

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: P640348

Luminaire Tested: ML5609LSNFL25D2W1E - 592H - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSNFL25D2W1E - 592H - 900LM - 3000K  
Description: ML56 RR, 25D TIR OPTIC, 5" HAZE TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1133.9 lumens  
Efficiency: N/A  
Efficacy: 96.1 lumens/watt  
Spacing Criteria (0/90/45): 0.44 / 0.44 / 0.46  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

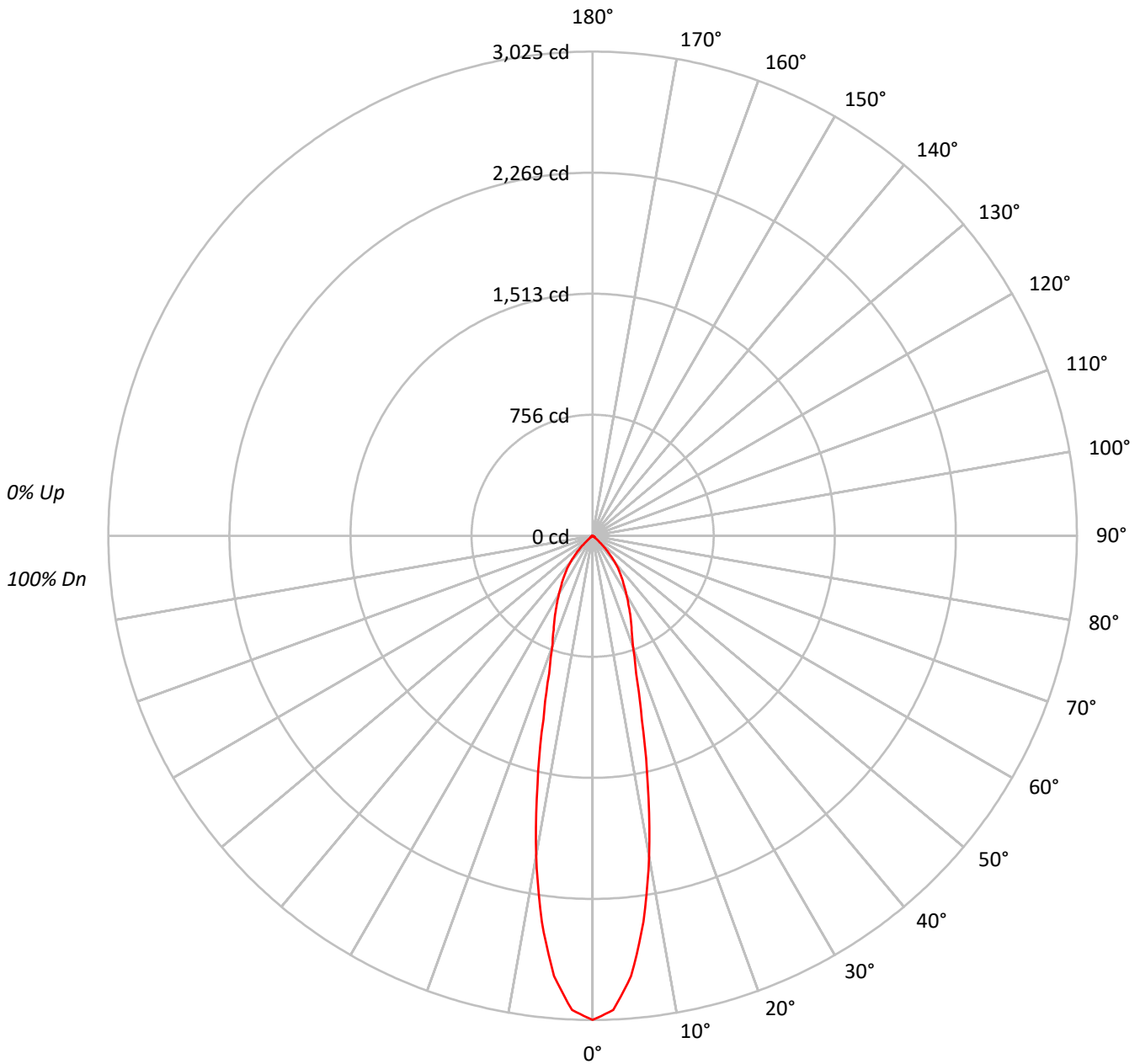
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P640348

CATALOG NUMBER: ML5609LSNFL25D2W1E - 592H - 900LM - 3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P640348

CATALOG NUMBER: ML5609LSNFL25D2W1E - 592H - 900LM - 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																			
1	114	111	109	107	112	109	107	105	105	104	102	101	100	99	98	97	96	94																			
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89																			
3	104	98	93	90	102	97	92	89	94	90	88	92	89	86	89	87	85	83																			
4	99	92	87	83	97	91	86	83	89	85	82	87	84	81	85	82	80	79																			
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74																			
6	91	82	77	73	89	82	77	73	80	76	72	79	75	72	78	74	71	70																			
7	87	78	73	69	86	78	72	69	76	72	68	75	71	68	74	71	68	66																			
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63																			
9	80	71	66	62	79	71	65	62	70	65	62	69	65	62	68	64	61	60																			
10	77	68	63	59	76	68	63	59	67	62	59	66	62	59	65	61	59	57																			

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

	0°
0°	238773
5°	218820
10°	162963
15°	97188
20°	61644
25°	48690
30°	38357
35°	30058
40°	22352
45°	12526
50°	3181
55°	1638
60°	1200
65°	411
70°	254
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12526 cd/sqm



TEST NUMBER: P640348

CATALOG NUMBER: ML5609LSNFL25D2W1E - 592H - 900LM - 3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.9	21.2
10°-20°	340.0	30.0
20°-30°	257.0	22.7
30°-40°	195.6	17.2
40°-50°	86.0	7.6
50°-60°	12.1	1.1
60°-70°	2.9	0.3
70°-80°	0.4	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°	836.9	73.8
0°-40°	1032.5	91.1
0°-60°	1130.6	99.7
0°-90°	1133.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1133.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3025	
5°	2761	240
15°	1189	340
25°	559	257
35°	312	196
45°	112	86
55°	12	12
65°	2	3
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P640348

CATALOG NUMBER: ML5609LSNFL25D2W1E - 592H - 900LM - 3000K

**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3024.7
2.5°	2965.3
5°	2761.4
7.5°	2432.3
10°	2033.0
12.5°	1591.7
15°	1189.2
17.5°	904.3
20°	733.8
22.5°	636.7
25°	559.0
27.5°	484.5
30°	420.8
32.5°	362.6
35°	311.9
37.5°	267.6
40°	216.9
42.5°	161.9
45°	112.2
47.5°	59.4
50°	25.9
52.5°	16.2
55°	11.9
57.5°	9.7
60°	7.6
62.5°	4.3
65°	2.2
67.5°	1.1
70°	1.1
72.5°	1.1
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)