

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: P893360

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893360
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-L950
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

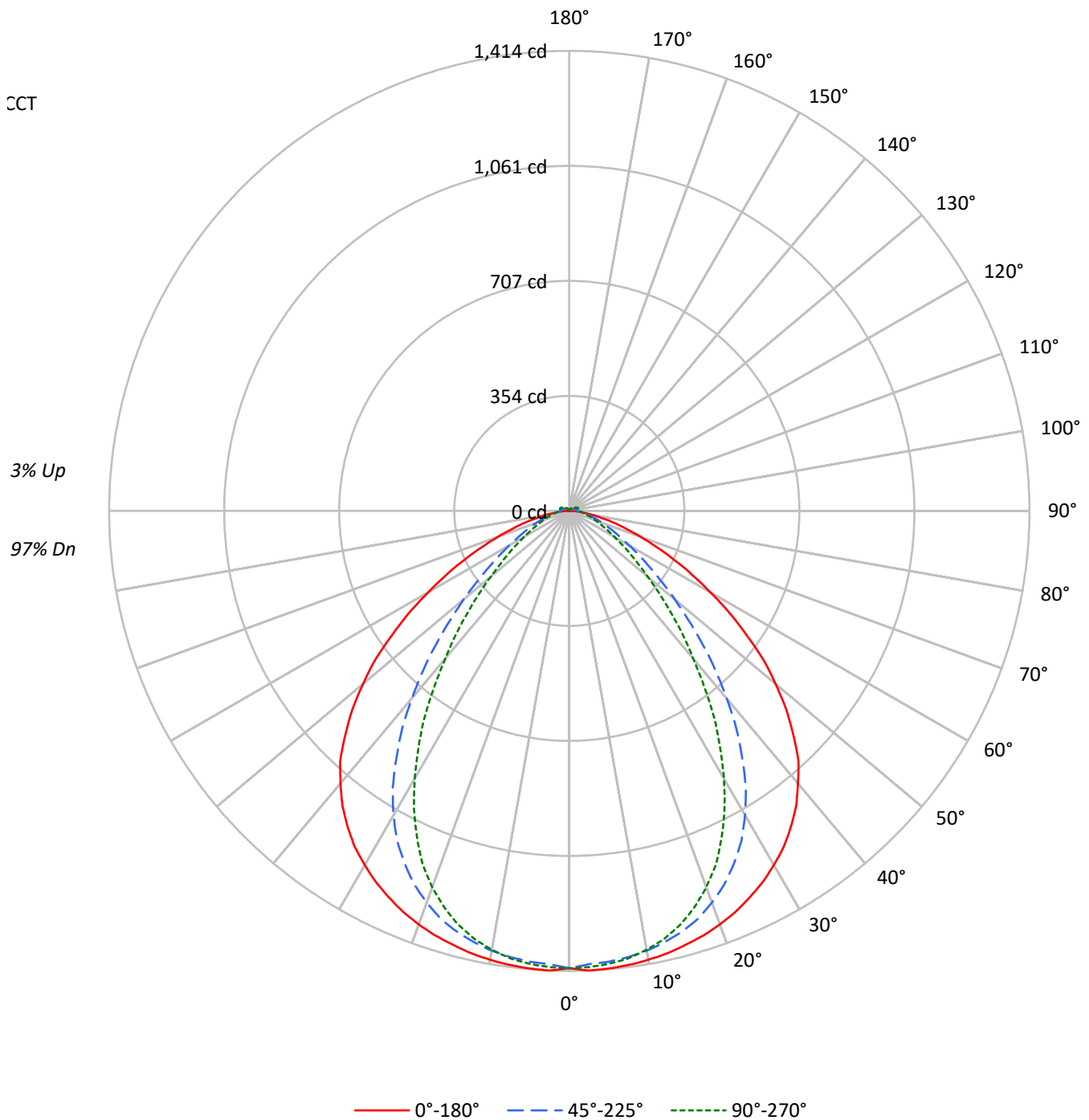
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2884.0 lumens
Efficiency: N/A
Efficacy: 136.7 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

TEST NUMBER: P893360
CATALOG NUMBER: 4MB-3SL-ACL-UNV-L950

Luminous Intensity Polar Plot





TEST NUMBER: P893360
 CATALOG NUMBER: 4MB-3SL-ACL-UNV-L950

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14318	14318	14318
5°	14409	13929	13907
10°	14435	13627	13419
15°	14478	13272	12808
20°	14548	12785	11973
25°	14590	12107	10859
30°	14605	11176	9461
35°	14543	9877	7914
40°	14285	8344	6229
45°	13735	6736	4830
50°	12787	5226	3623
55°	11447	4000	2772
60°	9834	3076	2111
65°	8201	2425	1679
70°	6558	1947	1371
75°	5223	1570	1168
80°	3827	1295	1022
85°	2631	1101	941

