

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: P893362

Luminaire Tested: 4MB-3SL-AOL-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893362
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-L835
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
3500K CCT
Light Source: -
Ballast/Driver: -

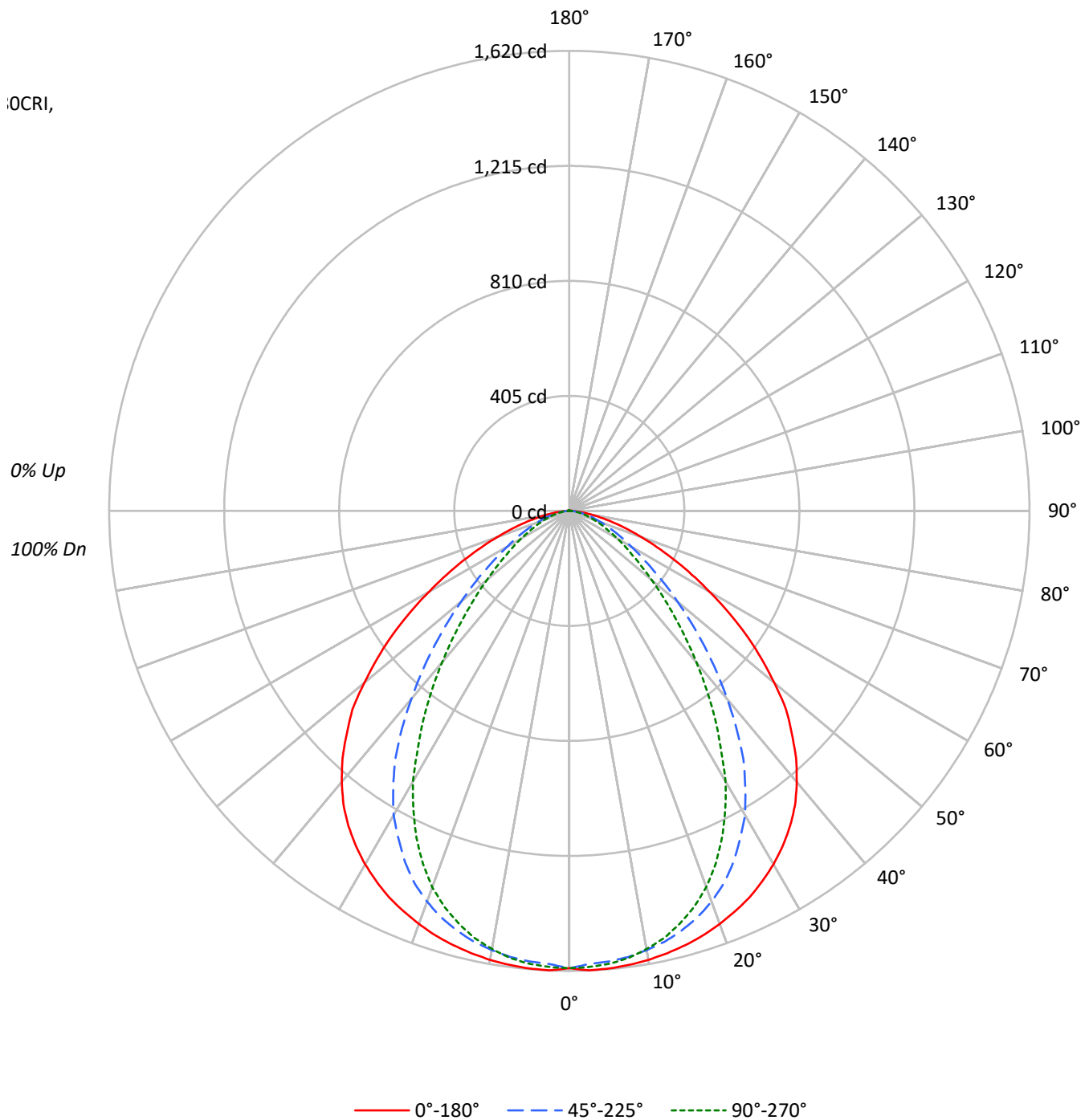
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3217.0 lumens
Efficiency: N/A
Efficacy: 152.5 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 (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: P893362
CATALOG NUMBER: 4MB-3SL-AOL-UNV-L835

