

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: P893872

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

Issue Date: 11/11/2024

**Test Information**

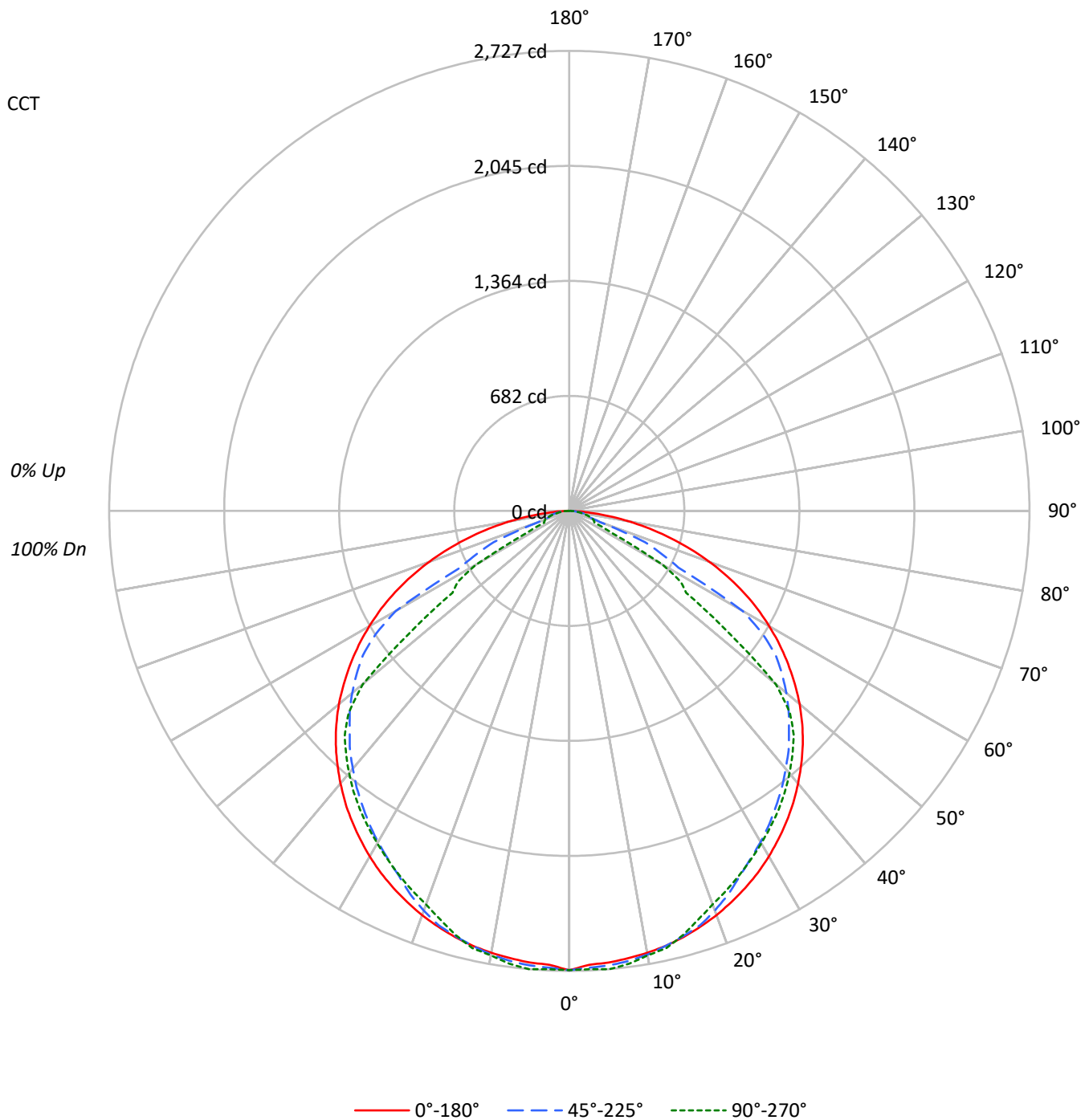
Test Method: LM-79-2019  
Report Number: P893872  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-RFLW-UNV-L950  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 5000K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7097.0 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 0.21' 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	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	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

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

	0°	45°	90°
0°	35349	35349	35349
5°	35025	35255	35549
10°	35076	35209	35275
15°	35152	35074	34995
20°	35241	34836	34303
25°	35337	34220	34148
30°	35473	33988	34126
35°	35600	33858	34270
40°	35751	33817	34414
45°	35941	33800	34555
50°	35997	33928	32284
55°	35837	33825	19143
60°	35535	30829	16603
65°	34953	18635	5027
70°	33569	7388	5763
75°	31106	6061	5890
80°	26913	6401	5519
85°	19130	6004	5244

