

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P640828

Luminaire Tested: ML5612LSFL4097FS1E - 693WB - 1200LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640828  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-40)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 693WB - 1200LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

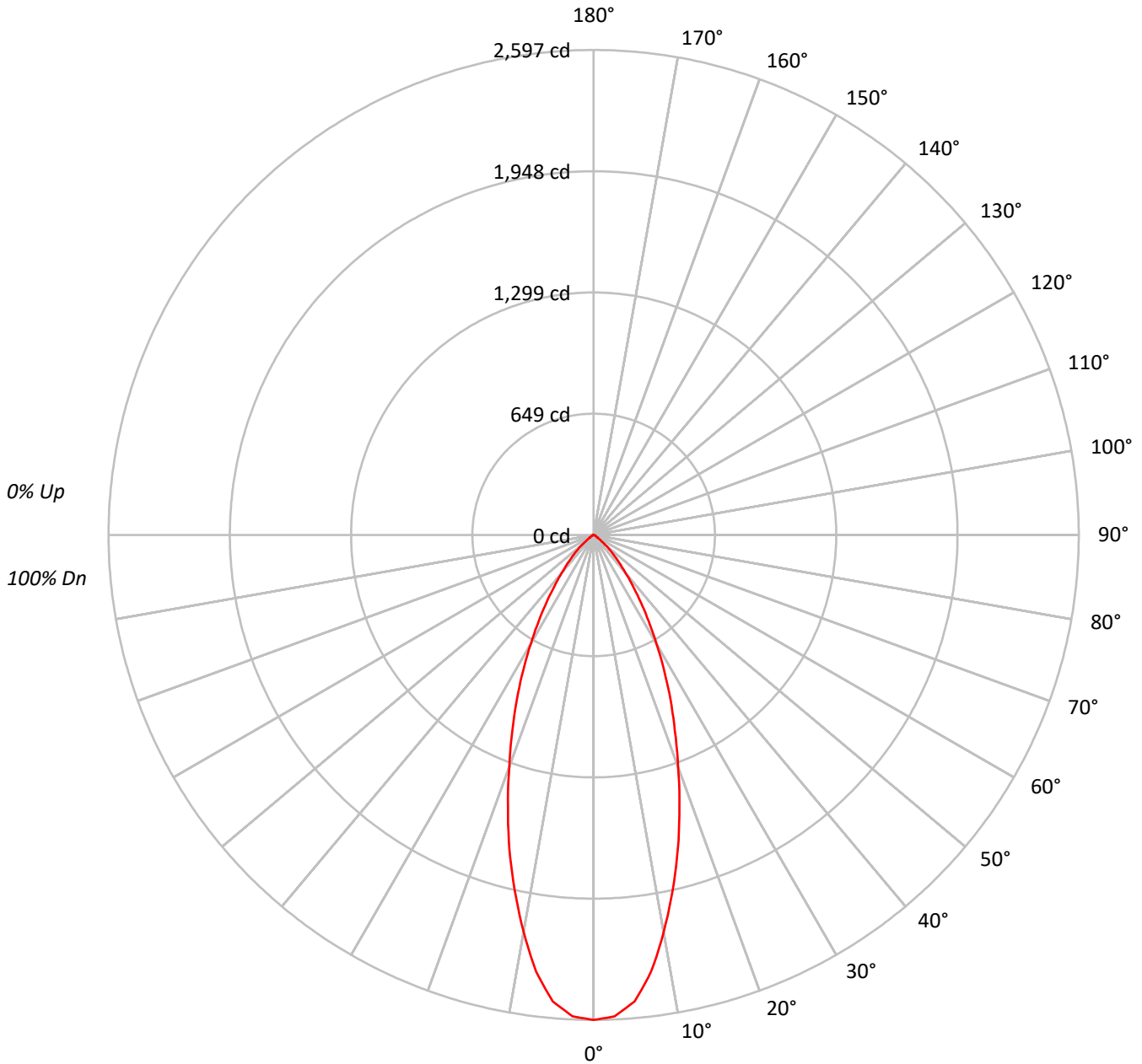
Lumens per Lamp: N/A  
Luminaire Lumens: 1596.4 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	79	75	82	77	74	80	76	73	79	75	73	71																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																			
7	84	75	70	65	83	75	69	65	73	69	65	72	68	65	71	67	64	63																			
8	81	71	66	62	79	71	65	61	70	65	61	69	64	61	68	64	61	59																			
9	77	68	62	58	76	67	62	58	66	61	58	65	61	58	65	60	57	56																			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	55	62	57	54	53																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	142384
5°	138014
10°	120188
15°	98854
20°	77106
25°	58757
30°	42583
35°	29232
40°	18978
45°	11792
50°	6311
55°	2667
60°	1831
65°	1090
70°	673
75°	593
80°	884
85°	881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11792 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.9	14.3
10°-20°	481.1	30.1
20°-30°	444.8	27.9
30°-40°	277.1	17.4
40°-50°	121.9	7.6
50°-60°	29.8	1.9
60°-70°	8.8	0.5
70°-80°	3.5	0.2
80°-90°	1.5	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1153.9	72.3
0°-40°	1430.9	89.6
0°-60°	1582.6	99.1
0°-90°	1596.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1596.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2597	
5°	2508	228
15°	1742	481
25°	971	445
35°	437	277
45°	152	122
55°	28	30
65°	8	9
75°	3	4
85°	1	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2597.3
2.5°	2580.6
5°	2508.0
7.5°	2358.7
10°	2159.1
12.5°	1951.2
15°	1741.8
17.5°	1526.9
20°	1321.7
22.5°	1136.1
25°	971.4
27.5°	815.1
30°	672.7
32.5°	547.1
35°	436.8
37.5°	343.3
40°	265.2
42.5°	205.2
45°	152.1
47.5°	113.0
50°	74.0
52.5°	39.1
55°	27.9
57.5°	22.3
60°	16.7
62.5°	12.6
65°	8.4
67.5°	4.2
70°	4.2
72.5°	4.2
75°	2.8
77.5°	2.8
80°	2.8
82.5°	1.4
85°	1.4
87.5°	1.4
90°	0.0

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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(END OF REPORT)