

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: P642542

Luminaire Tested: ML5615LSFL409FS1E - 691WB - 1500LM - 3000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642542
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-36)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 691WB - 1500LM - 3000K
Description: ML56 RR, 40D TIR OPTIC, 6" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1831.3 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

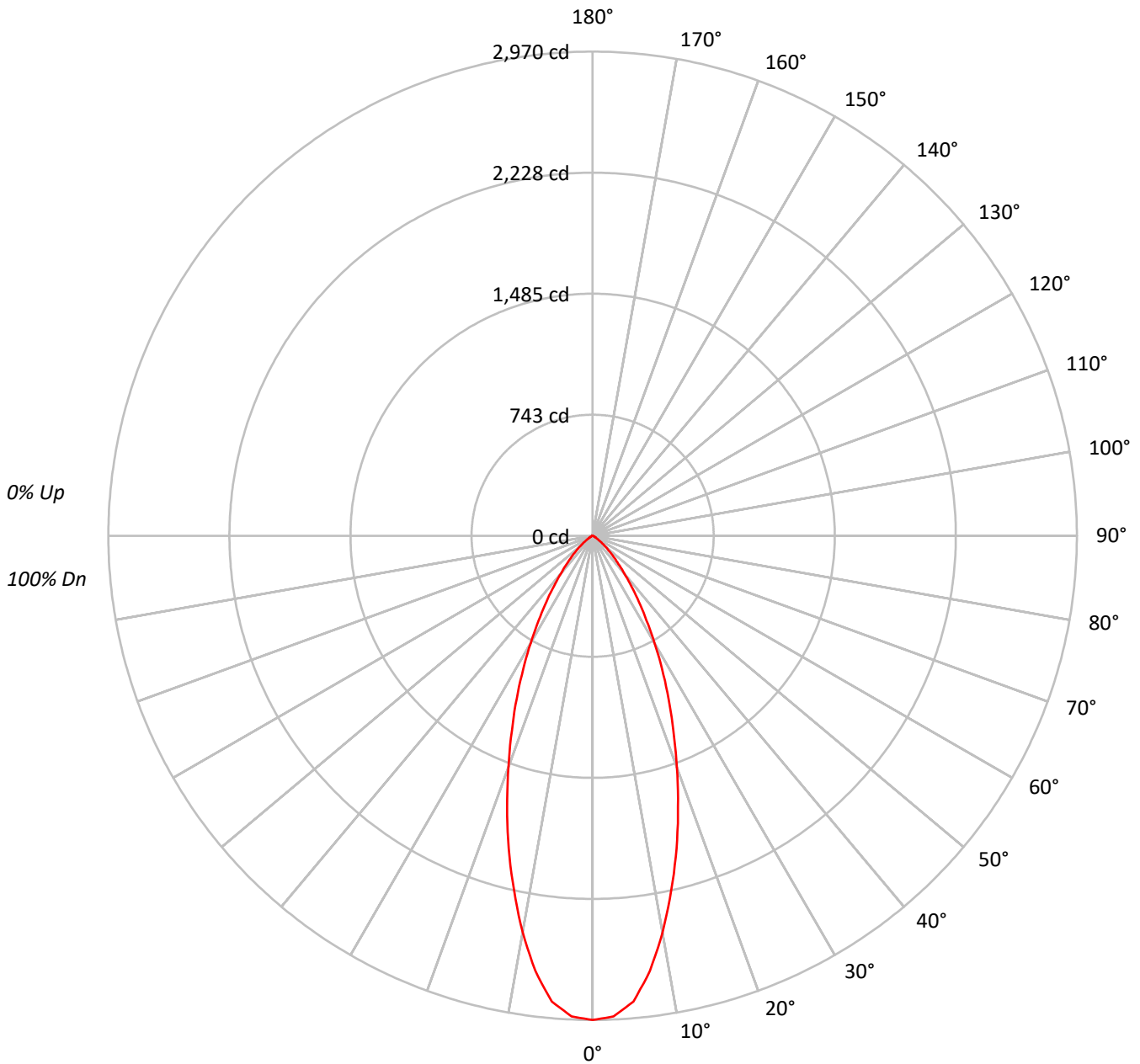
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	162816
5°	157808
10°	137478
15°	112765
20°	88033
25°	66621
30°	48064
35°	33053
40°	21619
45°	14125
50°	8315
55°	4435
60°	2456
65°	1453
70°	769
75°	339
80°	505
85°	1006

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14125 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.4	14.2
10°-20°	549.2	30.0
20°-30°	504.7	27.6
30°-40°	313.2	17.1
40°-50°	143.3	7.8
50°-60°	45.1	2.5
60°-70°	11.6	0.6
70°-80°	2.5	0.1
80°-90°	1.1	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°	1314.4	71.8
0°-40°	1627.7	88.9
0°-60°	1816.1	99.2
0°-90°	1831.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1831.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2970	
5°	2868	260
15°	1987	549
25°	1101	505
35°	494	313
45°	182	143
55°	46	45
65°	11	12
75°	2	3
85°	2	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2970.0
2.5°	2950.8
5°	2867.7
7.5°	2691.8
10°	2469.7
12.5°	2228.3
15°	1986.9
17.5°	1742.3
20°	1509.0
22.5°	1293.2
25°	1101.4
27.5°	920.7
30°	759.3
32.5°	615.4
35°	493.9
37.5°	390.0
40°	302.1
42.5°	235.0
45°	182.2
47.5°	134.3
50°	97.5
52.5°	67.1
55°	46.4
57.5°	30.4
60°	22.4
62.5°	16.0
65°	11.2
67.5°	6.4
70°	4.8
72.5°	3.2
75°	1.6
77.5°	1.6
80°	1.6
82.5°	1.6
85°	1.6
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)