

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: P642536

Luminaire Tested: ML5615LSFL409FS1E - 691WB - 1200LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642536
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 - 2700K
Description: ML56 RR, 40D TIR OPTIC, 6" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

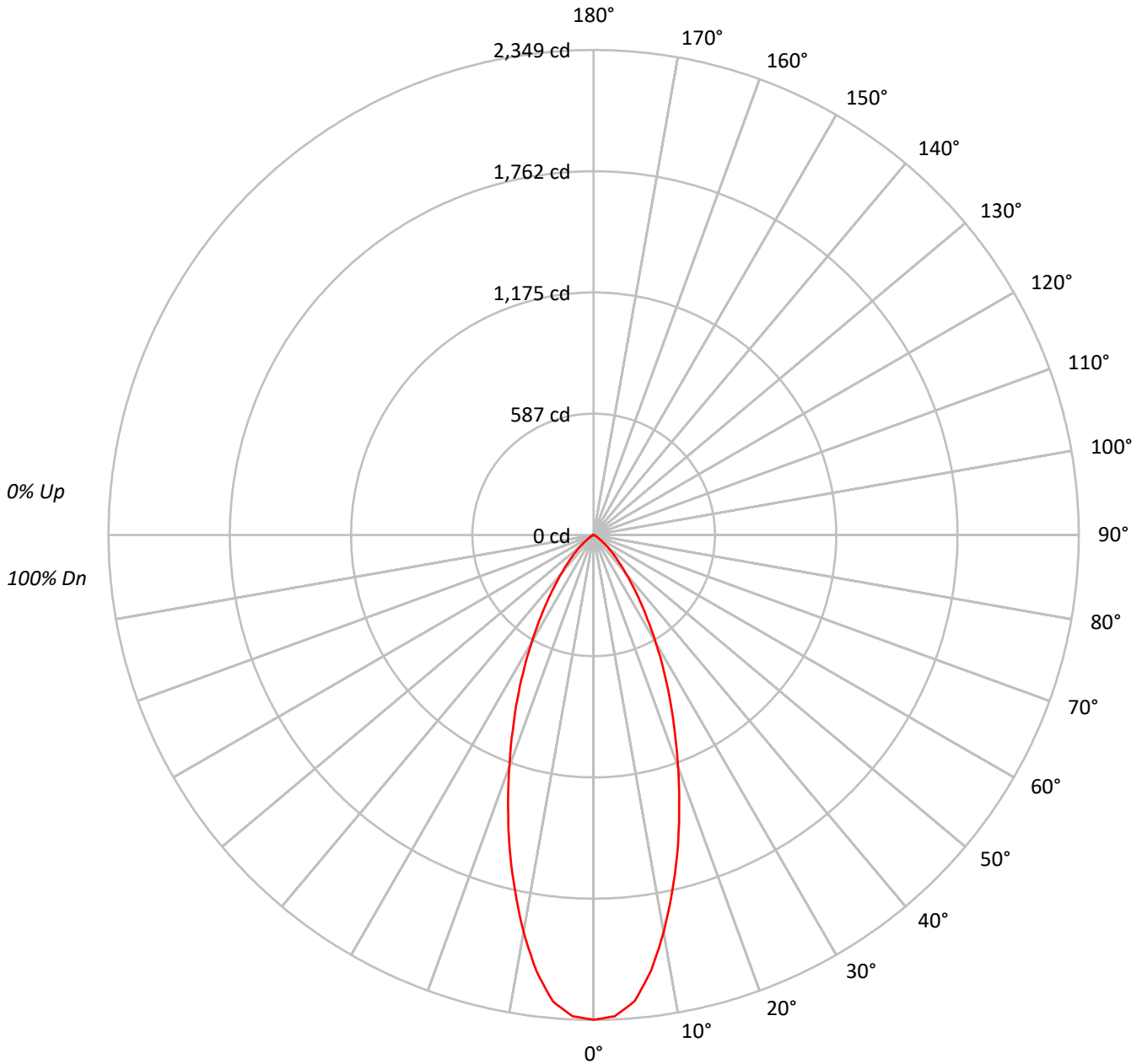
Lumens per Lamp: N/A
Luminaire Lumens: 1448.2 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 13.4
Input Voltage (V): NR
Input Current (A_{in}): 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	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°	128751
5°	124791
10°	108715
15°	89172
20°	69615
25°	52678
30°	38006
35°	26140
40°	17096
45°	11172
50°	6575
55°	3508
60°	1941
65°	1141
70°	609
75°	275
80°	410
85°	818

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11172 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.0	14.2
10°-20°	434.3	30.0
20°-30°	399.1	27.6
30°-40°	247.7	17.1
40°-50°	113.3	7.8
50°-60°	35.6	2.5
60°-70°	9.2	0.6
70°-80°	2.0	0.1
80°-90°	0.9	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°	1039.4	71.8
0°-40°	1287.1	88.9
0°-60°	1436.1	99.2
0°-90°	1448.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1448.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2349	
5°	2268	206
15°	1571	434
25°	871	399
35°	391	248
45°	144	113
55°	37	36
65°	9	9
75°	1	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2348.6
2.5°	2333.5
5°	2267.7
7.5°	2128.7
10°	1953.0
12.5°	1762.1
15°	1571.2
17.5°	1377.8
20°	1193.3
22.5°	1022.6
25°	870.9
27.5°	728.1
30°	600.4
32.5°	486.7
35°	390.6
37.5°	308.4
40°	238.9
42.5°	185.8
45°	144.1
47.5°	106.2
50°	77.1
52.5°	53.1
55°	36.7
57.5°	24.0
60°	17.7
62.5°	12.6
65°	8.8
67.5°	5.1
70°	3.8
72.5°	2.5
75°	1.3
77.5°	1.3
80°	1.3
82.5°	1.3
85°	1.3
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)