

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: P893936

Luminaire Tested: 4MB-8HL-FLTU-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893936
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-8HL-FLTU-UNV-L950
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 500
Light Source: -
Ballast/Driver: -

Summary

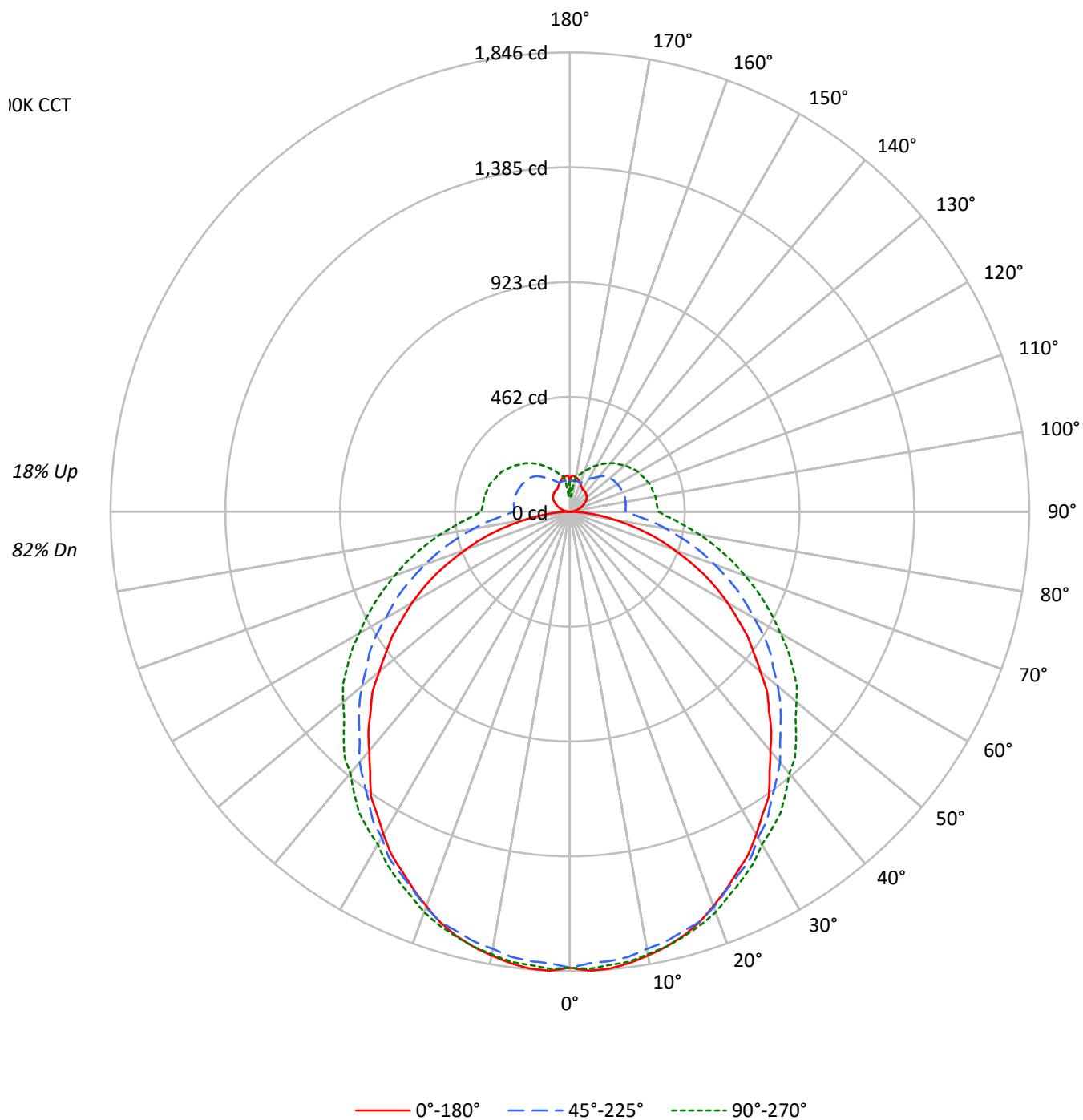
Lumens per Lamp: N/A
Luminaire Lumens: 6889.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 57.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13038	13038	13038
5°	13104	12484	12462
10°	12964	11989	11893
15°	12816	11552	11351
20°	12530	11092	10812
25°	12222	10528	10216
30°	11942	9978	9638
35°	11682	9453	9266
40°	11158	9002	8729
45°	10818	8467	8354
50°	10418	8016	7961
55°	10057	7587	7609
60°	9553	7003	7137
65°	8976	6530	6692
70°	8109	5946	6209
75°	7186	5366	5749
80°	5690	4731	5284
85°	3927	4115	4848

