

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: P893359

Luminaire Tested: 4MB-3SL-ACL-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893359
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-L940
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 4000K (CCT)
Light Source: -
Ballast/Driver: -

Summary

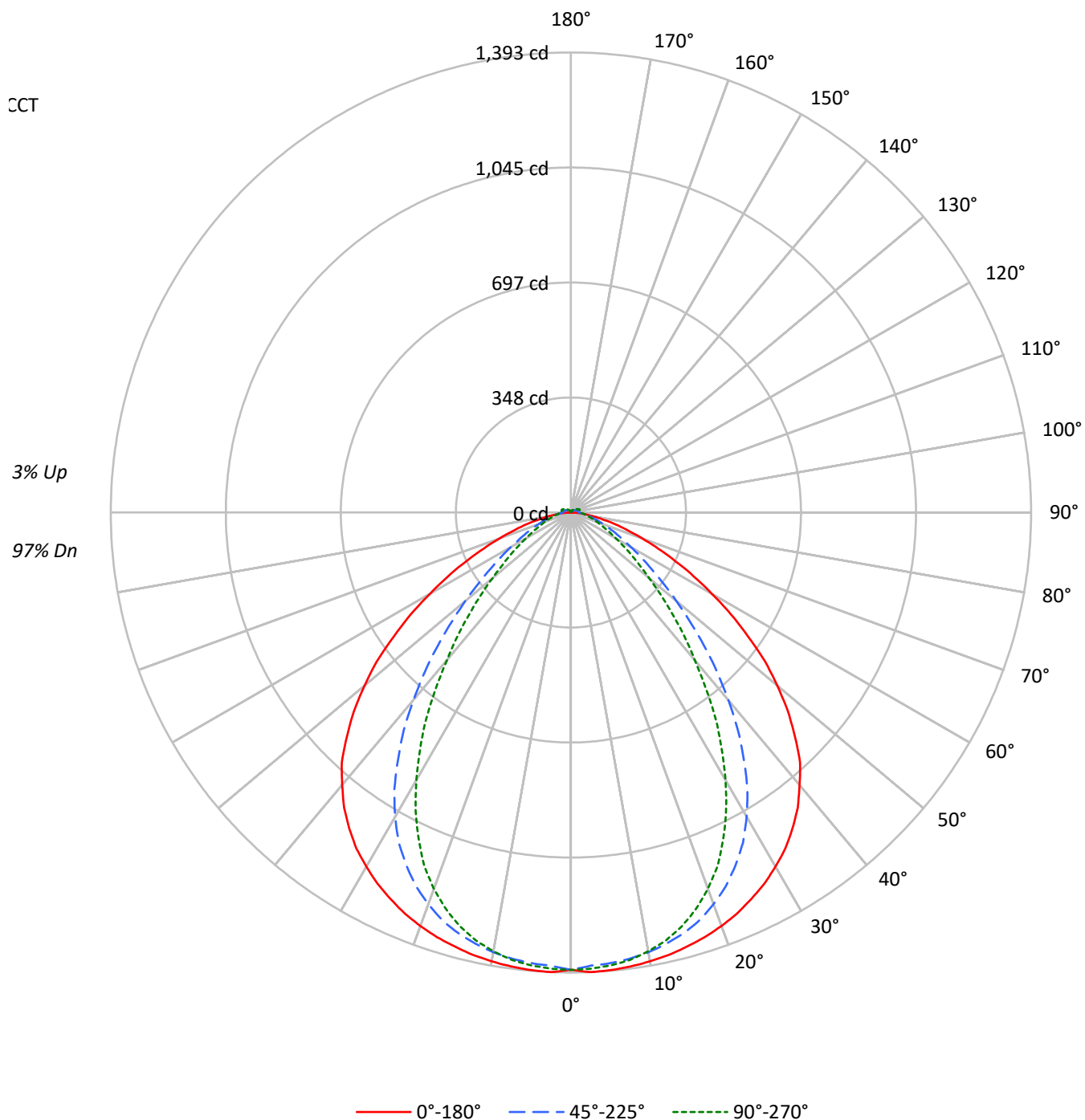
Lumens per Lamp: N/A
Luminaire Lumens: 2841.0 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V): 120
Input Current (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	0
RCR																				
0	118	118	118	118	115	115	115	115	110	110	110		104	104	104		100	100	100	97
1	110	106	102	99	107	103	100	97	99	96	93		94	92	90		90	89	87	85
2	101	94	88	84	99	92	87	82	88	84	80		85	81	78		82	79	76	74
3	94	85	77	72	91	83	76	71	80	74	69		77	72	68		74	70	66	64
4	87	76	68	62	84	75	67	62	72	66	61		69	64	60		67	62	59	57
5	80	69	61	55	78	68	60	55	65	59	54		63	58	53		61	56	52	50
6	75	63	55	49	73	62	54	49	60	53	48		58	52	47		56	51	47	45
7	70	57	50	44	68	57	49	44	55	48	43		53	47	43		52	46	42	40
8	65	53	45	40	64	52	45	40	51	44	39		49	43	39		48	42	38	37
9	61	49	41	36	60	48	41	36	47	40	36		46	40	35		45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33		43	37	32		42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14104	14104	14104
5°	14194	13722	13699
10°	14220	13424	13219
15°	14262	13075	12617
20°	14331	12594	11794
25°	14373	11927	10698
30°	14388	11010	9321
35°	14326	9729	7796
40°	14072	8219	6136
45°	13530	6634	4757
50°	12597	5148	3570
55°	11277	3940	2730
60°	9688	3030	2080
65°	8079	2390	1653
70°	6462	1918	1350
75°	5146	1544	1149
80°	3769	1275	1007
85°	2593	1082	928

