

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: P893984

Luminaire Tested: 4MB-8HL-RNDU-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893984
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-L950
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

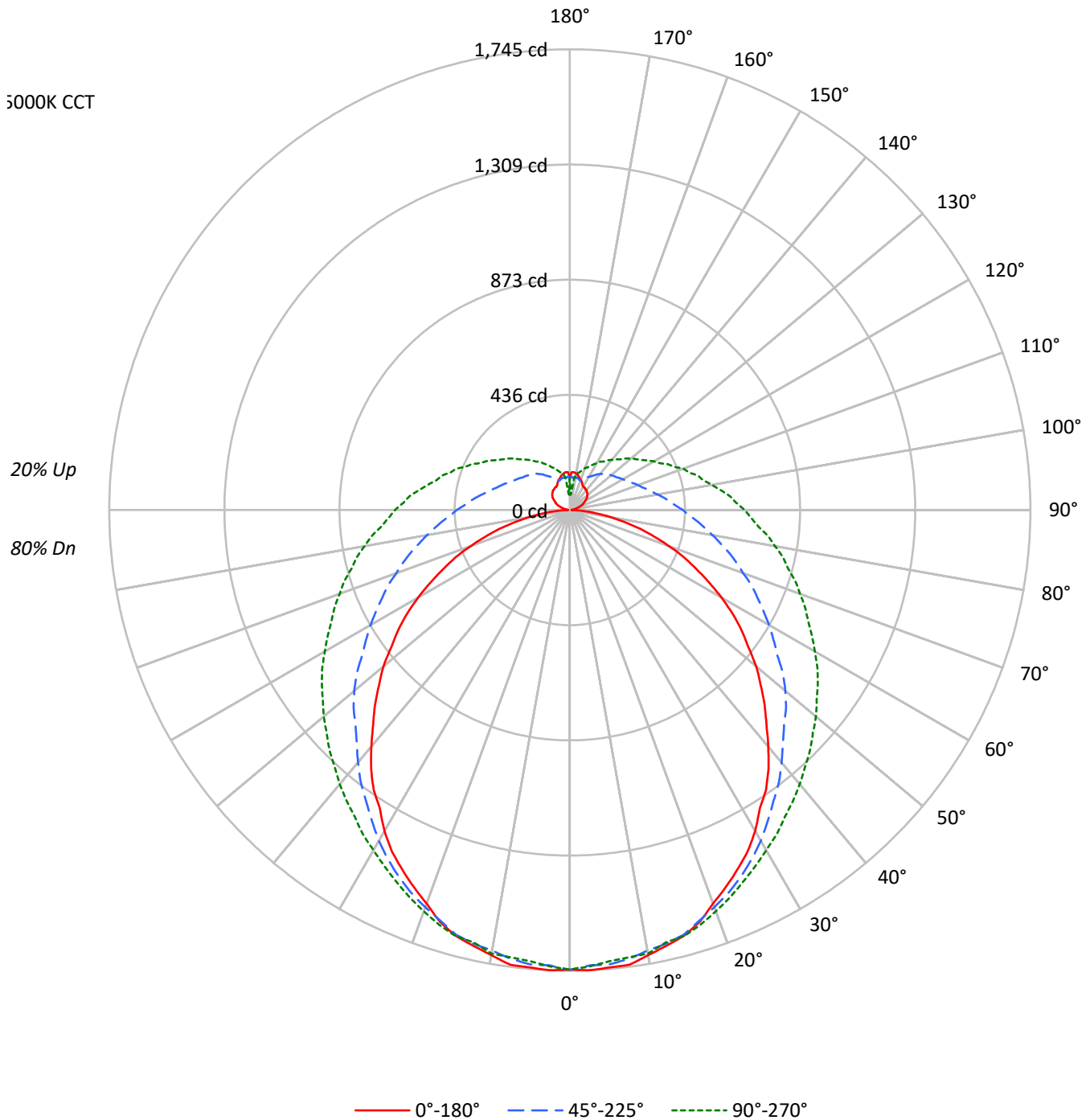
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7319.0 lumens
Efficiency: N/A
Efficacy: 126.4 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

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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	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°	12387	12387	12387
5°	12364	11896	11693
10°	12254	11389	11240
15°	12130	11013	10732
20°	11786	10499	10210
25°	11514	10044	9718
30°	11197	9548	9286
35°	10851	9010	8912
40°	10404	8549	8624
45°	9980	8109	8368
50°	9607	7837	8151
55°	9171	7415	7982
60°	8651	7147	7827
65°	8002	6908	7710
70°	7278	6714	7705
75°	6338	6640	7727
80°	4982	6604	7878
85°	3284	6751	8056

