

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: P893351

Luminaire Tested: 4MB-3SL-A-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893351
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-L940
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

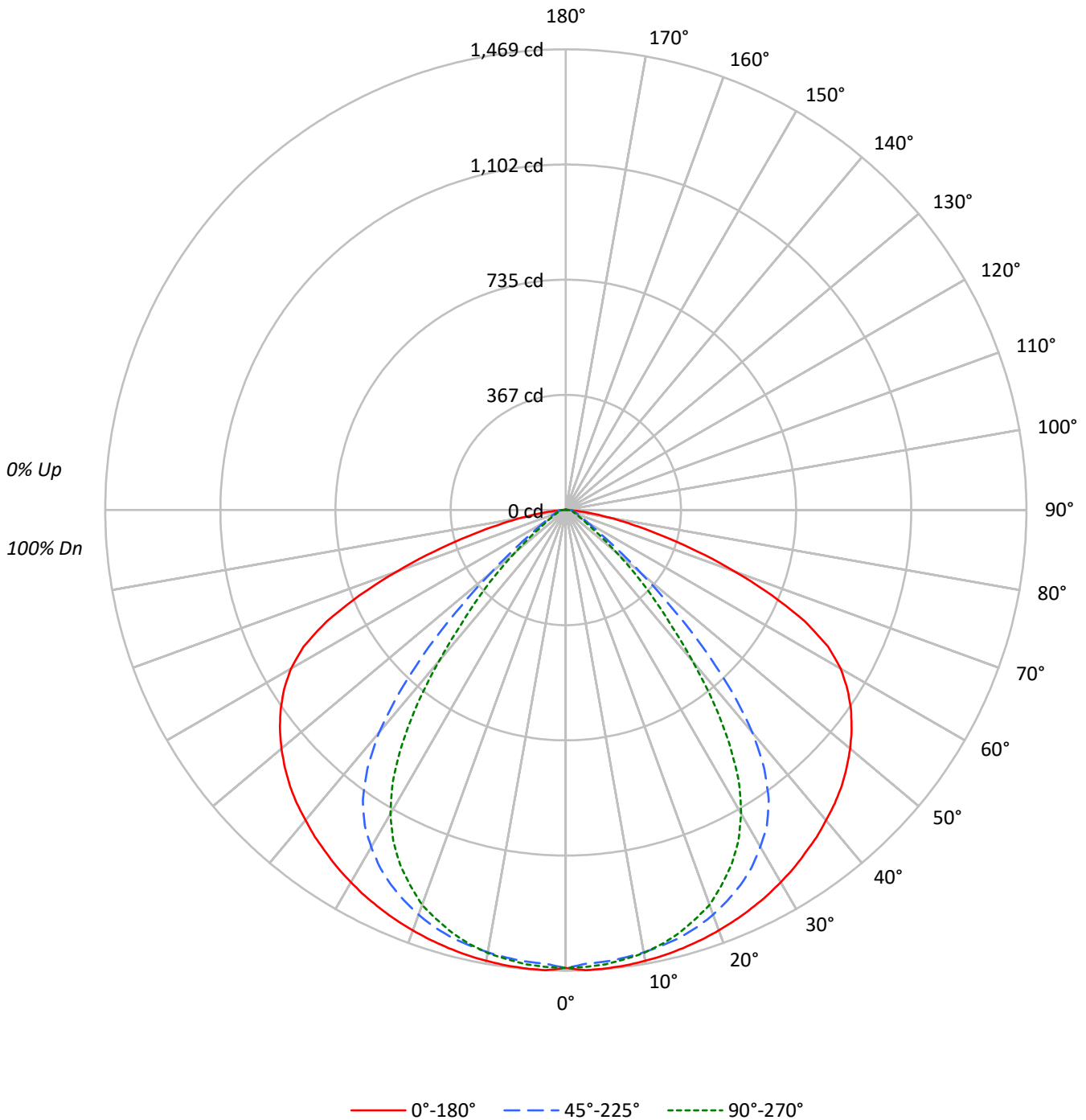
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2993.0 lumens
Efficiency: N/A
Efficacy: 141.8 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_{in}): 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	56	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°	14869	14869	14869
5°	15000	14778	14864
10°	15094	14811	14832
15°	15245	14875	14721
20°	15460	14887	14524
25°	15749	14822	14033
30°	16116	14590	13151
35°	16575	14029	11306
40°	17166	12321	8357
45°	17921	8891	5621
50°	18754	4967	3354
55°	19712	2567	1836
60°	20621	1670	1300
65°	20269	1374	1031
70°	17095	1263	962
75°	12576	1287	1035
80°	8387	1519	1302
85°	4581	2454	1986

