

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: P885711

Luminaire Tested: ML104LSFL95FS1E-TIR1D40FL-TL1SDMB-340LM-4000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885711
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-144)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL95FS1E-TIR1D40FL-TL1SDMB-340LM-4000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 407.9 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.68 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

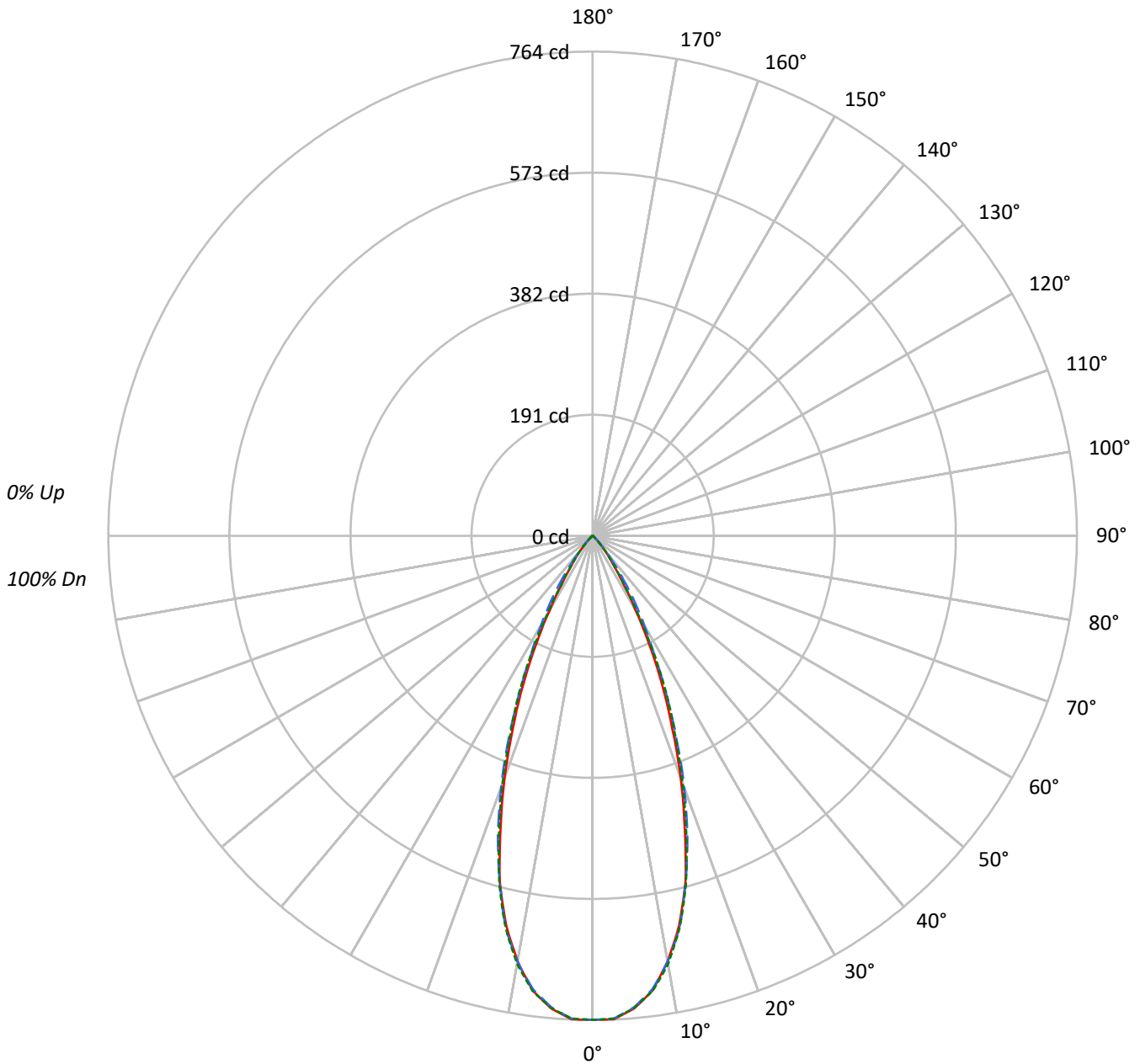
Input Watts (W): 6.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95								
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90								
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	91	88	87	85								
4	100	94	89	85	99	93	88	85	91	87	84	89	86	83	87	84	82	81								
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	77								
6	92	85	79	76	91	84	79	75	82	78	75	81	77	74	80	77	74	73								
7	89	81	75	72	87	80	75	71	79	74	71	78	74	71	77	73	70	69								
8	85	77	72	68	84	76	71	68	75	71	68	74	70	67	73	70	67	66								
9	82	73	68	65	81	73	68	65	72	68	64	71	67	64	70	67	64	63								
10	79	70	65	62	78	70	65	62	69	65	62	68	64	61	68	64	61	60								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1183747	1183747	1183747
5°	1165397	1161974	1163685
10°	1072632	1074363	1079400
15°	907776	909381	912750
20°	669034	696746	684539
25°	445008	466557	472030
30°	243234	290306	258269
35°	115615	161406	121670
40°	55441	68189	59690
45°	18413	30031	16221
50°	5064	10128	5064
55°	2973	2973	2973
60°	0	0	0
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: 30031 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	17.0
10°-20°	154.8	38.0
20°-30°	123.9	30.4
30°-40°	48.7	11.9
40°-50°	10.1	2.5
50°-60°	1.1	0.3
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°	348.1	85.3
0°-40°	396.8	97.3
0°-60°	407.9	100.0
0°-90°	407.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	407.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	749	747	747	748	748	69
15°	566	564	567	568	569	153
25°	260	262	273	277	276	118
35°	61	70	85	72	64	42
45°	8	10	14	10	7	8
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°	763.7	763.7	763.7	763.7	763.7
2.5°	763.7	761.6	762.6	763.7	762.6
5°	749.0	746.8	746.8	747.9	747.9
7.5°	723.7	722.6	721.6	722.6	724.7
10°	681.5	683.6	682.6	685.8	685.8
12.5°	629.9	628.9	634.1	634.1	634.1
15°	565.7	563.6	566.7	567.8	568.8
17.5°	482.4	489.8	497.2	494.0	490.9
20°	405.6	411.9	422.4	418.2	415.0
22.5°	327.6	336.0	345.5	343.4	339.2
25°	260.2	262.3	272.8	277.0	276.0
27.5°	192.8	205.4	209.6	215.9	207.5
30°	135.9	150.6	162.2	159.1	144.3
32.5°	91.6	103.2	122.2	109.6	93.8
35°	61.1	69.5	85.3	71.6	64.3
37.5°	42.1	46.3	54.8	48.5	43.2
40°	27.4	31.6	33.7	32.7	29.5
42.5°	15.8	20.0	22.1	20.0	16.9
45°	8.4	10.5	13.7	10.5	7.4
47.5°	4.2	5.3	8.4	5.3	4.2
50°	2.1	3.2	4.2	3.2	2.1
52.5°	1.1	2.1	2.1	2.1	1.1
55°	1.1	1.1	1.1	1.1	1.1
57.5°	0.0	0.0	1.1	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
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

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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