

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P885838

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMB-400LM-2700K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-138)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMB-400LM-2700K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

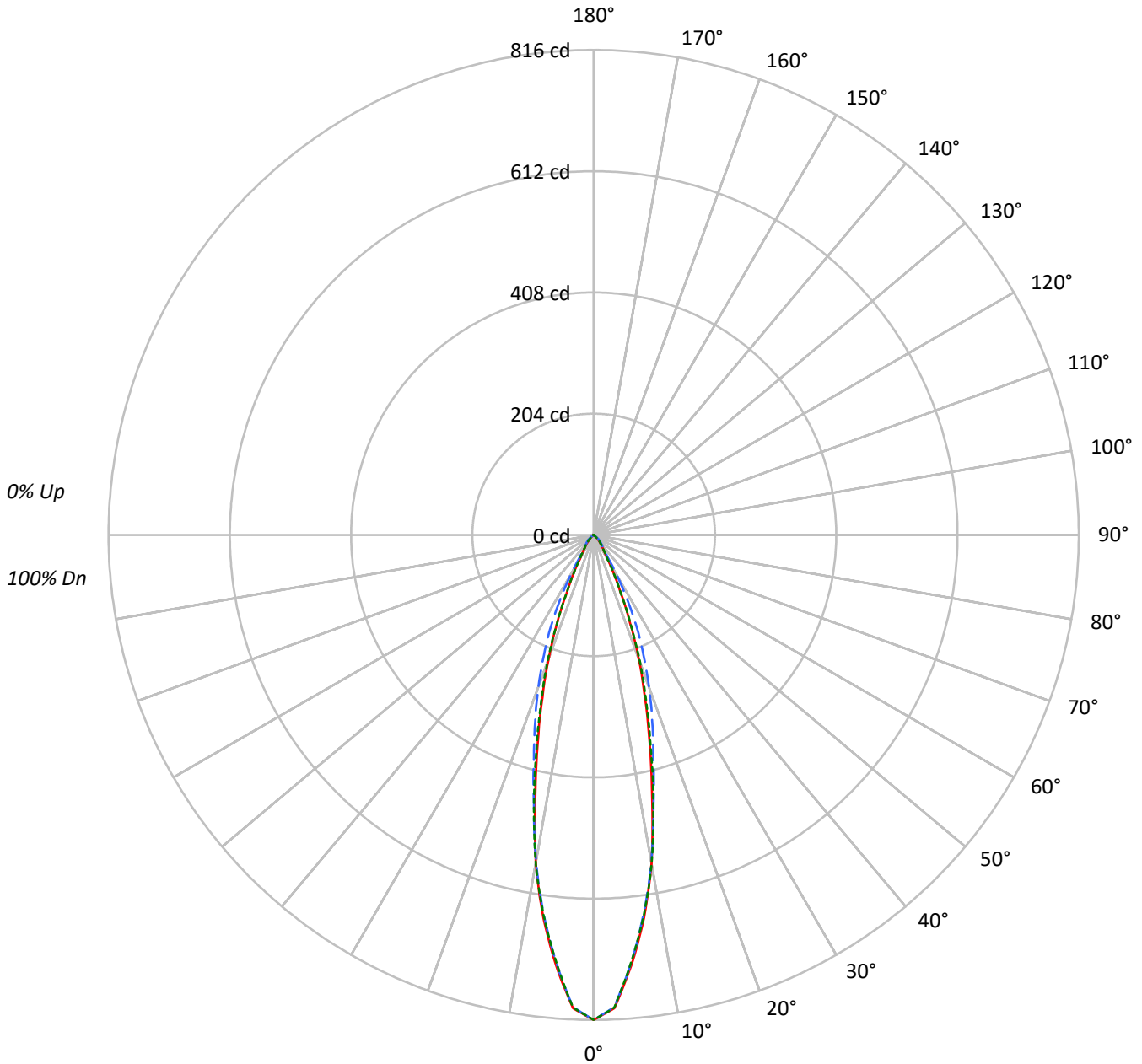
Lumens per Lamp: N/A
Luminaire Lumens: 261.3 lumens
Efficiency: N/A
Efficacy: 43.5 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.54
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	115	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96																			
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91																			
3	106	101	97	93	104	99	96	93	97	94	91	94	92	90	92	90	88	87																			
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	87	84	83																			
5	98	91	87	83	97	91	86	83	89	85	82	87	84	81	86	83	81	80																			
6	95	87	83	79	93	87	82	79	85	81	78	84	81	78	83	80	77	76																			
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73																			
8	88	80	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70																			
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68																			
10	82	75	70	67	81	74	70	67	73	69	67	73	69	66	72	69	66	65																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1264813	1264813	1264813
5°	1131011	1124787	1123231
10°	882501	879353	884075
15°	583146	621819	594379
20°	365033	447507	374930
25°	184878	292795	184878
30°	82510	134414	84300
35°	49198	54874	49198
40°	32374	40468	34398
45°	15344	30689	17536
50°	4823	19291	4823
55°	2702	2702	2702
60°	3100	0	3100
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: 30689 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	24.5
10°-20°	105.2	40.3
20°-30°	62.9	24.1
30°-40°	20.3	7.8
40°-50°	7.8	3.0
50°-60°	1.0	0.4
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°	232.1	88.8
0°-40°	252.4	96.6
0°-60°	261.3	100.0
0°-90°	261.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	261.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	727	729	723	724	722	64
15°	363	374	388	380	370	101
25°	108	126	171	131	108	53
35°	26	31	29	31	26	17
45°	7	10	14	10	8	6
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	816.0	816.0	816.0	816.0	816.0
2.5°	797.0	796.0	795.0	796.0	796.0
5°	726.9	728.9	722.9	723.9	721.9
7.5°	649.8	647.8	643.8	646.8	645.8
10°	560.7	554.7	558.7	558.7	561.7
12.5°	453.5	462.6	464.6	463.6	463.6
15°	363.4	374.4	387.5	379.5	370.4
17.5°	286.3	304.4	327.4	309.4	293.4
20°	221.3	239.3	271.3	242.3	227.3
22.5°	160.2	182.2	219.3	184.2	162.2
25°	108.1	126.2	171.2	131.2	108.1
27.5°	73.1	86.1	120.1	87.1	72.1
30°	46.1	62.1	75.1	61.1	47.1
32.5°	33.0	44.1	42.1	44.1	34.0
35°	26.0	31.0	29.0	31.0	26.0
37.5°	20.0	23.0	24.0	23.0	21.0
40°	16.0	17.0	20.0	18.0	17.0
42.5°	12.0	14.0	17.0	14.0	13.0
45°	7.0	10.0	14.0	10.0	8.0
47.5°	2.0	5.0	12.0	5.0	2.0
50°	2.0	1.0	8.0	1.0	2.0
52.5°	1.0	1.0	3.0	1.0	1.0
55°	1.0	1.0	1.0	1.0	1.0
57.5°	1.0	0.0	0.0	1.0	1.0
60°	1.0	0.0	0.0	0.0	1.0
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

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Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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