over-labeled to mask the identity since the Control lens may be the subject's habitual lens by chance. Therefore, the study is partially-subject masked (Control lens only).

Under normal circumstances, the mask should not be broken until all subjects have completed the study and the database is finalized. Otherwise, the mask should be broken only if specific emergency treatment/course of action would be dictated by knowing the treatment status of the subject. In such cases, the investigator may in an emergency contact the medical monitor. In the event the mask is broken, the sponsor must be notified before the mask is broken. The date, time, and reason for the unmasking must be documented in the source document. The investigator is also advised not to reveal the study treatment assignment to the study site or sponsor personnel.

Subjects who have had their treatment assignment unmasked are expected to return for all remaining scheduled evaluations. Subjects who are discontinued may be replaced.

If the test article is randomized, the order will be based on the randomization scheme assigned to the study site. The study site will follow the randomization scheme provided and will complete enrollment according to the randomization list and will not pre-select or assign subjects.

5.3. Procedures for Maintaining and Breaking the Masking

The test articles mask shall not be broken unless information concerning the lens type is necessary for the urgent medical treatment of a subject. The Sponsor must be notified before the mask is broken.

When dispensing test articles, the following steps should be followed to maintain randomization codes:

1. Investigator or designee (documented on the Delegation Log) will consult the lens fitting schedule/randomization scheme to obtain the test article assignment for that subject prior to dispensing
2. Investigator or designee will record the subject's number on the appropriate line of the randomization scheme
3. Investigator or designee will pull the appropriate test articles from the study supply. All test articles that are opened, whether dispensed (placed/fit on eye or dispensed outside the clinical site) or not, must be recorded on the Test Article Accountability Log in the "Dispensed" section

6. STUDY INTERVENTION

6.1. Identity of Test Articles

The following contact lenses will be used in this study:

Table 1: Test Articles

	Control	Test
Name	OASYS	ECL100
Manufacturer	JJVC	JJVC
Lens Material	senofilcon A	senofilcon A
Nominal Base Curve @ 22°C	8.4	8.4
Nominal Diameter @ 22°C	14.0	14.0
Nominal Distance Powers (D)	-1.00 to -6.00 in 0.25 steps	-1.00 to -6.00 in 0.25 steps
Water Content (Optional)	38	38
Center Thickness (Optional)	0.070	0.085
Oxygen Permeability (Dk)	103	103
Modality in Current Study	Daily wear	Daily wear
Replacement Frequency	Single use	Single use
Packaging Form (vial, blister, etc.)	Sterile blister pack	Sterile blister pack
New-UV blocker concentration	NA	~1.0%

Approximately 75 lenses per sku will be made available based on the following factors: sample size, 2×3 design, bilateral wear, biweekly replacement, safety margin of 2x, and US distribution model for the range of lenses -1.00 through -6.00 D.

6.2. Ancillary Supplies/Products

The following solutions will be used in this study:

Table 2: Ancillary Supplies

	Solution 1	Solution 2
Solution Name / Description	Opti-Free® PureMoist®	Eye-Cept® Rewetting Drops
Lot Number or Other Identifier	Varies	Varies
Manufacturer	Alcon Laboratories, Fort Worth, TX	Optics Laboratories
Maximum Preservative	0.001% polyquaternium-1, 0.0006% myristamidopropyl dimethylamine	NA

6.3. Administration of Test Articles

Test articles will be dispensed to subject meeting all eligibility requirements, including any dispensing requirements set forth in this clinical protocol. Subjects will be dispensed an

adequate supply of test articles to complete the study. Lost or damaged test articles may be replaced at the discretion of the Investigator and/or the Sponsor.

6.4. Packaging and Labeling

The Test articles will be packaged in blisters as the primary packaging. The Control article will be over-labeled to mask the subject to the identity of the lens. The Test articles will be in investigational cartons sealed with a tamper evident seal, commercial cartons, or in plastic bags as the secondary packaging form. The sample study label is shown below:

US label A (for Control lens over-label)



6.5. Storage Conditions

Test articles will be maintained at ambient temperatures at the clinical site. Test articles must be kept under secure conditions and out of direct sunlight.

6.6. Collection and Storage of Samples

All worn study lenses will be collected from the subject, placed in labeled glass vials with Opti-Free® Puremoist®, and stored refrigerated or frozen until they are shipped back to the Sponsor. The lenses will be shipped in special containers to keep the lenses refrigerated.

When possible, any lens or test article associated with an Adverse Events and/or a Product Quality Complaint must be retained and stored in a glass vial with moderate solution pending directions from the sponsor for potential return back to JJVC.

6.7. Accountability of Test Articles

JJVC will provide the Investigator with sufficient quantities of study articles and supplies to complete the investigation. The Investigator is asked to retain all lens shipment documentation for the test article accountability records.

Test article must be kept in a locked storage cabinet, accessible only to those assigned by the Investigator for dispensing. The Investigator may delegate this activity to authorized study site personnel listed on the Site Delegation Log. All test articles must be accounted. This includes:

1. What was dispensed for the subject for trial fitting, to wear out of the office, or issued for the subject to replace appropriately between visits
2. What was returned to the Investigator unused
3. The number and reason for unplanned replacements.

The Investigator will collect all unused test articles from the subjects at the end of the subject's participation. Subject returned unused test articles must be separated from the clinical study inventory of un-dispensed test articles and must be labeled with the subject number and date of return. Following final reconciliation of test articles by the monitor, the Investigator or monitor will package and return all unused test articles to JJVC.

If there is a discrepancy between the shipment documents and the contents, contact the study monitor immediately.

████████ Site Instructions for Test Article Receipt and Test Article Accountability for additional information.

7. STUDY EVALUATIONS

7.1. Time and Event Schedule

Table 3: Time and Events

Procedure	Baseline	Trial Fit & Dispense	Follow-up	Unshed	Exit
Visit	1	1, 2, 3	2, 3, 4	PRN	4
Visit Window	-	-	13-15 Days	-	-
Estimated Visit Duration	-	V1: 2 hours	V2, 3: 1 hour V4: 1.5 hours	-	-
Informed consent	✓	-	-	-	-
Eligibility screening	✓	-	-	-	-
CLUE Baseline Questionnaire	✓	-	-	-	-
GSI Background Questionnaire	✓				
Other Questionnaires	✓	-	✓	-	-
Subject demographics	✓	-	-	-	-
General health and medication history	✓	-	-	-	-
Subject's own contact lens information	✓	-	-	-	-
Habitual lens care	✓	-	-	-	-
Entrance visual acuity	✓	-	-	-	-
Spherocylindrical refraction and BVA	✓	-	-	✓	✓
Slit lamp biomicroscopy	✓	-	✓	✓	-
Expanded Conjunctival Redness	✓	-	✓	✓	-
Expanded Corneal Staining	✓	-	✓	✓	-
Trial fitting lens information	-	✓	-	-	-
Lens Damage	-	✓	-	-	-
Distance spherical over-refraction	-	✓	✓	-	-
Lens modification	-	✓	-	-	-
Visual acuity	-	✓	✓	✓	-
logMAR acuity	-	-	✓	-	-
Contrast sensitivity (site 1036)	-	-	✓	-	-
Lens fitting assessment	-	✓	✓	*	-
Lens dispensing information and criteria	-	✓	-	-	-
Patient instructions	-	✓	-	-	-
Lens information	-	-	✓	✓	-
Compliance	-	-	✓	✓	-
Wearing times	-	-	✓	✓	-

Procedure	Baseline	Trial Fit & Dispense	Follow-up	Unsched	Exit
Visit	1	1, 2, 3	2, 3, 4	PRN	4
Visit Window	-	-	13-15 Days	-	-
Estimated Visit Duration	-	V1: 2 hours	V2, 3: 1 hour V4: 1.5 hours	-	-
CLUE Follow-Up Questionnaire	-	-	✓	*	-
GSI Product Performance Questionnaire	-	-	✓	*	-
Symptoms	-	✓	✓	✓	-
Lens preference	-	-	V3	-	-
Surface characteristics	-	-	✓	*	-
Chief complaint, diagnosis, treatment	-	-	-	✓	-
* if wearing study contact lenses					

7.2. Detailed Study Procedures

VISIT 1

Note that the subject must be wearing their habitual soft contact lenses into Visit 1.

Visit 1: Screening			
Step	Procedure	Details	
1.1	Statement of Informed Consent	Each subject must read, understand, and sign the Statement of Informed Consent before being enrolled into the study. The Principal Investigator or his/her designee conducting the informed consent discussion must also sign the consent form. <u>Note:</u> The subject must be provided a signed copy of this document.	
1.2	Demographics	Record the subject's date of birth, gender, race and ethnicity.	
1.3	Medical History and Concomitant Medications	Questions regarding the subjects' medical history and concomitant medications.	
1.4	Habitual Lenses	Questions regarding the subject's habitual lens type and parameters.	

Visit 1: Screening			
Step	Procedure	Details	
1.5	Eligibility after Screening	All responses to Screening Inclusion Criteria questions must be answered "yes" and all responses to Exclusion Criteria must be answered "no" for the subject to be considered eligible.	

Visit 1: Baseline			
Step	Procedure	Details	
1.6	Baseline Questionnaires	The subject will respond to the following questionnaires: 1. CLUE Baseline Questionnaire 2. GSI Background Questionnaire	
1.7	Other Questionnaires	The subject will respond to additional questionnaires: 1. Activity History	
1.8	Entrance Visual Acuity	Record the distance Snellen visual acuity (OD, OS, and OU) to the nearest letter with their habitual contact lens correction in place. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	
1.9	Remove Habitual Lens	The subject's habitual lenses will be removed and stored in their own lens case. If they forgot to bring their lens case, one will be provided to them.	
1.10	Slit Lamp Findings	FDA Slit Lamp Classification Scale [REDACTED] [REDACTED] will be used to grade the findings and will be used to determine eligibility. Record only whole numbers. If any of these slit lamp findings are Grade 3 or higher, the subject is ineligible to continue but may return at a later date to complete another Baseline. If after a total of 2 attempts the subject is deemed ineligible, then complete the Final Evaluation. Limbal and Bulbar Conjunctival Hyperemia findings [REDACTED] using the 0.5 increment scale, and Corneal Staining Assessment	

Visit 1: Baseline			
Step	Procedure	Details	
		██████████ will be emphasized using the 1.0 increment scale for internal purposes only.	
1.11	Iris Color	The investigator will record the subject's iris color based on the scale provided.	Appendix E
1.12	Subjective Refraction	The investigator will complete a subjective refraction (sphere and cylinder) and record the resultant distance visual acuity OD, OS, and OU to the nearest letter. Best corrected distance visual acuity (BVA) must be 20/25+3 or better in each eye.	██████████
1.13	Eligibility after Baseline	All responses to Inclusion Criteria questions must be answered "yes" and all responses to Exclusion Criteria questions must be answered "no" for the subject to be considered eligible.	
1.14	Eye Rinse	The study coordinator, investigator, or technician will rinse the subject's eyes thoroughly with saline.	

Visit 1: Treatment 1 Lens Fitting			
Step	Procedure	Details	
1.15	Lens Selection	Assign the study lens based on the randomization scheme. Select the contact lens power based on subjective refraction.	
1.16	Lens Insertion	The Investigator or the subject inserts the study lenses. Record the time of lens insertion. Check for lens damage under the slit lamp before proceeding with lens settling. Replace damaged lenses if applicable.	
1.17	Lens Settling	Allow the study lenses to settle for a minimum of 5 minutes.	
1.18	Spherical Over Refraction and Modification	Perform a spherical over-refraction OD and OS. Optimize the lens power to achieve an over-refraction of ± 0.00 D OD and OS.	

Visit 1: Treatment 1 Lens Fitting			
Step	Procedure	Details	
		Ensure that any new lenses are not damaged. One modification attempt will be allowed.	
1.19	Time Interval	Please wait for at least 10 minutes from final lens insertion to continue.	
1.20	Subject Reported Ocular Symptoms	Subjects will respond to a verbal open-ended symptoms questionnaire.	
1.21	Visual Acuity	Record the distance Snellen visual acuity with the contact lenses (OD, OS, and OU) to the nearest letter. Smaller lines must be shown until the subject incorrectly identifies at least 50% of the letters.	
1.22	Subjective Lens Fit Assessment	<p>Subjective Assessment of the Lens Fit. If the fit is graded as unacceptable based on the criteria below, then the subject is discontinued from the study and will not be replaced.</p> <ol style="list-style-type: none"> 1. Limbal exposure in any gaze 2. Edge lift 3. Insufficient and/or excessive movement in all three movement categories 	
1.23	Continuance	<p>For the subject to continue in the study, they must meet all three of the following criteria:</p> <ol style="list-style-type: none"> 1. Snellen visual acuity is 20/30 or better OD and OS 2. The lens fit is acceptable OD and OS 3. Investigator approval. If the Investigator does not approve the dispensing of the first study lens, then the study is terminated for that subject. 	
1.24	Dispense	<p>The lenses will be dispensed for 13-15 days</p> <ol style="list-style-type: none"> 1. The subjects should wear their lenses similar to the inclusion criteria: ≥ 6 hours per day, ≥ 5 days per week. 2. The lenses will be worn as daily wear only. 3. All subjects will be provided Opti-Free® PureMoist® to be used in a rub regime. 	

Visit 1: Treatment 1 Lens Fitting			
Step	Procedure	Details	
		<p>4. Preservative-free rewetting drops are permitted if needed.</p> <p>5. A patient instruction booklet will be provided.</p> <p>6. The lenses must be stored in the supplied case out of direct sunlight.</p> <p>Note 1: In the event a lens is lost or damaged, the subject will return to the investigator site for replacement (extra lenses cannot be given at the dispensing visit).</p> <p>Note 2: The subject's habitual contact lenses cannot be worn at any time during the study.</p> <p>Note 3: The subject must be instructed: At each of your follow-up visits in this research study, we'll ask about the lenses you're wearing. These questions will address lens comfort and vision, including color perception in different lighting conditions and the ability to see comfortably in bright light</p>	

VISIT 2

The follow-up will occur 13-15 days following Visit 2. The subjects must enter the visit wearing their study contact lenses.

Visit 2: Treatment 1 Follow-Up			
Step	Procedure	Details	
2.1.	Adverse Events and Concomitant Medications Review	<p>Review the subject's concomitant medications and record any changes from the previous study visit.</p> <p>Record any adverse events or medical history changes from the previous study visit.</p>	
2.2.	Wearing Time	Record the average wearing time and comfortable wearing time.	
2.3.	Compliance	Confirm compliance with the prescribed wear schedule. Outdoor and total hours will be asked.	
2.4.	Subject Reported Ocular Symptoms	Subjects will respond to a verbal open-ended symptoms questionnaire.	

Visit 2: Treatment 1 Follow-Up			
Step	Procedure	Details	
2.5.	Follow-Up Questionnaire	Subjects will respond to the following questionnaires: 1. CLUE Follow-up 2. GSI Product Performance	
2.6.	Visual Acuity	Record the distance Snellen visual acuity with the contact lenses (OD, OS, and OU) to the nearest letter. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	
2.7.	Quick Contrast Sensitivity	████████ only. Perform the 4 m contrast sensitivity test once OD and OS using the 25-item methodology while wearing the study lenses.	
2.8.	logMAR (ETDRS) Visual Acuity	Perform 4 m distance ETDRS LogMAR visual acuity test OD and OS under the following conditions: 1. Bright room illumination / low contrast charts a. Room illumination >400 lux b. Chart luminance 120-200 cd/m ² c. One low contrast chart per eye. 1) OD: chart LC-1 2) OS: chart LC-2 2. Low room illumination / high contrast charts a. Room illumination <2.5 lux b. Chart luminance 2.0-5.0 cd/m ² c. One high contrast chart per eye. 1) OD: chart HC-1 2) OS: chart HC-2	████████ ████████
2.9.	Subjective Lens Fit Assessment	Subjective Assessment of the Lens Fit. If the fit is graded as unacceptable based on the criteria below, then the subject is discontinued from the study and will not be replaced. 1. Limbal exposure in any gaze 2. Edge lift 3. Insufficient and/or excessive movement in all three movement categories	

Visit 2: Treatment 1 Follow-Up			
Step	Procedure	Details	
2.10.	Surface Deposits	Record any front and back surface lens deposits.	
2.11.	Lens Removal & Storage	Both lenses will be removed and stored wet in a labeled container with Opti-Free® PureMoist®. The lenses can be stored refrigerated or frozen prior to shipment back to the Sponsor. Lenses will be stored at JJVC for 45 days after LSLV for laboratory testing (Section 7.4).	
2.12.	Slit Lamp Findings	<p>Slit Lamp Classification Scale [REDACTED] will be used to grade the findings. Record only whole numbers. Limbal and Bulbar Conjunctival Hyperemia findings [REDACTED] [REDACTED] and Corneal Staining Assessment [REDACTED] [REDACTED] will be emphasized using a more detailed scale.</p> <p>Note: Findings must be grade 2 or less as graded on the FDA scale [REDACTED] to continue onto Trial Period 2. If the subject is not eligible, they must be followed as an adverse event. Once resolved, the subject is terminated from the study. Adverse events must be reported to the JJVC monitors immediately.</p>	[REDACTED] [REDACTED] [REDACTED]
2.13.	Eye Rinse	The study coordinator, investigator, or technician will rinse the subject's eyes thoroughly with saline.	

