

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: P893190

Luminaire Tested: 4MB-10HL-LVR-UNV-L935

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893190  
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-10HL-LVR-UNV-L935  
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

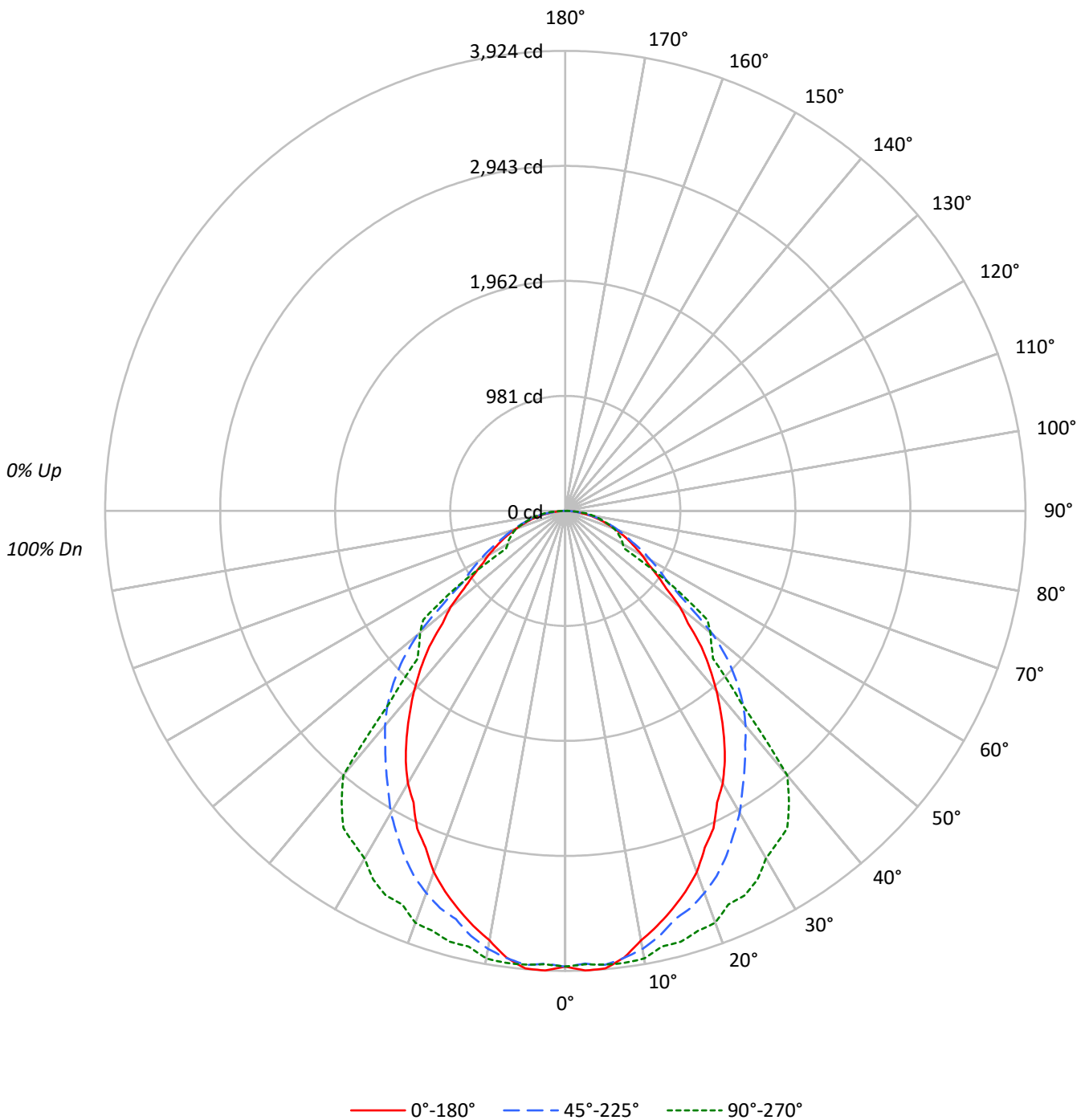
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8135.0 lumens  
Efficiency: N/A  
Efficacy: 107.7 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): 75.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 7.45  
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°	27652	27652	27652
5°	27985	27765	27749
10°	26883	27410	28012
15°	25919	26559	28030
20°	24828	26263	28311
25°	23458	25492	28413
30°	22046	24428	28122
35°	20501	23169	28670
40°	18626	22209	27340
45°	16503	20845	17928
50°	14124	18218	17890
55°	11836	13294	13918
60°	10768	12003	8056
65°	10088	10627	8608
70°	9284	10067	9214
75°	8723	9446	9382
80°	8137	8932	10055
85°	6988	7453	10719

