

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: P893611

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893611
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-L840
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

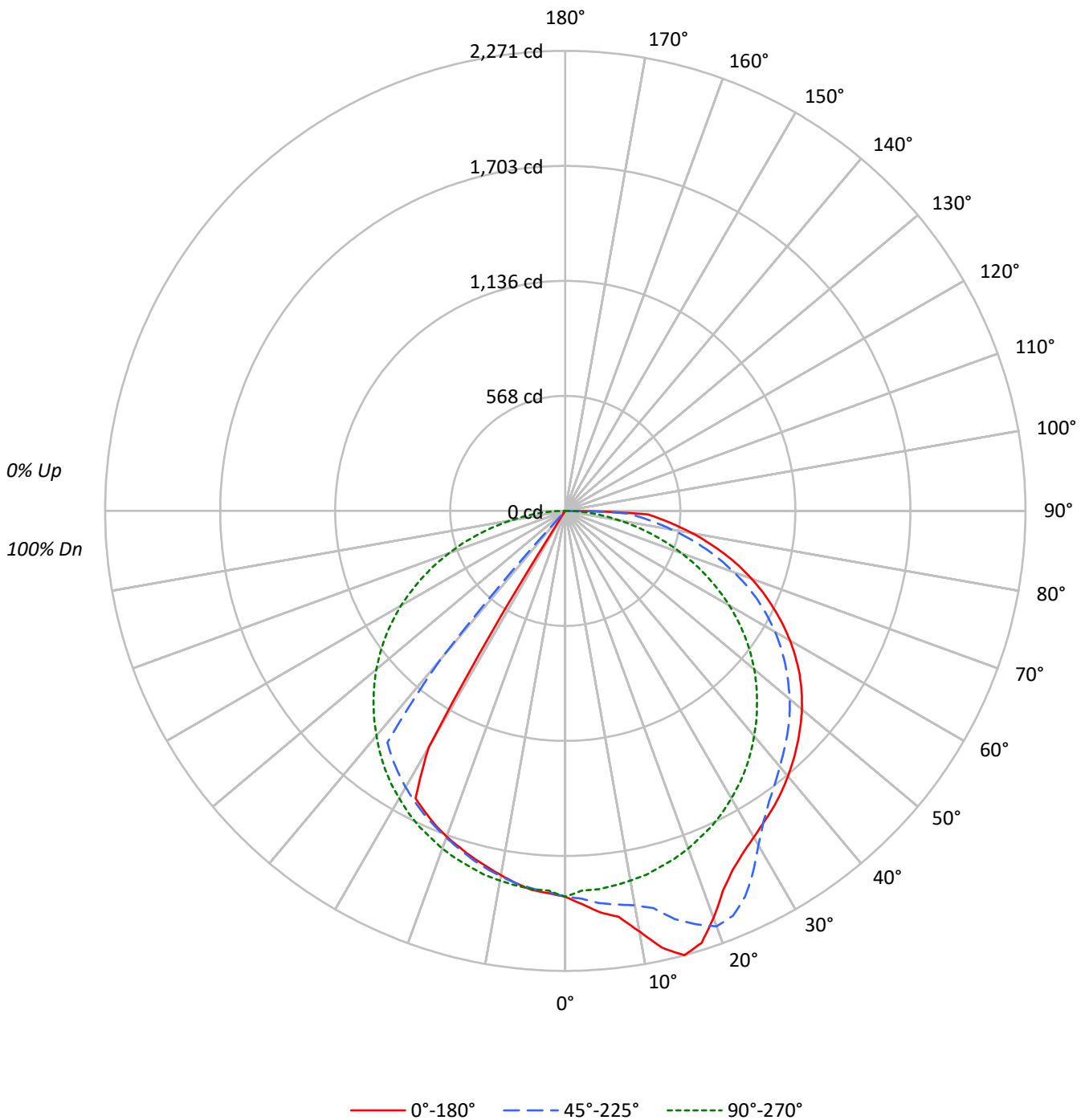
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5153.0 lumens
Efficiency: N/A
Efficacy: 147.2 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

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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°	24731	24731	24731	24731	24731
5°	25934	25337	24441	24398	24484
10°	27788	26062	24436	24149	24077
15°	30531	28037	24445	23917	23800
20°	29559	30161	24510	23725	23650
25°	28006	30101	24569	23646	23474
30°	27886	28574	24566	23617	20215
35°	28357	27787	24605	23621	277
40°	28974	27920	24574	16290	185
45°	29766	28484	24578	301	119
50°	30807	29197	24591	220	44
55°	31980	30028	24522	147	25
60°	33257	31047	24305	57	29
65°	34824	32277	23864	68	68
70°	37150	33626	23110	84	84
75°	40663	35792	22110	221	110
80°	47716	40051	20474	329	165
85°	71022	56228	19175	492	328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 121785 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.5	3.5
10°-20°	544.9	10.6
20°-30°	837.6	16.3
30°-40°	897.7	17.4
40°-50°	815.3	15.8
50°-60°	743.7	14.4
60°-70°	553.2	10.7
70°-80°	389.4	7.6
80°-90°	188.7	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°	1565.1	30.4
0°-40°	2462.8	47.8
0°-60°	4021.7	78.0
0°-90°	5153.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5153.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1905	1905	1905	1905	1905	
5°	1990	1944	1875	1872	1878	193
15°	2271	2086	1818	1779	1770	627
25°	1955	2101	1715	1650	1638	909
35°	1789	1753	1552	1490	18	1121
45°	1621	1551	1338	16	6	1252
