

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: P893882

Luminaire Tested: 4MB-7HL-RNDU-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893882
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RNDU-UNV-L835
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, 5
Light Source: -
Ballast/Driver: -

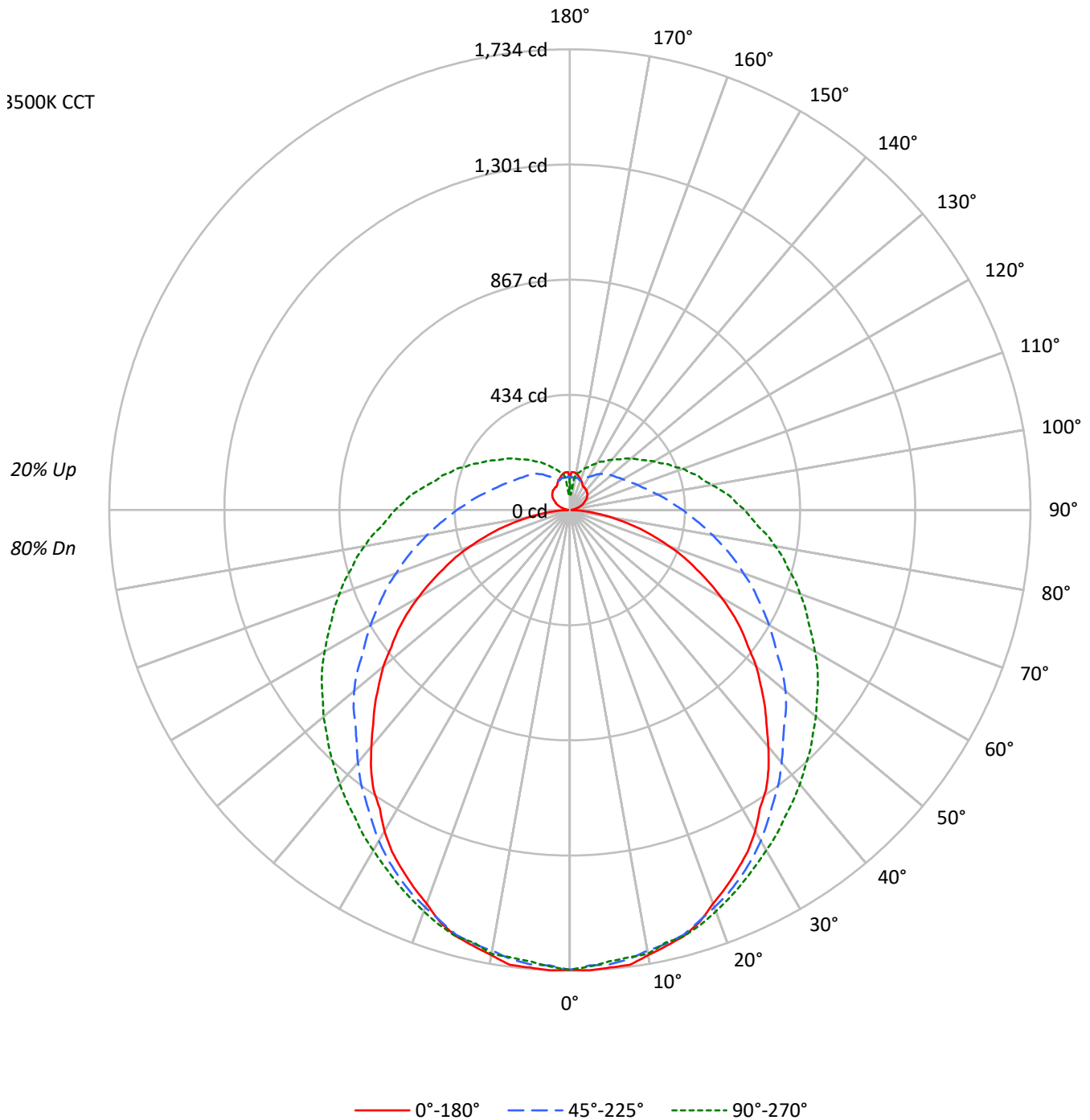
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7275.0 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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
RCR																				
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80		
1	102	96	91	86	97	92	87	83	84	80	77	76	73	71	69	67	65	61		
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	49		
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	41		
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	34		
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	29		
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	26		
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	23		
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20		
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	18		
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12313	12313	12313
5°	12290	11824	11623
10°	12180	11320	11172
15°	12058	10946	10668
20°	11715	10436	10148
25°	11445	9983	9659
30°	11130	9491	9230
35°	10786	8956	8859
40°	10342	8498	8572
45°	9921	8060	8317
50°	9550	7790	8101
55°	9116	7370	7935
60°	8599	7103	7780
65°	7955	6866	7664
70°	7235	6673	7659
75°	6299	6600	7681
80°	4954	6565	7830
85°	3263	6710	8007

