

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: P885984

Luminaire Tested: ML104LSFL9FS1E-TIR1D55WFL-TL1SDSLB-400LM-3000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-152)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D55WFL-TL1SDSLB-400LM-3000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 55D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

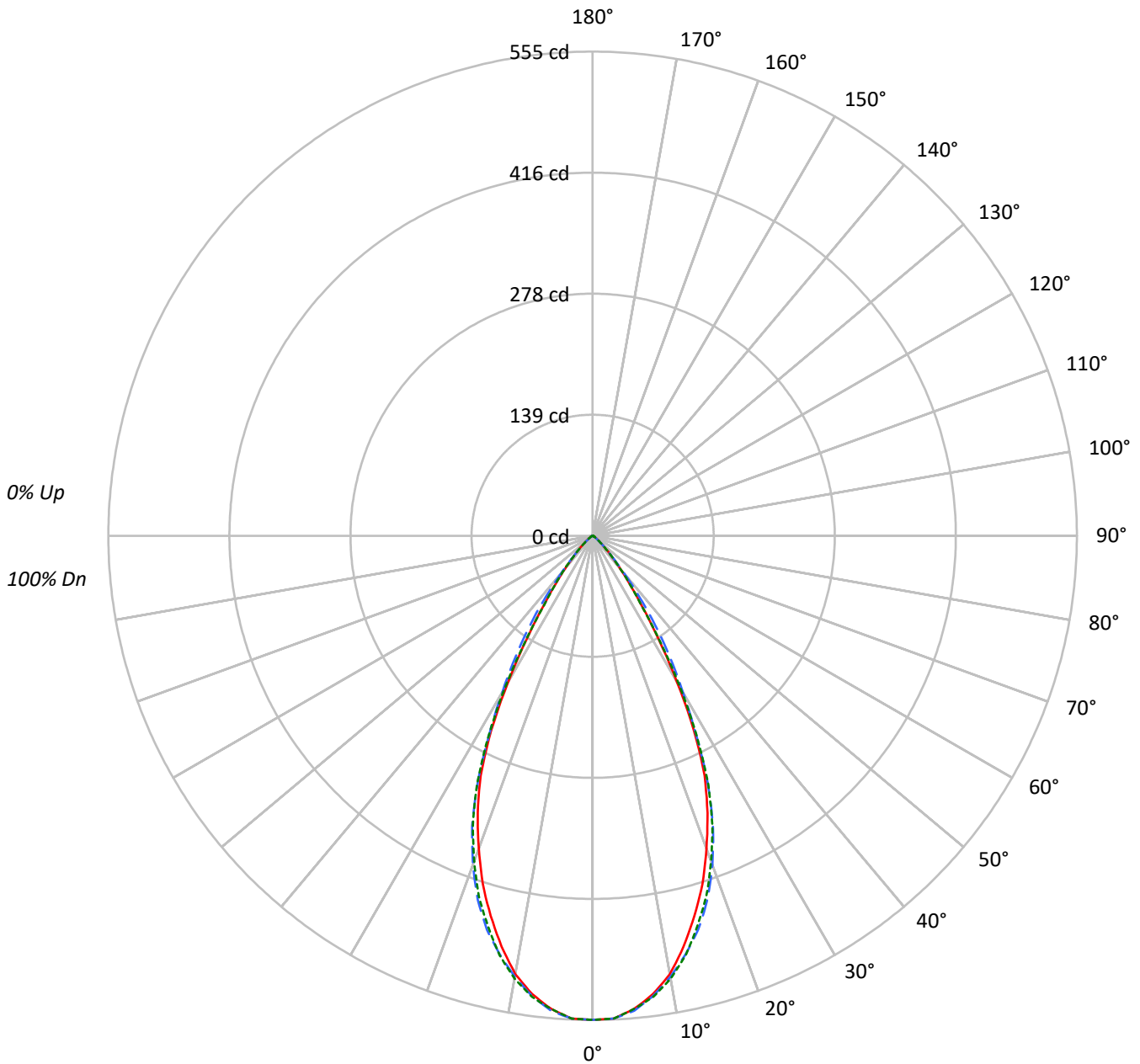
Lumens per Lamp: N/A
Luminaire Lumens: 413.7 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 0.84 / 0.81
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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	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	108	104	100	97	106	102	99	96	99	96	93	96	94	91	93	91	90	88
3	103	97	92	89	101	96	91	88	93	89	86	91	88	85	89	86	84	82
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77
5	94	86	80	76	92	85	80	76	83	78	75	81	77	74	80	76	74	72
6	89	81	75	71	88	80	75	71	78	74	70	77	73	70	76	72	69	68
7	85	76	70	66	84	76	70	66	74	69	66	73	69	66	72	68	65	64
8	81	72	66	62	80	72	66	62	70	66	62	69	65	62	69	65	62	60
9	78	68	63	59	76	68	62	59	67	62	59	66	62	58	65	61	58	57
10	74	65	59	56	73	64	59	56	64	59	55	63	58	55	62	58	55	54

