

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: P893982

Luminaire Tested: 4MB-8HL-RNDU-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893982
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-RNDU-UNV-L935
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

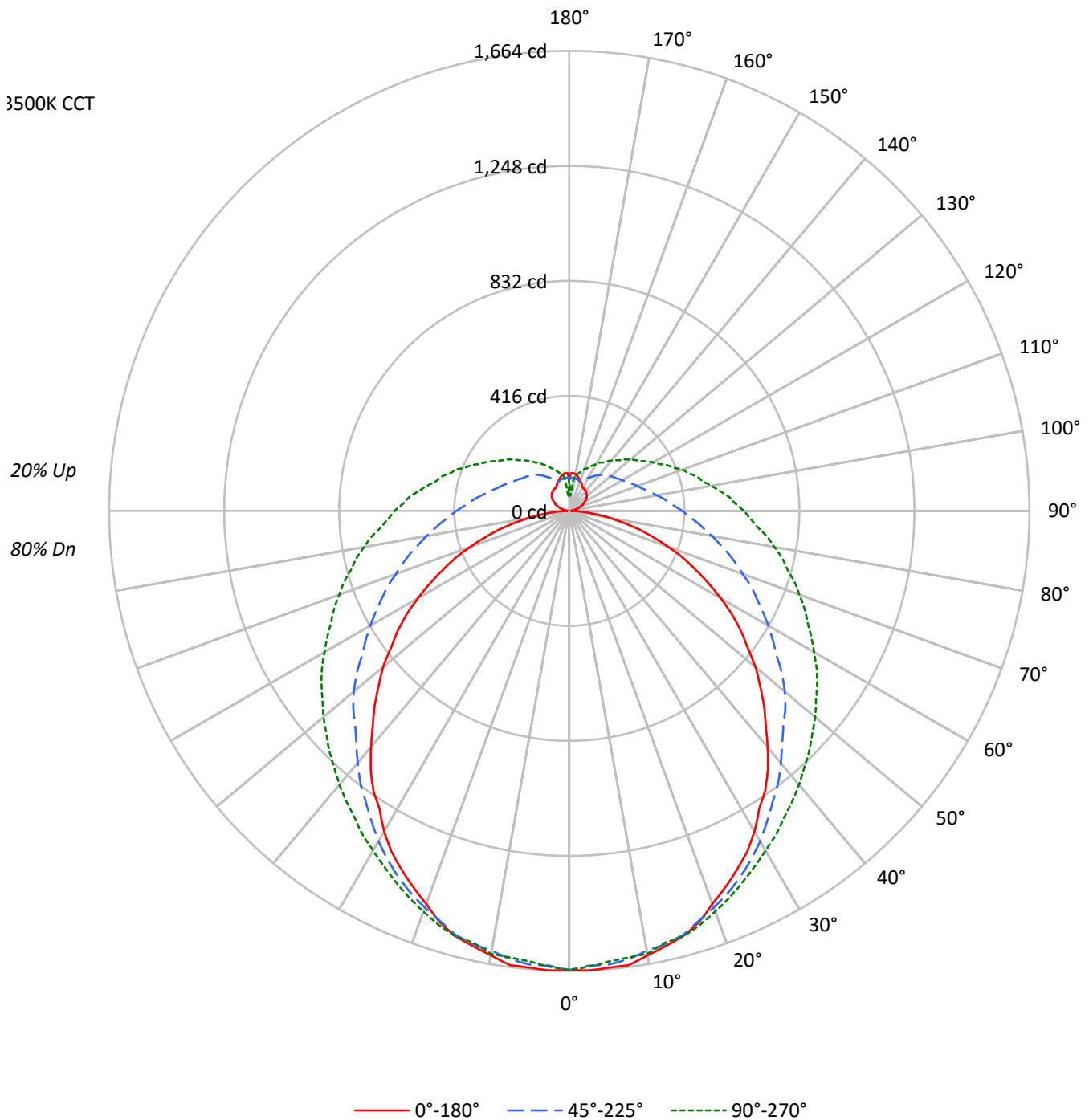
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6980.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
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

TEST NUMBER: P893982
CATALOG NUMBER: 4MB-8HL-RNDU-UNV-L935

Luminous Intensity Polar Plot





TEST NUMBER: P893982
 CATALOG NUMBER: 4MB-8HL-RNDU-UNV-L935

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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80		
1	102	96	91	86	97	92	87	83	84	80	77	76	73	71	69	67	65	61		
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	49		
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	41		
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	34		
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	29		
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	26		
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	23		
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20		
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	18		
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11814	11814	11814
5°	11791	11345	11151
10°	11687	10861	10718
15°	11569	10502	10235
20°	11239	10013	9737
25°	10981	9579	9267
30°	10679	9105	8856
35°	10348	8593	8499
40°	9923	8153	8224
45°	9518	7733	7980
50°	9162	7474	7773
55°	8746	7071	7612
60°	8251	6816	7465
65°	7632	6588	7353
70°	6942	6403	7348
75°	6044	6332	7370
80°	4752	6298	7512
85°	3131	6438	7683

