

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: P893854

Luminaire Tested: 4MB-7HL-LVRA-UNV-L935

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893854  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVRA-UNV-L935  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

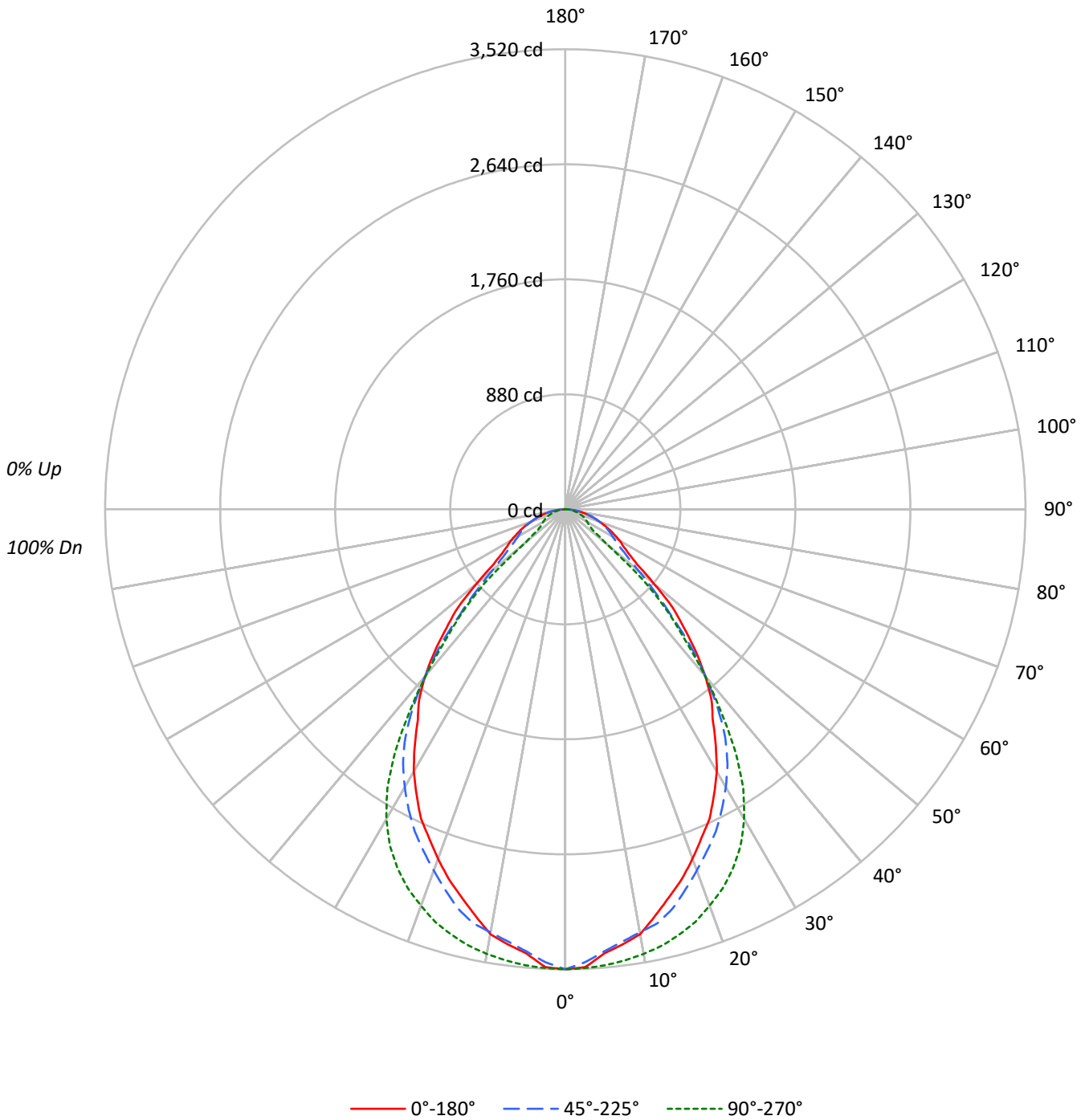
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5712.0 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
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	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

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

	0°	45°	90°
0°	25041	25041	25041
5°	24366	24256	25014
10°	23848	23743	24956
15°	22617	23312	24815
20°	21545	22273	24437
25°	20495	21371	23813
30°	19041	20174	22484
35°	17074	18539	19720
40°	15468	15502	15418
45°	12933	11455	11172
50°	9769	8063	4568
55°	7347	6448	2880
60°	6828	5938	2775
65°	6352	5924	2780
70°	5812	5812	2736
75°	5512	5660	2645
80°	5093	5351	2712
85°	4441	4661	2963

