

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: P642492

Luminaire Tested: ML5615LSFL409FS1E - 594TBZB - 1200LM - 3000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642492
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 - 3000K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

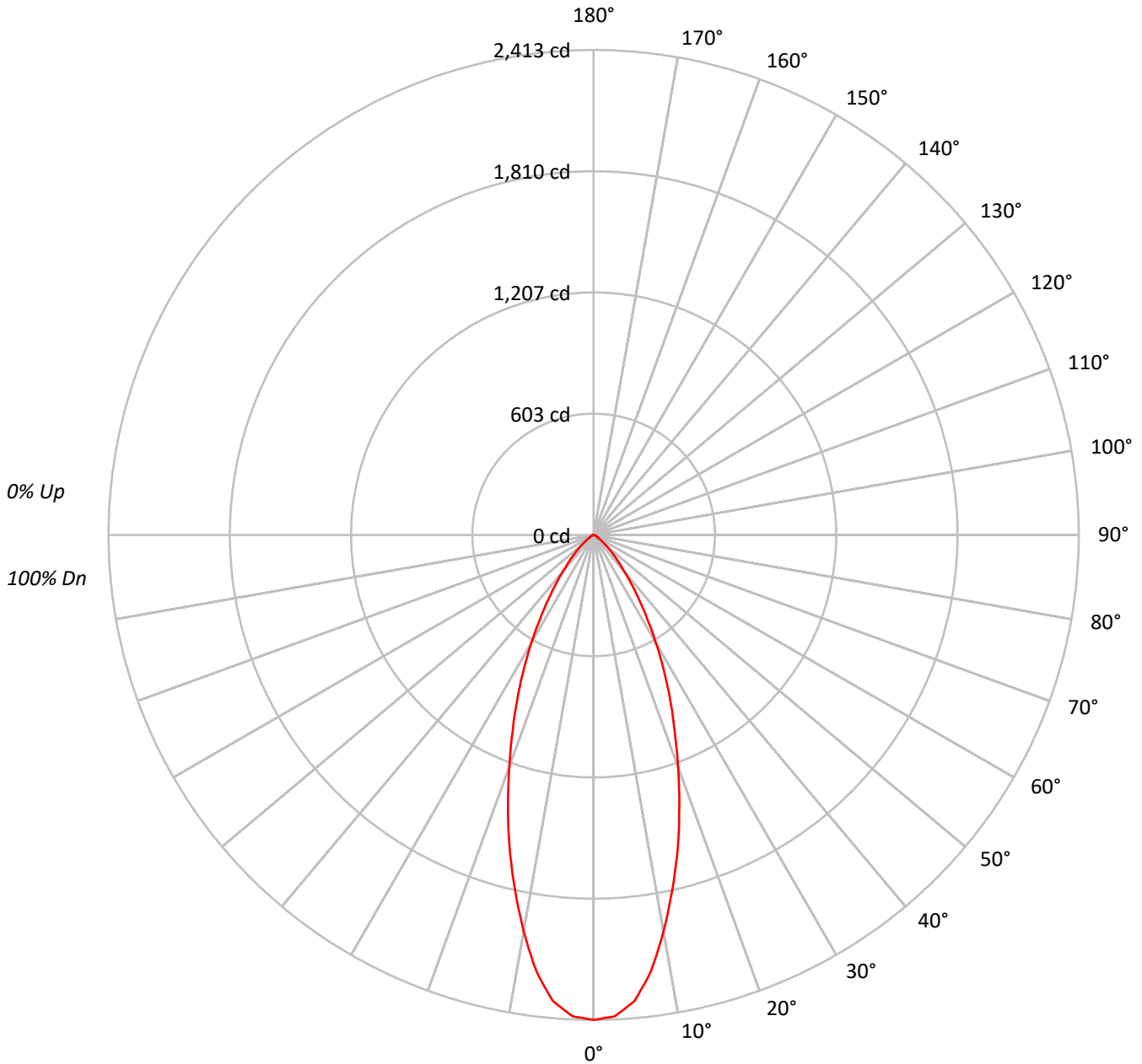
Lumens per Lamp: N/A
Luminaire Lumens: 1488.2 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

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									
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	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°	190469
5°	184500
10°	160566
15°	131922
20°	102934
25°	78174
30°	56314
35°	37979
40°	24526
45°	15830
50°	9260
55°	5189
60°	3489
65°	2428
70°	1800
75°	1586
80°	591
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15830 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.6	14.2
10°-20°	446.0	30.0
20°-30°	410.8	27.6
30°-40°	251.1	16.9
40°-50°	112.3	7.5
50°-60°	37.0	2.5
60°-70°	13.9	0.9
70°-80°	5.0	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°	1068.4	71.8
0°-40°	1319.5	88.7
0°-60°	1468.8	98.7
0°-90°	1488.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1488.2	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2413	
5°	2328	212
15°	1614	446
25°	898	411
35°	394	251
45°	142	112
55°	38	37
65°	13	14
75°	5	5
85°	0	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	2412.8
2.5°	2397.2
5°	2328.3
7.5°	2189.1
10°	2003.1
12.5°	1808.0
15°	1614.2
17.5°	1416.5
20°	1225.3
22.5°	1051.0
25°	897.5
27.5°	750.5
30°	617.8
32.5°	496.9
35°	394.1
37.5°	309.6
40°	238.0
42.5°	184.7
45°	141.8
47.5°	105.4
50°	75.4
52.5°	53.3
55°	37.7
57.5°	27.3
60°	22.1
62.5°	18.2
65°	13.0
67.5°	10.4
70°	7.8
72.5°	6.5
75°	5.2
77.5°	2.6
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)