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13735 cd/sqm



TEST NUMBER: P893360
 CATALOG NUMBER: 4MB-3SL-ACL-UNV-L950

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.2	4.6
10°-20°	379.4	13.2
20°-30°	553.1	19.2
30°-40°	594.2	20.6
40°-50°	494.5	17.1
50°-60°	330.8	11.5
60°-70°	189.3	6.6
70°-80°	94.1	3.3
80°-90°	38.5	1.3
90°-100°	22.4	0.8
100°-110°	19.7	0.7
110°-120°	14.5	0.5
120°-130°	9.3	0.3
130°-140°	5.5	0.2
140°-150°	3.1	0.1
150°-160°	1.6	0.1
160°-170°	0.7	0.0
170°-180°	0.1	0.0
0°-30°	1065.6	36.9
0°-40°	1659.8	57.6
0°-60°	2485.1	86.2
0°-90°	2807.1	97.3
90°-120°	56.6	2.0
90°-150°	74.5	2.6
90°-180°	77.0	2.7
0°-180°	2884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1406	1406	1406	1406	1406	
5°	1412	1408	1391	1402	1398	134
15°	1381	1371	1339	1329	1317	390
25°	1311	1280	1196	1136	1108	605
35°	1187	1101	926	812	776	741
45°	974	809	578	468	440	748
55°	664	479	301	238	226	595
65°	356	241	152	123	116	355
75°	143	104	75	66	64	153
85°	28	31	35	36	37	33
90°	4	13	24	28	29	4
95°	6	13	23	28	29	5
105°	4	11	21	28	29	4
115°	2	6	16	23	25	2
125°	1	4	11	16	18	1
135°	1	3	7	11	12	1
145°	1	2	5	7	9	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	



TEST NUMBER: P893360

CATALOG NUMBER: 4MB-3SL-ACL-UNV-L950

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1405.9	1405.9	1405.9	1405.9	1405.9
2.5°	1414.1	1410.4	1394.4	1407.1	1403.4
5°	1412.0	1407.5	1390.7	1402.2	1397.7
7.5°	1407.5	1402.6	1383.3	1392.3	1387.4
10°	1401.0	1394.8	1372.7	1377.2	1369.4
12.5°	1392.8	1385.0	1357.5	1356.3	1347.6
15°	1380.9	1371.4	1338.6	1328.8	1316.9
17.5°	1368.6	1354.6	1314.4	1294.3	1277.9
20°	1352.6	1334.1	1281.2	1251.3	1230.8
22.5°	1334.1	1309.1	1243.9	1197.9	1176.6
25°	1311.1	1280.0	1196.3	1136.0	1107.7
27.5°	1286.5	1245.1	1144.6	1065.5	1033.1
30°	1257.0	1205.7	1080.2	985.1	950.2
32.5°	1225.8	1155.7	1009.7	900.6	862.5
35°	1186.9	1100.8	926.0	812.0	776.3
37.5°	1144.6	1035.1	843.2	721.4	681.2
40°	1093.4	965.8	752.2	631.6	591.8
42.5°	1042.5	890.4	664.8	550.4	515.9
45°	973.6	809.2	578.3	467.9	440.5
47.5°	904.3	722.2	495.4	401.1	374.0
50°	827.2	636.9	422.8	336.7	314.1
52.5°	752.2	557.3	356.8	284.6	265.3
55°	664.0	479.0	301.4	238.3	226.0
57.5°	584.4	406.4	254.3	201.8	190.3
60°	500.3	344.5	212.9	170.6	159.9
62.5°	426.5	289.5	179.2	144.8	137.4
65°	355.6	241.1	151.7	123.0	116.5
67.5°	290.4	201.4	128.0	105.0	99.7
70°	232.9	163.2	107.9	89.4	85.7
72.5°	183.3	131.2	89.8	77.1	73.8
75°	143.1	104.2	75.1	66.4	64.4
77.5°	103.3	81.2	62.7	57.0	55.8
80°	73.0	61.5	51.7	49.2	48.4
82.5°	48.4	44.7	42.7	42.7	42.2
85°	27.9	31.2	34.9	36.5	36.9
87.5°	14.4	20.9	27.9	31.2	31.6
90°	4.1	13.1	23.8	28.3	29.1
92.5°	6.2	13.1	23.4	28.3	29.1
95°	6.2	13.1	23.4	28.3	29.1
97.5°	5.7	12.7	23.4	28.3	29.1
100°	5.3	11.9	23.0	28.3	29.1
102.5°	4.5	11.5	22.1	27.9	29.1
105°	4.1	10.7	20.9	27.5	28.7
107.5°	3.7	9.0	19.7	26.2	27.9
110°	2.9	7.8	18.9	25.0	27.1



