

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: P893350

Luminaire Tested: 4MB-3SL-A-UNV-L935

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893350  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-A-UNV-L935  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

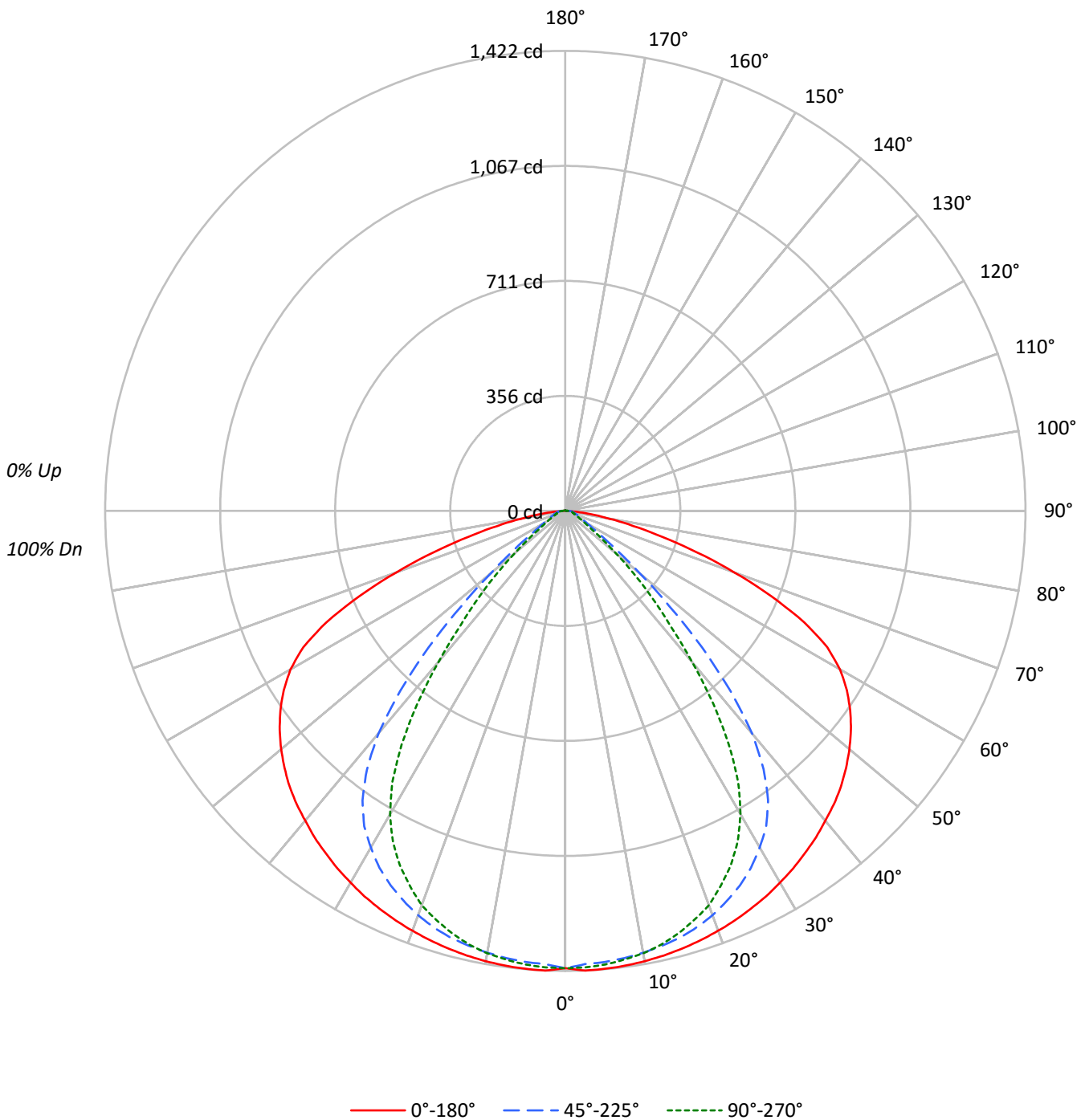
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2898.1 lumens  
Efficiency: N/A  
Efficacy: 137.3 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.15 / 1.23  
Luminous Opening: Rectangular (W 0.27' 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	111	107	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

