

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: P893727

Luminaire Tested: 4MB-6SL-ASYMR-UNV-L940

Issue Date: 11/11/2024

**Test Information**

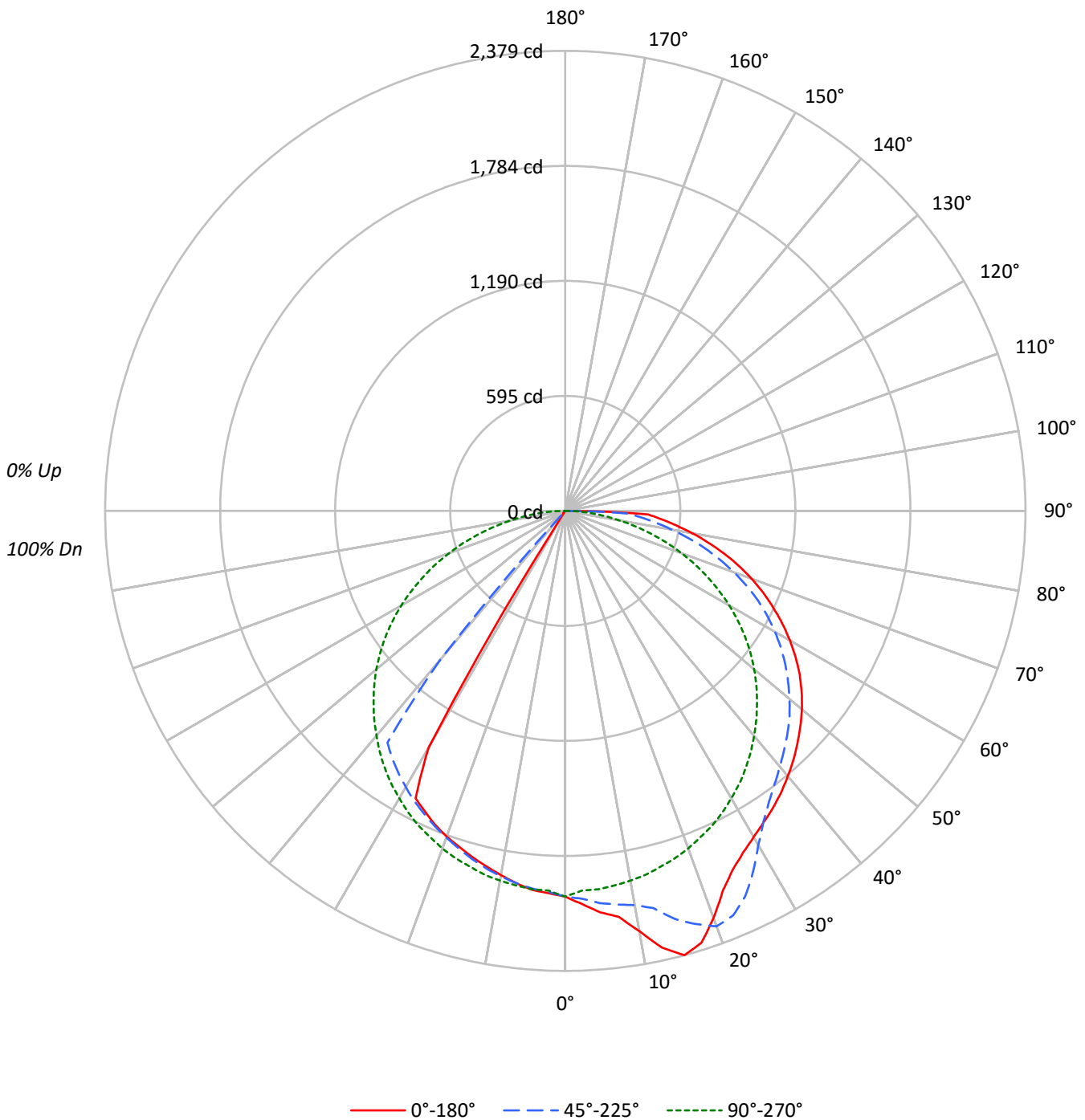
Test Method: LM-79-2019  
Report Number: P893727  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-6SL-ASYMR-UNV-L940  
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5397.0 lumens  
Efficiency: N/A  
Efficacy: 121.6 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.28 / 1.25  
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.4  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 4  
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83	83	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69	69	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59	59	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50	50	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44	44	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39	39	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	35	35	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31	31	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28	28	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26	26	26

