

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: P642604

Luminaire Tested: ML5615LSFL409FS1E - 693BB - 1500LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642604
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 693BB - 1500LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 6" BLACK BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

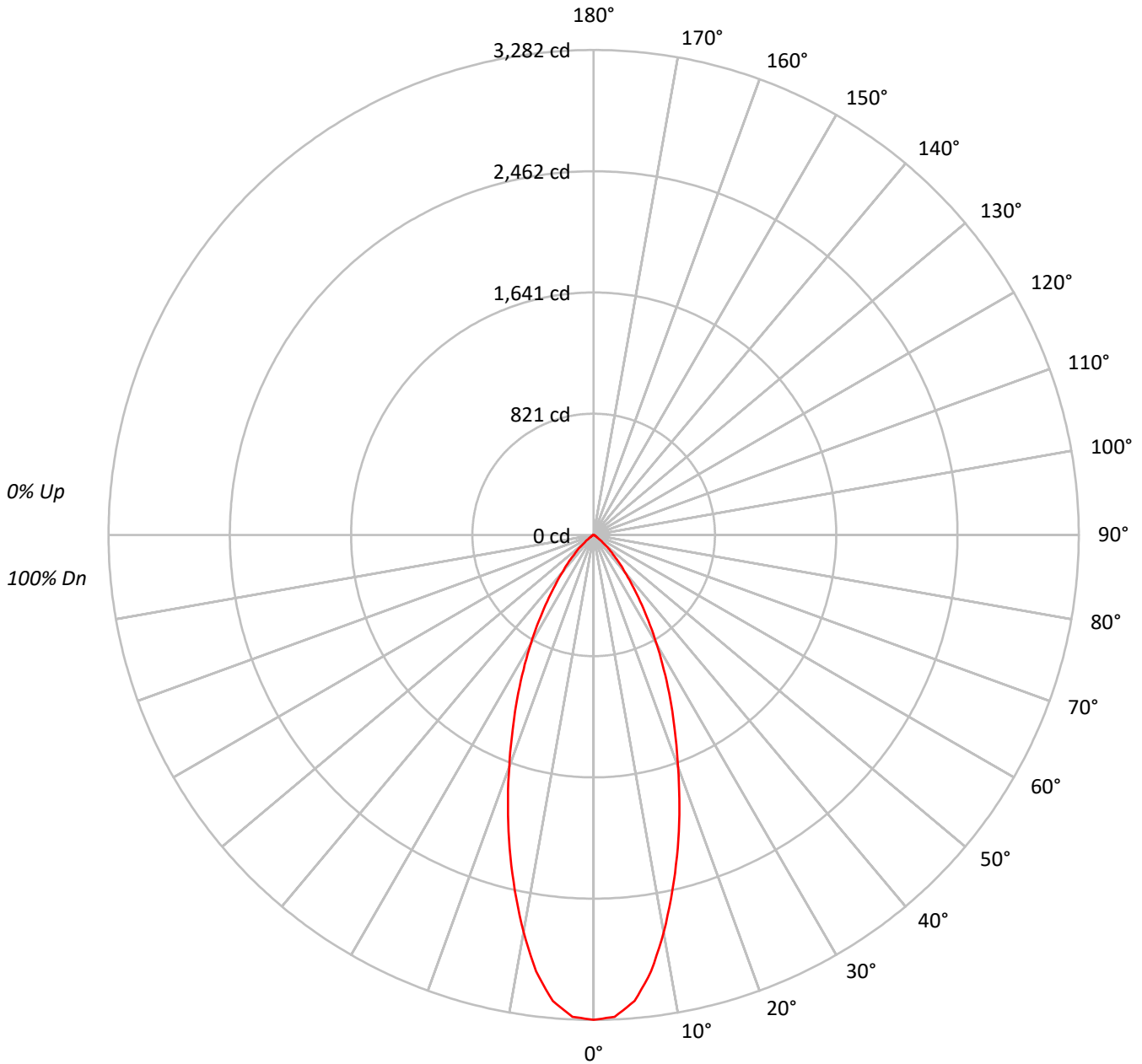
Lumens per Lamp: N/A
Luminaire Lumens: 1990.4 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82																			
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77																			
5	93	85	80	76	92	84	79	75	83	78	75	81	77	74	79	76	73	72																			
6	89	80	75	70	88	80	74	70	78	73	70	77	73	69	75	72	69	67																			
7	85	76	70	66	84	75	70	66	74	69	66	73	68	65	72	68	65	63																			
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60																			
9	77	68	62	59	76	68	62	59	67	62	58	66	61	58	65	61	58	57																			
10	74	65	59	55	73	64	59	55	64	59	55	63	58	55	62	58	55	54																			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	179898
5°	174257
10°	151962
15°	124632
20°	97373
25°	74006
30°	53723
35°	36560
40°	23537
45°	14389
50°	7241
55°	2877
60°	1743
65°	687
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14389 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.0	14.5
10°-20°	607.2	30.5
20°-30°	561.0	28.2
30°-40°	347.1	17.4
40°-50°	149.1	7.5
50°-60°	32.2	1.6
60°-70°	5.8	0.3
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	1456.2	73.2
0°-40°	1803.3	90.6
0°-60°	1984.6	99.7
0°-90°	1990.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1990.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3282	
5°	3167	288
15°	2196	607
25°	1224	561
35°	546	347
45°	186	149
55°	30	32
65°	5	6
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	3281.6
2.5°	3263.9
5°	3166.6
7.5°	2979.2
10°	2729.9
12.5°	2462.9
15°	2196.0
17.5°	1927.2
20°	1669.1
22.5°	1433.9
25°	1223.5
27.5°	1027.3
30°	848.7
32.5°	687.8
35°	546.3
37.5°	427.9
40°	328.9
42.5°	254.6
45°	185.6
47.5°	136.1
50°	84.9
52.5°	44.2
55°	30.1
57.5°	21.2
60°	15.9
62.5°	10.6
65°	5.3
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
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)