

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: P892768

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

Issue Date: 11/11/2024

**Test Information**

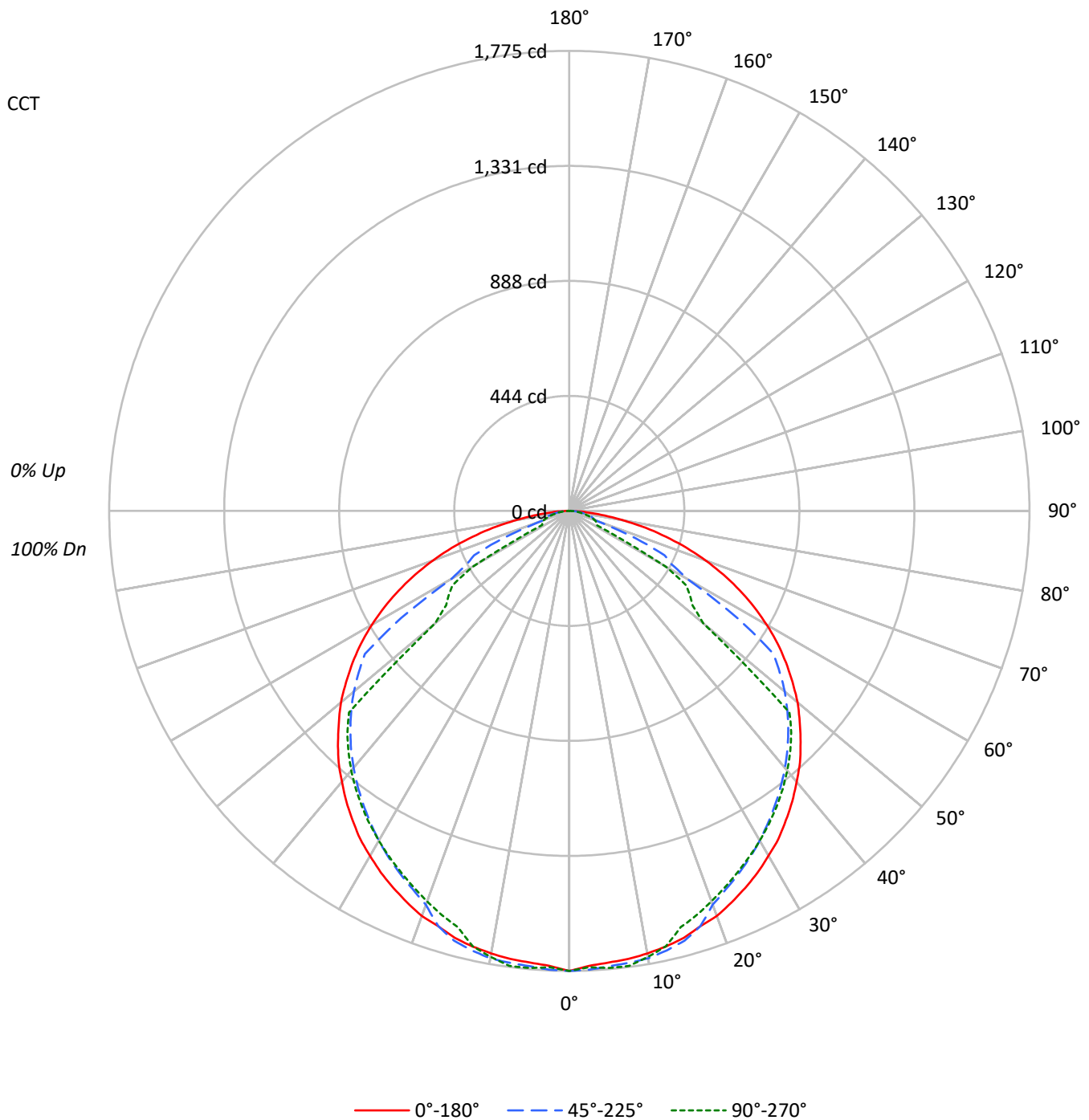
Test Method: LM-79-2019  
Report Number: P892768  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-RFLW-UNV-L850  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4518.0 lumens  
Efficiency: N/A  
Efficacy: 163.7 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38  
Luminous Opening: Rectangular (W 0.21' 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				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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	49	49	49	47
6	72	60	51	45	70	59	51	45	57	50	44	55	49	44	54	48	43	43	43	43	42
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	39	39	39	37
8	63	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	35	35	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	31	31	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	46344	46344	46344
5°	45835	46204	46388
10°	45964	46471	46312
15°	46101	46401	44930
20°	46215	44929	44537
25°	46235	44495	44294
30°	46324	44289	44289
35°	46441	44130	44420
40°	46504	44105	44582
45°	46592	44100	44694
50°	46717	44061	27384
55°	46446	43788	25831
60°	45924	27325	22333
65°	44819	25050	7086
70°	42785	7992	7992
75°	38977	8937	7919
80°	31919	9081	7262
85°	22616	9047	6620