Luminous Intensity Polar Plot





TEST NUMBER: P893362

CATALOG NUMBER: 4MB-3SL-AOL-UNV-L835

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16401	16401	16401
5°	16535	16284	16369
10°	16601	16243	16200
15°	16687	16127	15859
20°	16778	15867	15280
25°	16871	15350	14291
30°	16901	14543	12940
35°	16846	13284	11131
40°	16564	11497	9249
45°	15948	9661	7485
50°	14925	7868	5995
55°	13485	6325	4806
60°	11630	5147	3980
65°	9842	4287	3272
70°	8034	3645	2778
75°	6434	3073	2365
80°	5014	2627	2029
85°	3891	2325	1835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15948 cd/sqm



TEST NUMBER: P893362
 CATALOG NUMBER: 4MB-3SL-AOL-UNV-L835

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	4.7
10°-20°	434.0	13.5
20°-30°	632.5	19.7
30°-40°	681.8	21.2
40°-50°	571.6	17.8
50°-60°	387.0	12.0
60°-70°	220.7	6.9
70°-80°	100.9	3.1
80°-90°	26.4	0.8
90°-100°	3.3	0.1
100°-110°	2.2	0.1
110°-120°	1.2	0.0
120°-130°	0.7	0.0
130°-140°	0.7	0.0
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	1219.0	37.9
0°-40°	1900.8	59.1
0°-60°	2859.4	88.9
0°-90°	3207.4	99.7
90°-120°	6.7	0.2
90°-150°	8.6	0.3
90°-180°	10.0	0.3
0°-180°	3217.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1617	1612	1593	1606	1601	154
15°	1583	1569	1530	1519	1504	447
25°	1501	1462	1366	1303	1272	692
35°	1355	1253	1068	938	895	846
45°	1107	924	671	553	520	852
55°	760	556	356	289	271	676
65°	408	284	178	144	136	407
75°	164	120	78	64	60	178
85°	33	28	20	17	16	39
90°	5	5	3	2	2	5
95°	7	4	2	1	1	5
105°	5	3	1	1	0	5
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: P893362

CATALOG NUMBER: 4MB-3SL-AOL-UNV-L835

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1610.4	1610.4	1610.4	1610.4	1610.4
2.5°	1619.7	1615.5	1597.0	1612.3	1607.7
5°	1617.4	1612.3	1592.9	1605.8	1601.2
7.5°	1612.7	1606.3	1584.6	1594.3	1588.3
10°	1605.3	1597.5	1570.7	1576.2	1566.5
12.5°	1595.2	1585.5	1553.6	1552.2	1540.7
15°	1582.7	1568.9	1529.6	1519.4	1504.2
17.5°	1567.5	1549.9	1500.9	1480.6	1462.1
20°	1548.1	1525.4	1464.0	1431.6	1409.9
22.5°	1525.9	1495.4	1421.0	1369.3	1345.7
25°	1501.4	1461.7	1366.0	1303.2	1271.8
27.5°	1470.9	1421.0	1302.3	1221.0	1188.7
30°	1437.2	1373.9	1236.7	1132.8	1100.4
32.5°	1398.8	1319.9	1153.1	1037.6	992.3
35°	1355.0	1252.9	1068.5	937.8	895.3
37.5°	1305.5	1183.1	967.4	837.1	794.1
40°	1245.9	1100.4	864.8	735.9	695.7
42.5°	1181.7	1016.3	766.4	639.8	605.2
45°	1107.3	923.9	670.8	553.0	519.7
47.5°	1035.7	830.6	581.2	473.5	446.3
50°	942.0	731.3	496.6	401.0	378.4
52.5°	850.5	639.4	424.6	342.8	321.5
55°	759.5	555.8	356.2	288.7	270.7
57.5°	663.4	474.0	299.8	244.4	232.4
60°	571.0	403.3	252.7	205.1	195.4
62.5°	486.5	338.2	213.9	173.2	164.0
65°	408.4	284.1	177.9	144.1	135.8
67.5°	334.5	233.8	148.3	120.1	114.1
70°	269.8	189.4	122.4	98.9	93.3
72.5°	213.9	151.5	97.9	80.8	74.8
75°	163.5	120.1	78.1	63.8	60.1
77.5°	122.0	90.5	60.1	49.0	46.2
80°	85.5	65.6	44.8	37.0	34.6
82.5°	58.2	45.3	31.4	25.9	24.5
85°	33.3	28.2	19.9	16.6	15.7
87.5°	17.1	14.8	10.6	7.9	6.9
90°	4.6	4.6	2.8	2.3	1.8
92.5°	7.4	4.2	2.8	1.8	1.4
95°	6.9	4.2	2.3	1.4	1.4
97.5°	6.5	4.2	1.8	1.4	0.9
100°	6.0	3.7	1.8	0.9	0.9
102.5°	5.5	3.7	1.8	0.9	0.9
105°	4.6	3.2	1.4	0.9	0.5
107.5°	4.2	2.8	1.4	0.9	0.5
110°	3.2	2.3	1.4	0.9	0.5



