

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: P893365

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893365
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-L930
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
3000K CCT
Light Source: -
Ballast/Driver: -

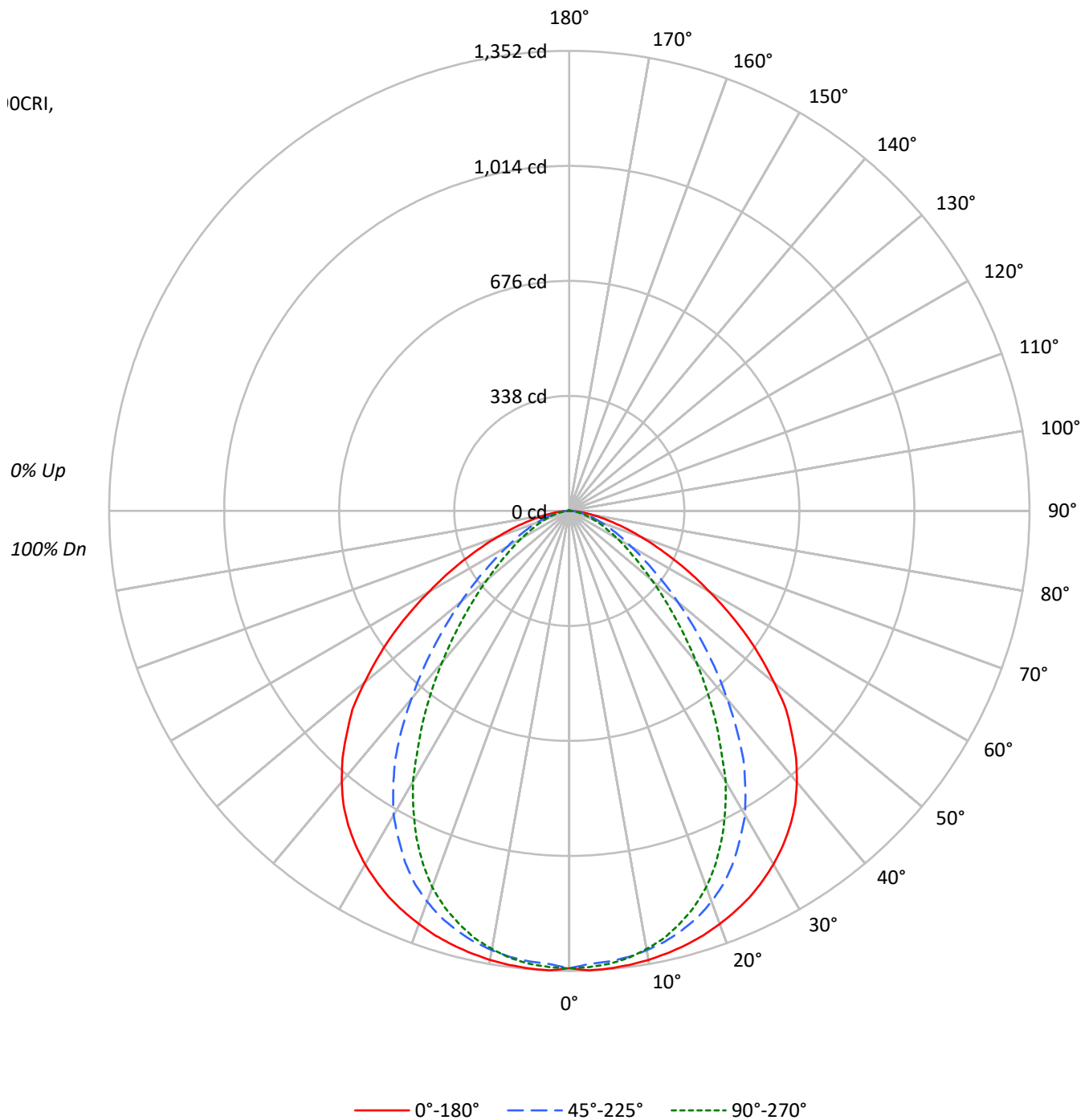
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2685.1 lumens
Efficiency: N/A
Efficacy: 127.3 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

