

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: P892752

Luminaire Tested: 2MB-4HL-LVRA-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892752
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-L850
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

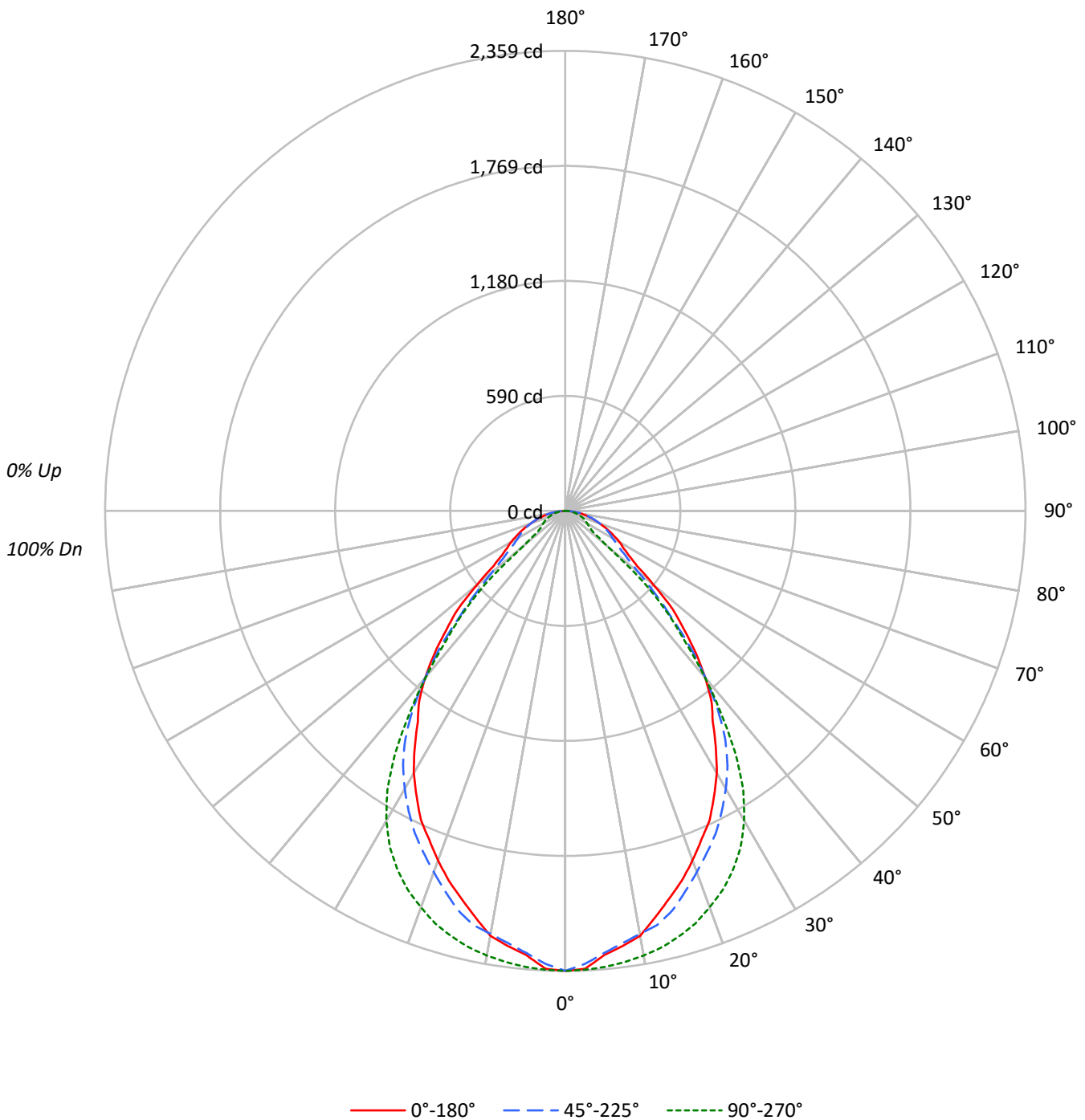
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3828.0 lumens
Efficiency: N/A
Efficacy: 138.7 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°	33742	33742	33742
5°	32832	32684	33705
10°	32133	31992	33627
15°	30475	31412	33437
20°	29031	30012	32927
25°	27615	28795	32086
30°	25657	27183	30295
35°	23005	24980	26573
40°	20843	20887	20775
45°	17427	15434	15054
50°	13164	10863	6156
55°	9902	8687	3881
60°	9201	8000	3739
65°	8561	7985	3744
70°	7830	7830	3685
75°	7423	7628	3560
80°	6862	7208	3658
85°	5991	6286	3989

