

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: P642526

Luminaire Tested: ML5615LSFL409FS1E - 596WB - 1500LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642526  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-35)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 596WB - 1500LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

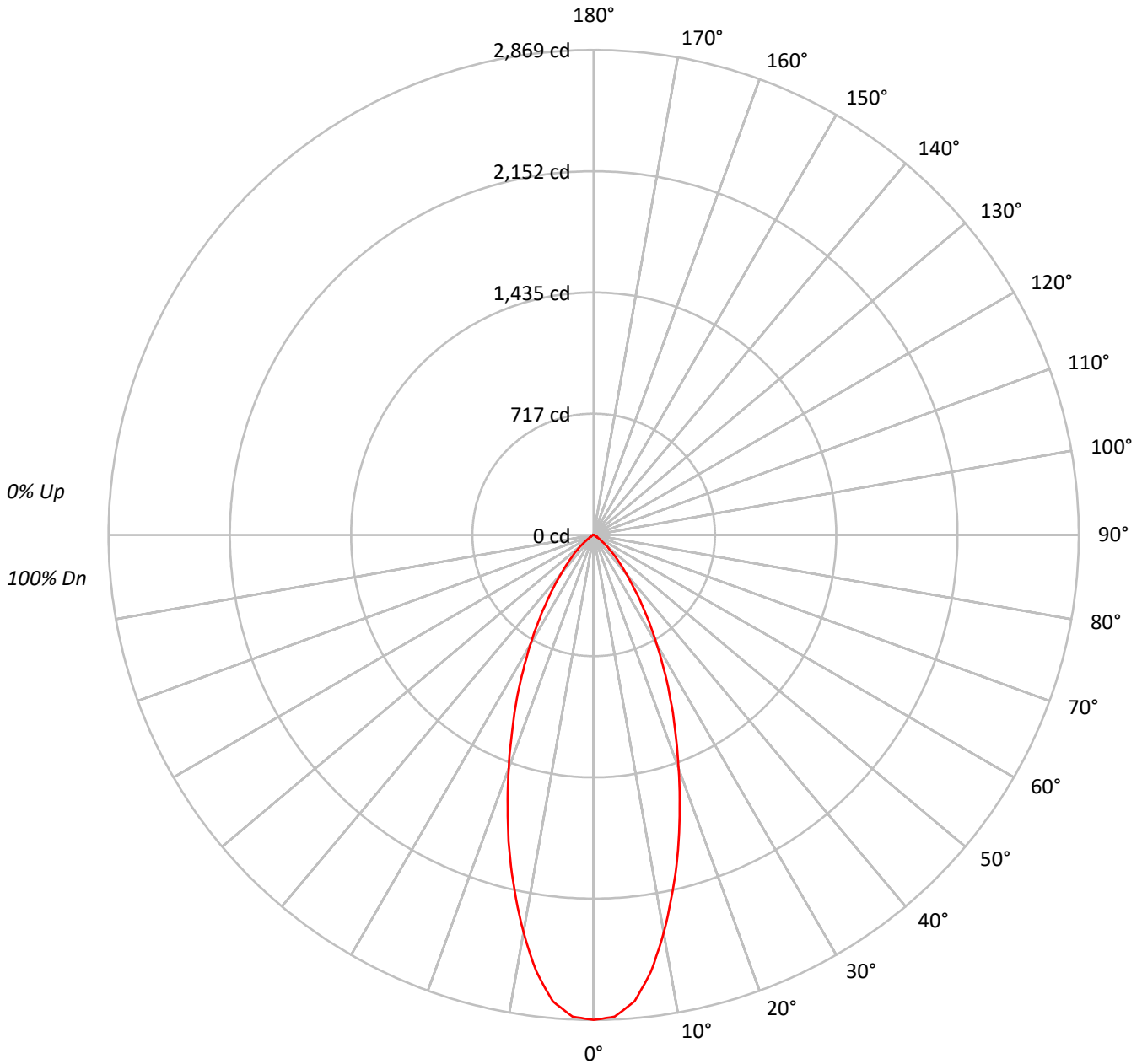
Lumens per Lamp: N/A  
Luminaire Lumens: 1778.9 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.7  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.1  
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: P642526  
CATALOG NUMBER: ML5615LSFL409FS1E - 596WB - 1500LM - 2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P642526

CATALOG NUMBER: ML5615LSFL409FS1E - 596WB - 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	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94																			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	73	69	76	72	68	75	71	68	67																			
7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	63																			
8	80	71	65	61	79	71	65	61	69	64	61	68	64	61	67	63	60	59																			
9	77	67	62	58	76	67	61	58	66	61	57	65	61	57	64	60	57	56																			
10	73	64	58	55	72	64	58	55	63	58	54	62	57	54	61	57	54	53																			

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

	0°
0°	226489
5°	219470
10°	191451
15°	157681
20°	123255
25°	93782
30°	68073
35°	46787
40°	30626
45°	19805
50°	11274
55°	4707
60°	3189
65°	1737
70°	1085
75°	946
80°	727
85°	1449

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19805 cd/sqm



TEST NUMBER: P642526

CATALOG NUMBER: ML5615LSFL409FS1E - 596WB - 1500LM - 2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.8	14.2
10°-20°	532.8	30.0
20°-30°	493.2	27.7
30°-40°	308.1	17.3
40°-50°	139.1	7.8
50°-60°	38.8	2.2
60°-70°	10.7	0.6
70°-80°	3.3	0.2
80°-90°	1.1	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°	1277.7	71.8
0°-40°	1585.9	89.1
0°-60°	1763.8	99.2
0°-90°	1778.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1778.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2869	
5°	2770	252
15°	1929	533
25°	1077	493
35°	486	308
45°	177	139
55°	34	39
65°	9	11
75°	3	3
85°	2	1
90°	0	



TEST NUMBER: P642526

CATALOG NUMBER: ML5615LSFL409FS1E - 596WB - 1500LM - 2700K

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2869.1
2.5°	2852.0
5°	2769.6
7.5°	2603.1
10°	2388.4
12.5°	2158.1
15°	1929.4
17.5°	1691.3
20°	1467.2
22.5°	1261.9
25°	1076.7
27.5°	900.9
30°	746.8
32.5°	606.8
35°	485.5
37.5°	382.8
40°	297.2
42.5°	230.3
45°	177.4
47.5°	127.6
50°	91.8
52.5°	60.7
55°	34.2
57.5°	24.9
60°	20.2
62.5°	15.6
65°	9.3
67.5°	6.2
70°	4.7
72.5°	3.1
75°	3.1
77.5°	3.1
80°	1.6
82.5°	1.6
85°	1.6
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)