

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: P892808

Luminaire Tested: 2MB-5HL-AOL-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892808
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-AOL-UNV-L850
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
5000K CCT
Light Source: -
Ballast/Driver: -

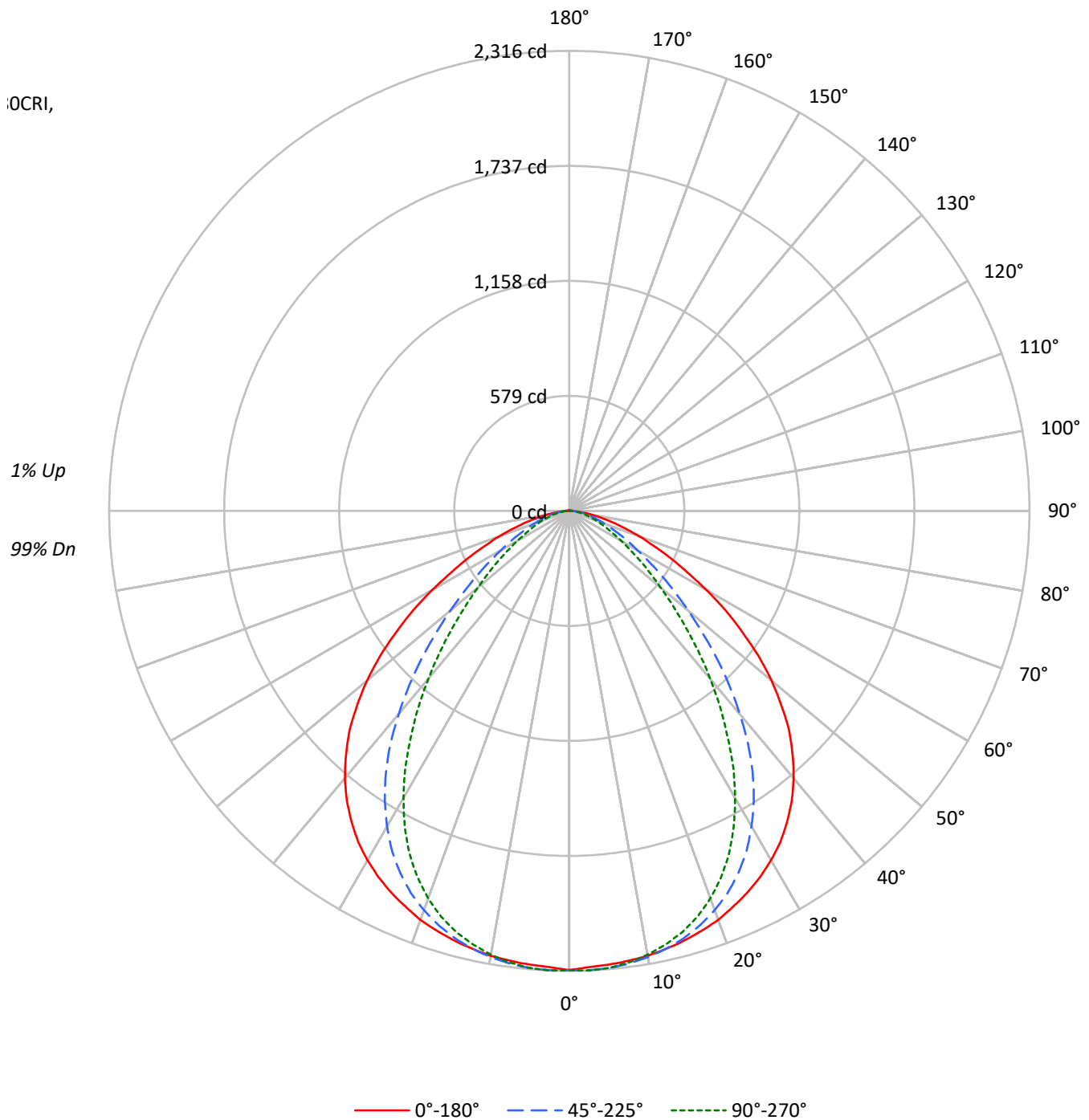
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4792.0 lumens
Efficiency: N/A
Efficacy: 142.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.1 / 1.2
Luminous Opening: Rectangular (W 0.27' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 33.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
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				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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99				99
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77	75				75
3	94	85	78	72	92	83	77	72	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46				46
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41				41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	40	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	47338	47338	47338
5°	47130	47479	47461
10°	47282	47419	47165
15°	47466	47208	46546
20°	47743	46612	45235
25°	47902	45474	43000
30°	48012	43371	39467
35°	47765	40215	34721
40°	46965	35690	29486
45°	45331	30412	23992
50°	42324	24918	19088
55°	37931	20177	15394
60°	32615	16267	12364
65°	27157	13440	10286
70°	22541	11465	8759
75°	18141	9858	7611
80°	14351	8785	6674
85°	12640	8646	6649

