

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: P893933

Luminaire Tested: 4MB-8HL-FLTU-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893933
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-L930
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 300
Light Source: -
Ballast/Driver: -

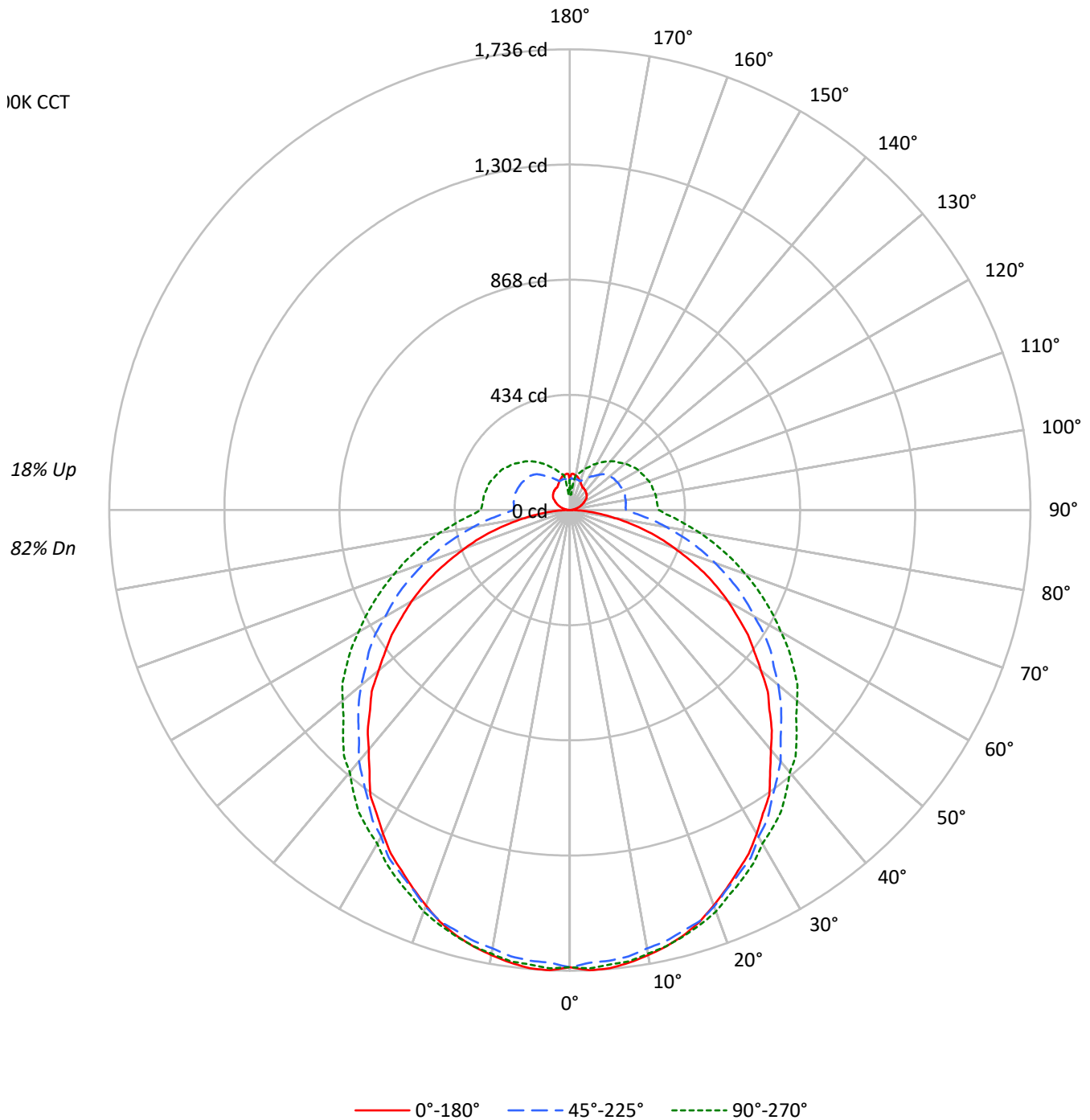
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6478.0 lumens
Efficiency: N/A
Efficacy: 111.9 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 (A_{in}): 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			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°	12260	12260	12260
5°	12322	11740	11718
10°	12190	11274	11184
15°	12051	10863	10673
20°	11783	10430	10167
25°	11493	9900	9606
30°	11229	9383	9063
35°	10985	8889	8713
40°	10491	8465	8208
45°	10172	7962	7856
50°	9797	7537	7486
55°	9457	7134	7155
60°	8983	6584	6711
65°	8440	6140	6293
70°	7626	5592	5839
75°	6759	5046	5406
80°	5352	4448	4969
85°	3692	3870	4559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10172 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.2	2.5
10°-20°	466.1	7.2
20°-30°	700.1	10.8
30°-40°	839.1	13.0
40°-50°	879.7	13.6
50°-60°	825.3	12.7
60°-70°	685.5	10.6
70°-80°	490.1	7.6
80°-90°	290.6	4.5
90°-100°	213.2	3.3
100°-110°	210.1	3.2
110°-120°	196.0	3.0
120°-130°	172.0	2.7
130°-140°	138.5	2.1
140°-150°	99.4	1.5
150°-160°	63.2	1.0
160°-170°	35.0	0.5
170°-180°	11.0	0.2
0°-30°	1329.4	20.5
0°-40°	2168.5	33.5
0°-60°	3873.5	59.8
0°-90°	5339.7	82.4
90°-120°	619.3	9.6
90°-150°	1029.1	15.9
90°-180°	1138.0	17.6
0°-180°	6478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1733	1730	1705	1713	1719	164
15°	1659	1649	1642	1654	1662	467
25°	1500	1513	1511	1528	1536	692
35°	1311	1316	1328	1366	1388	814
45°	1064	1094	1127	1201	1208	823
55°	819	846	924	999	1028	729
65°	558	600	697	790	813	549
75°	294	362	474	572	599	311
85°	72	158	277	371	406	79
90°	3	96	212	302	335	6
95°	8	101	212	298	330	9
105°	29	111	215	295	322	31
115°	53	120	211	280	308	52
125°	76	124	204	260	284	67
135°	88	119	190	235	254	68
145°	95	110	156	207	222	60