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 20796 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	4.6
10°-20°	400.6	13.4
20°-30°	609.4	20.4
30°-40°	696.0	23.3
40°-50°	561.5	18.8
50°-60°	307.3	10.3
60°-70°	162.1	5.4
70°-80°	79.5	2.7
80°-90°	28.0	0.9
90°-100°	6.0	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°	1148.7	38.4
0°-40°	1844.7	61.6
0°-60°	2713.5	90.7
0°-90°	2983.0	99.7
90°-120°	7.3	0.2
90°-150°	8.8	0.3
90°-180°	10.0	0.3
0°-180°	2993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1467	1463	1446	1458	1454	140
15°	1446	1437	1411	1408	1396	409
25°	1402	1381	1319	1274	1249	647
35°	1333	1277	1128	975	909	836
45°	1244	1069	617	422	390	960
55°	1110	457	145	112	103	990
65°	841	105	57	46	43	813
75°	320	59	33	28	26	353
85°	39	31	21	19	17	54
90°	2	16	13	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°	1460.0	1460.0	1460.0	1460.0	1460.0
2.5°	1468.9	1464.9	1448.3	1462.5	1458.4
5°	1467.3	1462.9	1445.5	1458.4	1454.0
7.5°	1464.5	1458.8	1439.8	1451.6	1444.7
10°	1459.6	1454.0	1432.2	1441.5	1434.2
12.5°	1454.0	1446.3	1422.1	1426.9	1417.6
15°	1445.9	1437.0	1410.8	1408.3	1396.2
17.5°	1437.0	1426.1	1394.2	1383.7	1369.1
20°	1426.5	1413.2	1373.6	1353.0	1340.1
22.5°	1414.8	1397.4	1347.7	1316.2	1296.0
25°	1401.5	1381.3	1319.0	1274.2	1248.8
27.5°	1387.3	1359.9	1284.3	1225.3	1191.0
30°	1370.4	1337.2	1240.7	1161.1	1118.3
32.5°	1353.4	1308.9	1193.8	1078.3	1027.4
35°	1333.2	1277.0	1128.4	974.8	909.4
37.5°	1314.2	1238.7	1039.9	845.2	774.9
40°	1291.2	1193.4	926.8	696.1	628.6
42.5°	1269.4	1140.9	780.1	552.3	493.7
45°	1244.3	1069.0	617.3	421.8	390.3
47.5°	1215.2	970.8	448.8	313.9	294.1
50°	1183.7	835.9	313.5	227.9	211.7
52.5°	1149.0	653.7	211.3	158.4	149.5
55°	1110.2	456.9	144.6	111.9	103.4
57.5°	1065.3	297.3	105.0	84.4	78.8
60°	1012.4	189.9	82.0	67.1	63.8
62.5°	942.9	133.3	67.5	55.3	52.5
65°	841.1	105.4	57.0	46.1	42.8
67.5°	712.2	89.3	48.9	38.8	36.8
70°	574.1	77.6	42.4	33.5	32.3
72.5°	441.2	67.9	36.8	29.9	29.1
75°	319.6	59.4	32.7	27.5	26.3
77.5°	221.4	51.3	29.1	24.6	23.8
80°	143.0	44.4	25.9	22.6	22.2
82.5°	82.0	37.2	23.4	21.8	21.4
85°	39.2	31.1	21.0	19.0	17.0
87.5°	12.5	23.0	16.6	14.5	12.9
90°	1.6	16.2	12.9	11.3	10.5
92.5°	1.6	8.9	9.3	9.3	8.9
95°	1.2	2.0	4.4	6.9	6.5
97.5°	1.2	0.8	2.8	4.8	4.8
100°	0.8	0.4	1.2	3.2	3.2
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	19.28	20.68	19.65	21.00	21.33	7.80	9.20	8.17	9.52	9.84
	3H	22.19	23.44	22.58	23.78	24.15	8.73	9.98	9.12	10.31	10.69
	4H	23.09	24.25	23.50	24.61	25.00	9.25	10.42	9.66	10.77	11.16
	6H	23.58	24.66	24.00	25.03	25.43	9.89	10.96	10.30	11.33	11.73
	8H	23.70	24.71	24.13	25.11	25.52	10.30	11.32	10.74	11.72	12.13
	12H	23.74	24.71	24.18	25.10	25.54	10.75	11.72	11.19	12.11	12.55
4H	2H	19.10	20.26	19.51	20.62	21.01	8.32	9.48	8.72	9.84	10.23
	3H	22.03	22.98	22.45	23.39	23.80	9.51	10.46	9.93	10.87	11.28
	4H	22.93	23.79	23.37	24.21	24.66	10.18	11.03	10.62	11.46	11.91
	6H	23.52	24.26	23.99	24.72	25.19	11.00	11.74	11.47	12.19	12.66
	8H	23.69	24.38	24.16	24.83	25.31	11.53	12.22	12.00	12.67	13.15
	12H	23.78	24.39	24.27	24.88	25.36	12.11	12.73	12.60	13.21	13.69
8H	4H	22.82	23.51	23.29	23.97	24.44	10.77	11.46	11.24	11.91	12.39
	6H	23.42	23.99	23.93	24.49	24.98	11.77	12.34	12.28	12.84	13.33
	8H	23.61	24.12	24.13	24.64	25.14	12.45	12.96	12.97	13.48	13.98
	12H	23.75	24.21	24.27	24.71	25.29	13.21	13.67	13.73	14.17	14.74
12H	4H	22.78	23.40	23.27	23.89	24.37	11.03	11.64	11.52	12.13	12.61
	6H	23.37	23.88	23.89	24.40	24.90	12.08	12.59	12.60	13.11	13.61
	8H	23.59	24.04	24.10	24.54	25.12	12.84	13.30	13.36	13.80	14.38