

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: P893930

Luminaire Tested: 4MB-8HL-FLTU-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893930
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-L835
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 350
Light Source: -
Ballast/Driver: -

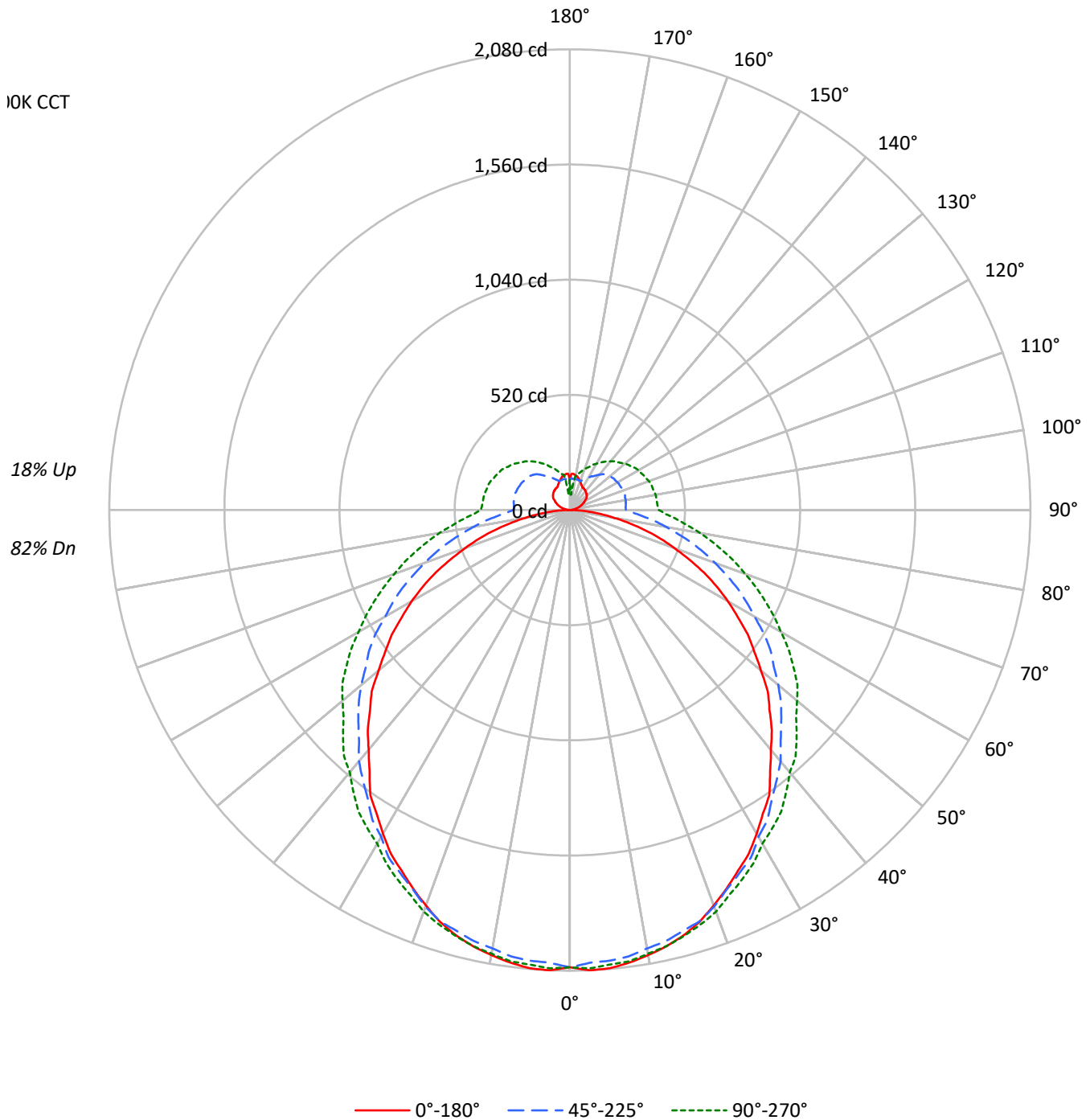
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7762.0 lumens
Efficiency: N/A
Efficacy: 134.1 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
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	82	
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	66	
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	54	
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	45	
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	38	
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	33	
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	28	
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	25	
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	22	
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	20	
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	18	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14690	14690	14690
5°	14765	14067	14041
10°	14607	13509	13400
15°	14440	13017	12789
20°	14118	12498	12182
25°	13770	11862	11510
30°	13455	11242	10859
35°	13163	10651	10440
40°	12572	10143	9835
45°	12189	9540	9413
50°	11739	9032	8970
55°	11332	8548	8573
60°	10764	7890	8041
65°	10112	7357	7541
70°	9137	6700	6995
75°	8097	6046	6478
80°	6413	5330	5953
85°	4428	4637	5463