55°	1413	1326	1083	6	1	1262
65°	1133	1050	777	2	2	1122
75°	810	713	441	4	2	855
85°	477	377	129	3	2	479
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°	1904.6	1904.6	1904.6	1904.6	1904.6	1904.6	1904.6	1904.6	1904.6
2.5°	1943.8	1922.0	1916.6	1931.8	1876.2	1913.3	1882.7	1889.3	1889.3
5°	1989.6	1959.1	1943.8	1939.5	1875.1	1900.2	1871.8	1871.8	1878.4
7.5°	2021.3	1987.5	1960.2	1949.3	1865.3	1887.1	1854.4	1854.4	1854.4
10°	2107.5	2044.2	1976.6	1956.9	1853.3	1869.7	1831.5	1833.7	1826.0
12.5°	2208.9	2152.2	2008.2	1953.6	1840.2	1847.8	1807.5	1806.4	1797.7
15°	2271.1	2228.5	2085.6	1949.3	1818.4	1824.9	1779.1	1775.8	1770.4
17.5°	2236.2	2229.6	2139.1	1946.0	1798.8	1793.3	1747.5	1744.2	1739.8
20°	2139.1	2155.4	2182.7	1939.5	1773.7	1762.8	1716.9	1714.8	1711.5
22.5°	2031.1	2047.5	2163.1	1950.4	1743.1	1730.0	1684.2	1682.0	1677.7
25°	1954.7	1954.7	2100.9	1976.6	1714.8	1690.8	1650.4	1647.1	1638.4
27.5°	1901.3	1891.5	2008.2	2006.0	1678.8	1651.5	1614.4	1611.1	1600.2
30°	1859.8	1843.5	1905.7	2020.2	1638.4	1609.0	1575.1	1571.9	1348.2
32.5°	1822.7	1805.3	1819.5	2032.2	1598.0	1563.1	1533.7	1094.1	48.0
35°	1788.9	1769.3	1752.9	2023.5	1552.2	1517.3	1490.1	31.6	17.5
37.5°	1750.8	1735.5	1698.4	1977.6	1503.1	1468.2	1442.1	17.5	15.3
40°	1709.3	1695.1	1647.1	1910.0	1449.7	1420.2	961.0	15.3	10.9
42.5°	1666.8	1655.9	1599.1	1811.8	1396.2	1366.8	30.5	12.0	8.7
45°	1620.9	1611.1	1551.1	1692.9	1338.4	1311.2	16.4	8.7	6.5
47.5°	1574.0	1559.9	1501.0	1565.3	1279.5	1252.3	14.2	6.5	4.4
50°	1525.0	1509.7	1445.3	1453.0	1217.3	1190.1	10.9	4.4	2.2
52.5°	1470.4	1451.9	1386.4	1351.5	1151.9	1126.8	8.7	2.2	1.1
55°	1412.6	1391.9	1326.4	1263.2	1083.2	1054.8	6.5	2.2	1.1
57.5°	1348.2	1325.3	1263.2	1179.2	1010.1	713.4	4.4	2.2	1.1
60°	1280.6	1257.7	1195.5	1100.6	935.9	49.1	2.2	2.2	1.1
62.5°	1208.6	1184.6	1124.6	1021.0	856.3	40.4	2.2	2.2	2.2
