

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: P642641

Luminaire Tested: ML5615LSFL409FS1E - 693WB - 1200LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642641  
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 - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 6" WHITE BAFFLE 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: 0.5' x H: 0')  
CIE Type: Direct

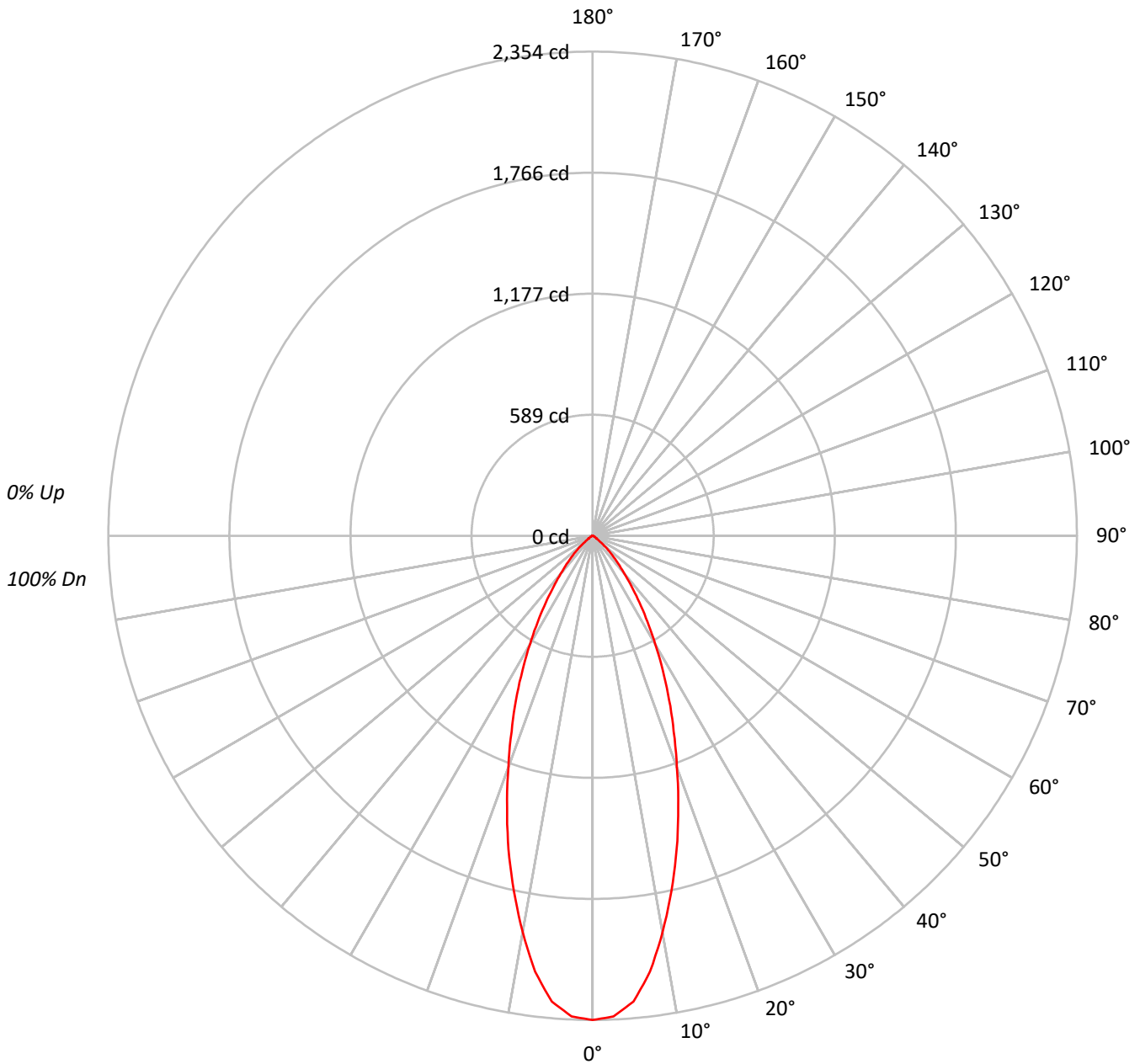
Input Watts (W): 13.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P642641

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P642641

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 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	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	79	75	82	77	74	80	76	73	79	75	73	71																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																			
7	84	75	70	65	83	75	69	65	73	69	65	72	68	65	71	67	64	63																			
8	81	71	66	62	79	71	65	61	70	65	61	69	64	61	68	64	61	59																			
9	77	68	62	58	76	67	62	58	66	61	58	65	61	58	65	60	57	56																			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	55	62	57	54	53																			

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

	0°
0°	129052
5°	125088
10°	108933
15°	89598
20°	69884
25°	53253
30°	38595
35°	26495
40°	17197
45°	10691
50°	5714
55°	2418
60°	1667
65°	986
70°	609
75°	530
80°	789
85°	818

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10691 cd/sqm



TEST NUMBER: P642641

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.6	14.3
10°-20°	436.0	30.1
20°-30°	403.2	27.9
30°-40°	251.2	17.4
40°-50°	110.5	7.6
50°-60°	27.0	1.9
60°-70°	7.9	0.5
70°-80°	3.2	0.2
80°-90°	1.4	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°	1045.8	72.3
0°-40°	1296.9	89.6
0°-60°	1434.4	99.1
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°	2354	
5°	2273	207
15°	1579	436
25°	880	403
35°	396	251
45°	138	110
55°	25	27
65°	8	8
75°	2	3
85°	1	1
90°	0	



TEST NUMBER: P642641

CATALOG NUMBER: ML5615LSFL409FS1E - 693WB - 1200LM - 2700K

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2354.1
2.5°	2338.9
5°	2273.1
7.5°	2137.8
10°	1956.9
12.5°	1768.4
15°	1578.7
17.5°	1383.9
20°	1197.9
22.5°	1029.7
25°	880.4
27.5°	738.7
30°	609.7
32.5°	495.9
35°	395.9
37.5°	311.2
40°	240.3
42.5°	185.9
45°	137.9
47.5°	102.5
50°	67.0
52.5°	35.4
55°	25.3
57.5°	20.2
60°	15.2
62.5°	11.4
65°	7.6
67.5°	3.8
70°	3.8
72.5°	3.8
75°	2.5
77.5°	2.5
80°	2.5
82.5°	1.3
85°	1.3
87.5°	1.3
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)