

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: P893368

Luminaire Tested: 4MB-3SL-AOL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893368
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-L950
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
5000K CCT
Light Source: -
Ballast/Driver: -

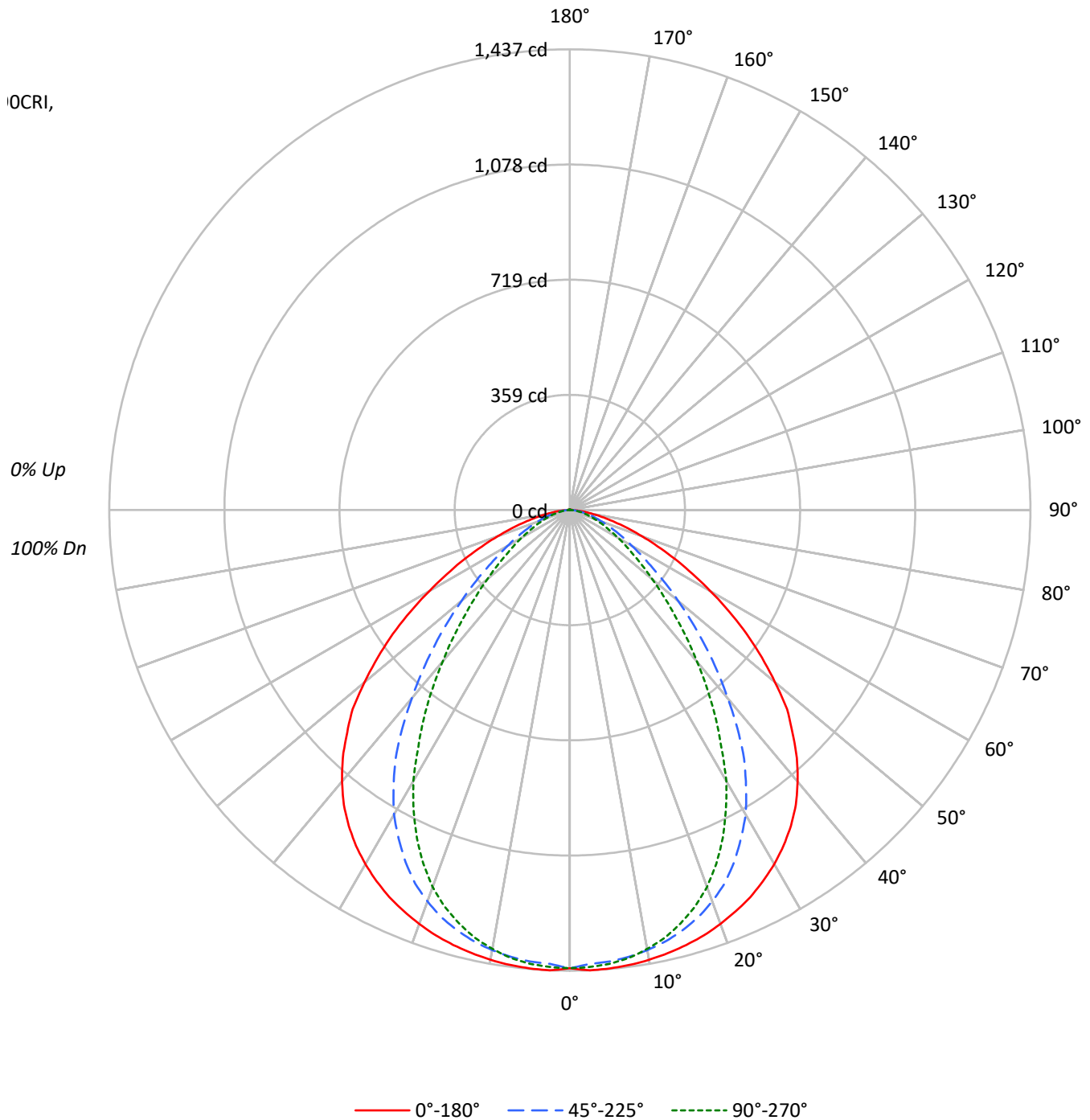
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2854.9 lumens
Efficiency: N/A
Efficacy: 135.3 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	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	78	78	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	68	68	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	60	60	60	58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	54	54	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	43	43	43	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	39	39	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	36	36	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	33	33	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14555	14555	14555
5°	14674	14451	14527
10°	14733	14416	14378
15°	14809	14313	14074
20°	14890	14080	13561
25°	14973	13623	12683
30°	15000	12906	11485
35°	14950	11790	9879
40°	14700	10204	8208
45°	14153	8574	6643
50°	13245	6982	5320
55°	11967	5613	4267
60°	10321	4569	3532
65°	8733	3803	2904
70°	7129	3234	2466
75°	5710	2727	2097
80°	4446	2334	1801
85°	3447	2057	1624

