

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: P893833

Luminaire Tested: 4MB-7HL-FLTU-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893833
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-L830
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 300
Light Source: -
Ballast/Driver: -

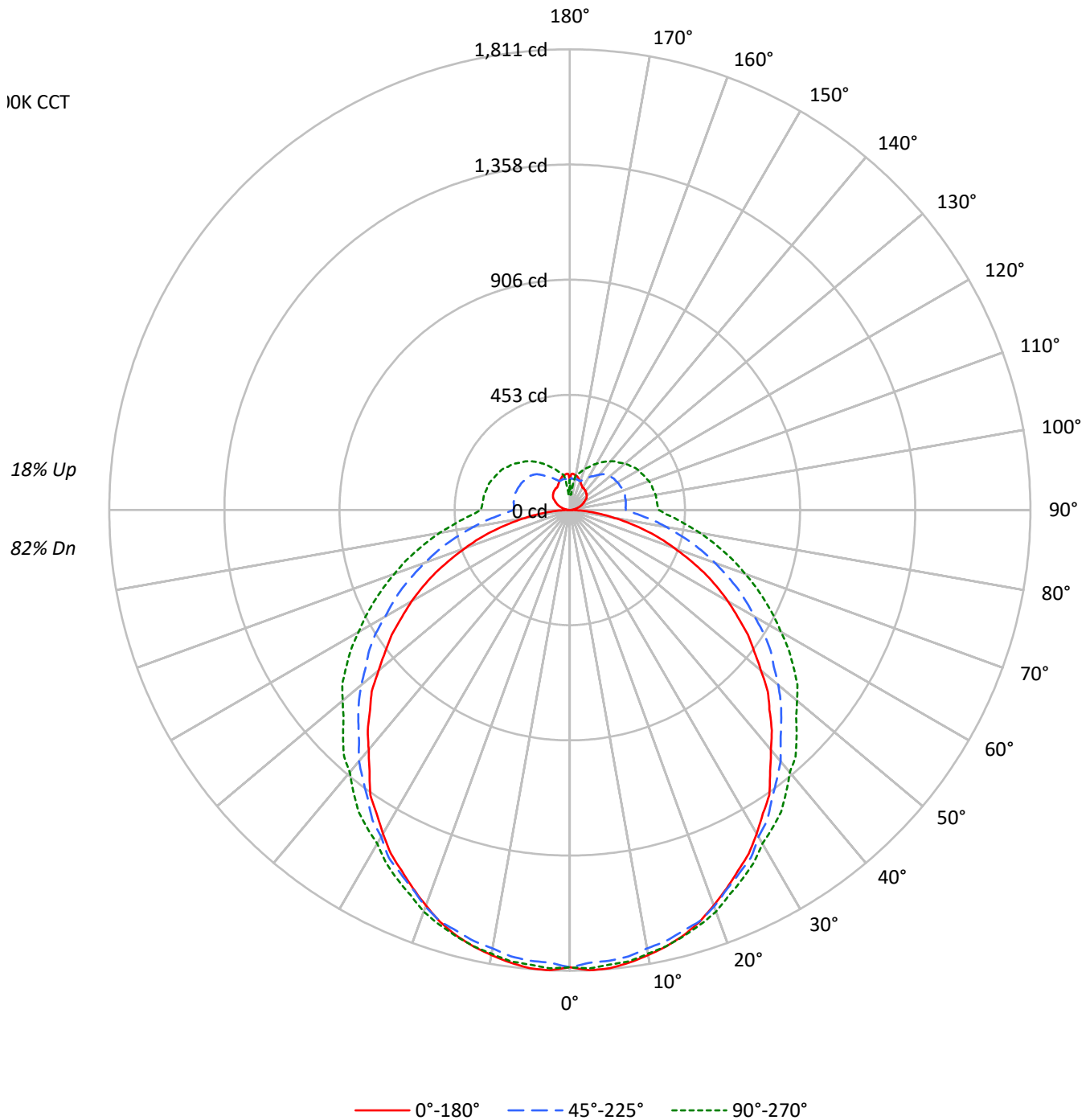
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6758.0 lumens
Efficiency: N/A
Efficacy: 130.5 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°	12790	12790	12790
5°	12855	12248	12225
10°	12718	11762	11666
15°	12572	11333	11135
20°	12291	10881	10606
25°	11989	10328	10021
30°	11715	9788	9454
35°	11460	9273	9090
40°	10945	8831	8563
45°	10612	8306	8196
50°	10220	7864	7809
55°	9866	7443	7464
60°	9372	6870	7002
65°	8805	6406	6565
70°	7957	5834	6090
75°	7051	5264	5640
80°	5582	4641	5183
85°	3856	4037	4756

