

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: P640389

Luminaire Tested: ML5609LSNFL25D2W1E - 696WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640389  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-23)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSNFL25D2W1E - 696WB - 900LM - 2700K  
Description: ML56 RR, 25D TIR OPTIC, 6" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

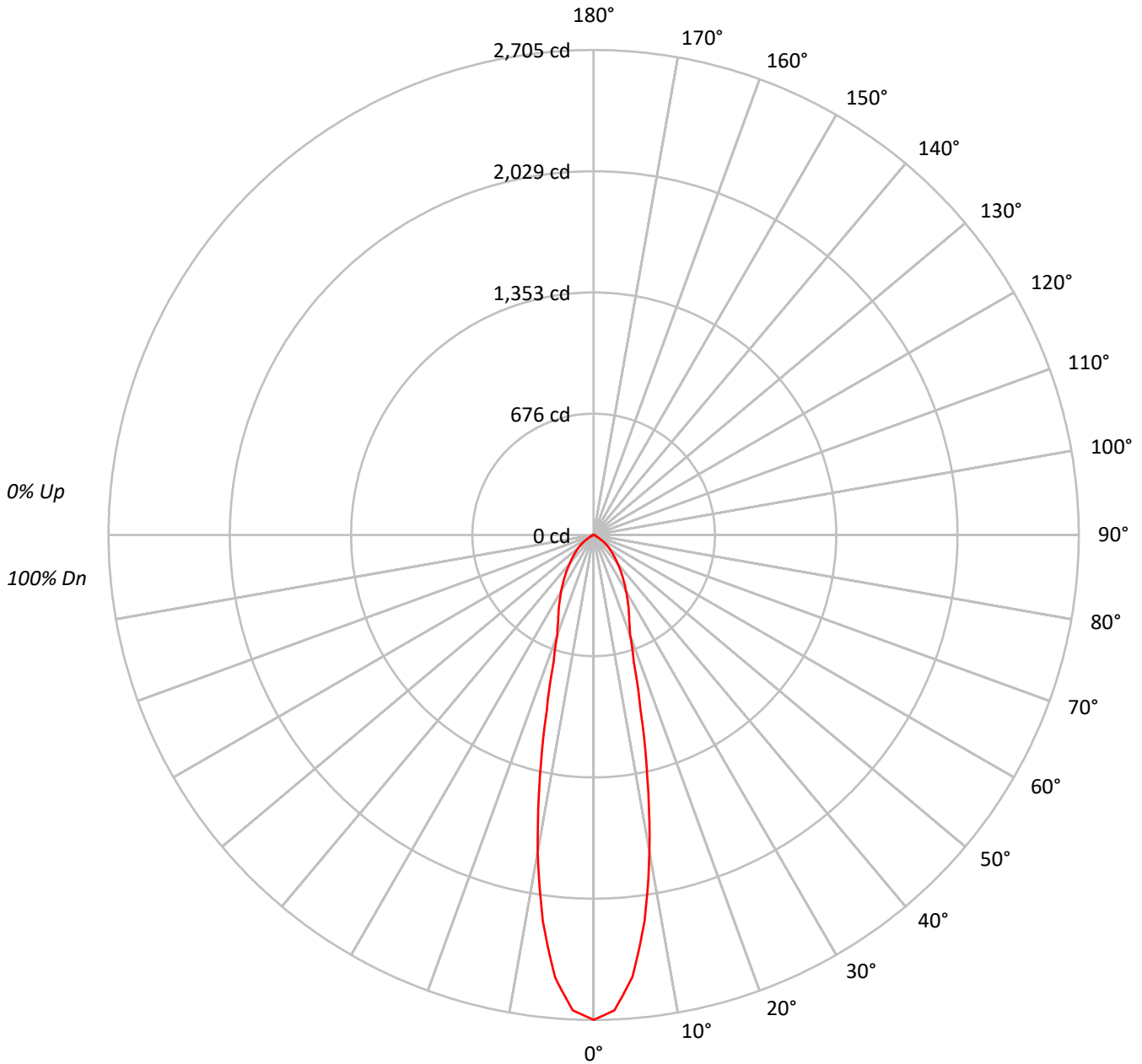
Lumens per Lamp: N/A  
Luminaire Lumens: 1091.5 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.44  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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				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	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93	93	93	93
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86	86	86	86
3	102	95	90	86	100	94	89	85	91	87	84	89	85	83	87	84	81	80	80	80	80
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	78	76	74	74	74	74
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69	69	69	69
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	70	67	65	65	65	65
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61	61	61	61
8	80	70	64	60	78	70	64	60	69	63	60	68	63	60	67	62	59	58	58	58	58
9	76	67	61	57	75	66	61	57	65	60	57	64	60	57	64	59	56	55	55	55	55
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52	52	52	52

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

	0°
0°	148305
5°	136220
10°	99853
15°	57373
20°	34612
25°	27933
30°	22877
35°	18544
40°	14871
45°	11831
50°	9330
55°	6528
60°	2862
65°	1686
70°	1282
75°	1059
80°	947
85°	1258

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11831 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.1	19.6
10°-20°	289.2	26.5
20°-30°	213.0	19.5
30°-40°	174.0	15.9
40°-50°	118.9	10.9
50°-60°	60.6	5.6
60°-70°	14.3	1.3
70°-80°	5.4	0.5
80°-90°	2.0	0.2
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°	716.2	65.6
0°-40°	890.2	81.6
0°-60°	1069.7	98.0
0°-90°	1091.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2705	
5°	2475	214
15°	1011	289
25°	462	213
35°	277	174
45°	153	119
55°	68	61
65°	13	14
75°	5	5
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2705.3
2.5°	2654.1
5°	2475.4
7.5°	2172.3
10°	1793.8
12.5°	1384.3
15°	1010.9
17.5°	743.8
20°	593.3
22.5°	518.0
25°	461.8
27.5°	409.6
30°	361.4
32.5°	317.2
35°	277.1
37.5°	240.9
40°	207.8
42.5°	178.7
45°	152.6
47.5°	129.5
50°	109.4
52.5°	91.3
55°	68.3
57.5°	46.2
60°	26.1
62.5°	17.1
65°	13.0
67.5°	11.0
70°	8.0
72.5°	6.0
75°	5.0
77.5°	4.0
80°	3.0
82.5°	3.0
85°	2.0
87.5°	1.0
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)