

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: P892700

Luminaire Tested: 2MB-4HL-A-UNV-L950

Issue Date: 11/11/2024

**Test Information**

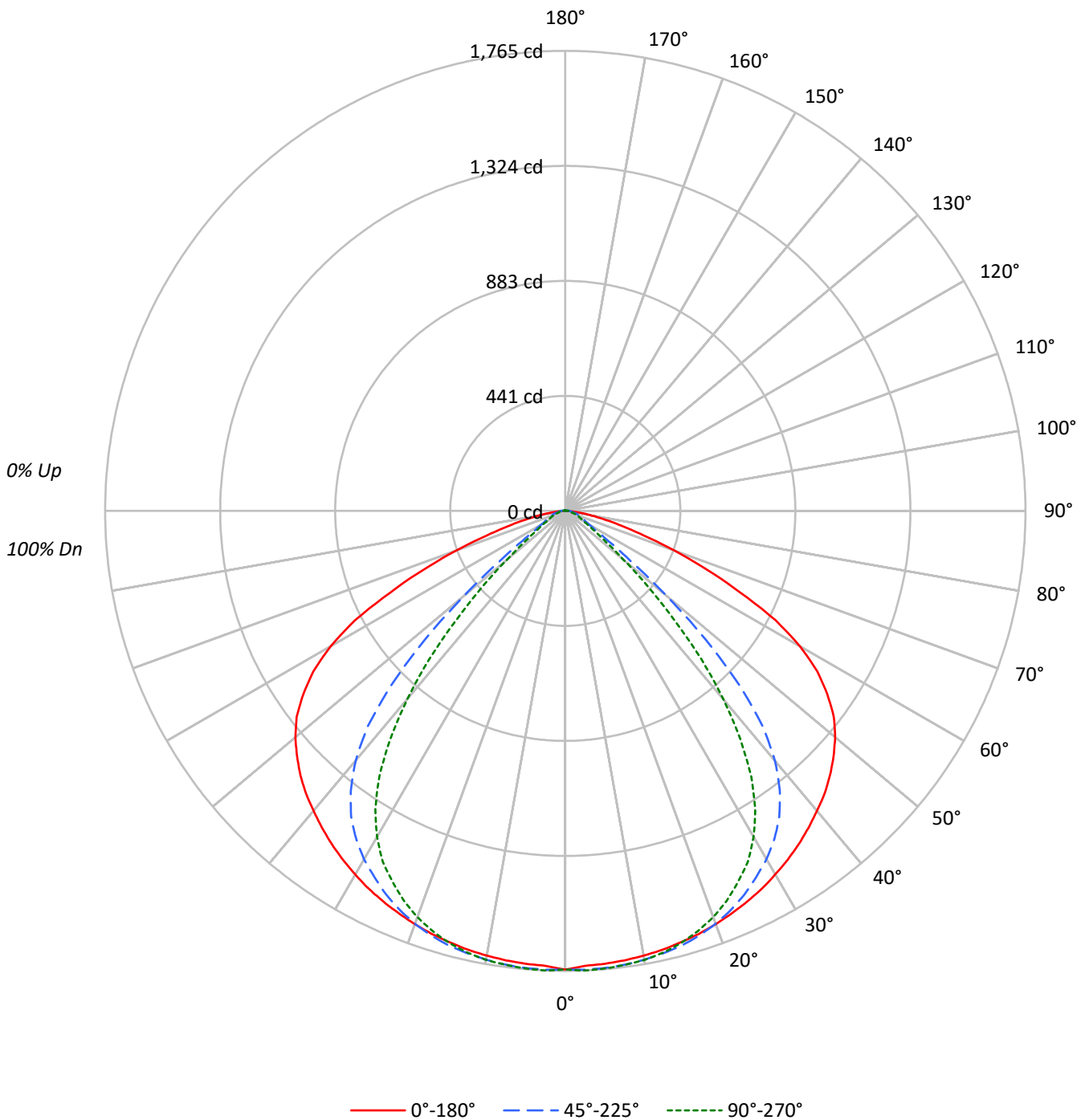
Test Method: LM-79-2019  
Report Number: P892700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-A-UNV-L950  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3742.1 lumens  
Efficiency: N/A  
Efficacy: 135.6 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): 27.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 6.5  
Total Harmonic Distortion (THDi): 0.99  
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	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°	36028	36028	36028
5°	35852	36180	36224
10°	36021	36353	36368
15°	36326	36591	36386
20°	36767	36737	36146
25°	37351	36710	35453
30°	38088	36495	34147
35°	39018	35788	31086
40°	40146	33445	25185
45°	41581	27284	17051
50°	43044	16081	9267
55°	43800	7165	5034
60°	42595	4378	3583
65°	35864	3668	3062
70°	26732	3532	2784
75°	18070	3679	2366
80°	12287	3361	2700
85°	7495	4887	4722