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 17834 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.9	5.7
10°-20°	600.3	15.7
20°-30°	851.3	22.2
30°-40°	877.0	22.9
40°-50°	612.6	16.0
50°-60°	293.9	7.7
60°-70°	206.2	5.4
70°-80°	128.9	3.4
80°-90°	39.9	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°	1669.5	43.6
0°-40°	2546.5	66.5
0°-60°	3453.0	90.2
0°-90°	3828.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3828.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2359	2359	2359	2359	2359	
5°	2286	2283	2276	2336	2347	216
15°	2058	2073	2121	2182	2258	579
25°	1750	1767	1824	1948	2033	800
35°	1317	1353	1430	1460	1522	830
45°	861	882	763	724	744	664
55°	397	378	348	223	156	372
65°	253	236	236	179	111	251
75°	134	132	138	119	64	141
85°	36	36	38	38	24	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2358.7	2358.7	2358.7	2358.7	2358.7
2.5°	2349.5	2342.2	2324.6	2356.8	2354.4
5°	2286.3	2283.3	2276.0	2335.6	2347.1
7.5°	2250.4	2244.4	2235.9	2301.5	2333.7
10°	2212.1	2219.4	2202.4	2262.6	2314.9
12.5°	2133.1	2152.6	2175.7	2222.5	2291.8
15°	2057.7	2072.9	2121.0	2181.8	2257.7
17.5°	1987.2	2004.9	2046.2	2137.4	2218.2
20°	1907.0	1931.3	1971.4	2088.1	2162.9
22.5°	1824.3	1846.8	1897.3	2022.5	2105.8
25°	1749.5	1767.2	1824.3	1947.7	2032.8
27.5°	1650.4	1683.3	1737.4	1856.5	1945.9
30°	1553.2	1581.1	1645.6	1745.9	1834.0
32.5°	1435.9	1476.6	1547.7	1624.3	1697.9
35°	1317.3	1353.2	1430.4	1460.2	1521.6
37.5°	1231.0	1240.7	1284.5	1280.8	1315.5
40°	1116.1	1135.6	1118.5	1072.9	1112.5
42.5°	992.1	1015.2	946.5	893.6	907.6
45°	861.4	881.5	762.9	724.0	744.1
47.5°	748.3	746.5	615.2	589.1	561.1
50°	591.5	610.9	488.1	439.5	276.6
52.5°	462.0	469.3	402.4	280.8	181.8
55°	397.0	377.5	348.3	223.1	155.6
57.5°	352.6	328.3	308.8	207.3	142.2
60°	321.6	294.2	279.6	197.0	130.7
62.5°	286.3	265.0	259.6	187.8	120.4
65°	252.9	236.5	235.9	179.3	110.6
67.5°	219.5	210.3	212.8	169.0	99.7
70°	187.2	185.4	187.2	155.6	88.1
72.5°	159.9	158.1	162.9	138.6	75.4
75°	134.3	132.5	138.0	119.1	64.4
77.5°	107.0	108.2	111.9	99.1	54.1
80°	83.3	83.3	87.5	77.8	44.4
82.5°	59.6	60.2	62.6	57.1	34.7
85°	36.5	36.5	38.3	37.7	24.3
87.5°	12.2	14.0	16.4	17.6	12.2
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	17.87	19.23	18.24	19.54	19.85	14.20	15.56	14.57	15.87	16.19
	3H	19.61	20.82	19.99	21.15	21.51	16.18	17.39	16.56	17.72	18.08
	4H	20.28	21.41	20.68	21.76	22.14	16.88	18.01	17.29	18.36	18.74
	6H	20.79	21.83	21.20	22.20	22.59	17.41	18.45	17.82	18.82	19.21
	8H	20.96	21.95	21.39	22.34	22.74	17.59	18.58	18.02	18.97	19.37
	12H	21.07	22.01	21.50	22.40	22.83	17.73	18.67	18.16	19.06	19.49
4H	2H	18.40	19.53	18.81	19.88	20.26	15.83	16.95	16.23	17.30	17.69
	3H	20.38	21.31	20.79	21.71	22.12	18.00	18.93	18.42	19.34	19.74
	4H	21.18	22.02	21.62	22.44	22.88	18.88	19.72	19.32	20.14	20.58
	6H	21.83	22.55	22.29	22.99	23.46	19.53	20.25	19.99	20.70	21.16
	8H	22.05	22.72	22.51	23.17	23.64	19.74	20.41	20.20	20.86	21.33
	12H	22.20	22.80	22.68	23.28	23.75	19.89	20.49	20.38	20.98	21.45
8H	4H	21.47	22.14	21.93	22.59	23.06	19.53	20.21	20.00	20.66	21.13
	6H	22.25	22.80	22.75	23.30	23.78	20.39	20.95	20.89	21.44	21.92
	8H	22.55	23.05	23.07	23.56	24.06	20.72	21.22	21.24	21.73	22.23
	12H	22.79	23.23	23.30	23.72	24.29	20.99	21.43	21.50	21.92	22.49
12H	4H	21.48	22.08	21.97	22.56	23.04	19.61	20.21	20.09	20.69	21.16
	6H	22.30	22.80	22.82	23.31	23.81	20.53	21.03	21.05	21.54	22.04
	8H	22.67	23.11	23.18	23.60	24.17	20.94	21.39	21.46	21.88	22.45