

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: P893864

Luminaire Tested: 4MB-7HL-LVRF-UNV-L950

Issue Date: 11/11/2024

**Test Information**

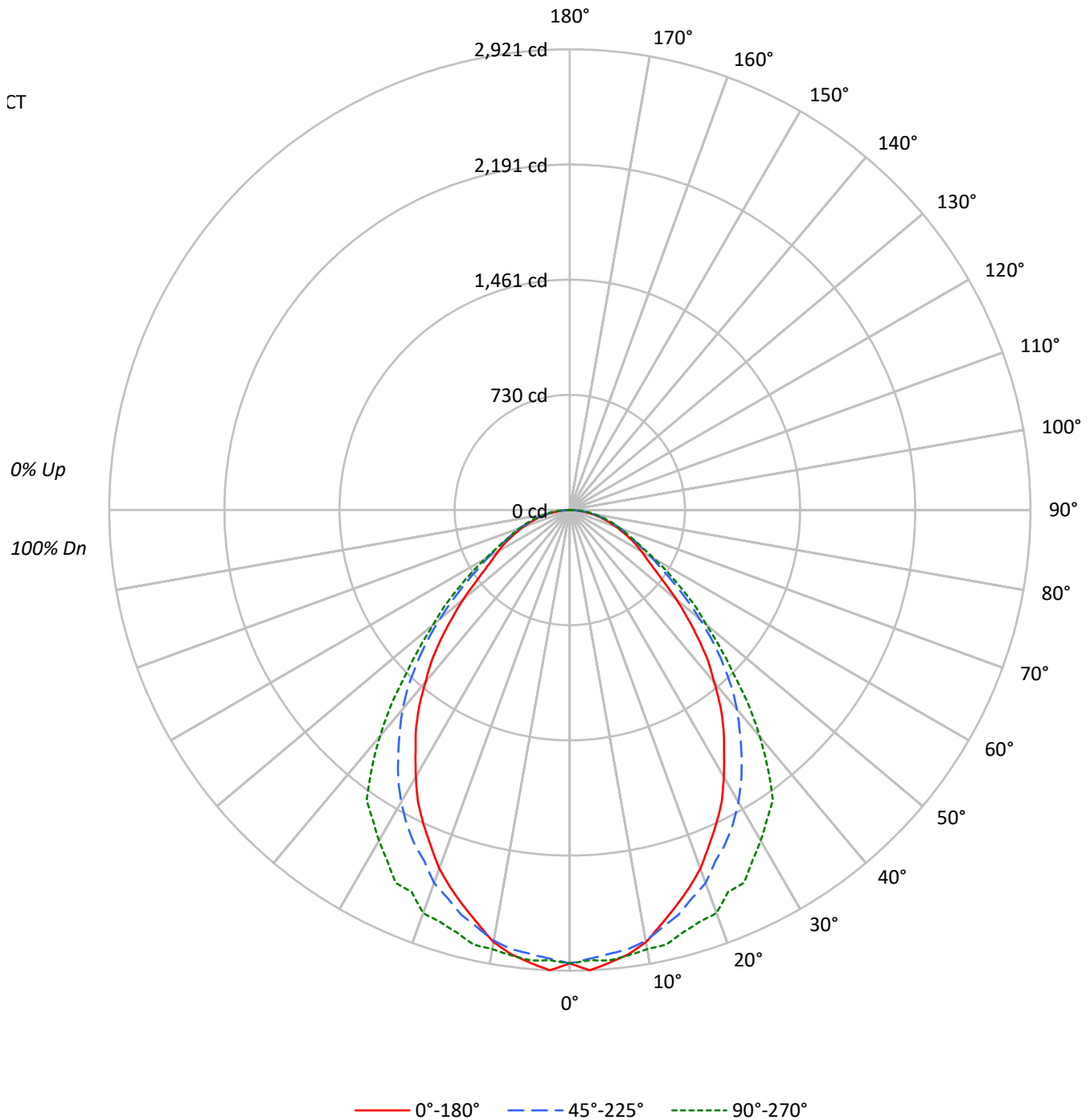
Test Method: LM-79-2019  
Report Number: P893864  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVRF-UNV-L950  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 5000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5827.0 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21  
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 (A<sub>in</sub>): 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40	40	
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37	37	
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33	33	
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30	30	

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

	0°	45°	90°
0°	20448	20448	20448
5°	20581	20182	20470
10°	20099	20036	20421
15°	19150	19574	20422
20°	18319	19054	20589
25°	17246	18325	20484
30°	16044	17562	19884
35°	14775	16485	19500
40°	13215	15321	17412
45°	11585	13780	14765
50°	9776	11907	12496
55°	8110	9965	10658
60°	7458	8473	8790
65°	6987	7450	7507
70°	6505	7060	7006
75°	6070	6589	6826
80°	5667	6126	6548
85°	4768	5192	7225