TEST NUMBER: P893360
 CATALOG NUMBER: 4MB-3SL-ACL-UNV-L950

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	7.0	17.6	23.8	25.8
115°	2.1	6.2	16.4	22.6	24.6
117.5°	1.6	5.7	14.8	20.9	23.0
120°	1.2	5.3	13.5	19.7	21.3
122.5°	1.2	4.9	11.9	18.0	19.7
125°	1.2	4.1	11.1	16.4	18.0
127.5°	0.8	3.7	9.8	14.8	16.4
130°	0.8	3.7	9.0	13.5	14.8
132.5°	0.8	3.3	8.2	12.3	13.5
135°	0.8	3.3	7.4	11.1	12.3
137.5°	0.8	2.9	6.6	10.3	11.5
140°	0.8	2.9	6.2	9.0	10.3
142.5°	0.8	2.5	5.3	8.6	9.4
145°	0.8	2.5	4.9	7.4	8.6
147.5°	0.8	2.5	4.5	7.0	7.8
150°	0.8	2.1	4.1	5.7	7.0
152.5°	0.8	2.1	3.7	5.3	6.6
155°	0.8	2.1	3.3	4.5	5.7
157.5°	0.8	2.1	3.3	4.1	4.9
160°	1.2	1.6	2.9	3.7	4.5
162.5°	1.2	1.6	2.5	3.3	4.1
165°	1.2	1.6	2.5	2.9	3.7
167.5°	1.2	1.6	2.1	2.5	2.9
170°	1.2	1.2	2.1	2.1	2.1
172.5°	1.2	1.2	1.6	2.1	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



TEST NUMBER: P893360
 CATALOG NUMBER: 4MB-3SL-ACL-UNV-L950

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	17.98	19.37	18.39	19.74	20.13	13.28	14.67	13.69	15.04	15.42
	3H	19.07	20.32	19.50	20.70	21.13	14.42	15.66	14.84	16.05	16.48
	4H	19.38	20.55	19.83	20.95	21.40	14.92	16.08	15.36	16.49	16.93
	6H	19.53	20.60	19.99	21.02	21.48	15.42	16.49	15.88	16.91	17.37
	8H	19.55	20.57	20.02	21.01	21.48	15.68	16.70	16.15	17.14	17.61
	12H	19.54	20.51	20.02	20.95	21.45	15.97	16.95	16.45	17.38	17.88
4H	2H	17.96	19.13	18.41	19.53	19.98	13.77	14.94	14.22	15.34	15.79
	3H	19.20	20.16	19.66	20.62	21.08	15.09	16.05	15.55	16.50	16.97
	4H	19.58	20.45	20.06	20.92	21.42	15.68	16.55	16.16	17.01	17.52
	6H	19.82	20.57	20.32	21.06	21.59	16.30	17.05	16.81	17.55	18.07
	8H	19.86	20.56	20.37	21.05	21.58	16.62	17.32	17.13	17.82	18.35
	12H	19.87	20.49	20.40	21.02	21.56	17.00	17.62	17.53	18.15	18.69
8H	4H	19.57	20.27	20.08	20.77	21.30	15.92	16.62	16.43	17.12	17.65
	6H	19.85	20.43	20.39	20.97	21.51	16.65	17.22	17.19	17.77	18.31
	8H	19.92	20.44	20.48	21.00	21.55	17.05	17.57	17.61	18.13	18.68
	12H	19.97	20.43	20.52	20.97	21.60	17.54	18.00	18.10	18.54	19.17
12H	4H	19.55	20.17	20.08	20.70	21.24	15.94	16.56	16.46	17.09	17.62
	6H	19.83	20.35	20.39	20.91	21.46	16.68	17.20	17.24	17.76	18.31
	8H	19.93	20.40	20.49	20.94	21.56	17.14	17.60	17.70	18.14	18.77