

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: P892788

Luminaire Tested: 2MB-4HL-RNDU-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892788
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-4HL-RNDU-UNV-L950
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

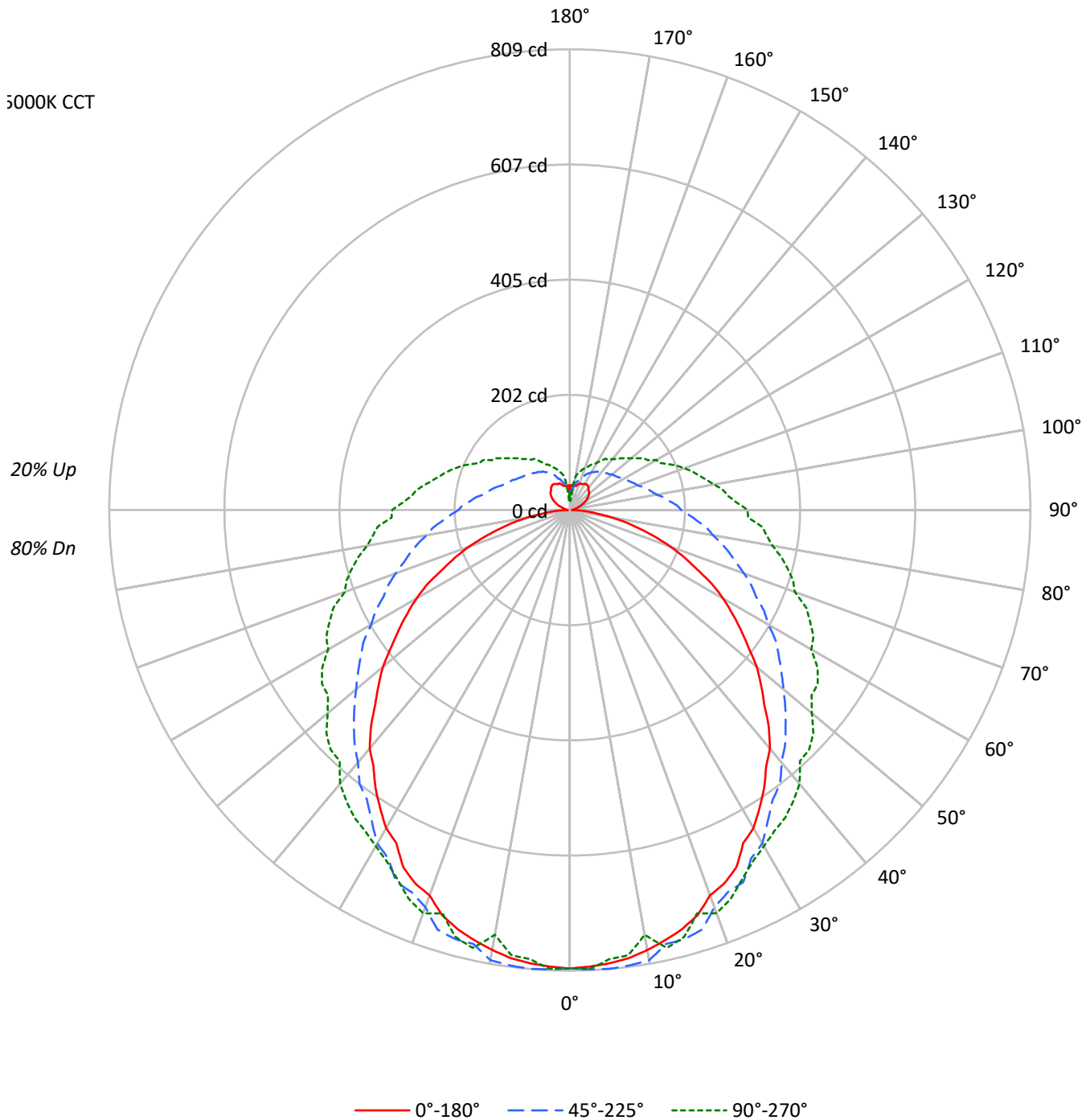
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3392.0 lumens
Efficiency: N/A
Efficacy: 122.9 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): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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°	11514	11514	11514
5°	11368	11162	10853
10°	11188	10781	10030
15°	10973	10278	10023
20°	10558	9672	9562
25°	10413	9362	8997
30°	10046	8818	8552
35°	9681	8193	8324
40°	9381	7786	8030
45°	8843	7419	7769
50°	8475	7032	7472
55°	7946	6737	7438
60°	7531	6402	7191
65°	6796	6142	7248
70°	6116	6002	7017
75°	5048	5885	7188
80°	3786	5809	7244
85°	2369	5897	7666

