

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: P893836

Luminaire Tested: 4MB-7HL-FLTU-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893836
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-L850
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 500
Light Source: -
Ballast/Driver: -

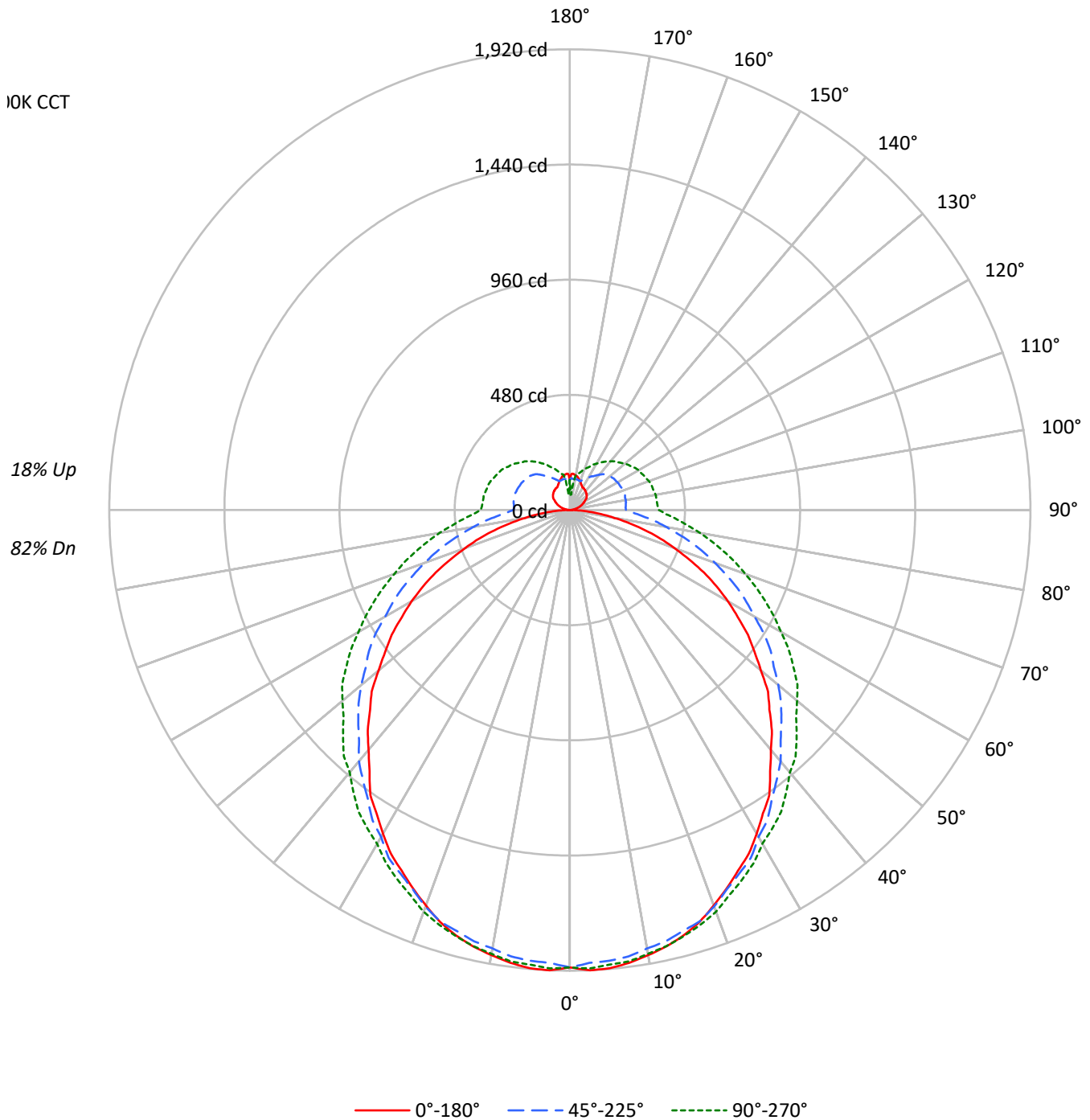
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7166.0 lumens
Efficiency: N/A
Efficacy: 138.3 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°	13562	13562	13562
5°	13631	12986	12963
10°	13485	12472	12371
15°	13331	12017	11807
20°	13034	11538	11246
25°	12714	10951	10627
30°	12422	10379	10025
35°	12152	9833	9638
40°	11606	9364	9079
45°	11253	8807	8690
50°	10837	8338	8281
55°	10462	7892	7915
60°	9936	7284	7424
65°	9336	6792	6962
70°	8437	6185	6458
75°	7476	5581	5980
80°	5920	4921	5496
85°	4086	4281	5043

