

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: P642456

Luminaire Tested: ML5615LSFL409FS1E - 593TBZB - 900LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-31)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 593TBZB - 900LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 5" TUSCON BRONZE BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

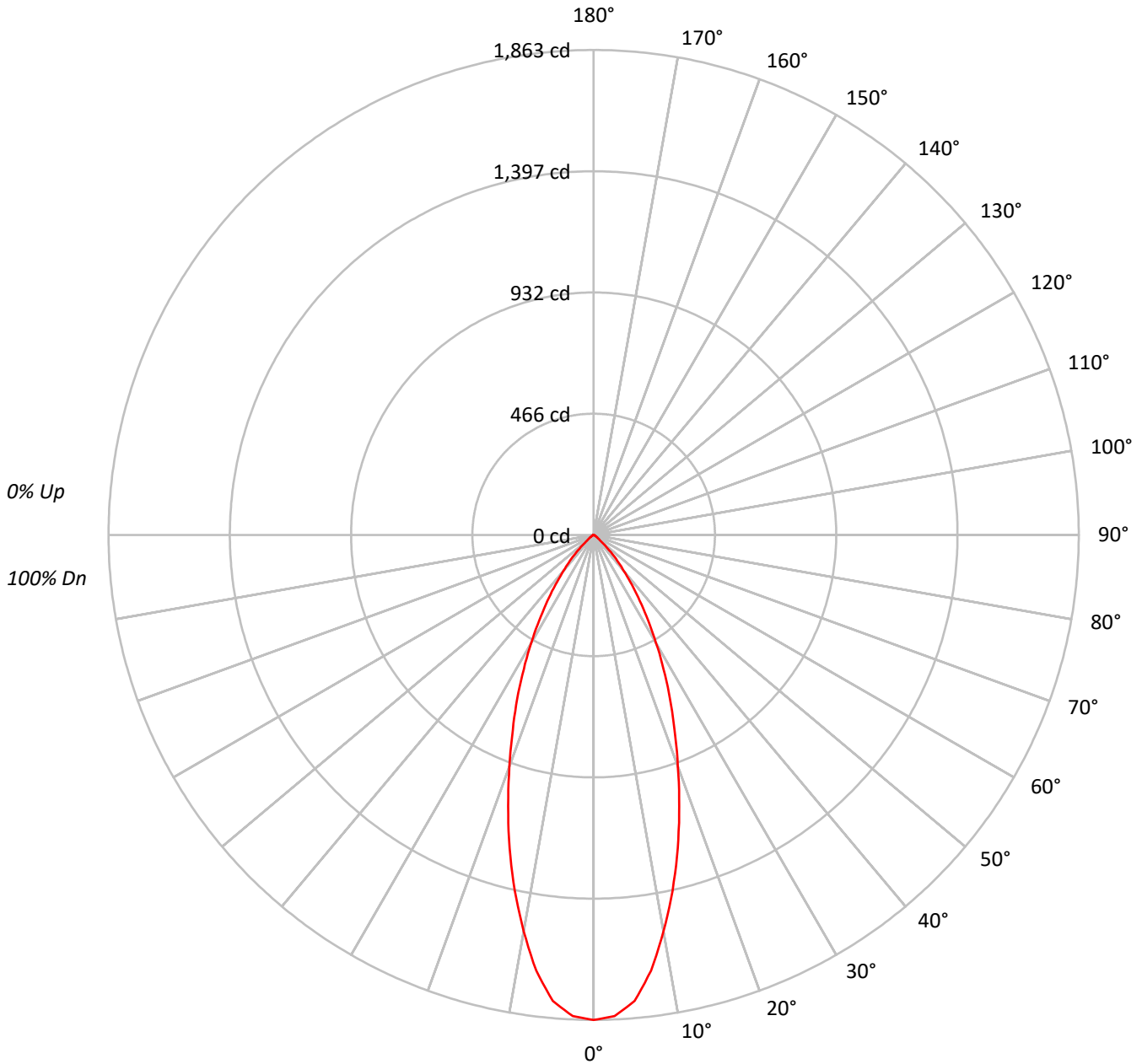
Lumens per Lamp: N/A
Luminaire Lumens: 1111.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.42' x H: 0')
CIE Type: Direct

Input Watts (W): 10.5
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: P642456
CATALOG NUMBER: ML5615LSFL409FS1E - 593TBZB - 900LM - 2700K

Luminous Intensity Polar Plot





TEST NUMBER: P642456

CATALOG NUMBER: ML5615LSFL409FS1E - 593TBZB - 900LM - 2700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94								
2	108	104	100	97	106	102	99	96	99	96	93	96	94	91	93	91	90	88								
3	103	97	92	89	101	96	91	88	93	89	86	91	88	85	89	86	84	82								
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77								
5	94	86	80	76	92	85	80	76	83	79	75	81	77	74	80	76	74	72								
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68								
7	85	76	71	67	84	76	70	66	74	70	66	73	69	66	72	68	65	64								
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61								
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57								
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54								

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	147099
5°	142430
10°	123957
15°	101855
20°	79404
25°	60466
30°	43671
35°	29788
40°	18446
45°	10382
50°	3807
55°	2202
60°	1263
65°	374
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10382 cd/sqm



TEST NUMBER: P642456

CATALOG NUMBER: ML5615LSFL409FS1E - 593TBZB - 900LM - 2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.3	14.7
10°-20°	344.4	31.0
20°-30°	317.6	28.6
30°-40°	195.4	17.6
40°-50°	72.5	6.5
50°-60°	15.2	1.4
60°-70°	2.7	0.2
70°-80°	0.0	0.0
80°-90°	0.0	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°	825.3	74.3
0°-40°	1020.7	91.9
0°-60°	1108.3	99.8
0°-90°	1111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1111.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1863	
5°	1797	163
15°	1246	344
25°	694	318
35°	309	195
45°	93	72
55°	16	15
65°	2	3
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P642456

CATALOG NUMBER: ML5615LSFL409FS1E - 593TBZB - 900LM - 2700K

CANDELA DISTRIBUTION (FULL):

0°	
0°	1863.4
2.5°	1850.4
5°	1797.4
7.5°	1688.4
10°	1546.4
12.5°	1399.3
15°	1246.3
17.5°	1092.3
20°	945.2
22.5°	811.2
25°	694.2
27.5°	581.1
30°	479.1
32.5°	388.1
35°	309.1
37.5°	241.1
40°	179.0
42.5°	135.0
45°	93.0
47.5°	50.0
50°	31.0
52.5°	22.0
55°	16.0
57.5°	11.0
60°	8.0
62.5°	5.0
65°	2.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
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)