

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: P892761

Luminaire Tested: 2MB-4HL-LVRF-UNV-L930

Issue Date: 11/11/2024

**Test Information**

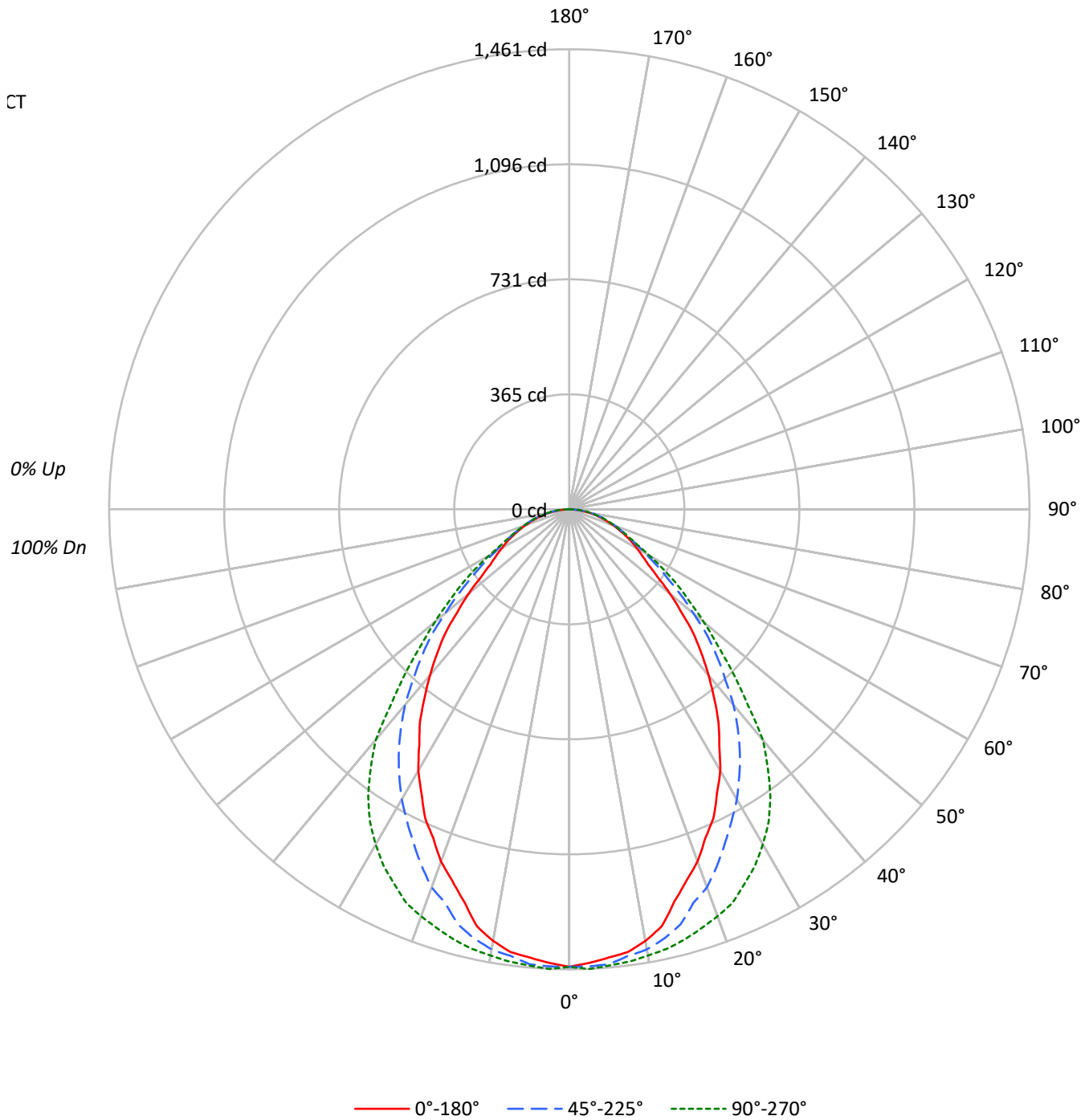
Test Method: LM-79-2019  
Report Number: P892761  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-LVRF-UNV-L930  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2857.0 lumens  
Efficiency: N/A  
Efficacy: 103.5 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<sub>in</sub>): 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°	20784	20784	20784
5°	20524	20824	20884
10°	20223	20618	20902
15°	19101	20216	20949
20°	18125	19453	20940
25°	17087	18463	20742
30°	15831	17571	20301
35°	14434	16493	19441
40°	12829	15149	17845
45°	11261	13448	14874
50°	9283	11457	12419
55°	7619	9463	10455
60°	7084	7862	8343
65°	6635	6990	7037
70°	6186	6533	6504
75°	5743	6207	6246
80°	5289	5750	5857
85°	4579	5039	6648