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11253 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.6	2.5
10°-20°	515.6	7.2
20°-30°	774.5	10.8
30°-40°	928.2	13.0
40°-50°	973.2	13.6
50°-60°	912.9	12.7
60°-70°	758.3	10.6
70°-80°	542.2	7.6
80°-90°	321.5	4.5
90°-100°	235.9	3.3
100°-110°	232.4	3.2
110°-120°	216.8	3.0
120°-130°	190.2	2.7
130°-140°	153.2	2.1
140°-150°	109.9	1.5
150°-160°	69.9	1.0
160°-170°	38.7	0.5
170°-180°	12.2	0.2
0°-30°	1470.6	20.5
0°-40°	2398.8	33.5
0°-60°	4284.9	59.8
0°-90°	5906.9	82.4
90°-120°	685.0	9.6
90°-150°	1138.4	15.9
90°-180°	1259.0	17.6
0°-180°	7166.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1906	1906	1906	1906	1906	
5°	1917	1913	1886	1895	1902	182
15°	1835	1824	1817	1830	1838	517
25°	1659	1674	1671	1690	1700	766
35°	1450	1455	1469	1511	1535	900
45°	1177	1210	1247	1329	1337	910
55°	906	936	1022	1105	1137	806
65°	617	663	771	874	899	608
75°	325	400	525	633	662	344
85°	80	175	307	410	449	88
90°	3	106	234	334	371	7
95°	9	111	234	330	365	10
105°	32	122	238	326	356	34
115°	59	133	233	310	340	58
125°	84	137	226	288	314	74
135°	97	132	210	260	282	75
145°	105	122	172	229	245	66
155°	116	122	141	177	200	53
165°	138	134	130	129	161	39
175°	152	146	131	108	66	14
180°	126	126	126	126	126	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1906.1	1906.1	1906.1	1906.1	1906.1
2.5°	1920.3	1905.1	1888.9	1913.2	1912.2
5°	1917.2	1913.2	1885.8	1895.0	1902.0
7.5°	1903.1	1892.9	1876.7	1899.0	1897.0
10°	1883.8	1871.7	1855.5	1868.6	1877.7
12.5°	1862.5	1852.4	1841.3	1855.5	1861.5
15°	1835.2	1824.1	1817.0	1830.1	1838.2
17.5°	1799.7	1796.7	1797.7	1798.7	1811.9
20°	1754.2	1756.2	1759.2	1777.5	1781.5
22.5°	1707.6	1718.7	1710.6	1739.0	1737.0
25°	1659.0	1674.2	1671.1	1690.4	1699.5
27.5°	1615.4	1616.4	1634.7	1662.0	1659.0
30°	1557.7	1574.9	1572.9	1606.3	1606.3
32.5°	1498.9	1524.3	1532.4	1561.7	1571.9
35°	1450.3	1455.4	1468.6	1511.1	1535.4
37.5°	1371.3	1395.6	1416.9	1472.6	1481.7
40°	1304.5	1328.8	1367.3	1432.1	1427.0
42.5°	1246.8	1272.1	1300.4	1375.4	1393.6
45°	1176.9	1210.3	1246.8	1328.8	1336.9
47.5°	1120.2	1146.5	1194.1	1269.0	1279.2
50°	1040.1	1082.7	1134.3	1221.4	1236.6
52.5°	969.3	1005.7	1071.5	1161.7	1196.1
55°	906.5	935.8	1021.9	1105.0	1137.4
57.5°	829.5	870.0	960.1	1052.3	1081.7
60°	761.6	801.1	888.2	993.6	1016.9
62.5°	689.7	736.3	830.5	932.8	959.1
65°	616.8	663.4	770.7	874.0	899.4
67.5°	537.8	595.5	704.9	812.3	838.6
70°	463.9	526.7	644.1	751.5	777.8
72.5°	397.0	464.9	584.4	694.8	723.1
75°	325.1	400.1	524.6	633.0	662.4
77.5°	255.2	336.3	462.9	572.2	606.7
80°	187.4	276.5	409.2	514.5	551.0
82.5°	131.7	222.8	359.5	462.9	496.3
85°	80.0	175.2	306.9	410.2	448.7
87.5°	35.4	135.7	265.4	367.6	402.1
90°	3.0	106.3	234.0	334.2	370.7
92.5°	6.1	108.4	232.9	330.2	366.6
95°	9.1	111.4	234.0	330.2	364.6
97.5°	13.2	115.5	236.0	330.2	363.6
100°	19.2	117.5	237.0	330.2	363.6
102.5°	25.3	120.5	236.0	325.1	359.5
105°	32.4	122.5	238.0	326.1	356.5
107.5°	39.5	124.6	238.0	321.1	355.5
110°	46.6	127.6	236.0	318.0	351.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	52.7	130.7	235.0	311.9	344.4
115°	58.7	132.7	232.9	309.9	340.3
117.5°	64.8	133.7	231.9	304.9	334.2
120°	69.9	135.7	229.9	298.8	331.2
122.5°	76.0	136.7	226.9	292.7	325.1
125°	84.1	136.7	225.9	287.6	314.0
127.5°	88.1	137.7	221.8	281.6	308.9
130°	92.2	134.7	219.8	274.5	300.8
132.5°	95.2	133.7	214.7	267.4	290.7
135°	97.2	131.7	209.6	260.3	281.6
137.5°	100.3	128.6	202.6	255.2	275.5
140°	102.3	126.6	192.4	245.1	265.4
142.5°	104.3	123.6	182.3	236.0	255.2
145°	105.3	121.5	172.2	228.9	245.1
147.5°	108.4	118.5	166.1	219.8	234.0
150°	107.4	116.5	157.0	208.6	222.8
152.5°	110.4	119.5	148.9	193.4	213.7
155°	115.5	121.5	140.8	177.2	200.5
157.5°	120.5	125.6	134.7	163.1	190.4
160°	127.6	127.6	127.6	151.9	182.3
162.5°	131.7	131.7	128.6	138.8	171.2
165°	137.7	133.7	129.6	128.6	161.0
167.5°	143.8	135.7	131.7	124.6	153.9
170°	144.8	138.8	130.7	117.5	148.9
172.5°	148.9	141.8	129.6	111.4	115.5
175°	151.9	145.8	130.7	108.4	65.8
177.5°	150.9	145.8	133.7	108.4	63.8
180°	125.6	125.6	125.6	125.6	125.6