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10612 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.3	2.5
10°-20°	486.2	7.2
20°-30°	730.4	10.8
30°-40°	875.4	13.0
40°-50°	917.8	13.6
50°-60°	860.9	12.7
60°-70°	715.1	10.6
70°-80°	511.3	7.6
80°-90°	303.2	4.5
90°-100°	222.4	3.3
100°-110°	219.2	3.2
110°-120°	204.4	3.0
120°-130°	179.4	2.7
130°-140°	144.5	2.1
140°-150°	103.7	1.5
150°-160°	65.9	1.0
160°-170°	36.5	0.5
170°-180°	11.5	0.2
0°-30°	1386.9	20.5
0°-40°	2262.2	33.5
0°-60°	4040.9	59.8
0°-90°	5570.6	82.4
90°-120°	646.0	9.6
90°-150°	1073.6	15.9
90°-180°	1187.0	17.6
0°-180°	6758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1808	1804	1778	1787	1794	171
15°	1731	1720	1714	1726	1734	487
25°	1564	1579	1576	1594	1603	722
35°	1368	1372	1385	1425	1448	849
45°	1110	1141	1176	1253	1261	859
55°	855	882	964	1042	1073	761
65°	582	626	727	824	848	573
75°	307	377	495	597	625	324
85°	76	165	289	387	423	83
90°	3	100	221	315	350	6
95°	9	105	221	311	344	9
105°	31	116	224	308	336	32
115°	55	125	220	292	321	55
125°	79	129	213	271	296	69
135°	92	124	198	246	266	71
145°	99	115	162	216	231	63
155°	109	115	133	167	189	50
165°	130	126	122	121	152	36
175°	143	138	123	102	62	13
180°	118	118	118	118	118	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1797.6	1797.6	1797.6	1797.6	1797.6
2.5°	1810.9	1796.6	1781.3	1804.3	1803.3
5°	1808.1	1804.3	1778.5	1787.1	1793.7
7.5°	1794.7	1785.2	1769.9	1790.9	1789.0
10°	1776.6	1765.1	1749.8	1762.2	1770.8
12.5°	1756.5	1746.9	1736.4	1749.8	1755.5
15°	1730.7	1720.2	1713.5	1725.9	1733.6
17.5°	1697.3	1694.4	1695.4	1696.3	1708.7
20°	1654.3	1656.2	1659.1	1676.3	1680.1
22.5°	1610.4	1620.9	1613.2	1640.0	1638.1
25°	1564.5	1578.8	1576.0	1594.1	1602.7
27.5°	1523.4	1524.4	1541.6	1567.4	1564.5
30°	1469.0	1485.2	1483.3	1514.8	1514.8
32.5°	1413.6	1437.5	1445.1	1472.8	1482.4
35°	1367.8	1372.5	1384.9	1425.1	1448.0
37.5°	1293.3	1316.2	1336.2	1388.8	1397.4
40°	1230.2	1253.1	1289.4	1350.6	1345.8
42.5°	1175.8	1199.7	1226.4	1297.1	1314.3
45°	1109.9	1141.4	1175.8	1253.1	1260.8
47.5°	1056.4	1081.2	1126.1	1196.8	1206.3
50°	980.9	1021.0	1069.8	1151.9	1166.2
52.5°	914.1	948.5	1010.5	1095.5	1128.0
55°	854.8	882.5	963.7	1042.1	1072.6
57.5°	782.3	820.5	905.5	992.4	1020.1
60°	718.3	755.5	837.7	937.0	959.0
62.5°	650.4	694.4	783.2	879.7	904.5
65°	581.7	625.6	726.9	824.3	848.2
67.5°	507.2	561.6	664.8	766.0	790.9
70°	437.5	496.7	607.5	708.7	733.5
72.5°	374.4	438.4	551.1	655.2	682.0
75°	306.6	377.3	494.8	597.0	624.7
77.5°	240.7	317.1	436.5	539.7	572.1
80°	176.7	260.8	385.9	485.2	519.6
82.5°	124.2	210.1	339.1	436.5	468.0
85°	75.5	165.2	289.4	386.8	423.1
87.5°	33.4	128.0	250.2	346.7	379.2
90°	2.9	100.3	220.6	315.2	349.6
92.5°	5.7	102.2	219.7	311.4	345.8
95°	8.6	105.1	220.6	311.4	343.8
97.5°	12.4	108.9	222.5	311.4	342.9
100°	18.1	110.8	223.5	311.4	342.9
102.5°	23.9	113.7	222.5	306.6	339.1
105°	30.6	115.6	224.5	307.6	336.2
107.5°	37.3	117.5	224.5	302.8	335.3
110°	43.9	120.3	222.5	299.9	331.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	49.7	123.2	221.6	294.2	324.7
115°	55.4	125.1	219.7	292.3	320.9
117.5°	61.1	126.1	218.7	287.5	315.2
120°	65.9	128.0	216.8	281.8	312.3
122.5°	71.6	128.9	214.0	276.0	306.6
125°	79.3	128.9	213.0	271.3	296.1
127.5°	83.1	129.9	209.2	265.5	291.3
130°	86.9	127.0	207.3	258.8	283.7
132.5°	89.8	126.1	202.5	252.2	274.1
135°	91.7	124.2	197.7	245.5	265.5
137.5°	94.6	121.3	191.0	240.7	259.8
140°	96.5	119.4	181.5	231.1	250.2
142.5°	98.4	116.5	171.9	222.5	240.7
145°	99.3	114.6	162.4	215.9	231.1
147.5°	102.2	111.8	156.6	207.3	220.6
150°	101.2	109.8	148.0	196.8	210.1
152.5°	104.1	112.7	140.4	182.4	201.5
155°	108.9	114.6	132.8	167.1	189.1
157.5°	113.7	118.4	127.0	153.8	179.6
160°	120.3	120.3	120.3	143.3	171.9
162.5°	124.2	124.2	121.3	130.9	161.4
165°	129.9	126.1	122.3	121.3	151.9
167.5°	135.6	128.0	124.2	117.5	145.2
170°	136.6	130.9	123.2	110.8	140.4
172.5°	140.4	133.7	122.3	105.1	108.9
175°	143.3	137.5	123.2	102.2	62.1
177.5°	142.3	137.5	126.1	102.2	60.2
180°	118.4	118.4	118.4	118.4	118.4



