

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: P892881

Luminaire Tested: 2MB-5HL-RNDU-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892881
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-L930
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

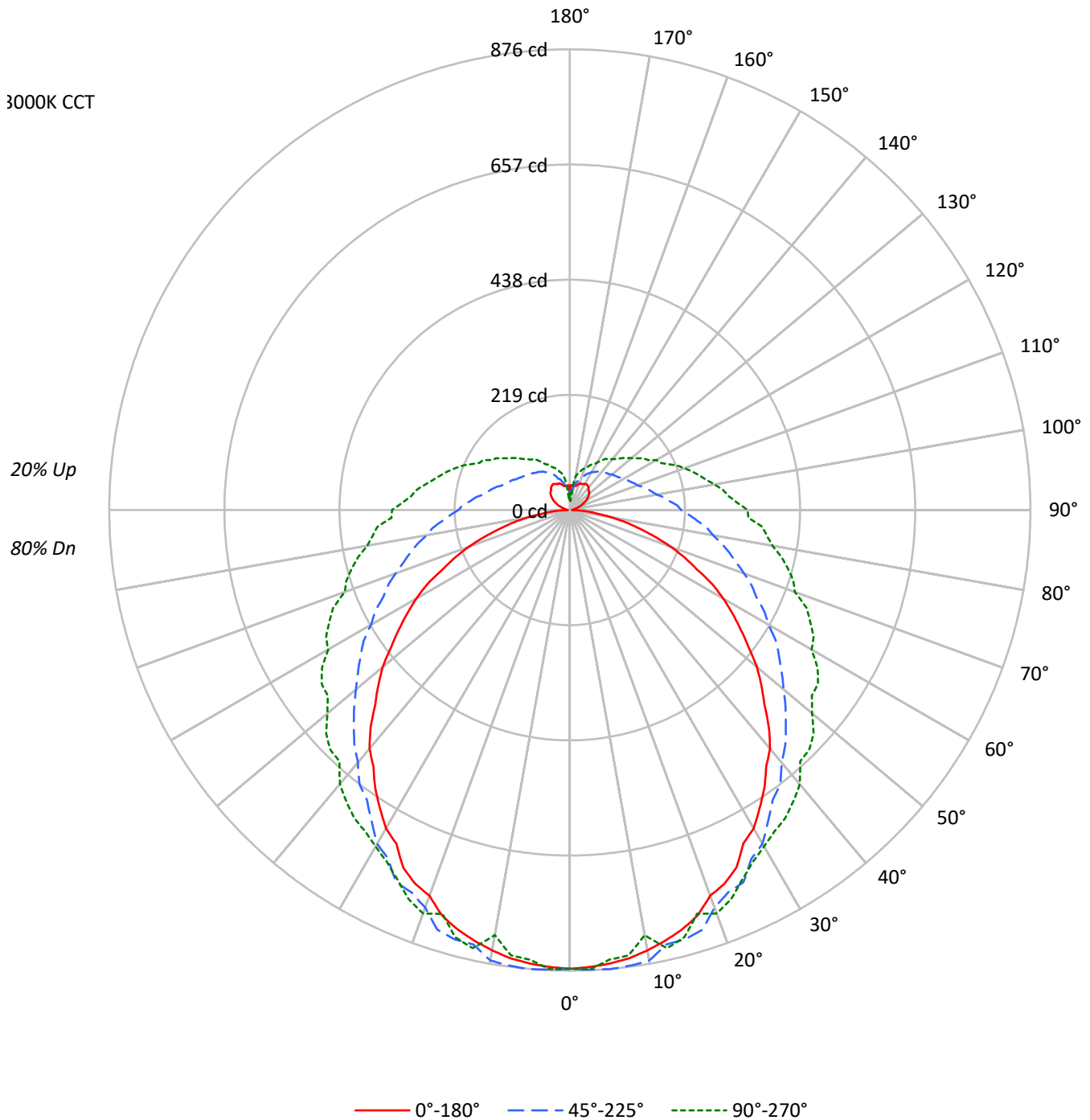
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3676.0 lumens
Efficiency: N/A
Efficacy: 109.1 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°	12479	12479	12479
5°	12318	12096	11763
10°	12125	11683	10870
15°	11890	11139	10862
20°	11442	10481	10363
25°	11284	10146	9750
30°	10888	9556	9269
35°	10491	8880	9022
40°	10167	8437	8703
45°	9584	8040	8419
50°	9185	7621	8098
55°	8612	7301	8061
60°	8162	6940	7793
65°	7365	6656	7854
70°	6628	6505	7603
75°	5472	6378	7791
80°	4106	6293	7850
85°	2570	6391	8307