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14765 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.3	4.7
10°-20°	756.7	13.0
20°-30°	1089.7	18.7
30°-40°	1203.0	20.6
40°-50°	1032.3	17.7
50°-60°	703.2	12.1
60°-70°	442.4	7.6
70°-80°	251.9	4.3
80°-90°	76.6	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°	2117.6	36.3
0°-40°	3320.7	57.0
0°-60°	5056.2	86.8
0°-90°	5827.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5827.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2874	2874	2874	2874	2874	
5°	2882	2870	2826	2885	2866	272
15°	2600	2627	2657	2778	2772	732
25°	2197	2241	2334	2522	2609	1009
35°	1701	1767	1898	2105	2245	1058
45°	1151	1228	1370	1452	1467	887
55°	654	694	803	842	859	601
65°	415	422	442	464	446	412
75°	221	222	240	250	248	235
85°	58	60	64	76	88	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2873.9	2873.9	2873.9	2873.9	2873.9
2.5°	2921.1	2891.0	2848.1	2889.3	2857.5
5°	2881.6	2870.4	2825.7	2885.0	2866.1
7.5°	2841.2	2817.2	2809.4	2873.0	2848.1
10°	2781.9	2768.2	2773.3	2855.0	2826.6
12.5°	2688.3	2697.7	2709.8	2813.7	2822.3
15°	2599.8	2627.3	2657.4	2777.6	2772.5
17.5°	2513.0	2550.8	2579.2	2733.8	2738.1
20°	2419.4	2440.8	2516.5	2665.9	2719.2
22.5°	2303.4	2345.5	2410.8	2597.2	2621.3
25°	2196.8	2240.7	2334.3	2522.5	2609.2
27.5°	2085.2	2125.5	2241.5	2434.0	2507.9
30°	1952.8	2007.0	2137.6	2333.5	2420.2
32.5°	1820.5	1899.6	2025.0	2226.1	2326.6
35°	1701.1	1767.3	1897.9	2104.9	2245.0
37.5°	1568.8	1638.4	1770.7	1972.6	2062.0
40°	1422.8	1497.5	1649.6	1812.8	1874.7
42.5°	1297.3	1361.8	1514.7	1629.8	1678.8
45°	1151.3	1227.7	1369.5	1452.0	1467.4
47.5°	1010.4	1098.0	1225.1	1263.8	1293.9
50°	883.2	951.9	1075.7	1099.7	1128.9
52.5°	753.5	826.5	934.8	958.8	1001.8
55°	653.8	694.2	803.3	842.0	859.2
57.5°	580.8	606.6	683.9	732.9	738.0
60°	524.1	537.0	595.4	632.3	617.7
62.5°	471.7	482.0	511.2	539.5	520.6
65°	415.0	421.8	442.5	463.9	445.9
67.5°	361.7	369.4	388.3	403.8	388.3
70°	312.7	318.7	339.4	346.2	336.8
72.5°	267.2	269.8	287.0	299.0	293.0
75°	220.8	222.5	239.7	250.0	248.3
77.5°	178.7	181.3	195.9	205.3	200.2
80°	138.3	140.0	149.5	163.2	159.8
82.5°	97.1	100.5	106.5	118.6	128.0
85°	58.4	60.1	63.6	75.6	88.5
87.5°	22.3	24.1	25.8	31.8	42.1
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	17.94	19.42	18.31	19.73	20.05	19.30	20.78	19.67	21.09	21.41
	3H	19.52	20.84	19.90	21.17	21.53	20.59	21.91	20.96	22.24	22.60
	4H	20.12	21.37	20.53	21.72	22.09	21.14	22.38	21.54	22.73	23.11
	6H	20.60	21.74	21.01	22.11	22.50	21.59	22.74	22.00	23.11	23.50
	8H	20.75	21.84	21.18	22.23	22.63	21.78	22.87	22.21	23.26	23.66
	12H	20.85	21.89	21.28	22.28	22.70	21.93	22.98	22.36	23.36	23.79
4H	2H	18.55	19.79	18.95	20.14	20.52	19.67	20.91	20.07	21.26	21.64
	3H	20.36	21.39	20.77	21.79	22.19	21.22	22.25	21.63	22.65	23.05
	4H	21.08	22.01	21.51	22.42	22.86	21.93	22.85	22.36	23.27	23.71
	6H	21.68	22.48	22.14	22.93	23.39	22.54	23.34	22.99	23.78	24.25
	8H	21.88	22.63	22.34	23.08	23.54	22.78	23.54	23.25	23.98	24.45
	12H	22.02	22.69	22.50	23.17	23.64	23.00	23.67	23.48	24.15	24.62
8H	4H	21.41	22.16	21.87	22.60	23.07	22.16	22.91	22.62	23.36	23.83
	6H	22.13	22.75	22.63	23.25	23.72	22.90	23.53	23.40	24.02	24.50
	8H	22.41	22.97	22.92	23.48	23.97	23.24	23.80	23.75	24.31	24.80
	12H	22.62	23.12	23.13	23.61	24.17	23.54	24.04	24.05	24.53	25.10
12H	4H	21.45	22.12	21.93	22.60	23.07	22.17	22.85	22.66	23.33	23.80
	6H	22.20	22.76	22.71	23.27	23.76	22.94	23.50	23.46	24.01	24.50
	8H	22.54	23.03	23.05	23.52	24.09	23.33	23.83	23.84	24.32	24.89