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 50°  
 Luminance: 46717 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.0	3.7
10°-20°	479.3	10.6
20°-30°	722.6	16.0
30°-40°	878.1	19.4
40°-50°	925.0	20.5
50°-60°	726.4	16.1
60°-70°	408.8	9.0
70°-80°	170.2	3.8
80°-90°	39.8	0.9
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°	1369.9	30.3
0°-40°	2248.0	49.8
0°-60°	3899.3	86.3
0°-90°	4518.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4518.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1775	1775	1775	1775	1775	
5°	1749	1769	1763	1762	1770	167
15°	1706	1726	1717	1665	1662	481
25°	1605	1617	1545	1536	1538	741
35°	1457	1408	1385	1389	1394	912
45°	1262	1191	1194	1208	1210	974
55°	1020	947	962	564	568	911
65°	726	667	406	110	115	716
75°	386	231	89	82	78	409
85°	76	33	30	25	22	96
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1775.1	1775.1	1775.1	1775.1	1775.1
2.5°	1756.9	1782.1	1772.0	1762.0	1762.0
5°	1748.9	1769.0	1763.0	1762.0	1770.0
7.5°	1743.9	1761.0	1758.9	1761.0	1771.0
10°	1733.8	1752.9	1752.9	1745.9	1746.9
12.5°	1721.7	1740.8	1736.8	1724.7	1720.7
15°	1705.6	1725.7	1716.7	1665.4	1662.3
17.5°	1680.5	1704.6	1680.5	1632.2	1635.2
20°	1663.4	1681.5	1617.1	1601.0	1603.0
22.5°	1635.2	1651.3	1579.8	1568.8	1570.8
25°	1605.0	1617.1	1544.6	1535.6	1537.6
27.5°	1573.8	1576.8	1508.4	1502.4	1504.4
30°	1536.6	1523.5	1469.1	1465.1	1469.1
32.5°	1501.3	1471.2	1426.9	1427.9	1432.9
35°	1457.1	1407.8	1384.6	1388.6	1393.7
37.5°	1412.8	1353.4	1340.3	1348.4	1352.4
40°	1364.5	1301.1	1294.1	1302.1	1308.1
42.5°	1317.2	1247.8	1245.8	1257.8	1260.8
45°	1261.9	1191.4	1194.4	1208.5	1210.5
47.5°	1205.5	1134.1	1141.1	1154.2	1152.2
50°	1150.2	1073.7	1084.8	1065.6	674.2
52.5°	1084.8	1011.3	1023.4	635.0	598.7
55°	1020.4	946.9	962.0	563.5	567.5
57.5°	952.9	879.5	768.8	530.3	534.3
60°	879.5	811.0	523.3	496.1	427.7
62.5°	804.0	739.6	443.8	278.7	117.7
65°	725.5	667.2	405.5	109.7	114.7
67.5°	643.0	593.7	277.7	106.7	111.7
70°	560.5	460.9	104.7	102.6	104.7
72.5°	475.0	360.2	97.6	93.6	92.6
75°	386.4	231.4	88.6	81.5	78.5
77.5°	301.9	133.8	75.5	67.4	63.4
80°	212.3	68.4	60.4	51.3	48.3
82.5°	137.9	50.3	44.3	38.2	36.2
85°	75.5	33.2	30.2	25.2	22.1
87.5°	33.2	20.1	17.1	13.1	10.1
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	25.99	27.55	26.36	27.87	28.18	22.38	23.94	22.74	24.25	24.57
	3H	27.91	29.31	28.28	29.63	29.99	22.52	23.92	22.89	24.24	24.60
	4H	28.50	29.81	28.90	30.16	30.54	22.63	23.94	23.03	24.29	24.67
	6H	28.87	30.08	29.29	30.45	30.84	22.73	23.94	23.14	24.31	24.70
	8H	28.98	30.13	29.40	30.52	30.92	22.76	23.92	23.19	24.30	24.71
	12H	29.04	30.14	29.47	30.52	30.95	22.78	23.89	23.21	24.27	24.70
4H	2H	26.14	27.45	26.54	27.80	28.17	23.06	24.37	23.46	24.72	25.09
	3H	28.15	29.24	28.57	29.64	30.04	23.26	24.34	23.67	24.74	25.14
	4H	28.81	29.79	29.25	30.20	30.64	23.41	24.38	23.85	24.80	25.24
	6H	29.23	30.08	29.69	30.52	30.98	23.57	24.42	24.03	24.86	25.32
	8H	29.36	30.15	29.82	30.59	31.06	23.62	24.41	24.09	24.86	25.32
	12H	29.45	30.16	29.94	30.64	31.11	23.67	24.37	24.15	24.85	25.32
8H	4H	28.75	29.54	29.22	29.99	30.45	23.64	24.43	24.10	24.87	25.34
	6H	29.18	29.83	29.67	30.32	30.80	23.85	24.50	24.34	24.99	25.47
	8H	29.32	29.90	29.83	30.41	30.90	23.93	24.52	24.45	25.03	25.52
	12H	29.44	29.96	29.95	30.45	31.02	24.02	24.54	24.52	25.03	25.59
12H	4H	28.73	29.43	29.21	29.91	30.38	23.65	24.36	24.13	24.83	25.31
	6H	29.14	29.72	29.65	30.23	30.72	23.87	24.45	24.38	24.96	25.45
	8H	29.30	29.82	29.81	30.32	30.88	24.00	24.52	24.51	25.01	25.57