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9584 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	2.3
10°-20°	236.6	6.4
20°-30°	354.5	9.6
30°-40°	425.6	11.6
40°-50°	448.8	12.2
50°-60°	433.0	11.8
60°-70°	383.9	10.4
70°-80°	316.4	8.6
80°-90°	245.9	6.7
90°-100°	191.7	5.2
100°-110°	152.9	4.2
110°-120°	122.5	3.3
120°-130°	97.2	2.6
130°-140°	74.6	2.0
140°-150°	54.3	1.5
150°-160°	34.3	0.9
160°-170°	16.8	0.5
170°-180°	3.9	0.1
0°-30°	674.2	18.3
0°-40°	1099.7	29.9
0°-60°	1981.5	53.9
0°-90°	2927.7	79.6
90°-120°	467.1	12.7
90°-150°	693.3	18.9
90°-180°	748.0	20.3
0°-180°	3676.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	866	878	876	869	858	82
15°	826	836	845	849	841	232
25°	750	762	781	780	776	343
35°	645	656	673	708	715	403
45°	524	536	581	620	644	406
55°	397	421	486	547	576	356
65°	267	299	391	463	505	267
75°	138	199	314	400	429	148
85°	34	122	244	332	368	37
90°	5	96	212	306	338	4
95°	6	80	190	272	303	6
105°	13	66	154	226	254	14
115°	27	63	127	186	207	27
125°	42	63	110	152	172	37
135°	51	64	99	126	140	40
145°	58	62	89	108	119	36
155°	54	57	76	88	95	26
165°	48	49	56	65	76	14
175°	47	44	36	33	17	4
180°	34	34	34	34	34	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	872.3	872.3	872.3	872.3	872.3
2.5°	869.8	875.6	874.8	885.4	874.0
5°	865.7	878.1	876.4	869.0	858.4
7.5°	860.0	877.2	874.0	872.3	854.3
10°	850.2	864.1	869.8	871.5	820.6
12.5°	838.7	851.8	846.1	853.4	853.4
15°	825.5	836.2	845.2	849.3	841.1
17.5°	808.3	825.5	837.0	834.6	805.0
20°	780.4	804.2	804.2	819.0	816.5
22.5°	768.9	788.6	787.0	796.8	800.9
25°	750.0	761.5	781.2	780.4	775.5
27.5°	714.8	745.9	747.6	753.3	754.1
30°	699.2	719.7	732.8	741.8	738.6
32.5°	672.1	682.7	701.6	720.5	724.6
35°	645.0	655.7	672.9	708.2	714.8
37.5°	613.8	636.8	657.3	679.5	698.3
40°	592.5	600.7	626.9	659.8	680.3
42.5°	560.5	574.4	606.4	634.3	648.3
45°	523.6	535.9	581.0	620.4	644.2
47.5°	494.0	512.9	556.4	602.3	628.6
50°	464.5	480.1	530.9	573.6	601.5
52.5°	428.4	449.7	508.0	572.0	580.2
55°	397.2	421.0	485.8	547.3	576.1
57.5°	366.8	388.1	465.3	520.3	558.8
60°	337.3	360.2	436.6	502.2	530.9
62.5°	305.3	327.4	416.9	486.6	522.7
65°	266.7	298.7	391.4	462.8	504.7
67.5°	236.3	275.7	374.2	457.1	487.4
70°	204.3	245.4	352.9	428.4	455.4
72.5°	170.7	221.6	331.5	420.2	445.6
75°	137.9	199.4	314.3	399.6	429.2
77.5°	110.0	177.3	296.2	383.2	411.9
80°	79.6	155.9	276.5	362.7	391.4
82.5°	54.2	137.0	263.4	351.2	378.3
85°	34.5	121.5	244.5	332.3	367.6
87.5°	16.4	107.5	228.1	318.4	339.7
90°	4.9	96.0	211.7	306.1	338.1
92.5°	4.1	87.0	204.3	288.0	318.4
95°	5.7	79.6	190.4	272.4	302.8
97.5°	8.2	73.9	181.4	259.3	293.8
100°	9.0	68.9	168.2	248.6	279.0
102.5°	10.7	66.5	160.0	238.0	265.9
105°	13.1	65.6	153.5	226.5	254.4
107.5°	16.4	62.4	146.1	210.9	243.7
110°	19.7	63.2	137.0	204.3	232.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	23.8	62.4	132.9	192.0	220.7
115°	27.1	63.2	127.2	186.3	206.8
117.5°	31.2	62.4	123.1	174.0	193.7
120°	35.3	63.2	117.3	169.9	190.4
122.5°	38.6	64.0	114.1	160.0	176.4
125°	41.9	63.2	110.0	151.8	171.5
127.5°	45.1	64.0	107.5	144.4	161.7
130°	47.6	63.2	105.0	138.7	153.5
132.5°	50.1	63.2	100.9	132.1	146.1
135°	50.9	64.0	99.3	126.4	139.5
137.5°	52.5	64.8	96.0	120.6	131.3
140°	55.8	64.8	94.4	117.3	126.4
142.5°	56.6	63.2	91.1	110.8	120.6
145°	58.3	62.4	89.4	107.5	119.0
147.5°	58.3	62.4	85.3	100.9	111.6
150°	57.4	59.9	82.9	96.8	104.2
152.5°	55.8	59.9	78.8	92.7	97.7
155°	54.2	57.4	75.5	87.8	95.2
157.5°	55.0	56.6	69.8	85.3	88.6
160°	53.3	54.2	63.2	80.4	85.3
162.5°	50.9	51.7	61.5	73.9	81.2
165°	47.6	49.2	55.8	64.8	75.5
167.5°	46.8	46.0	52.5	58.3	71.4
170°	46.8	45.1	46.8	49.2	65.6
172.5°	46.0	43.5	41.9	39.4	48.4
175°	46.8	43.5	36.1	32.8	17.2
177.5°	47.6	44.3	35.3	24.6	18.1
180°	33.6	33.6	33.6	33.6	33.6