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9921 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	2.3
10°-20°	468.1	6.4
20°-30°	702.9	9.7
30°-40°	844.1	11.6
40°-50°	892.8	12.3
50°-60°	860.4	11.8
60°-70°	763.4	10.5
70°-80°	626.0	8.6
80°-90°	484.5	6.7
90°-100°	378.0	5.2
100°-110°	300.9	4.1
110°-120°	240.5	3.3
120°-130°	189.7	2.6
130°-140°	144.8	2.0
140°-150°	101.8	1.4
150°-160°	65.1	0.9
160°-170°	36.5	0.5
170°-180°	11.6	0.2
0°-30°	1334.9	18.3
0°-40°	2179.0	30.0
0°-60°	3932.3	54.1
0°-90°	5806.2	79.8
90°-120°	919.5	12.6
90°-150°	1355.7	18.6
90°-180°	1469.0	20.2
0°-180°	7275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1731	1731	1731	1731	1731	
5°	1729	1734	1717	1730	1705	164
15°	1660	1661	1655	1666	1661	466
25°	1493	1518	1523	1550	1545	688
35°	1287	1307	1338	1393	1411	803
45°	1038	1068	1141	1250	1280	800
55°	790	830	954	1084	1140	705
65°	526	598	779	941	990	522
75°	274	394	620	788	851	290
85°	64	240	481	654	712	72
90°	7	191	426	592	658	7
95°	9	158	376	541	605	9
105°	29	128	301	442	499	31
115°	56	125	250	361	408	54
125°	78	127	215	296	328	69
135°	92	123	193	251	270	71
145°	100	113	159	210	223	63
155°	110	116	131	164	184	51
165°	131	128	123	120	149	37
175°	143	138	123	101	64	13
180°	117	117	117	117	117	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1730.6	1730.6	1730.6	1730.6	1730.6
2.5°	1734.4	1740.2	1716.0	1730.6	1719.9
5°	1728.6	1733.5	1717.0	1729.6	1705.4
7.5°	1726.7	1724.7	1704.4	1720.9	1698.6
10°	1701.5	1708.3	1684.1	1706.4	1695.7
12.5°	1680.2	1693.8	1672.5	1689.9	1667.6
15°	1659.9	1660.9	1655.1	1665.7	1660.9
17.5°	1626.0	1634.7	1621.2	1645.4	1636.7
20°	1576.7	1603.8	1591.2	1613.4	1607.6
22.5°	1536.0	1549.6	1560.2	1585.4	1577.6
25°	1493.4	1517.6	1523.4	1549.6	1544.7
27.5°	1449.9	1460.5	1482.8	1510.8	1511.8
30°	1395.7	1407.3	1438.3	1470.2	1478.9
32.5°	1331.8	1368.6	1387.0	1435.4	1448.9
35°	1287.3	1306.6	1337.6	1392.8	1411.2
37.5°	1229.2	1251.5	1293.1	1357.9	1380.2
40°	1162.4	1195.3	1240.8	1321.1	1347.3
42.5°	1095.6	1134.3	1187.6	1281.5	1311.5
45°	1037.6	1068.5	1141.1	1249.5	1279.5
47.5°	974.6	1012.4	1104.3	1207.9	1241.8
50°	916.6	955.3	1059.8	1169.2	1209.8
52.5°	846.9	891.4	1011.4	1124.7	1172.1
55°	789.8	829.5	954.3	1084.0	1140.2
57.5°	726.9	771.4	909.8	1054.0	1105.3
60°	659.1	715.3	866.2	1016.3	1065.6
62.5°	592.3	659.1	821.7	979.5	1027.9
65°	525.6	598.1	779.1	940.8	990.1
67.5°	465.5	543.9	740.4	898.2	959.2
70°	397.8	491.7	694.9	858.5	922.4
72.5°	333.9	444.3	658.2	826.6	890.4
75°	273.9	393.9	620.4	787.8	850.8
77.5°	213.9	346.5	580.7	753.0	821.7
80°	156.8	307.8	545.9	719.1	784.9
82.5°	108.4	273.9	512.0	691.1	753.0
85°	63.9	240.0	481.0	654.3	712.4
87.5°	29.0	212.9	449.1	626.2	683.3
90°	6.8	190.7	425.9	592.3	658.2
92.5°	6.8	173.2	397.8	567.2	627.2
95°	8.7	157.8	376.5	541.0	604.9
97.5°	11.6	146.1	357.1	516.8	573.0
100°	16.5	138.4	335.9	488.8	543.9
102.5°	22.3	132.6	316.5	463.6	514.9
105°	29.0	127.8	301.0	442.3	499.4
107.5°	35.8	125.8	285.5	422.0	470.4
110°	42.6	124.9	273.9	400.7	454.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	49.4	123.9	261.3	381.3	424.9
115°	56.1	124.9	249.7	361.0	407.5
117.5°	60.0	124.9	239.1	343.6	382.3
120°	65.8	125.8	231.3	325.2	365.9
122.5°	71.6	125.8	223.6	311.7	347.5
125°	78.4	126.8	214.9	296.2	328.1
127.5°	82.3	126.8	210.0	285.5	314.6
130°	86.1	125.8	203.3	272.0	302.0
132.5°	90.0	123.9	199.4	259.4	287.5
135°	91.9	122.9	192.6	250.7	270.0
137.5°	94.9	120.0	185.8	238.1	259.4
140°	97.8	119.0	176.2	228.4	246.8
142.5°	97.8	116.1	169.4	219.7	236.2
145°	99.7	113.2	158.7	210.0	222.6
147.5°	101.6	112.3	151.0	200.3	215.8
150°	101.6	111.3	144.2	189.7	204.2
152.5°	103.6	112.3	137.4	180.0	193.6
155°	110.3	116.1	130.7	164.5	183.9
157.5°	116.1	120.0	123.9	152.9	173.2
160°	121.0	122.9	118.1	141.3	168.4
162.5°	124.9	125.8	119.0	130.7	157.8
165°	130.7	127.8	122.9	120.0	149.1
167.5°	135.5	129.7	124.9	117.1	142.3
170°	139.4	133.6	122.9	110.3	139.4
172.5°	142.3	134.5	123.9	103.6	117.1
175°	143.2	138.4	122.9	100.7	63.9
177.5°	142.3	139.4	126.8	99.7	57.1
180°	117.1	117.1	117.1	117.1	117.1



