

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: P642491

Luminaire Tested: ML5615LSFL409FS1E - 594TBZB - 1200LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642491
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 - 2700K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE GIMBAL TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

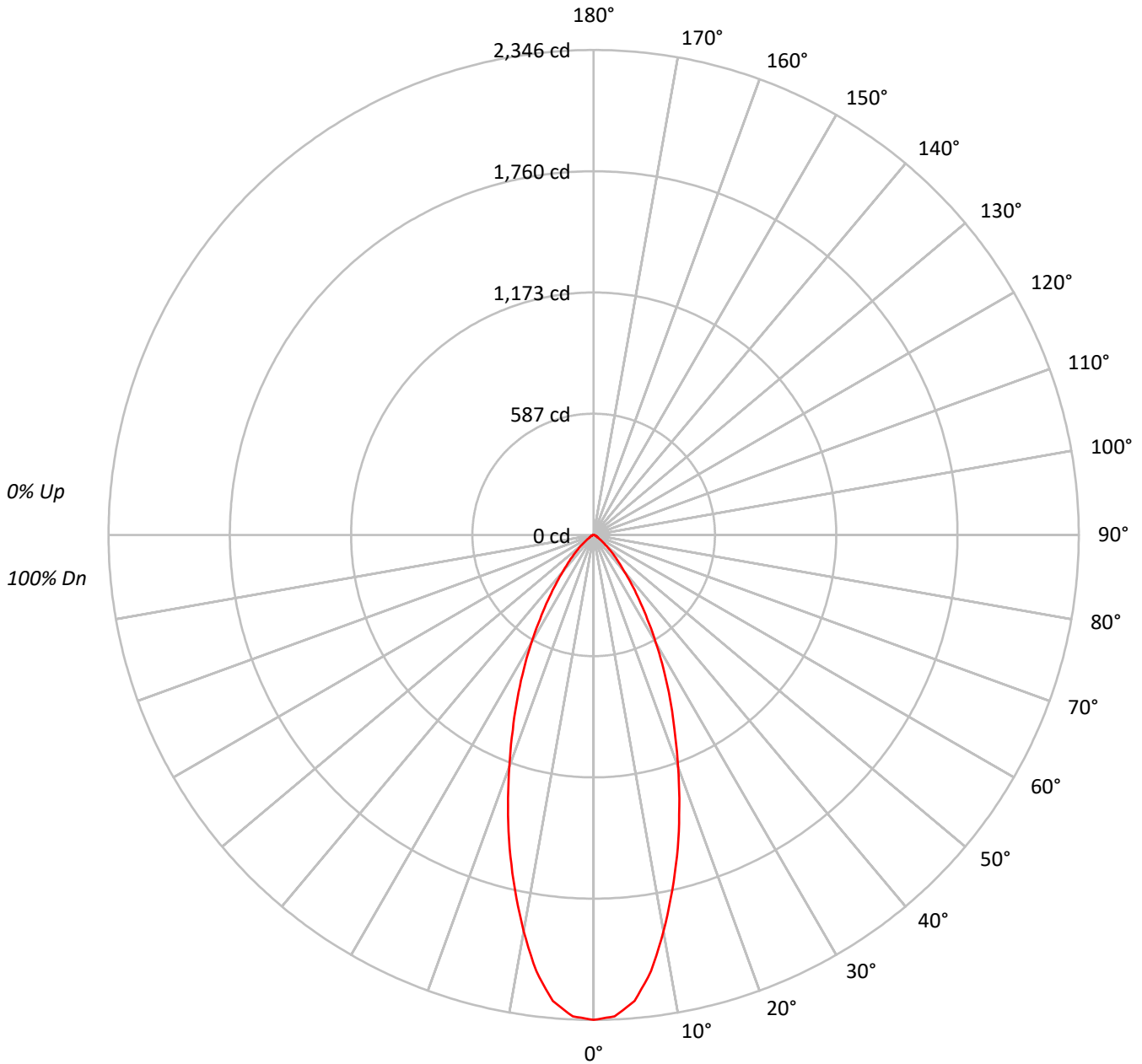
Lumens per Lamp: N/A
Luminaire Lumens: 1446.9 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P642491
CATALOG NUMBER: ML5615LSFL409FS1E - 594TBZB - 1200LM - 2700K

Luminous Intensity Polar Plot





TEST NUMBER: P642491

CATALOG NUMBER: ML5615LSFL409FS1E - 594TBZB - 1200LM - 2700K

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°	185180
5°	179373
10°	156109
15°	128260
20°	100069
25°	76005
30°	54756
35°	36929
40°	23846
45°	15384
50°	9002
55°	5051
60°	3394
65°	2354
70°	1754
75°	1556
80°	591
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15384 cd/sqm



TEST NUMBER: P642491

CATALOG NUMBER: ML5615LSFL409FS1E - 594TBZB - 1200LM - 2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.7	14.2
10°-20°	433.6	30.0
20°-30°	399.4	27.6
30°-40°	244.2	16.9
40°-50°	109.1	7.5
50°-60°	36.0	2.5
60°-70°	13.5	0.9
70°-80°	4.8	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°	1038.7	71.8
0°-40°	1282.9	88.7
0°-60°	1428.0	98.7
0°-90°	1446.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1446.9	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2346	
5°	2264	206
15°	1569	434
25°	873	399
35°	383	244
45°	138	109
55°	37	36
65°	13	14
75°	5	5
85°	0	1
90°	0	



TEST NUMBER: P642491

CATALOG NUMBER: ML5615LSFL409FS1E - 594TBZB - 1200LM - 2700K

CANDELA DISTRIBUTION (FULL):

0°	
0°	2345.8
2.5°	2330.6
5°	2263.6
7.5°	2128.3
10°	1947.5
12.5°	1757.8
15°	1569.4
17.5°	1377.1
20°	1191.2
22.5°	1021.8
25°	872.6
27.5°	729.7
30°	600.7
32.5°	483.1
35°	383.2
37.5°	301.0
40°	231.4
42.5°	179.6
45°	137.8
47.5°	102.4
50°	73.3
52.5°	51.8
55°	36.7
57.5°	26.6
60°	21.5
62.5°	17.7
65°	12.6
67.5°	10.1
70°	7.6
72.5°	6.3
75°	5.1
77.5°	2.5
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

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)