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 45331 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.2	4.6
10°-20°	626.6	13.1
20°-30°	924.1	19.3
30°-40°	1014.8	21.2
40°-50°	863.7	18.0
50°-60°	586.1	12.2
60°-70°	330.3	6.9
70°-80°	153.9	3.2
80°-90°	44.9	0.9
90°-100°	10.7	0.2
100°-110°	6.9	0.1
110°-120°	4.2	0.1
120°-130°	2.3	0.0
130°-140°	1.4	0.0
140°-150°	1.1	0.0
150°-160°	0.9	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1770.0	36.9
0°-40°	2784.7	58.1
0°-60°	4234.5	88.4
0°-90°	4763.6	99.4
90°-120°	21.8	0.5
90°-150°	26.7	0.6
90°-180°	28.0	0.6
0°-180°	4792.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2312	2312	2312	2312	2312	
5°	2293	2304	2310	2312	2309	218
15°	2239	2242	2227	2208	2196	633
25°	2120	2094	2013	1937	1903	977
35°	1911	1814	1609	1452	1389	1193
45°	1565	1364	1050	877	828	1200
55°	1062	833	565	457	431	950
65°	560	423	277	226	212	561
75°	229	179	125	102	96	248
85°	54	47	37	30	28	58
90°	9	11	10	8	8	9
95°	16	12	9	8	8	12
105°	5	9	7	5	5	5
115°	3	6	4	4	4	3
125°	2	3	3	3	3	2
135°	1	2	2	2	2	1
145°	1	2	2	2	2	1
155°	1	2	2	2	2	1
165°	2	2	2	3	3	1
175°	2	2	3	3	3	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2311.8	2311.8	2311.8	2311.8	2311.8
2.5°	2298.6	2308.0	2314.6	2318.4	2316.5
5°	2292.9	2304.2	2309.9	2311.8	2309.0
7.5°	2284.4	2295.7	2298.6	2297.6	2292.9
10°	2274.0	2282.5	2280.6	2275.9	2268.4
12.5°	2258.0	2264.6	2258.0	2245.7	2236.3
15°	2239.1	2242.0	2226.9	2208.0	2195.7
17.5°	2216.5	2214.6	2187.2	2159.9	2142.9
20°	2191.0	2180.6	2139.1	2097.6	2075.9
22.5°	2156.1	2140.0	2082.5	2023.0	1996.6
25°	2120.2	2093.8	2012.7	1937.2	1903.2
27.5°	2078.7	2036.3	1931.5	1835.3	1792.8
30°	2030.6	1974.0	1834.3	1720.2	1669.2
32.5°	1976.8	1899.4	1728.6	1590.9	1536.2
35°	1910.8	1813.6	1608.8	1452.2	1389.0
37.5°	1839.0	1715.4	1478.6	1301.2	1248.4
40°	1757.0	1606.0	1335.2	1154.9	1103.1
42.5°	1663.5	1488.0	1192.7	1009.6	963.4
45°	1565.4	1364.4	1050.2	876.6	828.5
47.5°	1447.5	1227.6	908.7	750.1	707.7
50°	1328.6	1090.8	782.2	637.9	599.2
52.5°	1200.2	960.6	665.2	541.6	509.5
55°	1062.5	833.2	565.2	456.7	431.2
57.5°	932.3	713.3	475.6	382.2	358.6
60°	796.4	602.0	397.2	321.8	301.9
62.5°	668.1	504.8	335.9	268.0	251.9
65°	560.5	422.7	277.4	225.5	212.3
67.5°	456.7	351.0	231.2	187.8	176.5
70°	376.5	284.0	191.5	154.7	146.3
72.5°	293.5	230.2	154.7	126.4	118.9
75°	229.3	179.3	124.6	101.9	96.2
77.5°	169.8	138.7	98.1	80.2	76.4
80°	121.7	102.9	74.5	61.3	56.6
82.5°	84.9	71.7	53.8	44.3	41.5
85°	53.8	47.2	36.8	30.2	28.3
87.5°	28.3	26.4	21.7	17.9	17.0
90°	9.4	11.3	10.4	8.5	8.5
92.5°	16.0	12.3	9.4	8.5	7.5
95°	16.0	12.3	9.4	7.5	7.5
97.5°	15.1	11.3	8.5	7.5	6.6
100°	7.5	11.3	7.5	6.6	5.7
102.5°	4.7	10.4	7.5	5.7	5.7
105°	4.7	9.4	6.6	4.7	4.7
107.5°	3.8	8.5	5.7	4.7	4.7
110°	3.8	7.5	5.7	4.7	3.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	6.6	4.7	3.8	3.8
115°	2.8	5.7	3.8	3.8	3.8
117.5°	2.8	4.7	3.8	3.8	3.8
120°	1.9	3.8	2.8	2.8	2.8
122.5°	1.9	2.8	2.8	2.8	2.8
125°	1.9	2.8	2.8	2.8	2.8
127.5°	1.9	1.9	2.8	2.8	2.8
130°	0.9	1.9	1.9	2.8	2.8
132.5°	0.9	1.9	1.9	1.9	1.9
135°	0.9	1.9	1.9	1.9	1.9
137.5°	0.9	1.9	1.9	1.9	1.9
140°	0.9	1.9	1.9	1.9	1.9
142.5°	0.9	1.9	1.9	1.9	1.9
145°	0.9	1.9	1.9	1.9	1.9
147.5°	0.9	1.9	1.9	1.9	1.9
150°	0.9	1.9	1.9	1.9	1.9
152.5°	0.9	1.9	1.9	1.9	1.9
155°	0.9	1.9	1.9	1.9	1.9
157.5°	1.9	1.9	1.9	1.9	2.8
160°	1.9	1.9	1.9	1.9	2.8
162.5°	1.9	1.9	1.9	2.8	2.8
165°	1.9	1.9	1.9	2.8	2.8
167.5°	1.9	1.9	1.9	2.8	2.8
170°	1.9	1.9	1.9	2.8	2.8
172.5°	1.9	1.9	1.9	2.8	2.8
175°	1.9	1.9	2.8	2.8	2.8
177.5°	1.9	1.9	2.8	2.8	2.8
180°	2.8	2.8	2.8	2.8	2.8



