

Table S1: Modified CLDEQ-8 questionnaire for monocular lens wear

1	Questions about EYE DISCOMFORT						
	a) During a typical day in the past 2 weeks, how often did your eyes feel discomfort while wearing your contact lenses?						
	Right Eye:	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	Left Eye	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	b) When your eyes felt discomfort with your contact lenses, how intense was this feeling of discomfort... At the end of the day?						
	Never Had it		Not at <u>All Intense</u>		Very <u>Intense</u>		
	Right Eye:	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
	Left Eye	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2	Questions about EYE DRYNESS:						
	a) During a typical day in the past 2 weeks, how often did your eye feel dry?						
	Right Eye:	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	Left Eye	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	b) When your eyes felt dry, how intense was this feeling of dryness...At the end of the day?						
	Never Had it		Not at <u>All Intense</u>		Very <u>Intense</u>		
	Right Eye:	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
	Left Eye	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3	Questions about CHANGEABLE, BLURRY VISION:						
	a) During a typical day in the past 2 weeks, how often did your vision change between clear and burry or foggy while wearing your contact lenses?						
	Right Eye:	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	Left Eye	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	b) When your vision was blurry, how noticeable was the changeable, blurry, or foggy vision ... At the end of the day?						
	Never Had it		Not at <u>All Intense</u>		Very <u>Intense</u>		
	Right Eye:	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
	Left Eye	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4	Questions about CLOSING YOUR EYES:						

	During a typical day in the past 2 weeks, how often did your eyes bother you so much that you wanted to close them?						
	Right Eye:	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
	Left Eye	<input type="checkbox"/> 0, Never	<input type="checkbox"/> 1, Rarely	<input type="checkbox"/> 2, Sometimes	<input type="checkbox"/> 3, Frequently	<input type="checkbox"/> 4, Constantly	
5	Questions about REMOVING YOUR LENSES						
	How often during the past 2 weeks, did your eyes <i>bother you so much</i> while wearing your contact lenses that you felt as if you needed to stop whatever you were doing and take out your contact lenses?						
	Right Eye:	<input type="checkbox"/> 1, Never	<input type="checkbox"/> 2, Less than once a week	<input type="checkbox"/> 3, Weekly	<input type="checkbox"/> 4, Several times a week	<input type="checkbox"/> 5, Daily	<input type="checkbox"/> 6, Several times a day
	Left Eye	<input type="checkbox"/> 1, Never	<input type="checkbox"/> 2, Less than once a week	<input type="checkbox"/> 3, Weekly	<input type="checkbox"/> 4, Several times a week	<input type="checkbox"/> 5, Daily	<input type="checkbox"/> 6, Several times a day

Table S2: Ocular and subjective responses at baseline visit prior to lens wear and at the 4M study visit, one month after cessation of contact lens wear.

Variables	Visits with Lens	Sample (n)	Mel4 Lens	Control Lens	Linear Mixed Model		
			(Mean±SD)/ Median & Range	(Mean±SD)/ Median & Range	Lens (Mel4 vs. Control)	Visit	Lens vs Visit
Conjunctival responses							
Bulbar Redness (0-4,0.1)	BL	208	1.3±0.2	1.3±0.2	1.000	0.001	1.000
	4M	129	1.5±0.2	1.5±0.2			
Limbal Redness (0-4,0.1)	BL	208	1.1±0.3	1.1±0.3	0.440	0.001	0.438
	4M	129	1.3±0.2	1.3±0.2			
Palpebral Redness (0-4,0.1)	BL	208	1.4±0.3	1.4±0.3	0.769	0.001	0.670
	4M	129	1.5±0.2	1.5±0.2			
Palpebral Roughness (0-4,0.1)	BL	208	1.2±0.3	1.2±0.3	0.295	0.001	0.975
	4M	129	1.3±0.2	1.3±0.2			
Corneal responses							
Centre (Extent; 0-4,1)	BL	208	0 (0-0)	0 (0-0)	0.135	0.180	0.052
	4M	126*	0 (0-1)	0 (0-0)			
Centre (Depth; 0-4,1)	BL	208	0 (0-0)	0 (0-0)	0.135	0.180	0.052
	4M	126*	0 (0-1)	0 (0-0)			
Centre (Type; 0-4,0.5)	BL	208	0 (0-0)	0 (0-0)	0.135	0.180	0.052
	4M	126*	0 (0-2)	0 (0-0)			
Nasal (Extent; 0-4,1)	BL	208	0 (0-1)	0 (0-1)	0.577	0.205	0.056
	4M	126*	0 (0-1)	0 (0-0)			
Nasal (Depth; 0-4,1)	BL	208	0 (0-1)	0 (0-1)	0.577	0.205	0.056
	4M	126*	0 (0-1)	0 (0-0)			
Nasal (Type; 0-4,0.5)	BL	208	0 (0-1)	0 (0-1)	0.728	0.135	0.066
	4M	126*	0 (0-1)	0 (0-0)			
Temporal (Extent; 0-4,1)	BL	208	0 (0-1)	0 (0-1)	0.345	0.529	0.234
	4M	126*	0 (0-1)	0 (0-1)			

