

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: P892869

Luminaire Tested: 2MB-5HL-RND-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-RND-UNV-L830
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

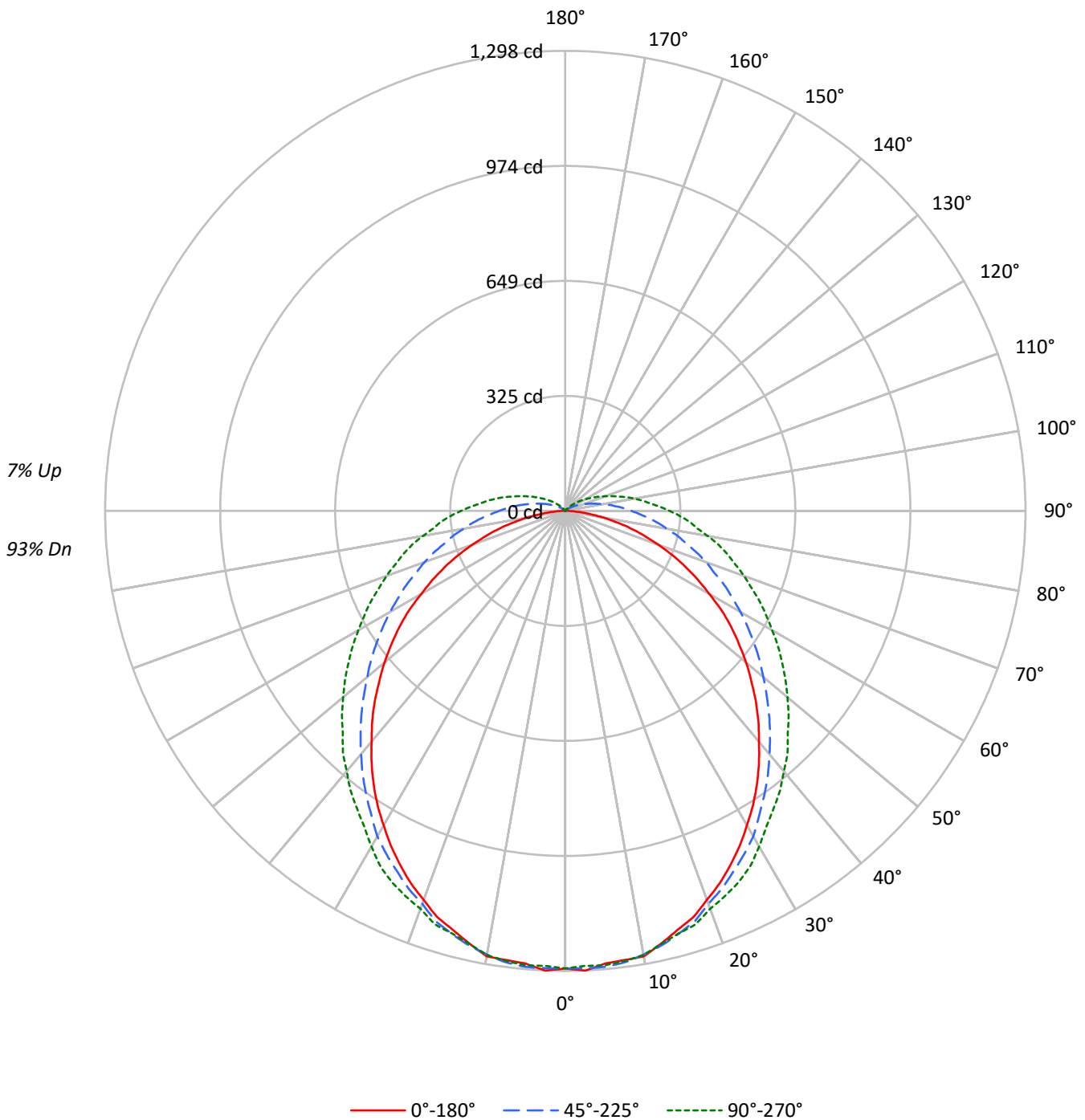
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4207.0 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 33.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	66	63	63	63	63	60
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	43	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	38	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	31	31	31	28
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	40	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18464	18464	18464
5°	18410	18548	18479
10°	18538	18467	18482
15°	18126	18298	18285
20°	17780	17956	18191
25°	17396	17716	18251
30°	16928	17520	18061
35°	16461	17087	17897
40°	15870	16736	17909
45°	15374	16450	17955
50°	14824	16224	18203
55°	14251	16204	18616
60°	13416	16320	19278
65°	12697	16756	20486
70°	11686	17672	22444
75°	10579	19450	26182
80°	8922	23973	33612
85°	7140	38884	57760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 105899 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.3	2.9
10°-20°	347.8	8.3
20°-30°	518.7	12.3
30°-40°	614.1	14.6
40°-50°	632.6	15.0
50°-60°	584.9	13.9
60°-70°	486.2	11.6
70°-80°	363.7	8.6
80°-90°	241.1	5.7
90°-100°	147.5	3.5
100°-110°	83.4	2.0
110°-120°	41.5	1.0
120°-130°	17.1	0.4
130°-140°	5.1	0.1
140°-150°	0.8	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	988.7	23.5
0°-40°	1602.8	38.1
0°-60°	2820.4	67.0
0°-90°	3911.4	93.0
90°-120°	272.4	6.5
90°-150°	295.4	7.0
90°-180°	296.0	7.0
0°-180°	4207.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1282	1275	1292	1288	1287	122
15°	1224	1224	1236	1247	1235	346
25°	1102	1106	1122	1144	1156	507
35°	943	952	978	1019	1025	589
45°	760	768	813	870	888	586
55°	571	585	650	720	746	510
65°	375	404	495	572	605	371
75°	191	246	352	438	474	202
85°	44	127	237	318	352	50
