

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: P893612

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893612
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-5SL-ASYMR-UNV-L850
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

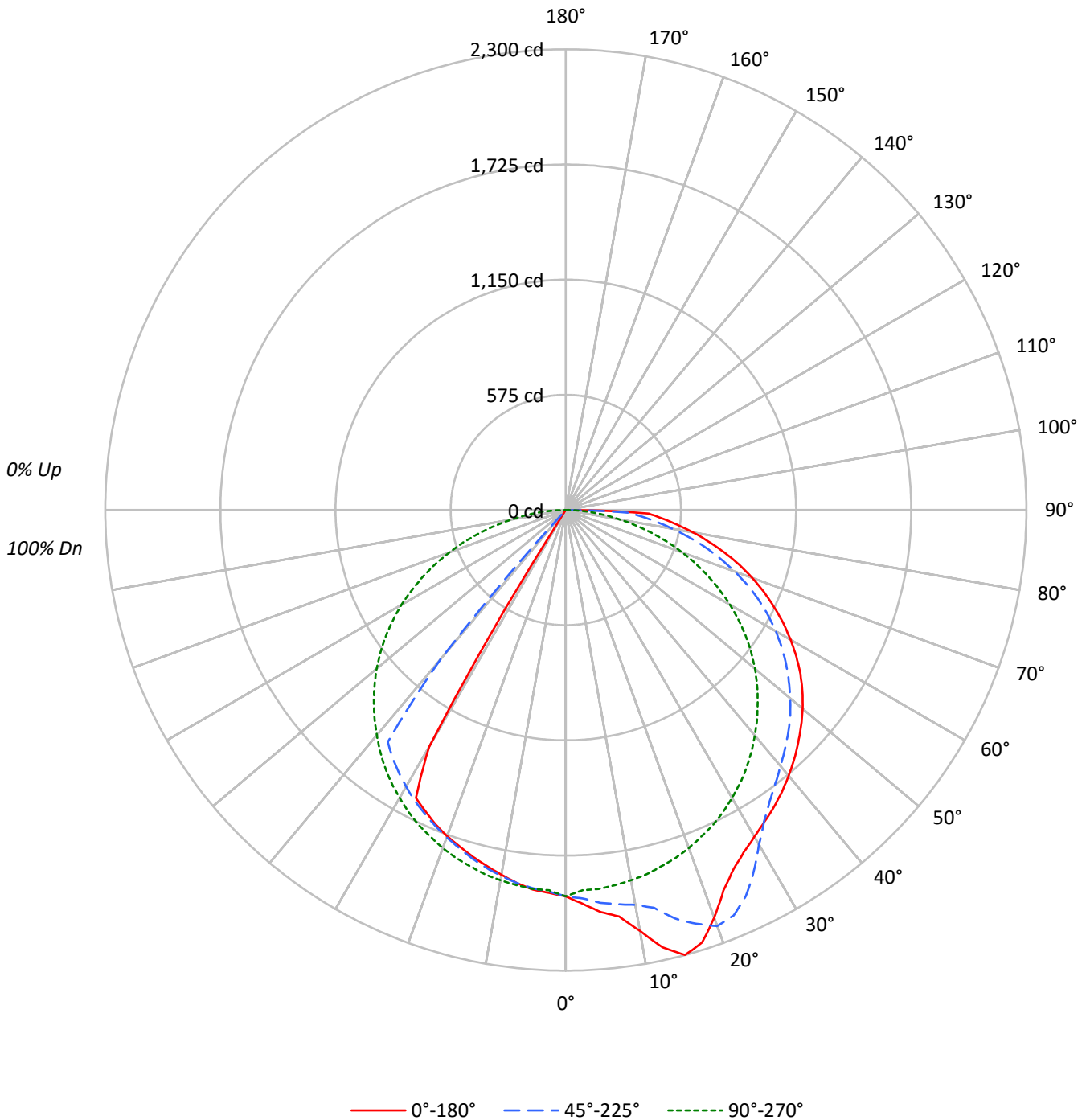
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5218.0 lumens
Efficiency: N/A
Efficacy: 149.1 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): 35
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	85	85	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	71	71	71	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	30	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	27	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	25043	25043	25043	25043	25043
5°	26261	25656	24750	24706	24793
10°	28138	26391	24745	24454	24381
15°	30915	28391	24753	24219	24100
20°	29932	30543	24818	24025	23949
25°	28360	30480	24878	23944	23771
30°	28238	28934	24876	23915	20471
35°	28716	28137	24916	23917	281
40°	29340	28272	24884	16495	186
45°	30142	28844	24888	305	121
50°	31195	29566	24902	222	44
55°	32383	30408	24830	149	25
60°	33678	31439	24612	57	29
65°	35263	32683	24165	68	68
70°	37617	34052	23402	84	84
75°	41175	36243	22386	221	110
80°	48322	40552	20728	329	165
85°	71916	56943	19413	492	328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 123303 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.8	3.5
10°-20°	551.8	10.6
20°-30°	848.2	16.3
30°-40°	909.0	17.4
40°-50°	825.6	15.8
50°-60°	753.0	14.4
60°-70°	560.2	10.7
70°-80°	394.3	7.6
80°-90°	191.0	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°	1584.8	30.4
0°-40°	2493.8	47.8
0°-60°	4072.4	78.0
0°-90°	5218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5218.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1929	1929	1929	1929	1929	
5°	2015	1968	1899	1895	1902	195
