

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: P892754

Luminaire Tested: 2MB-4HL-LVRA-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892754
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-LVRA-UNV-L935
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

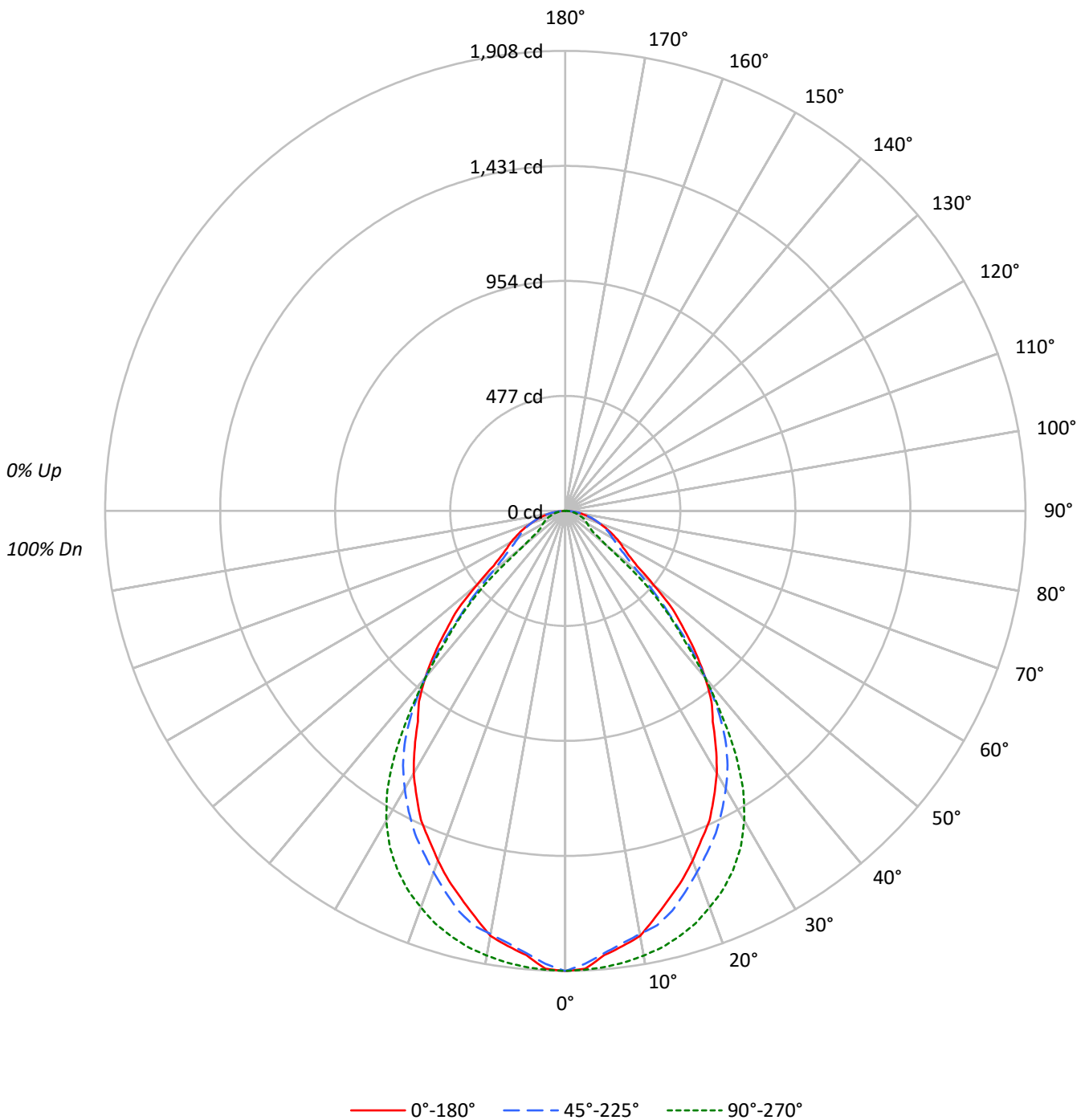
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3097.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27298	27298	27298
5°	26562	26443	27268
10°	25998	25883	27205
15°	24656	25413	27052
20°	23487	24282	26640
25°	22341	23296	25959
30°	20757	21991	24510
35°	18613	20209	21498
40°	16863	16899	16807
45°	14099	12487	12179
50°	10649	8789	4981
55°	8011	7028	3140
60°	7445	6472	3024
65°	6926	6459	3030
70°	6337	6337	2982
75°	6008	6168	2880
80°	5553	5833	2958
85°	4842	5088	3234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14427 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.3	5.7
10°-20°	485.7	15.7
20°-30°	688.7	22.2
30°-40°	709.5	22.9
40°-50°	495.6	16.0
50°-60°	237.8	7.7
60°-70°	166.8	5.4
70°-80°	104.3	3.4
80°-90°	32.3	1.0
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°	1350.7	43.6
0°-40°	2060.2	66.5
0°-60°	2793.6	90.2
0°-90°	3097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3097.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1850	1847	1841	1890	1899	175
15°	1665	1677	1716	1765	1827	469
25°	1415	1430	1476	1576	1645	647
35°	1066	1095	1157	1181	1231	672
45°	697	713	617	586	602	537
55°	321	305	282	180	126	301
65°	205	191	191	145	90	203
75°	109	107	112	96	52	114
85°	30	30	31	30	20	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1908.2	1908.2	1908.2	1908.2	1908.2
2.5°	1900.9	1895.0	1880.7	1906.8	1904.8
5°	1849.7	1847.3	1841.4	1889.6	1898.9
7.5°	1820.7	1815.8	1808.9	1862.0	1888.1
10°	1789.7	1795.6	1781.8	1830.5	1872.8
12.5°	1725.8	1741.5	1760.2	1798.1	1854.1
15°	1664.8	1677.1	1715.9	1765.1	1826.6
17.5°	1607.7	1622.0	1655.4	1729.2	1794.6
20°	1542.8	1562.5	1595.0	1689.4	1749.9
22.5°	1475.9	1494.1	1535.0	1636.3	1703.6
25°	1415.4	1429.7	1475.9	1575.8	1644.6
27.5°	1335.3	1361.8	1405.6	1502.0	1574.3