Visit 2: Treatment 2 Lens Fitting			
Step	Procedure	Details	
2.14.	Lens Selection	<p>Assign the study lens based on the randomization scheme.</p> <p>Select the contact lens power based on subjective refraction or the final lens power from Period 1.</p>	
2.15.	Lens Insertion	The Investigator or the subject inserts the study lenses. Record the time of lens insertion.	

Visit 2: Treatment 2 Lens Fitting			
Step	Procedure	Details	
		Check for lens damage under the slit lamp before proceeding with lens settling. Replace damaged lenses if applicable.	
2.16.	Lens Settling	Allow the study lenses to settle for a minimum of 5 minutes.	
2.17.	Spherical Over Refraction and Modification	Perform a spherical over-refraction OD and OS. Optimize the lens power to achieve an over-refraction of ± 0.00 D OD and OS. Ensure that any new lenses are not damaged. One modification attempt will be allowed.	
2.18.	Time Interval	Please wait for at least 10 minutes from final lens insertion to continue.	
2.19.	Subject Reported Ocular Symptoms	Subjects will respond to a verbal open-ended symptoms questionnaire.	
2.20.	Visual Acuity	Record the distance Snellen visual acuity with the contact lenses (OD, OS, and OU) to the nearest letter. Smaller lines must be shown until the subject incorrectly identifies at least 50% of the letters.	

Visit 2: Treatment 2 Lens Fitting			
Step	Procedure	Details	
2.21.	Subjective Lens Fit Assessment	<p>Subjective Assessment of the Lens Fit. If the fit is graded as unacceptable based on the criteria below, then the subject is discontinued from the study and will not be replaced.</p> <ol style="list-style-type: none"> 1. Limbal exposure in any gaze 2. Edge lift 3. Insufficient and/or excessive movement in all three movement categories 	

Visit 2: Treatment 2 Lens Fitting			
Step	Procedure	Details	
2.22.	Continuance	<p>For the subject to continue in the study, they must meet all three of the following criteria:</p> <ol style="list-style-type: none"> 1. Visual acuity is 20/30 or better OD and OS 2. The lens fit is acceptable OD and OS 3. Investigator approval. If the Investigator does not approve the dispensing of the first study lens, then the study is terminated for that subject. 	
2.23.	Dispense	<p>The lenses will be dispensed for 13-15 days.</p> <ol style="list-style-type: none"> 1. The subjects should wear their lenses similar to the inclusion criteria: ≥ 6 hours per day, ≥ 5 days per week. 2. The lenses will be worn as daily wear only. 3. All subjects will be provided Opti-Free® PureMoist® to be used in a rub regime. 4. Preservative-free rewetting drops are permitted if needed. 5. The lenses must be stored in the supplied case out of direct sunlight. <p>Note 1: In the event a lens is lost or damaged, the subject will return to the investigator site for replacement (extra lenses cannot be given at the dispensing visit).</p> <p>Note 2: The subject's habitual contact lenses cannot be worn at any time during the study.</p>	

VISIT 3

The follow-up will occur 13-15 days after the dispensing of the second study lenses. The subjects must enter the visit wearing their study contact lenses.

Visit 3: Treatment 2 Follow-Up			
Step	Procedure	Details	
3.1.	Adverse Events and Concomitant Medications Review	Review the subject's concomitant medications and record any changes from the previous study visit.	

Visit 3: Treatment 2 Follow-Up			
Step	Procedure	Details	
		Record any adverse events or medical history changes from the previous study visit.	
3.2.	Wearing Time	Record the average wearing time and comfortable wearing time.	
3.3.	Compliance	Confirm compliance with the prescribed wear schedule. Outdoor and total hours will be asked.	
3.4.	Subject Reported Ocular Symptoms	Subjects will respond to a verbal open-ended symptoms questionnaire.	
3.5.	Follow-Up Questionnaire	Subjects will respond to the following questionnaires: 1. CLUE Follow-up 2. GSI Product Performance	
3.6.	Lens Preferences	Subjects will respond to the preference questionnaire comparing study lens 1 and study lens 2.	
3.7.	Visual Acuity	Record the distance Snellen visual acuity with the contact lenses (OD, OS, and OU) to the nearest letter. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	
3.8.	Quick Contrast Sensitivity	Site 1036 only. Perform the 4 m contrast sensitivity test once OD and OS using the 25-item methodology while wearing the study lenses.	
3.9.	logMAR (ETDRS) Visual Acuity	Perform 4 m distance ETDRS LogMAR visual acuity test OD and OS under the following conditions: 1. Bright room illumination / low contrast charts a. Room illumination >400 lux b. Chart luminance 120-200 cd/m ² c. One low contrast chart per eye. 1) OD: chart LC-1 2) OS: chart LC-2 2. Low room illumination / high contrast charts a. Room illumination <2.5 lux	

Visit 3: Treatment 2 Follow-Up			
Step	Procedure	Details	
		<p>b. Chart luminance 2.0-5.0 cd/m²</p> <p>c. One high contrast chart per eye.</p> <p>1) OD: chart HC-1</p> <p>2) OS: chart HC-2</p>	
3.10.	Subjective Lens Fit Assessment	<p>Subjective Assessment of the Lens Fit. If the fit is graded as unacceptable based on the criteria below, then the subject is discontinued from the study and will not be replaced.</p> <p>1. Limbal exposure in any gaze</p> <p>2. Edge lift</p> <p>Insufficient and/or excessive movement in all three movement categories</p>	
3.11.	Surface Deposits	Record any front and back surface lens deposits.	
3.12.	Lens Removal & Storage	Both lenses will be removed and stored wet in a labeled container with Opti-Free® PureMoist®. The lenses can be stored refrigerated or frozen prior to shipment back to the Sponsor. Lenses will be stored at JJVCI for 45 days after LSLV for laboratory testing (Section 7.4).	
3.13.	Slit Lamp Findings	<p>Slit Lamp Classification Scale [REDACTED] will be used to grade the findings. Record only whole numbers. Limbal and Bulbar Conjunctival Hyperemia findings [REDACTED] [REDACTED] and Corneal Staining Assessment [REDACTED] will be emphasized using a more detailed scale.</p> <p>Note: Findings must be grade 2 or less as graded on the FDA scale [REDACTED] to continue onto Trial Period 2. If the subject is not eligible, they must be followed as an adverse event. Once resolved, the subject is terminated from the study. Adverse events must be reported to the JJVC monitors immediately.</p>	
3.14.	Eye Rinse	The study coordinator, investigator, or technician will rinse the subject's eyes thoroughly with saline.	

Visit 3: Treatment 3 Lens Fitting			
Step	Procedure	Details	
3.15.	Lens Selection	<p>Assign the study lens based on the randomization scheme.</p> <p>Select the contact lens power based on subjective refraction or from Period 2 final lens power.</p> <p>Record the test condition.</p>	
3.16.	Lens Insertion	<p>The Investigator or the subject inserts the study lenses. Record the time of lens insertion.</p> <p>Check for lens damage under the slit lamp before proceeding with lens settling.</p> <p>Replace damaged lenses if applicable.</p>	
3.17.	Lens Settling	Allow the study lenses to settle for a minimum of 5 minutes.	
3.18.	Spherical Over Refraction and Modification	<p>Perform a spherical over-refraction OD and OS. Optimize the lens power to achieve an over-refraction of ± 0.00 D OD and OS.</p> <p>Ensure that any new lenses are not damaged.</p> <p>One modification attempt will be allowed.</p>	
3.19.	Time Interval	Please wait for at least 10 minutes from final lens insertion to continue.	
3.20.	Subject Reported Ocular Symptoms	Subjects will respond to a verbal open-ended symptoms questionnaire.	
3.21.	Visual Acuity	Record the distance Snellen visual acuity with the contact lenses (OD, OS, and OU) to the nearest letter. Smaller lines must be shown until the subject incorrectly identifies at least 50% of the letters.	
3.22.	Subjective Lens Fit Assessment	<p>Subjective Assessment of the Lens Fit. If the fit is graded as unacceptable based on the criteria below, then the subject is discontinued from the study and will not be replaced.</p> <ol style="list-style-type: none"> 1. Limbal exposure in any gaze 2. Edge lift 	

Visit 3: Treatment 3 Lens Fitting			
Step	Procedure	Details	
		Insufficient and/or excessive movement in all three movement categories	
3.23.	Continuance	<p>For the subject to continue in the study, they must meet all three of the following criteria:</p> <ol style="list-style-type: none"> 1. Visual acuity is 20/30 or better OD and OS 2. The lens fit is acceptable OD and OS 3. Investigator approval. If the Investigator does not approve the dispensing of the first study lens, then the study is terminated for that subject. 	
3.24.	Dispense	<p>The lenses will be dispensed for 13-15 days.</p> <ol style="list-style-type: none"> 1. The subjects should wear their lenses similar to the inclusion criteria: ≥ 6 hours per day, ≥ 5 days per week. 2. The lenses will be worn as daily wear only. 3. All subjects will be provided Opti-Free® PureMoist® to be used in a rub regime. 4. Preservative-free rewetting drops are permitted if needed. 5. The lenses must be stored in the supplied case out of direct sunlight. <p>Note 1: In the event a lens is lost or damaged, the subject will return to the investigator site for replacement (extra lenses cannot be given at the dispensing visit).</p> <p>Note 2: The subject's habitual contact lenses cannot be worn at any time during the study.</p>	

VISIT 4

The follow-up will occur 13-15 days after the dispensing of the third study lenses. The subjects must enter the visit wearing their study contact lenses.

Visit 4: Treatment 3 Follow-Up			
Step	Procedure	Details	
4.1.	Adverse Events and Concomitant Medications Review	Review the subject's concomitant medications and record any changes from the previous study visit. Record any adverse events or medical history changes from the previous study visit.	
4.2.	Wearing Time	Record the average wearing time and comfortable wearing time.	
4.3.	Compliance	Confirm compliance with the prescribed wear schedule. Outdoor and total hours will be asked.	
4.4.	Subject Reported Ocular Symptoms	Subjects will respond to a verbal open-ended symptoms questionnaire.	
4.5.	Follow-Up Questionnaire	Subjects will respond to the following questionnaires: 1. CLUE Follow-up 2. GSI Product Performance	
4.6.	Visual Acuity	Record the distance Snellen visual acuity with the contact lenses (OD, OS, and OU) to the nearest letter. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	
4.7.	Quick Contrast Sensitivity	Site 1036 only. Perform the 4 m contrast sensitivity test once OD and OS using the 25-item methodology while wearing the study lenses.	

Visit 4: Treatment 3 Follow-Up

Visit 4: Treatment 3 Follow-Up			
Step	Procedure	Details	
4.12.	Slit Lamp Findings	<p>Slit Lamp Classification Scale [REDACTED] will be used to grade the findings. Record only whole numbers. Limbal and Bulbar Conjunctival Hyperemia findings [REDACTED] [REDACTED] and Corneal Staining Assessment [REDACTED] [REDACTED] will be emphasized using a more detailed scale.</p> <p>Note: Findings must be Grade 2 or less as graded on the FDA scale [REDACTED]. Otherwise they must be followed as an adverse event. Adverse events must be reported to the JJVC monitors immediately.</p>	[REDACTED] [REDACTED] [REDACTED]
4.13.	Eye Rinse	The study coordinator, investigator, or technician will rinse the subject's eyes thoroughly with saline.	

FINAL EVALUATION

The final evaluation will ordinarily take place immediately following the last scheduled follow-up visit per the study protocol. It may also take place at any point the subject discontinues the study or is terminated from the study.

Final Evaluation			
Step	Procedure	Details	
F.1	Final Exam Form	Indicate if the subject completed the study successfully. If subject discontinued from the study indicate the reason.	
F.2	Best-corrected Distance Visual Acuity	Record the subject's best corrected distance visual acuity with refraction OD, OS, and OU.	[REDACTED]

7.3. Unscheduled Visits

If, during the investigation, a subject requires an unscheduled visit to the clinical site, the following information will be collected at a minimum:

- Chief complaint prompting the visit. If the reason is an adverse event, the applicable eCRF for the adverse event must be completed and subject record completed as appropriate
- Date and time of the visit and all procedures completed at the unscheduled visit
- Review of adverse event and concomitant medications
- Documentation of any test article dispensed or collected from the subject, if applicable
- Slit lamp findings (using the Slit Lamp Classification Scale)

If the Investigator withdraws a subject from the study, the final study visit case report forms must be completed indicating the reason(s) why the subject was withdrawn. The subject record must be completed documenting the date and primary reason for withdrawal and the study CRA notified.

Any ocular and non-ocular Adverse Events that are ongoing at the time of the study visit will be followed by the Investigator, within licensure, until they have resolved, returned to pre-treatment status, stabilized, or been satisfactorily explained. If further treatment i.e., beyond licensure is required, the subject will be referred to the appropriate health care provider.

The following information will be collected during an unscheduled visit.

Step	Procedure	Details	
U.1	Chief Complaints	Record the subject's chief complaints for reasons for the unscheduled visit	
U.2	Change of Medical History and Concomitant Medications	Questions regarding the change of subjects' medical history and concomitant medications.	
U.3	Entrance VA	Record the entrance distance visual acuity (OD, OS and OU) to the nearest letter.	
U.4	Subjective Sphero-cylindrical Refraction	The investigator will complete a subjective refraction (sphere and cylinder) and record the resultant distance visual acuity OD, OS, and OU to the nearest letter.	
U.5	Slit Lamp Biomicroscopy	FDA Slit Lamp Classification Scale will be used to grade the findings. If no slit lamp finding is noted on the EDC form it is considered as a zero "0" Grade for all observations listed. After the slit lamp examination, at the discretion of the Investigator, rinse the subject's eyes thoroughly with preservative-free saline.	
U.6	Dispensing (if applicable)	Additional lenses may be dispensed if one is lost or torn during the wearing period.	
U.7	Exit Visual Acuity	Record the subject's exit distance visual acuity (OD, OS and OU) to the nearest letter.	

7.4. Laboratory Procedures

The optical bench will be used to measure the light transmission characteristics for all worn Test lenses. The findings are for internal information only and will not be part of the final report.

8. SUBJECTS COMPLETION/WITHDRAWAL

8.1. Completion Criteria

Subjects are considered to have completed the study if they:

- provided informed consent
- completed all scheduled visits

8.2. Withdrawal/Discontinuation from the Study

A subject will be withdrawn from the study for any of the following reasons:

- Subject death during the study period
- Subject withdrawal of consent
- Subject not compliant to protocol (e.g. Subject more than 2 days out of visit window).
- Subject lost to follow-up
- Subject no longer meets eligibility criteria (e.g. the subject becomes pregnant)
- Subject develops significant or serious adverse events causing discontinuation of study lens wear (subjects missing more than 2 days of missed lens wear within a period 1 of week should be discontinued)
- Subjects who have experienced a Corneal Infiltrative Event (CIE)
- Investigator's clinical judgment regarding the subject safety reasons (that it is in the best interest of the subject to stop treatment)
- Subject missed any scheduled study visits
- Subject not compliant with study lens wear schedule
- Subject not successfully dispensed due to lack of efficacy and safety including poor vision, poor comfort or unacceptable fit

For discontinued subjects, the Investigator will:

- Complete the current visit (scheduled or unscheduled)
- Complete the Final Evaluation, indicating the reason that the subject was discontinued from the study
- Record the spherocylindrical refraction with best corrected distance visual acuity
- Collect used test article(s) (worn or brought to the visit) from the subject and discard them, unless otherwise stated in Section 7.2.
- Collect all unused test article(s) from the subject

Investigator will discuss with sponsor before enrolling any additional subjects if a subject discontinues from the study prematurely.

In cases where a subject is lost to follow-up, every possible effort must be made to contact the subject and determine the reason for discontinuation/withdrawal. The measures taken to

follow up must be documented including two written attempts and a certified letter (or equivalent) as the final attempt.

9. PRE-STUDY AND CONCOMITANT INTERVENTION/MEDICATION

Concomitant medications will be documented during screening and updated during the study.

