

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: P642549

Luminaire Tested: ML5615LSFL409FS1E - 691WB - 900LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642549
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 - 900LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 6" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

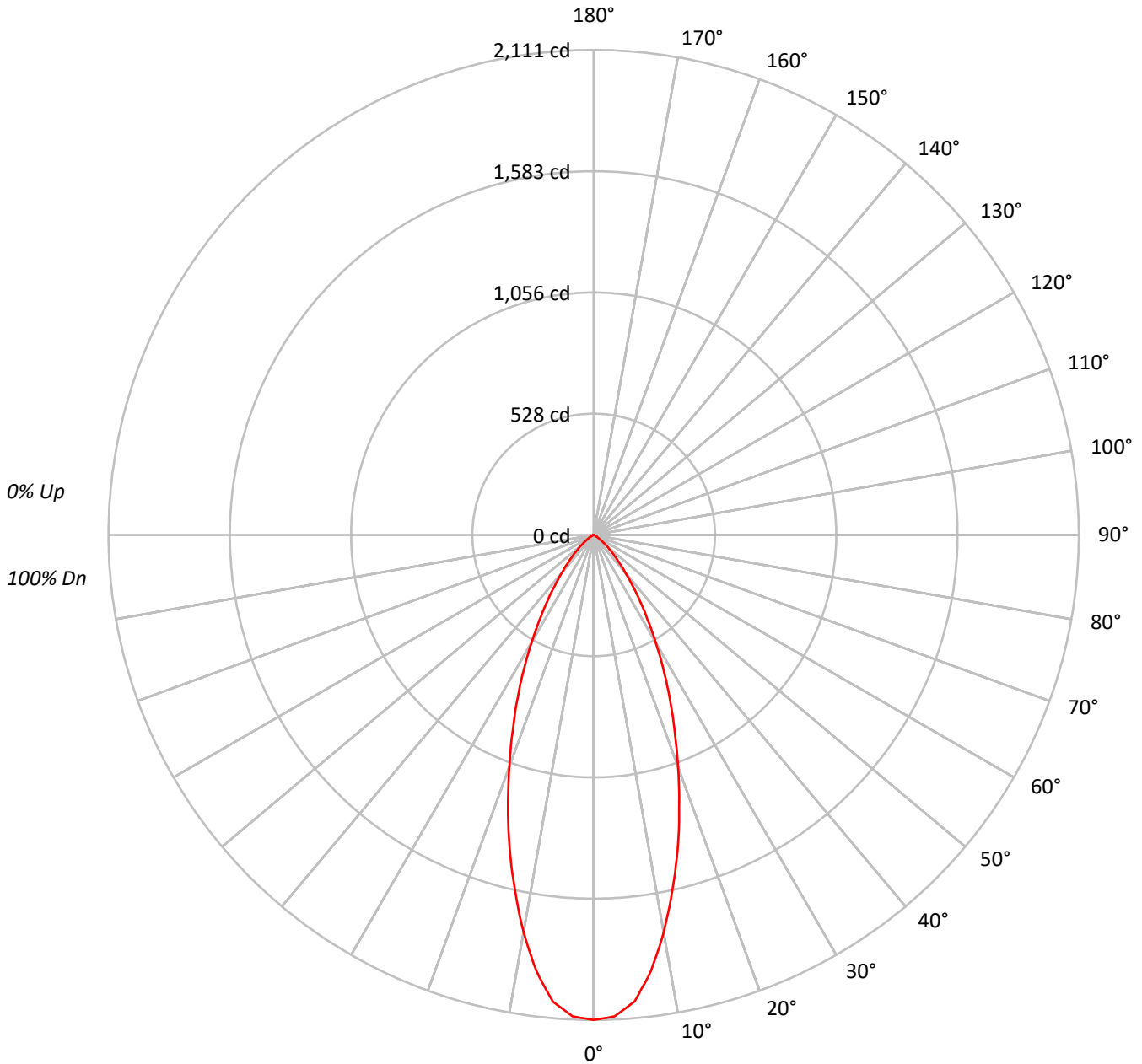
Lumens per Lamp: N/A
Luminaire Lumens: 1301.6 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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				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				100
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94				94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87				87
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81				81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76				76
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71				71
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	67				67
7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	63				63
8	80	71	65	61	79	70	65	61	69	64	61	68	64	61	67	63	60	59				59
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56				56
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53				53

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	115731
5°	112172
10°	97721
15°	80154
20°	62574
25°	47356
30°	34163
35°	23497
40°	15365
45°	10040
50°	5910
55°	3154
60°	1743
65°	1038
70°	545
75°	233
80°	347
85°	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10040 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.1	14.2
10°-20°	390.4	30.0
20°-30°	358.8	27.6
30°-40°	222.6	17.1
40°-50°	101.8	7.8
50°-60°	32.0	2.5
60°-70°	8.2	0.6
70°-80°	1.8	0.1
80°-90°	0.7	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°	934.3	71.8
0°-40°	1157.0	88.9
0°-60°	1290.8	99.2
0°-90°	1301.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1301.6	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2111	
5°	2038	185
15°	1412	390
25°	783	359
35°	351	223
45°	130	102
55°	33	32
65°	8	8
75°	1	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2111.1
2.5°	2097.5
5°	2038.4
7.5°	1913.4
10°	1755.5
12.5°	1583.9
15°	1412.3
17.5°	1238.5
20°	1072.6
22.5°	919.2
25°	782.9
27.5°	654.5
30°	539.7
32.5°	437.4
35°	351.1
37.5°	277.2
40°	214.7
42.5°	167.0
45°	129.5
47.5°	95.4
50°	69.3
52.5°	47.7
55°	33.0
57.5°	21.6
60°	15.9
62.5°	11.4
65°	8.0
67.5°	4.5
70°	3.4
72.5°	2.3
75°	1.1
77.5°	1.1
80°	1.1
82.5°	1.1
85°	1.1
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)