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

	0°	45°	90°
0°	14397	14397	14397
5°	14524	14308	14392
10°	14615	14340	14361
15°	14761	14402	14254
20°	14969	14414	14062
25°	15249	14352	13587
30°	15604	14127	12733
35°	16049	13583	10947
40°	16621	11931	8092
45°	17352	8608	5443
50°	18159	4810	3248
55°	19086	2486	1777
60°	19967	1617	1259
65°	19625	1330	1000
70°	16553	1224	932
75°	12175	1247	999
80°	8123	1466	1261
85°	4429	2372	1916

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 62.5°  
 Luminance: 20137 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.2	4.6
10°-20°	387.9	13.4
20°-30°	590.1	20.4
30°-40°	673.9	23.3
40°-50°	543.7	18.8
50°-60°	297.6	10.3
60°-70°	156.9	5.4
70°-80°	76.9	2.7
80°-90°	27.1	0.9
90°-100°	5.8	0.2
100°-110°	0.8	0.0
110°-120°	0.5	0.0
120°-130°	0.5	0.0
130°-140°	0.5	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°	1112.2	38.4
0°-40°	1786.1	61.6
0°-60°	2627.4	90.7
0°-90°	2888.3	99.7
90°-120°	7.1	0.2
90°-150°	8.7	0.3
90°-180°	10.0	0.3
0°-180°	2898.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1414	1414	1414	1414	1414	
5°	1421	1416	1400	1412	1408	135
15°	1400	1391	1366	1364	1352	396
25°	1357	1337	1277	1234	1209	627
35°	1291	1236	1092	944	880	810
45°	1205	1035	598	408	378	930
55°	1075	442	140	108	100	959
65°	814	102	55	45	42	788
75°	309	58	32	27	25	342
85°	38	30	20	18	16	52
90°	2	16	12	11	10	2
95°	1	2	4	7	6	1
105°	0	0	0	1	1	1
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
145°	1	1	1	1	1	1
155°	1	1	1	2	1	0
165°	1	1	2	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°	1413.7	1413.7	1413.7	1413.7	1413.7
2.5°	1422.3	1418.4	1402.4	1416.0	1412.1
5°	1420.7	1416.4	1399.6	1412.1	1407.8
7.5°	1418.0	1412.5	1394.1	1405.5	1398.8
10°	1413.3	1407.8	1386.7	1395.7	1388.7
12.5°	1407.8	1400.4	1376.9	1381.6	1372.6
15°	1400.0	1391.4	1366.0	1363.6	1351.9
17.5°	1391.4	1380.8	1349.9	1339.8	1325.7
20°	1381.2	1368.3	1330.0	1310.0	1297.5
22.5°	1369.9	1353.1	1305.0	1274.4	1254.9
25°	1357.0	1337.4	1277.2	1233.8	1209.1
27.5°	1343.3	1316.7	1243.5	1186.4	1153.2
30°	1326.9	1294.8	1201.3	1124.2	1082.8
32.5°	1310.4	1267.4	1155.9	1044.0	994.8
35°	1290.9	1236.5	1092.5	943.9	880.5
37.5°	1272.5	1199.3	1006.9	818.3	750.3
40°	1250.2	1155.5	897.4	674.0	608.7
42.5°	1229.1	1104.7	755.4	534.7	478.0
45°	1204.8	1035.0	597.7	408.4	377.9
47.5°	1176.6	940.0	434.6	303.9	284.8
50°	1146.1	809.3	303.6	220.6	205.0
52.5°	1112.5	632.9	204.6	153.3	144.7
55°	1074.9	442.4	140.0	108.4	100.1
57.5°	1031.5	287.9	101.7	81.8	76.3
60°	980.3	183.9	79.4	64.9	61.8
62.5°	913.0	129.1	65.3	53.6	50.9
65°	814.4	102.1	55.2	44.6	41.5
67.5°	689.6	86.4	47.3	37.6	35.6
70°	555.9	75.1	41.1	32.5	31.3
72.5°	427.2	65.7	35.6	28.9	28.2
75°	309.4	57.5	31.7	26.6	25.4
77.5°	214.4	49.7	28.2	23.9	23.1
80°	138.5	43.0	25.0	21.9	21.5
82.5°	79.4	36.0	22.7	21.1	20.7
85°	37.9	30.1	20.3	18.4	16.4
87.5°	12.1	22.3	16.0	14.1	12.5
90°	1.6	15.6	12.5	11.0	10.2
92.5°	1.6	8.6	9.0	9.0	8.6
95°	1.2	2.0	4.3	6.6	6.3
97.5°	1.2	0.8	2.7	4.7	4.7
100°	0.8	0.4	1.2	3.1	3.1
102.5°	0.8	0.4	0.4	2.0	2.0
105°	0.4	0.0	0.4	0.8	0.8
107.5°	0.4	0.4	0.4	0.8	0.4
110°	0.4	0.4	0.4	0.8	0.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.4	0.4	0.4	0.8	0.4
115°	0.4	0.4	0.4	0.8	0.4
117.5°	0.4	0.4	0.4	0.8	0.4
120°	0.4	0.4	0.4	0.8	0.4
122.5°	0.4	0.4	0.4	0.8	0.4
125°	0.4	0.4	0.4	0.8	0.4
127.5°	0.4	0.4	0.4	0.8	0.4
130°	0.4	0.4	0.8	0.8	0.4
132.5°	0.4	0.4	0.8	0.8	0.4
135°	0.4	0.4	0.8	0.8	0.4
137.5°	0.4	0.4	0.8	0.8	0.8
140°	0.8	0.4	0.8	0.8	0.8
142.5°	0.8	0.8	0.8	1.2	0.8
145°	0.8	0.8	0.8	1.2	0.8
147.5°	0.8	0.8	1.2	1.2	0.8
150°	0.8	0.8	1.2	1.2	0.8
152.5°	0.8	0.8	1.2	1.2	1.2
155°	0.8	0.8	1.2	1.6	1.2
157.5°	0.8	0.8	1.2	1.6	1.2
160°	0.8	1.2	1.6	1.6	1.2
162.5°	0.8	1.2	1.6	1.6	1.6
165°	0.8	1.2	1.6	1.6	1.6
167.5°	1.2	1.2	1.6	2.0	1.6
170°	1.2	1.2	1.6	2.0	1.6
172.5°	1.2	1.2	1.6	2.0	1.6
175°	1.2	1.2	1.6	2.0	1.6
177.5°	1.2	1.2	1.6	2.0	2.0
180°	1.6	1.6	1.6	1.6	1.6



