

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: P893886

Luminaire Tested: 4MB-7HL-RNDU-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893886
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-7HL-RNDU-UNV-L935
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

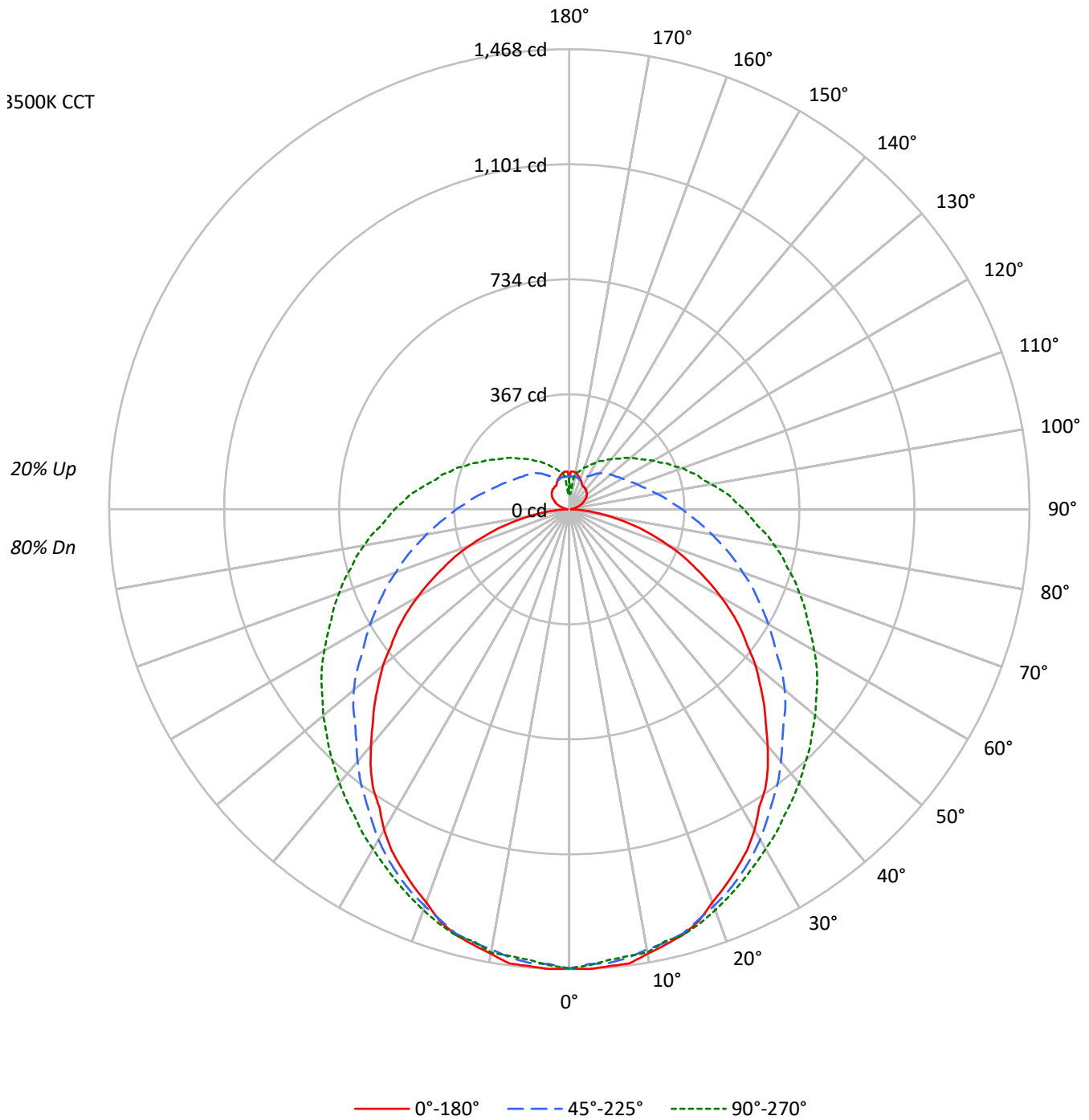
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6159.0 lumens
Efficiency: N/A
Efficacy: 118.9 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): 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				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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	83	83	83	80
1	102	96	91	86	97	92	87	83	84	80	77	76	73	71	69	67	65	65	65	65	61
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	53	53	53	49
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	44	44	44	41
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	37	37	37	34
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	32	32	32	29
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	28	28	28	26
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	25	25	25	23
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	22	22	22	20
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	20	20	20	18
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10424	10424	10424
5°	10404	10010	9840
10°	10312	9584	9458
15°	10208	9267	9031
20°	9918	8835	8592
25°	9689	8452	8178
30°	9423	8034	7814
35°	9131	7582	7500
40°	8756	7195	7257
45°	8399	6824	7041
50°	8085	6595	6858
55°	7717	6239	6718
60°	7280	6014	6587
65°	6734	5813	6488
70°	6125	5650	6484
75°	5333	5587	6503
80°	4192	5557	6629
85°	2763	5681	6779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8399 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.7	2.3
10°-20°	396.3	6.4
20°-30°	595.1	9.7
30°-40°	714.6	11.6
40°-50°	755.9	12.3
50°-60°	728.4	11.8
60°-70°	646.3	10.5
70°-80°	530.0	8.6
80°-90°	410.2	6.7
90°-100°	320.0	5.2
100°-110°	254.8	4.1
110°-120°	203.6	3.3
120°-130°	160.6	2.6
130°-140°	122.6	2.0
140°-150°	86.2	1.4
150°-160°	55.1	0.9
160°-170°	30.9	0.5
170°-180°	9.8	0.2
0°-30°	1130.1	18.3
0°-40°	1844.7	30.0
0°-60°	3329.1	54.1
0°-90°	4915.5	79.8
90°-120°	778.4	12.6
90°-150°	1147.7	18.6
90°-180°	1243.0	20.2
0°-180°	6159.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1465	1465	1465	1465	1465	
