

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: P642493

Luminaire Tested: ML5615LSFL409FS1E - 594TBZB - 1200LM - 3500K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642493
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-34)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 594TBZB - 1200LM - 3500K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

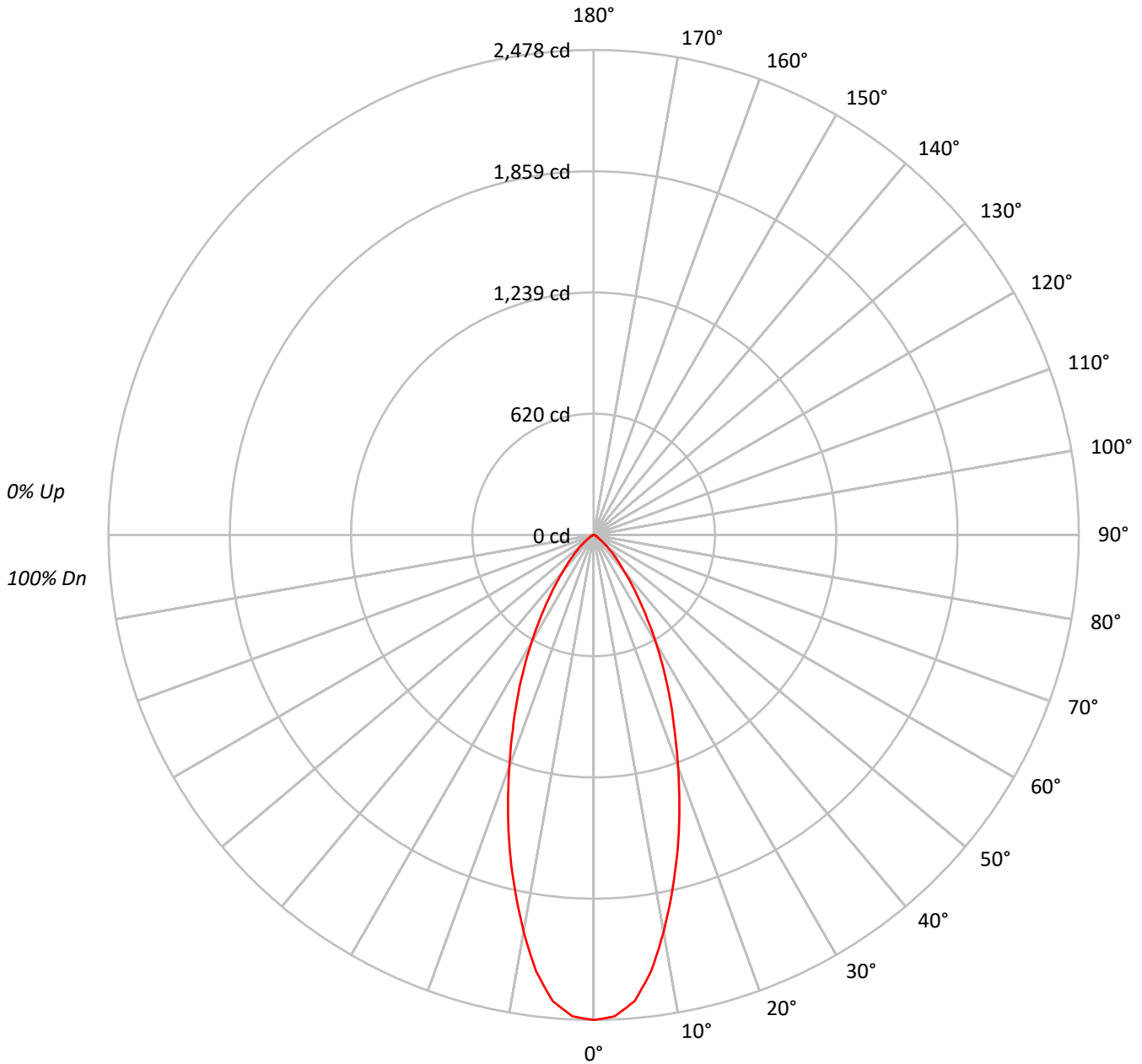
Lumens per Lamp: N/A
Luminaire Lumens: 1528.7 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 13.4
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	93			
2	108	103	99	96	106	101	98	95	98	95	92	95	93	91	92	90	89	87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81			
4	97	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76			
5	93	84	79	74	91	84	78	74	82	77	73	80	76	73	79	75	72	71			
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59			
9	77	67	61	58	76	67	61	58	66	61	57	65	60	57	64	60	57	56			
10	73	64	58	55	72	63	58	54	63	58	54	62	57	54	61	57	54	53			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	195655
5°	189524
10°	164935
15°	135509
20°	105731
25°	80299
30°	57855
35°	39010
40°	25196
45°	16255
50°	9518
55°	5326
60°	3584
65°	2503
70°	1846
75°	1617
80°	591
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16255 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.3	14.2
10°-20°	458.2	30.0
20°-30°	421.9	27.6
30°-40°	258.0	16.9
40°-50°	115.3	7.5
50°-60°	38.0	2.5
60°-70°	14.3	0.9
70°-80°	5.1	0.3
80°-90°	0.5	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°	1097.4	71.8
0°-40°	1355.4	88.7
0°-60°	1508.7	98.7
0°-90°	1528.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1528.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2478	
5°	2392	217
15°	1658	458
25°	922	422
35°	405	258
45°	146	115
55°	39	38
65°	13	14
75°	5	5
85°	0	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	2478.5
2.5°	2462.5
5°	2391.7
7.5°	2248.7
10°	2057.6
12.5°	1857.2
15°	1658.1
17.5°	1455.0
20°	1258.6
22.5°	1079.6
25°	921.9
27.5°	770.9
30°	634.7
32.5°	510.4
35°	404.8
37.5°	318.0
40°	244.5
42.5°	189.7
45°	145.6
47.5°	108.2
50°	77.5
52.5°	54.8
55°	38.7
57.5°	28.1
60°	22.7
62.5°	18.7
65°	13.4
67.5°	10.7
70°	8.0
72.5°	6.7
75°	5.3
77.5°	2.7
80°	1.3
82.5°	1.3
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)