

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: P892756

Luminaire Tested: 2MB-4HL-LVRA-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892756
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-L950
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

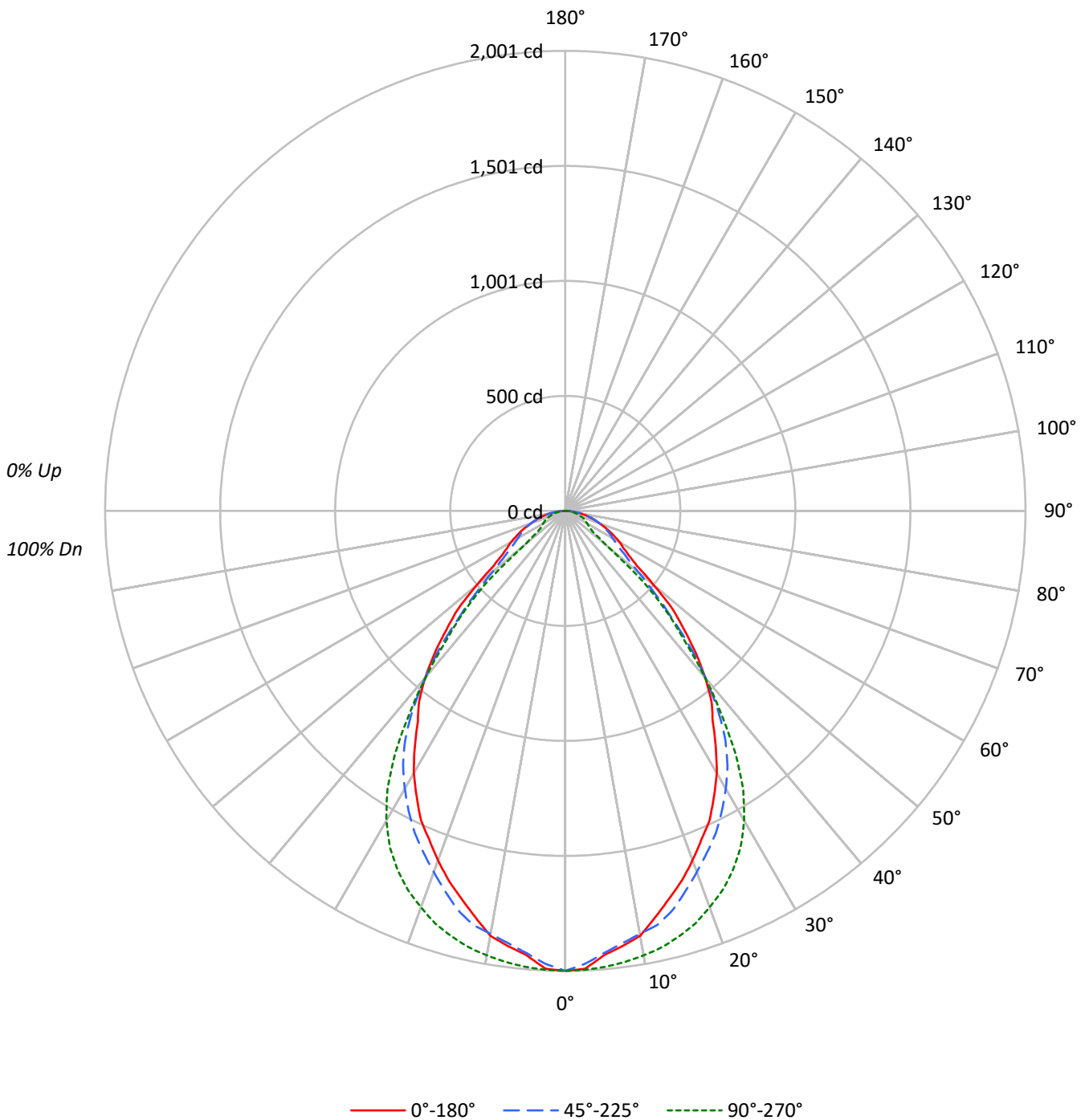
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3247.0 lumens
Efficiency: N/A
Efficacy: 117.6 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	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28621	28621	28621
5°	27849	27722	28590
10°	27257	27136	28522
15°	25850	26645	28363
20°	24624	25457	27929
25°	23424	24425	27217
30°	21762	23057	25698
35°	19514	21189	22539
40°	17679	17718	17621
45°	14783	13091	12768
50°	11166	9216	5221
55°	8398	7370	3292
60°	7805	6787	3173
65°	7261	6773	3175
70°	6642	6642	3129
75°	6301	6467	3023
80°	5816	6121	3098
85°	5072	5334	3381

