

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: P892877

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892877
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-9)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-RNDU-UNV-L830
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, 5
Light Source: -
Ballast/Driver: -

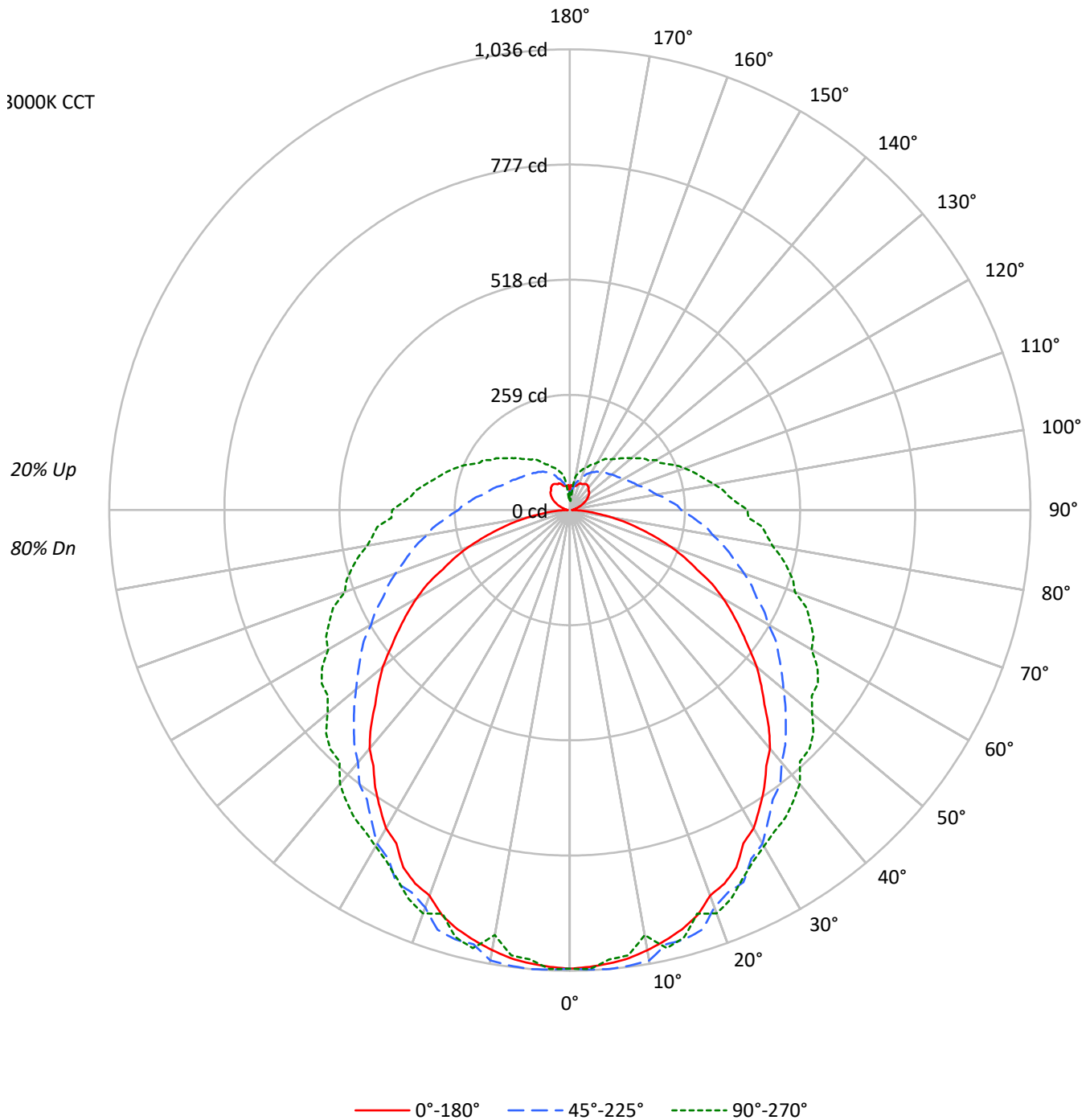
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4346.0 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 1.98' x H: 0.21')
CIE Type: Semi-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	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	76	76	73	70	69	67	65	65	65	65	61
2	92	82	75	68	87	79	72	66	72	66	61	65	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	37	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°	14753	14753	14753
5°	14563	14302	13906
10°	14334	13814	12852
15°	14058	13170	12842
20°	13527	12391	12252
25°	13341	11995	11526
30°	12872	11299	10958
35°	12404	10497	10665
40°	12020	9975	10289
45°	11330	9506	9954
50°	10858	9010	9574
55°	10182	8630	9530
60°	9648	8203	9214
65°	8707	7870	9286
70°	7838	7691	8988
75°	6468	7541	9210
80°	4854	7443	9282
85°	3032	7557	9822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	2.3
10°-20°	279.8	6.4
20°-30°	419.2	9.6
30°-40°	503.1	11.6
40°-50°	530.6	12.2
50°-60°	511.9	11.8
60°-70°	453.9	10.4
70°-80°	374.0	8.6
80°-90°	290.7	6.7
90°-100°	226.6	5.2
100°-110°	180.8	4.2
110°-120°	144.8	3.3
120°-130°	115.0	2.6
130°-140°	88.3	2.0
140°-150°	64.2	1.5
150°-160°	40.6	0.9
160°-170°	19.8	0.5
170°-180°	4.7	0.1
0°-30°	797.0	18.3
0°-40°	1300.1	29.9
0°-60°	2342.7	53.9
0°-90°	3461.3	79.6
90°-120°	552.2	12.7
90°-150°	819.6	18.9
90°-180°	885.0	20.4
0°-180°	4346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	1024	1038	1036	1027	1015	97
15°	976	989	999	1004	994	274
25°	887	900	924	923	917	405
35°	763	775	796	837	845	477
45°	619	634	687	734	762	481
55°	470	498	574	647	681	421
65°	315	353	463	547	597	316
75°	163	236	372	472	507	175
85°	41	144	289	393	435	44
90°	6	114	250	362	400	5
95°	7	94	225	322	358	7