90°	4	82	187	263	294	4
95°	1	51	145	218	241	1
105°	1	17	79	134	155	1
115°	1	5	38	75	91	1
125°	1	1	14	36	45	1
135°	1	1	4	12	16	1
145°	1	1	0	1	2	1
155°	1	1	0	0	0	0
165°	1	1	0	0	0	0
175°	2	1	0	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1290.7	1290.7	1290.7	1290.7	1290.7
2.5°	1298.4	1282.9	1291.6	1289.7	1284.9
5°	1282.0	1275.2	1291.6	1287.8	1286.8
7.5°	1278.1	1275.2	1284.9	1281.0	1281.0
10°	1276.2	1256.8	1271.3	1281.0	1272.3
12.5°	1250.0	1245.2	1255.8	1256.8	1251.0
15°	1223.9	1223.9	1235.5	1247.1	1234.6
17.5°	1201.7	1199.8	1214.3	1223.0	1223.0
20°	1167.9	1170.8	1179.5	1195.9	1194.9
22.5°	1137.9	1145.6	1154.3	1173.7	1176.6
25°	1102.1	1106.0	1122.4	1143.7	1156.3
27.5°	1065.4	1071.2	1092.5	1115.7	1130.2
30°	1024.8	1024.8	1060.6	1087.6	1093.4
32.5°	985.1	986.1	1018.0	1048.0	1055.7
35°	942.6	952.3	978.4	1019.0	1024.8
37.5°	897.2	903.0	938.7	975.5	994.8
40°	849.8	859.5	896.2	947.4	959.0
42.5°	806.3	814.0	854.6	907.8	928.1
45°	759.9	767.6	813.1	870.1	887.5
47.5°	711.6	721.2	770.5	838.2	854.6
50°	666.1	673.8	729.0	797.6	817.9
52.5°	617.8	630.3	690.3	757.0	783.1
55°	571.4	584.9	649.7	720.3	746.4
57.5°	523.0	541.4	610.0	683.5	711.6
60°	468.9	493.1	570.4	648.7	673.8
62.5°	422.5	448.6	530.8	608.1	639.0
65°	375.1	404.1	495.0	572.3	605.2
67.5°	327.7	362.5	454.4	536.6	568.5
70°	279.4	323.9	422.5	504.7	536.6
72.5°	234.0	284.2	387.7	473.7	502.7
75°	191.4	246.5	351.9	438.0	473.7
77.5°	148.9	212.7	323.9	410.9	442.8
80°	108.3	179.8	291.0	378.0	408.0
82.5°	74.4	151.8	264.9	349.0	374.1
85°	43.5	126.6	236.9	318.1	351.9
87.5°	20.3	102.5	209.8	290.0	322.9
90°	3.9	82.2	186.6	263.0	293.9
92.5°	1.0	65.7	166.3	241.7	266.8
95°	1.0	51.2	145.0	217.5	240.7
97.5°	1.0	39.6	126.6	195.3	220.4
100°	1.0	30.0	109.2	175.0	198.2
102.5°	1.0	23.2	92.8	153.7	177.9
105°	1.0	17.4	79.3	134.4	154.7
107.5°	1.0	12.6	66.7	118.9	138.2
110°	1.0	9.7	56.1	104.4	120.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	6.8	45.4	88.9	105.4
115°	1.0	4.8	37.7	75.4	90.9
117.5°	1.0	2.9	30.0	63.8	77.3