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 20845 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	369.3	4.5
10°-20°	1033.3	12.7
20°-30°	1505.9	18.5
30°-40°	1722.8	21.2
40°-50°	1473.8	18.1
50°-60°	971.9	11.9
60°-70°	587.6	7.2
70°-80°	359.4	4.4
80°-90°	111.0	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°	2908.5	35.8
0°-40°	4631.3	56.9
0°-60°	7077.0	87.0
0°-90°	8135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8135.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3886	3886	3886	3886	3886	
5°	3918	3915	3888	3880	3885	367
15°	3519	3560	3606	3836	3805	989
25°	2988	3034	3247	3524	3619	1367
35°	2360	2479	2667	3086	3301	1470
45°	1640	1767	2072	1936	1782	1256
55°	954	1008	1072	1270	1122	868
65°	599	614	631	564	511	592
75°	317	325	344	360	341	335
85°	86	84	91	108	131	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3886.4	3886.4	3886.4	3886.4	3886.4
2.5°	3924.0	3912.6	3865.8	3910.3	3870.4
5°	3918.3	3914.9	3887.5	3879.5	3885.2
7.5°	3843.0	3851.0	3846.4	3932.0	3888.6
10°	3720.9	3736.8	3793.9	3913.7	3877.2
12.5°	3625.0	3637.5	3714.0	3892.1	3806.5
15°	3518.8	3559.9	3605.6	3836.1	3805.3
17.5°	3404.7	3443.5	3551.9	3760.8	3757.4
20°	3279.1	3351.1	3468.6	3662.6	3739.1
22.5°	3109.1	3206.1	3371.6	3618.1	3633.0
25°	2988.1	3033.8	3247.2	3524.5	3619.3
27.5°	2804.3	2891.1	3109.1	3389.9	3546.2
30°	2683.4	2755.3	2973.3	3311.1	3423.0
32.5°	2531.6	2617.2	2812.3	3225.5	3360.2
35°	2360.3	2479.0	2667.4	3086.3	3300.8
37.5°	2180.0	2297.6	2520.1	2971.0	3133.1
40°	2005.4	2105.8	2391.2	2832.9	2943.6
42.5°	1826.2	1934.6	2243.9	2560.1	2214.3
45°	1640.1	1766.8	2071.6	1935.8	1781.7
47.5°	1419.9	1575.1	1881.0	1555.7	1688.1
50°	1276.0	1360.5	1645.9	1466.7	1616.2
52.5°	1085.4	1199.6	1321.7	1369.6	1527.1
55°	954.2	1007.8	1071.7	1270.3	1122.0
57.5°	833.2	881.1	955.3	896.0	598.1
60°	756.7	778.4	843.5	640.3	566.1
62.5°	670.0	691.7	739.6	598.1	543.3
65°	599.2	614.1	631.2	563.8	511.3
67.5°	523.9	531.9	550.1	520.5	480.5
70°	446.3	457.7	483.9	475.9	442.9
72.5°	377.8	388.1	410.9	422.3	391.5
75°	317.3	325.3	343.6	359.5	341.3
77.5°	252.2	260.2	284.2	301.3	293.3
80°	198.6	199.7	218.0	235.1	245.4
82.5°	139.2	141.5	155.2	173.5	194.0
85°	85.6	84.5	91.3	108.4	131.3
87.5°	33.1	32.0	37.7	45.7	67.3
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	19.36	20.84	19.72	21.15	21.47	19.04	20.52	19.40	20.83	21.14
	3H	20.92	22.24	21.30	22.57	22.93	20.66	21.98	21.03	22.31	22.67
	4H	21.52	22.76	21.92	23.11	23.49	21.40	22.64	21.80	22.99	23.37
	6H	21.98	23.12	22.39	23.49	23.88	22.07	23.22	22.48	23.58	23.98
	8H	22.13	23.22	22.56	23.61	24.01	22.35	23.44	22.78	23.83	24.23
	12H	22.23	23.27	22.66	23.65	24.08	22.57	23.61	23.00	24.00	24.42
4H	2H	19.95	21.19	20.35	21.54	21.92	19.70	20.94	20.10	21.29	21.67
	3H	21.74	22.77	22.15	23.17	23.57	21.58	22.61	21.99	23.01	23.41
	4H	22.47	23.39	22.90	23.81	24.25	22.48	23.40	22.91	23.82	24.26
	6H	23.05	23.86	23.51	24.30	24.76	23.29	24.09	23.74	24.53	24.99
	8H	23.25	24.00	23.71	24.45	24.91	23.61	24.37	24.08	24.81	25.28
	12H	23.39	24.06	23.87	24.54	25.01	23.89	24.56	24.37	25.04	25.51
8H	4H	22.79	23.54	23.25	23.99	24.46	22.80	23.55	23.26	24.00	24.47
	6H	23.50	24.12	24.00	24.62	25.09	23.75	24.37	24.25	24.86	25.34
	8H	23.77	24.33	24.28	24.84	25.33	24.17	24.73	24.68	25.24	25.73
	12H	23.98	24.48	24.49	24.97	25.53	24.53	25.03	25.04	25.52	26.09
12H	4H	22.83	23.50	23.31	23.98	24.45	22.83	23.50	23.31	23.98	24.45
	6H	23.57	24.13	24.09	24.64	25.13	23.80	24.36	24.32	24.87	25.36
	8H	23.90	24.40	24.41	24.89	25.45	24.28	24.78	24.79	25.27	25.84