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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	16.78	18.11	17.39	18.73	19.45	19.29	20.62	19.91	21.25	21.96
	3H	18.21	19.42	18.84	20.06	20.81	21.66	22.86	22.28	23.50	24.25
	4H	18.68	19.82	19.32	20.47	21.23	22.78	23.92	23.42	24.57	25.33
	6H	18.95	20.01	19.60	20.67	21.45	23.89	24.95	24.55	25.61	26.39
	8H	19.00	20.02	19.67	20.70	21.48	24.44	25.45	25.11	26.14	26.92
	12H	19.02	19.99	19.69	20.66	21.47	25.02	25.99	25.70	26.67	27.48
4H	2H	17.65	18.80	18.30	19.45	20.21	19.64	20.78	20.29	21.43	22.19
	3H	19.31	20.28	19.97	20.97	21.75	22.22	23.19	22.88	23.88	24.66
	4H	19.89	20.78	20.57	21.47	22.28	23.50	24.38	24.17	25.08	25.89
	6H	20.27	21.05	20.96	21.77	22.59	24.78	25.56	25.48	26.28	27.10
	8H	20.36	21.09	21.06	21.81	22.64	25.43	26.16	26.13	26.88	27.71
	12H	20.40	21.07	21.12	21.80	22.64	26.12	26.79	26.84	27.52	28.36
8H	4H	20.52	21.25	21.22	21.96	22.80	23.65	24.38	24.35	25.10	25.93
	6H	21.05	21.67	21.78	22.43	23.26	25.08	25.70	25.81	26.46	27.30
	8H	21.22	21.78	21.96	22.54	23.39	25.85	26.41	26.59	27.17	28.02
	12H	21.32	21.82	22.07	22.57	23.48	26.70	27.20	27.45	27.95	28.86
12H	4H	20.67	21.34	21.39	22.08	22.92	23.64	24.31	24.36	25.05	25.89
	6H	21.30	21.86	22.04	22.61	23.46	25.10	25.66	25.84	26.42	27.27
	8H	21.54	22.04	22.29	22.79	23.70	25.92	26.42	26.67	27.17	28.08