

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: P892792

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892792
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-8)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-A-UNV-L850
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

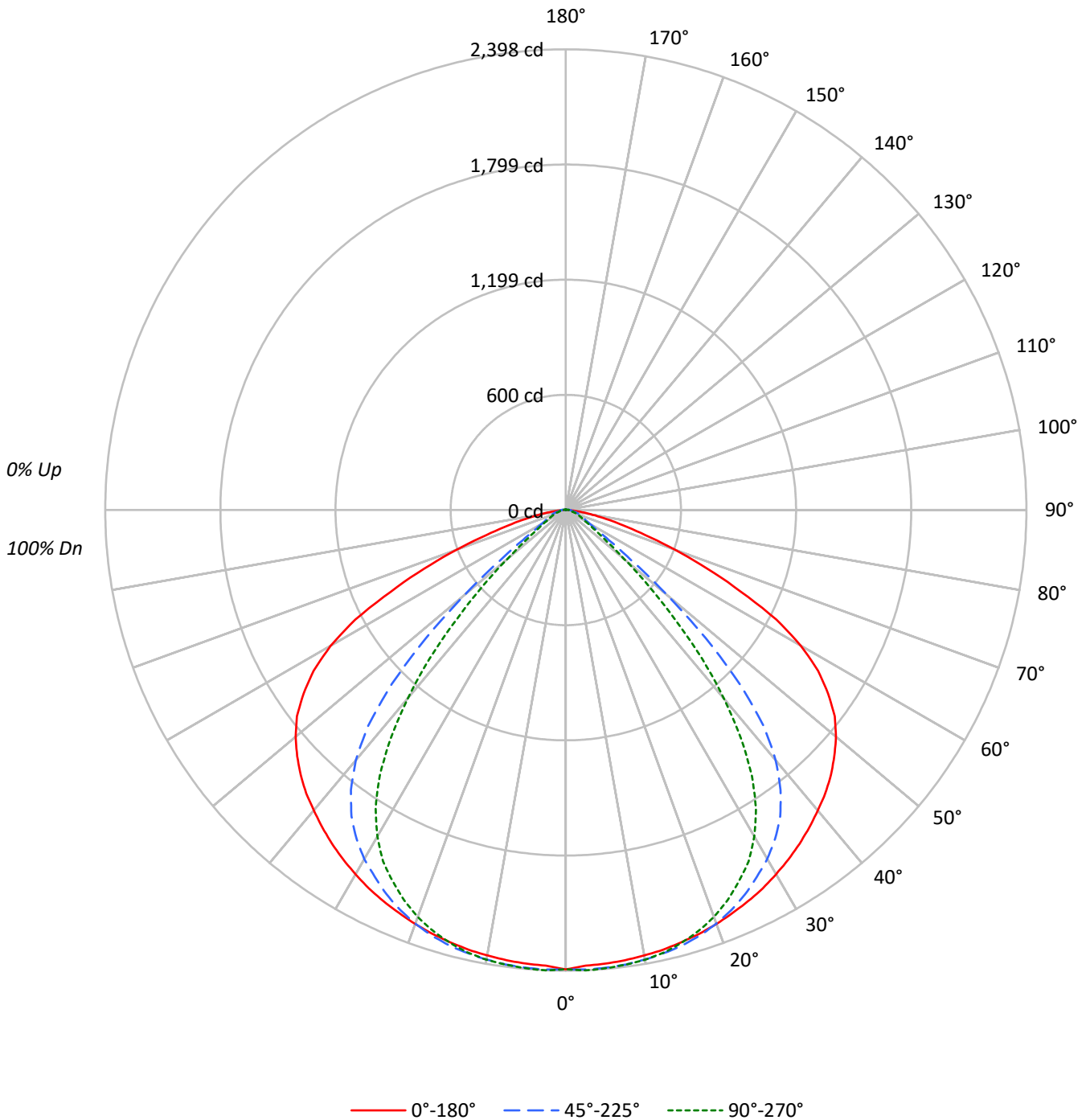
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5084.8 lumens
Efficiency: N/A
Efficacy: 150.9 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.21 / 1.29
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 (A_{in}): 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

