

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: P642483

Luminaire Tested: ML5615LSFL409FS1E - 594SNB - 1500LM - 3500K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642483  
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 - 3500K  
Description: ML56 RR, 40D TIR OPTIC, 5" SATIN NICKLE GIMBAL TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1886.0 lumens  
Efficiency: N/A  
Efficacy: 110.3 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

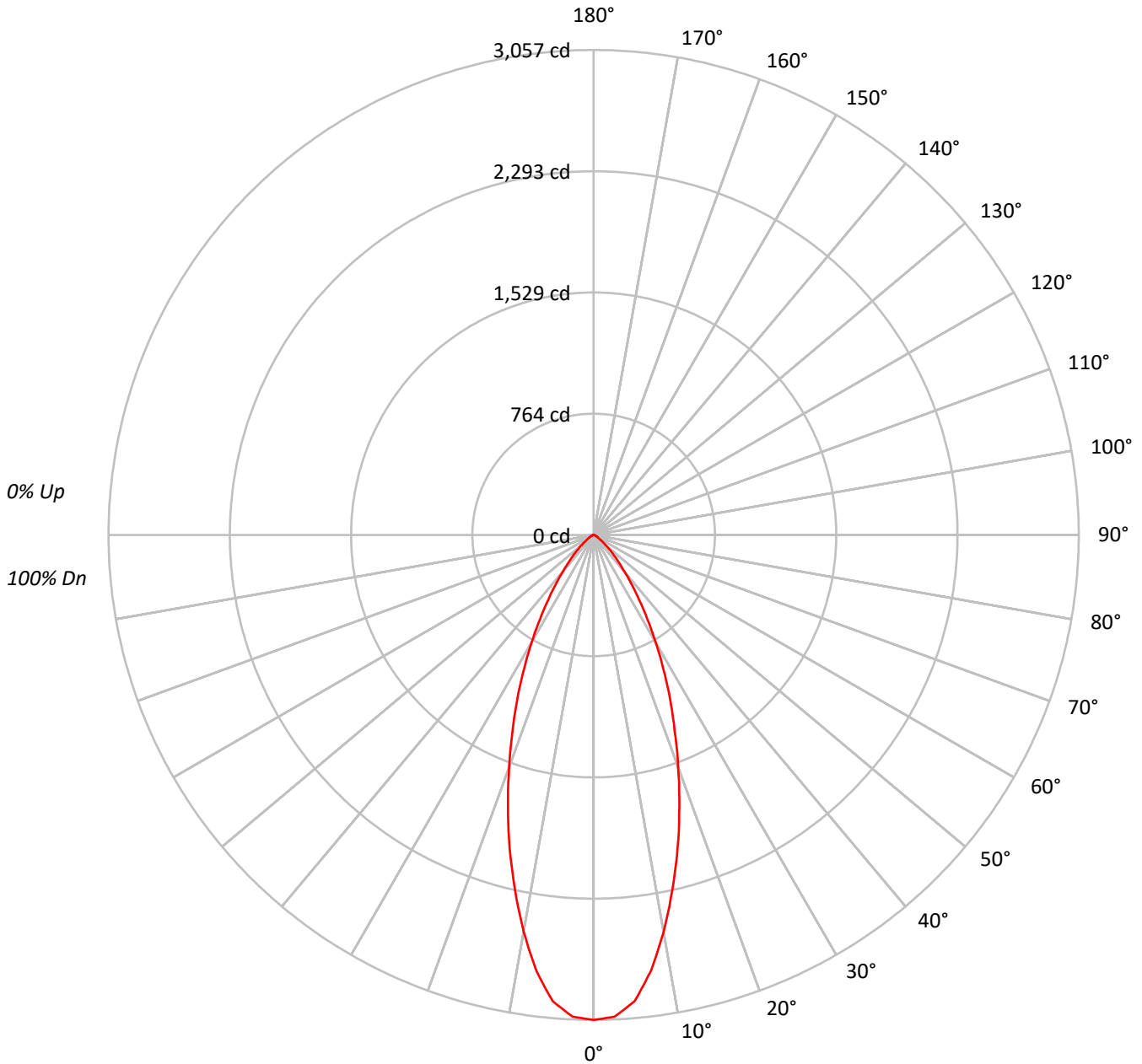
Input Watts (W): 17.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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			
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°	241354
5°	233821
10°	203483
15°	167072
20°	130766
25°	98974
30°	71099
35°	48262
40°	31131
45°	20162
50°	11692
55°	6551
60°	4405
65°	3063
70°	2285
75°	2013
80°	1500
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20162 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.0	14.2
10°-20°	565.3	30.0
20°-30°	520.3	27.6
30°-40°	318.2	16.9
40°-50°	142.2	7.5
50°-60°	47.1	2.5
60°-70°	17.6	0.9
70°-80°	6.5	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°	1353.6	71.8
0°-40°	1671.7	88.6
0°-60°	1861.0	98.7
0°-90°	1886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1886.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3057	
5°	2951	268
15°	2044	565
25°	1136	520
35°	501	318
45°	181	142
55°	48	47
65°	16	18
75°	7	7
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3057.4
2.5°	3039.3
5°	2950.7
7.5°	2770.1
10°	2538.5
12.5°	2290.6
15°	2044.3
17.5°	1794.7
20°	1556.6
22.5°	1333.3
25°	1136.3
27.5°	949.1
30°	780.0
32.5°	628.9
35°	500.8
37.5°	392.4
40°	302.1
42.5°	233.2
45°	180.6
47.5°	133.0
50°	95.2
52.5°	67.3
55°	47.6
57.5°	36.1
60°	27.9
62.5°	23.0
65°	16.4
67.5°	13.1
70°	9.9
72.5°	8.2
75°	6.6
77.5°	3.3
80°	3.3
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)