

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: P893418

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893418
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-LVRA-UNV-L835
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

Summary

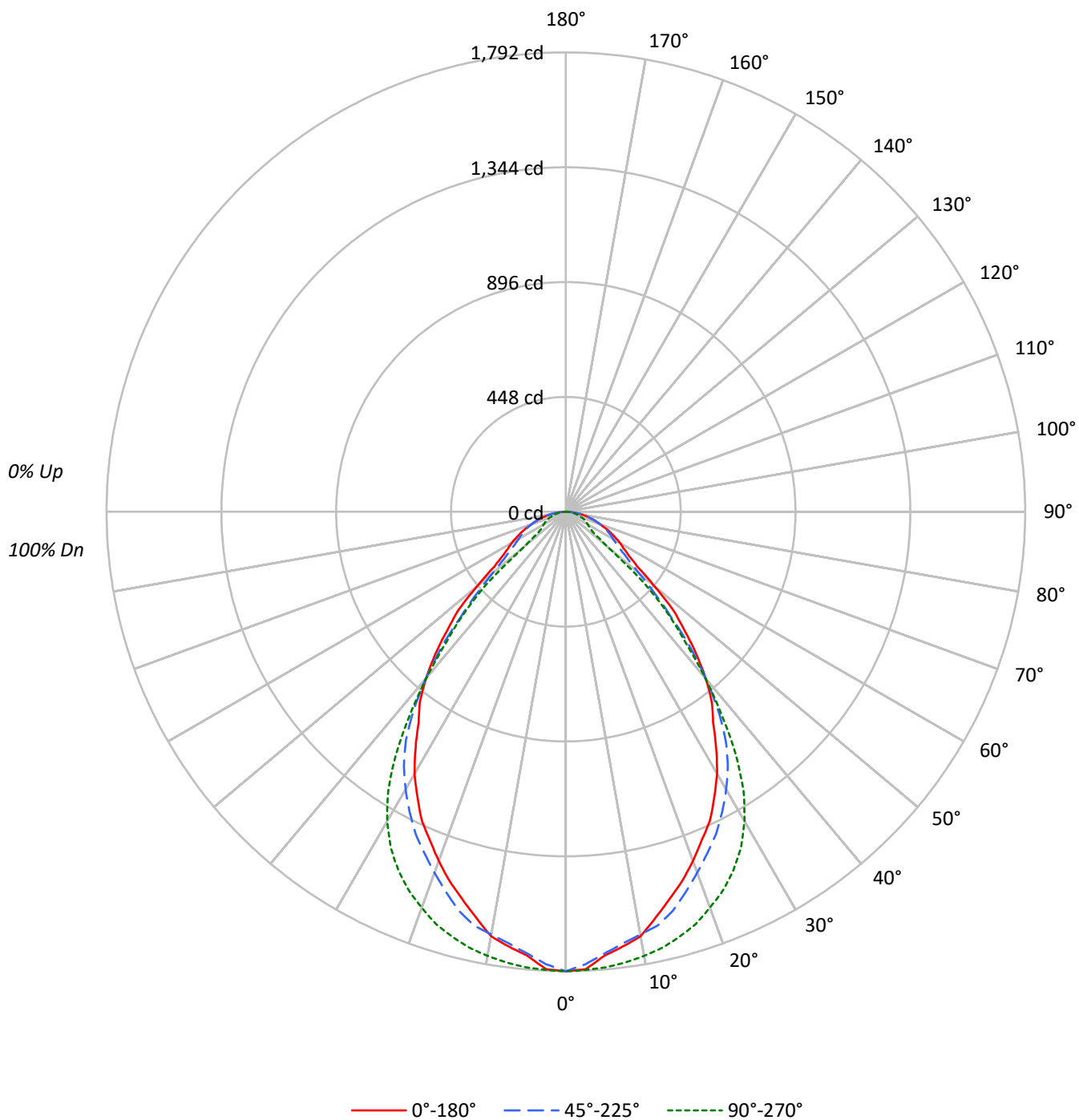
Lumens per Lamp: N/A
Luminaire Lumens: 2909.0 lumens
Efficiency: N/A
Efficacy: 137.9 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