TEST NUMBER: P893362

CATALOG NUMBER: 4MB-3SL-AOL-UNV-L835

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.8	2.3	0.9	0.9	0.5
115°	2.3	1.8	0.9	0.5	0.5
117.5°	1.8	1.4	0.9	0.5	0.5
120°	1.4	1.4	0.9	0.5	0.5
122.5°	1.4	0.9	0.9	0.5	0.5
125°	0.9	0.9	0.9	0.5	0.5
127.5°	0.9	0.9	0.9	0.5	0.5
130°	0.9	0.9	0.9	0.5	0.5
132.5°	0.9	0.9	0.9	0.9	0.5
135°	0.5	0.9	0.9	0.9	0.5
137.5°	0.9	0.9	0.9	0.9	0.9
140°	0.9	0.9	0.9	0.9	0.9
142.5°	0.9	0.9	0.9	0.9	0.9
145°	0.9	0.9	0.9	0.9	0.9
147.5°	0.9	0.9	0.9	0.9	0.9
150°	0.9	0.9	0.9	0.9	0.9
152.5°	0.9	0.9	0.9	0.9	0.9
155°	0.9	0.9	0.9	1.4	1.4
157.5°	0.9	0.9	1.4	1.4	1.4
160°	0.9	0.9	1.4	1.4	1.4
162.5°	0.9	0.9	1.4	1.4	1.4
165°	0.9	1.4	1.4	1.4	1.4
167.5°	0.9	1.4	1.4	1.4	1.8
170°	0.9	1.4	1.4	1.8	1.8
172.5°	0.9	1.4	1.4	1.8	1.8
175°	1.4	1.4	1.4	1.8	1.8
177.5°	1.4	1.4	1.4	1.8	1.8
180°	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P893362
 CATALOG NUMBER: 4MB-3SL-AOL-UNV-L835

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	20.09	21.53	20.46	21.85	22.17	14.93	16.37	15.30	16.69	17.01
	3H	21.40	22.68	21.78	23.01	23.38	15.94	17.23	16.33	17.56	17.93
	4H	21.82	23.02	22.23	23.38	23.76	16.28	17.48	16.68	17.83	18.22
	6H	22.09	23.19	22.51	23.57	23.97	16.50	17.61	16.92	17.98	18.38
	8H	22.16	23.21	22.59	23.61	24.02	16.57	17.62	17.00	18.02	18.43
	12H	22.20	23.20	22.63	23.59	24.03	16.61	17.62	17.05	18.01	18.44
4H	2H	20.09	21.29	20.49	21.64	22.03	15.55	16.75	15.96	17.11	17.50
	3H	21.55	22.54	21.97	22.95	23.36	16.75	17.74	17.17	18.15	18.56
	4H	22.08	22.96	22.52	23.38	23.83	17.17	18.05	17.61	18.48	18.92
	6H	22.45	23.22	22.92	23.67	24.14	17.48	18.25	17.94	18.70	19.16
	8H	22.57	23.28	23.04	23.73	24.21	17.57	18.29	18.04	18.74	19.22
	12H	22.64	23.28	23.13	23.77	24.24	17.64	18.28	18.13	18.77	19.25
8H	4H	22.06	22.77	22.53	23.23	23.70	17.50	18.22	17.97	18.67	19.15
	6H	22.49	23.08	22.99	23.58	24.06	17.89	18.48	18.40	18.98	19.47
	8H	22.65	23.18	23.17	23.69	24.19	18.04	18.57	18.56	19.08	19.58
	12H	22.78	23.25	23.29	23.74	24.32	18.16	18.63	18.68	19.13	19.70
12H	4H	22.03	22.67	22.52	23.15	23.63	17.55	18.19	18.04	18.67	19.15
	6H	22.46	22.99	22.98	23.50	24.00	17.96	18.49	18.48	19.01	19.51
	8H	22.65	23.12	23.16	23.61	24.19	18.15	18.62	18.67	19.12	19.69