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9980 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.8	2.3
10°-20°	471.0	6.4
20°-30°	707.2	9.7
30°-40°	849.2	11.6
40°-50°	898.2	12.3
50°-60°	865.6	11.8
60°-70°	768.0	10.5
70°-80°	629.8	8.6
80°-90°	487.5	6.7
90°-100°	380.3	5.2
100°-110°	302.8	4.1
110°-120°	242.0	3.3
120°-130°	190.8	2.6
130°-140°	145.6	2.0
140°-150°	102.4	1.4
150°-160°	65.5	0.9
160°-170°	36.7	0.5
170°-180°	11.6	0.2
0°-30°	1343.0	18.3
0°-40°	2192.2	30.0
0°-60°	3956.1	54.1
0°-90°	5841.3	79.8
90°-120°	925.0	12.6
90°-150°	1363.9	18.6
90°-180°	1478.0	20.2
0°-180°	7319.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1741	1741	1741	1741	1741	
5°	1739	1744	1727	1740	1716	165
15°	1670	1671	1665	1676	1671	469
25°	1502	1527	1533	1559	1554	692
35°	1295	1314	1346	1401	1420	807
45°	1044	1075	1148	1257	1287	805
55°	795	834	960	1091	1147	709
65°	529	602	784	946	996	526
75°	276	396	624	793	856	291
85°	64	242	484	658	717	73
90°	7	192	428	596	662	7
95°	9	159	379	544	609	9
105°	29	128	303	445	502	31
115°	56	126	251	363	410	55
125°	79	128	216	298	330	69
135°	92	124	194	252	272	72
145°	100	114	160	211	224	63
155°	111	117	132	166	185	51
165°	132	128	124	121	150	37
175°	144	139	124	101	64	14
180°	118	118	118	118	118	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1741.0	1741.0	1741.0	1741.0	1741.0
2.5°	1744.9	1750.8	1726.4	1741.0	1730.3
5°	1739.1	1743.9	1727.4	1740.0	1715.7
7.5°	1737.1	1735.2	1714.7	1731.3	1708.9
10°	1711.8	1718.6	1694.3	1716.7	1706.0
12.5°	1690.4	1704.0	1682.6	1700.1	1677.7
15°	1669.9	1670.9	1665.1	1675.8	1670.9
17.5°	1635.9	1644.6	1631.0	1655.3	1646.6
20°	1586.2	1613.5	1600.8	1623.2	1617.4
22.5°	1545.3	1558.9	1569.6	1595.0	1587.2
25°	1502.5	1526.8	1532.6	1558.9	1554.1
27.5°	1458.6	1469.4	1491.7	1520.0	1521.0
30°	1404.1	1415.8	1447.0	1479.1	1487.9
32.5°	1339.8	1376.8	1395.3	1444.0	1457.7
35°	1295.1	1314.5	1345.7	1401.2	1419.7
37.5°	1236.6	1259.0	1300.9	1366.1	1388.5
40°	1169.4	1202.5	1248.3	1329.1	1355.4
42.5°	1102.3	1141.2	1194.8	1289.2	1319.4
45°	1043.8	1075.0	1148.0	1257.1	1287.3
47.5°	980.5	1018.5	1111.0	1215.2	1249.3
50°	922.1	961.1	1066.2	1176.3	1217.2
52.5°	852.0	896.8	1017.5	1131.5	1179.2
55°	794.6	834.5	960.1	1090.6	1147.0
57.5°	731.3	776.1	915.3	1060.4	1112.0
60°	663.1	719.6	871.5	1022.4	1072.1
62.5°	595.9	663.1	826.7	985.4	1034.1
65°	528.7	601.8	783.8	946.5	996.1
67.5°	468.4	547.2	744.9	903.6	965.0
70°	400.2	494.7	699.1	863.7	928.0
72.5°	335.9	446.9	662.1	831.6	895.8
75°	275.6	396.3	624.2	792.6	855.9
77.5°	215.2	348.6	584.2	757.6	826.7
80°	157.7	309.6	549.2	723.5	789.7
82.5°	109.1	275.6	515.1	695.2	757.6
85°	64.3	241.5	483.9	658.2	716.7
87.5°	29.2	214.2	451.8	630.0	687.4
90°	6.8	191.8	428.4	595.9	662.1
92.5°	6.8	174.3	400.2	570.6	631.0
95°	8.8	158.7	378.8	544.3	608.6
97.5°	11.7	147.0	359.3	520.0	576.4
100°	16.6	139.2	337.9	491.7	547.2
102.5°	22.4	133.4	318.4	466.4	518.0
105°	29.2	128.5	302.8	445.0	502.4
107.5°	36.0	126.6	287.2	424.5	473.2
110°	42.8	125.6	275.6	403.1	457.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	49.7	124.6	262.9	383.6	427.5
115°	56.5	125.6	251.2	363.2	409.9
117.5°	60.4	125.6	240.5	345.7	384.6
120°	66.2	126.6	232.7	327.2	368.1
122.5°	72.1	126.6	224.9	313.5	349.6
125°	78.9	127.6	216.2	298.0	330.1
127.5°	82.8	127.6	211.3	287.2	316.5
130°	86.7	126.6	204.5	273.6	303.8
132.5°	90.6	124.6	200.6	261.0	289.2
135°	92.5	123.7	193.8	252.2	271.7
137.5°	95.4	120.7	187.0	239.5	261.0
140°	98.3	119.8	177.2	229.8	248.3
142.5°	98.3	116.8	170.4	221.0	237.6
145°	100.3	113.9	159.7	211.3	224.0
147.5°	102.2	113.0	151.9	201.6	217.1
150°	102.2	112.0	145.1	190.9	205.5
152.5°	104.2	113.0	138.3	181.1	194.7
155°	111.0	116.8	131.5	165.5	185.0
157.5°	116.8	120.7	124.6	153.8	174.3
160°	121.7	123.7	118.8	142.2	169.4
162.5°	125.6	126.6	119.8	131.5	158.7
165°	131.5	128.5	123.7	120.7	150.0
167.5°	136.3	130.5	125.6	117.8	143.1
170°	140.2	134.4	123.7	111.0	140.2
172.5°	143.1	135.3	124.6	104.2	117.8
175°	144.1	139.2	123.7	101.3	64.3
177.5°	143.1	140.2	127.6	100.3	57.4
180°	117.8	117.8	117.8	117.8	117.8