Temporal (Depth; 0-4,1)	BL	208	0 (0-1)	0 (0-1)	0.345	0.529	0.234
	4M	126*	0 (0-1)	0 (0-1)			
Temporal (Type; 0-4,0.5)	BL	208	0 (0-1)	0 (0-1)	0.161	0.647	0.161
	4M	126*	0 (0-1)	0 (0-0.5)			
Superior (Extent; 0-4,1)	BL	208	0 (0-1)	0 (0-0)	0.577	0.807	0.076
	4M	126*	0 (0-0)	0 (0-1)			
Superior (Depth; 0-4,1)	BL	208	0 (0-1)	0 (0-0)	0.577	0.807	0.076
	4M	126*	0 (0-0)	0 (0-1)			
Superior (Type; 0-4,0.5)	BL	208	0 (0-1)	0 (0-0)	0.577	0.807	0.076
	4M	126*	0 (0-0)	0 (0-1)			
Inferior (Extent; 0-4,1)	BL	208	0 (0-1)	0 (0-1)	0.872	0.016	0.514
	4M	126*	0 (0-1)	0 (0-1)			
Inferior (Depth; 0-4,1)	BL	208	0 (0-1)	0 (0-1)	0.698	0.013	0.697
	4M	126*	0 (0-1)	0 (0-1)			
Inferior (Type; 0-4,0.5)	BL	208	0 (0-1)	0 (0-1)	0.829	0.012	0.289
	4M	126*	0 (0-1)	0 (0-1)			
Subjective responses							
Overall comfort (1-100,1)	BL	208	97±4	97±4	0.671	0.001	0.671
	4M	129	94±4	94±5			
Overall dryness (1-100,1)	BL	208	4±8	4±8	0.989	0.082	0.659
	4M	129	6±4	6±4			

* Total no. = 129, missed data for three subjects.

Table S3: Ocular and subjective responses at dropouts and completed visits.

Variables (range, incremental steps)	Visits with Lens	Dropouts			Completed visit		
		No of dropouts (n)	Mel4 Lens	Control Lens	Mel4 Lens	Control Lens	Total sample (n)
			(Mean±SD)/ Median & Range	(Mean±SD)/ Median & Range	(Mean±SD)/ Median & Range	(Mean±SD)/ Median & Range	
Conjunctival responses							
Bulbar Redness (0-4,0.1)	2W	4	1.6±0.3	1.6±0.3	1.5±0.2	1.5±0.2	153
	1M	2	1.4±0.1	1.4±0.1	1.6±0.2	1.6±0.2	144
	3M	2	1.7±0.0	1.7±0.1	1.6±0.2	1.6±0.2	129
Limbal Redness (0-4,0.1)	2W	4	1.3±0.2	1.3±0.2	1.2±0.2	1.2±0.2	153
	1M	2	1.2±0.1	1.2±0.1	1.3±0.3	1.3±0.3	144
	3M	2	1.5±0.1	1.5±0.1	1.4±0.2	1.4±0.2	129
Palpebral Redness (0-4,0.1)	2W	4	1.8±0.1	1.8±0.1	1.6±0.3	1.6±0.3	153
	1M	2	1.7±0.2	1.7±0.2	1.6±0.3	1.6±0.3	144
	3M	2	1.8±0.4	1.7±0.2	1.7±0.3	1.7±0.3	129
Palpebral Roughness (0-4,0.1)	2W	4	1.3±0.2	1.4±0.2	1.3±0.3	1.3±0.3	153
	1M	2	1.3±0.1	1.3±0.1	1.3±0.3	1.3±0.3	144
	3M	2	1.2±0.3	1.2±0.3	1.4±0.3	1.4±0.3	129
Corneal responses							
Centre (Extent; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	129
Centre (Depth; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	129
Centre (Type; 0-4,0.5)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	129
Nasal (Extent; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	129
Nasal (Depth; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	129
Nasal (Type; 0-4,0.5)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	129
Temporal (Extent; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-0)	129

