

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: P640507

Luminaire Tested: ML5609LSWFL55D2W1E - 691WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640507  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-59)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSWFL55D2W1E - 691WB - 900LM - 2700K  
Description: ML56 RR, 55D TIR OPTIC, 6" DEADFRONT TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1135.6 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.89  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

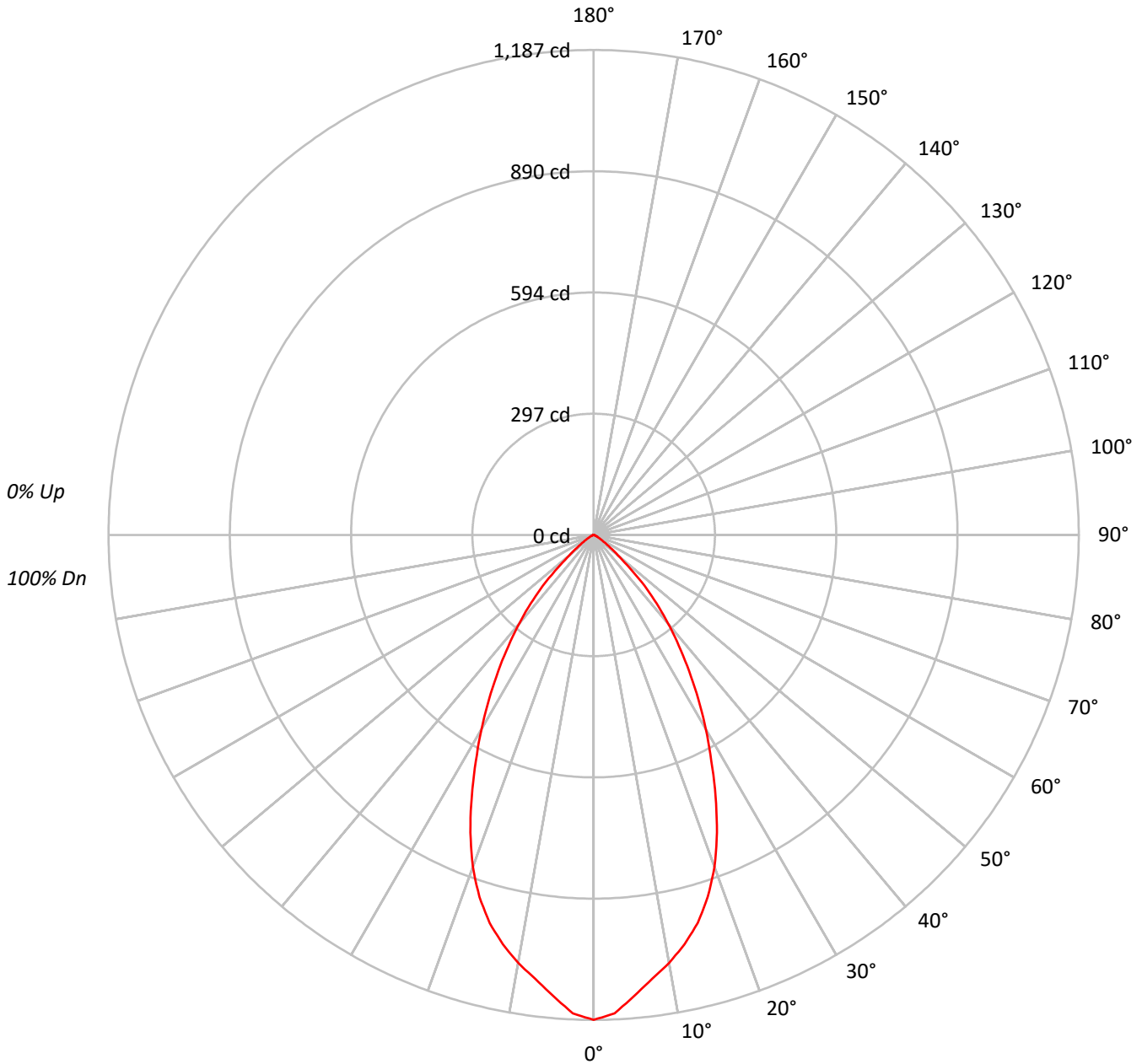
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	106	103	104	102	100	100	99	97	97	96	94	93	93	93	93
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	84	99	93	88	84	90	86	82	88	84	81	85	82	80	78	78	78	78
4	95	87	81	77	93	86	81	76	84	79	75	82	78	74	80	76	74	72	72	72	72
5	90	81	75	70	88	80	74	70	78	73	69	77	72	69	75	71	68	66	66	66	66
6	85	76	69	65	84	75	69	64	73	68	64	72	67	63	70	66	63	61	61	61	61
7	81	71	64	60	79	70	64	59	69	63	59	67	62	59	66	62	58	57	57	57	57
8	76	66	60	55	75	66	59	55	64	59	55	63	58	55	62	58	54	53	53	53	53
9	72	62	56	52	71	62	56	51	61	55	51	60	55	51	59	54	51	49	49	49	49
10	69	58	52	48	68	58	52	48	57	52	48	56	51	48	56	51	48	46	46	46	46

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

	0°
0°	65072
5°	62338
10°	59201
15°	55795
20°	50439
25°	42704
30°	34771
35°	27218
40°	20267
45°	13622
50°	6593
55°	3259
60°	1656
65°	1038
70°	481
75°	424
80°	316
85°	629

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13622 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.0	9.3
10°-20°	273.7	24.1
20°-30°	322.5	28.4
30°-40°	254.5	22.4
40°-50°	133.6	11.8
50°-60°	34.1	3.0
60°-70°	8.1	0.7
70°-80°	2.1	0.2
80°-90°	1.0	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°	702.2	61.8
0°-40°	956.7	84.2
0°-60°	1124.4	99.0
0°-90°	1135.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1135.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1187	
5°	1133	106
15°	983	274
25°	706	323
35°	407	255
45°	176	134
55°	34	34
65°	8	8
75°	2	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1187.0
2.5°	1171.9
5°	1132.8
7.5°	1095.6
10°	1063.5
12.5°	1026.3
15°	983.1
17.5°	928.9
20°	864.6
22.5°	788.3
25°	706.0
27.5°	623.6
30°	549.3
32.5°	476.0
35°	406.7
37.5°	342.4
40°	283.2
42.5°	228.0
45°	175.7
47.5°	117.5
50°	77.3
52.5°	52.2
55°	34.1
57.5°	22.1
60°	15.1
62.5°	11.0
65°	8.0
67.5°	5.0
70°	3.0
72.5°	2.0
75°	2.0
77.5°	2.0
80°	1.0
82.5°	1.0
85°	1.0
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)