

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: P885905

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885905
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-147)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1SDMBB-400LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

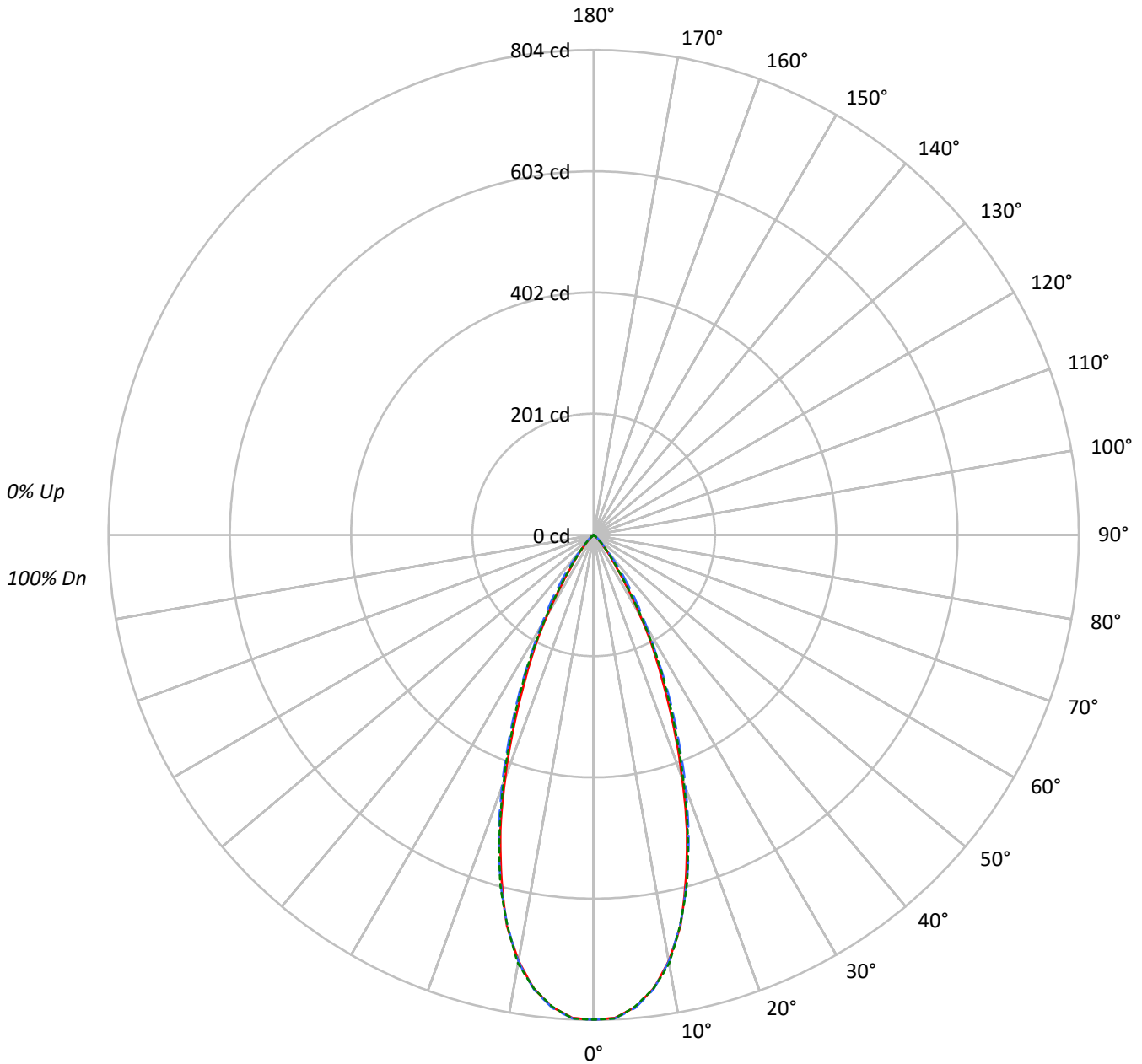
Lumens per Lamp: N/A
Luminaire Lumens: 434.1 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	114	112	109	107	112	110	108	106	106	104	103	102	101	99	98	97	97	95					95			
2	109	105	101	98	107	103	100	97	100	98	95	97	95	93	95	93	91	90					90			
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	86	85					85			
4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82	80					80			
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76					76			
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72					72			
7	88	80	75	71	87	80	75	71	78	74	71	77	73	70	76	73	70	69					69			
8	85	77	71	68	84	76	71	68	75	70	67	74	70	67	73	69	67	66					66			
9	81	73	68	64	80	73	68	64	72	67	64	71	67	64	70	66	64	63					63			
10	78	70	65	61	77	69	65	61	69	64	61	68	64	61	67	64	61	60					60			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1245593	1245593	1245593
5°	1222966	1224678	1221255
10°	1128191	1129923	1135117
15°	947412	956238	959768
20°	707302	734354	719839
25°	468096	503841	490672
30°	275451	310889	285295
35°	124887	176733	135294
40°	62321	75675	66772
45°	21701	36169	21701
50°	7958	13263	7958
55°	2973	2973	2973
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: 36169 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	16.8
10°-20°	162.9	37.5
20°-30°	131.8	30.4
30°-40°	53.6	12.3
40°-50°	11.5	2.7
50°-60°	1.3	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°	367.7	84.7
0°-40°	421.3	97.0
0°-60°	434.1	100.0
0°-90°	434.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	434.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	804	804	804	804	804	
5°	786	786	787	785	785	73
15°	590	595	596	594	598	162
25°	274	282	295	287	287	127
35°	66	77	93	80	72	47
45°	10	12	16	13	10	9
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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	803.6	803.6	803.6	803.6	803.6
2.5°	801.4	801.4	802.5	801.4	802.5
5°	786.0	786.0	787.1	784.9	784.9
7.5°	758.6	758.6	759.7	759.7	758.6
10°	716.8	719.0	717.9	720.1	721.2
12.5°	664.0	662.9	661.8	664.0	661.8
15°	590.4	594.8	595.9	593.7	598.1
17.5°	513.4	516.7	523.3	523.3	518.9
20°	428.8	439.7	445.2	440.8	436.4
22.5°	347.4	356.2	366.1	362.8	356.2
25°	273.7	282.5	294.6	286.9	286.9
27.5°	213.3	221.0	225.4	227.6	223.2
30°	153.9	164.9	173.7	170.4	159.4
32.5°	102.2	114.3	130.8	120.9	107.7
35°	66.0	77.0	93.4	80.3	71.5
37.5°	45.1	50.6	62.7	52.8	48.4
40°	30.8	35.2	37.4	35.2	33.0
42.5°	18.7	22.0	24.2	23.1	19.8
45°	9.9	12.1	16.5	13.2	9.9
47.5°	4.4	6.6	9.9	6.6	4.4
50°	3.3	3.3	5.5	3.3	3.3
52.5°	2.2	2.2	2.2	2.2	2.2
55°	1.1	1.1	1.1	1.1	1.1
57.5°	0.0	0.0	1.1	1.1	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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