

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: P642531

Luminaire Tested: ML5615LSFL409FS1E - 596WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642531  
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 - 900LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

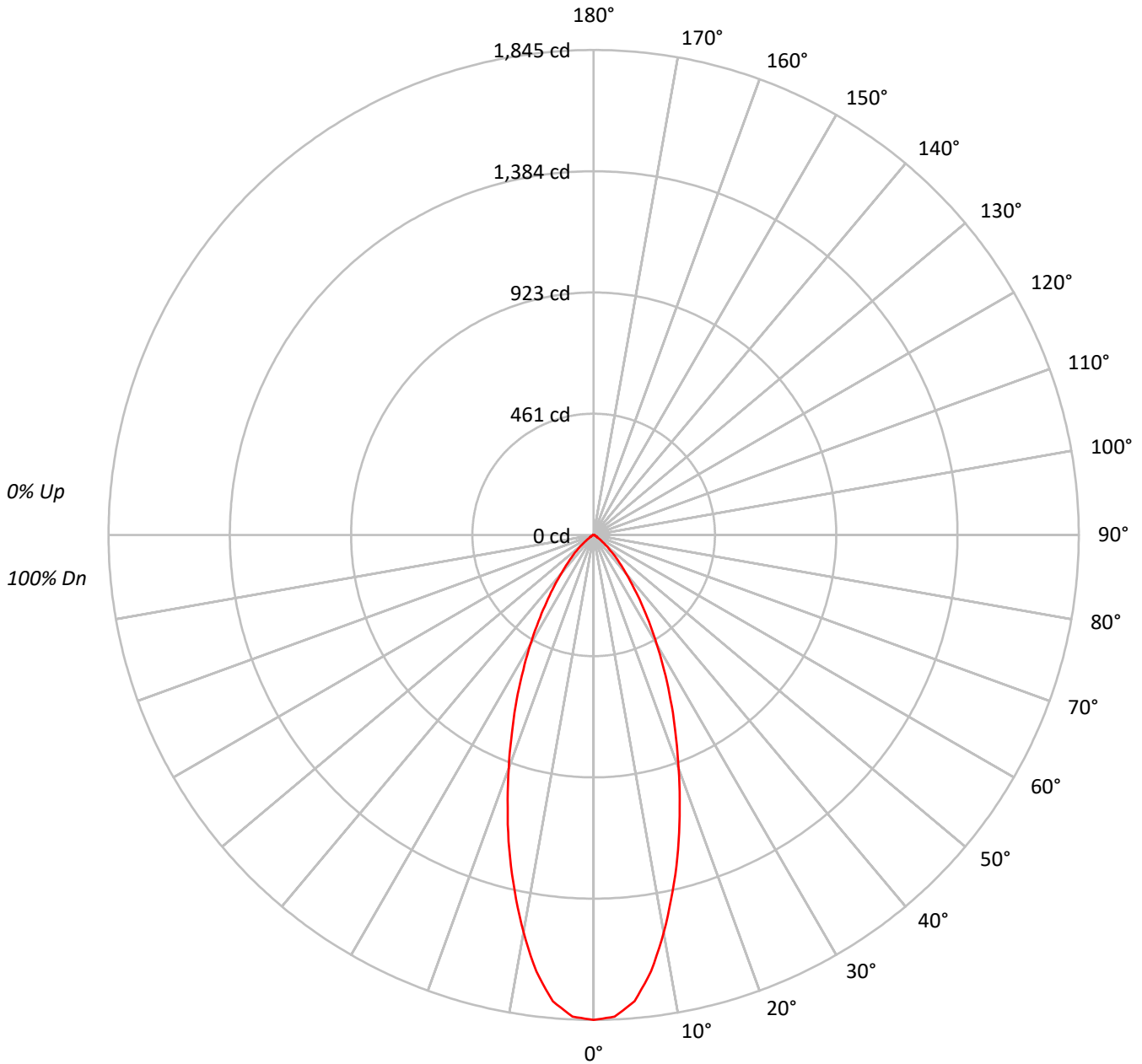
Lumens per Lamp: N/A  
Luminaire Lumens: 1144.0 lumens  
Efficiency: N/A  
Efficacy: 109.0 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.7  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 10.5  
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	100	100
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94	94	94	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	81	81	81	81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76	76	76	76
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	71	71
6	88	80	74	70	87	79	73	69	77	73	69	76	72	68	75	71	68	67	67	67	67
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63	63	63	63
8	80	71	65	61	79	71	65	61	69	64	61	68	64	61	67	63	60	59	59	59	59
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56	56	56	56
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53	53	53	53

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

	0°
0°	145662
5°	141147
10°	123124
15°	101405
20°	79269
25°	60318
30°	43781
35°	30086
40°	19693
45°	12738
50°	7246
55°	3028
60°	2052
65°	1121
70°	692
75°	610
80°	455
85°	906

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12738 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.9	14.2
10°-20°	342.6	30.0
20°-30°	317.2	27.7
30°-40°	198.2	17.3
40°-50°	89.5	7.8
50°-60°	24.9	2.2
60°-70°	6.9	0.6
70°-80°	2.1	0.2
80°-90°	0.7	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°	821.7	71.8
0°-40°	1019.9	89.2
0°-60°	1134.3	99.2
0°-90°	1144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1144.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1845	
5°	1781	162
15°	1241	343
25°	692	317
35°	312	198
45°	114	89
55°	22	25
65°	6	7
75°	2	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1845.2
2.5°	1834.2
5°	1781.2
7.5°	1674.1
10°	1536.0
12.5°	1387.9
15°	1240.8
17.5°	1087.7
20°	943.6
22.5°	811.5
25°	692.5
27.5°	579.4
30°	480.3
32.5°	390.3
35°	312.2
37.5°	246.2
40°	191.1
42.5°	148.1
45°	114.1
47.5°	82.1
50°	59.0
52.5°	39.0
55°	22.0
57.5°	16.0
60°	13.0
62.5°	10.0
65°	6.0
67.5°	4.0
70°	3.0
72.5°	2.0
75°	2.0
77.5°	2.0
80°	1.0
82.5°	1.0
85°	1.0
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)