

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: P893845

Luminaire Tested: 4MB-7HL-LVR-UNV-L930

Issue Date: 11/11/2024

**Test Information**

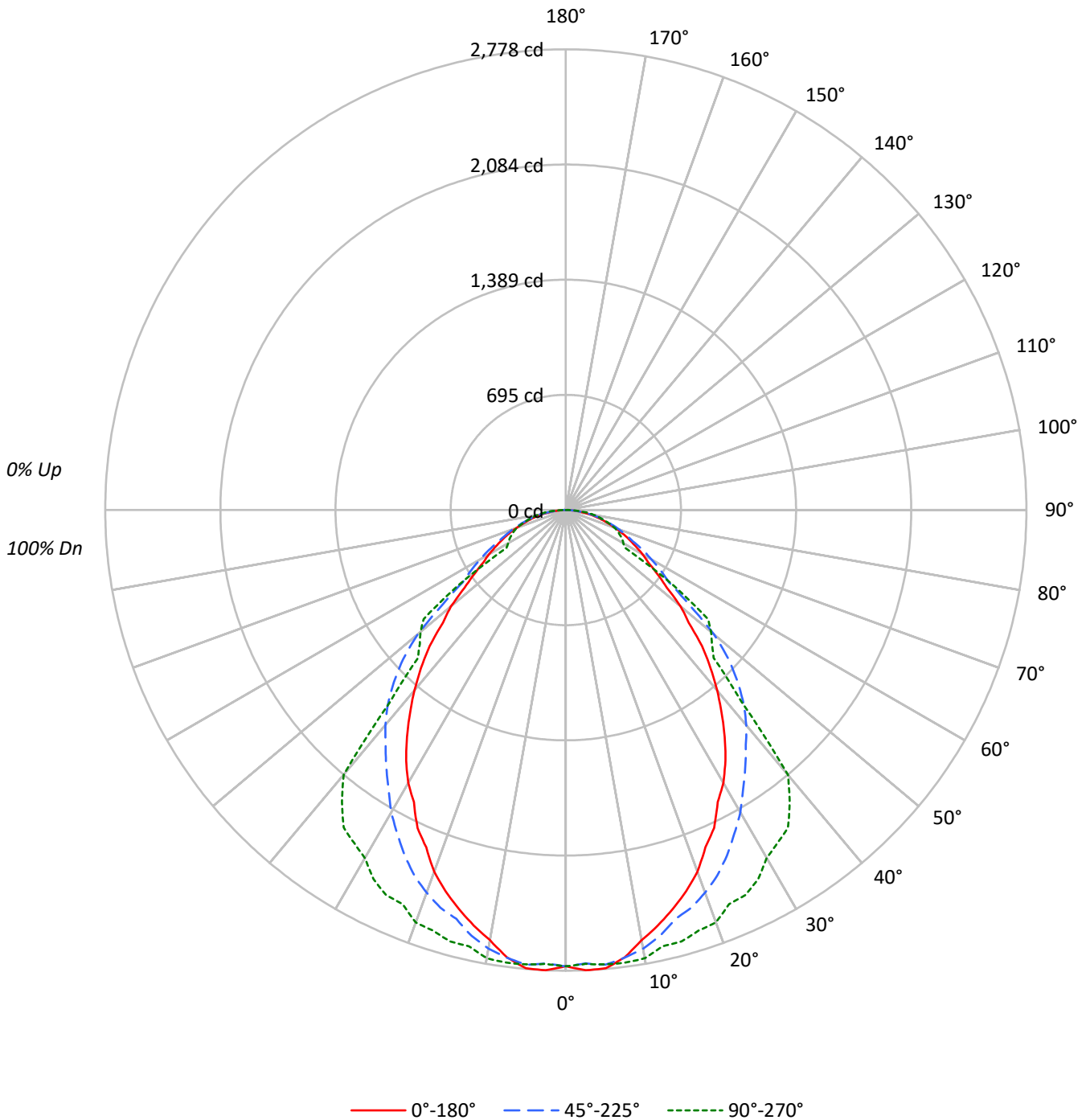
Test Method: LM-79-2019  
Report Number: P893845  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVR-UNV-L930  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5759.0 lumens  
Efficiency: N/A  
Efficacy: 111.2 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): 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	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°	19575	19575	19575
5°	19812	19656	19645
10°	19031	19404	19831
15°	18349	18802	19843
20°	17577	18592	20042
25°	16607	18047	20115
30°	15607	17293	19908
35°	14514	16401	20297
40°	13186	15723	19354
45°	11683	14756	12691
50°	10000	12896	12664
55°	8379	9411	9853
60°	7623	8497	5703
65°	7142	7522	6094
70°	6572	7127	6522
75°	6174	6686	6642
80°	5761	6322	7117
85°	4947	5274	7584