120°	1.0	1.9	24.2	53.2	65.7
122.5°	1.0	1.9	18.4	43.5	55.1
125°	1.0	1.0	14.5	35.8	45.4
127.5°	1.0	1.0	10.6	28.0	35.8
130°	1.0	1.0	7.7	21.3	28.0
132.5°	1.0	1.0	4.8	16.4	21.3
135°	1.0	1.0	3.9	11.6	16.4
137.5°	1.0	1.0	1.9	7.7	10.6
140°	1.0	1.0	1.0	4.8	6.8
142.5°	1.0	1.0	1.0	2.9	3.9
145°	1.0	1.0	0.0	1.0	1.9
147.5°	1.0	1.0	0.0	1.0	1.0
150°	1.0	1.0	0.0	0.0	0.0
152.5°	1.0	1.0	0.0	0.0	0.0
155°	1.0	1.0	0.0	0.0	0.0
157.5°	1.0	1.0	0.0	0.0	0.0
160°	1.0	1.0	0.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0
165°	1.0	1.0	0.0	0.0	0.0
167.5°	1.0	1.0	0.0	0.0	0.0
170°	1.0	1.0	0.0	0.0	0.0
172.5°	1.9	1.0	0.0	0.0	0.0
175°	1.9	1.0	0.0	0.0	0.0
177.5°	1.9	1.0	0.0	0.0	0.0
180°	1.0	1.0	1.0	1.0	1.0



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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	20.22	21.75	20.69	22.21	22.69	21.95	23.48	22.42	23.94	24.43
	3H	21.95	23.35	22.43	23.81	24.34	24.52	25.92	25.00	26.39	26.91
	4H	22.60	23.92	23.10	24.41	24.95	25.82	27.15	26.33	27.63	28.17
	6H	23.07	24.30	23.58	24.80	25.36	27.22	28.46	27.74	28.95	29.51
	8H	23.21	24.40	23.74	24.92	25.48	27.95	29.13	28.48	29.66	30.22
	12H	23.31	24.45	23.84	24.96	25.55	28.79	29.93	29.33	30.45	31.04
4H	2H	21.19	22.52	21.69	23.00	23.54	22.50	23.83	23.01	24.31	24.85
	3H	23.20	24.33	23.72	24.86	25.42	25.37	26.50	25.88	27.03	27.59
	4H	24.00	25.03	24.53	25.57	26.17	26.88	27.92	27.42	28.46	29.05
	6H	24.64	25.55	25.19	26.12	26.73	28.52	29.43	29.07	30.00	30.61
	8H	24.86	25.72	25.42	26.29	26.91	29.37	30.24	29.94	30.80	31.42
	12H	25.03	25.81	25.61	26.40	27.03	30.37	31.15	30.95	31.75	32.37
8H	4H	24.87	25.74	25.43	26.30	26.92	27.24	28.10	27.80	28.67	29.29
	6H	25.79	26.52	26.38	27.13	27.75	29.13	29.87	29.73	30.47	31.10
	8H	26.17	26.83	26.77	27.45	28.09	30.20	30.86	30.80	31.48	32.12
	12H	26.49	27.08	27.09	27.68	28.39	31.45	32.04	32.06	32.65	33.35
12H	4H	25.15	25.93	25.73	26.52	27.15	27.28	28.07	27.86	28.66	29.28
	6H	26.23	26.89	26.83	27.51	28.15	29.24	29.90	29.85	30.52	31.16
	8H	26.77	27.36	27.37	27.96	28.67	30.42	31.01	31.03	31.62	32.32