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14153 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.3	4.7
10°-20°	385.1	13.5
20°-30°	561.4	19.7
30°-40°	605.1	21.2
40°-50°	507.3	17.8
50°-60°	343.4	12.0
60°-70°	195.8	6.9
70°-80°	89.6	3.1
80°-90°	23.5	0.8
90°-100°	2.9	0.1
100°-110°	2.0	0.1
110°-120°	1.1	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°	1081.8	37.9
0°-40°	1686.9	59.1
0°-60°	2537.6	88.9
0°-90°	2846.4	99.7
90°-120°	5.9	0.2
90°-150°	7.6	0.3
90°-180°	8.0	0.3
0°-180°	2854.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1435	1431	1414	1425	1421	137
15°	1405	1392	1358	1348	1335	397
25°	1332	1297	1212	1157	1129	614
35°	1202	1112	948	832	795	751
45°	983	820	595	491	461	756
55°	674	493	316	256	240	600
65°	362	252	158	128	120	362
75°	145	107	69	57	53	158
85°	30	25	18	15	14	34
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°	1429.2	1429.2	1429.2	1429.2	1429.2
2.5°	1437.4	1433.7	1417.3	1430.9	1426.8
5°	1435.4	1430.9	1413.6	1425.1	1421.0
7.5°	1431.3	1425.5	1406.3	1414.9	1409.5
10°	1424.7	1417.7	1394.0	1398.9	1390.3
12.5°	1415.7	1407.1	1378.8	1377.6	1367.3
15°	1404.6	1392.3	1357.5	1348.4	1334.9
17.5°	1391.1	1375.5	1332.0	1314.0	1297.6
20°	1373.9	1353.8	1299.2	1270.5	1251.3
22.5°	1354.2	1327.1	1261.1	1215.2	1194.3
25°	1332.5	1297.2	1212.3	1156.6	1128.7
27.5°	1305.4	1261.1	1155.8	1083.6	1054.9
30°	1275.5	1219.3	1097.5	1005.3	976.6
32.5°	1241.4	1171.3	1023.3	920.8	880.7
35°	1202.5	1111.9	948.3	832.3	794.6
37.5°	1158.6	1050.0	858.5	742.9	704.8
40°	1105.7	976.6	767.5	653.1	617.4
42.5°	1048.7	902.0	680.2	567.8	537.1
45°	982.7	820.0	595.3	490.8	461.2
47.5°	919.2	737.2	515.8	420.2	396.0
50°	836.0	649.0	440.7	355.9	335.8
52.5°	754.8	567.4	376.8	304.2	285.4
55°	674.0	493.2	316.1	256.2	240.3
57.5°	588.7	420.6	266.1	216.9	206.2
60°	506.7	357.9	224.3	182.0	173.4
62.5°	431.7	300.1	189.8	153.7	145.5
65°	362.4	252.1	157.8	127.9	120.5
67.5°	296.8	207.5	131.6	106.6	101.3
70°	239.4	168.1	108.6	87.7	82.8
72.5°	189.8	134.5	86.9	71.7	66.4
75°	145.1	106.6	69.3	56.6	53.3
77.5°	108.2	80.4	53.3	43.5	41.0
80°	75.8	58.2	39.8	32.8	30.7
82.5°	51.7	40.2	27.9	23.0	21.7
85°	29.5	25.0	17.6	14.8	13.9
87.5°	15.2	13.1	9.4	7.0	6.1
90°	4.1	4.1	2.5	2.0	1.6
92.5°	6.6	3.7	2.5	1.6	1.2
95°	6.1	3.7	2.0	1.2	1.2
97.5°	5.7	3.7	1.6	1.2	0.8
100°	5.3	3.3	1.6	0.8	0.8
102.5°	4.9	3.3	1.6	0.8	0.8
105°	4.1	2.9	1.2	0.8	0.4
107.5°	3.7	2.5	1.2	0.8	0.4
110°	2.9	2.0	1.2	0.8	0.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	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	19.67	21.11	20.04	21.43	21.75	14.52	15.95	14.89	16.27	16.60
	3H	20.98	22.26	21.36	22.60	22.97	15.53	16.81	15.91	17.15	17.52
	4H	21.41	22.60	21.81	22.96	23.35	15.86	17.06	16.27	17.42	17.81
	6H	21.67	22.78	22.09	23.15	23.55	16.09	17.19	16.51	17.57	17.97
	8H	21.74	22.79	22.18	23.19	23.60	16.16	17.21	16.59	17.60	18.01
	12H	21.78	22.79	22.22	23.17	23.61	16.20	17.20	16.64	17.59	18.03
4H	2H	19.67	20.87	20.08	21.23	21.61	15.14	16.34	15.55	16.69	17.08
	3H	21.14	22.12	21.55	22.53	22.94	16.34	17.32	16.75	17.73	18.14
	4H	21.66	22.55	22.10	22.97	23.42	16.75	17.64	17.19	18.06	18.51
	6H	22.04	22.81	22.50	23.26	23.73	17.06	17.83	17.53	18.28	18.75
	8H	22.15	22.87	22.62	23.32	23.79	17.16	17.87	17.63	18.32	18.80
	12H	22.23	22.86	22.72	23.35	23.83	17.23	17.86	17.72	18.35	18.83
8H	4H	21.64	22.36	22.11	22.81	23.29	17.09	17.80	17.56	18.25	18.73
	6H	22.07	22.66	22.58	23.16	23.65	17.48	18.07	17.98	18.57	19.05
	8H	22.23	22.76	22.75	23.28	23.77	17.62	18.15	18.14	18.67	19.16
	12H	22.36	22.83	22.88	23.33	23.90	17.74	18.21	18.26	18.71	19.29
12H	4H	21.62	22.25	22.10	22.74	23.22	17.13	17.77	17.62	18.26	18.74
	6H	22.04	22.57	22.56	23.09	23.59	17.55	18.08	18.07	18.59	19.09
	8H	22.23	22.70	22.75	23.20	23.77	17.74	18.21	18.25	18.70	19.28