5°	1463	1468	1454	1464	1444	139
15°	1405	1406	1401	1410	1406	395
25°	1264	1285	1290	1312	1308	582
35°	1090	1106	1132	1179	1195	679
45°	878	905	966	1058	1083	678
55°	669	702	808	918	965	597
65°	445	506	660	796	838	442
75°	232	334	525	667	720	245
85°	54	203	407	554	603	61
90°	6	161	360	502	557	6
95°	7	134	319	458	512	7
105°	25	108	255	374	423	26
115°	48	106	211	306	345	46
125°	66	107	182	251	278	58
135°	78	104	163	212	229	60
145°	84	96	134	178	188	53
155°	93	98	111	139	156	43
165°	111	108	104	102	126	31
175°	121	117	104	85	54	11
180°	99	99	99	99	99	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1465.1	1465.1	1465.1	1465.1	1465.1
2.5°	1468.4	1473.3	1452.8	1465.1	1456.1
5°	1463.4	1467.5	1453.6	1464.3	1443.8
7.5°	1461.8	1460.2	1443.0	1456.9	1438.0
10°	1440.5	1446.2	1425.8	1444.6	1435.6
12.5°	1422.5	1433.9	1415.9	1430.7	1411.8
15°	1405.3	1406.1	1401.2	1410.2	1406.1
17.5°	1376.6	1384.0	1372.5	1393.0	1385.6
20°	1334.8	1357.7	1347.1	1365.9	1361.0
22.5°	1300.4	1311.9	1320.9	1342.2	1335.6
25°	1264.3	1284.8	1289.7	1311.9	1307.8
27.5°	1227.5	1236.5	1255.3	1279.1	1279.9
30°	1181.6	1191.4	1217.6	1244.7	1252.0
32.5°	1127.5	1158.6	1174.2	1215.2	1226.6
35°	1089.8	1106.2	1132.4	1179.1	1194.7
37.5°	1040.6	1059.5	1094.7	1149.6	1168.5
40°	984.1	1012.0	1050.5	1118.5	1140.6
42.5°	927.6	960.3	1005.4	1084.9	1110.3
45°	878.4	904.6	966.1	1057.8	1083.2
47.5°	825.1	857.1	934.9	1022.6	1051.3
50°	776.0	808.7	897.2	989.8	1024.2
52.5°	717.0	754.7	856.3	952.1	992.3
55°	668.6	702.2	807.9	917.7	965.3
57.5°	615.4	653.1	770.2	892.3	935.8
60°	558.0	605.5	733.4	860.4	902.2
62.5°	501.5	558.0	695.7	829.2	870.2
65°	444.9	506.4	659.6	796.5	838.2
67.5°	394.1	460.5	626.8	760.4	812.0
70°	336.8	416.3	588.3	726.8	780.9
72.5°	282.7	376.1	557.2	699.8	753.8
75°	231.9	333.5	525.2	667.0	720.3
77.5°	181.1	293.3	491.6	637.5	695.7
80°	132.7	260.6	462.1	608.8	664.5
82.5°	91.8	231.9	433.5	585.0	637.5
85°	54.1	203.2	407.2	553.9	603.1
87.5°	24.6	180.3	380.2	530.2	578.5
90°	5.7	161.4	360.5	501.5	557.2
92.5°	5.7	146.7	336.8	480.2	531.0
95°	7.4	133.6	318.7	458.0	512.1
97.5°	9.8	123.7	302.4	437.6	485.1
100°	13.9	117.2	284.3	413.8	460.5
102.5°	18.8	112.3	267.9	392.5	435.9
105°	24.6	108.2	254.8	374.5	422.8
107.5°	30.3	106.5	241.7	357.3	398.2
110°	36.1	105.7	231.9	339.2	385.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	41.8	104.9	221.2	322.8	359.7