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

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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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96		97	95	93		93	92	90	88
2	103	96	91	86	101	95	90	85	91	87	83		88	85	82		85	82	80	78
3	96	87	80	75	94	86	80	75	83	78	73		80	76	72		78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65		73	68	64		71	67	63	62
5	83	72	65	59	81	71	64	59	69	63	58		67	62	58		66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	53		62	57	52		61	56	52	50
7	73	61	54	48	71	60	53	48	59	52	48		58	52	47		56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44		53	48	43		52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40		50	44	40		49	44	40	38
10	61	49	42	37	60	48	42	37	47	41	37		47	41	37		46	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12753	12753	12753
5°	12409	12353	12739
10°	12146	12092	12709
15°	11518	11872	12638
20°	10973	11343	12445
25°	10437	10883	12127
30°	9697	10274	11450
35°	8695	9441	10043
40°	7878	7895	7852
45°	6587	5834	5689
50°	4976	4107	2327
55°	3742	3284	1467
60°	3478	3024	1413
65°	3236	3017	1416
70°	2960	2960	1394
75°	2807	2884	1347
80°	2594	2725	1381
85°	2261	2376	1510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 6740 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	5.7
10°-20°	456.2	15.7
20°-30°	646.9	22.2
30°-40°	666.5	22.9
40°-50°	465.5	16.0
50°-60°	223.4	7.7
60°-70°	156.7	5.4
70°-80°	98.0	3.4
80°-90°	30.3	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1268.7	43.6
0°-40°	1935.1	66.5
0°-60°	2624.0	90.2
0°-90°	2909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1792	1792	1792	1792	1792	
5°	1737	1735	1730	1775	1784	164
15°	1564	1575	1612	1658	1716	440
25°	1330	1343	1386	1480	1545	608
35°	1001	1028	1087	1110	1156	631
45°	655	670	580	550	565	504
55°	302	287	265	170	118	283
65°	192	180	179	136	84	190
75°	102	101	105	90	49	108
85°	28	28	29	29	18	31
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1792.4	1792.4	1792.4	1792.4	1792.4
2.5°	1785.5	1779.9	1766.5	1791.0	1789.2
5°	1737.4	1735.1	1729.6	1774.8	1783.6
7.5°	1710.2	1705.6	1699.1	1749.0	1773.5
10°	1681.1	1686.6	1673.7	1719.4	1759.1
12.5°	1621.0	1635.8	1653.4	1688.9	1741.6
15°	1563.7	1575.3	1611.8	1658.0	1715.7
17.5°	1510.1	1523.5	1555.0	1624.2	1685.7
20°	1449.2	1467.6	1498.1	1586.8	1643.7
22.5°	1386.3	1403.4	1441.8	1536.9	1600.2
25°	1329.5	1342.9	1386.3	1480.1	1544.8
27.5°	1254.2	1279.2	1320.3	1410.8	1478.7
30°	1180.3	1201.6	1250.5	1326.7	1393.7
32.5°	1091.1	1122.1	1176.1	1234.4	1290.3
35°	1001.1	1028.3	1087.0	1109.6	1156.3
37.5°	935.5	942.9	976.1	973.3	999.7
40°	848.2	862.9	850.0	815.4	845.4
42.5°	753.9	771.5	719.3	679.1	689.7
45°	654.6	669.8	579.8	550.2	565.4
47.5°	568.7	567.3	467.5	447.6	426.4
50°	449.5	464.3	371.0	334.0	210.2
52.5°	351.1	356.6	305.8	213.4	138.1
55°	301.7	286.9	264.7	169.5	118.3
57.5°	267.9	249.5	234.7	157.5	108.1
60°	244.4	223.6	212.5	149.7	99.3
62.5°	217.6	201.4	197.3	142.7	91.5
65°	192.2	179.7	179.2	136.3	84.1
67.5°	166.8	159.8	161.7	128.4	75.8
70°	142.3	140.9	142.3	118.3	67.0
72.5°	121.5	120.1	123.8	105.3	57.3
75°	102.1	100.7	104.9	90.5	49.0
77.5°	81.3	82.2	85.0	75.3	41.1
80°	63.3	63.3	66.5	59.1	33.7
82.5°	45.3	45.7	47.6	43.4	26.3
85°	27.7	27.7	29.1	28.6	18.5
87.5°	9.2	10.6	12.5	13.4	9.2
90°	0.0	0.0	0.0	0.0	0.0

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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	14.49	15.85	14.86	16.16	16.47	10.82	12.18	11.19	12.49	12.80
	3H	16.23	17.44	16.61	17.77	18.13	12.80	14.01	13.18	14.34	14.70
	4H	16.90	18.03	17.30	18.38	18.76	13.50	14.63	13.91	14.98	15.36
	6H	17.41	18.45	17.82	18.82	19.21	14.03	15.07	14.44	15.43	15.83
	8H	17.58	18.57	18.01	18.96	19.36	14.21	15.20	14.64	15.59	15.99
	12H	17.69	18.63	18.12	19.01	19.44	14.35	15.29	14.78	15.68	16.11
4H	2H	15.02	16.15	15.42	16.50	16.88	12.44	13.57	12.85	13.92	14.31
	3H	17.00	17.93	17.41	18.33	18.74	14.62	15.55	15.04	15.96	16.36
	4H	17.80	18.64	18.24	19.06	19.50	15.50	16.34	15.94	16.76	17.20
	6H	18.44	19.17	18.91	19.61	20.08	16.15	16.87	16.61	17.32	17.78
	8H	18.66	19.34	19.13	19.79	20.26	16.35	17.03	16.82	17.48	17.95
	12H	18.82	19.42	19.30	19.90	20.37	16.51	17.11	17.00	17.59	18.07
8H	4H	18.09	18.76	18.55	19.21	19.68	16.15	16.83	16.62	17.28	17.75
	6H	18.87	19.42	19.37	19.92	20.40	17.01	17.57	17.51	18.06	18.54
	8H	19.17	19.67	19.69	20.18	20.67	17.34	17.84	17.86	18.35	18.84
	12H	19.41	19.85	19.92	20.34	20.91	17.60	18.04	18.12	18.54	19.11
12H	4H	18.10	18.70	18.59	19.18	19.66	16.22	16.82	16.71	17.31	17.78
	6H	18.92	19.42	19.44	19.93	20.43	17.15	17.65	17.67	18.16	18.65
	8H	19.29	19.73	19.80	20.22	20.79	17.56	18.00	18.08	18.50	19.07