

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: P893357

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893357
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-L930
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3000K (C)
Light Source: -
Ballast/Driver: -

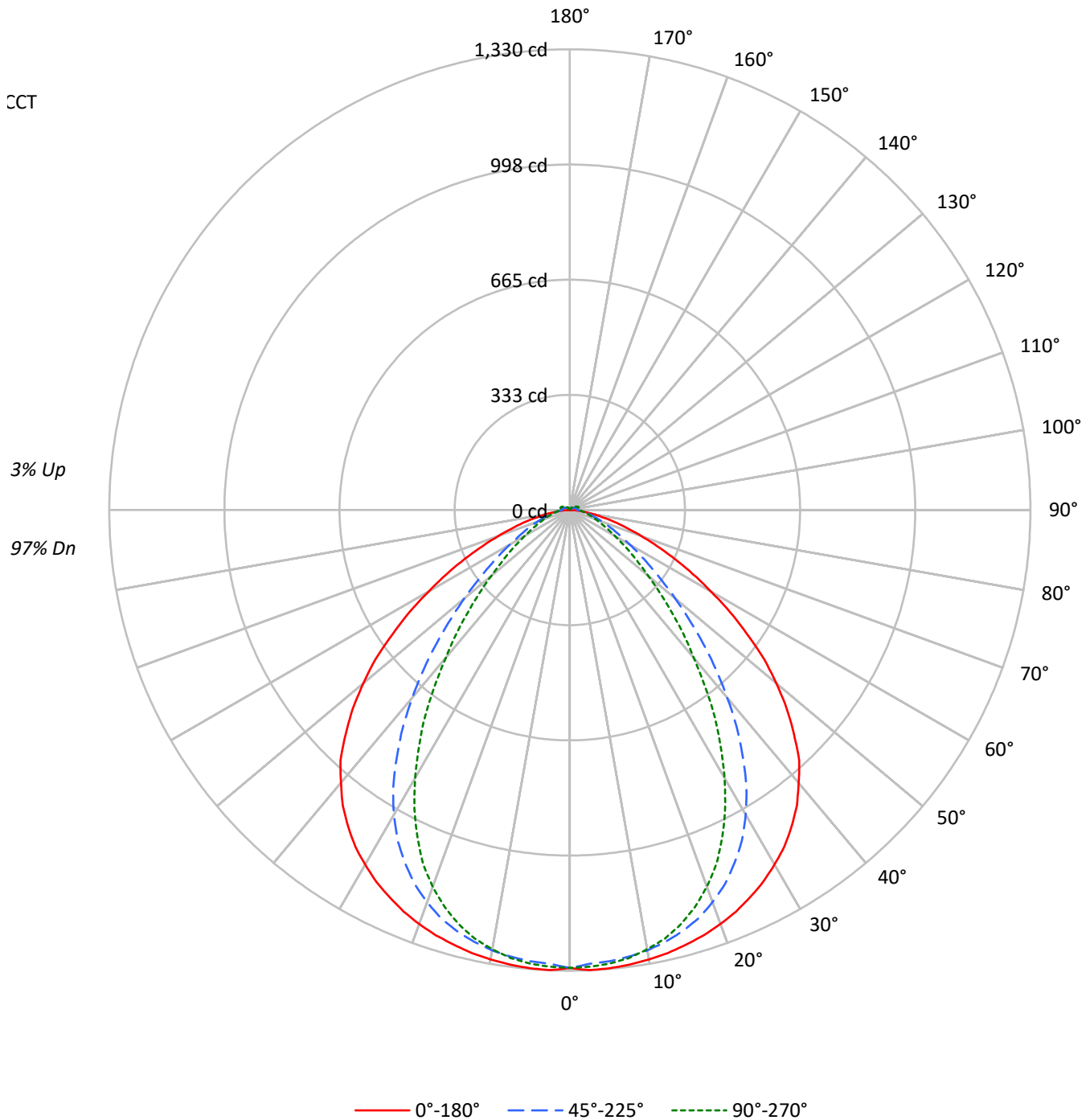
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2712.0 lumens
Efficiency: N/A
Efficacy: 128.5 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_{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				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°	13464	13464	13464
5°	13549	13099	13077
10°	13574	12814	12619
15°	13614	12481	12044
20°	13680	12022	11259
25°	13720	11386	10212
30°	13734	10510	8898
35°	13676	9288	7442
40°	13433	7846	5857
45°	12915	6334	4541
50°	12025	4914	3407
55°	10765	3763	2606
60°	9248	2893	1985
65°	7712	2281	1578
70°	6169	1830	1289
75°	4913	1475	1097
80°	3596	1217	960
85°	2470	1035	884

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12915 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.2	4.6
10°-20°	356.7	13.2
20°-30°	520.1	19.2
30°-40°	558.8	20.6
40°-50°	465.0	17.1
50°-60°	311.0	11.5
60°-70°	178.1	6.6
70°-80°	88.5	3.3
80°-90°	36.2	1.3
90°-100°	21.0	0.8
100°-110°	18.5	0.7
110°-120°	13.6	0.5
120°-130°	8.8	0.3
130°-140°	5.2	0.2
140°-150°	2.9	0.1
150°-160°	1.5	0.1
160°-170°	0.6	0.0
170°-180°	0.1	0.0
0°-30°	1002.0	36.9
0°-40°	1560.8	57.6
0°-60°	2336.9	86.2
0°-90°	2639.7	97.3
90°-120°	53.2	2.0
90°-150°	70.1	2.6
90°-180°	72.0	2.7
0°-180°	2712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1328	1324	1308	1319	1314	126
15°	1298	1290	1259	1250	1238	367
25°	1233	1204	1125	1068	1042	569
35°	1116	1035	871	764	730	697
45°	916	761	544	440	414	704
55°	624	450	284	224	212	559
65°	334	227	143	116	110	334
75°	135	98	71	62	60	144
85°	26	29	33	34	35	31
90°	4	12	22	27	27	4
95°	6	12	22	27	27	5
