

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: P886025

Luminaire Tested: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P886025
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: ML104LSFLD2W1E-TIR1D40FL-TL1SDMB-200LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) D2W LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 230.3 lumens
Efficiency: N/A
Efficacy: 72.0 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

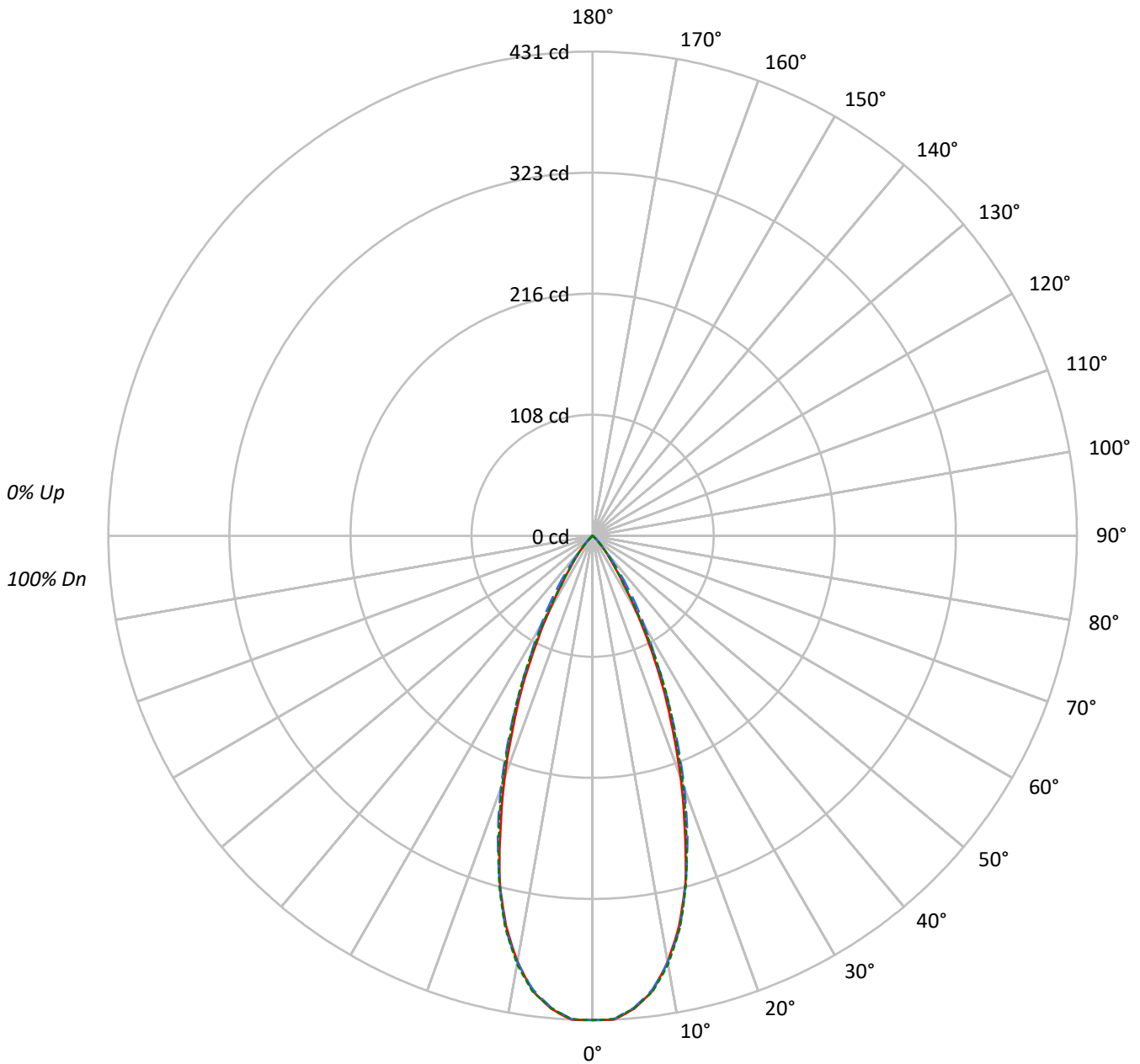
Input Watts (W): 3.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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	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	88	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°	668367	668367	668367
5°	657850	656139	657072
10°	605647	606592	609425
15°	512540	513502	515268
20°	377734	393404	386476
25°	251236	263379	266458
30°	137278	163946	145869
35°	65282	91205	68688
40°	31363	38445	33791
45°	10522	16879	9207
50°	2894	5787	2894
55°	1621	1621	1621
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: 16879 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	17.0
10°-20°	87.4	38.0
20°-30°	70.0	30.4
30°-40°	27.5	11.9
40°-50°	5.7	2.5
50°-60°	0.6	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°	196.5	85.3
0°-40°	224.1	97.3
0°-60°	230.3	100.0
0°-90°	230.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	230.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	431	431	431	431	431	
5°	423	422	422	422	422	39
15°	319	318	320	321	321	87
25°	147	148	154	156	156	67
35°	34	39	48	40	36	24
45°	5	6	8	6	4	5
55°	1	1	1	1	1	0
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°	431.2	431.2	431.2	431.2	431.2
2.5°	431.2	430.0	430.6	431.2	430.6
5°	422.8	421.7	421.7	422.3	422.3
7.5°	408.6	408.0	407.4	408.0	409.2
10°	384.8	386.0	385.4	387.2	387.2
12.5°	355.6	355.0	358.0	358.0	358.0
15°	319.4	318.2	320.0	320.6	321.1
17.5°	272.4	276.5	280.7	278.9	277.1
20°	229.0	232.5	238.5	236.1	234.3
22.5°	185.0	189.7	195.1	193.9	191.5
25°	146.9	148.1	154.0	156.4	155.8
27.5°	108.8	116.0	118.3	121.9	117.2
30°	76.7	85.0	91.6	89.8	81.5
32.5°	51.7	58.3	69.0	61.9	52.9
35°	34.5	39.3	48.2	40.4	36.3
37.5°	23.8	26.2	30.9	27.4	24.4
40°	15.5	17.8	19.0	18.4	16.7
42.5°	8.9	11.3	12.5	11.3	9.5
45°	4.8	5.9	7.7	5.9	4.2
47.5°	2.4	3.0	4.8	3.0	2.4
50°	1.2	1.8	2.4	1.8	1.2
52.5°	0.6	1.2	1.2	1.2	0.6
55°	0.6	0.6	0.6	0.6	0.6
57.5°	0.0	0.0	0.6	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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