105°	16	78	181	268	301	17
115°	32	75	150	220	244	32
125°	50	75	130	180	203	44
135°	60	76	117	149	165	47
145°	69	74	106	127	141	43
155°	64	68	89	104	112	30
165°	56	58	66	77	89	16
175°	55	51	43	39	20	5
180°	40	40	40	40	40	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1031.3	1031.3	1031.3	1031.3	1031.3
2.5°	1028.4	1035.2	1034.2	1046.8	1033.2
5°	1023.5	1038.1	1036.2	1027.4	1014.8
7.5°	1016.7	1037.1	1033.2	1031.3	1010.0
10°	1005.1	1021.6	1028.4	1030.3	970.2
12.5°	991.5	1007.0	1000.3	1009.0	1009.0
15°	976.0	988.6	999.3	1004.1	994.4
17.5°	955.6	976.0	989.6	986.7	951.7
20°	922.6	950.8	950.8	968.2	965.3
22.5°	909.1	932.3	930.4	942.0	946.9
25°	886.7	900.3	923.6	922.6	916.8
27.5°	845.0	881.9	883.8	890.6	891.6
30°	826.6	850.8	866.4	877.0	873.2
32.5°	794.6	807.2	829.5	851.8	856.7
35°	762.6	775.2	795.5	837.3	845.0
37.5°	725.7	752.9	777.1	803.3	825.6
40°	700.5	710.2	741.2	780.0	804.3
42.5°	662.6	679.1	717.0	749.9	766.4
45°	619.0	633.5	686.9	733.5	761.6
47.5°	584.0	606.4	657.8	712.1	743.2
50°	549.1	567.6	627.7	678.2	711.1
52.5°	506.4	531.7	600.5	676.2	685.9
55°	469.6	497.7	574.3	647.1	681.1
57.5°	433.7	458.9	550.1	615.1	660.7
60°	398.7	425.9	516.1	593.7	627.7
62.5°	360.9	387.1	492.9	575.3	618.0
65°	315.3	353.1	462.8	547.2	596.7
67.5°	279.4	326.0	442.4	540.4	576.3
70°	241.6	290.1	417.2	506.4	538.4
72.5°	201.8	261.9	392.0	496.7	526.8
75°	163.0	235.8	371.6	472.5	507.4
77.5°	130.0	209.6	350.2	453.1	487.0
80°	94.1	184.3	327.0	428.8	462.8
82.5°	64.0	162.0	311.4	415.2	447.3
85°	40.7	143.6	289.1	392.9	434.6
87.5°	19.4	127.1	269.7	376.4	401.7
90°	5.8	113.5	250.3	361.9	399.7
92.5°	4.9	102.8	241.6	340.5	376.4
95°	6.8	94.1	225.1	322.1	358.0
97.5°	9.7	87.3	214.4	306.6	347.3
100°	10.7	81.5	198.9	294.0	329.9
102.5°	12.6	78.6	189.2	281.4	314.3
105°	15.5	77.6	181.4	267.8	300.8
107.5°	19.4	73.7	172.7	249.3	288.1
110°	23.3	74.7	162.0	241.6	274.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	28.1	73.7	157.2	227.0	261.0
115°	32.0	74.7	150.4	220.2	244.5
117.5°	36.9	73.7	145.5	205.7	229.0
120°	41.7	74.7	138.7	200.8	225.1
122.5°	45.6	75.7	134.9	189.2	208.6