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9518 cd/sqm



TEST NUMBER: P893982
 CATALOG NUMBER: 4MB-8HL-RNDU-UNV-L935

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.2	2.3
10°-20°	449.1	6.4
20°-30°	674.4	9.7
30°-40°	809.9	11.6
40°-50°	856.6	12.3
50°-60°	825.6	11.8
60°-70°	732.4	10.5
70°-80°	600.6	8.6
80°-90°	464.9	6.7
90°-100°	362.7	5.2
100°-110°	288.8	4.1
110°-120°	230.8	3.3
120°-130°	182.0	2.6
130°-140°	138.9	2.0
140°-150°	97.7	1.4
150°-160°	62.4	0.9
160°-170°	35.0	0.5
170°-180°	11.1	0.2
0°-30°	1280.8	18.3
0°-40°	2090.6	30.0
0°-60°	3772.8	54.1
0°-90°	5570.8	79.8
90°-120°	882.2	12.6
90°-150°	1300.7	18.6
90°-180°	1409.0	20.2
0°-180°	6980.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1660	1660	1660	1660	1660	
5°	1658	1663	1647	1660	1636	158
15°	1593	1594	1588	1598	1594	447
25°	1433	1456	1462	1487	1482	660
35°	1235	1254	1283	1336	1354	770
45°	996	1025	1095	1199	1228	768
55°	758	796	916	1040	1094	676
65°	504	574	748	903	950	501
75°	263	378	595	756	816	278
85°	61	230	462	628	684	69
90°	6	183	409	568	632	6
95°	8	151	361	519	580	8
105°	28	123	289	424	479	30
115°	54	120	240	346	391	52
125°	75	122	206	284	315	66
135°	88	118	185	240	259	68
145°	96	109	152	202	214	60
155°	106	111	125	158	176	49
165°	125	123	118	115	143	35
175°	137	133	118	97	61	13
180°	112	112	112	112	112	



TEST NUMBER: P893982

CATALOG NUMBER: 4MB-8HL-RNDU-UNV-L935

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1660.4	1660.4	1660.4	1660.4	1660.4
2.5°	1664.1	1669.7	1646.5	1660.4	1650.2
5°	1658.5	1663.2	1647.4	1659.5	1636.2
7.5°	1656.7	1654.8	1635.3	1651.1	1629.7
10°	1632.5	1639.0	1615.8	1637.2	1626.9
12.5°	1612.1	1625.1	1604.7	1621.4	1600.0
15°	1592.6	1593.5	1587.9	1598.2	1593.5
17.5°	1560.1	1568.4	1555.4	1578.7	1570.3
20°	1512.7	1538.7	1526.7	1548.0	1542.4
22.5°	1473.7	1486.7	1496.9	1521.1	1513.7
25°	1432.9	1456.1	1461.7	1486.7	1482.1
27.5°	1391.1	1401.3	1422.7	1449.6	1450.5
30°	1339.1	1350.2	1379.9	1410.6	1418.9
32.5°	1277.8	1313.1	1330.7	1377.1	1390.1
35°	1235.1	1253.6	1283.4	1336.3	1353.9
37.5°	1179.4	1200.7	1240.6	1302.9	1324.2
40°	1115.3	1146.9	1190.5	1267.6	1292.6
42.5°	1051.2	1088.3	1139.4	1229.5	1258.3
45°	995.5	1025.2	1094.8	1198.9	1227.6
47.5°	935.1	971.3	1059.6	1158.9	1191.4
50°	879.4	916.6	1016.8	1121.8	1160.8
52.5°	812.5	855.3	970.4	1079.1	1124.6
55°	757.8	795.8	915.6	1040.1	1093.9
57.5°	697.4	740.1	872.9	1011.3	1060.5
60°	632.4	686.3	831.1	975.1	1022.4
62.5°	568.3	632.4	788.4	939.8	986.2
65°	504.2	573.9	747.5	902.6	950.0
67.5°	446.7	521.9	710.4	861.8	920.3
70°	381.7	471.7	666.8	823.7	885.0
72.5°	320.4	426.2	631.5	793.0	854.3
75°	262.8	377.9	595.2	755.9	816.3
77.5°	205.2	332.4	557.2	722.5	788.4
80°	150.4	295.3	523.7	690.0	753.1
82.5°	104.0	262.8	491.2	663.0	722.5
85°	61.3	230.3	461.5	627.7	683.5
87.5°	27.9	204.3	430.9	600.8	655.6
90°	6.5	182.9	408.6	568.3	631.5
92.5°	6.5	166.2	381.7	544.2	601.7
95°	8.4	151.4	361.2	519.1	580.4
97.5°	11.1	140.2	342.7	495.9	549.7
100°	15.8	132.8	322.2	469.0	521.9
102.5°	21.4	127.2	303.7	444.8	494.0
105°	27.9	122.6	288.8	424.4	479.2
107.5°	34.4	120.7	273.9	404.9	451.3
110°	40.9	119.8	262.8	384.5	436.5