Disallowed medications for this study include: See Section 3.3

Concomitant therapies that are disallowed include: See Section 3.3

10. DEVIATIONS FROM THE PROTOCOL

Investigator will notify study sponsor upon identification of a protocol deviation. Major protocol deviations must be reported to the sponsor within 24 hours after discovery of the protocol deviation. The Investigator will report deviations per IRB/IEC requirements. All deviations will be tracked, and corrective actions implemented as appropriate.

If it becomes necessary for the Investigator to implement a deviation in order to eliminate an immediate hazard to the trial subject, the Investigator may implement the deviation immediately without notification to the sponsor. Within 24 hours after the implemented deviation, the Investigator must notify and provide the rationale to the Sponsor and, as required, the IEC/IRB.

11. STUDY TERMINATION

The occurrence of one or more Unanticipated Serious Adverse Device Effect (USADE), or any SAE where the relationship to study agent cannot be ruled out, may result in stopping further dispensing of test article. In the event of a USADE or SAE, the Sponsor may unmask the treatment regimen for the subject(s) and will discuss this with the Investigator before any further subjects are enrolled.

The Sponsor will determine when a study will be stopped. The Principal Investigator always has the discretion to initiate stopping the study based on patient safety or if information indicates the study's results are compromised.

JJVC reserves the right to terminate the study at any time for any reason. Additionally, the IEC/IRB reserves the right to terminate the study if an unreasonable risk is determined. The study can be terminated by the Principal Investigator at the individual clinical site due to specific clinical observations, if in their opinion, after a discussion with JJVC, it is determined that it would be unwise to continue at the clinical site.

JJVC (and the IEC/IRB and DMC, if applicable) will evaluate all adverse events. If it is determined that an adverse event presents an unreasonable risk, the investigation, or that part of the investigation presenting the risk, will be terminated, as soon as possible.

Should the study be terminated (either prematurely or as scheduled), the Investigator will notify the IEC/IRB and Regulatory Authority as required by local regulatory requirements.

12. PROCEDURE FOR HANDLING PRODUCT QUALITY COMPLAINTS

A Product Quality Complaint (PQC) refers to any written, electronic, or oral communication that alleges deficiencies related to the identity, quality, durability, reliability, safety, effectiveness or performance of test articles after they have been released for clinical trial use.

Potential complaints may come from a variety of sources including but not limited to subjects, clinical research associates (CRA), clinical operations managers (COM), medical monitors, and site personnel, etc. The following are not considered product quality complaints:

- Subject satisfaction inquiries reported via “Subjective Questionnaires” and “Patient Reported Outcomes (PRO)”.
- Clinical test articles that are stored improperly or damaged after receipt at the investigational site.
- Lens replacements that occur due to drops/fall-outs.
- Damage deemed by clinicians or clinical staff to be caused by handling by the user, and not indicative of a quality deficiency (i.e. tears, rips, etc.), only in situations where there is no deficiency alleged by the subject.

Within 24 hours of site personnel becoming aware that a PQC has occurred, the PQC must be recorded in the EDC system, which will trigger an automatic email notification to the appropriate COM/CRA and Clinical QA representative. In cases where the EDC system in use is not configured to send automatic notifications or when an EDC system is not used, the COM/CRA is responsible for notifying Clinical QA upon discovery that a PQC has occurred.

Upon receipt of the EDC notification, the COM/CRA will contact the study site to collect additional information which will include:

- Date the complaint was received/recorded in the EDC System (Date of Sponsor Awareness)
- Who received the complaint
- Study number
- Clinical site information (contact name, site ID, telephone number)
- Lot number(s)
- Unique Subject Identifier(s)
- Indication of who first observed complaint (site personnel or subject)
- OD/OS indication, along with whether the lens was inserted
- Any related AE number if applicable
- Detailed complaint description (scheduled/unscheduled visit, wear time, symptoms, resolution of symptoms, etc.)
- Eye Care Provider objective (slit lamp) findings if applicable
- Confirmation of product availability for return (and tracking information, if available), or rationale if product is not available for return [REDACTED]
[REDACTED])

Once a complaint is received, it will be assessed by the COM, CRA, or trained site personnel to determine if it is an Adverse Event/Serious Adverse Event (AE/SAE). If the complaint results in an AE/SAE, the COM/CRA, or trained site personnel will follow Section 13 of this

protocol. If the AE/SAE was potentially the result of a product quality related deficiency, these procedures also applies and will be executed in parallel.

In some cases, a PQC form may be generated in EDC by the site in error. In this event, the PQC forms will be marked “Intentionally Left Blank” or “ILB”. Justification for ILB must be documented.

13. ADVERSE EVENTS

13.1. Definitions and Classifications

Adverse Event (AE) – An AE is “any untoward medical occurrence, unintended disease or injury, or untoward clinical signs (including abnormal laboratory findings) in subjects, users or other persons, whether or not related to the investigational medical device.

Note 1 to entry: This definition includes events related to the investigational medical device or the comparator.

Note 2 to entry: This definition includes events related to the procedures involved.

Note 3 to entry: For users or other persons, this definition is restricted to events related to investigational medical devices.”¹

An AE includes any condition (including a pre-existing condition) that:

1. Was not present prior to the study, but appeared or reappeared following initiation of the study
2. Was present prior to the study but worsened during the study. This would include any condition resulting from concomitant illnesses, reactions to concomitant medications, or progression of disease states
3. Pregnancy must be documented as an adverse event and must be reported to the clinical monitor and to the Sponsor immediately upon learning of the event

Serious Adverse Event (SAE) – An SAE is any untoward medical occurrence that:

- Results in death
- Is life threatening
- Requires in-patient hospitalization or prolongation of existing hospitalization
- Results in persistent or significant disability/incapacity (e.g., a sight threatening event, a significant persistent or permanent change, impairment, damage, or disruption to the subject’s body)
- Is a congenital anomaly/birth defect
- Requires intervention to prevent permanent damage (the use of the test article resulting in a condition which requires medical or surgical intervention to preclude permanent impairment of the body structure or a body function). Important medical events that may not result in death, be life-threatening, or require hospitalization may be considered an SAE when, based upon appropriate medical judgment, they may jeopardize the patient or subject and may require medical or surgical intervention to prevent one of the outcomes listed in the above definition.

Diagnoses and conditions that are considered Ocular Serious Adverse Events include, but not limited to:

- Microbial Keratitis (MK)
- Iritis (including cells in the anterior chamber)
- Permanent decrease in best spectacle corrected visual acuity equivalent to 2 acuity lines or greater
- Central Corneal Opacity
- Central Corneal Neovascularization
- Uveitis
- Endophthalmitis
- Hypopyon
- Hyphemia
- Penetration of Bowman's Membrane
- Persistent Epithelial Defect
- Limbal cell Damage leading to Conjunctivalization

Significant Adverse Events – Those events that are usually symptomatic and warrant discontinuation (temporary or permanent) of the test article (excluding Serious Adverse Events).

Diagnoses and conditions that are considered Ocular Significant Adverse Events include, but not limited to the following:

- Contact Lens Induced Peripheral Ulcer (CLPU)
- Significant Infiltrative Events (SIE)
- Superior Epithelial Arcuate Lesions (SEALS)
- Any Temporary Loss of >2 Lines of BSCVA
- Other Grade 3 or higher corneal findings, such as abrasions or edema
- Non-contact lens related corneal events - e.g. Epidemic Keratoconjunctivitis (EKC)
- Asymptomatic Corneal Scar
- Any corneal event which necessitates temporary lens discontinuation >2 weeks

Non-Significant Adverse Events – Those conditions that are usually asymptomatic and usually do not warrant discontinuation (temporary or permanent) of the test article. However, the Investigator may choose to treat as a precautionary measure.

Diagnoses and conditions that are considered Ocular Non-Significant Adverse Events include, but not limited to the following:

- Non-significant Infiltrative Event (NSIE)
- Contact Lens Papillary Conjunctivitis (CLPC)
- Superficial Punctate Keratitis (SPK)
- Conjunctivitis: Bacterial, Viral, Allergic
- Blepharitis
- Meibomianitis
- Contact Dermatitis
- Localized Allergic Reactions

- Any corneal event not explicitly defined as serious or significant adverse event, which necessitates temporary lens discontinuation < 2 weeks

Adverse Device Effect (ADE) – An ADE is an “adverse event related to the use of an investigational medical device.

Note 1 to entry: This definition includes adverse events resulting from insufficient or inadequate instructions for use, deployment, implantation, installation, or operation, or any malfunction of the investigational medical device.

Note 2 to entry: This definition includes any event resulting from use error or from intentional misuse of the investigational medical device.”¹

Unanticipated Adverse Device Effect (UADE) – Any serious adverse effect on health or safety or any life-threatening problem or death caused by, or associated with, the test article, if that effect, problem, or death was not previously identified in nature, severity, or degree of incidence in the investigational plan, Investigator’s Brochure or protocol, or any other unanticipated serious problem associated with the test article that relates to the rights, safety and welfare of subjects.

13.2. Assessing Adverse Events

In conjunction with the medical monitor, the Investigator will evaluate adverse events to ensure the events are categorized correctly. Elements of categorization will include:

- Seriousness/Classifications (see definition in Section 13.1)
- Causality or Relatedness – i.e. the relationship between the test article, study treatment or study procedures and the adverse event (not related; doubtful; possible; probable; very likely - see definition in Section 13.2.1)
- Adverse Event Severity – Adverse event severity is used to assess the degree of intensity of the adverse event (mild; moderate; severe for all events - see definition in Section 13.2.2).
- Outcome – not Recovered or Not Resolved; Recovering or Resolving; Recovered or Resolved with Sequelae; Recovered or Resolved; Death Related to Adverse Event; Unknown
- Actions Taken – none; temporarily discontinued; permanently discontinued; other

13.2.1 Causality Assessment

Causality Assessment – A determination of the relationship between an adverse event and the test article. The test article relationship for each adverse event should be determined by the investigator using these explanations:

- Not Related- An adverse event that is not related to the use of the test article, study treatment or study procedures.
- Unlikely Related – An adverse event for which an alternative explanation is more likely, e.g. concomitant treatment, concomitant disease(s), or the relationship of time suggests that a causal relationship is not likely.
- Possibly Related – An adverse event that might be due to the use of the test article, or to the study treatment or study procedures. An alternative explanation, e.g. concomitant

treatment, concomitant disease(s), is inconclusive. The relationship in time is reasonable. Therefore, the causal relationship cannot be excluded.

- Related – An adverse event that is listed as a possible adverse effect (device) or adverse reaction (drug) and cannot be reasonably explained by an alternative explanation, e.g. concomitant treatment of concomitant disease(s). The relationship in time is very suggestive, e.g. it is confirmed by de-challenge and re-challenge.

13.2.2 Severity Assessment

Severity Assessment – A qualitative assessment of the degree of intensity of an adverse event as determined by the Investigator or reported to him/her by the subject. The assessment of severity is made irrespective of test article, study treatment or study procedure relationship or seriousness of the event and should be evaluated according to the following scale:

- Mild – Event is noticeable to the subject, but is easily tolerated and does not interfere with the subject's daily activities
- Moderate – Event is bothersome, possible requiring additional therapy, and may interfere with the subject's daily activities
- Severe – Event is intolerable, necessitates additional therapy or alteration of therapy and interferes with the subject's daily activities

13.3. Documentation and Follow-Up of Adverse Events

The recording and documenting of adverse events (ocular and non-ocular) begins when the subjects are exposed to the test article, study treatment or study procedure. Adverse events reported before the use of test article, start of study treatment, or study procedures will be recorded as medical history. However, if the condition deteriorates at any time during the study it will be recorded and reported as an AE. Untoward medical events reported after the subject's exit from the study will be recorded as adverse events at the discretion of the Investigator.

Upon finding an adverse event, the Principal Investigator will document the condition in the subject record and in the eCRFs. He/she will complete the Adverse Event /eCRF.

Complete descriptions of all adverse events must be available in the subject record. All Adverse Events including local and systemic reactions not meeting the criteria for "serious adverse events" shall be captured on the appropriate case report form or electronic data system. All adverse events occurring while the subject is enrolled in the study must be documented appropriately regardless of relationship.

It is the Investigator's responsibility to maintain documentation of each reported adverse event. All adverse events will be followed in accordance with applicable licensing requirements. Such documentation will include the following:

- Adverse event (diagnosis not symptom)
- Drawings or photographs (where appropriate) that detail the finding (e.g., size, location, and depth, etc.)
- Date the clinical site was notified
- Date and time of onset
- Date and time of resolution

- Adverse event classification, severity, and relationship to test articles, as applicable
- Treatment regimen instituted, including concomitant medications prescribed, in accordance with applicable licensing requirements
- Any referral to another health care provider if needed
- Outcome, ocular damage (if any)
- Likely etiology
- Best corrected visual acuity at the discovery of the event and upon conclusion of the event

In addition, if an infiltrate(s) is present, he/she will complete the Corneal Infiltrate Assessment /eCRF. Where necessary, a culture of the corneal lesion will be collected to determine if the infection is microbial in nature. If cultures are collected, the date of culture collection and laboratory utilized will be recorded.

Changes in the severity of an AE shall be documented to allow an assessment of the duration of the event at each level of intensity to be performed. Adverse events characterized as intermittent require documentation of the onset and duration of each episode. Changes in the assessment of relationship to the test article shall also be clearly documented.

Subjects who present with an adverse event shall be followed by the Investigator, within licensure, until all signs and symptoms have returned to pre-treatment status, stabilized, or been satisfactorily resolved. If further treatment beyond licensure is required, the patient will be referred to the appropriate health care provider. The Investigator will use his/her clinical judgment as to whether a subject reporting with an adverse event will continue in the study. If a subject is discontinued from the study, it will be the responsibility of the Investigator to record the reason for discontinuation. The Investigator will also document the adverse event appropriately and complete the Adverse Event eCRF. Any subjects with ongoing adverse events related to the test article, study treatment or study procedures, as of the final study visit date, should be followed to resolution of the adverse event or until referral to an appropriate health care provider, as recommended by the Investigator. Non-ocular adverse events that are not related to the test article, study treatment, or study procedures may be recorded as “ongoing” without further follow-up.

13.4. Reporting Adverse Events

The Investigator will notify the Sponsor of an adverse event by e-mail, facsimile, or telephone as soon as possible and no later than 24 hours from discovery for any serious /significant adverse events, and 2 days from discovery for any non-significant adverse event. In addition, a written report will be submitted by the Principal Investigator to the IEC/IRB according to their requirements (Section 13.4.2). The report will comment whether the adverse event was considered to be related to the test article, study treatment or study procedures.

13.4.1 Reporting Adverse Events to Sponsor

Serious/Significant Adverse Events

The Investigator will inform the sponsor of all serious/significant adverse events occurring during the study period as soon as possible by e-mail, fax, or telephone, but no later than 24

hours following discovery of the event. The Investigator is obligated to pursue and obtain information requested by the Sponsor in addition to that information reported on the eCRF. All subjects experiencing a serious/significant adverse event must be followed up and all outcomes must be reported.

When medically necessary, the Investigator may break the randomization code to determine the identity of the treatment that the subject received. The Sponsor and study monitor should be notified prior to unmasking the test articles.

In the event of a serious/significant adverse event, the Investigator must:

- Notify the Sponsor immediately
- Obtain and maintain in the subject's records all pertinent medical information and medical judgment for colleagues who assisted in the treatment and follow-up of the subject
- Provide the Sponsor with a complete case history which includes a statement as to whether the event was or was not related to the use of the test article
- Notify the IEC/IRB as required by the IEC/IRB reporting procedure according to national regulations

Unanticipated (Serious) Adverse Device Effect (UADE)

In the event of an Unanticipated (Serious) Adverse Device Effect (UADE), the Investigator will submit a report of the UADE to the Sponsor and IEC/IRB as soon as possible, but no later than 24 hours after the Investigator first learns of the effect. This report is in addition to the immediate notification mentioned above.

The Sponsor must conduct an evaluation of the UADE and must report the results of the evaluation to FDA, the IEC/IRB and participating Investigators within 10 working days after the Sponsor first receives notification of the effect.

Non-Serious Adverse Events

All non-serious adverse events, including non-serious adverse device effects, will be reported to the sponsor by the Investigator no later than 2 days from discovery.

13.4.2 Reporting Adverse Events to the Responsible IEC/IRB and Health Authorities

Adverse events that meet the IEC/IRB requirements for reporting must be reported within the IEC/IRB's written guidelines. Each clinical site will refer to and follow any guidelines set forth by their Approving IEC/IRB. Each clinical site will refer to and follow any guidelines set forth by their local governing Health Authorities.

The Sponsor will report applicable Adverse Events to the local health authorities according the written guidelines, including reporting timelines.

13.4.3 Event of Special Interest

None.

