

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: P893834

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893834
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-FLTU-UNV-L835
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 350
Light Source: -
Ballast/Driver: -

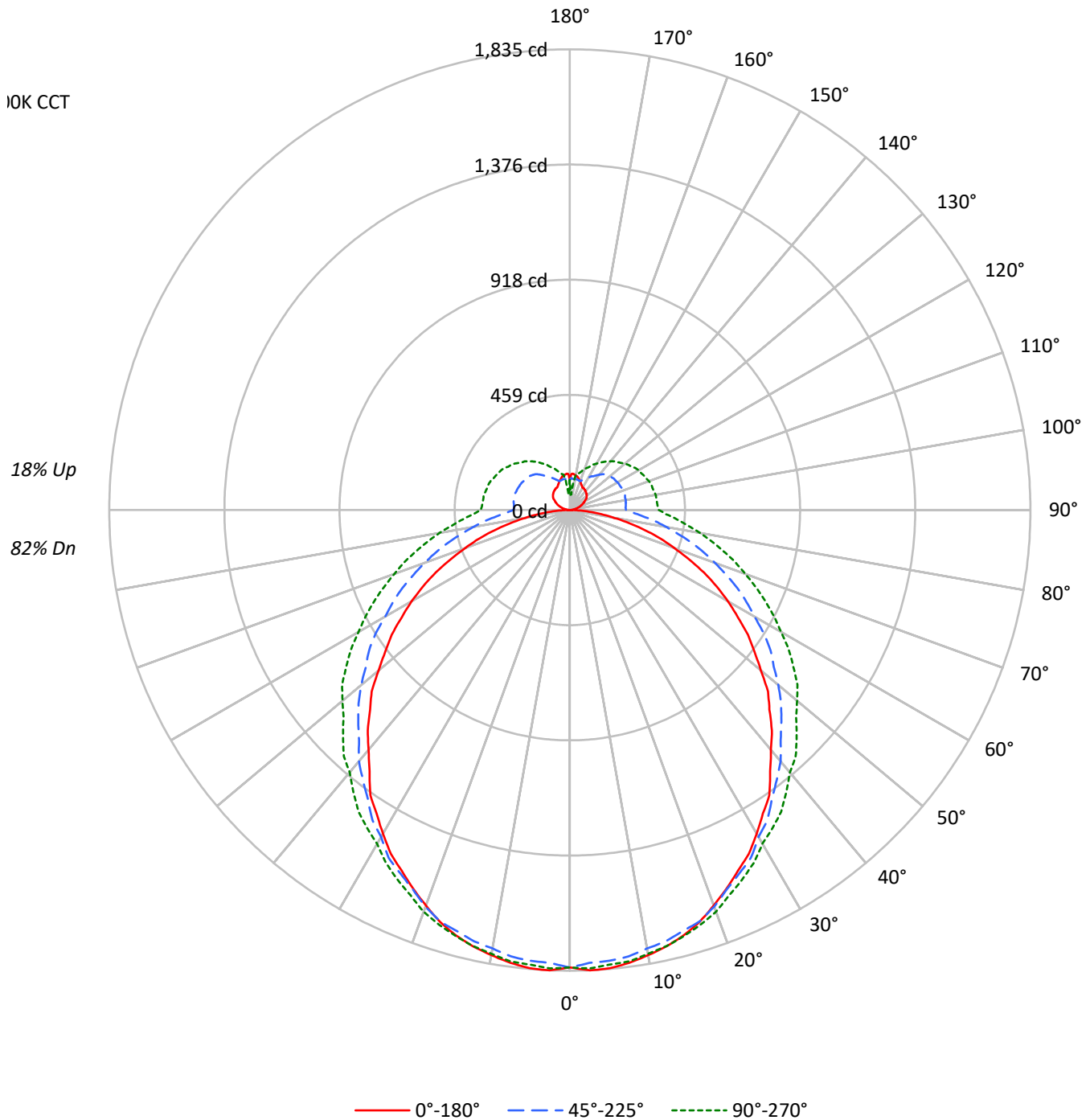
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6849.0 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
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	0
RCR																					
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	86	86	82
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	69	69	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	57	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	48	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	41	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	35	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	31	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	27	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	24	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	22	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	20	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12962	12962	12962
5°	13028	12412	12390
10°	12889	11920	11824
15°	12741	11485	11285
20°	12457	11027	10749
25°	12151	10467	10157
30°	11873	9920	9582
35°	11614	9398	9212
40°	11093	8950	8678
45°	10755	8417	8306
50°	10357	7969	7914
55°	10000	7543	7565
60°	9497	6962	7096
65°	8923	6492	6654
70°	8062	5912	6172
75°	7145	5334	5716
80°	5658	4703	5253
85°	3907	4092	4820

