

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: P893349

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893349
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-L930
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

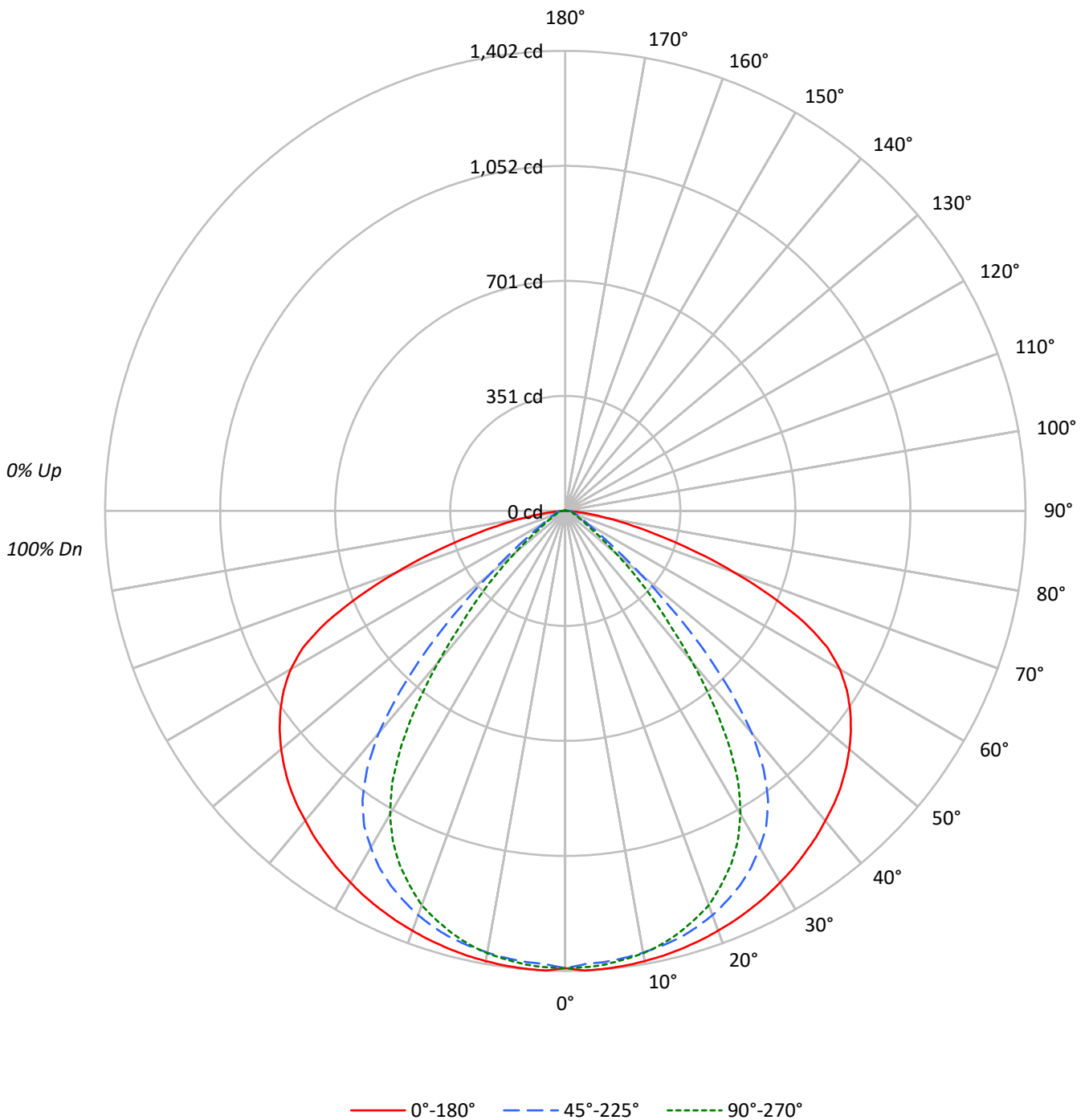
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2857.1 lumens
Efficiency: N/A
Efficacy: 135.4 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 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	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°	14194	14194	14194
5°	14318	14106	14189
10°	14409	14138	14157
15°	14552	14199	14052
20°	14758	14211	13864
25°	15033	14149	13395
30°	15383	13927	12552
35°	15822	13391	10793
40°	16386	11762	7978
45°	17107	8487	5365
50°	17902	4742	3202
55°	18816	2452	1752
60°	19684	1595	1240
65°	19348	1311	986
70°	16318	1206	920
75°	12001	1228	988
80°	8006	1449	1243
85°	4370	2349	1893

