

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: P640363

Luminaire Tested: ML5609LSNFL25D2W1E - 594TBZB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640363  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSNFL25D2W1E - 594TBZB - 900LM - 2700K  
Description: ML56 RR, 25D TIR OPTIC, 5" TUSCON BRONZE GIMBAL TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

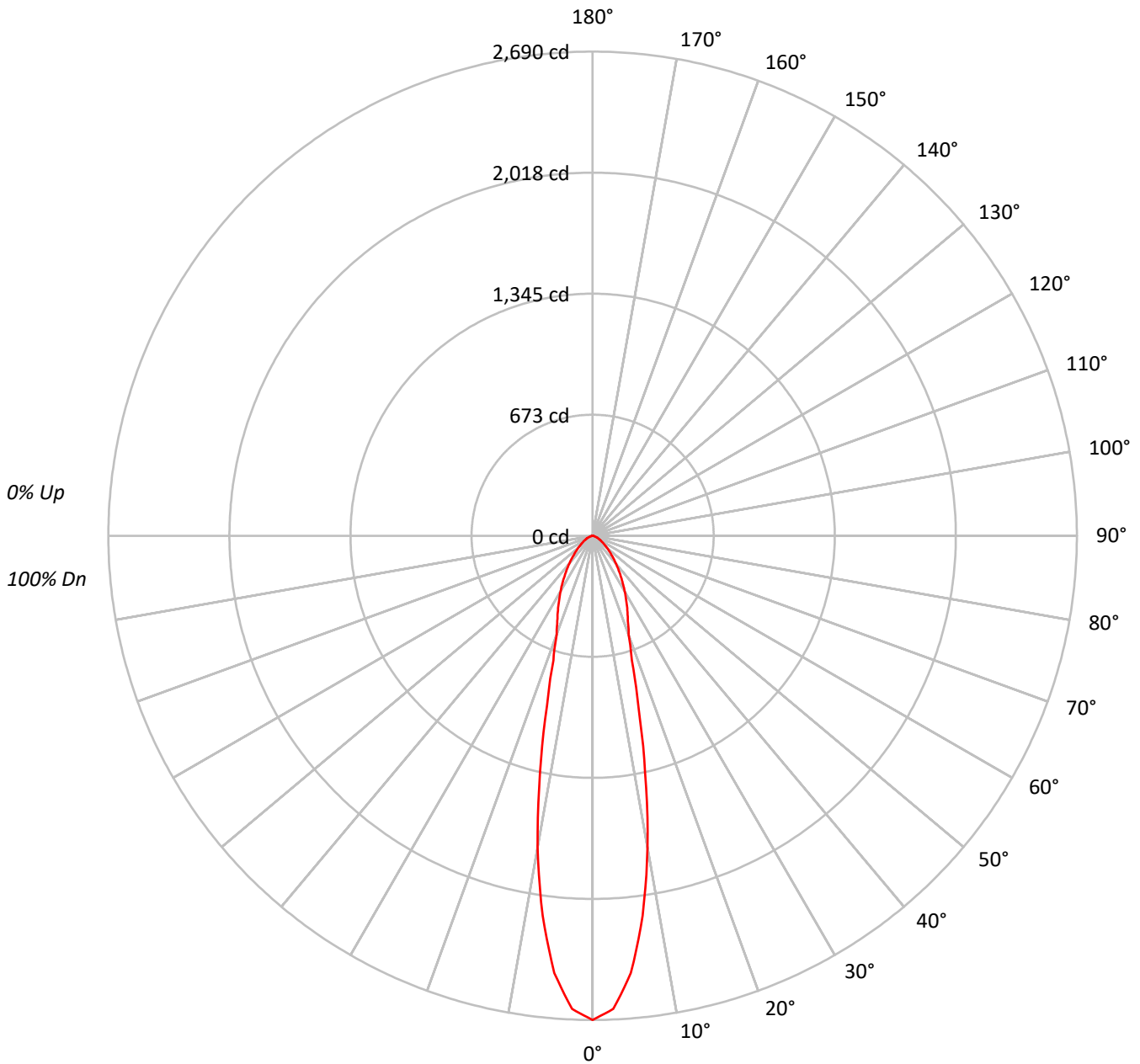
Lumens per Lamp: N/A  
Luminaire Lumens: 1098.6 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.43  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

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



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

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

	0°
0°	212383
5°	193225
10°	140983
15°	79993
20°	49169
25°	39701
30°	32396
35°	26116
40°	20692
45°	16255
50°	12699
55°	9951
60°	7926
65°	6556
70°	4639
75°	2440
80°	1818
85°	906

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16255 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.6	19.2
10°-20°	282.0	25.7
20°-30°	210.2	19.1
30°-40°	170.1	15.5
40°-50°	113.8	10.4
50°-60°	65.8	6.0
60°-70°	34.7	3.2
70°-80°	10.0	0.9
80°-90°	1.4	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°	702.8	64.0
0°-40°	872.9	79.5
0°-60°	1052.5	95.8
0°-90°	1098.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1098.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2690	
5°	2438	211
15°	979	282
25°	456	210
35°	271	170
45°	146	114
55°	72	66
65°	35	35
75°	8	10
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2690.4
2.5°	2631.2
5°	2438.4
7.5°	2128.2
10°	1758.8
12.5°	1348.2
15°	978.8
17.5°	725.8
20°	585.3
22.5°	512.0
25°	455.8
27.5°	404.6
30°	355.4
32.5°	312.2
35°	271.0
37.5°	233.9
40°	200.8
42.5°	171.7
45°	145.6
47.5°	123.5
50°	103.4
52.5°	86.3
55°	72.3
57.5°	60.2
60°	50.2
62.5°	42.2
65°	35.1
67.5°	28.1
70°	20.1
72.5°	13.1
75°	8.0
77.5°	5.0
80°	4.0
82.5°	2.0
85°	1.0
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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(END OF REPORT)