

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: P893432

Luminaire Tested: 4MB-3SL-LVRF-UNV-L950

Issue Date: 11/11/2024

**Test Information**

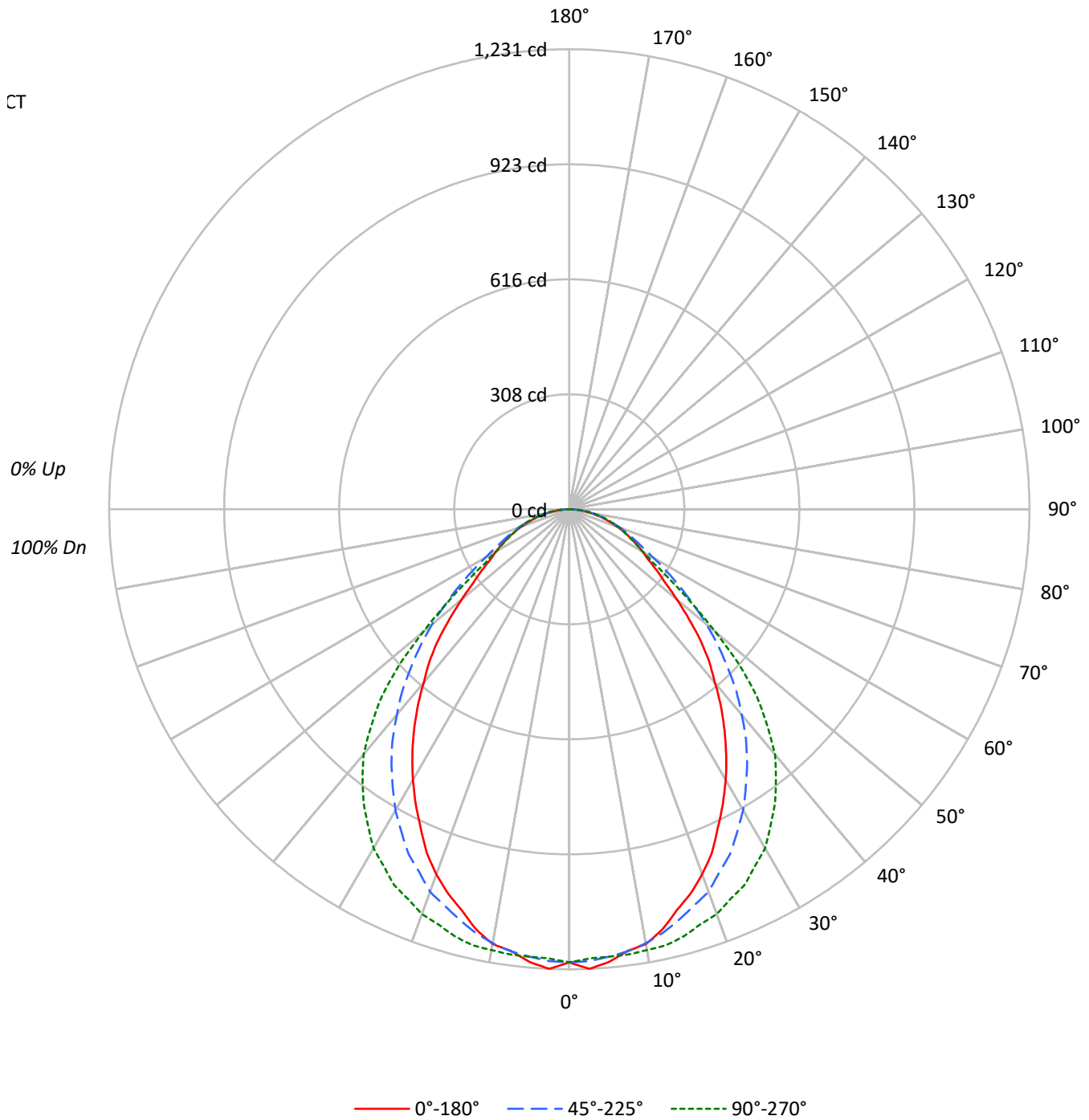
Test Method: LM-79-2019  
Report Number: P893432  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-LVRF-UNV-L950  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 5000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2519.0 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.2  
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	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	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	58	53	62	56	52	52	52	52	50
6	75	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	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	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°	8623	8623	8623
5°	8683	8584	8584
10°	8533	8520	8652
15°	8181	8371	8714
20°	7869	8246	8729
25°	7383	7991	8709
30°	6872	7638	8606
35°	6290	7204	8332
40°	5631	6662	7950
45°	4998	6031	7147
50°	4158	5309	5637
55°	3542	4472	4097
60°	3210	3696	3237
65°	3024	3236	3014
70°	2846	3002	2937
75°	2650	2859	2807
80°	2426	2635	2712
85°	2106	2318	3037