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13530 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	4.6
10°-20°	373.7	13.2
20°-30°	544.8	19.2
30°-40°	585.3	20.6
40°-50°	487.2	17.1
50°-60°	325.8	11.5
60°-70°	186.5	6.6
70°-80°	92.7	3.3
80°-90°	37.9	1.3
90°-100°	22.0	0.8
100°-110°	19.4	0.7
110°-120°	14.3	0.5
120°-130°	9.2	0.3
130°-140°	5.5	0.2
140°-150°	3.1	0.1
150°-160°	1.5	0.1
160°-170°	0.6	0.0
170°-180°	0.1	0.0
0°-30°	1049.7	36.9
0°-40°	1635.0	57.6
0°-60°	2448.0	86.2
0°-90°	2765.2	97.3
90°-120°	55.7	2.0
90°-150°	73.4	2.6
90°-180°	76.0	2.7
0°-180°	2841.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1385	1385	1385	1385	1385	
5°	1391	1386	1370	1381	1377	132
15°	1360	1351	1319	1309	1297	385
25°	1292	1261	1178	1119	1091	596
35°	1169	1084	912	800	765	730
45°	959	797	570	461	434	737
55°	654	472	297	235	223	586
65°	350	238	150	121	115	350
75°	141	103	74	65	63	151
85°	28	31	34	36	36	32
90°	4	13	23	28	29	4
95°	6	13	23	28	29	5
105°	4	10	21	27	28	4
115°	2	6	16	22	24	2
125°	1	4	11	16	18	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°	1384.9	1384.9	1384.9	1384.9	1384.9
2.5°	1393.0	1389.4	1373.6	1386.1	1382.5
5°	1391.0	1386.5	1370.0	1381.3	1376.8
7.5°	1386.5	1381.7	1362.7	1371.6	1366.7
10°	1380.1	1374.0	1352.2	1356.6	1349.0
12.5°	1372.0	1364.3	1337.2	1336.0	1327.5
15°	1360.3	1351.0	1318.7	1309.0	1297.2
17.5°	1348.2	1334.4	1294.8	1275.0	1258.9
20°	1332.4	1314.2	1262.1	1232.6	1212.4
22.5°	1314.2	1289.6	1225.3	1180.1	1159.1
25°	1291.6	1260.9	1178.5	1119.1	1091.2
27.5°	1267.4	1226.5	1127.6	1049.6	1017.7
30°	1238.3	1187.8	1064.1	970.4	936.1
32.5°	1207.6	1138.5	994.7	887.2	849.6
35°	1169.2	1084.3	912.2	799.9	764.8
37.5°	1127.6	1019.7	830.6	710.6	671.0
40°	1077.1	951.4	740.9	622.2	583.0
42.5°	1027.0	877.1	654.9	542.2	508.2
45°	959.1	797.1	569.6	461.0	433.9
47.5°	890.8	711.4	488.0	395.1	368.4
50°	814.9	627.4	416.5	331.7	309.5
52.5°	740.9	549.0	351.5	280.4	261.4
55°	654.1	471.9	296.9	234.7	222.6
57.5°	575.7	400.4	250.5	198.8	187.5
60°	492.9	339.4	209.7	168.1	157.6
62.5°	420.2	285.2	176.5	142.6	135.3
65°	350.3	237.6	149.5	121.2	114.7
67.5°	286.0	198.4	126.0	103.4	98.2
70°	229.5	160.8	106.3	88.1	84.4
72.5°	180.6	129.3	88.5	76.0	72.7
75°	141.0	102.6	73.9	65.4	63.4
77.5°	101.8	80.0	61.8	56.2	54.9
80°	71.9	60.6	50.9	48.5	47.7
82.5°	47.7	44.0	42.0	42.0	41.6