115°	47.5	105.7	211.4	305.6	345.0
117.5°	50.8	105.7	202.4	290.9	323.7
120°	55.7	106.5	195.8	275.3	309.7
122.5°	60.6	106.5	189.3	263.8	294.2
125°	66.4	107.3	181.9	250.7	277.8
127.5°	69.6	107.3	177.8	241.7	266.3
130°	72.9	106.5	172.1	230.3	255.7
132.5°	76.2	104.9	168.8	219.6	243.4
135°	77.8	104.1	163.1	212.2	228.6
137.5°	80.3	101.6	157.3	201.6	219.6
140°	82.8	100.8	149.1	193.4	208.9
142.5°	82.8	98.3	143.4	186.0	199.9
145°	84.4	95.9	134.4	177.8	188.5
147.5°	86.0	95.1	127.8	169.6	182.7
150°	86.0	94.2	122.1	160.6	172.9
152.5°	87.7	95.1	116.4	152.4	163.9
155°	93.4	98.3	110.6	139.3	155.7
157.5°	98.3	101.6	104.9	129.5	146.7
160°	102.4	104.1	100.0	119.6	142.6
162.5°	105.7	106.5	100.8	110.6	133.6
165°	110.6	108.2	104.1	101.6	126.2
167.5°	114.7	109.8	105.7	99.1	120.5
170°	118.0	113.1	104.1	93.4	118.0
172.5°	120.5	113.9	104.9	87.7	99.1
175°	121.3	117.2	104.1	85.2	54.1
177.5°	120.5	118.0	107.3	84.4	48.3
180°	99.1	99.1	99.1	99.1	99.1



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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	15.19	16.50	15.83	17.17	17.93	18.60	19.91	19.24	20.57	21.34
	3H	16.64	17.84	17.29	18.51	19.31	21.43	22.63	22.08	23.30	24.10
	4H	17.11	18.25	17.78	18.94	19.75	22.88	24.02	23.55	24.71	25.52
	6H	17.39	18.45	18.07	19.15	19.97	24.44	25.51	25.13	26.20	27.03
	8H	17.45	18.47	18.14	19.18	20.01	25.26	26.28	25.95	27.00	27.82
	12H	17.47	18.45	18.17	19.16	20.02	26.14	27.12	26.84	27.83	28.69
4H	2H	16.32	17.47	17.00	18.15	18.96	18.94	20.08	19.61	20.76	21.57
	3H	18.03	19.01	18.71	19.73	20.56	22.00	22.98	22.69	23.70	24.53
	4H	18.63	19.53	19.33	20.25	21.11	23.64	24.54	24.34	25.27	26.12
	6H	19.04	19.84	19.76	20.58	21.45	25.40	26.20	26.12	26.95	27.81
	8H	19.15	19.90	19.87	20.65	21.53	26.33	27.08	27.05	27.83	28.71
	12H	19.21	19.89	19.95	20.66	21.55	27.34	28.03	28.09	28.80	29.68
8H	4H	19.66	20.41	20.38	21.16	22.04	23.82	24.57	24.55	25.32	26.20
	6H	20.30	20.95	21.06	21.73	22.61	25.76	26.40	26.51	27.19	28.07
	8H	20.53	21.11	21.29	21.90	22.79	26.84	27.42	27.61	28.21	29.10
	12H	20.68	21.20	21.45	21.98	22.93	28.05	28.56	28.81	29.34	30.29
12H	4H	19.99	20.67	20.73	21.44	22.33	23.82	24.50	24.56	25.27	26.16
	6H	20.79	21.37	21.56	22.16	23.06	25.79	26.38	26.56	27.16	28.06
	8H	21.14	21.66	21.91	22.44	23.39	26.94	27.46	27.71	28.24	29.19