155°	104	110	127	160	181	48
165°	124	121	117	116	146	35
175°	137	132	118	98	60	13
180°	114	114	114	114	114	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1723.1	1723.1	1723.1	1723.1	1723.1
2.5°	1735.9	1722.2	1707.5	1729.5	1728.6
5°	1733.2	1729.5	1704.8	1713.0	1719.4
7.5°	1720.3	1711.2	1696.5	1716.7	1714.9
10°	1702.9	1692.0	1677.3	1689.2	1697.5
12.5°	1683.7	1674.6	1664.5	1677.3	1682.8
15°	1659.0	1648.9	1642.5	1654.4	1661.7
17.5°	1627.0	1624.2	1625.1	1626.0	1637.9
20°	1585.8	1587.6	1590.3	1606.8	1610.5
22.5°	1543.6	1553.7	1546.4	1572.0	1570.2
25°	1499.7	1513.4	1510.7	1528.1	1536.3
27.5°	1460.3	1461.2	1477.7	1502.4	1499.7
30°	1408.1	1423.7	1421.9	1452.1	1452.1
32.5°	1355.0	1377.9	1385.2	1411.8	1421.0
35°	1311.1	1315.7	1327.6	1366.0	1388.0
37.5°	1239.7	1261.6	1280.9	1331.2	1339.5
40°	1179.2	1201.2	1236.0	1294.6	1290.0
42.5°	1127.1	1149.9	1175.6	1243.3	1259.8
45°	1063.9	1094.1	1127.1	1201.2	1208.5
47.5°	1012.6	1036.4	1079.4	1147.2	1156.4
50°	940.3	978.7	1025.4	1104.2	1117.9
52.5°	876.2	909.2	968.7	1050.2	1081.3
55°	819.4	846.0	923.8	998.9	1028.2
57.5°	749.8	786.5	868.0	951.3	977.8
60°	688.5	724.2	802.9	898.2	919.2
62.5°	623.5	665.6	750.8	843.2	867.0
65°	557.6	599.7	696.7	790.1	813.0
67.5°	486.2	538.4	637.2	734.3	758.1
70°	419.3	476.1	582.3	679.3	703.2
72.5°	358.9	420.2	528.3	628.1	653.7
75°	293.9	361.6	474.3	572.2	598.8
77.5°	230.7	304.0	418.4	517.3	548.4
80°	169.4	249.9	369.9	465.1	498.1
82.5°	119.0	201.4	325.0	418.4	448.6
85°	72.3	158.4	277.4	370.8	405.6
87.5°	32.0	122.7	239.9	332.3	363.5
90°	2.7	96.1	211.5	302.1	335.1
92.5°	5.5	98.0	210.6	298.5	331.4
95°	8.2	100.7	211.5	298.5	329.6
97.5°	11.9	104.4	213.3	298.5	328.7
100°	17.4	106.2	214.2	298.5	328.7
102.5°	22.9	109.0	213.3	293.9	325.0
105°	29.3	110.8	215.2	294.8	322.3
107.5°	35.7	112.6	215.2	290.2	321.4
110°	42.1	115.4	213.3	287.5	317.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	47.6	118.1	212.4	282.0	311.3
115°	53.1	119.9	210.6	280.2	307.6
117.5°	58.6	120.9	209.7	275.6	302.1
120°	63.2	122.7	207.8	270.1	299.4
122.5°	68.7	123.6	205.1	264.6	293.9
125°	76.0	123.6	204.2	260.0	283.8
127.5°	79.7	124.5	200.5	254.5	279.2