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	860104	860104	860104
5°	847208	850475	847208
10°	803018	807897	811202
15°	723717	750355	743616
20°	628952	661612	654684
25°	518891	533086	534967
30°	345969	370132	358856
35°	186762	235960	182788
40°	98742	113513	100968
45°	47787	50198	47787
50°	22667	20015	22667
55°	14052	8377	14052
60°	9610	3100	9610
65°	7702	3668	7702
70°	4532	0	4532
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 50198 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	12.3
10°-20°	128.4	31.0
20°-30°	138.9	33.6
30°-40°	71.0	17.2
40°-50°	18.7	4.5
50°-60°	4.1	1.0
60°-70°	1.4	0.3
70°-80°	0.2	0.1
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°	318.3	76.9
0°-40°	389.3	94.1
0°-60°	412.1	99.6
0°-90°	413.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	413.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	544	546	547	546	544	51
15°	451	457	468	464	463	126
25°	303	306	312	315	313	135
35°	99	105	125	108	97	66
45°	22	21	23	21	22	19
55°	5	4	3	4	5	5
65°	2	1	1	1	2	2
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°	554.9	554.9	554.9	554.9	554.9
2.5°	553.8	553.8	553.8	553.8	553.8
5°	544.5	545.5	546.6	545.5	544.5
7.5°	529.9	529.9	532.0	533.0	533.0
10°	510.2	511.2	513.3	515.4	515.4
12.5°	482.1	487.3	491.5	490.4	492.5
15°	451.0	457.2	467.6	464.5	463.4
17.5°	418.7	426.0	437.5	434.3	433.3
20°	381.3	389.7	401.1	398.0	396.9
22.5°	343.9	351.2	360.6	360.6	358.5
25°	303.4	306.5	311.7	314.8	312.8
27.5°	251.5	258.7	256.7	261.8	257.7
30°	193.3	201.6	206.8	205.7	200.5
32.5°	140.3	150.7	164.2	154.8	143.4
35°	98.7	104.9	124.7	108.1	96.6
37.5°	69.6	72.7	87.3	71.7	69.6
40°	48.8	49.9	56.1	49.9	49.9
42.5°	33.3	33.3	35.3	33.3	33.3
45°	21.8	20.8	22.9	20.8	21.8
47.5°	14.5	13.5	13.5	13.5	13.5
50°	9.4	9.4	8.3	8.3	9.4
52.5°	7.3	6.2	5.2	6.2	6.2
55°	5.2	4.2	3.1	4.2	5.2
57.5°	3.1	3.1	2.1	3.1	3.1
60°	3.1	2.1	1.0	2.1	3.1
62.5°	2.1	2.1	1.0	2.1	2.1
65°	2.1	1.0	1.0	1.0	2.1
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	0.0	1.0	1.0
72.5°	1.0	1.0	0.0	0.0	1.0
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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