

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: P893610

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893610
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-L835
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

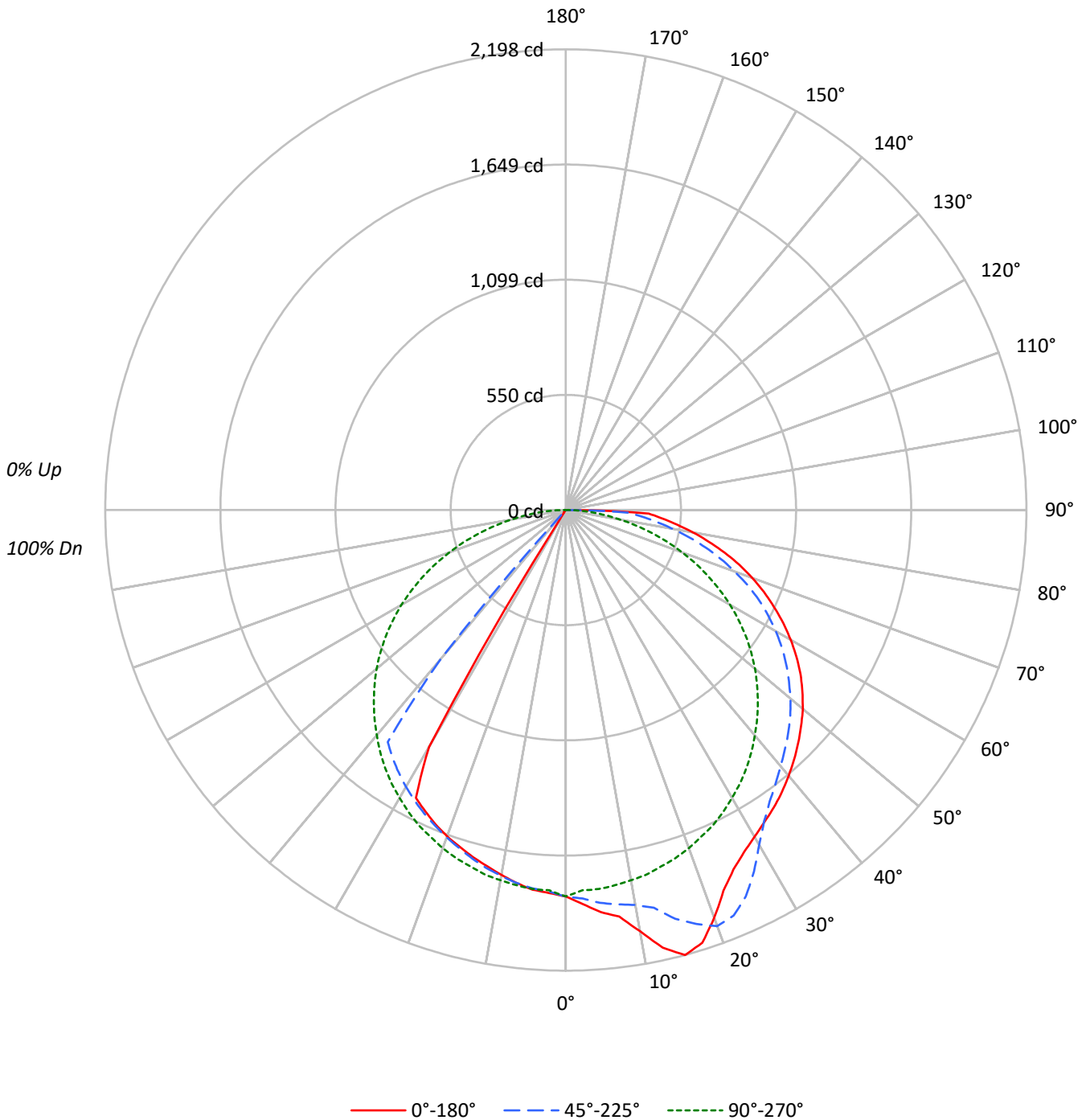
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4988.0 lumens
Efficiency: N/A
Efficacy: 142.5 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 (A_{in}): 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

