

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: P642522

Luminaire Tested: ML5615LSFL409FS1E - 596WB - 1200LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642522  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-35)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 596WB - 1200LM - 3000K  
Description: ML56 RR, 40D TIR OPTIC, 5" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1488.2 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.7  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

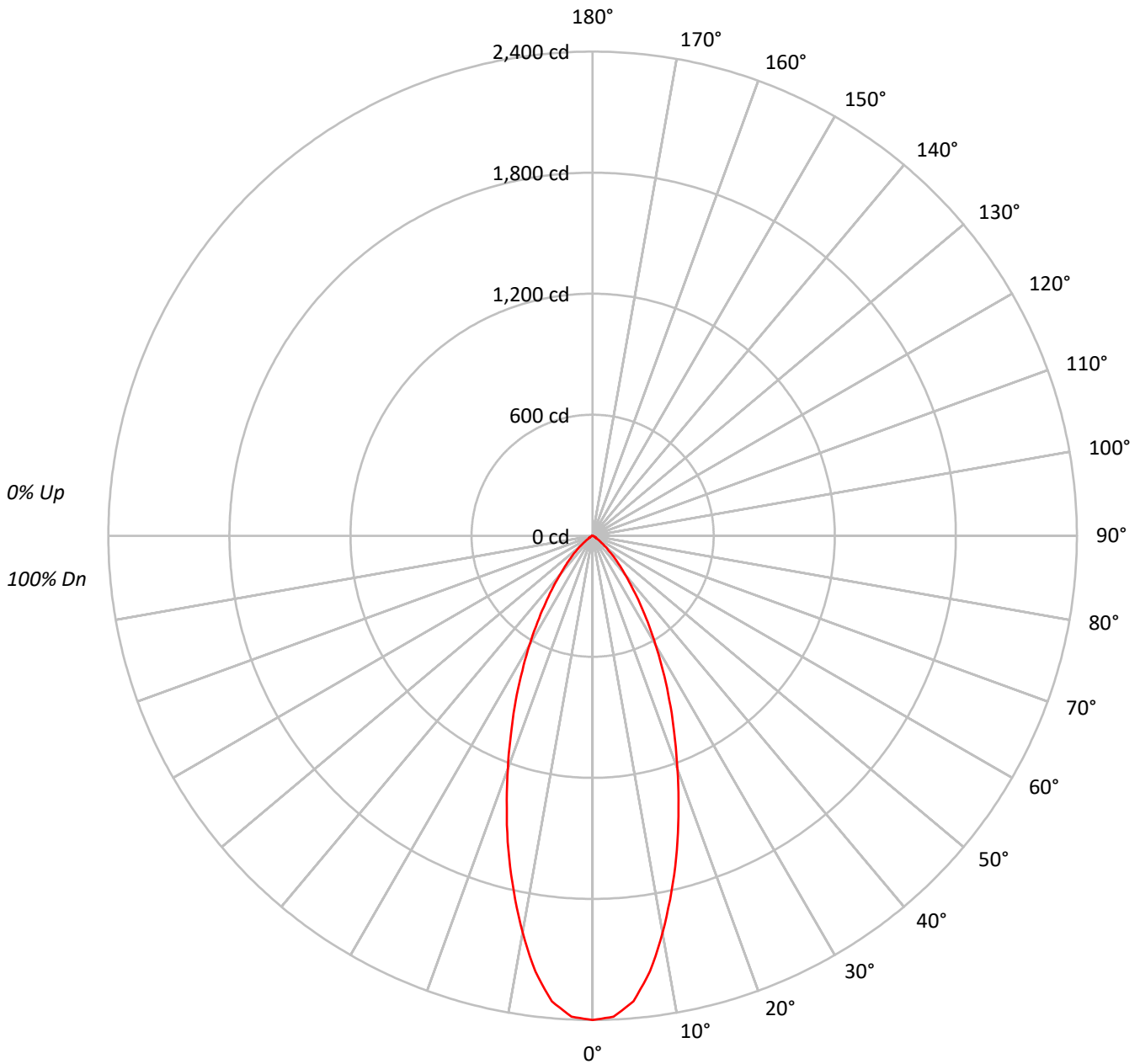
Input Watts (W): 13.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	100	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	68	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	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°	189490
5°	183613
10°	160173
15°	131922
20°	103119
25°	78461
30°	56952
35°	39135
40°	25618
45°	16567
50°	9432
55°	3936
60°	2668
65°	1457
70°	900
75°	793
80°	591
85°	1177

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16567 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.6	14.2
10°-20°	445.7	30.0
20°-30°	412.6	27.7
30°-40°	257.8	17.3
40°-50°	116.4	7.8
50°-60°	32.5	2.2
60°-70°	8.9	0.6
70°-80°	2.7	0.2
80°-90°	0.9	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°	1069.0	71.8
0°-40°	1326.7	89.2
0°-60°	1475.6	99.2
0°-90°	1488.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1488.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2400	
5°	2317	211
15°	1614	446
25°	901	413
35°	406	258
45°	148	116
55°	29	32
65°	8	9
75°	3	3
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2400.4
2.5°	2386.1
5°	2317.1
7.5°	2177.8
10°	1998.2
12.5°	1805.5
15°	1614.2
17.5°	1415.0
20°	1227.5
22.5°	1055.7
25°	900.8
27.5°	753.7
30°	624.8
32.5°	507.7
35°	406.1
37.5°	320.2
40°	248.6
42.5°	192.7
45°	148.4
47.5°	106.7
50°	76.8
52.5°	50.8
55°	28.6
57.5°	20.8
60°	16.9
62.5°	13.0
65°	7.8
67.5°	5.2
70°	3.9
72.5°	2.6
75°	2.6
77.5°	2.6
80°	1.3
82.5°	1.3
85°	1.3
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)