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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	15.77	17.08	16.41	17.74	18.51	19.18	20.49	19.82	21.15	21.92
	3H	17.22	18.42	17.87	19.09	19.89	22.01	23.21	22.66	23.88	24.68
	4H	17.69	18.83	18.36	19.52	20.33	23.46	24.60	24.13	25.29	26.10
	6H	17.97	19.03	18.65	19.73	20.55	25.02	26.08	25.70	26.78	27.61
	8H	18.03	19.05	18.72	19.76	20.59	25.84	26.86	26.53	27.57	28.40
	12H	18.05	19.02	18.75	19.73	20.59	26.72	27.70	27.42	28.41	29.27
4H	2H	16.90	18.04	17.58	18.73	19.54	19.51	20.66	20.19	21.34	22.15
	3H	18.61	19.59	19.29	20.31	21.14	22.58	23.56	23.27	24.28	25.11
	4H	19.21	20.11	19.91	20.83	21.69	24.22	25.12	24.92	25.84	26.70
	6H	19.62	20.41	20.33	21.16	22.03	25.98	26.78	26.70	27.52	28.39
	8H	19.73	20.48	20.45	21.23	22.11	26.91	27.66	27.63	28.41	29.29
	12H	19.78	20.47	20.53	21.24	22.13	27.92	28.61	28.67	29.37	30.26
8H	4H	20.24	20.99	20.96	21.73	22.61	24.40	25.15	25.12	25.90	26.78
	6H	20.88	21.53	21.64	22.31	23.19	26.34	26.98	27.09	27.77	28.65
	8H	21.11	21.69	21.87	22.47	23.37	27.42	28.00	28.19	28.79	29.68
	12H	21.26	21.78	22.03	22.55	23.51	28.62	29.14	29.39	29.92	30.87
12H	4H	20.57	21.25	21.31	22.02	22.91	24.40	25.08	25.14	25.85	26.74
	6H	21.37	21.95	22.14	22.74	23.63	26.37	26.95	27.14	27.74	28.63
	8H	21.72	22.24	22.49	23.02	23.97	27.52	28.04	28.29	28.81	29.77