

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: P885864

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1SDSLB-400LM-3000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885864
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-3000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D 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: 326.9 lumens
Efficiency: N/A
Efficacy: 54.5 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

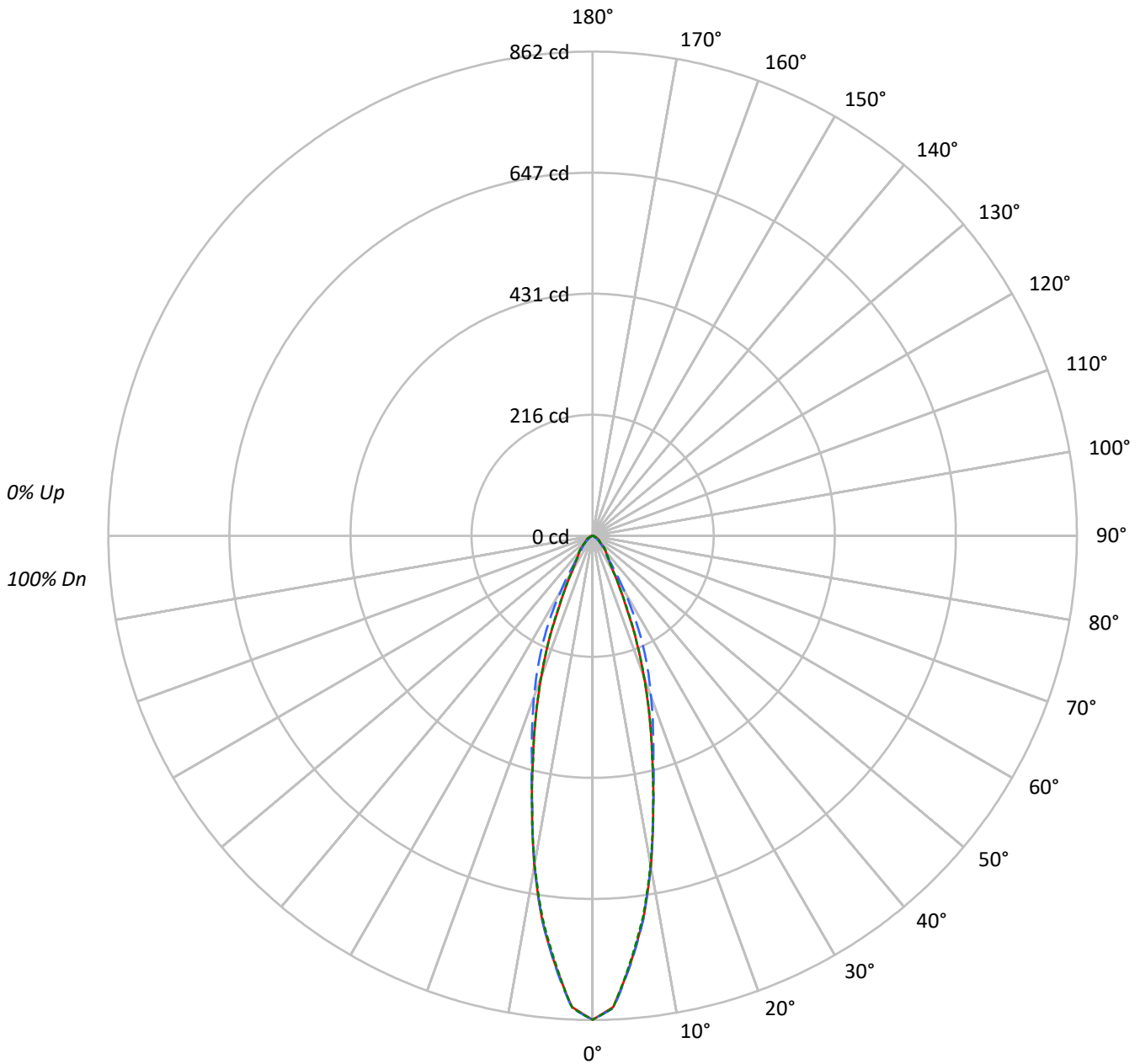
Input Watts (W): 6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	73	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°	1335494	1335494	1335494
5°	1192003	1195271	1187180
10°	939477	936172	934598
15°	659690	669639	654715
20°	440085	501776	441734
25°	245079	355049	253973
30°	131909	198847	135667
35°	88367	86474	92340
40°	71426	60904	75675
45°	54582	47787	59185
50°	40029	34965	40029
55°	36482	11350	36482
60°	32240	9610	32240
65°	22739	7702	22739
70°	14049	4532	14049
75°	5989	5989	5989
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 59185 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.0	20.8
10°-20°	115.7	35.4
20°-30°	79.6	24.3
30°-40°	33.0	10.1
40°-50°	17.8	5.5
50°-60°	8.2	2.5
60°-70°	3.7	1.1
70°-80°	1.0	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°	263.2	80.5
0°-40°	296.2	90.6
0°-60°	322.2	98.6
0°-90°	326.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	326.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	862	862	862	862	862	
5°	766	764	768	765	763	68
15°	411	413	417	415	408	114
25°	143	166	208	168	148	69
35°	47	51	46	51	49	31
45°	25	23	22	24	27	19
55°	14	8	4	8	14	12
65°	6	3	2	3	6	6
75°	1	1	1	1	1	1
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°	861.6	861.6	861.6	861.6	861.6
2.5°	839.8	840.9	841.9	844.0	840.9
5°	766.1	764.1	768.2	765.1	763.0
7.5°	689.3	689.3	689.3	687.2	685.2
10°	596.9	596.9	594.8	595.9	593.8
12.5°	497.3	494.1	497.3	495.2	498.3
15°	411.1	413.2	417.3	415.2	408.0
17.5°	335.3	343.6	357.1	344.7	337.4
20°	266.8	282.4	304.2	282.4	267.8
22.5°	205.5	223.2	255.4	224.2	205.5
25°	143.3	166.1	207.6	168.2	148.5
27.5°	103.8	117.3	158.8	119.4	104.9
30°	73.7	85.1	111.1	87.2	75.8
32.5°	57.1	66.4	70.6	65.4	58.1
35°	46.7	50.9	45.7	50.9	48.8
37.5°	40.5	39.4	36.3	40.5	42.6
40°	35.3	32.2	30.1	33.2	37.4
42.5°	31.1	28.0	26.0	28.0	32.2
45°	24.9	22.8	21.8	23.9	27.0
47.5°	18.7	16.6	18.7	17.6	18.7
50°	16.6	11.4	14.5	11.4	16.6
52.5°	14.5	9.3	9.3	9.3	14.5
55°	13.5	8.3	4.2	8.3	13.5
57.5°	11.4	7.3	4.2	7.3	11.4
60°	10.4	6.2	3.1	6.2	10.4
62.5°	8.3	4.2	2.1	4.2	8.3
65°	6.2	3.1	2.1	3.1	6.2
67.5°	4.2	2.1	1.0	2.1	4.2
70°	3.1	2.1	1.0	2.1	3.1
72.5°	2.1	1.0	1.0	1.0	2.1
75°	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	0.0	0.0	1.0
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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