

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: P893941

Luminaire Tested: 4MB-8HL-LVR-UNV-L930

Issue Date: 11/11/2024

**Test Information**

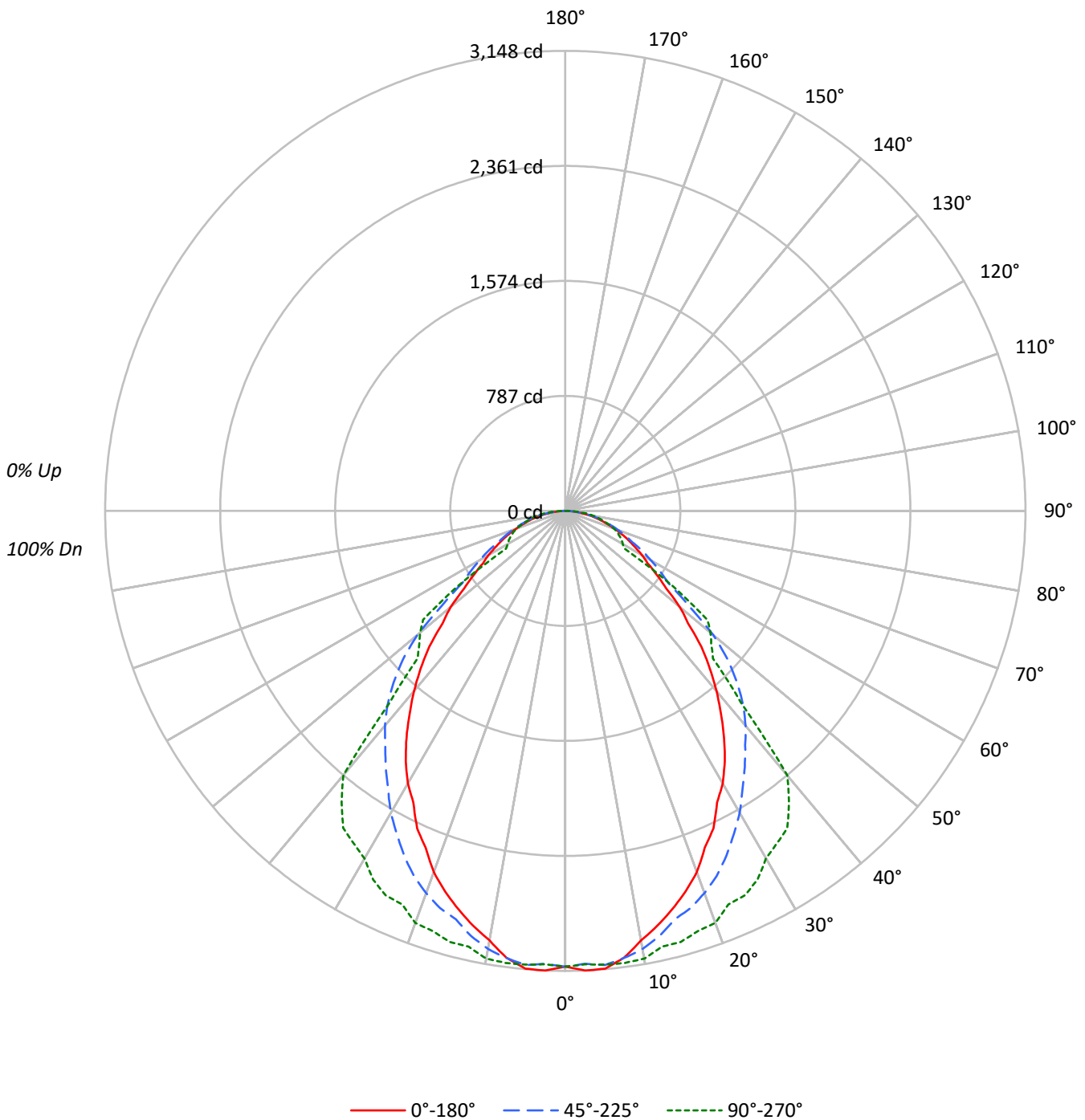
Test Method: LM-79-2019  
Report Number: P893941  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-LVR-UNV-L930  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6527.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 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): 57.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	22186	22186	22186
5°	22454	22277	22264
10°	21569	21992	22475
15°	20796	21309	22489
20°	19921	21072	22715
25°	18822	20453	22797
30°	17688	19599	22564
35°	16449	18588	23003
40°	14944	17819	21935
45°	13241	16724	14384
50°	11332	14617	14353
55°	9497	10667	11167
60°	8639	9629	6463
65°	8095	8526	6908
70°	7450	8078	7391
75°	6999	7576	7527
80°	6527	7166	8068
85°	5608	5984	8596