105°	4	10	20	26	27	4
115°	2	6	15	21	23	2
125°	1	4	10	15	17	1
135°	1	3	7	10	12	1
145°	1	2	5	7	8	1
155°	1	2	3	4	5	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°	1322.0	1322.0	1322.0	1322.0	1322.0
2.5°	1329.7	1326.3	1311.2	1323.2	1319.7
5°	1327.8	1323.6	1307.8	1318.6	1314.3
7.5°	1323.6	1318.9	1300.8	1309.3	1304.7
10°	1317.4	1311.6	1290.8	1295.0	1287.7
12.5°	1309.7	1302.4	1276.5	1275.4	1267.3
15°	1298.5	1289.6	1258.8	1249.5	1238.3
17.5°	1286.9	1273.8	1236.0	1217.1	1201.7
20°	1271.9	1254.5	1204.8	1176.6	1157.4
22.5°	1254.5	1231.0	1169.7	1126.5	1106.4
25°	1232.9	1203.6	1125.0	1068.3	1041.7
27.5°	1209.8	1170.9	1076.4	1001.9	971.5
30°	1182.0	1133.8	1015.8	926.3	893.6
32.5°	1152.7	1086.8	949.5	846.9	811.0
35°	1116.1	1035.1	870.8	763.6	730.0
37.5°	1076.4	973.4	792.9	678.4	640.6
40°	1028.2	908.2	707.3	593.9	556.5
42.5°	980.3	837.3	625.1	517.6	485.2
45°	915.5	760.9	543.8	440.0	414.2
47.5°	850.4	679.1	465.9	377.2	351.7
50°	777.9	598.9	397.6	316.6	295.4
52.5°	707.3	524.1	335.5	267.6	249.5
55°	624.4	450.4	283.5	224.1	212.5
57.5°	549.6	382.2	239.1	189.7	178.9
60°	470.5	324.0	200.2	160.4	150.4
62.5°	401.1	272.3	168.5	136.1	129.2
65°	334.4	226.8	142.7	115.7	109.5
67.5°	273.0	189.4	120.3	98.7	93.7
70°	219.1	153.5	101.4	84.1	80.6
72.5°	172.4	123.4	84.5	72.5	69.4
75°	134.6	98.0	70.6	62.5	60.5
77.5°	97.2	76.4	59.0	53.6	52.4
80°	68.6	57.8	48.6	46.3	45.5
82.5°	45.5	42.0	40.1	40.1	39.7
85°	26.2	29.3	32.8	34.3	34.7
87.5°	13.5	19.7	26.2	29.3	29.7
90°	3.9	12.3	22.4	26.6	27.4
92.5°	5.8	12.3	22.0	26.6	27.4
95°	5.8	12.3	22.0	26.6	27.4
97.5°	5.4	12.0	22.0	26.6	27.4
100°	5.0	11.2	21.6	26.6	27.4
102.5°	4.2	10.8	20.8	26.2	27.4
105°	3.9	10.0	19.7	25.8	27.0
107.5°	3.5	8.5	18.5	24.7	26.2
110°	2.7	7.3	17.7	23.5	25.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	6.6	16.6	22.4	24.3
115°	1.9	5.8	15.4	21.2	23.1
117.5°	1.5	5.4	13.9	19.7	21.6
120°	1.2	5.0	12.7	18.5	20.1
