

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: P640782

Luminaire Tested: ML5612LSFL4097FS1E - 693BB - 1200LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640782  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 693BB - 1200LM - 3000K  
Description: ML56 RR, 40D TIR OPTIC, 6" BLACK BAFFLE TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1529.7 lumens  
Efficiency: N/A  
Efficacy: 92.7 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

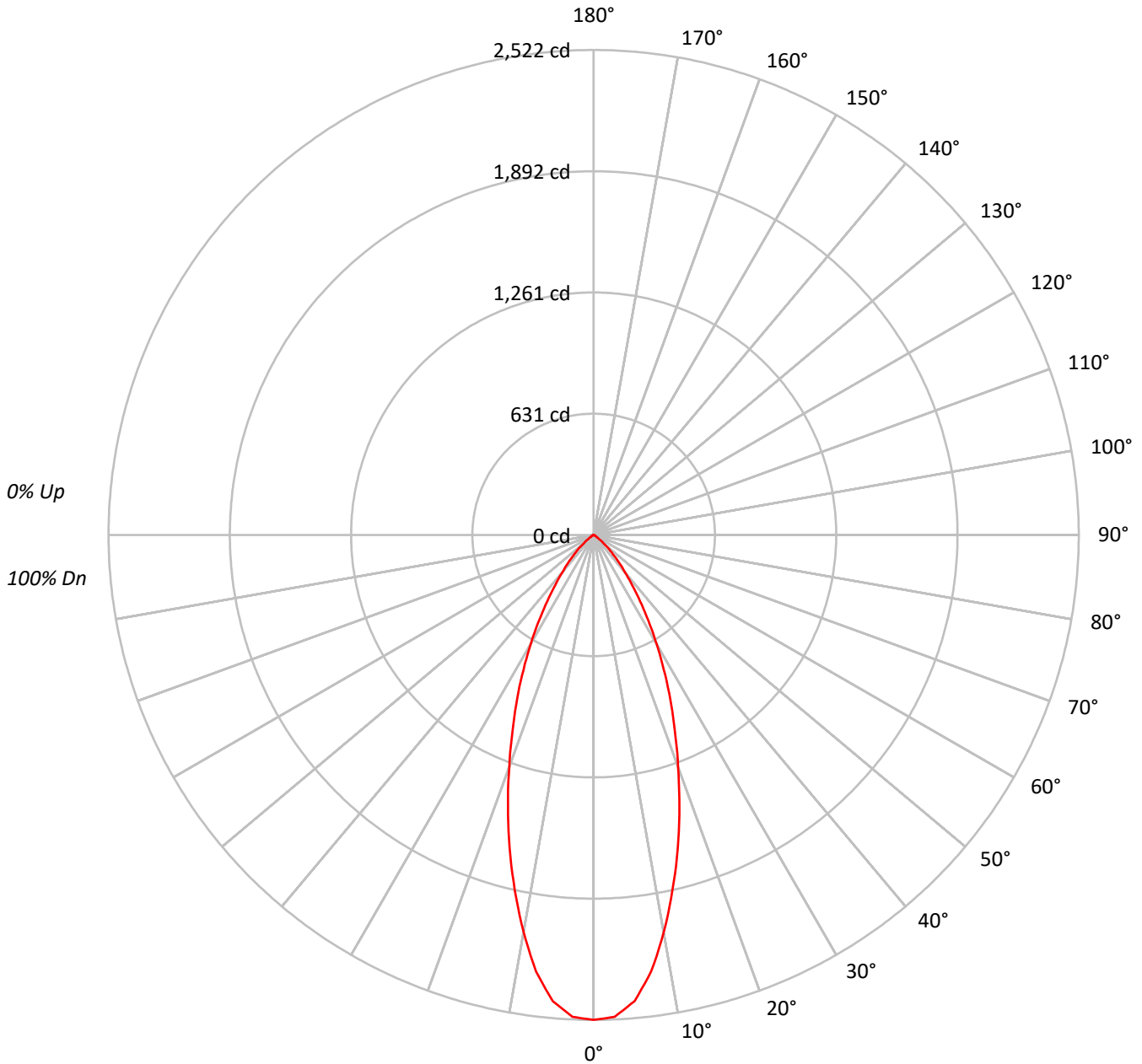
Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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				
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94				
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88				
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82				
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77				
5	93	85	80	76	92	84	79	75	83	78	75	81	77	74	79	76	73	72				
6	89	80	75	70	88	80	74	70	78	73	70	77	73	69	75	72	69	67				
7	85	76	70	66	84	75	70	66	74	69	66	73	68	65	72	68	65	63				
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60				
9	77	68	62	59	76	68	62	59	67	62	58	66	61	58	65	61	58	57				
10	74	65	59	55	73	64	59	55	64	59	55	63	58	55	62	58	55	54				

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

	0°
0°	138251
5°	133920
10°	116787
15°	95778
20°	74831
25°	56876
30°	41285
35°	28101
40°	18084
45°	11063
50°	5561
55°	2208
60°	1338
65°	532
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11063 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.3	14.5
10°-20°	466.7	30.5
20°-30°	431.1	28.2
30°-40°	266.8	17.4
40°-50°	114.6	7.5
50°-60°	24.7	1.6
60°-70°	4.5	0.3
70°-80°	0.0	0.0
80°-90°	0.0	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°	1119.1	73.2
0°-40°	1385.9	90.6
0°-60°	1525.2	99.7
0°-90°	1529.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1529.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2522	
5°	2434	221
15°	1688	467
25°	940	431
35°	420	267
45°	143	115
55°	23	25
65°	4	4
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2521.9
2.5°	2508.3
5°	2433.6
7.5°	2289.6
10°	2098.0
12.5°	1892.8
15°	1687.6
17.5°	1481.1
20°	1282.7
22.5°	1102.0
25°	940.3
27.5°	789.5
30°	652.2
32.5°	528.6
35°	419.9
37.5°	328.8
40°	252.7
42.5°	195.7
45°	142.7
47.5°	104.6
50°	65.2
52.5°	34.0
55°	23.1
57.5°	16.3
60°	12.2
62.5°	8.2
65°	4.1
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
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)