30°	1256.6	1279.2	1331.3	1412.5	1483.8
32.5°	1161.7	1194.6	1252.2	1314.1	1373.6
35°	1065.8	1094.8	1157.2	1181.3	1231.0
37.5°	995.9	1003.8	1039.2	1036.3	1064.3
40°	903.0	918.7	904.9	868.1	900.0
42.5°	802.6	821.3	765.8	723.0	734.3
45°	696.9	713.1	617.2	585.8	602.0
47.5°	605.4	603.9	497.7	476.6	453.9
50°	478.5	494.3	394.9	355.6	223.8
52.5°	373.8	379.7	325.6	227.2	147.1
55°	321.2	305.4	281.8	180.5	125.9
57.5°	285.3	265.6	249.8	167.7	115.1
60°	260.2	238.0	226.2	159.3	105.7
62.5°	231.6	214.4	210.0	152.0	97.4
65°	204.6	191.3	190.8	145.1	89.5
67.5°	177.5	170.2	172.1	136.7	80.7
70°	151.5	150.0	151.5	125.9	71.3
72.5°	129.3	127.9	131.8	112.1	61.0
75°	108.7	107.2	111.6	96.4	52.1
77.5°	86.6	87.5	90.5	80.2	43.8
80°	67.4	67.4	70.8	63.0	35.9
82.5°	48.2	48.7	50.7	46.2	28.0
85°	29.5	29.5	31.0	30.5	19.7
87.5°	9.8	11.3	13.3	14.3	9.8
90°	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	17.14	18.49	17.50	18.80	19.12	13.47	14.82	13.83	15.13	15.45
	3H	18.88	20.08	19.25	20.41	20.78	15.44	16.65	15.82	16.98	17.34
	4H	19.55	20.67	19.95	21.02	21.41	16.15	17.28	16.55	17.63	18.01
	6H	20.05	21.09	20.47	21.46	21.85	16.67	17.71	17.09	18.08	18.47
	8H	20.22	21.21	20.65	21.60	22.00	16.86	17.84	17.29	18.23	18.64
	12H	20.33	21.28	20.77	21.66	22.09	17.00	17.94	17.43	18.32	18.75
4H	2H	17.67	18.79	18.07	19.14	19.53	15.09	16.22	15.49	16.57	16.95
	3H	19.64	20.57	20.06	20.98	21.38	17.27	18.20	17.68	18.60	19.00
	4H	20.45	21.28	20.88	21.70	22.14	18.15	18.98	18.58	19.40	19.84
	6H	21.09	21.81	21.55	22.26	22.72	18.79	19.52	19.25	19.96	20.43
	8H	21.31	21.99	21.78	22.43	22.90	19.00	19.68	19.47	20.12	20.59
	12H	21.46	22.06	21.95	22.54	23.02	19.16	19.76	19.64	20.24	20.71
8H	4H	20.73	21.41	21.20	21.85	22.32	18.80	19.47	19.26	19.92	20.39
	6H	21.51	22.07	22.01	22.56	23.04	19.66	20.21	20.16	20.71	21.19
	8H	21.82	22.31	22.33	22.83	23.32	19.99	20.48	20.51	21.00	21.49
	12H	22.05	22.49	22.56	22.98	23.55	20.25	20.69	20.76	21.18	21.75
12H	4H	20.75	21.35	21.23	21.83	22.30	18.87	19.47	19.35	19.95	20.42
	6H	21.57	22.07	22.09	22.58	23.07	19.80	20.30	20.32	20.81	21.30
	8H	21.93	22.37	22.44	22.86	23.43	20.21	20.65	20.72	21.14	21.71