

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: P893609

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893609
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-L830
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

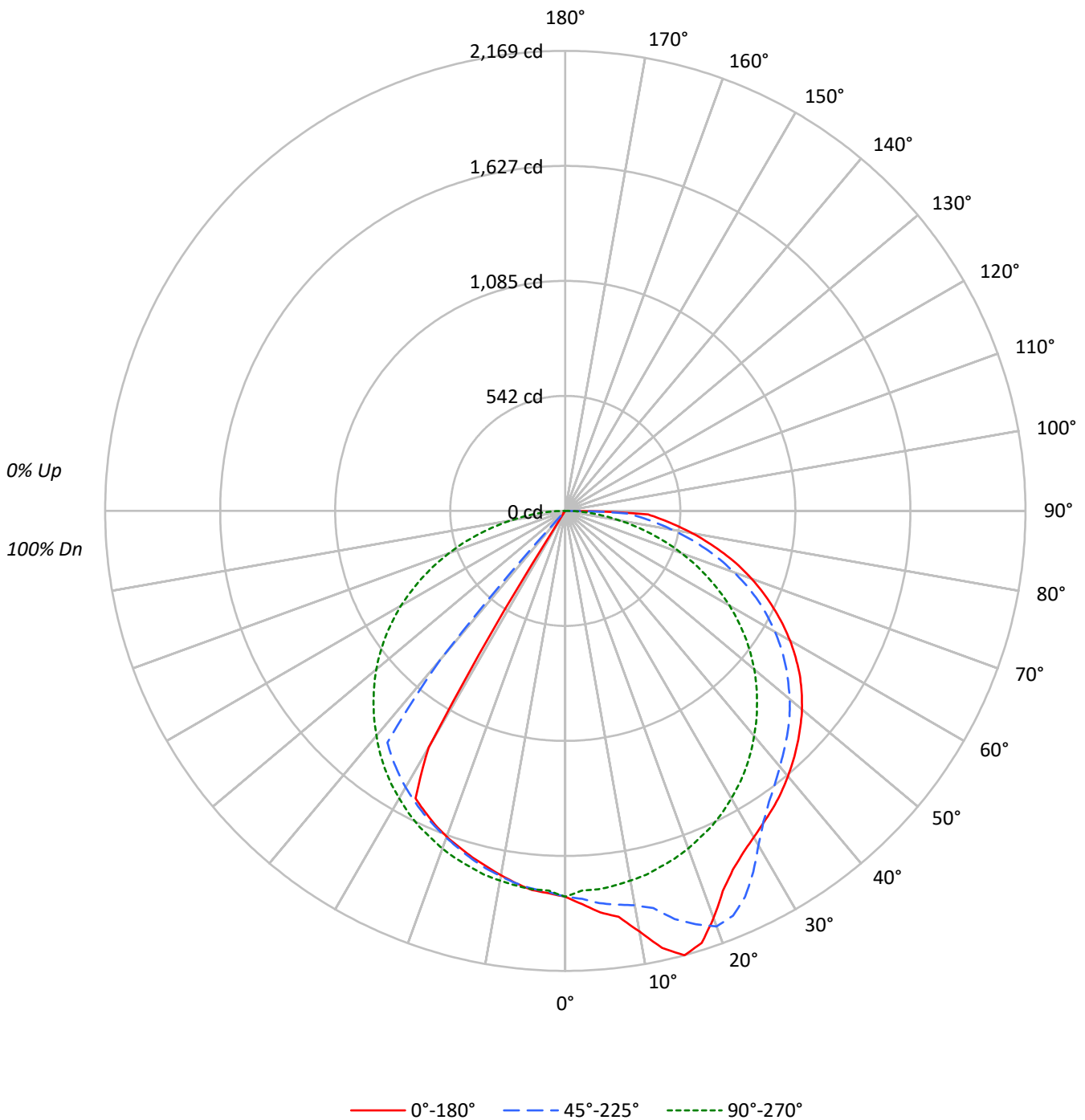
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4922.0 lumens
Efficiency: N/A
Efficacy: 140.6 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): 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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CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L830

