

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: P642421

Luminaire Tested: ML5615LSFL409FS1E - 593BB - 1500LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-29)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 593BB - 1500LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 5" BLACK BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1722.8 lumens
Efficiency: N/A
Efficacy: 100.8 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

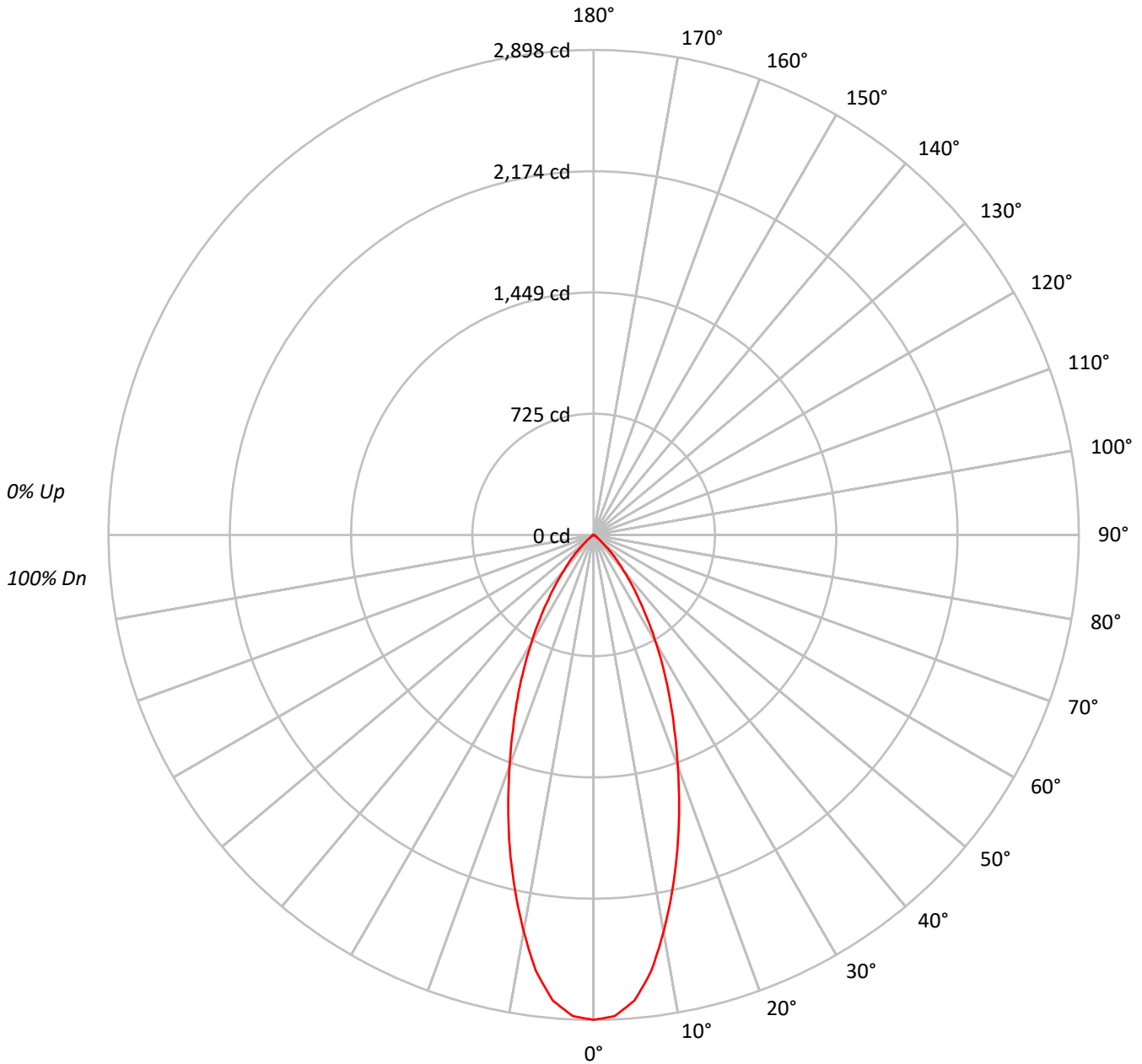
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P642421

CATALOG NUMBER: ML5615LSFL409FS1E - 593BB - 1500LM - 2700K

Luminous Intensity Polar Plot





TEST NUMBER: P642421

CATALOG NUMBER: ML5615LSFL409FS1E - 593BB - 1500LM - 2700K

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	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	92	93	91	90	88																			
3	103	97	92	89	101	96	91	88	93	90	87	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	78	74	80	77	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	67	75	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°	228755
5°	221364
10°	192862
15°	158221
20°	123289
25°	93669
30°	67809
35°	45746
40°	28390
45°	16333
50°	5735
55°	3207
60°	1721
65°	579
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16333 cd/sqm



TEST NUMBER: P642421

CATALOG NUMBER: ML5615LSFL409FS1E - 593BB - 1500LM - 2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.0	14.7
10°-20°	535.0	31.1
20°-30°	492.8	28.6
30°-40°	301.4	17.5
40°-50°	112.7	6.5
50°-60°	22.9	1.3
60°-70°	4.0	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°	1281.8	74.4
0°-40°	1583.3	91.9
0°-60°	1718.9	99.8
0°-90°	1722.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1722.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2898	
5°	2794	254
15°	1936	535
25°	1075	493
35°	475	301
45°	146	113
55°	23	23
65°	3	4
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P642421

CATALOG NUMBER: ML5615LSFL409FS1E - 593BB - 1500LM - 2700K

CANDELA DISTRIBUTION (FULL):

	0°
0°	2897.8
2.5°	2877.5
5°	2793.5
7.5°	2630.1
10°	2406.0
12.5°	2172.5
15°	1936.0
17.5°	1696.3
20°	1467.6
22.5°	1259.0
25°	1075.4
27.5°	902.6
30°	743.9
32.5°	599.2
35°	474.7
37.5°	371.9
40°	275.5
42.5°	208.5
45°	146.3
47.5°	79.4
50°	46.7
52.5°	34.2
55°	23.3
57.5°	17.1
60°	10.9
62.5°	7.8
65°	3.1
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)