

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: P642369

Luminaire Tested: ML5615LSFL409FS1E - 591WB - 900LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642369
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 - 4000K
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

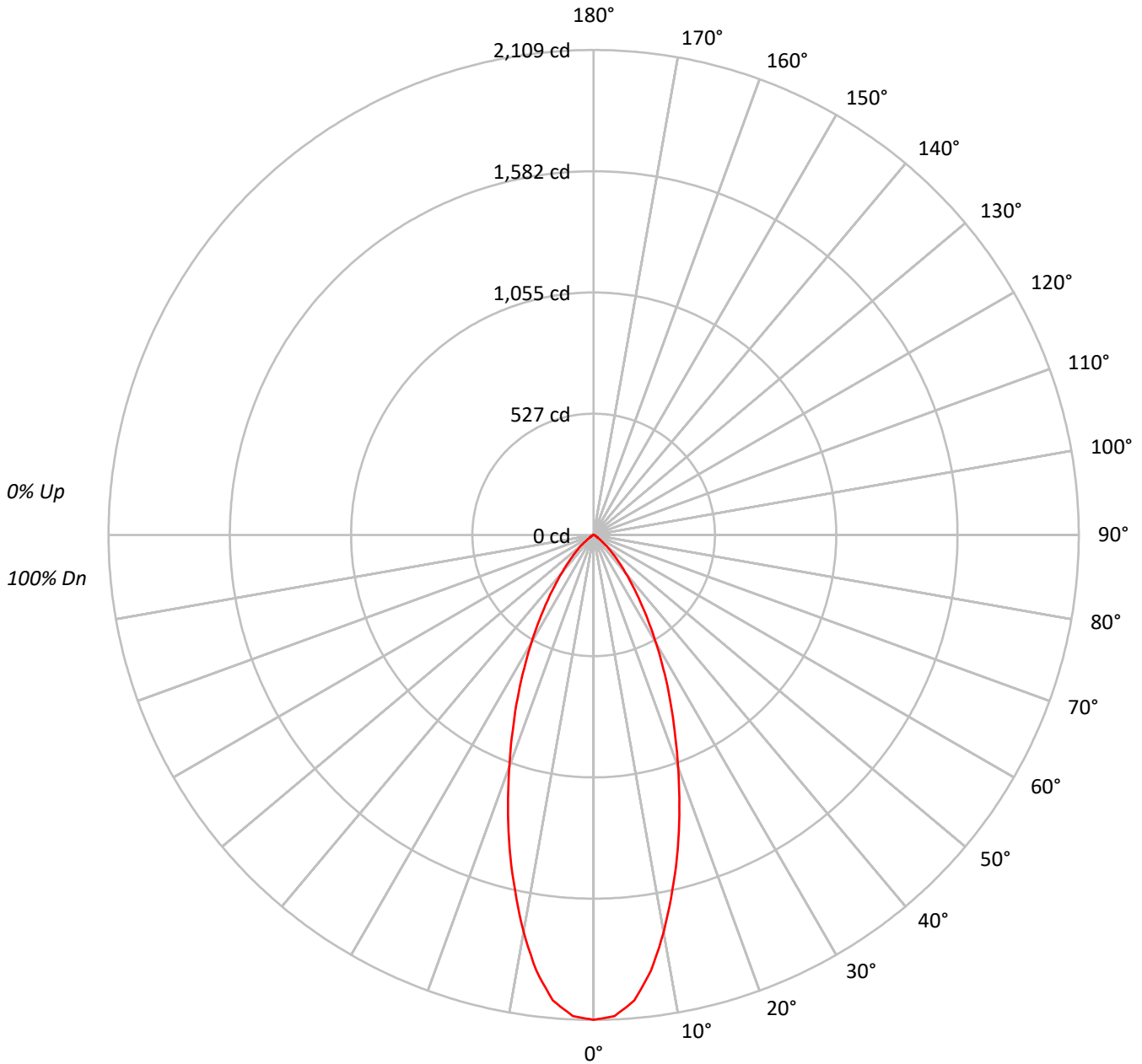
Lumens per Lamp: N/A
Luminaire Lumens: 1296.0 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

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									
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	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°	166471
5°	161068
10°	140518
15°	115478
20°	89963
25°	68122
30°	49323
35°	33854
40°	22145
45°	13955
50°	8093
55°	3441
60°	2337
65°	1494
70°	785
75°	702
80°	1046
85°	996

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13955 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.8	14.3
10°-20°	390.1	30.1
20°-30°	358.7	27.7
30°-40°	222.7	17.2
40°-50°	99.8	7.7
50°-60°	27.7	2.1
60°-70°	8.4	0.6
70°-80°	2.6	0.2
80°-90°	1.2	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°	933.6	72.0
0°-40°	1156.3	89.2
0°-60°	1283.8	99.1
0°-90°	1296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1296.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2109	
5°	2033	185
15°	1413	390
25°	782	359
35°	351	223
45°	125	100
55°	25	28
65°	8	8
75°	2	3
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2108.8
2.5°	2094.0
5°	2032.6
7.5°	1911.0
10°	1753.0
12.5°	1581.3
15°	1413.0
17.5°	1238.0
20°	1070.9
22.5°	918.5
25°	782.1
27.5°	654.8
30°	541.1
32.5°	437.7
35°	351.3
37.5°	276.2
40°	214.9
42.5°	166.0
45°	125.0
47.5°	92.1
50°	65.9
52.5°	40.9
55°	25.0
57.5°	19.3
60°	14.8
62.5°	11.4
65°	8.0
67.5°	5.7
70°	3.4
72.5°	2.3
75°	2.3
77.5°	2.3
80°	2.3
82.5°	1.1
85°	1.1
87.5°	1.1
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)