

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: P893366

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893366
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-AOL-UNV-L935
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
3500K CCT
Light Source: -
Ballast/Driver: -

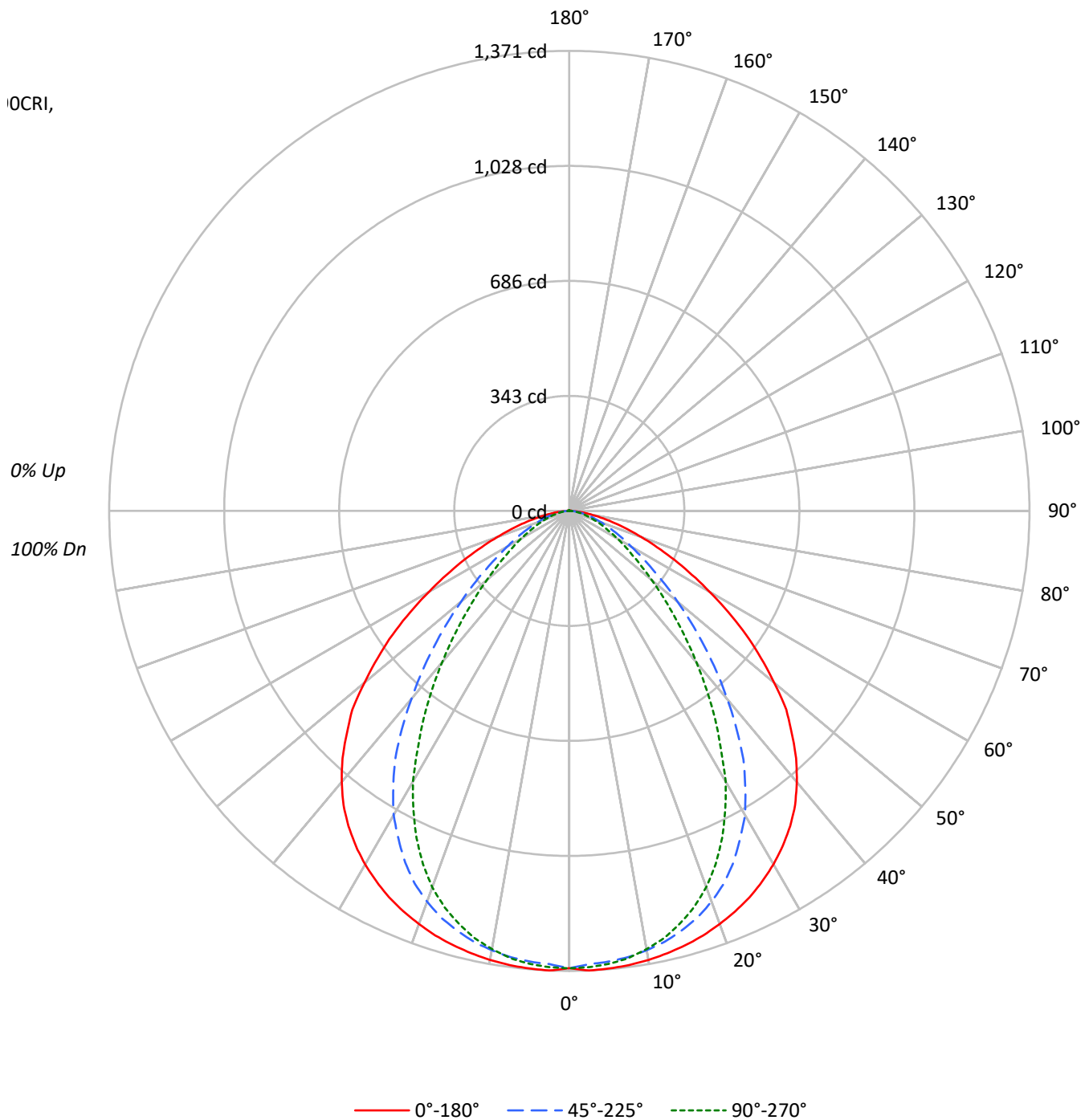
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2723.1 lumens
Efficiency: N/A
Efficacy: 129.1 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
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 (Ain): 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
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87			87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76			76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66			66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46			46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42			42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38			38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34			34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13882	13882	13882
5°	13995	13784	13855
10°	14052	13749	13713
15°	14125	13651	13424
20°	14201	13430	12934
25°	14281	12993	12097
30°	14306	12310	10953
35°	14259	11245	9421
40°	14020	9732	7829
45°	13500	8178	6336
50°	12632	6661	5075
55°	11415	5353	4068
60°	9844	4357	3369
65°	8331	3627	2771
70°	6801	3085	2352
75°	5446	2601	1999
80°	4240	2223	1718
85°	3295	1963	1554