13.5. Reporting of Pregnancy

Subjects reporting pregnancy (by self-report) during the study will be discontinued after the event is recorded as an Adverse Event. Once discontinued, pregnant participants and their fetuses will not be monitored for study related purposes. At the Investigator's discretion, the study participant may be followed by the Investigator through delivery. However, this data will not be collected as part of the clinical study database. Pregnant participants are not discontinued from contact lens or solution related studies for safety concerns, but due to general concerns relating to pregnancy and contact lens use. Specifically, pregnant women are discontinued due to fluctuations in refractive error and/or visual acuity that occur secondary to systemic hormonal changes, and not due to unforeseen health risks to the mother or fetus.

14. STATISTICAL METHODS

This section is a general outline of the statistical methods that will be implemented in this clinical trial. More details will be included in the stand-alone Statistical Analysis Plan (SAP). The SAP will be developed and finalized prior to database lock.

14.1. General Considerations

Statistical Analysis will be undertaken by the sponsor or under the authority of the sponsor. A general description of the statistical methods to be implemented in this clinical trial is outlined below.

All data summaries and statistical analyses will be performed using the SAS software Version 9.4 or higher (SAS Institute, Cary, NC). Throughout the analysis of data, the results for each subject/eye will be used when available for summarization and statistical analysis. Unscheduled visits will be summarized separately and will be excluded from the statistical analysis.

Summary tables (descriptive statistics and/or frequency tables) will be provided for all baseline variables, efficacy variables and safety variables as appropriate. Continuous variables will be summarized with descriptive statistics (n, mean, standard deviation [SD], median, minimum and maximum). Frequency count and percentage of subjects or eyes within each category will be provided for categorical data.

14.2. Sample Size Justification

This study was designed and powered to show non-inferiority of the Test lens compared to the Control lens with respect to logMAR Visual Acuity, Slit Lamp Findings (Grade 3 or higher), CLUE comfort, handling and overall quality of vision. It was assumed there was no difference between the Test and Control lens with respect to visual acuity and slit lamp findings. Based on data from 3 historical studies, it was assumed there was a 5-, 3- and 4-point difference between the Test and Control lenses with respect to CLUE comfort, handling and overall quality of vision, respectively.

In addition to the endpoints mentioned above this study was also powered to demonstrate non-inferiority of the Test lens relative to the Control lens with respect to vision satisfaction in

bright lighting, overall quality of vision indoors and the proportion of eyes with acceptable fitting while the Test lens is significantly superior to 90%.

Unless otherwise specified, the sample size was calculated to achieve a minimum statistical power of 80% and a type I error of 5%.

A total of 5 historical studies were utilized in the sample size calculation. Table 4 displays the studies, their corresponding study design and the number of subjects enrolled and completed per-protocol.

Table 4: Historical Studies Included in Sample Size Calculation

Study	Study Design	Endpoints Collected	No. Enrolled	No. Completed Per-Protocol
██████████	2X3 Crossover	CLUE, SLF Lens Fit	135	132
██████████	2X3 Crossover	CLUE, Visual Acuity (logMAR), SLF, Lens Fit	133	121
██████████	2X3 Crossover	CLUE, SLF Lens Fit	92	78
██████████	Single-Arm	SLF, Lens Fit	54	48
██████████	Single-Arm	SLF, Lens Fit	56	41

Table 5: Descriptive Summary of CLUE Scores by Domain Pooled Across Historical Studies
– 2-Week Follow-up Evaluation

CLUE Domain [Mean(SD) ¹]	Test	Control
Comfort	66.46 (22.20)	61.19 (24.20)
Handling	69.61 (19.18)	66.79 (20.01)
Overall Quality of Vision	64.15 (18.83)	60.33 (22.29)

¹SD = Standard Deviation

Table 6: Descriptive Summary of Visual Acuity (logMAR) - █ – 2-Week Follow-up Evaluation

Visual Acuity High Illumination High Contrast	Test	Control
[Mean(SD) ¹]	-0.0928 (0.08253)	-0.0726 (0.08011)

¹SD = Standard Deviation

Table 7: Descriptive Summary of Mechanical Lens Fitting Pooled Across all Historical Studies

Any Unacceptable Lens Fit¹ [n(%)]	Test n (%)	Control n (%)
Fitting Evaluation	0 (0.0)	0 (0.0)
2-Week Follow-up	0 (0.0)	0 (0.0)

¹The percent of any unacceptable fit is calculated using Total Unique eyes as a denominator

Table 8: Descriptive Summary of Slit Lamp Findings Pooled Across all Historical Studies

SLF Grade 2	Test n (%)	Control n (%)
Corneal Edema	0 (0.0)	0 (0.0)
Conjunctival Injection	59 (6.86)	59 (21.85)
Tarsal Abnormalities	51 (5.93)	24 (8.89)
Corneal Neovascularization	3 (0.35)	0 (0.0)
Corneal Staining	3 (0.35)	0 (0.0)
Other Findings	0 (0.0)	0 (0.0)
Total Eyes (N)	860	270
<hr/>		
Any SLF Grade 2 ²	116 (13.48)	83 (33.74)
Any SLF Grade 3+	0 (0.0)	0 (0.0)
Total Unique Eyes	860	270
Total Unique Subjects	430	135

%= nx100/N; SD=Standard Deviation

¹All SLF reported for this study are combined for the purposes of summarizing

² The percent (%) of Any Grade 2 is calculated using the Total Unique Eyes as the denominator

Table 9: Descriptive Summary of Individual Items from [REDACTED] – 2-Week Follow-up

Questionnaire Item/ Response	Test	Control
Vision Satisfaction in Bright Light [n(%)]		
Strongly Agree	72 (29.75)	51 (21.07)
Agree	129 (53.31)	130 (53.72)
Neither Agree Nor Disagree	24 (9.92)	21 (8.68)
Disagree	17 (7.02)	33 (13.64)
Strongly Disagree	0 (0.0)	7 (2.89)
Overall Quality of Vision Indoors [n (%)]		
Excellent	100 (55.25)	80 (43.96)
Very Good	55 (30.39)	62 (34.07)
Good	23 (12.71)	30 (16.48)
Fair	3 (1.66)	7 (3.85)
Poor	0 (0.0)	3 (1.65)

CLUE Comfort

Sample size calculation for CLUE comfort was carried out using an approximation of the power of an F-test derived from the non-centrality parameter calculated from the observed F statistic of a linear model¹².

Model details:

CLUE comfort was analyzed using a linear mixed model. Lens type was included as the only fixed effect. An unstructured (UN) covariance matrix was used to model the correlation between measurements on the same subject across study periods. Below is the variance-covariance matrix used in the CLUE Comfort model.

$$\sum_{comfort} \begin{pmatrix} 397.18 & 142.48 & 144.55 \\ 142.48 & 411.89 & 210.90 \\ 144.55 & 210.90 & 370.83 \end{pmatrix}$$

Visual Performance (logMAR)

Sample size calculation for visual performance (logMAR) was carried out using an approximation of the power of an F-test derived from the non-centrality parameter calculated from the observed F statistic of a linear model¹².

Model details:

visual performance was analyzed using a linear mixed model. Lens type was included as the only fixed effect. A compound symmetric (CS) covariance matrix was used to model the correlation between measurements on the same subject across study periods. Below is the variance-covariance matrix used in the visual performance model.

$$\sum_{\text{visual performance}} \begin{pmatrix} 0.003518 & 0.000374 & 0.000374 \\ 0.000374 & 0.003518 & 0.000374 \\ 0.000374 & 0.000374 & 0.003518 \end{pmatrix}$$

Acceptable Lens Fit

Acceptable lens fit is a binary response as y=1 if a subject eye has an acceptable fit and 0 otherwise. Indicated by the historical data there were no observed unacceptable lens fittings for either the Test or Control lens therefore, the common reference rate of 95% was selected for the sample size calculation, since this is considered to be a more conservative reference proportion. Assuming a correlation 0.80 between measurements within the same subject and period; and assuming a correlation of 0.50 between measurements within the same subject across periods. A total of 2000 replicating trials were simulated to estimate a sample size with a minimum statistical power of 80%.

Slit Lamp Findings

There were no Grade 3 or higher SLFs observed in any of the historical studies. Assuming no difference between study lenses and a correlation 0.80 between left and right eyes within the same subject and period; and a correlation of 0.50 between measurements within the same subject across periods (intra-subject correlation). A reference rate of no more than 10% was assumed (worse-case scenario) with a non-inferiority odds ratio margin of 2. A total of 2000 replicating trials were simulated, each replicated sample was analyzed using a generalized estimating equation (GEE) model with a binary distribution and the logit as the link function. Each model included lens type as the only fixed, eye was included as a random effect. The Odds ratio and corresponding 95% confidence interval was used estimate differences between the Test and Control lenses. The upper limit of each 95% confidence interval was compared to 2; if the upper limit was below 2 then NI=1; otherwise NI=0. Statistical power was calculated at the average NI. A sample size of 50 was chosen to achieve a minimum statistical power of 80%.

The non-inferiority odds ratio margin of 2 corresponds to no more than a 5% difference between the Test and Control lenses assuming the Control reference rate does not exceed 10%.

Individual Questionnaire Items

Overall quality of vision outdoors and vision satisfaction in bright lighting sample size estimates were calculated using historical data from [REDACTED]. One-thousand boot strap

samples were simulated based on the historical data. For each replicated sample a generalized linear mixed model was used with a multinomial distribution and the cumulative logit as the link function. Lens wear sequence, lens type, period and first order carryover effect were included in the model as fixed effects. A variance component (VC) covariance structure was used to model the measurements between subjects across study periods.

The non-inferiority cumulative odds ratio margin of 0.67 corresponds to no more than a 10% difference between the Test and Control lenses assuming there is no difference between study lenses.

Table 10: Sample Size Estimates and Power Calculations for Primary Endpoints

Endpoint	Number per Subjects to Complete	Power
Distance Monocular Visual Acuity (logMAR)	4	80%
SLFs (Grade 3 or Higher)	50	80%
Acceptable lens Fit	65	80%
CLUE Comfort	30	87%
Vision Satisfaction in Bright Lighting	48	81%

Table 11: Sample Size Estimates and Power Calculations for Secondary Endpoints

Endpoint	Number per Subjects to Complete	Power
CLUE Handling	30	81%
CLUE Overall Quality of Vision	30	82%
Overall Quality of Vision Indoors	95	81%

As indicated in Table 10 and 11 above, the sample size chosen for this study was primary driven by overall quality of vision indoors. The plan is to enroll 120 eligible subjects with a target of 105 subjects to complete the study. During the enrollment period, the subject dropout rate will be closely monitored, if an unexpectedly high dropout rate is observed, then the targeted total enrollment number may be increased accordingly to ensure that a minimum of 105 subjects complete the study.

14.3. Analysis Populations

A separate SAP will be provided for this study. If there are any discrepancies between the protocol and the SAP, the SAP will supersede the statistical sections in the protocol.

Safety Population:

All subjects who were administered any test article excluding subjects who drop out prior to administering any test article. At least one observation should be recorded.

Per-Protocol Population:

All subjects who have successfully completed all visits and did not substantially deviate from the protocol as determined by the trial cohort review committee prior to database hard lock (Per-Protocol Population). Justification of excluding subjects with protocol deviations in the per-protocol population set will be documented in a memo to file.

Intent-to-Treat (ITT) Population:

All randomized subjects regardless of actual treatment and subsequent withdrawal from study or deviation from protocol. At least one observation should be recorded.

14.4. Level of Statistical Significance

The primary and secondary hypotheses will be tested with a type I error of 5% individually.

14.5. Primary Analysis

Primary efficacy analysis:

Visual Acuity

Distance monocular visual acuity (logMAR) will be tested under two conditions (bright illumination low contrast and dim illumination high contrast). Each condition will be analyzed separately using a Bayesian multivariate normal random-effects model to compare the Test and Control lenses. The regression model will include sequence of lens wear, lens type and first-order carryover effect as fixed effects. Clinical site and subject nested within clinical site will be included as random effects. Other subject characteristics such as gender and age will be included as fixed effects when appropriate.

The Model:

Let $y_{ijklm} = (y1_{ijklm}, y2_{ijklm}, y3_{ijklm})$ denote the visual acuity (logMAR) for the m^{th} subject at the l^{th} site, assigned to the i^{th} lens for the j^{th} eye using the k^{th} sequence at periods 1, 2, 3, respectively. The likelihood for y_{ijkl} is constructed as follows:

$$y_{ijklm} \sim N(\mu_{ijklm}, \Sigma)$$

Where $\mu_{ijklm} = (\mu1_{ijklm}, \mu2_{ijklm}, \mu3_{ijklm})^T$ and Σ is a 3X3 variance-covariance matrix. Here,

$$\begin{aligned}\mu1_{ijklm} &= \mu_0 + \pi_1 + \beta_1 \text{Lens}_{[i,k]} + \beta_2 \text{Sequence}_k + \gamma_l + \alpha_j \\ \mu2_{ijklm} &= \mu_0 + \pi_2 + \beta_1 \text{Lens}_{[i,k]} - \beta_2 \text{Sequence}_k + \beta_3 \text{Carry1}_{[i,k]} + \gamma_l + \alpha_j \\ \mu3_{ijklm} &= \mu_0 + \pi_3 + \beta_1 \text{Lens}_{[i,k]} + \beta_2 \text{Sequence}_k - \beta_3 \text{Carry1}_{[i,k]} + \gamma_l + \alpha_j\end{aligned}$$

In this model π_1, π_2, π_3 represent the effect of period with the constraint $\pi_1 + \pi_2 + \pi_3 = 0$. Lens will be determined by sequence k therefore lens i is denoted as a function of k. We define $\text{Lens}_l = 0$ for the Control lens and $\text{Lens}_i = 1$ for the Test lens, sequence is defined as: Sequence=0 for the order Control/Test/Test and Sequence=1 for order Test/Control/Control. The first-order carryover effect will be defined as carry=0 for the Control lens and carry=1 for the Test lens. So β_1 stands for the difference between the Test and Control lens with respect to

visual performance at period 1. A negative β_1 indicates the Test performed better than the Control lens.

We assume random subject eye effects are independent and identically distributed (i.i.d) as $\alpha_j \sim N(0, \sigma_{eye}^2)$ as random eye and the random site effect is i.i.d as $\gamma_l \sim N(0, \sigma_{site}^2)$ for $i=1,2$ (lens), $j=1, 2$ (eye), $k=1, 2$ (sequence), $carry1=1, 2$ (first-order carryover effect) and $l=1\dots|m_l$ (subject/site) and $l=1,2, 3, 4, 5$ and 6 (site).

For the β coefficients, independent non-informative priors $N(0, 1000)$ will be used. For the variance of random effects σ_{eye}^2 and σ_{site}^2 independent non-informative conjugate priors inverse-gamma(0.001, 0.001) will be used. For Σ , non-informative conjugate priors inverse-wishart(3,S) will be used where S is a 3X3 variance-covariance matrix of y_{ijklm} . The metropolis sampler algorithm as implemented in the SAS/STAT MCMC 14.2¹⁴ procedure will be used to estimate the posterior distribution of the unknown parameters. Inferences will be made based on the 95% posterior credible intervals for relevant parameters.

Hypothesis Testing

The null and alternative hypothesis for visual acuity (logMAR) to test for non-inferiority of the Test lens relative to the Control lens is as follows:

$$H_0: \beta_1 \geq 0.05$$

$$H_A: \beta_1 < 0.05$$

Non-inferiority will be declared if the upper limit of the 95% credible interval of the difference between the Test and Control is below 0.05, i.e. $P(\beta_1 < 0.05) \geq 0.975$.

CLUE Overall Comfort

CLUE Comfort scores will be analyzed using a Bayesian multivariate normal random-effects model to compare the Test and Control lenses. The regression model will include baseline CLUE comfort scores, sequence of lens wear, lens type and first-order carryover effect as fixed effects. Clinical site will be included as random effects. Other subject characteristics such as age, gender, race and iris category will be included when appropriate.

