

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: P640388

Luminaire Tested: ML5609LSNFL25D2W1E - 694WB - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640388  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-21)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSNFL25D2W1E - 694WB - 900LM - 3000K  
Description: ML56 RR, 25D TIR OPTIC, 6" WHITE GIMBAL TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

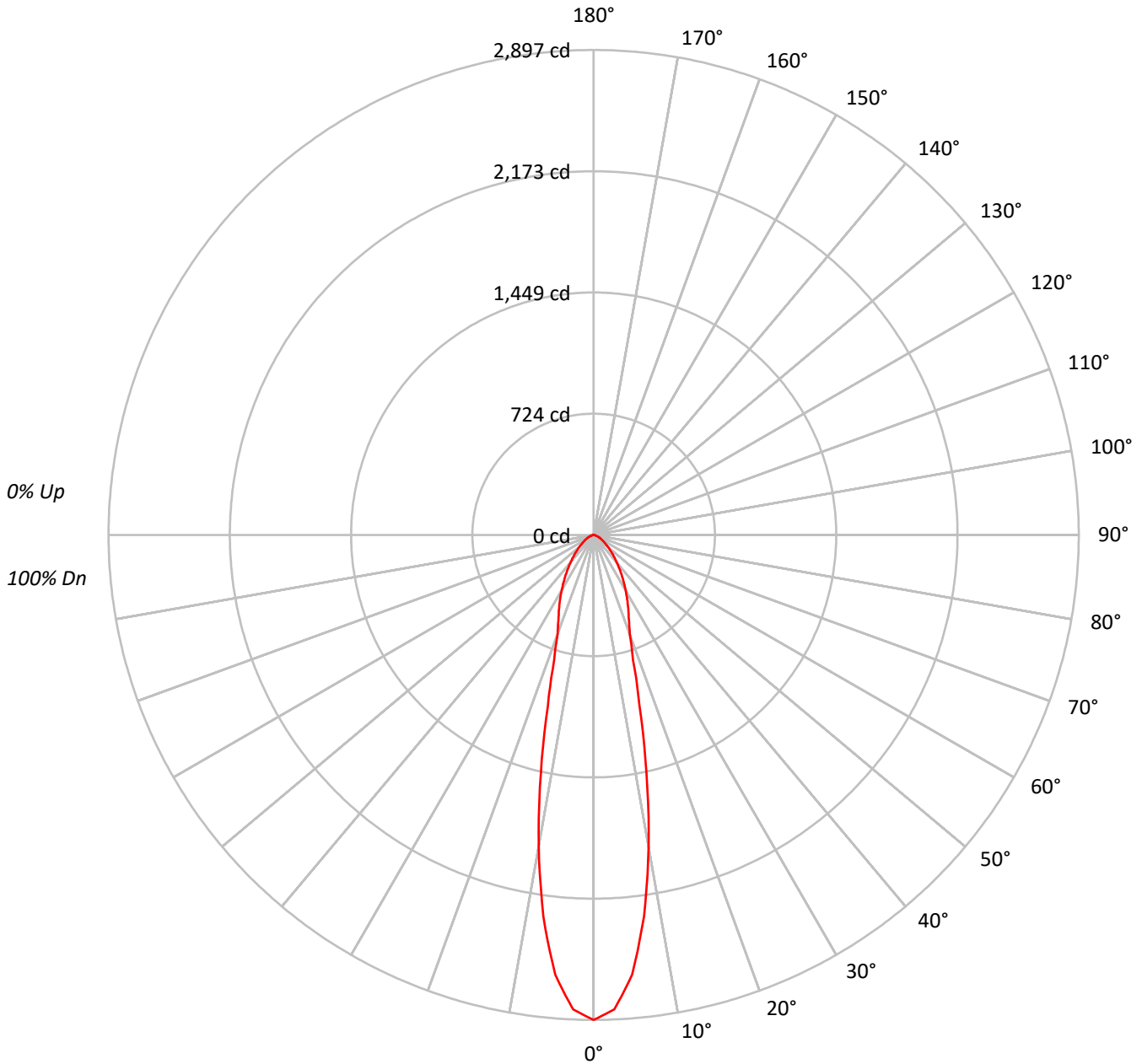
Lumens per Lamp: N/A  
Luminaire Lumens: 1180.2 lumens  
Efficiency: N/A  
Efficacy: 100.0 lumens/watt  
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.43  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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				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	100	100
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92	92	92	92
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85	85	85	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	83	80	78	78	78	78
4	96	88	82	78	94	87	81	77	85	80	76	82	78	75	81	77	74	73	73	73	73
5	91	82	76	72	89	81	76	71	79	74	71	78	73	70	76	72	69	68	68	68	68
6	87	77	71	67	85	76	71	66	75	70	66	74	69	66	72	68	65	64	64	64	64
7	82	73	67	62	81	72	66	62	71	66	62	70	65	62	69	64	61	60	60	60	60
8	79	69	63	59	77	69	63	59	67	62	58	66	62	58	65	61	58	57	57	57	57
9	75	66	60	56	74	65	60	56	64	59	55	63	59	55	62	58	55	54	54	54	54
10	72	63	57	53	71	62	57	53	61	56	53	61	56	53	60	56	52	51	51	51	51

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

	0°
0°	158820
5°	145019
10°	105253
15°	59921
20°	36707
25°	29584
30°	24143
35°	19394
40°	15343
45°	12110
50°	9467
55°	7417
60°	5910
65°	4748
70°	3446
75°	1822
80°	1357
85°	692

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12110 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.2	19.3
10°-20°	304.0	25.8
20°-30°	225.4	19.1
30°-40°	182.0	15.4
40°-50°	121.7	10.3
50°-60°	70.7	6.0
60°-70°	37.0	3.1
70°-80°	10.7	0.9
80°-90°	1.5	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°	756.6	64.1
0°-40°	938.6	79.5
0°-60°	1131.0	95.8
0°-90°	1180.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1180.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2897	
5°	2635	227
15°	1056	304
25°	489	225
35°	290	182
45°	156	122
55°	78	71
65°	37	37
75°	9	11
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2897.1
2.5°	2836.8
5°	2635.3
7.5°	2299.1
10°	1890.8
12.5°	1456.6
15°	1055.8
17.5°	782.2
20°	629.2
22.5°	548.4
25°	489.1
27.5°	433.1
30°	381.4
32.5°	334.0
35°	289.8
37.5°	250.0
40°	214.4
42.5°	184.2
45°	156.2
47.5°	131.4
50°	111.0
52.5°	92.7
55°	77.6
57.5°	64.6
60°	53.9
62.5°	45.3
65°	36.6
67.5°	30.2
70°	21.5
72.5°	14.0
75°	8.6
77.5°	5.4
80°	4.3
82.5°	2.2
85°	1.1
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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(END OF REPORT)