

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: P893358

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

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893358  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-ACL-UNV-L935  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3500K (C)  
Light Source: -  
Ballast/Driver: -

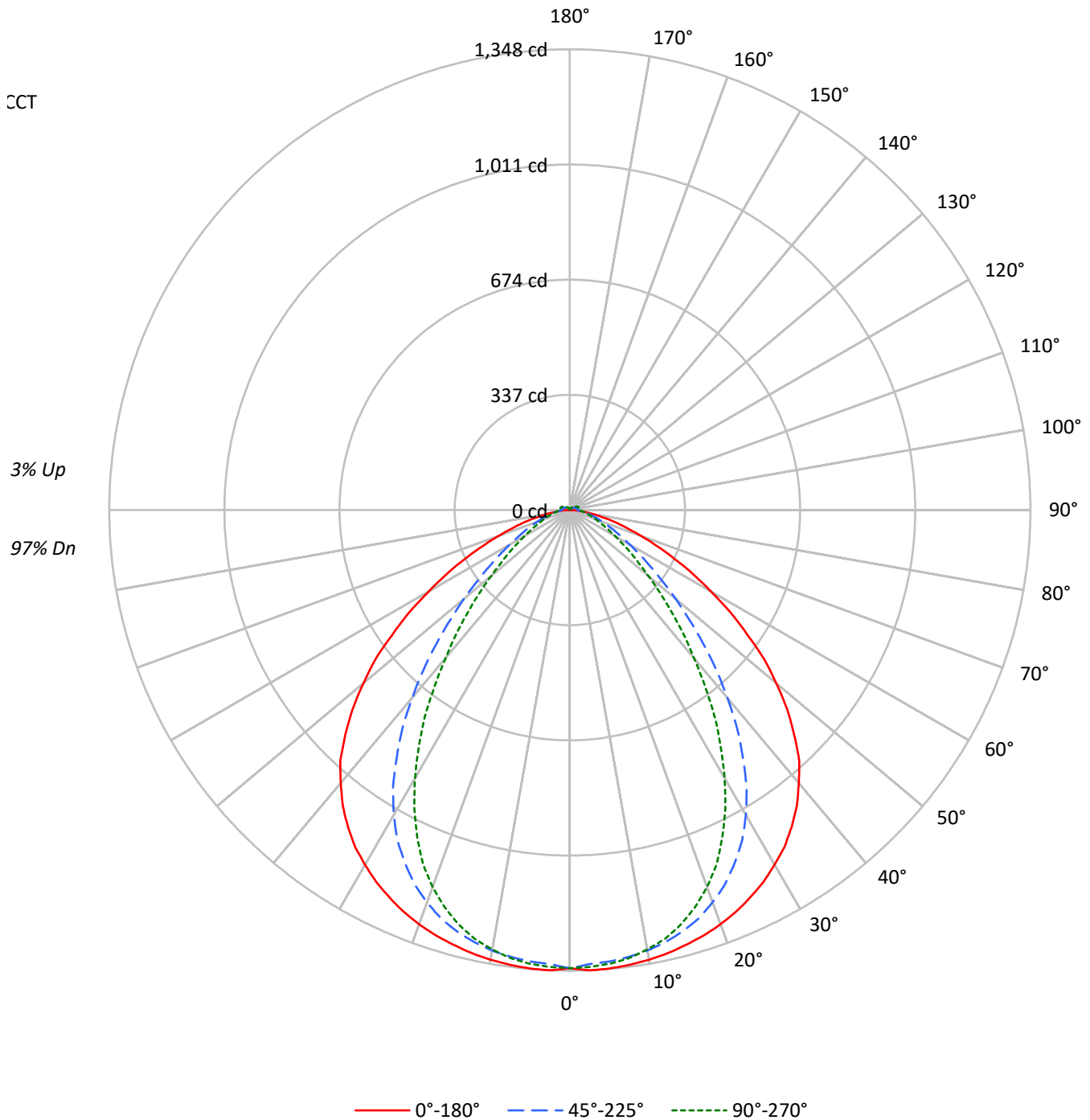
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2750.0 lumens  
Efficiency: N/A  
Efficacy: 130.3 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')  
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				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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	100	100	100	97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	87	87	87	85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	76	76	76	74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	66	66	66	64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	59	59	59	57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	52	52	52	50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	47	47	47	45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	42	42	42	40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	38	38	38	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	35	35	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	32	32	32	31

