

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P642644

Luminaire Tested: ML5615LSFL409FS1E - 693WB - 1200LM - 4000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642644  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-40)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 693WB - 1200LM - 4000K  
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1644.8 lumens  
Efficiency: N/A  
Efficacy: 122.7 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

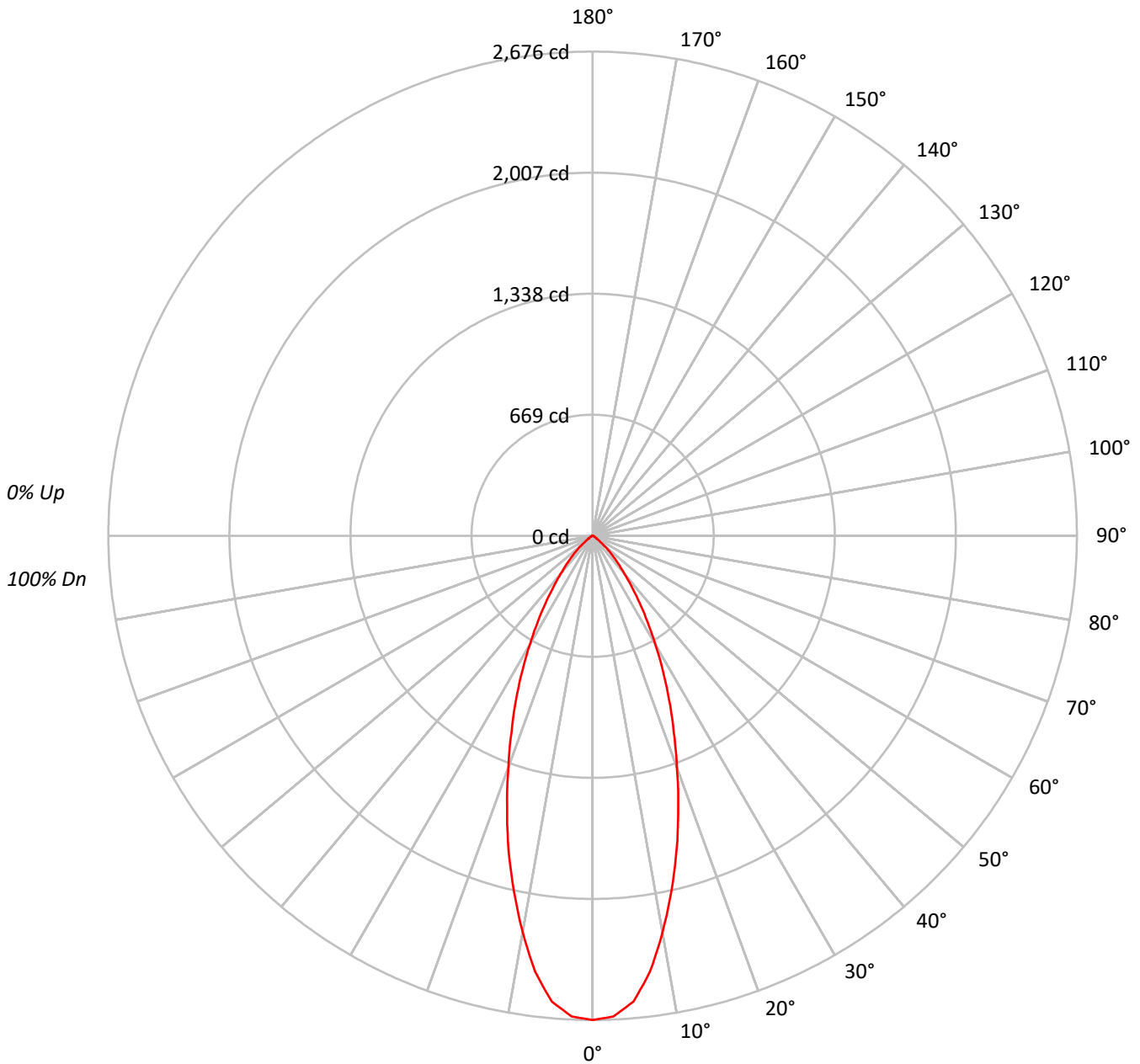
Input Watts (W): 13.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P642644

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P642644

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 4000K

**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	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	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94					94			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87					87			
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81					81			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76					76			
5	93	85	79	75	91	84	79	75	82	77	74	80	76	73	79	75	73	71					71			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67					67			
7	84	75	70	65	83	75	69	65	73	69	65	72	68	65	71	67	64	63					63			
8	81	71	66	62	79	71	65	61	70	65	61	69	64	61	68	64	61	59					59			
9	77	68	62	58	76	67	62	58	66	61	58	65	61	58	65	60	57	56					56			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	55	62	57	54	53					53			

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	146710
5°	142202
10°	123834
15°	101856
20°	79445
25°	60542
30°	43874
35°	30122
40°	19551
45°	12149
50°	6499
55°	2753
60°	1897
65°	1116
70°	689
75°	614
80°	916
85°	881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12149 cd/sqm



TEST NUMBER: P642644

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.8	14.3
10°-20°	495.7	30.1
20°-30°	458.3	27.9
30°-40°	285.5	17.4
40°-50°	125.6	7.6
50°-60°	30.7	1.9
60°-70°	9.0	0.5
70°-80°	3.6	0.2
80°-90°	1.5	0.1
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°	1188.9	72.3
0°-40°	1474.4	89.6
0°-60°	1630.7	99.1
0°-90°	1644.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1644.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2676	
5°	2584	235
15°	1795	496
25°	1001	458
35°	450	286
45°	157	126
55°	29	31
65°	9	9
75°	3	4
85°	1	2
90°	0	



TEST NUMBER: P642644

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 4000K

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2676.2
2.5°	2658.9
5°	2584.1
7.5°	2430.3
10°	2224.6
12.5°	2010.4
15°	1794.7
17.5°	1573.2
20°	1361.8
22.5°	1170.6
25°	1000.9
27.5°	839.8
30°	693.1
32.5°	563.7
35°	450.1
37.5°	353.8
40°	273.2
42.5°	211.4
45°	156.7
47.5°	116.5
50°	76.2
52.5°	40.3
55°	28.8
57.5°	23.0
60°	17.3
62.5°	12.9
65°	8.6
67.5°	4.3
70°	4.3
72.5°	4.3
75°	2.9
77.5°	2.9
80°	2.9
82.5°	1.4
85°	1.4
87.5°	1.4
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)