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 55°  
 Luminance: 43800 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.4	4.5
10°-20°	486.2	13.0
20°-30°	746.1	19.9
30°-40°	878.9	23.5
40°-50°	749.5	20.0
50°-60°	409.5	10.9
60°-70°	181.5	4.9
70°-80°	79.7	2.1
80°-90°	28.5	0.8
90°-100°	8.8	0.2
100°-110°	2.2	0.1
110°-120°	0.6	0.0
120°-130°	0.6	0.0
130°-140°	0.5	0.0
140°-150°	0.6	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1399.7	37.4
0°-40°	2278.6	60.9
0°-60°	3437.7	91.9
0°-90°	3727.3	99.6
90°-120°	11.6	0.3
90°-150°	13.4	0.4
90°-180°	15.0	0.4
0°-180°	3742.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1760	1760	1760	1760	1760	
5°	1744	1754	1760	1764	1762	166
15°	1714	1723	1726	1721	1716	485
25°	1653	1653	1625	1591	1569	763
35°	1561	1532	1432	1301	1244	978
45°	1436	1318	942	656	589	1108
55°	1227	752	201	147	141	1089
65°	740	160	76	67	63	736
75°	228	80	46	35	30	258
85°	32	29	21	20	20	42
90°	3	12	16	16	13	3
95°	3	5	11	9	9	2
105°	1	1	1	4	4	0
115°	1	1	1	1	1	0
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	2	2	2	0
175°	1	1	2	2	2	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1759.5	1759.5	1759.5	1759.5	1759.5
2.5°	1747.0	1756.0	1761.6	1765.7	1765.0
5°	1744.2	1753.9	1760.2	1764.3	1762.3
7.5°	1739.3	1749.8	1756.0	1760.2	1756.7
10°	1732.4	1742.8	1748.4	1751.1	1749.1
12.5°	1724.8	1734.5	1738.6	1740.0	1735.9
15°	1713.6	1723.4	1726.1	1721.3	1716.4
17.5°	1701.8	1710.2	1708.8	1699.8	1690.7
20°	1687.3	1694.2	1685.9	1668.5	1658.8
22.5°	1670.6	1675.5	1658.1	1632.4	1618.5
25°	1653.2	1653.2	1624.8	1591.4	1569.2
27.5°	1633.8	1628.9	1584.5	1540.1	1517.1
30°	1610.9	1599.8	1543.5	1480.3	1444.2
32.5°	1587.3	1569.2	1492.8	1402.6	1356.1
35°	1560.9	1531.7	1431.7	1301.2	1243.6
37.5°	1532.4	1491.5	1351.9	1172.8	1101.9
40°	1501.9	1442.2	1251.2	1020.7	942.2
42.5°	1472.0	1385.9	1120.7	845.7	773.5
45°	1435.9	1317.9	942.2	656.2	588.8
47.5°	1395.6	1233.9	727.7	472.9	431.9
50°	1351.2	1119.3	504.8	325.6	290.9
52.5°	1298.4	963.8	318.0	216.6	200.0
55°	1226.9	752.0	200.7	147.2	141.0
57.5°	1145.7	525.6	136.8	111.8	107.6
60°	1040.1	336.8	106.9	91.7	87.5
62.5°	909.6	223.6	88.9	77.8	73.6
65°	740.2	159.7	75.7	67.4	63.2
67.5°	586.7	127.8	66.7	59.0	53.5
70°	446.5	106.9	59.0	52.1	46.5
72.5°	318.0	93.0	52.8	44.4	38.9
75°	228.4	80.5	46.5	35.4	29.9
77.5°	157.6	70.1	38.9	27.1	25.7
80°	104.2	61.1	28.5	24.3	22.9
82.5°	63.2	49.3	24.3	20.8	22.2
85°	31.9	29.2	20.8	20.1	20.1
87.5°	12.5	17.4	17.4	19.4	19.4
90°	2.8	11.8	16.0	16.0	13.2
92.5°	2.8	9.0	14.6	11.1	9.7
95°	2.8	4.9	11.1	9.0	9.0
97.5°	2.1	2.1	7.6	7.6	7.6
100°	0.7	1.4	4.9	6.9	6.9
102.5°	0.7	0.7	2.8	4.9	5.6
105°	0.7	0.7	1.4	3.5	4.2
107.5°	0.0	0.0	0.7	2.1	2.8
110°	0.0	0.0	0.7	1.4	1.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.7	0.7	0.7
115°	0.7	0.7	0.7	0.7	0.7
117.5°	0.7	0.7	0.7	0.7	0.7
120°	0.7	0.7	0.7	0.7	0.7
122.5°	0.7	0.7	0.7	0.7	0.7
125°	0.7	0.7	0.7	0.7	0.7
127.5°	0.7	0.7	0.7	0.7	0.7
130°	0.7	0.7	0.7	0.7	0.7
132.5°	0.7	0.7	0.7	0.7	0.7
135°	0.7	0.7	0.7	0.7	0.7
137.5°	0.7	0.7	0.7	0.7	0.7
140°	0.7	0.7	0.7	0.7	0.7
142.5°	0.7	0.7	0.7	1.4	0.7
145°	0.7	0.7	1.4	1.4	1.4
147.5°	0.7	0.7	1.4	1.4	1.4
150°	0.7	0.7	1.4	1.4	1.4
152.5°	0.7	1.4	1.4	1.4	1.4
155°	0.7	1.4	1.4	1.4	1.4
157.5°	0.7	1.4	1.4	2.1	1.4
160°	1.4	1.4	1.4	2.1	1.4
162.5°	1.4	1.4	2.1	2.1	2.1
165°	1.4	1.4	2.1	2.1	2.1
167.5°	1.4	1.4	2.1	2.1	2.1
170°	1.4	1.4	2.1	2.1	2.1
172.5°	1.4	1.4	2.1	2.1	2.1
175°	1.4	1.4	2.1	2.1	2.1
177.5°	1.4	1.4	2.1	2.8	2.1
180°	2.1	2.1	2.1	2.1	2.1



