

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: P892793

Luminaire Tested: 2MB-5HL-A-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892793
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-L930
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

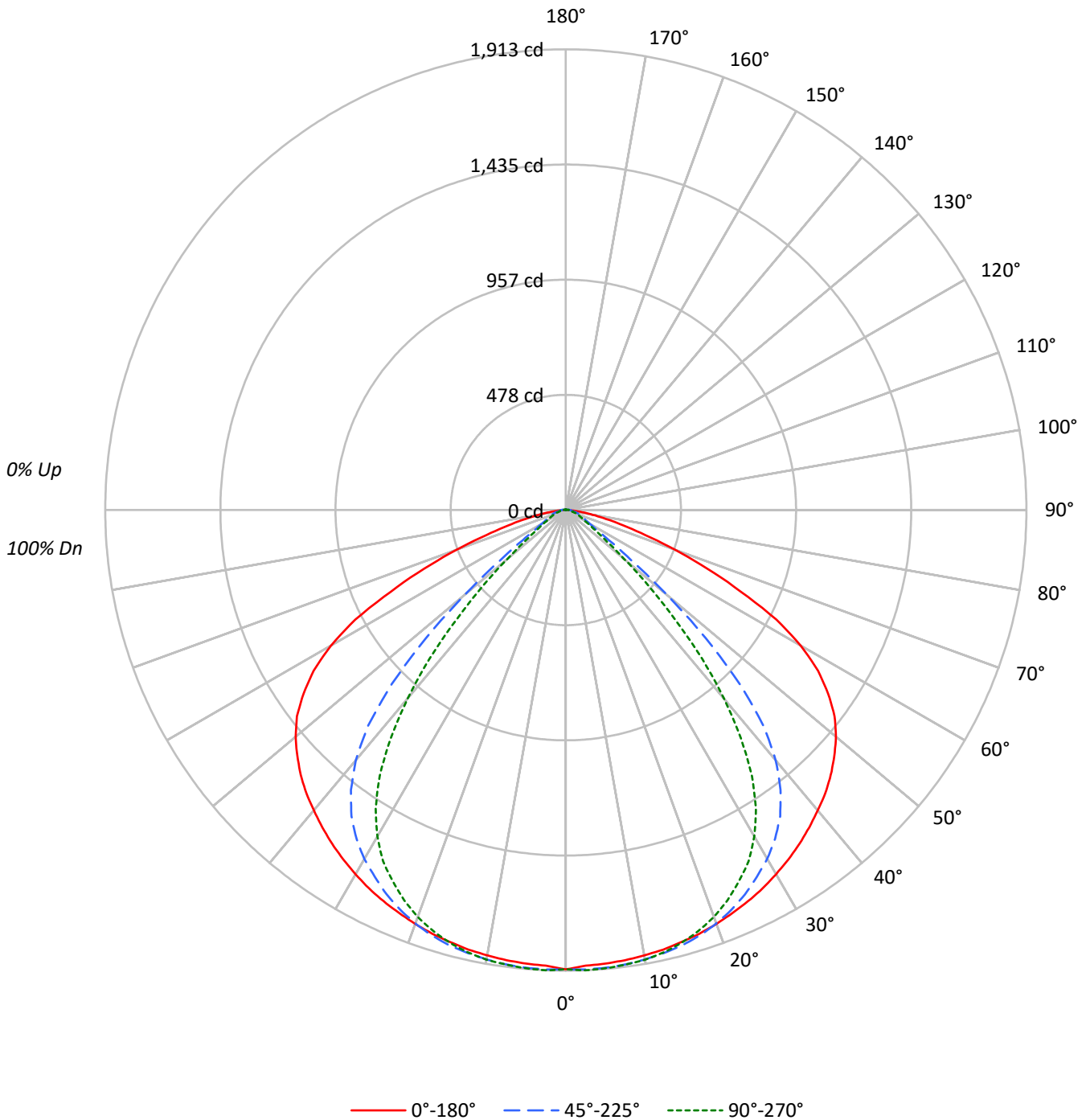
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4056.2 lumens
Efficiency: N/A
Efficacy: 120.4 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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39051	39051	39051
5°	38861	39216	39262
10°	39044	39404	39418
15°	39375	39663	39440
20°	39851	39818	39180
25°	40487	39789	38429
30°	41285	39559	37013
35°	42293	38793	33694
40°	43514	36251	27300
45°	45070	29575	18481
50°	46656	17428	10044
55°	47477	7765	5455
60°	46170	4746	3882
65°	38873	3973	3319
70°	28971	3832	3017
75°	19589	3987	2563
80°	13313	3644	2924
85°	8129	5310	5122

