

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: P640390

Luminaire Tested: ML5609LSNFL25D2W1E - 696WB - 900LM - 3000K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640390  
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 - 3000K  
Description: ML56 RR, 25D TIR OPTIC, 6" SHALLOW WHITE BAFFLE TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

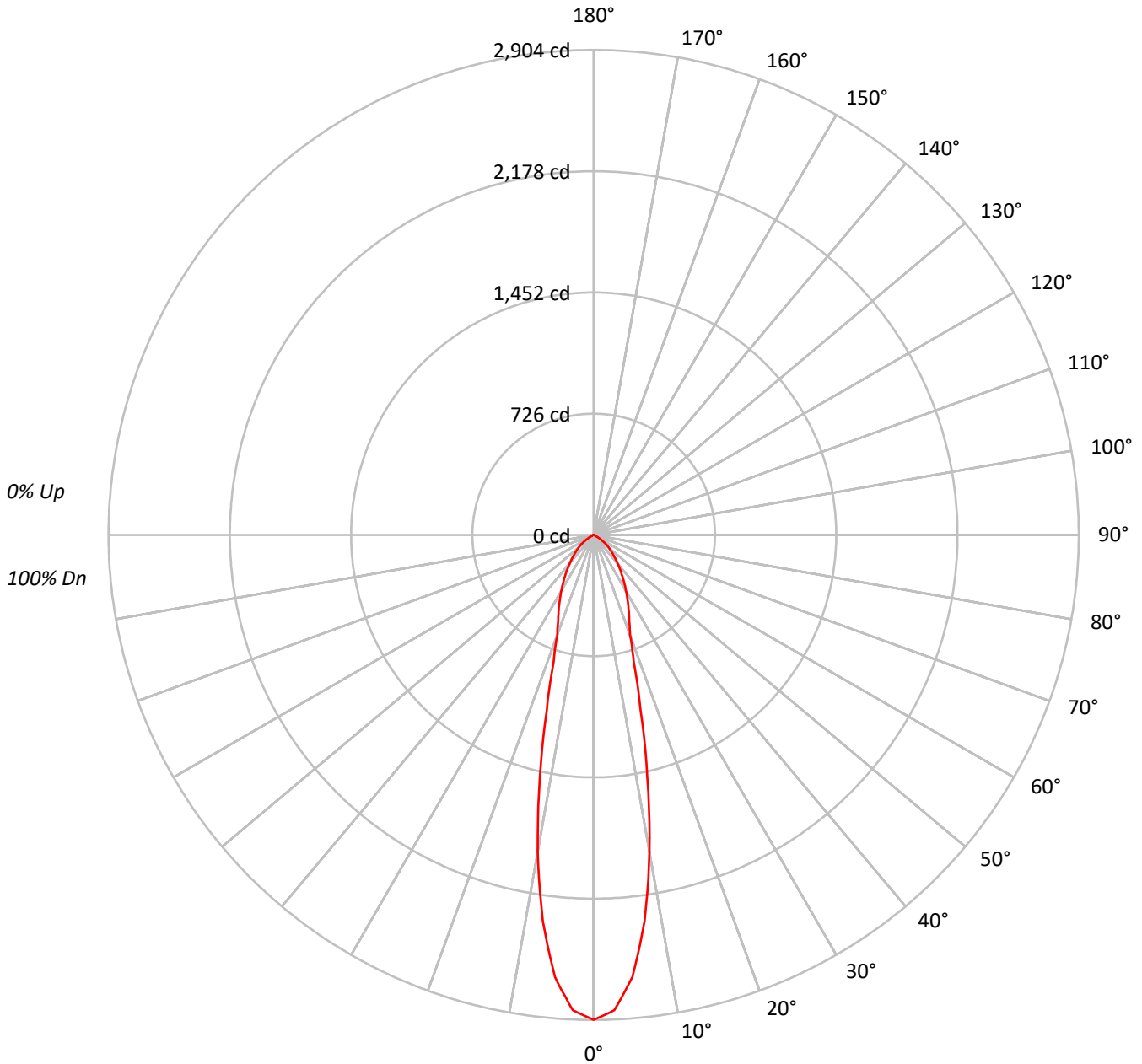
Lumens per Lamp: N/A  
Luminaire Lumens: 1171.6 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Spacing Criteria (0/90/45): 0.43 / 0.43 / 0.44  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93																			
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86																			
3	102	95	90	86	100	94	89	85	91	87	84	89	85	83	87	84	81	80																			
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	78	76	74																			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69																			
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	70	67	65																			
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61																			
8	80	70	64	60	78	70	64	60	69	63	60	68	63	60	67	62	59	58																			
9	76	67	61	57	75	66	61	57	65	60	57	64	60	57	64	59	56	55																			
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52																			

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

	0°
0°	159187
5°	146214
10°	107179
15°	61578
20°	37150
25°	29978
30°	24554
35°	19903
40°	15958
45°	12699
50°	10012
55°	7006
60°	3070
65°	1816
70°	1378
75°	1144
80°	1010
85°	1384

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12699 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.8	19.6
10°-20°	310.4	26.5
20°-30°	228.6	19.5
30°-40°	186.8	15.9
40°-50°	127.6	10.9
50°-60°	65.1	5.6
60°-70°	15.4	1.3
70°-80°	5.8	0.5
80°-90°	2.2	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°	768.8	65.6
0°-40°	955.5	81.6
0°-60°	1148.2	98.0
0°-90°	1171.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1171.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2904	
5°	2657	230
15°	1085	310
25°	496	229
35°	297	187
45°	164	128
55°	73	65
65°	14	15
75°	5	6
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2903.8
2.5°	2848.8
5°	2657.0
7.5°	2331.6
10°	1925.4
12.5°	1485.8
15°	1085.0
17.5°	798.4
20°	636.8
22.5°	556.0
25°	495.6
27.5°	439.6
30°	387.9
32.5°	340.5
35°	297.4
37.5°	258.6
40°	223.0
42.5°	191.8
45°	163.8
47.5°	139.0
50°	117.4
52.5°	98.0
55°	73.3
57.5°	49.6
60°	28.0
62.5°	18.3
65°	14.0
67.5°	11.9
70°	8.6
72.5°	6.5
75°	5.4
77.5°	4.3
80°	3.2
82.5°	3.2
85°	2.2
87.5°	1.1
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)