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	100				
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83				
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69				
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59				
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50				
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44				
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39				
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	35				
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31				
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28				
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	23622	23622	23622	23622	23622
5°	24772	24201	23346	23305	23387
10°	26542	24893	23341	23067	22998
15°	29162	26780	23349	22845	22732
20°	28234	28810	23411	22662	22590
25°	26751	28751	23467	22586	22422
30°	26637	27292	23465	22558	19309
35°	27086	26542	23502	22562	265
40°	27676	26669	23472	15559	176
45°	28432	27208	23476	286	116
50°	29425	27888	23490	210	42
55°	30547	28683	23422	143	23
60°	31767	29655	23217	55	26
65°	33260	30830	22792	65	65
70°	35483	32119	22073	80	80
75°	38837	34186	21117	211	105
80°	45577	38256	19554	314	157
85°	67834	53710	18311	462	313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 116308 cd/sqm



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 CATALOG NUMBER: 4MB-5SL-ASYMR-UNV-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.3	3.5
10°-20°	520.5	10.6
20°-30°	800.1	16.3
30°-40°	857.5	17.4
40°-50°	778.7	15.8
50°-60°	710.3	14.4
60°-70°	528.4	10.7
70°-80°	372.0	7.6
80°-90°	180.2	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°	1494.9	30.4
0°-40°	2352.4	47.8
0°-60°	3841.4	78.0
0°-90°	4922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4922.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1819	1819	1819	1819	1819	
5°	1900	1857	1791	1788	1794	184
15°	2169	1992	1737	1699	1691	599
25°	1867	2007	1638	1576	1565	868
35°	1709	1674	1483	1423	17	1070
45°	1548	1482	1278	16	6	1196
55°	1349	1267	1035	6	1	1205
65°	1082	1003	742	2	2	1072
75°	774	681	421	4	2	816
85°	455	360	123	3	2	457
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°	1819.2	1819.2	1819.2	1819.2	1819.2	1819.2	1819.2	1819.2	1819.2
2.5°	1856.7	1835.9	1830.6	1845.2	1792.1	1827.5	1798.3	1804.6	1804.6
5°	1900.5	1871.3	1856.7	1852.5	1791.1	1815.0	1787.9	1787.9	1794.2
7.5°	1930.7	1898.4	1872.3	1861.9	1781.7	1802.5	1771.3	1771.3	1771.3
10°	2013.0	1952.5	1887.9	1869.2	1770.2	1785.8	1749.4	1751.5	1744.2
12.5°	2109.9	2055.7	1918.2	1866.1	1757.7	1765.0	1726.5	1725.4	1717.1
15°	2169.3	2128.6	1992.1	1861.9	1736.9	1743.1	1699.4	1696.2	1691.0
17.5°	2135.9	2129.7	2043.2	1858.8	1718.1	1712.9	1669.1	1666.0	1661.9
20°	2043.2	2058.8	2084.9	1852.5	1694.2	1683.7	1640.0	1637.9	1634.8
22.5°	1940.0	1955.7	2066.1	1862.9	1665.0	1652.5	1608.7	1606.6	1602.5