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 55°
 Luminance: 47477 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.5	4.5
10°-20°	527.0	13.0
20°-30°	808.7	19.9
30°-40°	952.7	23.5
40°-50°	812.4	20.0
50°-60°	443.9	10.9
60°-70°	196.7	4.9
70°-80°	86.3	2.1
80°-90°	30.8	0.8
90°-100°	9.5	0.2
100°-110°	2.4	0.1
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.7	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1517.2	37.4
0°-40°	2469.9	60.9
0°-60°	3726.1	91.9
0°-90°	4040.0	99.6
90°-120°	12.7	0.3
90°-150°	14.7	0.4
90°-180°	16.0	0.4
0°-180°	4056.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1907	1907	1907	1907	1907	
5°	1891	1901	1908	1912	1910	180
15°	1857	1868	1871	1866	1860	525
25°	1792	1792	1761	1725	1701	828
35°	1692	1660	1552	1410	1348	1060
45°	1556	1428	1021	711	638	1201
55°	1330	815	218	160	153	1180
65°	802	173	82	73	68	797
75°	248	87	50	38	32	279
85°	35	32	23	22	22	45
90°	3	13	17	17	14	3
95°	3	5	12	10	10	2
105°	1	1	2	4	4	1
115°	1	1	1	1	1	0
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	2	2	2	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1907.1	1907.1	1907.1	1907.1	1907.1
2.5°	1893.6	1903.4	1909.4	1913.9	1913.1
5°	1890.6	1901.1	1907.9	1912.4	1910.1
7.5°	1885.3	1896.6	1903.4	1907.9	1904.1
10°	1877.8	1889.1	1895.1	1898.1	1895.8
12.5°	1869.5	1880.0	1884.5	1886.0	1881.5
15°	1857.4	1868.0	1871.0	1865.7	1860.5
17.5°	1844.7	1853.7	1852.2	1842.4	1832.6
20°	1828.8	1836.4	1827.3	1808.5	1798.0
22.5°	1810.8	1816.1	1797.2	1769.4	1754.3
25°	1792.0	1792.0	1761.1	1725.0	1700.9
27.5°	1770.9	1765.6	1717.5	1669.3	1644.5
30°	1746.1	1734.0	1673.1	1604.6	1565.4
32.5°	1720.5	1700.9	1618.1	1520.3	1469.8
35°	1691.9	1660.3	1551.9	1410.4	1347.9
37.5°	1661.0	1616.6	1465.3	1271.2	1194.4
40°	1627.9	1563.2	1356.2	1106.3	1021.3
42.5°	1595.5	1502.2	1214.7	916.7	838.4
45°	1556.4	1428.5	1021.3	711.2	638.2
47.5°	1512.7	1337.4	788.7	512.5	468.1
50°	1464.6	1213.2	547.1	353.0	315.3
52.5°	1407.4	1044.6	344.7	234.8	216.8
55°	1329.9	815.1	217.5	159.6	152.8
57.5°	1241.8	569.7	148.3	121.2	116.7
60°	1127.4	365.0	115.9	99.3	94.8
62.5°	985.9	242.3	96.3	84.3	79.8
65°	802.3	173.1	82.0	73.0	68.5
67.5°	636.0	138.5	72.3	64.0	58.0
70°	483.9	115.9	64.0	56.4	50.4
72.5°	344.7	100.8	57.2	48.2	42.1
75°	247.6	87.3	50.4	38.4	32.4
77.5°	170.8	76.0	42.1	29.4	27.8
80°	112.9	66.2	30.9	26.3	24.8
82.5°	68.5	53.4	26.3	22.6	24.1
85°	34.6	31.6	22.6	21.8	21.8
87.5°	13.5	18.8	18.8	21.1	21.1
90°	3.0	12.8	17.3	17.3	14.3
92.5°	3.0	9.8	15.8	12.0	10.5
95°	3.0	5.3	12.0	9.8	9.8
97.5°	2.3	2.3	8.3	8.3	8.3
100°	0.8	1.5	5.3	7.5	7.5
102.5°	0.8	0.8	3.0	5.3	6.0
105°	0.8	0.8	1.5	3.8	4.5
107.5°	0.0	0.0	0.8	2.3	3.0
110°	0.0	0.0	0.8	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.8	0.8	0.8
115°	0.8	0.8	0.8	0.8	0.8
117.5°	0.8	0.8	0.8	0.8	0.8
120°	0.8	0.8	0.8	0.8	0.8
122.5°	0.8	0.8	0.8	0.8	0.8
125°	0.8	0.8	0.8	0.8	0.8
127.5°	0.8	0.8	0.8	0.8	0.8
130°	0.8	0.8	0.8	0.8	0.8
132.5°	0.8	0.8	0.8	0.8	0.8
135°	0.8	0.8	0.8	0.8	0.8
137.5°	0.8	0.8	0.8	0.8	0.8
140°	0.8	0.8	0.8	0.8	0.8
142.5°	0.8	0.8	0.8	1.5	0.8
145°	0.8	0.8	1.5	1.5	1.5
147.5°	0.8	0.8	1.5	1.5	1.5
150°	0.8	0.8	1.5	1.5	1.5
152.5°	0.8	1.5	1.5	1.5	1.5
155°	0.8	1.5	1.5	1.5	1.5
157.5°	0.8	1.5	1.5	2.3	1.5
160°	1.5	1.5	1.5	2.3	1.5
162.5°	1.5	1.5	2.3	2.3	2.3
165°	1.5	1.5	2.3	2.3	2.3
167.5°	1.5	1.5	2.3	2.3	2.3
170°	1.5	1.5	2.3	2.3	2.3
172.5°	1.5	1.5	2.3	2.3	2.3
175°	1.5	1.5	2.3	2.3	2.3
177.5°	1.5	1.5	2.3	3.0	2.3
180°	2.3	2.3	2.3	2.3	2.3



