

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: P893841

Luminaire Tested: 4MB-7HL-LVR-UNV-L830

Issue Date: 11/11/2024

**Test Information**

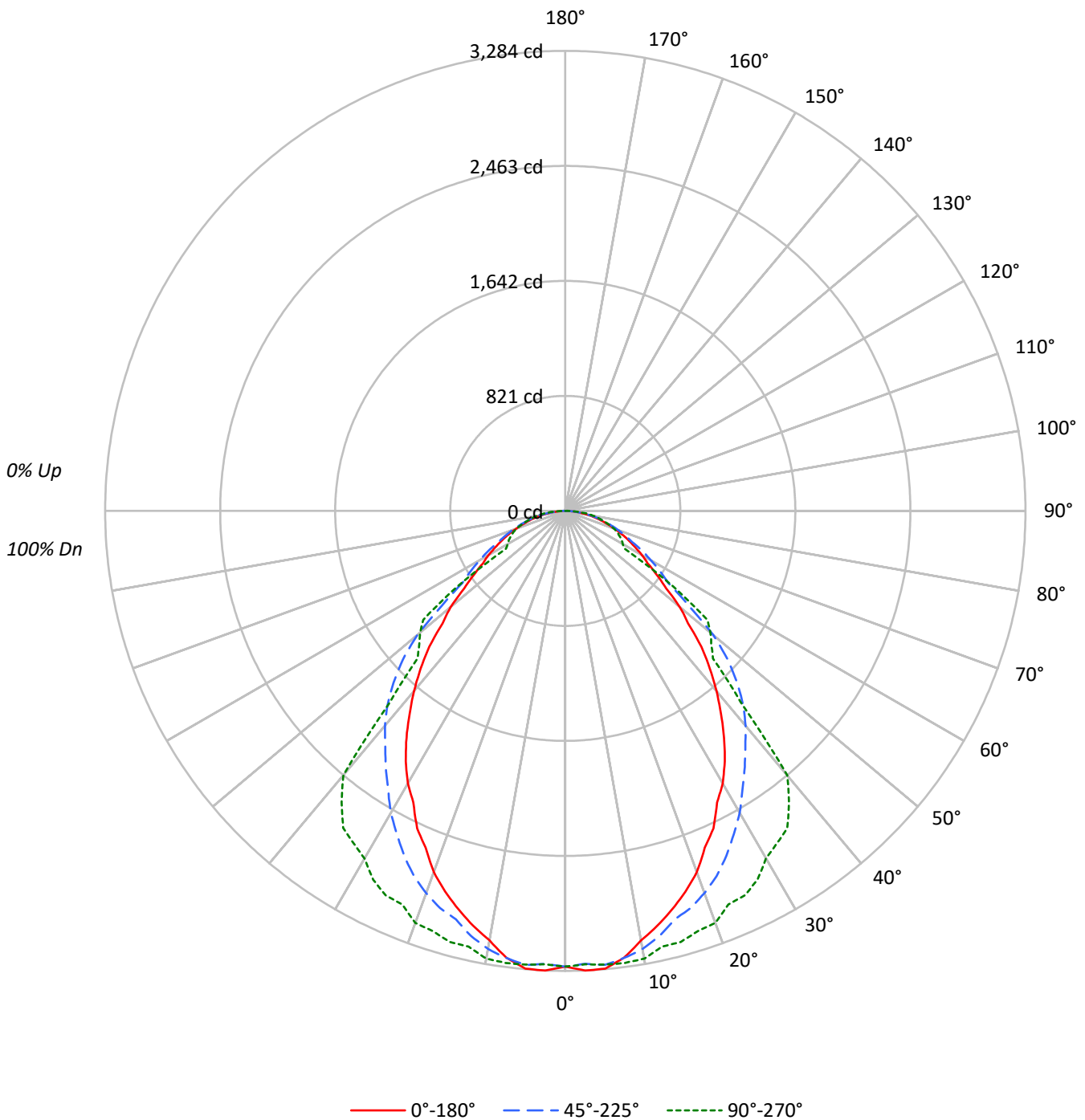
Test Method: LM-79-2019  
Report Number: P893841  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVR-UNV-L830  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6809.0 lumens  
Efficiency: N/A  
Efficacy: 131.4 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 51.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 4  
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	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

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

	0°	45°	90°
0°	23144	23144	23144
5°	23423	23239	23226
10°	22501	22942	23446
15°	21695	22230	23461
20°	20781	21982	23696
25°	19634	21337	23782
30°	18452	20446	23538
35°	17160	19392	23997
40°	15590	18589	22884
45°	13813	17447	15006
50°	11823	15249	14973
55°	9908	11127	11649
60°	9013	10046	6742
65°	8443	8894	7206
70°	7770	8427	7712
75°	7301	7906	7851
80°	6810	7478	8416
85°	5845	6237	8972

