

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: P893939

Luminaire Tested: 4MB-8HL-LVR-UNV-L840

Issue Date: 11/11/2024

**Test Information**

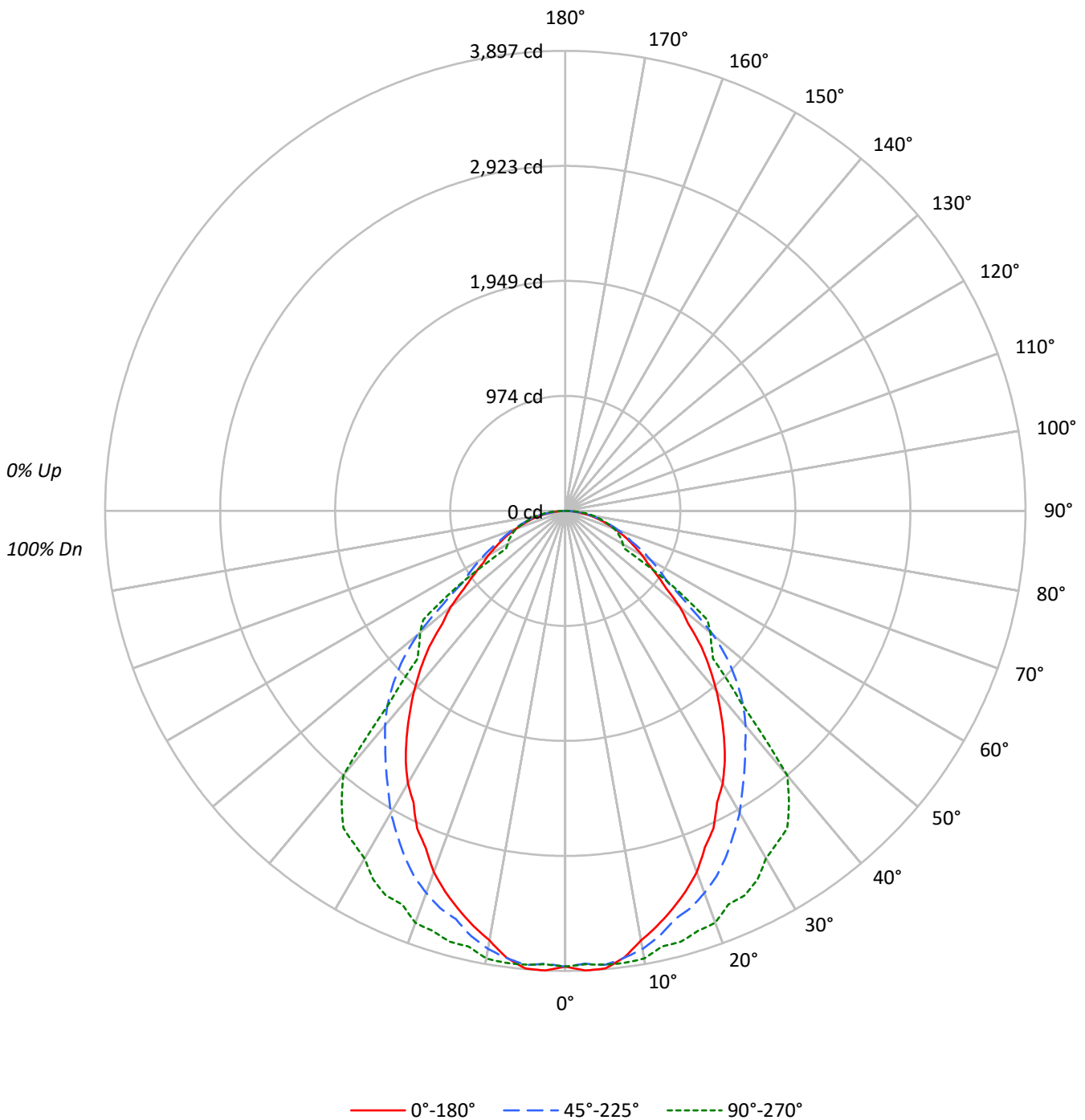
Test Method: LM-79-2019  
Report Number: P893939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-LVR-UNV-L840  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8079.0 lumens  
Efficiency: N/A  
Efficacy: 139.5 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): 57.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 4.23  
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°	27461	27461	27461
5°	27792	27574	27558
10°	26697	27221	27819
15°	25741	26376	27837
20°	24658	26082	28116
25°	23296	25316	28218
30°	21894	24259	27928
35°	20360	23009	28473
40°	18498	22056	27152
45°	16390	20701	17804
50°	14028	18092	17766
55°	11755	13203	13821
60°	10694	11920	8000
65°	10019	10553	8549
70°	9220	9998	9149
75°	8662	9380	9316
80°	8080	8871	9985
85°	6939	7404	10645

