

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: P642665

Luminaire Tested: ML5615LSFL409FS1E - 694TBZB - 1500LM - 5000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642665
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 - 5000K
Description: ML56 RR, 40D TIR OPTIC, 6" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

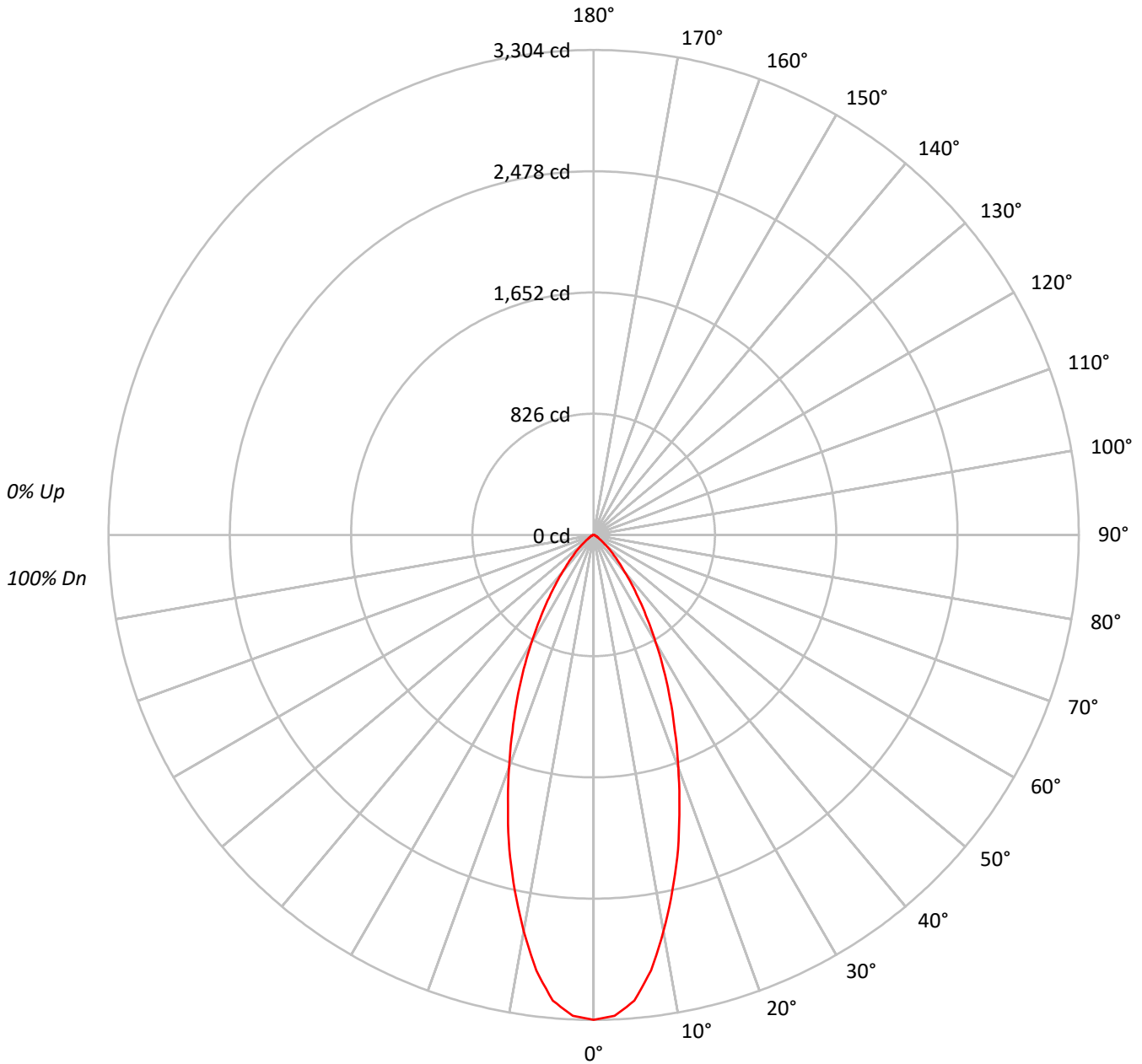
Lumens per Lamp: N/A
Luminaire Lumens: 2042.4 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P642665
CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 5000K

Luminous Intensity Polar Plot





TEST NUMBER: P642665

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 5000K

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	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°	181109
5°	175280
10°	152597
15°	125971
20°	98224
25°	74454
30°	53515
35°	36453
40°	23544
45°	15079
50°	8895
55°	4903
60°	3300
65°	2296
70°	1699
75°	1123
80°	568
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15079 cd/sqm



TEST NUMBER: P642665

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.4	14.2
10°-20°	611.9	30.0
20°-30°	564.0	27.6
30°-40°	345.6	16.9
40°-50°	154.6	7.6
50°-60°	50.9	2.5
60°-70°	19.0	0.9
70°-80°	6.3	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°	1465.3	71.7
0°-40°	1810.9	88.7
0°-60°	2016.5	98.7
0°-90°	2042.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2042.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3304	
5°	3185	289
15°	2220	612
25°	1231	564
35°	545	346
45°	194	155
55°	51	51
65°	18	19
75°	5	6
85°	0	1
90°	0	



TEST NUMBER: P642665

CATALOG NUMBER: ML5615LSFL409FS1E - 694TBZB - 1500LM - 5000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	3303.7
2.5°	3279.0
5°	3185.2
7.5°	2992.5
10°	2741.3
12.5°	2479.6
15°	2219.6
17.5°	1940.1
20°	1683.7
22.5°	1444.9
25°	1230.9
27.5°	1031.1
30°	845.4
32.5°	682.7
35°	544.7
37.5°	426.2
40°	329.0
42.5°	254.7
45°	194.5
47.5°	145.0
50°	104.3
52.5°	72.5
55°	51.3
57.5°	38.9
60°	30.1
62.5°	24.8
65°	17.7
67.5°	14.1
70°	10.6
72.5°	8.8
75°	5.3
77.5°	3.5
80°	1.8
82.5°	1.8
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)