

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: P642597

Luminaire Tested: ML5615LSFL409FS1E - 693BB - 1200LM - 3000K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P642597
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5615LSFL409FS1E - 693BB - 1200LM - 3000K
Description: ML56 RR, 40D TIR OPTIC, 6" BLACK BAFFLE TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

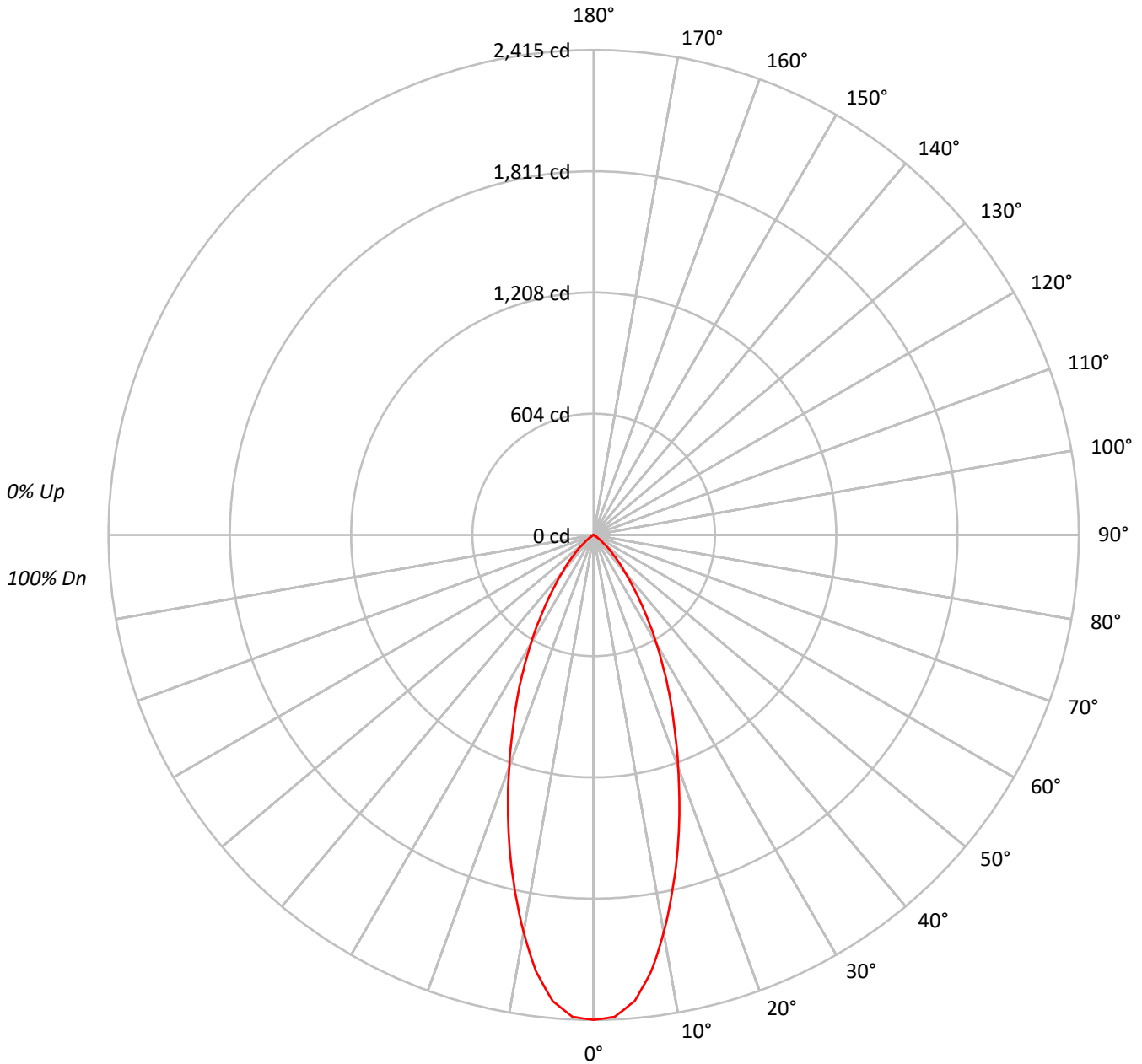
Lumens per Lamp: N/A
Luminaire Lumens: 1464.8 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 13.4
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: P642597
CATALOG NUMBER: ML5615LSFL409FS1E - 693BB - 1200LM - 3000K

Luminous Intensity Polar Plot





TEST NUMBER: P642597

CATALOG NUMBER: ML5615LSFL409FS1E - 693BB - 1200LM - 3000K

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			100																
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94			94																
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			88																
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82			82																
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77			77																
5	93	85	80	76	92	84	79	75	83	78	75	81	77	74	79	76	73	72			72																
6	89	80	75	70	88	80	74	70	78	73	70	77	73	69	75	72	69	67			67																
7	85	76	70	66	84	75	70	66	74	69	66	73	68	65	72	68	65	63			63																
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60			60																
9	77	68	62	59	76	68	62	59	67	62	58	66	61	58	65	61	58	57			57																
10	74	65	59	55	73	64	59	55	64	59	55	63	58	55	62	58	55	54			54																

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	132391
5°	128241
10°	111833
15°	91720
20°	71657
25°	54463
30°	39538
35°	26910
40°	17318
45°	10590
50°	5330
55°	2112
60°	1283
65°	506
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10590 cd/sqm



TEST NUMBER: P642597

CATALOG NUMBER: ML5615LSFL409FS1E - 693BB - 1200LM - 3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.9	14.5
10°-20°	446.9	30.5
20°-30°	412.8	28.2
30°-40°	255.5	17.4
40°-50°	109.7	7.5
50°-60°	23.7	1.6
60°-70°	4.3	0.3
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°	1071.7	73.2
0°-40°	1327.1	90.6
0°-60°	1460.5	99.7
0°-90°	1464.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1464.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2415	
5°	2330	212
15°	1616	447
25°	900	413
35°	402	255
45°	137	110
55°	22	24
65°	4	4
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P642597

CATALOG NUMBER: ML5615LSFL409FS1E - 693BB - 1200LM - 3000K

CANDELA DISTRIBUTION (FULL):

	0°
0°	2415.0
2.5°	2402.0
5°	2330.4
7.5°	2192.5
10°	2009.0
12.5°	1812.6
15°	1616.1
17.5°	1418.3
20°	1228.3
22.5°	1055.3
25°	900.4
27.5°	756.0
30°	624.6
32.5°	506.2
35°	402.1
37.5°	314.9
40°	242.0
42.5°	187.4
45°	136.6
47.5°	100.2
50°	62.5
52.5°	32.5
55°	22.1
57.5°	15.6
60°	11.7
62.5°	7.8
65°	3.9
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)