The Model:

Let $y_{ijkl} = (y1_{ijkl}, y2_{ijkl}, y3_{ijkl})$ denote the CLUE Comfort score for the l^{th} subject at the k^{th} site, assigned to the i^{th} lens using the j^{th} sequence at periods 1, 2 and 3. The likelihood for y_{ijkl} is constructed as follows:

$$y_{ijkl} \sim N(\mu_{ijkl}, \Sigma)$$

Where $\mu_{ijkl} = (\mu1_{ijkl}, \mu2_{ijkl}, \mu3_{ijkl})^T$ and Σ is a 3X3 variance-covariance matrix. Here,

$$\mu1_{ijkl} = \mu_0 + \pi_1 + \beta_1 Lens_{[i,j]} + \beta_2 baseline + \beta_3 Sequence_j + \gamma_k$$

$$\mu2_{ijkl} = \mu_0 + \pi_2 + \beta_1 Lens_{[i,j]} + \beta_2 baseline - \beta_3 Sequence_j + \beta_4 Carry1_{[i,j]} + \gamma_k$$

$$\mu3_{ijkl} = \mu_0 + \pi_3 + \beta_1 Lens_{[i,j]} + \beta_2 baseline + \beta_3 Sequence_j - \beta_4 Carry1_{[i,j]} + \gamma_k$$

In this model π_1, π_2, π_3 represent the effect of period with the constraint $\pi_1 + \pi_2 + \pi_3 = 0$. Lens will be determined by sequence j, therefore i is denoted as a function of j. We define

Lens=0 for the Control lens and Lens = 1 for the Test lens, sequence is defined as: Sequence=0 for the order Control/Test/Test and Sequence=1 for order Test/Control/Control. The first-order carryover effect will be defined as carry=0 for the Control lens and carry=1 for the Test lens. So β_1 stands for the difference between the Test and Control lens at period 1 with respect to CLUE comfort; A positive β_1 indicates the Test performed better than the Control.

We assume random site effects are independent and identically distributed (i.i.d) as $\gamma_k \sim N(0, \sigma_{site}^2)$ for site for i=1, 2 (lens), j=1, 2 (sequence), k=1, 2, 3, 4, 5 and 6 (site).

For the β coefficients, independent non-informative priors $N(0, 1000)$ will be used. For the variance of random effect of σ_{site}^2 an independent non-informative conjugate prior, inverse-gamma(0.001, 0.001) will be used. For Σ , non-informative conjugate priors inverse-wishart(3,S) will be used where S is a 3X3 variance-covariance matrix of y_{ijkl} . Starting values for the mean and variance of CLUE scores will be 60 and 400 (since standard deviation of CLUE is normalized to be 20), respectively. The Metropolis sampler algorithm as implemented in the SAS/STAT MCMC 14.2¹⁴ procedure will be used to estimate the posterior distribution of the unknown parameters. Inferences will be made based on the 95% posterior credible intervals for relevant parameters.

Hypothesis Testing

The null and alternative hypotheses for CLUE comfort non-inferiority of the Test lens relative to the Control lens are as follows:

$$H_0: \beta_1 \leq -5$$

$$H_A: \beta_1 > -5$$

Non-inferiority will be declared if the lower bound of the 2-sided 95% credible interval of the difference between the Test lens and the Control lens is greater than -5, i.e., $P(\beta_1 > -5) \geq 0.975$.

Vision Satisfaction in Bright Lighting

Vision satisfaction in bright lighting will be analyzed using a Bayesian multinomial model for ordinal data. The regression model will include sequence of lens wear, lens type, period and first order carryover effect. Clinical site and subject nested within clinical site will be included as random effects. Other subject characteristics such as age, gender, race and iris category will be included when appropriate.

The Model:

Let $y_{ijklm} = (y_{ijklm1}, y_{ijklm2}, y_{ijklm3}, y_{ijklm4}, y_{ijklm5})$ denote the rating for the m^{th} subject, from the l^{th} site, assigned to the i^{th} study lens in the j^{th} period using the k^{th} sequence. Possible values of y_{ijklm} are 1 if the subject rating of vision satisfaction in bright lighting are X and 0 otherwise (x=1 for Strongly Agree and X=5 for Strongly Disagree, respectively). The likelihood is constructed as follows:

$$y_{ijklm} \sim \text{Multinomial}(P_{ijklm1}, P_{ijklm2}, P_{ijklm3}, P_{ijklm4}, P_{ijklm5})$$

$$P_{ijklm1} = \gamma_{ijklm1}$$

$$P_{ijklmX} = \gamma_{ijklmX} - \gamma_{ijklm(X-1)} \quad 2 \leq n \leq 4$$

$$P_{ijklm5} = 1 - \sum_{x=1,..4} P_{ijklmX}$$

$$\text{Logit}(\gamma_{ijklmX}) = \theta_n + \beta_1 \text{Lens}_{i[j,k]} + \beta_2 \text{Period}_{j1} + \beta_3 \text{Period}_{j2} + \beta_4 \text{Sequence}_k + \beta_5 \text{Carry}_{i[j,k]} + \gamma_l + \delta_{m(l)}$$

Where θ_n is the intercept for levels $n=1,2,3,4$, $P_{ijklm1} = \Pr(\gamma_{ijklm1} = 1)$ with respect to the vision satisfaction in bright lighting item. We assume the random subject effects are independent identically distributed (i.i.d) as $\delta_{m(l)} \sim N(0, \sigma_{subject}^2)$ for subject m nested within clinical site 1 and the random clinical site effects are i.i.d as $\gamma_l \sim N(0, \sigma_{site}^2)$ for $i=1,2$ (lens), $j=1, 2, 3$ (Period) $k=1, 2$ (Sequence) $l=1, \dots, 6$ (Site) $m=1, \dots, n_l$ (subject/site).

In this model, the lens I will be determined by the period j and sequence k, therefore i is denoted as a function of j and k. We define $\text{Lens}_i=0$ for the Control lens and $\text{Lens}_i=1$ for the Test lens. The odds ratio for having higher rating can be written as $OR=e^{\beta_1}$.

Independent vague $N(0, 1000)$ priors for the regression coefficients β_i $i=1, \dots, 5$. For θ_n , we are considering the following priors

$$\begin{aligned} \pi_0(\theta_1) &\sim N(0, 100) \\ \pi_0(\theta_2 | \theta_1) &\sim N(0, 100) I(\theta > 0) \\ \pi_0(\theta_3 | \theta_2) &\sim N(0, 100) I(\theta > 0) \\ \pi_0(\theta_4 | \theta_3) &\sim N(0, 100) I(\theta > 0) \end{aligned}$$

For the variance of random effects independent vague normal priors will also be used; $\sigma_p^2 \sim \text{inverse-gamma}(0.001, 0.001)$ and $\sigma_s^2 \sim \text{inverse-gamma}(0.001, 0.001)$. The Metropolis sample algorithm as implemented in the SAS/Stat MCMC Procedure will be used to estimate the posterior distributions of the unknown parameters. Inferences will be made based on the posterior credible interval for the relevant parameters.

Hypothesis Testing

The null and alternative hypotheses for superiority are as follows:

$$\begin{aligned} H_0 & OR \leq 0.67 \\ H_A & OR > 0.67 \end{aligned}$$

Where OR represent the odds ratio of having higher rating of the Test lens compared to the Control lens. Non-inferiority will be declared if the lower bound of the 2-sided 95% credible confidence interval is above 0.67, i.e. $P(OR=e^{\beta_1}>0.67|y)=0.975$.

Primary Safety Analysis:

Lens Fit Acceptance

Lens fit acceptance will be analyzed using a Bayesian Logistic regression random-effects model to estimate the proportion of subjects' eyes wearing the Test lens having acceptable lens fitting. The regression model will include period, sequence of lens wear and first order carryover effect as fixed effects. Site, subject nested within site and eye within subject within site will be included in the model as random effects.

Let $y_{ijklm}=1$ if an acceptable lens fit is observed for eyes wearing the Test lens only and $y_{ijklm}=0$ otherwise for the m^{th} subject, from the l^{th} site, for the i^{th} eye in the j^{th} period using the k^{th} sequence.

$$y_{ijklm} \sim \text{Binary} (p_{ijklm})$$

$$p_{ijklm} = \frac{\exp(\text{Numerator})}{1 + \exp(\text{Numerator})}$$

$$\text{Numerator} = \beta_0 + \beta_1 \text{Lens}_{i[j,k]} + \beta_3 \text{period}_{j1} + \beta_4 \text{period}_{j2} + \beta_5 \text{sequence}_k + \beta_6 \text{Carry1}_{i[j,k]} + \gamma_1 + \delta_{m(l)} + \alpha_{j(m(l))}$$

We assume the random subject eye effects are i.i.d as $\alpha_{j(m(l))} \sim N(0, \sigma_{eye}^2)$ for eye nested within subject within clinical site, the random effect for subject are i.i.d as $\delta_{m(l)} \sim N(0, \sigma_{subject}^2)$ for subject nested within clinical site and the random clinical site effects are i.i.d as $\gamma_m \sim N(0, \sigma_{site}^2)$ for $i=1, 2$ (eye), $j=1, 2, 3$ (period) $k=1, 2$ (Sequence) $l=1, \dots, 6$ (Site) $m=1, \dots, n_l$ (subject/site).

For the β coefficients, independent non-informative priors $N(0, 10000)$ will be used. For the variance of random effects of $\sigma_{eye}^2, \sigma_{subject}^2$ and σ_{site}^2 , independent non-informative conjugate priors inverse-gamma (0.001, 0.001) will be used. The Metropolis-Hastings algorithm as implemented in the SAS/STAT 14.2 PROC MCMC procedure will be used to estimate posterior distributions of the unknown parameters. Inferences will be made based on the posterior credible interval for the relevant parameters.

Hypothesis Testing

With respect to Acceptable lens fit the null and alternative hypothesis for superiority is as follows:

$$\begin{aligned} H_0 &= p \leq 0.90 \\ H_1 &= p > 0.90 \end{aligned}$$

Where, p represents the proportion of subject eyes that achieve acceptable fit for the Test lens.

Success for acceptable fit will be declared if the lower bound of the 2-sided 95% credible interval of the proportion is greater than 0.90; i.e. $P(P > 0.90) \geq .975$.

If the full planned model fails to converge, reduced versions may be considered.

Primary safety analysis:

Slit Lamp Findings

Grade 3 or higher slit lamp findings will be analyzed using a Bayesian Logistic regression random-effects model to compare the Test and Control lenses. The regression model will include baseline slit lamp findings, lens type, period, sequence of lens wear and first order carryover effect. Site, subject nested within site and eye within subject within site will be included in the model as random effects.

Let $y_{ijklmn}=1$ if a Grade 3 or higher SLF is observed and $y_{ijklm}=0$ otherwise for the n^{th} subject, from the m^{th} site, assigned to the i^{th} study lens for the j^{th} eye in the k^{th} period using the l^{th} sequence.

$$y_{ijklmn} \sim \text{Binary}(p_{ijklmn})$$

$$p_{ijklmn} = \frac{\exp(\text{Numerator})}{1 + \exp(\text{Numerator})}$$

$$\begin{aligned} \text{Numerator} = & \beta_0 + \beta_1 \text{Lens}_{ij[k,l]} + \beta_2 \text{Baseline SLF}_1 + \beta_3 \text{period}_{k1} + \beta_4 \text{period}_{k2} + \\ & \beta_5 \text{sequence}_k + \beta_6 \text{Carry1}_{i[k,l]} + \gamma_m + \delta_{n_{(m)}} + \alpha_{j_{(n(m))}} \end{aligned}$$

We assume the random subject eye effects are i.i.d as $\alpha_{j_{(n(m))}} \sim N(0, \sigma_{\text{eye/subject/site}}^2)$ for eye nested within subject within clinical site, the random effect for subject are i.i.d as $\delta_{n_{(m)}} \sim N(0, \sigma_{\text{subject/site}}^2)$ for subject nested within clinical site and the random clinical site effects are i.i.d as $\gamma_m \sim N(0, \sigma_{\text{site}}^2)$ for $i=1,2$ (lens), $j=1, 2$ (eye) , $k=1, 2, 3$ (period) $l=1, 2$ (Sequence) $m=1, \dots, 6$ (Site) $m=1, \dots, n_m$ (subject/site).

In this model, the lens I will be determined by the period k and sequence l, therefore i is denoted as a function of j and k. We define $\text{Lens}_i=0$ for the Control lens and $\text{Lens}_i=1$ for the Test lens. The odds ratio for having a lower rate of SLFs can be written as $OR=e^{\beta_1}$.

For the β coefficients, independent non-informative priors $N(0, 10000)$ will be used. For the variance of random effects of $\sigma_{\text{eye}}^2, \sigma_{\text{subject}}^2$ and σ_{site}^2 , independent non-informative conjugate priors inverse-gamma (0.001, 0.001) will be used. The Metropolis-Hastings algorithm as

implemented in the SAS/STAT 14.2 PROC MCMC procedure will be used to estimate posterior distributions of the unknown parameters. Inferences will be made based on the posterior credible interval for the relevant parameters.

Hypothesis Testing

The null and alternative hypothesis for Non-inferiority is as follows:

$$H_0: \text{OR} \geq 2$$

$$H_A: \text{OR} < 2$$

Where OR represents the odds of the Test lens having a lower rate of Grade 3 SLFs compared to the Control lens. Non-inferiority will be established if the upper limit of the 2-sided 95% credible interval is below 2, i.e. $P(\text{OR} < 2 | y) = 0.975$.

If the full planned model fails to converge, reduced versions may be considered. In the event that the number of Grade 3 or higher SLFs is too small Grade 2 or higher SLFs will be analyzed and tested as described above.

14.6. Secondary Analysis

Secondary efficacy analysis:

CLUE Overall Quality of Vision and Handling

CLUE Overall Quality of Vision and Handling will be analyzed and test in the exact same manner as CLUE Overall Comfort.

Overall Quality of Vision Indoors

Overall quality of vision indoors will be analyzed and tested in the same manner as vision satisfaction in bright lighting. The only difference between the two models are the response set used to assess each item. For this model,

Let $y_{ijklm} = (y_{ijklm1}, y_{ijklm2}, y_{ijklm3}, y_{ijklm4}, y_{ijklm5})$ denote the rating for the m^{th} subject, from the l^{th} site, assigned to the i^{th} study lens in the j^{th} period using the k^{th} sequence. Possible values of y_{ijklm} are 1 if the subject rating of overall quality of vision indoors are X and 0 otherwise (x=1 for Excellent and X=5 for Poor, respectively).

Secondary safety analysis:

Not Applicable

14.7. Other Exploratory Analyses

Other efficacy analysis:

Lens preference, driving performance, indoor performance and outdoor performance will be descriptively summarized. Exploratory analysis on these items may be conducted.

Other safety analysis:

Not Applicable

14.8. Interim Analysis

An interim analysis will be conducted after the first 100 subjects complete the first wearing period or 4-weeks post first subject first visit. The interim analysis will consist of descriptively summarizing safety and efficacy parameters. The results will be reviewed with historical data with lenses from the pilot line before the design validation study, [REDACTED] is initiated. The results will be communicated to study responsible clinician, project lead and platform lead.

14.9. Procedure for Handling Missing Data and Drop-Outs

Missing or spurious values will not be imputed. The count of missing values will be included in the summary tables and listings.

Subject dropout is expected to be one of the main reasons of missing data in this clinical trial. Past clinical trials don't provide the evidence that subject dropout is systematic or not-at-random. To evaluate the impact of missing data, sensitivity analysis will be conducted using multiple imputation methods if the proportion of subject dropout is greater than the 15%. The SAS/STAT procedures PROC MI and PROC MIANALYZE will be utilized with a parametric regression method used to make at least 10 imputations.

14.10. Procedure for Reporting Deviations from Statistical Plan

The analysis will be conducted according to that specified in above sections. There are no known reasons for which it is planned to deviate from these analysis methods. If for any reason a change is made, the change will be documented in the study report along with a justification for the change.

15. DATA HANDLING AND RECORD KEEPING/ARCHIVING

15.1. Electronic Case Report Form/Data Collection

The data for this study will be captured on electronic case report forms (eCRFs) using an EDC system (Bioclinica). An authorized data originator will enter study data into the eCRFs using the EDC system. Data collected on equipment that is not captured in EDC will be formatted to the specification of the JJVC database manager and sent to JJVC for analysis.

External Date Sources for this study include: If external Data is collected outside of EDC, enter vendor contact information in this section of the protocol and type of external data collected. Enter information for each external data source.

- Vendor Name:
- Vendor Address:
- Vendor Contact:
- Phone:
- Email:
- Type of Data collected:

The clinical data will be recorded on dedicated eCRFs specifically designed to match the study procedures for each visit. Once completed, the eCRFs will be reviewed for accuracy and

completeness and signed by the Investigator. The sponsor or sponsor's representatives will be authorized to gain access to the subject recordation for the purposes of monitoring and auditing the study.

Edit checks, electronic queries, and audit trails are built into the system to ensure accurate and complete data collection. Data will be transmitted from the clinical site to a secure central database as forms are completed or updated, ensuring information accuracy, security, and confidentiality. After the final database lock, the Investigator will be provided with Individual Patient Profiles (IPP) including the full audit trail on electronic media in PDF format for all of the study data. The IPP must be retained in the study files as a certified copy of the source data for the study.

The content and structure of the eCRFs are compliant with ISO14155:2011.

