

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: P892743

Luminaire Tested: 2MB-4HL-LVR-UNV-L840

Issue Date: 11/11/2024

**Test Information**

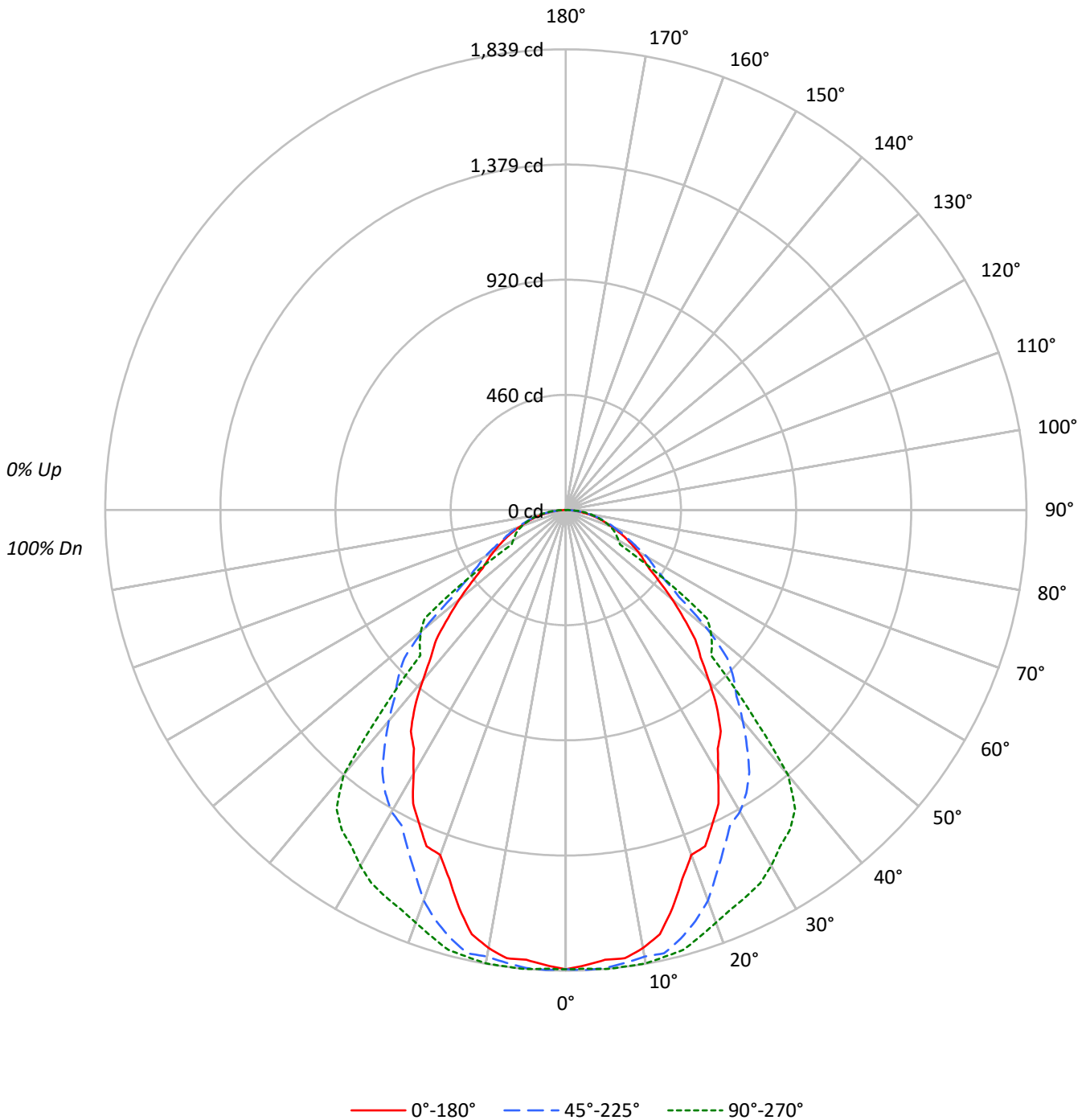
Test Method: LM-79-2019  
Report Number: P892743  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-LVR-UNV-L840  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3736.0 lumens  
Efficiency: N/A  
Efficacy: 135.4 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.24  
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	60	60	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	52	48	57	52	47	47	47	47	46
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	53	47	43	43	43	43	41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	40	35	35	35	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	32	32	32	32	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	26226	26226	26226
5°	25878	26351	26414
10°	25787	26291	26693
15°	24363	26239	26907
20°	22309	25254	26681
25°	21844	23555	26884
30°	20080	22974	27087
35°	18835	22305	27228
40°	16575	20529	25761
45°	14797	19151	16606
50°	12338	16413	16818
55°	10106	11902	11837
60°	9556	10701	6950
65°	8869	9309	7400
70°	8202	8708	7767
75°	7672	8296	8009
80°	7002	7719	8362
85°	6270	6697	9257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 19151 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.3	4.7
10°-20°	490.5	13.1
20°-30°	707.5	18.9
30°-40°	802.5	21.5
40°-50°	668.3	17.9
50°-60°	432.0	11.6
60°-70°	256.1	6.9
70°-80°	156.1	4.2
80°-90°	48.7	1.3
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°	1372.3	36.7
0°-40°	2174.8	58.2
0°-60°	3275.1	87.7
0°-90°	3736.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3736.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1833	1833	1833	1833	1833	
5°	1802	1824	1835	1846	1839	172
15°	1645	1699	1772	1800	1817	459
25°	1384	1432	1492	1692	1703	633
35°	1078	1116	1277	1449	1559	664
45°	731	783	947	870	821	555
55°	405	444	477	574	475	377
65°	262	269	275	245	219	260
75°	139	142	150	158	145	147
85°	38	38	41	47	56	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1833.3	1833.3	1833.3	1833.3	1833.3
2.5°	1818.6	1835.0	1837.6	1852.4	1832.4
5°	1802.1	1823.8	1835.0	1845.5	1839.4
7.5°	1804.7	1816.8	1822.9	1841.1	1837.6
10°	1775.2	1799.5	1809.9	1831.6	1837.6
12.5°	1734.4	1765.6	1812.5	1808.1	1826.4
15°	1645.0	1698.8	1771.7	1800.3	1816.8
