

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: P885898

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1SDMB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-144)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1SDMB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 387.5 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

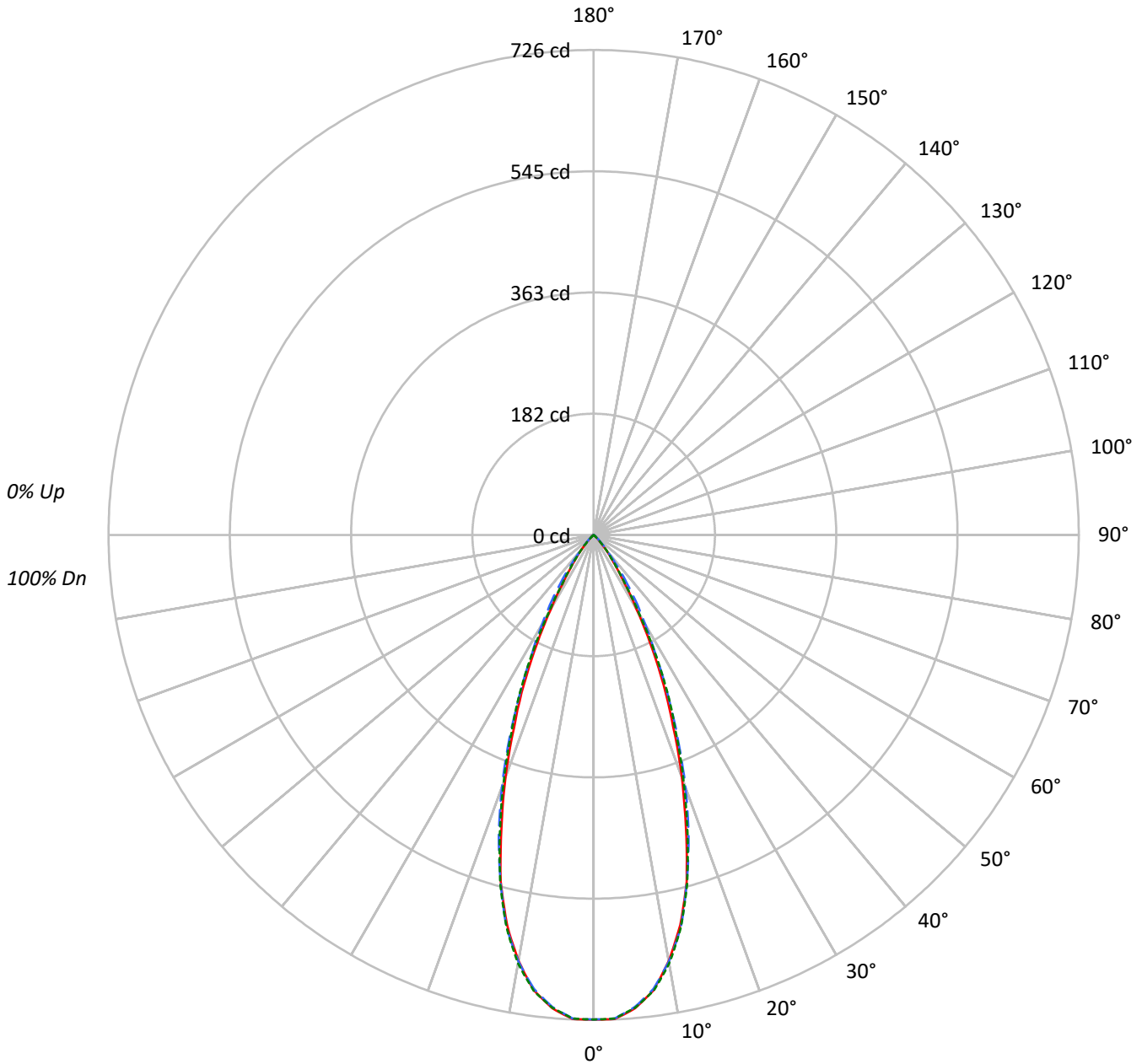
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	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	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95		
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90		
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	89	87	85		
4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81		
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	77		
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73		
7	89	81	75	72	87	80	75	71	79	74	71	78	74	71	77	73	70	69		
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66		
9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63		
10	79	70	65	62	78	70	65	62	69	65	62	68	64	61	68	64	61	60		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1124537	1124537	1124537
5°	1106894	1103782	1105338
10°	1018961	1020535	1025256
15°	862203	863807	867017
20°	635385	661941	650230
25°	422775	443298	448428
30°	231064	275809	245382
35°	109749	153459	115425
40°	52608	64749	56655
45°	17536	28497	15344
50°	4823	9646	4823
55°	2702	2702	2702
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28497 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	17.0
10°-20°	147.1	38.0
20°-30°	117.7	30.4
30°-40°	46.3	11.9
40°-50°	9.5	2.5
50°-60°	1.0	0.3
60°-70°	0.0	0.0
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°	330.7	85.3
0°-40°	377.0	97.3
0°-60°	387.5	100.0
0°-90°	387.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	387.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	711	709	709	710	710	66
15°	537	535	538	539	540	146
25°	247	249	259	263	262	112
35°	58	66	81	68	61	40
45°	8	10	13	10	7	8
55°	1	1	1	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	725.5	725.5	725.5	725.5	725.5
2.5°	725.5	723.5	724.5	725.5	724.5
5°	711.4	709.4	709.4	710.4	710.4
7.5°	687.4	686.4	685.4	686.4	688.4
10°	647.4	649.4	648.4	651.4	651.4
12.5°	598.4	597.4	602.4	602.4	602.4
15°	537.3	535.3	538.3	539.3	540.3
17.5°	458.3	465.3	472.3	469.3	466.3
20°	385.2	391.2	401.3	397.2	394.2
22.5°	311.2	319.2	328.2	326.2	322.2
25°	247.2	249.2	259.2	263.2	262.2
27.5°	183.1	195.1	199.1	205.1	197.1
30°	129.1	143.1	154.1	151.1	137.1
32.5°	87.1	98.1	116.1	104.1	89.1
35°	58.0	66.0	81.1	68.0	61.0
37.5°	40.0	44.0	52.0	46.0	41.0
40°	26.0	30.0	32.0	31.0	28.0
42.5°	15.0	19.0	21.0	19.0	16.0
45°	8.0	10.0	13.0	10.0	7.0
47.5°	4.0	5.0	8.0	5.0	4.0
50°	2.0	3.0	4.0	3.0	2.0
52.5°	1.0	2.0	2.0	2.0	1.0
55°	1.0	1.0	1.0	1.0	1.0
57.5°	0.0	0.0	1.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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