

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: P642362

Luminaire Tested: ML5615LSFL409FS1E - 591WB - 1500LM - 3000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642362
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 - 1500LM - 3000K
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1823.3 lumens
Efficiency: N/A
Efficacy: 106.6 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

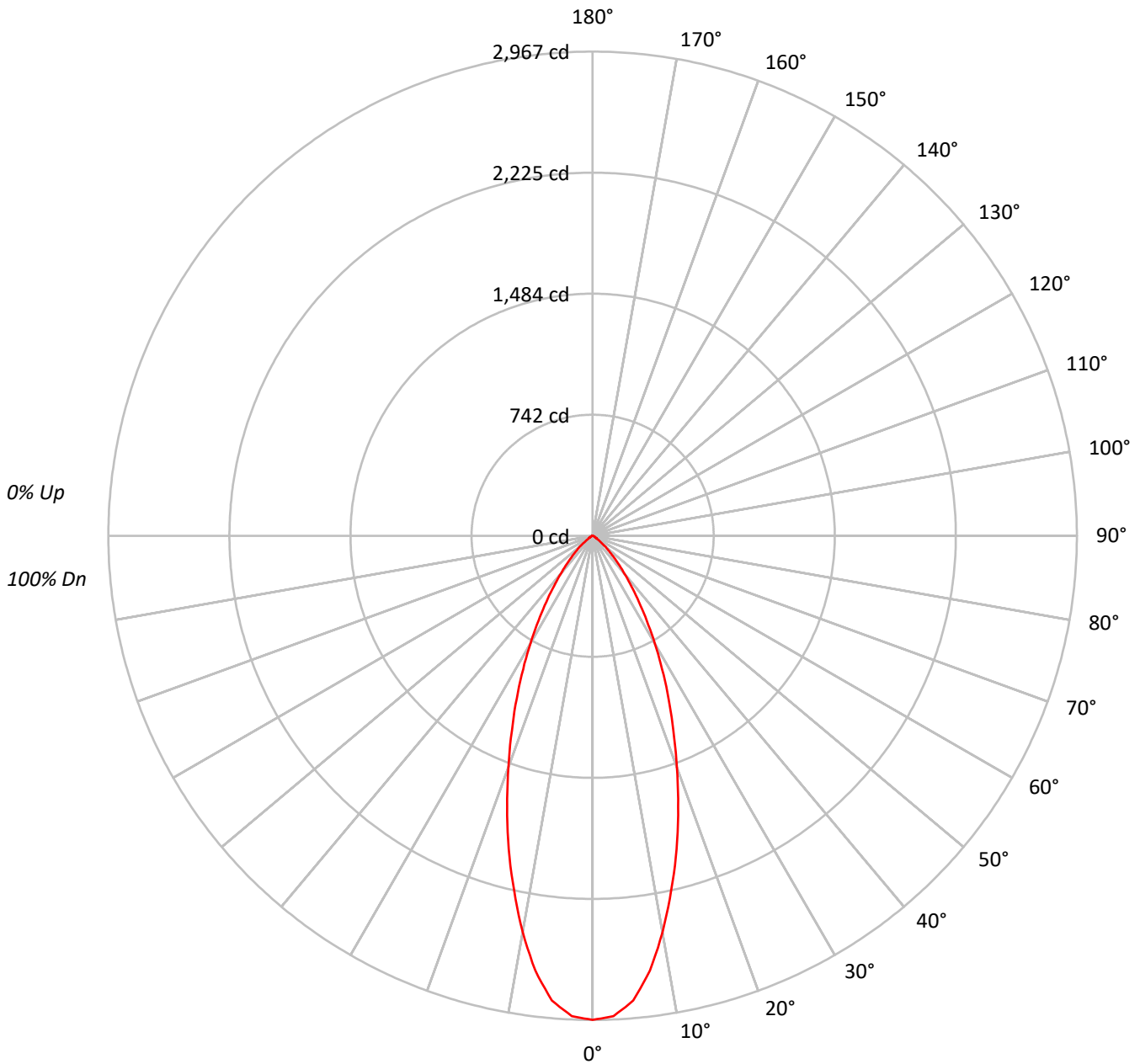
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	234194
5°	226602
10°	197679
15°	162462
20°	126565
25°	95838
30°	69395
35°	47626
40°	31152
45°	19637
50°	11397
55°	4845
60°	3284
65°	2092
70°	1108
75°	976
80°	1455
85°	1449

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19637 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.0	14.3
10°-20°	548.8	30.1
20°-30°	504.6	27.7
30°-40°	313.3	17.2
40°-50°	140.4	7.7
50°-60°	39.1	2.1
60°-70°	11.8	0.6
70°-80°	3.6	0.2
80°-90°	1.7	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°	1313.4	72.0
0°-40°	1626.7	89.2
0°-60°	1806.1	99.1
0°-90°	1823.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1823.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2967	
5°	2860	260
15°	1988	549
25°	1100	505
35°	494	313
45°	176	140
55°	35	39
65°	11	12
75°	3	4
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2966.7
2.5°	2945.9
5°	2859.6
7.5°	2688.4
10°	2466.1
12.5°	2224.6
15°	1987.9
17.5°	1741.6
20°	1506.6
22.5°	1292.2
25°	1100.3
27.5°	921.2
30°	761.3
32.5°	615.7
35°	494.2
37.5°	388.6
40°	302.3
42.5°	233.5
45°	175.9
47.5°	129.5
50°	92.8
52.5°	57.6
55°	35.2
57.5°	27.2
60°	20.8
62.5°	16.0
65°	11.2
67.5°	8.0
70°	4.8
72.5°	3.2
75°	3.2
77.5°	3.2
80°	3.2
82.5°	1.6
85°	1.6
87.5°	1.6
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)