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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	15.74	17.05	16.38	17.72	18.49	18.90	20.21	19.54	20.87	21.64
	3H	17.21	18.41	17.87	19.09	19.89	21.73	22.92	22.38	23.60	24.40
	4H	17.69	18.83	18.36	19.51	20.33	23.14	24.28	23.82	24.97	25.78
	6H	17.98	19.04	18.66	19.74	20.57	24.62	25.68	25.31	26.38	27.21
	8H	18.04	19.05	18.73	19.77	20.60	25.37	26.39	26.07	27.11	27.94
	12H	18.06	19.03	18.76	19.75	20.61	26.19	27.16	26.89	27.88	28.74
4H	2H	16.85	17.99	17.52	18.67	19.49	19.26	20.40	19.93	21.08	21.90
	3H	18.56	19.54	19.25	20.26	21.10	22.32	23.30	23.01	24.02	24.85
	4H	19.17	20.07	19.87	20.79	21.66	23.93	24.83	24.63	25.56	26.42
	6H	19.59	20.39	20.31	21.14	22.01	25.61	26.41	26.33	27.16	28.03
	8H	19.70	20.45	20.43	21.20	22.08	26.48	27.23	27.21	27.98	28.86
	12H	19.76	20.45	20.51	21.22	22.11	27.43	28.11	28.17	28.88	29.77
8H	4H	20.17	20.92	20.90	21.67	22.55	24.13	24.88	24.85	25.62	26.51
	6H	20.83	21.47	21.58	22.26	23.14	25.99	26.63	26.75	27.42	28.31
	8H	21.06	21.63	21.82	22.42	23.32	27.02	27.60	27.79	28.39	29.29
	12H	21.21	21.73	21.98	22.51	23.46	28.16	28.68	28.93	29.46	30.42
12H	4H	20.48	21.17	21.23	21.94	22.83	24.12	24.81	24.87	25.58	26.47
	6H	21.30	21.88	22.07	22.67	23.57	26.03	26.61	26.80	27.40	28.30
	8H	21.65	22.17	22.42	22.95	23.90	27.13	27.65	27.90	28.43	29.38