130°	83.3	121.8	198.7	248.1	271.9
132.5°	86.1	120.9	194.1	241.7	262.8
135°	87.9	119.0	189.5	235.3	254.5
137.5°	90.6	116.3	183.1	230.7	249.0
140°	92.5	114.4	174.0	221.6	239.9
142.5°	94.3	111.7	164.8	213.3	230.7
145°	95.2	109.9	155.6	206.9	221.6
147.5°	98.0	107.1	150.2	198.7	211.5
150°	97.0	105.3	141.9	188.6	201.4
152.5°	99.8	108.0	134.6	174.9	193.2
155°	104.4	109.9	127.3	160.2	181.3
157.5°	109.0	113.5	121.8	147.4	172.1
160°	115.4	115.4	115.4	137.3	164.8
162.5°	119.0	119.0	116.3	125.4	154.7
165°	124.5	120.9	117.2	116.3	145.6
167.5°	130.0	122.7	119.0	112.6	139.2
170°	130.9	125.4	118.1	106.2	134.6
172.5°	134.6	128.2	117.2	100.7	104.4
175°	137.3	131.8	118.1	98.0	59.5
177.5°	136.4	131.8	120.9	98.0	57.7
180°	113.5	113.5	113.5	113.5	113.5



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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	16.43	17.76	17.04	18.38	19.10	18.94	20.27	19.56	20.90	21.61
	3H	17.86	19.07	18.49	19.71	20.46	21.31	22.51	21.93	23.15	23.90
	4H	18.33	19.47	18.97	20.12	20.88	22.43	23.57	23.07	24.22	24.98
	6H	18.60	19.66	19.25	20.32	21.10	23.54	24.60	24.20	25.26	26.04
	8H	18.65	19.66	19.32	20.35	21.13	24.09	25.10	24.76	25.79	26.57
	12H	18.66	19.64	19.34	20.31	21.12	24.67	25.64	25.35	26.32	27.13
4H	2H	17.30	18.45	17.95	19.10	19.86	19.29	20.43	19.94	21.08	21.84
	3H	18.96	19.93	19.62	20.62	21.40	21.87	22.84	22.53	23.53	24.31
	4H	19.54	20.43	20.22	21.12	21.93	23.14	24.03	23.82	24.73	25.54
	6H	19.92	20.70	20.61	21.41	22.23	24.43	25.21	25.13	25.93	26.75
	8H	20.01	20.74	20.71	21.46	22.29	25.08	25.81	25.78	26.53	27.36
	12H	20.05	20.72	20.77	21.45	22.29	25.77	26.43	26.49	27.17	28.01
8H	4H	20.17	20.90	20.86	21.61	22.45	23.30	24.03	24.00	24.75	25.58
	6H	20.70	21.32	21.43	22.08	22.91	24.73	25.35	25.46	26.11	26.95
	8H	20.87	21.43	21.61	22.18	23.04	25.50	26.06	26.24	26.82	27.67
	12H	20.97	21.47	21.72	22.22	23.13	26.35	26.85	27.09	27.60	28.51
12H	4H	20.32	20.99	21.04	21.73	22.57	23.29	23.96	24.01	24.70	25.54
	6H	20.95	21.50	21.69	22.26	23.11	24.75	25.31	25.49	26.07	26.92
	8H	21.19	21.69	21.94	22.44	23.35	25.57	26.07	26.32	26.82	27.73