

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: P893188

Luminaire Tested: 4MB-10HL-LVR-UNV-L850

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893188  
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-L850  
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

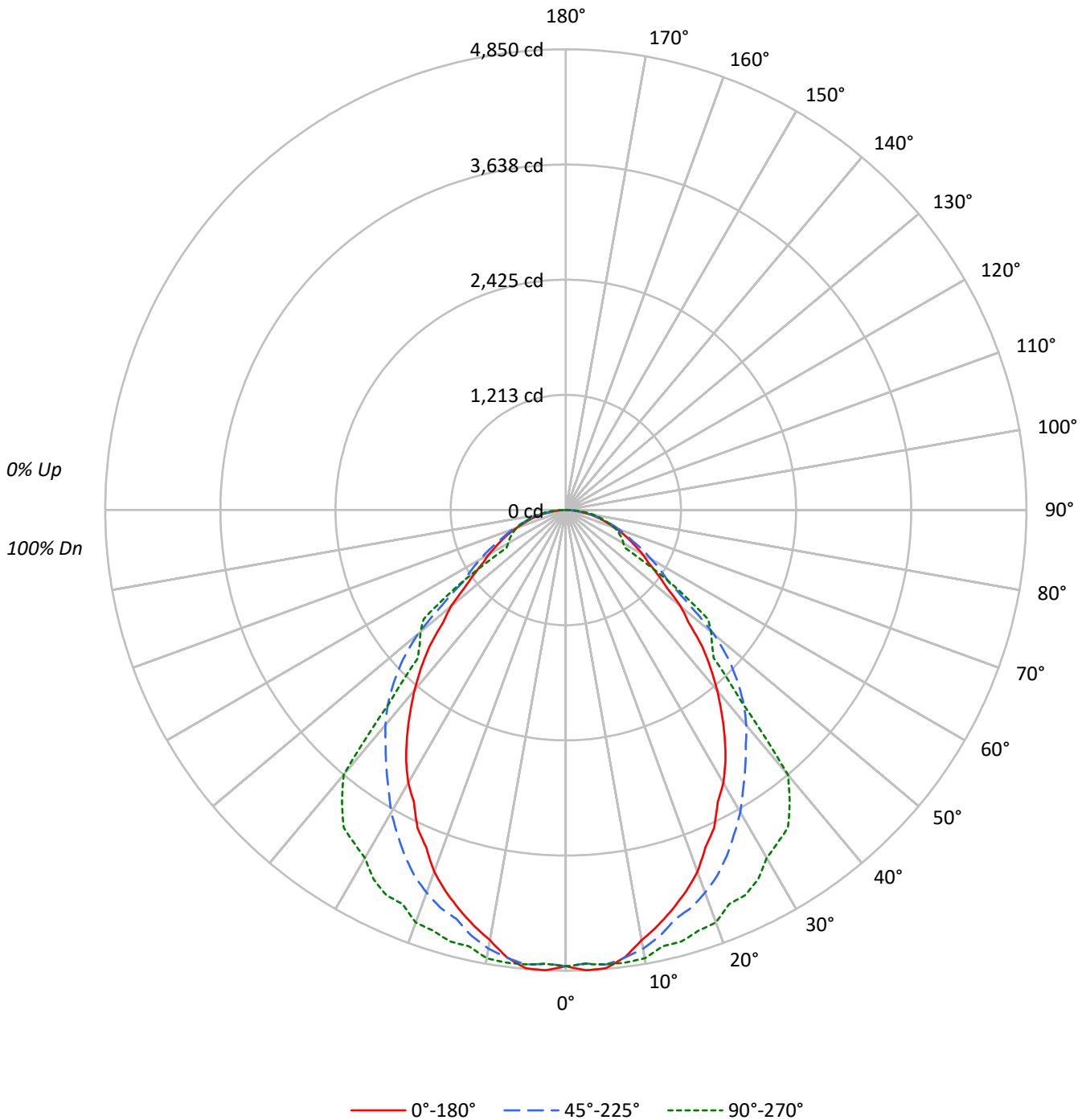
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10054.0 lumens  
Efficiency: N/A  
Efficacy: 133.2 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		0
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102		100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89		87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77		75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67		65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59		57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52		50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47		45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42		40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38		36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35		33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32		30

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

	0°	45°	90°
0°	34174	34174	34174
5°	34587	34315	34295
10°	33224	33876	34620
15°	32034	32824	34642
20°	30686	32458	34990
25°	28992	31506	35115
30°	27246	30189	34756
35°	25337	28634	35434
40°	23019	27448	33790
45°	20396	25762	22157
50°	17457	22515	22109
55°	14629	16431	17200
60°	13308	14833	9957
65°	12468	13133	10640
70°	11473	12442	11385
75°	10779	11672	11595
80°	10055	11038	12427
85°	8637	9208	13241