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10818 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.6	2.5
10°-20°	495.6	7.2
20°-30°	744.5	10.8
30°-40°	892.3	13.0
40°-50°	935.5	13.6
50°-60°	877.6	12.7
60°-70°	729.0	10.6
70°-80°	521.2	7.6
80°-90°	309.1	4.5
90°-100°	226.7	3.3
100°-110°	223.4	3.2
110°-120°	208.4	3.0
120°-130°	182.9	2.7
130°-140°	147.3	2.1
140°-150°	105.7	1.5
150°-160°	67.2	1.0
160°-170°	37.2	0.5
170°-180°	11.7	0.2
0°-30°	1413.8	20.5
0°-40°	2306.1	33.5
0°-60°	4119.3	59.8
0°-90°	5678.5	82.4
90°-120°	658.5	9.6
90°-150°	1094.3	15.9
90°-180°	1210.0	17.6
0°-180°	6889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1832	1832	1832	1832	1832	
5°	1843	1839	1813	1822	1828	175
15°	1764	1754	1747	1759	1767	497
25°	1595	1609	1606	1625	1634	736
35°	1394	1399	1412	1453	1476	865
45°	1131	1164	1199	1277	1285	875
55°	871	900	982	1062	1093	775
65°	593	638	741	840	865	584
75°	312	385	504	608	637	330
85°	77	168	295	394	431	84
90°	3	102	225	321	356	6
95°	9	107	225	317	350	9
105°	31	118	229	314	343	33
115°	56	128	224	298	327	56
125°	81	131	217	276	302	71
135°	94	127	202	250	271	72
145°	101	117	166	220	236	64
155°	111	117	135	170	193	51
165°	132	128	125	124	155	37
175°	146	140	126	104	63	14
180°	121	121	121	121	121	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1832.4	1832.4	1832.4	1832.4	1832.4
2.5°	1846.0	1831.4	1815.9	1839.2	1838.3
5°	1843.1	1839.2	1812.9	1821.7	1828.5
7.5°	1829.5	1819.8	1804.2	1825.6	1823.7
10°	1811.0	1799.3	1783.7	1796.4	1805.2
12.5°	1790.5	1780.8	1770.1	1783.7	1789.6
15°	1764.3	1753.5	1746.7	1759.4	1767.2
17.5°	1730.2	1727.3	1728.2	1729.2	1741.9
20°	1686.4	1688.3	1691.2	1708.8	1712.7
22.5°	1641.6	1652.3	1644.5	1671.8	1669.8
25°	1594.8	1609.4	1606.5	1625.0	1633.8
27.5°	1553.0	1553.9	1571.5	1597.8	1594.8
30°	1497.5	1514.0	1512.1	1544.2	1544.2
32.5°	1441.0	1465.3	1473.1	1501.4	1511.1
35°	1394.3	1399.1	1411.8	1452.7	1476.1
37.5°	1318.3	1341.7	1362.1	1415.7	1424.5
40°	1254.1	1277.4	1314.4	1376.7	1371.9
42.5°	1198.6	1222.9	1250.2	1322.2	1339.7
45°	1131.4	1163.5	1198.6	1277.4	1285.2
47.5°	1076.9	1102.2	1147.9	1220.0	1229.7
50°	999.9	1040.8	1090.5	1174.2	1188.8
52.5°	931.8	966.8	1030.1	1116.8	1149.9
55°	871.4	899.7	982.4	1062.3	1093.4
57.5°	797.4	836.4	923.0	1011.6	1039.9
60°	732.2	770.2	853.9	955.2	977.5
62.5°	663.1	707.8	798.4	896.7	922.0
65°	593.0	637.7	740.9	840.3	864.6
67.5°	517.0	572.5	677.7	780.9	806.2
70°	445.9	506.3	619.2	722.4	747.8
72.5°	381.7	446.9	561.8	667.9	695.2
75°	312.5	384.6	504.4	608.5	636.8
77.5°	245.4	323.3	445.0	550.1	583.2
80°	180.1	265.8	393.4	494.6	529.7
82.5°	126.6	214.2	345.6	445.0	477.1
85°	76.9	168.4	295.0	394.3	431.3
87.5°	34.1	130.5	255.1	353.4	386.5
90°	2.9	102.2	224.9	321.3	356.4
92.5°	5.8	104.2	223.9	317.4	352.5
95°	8.8	107.1	224.9	317.4	350.5
97.5°	12.7	111.0	226.9	317.4	349.5
100°	18.5	112.9	227.8	317.4	349.5
102.5°	24.3	115.9	226.9	312.5	345.6
105°	31.2	117.8	228.8	313.5	342.7
107.5°	38.0	119.8	228.8	308.6	341.8
110°	44.8	122.7	226.9	305.7	337.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	50.6	125.6	225.9	299.9	331.0
115°	56.5	127.5	223.9	297.9	327.1
117.5°	62.3	128.5	223.0	293.1	321.3
120°	67.2	130.5	221.0	287.2	318.4
122.5°	73.0	131.4	218.1	281.4	312.5
125°	80.8	131.4	217.1	276.5	301.8
127.5°	84.7	132.4	213.2	270.7	297.0
130°	88.6	129.5	211.3	263.9	289.2
132.5°	91.5	128.5	206.4	257.0	279.4
135°	93.5	126.6	201.5	250.2	270.7
137.5°	96.4	123.7	194.7	245.4	264.8
140°	98.3	121.7	185.0	235.6	255.1
142.5°	100.3	118.8	175.3	226.9	245.4
145°	101.3	116.8	165.5	220.0	235.6
147.5°	104.2	113.9	159.7	211.3	224.9
150°	103.2	112.0	150.9	200.6	214.2
152.5°	106.1	114.9	143.1	186.0	205.4
155°	111.0	116.8	135.3	170.4	192.8
157.5°	115.9	120.7	129.5	156.8	183.0
160°	122.7	122.7	122.7	146.0	175.3
162.5°	126.6	126.6	123.7	133.4	164.5
165°	132.4	128.5	124.6	123.7	154.8
167.5°	138.3	130.5	126.6	119.8	148.0
170°	139.2	133.4	125.6	112.9	143.1
172.5°	143.1	136.3	124.6	107.1	111.0
175°	146.0	140.2	125.6	104.2	63.3
177.5°	145.1	140.2	128.5	104.2	61.3
180°	120.7	120.7	120.7	120.7	120.7

