

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: P640331

Luminaire Tested: ML5609LSFL40D2W1E - 693BB - 900LM - 2700K

Issue Date: 2/17/2023

Test Information

Test Method: LM-79-2019
Report Number: P640331
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2212-866-41)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 2/17/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML5609LSFL40D2W1E - 693BB - 900LM - 2700K
Description: ML56 RR, 40D TIR OPTIC, 6" BLACK BAFFLE TRIM
Light Source: (1) D2W SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

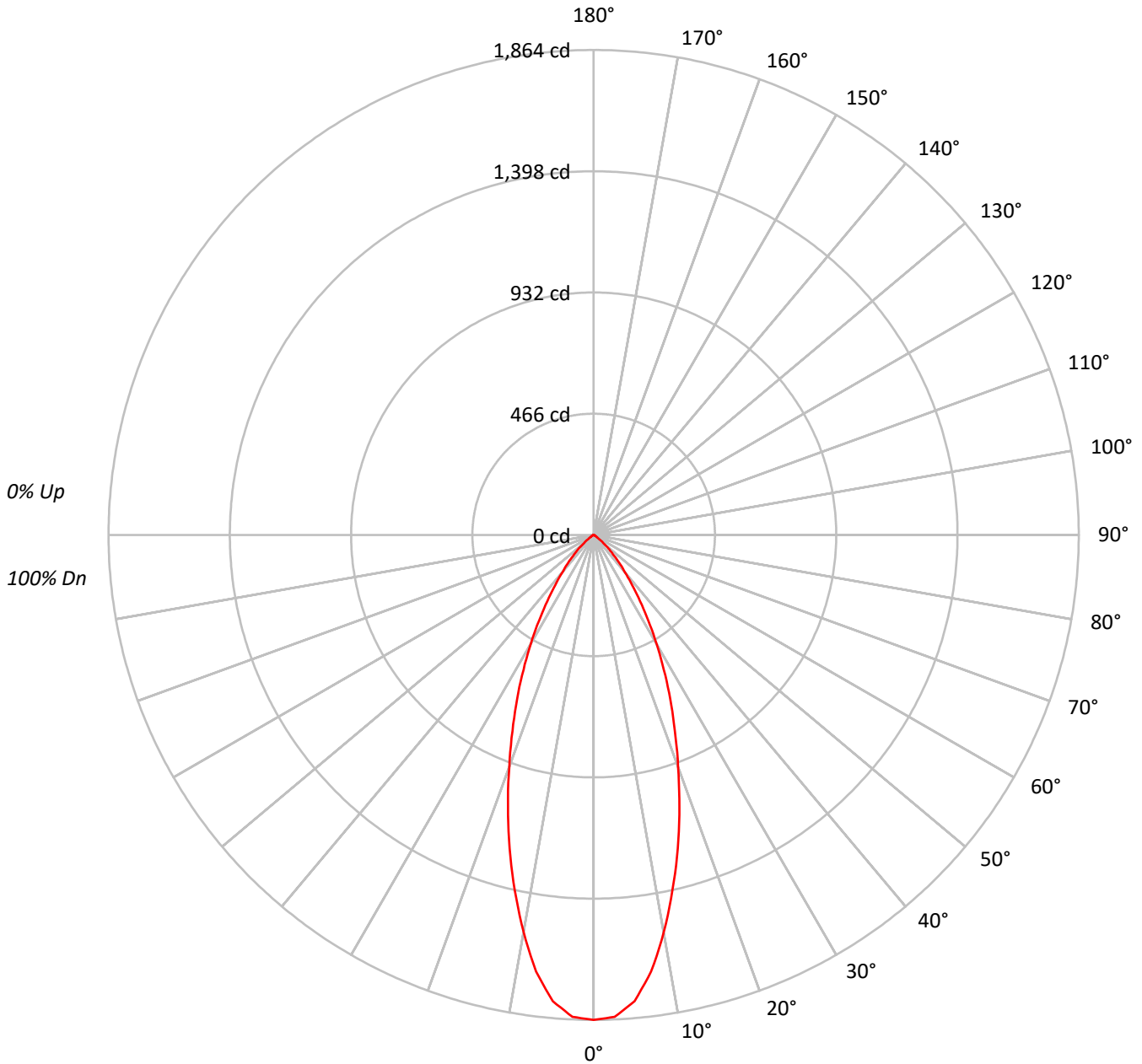
Lumens per Lamp: N/A
Luminaire Lumens: 1130.7 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.69
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 11.8
Input Voltage (V): NR
Input Current (A_{in}): 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	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94			
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	86	83	82			
4	98	91	85	81	96	90	85	81	88	83	80	86	82	79	84	81	78	77			
5	93	85	80	76	92	84	79	75	83	78	75	81	77	74	79	76	73	72			
6	89	80	75	70	88	80	74	70	78	73	70	77	73	69	75	72	69	67			
7	85	76	70	66	84	75	70	66	74	69	66	73	68	65	72	68	65	63			
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60			
9	77	68	62	59	76	68	62	59	67	62	58	66	61	58	65	61	58	57			
10	74	65	59	55	73	64	59	55	64	59	55	63	58	55	62	58	55	54			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	102196
5°	98993
10°	86327
15°	70801
20°	55316
25°	42039
30°	30517
35°	20773
40°	13368
45°	8179
50°	4111
55°	1634
60°	987
65°	389
70°	0
75°	0
80°	0
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8179 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.6	14.5
10°-20°	345.0	30.5
20°-30°	318.7	28.2
30°-40°	197.2	17.4
40°-50°	84.7	7.5
50°-60°	18.3	1.6
60°-70°	3.3	0.3
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°	827.2	73.2
0°-40°	1024.4	90.6
0°-60°	1127.4	99.7
0°-90°	1130.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1130.7	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1864	
5°	1799	164
15°	1248	345
25°	695	319
35°	310	197
45°	106	85
55°	17	18
65°	3	3
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1864.2
2.5°	1854.1
5°	1798.9
7.5°	1692.4
10°	1550.8
12.5°	1399.1
15°	1247.5
17.5°	1094.8
20°	948.2
22.5°	814.6
25°	695.0
27.5°	583.6
30°	482.1
32.5°	390.7
35°	310.4
37.5°	243.1
40°	186.8
42.5°	144.6
45°	105.5
47.5°	77.3
50°	48.2
52.5°	25.1
55°	17.1
57.5°	12.1
60°	9.0
62.5°	6.0
65°	3.0
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)