25°	1867.1	1867.1	2006.7	1887.9	1637.9	1615.0	1576.4	1573.3	1565.0
27.5°	1816.1	1806.7	1918.2	1916.1	1603.5	1577.5	1542.0	1538.9	1528.5
30°	1776.5	1760.8	1820.2	1929.6	1565.0	1536.8	1504.5	1501.4	1287.8
32.5°	1741.0	1724.4	1737.9	1941.1	1526.4	1493.1	1464.9	1045.0	45.8
35°	1708.7	1690.0	1674.4	1932.8	1482.6	1449.3	1423.3	30.2	16.7
37.5°	1672.3	1657.7	1622.3	1889.0	1435.8	1402.4	1377.4	16.7	14.6
40°	1632.7	1619.1	1573.3	1824.4	1384.7	1356.6	917.9	14.6	10.4
42.5°	1592.0	1581.6	1527.4	1730.6	1333.7	1305.5	29.2	11.5	8.3
45°	1548.3	1538.9	1481.6	1617.1	1278.4	1252.4	15.6	8.3	6.3
47.5°	1503.5	1489.9	1433.7	1495.1	1222.2	1196.1	13.5	6.3	4.2
50°	1456.6	1442.0	1380.5	1387.8	1162.8	1136.7	10.4	4.2	2.1
52.5°	1404.5	1386.8	1324.3	1290.9	1100.3	1076.3	8.3	2.1	1.0
55°	1349.3	1329.5	1267.0	1206.5	1034.6	1007.5	6.3	2.1	1.0
57.5°	1287.8	1265.9	1206.5	1126.3	964.8	681.4	4.2	2.1	1.0
60°	1223.2	1201.3	1141.9	1051.3	894.0	46.9	2.1	2.1	1.0
62.5°	1154.4	1131.5	1074.2	975.2	817.9	38.6	2.1	2.1	2.1
65°	1082.5	1055.5	1003.4	897.1	741.8	32.3	2.1	2.1	2.1
67.5°	1010.7	976.3	927.3	816.9	663.7	27.1	2.1	2.1	2.1
70°	934.6	897.1	846.0	735.6	581.4	21.9	2.1	2.1	2.1
72.5°	856.5	820.0	764.8	653.3	504.3	16.7	2.1	2.1	2.1
75°	774.1	740.8	681.4	571.0	420.9	12.5	4.2	2.1	2.1
77.5°	688.7	662.7	596.0	486.6	339.7	8.3	4.2	2.1	2.1
80°	609.5	580.3	511.6	401.1	261.5	6.3	4.2	3.1	2.1
82.5°	528.3	502.2	433.4	323.0	187.5	5.2	4.2	3.1	2.1
85°	455.3	430.3	360.5	252.1	122.9	4.2	3.1	3.1	2.1
87.5°	390.7	367.8	299.0	184.4	69.8	3.1	3.1	3.1	2.1
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	25.52	27.13	25.88	27.45	27.76	20.95	22.57	21.32	22.88	23.19
	3H	27.96	29.43	28.34	29.76	30.12	21.59	23.06	21.97	23.38	23.74
	4H	29.09	30.47	29.49	30.82	31.19	21.74	23.12	22.14	23.47	23.84
	6H	30.18	31.47	30.59	31.83	32.22	21.78	23.06	22.19	23.43	23.82
	8H	30.71	31.94	31.14	32.33	32.73	21.77	22.99	22.19	23.38	23.78
	12H	31.28	32.46	31.71	32.84	33.27	21.75	22.93	22.18	23.31	23.74
4H	2H	26.18	27.56	26.57	27.91	28.28	22.08	23.46	22.48	23.81	24.18
	3H	28.86	30.03	29.27	30.43	30.83	23.42	24.59	23.83	24.99	25.39
	4H	30.16	31.22	30.59	31.64	32.07	23.96	25.02	24.39	25.43	25.87
	6H	31.44	32.37	31.89	32.82	33.27	24.23	25.16	24.68	25.61	26.06
	8H	32.07	32.95	32.53	33.39	33.85	24.27	25.15	24.73	25.59	26.05
	12H	32.75	33.55	33.23	34.02	34.49	24.28	25.07	24.76	25.55	26.01
8H	4H	30.52	31.40	30.98	31.84	32.31	24.90	25.78	25.36	26.22	26.69
	6H	32.01	32.74	32.50	33.23	33.70	25.49	26.23	25.99	26.72	27.19
	8H	32.79	33.45	33.30	33.96	34.44	25.67	26.34	26.18	26.84	27.32
	12H	33.68	34.27	34.19	34.76	35.32	25.77	26.36	26.28	26.85	27.41
12H	4H	30.56	31.36	31.04	31.83	32.30	25.12	25.91	25.60	26.39	26.85
	6H	32.09	32.76	32.60	33.26	33.75	25.84	26.51	26.35	27.01	27.50
	8H	32.97	33.57	33.48	34.06	34.61	26.15	26.75	26.66	27.24	27.79