Temporal (Depth; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-1)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-0)	129
Temporal (Type; 0-4,0.5)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0.5)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-0)	129
Superior (Extent; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	129
Superior (Depth; 0-4,1)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	129
Superior (Type; 0-4,0.5)	2W	4	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-0.5)	153
	1M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1.5)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-1)	0 (0-1)	129
Inferior (Extent; 0-4,1)	2W	4	0 (0-0)	0 (0-1)	0 (0-1)	0 (0-2)	153
	1M	2	1 (0-1)	1 (0-1)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-2)	0 (0-2)	129
Inferior (Depth; 0-4,1)	2W	4	0 (0-0)	0 (0-1)	0 (0-1)	0 (0-2)	153
	1M	2	1 (0-1)	1 (0-1)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-2)	0 (0-2)	129
Inferior (Type; 0-4,0.5)	2W	4	0 (0-0)	0 (0-1)	0 (0-1)	0 (0-2)	153
	1M	2	1.5 (1-2)	0.5 (0-1)	0 (0-1)	0 (0-2)	144
	3M	2	0 (0-0)	0 (0-0)	0 (0-2)	0 (0-2)	129
Subjective responses							
Overall comfort (1-100,1)	2W	4	96±5	96±5	91±7	91±8	153
	1M	2	60±42	60±42	90±7	91±9	144
	3M	2	93±4	93±4	88±8	89±7	129
Overall dryness (1-100,1)	2W	4	4±4	4±4	11±11	11±11	153
	1M	2	45±49	45±49	11±11	12±12	144
	3M	2	8±4	8±4	13±11	13±11	129
Edge awareness (0-10,1)	2W	4	1 (1-2)	1 (1-1)	1 (1-4)	1 (1-5)	153
	1M	2	1 (1-1)	1 (1-1)	1 (1-3)	1 (1-3)	144
	3M	2	1 (1-1)	1 (1-1)	1 (1-3)	1 (1-3)	129
Lens awareness (0-10,1)	2W	4	1 (1-1)	1 (1-1)	1 (1-4)	1 (1-4)	153
	1M	2	1 (1-1)	1 (1-1)	1 (1-3)	1 (1-3)	144
	3M	2	1 (1-1)	1 (1-1)	1 (1-3)	1 (1-3)	129

Table S4: Lens surface characteristics and fit characteristics of Mel4 and control contact lenses at dropouts and completed visits.

Variables (range, incremental steps)	Visit s with Lens	Dropouts			Completed visit		
		No of dropou ts (n)	Mel4 Lens	Control Lens	Mel4 Lens	Control Lens	Total sample (n)
			(Mean±SD) / Median & Range	(Mean±SD)/ Median & Range	(Mean±SD)/ Median & Range	(Mean±SD)/ Median & Range	
Lens surface characteristics							
Front surface wetting (0-4,0.1)	2W	4	3.7±0.1	3.7±0.1	3.6±0.3	3.6±0.3	153
	1M	2	3.5±0.1	3.5±0.0	3.6±0.3	3.5±0.3	144
	3M	2	3.4±0.6	3.4±0.6	3.6±0.3	3.5±0.3	129
Front surface deposits (0-4,0.1)	2W	4	0.2±0.2	0.2±0.2	0.6±0.5	0.6±0.5	153
	1M	2	0.8±0.4	0.8±0.4	0.6±0.6	0.6±0.6	144
	3M	2	1.0±0.7	1.0±0.7	0.7±0.6	0.7±0.6	129
Back surface debris (0-4,0.1)	2W	4	0.2±0.2	0.2±0.2	0.3±0.4	0.3±0.4	153
	1M	2	0.8±0.4	0.8±0.4	0.4±0.5	0.4±0.5	144
	3M	2	1.0±0.7	1.0±0.7	0.4±0.5	0.4±0.5	129
Lens fit characteristics							
Centration X-axis (-1to+1, 0.1 mm)	2W	4	0 (0.0 - 0.3)	0 (0.0 - 0.3)	0 (-0.3 - 0.2)	0 (-0.3 - 0.2)	153
	1M	2	0 (0 - 0)	0 (0 - 0)	0 (-0.5 - 0.2)	0 (-0.5 - 0.0)	144
	3M	2	0 (0 - 0)	0 (0 - 0)	0 (-0.3 - 0.2)	0 (-0.3 - 0.2)	129
Centration Y-axis (-1to+1, 0.1 mm)	2W	4	0.1 (-0.3 - 0.3)	0.1 (-0.3 - 0.3)	0 (-0.3 - 0.5)	0 (-0.3 - 0.5)	153
	1M	2	0 (0 - 0)	0 (0 - 0)	0 (-0.4 - 0.4)	0 (-0.3 - 0.4)	144
	3M	2	0 (0 - 0)	0 (0 - 0)	0 (-0.2 - 0.3)	0 (-0.2 - 0.3)	129
Primary gaze movement (0-10,0.1)	2W	4	0.4±0.1	0.3±0.1	0.4±0.1	0.4±0.1	153
	1M	2	0.3±0.0	0.3±0.0	0.4±0.1	0.4±0.1	144
	3M	2	0.4±0.0	0.4±0.0	0.4±0.1	0.4±0.1	129
Primary gaze lag (0- 10,0.1)	2W	4	0.1±0.1	0.1±0.1	0.1±0.1	0.1±0.1	153
	1M	2	0.2±0.1	0.2±0.1	0.2±0.1	0.2±0.1	144
	3M	2	0.2±0.0	0.2±0.0	0.2±0.1	0.2±0.1	129
Tightness (0-100,1) %	2W	4	41±3	41±3	42±3	42±3	153
	1M	2	40±0	40±0	41±3	41±3	144
	3M	2	40±0	40±0	42±3	42±3	129
Overall Acceptance (0-4,0.1)	2W	4	3.7±0.2	3.7±0.2	3.8±0.1	3.8±0.1	153
	1M	2	3.9±0.1	3.9±0.1	3.8±0.1	3.8±0.1	144
	3M	2	3.8±0.0	3.8±0.0	3.8±0.1	3.8±0.1	129