

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: P885927

Luminaire Tested: ML104LSFL9FS1E-TIR1D40FL-TL1SDSLB-400LM-5000K

Issue Date: 6/19/2024

Test Information

Test Method: LM-79-2019
Report Number: P885927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-146)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 6/19/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML104LSFL9FS1E-TIR1D40FL-TL1SDSLB-400LM-5000K
Description: 1IN SQUARE ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER BAFFLED TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: -

Summary

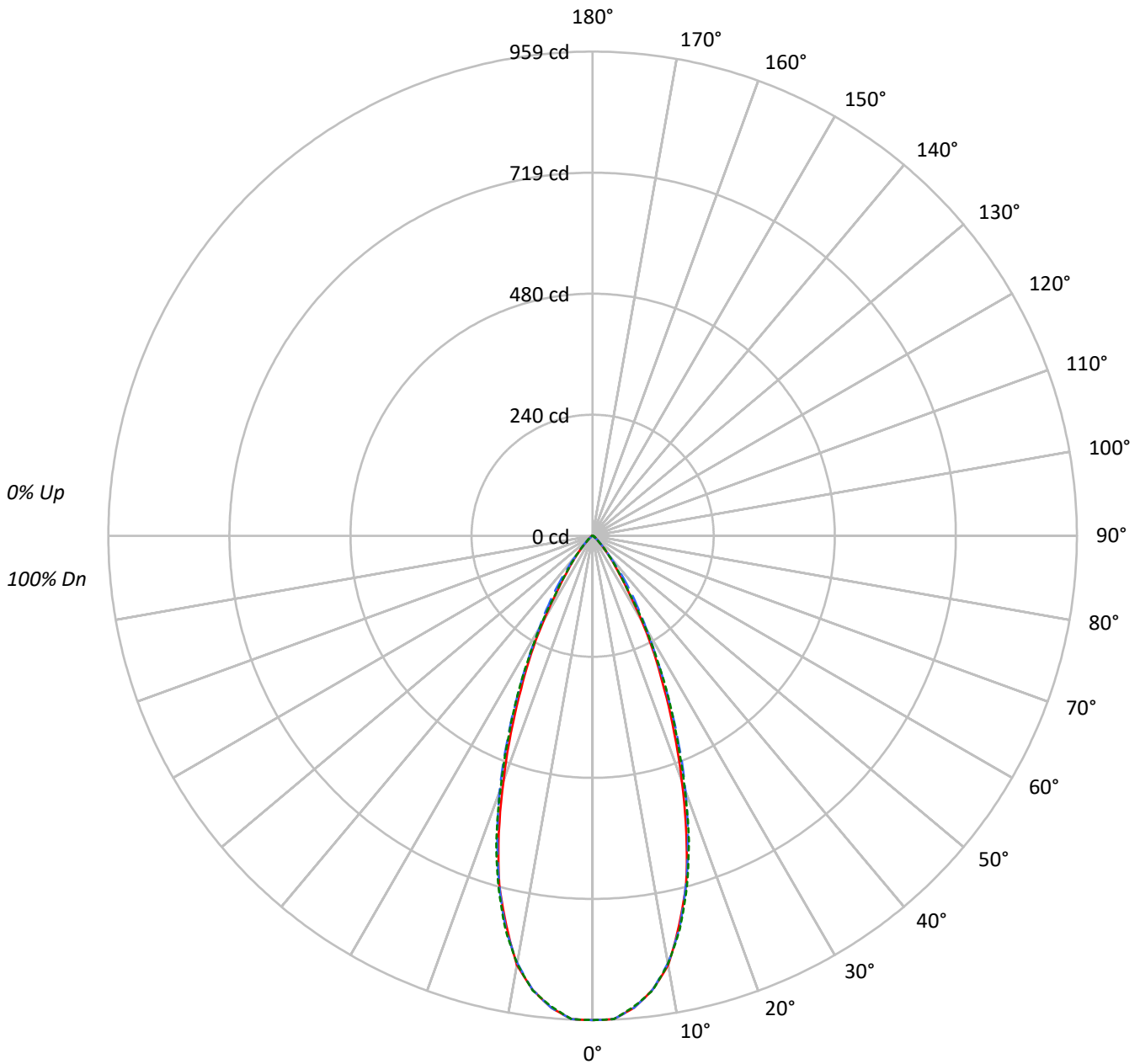
Lumens per Lamp: N/A
Luminaire Lumens: 538.7 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.68 / 0.69 / 0.68
Luminous Opening: Rectangular (W 0.08' x L: 0.08' x H: 0')
CIE Type: Direct