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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	15.79	17.10	16.43	17.76	18.53	19.20	20.51	19.84	21.17	21.94
	3H	17.24	18.44	17.89	19.11	19.91	22.03	23.23	22.68	23.90	24.70
	4H	17.71	18.85	18.38	19.54	20.35	23.48	24.62	24.15	25.31	26.12
	6H	17.99	19.05	18.67	19.75	20.57	25.04	26.11	25.73	26.80	27.63
	8H	18.05	19.07	18.74	19.78	20.61	25.86	26.88	26.55	27.59	28.42
	12H	18.07	19.05	18.77	19.76	20.61	26.74	27.72	27.44	28.43	29.29
4H	2H	16.92	18.07	17.60	18.75	19.56	19.53	20.68	20.21	21.36	22.17
	3H	18.63	19.61	19.31	20.33	21.16	22.60	23.58	23.29	24.30	25.13
	4H	19.23	20.13	19.93	20.85	21.71	24.24	25.14	24.94	25.87	26.72
	6H	19.64	20.44	20.36	21.18	22.05	26.00	26.80	26.72	27.55	28.41
	8H	19.75	20.50	20.47	21.25	22.13	26.93	27.68	27.65	28.43	29.31
	12H	19.81	20.49	20.55	21.26	22.15	27.94	28.63	28.69	29.40	30.28
8H	4H	20.26	21.01	20.98	21.76	22.64	24.42	25.17	25.14	25.92	26.80
	6H	20.90	21.55	21.66	22.33	23.21	26.36	27.00	27.11	27.79	28.67
	8H	21.13	21.71	21.89	22.50	23.39	27.44	28.02	28.21	28.81	29.70
	12H	21.28	21.80	22.05	22.58	23.53	28.64	29.16	29.41	29.94	30.89
12H	4H	20.59	21.27	21.33	22.04	22.93	24.42	25.10	25.16	25.87	26.76
	6H	21.39	21.97	22.16	22.76	23.65	26.39	26.97	27.16	27.76	28.66
	8H	21.74	22.26	22.51	23.04	23.99	27.54	28.06	28.31	28.84	29.79