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12189 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.6	2.5
10°-20°	558.5	7.2
20°-30°	838.9	10.8
30°-40°	1005.4	13.0
40°-50°	1054.1	13.6
50°-60°	988.9	12.7
60°-70°	821.3	10.6
70°-80°	587.2	7.6
80°-90°	348.3	4.5
90°-100°	255.5	3.3
100°-110°	251.7	3.2
110°-120°	234.8	3.0
120°-130°	206.0	2.7
130°-140°	165.9	2.1
140°-150°	119.1	1.5
150°-160°	75.7	1.0
160°-170°	41.9	0.5
170°-180°	13.2	0.2
0°-30°	1592.9	20.5
0°-40°	2598.3	33.5
0°-60°	4641.3	59.8
0°-90°	6398.1	82.4
90°-120°	742.0	9.6
90°-150°	1233.0	15.9
90°-180°	1364.0	17.6
0°-180°	7762.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2065	2065	2065	2065	2065	
5°	2077	2072	2043	2053	2060	197
15°	1988	1976	1968	1982	1991	560
25°	1797	1813	1810	1831	1841	829
35°	1571	1576	1591	1637	1663	975
45°	1275	1311	1350	1439	1448	986
55°	982	1014	1107	1197	1232	874
65°	668	719	835	947	974	658
75°	352	433	568	686	718	372
85°	87	190	332	444	486	95
90°	3	115	253	362	402	7
95°	10	121	253	358	395	10
105°	35	133	258	353	386	37
115°	64	144	252	336	369	63
125°	91	148	245	312	340	80
135°	105	143	227	282	305	82
145°	114	132	186	248	266	72
155°	125	132	152	192	217	58
165°	149	145	140	139	174	42
175°	165	158	142	117	71	15
180°	136	136	136	136	136	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2064.6	2064.6	2064.6	2064.6	2064.6
2.5°	2080.0	2063.5	2046.0	2072.3	2071.2
5°	2076.7	2072.3	2042.7	2052.6	2060.2
7.5°	2061.3	2050.4	2032.8	2056.9	2054.8
10°	2040.5	2027.3	2009.8	2024.0	2033.9
12.5°	2017.5	2006.5	1994.4	2009.8	2016.4
15°	1987.8	1975.8	1968.1	1982.3	1991.1
17.5°	1949.4	1946.1	1947.2	1948.3	1962.6
20°	1900.1	1902.3	1905.6	1925.3	1929.7
22.5°	1849.6	1861.7	1852.9	1883.6	1881.4
25°	1796.9	1813.4	1810.1	1831.0	1840.8
27.5°	1749.8	1750.9	1770.6	1800.2	1796.9
30°	1687.2	1705.9	1703.7	1739.9	1739.9
32.5°	1623.6	1651.0	1659.8	1691.6	1702.6
35°	1571.0	1576.4	1590.7	1636.8	1663.1
37.5°	1485.4	1511.7	1534.8	1595.1	1605.0
40°	1413.0	1439.3	1481.0	1551.2	1545.7
42.5°	1350.5	1377.9	1408.6	1489.8	1509.5
45°	1274.8	1311.0	1350.5	1439.3	1448.1
47.5°	1213.3	1241.8	1293.4	1374.6	1385.6
50°	1126.7	1172.7	1228.7	1323.0	1339.5
52.5°	1049.9	1089.4	1160.7	1258.3	1295.6
55°	981.8	1013.7	1106.9	1196.9	1232.0
57.5°	898.5	942.4	1040.0	1139.8	1171.6
60°	825.0	867.8	962.1	1076.2	1101.4
62.5°	747.1	797.5	899.6	1010.4	1038.9
65°	668.1	718.6	834.8	946.7	974.2
67.5°	582.5	645.1	763.5	879.8	908.3
70°	502.4	570.5	697.7	814.0	842.5
72.5°	430.0	503.5	633.0	752.6	783.3
75°	352.1	433.3	568.3	685.6	717.5
77.5°	276.5	364.2	501.3	619.8	657.1
80°	203.0	299.5	443.2	557.3	596.8
82.5°	142.6	241.3	389.4	501.3	537.5
85°	86.7	189.8	332.4	444.3	486.0
87.5°	38.4	147.0	287.4	398.2	435.5
90°	3.3	115.2	253.4	362.0	401.5
92.5°	6.6	117.4	252.3	357.6	397.1
95°	9.9	120.7	253.4	357.6	394.9
97.5°	14.3	125.1	255.6	357.6	393.8
100°	20.8	127.3	256.7	357.6	393.8
102.5°	27.4	130.5	255.6	352.1	389.4
105°	35.1	132.7	257.8	353.2	386.2
107.5°	42.8	134.9	257.8	347.8	385.1
110°	50.5	138.2	255.6	344.5	380.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	57.0	141.5	254.5	337.9	373.0
115°	63.6	143.7	252.3	335.7	368.6
117.5°	70.2	144.8	251.2	330.2	362.0
120°	75.7	147.0	249.0	323.6	358.7
122.5°	82.3	148.1	245.7	317.0	352.1
125°	91.1	148.1	244.6	311.6	340.1
127.5°	95.4	149.2	240.3	305.0	334.6
130°	99.8	145.9	238.1	297.3	325.8
132.5°	103.1	144.8	232.6	289.6	314.8
135°	105.3	142.6	227.1	281.9	305.0
137.5°	108.6	139.3	219.4	276.5	298.4
140°	110.8	137.1	208.4	265.5	287.4
142.5°	113.0	133.8	197.5	255.6	276.5
145°	114.1	131.6	186.5	247.9	265.5
147.5°	117.4	128.4	179.9	238.1	253.4
150°	116.3	126.2	170.0	226.0	241.3
152.5°	119.6	129.5	161.3	209.5	231.5
155°	125.1	131.6	152.5	192.0	217.2
157.5°	130.5	136.0	145.9	176.6	206.2
160°	138.2	138.2	138.2	164.6	197.5
162.5°	142.6	142.6	139.3	150.3	185.4
165°	149.2	144.8	140.4	139.3	174.4
167.5°	155.8	147.0	142.6	134.9	166.7
170°	156.9	150.3	141.5	127.3	161.3
172.5°	161.3	153.6	140.4	120.7	125.1
175°	164.6	158.0	141.5	117.4	71.3
177.5°	163.5	158.0	144.8	117.4	69.1
180°	136.0	136.0	136.0	136.0	136.0



