

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: METALUX

Report Number: P893828

Luminaire Tested: 4MB-7HL-FLT-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-FLT-UNV-L850
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

Summary

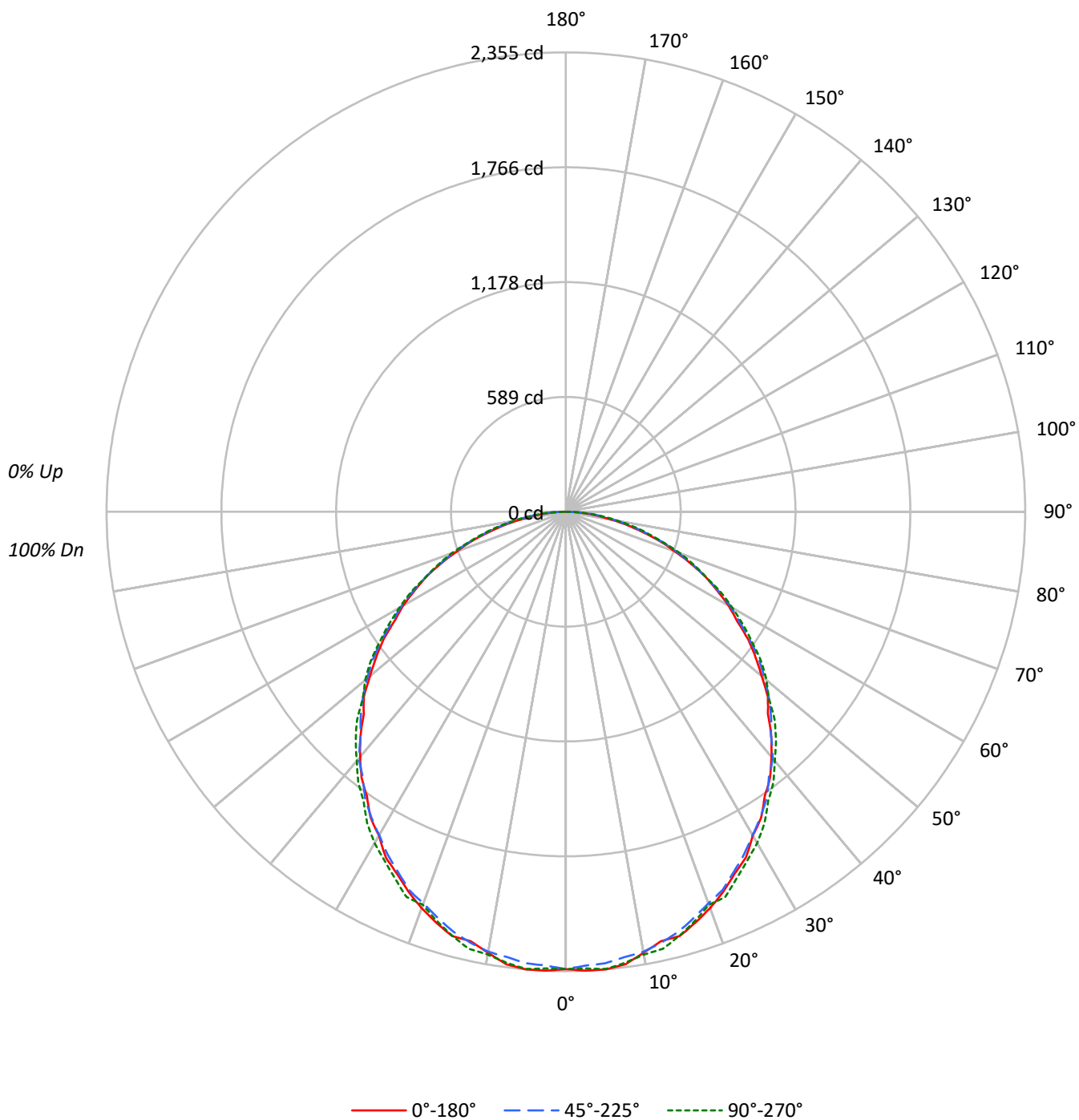
Lumens per Lamp: N/A
Luminaire Lumens: 6496.0 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	99	96	106	102	98	94	97	94	91		93	91	88		90
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		79
3	90	79	71	65	88	78	70	64	75	68	63		72	67	62		69
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	76	63	54	47	74	62	53	47	60	52	46		58	51	46		56
6	70	57	48	41	68	56	47	41	54	46	41		52	45	40		51
7	65	51	43	36	63	51	42	36	49	41	36		48	41	36		46
8	60	47	38	33	59	46	38	32	45	37	32		44	37	32		42
9	57	43	35	29	55	42	35	29	41	34	29		40	34	29		39
10	53	40	32	27	52	39	32	26	38	31	26		37	31	26		36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16680	16680	16680
5°	16817	16593	16802
10°	16587	16543	16652
15°	16590	16419	16576
20°	16371	16171	16233
25°	16076	15988	16274
30°	15750	15725	16116
35°	15446	15578	15710
40°	15238	15332	15482
45°	14745	14969	15244
50°	14506	14718	14865
55°	14145	14321	14471
60°	13705	13907	14036
65°	13298	13351	13351
70°	12367	12661	12977
75°	11386	11832	12082
80°	10043	10911	11288
85°	9013	10090	10833