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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	16.65	17.97	17.26	18.60	19.31	19.16	20.48	19.77	21.11	21.83
	3H	18.08	19.28	18.70	19.92	20.67	21.52	22.73	22.15	23.36	24.11
	4H	18.54	19.69	19.19	20.34	21.10	22.64	23.78	23.28	24.43	25.19
	6H	18.81	19.87	19.47	20.53	21.31	23.75	24.81	24.41	25.47	26.25
	8H	18.86	19.88	19.53	20.56	21.34	24.30	25.32	24.97	26.00	26.78
	12H	18.88	19.85	19.55	20.53	21.34	24.88	25.86	25.56	26.53	27.34
4H	2H	17.52	18.66	18.16	19.31	20.07	19.50	20.65	20.15	21.30	22.06
	3H	19.17	20.14	19.83	20.83	21.61	22.08	23.05	22.74	23.74	24.52
	4H	19.75	20.64	20.43	21.34	22.15	23.36	24.25	24.03	24.94	25.75
	6H	20.13	20.91	20.82	21.63	22.45	24.65	25.43	25.34	26.14	26.96
	8H	20.22	20.96	20.92	21.67	22.50	25.29	26.02	25.99	26.74	27.57
	12H	20.26	20.93	20.98	21.67	22.51	25.98	26.65	26.70	27.39	28.23
8H	4H	20.38	21.11	21.08	21.83	22.66	23.51	24.25	24.21	24.96	25.80
	6H	20.91	21.53	21.64	22.29	23.13	24.95	25.57	25.68	26.32	27.16
	8H	21.08	21.64	21.82	22.40	23.25	25.71	26.27	26.46	27.03	27.88
	12H	21.19	21.68	21.93	22.43	23.34	26.56	27.06	27.31	27.81	28.72
12H	4H	20.54	21.20	21.26	21.94	22.78	23.50	24.17	24.23	24.91	25.75
	6H	21.16	21.72	21.90	22.48	23.33	24.97	25.52	25.71	26.28	27.13
	8H	21.41	21.90	22.15	22.65	23.56	25.79	26.28	26.53	27.03	27.94