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

	0°	45°	90°
0°	13653	13653	13653
5°	13739	13282	13261
10°	13764	12994	12796
15°	13805	12656	12213
20°	13872	12191	11416
25°	13913	11545	10355
30°	13927	10658	9022
35°	13867	9418	7547
40°	13622	7956	5939
45°	13097	6422	4605
50°	12193	4983	3455
55°	10915	3814	2643
60°	9378	2933	2013
65°	7818	2313	1601
70°	6254	1855	1307
75°	4982	1496	1113
80°	3649	1235	973
85°	2508	1047	897

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13097 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.0	4.6
10°-20°	361.7	13.2
20°-30°	527.4	19.2
30°-40°	566.6	20.6
40°-50°	471.6	17.1
50°-60°	315.4	11.5
60°-70°	180.5	6.6
70°-80°	89.8	3.3
80°-90°	36.7	1.3
90°-100°	21.3	0.8
100°-110°	18.8	0.7
110°-120°	13.8	0.5
120°-130°	8.9	0.3
130°-140°	5.3	0.2
140°-150°	3.0	0.1
150°-160°	1.5	0.1
160°-170°	0.6	0.0
170°-180°	0.1	0.0
0°-30°	1016.1	36.9
0°-40°	1582.7	57.6
0°-60°	2369.6	86.2
0°-90°	2676.7	97.3
90°-120°	53.9	2.0
90°-150°	71.1	2.6
90°-180°	73.0	2.7
0°-180°	2750.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1341	1341	1341	1341	1341	
5°	1346	1342	1326	1337	1333	128
15°	1317	1308	1276	1267	1256	372
25°	1250	1220	1141	1083	1056	577
35°	1132	1050	883	774	740	707
45°	928	772	551	446	420	714
55°	633	457	287	227	216	567
65°	339	230	145	117	111	339
75°	136	99	72	63	61	146
85°	27	30	33	35	35	31
90°	4	12	23	27	28	4
95°	6	12	22	27	28	5
105°	4	10	20	26	27	4
115°	2	6	16	22	24	2
125°	1	4	11	16	17	1
135°	1	3	7	11	12	1
145°	1	2	5	7	8	1
155°	1	2	3	4	6	0
165°	1	2	2	3	4	0
175°	1	1	2	2	2	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1340.6	1340.6	1340.6	1340.6	1340.6
2.5°	1348.4	1344.9	1329.6	1341.7	1338.2
5°	1346.4	1342.1	1326.1	1337.0	1332.7
7.5°	1342.1	1337.4	1319.0	1327.7	1323.0
10°	1335.9	1330.0	1308.9	1313.2	1305.8
12.5°	1328.0	1320.6	1294.4	1293.2	1285.0
15°	1316.7	1307.7	1276.4	1267.0	1255.7
17.5°	1305.0	1291.7	1253.3	1234.2	1218.5
20°	1289.7	1272.1	1221.7	1193.1	1173.6
22.5°	1272.1	1248.3	1186.1	1142.3	1122.0
25°	1250.2	1220.5	1140.7	1083.2	1056.3
27.5°	1226.8	1187.3	1091.4	1016.0	985.1
30°	1198.6	1149.7	1030.1	939.3	906.1
32.5°	1168.9	1102.0	962.8	858.8	822.4
35°	1131.7	1049.6	883.0	774.3	740.3
37.5°	1091.4	987.0	804.0	687.9	649.6
40°	1042.6	920.9	717.2	602.2	564.3
42.5°	994.1	849.0	633.9	524.8	492.0
45°	928.4	771.6	551.4	446.2	420.0
47.5°	862.3	688.7	472.4	382.5	356.6
50°	788.8	607.3	403.2	321.1	299.6
52.5°	717.2	531.5	340.2	271.4	253.0
55°	633.1	456.8	287.4	227.2	215.5
57.5°	557.3	387.5	242.5	192.4	181.5
60°	477.1	328.5	203.0	162.7	152.5
62.5°	406.7	276.1	170.9	138.0	131.0
65°	339.0	229.9	144.7	117.3	111.1