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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	23.82	25.22	24.19	25.54	25.87	11.72	13.12	12.09	13.45	13.77
	3H	25.11	26.36	25.50	26.69	27.07	12.89	14.13	13.27	14.47	14.84
	4H	25.51	26.67	25.92	27.03	27.42	13.32	14.48	13.73	14.84	15.23
	6H	25.74	26.81	26.16	27.19	27.59	13.70	14.76	14.12	15.14	15.54
	8H	25.79	26.81	26.23	27.21	27.62	13.94	14.96	14.38	15.36	15.77
	12H	25.81	26.78	26.25	27.17	27.61	14.28	15.25	14.72	15.64	16.08
4H	2H	23.64	24.80	24.04	25.15	25.55	12.24	13.40	12.65	13.76	14.15
	3H	24.97	25.92	25.39	26.33	26.74	13.70	14.65	14.12	15.06	15.47
	4H	25.40	26.25	25.84	26.67	27.12	14.26	15.10	14.70	15.53	15.98
	6H	25.72	26.46	26.19	26.91	27.38	14.76	15.49	15.23	15.95	16.42
	8H	25.82	26.50	26.29	26.96	27.44	15.08	15.76	15.55	16.22	16.70
	12H	25.86	26.47	26.36	26.96	27.45	15.52	16.13	16.01	16.62	17.10
8H	4H	25.30	25.99	25.77	26.44	26.92	14.83	15.52	15.31	15.97	16.45
	6H	25.65	26.21	26.16	26.72	27.20	15.46	16.03	15.97	16.53	17.02
	8H	25.78	26.29	26.30	26.81	27.31	15.87	16.38	16.39	16.90	17.40
	12H	25.87	26.33	26.39	26.83	27.41	16.46	16.91	16.98	17.41	17.99
12H	4H	25.26	25.87	25.75	26.36	26.84	15.03	15.64	15.53	16.13	16.62
	6H	25.60	26.11	26.12	26.63	27.13	15.70	16.21	16.23	16.73	17.23
	8H	25.76	26.21	26.28	26.71	27.29	16.18	16.64	16.70	17.14	17.71