

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P640299

Luminaire Tested: ML5609LSFL40D2W1E - 591WB - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640299  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-24)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSFL40D2W1E - 591WB - 900LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" DEADFRONT TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1144.7 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

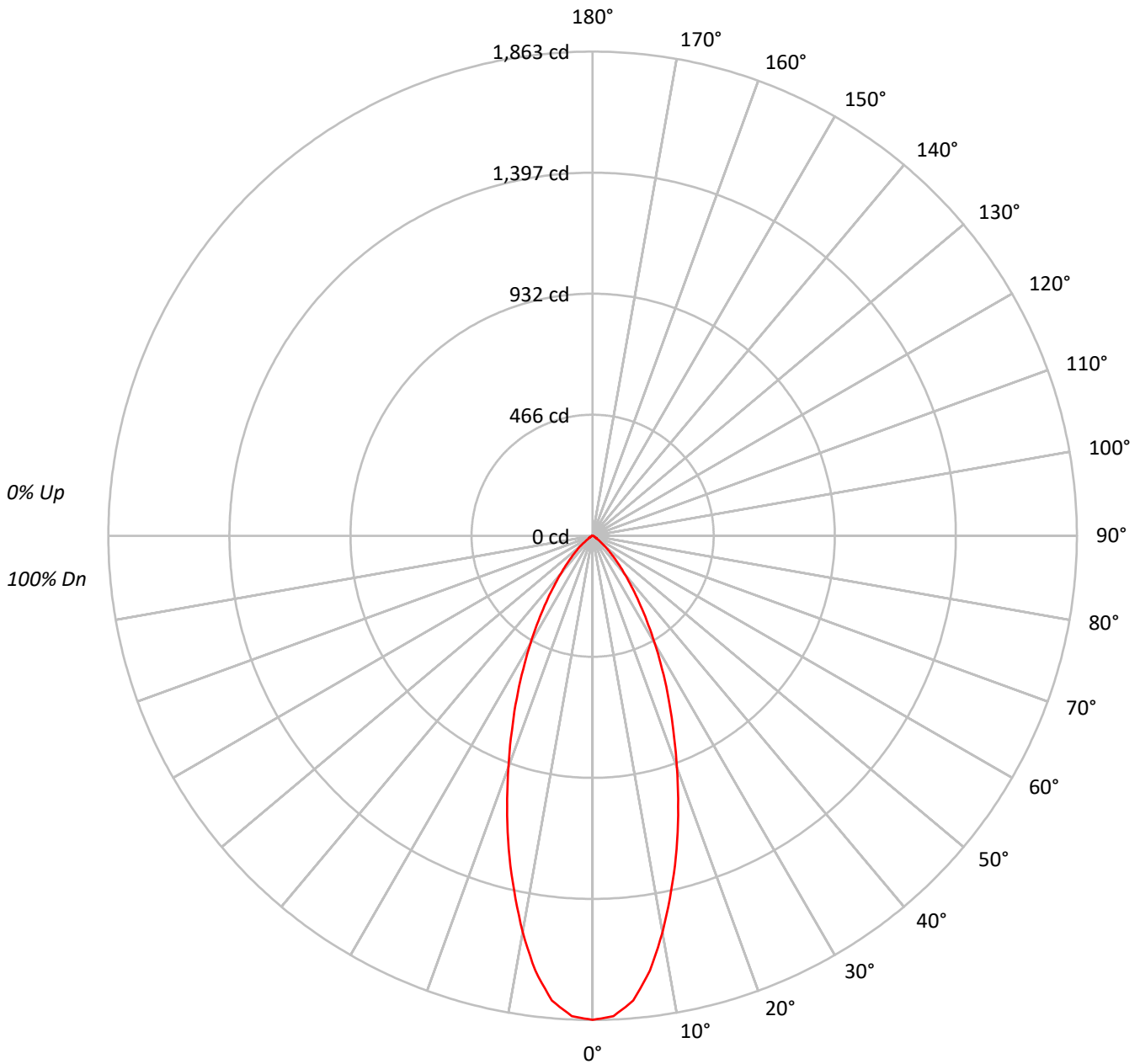
Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87			
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	81			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71			
6	88	80	74	70	87	79	73	69	77	73	69	76	72	69	75	71	68	67			
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63			
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	63	60	59			
9	77	67	62	58	76	67	62	58	66	61	58	65	61	57	64	60	57	56			
10	74	64	59	55	73	64	58	55	63	58	55	62	58	54	61	57	54	53			

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

	0°
0°	147043
5°	142272
10°	124118
15°	102010
20°	79462
25°	60179
30°	43571
35°	29903
40°	19559
45°	12336
50°	7148
55°	3042
60°	2068
65°	1308
70°	692
75°	610
80°	909
85°	906

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12336 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.2	14.3
10°-20°	344.6	30.1
20°-30°	316.8	27.7
30°-40°	196.7	17.2
40°-50°	88.1	7.7
50°-60°	24.5	2.1
60°-70°	7.4	0.6
70°-80°	2.2	0.2
80°-90°	1.1	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°	824.7	72.0
0°-40°	1021.3	89.2
0°-60°	1134.0	99.1
0°-90°	1144.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1144.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1863	
5°	1795	163
15°	1248	345
25°	691	317
35°	310	197
45°	110	88
55°	22	25
65°	7	7
75°	2	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1862.7
2.5°	1849.6
5°	1795.4
7.5°	1688.0
10°	1548.4
12.5°	1396.8
15°	1248.2
17.5°	1093.5
20°	945.9
22.5°	811.3
25°	690.9
27.5°	578.4
30°	478.0
32.5°	386.6
35°	310.3
37.5°	244.0
40°	189.8
42.5°	146.6
45°	110.5
47.5°	81.3
50°	58.2
52.5°	36.1
55°	22.1
57.5°	17.1
60°	13.1
62.5°	10.0
65°	7.0
67.5°	5.0
70°	3.0
72.5°	2.0
75°	2.0
77.5°	2.0
80°	2.0
82.5°	1.0
85°	1.0
87.5°	1.0
90°	0.0

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Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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(END OF REPORT)