15.2. Subject Record

At a minimum, subject record should be available for the following:

- subject identification
- eligibility
- study identification
- study discussion
- provision of and date of informed consent
- visit dates
- results of safety and efficacy parameters as required by the protocol
- a record of all adverse events
- follow-up of adverse events
- medical history and concomitant medication
- test article receipt/dispensing/return records
- date of study completion
- reason for early discontinuation of test article or withdrawal from the study, if applicable

The subject record is the eCRF or an external record. The author of an entry in the subject record must be identifiable. The first point of entry is considered to be the source record.

Adverse event notes must be reviewed and initialed by the Investigator.

16. DATA MANAGEMENT

16.1. Access to Source Data/Document

The Investigator/Institution will permit trial-related monitoring, audits, IEC/IRB review and regulatory inspection(s) by providing direct access to source data/documents. Should the clinical site be contacted for an audit by an IEC/IRB or regulatory authority, JJVC must be contacted and notified in writing within 24 hours.

16.2. Confidentiality of Information

Information concerning the investigational product and patent application processes, scientific data or other pertinent information is confidential and remains the property of JJVC. The Investigator may use this information for the purposes of the study only. It is understood by the Investigator that JJVC will use information developed in this clinical study in connection with the development of the investigational product and therefore may disclose it as required to other clinical investigators and to regulatory agencies. In order to allow the use of the information derived from this clinical study, the Investigator understands that he/she has an obligation to provide complete test results and all data developed during this study to the Sponsor.

16.3. Data Quality Assurance

Steps will be taken to ensure the accuracy and reliability of data, include the selection of qualified investigators and appropriate clinical sites and review of protocol procedures with the Principal Investigator. The Principal Investigator, in turn, must ensure that all Sub-Investigators and clinical site personnel are familiar with the protocol and all study-specific procedures and have appropriate knowledge of the study article.

Training on case report form completion will be provided to clinical site personnel before the start of the study. The Sponsor will review case report forms for accuracy and completeness remotely during the conduct of the study, during monitoring visits, and after transmission to data management. Any data discrepancies will be resolved with the Investigator or designee, as appropriate.

Quality Assurance representatives from JJVC may visit clinical sites to review data produced during the study and to assess compliance with applicable regulations pertaining to the conduct of clinical trials. The clinical sites will provide direct access to study-related source data/documents and reports for the purpose of monitoring and auditing by JJVC and for inspection by local and regulatory authorities.

17. MONITORING

The study monitors will maintain close contact with the Principal Investigator and the Investigator's designated clinical site personnel. The monitor's responsibilities will include:

- Ensuring that the investigation is being conducted according to the protocol, any subsequent amendments, and regulatory requirements are maintained
- Ensuring the rights and wellbeing of subjects are protected
- Ensuring adequate resources, including facilities, laboratories, equipment, and qualified clinical site personnel
- Ensuring that protocol deviations are documented with corrective action plans, as applicable
- Ensuring that the clinical site has sufficient test article and supplies
- Clarifying questions regarding the study
- Resolving study issues or problems that may arise

- Reviewing of study records and source documentation verification in accordance with the monitoring plan

18. ETHICAL AND REGULATORY ASPECTS

18.1. Study-Specific Design Considerations

Potential subjects will be fully informed of the risks and requirements of the study and, during the study, subjects will be given any new information that may affect their decision to continue participation. Subjects will be told that their consent to participate in the study is voluntary and may be withdrawn at any time with no reason given and without penalty or loss of benefits to which they would otherwise be entitled. Only subjects who are fully able to understand the risks, benefits, and potential adverse events of the study, and provide their consent voluntarily will be enrolled.

18.2. Investigator Responsibility

The Principal Investigator is responsible for ensuring that the clinical study is performed in accordance with the signed agreement, the investigational plan, Section 4 of the ICH E6 guidelines on Good Clinical Practice (GCP), and applicable regulatory requirements. GCP is an international ethical and scientific quality standard for designing, conducting, recording, and reporting studies that involve the participation of human subjects. Compliance with this standard provides public assurance that the rights, safety, and well-being of study subjects are protected, consistent with the principles of the Declaration of Helsinki 64th WMA General Assembly 2013 and that the clinical study data are credible. The Investigator must maintain clinical study files in accordance with Section 8 of the ICH E6 guidelines on Good Clinical Practice (GCP), and applicable regulatory requirements.

18.3. Independent Ethics Committee or Institutional Review Board (IEC/IRB)

Before the start of the study, the Investigator (or Sponsor when applicable) will provide the IEC/IRB with current and complete copies of the following documents (where applicable):

- Final protocol and, if applicable, amendments
- Sponsor-approved informed consent form (and any other written materials to be provided to the subjects)
- Investigator's Brochure (or equivalent information) and amendments
- Sponsor-approved subject recruitment materials
- Information on compensation for study-related injuries or payment to subjects for participation in the study
- Investigator's curriculum vitae, clinical licenses, or equivalent information (unless not required, as documented by IEC/IRB)
- Information regarding funding, name of the Sponsor, institutional affiliations, other potential conflicts of interest, and incentives for subjects
- Any other documents that the IEC/IRB requests to fulfill its obligation

This study will be undertaken only after IEC/IRB has given full approval of the final protocol, amendments (if any), the informed consent form, applicable recruiting materials, and subject

compensation programs, and the Sponsor has received a copy of this approval. This approval letter must be dated and must clearly identify the documents being approved.

During the study the Investigator (or Sponsor when applicable) will send the following documents to the IEC/IRB for their review and approval, where appropriate:

- Protocol amendments
- Revision(s) to informed consent form and any other written materials to be provided to subjects
- If applicable, new or revised subject recruitment materials approved by the Sponsor
- Revisions to compensation for study-related injuries or payment to subjects for participation in the study
- Investigator's Brochure amendments or new edition(s)
- Summaries of the status of the study (at least annually or at intervals stipulated in guidelines of the IEC/IRB)
- Reports of adverse events that are serious, unanticipated, and associated with the test articles, according to the IRB's requirements
- New information that may adversely affect the safety of the subjects or the conduct of the study
- Major protocol deviations as required by the IEC/IRB
- Report of deaths of subjects under the Investigator's care
- Notification if a new Investigator is responsible for the study at the clinical site
- Any other requirements of the IEC/IRB

For protocol amendments that increase subject risk, the amendment and applicable informed consent form revisions must be submitted promptly to the IEC/IRB for review and approval before implementation of the change(s).

At least once a year, the IEC/IRB will review and reapprove this clinical study. This request should be documented in writing.

At the end of the study, the Investigator (or Sponsor where required) will notify the IEC/IRB about the study completion. Documentation of this notification must be retained at the clinical site and a copy provided to the CRO or Sponsor as applicable.

18.4. Informed Consent

Each subject must give written consent according to local requirements after the nature of the study has been fully explained. The consent form must be signed before performance of any study-related activity. The consent form that is used must be approved by both the Sponsor and by the reviewing IEC/IRB. The informed consent is in accordance with principles that originated in the Declaration of Helsinki, current ICH and GCP guidelines, applicable regulatory requirements, and Sponsor policy.

Before entry into the study, the Investigator or an authorized member of the clinical site personnel must explain to potential subject the aims, methods, reasonably anticipated benefits, and potential hazards of the study, and any discomfort it may entail. Subjects will be informed

that their participation is voluntary and that they may withdraw consent to participate at any time.

The subject will be given sufficient time to read the informed consent form and the opportunity to ask questions. After this explanation and before entry into the study, consent should be appropriately recorded by means of the subject's dated signature. After having obtained the consent, a copy of the informed consent form must be given to the subject.

18.5. Privacy of Personal Data

The collection, processing and disclosure of personal data and medical information related to the Study Subject, and personal data related to Principal Investigator and any clinical site personnel (e.g., name, clinic address and phone number, curriculum vitae) is subject to compliance with the Data Protection Act of 1998 and other applicable personal data protection and security laws and regulations. Appropriate measures will be employed to safeguard these data, to maintain the confidentiality of the person's related health and medical information, to properly inform the concerned persons about the collection and processing of their personal data, to grant them reasonable access to their personal data and to prevent access by unauthorized persons.

All information obtained during the course of the investigation will be regarded as confidential. All personal data gathered in this trial will be treated in strictest confidence by Investigators, monitors, Sponsor's personnel and IEC/IRB. No data will be disclosed to any third party without the express permission of the subject concerned, with the exception of Sponsor personnel (monitor, auditor), IEC/IRB and regulatory organizations in the context of their investigation related activities that, as part of the investigation will have access to the CRFs and subject records.

The collection and processing of personal data from subjects enrolled in this study will be limited to those data that are necessary to investigate the efficacy, safety, quality, and utility of the investigational product(s) used in this study.

These data must be collected and processed with adequate precautions to ensure confidentiality and compliance with applicable data privacy protection laws and regulations.

The Sponsor ensures that the personal data will be:

- processed fairly and lawfully
- collected for specified, explicit, and legitimate purposes and not further processed in a way incompatible with these purposes
- adequate, relevant, and not excessive in relation to said purposes
- accurate and, where necessary, kept current

Explicit consent for the processing of personal data will be obtained from the participating subject before collection of data. Such consent should also address the transfer of the data to other entities and to other countries.

The subject has the right to request through the Investigator access to his personal data and the right to request rectification of any data that are not correct or complete. Reasonable steps

should be taken to respond to such a request, taking into consideration the nature of the request, the conditions of the study, and the applicable laws and regulations.

Appropriate technical and organizational measures to protect the personal data against unauthorized disclosures or access, accidental or unlawful destruction, or accidental loss or alteration must be put in place. Sponsor personnel whose responsibilities require access to personal data agree to keep the identity of study subjects confidential

19. STUDY RECORD RETENTION

In compliance with the ICH/GCP guidelines, the Investigator/Institution will maintain all CRFs and all subject records that support the data collected from each subject, as well as all study documents as specified in ICH/GCP Section 8, Essential Documents for the Conduct of a Clinical Trial, and all study documents as specified by the applicable regulatory requirement(s). The Investigator/Institution will take measures to prevent accidental or premature destruction of these documents.

Essential documents must be retained until at least 2 years after the last approval of a marketing application in an ICH region and until there are no pending or contemplated marketing applications in an ICH region or until at least 2 years have elapsed since the formal discontinuation of clinical development of the investigational product. These documents will be retained for a longer period if required by the applicable regulatory requirements or instructed by the Sponsor. It is the responsibility of the Sponsor to inform the Investigator/Institution as to when these documents no longer need to be retained.

If the responsible Investigator retires, relocates, or for other reasons withdraws from the responsibility of keeping the study records, custody must be transferred to a person who will accept the responsibility. The Sponsor must be notified in writing of the name and address of the new custodian. Under no circumstance shall the Investigator relocate or dispose of any study documents before having obtained written approval from the Sponsor.

If it becomes necessary for the Sponsor or the appropriate regulatory authority to review any documentation relating to this study, the Investigator must permit access to such reports.

If the Investigator has a question regarding retention of study records, he/she should contact JJVC.

20. FINANCIAL CONSIDERATIONS

Remuneration for study services and expenses will be set forth in detail in the Investigator's Research Agreement. The Research Agreement will be signed by the Principal Investigator and a JJVC management representative prior to study initiation.

Case Report Forms will be completed in real time according to the study procedures specified in the study protocol. Case Report Forms should be completed and reviewed and signed as applicable by the Investigator within 3 days of visit completion. Data queries must be

addressed with complete responses within 3 days of generation. JJVC reserves the right to withhold remuneration until these activities are addressed.

JJVC reserves the right to withhold remuneration for costs associated with protocol violations such as:

- Continuing an ineligible subject in the study
- Scheduling a study visit outside the subject's acceptable visit range

21. PUBLICATION

This study will be registered on ClinicalTrials.gov.

22. REFERENCES

1. International Conference on Harmonization Good Clinical Practice E6 (ICH-GCP): <http://www.ich.org/products/guidelines/efficacy/article/efficacy-guidelines.html>
2. ISO 14155:2011: Clinical investigation of medical devices for human subjects – Good clinical practice.
3. Declaration of Helsinki – Ethical principles for Medical Research Involving Human Subjects. <http://www.wma.net/en/30publications/10policies/b3/index.html>.
4. United States (US) Code of Federal Regulations (CFR). In <https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR> (Ed.).
5. Wirth RJ, Edwards M, Henderson M, et al., Development of the Contact Lens User Experience: CLUE Scales. *Optom Vis Sci*. 2016;93(8):801-808.
6. Buch J. [\[REDACTED\]](#). *Senofilcon-based contact lens containing photochromic dye MXP7-1911 in a 1.2% concentration throughout the entire lens with IPA (Control lens), and PG (Test lens) hydration*. 2016.
7. Buch J. [\[REDACTED\]](#). *Confirmation of an investigational lens pilot line clinical performance*. 2016.
8. Buch J. [\[REDACTED\]](#). *Senofilcon-based soft contact lens containing 0.75% MXP7-1911 photochromic additive (Test) and senofilcon-based soft contact lens containing 1% MXP7-1911 photochromic additive (Control)*. 2016.
9. Stroup, WS. *Generalized linear mixed models*. 2012, Boca Raton: CRC Press.
10. SAS Institute Inc: SAS® 9.4 Statements: Reference, Third Edition. Cary, NC: SAS Institute Inc; 2014.
11. SAS Institute Inc. 2016. SAS/STAT® 14.2 User's Guide. Cary, NC: SAS Institute Inc.

APPENDIX A: PATIENT REPORTED OUTCOMES (STUDY QUESTIONNAIRES)

















APPENDIX B: PATIENT INSTRUCTION GUIDE

Patient Instruction Guide will be provided separately.

APPENDIX C: PACKAGE INSERT (APPROVED PRODUCT)

APPENDIX D: CLINICAL TECHNICAL PROCEDURES (CTP)

- Limbal and Conjunctival (Bulbar) Redness
- Expanded Sodium Fluorescein Corneal Staining
- Lens Fitting Characteristics
- Subject Reported Ocular Symptoms/Problems
- Front and Back Surface Lens Deposit Grading Procedure
- Determination of Distance Spherocylindrical Refractions
- Biomicroscopy Scale
- Distance and Near Visual Acuity Evaluation
- Distance logMAR Visual Acuity Measurement Procedure
- Patient Reported Outcomes
- Visual Acuity Chart Luminance and Room Illumination Testing
- qCSF Contrast Sensitivity

████████, LIMBAL AND CONJUNCTIVAL (BULBAR) REDNESS

██████████ Limbal & Conjunctival (Bulbar) Redness

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■ [REDACTED]

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■ [REDACTED]

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[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

EXPANDED SODIUM FLUORESCEIN CORNEAL STAINING

[REDACTED] **Expanded Sodium Fluorescein Corneal Staining**

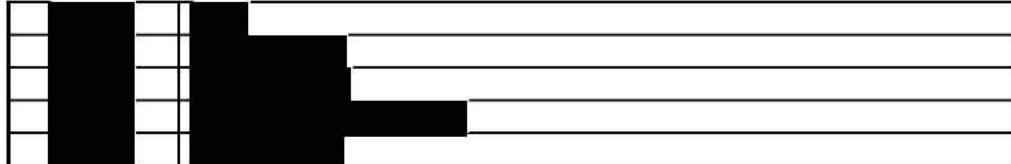
[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]



[REDACTED] [REDACTED]



[REDACTED]









[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

■ LENS FITTING CHARACTERISTICS

Lens Fitting Characteristics

[REDACTED] [REDACTED] [REDACTED]

[REDACTED] [REDACTED]

ANSWER

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██████████ ██████████

[REDACTED] [REDACTED]

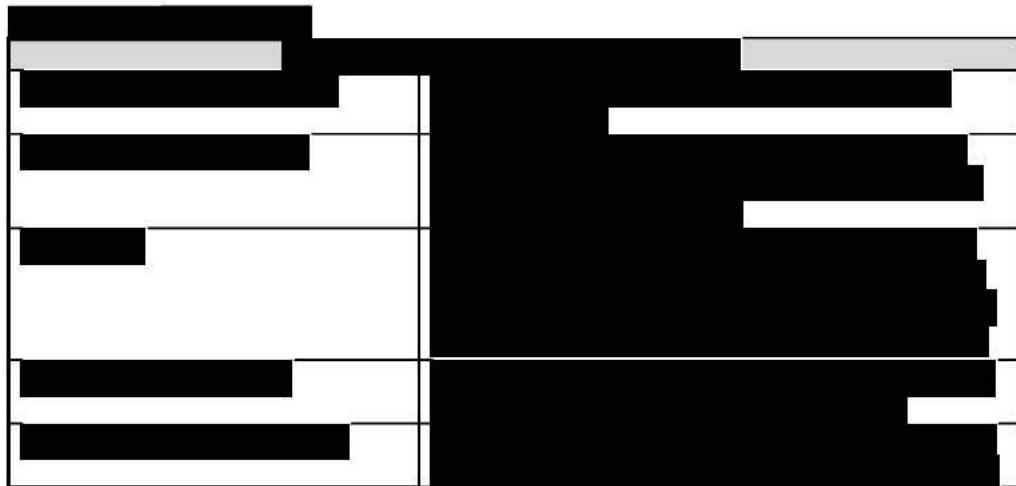
100% of the time, the system is able to correctly identify the target class for the test samples.