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15127 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.8	5.7
10°-20°	509.2	15.7
20°-30°	722.1	22.2
30°-40°	743.9	22.9
40°-50°	519.6	16.0
50°-60°	249.3	7.7
60°-70°	174.9	5.4
70°-80°	109.4	3.4
80°-90°	33.8	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°	1416.1	43.6
0°-40°	2160.0	66.5
0°-60°	2928.9	90.2
0°-90°	3247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3247.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2001	2001	2001	2001	2001	
5°	1939	1937	1930	1981	1991	184
15°	1745	1758	1799	1851	1915	491
25°	1484	1499	1547	1652	1724	679
35°	1117	1148	1213	1239	1291	704
45°	731	748	647	614	631	563
55°	337	320	296	189	132	316
65°	214	201	200	152	94	213
75°	114	112	117	101	55	120
85°	31	31	32	32	21	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.7	2000.7	2000.7	2000.7	2000.7
2.5°	1992.9	1986.7	1971.8	1999.1	1997.1
5°	1939.3	1936.7	1930.5	1981.1	1990.9
7.5°	1908.9	1903.7	1896.5	1952.2	1979.5
10°	1876.4	1882.6	1868.1	1919.2	1963.5
12.5°	1809.4	1825.9	1845.5	1885.2	1943.9
15°	1745.4	1758.3	1799.1	1850.6	1915.1
17.5°	1685.6	1700.6	1735.6	1813.0	1881.6
20°	1617.5	1638.2	1672.2	1771.2	1834.6
22.5°	1547.4	1566.5	1609.3	1715.5	1786.2
25°	1484.0	1499.0	1547.4	1652.1	1724.3
27.5°	1399.9	1427.8	1473.7	1574.7	1650.5
30°	1317.4	1341.2	1395.8	1480.9	1555.7
32.5°	1217.9	1252.5	1312.8	1377.8	1440.2
35°	1117.4	1147.8	1213.3	1238.6	1290.6
37.5°	1044.2	1052.4	1089.5	1086.4	1115.8
40°	946.7	963.2	948.8	910.1	943.6
42.5°	841.5	861.1	802.8	758.0	769.8
45°	730.7	747.7	647.1	614.1	631.1
47.5°	634.7	633.2	521.8	499.7	475.9
50°	501.7	518.2	414.1	372.8	234.6
52.5°	391.9	398.1	341.4	238.2	154.2
55°	336.7	320.2	295.5	189.2	132.0
57.5°	299.1	278.4	261.9	175.8	120.7
60°	272.8	249.6	237.2	167.1	110.9
62.5°	242.9	224.8	220.2	159.3	102.1
65°	214.5	200.6	200.1	152.1	93.8
67.5°	186.1	178.4	180.5	143.3	84.6
70°	158.8	157.3	158.8	132.0	74.8
72.5°	135.6	134.1	138.2	117.6	63.9
75°	114.0	112.4	117.0	101.1	54.7
77.5°	90.8	91.8	94.9	84.0	45.9
80°	70.6	70.6	74.3	66.0	37.6
82.5°	50.5	51.0	53.1	48.5	29.4
85°	30.9	30.9	32.5	32.0	20.6
87.5°	10.3	11.9	13.9	15.0	10.3
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	17.30	18.65	17.66	18.97	19.28	13.63	14.99	14.00	15.30	15.61
	3H	19.04	20.25	19.42	20.57	20.94	15.61	16.82	15.99	17.14	17.51
	4H	19.71	20.84	20.11	21.19	21.57	16.31	17.44	16.72	17.79	18.17
	6H	20.22	21.26	20.63	21.62	22.02	16.84	17.87	17.25	18.24	18.64
	8H	20.39	21.37	20.82	21.76	22.17	17.02	18.01	17.45	18.40	18.80
	12H	20.50	21.44	20.93	21.82	22.25	17.16	18.10	17.59	18.49	18.92
4H	2H	17.83	18.96	18.23	19.31	19.69	15.25	16.38	15.66	16.73	17.11
	3H	19.81	20.74	20.22	21.14	21.54	17.43	18.36	17.85	18.77	19.17
	4H	20.61	21.45	21.04	21.86	22.31	18.31	19.15	18.75	19.57	20.01
	6H	21.25	21.98	21.71	22.42	22.89	18.96	19.68	19.42	20.12	20.59
	8H	21.47	22.15	21.94	22.60	23.07	19.16	19.84	19.63	20.29	20.76
	12H	21.63	22.23	22.11	22.71	23.18	19.32	19.92	19.81	20.40	20.88
8H	4H	20.89	21.57	21.36	22.02	22.49	18.96	19.64	19.43	20.08	20.55
	6H	21.68	22.23	22.18	22.73	23.21	19.82	20.38	20.32	20.87	21.35
	8H	21.98	22.48	22.50	22.99	23.48	20.15	20.65	20.67	21.16	21.65
	12H	22.21	22.65	22.73	23.15	23.72	20.41	20.85	20.93	21.35	21.92
12H	4H	20.91	21.51	21.40	21.99	22.47	19.03	19.63	19.52	20.12	20.59
	6H	21.73	22.23	22.25	22.74	23.23	19.96	20.46	20.48	20.97	21.46
	8H	22.09	22.53	22.61	23.03	23.60	20.37	20.81	20.89	21.31	21.88