

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: P885845

Luminaire Tested: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMBB-400LM-3500K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-141)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D25NFL-TL1SDMBB-400LM-3500K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

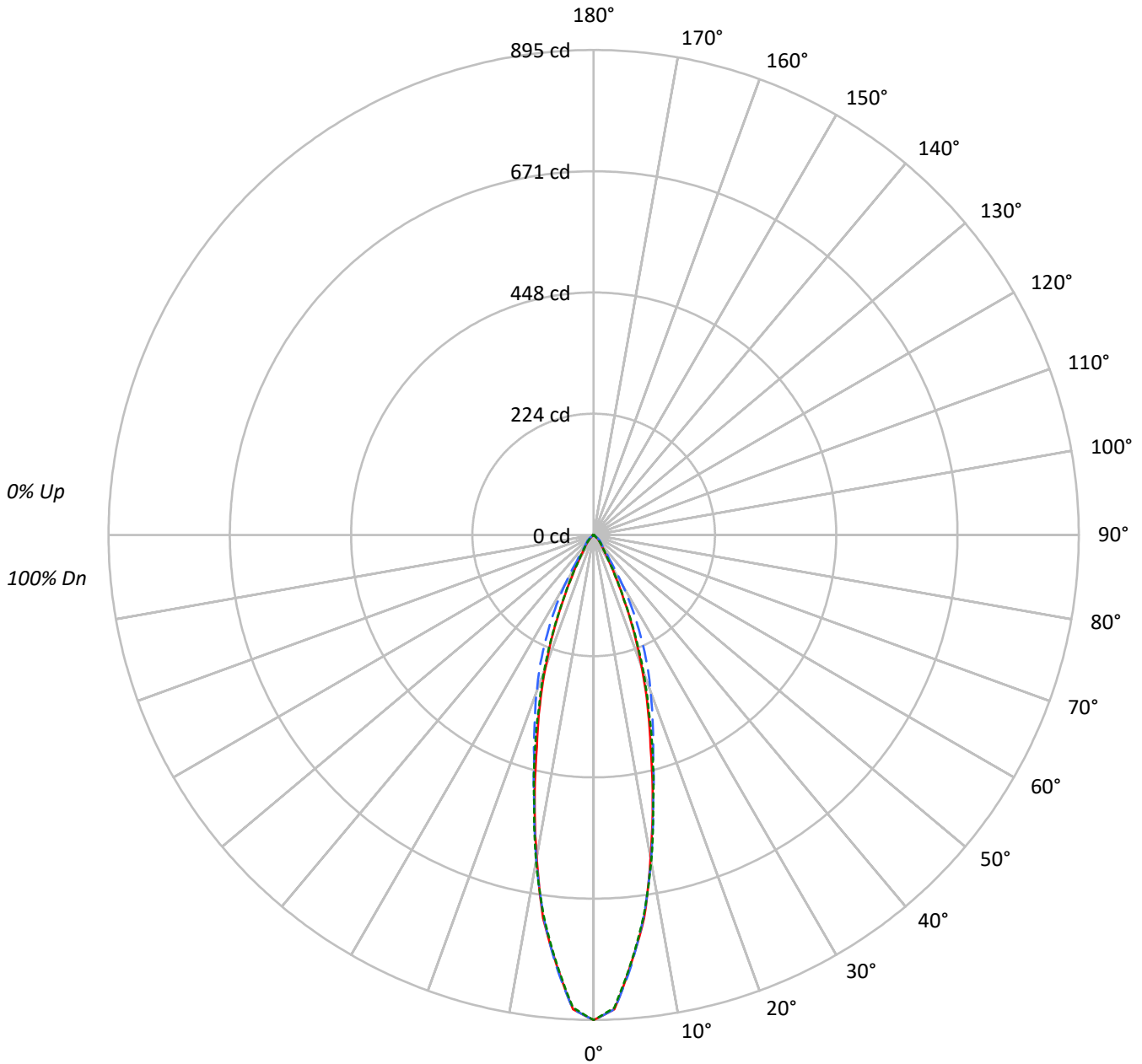
Lumens per Lamp: N/A
Luminaire Lumens: 299.2 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.46 / 0.47 / 0.55
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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					100			
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95					95			
2	110	106	102	100	108	104	101	98	101	99	96	98	96	94	95	94	92	91					91			
3	106	100	96	93	104	99	95	92	96	93	91	94	92	89	92	90	88	87					87			
4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	89	86	84	83					83			
5	98	91	86	83	96	90	86	82	88	84	81	87	83	81	85	82	80	79					79			
6	94	87	82	78	93	86	81	78	85	81	78	83	80	77	82	79	77	75					75			
7	91	83	78	75	89	82	78	75	81	77	74	80	77	74	79	76	73	72					72			
8	87	80	75	71	86	79	75	71	78	74	71	77	73	71	76	73	70	69					69			
9	84	77	72	68	83	76	72	68	75	71	68	74	71	68	74	70	68	67					67			
10	82	74	69	66	81	73	69	66	73	68	66	72	68	65	71	68	65	64					64			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1387574	1387574	1387574
5°	1235414	1240549	1231991
10°	952069	958994	962457
15°	649420	681193	674132
20°	426229	506064	440744
25°	225753	348037	229516
30°	104346	189003	102377
35°	56199	68688	56199
40°	37838	46741	40063
45°	24113	36169	24113
50°	5305	26525	5305
55°	2973	2973	2973
60°	3410	0	3410
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: 36169 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	23.5
10°-20°	117.2	39.2
20°-30°	75.8	25.3
30°-40°	24.6	8.2
40°-50°	9.7	3.2
50°-60°	1.6	0.5
60°-70°	0.1	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°	263.2	88.0
0°-40°	287.8	96.2
0°-60°	299.1	100.0
0°-90°	299.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	299.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	794	797	797	792	792	70
15°	405	416	424	422	420	113
25°	132	158	204	160	134	63
35°	30	37	36	36	30	20
45°	11	12	16	13	11	7
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°	895.2	895.2	895.2	895.2	895.2
2.5°	876.5	874.3	876.5	873.2	873.2
5°	794.0	797.3	797.3	791.8	791.8
7.5°	713.7	711.5	709.3	704.9	708.2
10°	604.9	602.7	609.3	612.6	611.5
12.5°	502.6	502.6	507.0	516.9	508.1
15°	404.7	415.7	424.5	422.3	420.1
17.5°	331.0	342.0	361.8	350.8	337.6
20°	258.4	278.2	306.8	282.6	267.2
22.5°	194.7	217.7	256.2	221.0	198.0
25°	132.0	158.4	203.5	159.5	134.2
27.5°	86.9	104.5	155.1	107.8	89.1
30°	58.3	72.6	105.6	71.5	57.2
32.5°	38.5	52.8	61.6	51.7	39.6
35°	29.7	37.4	36.3	36.3	29.7
37.5°	23.1	27.5	27.5	26.4	24.2
40°	18.7	19.8	23.1	19.8	19.8
42.5°	14.3	16.5	19.8	16.5	15.4
45°	11.0	12.1	16.5	13.2	11.0
47.5°	3.3	7.7	14.3	7.7	3.3
50°	2.2	2.2	11.0	2.2	2.2
52.5°	2.2	1.1	5.5	1.1	2.2
55°	1.1	1.1	1.1	1.1	1.1
57.5°	1.1	1.1	1.1	1.1	1.1
60°	1.1	0.0	0.0	1.1	1.1
62.5°	1.1	0.0	0.0	0.0	1.1
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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