TEST NUMBER: P893982

CATALOG NUMBER: 4MB-8HL-RNDU-UNV-L935

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	47.4	118.9	250.7	365.9	407.7
115°	53.9	119.8	239.6	346.4	391.0
117.5°	57.6	119.8	229.4	329.7	366.8
120°	63.1	120.7	221.9	312.0	351.0
122.5°	68.7	120.7	214.5	299.0	333.4
125°	75.2	121.6	206.2	284.2	314.8
127.5°	78.9	121.6	201.5	273.9	301.8
130°	82.6	120.7	195.0	260.9	289.7
132.5°	86.4	118.9	191.3	248.9	275.8
135°	88.2	117.9	184.8	240.5	259.1
137.5°	91.0	115.1	178.3	228.4	248.9
140°	93.8	114.2	169.0	219.2	236.8
142.5°	93.8	111.4	162.5	210.8	226.6
145°	95.6	108.6	152.3	201.5	213.6
147.5°	97.5	107.7	144.9	192.2	207.1
150°	97.5	106.8	138.4	182.0	195.9
152.5°	99.4	107.7	131.9	172.7	185.7
155°	105.9	111.4	125.4	157.9	176.4
157.5°	111.4	115.1	118.9	146.7	166.2
160°	116.1	117.9	113.3	135.6	161.6
162.5°	119.8	120.7	114.2	125.4	151.4
165°	125.4	122.6	117.9	115.1	143.0
167.5°	130.0	124.4	119.8	112.4	136.5
170°	133.7	128.2	117.9	105.9	133.7
172.5°	136.5	129.1	118.9	99.4	112.4
175°	137.4	132.8	117.9	96.6	61.3
177.5°	136.5	133.7	121.6	95.6	54.8
180°	112.4	112.4	112.4	112.4	112.4



TEST NUMBER: P893982
 CATALOG NUMBER: 4MB-8HL-RNDU-UNV-L935

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	15.62	16.94	16.26	17.60	18.37	19.03	20.35	19.67	21.01	21.77
	3H	17.07	18.27	17.73	18.95	19.75	21.87	23.07	22.52	23.74	24.54
	4H	17.55	18.69	18.22	19.37	20.18	23.32	24.46	23.99	25.14	25.95
	6H	17.82	18.89	18.51	19.58	20.41	24.88	25.94	25.56	26.63	27.46
	8H	17.88	18.90	18.58	19.62	20.45	25.69	26.71	26.39	27.43	28.26
	12H	17.90	18.88	18.60	19.59	20.45	26.57	27.55	27.28	28.26	29.12
4H	2H	16.76	17.90	17.43	18.58	19.40	19.37	20.51	20.04	21.20	22.01
	3H	18.46	19.44	19.15	20.16	20.99	22.44	23.42	23.13	24.14	24.97
	4H	19.06	19.96	19.76	20.69	21.55	24.07	24.98	24.78	25.70	26.56
	6H	19.47	20.27	20.19	21.02	21.88	25.83	26.63	26.55	27.38	28.25
	8H	19.58	20.34	20.31	21.08	21.96	26.77	27.52	27.49	28.26	29.14
	12H	19.64	20.33	20.39	21.10	21.98	27.78	28.46	28.52	29.23	30.12
8H	4H	20.09	20.84	20.82	21.59	22.47	24.26	25.01	24.98	25.75	26.63
	6H	20.74	21.38	21.49	22.17	23.05	26.20	26.84	26.95	27.62	28.50
	8H	20.97	21.55	21.73	22.33	23.23	27.28	27.86	28.04	28.64	29.54
	12H	21.11	21.63	21.88	22.41	23.36	28.48	29.00	29.25	29.78	30.73
12H	4H	20.42	21.11	21.17	21.88	22.76	24.25	24.94	25.00	25.71	26.59
	6H	21.23	21.81	21.99	22.59	23.49	26.23	26.81	26.99	27.60	28.49
	8H	21.58	22.10	22.34	22.87	23.83	27.37	27.89	28.14	28.67	29.62