

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: P885867

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1SDSLB-400LM-5000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-140)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1SDSLB-400LM-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

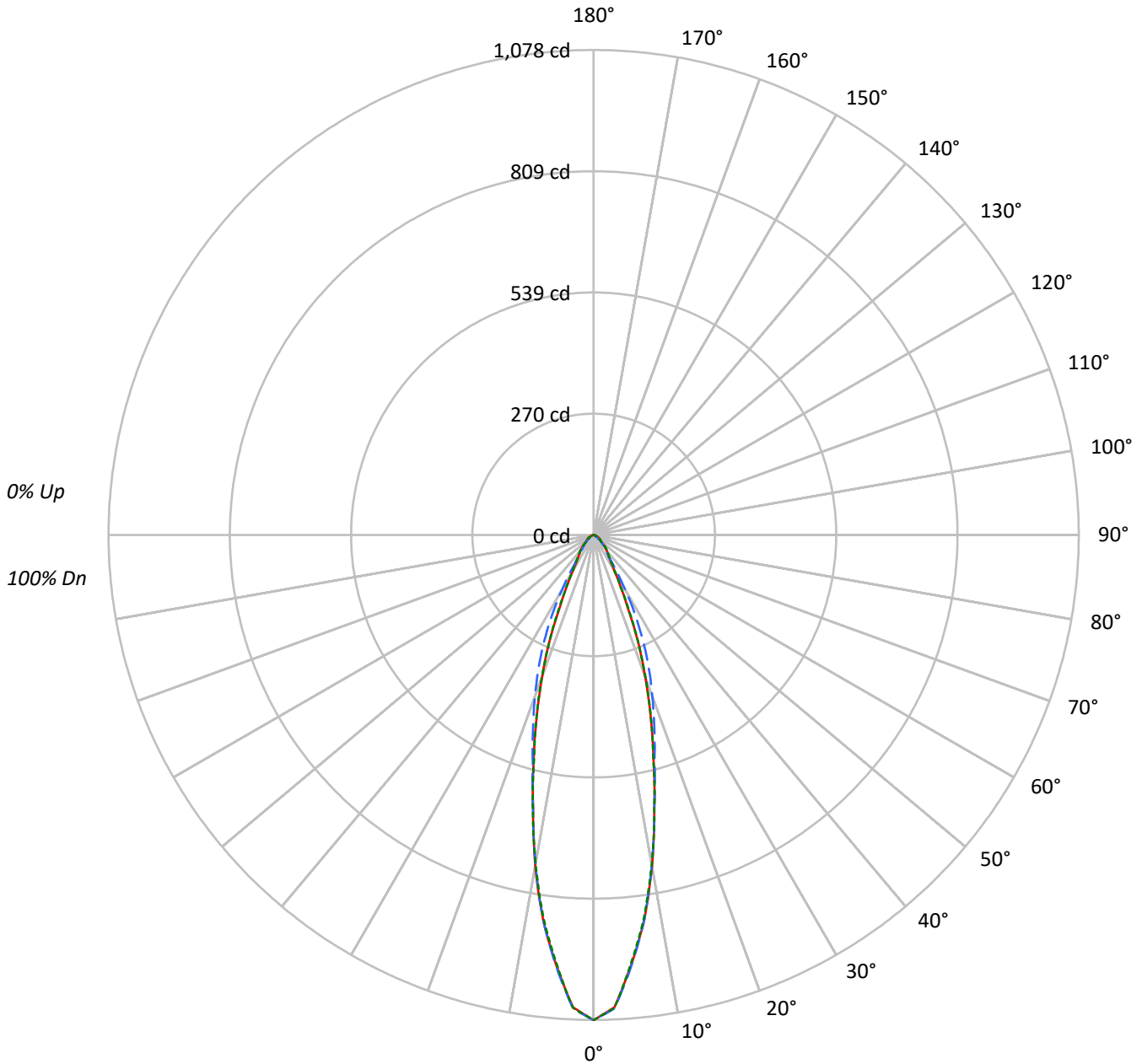
Lumens per Lamp: N/A
Luminaire Lumens: 409.3 lumens
Efficiency: N/A
Efficacy: 68.2 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.56
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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	112	109	107	105	105	104	102	101	100	99	98	97	96	94								
2	109	104	101	98	107	103	99	96	99	97	94	97	94	92	94	92	90	89								
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84								
4	100	93	88	84	98	92	87	83	89	86	82	88	84	81	86	83	81	79								
5	95	88	83	79	94	87	82	78	85	81	78	84	80	77	82	79	76	75								
6	91	83	78	74	90	83	78	74	81	77	73	80	76	73	79	75	72	71								
7	88	79	74	70	86	79	74	70	78	73	70	76	72	69	75	72	69	68								
8	84	76	71	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65								
9	81	73	67	64	80	72	67	64	71	67	64	70	66	63	70	66	63	62								
10	78	70	64	61	77	69	64	61	68	64	61	68	64	61	67	63	61	59								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1671692	1671692	1671692
5°	1491988	1496033	1486075
10°	1175881	1171947	1169900
15°	825776	838293	819518
20°	550766	627962	552910
25°	306648	444495	317765
30°	165199	248783	169852
35°	110695	108235	115615
40°	89434	76282	94695
45°	68392	59843	74091
50°	50157	43887	50157
55°	45670	14052	45670
60°	40300	12090	40300
65°	28608	9536	28608
70°	17675	5892	17675
75°	7785	7785	7785
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 74091 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	20.8