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10755 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.6	2.5
10°-20°	492.8	7.2
20°-30°	740.2	10.8
30°-40°	887.2	13.0
40°-50°	930.1	13.6
50°-60°	872.5	12.7
60°-70°	724.7	10.6
70°-80°	518.2	7.6
80°-90°	307.3	4.5
90°-100°	225.4	3.3
100°-110°	222.1	3.2
110°-120°	207.2	3.0
120°-130°	181.8	2.7
130°-140°	146.4	2.1
140°-150°	105.1	1.5
150°-160°	66.8	1.0
160°-170°	37.0	0.5
170°-180°	11.7	0.2
0°-30°	1405.5	20.5
0°-40°	2292.7	33.5
0°-60°	4095.4	59.8
0°-90°	5645.5	82.4
90°-120°	654.7	9.6
90°-150°	1088.0	15.9
90°-180°	1203.0	17.6
0°-180°	6849.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1822	1822	1822	1822	1822	
5°	1832	1828	1802	1811	1818	174
15°	1754	1743	1737	1749	1757	494
25°	1586	1600	1597	1616	1624	732
35°	1386	1391	1404	1444	1468	860
45°	1125	1157	1192	1270	1278	870
55°	866	894	977	1056	1087	771
65°	590	634	737	835	860	581
75°	311	382	501	605	633	328
85°	76	168	293	392	429	84
90°	3	102	224	319	354	6
95°	9	106	224	316	348	9
105°	31	117	228	312	341	33
115°	56	127	223	296	325	55
125°	80	131	216	275	300	70
135°	93	126	200	249	269	72
145°	101	116	165	219	234	63
155°	110	116	135	169	192	51
165°	132	128	124	123	154	37
175°	145	139	125	104	63	14
180°	120	120	120	120	120	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1821.8	1821.8	1821.8	1821.8	1821.8
2.5°	1835.3	1820.8	1805.3	1828.5	1827.6
5°	1832.4	1828.5	1802.4	1811.1	1817.9
7.5°	1818.9	1809.2	1793.7	1815.0	1813.1
10°	1800.5	1788.9	1773.4	1786.0	1794.7
12.5°	1780.1	1770.5	1759.8	1773.4	1779.2
15°	1754.0	1743.4	1736.6	1749.2	1756.9
17.5°	1720.1	1717.2	1718.2	1719.2	1731.7
20°	1676.6	1678.5	1681.4	1698.8	1702.7
22.5°	1632.0	1642.7	1634.9	1662.1	1660.1
25°	1585.6	1600.1	1597.2	1615.6	1624.3
27.5°	1544.0	1544.9	1562.3	1588.5	1585.6
30°	1488.8	1505.2	1503.3	1535.2	1535.2
32.5°	1432.6	1456.8	1464.6	1492.7	1502.3
35°	1386.2	1391.0	1403.6	1444.3	1467.5
37.5°	1310.7	1333.9	1354.2	1407.5	1416.2
40°	1246.8	1270.0	1306.8	1368.8	1363.9
42.5°	1191.6	1215.8	1242.9	1314.5	1332.0
45°	1124.8	1156.8	1191.6	1270.0	1277.8
47.5°	1070.6	1095.8	1141.3	1212.9	1222.6
50°	994.1	1034.8	1084.2	1167.4	1181.9
52.5°	926.4	961.2	1024.1	1110.3	1143.2
55°	866.4	894.4	976.7	1056.1	1087.1
57.5°	792.8	831.5	917.7	1005.8	1033.8
60°	727.9	765.7	848.9	949.6	971.9
62.5°	659.2	703.7	793.8	891.5	916.7
65°	589.5	634.0	736.6	835.4	859.6
67.5°	514.0	569.2	673.7	776.3	801.5
70°	443.3	503.4	615.6	718.3	743.4
72.5°	379.5	444.3	558.5	664.0	691.2
75°	310.7	382.4	501.4	605.0	633.1
77.5°	243.9	321.4	442.4	546.9	579.8
80°	179.1	264.3	391.1	491.7	526.6
82.5°	125.8	213.0	343.6	442.4	474.3
85°	76.5	167.5	293.3	392.0	428.8
87.5°	33.9	129.7	253.6	351.4	384.3
90°	2.9	101.6	223.6	319.4	354.3
92.5°	5.8	103.6	222.6	315.6	350.4
95°	8.7	106.5	223.6	315.6	348.5
97.5°	12.6	110.4	225.5	315.6	347.5
100°	18.4	112.3	226.5	315.6	347.5
102.5°	24.2	115.2	225.5	310.7	343.6
105°	31.0	117.1	227.5	311.7	340.7
107.5°	37.8	119.1	227.5	306.9	339.8
110°	44.5	122.0	225.5	304.0	335.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	50.3	124.9	224.6	298.1	329.1
115°	56.1	126.8	222.6	296.2	325.2
117.5°	62.0	127.8	221.7	291.4	319.4
120°	66.8	129.7	219.7	285.6	316.5
122.5°	72.6	130.7	216.8	279.8	310.7
125°	80.3	130.7	215.9	274.9	300.1
127.5°	84.2	131.6	212.0	269.1	295.2
130°	88.1	128.7	210.1	262.3	287.5
132.5°	91.0	127.8	205.2	255.6	277.8
135°	92.9	125.8	200.4	248.8	269.1
137.5°	95.8	122.9	193.6	243.9	263.3
140°	97.8	121.0	183.9	234.3	253.6
142.5°	99.7	118.1	174.2	225.5	243.9
145°	100.7	116.2	164.6	218.8	234.3
147.5°	103.6	113.3	158.8	210.1	223.6
150°	102.6	111.3	150.0	199.4	213.0
152.5°	105.5	114.2	142.3	184.9	204.2
155°	110.4	116.2	134.6	169.4	191.7
157.5°	115.2	120.0	128.7	155.8	182.0
160°	122.0	122.0	122.0	145.2	174.2
162.5°	125.8	125.8	122.9	132.6	163.6
165°	131.6	127.8	123.9	122.9	153.9
167.5°	137.5	129.7	125.8	119.1	147.1
170°	138.4	132.6	124.9	112.3	142.3
172.5°	142.3	135.5	123.9	106.5	110.4
175°	145.2	139.4	124.9	103.6	62.9
177.5°	144.2	139.4	127.8	103.6	61.0
180°	120.0	120.0	120.0	120.0	120.0