15°	2300	2112	1841	1802	1793	635
25°	1979	2127	1736	1671	1659	920
35°	1812	1775	1572	1509	18	1135
45°	1641	1571	1355	17	7	1268
55°	1430	1343	1097	7	1	1278
65°	1148	1064	786	2	2	1136
75°	821	722	446	4	2	865
85°	483	382	130	3	2	485
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°	1928.6	1928.6	1928.6	1928.6	1928.6	1928.6	1928.6	1928.6	1928.6
2.5°	1968.3	1946.3	1940.7	1956.2	1899.9	1937.4	1906.5	1913.1	1913.1
5°	2014.7	1983.8	1968.3	1963.9	1898.8	1924.2	1895.4	1895.4	1902.1
7.5°	2046.8	2012.5	1984.9	1973.9	1888.8	1910.9	1877.8	1877.8	1877.8
10°	2134.0	2070.0	2001.5	1981.6	1876.7	1893.2	1854.6	1856.8	1849.1
12.5°	2236.8	2179.3	2033.5	1978.3	1863.4	1871.1	1830.3	1829.2	1820.3
15°	2299.7	2256.6	2111.9	1973.9	1841.3	1848.0	1801.6	1798.2	1792.7
17.5°	2264.4	2257.7	2166.1	1970.6	1821.4	1815.9	1769.5	1766.2	1761.8
20°	2166.1	2182.6	2210.3	1963.9	1796.0	1785.0	1738.6	1736.4	1733.1
22.5°	2056.7	2073.3	2190.4	1975.0	1765.1	1751.9	1705.5	1703.3	1698.8
25°	1979.4	1979.4	2127.4	2001.5	1736.4	1712.1	1671.2	1667.9	1659.1
27.5°	1925.3	1915.3	2033.5	2031.3	1699.9	1672.3	1634.8	1631.5	1620.4
30°	1883.3	1866.7	1929.7	2045.7	1659.1	1629.2	1595.0	1591.7	1365.3
32.5°	1845.7	1828.1	1842.4	2057.8	1618.2	1582.9	1553.0	1107.9	48.6
35°	1811.5	1791.6	1775.0	2049.0	1571.8	1536.5	1508.8	32.0	17.7
37.5°	1772.8	1757.4	1719.8	2002.6	1522.1	1486.8	1460.2	17.7	15.5
40°	1730.9	1716.5	1667.9	1934.1	1468.0	1438.2	973.1	15.5	11.0
42.5°	1687.8	1676.7	1619.3	1834.7	1413.9	1384.0	30.9	12.2	8.8
45°	1641.4	1631.5	1570.7	1714.3	1355.3	1327.7	16.6	8.8	6.6
47.5°	1593.9	1579.5	1519.9	1585.1	1295.7	1268.1	14.4	6.6	4.4
50°	1544.2	1528.7	1463.6	1471.3	1232.7	1205.1	11.0	4.4	2.2
52.5°	1489.0	1470.2	1403.9	1368.6	1166.4	1141.0	8.8	2.2	1.1
55°	1430.4	1409.4	1343.2	1279.1	1096.8	1068.1	6.6	2.2	1.1
57.5°	1365.3	1342.1	1279.1	1194.0	1022.8	722.4	4.4	2.2	1.1
60°	1296.8	1273.6	1210.6	1114.5	947.7	49.7	2.2	2.2	1.1
