

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: P892757

Luminaire Tested: 2MB-4HL-LVRF-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892757
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-LVRF-UNV-L830
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3000K C
Light Source: -
Ballast/Driver: -

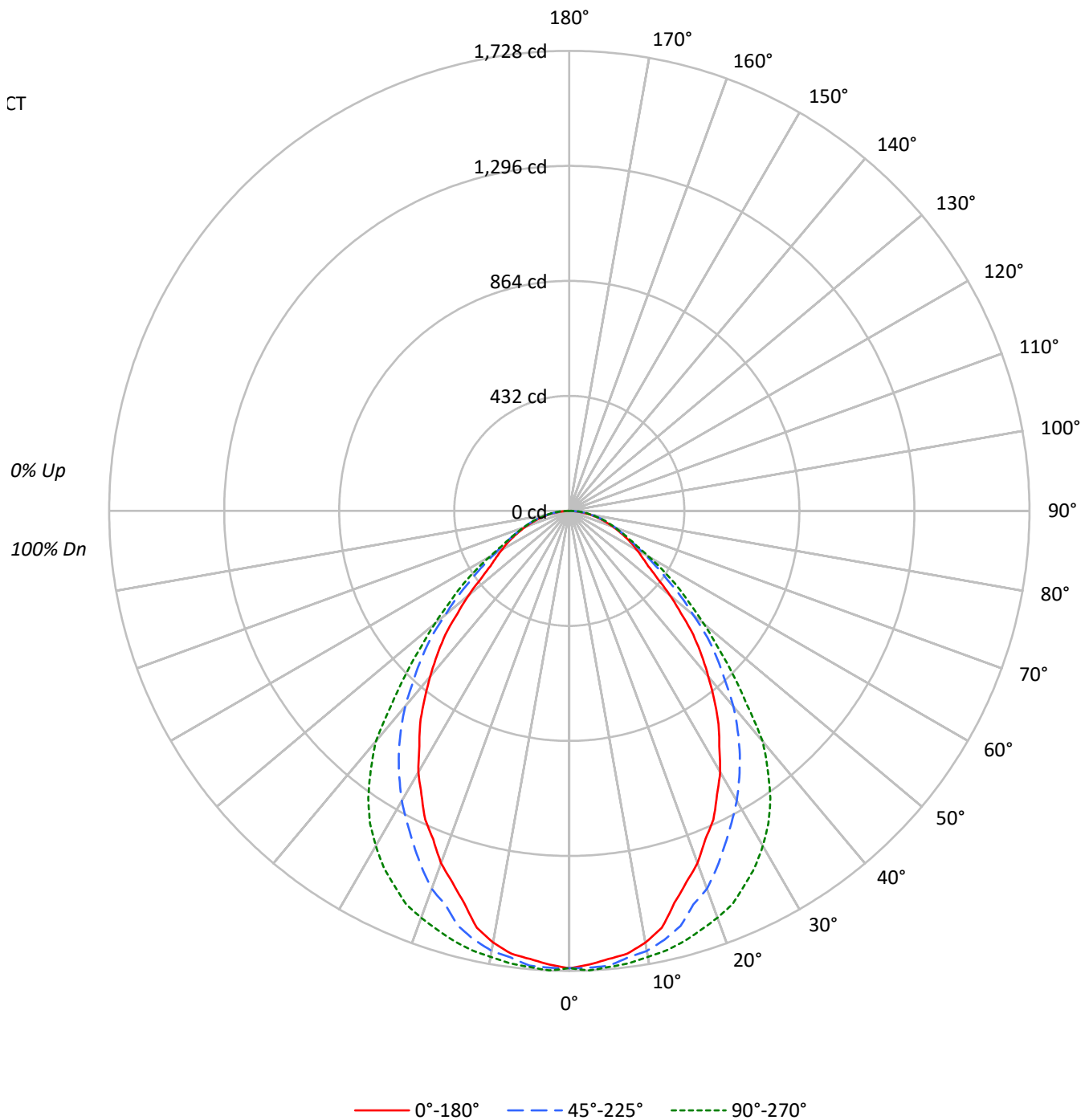
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3378.0 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.25 / 1.19
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	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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	73	66	61	70	65	60	68	63	60	60	60	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	54	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	48	48	48	46
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	43	43	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	36	36	36	34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	33	33	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24574	24574	24574
5°	24266	24620	24692
10°	23912	24379	24715
15°	22584	23902	24770
20°	21432	23000	24758
25°	20202	21830	24524
30°	18717	20775	24003
35°	17067	19500	22986
40°	15169	17911	21098
45°	13314	15900	17585
50°	10976	13545	14684
55°	9009	11188	12361
60°	8377	9296	9862
65°	7843	8263	8320
70°	7311	7725	7692
75°	6793	7340	7384
80°	6253	6797	6928
85°	5417	5958	7846