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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	16.62	17.95	17.24	18.58	19.29	19.14	20.46	19.75	21.09	21.81
	3H	18.06	19.26	18.68	19.90	20.65	21.50	22.71	22.13	23.34	24.09
	4H	18.52	19.67	19.17	20.32	21.08	22.62	23.76	23.26	24.41	25.17
	6H	18.79	19.85	19.45	20.51	21.29	23.73	24.79	24.39	25.45	26.23
	8H	18.84	19.86	19.51	20.54	21.32	24.28	25.30	24.95	25.98	26.76
	12H	18.86	19.83	19.53	20.51	21.32	24.86	25.84	25.54	26.51	27.32
4H	2H	17.50	18.64	18.14	19.29	20.05	19.48	20.63	20.13	21.28	22.04
	3H	19.15	20.12	19.81	20.81	21.59	22.06	23.03	22.72	23.72	24.50
	4H	19.73	20.62	20.41	21.31	22.13	23.34	24.23	24.01	24.92	25.73
	6H	20.11	20.89	20.80	21.61	22.43	24.63	25.41	25.32	26.12	26.94
	8H	20.20	20.94	20.90	21.65	22.48	25.27	26.00	25.97	26.72	27.55
	12H	20.24	20.91	20.96	21.65	22.49	25.96	26.63	26.68	27.37	28.21
8H	4H	20.36	21.09	21.06	21.81	22.64	23.49	24.23	24.19	24.94	25.78
	6H	20.89	21.51	21.62	22.27	23.11	24.93	25.55	25.66	26.30	27.14
	8H	21.06	21.62	21.80	22.38	23.23	25.69	26.25	26.43	27.01	27.86
	12H	21.17	21.66	21.91	22.41	23.32	26.54	27.04	27.29	27.79	28.70
12H	4H	20.52	21.18	21.24	21.92	22.76	23.48	24.15	24.20	24.89	25.73
	6H	21.14	21.70	21.88	22.46	23.31	24.95	25.50	25.69	26.26	27.11
	8H	21.39	21.88	22.13	22.63	23.54	25.77	26.26	26.51	27.01	27.92