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14874 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.0	4.8
10°-20°	382.1	13.4
20°-30°	546.3	19.1
30°-40°	596.0	20.9
40°-50°	502.0	17.6
50°-60°	334.3	11.7
60°-70°	206.3	7.2
70°-80°	116.9	4.1
80°-90°	36.1	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°	1065.4	37.3
0°-40°	1661.4	58.2
0°-60°	2497.7	87.4
0°-90°	2857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2857.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1453	1453	1453	1453	1453	
5°	1429	1437	1450	1450	1454	136
15°	1290	1316	1365	1406	1414	364
25°	1082	1105	1170	1281	1314	495
35°	826	863	944	1055	1113	514
45°	557	587	665	709	735	425
55°	306	327	379	405	419	283
65°	196	198	206	215	208	195
75°	104	105	112	116	113	110
85°	28	29	31	36	40	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1452.9	1452.9	1452.9	1452.9	1452.9
2.5°	1442.4	1443.1	1452.9	1458.5	1461.3
5°	1429.2	1436.9	1450.1	1450.1	1454.3
7.5°	1418.7	1420.1	1430.6	1445.9	1449.4
10°	1392.2	1399.2	1419.4	1436.9	1438.9
12.5°	1356.6	1360.8	1395.7	1429.2	1429.9
15°	1289.7	1315.5	1365.0	1405.5	1414.5
17.5°	1236.7	1263.2	1310.6	1383.1	1395.0
20°	1190.6	1205.3	1277.8	1356.6	1375.5
22.5°	1129.3	1156.5	1225.5	1325.3	1353.2
25°	1082.5	1104.8	1169.7	1280.6	1314.1
27.5°	1016.3	1049.7	1116.0	1233.2	1276.4
30°	958.4	994.6	1063.7	1183.0	1229.0
32.5°	886.5	924.9	1004.4	1122.3	1177.4
35°	826.5	862.8	944.4	1055.3	1113.2
37.5°	755.4	796.5	878.2	982.1	1035.1
40°	687.0	721.9	811.2	900.5	955.6
42.5°	621.5	653.6	733.1	807.7	834.9
45°	556.6	587.3	664.7	708.7	735.2
47.5°	481.3	519.6	595.0	616.6	636.8
50°	417.1	449.2	514.8	534.3	558.0
52.5°	353.6	386.4	446.4	462.4	481.3
55°	305.5	327.1	379.4	405.2	419.2
57.5°	274.8	281.8	325.0	348.8	355.0
60°	247.6	251.8	274.8	296.4	291.6
62.5°	222.5	224.6	236.5	252.5	242.7
65°	196.0	198.1	206.5	214.8	207.9
67.5°	171.6	173.0	180.0	186.2	180.0
70°	147.9	148.6	156.2	160.4	155.5
72.5°	124.9	125.6	133.2	138.1	132.5
75°	103.9	105.3	112.3	116.5	113.0
77.5°	83.7	85.8	90.7	94.9	89.3
80°	64.2	65.6	69.8	74.6	71.1
82.5°	46.7	47.4	50.2	55.1	56.5
85°	27.9	29.3	30.7	35.6	40.5
87.5°	11.2	12.6	13.3	15.3	21.6
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	17.56	19.03	17.93	19.34	19.65	19.07	20.53	19.44	20.85	21.16
	3H	19.16	20.47	19.54	20.80	21.16	20.29	21.60	20.67	21.92	22.29
	4H	19.77	21.00	20.17	21.35	21.73	20.81	22.03	21.21	22.38	22.76
	6H	20.24	21.38	20.66	21.74	22.14	21.22	22.35	21.63	22.72	23.11
	8H	20.40	21.48	20.83	21.87	22.27	21.38	22.46	21.81	22.85	23.25
	12H	20.51	21.54	20.94	21.92	22.35	21.53	22.56	21.96	22.94	23.37
4H	2H	18.17	19.40	18.57	19.75	20.13	19.41	20.64	19.81	20.99	21.37
	3H	19.99	21.01	20.40	21.41	21.81	20.90	21.91	21.31	22.31	22.71
	4H	20.72	21.64	21.16	22.05	22.49	21.57	22.49	22.01	22.90	23.34
	6H	21.32	22.11	21.78	22.56	23.02	22.14	22.93	22.60	23.38	23.84
	8H	21.53	22.27	21.99	22.71	23.18	22.37	23.11	22.83	23.55	24.02
	12H	21.67	22.34	22.16	22.81	23.29	22.57	23.23	23.05	23.71	24.18
8H	4H	21.04	21.79	21.51	22.23	22.70	21.80	22.54	22.26	22.99	23.45
	6H	21.77	22.38	22.27	22.87	23.35	22.50	23.12	23.00	23.61	24.09
	8H	22.05	22.60	22.57	23.11	23.60	22.82	23.37	23.33	23.88	24.37
	12H	22.27	22.76	22.78	23.26	23.82	23.11	23.60	23.62	24.09	24.66
12H	4H	21.08	21.74	21.56	22.22	22.69	21.81	22.47	22.30	22.95	23.43
	6H	21.83	22.39	22.35	22.90	23.39	22.54	23.09	23.06	23.60	24.09
	8H	22.18	22.67	22.69	23.16	23.73	22.91	23.40	23.42	23.89	24.46