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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	23.54	24.94	23.91	25.26	25.59	11.44	12.84	11.81	13.17	13.49
	3H	24.83	26.08	25.22	26.41	26.79	12.61	13.85	12.99	14.19	14.56
	4H	25.23	26.39	25.64	26.75	27.14	13.04	14.20	13.45	14.56	14.95
	6H	25.46	26.53	25.88	26.91	27.31	13.42	14.48	13.84	14.86	15.26
	8H	25.51	26.53	25.95	26.93	27.34	13.66	14.68	14.10	15.08	15.49
	12H	25.53	26.50	25.97	26.89	27.33	14.00	14.97	14.44	15.36	15.80
4H	2H	23.36	24.52	23.76	24.87	25.27	11.96	13.12	12.37	13.48	13.87
	3H	24.69	25.64	25.11	26.05	26.46	13.42	14.37	13.84	14.78	15.19
	4H	25.12	25.97	25.56	26.39	26.84	13.98	14.82	14.42	15.25	15.70
	6H	25.44	26.18	25.91	26.63	27.10	14.48	15.22	14.95	15.67	16.14
	8H	25.54	26.22	26.01	26.68	27.16	14.80	15.48	15.27	15.94	16.42
	12H	25.58	26.19	26.08	26.68	27.17	15.24	15.85	15.73	16.34	16.82
8H	4H	25.02	25.71	25.49	26.16	26.64	14.55	15.24	15.03	15.69	16.17
	6H	25.37	25.93	25.88	26.44	26.92	15.18	15.75	15.69	16.25	16.74
	8H	25.50	26.01	26.02	26.53	27.03	15.59	16.10	16.11	16.62	17.12
	12H	25.59	26.05	26.11	26.55	27.13	16.18	16.63	16.69	17.13	17.71
12H	4H	24.98	25.59	25.47	26.08	26.56	14.75	15.36	15.25	15.85	16.34
	6H	25.32	25.83	25.84	26.35	26.85	15.42	15.93	15.95	16.45	16.95
	8H	25.48	25.93	26.00	26.43	27.01	15.90	16.36	16.42	16.86	17.43