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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	19.17	20.57	19.54	20.89	21.22	7.69	9.09	8.06	9.41	9.73
	3H	22.08	23.33	22.47	23.66	24.04	8.63	9.87	9.01	10.21	10.58
	4H	22.98	24.14	23.38	24.50	24.88	9.14	10.31	9.55	10.66	11.05
	6H	23.47	24.54	23.89	24.92	25.32	9.78	10.85	10.20	11.22	11.62
	8H	23.58	24.60	24.02	25.00	25.41	10.19	11.21	10.63	11.61	12.02
	12H	23.63	24.60	24.07	24.99	25.43	10.64	11.61	11.08	12.00	12.44
4H	2H	18.99	20.15	19.39	20.51	20.90	8.21	9.37	8.62	9.73	10.12
	3H	21.92	22.87	22.33	23.28	23.69	9.40	10.36	9.82	10.76	11.18
	4H	22.82	23.67	23.26	24.10	24.55	10.07	10.92	10.51	11.35	11.80
	6H	23.41	24.15	23.88	24.60	25.08	10.89	11.63	11.36	12.08	12.55
	8H	23.57	24.27	24.05	24.72	25.20	11.42	12.11	11.89	12.57	13.04
	12H	23.66	24.28	24.16	24.77	25.25	12.00	12.61	12.49	13.10	13.58
8H	4H	22.71	23.40	23.18	23.85	24.33	10.66	11.35	11.13	11.80	12.28
	6H	23.31	23.88	23.81	24.38	24.87	11.66	12.23	12.17	12.73	13.22
	8H	23.50	24.01	24.02	24.53	25.03	12.34	12.85	12.86	13.37	13.87
	12H	23.64	24.10	24.16	24.60	25.17	13.10	13.56	13.62	14.06	14.63
12H	4H	22.67	23.29	23.16	23.77	24.25	10.92	11.53	11.41	12.02	12.50
	6H	23.26	23.77	23.78	24.29	24.79	11.97	12.49	12.50	13.00	13.50
	8H	23.47	23.93	23.99	24.43	25.00	12.73	13.19	13.25	13.69	14.27