TEST NUMBER: P893365
CATALOG NUMBER: 4MB-3SL-AOL-UNV-L930

Luminous Intensity Polar Plot





TEST NUMBER: P893365
 CATALOG NUMBER: 4MB-3SL-AOL-UNV-L930

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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87		
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76		
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66		
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58		
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	52		
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46		
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42		
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38		
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34		
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13689	13689	13689
5°	13800	13592	13662
10°	13856	13557	13521
15°	13928	13460	13236
20°	14004	13243	12754
25°	14081	12811	11928
30°	14106	12138	10800
35°	14060	11087	9290
40°	13825	9596	7720
45°	13311	8064	6248
50°	12456	6567	5003
55°	11255	5279	4011
60°	9708	4296	3322
65°	8213	3576	2733
70°	6706	3043	2320
75°	5371	2566	1971
80°	4182	2193	1695
85°	3248	1940	1531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13311 cd/sqm



TEST NUMBER: P893365
 CATALOG NUMBER: 4MB-3SL-AOL-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.3	4.7
10°-20°	362.2	13.5
20°-30°	527.9	19.7
30°-40°	569.1	21.2
40°-50°	477.1	17.8
50°-60°	323.0	12.0
60°-70°	184.2	6.9
70°-80°	84.2	3.1
80°-90°	22.1	0.8
90°-100°	2.7	0.1
100°-110°	1.9	0.1
110°-120°	1.0	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°	1017.4	37.9
0°-40°	1586.5	59.1
0°-60°	2386.5	88.9
0°-90°	2677.0	99.7
90°-120°	5.6	0.2
90°-150°	7.3	0.3
90°-180°	8.0	0.3
0°-180°	2685.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1344	1344	1344	1344	1344	
5°	1350	1346	1330	1340	1336	129
15°	1321	1309	1277	1268	1255	373
25°	1253	1220	1140	1088	1062	577
35°	1131	1046	892	783	747	706
45°	924	771	560	462	434	711
55°	634	464	297	241	226	565
65°	341	237	148	120	113	340
75°	136	100	65	53	50	149
85°	28	24	17	14	13	32
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	



TEST NUMBER: P893365

CATALOG NUMBER: 4MB-3SL-AOL-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1344.1	1344.1	1344.1	1344.1	1344.1
2.5°	1351.8	1348.4	1332.9	1345.7	1341.8
5°	1349.9	1345.7	1329.5	1340.3	1336.4
7.5°	1346.0	1340.6	1322.5	1330.6	1325.6
10°	1339.9	1333.3	1311.0	1315.6	1307.5
12.5°	1331.4	1323.3	1296.7	1295.5	1285.9
15°	1321.0	1309.4	1276.6	1268.2	1255.4
17.5°	1308.3	1293.6	1252.7	1235.8	1220.3
20°	1292.1	1273.2	1221.9	1194.9	1176.8
22.5°	1273.6	1248.1	1186.0	1142.8	1123.2
25°	1253.1	1220.0	1140.1	1087.7	1061.5
27.5°	1227.7	1186.0	1086.9	1019.1	992.1
30°	1199.5	1146.7	1032.2	945.4	918.4
32.5°	1167.5	1101.6	962.4	866.0	828.2
35°	1130.9	1045.7	891.8	782.7	747.2
37.5°	1089.6	987.5	807.4	698.7	662.8
40°	1039.9	918.4	721.8	614.2	580.7
42.5°	986.3	848.3	639.7	534.0	505.1
45°	924.2	771.1	559.9	461.5	433.8
47.5°	864.5	693.3	485.1	395.2	372.5
50°	786.2	610.4	414.5	334.7	315.8
52.5°	709.8	533.6	354.3	286.1	268.4
55°	633.9	463.8	297.3	241.0	225.9
57.5°	553.7	395.6	250.2	204.0	193.9
60°	476.6	336.6	210.9	171.2	163.1
62.5°	406.0	282.2	178.5	144.6	136.9
65°	340.8	237.1	148.4	120.3	113.4
67.5°	279.2	195.1	123.8	100.2	95.2
70°	225.2	158.1	102.2	82.5	77.9
72.5°	178.5	126.5	81.7	67.5	62.5
75°	136.5	100.2	65.2	53.2	50.1
77.5°	101.8	75.6	50.1	40.9	38.6
80°	71.3	54.8	37.4	30.8	28.9
82.5°	48.6	37.8	26.2	21.6	20.4
85°	27.8	23.5	16.6	13.9	13.1
87.5°	14.3	12.3	8.9	6.6	5.8
90°	3.9	3.9	2.3	1.9	1.5
92.5°	6.2	3.5	2.3	1.5	1.2
95°	5.8	3.5	1.9	1.2	1.2
97.5°	5.4	3.5	1.5	1.2	0.8
100°	5.0	3.1	1.5	0.8	0.8
102.5°	4.6	3.1	1.5	0.8	0.8
105°	3.9	2.7	1.2	0.8	0.4
107.5°	3.5	2.3	1.2	0.8	0.4
110°	2.7	1.9	1.2	0.8	0.4