17.5°	1544.4	1604.3	1720.5	1788.2	1784.7
20°	1465.4	1510.6	1658.9	1754.4	1752.6
22.5°	1452.4	1462.8	1571.3	1730.9	1724.0
25°	1383.9	1432.5	1492.3	1691.9	1703.2
27.5°	1320.5	1363.9	1419.4	1642.4	1679.7
30°	1215.6	1290.2	1390.8	1589.5	1639.8
32.5°	1128.8	1200.8	1340.5	1524.4	1592.1
35°	1078.5	1115.8	1277.2	1448.9	1559.1
37.5°	990.0	1059.4	1187.8	1360.5	1503.6
40°	887.6	967.4	1099.3	1282.4	1379.5
42.5°	796.5	860.7	1009.1	1134.9	1082.8
45°	731.4	782.6	946.6	870.2	820.8
47.5°	637.7	702.8	874.6	714.9	791.3
50°	554.4	610.8	737.5	675.9	755.7
52.5°	473.7	527.5	570.9	637.7	710.6
55°	405.2	444.2	477.2	573.5	474.6
57.5°	367.9	380.0	417.3	409.5	256.0
60°	334.0	339.2	374.0	276.8	242.9
62.5°	295.9	305.4	319.3	259.4	229.9
65°	262.0	269.0	275.0	244.7	218.6
67.5°	229.1	236.0	242.1	227.3	204.8
70°	196.1	200.4	208.2	204.8	185.7
72.5°	166.6	170.1	179.6	182.2	167.5
75°	138.8	142.3	150.1	157.9	144.9
77.5°	111.9	114.5	123.2	129.3	124.9
80°	85.0	89.4	93.7	101.5	101.5
82.5°	62.5	63.3	67.7	75.5	79.0
85°	38.2	38.2	40.8	46.9	56.4
87.5°	16.5	16.5	18.2	20.0	28.6
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	18.70	20.16	19.07	20.48	20.79	18.67	20.13	19.04	20.45	20.76
	3H	20.30	21.61	20.68	21.94	22.30	20.15	21.46	20.53	21.79	22.15
	4H	20.91	22.13	21.31	22.48	22.86	20.85	22.08	21.25	22.43	22.81
	6H	21.37	22.50	21.78	22.86	23.26	21.47	22.60	21.88	22.97	23.36
	8H	21.52	22.60	21.95	22.99	23.39	21.71	22.79	22.14	23.18	23.58
	12H	21.63	22.66	22.06	23.04	23.47	21.92	22.95	22.35	23.33	23.76
4H	2H	19.30	20.52	19.70	20.87	21.25	19.27	20.50	19.68	20.85	21.23
	3H	21.12	22.13	21.53	22.53	22.93	21.03	22.04	21.44	22.45	22.85
	4H	21.85	22.76	22.28	23.18	23.62	21.90	22.81	22.33	23.23	23.67
	6H	22.44	23.24	22.90	23.68	24.14	22.66	23.45	23.11	23.89	24.35
	8H	22.65	23.39	23.11	23.83	24.30	22.95	23.70	23.42	24.14	24.61
	12H	22.79	23.45	23.28	23.93	24.41	23.21	23.87	23.69	24.35	24.82
8H	4H	22.17	22.91	22.63	23.35	23.82	22.21	22.95	22.67	23.40	23.86
	6H	22.89	23.50	23.39	24.00	24.47	23.11	23.72	23.61	24.22	24.70
	8H	23.17	23.72	23.69	24.23	24.72	23.50	24.05	24.02	24.57	25.05
	12H	23.39	23.88	23.90	24.37	24.94	23.86	24.34	24.37	24.84	25.40
12H	4H	22.20	22.87	22.69	23.34	23.82	22.23	22.90	22.72	23.38	23.85
	6H	22.96	23.51	23.47	24.02	24.51	23.16	23.72	23.68	24.23	24.72
	8H	23.30	23.79	23.81	24.28	24.84	23.62	24.11	24.13	24.60	25.17