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 17447 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	309.1	4.5
10°-20°	864.9	12.7
20°-30°	1260.5	18.5
30°-40°	1442.0	21.2
40°-50°	1233.5	18.1
50°-60°	813.5	11.9
60°-70°	491.8	7.2
70°-80°	300.9	4.4
80°-90°	92.9	1.4
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°	2434.4	35.8
0°-40°	3876.4	56.9
0°-60°	5923.4	87.0
0°-90°	6809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6809.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3253	3253	3253	3253	3253	
5°	3280	3277	3254	3247	3252	307
15°	2945	2980	3018	3211	3185	828
25°	2501	2539	2718	2950	3029	1144
35°	1976	2075	2233	2583	2763	1231
45°	1373	1479	1734	1620	1491	1051
55°	799	844	897	1063	939	726
65°	502	514	528	472	428	496
75°	266	272	288	301	286	280
85°	72	71	76	91	110	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3252.9	3252.9	3252.9	3252.9	3252.9
2.5°	3284.4	3274.9	3235.7	3272.9	3239.5
5°	3279.6	3276.8	3253.8	3247.1	3251.9
7.5°	3216.6	3223.3	3219.4	3291.1	3254.8
10°	3114.4	3127.7	3175.5	3275.8	3245.2
12.5°	3034.1	3044.6	3108.6	3257.7	3186.0
15°	2945.3	2979.7	3017.9	3210.8	3185.1
17.5°	2849.7	2882.2	2973.0	3147.8	3144.9
20°	2744.6	2804.8	2903.2	3065.6	3129.6
22.5°	2602.3	2683.5	2822.0	3028.4	3040.8
25°	2501.0	2539.3	2717.9	2950.0	3029.3
27.5°	2347.2	2419.8	2602.3	2837.3	2968.2
30°	2246.0	2306.2	2488.6	2771.4	2865.0
32.5°	2118.9	2190.6	2353.9	2699.7	2812.5
35°	1975.6	2075.0	2232.6	2583.2	2762.8
37.5°	1824.7	1923.1	2109.4	2486.7	2622.4
40°	1678.5	1762.6	2001.4	2371.1	2463.8
42.5°	1528.5	1619.3	1878.2	2142.8	1853.3
45°	1372.8	1478.8	1733.9	1620.2	1491.3
47.5°	1188.4	1318.3	1574.4	1302.1	1412.9
50°	1068.1	1138.7	1377.6	1227.6	1352.7
52.5°	908.5	1004.0	1106.3	1146.4	1278.2
55°	798.7	843.6	897.0	1063.3	939.1
57.5°	697.4	737.5	799.6	749.9	500.6
60°	633.4	651.5	706.0	535.9	473.8
62.5°	560.8	578.9	619.1	500.6	454.7
65°	501.5	514.0	528.3	471.9	428.0
67.5°	438.5	445.2	460.5	435.6	402.2
70°	373.5	383.1	405.1	398.4	370.7
72.5°	316.2	324.8	343.9	353.5	327.7
75°	265.6	272.3	287.6	300.9	285.6
77.5°	211.1	217.8	237.9	252.2	245.5
80°	166.2	167.2	182.5	196.8	205.4
82.5°	116.5	118.5	129.9	145.2	162.4
85°	71.6	70.7	76.4	90.8	109.9
87.5°	27.7	26.7	31.5	38.2	56.4
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	18.74	20.22	19.11	20.53	20.85	18.42	19.90	18.78	20.21	20.53
	3H	20.30	21.63	20.68	21.95	22.32	20.04	21.36	20.41	21.69	22.05
	4H	20.90	22.14	21.30	22.49	22.87	20.78	22.03	21.18	22.37	22.75
	6H	21.36	22.50	21.77	22.87	23.26	21.45	22.60	21.87	22.97	23.36
	8H	21.51	22.60	21.94	22.99	23.39	21.73	22.82	22.16	23.21	23.61
	12H	21.61	22.65	22.04	23.03	23.46	21.95	22.99	22.38	23.38	23.81
4H	2H	19.33	20.58	19.73	20.92	21.30	19.08	20.32	19.48	20.67	21.05
	3H	21.12	22.15	21.53	22.55	22.95	20.96	21.99	21.38	22.39	22.79
	4H	21.85	22.78	22.28	23.19	23.63	21.86	22.79	22.29	23.20	23.64
	6H	22.43	23.24	22.89	23.68	24.14	22.67	23.47	23.13	23.92	24.38
	8H	22.63	23.38	23.09	23.83	24.30	23.00	23.75	23.46	24.19	24.66
	12H	22.77	23.44	23.25	23.92	24.39	23.27	23.94	23.75	24.42	24.89
8H	4H	22.17	22.93	22.64	23.37	23.84	22.18	22.93	22.65	23.38	23.85
	6H	22.88	23.51	23.38	24.00	24.48	23.13	23.75	23.63	24.25	24.72
	8H	23.15	23.71	23.67	24.22	24.71	23.55	24.11	24.06	24.62	25.11
	12H	23.36	23.86	23.87	24.35	24.92	23.92	24.41	24.43	24.91	25.47
12H	4H	22.21	22.88	22.69	23.36	23.83	22.21	22.88	22.69	23.36	23.83
	6H	22.95	23.51	23.47	24.02	24.51	23.18	23.75	23.70	24.26	24.74
	8H	23.28	23.78	23.79	24.27	24.84	23.66	24.16	24.17	24.65	25.22