

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: P642366

Luminaire Tested: ML5615LSFL409FS1E - 591WB - 900LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642366
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-24)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 591WB - 900LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

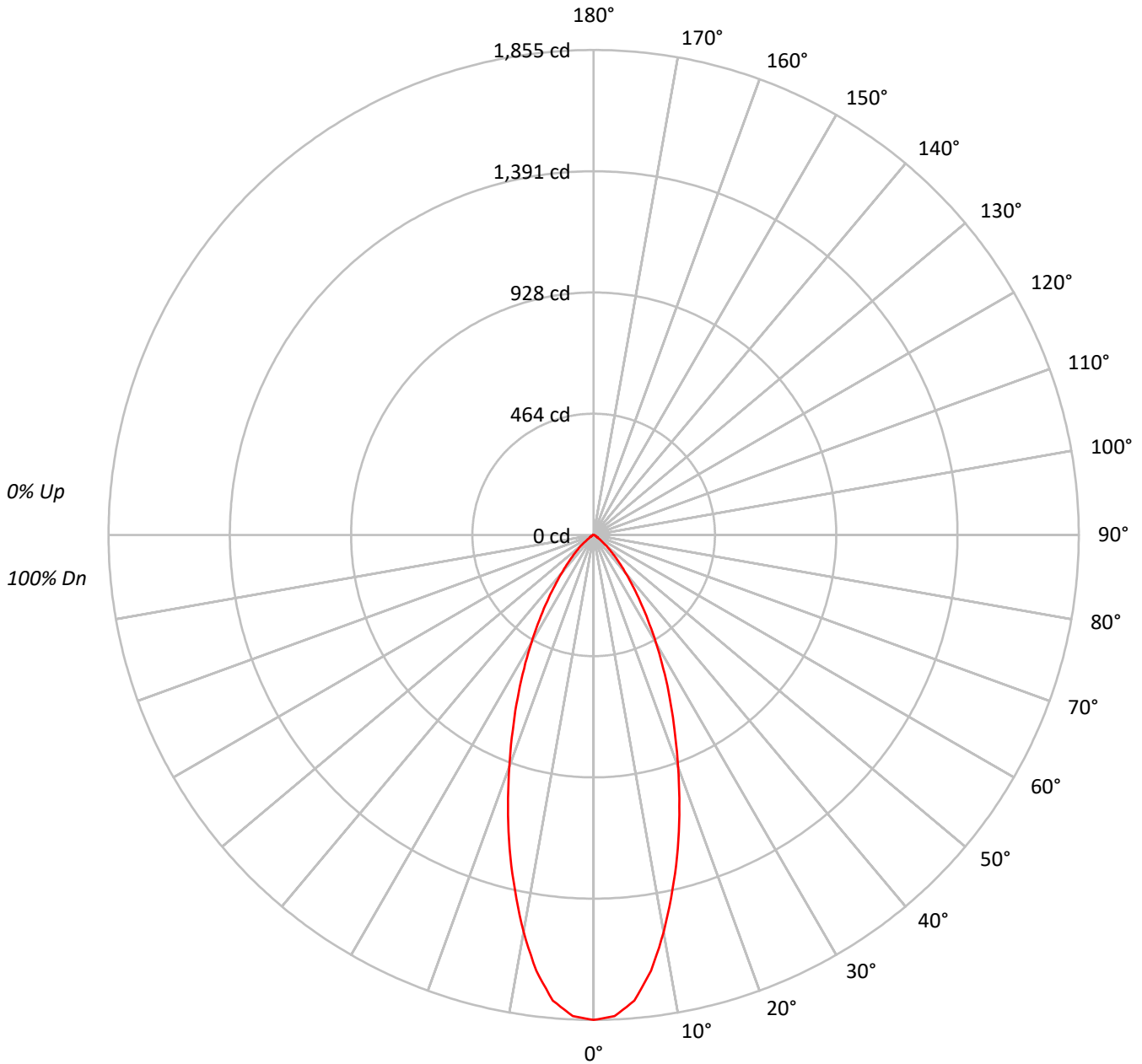
Lumens per Lamp: N/A
Luminaire Lumens: 1140.0 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 10.5
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					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	88	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	73	69	76	72	69	75	71	68	67				
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63				
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	63	60	59				
9	77	67	62	58	76	67	62	58	66	61	58	65	61	57	64	60	57	56				
10	74	64	59	55	73	64	58	55	63	58	55	62	58	54	61	57	54	53				

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	146435
5°	141686
10°	123605
15°	101585
20°	79135
25°	59926
30°	43389
35°	29778
40°	19476
45°	12280
50°	7123
55°	3028
60°	2052
65°	1308
70°	692
75°	610
80°	909
85°	906

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12280 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.6	14.3
10°-20°	343.2	30.1
20°-30°	315.5	27.7
30°-40°	195.9	17.2
40°-50°	87.8	7.7
50°-60°	24.4	2.1
60°-70°	7.4	0.6
70°-80°	2.2	0.2
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°	821.2	72.0
0°-40°	1017.1	89.2
0°-60°	1129.3	99.1
0°-90°	1140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1140.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1855	
5°	1788	163
15°	1243	343
25°	688	316
35°	309	196
45°	110	88
55°	22	24
65°	7	7
75°	2	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1855
2.5°	1842
5°	1788
7.5°	1681
10°	1542
12.5°	1391
15°	1243
17.5°	1089
20°	942
22.5°	808
25°	688
27.5°	576
30°	476
32.5°	385
35°	309
37.5°	243
40°	189
42.5°	146
45°	110
47.5°	81
50°	58
52.5°	36
55°	22
57.5°	17
60°	13
62.5°	10
65°	7
67.5°	5
70°	3
72.5°	2
75°	2
77.5°	2
80°	2
82.5°	1
85°	1
87.5°	1
90°	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)