85°	27.5	30.7	34.3	36.0	36.4
87.5°	14.1	20.6	27.5	30.7	31.1
90°	4.0	12.9	23.4	27.9	28.7
92.5°	6.1	12.9	23.0	27.9	28.7
95°	6.1	12.9	23.0	27.9	28.7
97.5°	5.7	12.5	23.0	27.9	28.7
100°	5.3	11.7	22.6	27.9	28.7
102.5°	4.4	11.3	21.8	27.5	28.7
105°	4.0	10.5	20.6	27.1	28.3
107.5°	3.6	8.9	19.4	25.9	27.5
110°	2.8	7.7	18.6	24.6	26.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.4	6.9	17.4	23.4	25.5
115°	2.0	6.1	16.2	22.2	24.2
117.5°	1.6	5.7	14.5	20.6	22.6
120°	1.2	5.3	13.3	19.4	21.0
122.5°	1.2	4.8	11.7	17.8	19.4
125°	1.2	4.0	10.9	16.2	17.8
127.5°	0.8	3.6	9.7	14.5	16.2
130°	0.8	3.6	8.9	13.3	14.5
132.5°	0.8	3.2	8.1	12.1	13.3
135°	0.8	3.2	7.3	10.9	12.1
137.5°	0.8	2.8	6.5	10.1	11.3
140°	0.8	2.8	6.1	8.9	10.1
142.5°	0.8	2.4	5.3	8.5	9.3
145°	0.8	2.4	4.8	7.3	8.5
147.5°	0.8	2.4	4.4	6.9	7.7
150°	0.8	2.0	4.0	5.7	6.9
152.5°	0.8	2.0	3.6	5.3	6.5
155°	0.8	2.0	3.2	4.4	5.7
157.5°	0.8	2.0	3.2	4.0	4.8
160°	1.2	1.6	2.8	3.6	4.4
162.5°	1.2	1.6	2.4	3.2	4.0
165°	1.2	1.6	2.4	2.8	3.6
167.5°	1.2	1.6	2.0	2.4	2.8
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	17.93	19.32	18.34	19.69	20.08	13.23	14.62	13.64	14.99	15.37
	3H	19.02	20.27	19.45	20.65	21.08	14.37	15.61	14.79	15.99	16.42
	4H	19.33	20.49	19.78	20.90	21.35	14.87	16.03	15.31	16.43	16.88
	6H	19.48	20.55	19.93	20.97	21.43	15.37	16.44	15.82	16.86	17.32
	8H	19.49	20.51	19.97	20.96	21.43	15.63	16.65	16.10	17.09	17.56
	12H	19.49	20.46	19.96	20.90	21.39	15.92	16.90	16.40	17.33	17.83
4H	2H	17.91	19.08	18.36	19.48	19.93	13.72	14.89	14.17	15.29	15.74
	3H	19.15	20.11	19.61	20.56	21.03	15.04	16.00	15.49	16.45	16.92
	4H	19.53	20.40	20.01	20.87	21.37	15.63	16.49	16.11	16.96	17.47
	6H	19.76	20.51	20.27	21.01	21.53	16.25	17.00	16.75	17.50	18.02
	8H	19.81	20.51	20.32	21.00	21.53	16.57	17.27	17.08	17.77	18.30
	12H	19.82	20.44	20.35	20.97	21.51	16.95	17.57	17.47	18.10	18.63
8H	4H	19.52	20.22	20.03	20.72	21.25	15.87	16.57	16.38	17.07	17.60
	6H	19.80	20.38	20.34	20.92	21.46	16.59	17.17	17.14	17.71	18.25
	8H	19.87	20.39	20.43	20.95	21.50	17.00	17.52	17.56	18.08	18.63
	12H	19.92	20.38	20.47	20.92	21.54	17.49	17.95	18.05	18.49	19.12
12H	4H	19.50	20.12	20.03	20.65	21.19	15.88	16.51	16.41	17.04	17.57
	6H	19.78	20.30	20.34	20.86	21.41	16.63	17.15	17.19	17.71	18.26
	8H	19.88	20.34	20.44	20.88	21.51	17.09	17.55	17.65	18.09	18.72