TEST NUMBER: P892792
CATALOG NUMBER: 2MB-5HL-A-UNV-L850

Luminous Intensity Polar Plot





TEST NUMBER: P892792

CATALOG NUMBER: 2MB-5HL-A-UNV-L850

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	102	102	102	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	78	73	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	49	49	49	47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	48	44	44	44	44	43
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	40	40	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	33	33	33	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	48957	48957	48957
5°	48719	49165	49222
10°	48949	49401	49419
15°	49366	49726	49444
20°	49962	49920	49118
25°	50758	49884	48178
30°	51757	49594	46404
35°	53022	48635	42243
40°	54554	45449	34225
45°	56506	37078	23169
50°	58490	21853	12593
55°	59518	9735	6836
60°	57883	5950	4869
65°	48733	4981	4162
70°	36323	4802	3784
75°	24557	5000	3212
80°	16686	4563	3667
85°	10196	6649	6437

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 55°
 Luminance: 59518 cd/sqm



TEST NUMBER: P892792
 CATALOG NUMBER: 2MB-5HL-A-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.5	4.5
10°-20°	660.7	13.0
20°-30°	1013.9	19.9
30°-40°	1194.4	23.5
40°-50°	1018.5	20.0
50°-60°	556.4	10.9
60°-70°	246.6	4.9
70°-80°	108.2	2.1
80°-90°	38.7	0.8
90°-100°	11.9	0.2
100°-110°	3.0	0.1
110°-120°	0.8	0.0
120°-130°	0.8	0.0
130°-140°	0.7	0.0
140°-150°	0.8	0.0
150°-160°	0.8	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	1902.1	37.4
0°-40°	3096.4	60.9
0°-60°	4671.4	91.9
0°-90°	5065.0	99.6
90°-120°	15.7	0.3
90°-150°	18.1	0.4
90°-180°	20.0	0.4
0°-180°	5084.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2391	2391	2391	2391	2391	
5°	2370	2383	2392	2398	2395	226
15°	2329	2342	2346	2339	2332	659
25°	2247	2247	2208	2163	2132	1038
35°	2121	2082	1946	1768	1690	1329
45°	1951	1791	1280	892	800	1505
55°	1667	1022	273	200	192	1480
65°	1006	217	103	92	86	1000
75°	310	110	63	48	41	350
85°	43	40	28	27	27	57
90°	4	16	22	22	18	4
95°	4	7	15	12	12	2
105°	1	1	2	5	6	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	2	2	2	1
155°	1	2	2	2	2	0
165°	2	2	3	3	3	1
175°	2	2	3	3	3	0
180°	3	3	3	3	3	



TEST NUMBER: P892792

CATALOG NUMBER: 2MB-5HL-A-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2390.9	2390.9	2390.9	2390.9	2390.9
2.5°	2374.0	2386.2	2393.8	2399.4	2398.5
5°	2370.2	2383.4	2391.9	2397.6	2394.7
7.5°	2363.6	2377.7	2386.2	2391.9	2387.2
10°	2354.2	2368.3	2375.9	2379.6	2376.8
12.5°	2343.8	2357.0	2362.6	2364.5	2358.9
15°	2328.7	2341.9	2345.7	2339.1	2332.4
17.5°	2312.6	2324.0	2322.1	2309.8	2297.5
20°	2292.8	2302.3	2290.9	2267.3	2254.1
22.5°	2270.2	2276.8	2253.2	2218.3	2199.4
25°	2246.6	2246.6	2207.9	2162.6	2132.4
27.5°	2220.2	2213.6	2153.2	2092.8	2061.7
30°	2189.0	2173.9	2097.5	2011.6	1962.6
32.5°	2156.9	2132.4	2028.6	1906.0	1842.7
35°	2121.1	2081.5	1945.6	1768.2	1689.9
37.5°	2082.4	2026.7	1837.1	1593.7	1497.4
40°	2040.9	1959.7	1700.3	1387.0	1280.4
42.5°	2000.3	1883.3	1522.9	1149.2	1051.1
45°	1951.3	1790.9	1280.4	891.7	800.1
47.5°	1896.5	1676.7	988.8	642.6	586.9
50°	1836.1	1521.0	686.0	442.5	395.3
52.5°	1764.4	1309.6	432.1	294.4	271.7
55°	1667.2	1021.9	272.7	200.0	191.5
57.5°	1556.9	714.3	185.9	151.9	146.2
60°	1413.4	457.6	145.3	124.5	118.9
62.5°	1236.0	303.8	120.8	105.7	100.0
65°	1005.8	217.0	102.8	91.5	85.9
67.5°	797.3	173.6	90.6	80.2	72.7
70°	606.7	145.3	80.2	70.8	63.2
72.5°	432.1	126.4	71.7	60.4	52.8
75°	310.4	109.5	63.2	48.1	40.6
77.5°	214.2	95.3	52.8	36.8	34.9
80°	141.5	83.0	38.7	33.0	31.1
82.5°	85.9	67.0	33.0	28.3	30.2
85°	43.4	39.6	28.3	27.4	27.4
87.5°	17.0	23.6	23.6	26.4	26.4
90°	3.8	16.0	21.7	21.7	17.9
92.5°	3.8	12.3	19.8	15.1	13.2
95°	3.8	6.6	15.1	12.3	12.3
97.5°	2.8	2.8	10.4	10.4	10.4
100°	0.9	1.9	6.6	9.4	9.4
102.5°	0.9	0.9	3.8	6.6	7.5
105°	0.9	0.9	1.9	4.7	5.7
107.5°	0.0	0.0	0.9	2.8	3.8
110°	0.0	0.0	0.9	1.9	1.9