67.5°	276.9	192.0	122.0	100.1	95.0
70°	222.1	155.6	102.8	85.3	81.7
72.5°	174.8	125.1	85.6	73.5	70.4
75°	136.5	99.3	71.6	63.4	61.4
77.5°	98.5	77.4	59.8	54.4	53.2
80°	69.6	58.7	49.3	46.9	46.1
82.5°	46.1	42.6	40.7	40.7	40.3
85°	26.6	29.7	33.2	34.8	35.2
87.5°	13.7	19.9	26.6	29.7	30.1
90°	3.9	12.5	22.7	27.0	27.8
92.5°	5.9	12.5	22.3	27.0	27.8
95°	5.9	12.5	22.3	27.0	27.8
97.5°	5.5	12.1	22.3	27.0	27.8
100°	5.1	11.3	21.9	27.0	27.8
102.5°	4.3	10.9	21.1	26.6	27.8
105°	3.9	10.2	19.9	26.2	27.4
107.5°	3.5	8.6	18.8	25.0	26.6
110°	2.7	7.4	18.0	23.9	25.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	6.6	16.8	22.7	24.6
115°	2.0	5.9	15.6	21.5	23.5
117.5°	1.6	5.5	14.1	19.9	21.9
120°	1.2	5.1	12.9	18.8	20.3
122.5°	1.2	4.7	11.3	17.2	18.8
125°	1.2	3.9	10.6	15.6	17.2
127.5°	0.8	3.5	9.4	14.1	15.6
130°	0.8	3.5	8.6	12.9	14.1
132.5°	0.8	3.1	7.8	11.7	12.9
135°	0.8	3.1	7.0	10.6	11.7
137.5°	0.8	2.7	6.3	9.8	10.9
140°	0.8	2.7	5.9	8.6	9.8
142.5°	0.8	2.3	5.1	8.2	9.0
145°	0.8	2.3	4.7	7.0	8.2
147.5°	0.8	2.3	4.3	6.6	7.4
150°	0.8	2.0	3.9	5.5	6.6
152.5°	0.8	2.0	3.5	5.1	6.3
155°	0.8	2.0	3.1	4.3	5.5
157.5°	0.8	2.0	3.1	3.9	4.7
160°	1.2	1.6	2.7	3.5	4.3
162.5°	1.2	1.6	2.3	3.1	3.9
165°	1.2	1.6	2.3	2.7	3.5
167.5°	1.2	1.6	2.0	2.3	2.7
170°	1.2	1.2	2.0	2.0	2.0
172.5°	1.2	1.2	1.6	2.0	1.6
175°	1.2	1.2	1.6	1.6	1.6
177.5°	1.2	1.2	1.6	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	17.82	19.21	18.23	19.58	19.96	13.11	14.50	13.52	14.88	15.26
	3H	18.91	20.15	19.33	20.54	20.97	14.25	15.49	14.68	15.88	16.31
	4H	19.22	20.38	19.66	20.79	21.23	14.75	15.92	15.20	16.32	16.77
	6H	19.36	20.43	19.82	20.86	21.32	15.25	16.33	15.71	16.75	17.21
	8H	19.38	20.40	19.85	20.84	21.31	15.51	16.53	15.99	16.98	17.44
	12H	19.37	20.35	19.85	20.79	21.28	15.81	16.78	16.28	17.22	17.71
4H	2H	17.80	18.96	18.24	19.37	19.81	13.61	14.77	14.06	15.18	15.62
	3H	19.03	20.00	19.49	20.45	20.92	14.92	15.88	15.38	16.34	16.81
	4H	19.42	20.28	19.90	20.75	21.26	15.52	16.38	16.00	16.85	17.35
	6H	19.65	20.40	20.15	20.90	21.42	16.14	16.89	16.64	17.38	17.91
	8H	19.69	20.39	20.20	20.89	21.42	16.46	17.16	16.97	17.65	18.19
	12H	19.70	20.33	20.23	20.86	21.39	16.83	17.46	17.36	17.99	18.52
8H	4H	19.41	20.11	19.92	20.60	21.13	15.76	16.46	16.27	16.95	17.48
	6H	19.68	20.26	20.23	20.80	21.34	16.48	17.06	17.02	17.60	18.14
	8H	19.76	20.28	20.32	20.83	21.39	16.89	17.41	17.44	17.96	18.52
	12H	19.80	20.26	20.36	20.80	21.43	17.38	17.84	17.93	18.38	19.01
12H	4H	19.38	20.01	19.91	20.54	21.07	15.77	16.40	16.30	16.92	17.46
	6H	19.66	20.18	20.22	20.74	21.29	16.52	17.04	17.08	17.60	18.15
	8H	19.77	20.23	20.32	20.77	21.40	16.98	17.44	17.53	17.98	18.61