

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: P642466

Luminaire Tested: ML5615LSFL409FS1E - 593WB - 1500LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642466  
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 - 1500LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1766.4 lumens  
Efficiency: N/A  
Efficacy: 103.3 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

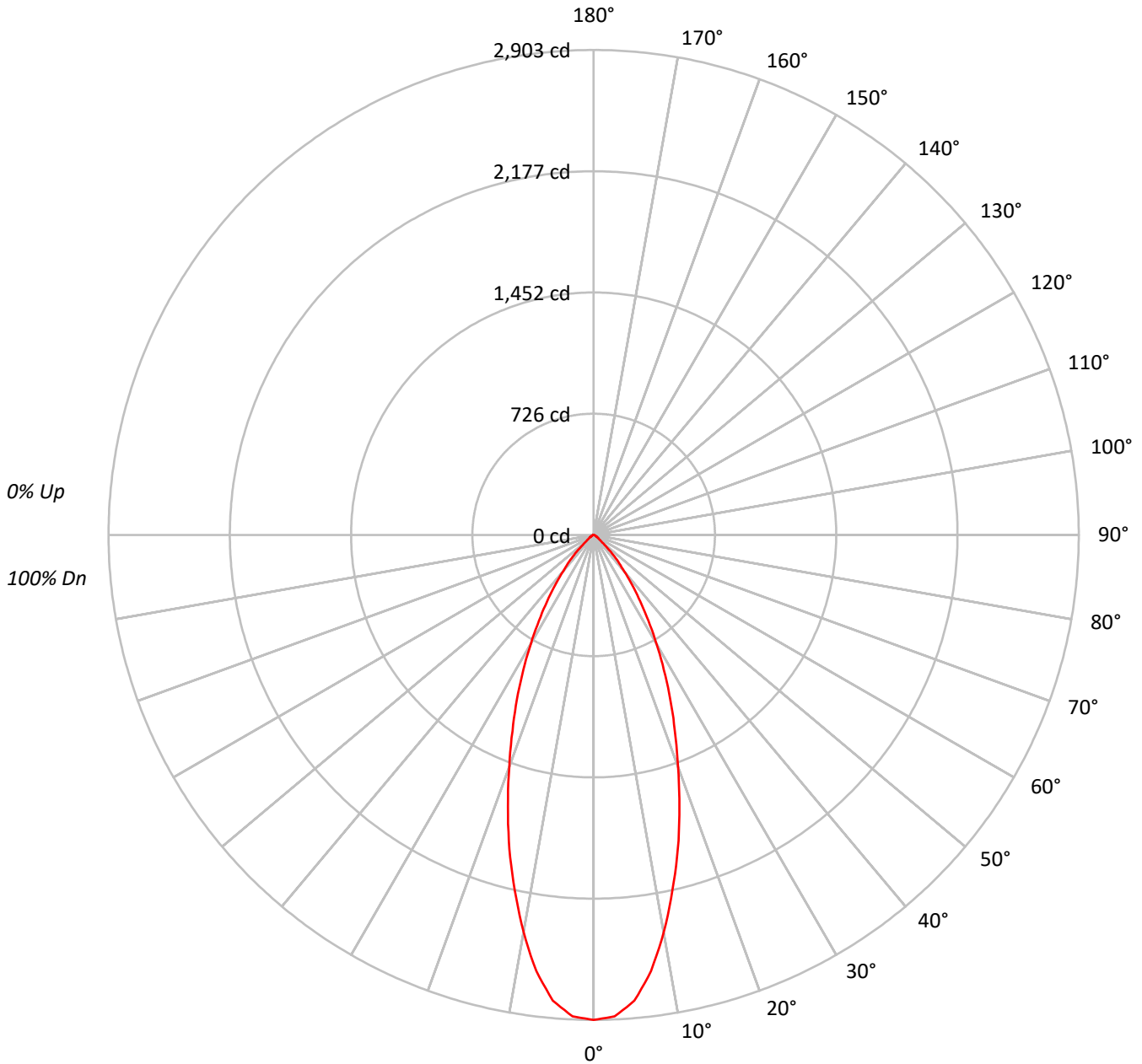
Input Watts (W): 17.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	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°	229189
5°	221808
10°	193583
15°	159120
20°	123978
25°	94540
30°	68465
35°	46758
40°	29163
45°	17360
50°	6877
55°	4500
60°	3189
65°	2036
70°	1800
75°	1891
80°	2137
85°	2808

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17360 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.6	14.4
10°-20°	537.5	30.4
20°-30°	496.8	28.1
30°-40°	307.1	17.4
40°-50°	119.1	6.7
50°-60°	30.6	1.7
60°-70°	11.9	0.7
70°-80°	6.2	0.3
80°-90°	2.8	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°	1288.9	73.0
0°-40°	1595.9	90.3
0°-60°	1745.6	98.8
0°-90°	1766.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1766.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2903	
5°	2799	255
15°	1947	538
25°	1085	497
35°	485	307
45°	156	119
55°	33	31
65°	11	12
75°	6	6
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2903.3
2.5°	2884.7
5°	2799.1
7.5°	2632.7
10°	2415.0
12.5°	2178.7
15°	1947.0
17.5°	1705.9
20°	1475.8
22.5°	1268.9
25°	1085.4
27.5°	909.7
30°	751.1
32.5°	608.0
35°	485.2
37.5°	381.0
40°	283.0
42.5°	216.2
45°	155.5
47.5°	87.1
50°	56.0
52.5°	42.0
55°	32.7
57.5°	24.9
60°	20.2
62.5°	15.6
65°	10.9
67.5°	7.8
70°	7.8
72.5°	6.2
75°	6.2
77.5°	4.7
80°	4.7
82.5°	3.1
85°	3.1
87.5°	1.6
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)