65°	1133.4	1105.0	1050.5	939.2	776.7	33.8	2.2	2.2	2.2
67.5°	1058.1	1022.1	970.8	855.2	694.8	28.4	2.2	2.2	2.2
70°	978.5	939.2	885.7	770.1	608.7	22.9	2.2	2.2	2.2
72.5°	896.6	858.5	800.7	683.9	528.0	17.5	2.2	2.2	2.2
75°	810.5	775.6	713.4	597.8	440.7	13.1	4.4	2.2	2.2
77.5°	721.0	693.8	623.9	509.4	355.6	8.7	4.4	2.2	2.2
80°	638.1	607.6	535.6	420.0	273.8	6.5	4.4	3.3	2.2
82.5°	553.0	525.8	453.8	338.2	196.3	5.5	4.4	3.3	2.2
85°	476.7	450.5	377.4	264.0	128.7	4.4	3.3	3.3	2.2
87.5°	409.1	385.1	313.1	193.1	73.1	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	25.68	27.29	26.04	27.61	27.92	21.11	22.72	21.48	23.04	23.35
	3H	28.12	29.59	28.50	29.91	30.28	21.75	23.22	22.13	23.54	23.90
	4H	29.25	30.63	29.65	30.98	31.35	21.90	23.28	22.30	23.63	24.00
	6H	30.34	31.63	30.75	31.99	32.38	21.94	23.22	22.35	23.59	23.98
	8H	30.87	32.10	31.30	32.49	32.89	21.93	23.15	22.35	23.54	23.94
	12H	31.44	32.62	31.87	33.00	33.43	21.91	23.09	22.34	23.47	23.90
4H	2H	26.33	27.72	26.73	28.06	28.44	22.24	23.62	22.64	23.97	24.34
	3H	29.02	30.19	29.43	30.59	30.99	23.58	24.75	23.99	25.15	25.54
	4H	30.32	31.38	30.75	31.79	32.23	24.12	25.18	24.55	25.59	26.03
	6H	31.60	32.53	32.05	32.97	33.43	24.39	25.32	24.84	25.76	26.22
	8H	32.23	33.10	32.69	33.55	34.01	24.43	25.30	24.89	25.75	26.21
	12H	32.91	33.71	33.39	34.18	34.65	24.44	25.23	24.92	25.70	26.17
8H	4H	30.68	31.56	31.14	32.00	32.47	25.06	25.94	25.52	26.38	26.85
	6H	32.17	32.90	32.66	33.39	33.86	25.65	26.39	26.14	26.88	27.35
	8H	32.95	33.61	33.46	34.12	34.60	25.83	26.49	26.34	27.00	27.48
	12H	33.84	34.43	34.34	34.92	35.48	25.93	26.52	26.44	27.01	27.57
12H	4H	30.72	31.51	31.20	31.99	32.46	25.28	26.07	25.76	26.55	27.01
	6H	32.25	32.92	32.76	33.42	33.91	26.00	26.67	26.51	27.17	27.66
	8H	33.13	33.72	33.64	34.21	34.77	26.31	26.91	26.82	27.40	27.95