

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: P640555

Luminaire Tested: ML5612LSFL4097FS1E - 591WB - 900LM - 5000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640555  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-24)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5612LSFL4097FS1E - 591WB - 900LM - 5000K  
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1414.5 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

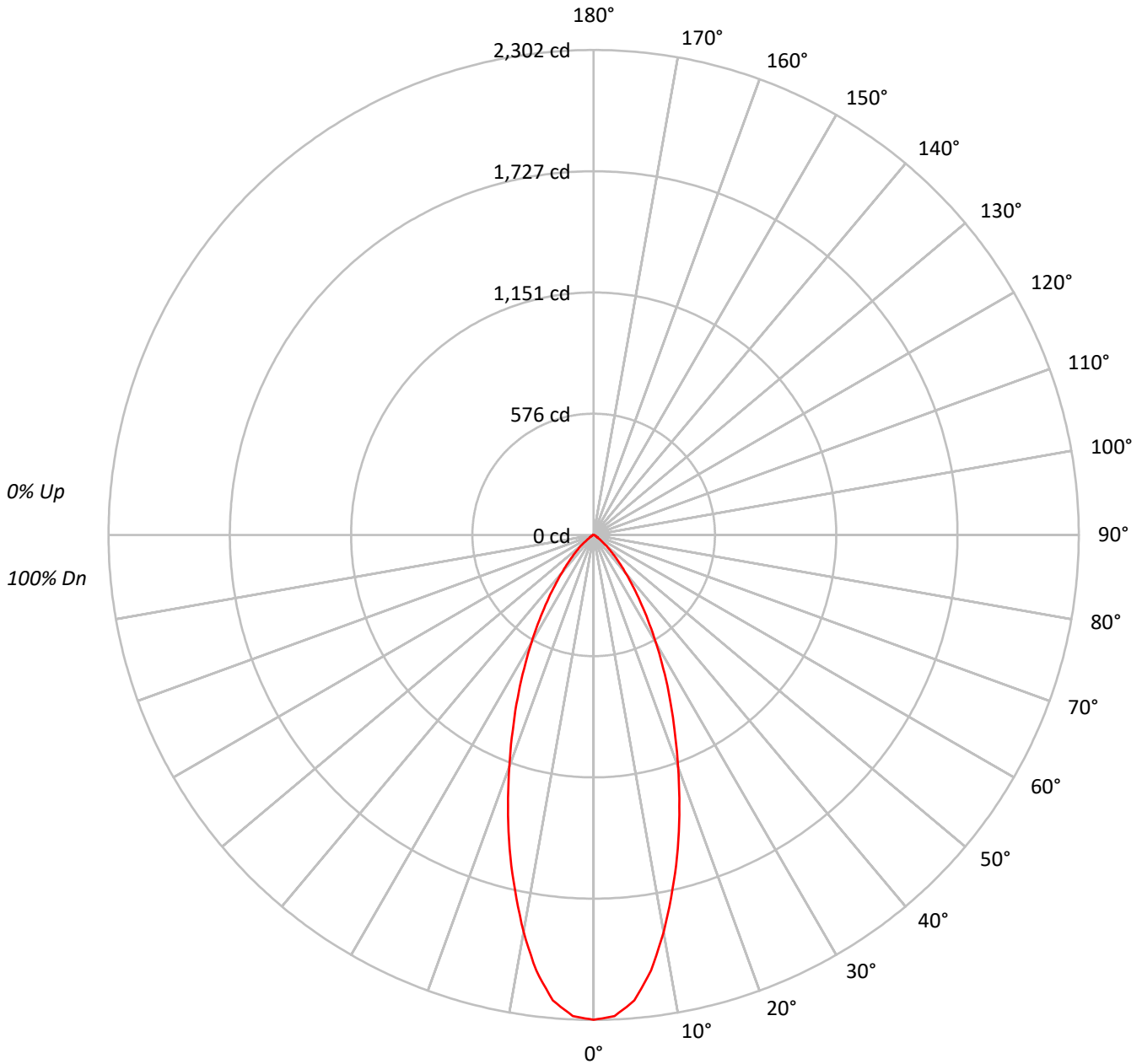
Input Watts (W): 13.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	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	88	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	73	69	76	72	69	75	71	68	67																			
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63																			
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	63	60	59																			
9	77	67	62	58	76	67	62	58	66	61	58	65	61	57	64	60	57	56																			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	54	61	57	54	53																			

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

	0°
0°	181690
5°	175799
10°	153360
15°	126045
20°	98188
25°	74350
30°	53835
35°	36948
40°	24165
45°	15239
50°	8842
55°	3757
60°	2542
65°	1625
70°	854
75°	763
80°	1137
85°	1087

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15239 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.7	14.3
10°-20°	425.8	30.1
20°-30°	391.5	27.7
30°-40°	243.0	17.2
40°-50°	108.9	7.7
50°-60°	30.3	2.1
60°-70°	9.2	0.6
70°-80°	2.8	0.2
80°-90°	1.3	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°	1019.0	72.0
0°-40°	1262.0	89.2
0°-60°	1401.2	99.1
0°-90°	1414.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1414.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2302	
5°	2218	202
15°	1542	426
25°	854	391
35°	383	243
45°	136	109
55°	27	30
65°	9	9
75°	2	3
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2301.6
2.5°	2285.5
5°	2218.5
7.5°	2085.7
10°	1913.2
12.5°	1725.9
15°	1542.3
17.5°	1351.2
20°	1168.8
22.5°	1002.5
25°	853.6
27.5°	714.7
30°	590.6
32.5°	477.7
35°	383.4
37.5°	301.5
40°	234.5
42.5°	181.1
45°	136.5
47.5°	100.5
50°	72.0
52.5°	44.7
55°	27.3
57.5°	21.1
60°	16.1
62.5°	12.4
65°	8.7
67.5°	6.2
70°	3.7
72.5°	2.5
75°	2.5
77.5°	2.5
80°	2.5
82.5°	1.2
85°	1.2
87.5°	1.2
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)