

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: P892599

Luminaire Tested: 2MB-3SL-AOL-UNV-L840

Issue Date: 11/11/2024

**Test Information**

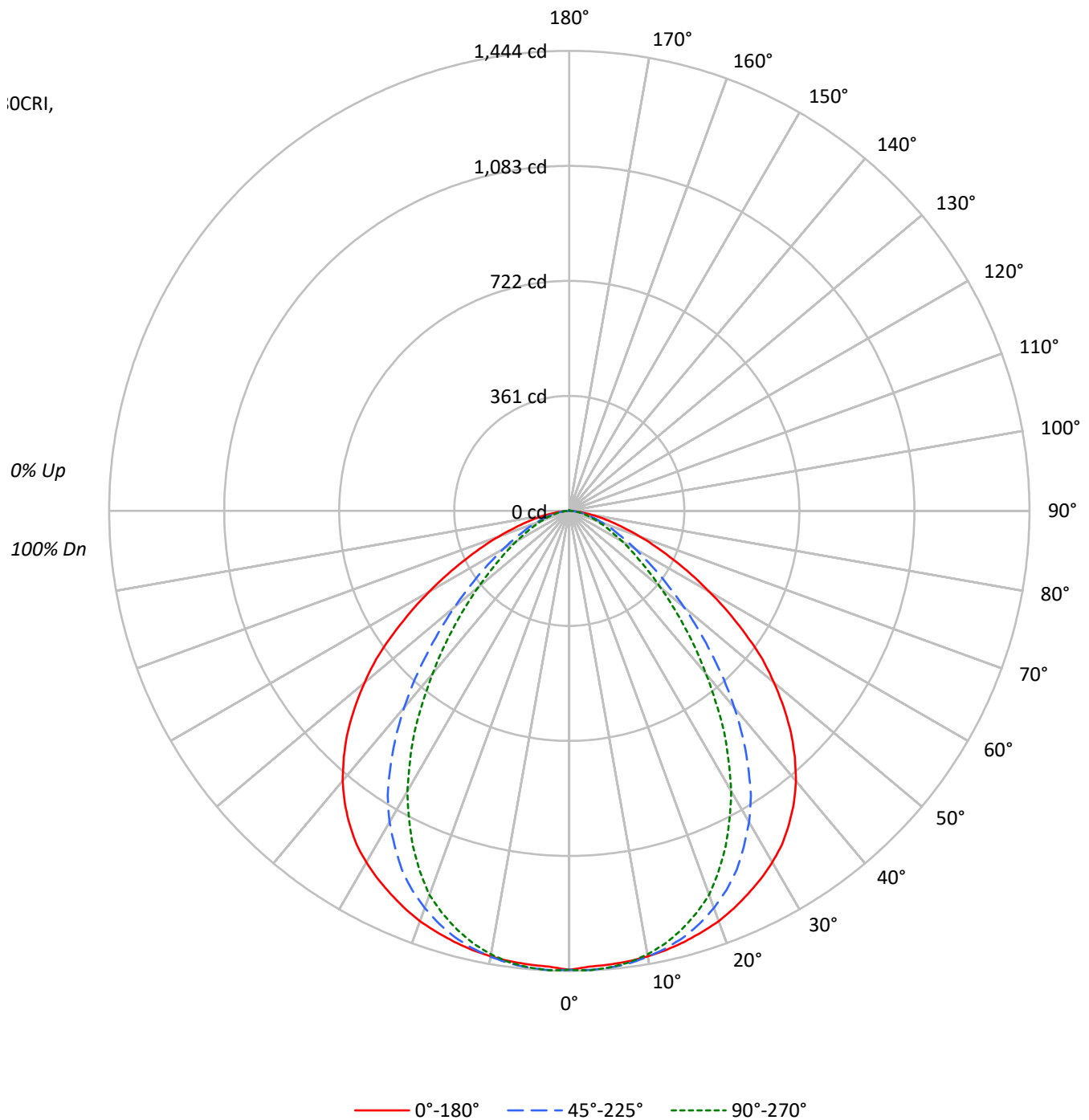
Test Method: LM-79-2019  
Report Number: P892599  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-3SL-AOL-UNV-L840  
Description: 3000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8  
4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2937.0 lumens  
Efficiency: N/A  
Efficacy: 139.9 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.08 / 1.18  
Luminous Opening: Rectangular (W 0.27' x L: 1.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 8  
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	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	78	78	78	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	68	68	68	66
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	60	60	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	53	53	53	52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	48	48	48	46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	43	53	47	43	43	43	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	39	39	39	37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	36	36	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	33	33	33	31