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 20701 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	366.8	4.5
10°-20°	1026.2	12.7
20°-30°	1495.6	18.5
30°-40°	1710.9	21.2
40°-50°	1463.6	18.1
50°-60°	965.2	11.9
60°-70°	583.5	7.2
70°-80°	357.0	4.4
80°-90°	110.3	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°	2888.5	35.8
0°-40°	4599.5	56.9
0°-60°	7028.3	87.0
0°-90°	8079.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8079.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3860	3860	3860	3860	3860	
5°	3891	3888	3861	3853	3858	365
15°	3495	3535	3581	3810	3779	982
25°	2968	3013	3225	3500	3594	1357
35°	2344	2462	2649	3065	3278	1460
45°	1629	1755	2057	1922	1769	1247
55°	948	1001	1064	1262	1114	862
65°	595	610	627	560	508	588
75°	315	323	341	357	339	333
85°	85	84	91	108	130	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3859.6	3859.6	3859.6	3859.6	3859.6
2.5°	3897.0	3885.7	3839.2	3883.4	3843.7
5°	3891.3	3887.9	3860.7	3852.8	3858.5
7.5°	3816.5	3824.5	3819.9	3904.9	3861.9
10°	3695.2	3711.1	3767.8	3886.8	3850.5
12.5°	3600.0	3612.5	3688.4	3865.3	3780.3
15°	3494.6	3535.4	3580.8	3809.7	3779.1
17.5°	3381.3	3419.8	3527.5	3734.9	3731.5
20°	3256.6	3328.0	3444.7	3637.4	3713.4
22.5°	3087.7	3184.0	3348.4	3593.2	3608.0
25°	2967.5	3012.9	3224.8	3500.3	3594.4
27.5°	2785.0	2871.2	3087.7	3366.5	3521.8
30°	2664.9	2736.3	2952.8	3288.3	3399.4
32.5°	2514.1	2599.1	2793.0	3203.3	3337.1
35°	2344.1	2462.0	2649.0	3065.0	3278.1
37.5°	2165.0	2281.8	2502.8	2950.5	3111.5
40°	1991.6	2091.3	2374.7	2813.4	2923.3
42.5°	1813.6	1921.3	2228.5	2542.5	2199.0
45°	1628.9	1754.7	2057.3	1922.4	1769.4
47.5°	1410.1	1564.2	1868.0	1545.0	1676.5
50°	1267.3	1351.1	1634.5	1456.6	1605.0
52.5°	1078.0	1191.3	1312.6	1360.2	1516.6
55°	947.6	1000.9	1064.4	1261.6	1114.2
57.5°	827.5	875.1	948.7	889.8	594.0
60°	751.5	773.1	837.7	635.9	562.2
62.5°	665.4	686.9	734.5	594.0	539.6
65°	595.1	609.8	626.8	560.0	507.8
67.5°	520.3	528.2	546.4	516.9	477.2
70°	443.2	454.5	480.6	472.7	439.8
72.5°	375.2	385.4	408.1	419.4	388.8
75°	315.1	323.1	341.2	357.1	338.9
77.5°	250.5	258.4	282.2	299.2	291.3
80°	197.2	198.4	216.5	233.5	243.7
82.5°	138.3	140.6	154.2	172.3	192.7
85°	85.0	83.9	90.7	107.7	130.4
87.5°	32.9	31.7	37.4	45.3	66.9
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	19.34	20.82	19.70	21.13	21.44	19.01	20.49	19.38	20.81	21.12
	3H	20.90	22.22	21.27	22.55	22.91	20.63	21.96	21.01	22.28	22.65
	4H	21.50	22.74	21.90	23.09	23.47	21.38	22.62	21.78	22.97	23.35
	6H	21.95	23.10	22.36	23.46	23.86	22.05	23.19	22.46	23.56	23.95
	8H	22.11	23.20	22.53	23.59	23.99	22.32	23.41	22.75	23.80	24.21
	12H	22.20	23.25	22.63	23.63	24.06	22.55	23.59	22.98	23.97	24.40
4H	2H	19.93	21.17	20.33	21.52	21.90	19.67	20.92	20.07	21.26	21.64
	3H	21.72	22.75	22.13	23.15	23.55	21.56	22.59	21.97	22.99	23.39
	4H	22.45	23.37	22.88	23.79	24.23	22.45	23.38	22.89	23.80	24.24
	6H	23.03	23.83	23.49	24.28	24.74	23.26	24.07	23.72	24.51	24.97
	8H	23.22	23.98	23.69	24.42	24.89	23.59	24.34	24.05	24.79	25.26
	12H	23.36	24.04	23.85	24.52	24.99	23.86	24.54	24.35	25.01	25.49
8H	4H	22.77	23.52	23.23	23.96	24.43	22.78	23.53	23.24	23.97	24.44
	6H	23.48	24.10	23.97	24.59	25.07	23.73	24.35	24.22	24.84	25.32
	8H	23.75	24.31	24.26	24.82	25.31	24.14	24.70	24.66	25.21	25.70
	12H	23.95	24.45	24.46	24.94	25.51	24.51	25.01	25.02	25.50	26.07
12H	4H	22.81	23.48	23.29	23.96	24.43	22.80	23.47	23.28	23.95	24.42
	6H	23.55	24.11	24.06	24.62	25.11	23.78	24.34	24.29	24.85	25.34
	8H	23.87	24.37	24.39	24.87	25.43	24.26	24.75	24.77	25.25	25.81