

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: P893421

Luminaire Tested: 4MB-3SL-LVRA-UNV-L930

Issue Date: 11/11/2024

**Test Information**

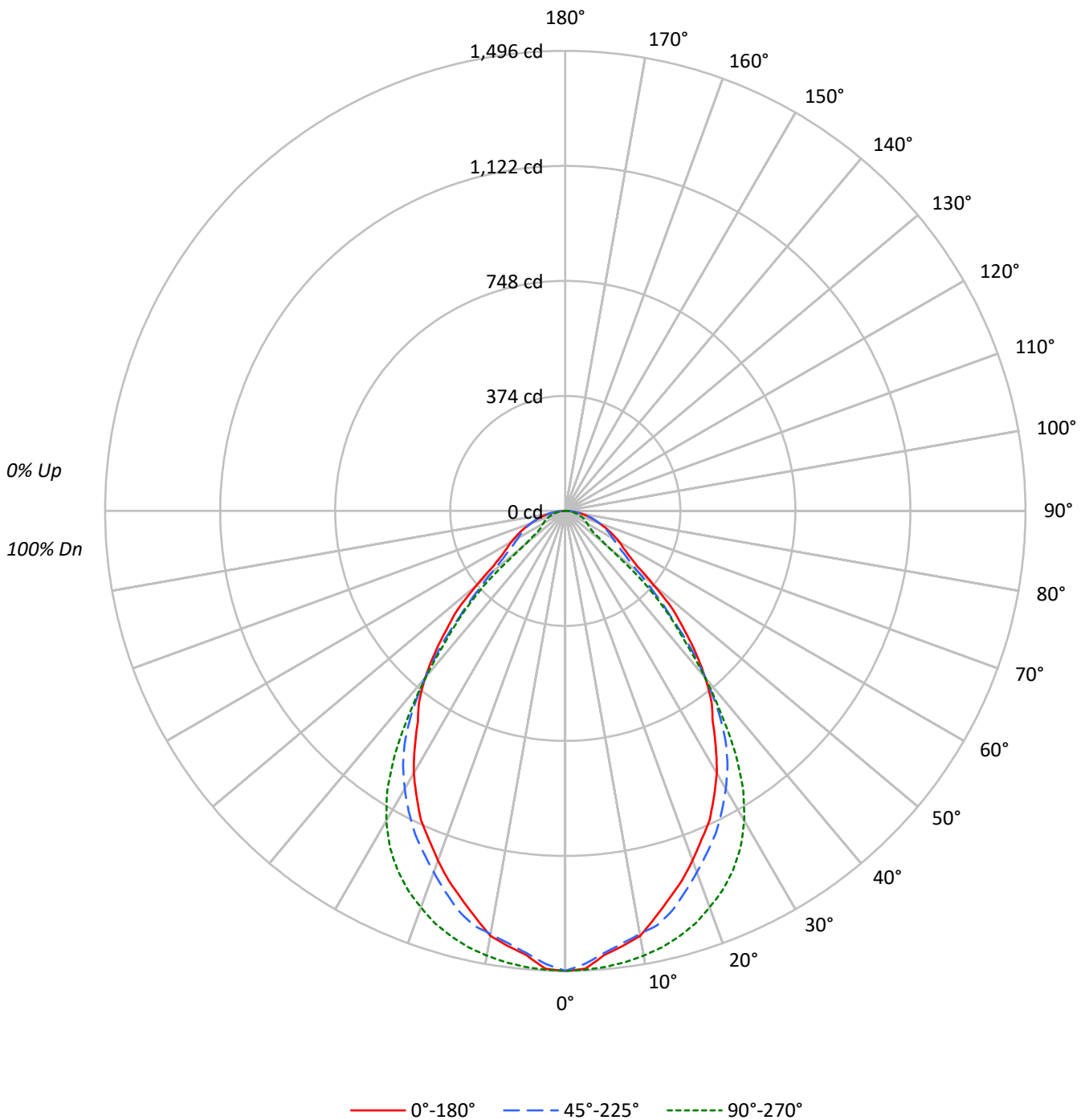
Test Method: LM-79-2019  
Report Number: P893421  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-LVRA-UNV-L930  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2428.0 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
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	100	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35	35