122.5°	1.2	4.6	11.2	17.0	18.5
125°	1.2	3.9	10.4	15.4	17.0
127.5°	0.8	3.5	9.3	13.9	15.4
130°	0.8	3.5	8.5	12.7	13.9
132.5°	0.8	3.1	7.7	11.6	12.7
135°	0.8	3.1	6.9	10.4	11.6
137.5°	0.8	2.7	6.2	9.6	10.8
140°	0.8	2.7	5.8	8.5	9.6
142.5°	0.8	2.3	5.0	8.1	8.9
145°	0.8	2.3	4.6	6.9	8.1
147.5°	0.8	2.3	4.2	6.6	7.3
150°	0.8	1.9	3.9	5.4	6.6
152.5°	0.8	1.9	3.5	5.0	6.2
155°	0.8	1.9	3.1	4.2	5.4
157.5°	0.8	1.9	3.1	3.9	4.6
160°	1.2	1.5	2.7	3.5	4.2
162.5°	1.2	1.5	2.3	3.1	3.9
165°	1.2	1.5	2.3	2.7	3.5
167.5°	1.2	1.5	1.9	2.3	2.7
170°	1.2	1.2	1.9	1.9	1.9
172.5°	1.2	1.2	1.5	1.9	1.5
175°	1.2	1.2	1.5	1.5	1.5
177.5°	1.2	1.2	1.5	1.5	1.5
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	17.77	19.16	18.18	19.53	19.91	13.06	14.45	13.47	14.82	15.21
	3H	18.86	20.10	19.29	20.49	20.92	14.20	15.45	14.63	15.83	16.26
	4H	19.17	20.33	19.61	20.74	21.18	14.70	15.87	15.15	16.27	16.72
	6H	19.31	20.39	19.77	20.81	21.27	15.20	16.28	15.66	16.70	17.16
	8H	19.33	20.35	19.81	20.80	21.26	15.46	16.48	15.94	16.93	17.39
	12H	19.33	20.30	19.80	20.74	21.23	15.76	16.73	16.23	17.17	17.66
4H	2H	17.75	18.91	18.20	19.32	19.77	13.56	14.72	14.01	15.13	15.57
	3H	18.99	19.95	19.44	20.40	20.87	14.87	15.83	15.33	16.29	16.76
	4H	19.37	20.24	19.85	20.70	21.21	15.47	16.33	15.95	16.80	17.30
	6H	19.60	20.35	20.11	20.85	21.37	16.09	16.84	16.59	17.33	17.86
	8H	19.64	20.35	20.15	20.84	21.37	16.41	17.11	16.92	17.60	18.14
	12H	19.66	20.28	20.18	20.81	21.34	16.78	17.41	17.31	17.94	18.47
8H	4H	19.36	20.06	19.87	20.55	21.09	15.71	16.41	16.22	16.90	17.43
	6H	19.64	20.22	20.18	20.76	21.30	16.43	17.01	16.97	17.55	18.09
	8H	19.71	20.23	20.27	20.79	21.34	16.84	17.36	17.40	17.91	18.47
	12H	19.75	20.22	20.31	20.76	21.38	17.33	17.79	17.88	18.33	18.96
12H	4H	19.34	19.96	19.86	20.49	21.02	15.72	16.35	16.25	16.88	17.41
	6H	19.62	20.14	20.17	20.69	21.25	16.47	16.99	17.03	17.55	18.10
	8H	19.72	20.18	20.28	20.72	21.35	16.93	17.39	17.48	17.93	18.56