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	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95								
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89								
3	104	99	94	90	102	97	93	90	95	91	88	92	89	87	90	88	86	84								
4	100	93	88	84	98	92	87	84	90	86	83	88	84	82	86	83	81	79								
5	95	88	83	79	94	87	82	79	85	81	78	84	80	77	82	79	77	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	77	73	70	76	72	69	75	72	69	68								
8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65	64								
9	81	72	67	63	80	71	66	63	71	66	63	70	66	63	69	65	62	61								
10	77	69	64	60	76	68	63	60	68	63	60	67	63	60	66	62	60	58								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1487086	1487086	1487086
5°	1460402	1460402	1456357
10°	1358614	1352476	1354522
15°	1147357	1147357	1155701
20°	851303	887757	879180
25°	573619	606969	609192
30°	346685	376933	369953
35°	172192	226310	179572
40°	94695	102587	97326
45°	39895	51294	42745
50°	25079	21944	25079
55°	17565	10539	17565
60°	12090	4030	12090
65°	9536	4768	9536
70°	5892	0	5892
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 51294 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	16.2
10°-20°	196.0	36.4
20°-30°	161.2	29.9
30°-40°	69.3	12.9
40°-50°	18.3	3.4
50°-60°	4.8	0.9
60°-70°	1.7	0.3
70°-80°	0.2	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°	444.3	82.5
0°-40°	513.6	95.4
0°-60°	536.7	99.6
0°-90°	538.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	538.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	939	937	939	936	936	87
15°	715	715	715	718	720	194
25°	335	343	355	356	356	155
35°	91	100	120	104	95	62
45°	18	21	23	21	20	17
55°	6	5	4	5	6	6
65°	3	1	1	1	3	2
75°	0	0	0	0	0	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°	959.4	959.4	959.4	959.4	959.4
2.5°	958.1	959.4	958.1	958.1	958.1
5°	938.6	937.3	938.6	936.0	936.0
7.5°	907.4	906.1	907.4	907.4	908.7
10°	863.2	856.7	859.3	863.2	860.6
12.5°	790.4	795.6	795.6	798.2	798.2
15°	715.0	715.0	715.0	717.6	720.2
17.5°	617.5	620.1	627.9	630.5	634.4
20°	516.1	525.2	538.2	535.6	533.0
22.5°	422.5	427.7	444.6	442.0	438.1
25°	335.4	343.2	354.9	356.2	356.2
27.5°	263.9	271.7	275.6	282.1	275.6
30°	193.7	208.0	210.6	215.8	206.7
32.5°	131.3	144.3	162.5	153.4	136.5
35°	91.0	100.1	119.6	104.0	94.9
37.5°	65.0	68.9	80.6	71.5	67.6
40°	46.8	49.4	50.7	50.7	48.1
42.5°	31.2	32.5	33.8	33.8	32.5
45°	18.2	20.8	23.4	20.8	19.5
47.5°	13.0	13.0	14.3	13.0	13.0
50°	10.4	9.1	9.1	9.1	10.4
52.5°	7.8	6.5	5.2	6.5	7.8
55°	6.5	5.2	3.9	5.2	6.5
57.5°	5.2	3.9	2.6	3.9	5.2
60°	3.9	2.6	1.3	2.6	3.9
62.5°	2.6	2.6	1.3	2.6	2.6
65°	2.6	1.3	1.3	1.3	2.6
67.5°	1.3	1.3	1.3	1.3	1.3
70°	1.3	1.3	0.0	1.3	1.3
72.5°	1.3	0.0	0.0	0.0	1.3
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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