

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: P640301

Luminaire Tested: ML5609LSFL40D2W1E - 592H - 900LM - 2700K

Issue Date: 2/17/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P640301  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-26)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 2/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML5609LSFL40D2W1E - 592H - 900LM - 2700K  
Description: ML56 RR, 40D TIR OPTIC, 5" HAZE TRIM  
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

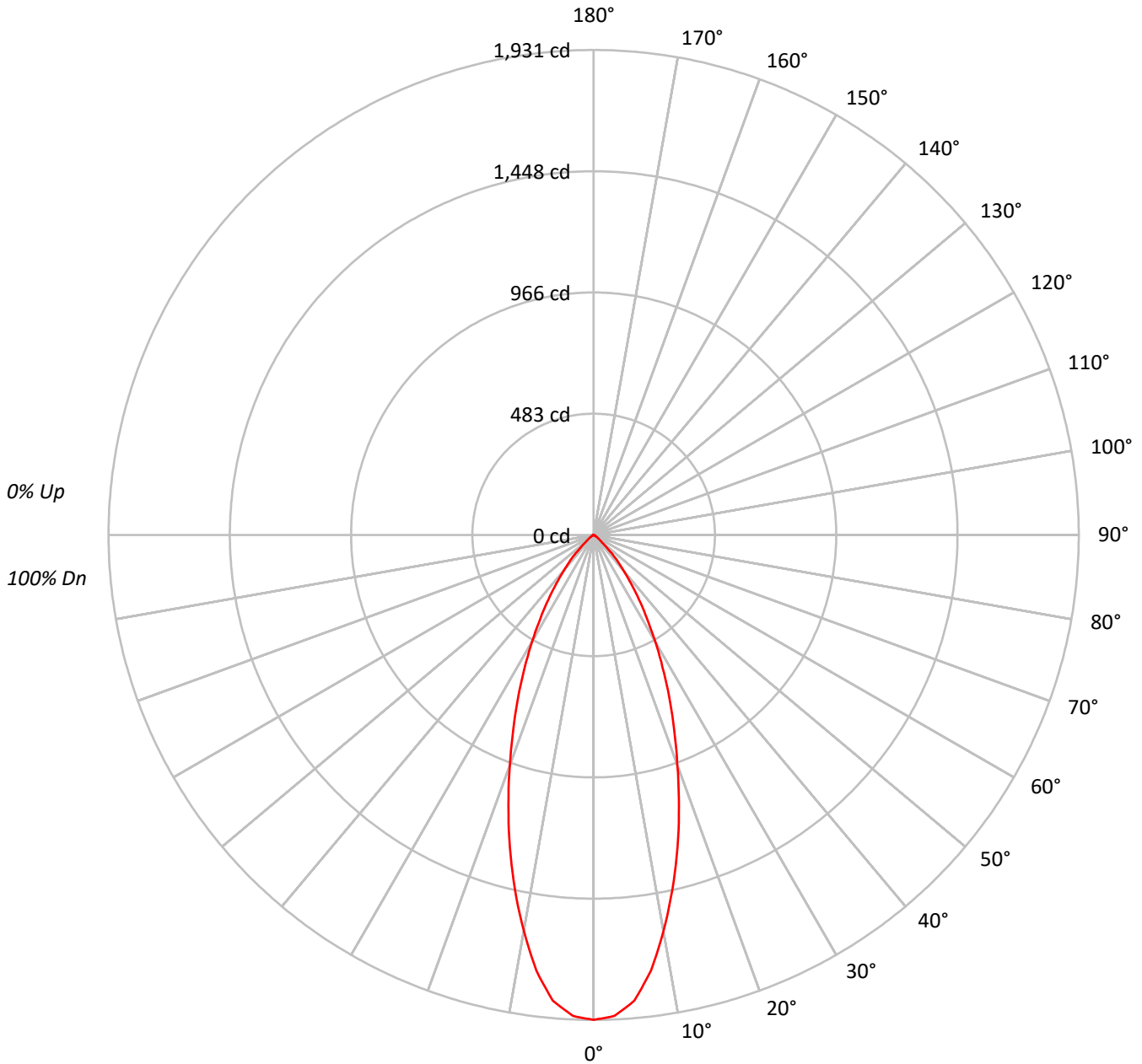
Lumens per Lamp: N/A  
Luminaire Lumens: 1140.7 lumens  
Efficiency: N/A  
Efficacy: 96.7 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69  
Luminous Opening: Circular (Dia: 0.42' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.8  
Input Voltage (V): NR  
Input Current (Ain): 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	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94				
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88				
3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84	82				
4	98	91	86	82	97	90	85	81	88	84	80	86	82	80	84	81	79	77				
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	72				
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	70	68				
7	85	77	71	67	84	76	70	67	75	70	66	73	69	66	72	69	66	64				
8	82	72	67	63	80	72	67	63	71	66	63	70	65	62	69	65	62	61				
9	78	69	63	59	77	68	63	59	67	63	59	67	62	59	66	62	59	57				
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	55				

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

	0°
0°	152435
5°	147526
10°	128390
15°	105295
20°	81831
25°	61842
30°	44483
35°	30289
40°	18838
45°	10315
50°	3819
55°	2216
60°	1263
65°	374
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10315 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.1	14.8
10°-20°	356.0	31.2
20°-30°	325.4	28.5
30°-40°	198.6	17.4
40°-50°	73.4	6.4
50°-60°	15.4	1.4
60°-70°	2.7	0.2
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	850.6	74.6
0°-40°	1049.2	92.0
0°-60°	1138.1	99.8
0°-90°	1140.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1140.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1931	
5°	1862	169
15°	1288	356
25°	710	325
35°	314	199
45°	92	73
55°	16	15
65°	2	3
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1931.0
2.5°	1917.0
5°	1861.7
7.5°	1749.3
10°	1601.7
12.5°	1447.0
15°	1288.4
17.5°	1128.7
20°	974.1
22.5°	834.5
25°	710.0
27.5°	593.5
30°	488.0
32.5°	394.6
35°	314.3
37.5°	244.0
40°	182.8
42.5°	138.6
45°	92.4
47.5°	50.2
50°	31.1
52.5°	23.1
55°	16.1
57.5°	11.0
60°	8.0
62.5°	5.0
65°	2.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
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)