

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: P642481

Luminaire Tested: ML5615LSFL409FS1E - 594SNB - 1500LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-33)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 594SNB - 1500LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" SATIN NICKLE GIMBAL TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

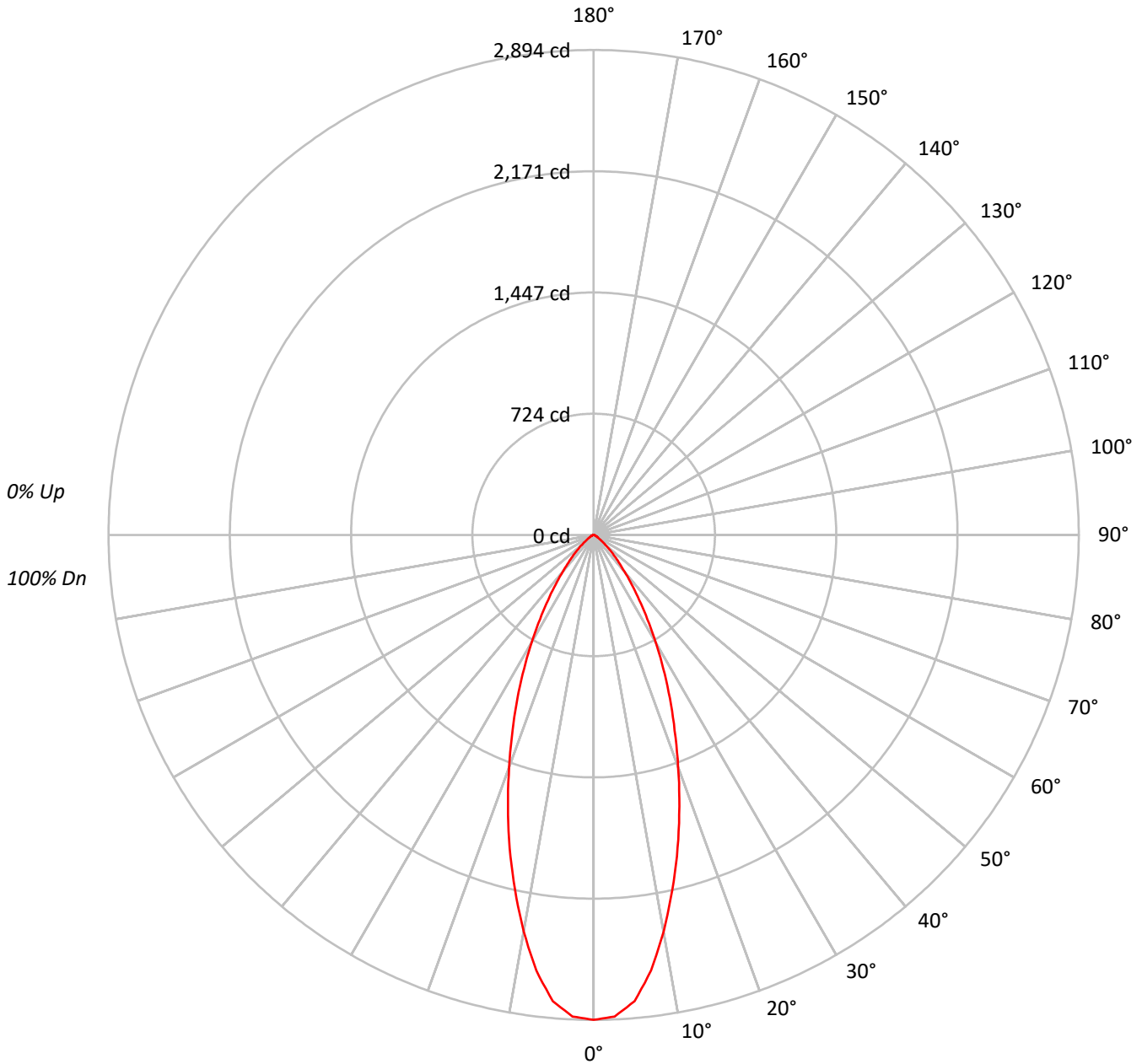
Lumens per Lamp: N/A  
Luminaire Lumens: 1785.1 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 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				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			
1	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93			
2	108	103	99	96	106	101	98	95	98	95	92	95	93	90	92	90	89	87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81			
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	79	75	72	71			
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59			
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56			
10	73	64	58	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53			

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

	0°
0°	228431
5°	221300
10°	192589
15°	158123
20°	123768
25°	93669
30°	67289
35°	45679
40°	29472
45°	19090
50°	11065
55°	6207
60°	4168
65°	2895
70°	2147
75°	1891
80°	1409
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19090 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.6	14.2
10°-20°	535.0	30.0
20°-30°	492.4	27.6
30°-40°	301.2	16.9
40°-50°	134.6	7.5
50°-60°	44.6	2.5
60°-70°	16.6	0.9
70°-80°	6.1	0.3
80°-90°	0.9	0.0
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°	1281.1	71.8
0°-40°	1582.2	88.6
0°-60°	1761.4	98.7
0°-90°	1785.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1785.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2894	
5°	2793	254
15°	1935	535
25°	1075	492
35°	474	301
45°	171	135
55°	45	45
65°	16	17
75°	6	6
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2893.7
2.5°	2876.6
5°	2792.7
7.5°	2621.8
10°	2402.6
12.5°	2168.0
15°	1934.8
17.5°	1698.6
20°	1473.3
22.5°	1261.9
25°	1075.4
27.5°	898.3
30°	738.2
32.5°	595.2
35°	474.0
37.5°	371.4
40°	286.0
42.5°	220.7
45°	171.0
47.5°	125.9
50°	90.1
52.5°	63.7
55°	45.1
57.5°	34.2
60°	26.4
62.5°	21.8
65°	15.5
67.5°	12.4
70°	9.3
72.5°	7.8
75°	6.2
77.5°	3.1
80°	3.1
82.5°	1.6
85°	0.0
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)