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

	0°	45°	90°
0°	29498	29498	29498
5°	29389	29591	29570
10°	29527	29548	29386
15°	29670	29382	28845
20°	29862	28907	27953
25°	29972	28079	26231
30°	30123	26668	24020
35°	30044	24445	21183
40°	29577	21531	17808
45°	28486	18191	14696
50°	26714	14956	11854
55°	24133	12134	9528
60°	20784	9771	7900
65°	17273	8072	6560
70°	14171	6765	5598
75°	11250	5783	4858
80°	8502	4941	4363
85°	5733	4581	4111

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 28486 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.7	4.7
10°-20°	389.9	13.3
20°-30°	571.0	19.4
30°-40°	623.1	21.2
40°-50°	528.3	18.0
50°-60°	359.1	12.2
60°-70°	202.9	6.9
70°-80°	92.6	3.2
80°-90°	24.2	0.8
90°-100°	3.1	0.1
100°-110°	1.8	0.1
110°-120°	1.0	0.0
120°-130°	0.9	0.0
130°-140°	0.8	0.0
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	1097.6	37.4
0°-40°	1720.8	58.6
0°-60°	2608.2	88.8
0°-90°	2927.8	99.7
90°-120°	6.0	0.2
90°-150°	8.2	0.3
90°-180°	9.0	0.3
0°-180°	2937.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1430	1438	1440	1442	1439	136
15°	1400	1399	1386	1370	1361	396
25°	1327	1304	1243	1186	1161	612
35°	1202	1125	978	876	847	750
45°	984	831	628	534	508	755
55°	676	500	340	282	267	603
65°	356	253	167	142	135	359
75°	142	104	73	64	61	154
85°	24	22	20	18	18	30
90°	0	3	4	5	5	1
95°	0	1	3	5	5	0
105°	0	1	2	3	3	0
115°	0	0	1	2	2	0
125°	0	0	1	2	2	0
135°	1	1	1	1	1	1
145°	1	1	1	1	1	1
155°	1	1	1	1	1	0
165°	1	1	1	2	2	0
175°	1	1	2	2	2	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1440.6	1440.6	1440.6	1440.6	1440.6
2.5°	1431.8	1439.6	1442.5	1446.4	1443.5
5°	1429.8	1437.6	1439.6	1442.5	1438.6
7.5°	1425.9	1432.8	1432.8	1432.8	1429.8
10°	1420.1	1425.0	1421.1	1417.2	1413.3
12.5°	1411.3	1413.3	1405.5	1398.7	1390.9
15°	1399.6	1398.7	1386.0	1370.4	1360.7
17.5°	1386.0	1382.1	1358.7	1338.3	1324.6
20°	1370.4	1360.7	1326.6	1294.5	1282.8
22.5°	1350.0	1336.3	1288.6	1243.8	1224.3
25°	1326.6	1304.2	1242.8	1186.3	1161.0
27.5°	1302.2	1269.1	1186.3	1116.2	1088.9
30°	1274.0	1228.2	1127.9	1047.1	1015.9
32.5°	1241.9	1183.4	1060.7	963.3	930.2
35°	1201.9	1125.0	977.9	875.6	847.4
37.5°	1157.1	1062.6	894.1	788.0	753.9
40°	1106.5	991.5	805.5	699.3	666.2
42.5°	1047.1	915.6	717.8	614.6	586.3
45°	983.7	830.8	628.2	533.8	507.5
47.5°	912.6	747.1	546.4	456.8	436.4
50°	838.6	663.3	469.5	392.5	372.1
52.5°	763.6	579.5	398.4	333.1	315.6
55°	676.0	499.7	339.9	282.5	266.9
57.5°	590.2	428.6	284.4	236.7	226.9
60°	507.5	360.4	238.6	199.7	192.9
62.5°	430.5	301.9	200.6	168.5	159.7
65°	356.5	253.2	166.6	142.2	135.4
67.5°	293.2	206.5	139.3	117.9	112.0
70°	236.7	166.6	113.0	96.4	93.5
72.5°	184.1	133.4	92.5	79.9	76.9
75°	142.2	104.2	73.1	64.3	61.4
77.5°	104.2	77.9	56.5	49.7	47.7
80°	72.1	55.5	41.9	38.0	37.0
82.5°	45.8	36.0	30.2	27.3	27.3
85°	24.4	22.4	19.5	18.5	17.5
87.5°	9.7	10.7	10.7	10.7	9.7
90°	0.0	2.9	3.9	4.9	4.9
92.5°	0.0	1.9	3.9	4.9	4.9
95°	0.0	1.0	2.9	4.9	4.9
97.5°	0.0	1.0	2.9	3.9	3.9
100°	0.0	1.0	1.9	3.9	3.9
102.5°	0.0	1.0	1.9	2.9	3.9
105°	0.0	1.0	1.9	2.9	2.9
107.5°	0.0	0.0	1.9	2.9	2.9
110°	0.0	0.0	1.0	1.9	2.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	1.0	1.9	2.9
115°	0.0	0.0	1.0	1.9	1.9
117.5°	0.0	0.0	1.0	1.9	1.9
120°	0.0	0.0	1.0	1.9	1.9
122.5°	0.0	0.0	1.0	1.9	1.9
125°	0.0	0.0	1.0	1.9	1.9
127.5°	0.0	1.0	1.0	1.0	1.9
130°	0.0	1.0	1.0	1.0	1.9
132.5°	1.0	1.0	1.0	1.0	1.0
135°	1.0	1.0	1.0	1.0	1.0
137.5°	1.0	1.0	1.0	1.0	1.0
140°	1.0	1.0	1.0	1.0	1.0
142.5°	1.0	1.0	1.0	1.0	1.0
145°	1.0	1.0	1.0	1.0	1.0
147.5°	1.0	1.0	1.0	1.0	1.0
150°	1.0	1.0	1.0	1.0	1.0
152.5°	1.0	1.0	1.0	1.0	1.0
155°	1.0	1.0	1.0	1.0	1.0
157.5°	1.0	1.0	1.0	1.0	1.0
160°	1.0	1.0	1.0	1.0	1.9
162.5°	1.0	1.0	1.0	1.9	1.9
165°	1.0	1.0	1.0	1.9	1.9
167.5°	1.0	1.0	1.0	1.9	1.9
170°	1.0	1.0	1.0	1.9	1.9
172.5°	1.0	1.0	1.0	1.9	1.9
175°	1.0	1.0	1.9	1.9	1.9
177.5°	1.0	1.0	1.9	1.9	1.9
180°	1.9	1.9	1.9	1.9	1.9