125°	49.5	74.7	130.0	179.5	202.8
127.5°	53.4	75.7	127.1	170.8	191.1
130°	56.3	74.7	124.2	164.0	181.4
132.5°	59.2	74.7	119.3	156.2	172.7
135°	60.2	75.7	117.4	149.4	164.9
137.5°	62.1	76.6	113.5	142.6	155.2
140°	66.0	76.6	111.6	138.7	149.4
142.5°	66.9	74.7	107.7	131.0	142.6
145°	68.9	73.7	105.7	127.1	140.7
147.5°	68.9	73.7	100.9	119.3	131.9
150°	67.9	70.8	98.0	114.5	123.2
152.5°	66.0	70.8	93.1	109.6	115.5
155°	64.0	67.9	89.3	103.8	112.5
157.5°	65.0	66.9	82.5	100.9	104.8
160°	63.1	64.0	74.7	95.1	100.9
162.5°	60.2	61.1	72.8	87.3	96.0
165°	56.3	58.2	66.0	76.6	89.3
167.5°	55.3	54.3	62.1	68.9	84.4
170°	55.3	53.4	55.3	58.2	77.6
172.5°	54.3	51.4	49.5	46.6	57.2
175°	55.3	51.4	42.7	38.8	20.4
177.5°	56.3	52.4	41.7	29.1	21.3
180°	39.8	39.8	39.8	39.8	39.8



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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	16.33	17.64	16.97	18.30	19.07	19.48	20.79	20.12	21.45	22.22
	3H	17.80	18.99	18.45	19.67	20.47	22.31	23.51	22.96	24.18	24.98
	4H	18.27	19.41	18.94	20.10	20.91	23.72	24.86	24.40	25.55	26.36
	6H	18.56	19.62	19.25	20.32	21.15	25.20	26.26	25.89	26.96	27.79
	8H	18.62	19.64	19.31	20.35	21.19	25.96	26.97	26.65	27.69	28.52
	12H	18.64	19.62	19.34	20.33	21.19	26.77	27.75	27.47	28.46	29.32
4H	2H	17.43	18.57	18.10	19.25	20.07	19.84	20.98	20.52	21.67	22.48
	3H	19.14	20.12	19.83	20.84	21.68	22.90	23.88	23.59	24.60	25.44
	4H	19.75	20.65	20.45	21.38	22.24	24.51	25.41	25.22	26.14	27.00
	6H	20.17	20.97	20.89	21.72	22.59	26.19	26.99	26.91	27.74	28.61
	8H	20.29	21.04	21.01	21.78	22.67	27.06	27.82	27.79	28.56	29.45
	12H	20.34	21.03	21.09	21.80	22.69	28.01	28.69	28.76	29.46	30.35
8H	4H	20.75	21.51	21.48	22.25	23.14	24.71	25.46	25.43	26.21	27.09
	6H	21.41	22.05	22.17	22.84	23.72	26.58	27.22	27.33	28.00	28.89
	8H	21.64	22.22	22.40	23.00	23.90	27.60	28.18	28.37	28.97	29.87
	12H	21.79	22.31	22.56	23.09	24.04	28.75	29.26	29.52	30.04	31.00
12H	4H	21.07	21.75	21.81	22.52	23.41	24.71	25.39	25.45	26.16	27.05
	6H	21.88	22.46	22.65	23.25	24.15	26.61	27.19	27.38	27.98	28.88
	8H	22.23	22.75	23.00	23.53	24.49	27.71	28.23	28.48	29.01	29.96