

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: P642454

Luminaire Tested: ML5615LSFL409FS1E - 593TBZB - 1500LM - 4000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-31)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 593TBZB - 1500LM - 4000K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

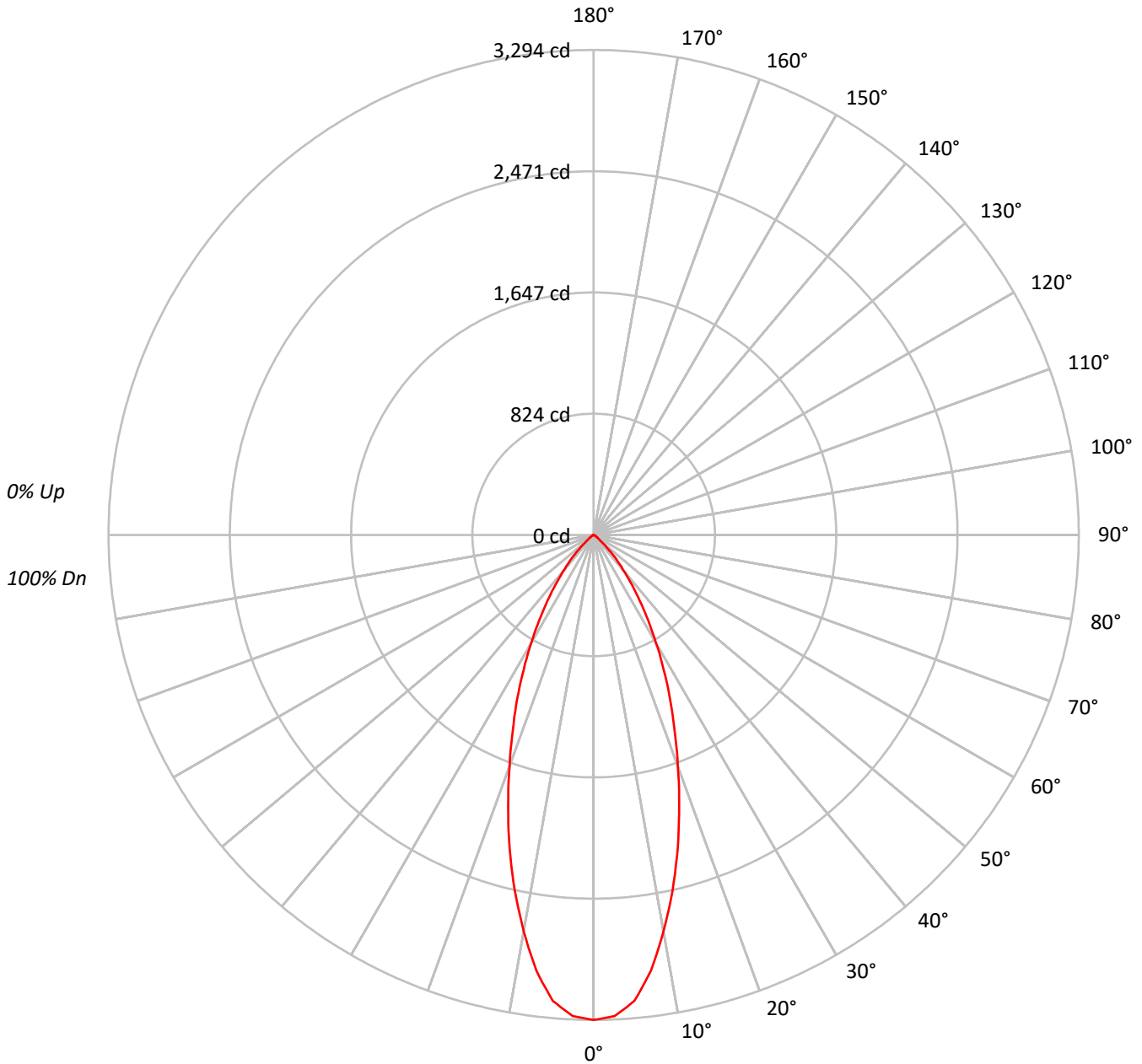
Lumens per Lamp: N/A
Luminaire Lumens: 1963.8 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (Ain): 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	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94			
2	108	104	100	97	106	102	99	96	99	96	93	96	94	91	93	91	90	88			
3	103	97	92	89	101	96	91	88	93	89	86	91	88	85	89	86	84	82			
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77			
5	94	86	80	76	92	85	80	76	83	79	75	81	77	74	80	76	74	72			
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68			
7	85	76	71	67	84	76	70	66	74	70	66	73	69	66	72	68	65	64			
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61			
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57			
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	260023
5°	251769
10°	219114
15°	180042
20°	140359
25°	106874
30°	77198
35°	52646
40°	32615
45°	18354
50°	6730
55°	3895
60°	2226
65°	654
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18354 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.6	14.7
10°-20°	608.8	31.0
20°-30°	561.4	28.6
30°-40°	345.4	17.6
40°-50°	128.2	6.5
50°-60°	26.8	1.4
60°-70°	4.7	0.2
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°	1458.8	74.3
0°-40°	1804.1	91.9
0°-60°	1959.1	99.8
0°-90°	1963.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1963.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3294	
5°	3177	289
15°	2203	609
25°	1227	561
35°	546	345
45°	164	128
55°	28	27
65°	4	5
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	3293.9
2.5°	3270.9
5°	3177.2
7.5°	2984.5
10°	2733.5
12.5°	2473.5
15°	2203.0
17.5°	1930.7
20°	1670.8
22.5°	1433.9
25°	1227.0
27.5°	1027.3
30°	846.9
32.5°	686.0
35°	546.3
37.5°	426.1
40°	316.5
42.5°	238.7
45°	164.4
47.5°	88.4
50°	54.8
52.5°	38.9
55°	28.3
57.5°	19.4
60°	14.1
62.5°	8.8
65°	3.5
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)