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16724 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	296.3	4.5
10°-20°	829.1	12.7
20°-30°	1208.3	18.5
30°-40°	1382.3	21.2
40°-50°	1182.5	18.1
50°-60°	779.8	11.9
60°-70°	471.4	7.2
70°-80°	288.4	4.4
80°-90°	89.1	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°	2333.6	35.8
0°-40°	3715.9	56.9
0°-60°	5678.1	87.0
0°-90°	6527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6527.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3118	3118	3118	3118	3118	
5°	3144	3141	3119	3113	3117	295
15°	2823	2856	2893	3078	3053	794
25°	2398	2434	2605	2828	2904	1097
35°	1894	1989	2140	2476	2648	1180
45°	1316	1418	1662	1553	1430	1007
55°	766	809	860	1019	900	696
65°	481	493	506	452	410	475
75°	255	261	276	288	274	269
85°	69	68	73	87	105	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3118.2	3118.2	3118.2	3118.2	3118.2
2.5°	3148.4	3139.2	3101.7	3137.4	3105.3
5°	3143.8	3141.1	3119.1	3112.7	3117.2
7.5°	3083.4	3089.8	3086.1	3154.8	3120.0
10°	2985.4	2998.2	3044.0	3140.1	3110.8
12.5°	2908.4	2918.5	2979.9	3122.7	3054.1
15°	2823.3	2856.3	2892.9	3077.9	3053.1
17.5°	2731.7	2762.8	2849.8	3017.4	3014.7
20°	2631.0	2688.7	2783.0	2938.7	3000.0
22.5°	2494.5	2572.4	2705.2	2903.0	2914.9
25°	2397.5	2434.1	2605.3	2827.9	2903.9
27.5°	2250.0	2319.6	2494.5	2719.8	2845.3
30°	2152.9	2210.6	2385.6	2656.6	2746.4
32.5°	2031.2	2099.8	2256.4	2587.9	2696.0
35°	1893.8	1989.0	2140.1	2476.2	2648.4
37.5°	1749.1	1843.4	2022.0	2383.7	2513.8
40°	1609.0	1689.6	1918.5	2272.9	2361.7
42.5°	1465.2	1552.2	1800.4	2054.0	1776.6
45°	1315.9	1417.6	1662.1	1553.1	1429.5
47.5°	1139.2	1263.7	1509.2	1248.2	1354.4
50°	1023.8	1091.6	1320.5	1176.8	1296.7
52.5°	870.9	962.5	1060.4	1098.9	1225.3
55°	765.6	808.6	859.9	1019.2	900.2
57.5°	668.5	707.0	766.5	718.9	479.9
60°	607.1	624.5	676.7	513.7	454.2
62.5°	537.6	554.9	593.4	479.9	435.9
65°	480.8	492.7	506.4	452.4	410.3
67.5°	420.3	426.7	441.4	417.6	385.5
70°	358.1	367.2	388.3	381.9	355.3
72.5°	303.1	311.4	329.7	338.8	314.1
75°	254.6	261.0	275.6	288.5	273.8
77.5°	202.4	208.8	228.0	241.8	235.4
80°	159.3	160.3	174.9	188.6	196.9
82.5°	111.7	113.6	124.5	139.2	155.7
85°	68.7	67.8	73.3	87.0	105.3
87.5°	26.6	25.6	30.2	36.6	54.0
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	18.60	20.07	18.96	20.39	20.70	18.27	19.75	18.64	20.06	20.38
	3H	20.15	21.48	20.53	21.81	22.17	19.89	21.21	20.27	21.54	21.90
	4H	20.75	22.00	21.15	22.34	22.72	20.64	21.88	21.04	22.23	22.61
	6H	21.21	22.36	21.62	22.72	23.12	21.31	22.45	21.72	22.82	23.21
	8H	21.36	22.45	21.79	22.84	23.25	21.58	22.67	22.01	23.06	23.47
	12H	21.46	22.51	21.89	22.89	23.32	21.80	22.85	22.24	23.23	23.66
4H	2H	19.19	20.43	19.59	20.78	21.16	18.93	20.17	19.33	20.52	20.90
	3H	20.98	22.00	21.39	22.41	22.81	20.82	21.85	21.23	22.25	22.65
	4H	21.70	22.63	22.14	23.05	23.48	21.71	22.64	22.15	23.06	23.49
	6H	22.29	23.09	22.74	23.53	24.00	22.52	23.33	22.98	23.77	24.23
	8H	22.48	23.24	22.95	23.68	24.15	22.85	23.60	23.31	24.05	24.51
	12H	22.62	23.29	23.11	23.77	24.25	23.12	23.79	23.60	24.27	24.74
8H	4H	22.03	22.78	22.49	23.22	23.69	22.03	22.79	22.50	23.23	23.70
	6H	22.74	23.36	23.23	23.85	24.33	22.98	23.61	23.48	24.10	24.58
	8H	23.00	23.57	23.52	24.08	24.57	23.40	23.96	23.92	24.47	24.96
	12H	23.21	23.71	23.72	24.20	24.77	23.77	24.27	24.28	24.76	25.32
12H	4H	22.06	22.74	22.55	23.22	23.69	22.06	22.73	22.54	23.21	23.68
	6H	22.81	23.37	23.32	23.88	24.37	23.04	23.60	23.55	24.11	24.60
	8H	23.13	23.63	23.64	24.12	24.69	23.52	24.01	24.03	24.51	25.07