

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: P642539

Luminaire Tested: ML5615LSFL409FS1E - 691WB - 1200LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642539
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 - 1200LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 6" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

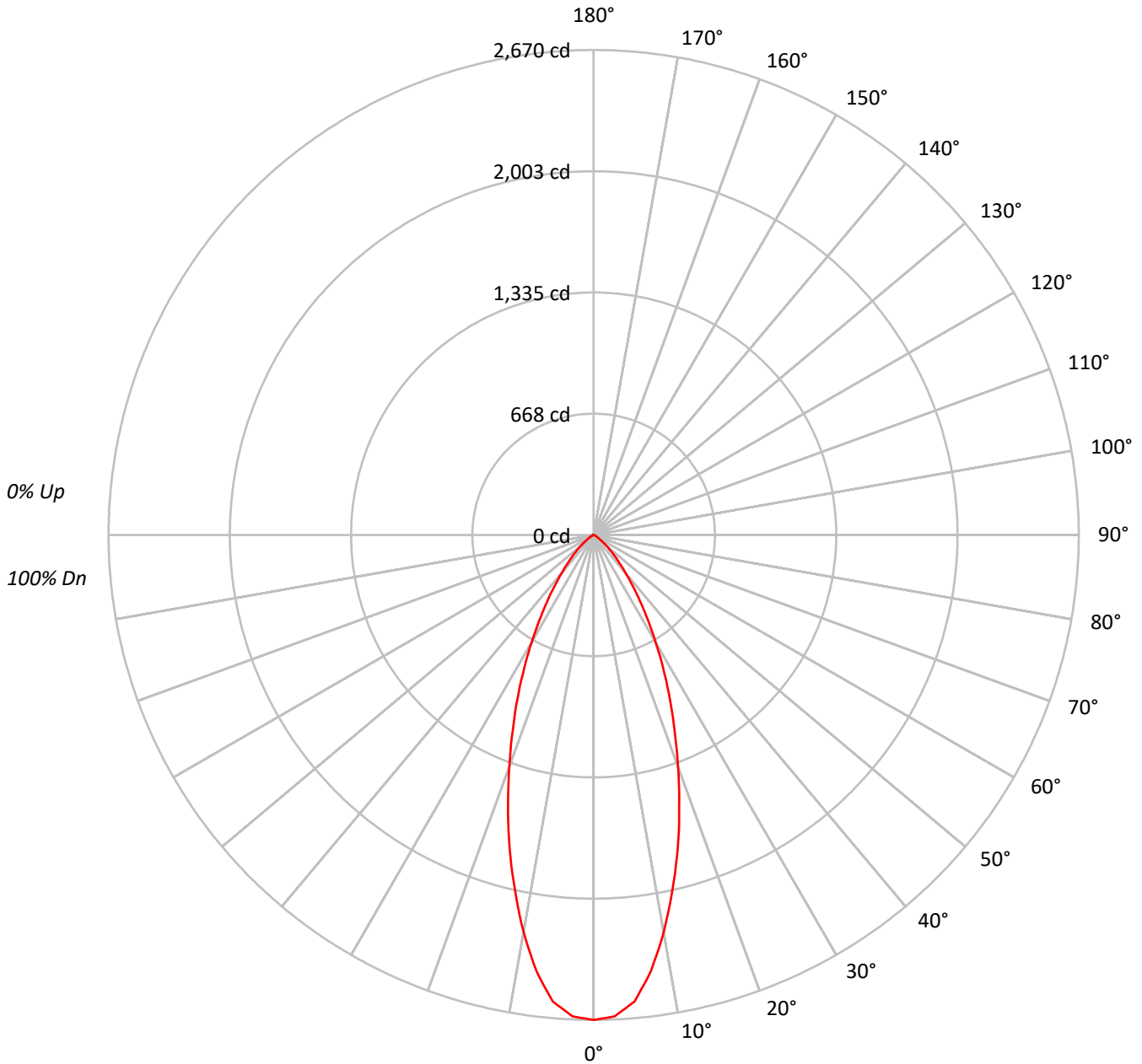
Lumens per Lamp: N/A
Luminaire Lumens: 1646.2 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 13.4
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°	146370
5°	141866
10°	123589
15°	101374
20°	79142
25°	59889
30°	43209
35°	29714
40°	19436
45°	12699
50°	7479
55°	3986
60°	2204
65°	1310
70°	689
75°	297
80°	442
85°	881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12699 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.1	14.2
10°-20°	493.8	30.0
20°-30°	453.8	27.6
30°-40°	281.6	17.1
40°-50°	128.8	7.8
50°-60°	40.5	2.5
60°-70°	10.4	0.6
70°-80°	2.2	0.1
80°-90°	1.0	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°	1181.7	71.8
0°-40°	1463.3	88.9
0°-60°	1632.6	99.2
0°-90°	1646.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1646.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2670	
5°	2578	234
15°	1786	494
25°	990	454
35°	444	282
45°	164	129
55°	42	41
65°	10	10
75°	1	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2670.0
2.5°	2652.8
5°	2578.0
7.5°	2420.0
10°	2220.2
12.5°	2003.2
15°	1786.2
17.5°	1566.4
20°	1356.6
22.5°	1162.6
25°	990.1
27.5°	827.7
30°	682.6
32.5°	553.3
35°	444.0
37.5°	350.6
40°	271.6
42.5°	211.2
45°	163.8
47.5°	120.7
50°	87.7
52.5°	60.4
55°	41.7
57.5°	27.3
60°	20.1
62.5°	14.4
65°	10.1
67.5°	5.7
70°	4.3
72.5°	2.9
75°	1.4
77.5°	1.4
80°	1.4
82.5°	1.4
85°	1.4
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)