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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	23.83	25.28	24.21	25.60	25.93	19.04	20.48	19.42	20.81	21.14
	3H	25.06	26.34	25.45	26.69	27.06	20.05	21.34	20.44	21.68	22.06
	4H	25.46	26.66	25.87	27.02	27.42	20.40	21.61	20.82	21.97	22.36
	6H	25.71	26.82	26.14	27.20	27.61	20.66	21.77	21.08	22.15	22.56
	8H	25.79	26.84	26.23	27.24	27.66	20.74	21.80	21.18	22.20	22.62
	12H	25.84	26.84	26.28	27.24	27.68	20.81	21.81	21.25	22.21	22.65
4H	2H	23.85	25.06	24.26	25.42	25.81	19.67	20.87	20.08	21.23	21.63
	3H	25.25	26.24	25.67	26.66	27.07	20.87	21.86	21.29	22.27	22.69
	4H	25.76	26.65	26.20	27.07	27.53	21.30	22.19	21.75	22.62	23.08
	6H	26.13	26.90	26.60	27.36	27.83	21.65	22.42	22.12	22.88	23.35
	8H	26.25	26.97	26.72	27.42	27.91	21.77	22.49	22.24	22.94	23.43
	12H	26.34	26.98	26.83	27.47	27.96	21.86	22.50	22.36	23.00	23.48
8H	4H	25.76	26.48	26.23	26.93	27.42	21.64	22.36	22.12	22.82	23.30
	6H	26.20	26.79	26.71	27.29	27.79	22.08	22.68	22.59	23.18	23.68
	8H	26.36	26.90	26.89	27.42	27.92	22.25	22.79	22.78	23.31	23.81
	12H	26.52	26.99	27.04	27.50	28.08	22.42	22.89	22.94	23.39	23.97
12H	4H	25.73	26.37	26.22	26.86	27.35	21.69	22.33	22.18	22.82	23.31
	6H	26.17	26.70	26.70	27.23	27.73	22.16	22.69	22.69	23.22	23.72
	8H	26.38	26.85	26.90	27.35	27.93	22.38	22.86	22.91	23.36	23.94