10°-20°	144.8	35.4
20°-30°	99.6	24.3
30°-40°	41.3	10.1
40°-50°	22.3	5.5
50°-60°	10.2	2.5
60°-70°	4.6	1.1
70°-80°	1.3	0.3
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°	329.5	80.5
0°-40°	370.8	90.6
0°-60°	403.4	98.6
0°-90°	409.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	409.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1078	1078	1078	1078	1078	
5°	959	956	962	958	955	85
15°	515	517	522	520	511	143
25°	179	208	260	210	186	87
35°	58	64	57	64	61	39
45°	31	29	27	30	34	24
55°	17	10	5	10	17	15
65°	8	4	3	4	8	8
75°	1	1	1	1	1	2
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°	1078.5	1078.5	1078.5	1078.5	1078.5
2.5°	1051.2	1052.5	1053.8	1056.4	1052.5
5°	958.9	956.4	961.5	957.6	955.1
7.5°	862.8	862.8	862.8	860.2	857.6
10°	747.1	747.1	744.6	745.8	743.3
12.5°	622.4	618.5	622.4	619.8	623.7
15°	514.6	517.2	522.4	519.8	510.7
17.5°	419.7	430.1	447.0	431.4	422.3
20°	333.9	353.4	380.7	353.4	335.2
22.5°	257.3	279.4	319.6	280.7	257.3
25°	179.3	207.9	259.9	210.5	185.8
27.5°	129.9	146.8	198.8	149.4	131.2
30°	92.3	106.5	139.0	109.1	94.9
32.5°	71.5	83.2	88.4	81.9	72.8
35°	58.5	63.7	57.2	63.7	61.1
37.5°	50.7	49.4	45.5	50.7	53.3
40°	44.2	40.3	37.7	41.6	46.8
42.5°	39.0	35.1	32.5	35.1	40.3
45°	31.2	28.6	27.3	29.9	33.8
47.5°	23.4	20.8	23.4	22.1	23.4
50°	20.8	14.3	18.2	14.3	20.8
52.5°	18.2	11.7	11.7	11.7	18.2
55°	16.9	10.4	5.2	10.4	16.9
57.5°	14.3	9.1	5.2	9.1	14.3
60°	13.0	7.8	3.9	7.8	13.0
62.5°	10.4	5.2	2.6	5.2	10.4
65°	7.8	3.9	2.6	3.9	7.8
67.5°	5.2	2.6	1.3	2.6	5.2
70°	3.9	2.6	1.3	2.6	3.9
72.5°	2.6	1.3	1.3	1.3	2.6
75°	1.3	1.3	1.3	1.3	1.3
77.5°	1.3	1.3	0.0	0.0	1.3
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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