

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: P640845

Luminaire Tested: ML5612LSFL4097FS1E - 694TBZB - 1200LM - 5000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640845  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-45)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 694TBZB - 1200LM - 5000K  
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE GIMBAL TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

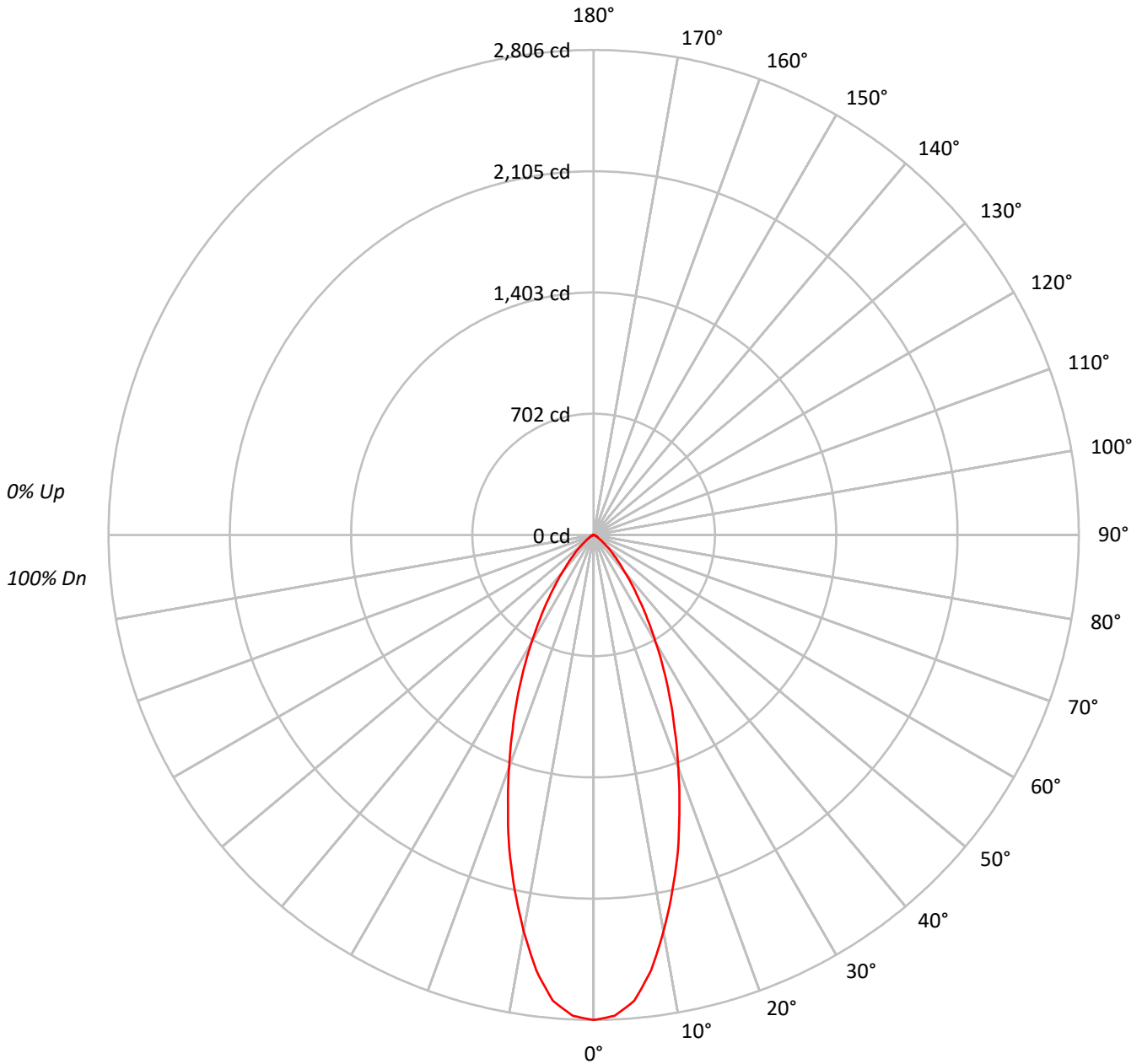
Lumens per Lamp: N/A  
Luminaire Lumens: 1734.8 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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

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

	0°
0°	153836
5°	148883
10°	129618
15°	106998
20°	83430
25°	63246
30°	45456
35°	30965
40°	19995
45°	12808
50°	7556
55°	4167
60°	2796
65°	1946
70°	1443
75°	953
80°	474
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12808 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.8	14.2
10°-20°	519.8	30.0
20°-30°	479.1	27.6
30°-40°	293.6	16.9
40°-50°	131.3	7.6
50°-60°	43.3	2.5
60°-70°	16.1	0.9
70°-80°	5.3	0.3
80°-90°	0.6	0.0
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°	1244.6	71.7
0°-40°	1538.2	88.7
0°-60°	1712.8	98.7
0°-90°	1734.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1734.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2806	
5°	2706	246
15°	1885	520
25°	1046	479
35°	463	294
45°	165	131
55°	44	43
65°	15	16
75°	4	5
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2806.2
2.5°	2785.2
5°	2705.5
7.5°	2541.8
10°	2328.5
12.5°	2106.1
15°	1885.3
17.5°	1648.0
20°	1430.1
22.5°	1227.3
25°	1045.6
27.5°	875.8
30°	718.1
32.5°	579.9
35°	462.7
37.5°	362.0
40°	279.4
42.5°	216.3
45°	165.2
47.5°	123.2
50°	88.6
52.5°	61.6
55°	43.6
57.5°	33.0
60°	25.5
62.5°	21.0
65°	15.0
67.5°	12.0
70°	9.0
72.5°	7.5
75°	4.5
77.5°	3.0
80°	1.5
82.5°	1.5
85°	0.0
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)