TEST NUMBER: P893610
CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L835

Luminous Intensity Polar Plot





TEST NUMBER: P893610

CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L835

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°	23939	23939	23939	23939	23939
5°	25103	24526	23659	23618	23700
10°	26898	25228	23653	23375	23306
15°	29553	27140	23663	23150	23038
20°	28612	29196	23725	22966	22893
25°	27109	29136	23782	22890	22722
30°	26993	27658	23779	22861	19569
35°	27451	26897	23817	22863	268
40°	28047	27026	23787	15768	180
45°	28813	27573	23792	290	116
50°	29819	28261	23805	214	42
55°	30956	29068	23737	143	25
60°	32193	30055	23526	55	29
65°	33709	31241	23099	65	65
70°	35957	32552	22369	80	80
75°	39359	34643	21403	211	105
80°	46190	38765	19816	314	157
85°	68743	54425	18564	477	313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 117885 cd/sqm



TEST NUMBER: P893610
 CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L835

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.7	3.5
10°-20°	527.5	10.6
20°-30°	810.8	16.3
30°-40°	868.9	17.4
40°-50°	789.2	15.8
50°-60°	719.8	14.4
60°-70°	535.5	10.7
70°-80°	376.9	7.6
80°-90°	182.6	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°	1515.0	30.4
0°-40°	2383.9	47.8
0°-60°	3892.9	78.0
0°-90°	4988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4988.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1844	1844	1844	1844	1844	
5°	1926	1882	1815	1812	1818	187
15°	2198	2019	1760	1722	1714	607
25°	1892	2034	1660	1598	1586	880
35°	1732	1697	1502	1442	17	1085
45°	1569	1502	1296	16	6	1212
55°	1367	1284	1048	6	1	1221
65°	1097	1017	752	2	2	1086
75°	784	690	427	4	2	827
85°	461	365	125	3	2	464
90°	0	0	0	0	0	



TEST NUMBER: P893610

CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L835

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1843.6	1843.6	1843.6	1843.6	1843.6	1843.6	1843.6	1843.6	1843.6
2.5°	1881.6	1860.5	1855.2	1870.0	1816.1	1852.0	1822.5	1828.8	1828.8
5°	1925.9	1896.4	1881.6	1877.4	1815.1	1839.4	1811.9	1811.9	1818.2
7.5°	1956.6	1923.8	1897.4	1886.9	1805.6	1826.7	1795.0	1795.0	1795.0
10°	2040.0	1978.7	1913.3	1894.3	1793.9	1809.8	1772.8	1774.9	1767.6
12.5°	2138.2	2083.3	1943.9	1891.1	1781.3	1788.7	1749.6	1748.5	1740.1
15°	2198.4	2157.2	2018.9	1886.9	1760.2	1766.5	1722.1	1719.0	1713.7
17.5°	2164.6	2158.2	2070.6	1883.7	1741.2	1735.9	1691.5	1688.4	1684.1
20°	2070.6	2086.4	2112.8	1877.4	1716.9	1706.3	1662.0	1659.9	1656.7
22.5°	1966.1	1981.9	2093.8	1887.9	1687.3	1674.6	1630.3	1628.2	1624.0
25°	1892.1	1892.1	2033.6	1913.3	1659.9	1636.6	1597.6	1594.4	1585.9
27.5°	1840.4	1830.9	1943.9	1941.8	1625.0	1598.6	1562.7	1559.5	1549.0
30°	1800.3	1784.4	1844.6	1955.5	1585.9	1557.4	1524.7	1521.5	1305.1
32.5°	1764.4	1747.5	1761.2	1967.1	1546.9	1513.1	1484.6	1059.1	46.5
35°	1731.7	1712.6	1696.8	1958.7	1502.5	1468.7	1442.3	30.6	16.9
37.5°	1694.7	1679.9	1644.0	1914.3	1455.0	1421.2	1395.9	16.9	14.8
40°	1654.6	1640.8	1594.4	1848.9	1403.3	1374.8	930.2	14.8	10.6
42.5°	1613.4	1602.8	1547.9	1753.8	1351.5	1323.0	29.6	11.6	8.4
45°	1569.0	1559.5	1501.5	1638.7	1295.6	1269.2	15.8	8.4	6.3
47.5°	1523.6	1509.9	1452.9	1515.2	1238.6	1212.2	13.7	6.3	4.2
50°	1476.1	1461.3	1399.0	1406.4	1178.4	1152.0	10.6	4.2	2.1
52.5°	1423.3	1405.4	1342.0	1308.2	1115.0	1090.7	8.4	2.1	1.1
55°	1367.4	1347.3	1284.0	1222.7	1048.5	1021.0	6.3	2.1	1.1
57.5°	1305.1	1282.9	1222.7	1141.4	977.8	690.5	4.2	2.1	1.1
60°	1239.6	1217.4	1157.3	1065.4	905.9	47.5	2.1	2.1	1.1
62.5°	1169.9	1146.7	1088.6	988.3	828.9	39.1	2.1	2.1	2.1
65°	1097.1	1069.6	1016.8	909.1	751.8	32.7	2.1	2.1	2.1
67.5°	1024.2	989.4	939.7	827.8	672.6	27.5	2.1	2.1	2.1
70°	947.1	909.1	857.4	745.5	589.2	22.2	2.1	2.1	2.1
72.5°	867.9	831.0	775.0	662.0	511.0	16.9	2.1	2.1	2.1
75°	784.5	750.7	690.5	578.6	426.6	12.7	4.2	2.1	2.1
77.5°	697.9	671.5	604.0	493.1	344.2	8.4	4.2	2.1	2.1
80°	617.7	588.1	518.4	406.5	265.0	6.3	4.2	3.2	2.1
82.5°	535.3	508.9	439.2	327.3	190.1	5.3	4.2	3.2	2.1
85°	461.4	436.1	365.3	255.5	124.6	4.2	3.2	3.2	2.1
87.5°	396.0	372.7	303.0	186.9	70.7	3.2	3.2	3.2	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893610
 CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L835