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.0	4.8
10°-20°	451.8	13.4
20°-30°	645.9	19.1
30°-40°	704.7	20.9
40°-50°	593.5	17.6
50°-60°	395.3	11.7
60°-70°	243.9	7.2
70°-80°	138.2	4.1
80°-90°	42.7	1.3
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°	1259.7	37.3
0°-40°	1964.4	58.2
0°-60°	2953.2	87.4
0°-90°	3378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3378.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1718	1718	1718	1718	1718	
5°	1690	1699	1714	1714	1720	160
15°	1525	1555	1614	1662	1672	430
25°	1280	1306	1383	1514	1554	585
35°	977	1020	1117	1248	1316	607
45°	658	694	786	838	869	503
55°	361	387	449	479	496	334
65°	232	234	244	254	246	230
75°	123	124	133	138	134	130
85°	33	35	36	42	48	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1717.8	1717.8	1717.8	1717.8	1717.8
2.5°	1705.5	1706.3	1717.8	1724.4	1727.7
5°	1689.8	1698.9	1714.5	1714.5	1719.5
7.5°	1677.4	1679.1	1691.5	1709.6	1713.7
10°	1646.1	1654.3	1678.3	1698.9	1701.4
12.5°	1604.0	1609.0	1650.2	1689.8	1690.6
15°	1524.9	1555.4	1613.9	1661.8	1672.5
17.5°	1462.2	1493.5	1549.6	1635.4	1649.4
20°	1407.8	1425.1	1510.8	1604.0	1626.3
22.5°	1335.2	1367.4	1449.0	1566.9	1599.9
25°	1279.9	1306.3	1383.0	1514.1	1553.7
27.5°	1201.6	1241.2	1319.5	1458.1	1509.2
30°	1133.1	1176.0	1257.7	1398.7	1453.1
32.5°	1048.2	1093.6	1187.6	1326.9	1392.1
35°	977.3	1020.2	1116.6	1247.8	1316.2
37.5°	893.1	941.8	1038.3	1161.2	1223.9
40°	812.3	853.6	959.1	1064.7	1129.8
42.5°	734.8	772.7	866.8	955.0	987.2
45°	658.1	694.4	785.9	837.9	869.2
47.5°	569.0	614.4	703.5	729.0	753.0
50°	493.2	531.1	608.6	631.7	659.8
52.5°	418.1	456.9	527.8	546.8	569.0
55°	361.2	386.8	448.6	479.2	495.6
57.5°	324.9	333.2	384.3	412.3	419.8
60°	292.8	297.7	324.9	350.5	344.7
62.5°	263.1	265.6	279.6	298.5	287.0
65°	231.7	234.2	244.1	254.0	245.8
67.5°	202.9	204.5	212.8	220.2	212.8
70°	174.8	175.7	184.7	189.7	183.9
72.5°	147.6	148.4	157.5	163.3	156.7
75°	122.9	124.5	132.8	137.7	133.6
77.5°	99.0	101.4	107.2	112.2	105.6
80°	75.9	77.5	82.5	88.2	84.1
82.5°	55.3	56.1	59.4	65.2	66.8
85°	33.0	34.6	36.3	42.1	47.8
87.5°	13.2	14.8	15.7	18.1	25.6
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	18.14	19.61	18.51	19.92	20.24	19.65	21.12	20.02	21.43	21.74
	3H	19.75	21.06	20.12	21.38	21.75	20.87	22.18	21.25	22.51	22.87
	4H	20.36	21.58	20.76	21.93	22.31	21.39	22.61	21.79	22.96	23.34
	6H	20.83	21.96	21.24	22.32	22.72	21.80	22.93	22.21	23.30	23.69
	8H	20.99	22.06	21.41	22.45	22.85	21.97	23.04	22.39	23.43	23.83
	12H	21.09	22.12	21.52	22.50	22.93	22.11	23.14	22.54	23.52	23.95
4H	2H	18.75	19.98	19.15	20.33	20.71	19.99	21.22	20.39	21.57	21.95
	3H	20.57	21.59	20.98	21.99	22.39	21.48	22.49	21.89	22.89	23.30
	4H	21.31	22.22	21.74	22.64	23.08	22.15	23.07	22.59	23.48	23.92
	6H	21.90	22.70	22.36	23.14	23.60	22.72	23.51	23.18	23.96	24.42
	8H	22.11	22.85	22.57	23.30	23.76	22.95	23.69	23.41	24.13	24.60
	12H	22.26	22.92	22.74	23.40	23.87	23.15	23.81	23.63	24.29	24.76
8H	4H	21.62	22.37	22.09	22.81	23.28	22.38	23.12	22.85	23.57	24.04
	6H	22.35	22.96	22.85	23.46	23.93	23.08	23.70	23.58	24.19	24.67
	8H	22.63	23.18	23.15	23.70	24.18	23.40	23.95	23.91	24.46	24.95
	12H	22.86	23.34	23.37	23.84	24.40	23.69	24.18	24.20	24.68	25.24
12H	4H	21.66	22.32	22.14	22.80	23.27	22.39	23.06	22.88	23.54	24.01
	6H	22.42	22.97	22.93	23.48	23.97	23.12	23.67	23.64	24.18	24.67
	8H	22.76	23.25	23.27	23.74	24.31	23.49	23.98	24.00	24.47	25.04