TEST NUMBER: P893365

CATALOG NUMBER: 4MB-3SL-AOL-UNV-L930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	1.9	0.8	0.8	0.4
115°	1.9	1.5	0.8	0.4	0.4
117.5°	1.5	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	1.5
170°	0.8	1.2	1.2	1.5	1.5
172.5°	0.8	1.2	1.2	1.5	1.5
175°	1.2	1.2	1.2	1.5	1.5
177.5°	1.2	1.2	1.2	1.5	1.5
180°	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P893365
 CATALOG NUMBER: 4MB-3SL-AOL-UNV-L930

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	19.46	20.90	19.83	21.22	21.54	14.30	15.74	14.67	16.06	16.38
	3H	20.77	22.05	21.15	22.39	22.76	15.31	16.60	15.70	16.93	17.30
	4H	21.19	22.39	21.60	22.75	23.14	15.65	16.85	16.06	17.20	17.59
	6H	21.46	22.56	21.88	22.94	23.34	15.87	16.98	16.29	17.35	17.75
	8H	21.53	22.58	21.96	22.98	23.39	15.94	16.99	16.38	17.39	17.80
	12H	21.57	22.57	22.01	22.96	23.40	15.98	16.99	16.42	17.38	17.81
4H	2H	19.46	20.66	19.86	21.01	21.40	14.93	16.12	15.33	16.48	16.87
	3H	20.92	21.91	21.34	22.32	22.73	16.12	17.11	16.54	17.52	17.93
	4H	21.45	22.33	21.89	22.76	23.20	16.54	17.42	16.98	17.85	18.29
	6H	21.83	22.59	22.29	23.04	23.51	16.85	17.62	17.31	18.07	18.54
	8H	21.94	22.65	22.41	23.10	23.58	16.94	17.66	17.41	18.11	18.59
	12H	22.01	22.65	22.50	23.14	23.62	17.01	17.65	17.50	18.14	18.62
8H	4H	21.43	22.15	21.90	22.60	23.07	16.87	17.59	17.34	18.04	18.52
	6H	21.86	22.45	22.37	22.95	23.44	17.27	17.85	17.77	18.35	18.84
	8H	22.02	22.55	22.54	23.06	23.56	17.41	17.94	17.93	18.45	18.95
	12H	22.15	22.62	22.66	23.12	23.69	17.53	18.00	18.05	18.50	19.07
12H	4H	21.40	22.04	21.89	22.52	23.00	16.92	17.56	17.41	18.04	18.52
	6H	21.83	22.36	22.35	22.88	23.37	17.33	17.86	17.85	18.38	18.88
	8H	22.02	22.49	22.54	22.99	23.56	17.52	17.99	18.04	18.49	19.06