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 50°  
 Luminance: 35997 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	257.9	3.6
10°-20°	738.5	10.4
20°-30°	1115.9	15.7
30°-40°	1361.6	19.2
40°-50°	1440.3	20.3
50°-60°	1192.9	16.8
60°-70°	663.2	9.3
70°-80°	268.8	3.8
80°-90°	58.0	0.8
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°	2112.3	29.8
0°-40°	3473.8	48.9
0°-60°	6107.1	86.1
0°-90°	7097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7097.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2722	2722	2722	2722	2722	
5°	2687	2735	2705	2709	2727	256
15°	2615	2655	2609	2607	2603	739
25°	2466	2484	2388	2373	2383	1138
35°	2246	2218	2136	2144	2162	1406
45°	1957	1856	1841	1863	1882	1509
55°	1583	1476	1494	1025	846	1414
65°	1138	1043	606	204	164	1122
75°	620	346	121	119	117	655
85°	128	43	40	37	35	161
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2722.3	2722.3	2722.3	2722.3	2722.3
2.5°	2692.9	2739.9	2710.6	2716.4	2719.0
5°	2687.1	2734.9	2704.7	2708.9	2727.3
7.5°	2674.5	2723.1	2691.3	2693.8	2708.0
10°	2660.2	2704.7	2670.3	2666.1	2675.3
12.5°	2640.9	2681.2	2640.9	2642.6	2654.4
15°	2614.9	2655.2	2609.1	2607.4	2603.2
17.5°	2583.9	2621.6	2576.3	2549.5	2540.3
20°	2550.3	2579.7	2521.0	2479.9	2482.4
22.5°	2510.1	2535.2	2461.4	2423.6	2434.6
25°	2466.4	2484.1	2388.4	2373.3	2383.4
27.5°	2418.6	2432.0	2325.5	2322.1	2330.5
30°	2365.8	2370.8	2266.8	2265.1	2276.0
32.5°	2307.0	2298.7	2203.9	2205.5	2219.8
35°	2245.8	2218.1	2135.9	2144.3	2161.9
37.5°	2181.2	2131.7	2068.8	2079.7	2099.0
40°	2109.1	2041.9	1995.0	2011.7	2030.2
42.5°	2035.2	1948.0	1923.7	1939.6	1957.2
45°	1957.2	1856.5	1840.6	1863.2	1881.7
47.5°	1872.5	1766.8	1764.3	1781.9	1773.5
50°	1781.9	1673.7	1679.5	1656.0	1598.1
52.5°	1684.6	1577.2	1588.9	1487.4	1202.2
55°	1583.0	1475.7	1494.1	1025.2	845.6
57.5°	1479.0	1371.6	1359.9	784.4	783.6
60°	1368.3	1265.9	1187.1	693.0	639.3
62.5°	1256.7	1156.0	729.0	521.8	293.6
65°	1137.6	1042.8	606.5	203.9	163.6
67.5°	1012.6	927.8	485.7	153.5	159.4
70°	884.2	808.7	194.6	148.5	151.8
72.5°	753.4	624.2	129.2	137.6	137.6
75°	620.0	345.6	120.8	119.1	117.4
77.5°	487.4	231.5	105.7	98.2	95.6
80°	359.9	83.1	85.6	76.3	73.8
82.5°	238.3	64.6	61.2	55.4	53.7
85°	128.4	42.8	40.3	36.9	35.2
87.5°	46.1	21.8	21.8	17.6	15.9
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	25.06	26.64	25.43	26.95	27.27	21.05	22.63	21.42	22.94	23.26
	3H	27.07	28.48	27.45	28.81	29.17	21.19	22.59	21.56	22.92	23.28
	4H	27.68	29.00	28.08	29.35	29.73	21.30	22.62	21.70	22.97	23.35
	6H	28.08	29.30	28.50	29.67	30.06	21.41	22.63	21.83	23.00	23.39
	8H	28.20	29.36	28.63	29.75	30.15	21.45	22.61	21.87	23.00	23.40
	12H	28.27	29.38	28.70	29.76	30.19	21.47	22.58	21.90	22.96	23.39
4H	2H	25.19	26.51	25.59	26.86	27.24	21.78	23.10	22.18	23.45	23.82
	3H	27.35	28.44	27.76	28.84	29.24	21.98	23.07	22.39	23.47	23.87
	4H	28.01	28.99	28.44	29.40	29.84	22.13	23.11	22.56	23.52	23.96
	6H	28.45	29.30	28.91	29.75	30.20	22.30	23.15	22.75	23.59	24.05
	8H	28.60	29.39	29.06	29.83	30.30	22.35	23.14	22.81	23.59	24.05
	12H	28.70	29.41	29.18	29.89	30.36	22.40	23.11	22.88	23.58	24.05
8H	4H	27.94	28.74	28.41	29.18	29.65	22.40	23.20	22.87	23.64	24.11
	6H	28.39	29.04	28.88	29.53	30.01	22.61	23.27	23.11	23.76	24.23
	8H	28.54	29.12	29.05	29.63	30.12	22.69	23.28	23.21	23.79	24.28
	12H	28.67	29.19	29.18	29.68	30.25	22.78	23.30	23.29	23.79	24.36
12H	4H	27.92	28.63	28.40	29.11	29.58	22.42	23.13	22.90	23.61	24.08
	6H	28.35	28.94	28.86	29.44	29.93	22.63	23.22	23.14	23.73	24.22
	8H	28.52	29.04	29.03	29.53	30.10	22.75	23.27	23.26	23.77	24.33