

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: P642562

Luminaire Tested: ML5615LSFL409FS1E - 692H - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P642562  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-38)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5615LSFL409FS1E - 692H - 900LM - 3000K  
Description: ML56 RR, 40D TIR OPTIC, 6" HAZE TRIM  
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1174.6 lumens  
Efficiency: N/A  
Efficacy: 111.9 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

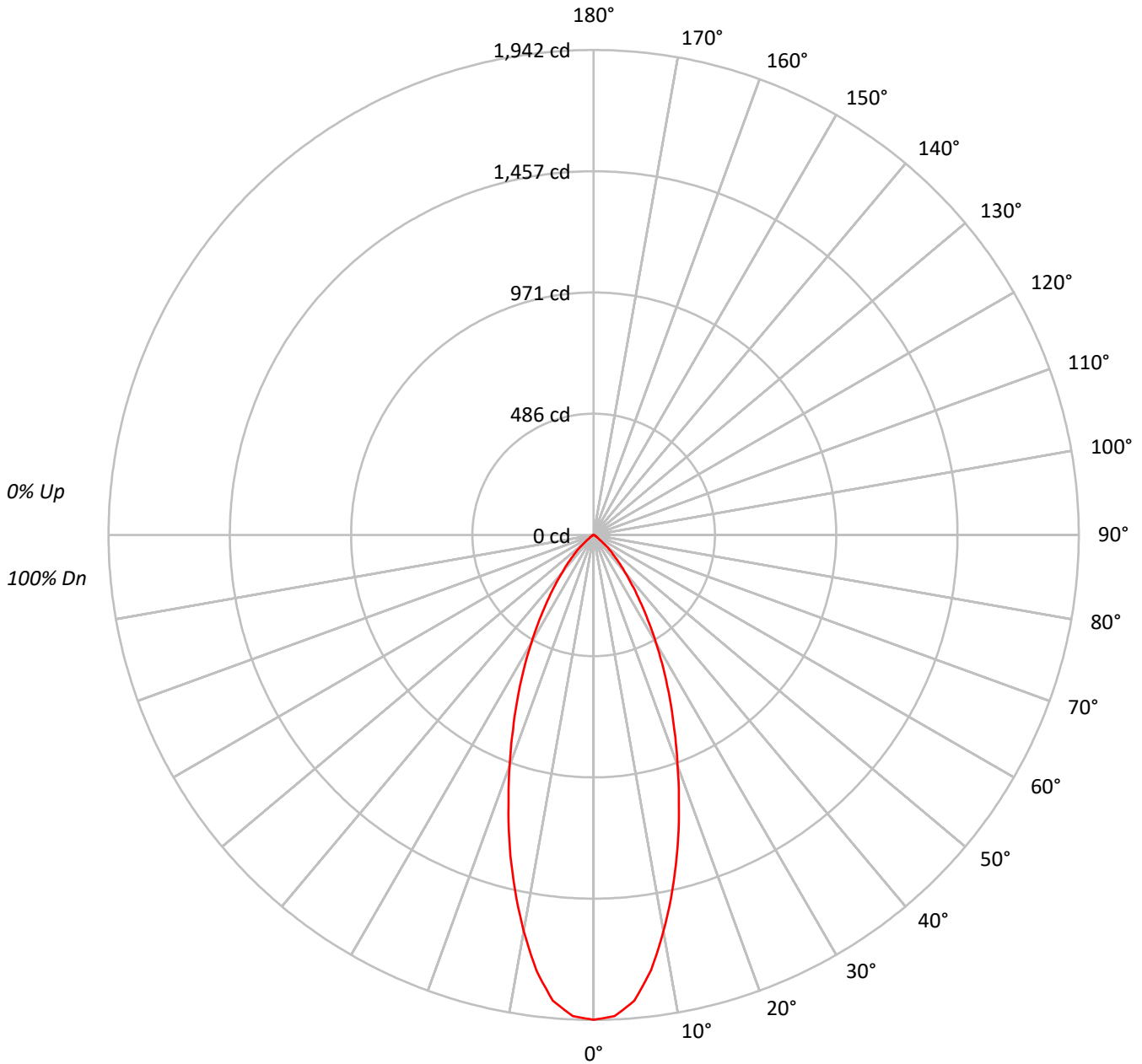
Input Watts (W): 10.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P642562

CATALOG NUMBER: ML5615LSFL409FS1E - 692H - 900LM - 3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P642562

CATALOG NUMBER: ML5615LSFL409FS1E - 692H - 900LM - 3000K

**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	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	98	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	87	83	80	86	82	79	84	81	78	77			77
5	93	85	80	75	92	84	79	75	83	78	74	81	77	74	79	76	73	72			72
6	89	80	75	70	87	80	74	70	78	73	70	77	72	69	75	72	69	67			67
7	85	76	70	66	83	75	70	66	74	69	65	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	58	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°	106439
5°	103054
10°	89694
15°	73638
20°	57323
25°	43503
30°	31524
35°	21556
40°	13919
45°	8536
50°	4298
55°	1768
60°	1129
65°	402
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8536 cd/sqm



TEST NUMBER: P642562

CATALOG NUMBER: ML5615LSFL409FS1E - 692H - 900LM - 3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.1	14.5
10°-20°	358.3	30.5
20°-30°	329.9	28.1
30°-40°	204.3	17.4
40°-50°	88.3	7.5
50°-60°	19.9	1.7
60°-70°	3.8	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°	858.3	73.1
0°-40°	1062.6	90.5
0°-60°	1170.9	99.7
0°-90°	1174.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1174.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1942	
5°	1873	170
15°	1298	358
25°	719	330
35°	322	204
45°	110	88
55°	18	20
65°	3	4
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P642562

CATALOG NUMBER: ML5615LSFL409FS1E - 692H - 900LM - 3000K

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1941.6
2.5°	1928.2
5°	1872.7
7.5°	1758.5
10°	1611.3
12.5°	1455.9
15°	1297.5
17.5°	1134.9
20°	982.6
22.5°	843.7
25°	719.2
27.5°	604.0
30°	498.0
32.5°	404.4
35°	322.1
37.5°	252.1
40°	194.5
42.5°	150.2
45°	110.1
47.5°	81.3
50°	50.4
52.5°	26.8
55°	18.5
57.5°	14.4
60°	10.3
62.5°	6.2
65°	3.1
67.5°	1.0
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)