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 19852 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.3	4.6
10°-20°	382.4	13.4
20°-30°	581.7	20.4
30°-40°	664.4	23.3
40°-50°	536.0	18.8
50°-60°	293.4	10.3
60°-70°	154.7	5.4
70°-80°	75.8	2.7
80°-90°	26.7	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°	1096.5	38.4
0°-40°	1760.9	61.6
0°-60°	2590.2	90.7
0°-90°	2847.5	99.7
90°-120°	7.1	0.2
90°-150°	8.6	0.3
90°-180°	10.0	0.4
0°-180°	2857.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1394	1394	1394	1394	1394	
5°	1401	1396	1380	1392	1388	133
15°	1380	1372	1347	1344	1333	391
25°	1338	1318	1259	1216	1192	618
35°	1273	1219	1077	930	868	798
45°	1188	1020	589	403	372	917
55°	1060	436	138	107	99	945
65°	803	101	54	44	41	777
75°	305	57	31	26	25	337
85°	37	30	20	18	16	52
90°	2	15	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°	1393.7	1393.7	1393.7	1393.7	1393.7
2.5°	1402.2	1398.3	1382.5	1396.0	1392.2
5°	1400.6	1396.4	1379.8	1392.2	1387.9
7.5°	1397.9	1392.5	1374.4	1385.6	1379.0
10°	1393.3	1387.9	1367.1	1376.0	1369.0
12.5°	1387.9	1380.6	1357.4	1362.1	1353.2
15°	1380.2	1371.7	1346.7	1344.3	1332.8
17.5°	1371.7	1361.3	1330.8	1320.8	1306.9
20°	1361.7	1349.0	1311.2	1291.5	1279.2
22.5°	1350.5	1333.9	1286.5	1256.4	1237.1
25°	1337.8	1318.5	1259.1	1216.3	1192.0
27.5°	1324.3	1298.1	1225.9	1169.6	1136.9
30°	1308.1	1276.5	1184.3	1108.3	1067.4
32.5°	1291.9	1249.5	1139.6	1029.3	980.7
35°	1272.6	1219.0	1077.1	930.5	868.1
37.5°	1254.5	1182.4	992.6	806.8	739.7
40°	1232.5	1139.2	884.7	664.5	600.1
42.5°	1211.7	1089.0	744.7	527.2	471.3
45°	1187.8	1020.4	589.3	402.6	372.5
47.5°	1160.0	926.7	428.4	299.6	280.7
50°	1129.9	797.9	299.3	217.5	202.1
52.5°	1096.8	624.0	201.7	151.2	142.7
55°	1059.7	436.2	138.1	106.8	98.7
57.5°	1016.9	283.8	100.3	80.6	75.2
60°	966.4	181.3	78.3	64.0	60.9
62.5°	900.1	127.3	64.4	52.8	50.1
65°	802.9	100.7	54.4	44.0	40.9
67.5°	679.9	85.2	46.7	37.0	35.1
70°	548.0	74.0	40.5	32.0	30.9
72.5°	421.1	64.8	35.1	28.5	27.8
75°	305.0	56.7	31.2	26.2	25.1
77.5°	211.3	49.0	27.8	23.5	22.8
80°	136.5	42.4	24.7	21.6	21.2
82.5°	78.3	35.5	22.4	20.8	20.4
85°	37.4	29.7	20.1	18.1	16.2
87.5°	12.0	22.0	15.8	13.9	12.3
90°	1.5	15.4	12.3	10.8	10.0
92.5°	1.5	8.5	8.9	8.9	8.5
95°	1.2	1.9	4.2	6.6	6.2
97.5°	1.2	0.8	2.7	4.6	4.6
100°	0.8	0.4	1.2	3.1	3.1
102.5°	0.8	0.4	0.4	1.9	1.9
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	1.5	1.2
157.5°	0.8	0.8	1.2	1.5	1.2
160°	0.8	1.2	1.5	1.5	1.2
162.5°	0.8	1.2	1.5	1.5	1.5
165°	0.8	1.2	1.5	1.5	1.5
167.5°	1.2	1.2	1.5	1.9	1.5
170°	1.2	1.2	1.5	1.9	1.5
172.5°	1.2	1.2	1.5	1.9	1.5
175°	1.2	1.2	1.5	1.9	1.5
177.5°	1.2	1.2	1.5	1.9	1.9
180°	1.5	1.5	1.5	1.5	1.5



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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	19.12	20.52	19.49	20.84	21.17	7.64	9.04	8.01	9.36	9.68
	3H	22.03	23.28	22.42	23.61	23.99	8.57	9.82	8.96	10.15	10.53
	4H	22.93	24.09	23.33	24.45	24.84	9.09	10.25	9.50	10.61	11.00
	6H	23.42	24.49	23.84	24.87	25.27	9.73	10.80	10.15	11.17	11.57
	8H	23.53	24.55	23.97	24.95	25.36	10.14	11.16	10.58	11.56	11.97
	12H	23.58	24.55	24.02	24.94	25.38	10.59	11.56	11.03	11.95	12.39
4H	2H	18.94	20.10	19.34	20.46	20.85	8.16	9.32	8.56	9.68	10.07
	3H	21.87	22.82	22.28	23.23	23.64	9.35	10.30	9.77	10.71	11.12
	4H	22.77	23.62	23.21	24.05	24.50	10.02	10.87	10.46	11.29	11.74
	6H	23.36	24.10	23.83	24.55	25.03	10.84	11.58	11.31	12.03	12.50
	8H	23.52	24.22	24.00	24.67	25.15	11.37	12.06	11.84	12.51	12.99
	12H	23.62	24.23	24.11	24.72	25.20	11.95	12.56	12.44	13.05	13.53
8H	4H	22.66	23.35	23.13	23.80	24.28	10.61	11.30	11.08	11.75	12.23
	6H	23.26	23.83	23.76	24.33	24.82	11.61	12.18	12.12	12.68	13.17
	8H	23.45	23.96	23.97	24.48	24.98	12.28	12.80	12.81	13.32	13.82
	12H	23.59	24.05	24.11	24.55	25.12	13.05	13.50	13.57	14.00	14.58
12H	4H	22.62	23.24	23.11	23.72	24.20	10.87	11.48	11.36	11.97	12.45
	6H	23.21	23.72	23.73	24.24	24.74	11.92	12.43	12.44	12.95	13.45
	8H	23.42	23.88	23.94	24.38	24.95	12.68	13.14	13.20	13.64	14.22