

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: P885966

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMBB-400LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-153)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDMBB-400LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, MATTE BLACK BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

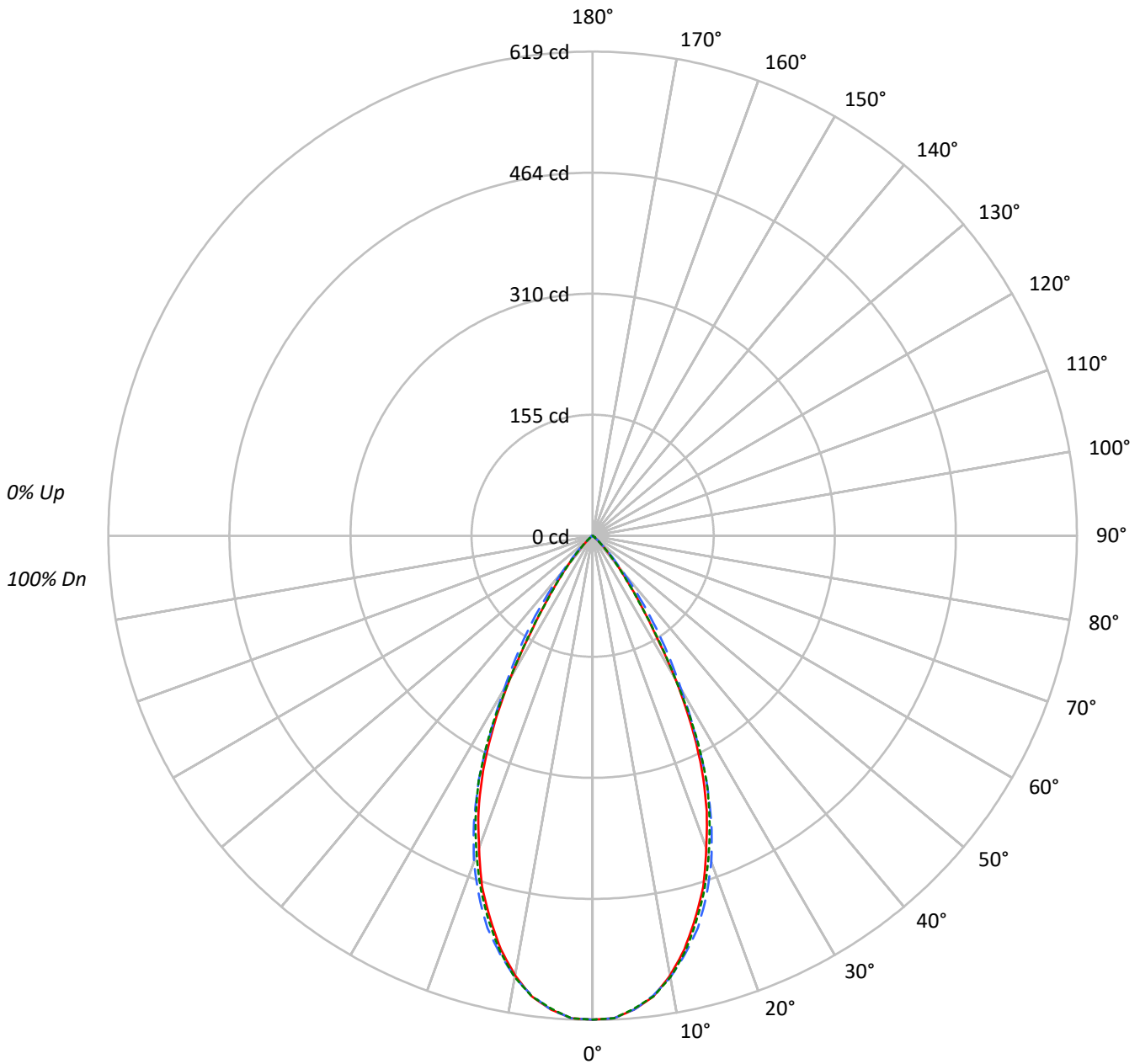
Lumens per Lamp: N/A
Luminaire Lumens: 446.9 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.83 / 0.8
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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					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								
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94								
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	88								
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	84	83								
4	99	92	87	83	97	91	86	82	89	84	81	87	83	80	85	82	79	78								
5	94	86	81	77	93	85	80	77	84	79	76	82	78	75	81	77	75	73								
6	90	82	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69								
7	86	77	71	67	84	76	71	67	75	70	67	74	70	67	73	69	66	65								
8	82	73	67	64	81	72	67	63	71	67	63	70	66	63	69	66	63	61								
9	78	69	64	60	77	69	63	60	68	63	60	67	63	59	66	62	59	58								
10	75	66	60	57	74	65	60	57	65	60	56	64	59	56	63	59	56	55								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	958840	958840	958840
5°	946165	946165	944298
10°	898241	901861	901861
15°	812457	833158	819999
20°	700210	731055	715550
25°	565923	587985	587985
30°	378902	403959	380870
35°	196980	254504	194709
40°	99349	118369	94695
45°	38361	46033	38361
50°	13986	13986	11334
55°	3243	6215	6215
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: 46033 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.9	12.7
10°-20°	142.6	31.9
20°-30°	152.4	34.1
30°-40°	75.9	17.0
40°-50°	17.1	3.8
50°-60°	2.1	0.5
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°	351.9	78.7
0°-40°	427.8	95.7
0°-60°	446.9	100.0
0°-90°	446.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	446.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	619	619	619	619	619	
5°	608	608	608	608	607	57
15°	506	511	519	516	511	141
25°	331	336	344	344	344	148
35°	104	112	134	115	103	69
45°	18	19	21	19	18	16
55°	1	2	2	2	2	2
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°	618.6	618.6	618.6	618.6	618.6
2.5°	617.4	617.4	617.4	617.4	617.4
5°	608.1	608.1	608.1	608.1	606.9
7.5°	594.0	594.0	592.9	592.9	594.0
10°	570.7	571.8	573.0	573.0	573.0
12.5°	541.4	542.6	547.3	546.1	544.9
15°	506.3	511.0	519.2	515.7	511.0
17.5°	470.1	474.8	482.9	480.6	474.8
20°	424.5	430.3	443.2	438.5	433.8
22.5°	381.2	387.1	396.4	396.4	390.6
25°	330.9	335.6	343.8	343.8	343.8
27.5°	273.6	280.6	281.8	287.7	284.2
30°	211.7	221.0	225.7	224.5	212.8
32.5°	148.5	163.7	177.7	169.6	152.0
35°	104.1	112.3	134.5	114.6	102.9
37.5°	71.3	74.8	93.5	74.8	70.2
40°	49.1	50.3	58.5	51.5	46.8
42.5°	30.4	32.7	36.3	31.6	29.2
45°	17.5	18.7	21.0	18.7	17.5
47.5°	9.4	10.5	11.7	10.5	9.4
50°	5.8	5.8	5.8	5.8	4.7
52.5°	3.5	3.5	3.5	3.5	3.5
55°	1.2	2.3	2.3	2.3	2.3
57.5°	0.0	1.2	1.2	1.2	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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