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8843 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	2.3
10°-20°	218.4	6.4
20°-30°	327.2	9.6
30°-40°	392.7	11.6
40°-50°	414.2	12.2
50°-60°	399.5	11.8
60°-70°	354.2	10.4
70°-80°	291.9	8.6
80°-90°	226.9	6.7
90°-100°	176.9	5.2
100°-110°	141.1	4.2
110°-120°	113.0	3.3
120°-130°	89.7	2.6
130°-140°	68.9	2.0
140°-150°	50.1	1.5
150°-160°	31.7	0.9
160°-170°	15.5	0.5
170°-180°	3.6	0.1
0°-30°	622.1	18.3
0°-40°	1014.8	29.9
0°-60°	1828.5	53.9
0°-90°	2701.5	79.6
90°-120°	431.0	12.7
90°-150°	639.7	18.9
90°-180°	691.0	20.4
0°-180°	3392.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	799	810	809	802	792	76
15°	762	772	780	784	776	214
25°	692	703	721	720	716	316
35°	595	605	621	654	660	372
45°	483	494	536	572	594	375
55°	366	388	448	505	532	329
65°	246	276	361	427	466	246
75°	127	184	290	369	396	136
85°	32	112	226	307	339	34
90°	4	89	195	282	312	4
95°	5	73	176	251	279	5
105°	12	61	142	209	235	13
115°	25	58	117	172	191	25
125°	39	58	102	140	158	34
135°	47	59	92	117	129	37
145°	54	58	82	99	110	33
155°	50	53	70	81	88	24
165°	44	45	52	60	70	13
175°	43	40	33	30	16	4
180°	31	31	31	31	31	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	804.9	804.9	804.9	804.9	804.9
2.5°	802.6	807.9	807.2	817.0	806.4
5°	798.9	810.2	808.7	801.9	792.0
7.5°	793.6	809.5	806.4	804.9	788.3
10°	784.5	797.3	802.6	804.2	757.2
12.5°	773.9	786.0	780.7	787.5	787.5
15°	761.8	771.6	779.9	783.7	776.1
17.5°	745.9	761.8	772.4	770.1	742.8
20°	720.1	742.1	742.1	755.7	753.4
22.5°	709.5	727.7	726.2	735.3	739.0
25°	692.1	702.7	720.9	720.1	715.6
27.5°	659.5	688.3	689.8	695.1	695.9
30°	645.1	664.1	676.2	684.5	681.5
32.5°	620.2	630.0	647.4	664.8	668.6
35°	595.2	605.0	620.9	653.5	659.5
37.5°	566.4	587.6	606.5	627.0	644.4
40°	546.7	554.3	578.5	608.8	627.7
42.5°	517.2	530.0	559.6	585.3	598.2
45°	483.1	494.5	536.1	572.5	594.4
47.5°	455.8	473.3	513.4	555.8	580.0
50°	428.6	443.0	489.9	529.3	555.0
52.5°	395.3	415.0	468.7	527.8	535.3
55°	366.5	388.5	448.3	505.1	531.6
57.5°	338.5	358.2	429.3	480.1	515.7
60°	311.2	332.4	402.8	463.4	489.9
62.5°	281.7	302.1	384.7	449.0	482.3
65°	246.1	275.6	361.2	427.1	465.7
67.5°	218.1	254.4	345.3	421.8	449.8
70°	188.5	226.4	325.6	395.3	420.3
72.5°	157.5	204.4	305.9	387.7	411.2
75°	127.2	184.0	290.0	368.8	396.0
77.5°	101.5	163.6	273.4	353.6	380.1
80°	73.4	143.9	255.2	334.7	361.2
82.5°	50.0	126.5	243.1	324.1	349.1
85°	31.8	112.1	225.6	306.7	339.2
87.5°	15.1	99.2	210.5	293.8	313.5
90°	4.5	88.6	195.4	282.4	312.0
92.5°	3.8	80.3	188.5	265.8	293.8
95°	5.3	73.4	175.7	251.4	279.4
97.5°	7.6	68.1	167.3	239.3	271.1
100°	8.3	63.6	155.2	229.4	257.5
102.5°	9.8	61.3	147.7	219.6	245.3
105°	12.1	60.6	141.6	209.0	234.7
107.5°	15.1	57.5	134.8	194.6	224.9
110°	18.2	58.3	126.5	188.5	214.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	22.0	57.5	122.7	177.2	203.7
115°	25.0	58.3	117.4	171.9	190.8
117.5°	28.8	57.5	113.6	160.5	178.7
120°	32.6	58.3	108.3	156.7	175.7
122.5°	35.6	59.1	105.3	147.7	162.8
125°	38.6	58.3	101.5	140.1	158.3
127.5°	41.6	59.1	99.2	133.3	149.2
130°	43.9	58.3	96.9	128.0	141.6
132.5°	46.2	58.3	93.1	121.9	134.8
135°	46.9	59.1	91.6	116.6	128.7
137.5°	48.5	59.8	88.6	111.3	121.2
140°	51.5	59.8	87.1	108.3	116.6
142.5°	52.2	58.3	84.1	102.2	111.3
145°	53.8	57.5	82.5	99.2	109.8
147.5°	53.8	57.5	78.8	93.1	103.0
150°	53.0	55.3	76.5	89.4	96.2
152.5°	51.5	55.3	72.7	85.6	90.1
155°	50.0	53.0	69.7	81.0	87.8
157.5°	50.7	52.2	64.4	78.8	81.8
160°	49.2	50.0	58.3	74.2	78.8
162.5°	46.9	47.7	56.8	68.1	75.0
165°	43.9	45.4	51.5	59.8	69.7
167.5°	43.2	42.4	48.5	53.8	65.9
170°	43.2	41.6	43.2	45.4	60.6
172.5°	42.4	40.1	38.6	36.3	44.7
175°	43.2	40.1	33.3	30.3	15.9
177.5°	43.9	40.9	32.6	22.7	16.7
180°	31.0	31.0	31.0	31.0	31.0