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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	17.06	18.38	17.67	19.01	19.73	19.57	20.90	20.18	21.52	22.24
	3H	18.49	19.70	19.12	20.33	21.08	21.94	23.14	22.56	23.78	24.53
	4H	18.96	20.10	19.60	20.75	21.51	23.05	24.20	23.70	24.85	25.61
	6H	19.22	20.29	19.88	20.95	21.72	24.17	25.23	24.82	25.89	26.67
	8H	19.28	20.29	19.95	20.98	21.76	24.72	25.73	25.38	26.41	27.20
	12H	19.29	20.27	19.97	20.94	21.75	25.30	26.27	25.97	26.95	27.76
4H	2H	17.93	19.07	18.58	19.72	20.49	19.92	21.06	20.56	21.71	22.47
	3H	19.59	20.56	20.25	21.24	22.03	22.50	23.47	23.16	24.15	24.94
	4H	20.17	21.06	20.84	21.75	22.56	23.77	24.66	24.45	25.35	26.17
	6H	20.54	21.33	21.24	22.04	22.86	25.06	25.84	25.75	26.56	27.38
	8H	20.64	21.37	21.33	22.08	22.92	25.71	26.44	26.40	27.15	27.99
	12H	20.68	21.34	21.40	22.08	22.92	26.40	27.06	27.12	27.80	28.64
8H	4H	20.79	21.53	21.49	22.24	23.08	23.93	24.66	24.63	25.38	26.21
	6H	21.33	21.95	22.06	22.70	23.54	25.36	25.98	26.09	26.74	27.57
	8H	21.50	22.06	22.24	22.81	23.66	26.13	26.69	26.87	27.44	28.29
	12H	21.60	22.10	22.35	22.85	23.76	26.98	27.47	27.72	28.22	29.13
12H	4H	20.95	21.62	21.67	22.36	23.20	23.92	24.58	24.64	25.32	26.16
	6H	21.57	22.13	22.32	22.89	23.74	25.38	25.94	26.12	26.70	27.55
	8H	21.82	22.32	22.57	23.07	23.98	26.20	26.70	26.94	27.44	28.36