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

	0°	45°	90°
0°	10644	10644	10644
5°	10357	10310	10633
10°	10137	10092	10608
15°	9614	9909	10548
20°	9158	9468	10388
25°	8712	9084	10122
30°	8093	8576	9557
35°	7257	7881	8383
40°	6575	6590	6554
45°	5498	4869	4748
50°	4153	3427	1941
55°	3123	2740	1224
60°	2903	2524	1180
65°	2700	2519	1182
70°	2471	2471	1163
75°	2342	2405	1124
80°	2163	2274	1151
85°	1886	1984	1257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 5626 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.2	5.7
10°-20°	380.8	15.7
20°-30°	539.9	22.2
30°-40°	556.3	22.9
40°-50°	388.5	16.0
50°-60°	186.4	7.7
60°-70°	130.8	5.4
70°-80°	81.8	3.4
80°-90°	25.3	1.0
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°	1058.9	43.6
0°-40°	1615.2	66.5
0°-60°	2190.1	90.2
0°-90°	2428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2428.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1450	1448	1444	1481	1489	137
15°	1305	1315	1345	1384	1432	368
25°	1110	1121	1157	1235	1289	507
35°	836	858	907	926	965	526
45°	546	559	484	459	472	421
55°	252	239	221	142	99	236
65°	160	150	150	114	70	159
75°	85	84	88	76	41	90
85°	23	23	24	24	15	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1496.0	1496.0	1496.0	1496.0	1496.0
2.5°	1490.2	1485.6	1474.4	1494.9	1493.3
5°	1450.1	1448.2	1443.6	1481.4	1488.7
7.5°	1427.4	1423.5	1418.1	1459.8	1480.2
10°	1403.1	1407.7	1396.9	1435.1	1468.3
12.5°	1353.0	1365.3	1380.0	1409.7	1453.6
15°	1305.2	1314.8	1345.3	1383.8	1432.0
17.5°	1260.4	1271.6	1297.8	1355.7	1407.0
20°	1209.5	1225.0	1250.4	1324.4	1371.9
22.5°	1157.1	1171.4	1203.4	1282.8	1335.6
25°	1109.7	1120.9	1157.1	1235.4	1289.4
27.5°	1046.8	1067.7	1102.0	1177.5	1234.2
30°	985.1	1002.9	1043.8	1107.4	1163.3
32.5°	910.7	936.6	981.7	1030.3	1076.9
35°	835.5	858.3	907.3	926.2	965.1
37.5°	780.8	787.0	814.7	812.4	834.4
40°	707.9	720.3	709.5	680.5	705.6
42.5°	629.3	643.9	600.3	566.8	575.7
45°	546.4	559.1	483.9	459.2	471.9
47.5°	474.6	473.5	390.2	373.6	355.9
50°	375.2	387.5	309.6	278.8	175.4
52.5°	293.0	297.7	255.3	178.1	115.3
55°	251.8	239.4	220.9	141.5	98.7
57.5°	223.6	208.2	195.9	131.5	90.2
60°	204.0	186.6	177.4	124.9	82.9
62.5°	181.6	168.1	164.6	119.1	76.3
65°	160.4	150.0	149.6	113.7	70.2
67.5°	139.2	133.4	135.0	107.2	63.2
70°	118.8	117.6	118.8	98.7	55.9
72.5°	101.4	100.2	103.3	87.9	47.8
75°	85.2	84.1	87.5	75.6	40.9
77.5°	67.9	68.6	70.9	62.8	34.3
80°	52.8	52.8	55.5	49.4	28.1
82.5°	37.8	38.2	39.7	36.2	22.0
85°	23.1	23.1	24.3	23.9	15.4
87.5°	7.7	8.9	10.4	11.2	7.7
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	13.86	15.22	14.23	15.53	15.84	10.20	11.55	10.56	11.86	12.18
	3H	15.60	16.81	15.98	17.14	17.50	12.17	13.38	12.55	13.71	14.07
	4H	16.27	17.40	16.68	17.75	18.13	12.88	14.00	13.28	14.35	14.74
	6H	16.78	17.82	17.19	18.19	18.58	13.40	14.44	13.81	14.81	15.20
	8H	16.95	17.94	17.38	18.33	18.73	13.58	14.57	14.01	14.96	15.36
	12H	17.06	18.00	17.49	18.39	18.82	13.72	14.67	14.16	15.05	15.48
4H	2H	14.39	15.52	14.80	15.87	16.25	11.82	12.95	12.22	13.30	13.68
	3H	16.37	17.30	16.78	17.70	18.11	14.00	14.93	14.41	15.33	15.73
	4H	17.17	18.01	17.61	18.43	18.87	14.88	15.71	15.31	16.13	16.57
	6H	17.82	18.54	18.28	18.99	19.45	15.52	16.24	15.98	16.69	17.15
	8H	18.04	18.71	18.50	19.16	19.63	15.73	16.40	16.20	16.85	17.32
	12H	18.19	18.79	18.68	19.27	19.75	15.89	16.49	16.37	16.97	17.44
8H	4H	17.46	18.13	17.93	18.58	19.05	15.52	16.20	15.99	16.65	17.12
	6H	18.24	18.80	18.74	19.29	19.77	16.39	16.94	16.89	17.44	17.92
	8H	18.54	19.04	19.06	19.56	20.05	16.71	17.21	17.23	17.73	18.22
	12H	18.78	19.22	19.29	19.71	20.28	16.98	17.42	17.49	17.91	18.48
12H	4H	17.47	18.07	17.96	18.56	19.03	15.60	16.20	16.08	16.68	17.15
	6H	18.29	18.79	18.81	19.31	19.80	16.52	17.02	17.04	17.54	18.03
	8H	18.66	19.10	19.17	19.59	20.16	16.94	17.38	17.45	17.87	18.44