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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	15.46	16.78	16.11	17.44	18.21	18.62	19.93	19.26	20.59	21.36
	3H	16.94	18.13	17.59	18.81	19.61	21.45	22.64	22.10	23.32	24.12
	4H	17.41	18.55	18.08	19.24	20.05	22.86	24.00	23.54	24.69	25.50
	6H	17.70	18.76	18.39	19.46	20.29	24.34	25.40	25.03	26.10	26.93
	8H	17.76	18.78	18.45	19.49	20.33	25.09	26.11	25.79	26.83	27.66
	12H	17.78	18.75	18.48	19.47	20.33	25.91	26.88	26.61	27.60	28.46
4H	2H	16.57	17.71	17.24	18.39	19.21	18.98	20.12	19.65	20.81	21.62
	3H	18.28	19.26	18.97	19.98	20.82	22.04	23.02	22.73	23.74	24.58
	4H	18.89	19.79	19.59	20.52	21.38	23.65	24.55	24.36	25.28	26.14
	6H	19.31	20.11	20.03	20.86	21.73	25.33	26.13	26.05	26.88	27.75
	8H	19.42	20.18	20.15	20.92	21.81	26.20	26.95	26.93	27.70	28.59
	12H	19.48	20.17	20.23	20.94	21.83	27.15	27.83	27.90	28.60	29.49
8H	4H	19.89	20.64	20.62	21.39	22.28	23.85	24.60	24.57	25.35	26.23
	6H	20.55	21.19	21.31	21.98	22.86	25.71	26.36	26.47	27.14	28.03
	8H	20.78	21.36	21.54	22.14	23.04	26.74	27.32	27.51	28.11	29.01
	12H	20.93	21.45	21.70	22.23	23.18	27.89	28.40	28.65	29.18	30.14
12H	4H	20.20	20.89	20.95	21.66	22.55	23.84	24.53	24.59	25.30	26.19
	6H	21.02	21.60	21.79	22.39	23.29	25.75	26.33	26.52	27.12	28.02
	8H	21.37	21.89	22.14	22.67	23.63	26.85	27.37	27.62	28.15	29.10