

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: P642662

Luminaire Tested: ML5615LSFL409FS1E - 694TBZB - 1500LM - 3000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-45)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 694TBZB - 1500LM - 3000K
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

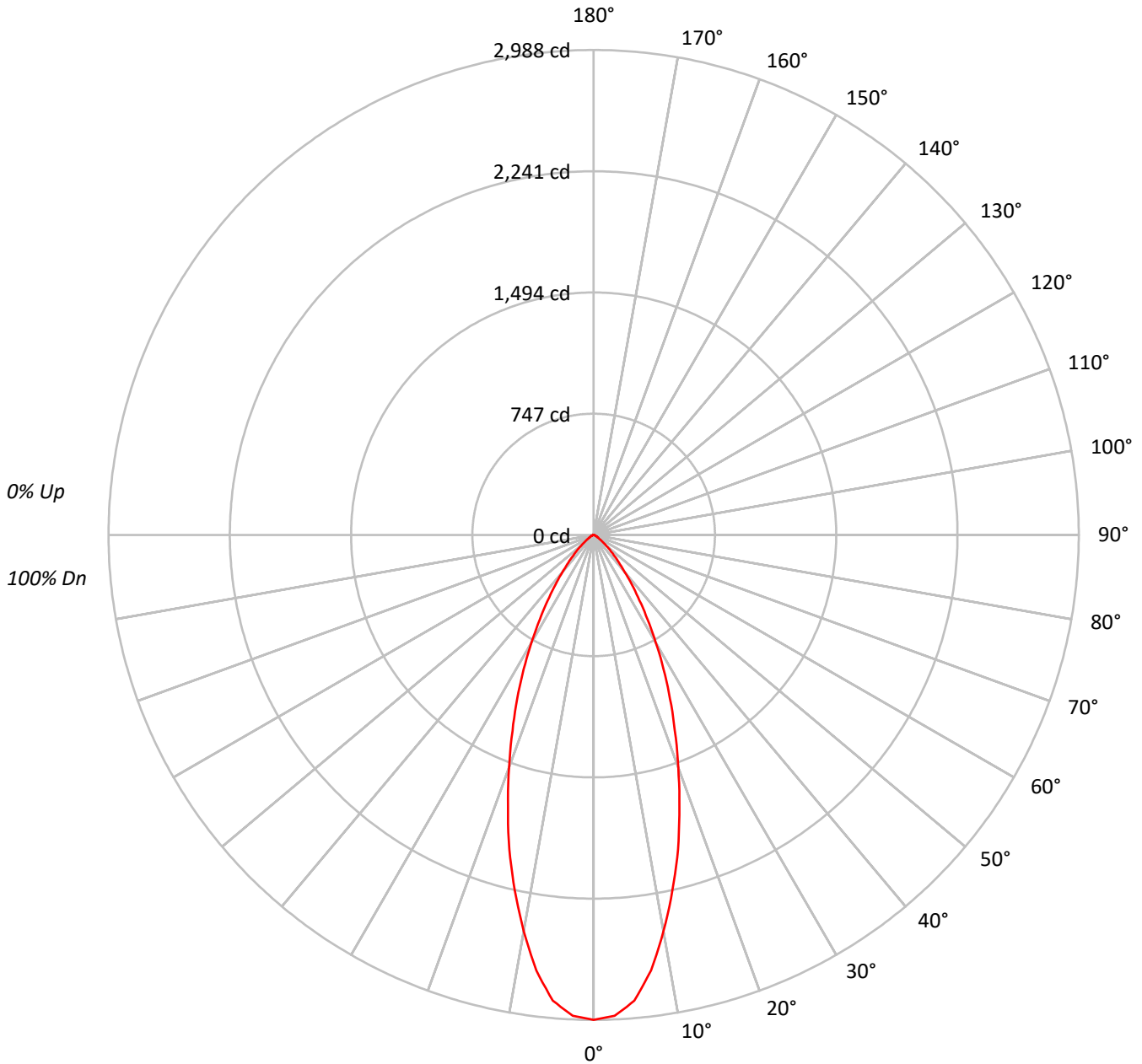
Lumens per Lamp: N/A
Luminaire Lumens: 1847.3 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (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



TEST NUMBER: P642662
CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 3000K

Luminous Intensity Polar Plot





TEST NUMBER: P642662

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 3000K

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	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	57	66	61	57	65	60	57	64	60	57	56																												
10	73	64	58	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53																												

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	163803
5°	158529
10°	138012
15°	113934
20°	88838
25°	67341
30°	48400
35°	32973
40°	21290
45°	13645
50°	8051
55°	4435
60°	2982
65°	2075
70°	1539
75°	1017
80°	505
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13645 cd/sqm



TEST NUMBER: P642662

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.7	14.2
10°-20°	553.4	30.0
20°-30°	510.1	27.6
30°-40°	312.6	16.9
40°-50°	139.9	7.6
50°-60°	46.1	2.5
60°-70°	17.2	0.9
70°-80°	5.7	0.3
80°-90°	0.7	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°	1325.2	71.7
0°-40°	1637.8	88.7
0°-60°	1823.8	98.7
0°-90°	1847.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1847.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2988	
5°	2881	262
15°	2008	553
25°	1113	510
35°	493	313
45°	176	140
55°	46	46
65°	16	17
75°	5	6
85°	0	1
90°	0	



TEST NUMBER: P642662

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 3000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	2988.0
2.5°	2965.6
5°	2880.8
7.5°	2706.5
10°	2479.3
12.5°	2242.6
15°	2007.5
17.5°	1754.7
20°	1522.8
22.5°	1306.8
25°	1113.3
27.5°	932.5
30°	764.6
32.5°	617.4
35°	492.7
37.5°	385.5
40°	297.5
42.5°	230.3
45°	176.0
47.5°	131.2
50°	94.4
52.5°	65.6
55°	46.4
57.5°	35.2
60°	27.2
62.5°	22.4
65°	16.0
67.5°	12.8
70°	9.6
72.5°	8.0
75°	4.8
77.5°	3.2
80°	1.6
82.5°	1.6
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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



— 0°-180°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)