

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: P893345

Luminaire Tested: 4MB-3SL-A-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893345
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-A-UNV-L830
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

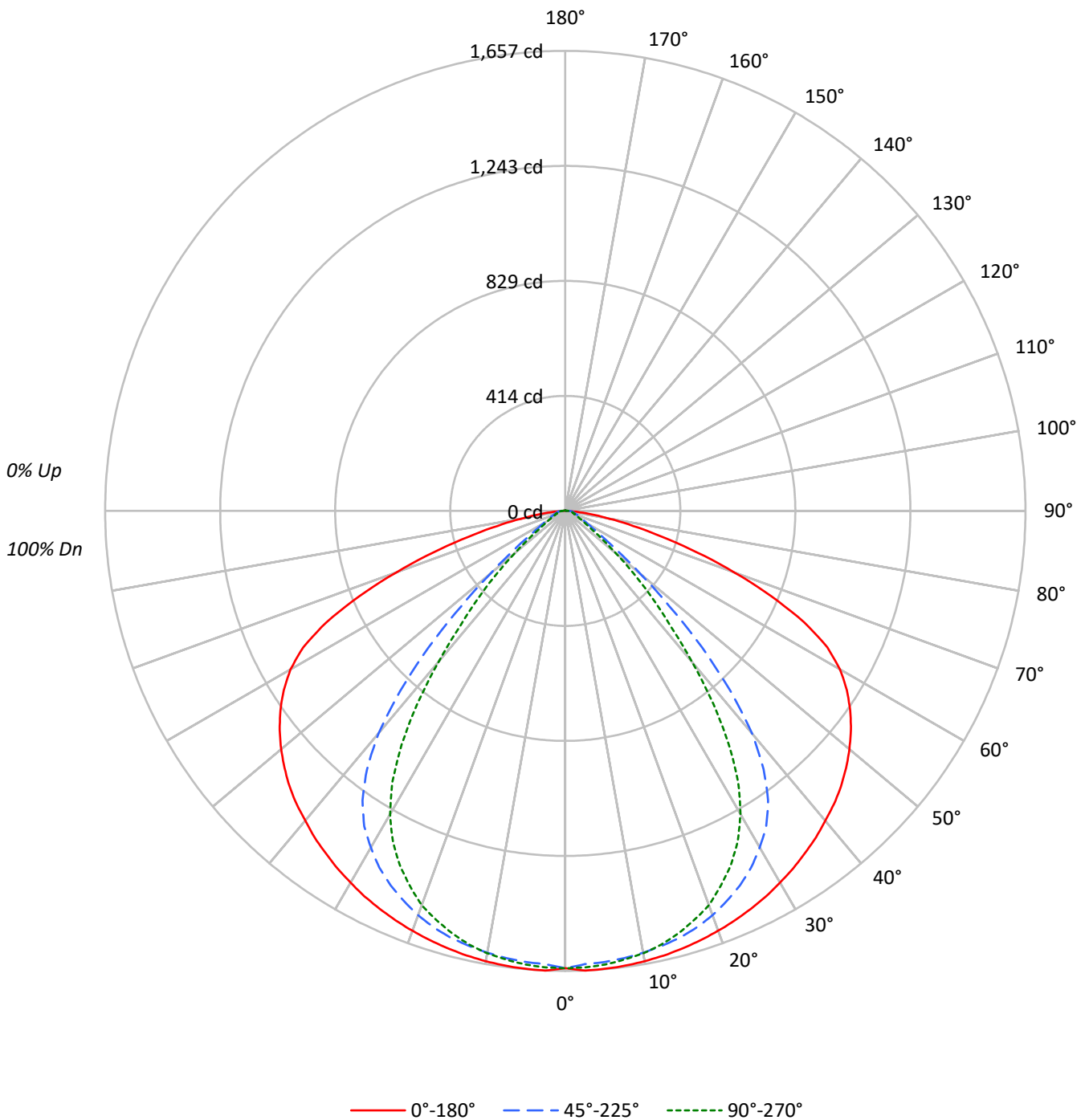
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3377.1 lumens
Efficiency: N/A
Efficacy: 160.1 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
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

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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	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	105	102	99	100	98	96	97	95	93	93	91	90	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16777	16777	16777
5°	16925	16674	16771
10°	17031	16711	16734
15°	17201	16783	16609
20°	17443	16796	16387
25°	17769	16724	15833
30°	18183	16461	14837
35°	18701	15828	12757
40°	19367	13902	9430
45°	20221	10031	6341
50°	21161	5604	3785
55°	22241	2898	2072
60°	23267	1884	1467
65°	22869	1549	1164
70°	19286	1426	1087
75°	14189	1452	1165
80°	9466	1713	1472
85°	5165	2769	2232