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 15244 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.9	3.4
10°-20°	632.4	9.7
20°-30°	948.6	14.6
30°-40°	1126.6	17.3
40°-50°	1153.5	17.8
50°-60°	1033.4	15.9
60°-70°	785.1	12.1
70°-80°	457.2	7.0
80°-90°	137.3	2.1
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°	1802.9	27.8
0°-40°	2929.5	45.1
0°-60°	5116.4	78.8
0°-90°	6496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2344	2344	2344	2344	2344	
5°	2355	2345	2323	2337	2352	223
15°	2252	2268	2229	2238	2250	632
25°	2048	2066	2037	2063	2073	945
35°	1778	1818	1794	1801	1809	1118
45°	1465	1502	1488	1500	1515	1140
55°	1140	1158	1154	1168	1167	1016
65°	790	790	793	803	793	776
75°	414	421	430	444	440	441
85°	110	112	124	132	133	124
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2344.4	2344.4	2344.4	2344.4	2344.4
2.5°	2354.6	2343.4	2328.2	2333.3	2343.4
5°	2354.6	2345.4	2323.2	2337.3	2352.5
7.5°	2339.4	2351.5	2302.9	2302.9	2331.3
10°	2295.8	2319.1	2289.7	2286.7	2304.9
12.5°	2254.3	2296.8	2262.4	2272.5	2294.8
15°	2252.3	2267.5	2229.0	2238.1	2250.3
17.5°	2208.7	2223.9	2182.4	2199.6	2199.6
20°	2162.1	2165.2	2135.8	2173.3	2143.9
22.5°	2108.5	2139.9	2099.4	2111.5	2136.8
25°	2047.7	2065.9	2036.6	2062.9	2073.0
27.5°	1998.1	2020.4	1979.9	2011.2	2014.3
30°	1917.1	1941.4	1914.0	1934.3	1961.6
32.5°	1862.4	1870.5	1856.3	1886.7	1894.8
35°	1778.3	1817.8	1793.5	1800.6	1808.7
37.5°	1719.6	1731.7	1710.5	1734.8	1747.9
40°	1640.6	1658.8	1650.7	1654.8	1666.9
42.5°	1558.6	1577.8	1556.5	1585.9	1595.0
45°	1465.4	1501.9	1487.7	1499.8	1515.0
47.5°	1404.6	1416.8	1412.7	1419.8	1409.7
50°	1310.5	1322.6	1329.7	1338.8	1342.9
52.5°	1226.4	1235.5	1248.7	1253.7	1262.9
55°	1140.3	1157.5	1154.5	1167.7	1166.6
57.5°	1040.1	1065.4	1057.3	1076.5	1076.5
60°	963.1	967.1	977.3	986.4	986.4
62.5°	874.0	879.0	884.1	892.2	898.3
65°	789.9	789.9	793.0	803.1	793.0
67.5°	692.7	688.6	698.8	710.9	709.9
70°	594.5	599.5	608.6	623.8	623.8
72.5°	510.4	510.4	520.5	528.6	527.6
75°	414.2	421.3	430.4	443.6	439.5
77.5°	328.1	333.2	348.4	360.5	361.5
80°	245.1	250.1	266.3	278.5	275.5
82.5°	171.1	178.2	193.4	202.5	201.5
85°	110.4	112.4	123.6	131.7	132.7
87.5°	50.6	54.7	62.8	65.8	65.8
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	21.31	22.95	21.67	23.26	23.57	21.41	23.05	21.78	23.36	23.68
	3H	23.09	24.57	23.46	24.90	25.26	23.25	24.73	23.63	25.06	25.42
	4H	23.75	25.15	24.15	25.50	25.87	23.95	25.34	24.34	25.69	26.07
	6H	24.23	25.52	24.64	25.89	26.28	24.50	25.79	24.91	26.16	26.55
	8H	24.37	25.61	24.80	26.00	26.40	24.69	25.92	25.11	26.31	26.71
	12H	24.48	25.67	24.91	26.05	26.48	24.83	26.02	25.26	26.40	26.83
4H	2H	21.95	23.35	22.35	23.70	24.07	22.03	23.43	22.43	23.78	24.15
	3H	23.95	25.13	24.36	25.52	25.92	24.10	25.27	24.51	25.67	26.07
	4H	24.75	25.81	25.18	26.22	26.66	24.94	26.00	25.37	26.41	26.85
	6H	25.35	26.28	25.80	26.72	27.17	25.62	26.55	26.08	26.99	27.45
	8H	25.54	26.41	26.00	26.85	27.32	25.87	26.74	26.33	27.18	27.65
	12H	25.69	26.48	26.17	26.95	27.42	26.07	26.85	26.55	27.33	27.80
8H	4H	25.08	25.95	25.54	26.39	26.86	25.25	26.12	25.71	26.56	27.03
	6H	25.81	26.53	26.30	27.02	27.49	26.07	26.80	26.57	27.28	27.76
	8H	26.08	26.73	26.59	27.23	27.72	26.40	27.06	26.91	27.56	28.05
	12H	26.30	26.88	26.81	27.37	27.93	26.69	27.27	27.20	27.76	28.32
12H	4H	25.13	25.91	25.60	26.38	26.85	25.28	26.07	25.76	26.54	27.01
	6H	25.88	26.53	26.39	27.04	27.52	26.13	26.78	26.64	27.29	27.77
	8H	26.21	26.79	26.72	27.28	27.84	26.53	27.10	27.03	27.59	28.15