

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: P640723

Luminaire Tested: ML5612LSFL4097FS1E - 691WB - 1200LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640723  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-36)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 691WB - 1200LM - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 6" DEADFRONT TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

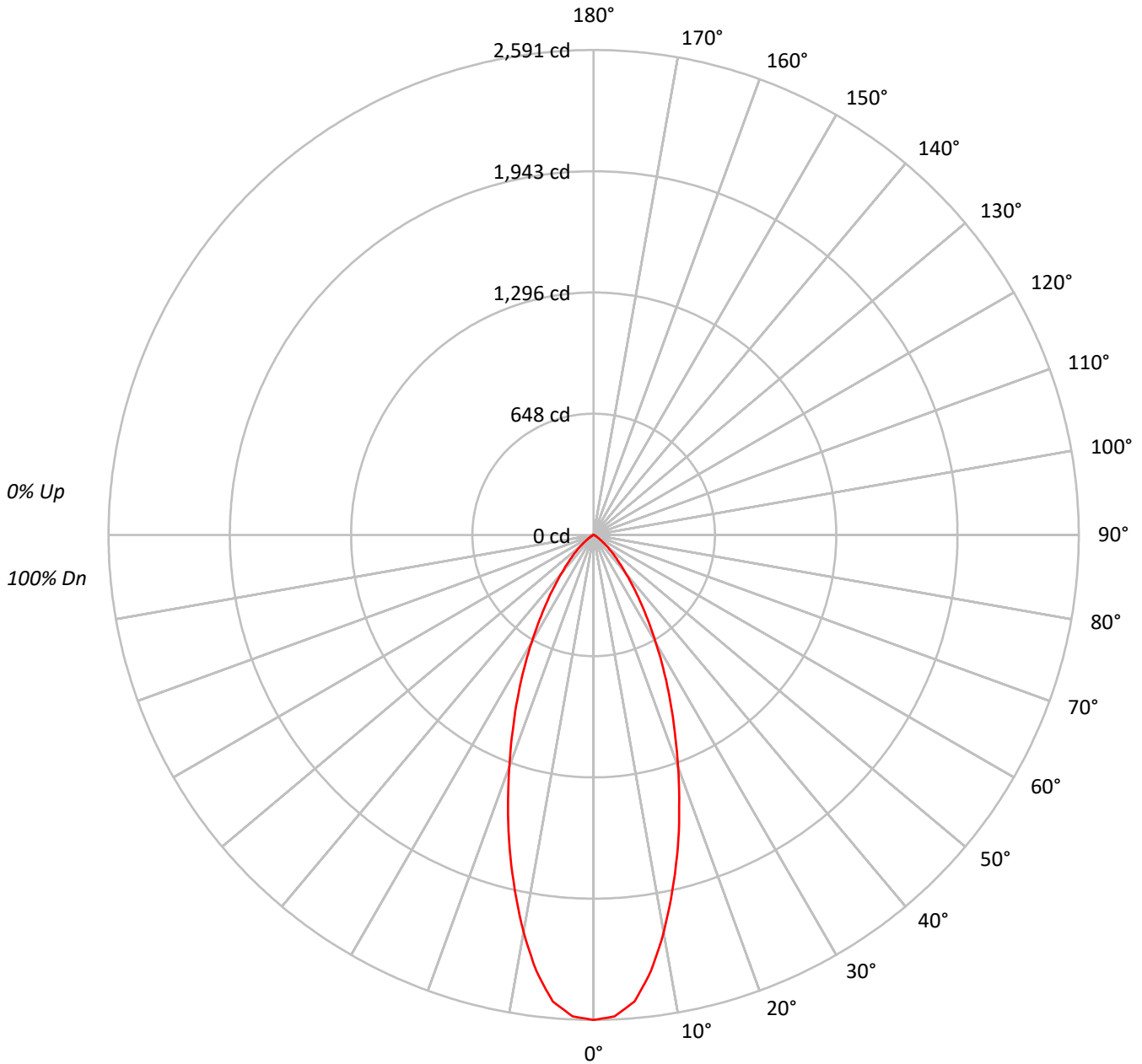
Lumens per Lamp: N/A  
Luminaire Lumens: 1597.8 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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

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

	0°
0°	142061
5°	137689
10°	119949
15°	98389
20°	76808
25°	58128
30°	41937
35°	28844
40°	18864
45°	12327
50°	7258
55°	3861
60°	2138
65°	1271
70°	673
75°	297
80°	442
85°	881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12327 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.2	14.2
10°-20°	479.2	30.0
20°-30°	440.4	27.6
30°-40°	273.3	17.1
40°-50°	125.0	7.8
50°-60°	39.3	2.5
60°-70°	10.1	0.6
70°-80°	2.2	0.1
80°-90°	1.0	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°	1146.9	71.8
0°-40°	1420.2	88.9
0°-60°	1584.6	99.2
0°-90°	1597.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1597.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2591	
5°	2502	227
15°	1734	479
25°	961	440
35°	431	273
45°	159	125
55°	40	39
65°	10	10
75°	1	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2591.4
2.5°	2574.6
5°	2502.1
7.5°	2348.7
10°	2154.8
12.5°	1944.2
15°	1733.6
17.5°	1520.2
20°	1316.6
22.5°	1128.3
25°	961.0
27.5°	803.4
30°	662.5
32.5°	537.0
35°	431.0
37.5°	340.3
40°	263.6
42.5°	205.0
45°	159.0
47.5°	117.2
50°	85.1
52.5°	58.6
55°	40.4
57.5°	26.5
60°	19.5
62.5°	13.9
65°	9.8
67.5°	5.6
70°	4.2
72.5°	2.8
75°	1.4
77.5°	1.4
80°	1.4
82.5°	1.4
85°	1.4
87.5°	0.0
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)