

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: P642472

Luminaire Tested: ML5615LSFL409FS1E - 593WB - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642472  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-28)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 593WB - 900LM - 3000K  
Description: ML56 RR, 40D TIR OPTIC, 5" WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

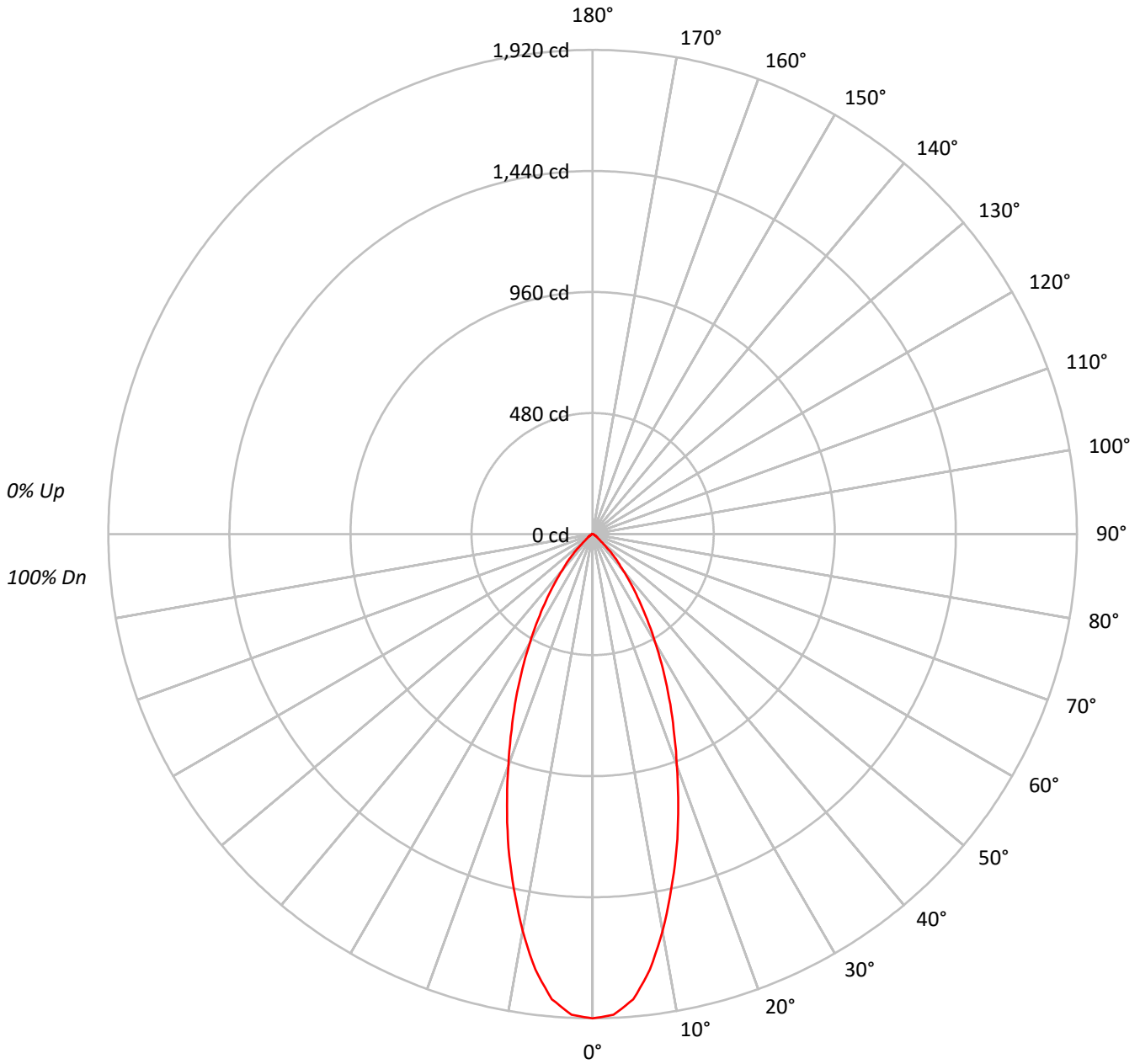
Lumens per Lamp: N/A  
Luminaire Lumens: 1168.5 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 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																		
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	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	102	98	95	98	95	93	95	93	91	93	91	89	87																												
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81																												
4	98	90	85	81	96	89	84	80	87	83	79	85	82	79	83	80	78	76																												
5	93	85	79	75	92	84	79	75	82	78	74	81	77	73	79	76	73	71																												
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																												
7	85	76	70	66	83	75	69	66	74	69	65	73	68	65	71	67	64	63																												
8	81	72	66	62	80	71	66	62	70	65	61	69	64	61	68	64	61	60																												
9	77	68	62	58	76	67	62	58	66	62	58	66	61	58	65	61	58	56																												
10	74	65	59	55	73	64	59	55	63	58	55	63	58	55	62	58	55	53																												

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

	0°
0°	151606
5°	146725
10°	128054
15°	105254
20°	82008
25°	62539
30°	45294
35°	30925
40°	19291
45°	11488
50°	4544
55°	2973
60°	2116
65°	1345
70°	1177
75°	1251
80°	1409
85°	1902

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11488 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.4	14.4
10°-20°	355.6	30.4
20°-30°	328.6	28.1
30°-40°	203.1	17.4
40°-50°	78.8	6.7
50°-60°	20.2	1.7
60°-70°	7.8	0.7
70°-80°	4.1	0.3
80°-90°	1.8	0.2
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°	852.6	73.0
0°-40°	1055.7	90.3
0°-60°	1154.7	98.8
0°-90°	1168.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1168.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1920	
5°	1852	168
15°	1288	356
25°	718	329
35°	321	203
45°	103	79
55°	22	20
65°	7	8
75°	4	4
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1920.5
2.5°	1908.2
5°	1851.6
7.5°	1741.5
10°	1597.5
12.5°	1441.2
15°	1287.9
17.5°	1128.5
20°	976.2
22.5°	839.4
25°	718.0
27.5°	601.8
30°	496.9
32.5°	402.2
35°	320.9
37.5°	252.0
40°	187.2
42.5°	143.0
45°	102.9
47.5°	57.6
50°	37.0
52.5°	27.8
55°	21.6
57.5°	16.5
60°	13.4
62.5°	10.3
65°	7.2
67.5°	5.1
70°	5.1
72.5°	4.1
75°	4.1
77.5°	3.1
80°	3.1
82.5°	2.1
85°	2.1
87.5°	1.0
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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Scaled Data Report



(END OF REPORT)