Treatment	Number of patients
None	1000
Radiotherapy	500
Chemotherapy	300
Surgery	200

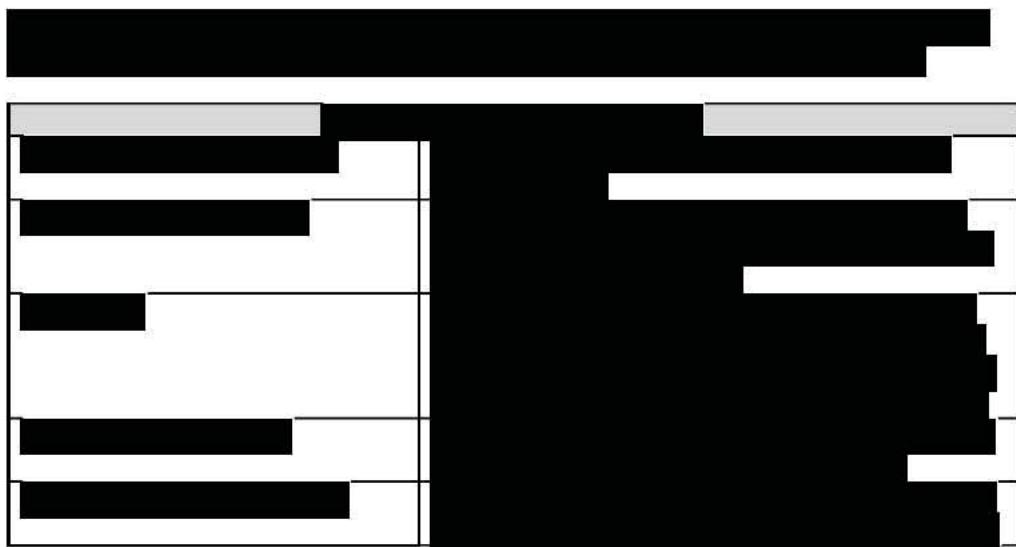
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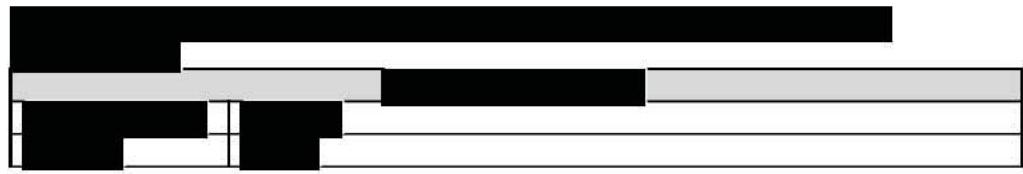


[REDACTED]



[REDACTED]







██████████ SUBJECT REPORTED OCULAR SYMPTOMS/PROBLEMS

Subject Reported Ocular Symptoms/Problems

11. **What is the primary purpose of the *Journal of Clinical Endocrinology and Metabolism*?**

[REDACTED] [REDACTED]

[REDACTED] [REDACTED]

**FRONT AND BACK SURFACE LENS DEPOSIT GRADING
PROCEDURE**

Front and Back Surface Lens Deposit Grading Procedure

This figure is a 2D bar chart consisting of several horizontal rows of black bars on a white background. The bars are of varying lengths and are positioned in several horizontal rows. The first four rows have thin black outlines. The fifth row has thick black outlines and includes a vertical grid on the left side. The bars in the fifth row are significantly longer than those in the other rows.

[REDACTED]



DETERMINATION OF DISTANCE SPHEROCYLINDRICAL REFRACTIONS

Determination of Distance Spherocylindrical Refractions

[REDACTED] [REDACTED] [REDACTED]

[REDACTED] [REDACTED]

18. **What is the primary purpose of the *Journal of Clinical Endocrinology and Metabolism*?**

[REDACTED]

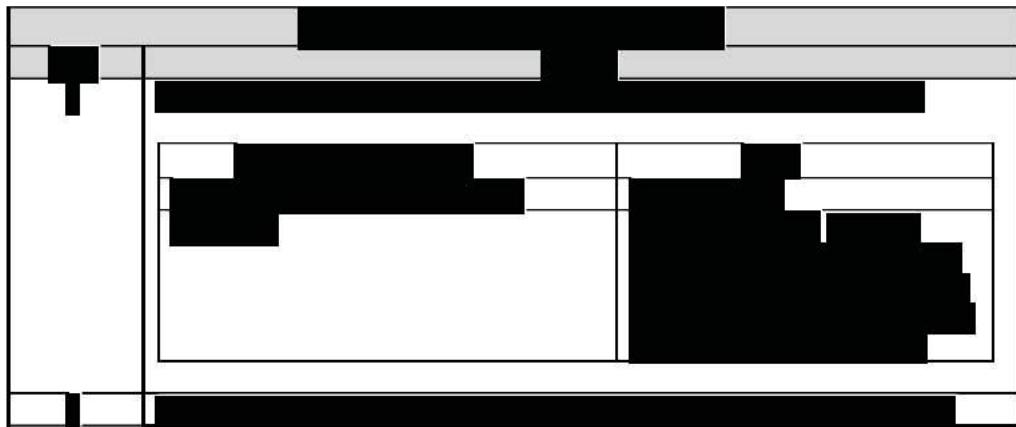
© 2013 Pearson Education, Inc.

[REDACTED]

This figure is a complex black and white graphic, possibly a scan of a technical drawing or a specific type of data visualization. It features several horizontal bars of varying lengths and vertical lines. The diagram is composed of black, white, and gray areas, with some sections containing small black shapes. The overall structure is intricate and lacks a clear, descriptive title or subtitle.





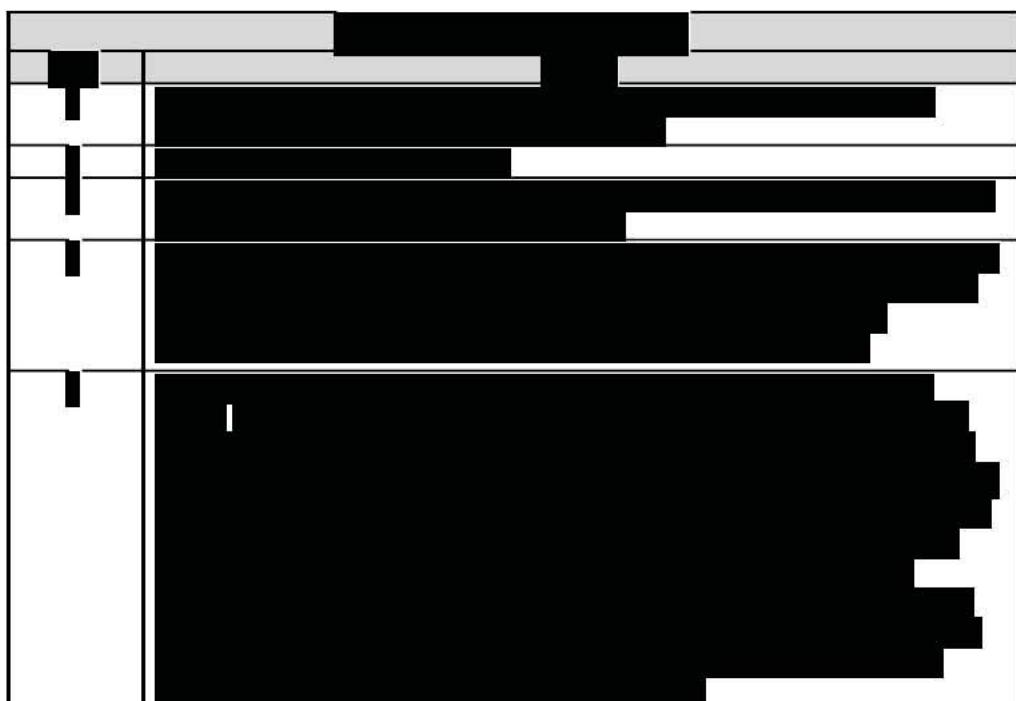


[REDACTED]

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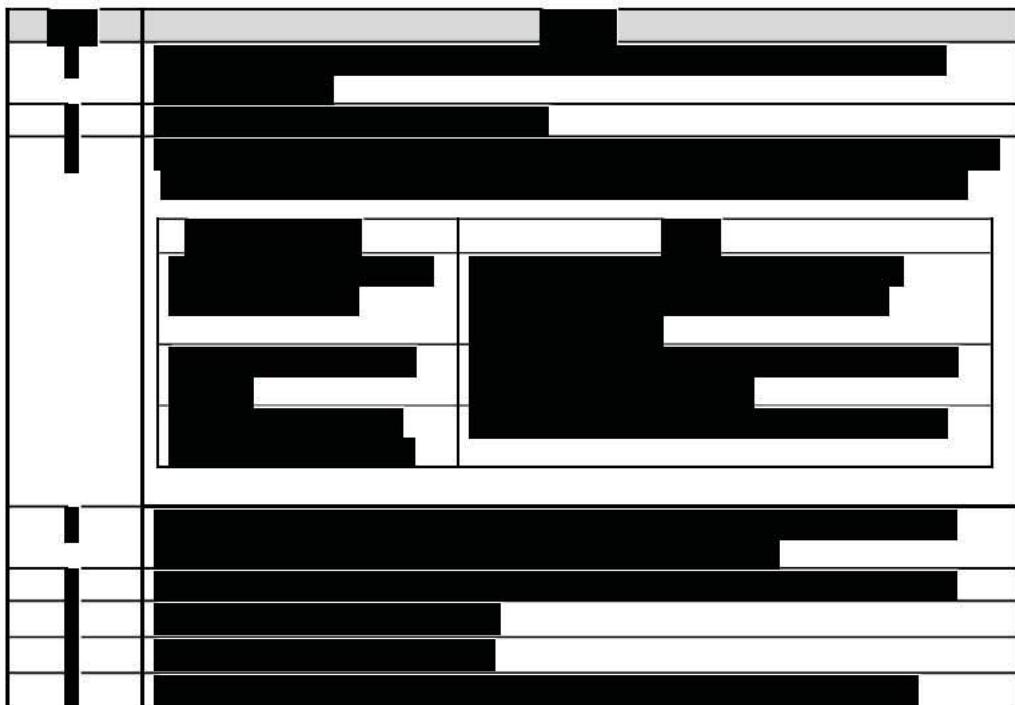
[REDACTED]

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[REDACTED]



[REDACTED], BIOMICROSCOPY SCALE

Biomicroscopy Scale

This figure consists of a 4x4 grid of 16 small images, each with a black or white border. The images appear to be sequential frames of a process. The first three rows have black borders, while the fourth row has white borders. The images show a progression from a white background to a black background, and then from a black background to a white background. The images are mostly black and white, with some gray areas and white text.

[REDACTED]

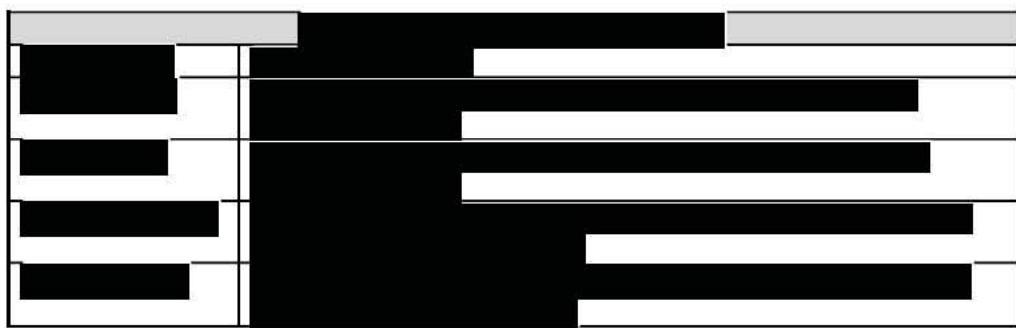


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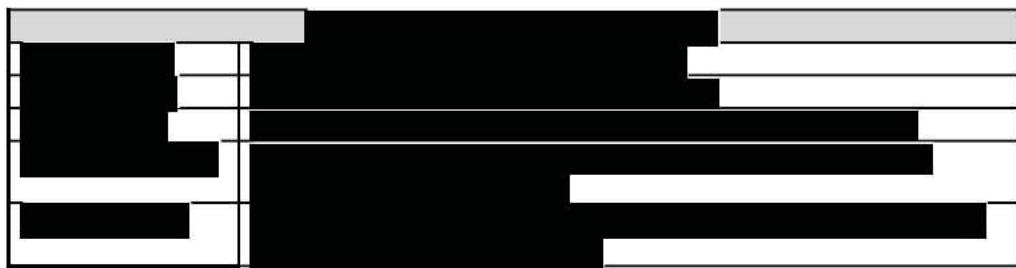




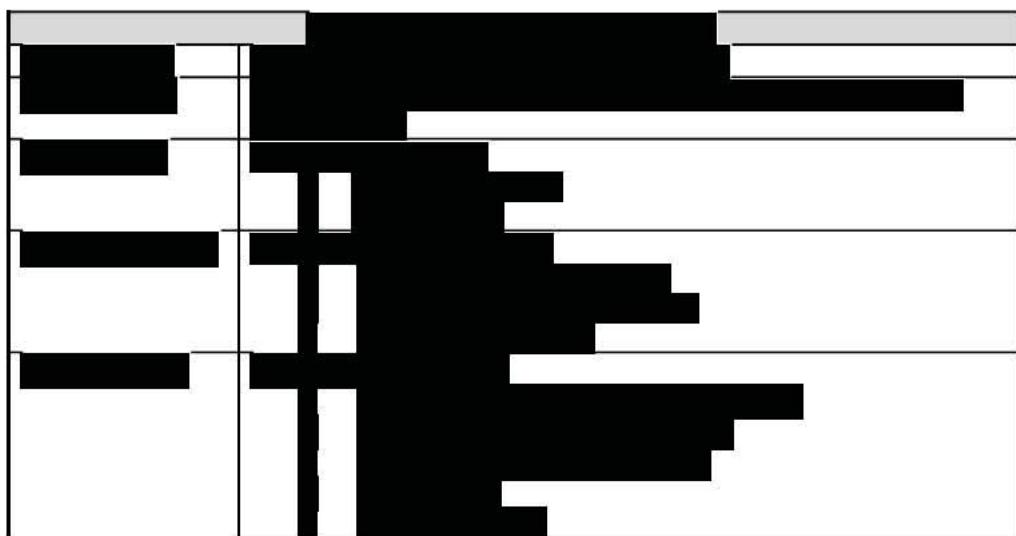
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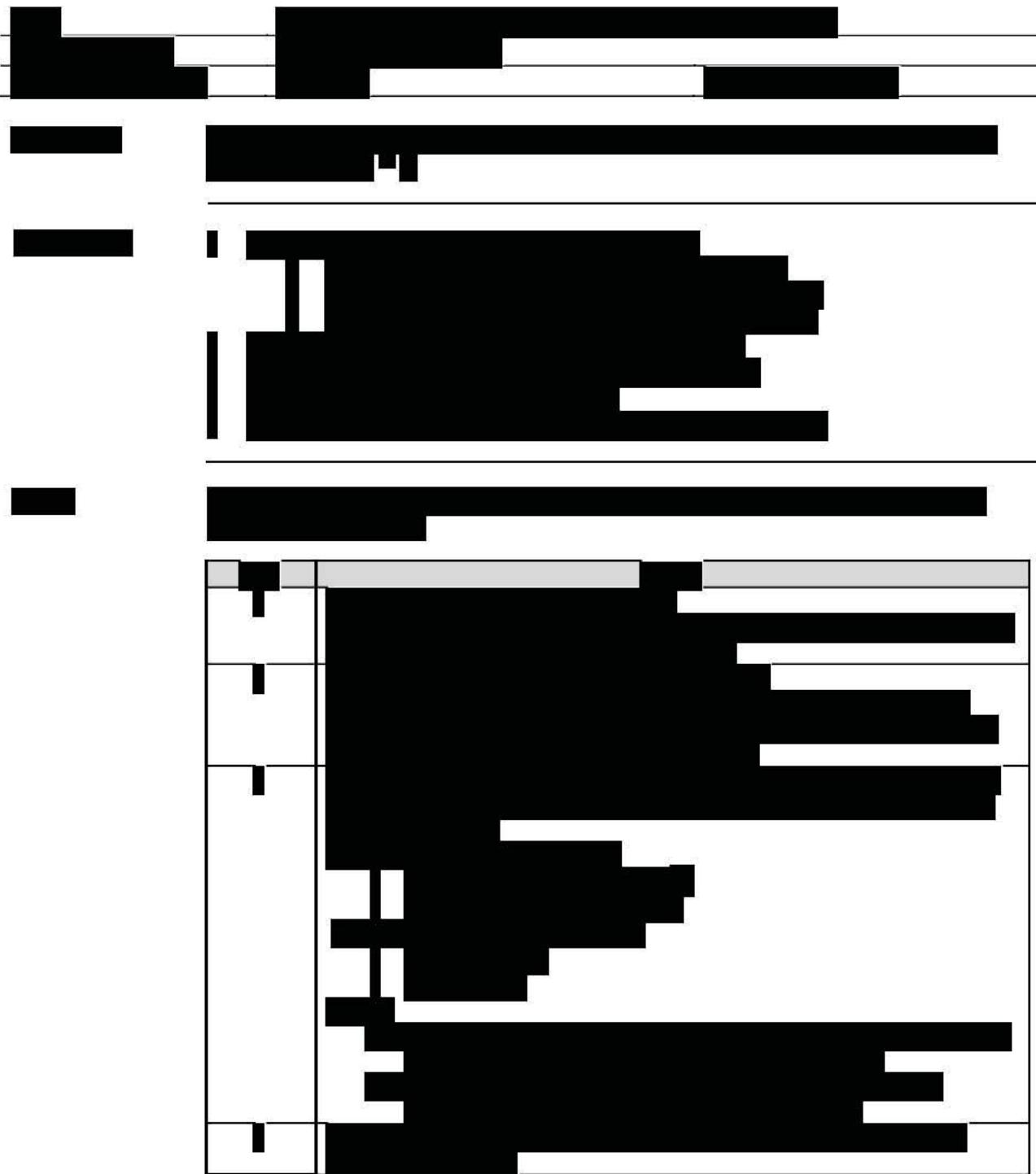
██████████ DISTANCE AND NEAR VISUAL ACUITY EVALUATION