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 23465 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	4.6
10°-20°	452.0	13.4
20°-30°	687.6	20.4
30°-40°	785.3	23.3
40°-50°	633.5	18.8
50°-60°	346.8	10.3
60°-70°	182.8	5.4
70°-80°	89.7	2.7
80°-90°	31.6	0.9
90°-100°	6.8	0.2
100°-110°	1.0	0.0
110°-120°	0.6	0.0
120°-130°	0.5	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1296.1	38.4
0°-40°	2081.4	61.6
0°-60°	3061.7	90.7
0°-90°	3365.8	99.7
90°-120°	8.3	0.2
90°-150°	10.1	0.3
90°-180°	11.0	0.3
0°-180°	3377.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1647	1647	1647	1647	1647	
5°	1656	1651	1631	1646	1640	158
15°	1631	1621	1592	1589	1575	462
25°	1581	1558	1488	1438	1409	731
35°	1504	1441	1273	1100	1026	944
45°	1404	1206	696	476	440	1084
55°	1253	516	163	126	117	1118
65°	949	119	64	52	48	918
75°	361	67	37	31	30	398
85°	44	35	24	21	19	61
90°	2	18	15	13	12	3
95°	1	2	5	8	7	1
105°	0	0	0	1	1	1
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
145°	1	1	1	1	1	1
155°	1	1	1	2	1	0
165°	1	1	2	2	2	0
175°	1	1	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1647.4	1647.4	1647.4	1647.4	1647.4
2.5°	1657.4	1652.8	1634.1	1650.1	1645.5
5°	1655.6	1650.6	1631.0	1645.5	1640.5
7.5°	1652.4	1646.0	1624.6	1637.8	1630.0
10°	1646.9	1640.5	1615.9	1626.4	1618.2
12.5°	1640.5	1631.9	1604.5	1610.0	1599.5
15°	1631.4	1621.4	1591.8	1589.0	1575.3
17.5°	1621.4	1609.1	1573.1	1561.2	1544.8
20°	1609.5	1594.5	1549.8	1526.6	1512.0
22.5°	1596.3	1576.7	1520.6	1485.1	1462.3
25°	1581.3	1558.5	1488.3	1437.7	1409.0
27.5°	1565.3	1534.3	1449.1	1382.5	1343.8
30°	1546.2	1508.8	1399.8	1310.1	1261.7
32.5°	1527.0	1476.9	1347.0	1216.6	1159.2
35°	1504.2	1440.9	1273.1	1099.9	1026.1
37.5°	1482.8	1397.6	1173.3	953.6	874.3
40°	1456.8	1346.5	1045.7	785.4	709.3
42.5°	1432.2	1287.3	880.2	623.1	557.0
45°	1404.0	1206.1	696.5	475.9	440.3
47.5°	1371.1	1095.4	506.4	354.2	331.8
50°	1335.6	943.1	353.7	257.1	238.9
52.5°	1296.4	737.5	238.4	178.7	168.7
55°	1252.6	515.5	163.2	126.3	116.7
57.5°	1202.0	335.5	118.5	95.3	88.9
60°	1142.3	214.2	92.5	75.7	72.0
62.5°	1063.9	150.4	76.1	62.4	59.3
65°	949.0	119.0	64.3	52.0	48.3
67.5°	803.6	100.7	55.2	43.8	41.5
70°	647.7	87.5	47.9	37.8	36.5
72.5°	497.8	76.6	41.5	33.7	32.8
75°	360.6	67.0	36.9	31.0	29.6
77.5°	249.8	57.9	32.8	27.8	26.9
80°	161.4	50.1	29.2	25.5	25.1
82.5°	92.5	41.9	26.4	24.6	24.2
85°	44.2	35.1	23.7	21.4	19.1
87.5°	14.1	26.0	18.7	16.4	14.6
90°	1.8	18.2	14.6	12.8	11.9
92.5°	1.8	10.0	10.5	10.5	10.0
95°	1.4	2.3	5.0	7.7	7.3
97.5°	1.4	0.9	3.2	5.5	5.5
100°	0.9	0.5	1.4	3.6	3.6
102.5°	0.9	0.5	0.5	2.3	2.3
105°	0.5	0.0	0.5	0.9	0.9
107.5°	0.5	0.5	0.5	0.9	0.5
110°	0.5	0.5	0.5	0.9	0.5



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CANDELA DISTRIBUTION (continued):

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



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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	19.70	21.10	20.07	21.42	21.75	8.22	9.62	8.59	9.94	10.26
	3H	22.61	23.86	23.00	24.20	24.57	9.16	10.40	9.54	10.74	11.11
	4H	23.51	24.67	23.91	25.03	25.42	9.67	10.84	10.08	11.19	11.58
	6H	24.00	25.07	24.42	25.45	25.85	10.31	11.38	10.73	11.75	12.15
	8H	24.12	25.13	24.55	25.53	25.94	10.73	11.74	11.16	12.14	12.55
	12H	24.16	25.13	24.60	25.52	25.96	11.17	12.14	11.61	12.53	12.97
4H	2H	19.52	20.68	19.93	21.04	21.43	8.74	9.90	9.15	10.26	10.65
	3H	22.45	23.40	22.87	23.81	24.22	9.93	10.89	10.35	11.29	11.71
	4H	23.35	24.20	23.79	24.63	25.08	10.60	11.45	11.04	11.88	12.33
	6H	23.94	24.68	24.41	25.14	25.61	11.42	12.16	11.89	12.61	13.08
	8H	24.10	24.80	24.58	25.25	25.73	11.95	12.64	12.43	13.10	13.57
	12H	24.20	24.81	24.69	25.30	25.78	12.53	13.15	13.02	13.63	14.11
8H	4H	23.24	23.93	23.71	24.38	24.86	11.19	11.88	11.66	12.33	12.81
	6H	23.84	24.41	24.35	24.91	25.40	12.19	12.76	12.70	13.26	13.75
	8H	24.03	24.54	24.55	25.06	25.56	12.87	13.38	13.39	13.90	14.40
	12H	24.17	24.63	24.69	25.13	25.70	13.63	14.09	14.15	14.59	15.16
12H	4H	23.20	23.82	23.69	24.30	24.79	11.45	12.06	11.94	12.55	13.03
	6H	23.79	24.30	24.31	24.82	25.32	12.50	13.01	13.02	13.53	14.03
	8H	24.00	24.46	24.52	24.96	25.54	13.27	13.72	13.78	14.22	14.80