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

	0°	45°	90°	135°	180°
0°	25901	25901	25901	25901	25901
5°	27163	26537	25599	25554	25643
10°	29103	27295	25593	25292	25217
15°	31976	29365	25602	25050	24926
20°	30959	31590	25669	24848	24770
25°	29333	31526	25732	24765	24586
30°	29207	29926	25729	24735	21173
35°	29700	29102	25770	24738	290
40°	30345	29242	25736	17061	193
45°	31176	29834	25742	314	127
50°	32265	30581	25757	230	46
55°	33494	31450	25684	156	25
60°	34834	32517	25456	60	29
65°	36471	33804	24992	71	71
70°	38907	35221	24203	87	87
75°	42590	37487	23159	231	115
80°	49974	41950	21446	344	172
85°	74389	58895	20083	507	343

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 87.5°  
 Luminance: 127531 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.2	3.5
10°-20°	570.7	10.6
20°-30°	877.3	16.3
30°-40°	940.2	17.4
40°-50°	853.9	15.8
50°-60°	778.9	14.4
60°-70°	579.4	10.7
70°-80°	407.9	7.6
80°-90°	197.6	3.7
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°	1639.2	30.4
0°-40°	2579.4	47.8
0°-60°	4212.2	78.0
0°-90°	5397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5397.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1995	1995	1995	1995	1995	
5°	2084	2036	1964	1960	1967	202
15°	2379	2184	1904	1863	1854	657
25°	2047	2200	1796	1728	1716	952
35°	1874	1836	1626	1561	18	1174
45°	1698	1625	1402	17	7	1312
55°	1480	1389	1134	7	1	1321
65°	1187	1100	813	2	2	1175
75°	849	747	462	5	2	895
85°	499	395	135	3	2	502
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1994.7	1994.7	1994.7	1994.7	1994.7	1994.7	1994.7	1994.7	1994.7
2.5°	2035.9	2013.0	2007.3	2023.3	1965.0	2003.9	1971.9	1978.7	1978.7
5°	2083.9	2051.9	2035.9	2031.3	1963.9	1990.2	1960.5	1960.5	1967.3
7.5°	2117.0	2081.6	2053.0	2041.6	1953.6	1976.5	1942.2	1942.2	1942.2
10°	2207.2	2141.0	2070.1	2049.6	1941.0	1958.2	1918.2	1920.5	1912.5
12.5°	2313.5	2254.1	2103.3	2046.2	1927.3	1935.3	1893.1	1891.9	1882.8
15°	2378.6	2334.1	2184.4	2041.6	1904.5	1911.3	1863.4	1859.9	1854.2
17.5°	2342.1	2335.2	2240.4	2038.2	1883.9	1878.2	1830.2	1826.8	1822.2
20°	2240.4	2257.5	2286.1	2031.3	1857.6	1846.2	1798.2	1796.0	1792.5
22.5°	2127.3	2144.4	2265.5	2042.7	1825.7	1811.9	1764.0	1761.7	1757.1
25°	2047.3	2047.3	2200.4	2070.1	1796.0	1770.8	1728.5	1725.1	1716.0
27.5°	1991.3	1981.0	2103.3	2101.0	1758.3	1729.7	1690.8	1687.4	1676.0
30°	1947.9	1930.8	1995.9	2115.8	1716.0	1685.1	1649.7	1646.3	1412.1
32.5°	1909.1	1890.8	1905.6	2128.4	1673.7	1637.2	1606.3	1145.9	50.3
35°	1873.6	1853.1	1835.9	2119.3	1625.7	1589.2	1560.6	33.1	18.3