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7147 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.7	4.6
10°-20°	322.9	12.8
20°-30°	468.9	18.6
30°-40°	522.2	20.7
40°-50°	461.3	18.3
50°-60°	302.7	12.0
60°-70°	185.4	7.4
70°-80°	107.9	4.3
80°-90°	33.0	1.3
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°	906.6	36.0
0°-40°	1428.7	56.7
0°-60°	2192.7	87.0
0°-90°	2519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2519.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1216	1216	1202	1214	1202	115
15°	1111	1123	1136	1181	1183	313
25°	940	963	1018	1083	1109	433
35°	724	763	829	917	959	452
45°	497	527	599	680	710	380
55°	286	306	360	357	330	259
65°	180	183	192	187	179	179
75°	96	98	104	106	102	102
85°	26	27	28	32	37	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1212.0	1212.0	1212.0	1212.0	1212.0
2.5°	1230.9	1215.8	1210.1	1215.8	1203.2
5°	1215.8	1216.4	1201.9	1213.9	1201.9
7.5°	1191.9	1200.1	1193.1	1211.4	1201.9
10°	1181.1	1181.8	1179.3	1198.2	1197.5
12.5°	1151.5	1153.4	1160.3	1188.7	1195.0
15°	1110.6	1123.2	1136.4	1181.1	1183.0
17.5°	1078.4	1093.5	1111.2	1159.1	1164.8
20°	1039.3	1045.6	1089.1	1131.4	1152.8
22.5°	995.8	1007.8	1050.0	1106.8	1128.2
25°	940.4	963.1	1017.9	1082.8	1109.3
27.5°	889.3	915.8	972.5	1045.0	1075.9
30°	836.4	866.6	929.7	1000.9	1047.5
32.5°	781.5	819.4	879.2	961.2	1002.1
35°	724.2	763.3	829.4	917.1	959.3
37.5°	666.8	704.7	776.5	870.4	908.2
40°	606.3	643.5	717.3	812.4	855.9
42.5°	554.0	586.2	661.8	743.1	783.4
45°	496.7	526.9	599.4	680.1	710.3
47.5°	433.6	468.9	539.5	605.7	617.7
50°	375.6	412.2	479.6	518.1	509.3
52.5°	324.6	355.5	417.2	433.6	412.8
55°	285.5	305.7	360.5	357.4	330.3
57.5°	249.6	262.2	308.8	291.2	265.3
60°	225.6	231.3	259.7	243.3	227.5
62.5°	202.9	205.5	220.6	211.8	199.8
65°	179.6	182.8	192.2	186.6	179.0
67.5°	158.2	159.5	168.3	167.0	157.6
70°	136.8	138.7	144.3	146.9	141.2
72.5°	116.0	117.9	123.5	126.1	121.0
75°	96.4	97.7	104.0	105.9	102.1
77.5°	77.5	80.0	83.8	87.0	82.6
80°	59.2	60.5	64.3	68.1	66.2
82.5°	41.6	43.5	46.0	51.1	52.3
85°	25.8	27.1	28.4	32.1	37.2
87.5°	10.1	10.7	12.6	13.9	18.3
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	15.02	16.50	15.38	16.81	17.12	15.67	17.15	16.03	17.46	17.78
	3H	16.62	17.94	16.99	18.27	18.63	17.10	18.43	17.48	18.76	19.12
	4H	17.23	18.48	17.63	18.82	19.20	17.71	18.95	18.11	19.30	19.68
	6H	17.70	18.85	18.12	19.22	19.61	18.20	19.34	18.61	19.71	20.10
	8H	17.86	18.95	18.28	19.34	19.74	18.39	19.48	18.82	19.87	20.28
	12H	17.96	19.00	18.39	19.38	19.81	18.56	19.60	18.99	19.99	20.42
4H	2H	15.64	16.88	16.04	17.23	17.61	16.16	17.40	16.56	17.75	18.13
	3H	17.46	18.49	17.87	18.89	19.29	17.86	18.89	18.27	19.29	19.69
	4H	18.20	19.12	18.63	19.54	19.98	18.61	19.54	19.04	19.95	20.39
	6H	18.79	19.60	19.25	20.04	20.50	19.25	20.05	19.71	20.50	20.96
	8H	18.99	19.74	19.45	20.19	20.66	19.50	20.25	19.97	20.70	21.17
	12H	19.13	19.80	19.61	20.28	20.75	19.73	20.40	20.21	20.88	21.35
8H	4H	18.51	19.27	18.98	19.71	20.18	18.88	19.63	19.35	20.08	20.55
	6H	19.24	19.86	19.74	20.35	20.83	19.66	20.28	20.15	20.77	21.25
	8H	19.51	20.07	20.03	20.58	21.07	20.00	20.56	20.52	21.07	21.56
	12H	19.73	20.23	20.24	20.72	21.28	20.32	20.82	20.83	21.31	21.87
12H	4H	18.55	19.22	19.03	19.70	20.17	18.90	19.57	19.38	20.05	20.52
	6H	19.30	19.86	19.82	20.37	20.86	19.70	20.26	20.22	20.77	21.26
	8H	19.64	20.13	20.15	20.62	21.19	20.11	20.61	20.62	21.10	21.66