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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	22.09	23.54	22.46	23.86	24.18	17.46	18.90	17.83	19.22	19.54
	3H	23.35	24.63	23.73	24.97	25.34	18.50	19.78	18.88	20.12	20.49
	4H	23.75	24.95	24.15	25.31	25.69	18.87	20.07	19.27	20.43	20.81
	6H	23.98	25.09	24.40	25.47	25.87	19.13	20.24	19.55	20.61	21.01
	8H	24.04	25.09	24.47	25.49	25.90	19.22	20.27	19.65	20.67	21.08
	12H	24.06	25.07	24.50	25.46	25.89	19.28	20.29	19.72	20.68	21.12
4H	2H	22.11	23.31	22.51	23.67	24.06	18.03	19.23	18.44	19.59	19.98
	3H	23.52	24.51	23.93	24.92	25.33	19.26	20.25	19.67	20.66	21.07
	4H	24.01	24.90	24.45	25.32	25.77	19.72	20.61	20.16	21.03	21.48
	6H	24.35	25.12	24.82	25.57	26.04	20.07	20.84	20.54	21.29	21.76
	8H	24.44	25.16	24.91	25.61	26.08	20.20	20.92	20.67	21.37	21.85
	12H	24.48	25.13	24.97	25.61	26.09	20.30	20.94	20.79	21.42	21.90
8H	4H	24.00	24.72	24.47	25.17	25.65	20.01	20.73	20.48	21.18	21.65
	6H	24.39	24.98	24.90	25.48	25.97	20.45	21.04	20.96	21.54	22.03
	8H	24.51	25.05	25.04	25.56	26.06	20.63	21.16	21.15	21.68	22.18
	12H	24.61	25.08	25.12	25.58	26.15	20.80	21.27	21.31	21.77	22.34
12H	4H	23.98	24.62	24.46	25.10	25.58	20.04	20.68	20.53	21.16	21.64
	6H	24.36	24.90	24.89	25.41	25.91	20.50	21.04	21.03	21.55	22.05
	8H	24.52	24.99	25.04	25.49	26.06	20.73	21.20	21.25	21.70	22.28