TEST NUMBER: P892792
 CATALOG NUMBER: 2MB-5HL-A-UNV-L850

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.9	0.9	0.9
115°	0.9	0.9	0.9	0.9	0.9
117.5°	0.9	0.9	0.9	0.9	0.9
120°	0.9	0.9	0.9	0.9	0.9
122.5°	0.9	0.9	0.9	0.9	0.9
125°	0.9	0.9	0.9	0.9	0.9
127.5°	0.9	0.9	0.9	0.9	0.9
130°	0.9	0.9	0.9	0.9	0.9
132.5°	0.9	0.9	0.9	0.9	0.9
135°	0.9	0.9	0.9	0.9	0.9
137.5°	0.9	0.9	0.9	0.9	0.9
140°	0.9	0.9	0.9	0.9	0.9
142.5°	0.9	0.9	0.9	1.9	0.9
145°	0.9	0.9	1.9	1.9	1.9
147.5°	0.9	0.9	1.9	1.9	1.9
150°	0.9	0.9	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°	0.9	1.9	1.9	2.8	1.9
160°	1.9	1.9	1.9	2.8	1.9
162.5°	1.9	1.9	2.8	2.8	2.8
165°	1.9	1.9	2.8	2.8	2.8
167.5°	1.9	1.9	2.8	2.8	2.8
170°	1.9	1.9	2.8	2.8	2.8
172.5°	1.9	1.9	2.8	2.8	2.8
175°	1.9	1.9	2.8	2.8	2.8
177.5°	1.9	1.9	2.8	3.8	2.8
180°	2.8	2.8	2.8	2.8	2.8



TEST NUMBER: P892792
 CATALOG NUMBER: 2MB-5HL-A-UNV-L850

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	24.61	26.01	24.98	26.33	26.65	12.51	13.91	12.88	14.23	14.56
	3H	25.90	27.14	26.28	27.48	27.85	13.67	14.92	14.06	15.25	15.63
	4H	26.30	27.46	26.70	27.82	28.21	14.10	15.26	14.51	15.62	16.01
	6H	26.53	27.60	26.95	27.97	28.38	14.48	15.55	14.90	15.93	16.33
	8H	26.58	27.59	27.02	27.99	28.40	14.73	15.74	15.17	16.14	16.55
	12H	26.59	27.56	27.03	27.95	28.39	15.07	16.03	15.50	16.43	16.86
4H	2H	24.42	25.58	24.83	25.94	26.33	13.02	14.18	13.43	14.54	14.93
	3H	25.76	26.71	26.18	27.12	27.53	14.48	15.43	14.90	15.84	16.25
	4H	26.19	27.03	26.63	27.46	27.91	15.04	15.89	15.48	16.31	16.77
	6H	26.51	27.24	26.98	27.70	28.17	15.55	16.28	16.01	16.73	17.21
	8H	26.60	27.29	27.08	27.74	28.22	15.86	16.55	16.34	17.00	17.48
	12H	26.65	27.26	27.14	27.75	28.23	16.30	16.91	16.80	17.40	17.88
8H	4H	26.09	26.77	26.56	27.23	27.70	15.62	16.30	16.09	16.76	17.24
	6H	26.43	27.00	26.94	27.50	27.99	16.25	16.81	16.75	17.31	17.80
	8H	26.57	27.08	27.09	27.60	28.09	16.65	17.16	17.18	17.68	18.18
	12H	26.66	27.11	27.18	27.61	28.19	17.24	17.70	17.76	18.20	18.77
12H	4H	26.05	26.66	26.54	27.15	27.63	15.82	16.43	16.31	16.92	17.40
	6H	26.38	26.89	26.91	27.41	27.91	16.49	17.00	17.01	17.52	18.02
	8H	26.54	27.00	27.06	27.50	28.07	16.97	17.42	17.49	17.92	18.50