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 13235 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	325.1	5.7
10°-20°	895.8	15.7
20°-30°	1270.2	22.2
30°-40°	1308.6	22.9
40°-50°	914.0	16.0
50°-60°	438.6	7.7
60°-70°	307.7	5.4
70°-80°	192.4	3.4
80°-90°	59.5	1.0
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°	2491.1	43.6
0°-40°	3799.8	66.5
0°-60°	5152.4	90.2
0°-90°	5712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5712.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3520	3520	3520	3520	3520	
5°	3412	3407	3396	3485	3502	323
15°	3070	3093	3165	3256	3369	865
25°	2611	2637	2722	2906	3033	1194
35°	1966	2019	2134	2179	2270	1239
45°	1285	1315	1138	1080	1110	990
55°	592	563	520	333	232	555
65°	377	353	352	268	165	374
75°	200	198	206	178	96	211
85°	54	54	57	56	36	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3519.5	3519.5	3519.5	3519.5	3519.5
2.5°	3505.9	3495.0	3468.7	3516.8	3513.1
5°	3411.5	3407.0	3396.1	3485.0	3502.3
7.5°	3358.0	3349.0	3336.3	3434.2	3482.3
10°	3300.9	3311.8	3286.4	3376.2	3454.2
12.5°	3183.0	3212.0	3246.5	3316.3	3419.7
15°	3070.5	3093.2	3164.8	3255.5	3368.9
17.5°	2965.3	2991.6	3053.2	3189.3	3310.0
20°	2845.5	2881.8	2941.7	3115.8	3227.4
22.5°	2722.2	2755.7	2831.0	3017.9	3142.1
25°	2610.6	2636.9	2722.2	2906.3	3033.3
27.5°	2462.7	2511.7	2592.5	2770.2	2903.6
30°	2317.6	2359.3	2455.5	2605.1	2736.7
32.5°	2142.5	2203.3	2309.4	2423.7	2533.5
35°	1965.7	2019.2	2134.4	2178.8	2270.4
37.5°	1836.8	1851.4	1916.7	1911.2	1962.9
40°	1665.4	1694.4	1669.0	1601.0	1660.0
42.5°	1480.4	1514.8	1412.3	1333.4	1354.3
45°	1285.3	1315.3	1138.4	1080.3	1110.3
47.5°	1116.6	1113.9	918.0	879.0	837.2
50°	882.6	911.6	728.4	655.8	412.7
52.5°	689.4	700.3	600.5	419.1	271.2
55°	592.3	563.3	519.8	332.9	232.2
57.5°	526.1	489.8	460.8	309.3	212.3
60°	479.8	439.0	417.3	293.9	195.0
62.5°	427.2	395.5	387.3	280.3	179.6
65°	377.3	352.9	351.9	267.6	165.1
67.5°	327.5	313.9	317.5	252.2	148.8
70°	279.4	276.7	279.4	232.2	131.5
72.5°	238.6	235.8	243.1	206.8	112.5
75°	200.5	197.7	205.9	177.8	96.2
77.5°	159.6	161.5	166.9	147.9	80.7
80°	124.3	124.3	130.6	116.1	66.2
82.5°	88.9	89.8	93.4	85.3	51.7
85°	54.4	54.4	57.1	56.2	36.3
87.5°	18.1	20.9	24.5	26.3	18.1
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	16.84	18.19	17.20	18.50	18.82	13.17	14.52	13.53	14.83	15.15
	3H	18.57	19.78	18.95	20.11	20.48	15.14	16.35	15.52	16.68	17.04
	4H	19.25	20.37	19.65	20.72	21.11	15.85	16.98	16.25	17.33	17.71
	6H	19.75	20.79	20.17	21.16	21.55	16.37	17.41	16.79	17.78	18.17
	8H	19.92	20.91	20.35	21.30	21.70	16.56	17.54	16.99	17.93	18.34
	12H	20.03	20.98	20.47	21.36	21.79	16.70	17.64	17.13	18.02	18.45
4H	2H	17.37	18.49	17.77	18.84	19.23	14.79	15.92	15.19	16.27	16.65
	3H	19.34	20.27	19.76	20.68	21.08	16.97	17.90	17.38	18.30	18.70
	4H	20.15	20.98	20.58	21.40	21.84	17.85	18.68	18.28	19.10	19.54
	6H	20.79	21.51	21.25	21.96	22.42	18.49	19.22	18.95	19.66	20.13
	8H	21.01	21.69	21.48	22.13	22.60	18.70	19.38	19.17	19.82	20.29
	12H	21.16	21.76	21.65	22.24	22.72	18.86	19.46	19.34	19.94	20.41
8H	4H	20.43	21.11	20.90	21.55	22.02	18.50	19.17	18.96	19.62	20.09
	6H	21.21	21.77	21.71	22.26	22.74	19.36	19.91	19.86	20.41	20.89
	8H	21.52	22.01	22.03	22.53	23.02	19.69	20.19	20.21	20.70	21.19
	12H	21.75	22.19	22.26	22.68	23.25	19.95	20.39	20.46	20.88	21.45
12H	4H	20.45	21.05	20.93	21.53	22.00	18.57	19.17	19.05	19.65	20.12
	6H	21.27	21.77	21.79	22.28	22.77	19.50	20.00	20.02	20.51	21.00
	8H	21.63	22.07	22.14	22.56	23.13	19.91	20.35	20.42	20.84	21.41