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	25.56	27.18	25.93	27.49	27.81	21.00	22.61	21.36	22.93	23.24
	3H	28.01	29.48	28.39	29.80	30.16	21.64	23.10	22.02	23.43	23.79
	4H	29.14	30.52	29.53	30.87	31.24	21.78	23.17	22.18	23.51	23.89
	6H	30.23	31.51	30.64	31.88	32.27	21.83	23.11	22.24	23.47	23.86
	8H	30.76	31.99	31.18	32.37	32.77	21.81	23.04	22.24	23.43	23.83
	12H	31.33	32.50	31.76	32.89	33.31	21.79	22.97	22.22	23.35	23.78
4H	2H	26.22	27.60	26.62	27.95	28.33	22.12	23.51	22.52	23.85	24.23
	3H	28.91	30.08	29.32	30.48	30.88	23.47	24.63	23.88	25.03	25.43
	4H	30.21	31.27	30.64	31.68	32.12	24.00	25.06	24.43	25.48	25.91
	6H	31.49	32.42	31.94	32.86	33.32	24.28	25.21	24.73	25.65	26.11
	8H	32.11	32.99	32.57	33.43	33.90	24.31	25.19	24.77	25.63	26.10
	12H	32.80	33.59	33.28	34.07	34.54	24.33	25.12	24.80	25.59	26.06
8H	4H	30.57	31.45	31.03	31.89	32.35	24.95	25.83	25.41	26.27	26.73
	6H	32.05	32.79	32.54	33.28	33.75	25.54	26.28	26.03	26.76	27.24
	8H	32.84	33.50	33.34	34.00	34.49	25.72	26.38	26.22	26.89	27.37
	12H	33.73	34.32	34.23	34.81	35.37	25.82	26.41	26.32	26.90	27.46
12H	4H	30.61	31.40	31.09	31.88	32.34	25.17	25.96	25.65	26.43	26.90
	6H	32.14	32.81	32.65	33.31	33.80	25.89	26.56	26.40	27.06	27.54
	8H	33.02	33.61	33.53	34.10	34.66	26.20	26.79	26.71	27.28	27.84