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13500 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	4.7
10°-20°	367.3	13.5
20°-30°	535.4	19.7
30°-40°	577.1	21.2
40°-50°	483.8	17.8
50°-60°	327.5	12.0
60°-70°	186.8	6.9
70°-80°	85.4	3.1
80°-90°	22.4	0.8
90°-100°	2.8	0.1
100°-110°	1.9	0.1
110°-120°	1.0	0.0
120°-130°	0.6	0.0
130°-140°	0.6	0.0
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	1031.8	37.9
0°-40°	1608.9	59.1
0°-60°	2420.3	88.9
0°-90°	2714.8	99.7
90°-120°	5.7	0.2
90°-150°	7.4	0.3
90°-180°	8.0	0.3
0°-180°	2723.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1369	1365	1348	1359	1355	130
15°	1340	1328	1295	1286	1273	379
25°	1271	1237	1156	1103	1076	586
35°	1147	1060	904	794	758	716
45°	937	782	568	468	440	721
55°	643	470	302	244	229	573
65°	346	240	150	122	115	345
75°	138	102	66	54	51	151
85°	28	24	17	14	13	33
90°	4	4	2	2	2	4
95°	6	4	2	1	1	5
105°	4	3	1	1	0	4
115°	2	2	1	0	0	2
125°	1	1	1	0	0	1
135°	0	1	1	1	0	1
145°	1	1	1	1	1	1
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	2	2	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1363.1	1363.1	1363.1	1363.1	1363.1
2.5°	1371.0	1367.4	1351.8	1364.7	1360.8
5°	1369.0	1364.7	1348.3	1359.2	1355.3
7.5°	1365.1	1359.6	1341.2	1349.4	1344.4
10°	1358.8	1352.2	1329.5	1334.2	1326.0
12.5°	1350.2	1342.0	1315.0	1313.9	1304.1
15°	1339.7	1327.9	1294.7	1286.1	1273.2
17.5°	1326.8	1311.9	1270.5	1253.3	1237.6
20°	1310.3	1291.2	1239.2	1211.8	1193.4
22.5°	1291.6	1265.8	1202.8	1159.0	1139.1
25°	1270.9	1237.2	1156.3	1103.1	1076.5
27.5°	1245.0	1202.8	1102.3	1033.5	1006.1
30°	1216.5	1162.9	1046.8	958.8	931.4
32.5°	1184.0	1117.2	976.0	878.3	839.9
35°	1146.9	1060.5	904.5	793.8	757.8
37.5°	1105.1	1001.4	818.8	708.5	672.2
40°	1054.6	931.4	732.0	622.9	588.9
42.5°	1000.3	860.3	648.7	541.6	512.3
45°	937.3	782.1	567.8	468.1	439.9
47.5°	876.7	703.1	491.9	400.8	377.7
50°	797.3	619.0	420.4	339.4	320.3
52.5°	719.9	541.2	359.4	290.1	272.2
55°	642.9	470.4	301.5	244.4	229.1
57.5°	561.5	401.2	253.8	206.9	196.7
60°	483.3	341.4	213.9	173.6	165.4
62.5°	411.8	286.2	181.0	146.6	138.8
65°	345.7	240.5	150.5	122.0	115.0
67.5°	283.1	197.9	125.5	101.7	96.6
70°	228.4	160.3	103.6	83.7	79.0
72.5°	181.0	128.3	82.9	68.4	63.3
75°	138.4	101.7	66.1	54.0	50.8
77.5°	103.2	76.6	50.8	41.4	39.1
80°	72.3	55.5	37.9	31.3	29.3
82.5°	49.3	38.3	26.6	21.9	20.7
85°	28.2	23.9	16.8	14.1	13.3
87.5°	14.5	12.5	9.0	6.6	5.9
90°	3.9	3.9	2.3	2.0	1.6
92.5°	6.3	3.5	2.3	1.6	1.2
95°	5.9	3.5	2.0	1.2	1.2
97.5°	5.5	3.5	1.6	1.2	0.8
100°	5.1	3.1	1.6	0.8	0.8
102.5°	4.7	3.1	1.6	0.8	0.8
105°	3.9	2.7	1.2	0.8	0.4
107.5°	3.5	2.3	1.2	0.8	0.4
110°	2.7	2.0	1.2	0.8	0.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	2.0	0.8	0.8	0.4
115°	2.0	1.6	0.8	0.4	0.4
117.5°	1.6	1.2	0.8	0.4	0.4
120°	1.2	1.2	0.8	0.4	0.4
122.5°	1.2	0.8	0.8	0.4	0.4
125°	0.8	0.8	0.8	0.4	0.4
127.5°	0.8	0.8	0.8	0.4	0.4
130°	0.8	0.8	0.8	0.4	0.4
132.5°	0.8	0.8	0.8	0.8	0.4
135°	0.4	0.8	0.8	0.8	0.4
137.5°	0.8	0.8	0.8	0.8	0.8
140°	0.8	0.8	0.8	0.8	0.8
142.5°	0.8	0.8	0.8	0.8	0.8
145°	0.8	0.8	0.8	0.8	0.8
147.5°	0.8	0.8	0.8	0.8	0.8
150°	0.8	0.8	0.8	0.8	0.8
152.5°	0.8	0.8	0.8	0.8	0.8
155°	0.8	0.8	0.8	1.2	1.2
157.5°	0.8	0.8	1.2	1.2	1.2
160°	0.8	0.8	1.2	1.2	1.2
162.5°	0.8	0.8	1.2	1.2	1.2
165°	0.8	1.2	1.2	1.2	1.2
167.5°	0.8	1.2	1.2	1.2	1.6
170°	0.8	1.2	1.2	1.6	1.6
172.5°	0.8	1.2	1.2	1.6	1.6
175°	1.2	1.2	1.2	1.6	1.6
177.5°	1.2	1.2	1.2	1.6	1.6
180°	1.2	1.2	1.2	1.2	1.2