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 25762 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	456.4	4.5
10°-20°	1277.0	12.7
20°-30°	1861.2	18.5
30°-40°	2129.2	21.2
40°-50°	1821.4	18.1
50°-60°	1201.1	11.9
60°-70°	726.2	7.2
70°-80°	444.2	4.4
80°-90°	137.2	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°	3594.6	35.8
0°-40°	5723.8	56.9
0°-60°	8746.4	87.0
0°-90°	10054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10054.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4803	4803	4803	4803	4803	
5°	4843	4838	4804	4795	4802	454
15°	4349	4400	4456	4741	4703	1223
25°	3693	3749	4013	4356	4473	1689
35°	2917	3064	3297	3814	4080	1817
45°	2027	2184	2560	2392	2202	1552
55°	1179	1246	1325	1570	1387	1073
65°	741	759	780	697	632	732
75°	392	402	425	444	422	414
85°	106	104	113	134	162	120
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4803.1	4803.1	4803.1	4803.1	4803.1
2.5°	4849.7	4835.6	4777.7	4832.7	4783.4
5°	4842.6	4838.4	4804.5	4794.7	4801.7
7.5°	4749.5	4759.4	4753.7	4859.5	4805.9
10°	4598.6	4618.3	4688.9	4837.0	4791.8
12.5°	4480.1	4495.6	4590.1	4810.2	4704.4
15°	4348.9	4399.7	4456.1	4741.1	4703.0
17.5°	4207.8	4255.8	4389.8	4648.0	4643.7
20°	4052.7	4141.5	4286.8	4526.6	4621.2
22.5°	3842.5	3962.4	4166.9	4471.6	4490.0
25°	3693.0	3749.4	4013.2	4356.0	4473.0
27.5°	3465.9	3573.1	3842.5	4189.5	4382.8
30°	3316.3	3405.2	3674.6	4092.2	4230.4
32.5°	3128.7	3234.5	3475.7	3986.4	4152.8
35°	2917.1	3063.8	3296.6	3814.3	4079.5
37.5°	2694.3	2839.6	3114.6	3671.8	3872.1
40°	2478.4	2602.6	2955.2	3501.1	3638.0
42.5°	2257.0	2391.0	2773.3	3164.0	2736.6
45°	2027.0	2183.6	2560.3	2392.4	2202.0
47.5°	1754.8	1946.6	2324.7	1922.7	2086.3
50°	1577.1	1681.4	2034.1	1812.6	1997.4
52.5°	1341.5	1482.5	1633.5	1692.7	1887.4
55°	1179.3	1245.6	1324.6	1570.0	1386.6
57.5°	1029.7	1089.0	1180.7	1107.3	739.2
60°	935.2	962.0	1042.4	791.4	699.7
62.5°	828.0	854.8	914.1	739.2	671.4
65°	740.6	758.9	780.1	696.8	632.0
67.5°	647.5	657.3	679.9	643.2	593.9
70°	551.5	565.7	598.1	588.2	547.3
72.5°	466.9	479.6	507.8	521.9	483.8
75°	392.1	402.0	424.6	444.3	421.8
77.5°	311.7	321.6	351.2	372.4	362.5
80°	245.4	246.9	269.4	290.6	303.3
82.5°	172.1	174.9	191.8	214.4	239.8
85°	105.8	104.4	112.8	134.0	162.2
87.5°	40.9	39.5	46.6	56.4	83.2
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	20.10	21.57	20.46	21.89	22.20	19.77	21.25	20.14	21.57	21.88
	3H	21.66	22.98	22.03	23.31	23.67	21.39	22.72	21.77	23.04	23.41
	4H	22.26	23.50	22.66	23.85	24.22	22.14	23.38	22.54	23.73	24.11
	6H	22.71	23.86	23.12	24.22	24.62	22.81	23.95	23.22	24.32	24.71
	8H	22.86	23.95	23.29	24.34	24.75	23.08	24.17	23.51	24.56	24.97
	12H	22.96	24.01	23.39	24.39	24.82	23.31	24.35	23.74	24.73	25.16
4H	2H	20.69	21.93	21.09	22.28	22.66	20.43	21.68	20.83	22.02	22.40
	3H	22.48	23.51	22.89	23.91	24.31	22.32	23.35	22.73	23.75	24.15
	4H	23.20	24.13	23.64	24.55	24.99	23.21	24.14	23.65	24.56	25.00
	6H	23.79	24.59	24.25	25.04	25.50	24.02	24.83	24.48	25.27	25.73
	8H	23.98	24.74	24.45	25.18	25.65	24.35	25.10	24.81	25.55	26.02
	12H	24.12	24.80	24.61	25.27	25.75	24.62	25.29	25.11	25.77	26.25
8H	4H	23.53	24.28	23.99	24.72	25.19	23.54	24.29	24.00	24.73	25.20
	6H	24.24	24.86	24.73	25.35	25.83	24.48	25.11	24.98	25.60	26.08
	8H	24.51	25.07	25.02	25.58	26.07	24.90	25.46	25.42	25.97	26.46
	12H	24.71	25.21	25.22	25.70	26.27	25.27	25.77	25.78	26.26	26.82
12H	4H	23.57	24.24	24.05	24.72	25.19	23.56	24.23	24.04	24.71	25.18
	6H	24.31	24.87	24.82	25.38	25.87	24.54	25.10	25.05	25.61	26.10
	8H	24.63	25.13	25.14	25.62	26.19	25.02	25.51	25.53	26.01	26.57