

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: P640380

Luminaire Tested: ML5609LSNFL25D2W1E - 693SNB - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640380  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-19)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSNFL25D2W1E - 693SNB - 900LM - 3000K  
Description: ML56 RR, 25D TIR OPTIC, 6" SATIN NICKLE BAFFLE TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

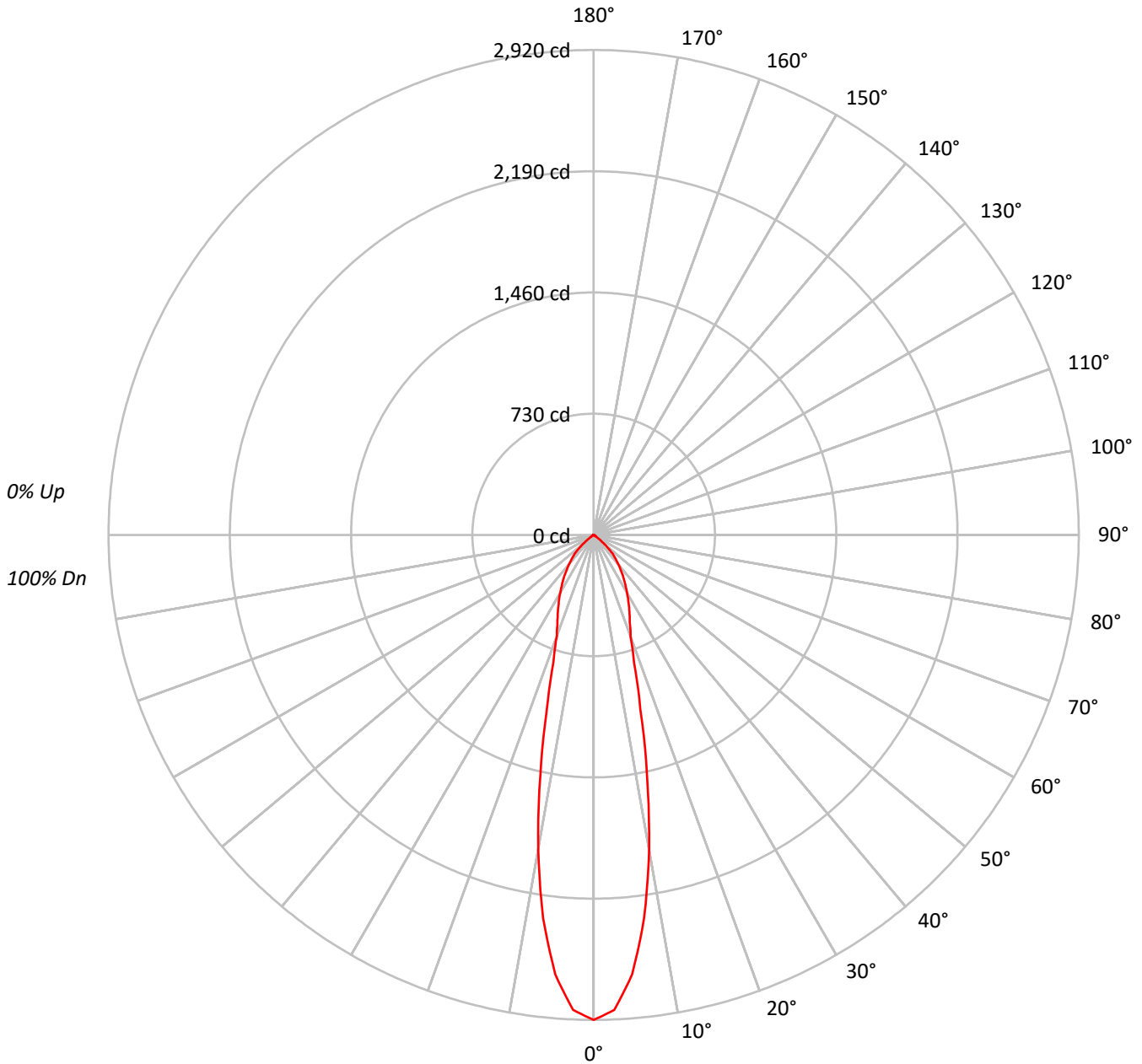
Lumens per Lamp: N/A  
Luminaire Lumens: 1122.0 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.44  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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



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### Luminous Intensity Polar Plot





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**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	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94																			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88																			
3	103	97	92	88	101	96	91	88	93	89	86	90	87	85	88	86	84	82																			
4	98	91	86	82	96	90	85	81	88	83	80	86	82	79	84	81	78	77																			
5	94	86	80	76	92	85	79	75	83	78	75	81	77	74	80	76	73	72																			
6	89	81	75	71	88	80	75	71	78	74	70	77	73	70	76	72	69	68																			
7	85	76	71	67	84	76	70	66	74	70	66	73	69	66	72	68	65	64																			
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61																			
9	78	69	63	60	77	69	63	60	68	63	59	67	62	59	66	62	59	58																			
10	75	66	60	57	74	65	60	57	65	60	57	64	59	56	63	59	56	55																			

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

	0°
0°	160097
5°	146126
10°	106979
15°	61629
20°	37897
25°	30818
30°	25434
35°	20833
40°	16574
45°	12777
50°	6797
55°	1749
60°	1064
65°	558
70°	176
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12777 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.7	20.5
10°-20°	311.5	27.8
20°-30°	234.8	20.9
30°-40°	194.3	17.3
40°-50°	121.6	10.8
50°-60°	24.9	2.2
60°-70°	4.5	0.4
70°-80°	0.7	0.1
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°	776.0	69.2
0°-40°	970.3	86.5
0°-60°	1116.8	99.5
0°-90°	1122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1122.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2920	
5°	2655	230
15°	1086	311
25°	510	235
35°	311	194
45°	165	122
55°	18	25
65°	4	5
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2920.4
2.5°	2862.2
5°	2655.4
7.5°	2326.9
10°	1921.8
12.5°	1482.3
15°	1085.9
17.5°	806.9
20°	649.6
22.5°	568.8
25°	509.5
27.5°	453.5
30°	401.8
32.5°	354.4
35°	311.3
37.5°	268.2
40°	231.6
42.5°	196.1
45°	164.8
47.5°	119.6
50°	79.7
52.5°	37.7
55°	18.3
57.5°	12.9
60°	9.7
62.5°	6.5
65°	4.3
67.5°	2.2
70°	1.1
72.5°	1.1
75°	0.0
77.5°	1.1
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

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— 0°-180°

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Scaled Data Report



(END OF REPORT)