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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	16.58	17.90	17.19	18.53	19.25	19.09	20.42	19.70	21.04	21.76
	3H	18.01	19.22	18.64	19.85	20.60	21.46	22.66	22.08	23.30	24.05
	4H	18.48	19.62	19.12	20.27	21.03	22.57	23.71	23.22	24.36	25.13
	6H	18.74	19.80	19.40	20.47	21.24	23.69	24.75	24.34	25.41	26.19
	8H	18.80	19.81	19.46	20.49	21.28	24.24	25.25	24.90	25.93	26.71
	12H	18.81	19.78	19.49	20.46	21.27	24.82	25.79	25.49	26.47	27.28
4H	2H	17.45	18.59	18.10	19.24	20.01	19.44	20.58	20.08	21.23	21.99
	3H	19.11	20.08	19.76	20.76	21.55	22.02	22.99	22.67	23.67	24.46
	4H	19.69	20.58	20.36	21.27	22.08	23.29	24.18	23.97	24.87	25.68
	6H	20.06	20.84	20.76	21.56	22.38	24.58	25.36	25.27	26.08	26.90
	8H	20.15	20.89	20.85	21.60	22.44	25.22	25.96	25.92	26.67	27.51
	12H	20.20	20.86	20.92	21.60	22.44	25.92	26.58	26.64	27.32	28.16
8H	4H	20.31	21.05	21.01	21.76	22.60	23.45	24.18	24.15	24.90	25.73
	6H	20.85	21.47	21.58	22.22	23.06	24.88	25.50	25.61	26.26	27.09
	8H	21.02	21.57	21.76	22.33	23.18	25.65	26.20	26.39	26.96	27.81
	12H	21.12	21.62	21.87	22.37	23.28	26.50	26.99	27.24	27.74	28.65
12H	4H	20.47	21.14	21.19	21.87	22.71	23.44	24.10	24.16	24.84	25.68
	6H	21.09	21.65	21.83	22.41	23.26	24.90	25.46	25.64	26.22	27.07
	8H	21.34	21.84	22.08	22.58	23.50	25.72	26.22	26.46	26.96	27.87