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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	19.51	20.95	19.88	21.27	21.59	14.35	15.79	14.72	16.11	16.43
	3H	20.82	22.10	21.20	22.43	22.81	15.36	16.65	15.75	16.98	17.35
	4H	21.24	22.44	21.65	22.80	23.18	15.70	16.90	16.11	17.25	17.64
	6H	21.51	22.61	21.93	22.99	23.39	15.92	17.03	16.34	17.40	17.80
	8H	21.58	22.63	22.01	23.03	23.44	15.99	17.04	16.42	17.44	17.85
	12H	21.62	22.62	22.05	23.01	23.45	16.03	17.04	16.47	17.43	17.86
4H	2H	19.51	20.71	19.91	21.06	21.45	14.97	16.17	15.38	16.53	16.92
	3H	20.97	21.96	21.39	22.37	22.78	16.17	17.16	16.59	17.57	17.98
	4H	21.50	22.38	21.94	22.81	23.25	16.59	17.47	17.03	17.90	18.34
	6H	21.87	22.64	22.34	23.09	23.56	16.90	17.66	17.36	18.11	18.58
	8H	21.99	22.70	22.46	23.15	23.63	16.99	17.71	17.46	18.16	18.64
	12H	22.06	22.70	22.55	23.19	23.66	17.06	17.70	17.55	18.19	18.67
8H	4H	21.48	22.19	21.95	22.65	23.12	16.92	17.64	17.39	18.09	18.57
	6H	21.91	22.50	22.41	23.00	23.48	17.31	17.90	17.82	18.40	18.89
	8H	22.07	22.60	22.59	23.11	23.61	17.46	17.98	17.98	18.50	19.00
	12H	22.20	22.66	22.71	23.16	23.74	17.58	18.05	18.10	18.55	19.12
12H	4H	21.45	22.09	21.94	22.57	23.05	16.97	17.61	17.46	18.09	18.57
	6H	21.88	22.41	22.40	22.92	23.42	17.38	17.91	17.90	18.43	18.93
	8H	22.07	22.54	22.58	23.03	23.61	17.57	18.04	18.09	18.54	19.11