

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: P642363

Luminaire Tested: ML5615LSFL409FS1E - 591WB - 1500LM - 3500K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642363
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 - 3500K
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1872.9 lumens
Efficiency: N/A
Efficacy: 109.5 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

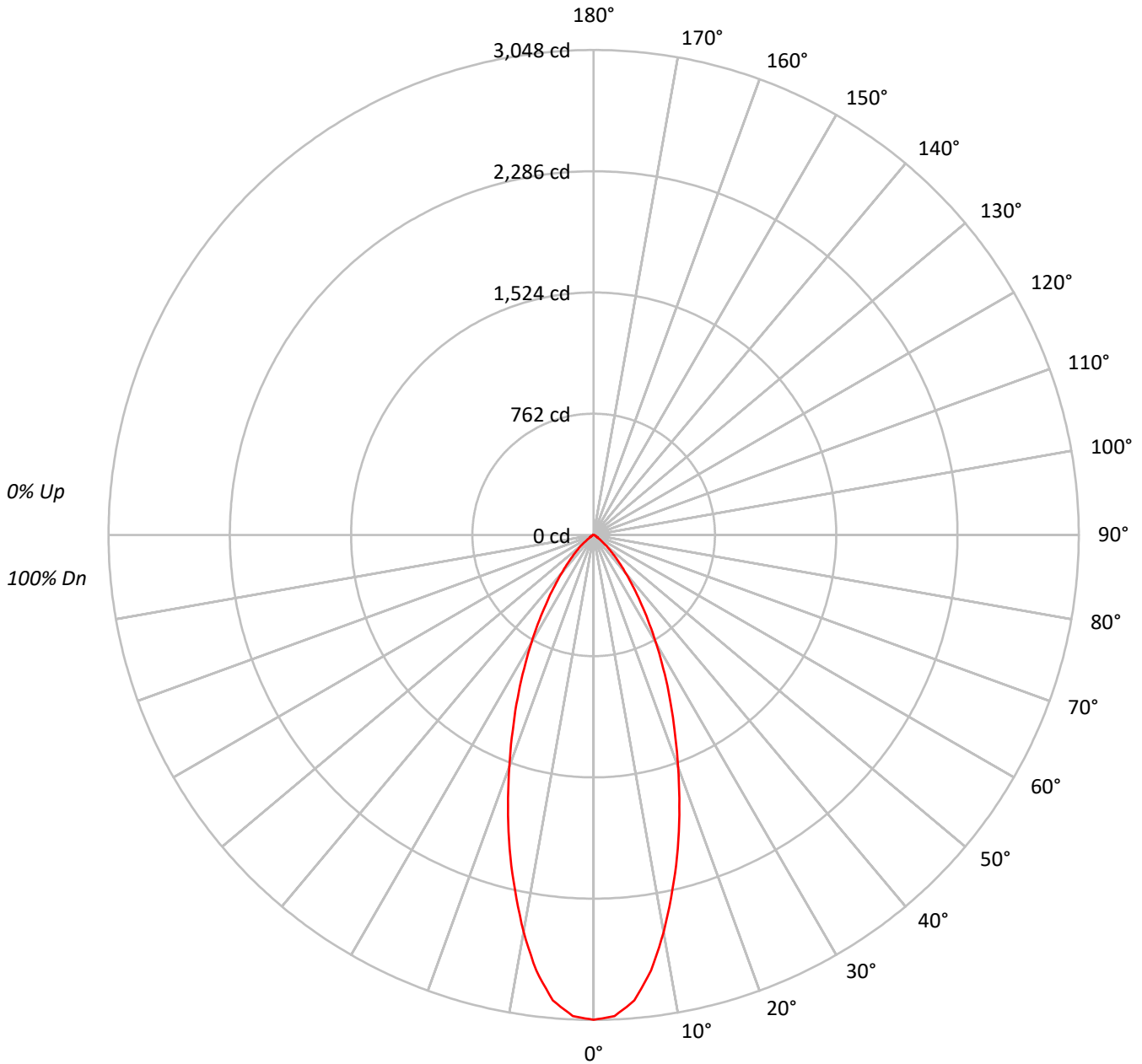
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	240572
5°	232767
10°	203066
15°	166892
20°	130009
25°	98451
30°	71282
35°	48917
40°	31997
45°	20173
50°	11704
55°	4968
60°	3379
65°	2148
70°	1131
75°	1007
80°	1500
85°	1449

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.1	14.3
10°-20°	563.8	30.1
20°-30°	518.3	27.7
30°-40°	321.8	17.2
40°-50°	144.2	7.7
50°-60°	40.1	2.1
60°-70°	12.1	0.6
70°-80°	3.7	0.2
80°-90°	1.8	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°	1349.2	72.0
0°-40°	1671.0	89.2
0°-60°	1855.3	99.1
0°-90°	1872.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1872.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3048	
5°	2937	267
15°	2042	564
25°	1130	518
35°	508	322
45°	181	144
55°	36	40
65°	12	12
75°	3	4
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	3047.5
2.5°	3026.1
5°	2937.4
7.5°	2761.6
10°	2533.3
12.5°	2285.2
15°	2042.1
17.5°	1789.1
20°	1547.6
22.5°	1327.4
25°	1130.3
27.5°	946.3
30°	782.0
32.5°	632.5
35°	507.6
37.5°	399.2
40°	310.5
42.5°	239.9
45°	180.7
47.5°	133.1
50°	95.3
52.5°	59.1
55°	36.1
57.5°	27.9
60°	21.4
62.5°	16.4
65°	11.5
67.5°	8.2
70°	4.9
72.5°	3.3
75°	3.3
77.5°	3.3
80°	3.3
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)