

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: P640829

Luminaire Tested: ML5612LSFL4097FS1E - 693WB - 1200LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640829  
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 - 4000K  
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

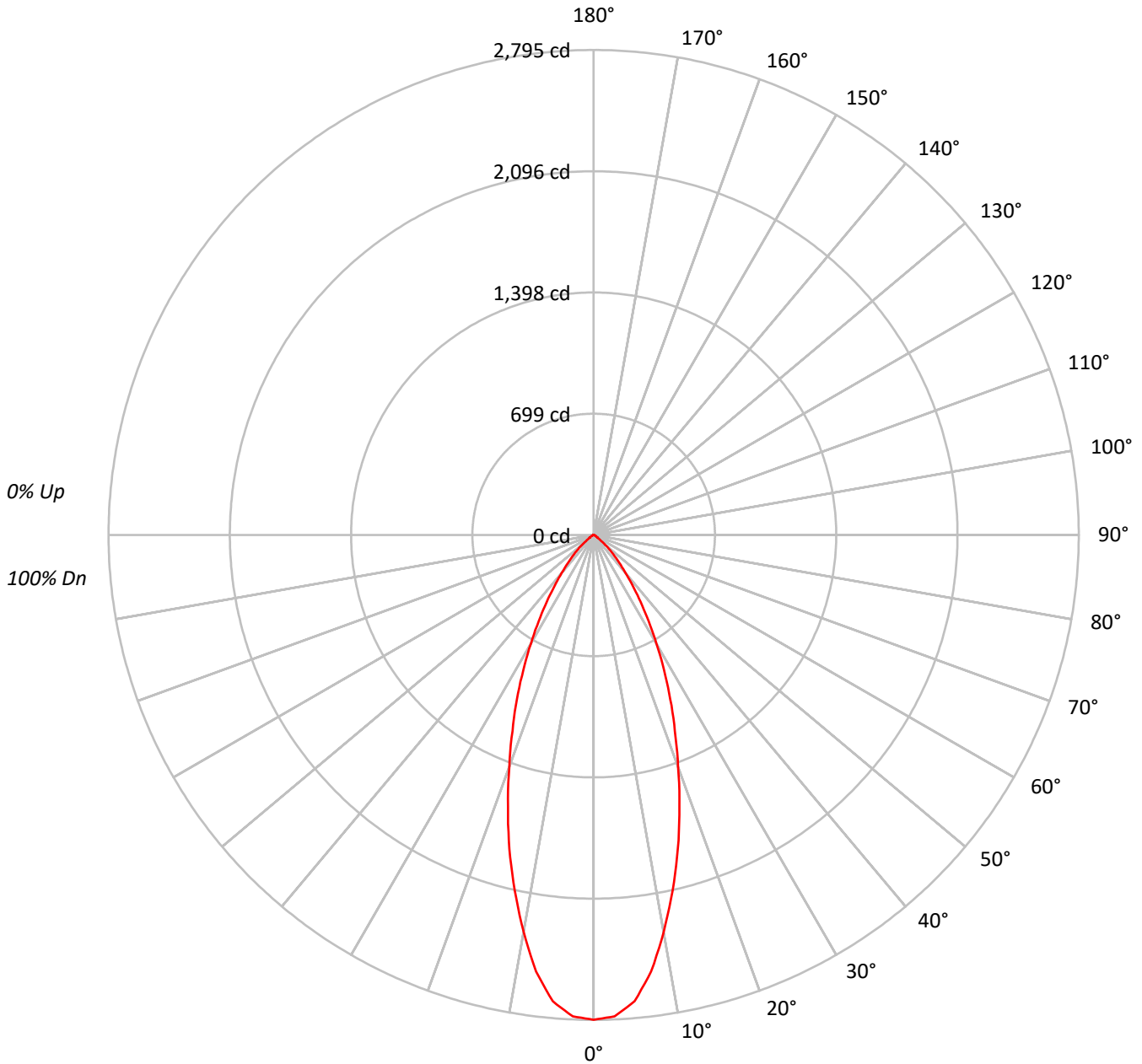
Lumens per Lamp: N/A  
Luminaire Lumens: 1717.6 lumens  
Efficiency: N/A  
Efficacy: 104.1 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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

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

	0°
0°	153200
5°	148497
10°	129317
15°	106363
20°	82963
25°	63221
30°	45817
35°	31454
40°	20417
45°	12691
50°	6789
55°	2867
60°	1974
65°	1167
70°	721
75°	635
80°	947
85°	943

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12691 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.2	14.3
10°-20°	517.6	30.1
20°-30°	478.6	27.9
30°-40°	298.1	17.4
40°-50°	131.1	7.6
50°-60°	32.0	1.9
60°-70°	9.4	0.5
70°-80°	3.8	0.2
80°-90°	1.6	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°	1241.5	72.3
0°-40°	1539.6	89.6
0°-60°	1702.8	99.1
0°-90°	1717.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1717.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2795	
5°	2698	245
15°	1874	518
25°	1045	479
35°	470	298
45°	164	131
55°	30	32
65°	9	9
75°	3	4
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2794.6
2.5°	2776.6
5°	2698.5
7.5°	2537.9
10°	2323.1
12.5°	2099.4
15°	1874.1
17.5°	1642.8
20°	1422.1
22.5°	1222.4
25°	1045.2
27.5°	877.0
30°	723.8
32.5°	588.7
35°	470.0
37.5°	369.4
40°	285.3
42.5°	220.7
45°	163.7
47.5°	121.6
50°	79.6
52.5°	42.0
55°	30.0
57.5°	24.0
60°	18.0
62.5°	13.5
65°	9.0
67.5°	4.5
70°	4.5
72.5°	4.5
75°	3.0
77.5°	3.0
80°	3.0
82.5°	1.5
85°	1.5
87.5°	1.5
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)