The figure consists of four horizontal panels, each containing a series of black horizontal bars of varying lengths. The first panel is mostly black with a few white segments. The second panel has a large white vertical rectangle on the left. The third panel has a large white vertical rectangle on the left and includes a legend with three colored squares (light gray, dark gray, black). The fourth panel is mostly black with a few white segments.

A horizontal bar chart with four data series. The first series (black) has a total length of approximately 10 units. The second series (white) has a total length of approximately 11 units. The third series (black) has a total length of approximately 13 units. The fourth series (white) has a total length of approximately 10 units. The bars are composed of multiple segments, with the first segment being significantly longer than the others in each series.

The image consists of a series of horizontal black bars of varying lengths and positions, set against a white background. The bars are arranged in a grid-like pattern, with some rows having more bars than others. The lengths of the bars vary significantly, from very short segments to long, continuous lines. The positions of the bars are not uniform, creating a sense of depth and movement. The overall effect is abstract and digital, resembling a binary code or a stylized barcode. The high contrast between the black bars and the white background makes the image appear sharp and graphic.

**DISTANCE LOGMAR VISUAL ACUITY MEASUREMENT
PROCEDURE**







[REDACTED], PATIENT REPORTED OUTCOMES

Patient Reported Outcomes

The figure consists of eight horizontal panels, each containing a bar chart. The panels are arranged vertically. Each panel has a y-axis with tick marks and labels. The x-axis for each panel is represented by a series of horizontal bars. The length of each bar corresponds to a value for a specific category. In the first panel, the bars are black and extend to the right. In the second panel, the bars are black and extend to the right. In the third panel, the bars are black and extend to the right. In the fourth panel, the bars are black and extend to the right. In the fifth panel, the bars are black and extend to the right. In the sixth panel, the bars are black and extend to the right. In the seventh panel, the bars are black and extend to the right. In the eighth panel, the bars are black and extend to the right.

**VISUAL ACUITY CHART LUMINANCE AND ROOM ILLUMINATION
TESTING**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

██████████ : ██████████
██████████ : ██████████

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

Symptom	Baseline (%)	12 Weeks (%)
Pain	85	15
Fatigue	80	10
Nausea	75	10
Constipation	65	10
Diarrhea	60	10

Symptom	Baseline (%)	12 Weeks (%)
Pain	85	15
Fatigue	75	10
Nausea	65	10
Constipation	55	10
Diarrhea	50	10

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

██████████ qCSF CONTRAST SENSITIVITY

10 of 10

[REDACTED]

111

[REDACTED]

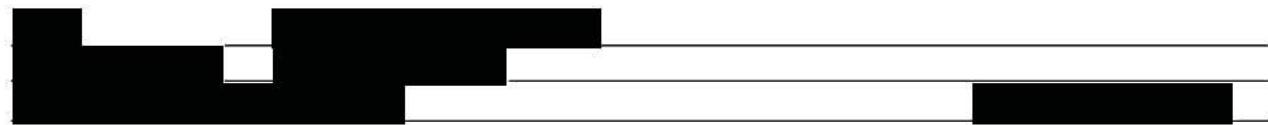
For more information, contact the Office of the Vice President for Research and the Office of the Vice President for Student Affairs.

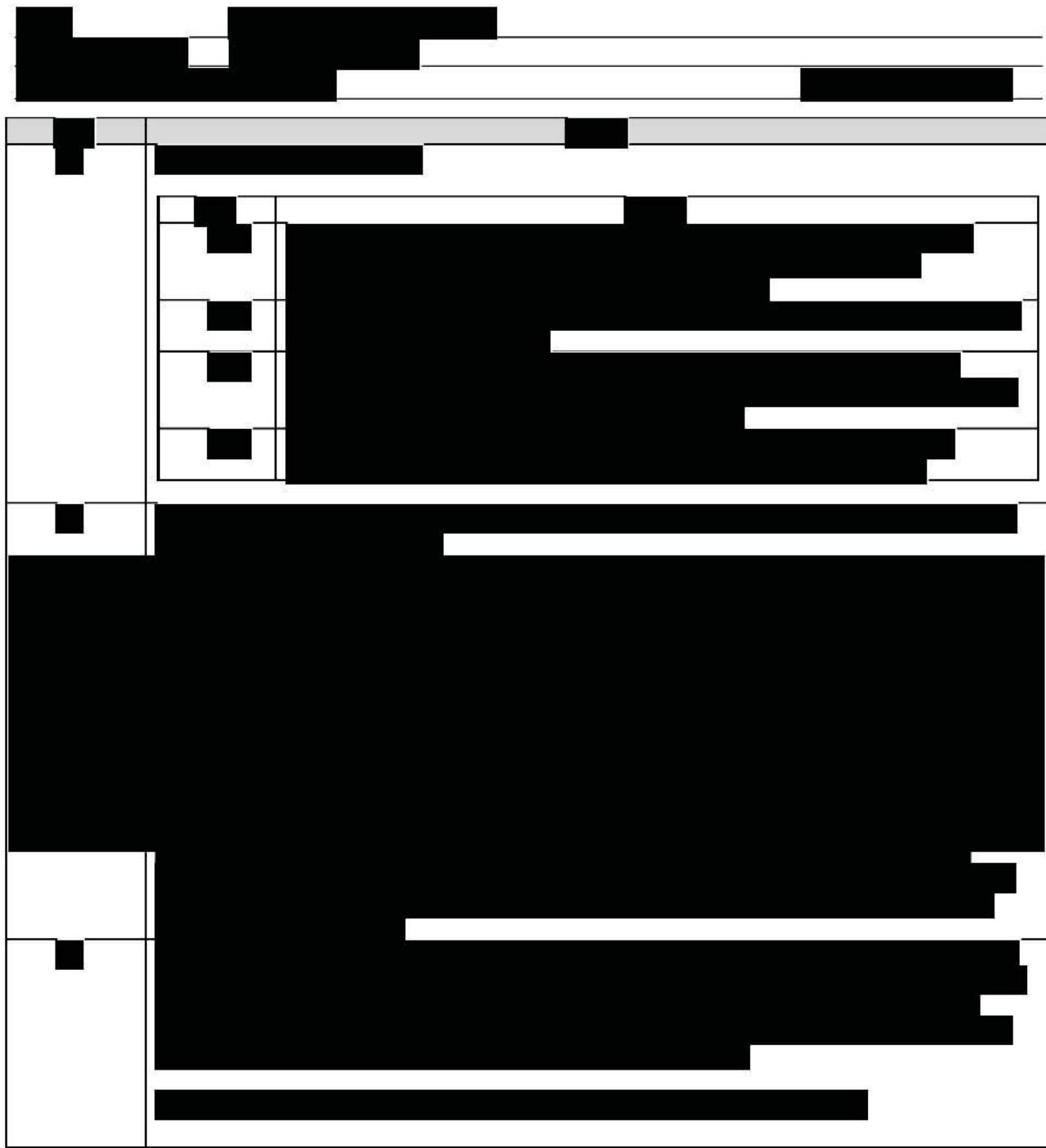
10 of 10

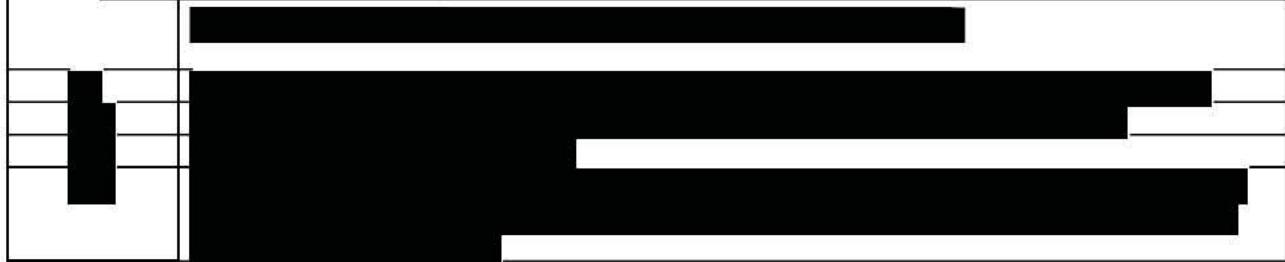
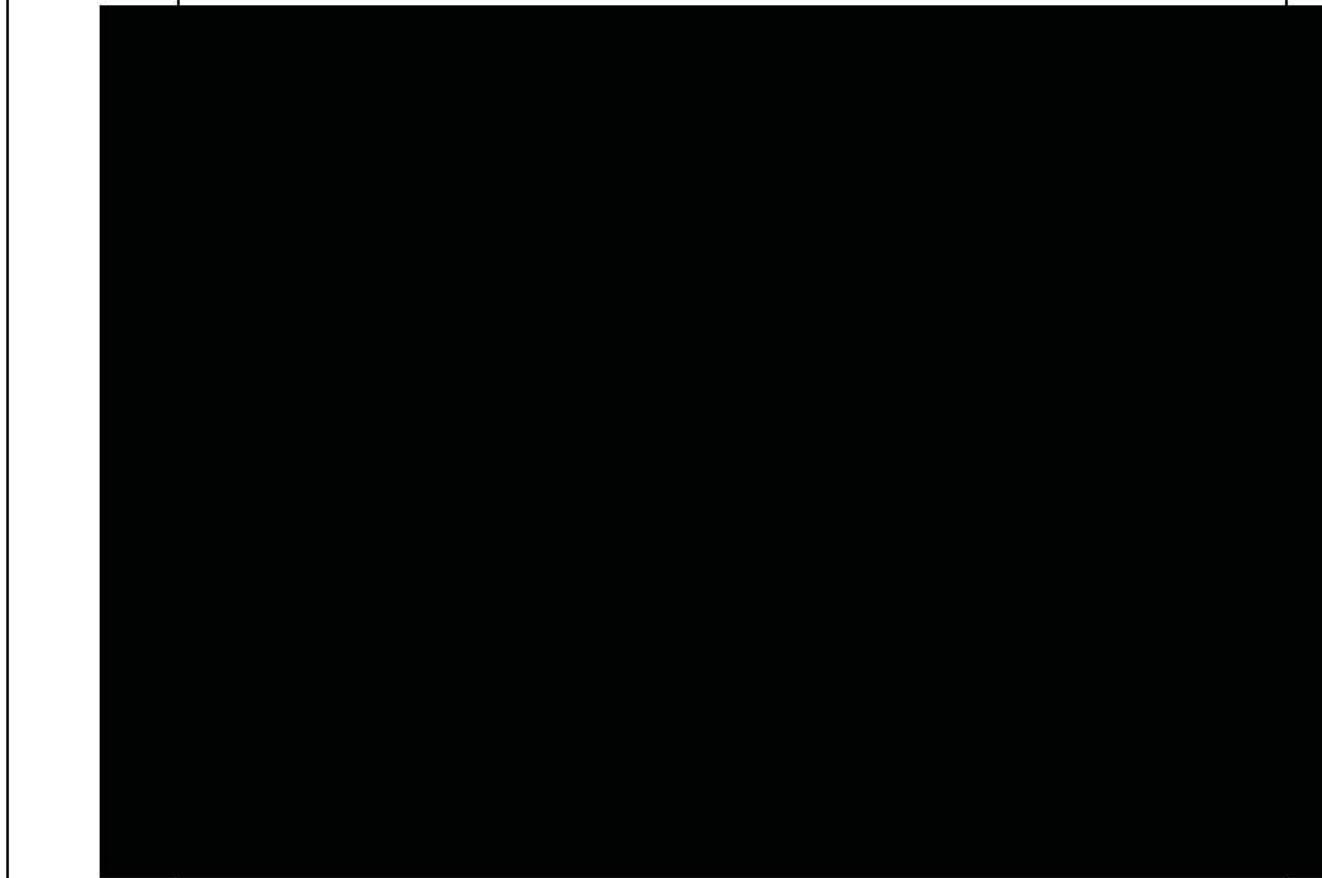
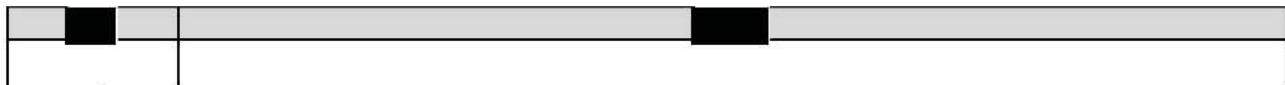
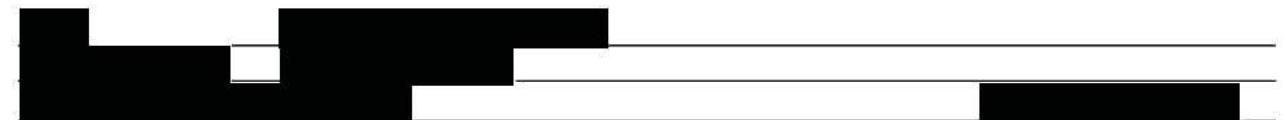
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11. **What is the primary purpose of the *Journal of Clinical Endocrinology and Metabolism*?**









APPENDIX E: IRIS COLOR



PROTOCOL COMPLIANCE INVESTIGATOR(S) SIGNATURE PAGE

Protocol Number and Title: CR-6283, Initial Evaluation of Investigational Lenses Manufactured on a New Production Line

Version and Date: v3.0, Amendment 2.0, 09 August 2018

I have read and understand the protocol specified above and agree on its content.

I agree to conduct this study according to GCP and ICH guidelines, the Declaration of Helsinki, ISO 14155, United States (US) Code of Federal Regulations (CFR), and the pertinent individual country laws/regulations and to comply with its obligations, subject to ethical and safety considerations. The Principal Investigator is responsible for ensuring that all clinical site personnel, including Sub-Investigators adhere to all ICH regulations and GCP guidelines regarding clinical trials during and after study completion.

I will assure that no deviation from, or changes to the protocol will take place without prior agreement from the Sponsor and documented approval from the Institutional Review Board (IRB), except where necessary to eliminate an immediate hazard(s) to the trial participants.

I am responsible for ensuring that all clinical site personnel including Sub-Investigators adhere to all ICH regulations and GCP guidelines regarding clinical trials during and after study completion.

All clinical site personnel involved in the conduct of this study have completed Human Subjects Protection Training.

I agree to ensure that all clinical site personnel involved in the conduct of this study are informed about their obligations in meeting the above commitments.

I shall not disclose the information contained in this protocol or any results obtained from this study without written authorization.

Principal
Investigator:

Signature

Date

Name and Professional Position (Printed)

Institution/Site:

Institution/Site Name

Institution/Site Address