37.5°	1833.7	1817.7	1778.8	2071.3	1574.3	1537.8	1510.3	18.3	16.0
40°	1790.2	1775.4	1725.1	2000.5	1518.3	1487.5	1006.5	16.0	11.4
42.5°	1745.7	1734.3	1674.9	1897.6	1462.4	1431.5	32.0	12.6	9.1
45°	1697.7	1687.4	1624.6	1773.1	1401.8	1373.2	17.1	9.1	6.9
47.5°	1648.6	1633.7	1572.0	1639.4	1340.1	1311.5	14.9	6.9	4.6
50°	1597.2	1581.2	1513.8	1521.8	1275.0	1246.4	11.4	4.6	2.3
52.5°	1540.0	1520.6	1452.1	1415.5	1206.4	1180.2	9.1	2.3	1.1
55°	1479.5	1457.8	1389.2	1323.0	1134.5	1104.8	6.9	2.3	1.1
57.5°	1412.1	1388.1	1323.0	1235.0	1057.9	747.2	4.6	2.3	1.1
60°	1341.3	1317.3	1252.1	1152.7	980.2	51.4	2.3	2.3	1.1
62.5°	1265.9	1240.7	1177.9	1069.3	896.8	42.3	2.3	2.3	2.3
65°	1187.0	1157.3	1100.2	983.7	813.4	35.4	2.3	2.3	2.3
67.5°	1108.2	1070.5	1016.8	895.7	727.8	29.7	2.3	2.3	2.3
70°	1024.8	983.7	927.7	806.6	637.5	24.0	2.3	2.3	2.3
72.5°	939.1	899.1	838.6	716.3	553.0	18.3	2.3	2.3	2.3
75°	848.9	812.3	747.2	626.1	461.6	13.7	4.6	2.3	2.3
77.5°	755.2	726.6	653.5	533.5	372.4	9.1	4.6	2.3	2.3
80°	668.3	636.4	561.0	439.8	286.8	6.9	4.6	3.4	2.3
82.5°	579.2	550.7	475.3	354.2	205.6	5.7	4.6	3.4	2.3
85°	499.3	471.8	395.3	276.5	134.8	4.6	3.4	3.4	2.3
87.5°	428.4	403.3	327.9	202.2	76.5	3.4	3.4	3.4	2.3
90°	0.0	0.0	0.0	0.0	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	25.84	27.45	26.20	27.77	28.08	21.27	22.89	21.64	23.20	23.51
	3H	28.28	29.75	28.66	30.08	30.44	21.91	23.38	22.29	23.70	24.06
	4H	29.41	30.79	29.81	31.14	31.52	22.06	23.44	22.46	23.79	24.16
	6H	30.50	31.79	30.91	32.15	32.54	22.10	23.38	22.51	23.75	24.14
	8H	31.03	32.26	31.46	32.65	33.05	22.09	23.31	22.51	23.70	24.10
	12H	31.60	32.78	32.03	33.16	33.59	22.07	23.25	22.50	23.63	24.06
4H	2H	26.50	27.88	26.89	28.23	28.60	22.40	23.78	22.80	24.13	24.50
	3H	29.18	30.35	29.59	30.75	31.15	23.74	24.91	24.15	25.31	25.71
	4H	30.48	31.54	30.91	31.96	32.39	24.28	25.34	24.71	25.75	26.19
	6H	31.76	32.70	32.21	33.14	33.59	24.55	25.49	25.00	25.93	26.38
	8H	32.39	33.27	32.85	33.71	34.17	24.59	25.47	25.05	25.91	26.37
	12H	33.07	33.87	33.55	34.34	34.81	24.60	25.39	25.08	25.87	26.33
8H	4H	30.84	31.72	31.30	32.16	32.63	25.22	26.10	25.68	26.54	27.01
	6H	32.33	33.06	32.82	33.55	34.02	25.81	26.55	26.31	27.04	27.51
	8H	33.11	33.77	33.62	34.28	34.76	25.99	26.66	26.50	27.16	27.65
	12H	34.00	34.59	34.51	35.08	35.64	26.09	26.68	26.60	27.17	27.73
12H	4H	30.88	31.68	31.36	32.15	32.62	25.44	26.23	25.92	26.71	27.17
	6H	32.41	33.08	32.92	33.58	34.07	26.16	26.83	26.67	27.33	27.82
	8H	33.29	33.89	33.80	34.38	34.93	26.48	27.07	26.98	27.56	28.11