62.5°	1223.9	1199.6	1138.8	1033.9	867.1	40.9	2.2	2.2	2.2
65°	1147.7	1118.9	1063.7	951.0	786.5	34.2	2.2	2.2	2.2
67.5°	1071.4	1035.0	983.1	866.0	703.6	28.7	2.2	2.2	2.2
70°	990.8	951.0	896.9	779.8	616.4	23.2	2.2	2.2	2.2
72.5°	908.0	869.3	810.8	692.6	534.6	17.7	2.2	2.2	2.2
75°	820.7	785.4	722.4	605.3	446.2	13.3	4.4	2.2	2.2
77.5°	730.1	702.5	631.8	515.8	360.1	8.8	4.4	2.2	2.2
80°	646.2	615.2	542.3	425.3	277.2	6.6	4.4	3.3	2.2
82.5°	560.0	532.4	459.5	342.4	198.8	5.5	4.4	3.3	2.2
85°	482.7	456.2	382.2	267.3	130.3	4.4	3.3	3.3	2.2
87.5°	414.2	389.9	317.0	195.5	74.0	3.3	3.3	3.3	2.2
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	25.72	27.34	26.09	27.65	27.96	21.15	22.77	21.52	23.08	23.40
	3H	28.17	29.63	28.54	29.96	30.32	21.80	23.26	22.17	23.59	23.95
	4H	29.29	30.67	29.69	31.02	31.40	21.94	23.32	22.34	23.67	24.05
	6H	30.39	31.67	30.80	32.03	32.42	21.98	23.27	22.39	23.63	24.02
	8H	30.91	32.14	31.34	32.53	32.93	21.97	23.20	22.39	23.59	23.98
	12H	31.48	32.66	31.91	33.04	33.47	21.95	23.13	22.38	23.51	23.94
4H	2H	26.38	27.76	26.78	28.11	28.48	22.28	23.66	22.68	24.01	24.39
	3H	29.07	30.24	29.48	30.63	31.03	23.62	24.79	24.03	25.19	25.59
	4H	30.36	31.43	30.79	31.84	32.27	24.16	25.22	24.59	25.63	26.07
	6H	31.64	32.58	32.10	33.02	33.47	24.43	25.37	24.89	25.81	26.26
	8H	32.27	33.15	32.73	33.59	34.05	24.47	25.35	24.93	25.79	26.25
	12H	32.96	33.75	33.44	34.22	34.69	24.48	25.27	24.96	25.75	26.22
8H	4H	30.73	31.60	31.19	32.04	32.51	25.11	25.98	25.56	26.42	26.89
	6H	32.21	32.95	32.70	33.43	33.91	25.70	26.43	26.19	26.92	27.39
	8H	32.99	33.66	33.50	34.16	34.65	25.87	26.54	26.38	27.04	27.53
	12H	33.88	34.47	34.39	34.96	35.52	25.98	26.57	26.48	27.06	27.62
12H	4H	30.77	31.56	31.25	32.03	32.50	25.32	26.11	25.80	26.59	27.06
	6H	32.30	32.96	32.80	33.47	33.95	26.05	26.71	26.55	27.22	27.70
	8H	33.18	33.77	33.68	34.26	34.82	26.36	26.95	26.86	27.44	28.00