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 14756 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.4	4.5
10°-20°	731.5	12.7
20°-30°	1066.1	18.5
30°-40°	1219.6	21.2
40°-50°	1043.3	18.1
50°-60°	688.0	11.9
60°-70°	416.0	7.2
70°-80°	254.5	4.4
80°-90°	78.6	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°	2059.0	35.8
0°-40°	3278.7	56.9
0°-60°	5010.0	87.0
0°-90°	5759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5759.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2751	2751	2751	2751	2751	
5°	2774	2772	2752	2746	2750	260
15°	2491	2520	2552	2716	2694	700
25°	2115	2148	2299	2495	2562	968
35°	1671	1755	1888	2185	2337	1041
45°	1161	1251	1466	1370	1261	889
55°	676	714	759	899	794	614
65°	424	435	447	399	362	419
75°	225	230	243	254	242	237
85°	61	60	65	77	93	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2751.3	2751.3	2751.3	2751.3	2751.3
2.5°	2777.9	2769.8	2736.7	2768.2	2739.9
5°	2773.9	2771.5	2752.1	2746.4	2750.5
7.5°	2720.6	2726.2	2723.0	2783.6	2752.9
10°	2634.1	2645.4	2685.8	2770.7	2744.8
12.5°	2566.2	2575.1	2629.3	2755.3	2694.7
15°	2491.1	2520.2	2552.5	2715.7	2693.9
17.5°	2410.3	2437.8	2514.5	2662.4	2660.0
20°	2321.4	2372.3	2455.5	2592.9	2647.0
22.5°	2201.0	2269.7	2386.8	2561.4	2571.9
25°	2115.4	2147.7	2298.8	2495.1	2562.2
27.5°	1985.3	2046.7	2201.0	2399.8	2510.5
30°	1899.6	1950.5	2104.9	2344.0	2423.2
32.5°	1792.2	1852.8	1990.9	2283.4	2378.8
35°	1671.0	1755.0	1888.3	2184.8	2336.8
37.5°	1543.3	1626.5	1784.1	2103.2	2218.0
40°	1419.7	1490.8	1692.8	2005.5	2083.8
42.5°	1292.8	1369.6	1588.5	1812.4	1567.5
45°	1161.1	1250.8	1466.5	1370.4	1261.3
47.5°	1005.2	1115.0	1331.6	1101.3	1195.0
50°	903.4	963.1	1165.1	1038.3	1144.1
52.5°	768.4	849.2	935.7	969.6	1081.1
55°	675.5	713.5	758.7	899.3	794.3
57.5°	589.8	623.8	676.3	634.3	423.4
60°	535.7	551.1	597.1	453.3	400.8
62.5°	474.3	489.7	523.6	423.4	384.6
65°	424.2	434.7	446.8	399.2	362.0
67.5°	370.9	376.5	389.5	368.5	340.2
70°	315.9	324.0	342.6	336.9	313.5
72.5°	267.4	274.7	290.9	299.0	277.1
75°	224.6	230.3	243.2	254.5	241.6
77.5°	178.6	184.2	201.2	213.3	207.7
80°	140.6	141.4	154.3	166.4	173.7
82.5°	98.6	100.2	109.9	122.8	137.4
85°	60.6	59.8	64.6	76.8	92.9
87.5°	23.4	22.6	26.7	32.3	47.7
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	18.16	19.64	18.53	19.95	20.27	17.84	19.32	18.20	19.63	19.94
	3H	19.72	21.04	20.10	21.37	21.73	19.46	20.78	19.83	21.11	21.47
	4H	20.32	21.56	20.72	21.91	22.29	20.20	21.44	20.60	21.79	22.17
	6H	20.78	21.92	21.19	22.29	22.68	20.87	22.02	21.28	22.38	22.78
	8H	20.93	22.02	21.36	22.41	22.81	21.15	22.24	21.58	22.63	23.03
	12H	21.03	22.07	21.46	22.45	22.88	21.37	22.41	21.80	22.80	23.22
4H	2H	18.75	19.99	19.15	20.34	20.72	18.50	19.74	18.90	20.09	20.47
	3H	20.54	21.57	20.95	21.97	22.37	20.38	21.41	20.79	21.81	22.21
	4H	21.27	22.19	21.70	22.61	23.05	21.28	22.20	21.71	22.62	23.06
	6H	21.85	22.66	22.31	23.10	23.56	22.09	22.89	22.54	23.33	23.79
	8H	22.05	22.80	22.51	23.25	23.71	22.41	23.17	22.88	23.61	24.08
	12H	22.19	22.86	22.67	23.34	23.81	22.69	23.36	23.17	23.84	24.31
8H	4H	21.59	22.34	22.05	22.79	23.26	21.60	22.35	22.06	22.80	23.27
	6H	22.30	22.92	22.80	23.42	23.89	22.55	23.17	23.05	23.66	24.14
	8H	22.57	23.13	23.08	23.64	24.13	22.97	23.53	23.48	24.04	24.53
	12H	22.78	23.28	23.29	23.77	24.33	23.33	23.83	23.84	24.32	24.89
12H	4H	21.63	22.30	22.11	22.78	23.25	21.63	22.30	22.11	22.78	23.25
	6H	22.37	22.93	22.89	23.44	23.93	22.60	23.16	23.12	23.67	24.16
	8H	22.70	23.20	23.21	23.69	24.25	23.08	23.58	23.59	24.07	24.64