

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: P892786

Luminaire Tested: 2MB-4HL-RNDU-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892786
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-L935
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

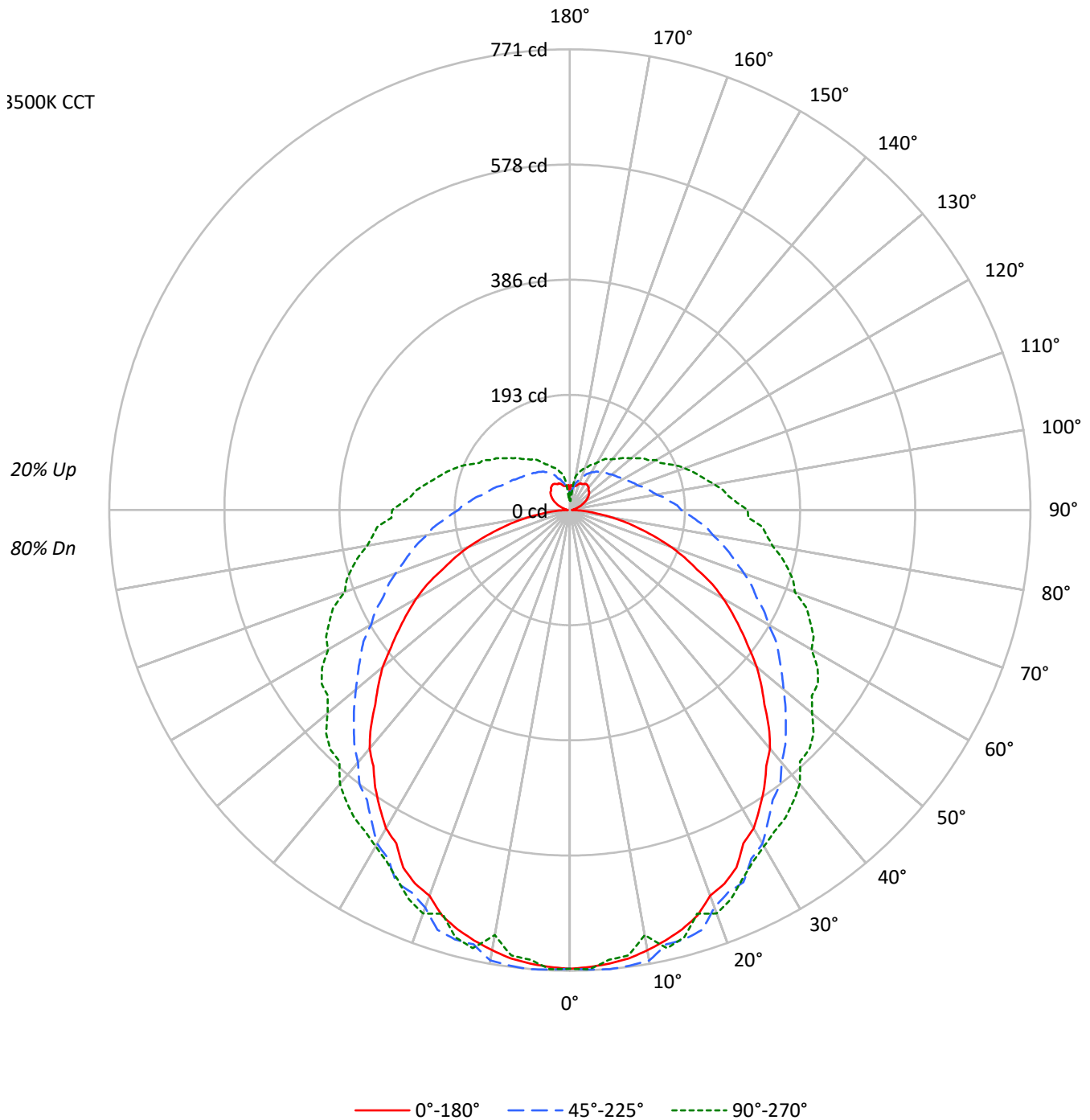
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3235.0 lumens
Efficiency: N/A
Efficacy: 117.2 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
RCR																				
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80		
1	102	96	91	86	97	92	87	83	84	80	76	76	73	70	69	67	65	61		
2	92	82	75	68	87	79	72	66	72	66	61	65	61	57	60	56	53	49		
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	41		
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	34		
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	29		
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	37	32	28	26		
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	23		
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20		
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	18		
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10982	10982	10982
5°	10841	10646	10351
10°	10670	10282	9567
15°	10464	9803	9559
20°	10070	9223	9121
25°	9932	8929	8579
30°	9582	8410	8155
35°	9232	7815	7939
40°	8947	7425	7659
45°	8433	7076	7409
50°	8082	6706	7126
55°	7578	6424	7094
60°	7182	6107	6858
65°	6481	5858	6911
70°	5833	5724	6691
75°	4813	5613	6856
80°	3616	5540	6909
85°	2257	5625	7311

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8433 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.0	2.3
10°-20°	208.3	6.4
20°-30°	312.0	9.6
30°-40°	374.5	11.6
40°-50°	395.0	12.2
50°-60°	381.0	11.8
60°-70°	337.8	10.4
70°-80°	278.4	8.6
80°-90°	216.4	6.7
90°-100°	168.7	5.2
100°-110°	134.6	4.2
110°-120°	107.8	3.3
120°-130°	85.6	2.6
130°-140°	65.7	2.0
140°-150°	47.8	1.5
150°-160°	30.2	0.9
160°-170°	14.8	0.5
170°-180°	3.5	0.1
0°-30°	593.3	18.3
0°-40°	967.8	29.9
0°-60°	1743.8	53.9
0°-90°	2576.5	79.6
90°-120°	411.0	12.7
90°-150°	610.1	18.9
90°-180°	659.0	20.4
0°-180°	3235.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	762	773	771	765	755	72
15°	726	736	744	747	740	204
25°	660	670	688	687	682	302
35°	568	577	592	623	629	355
45°	461	472	511	546	567	358
55°	350	370	428	482	507	314
65°	235	263	344	407	444	235
75°	121	176	277	352	378	130
85°	30	107	215	292	324	33
90°	4	84	186	269	298	4
95°	5	70	168	240	266	5
105°	12	58	135	199	224	13
115°	24	56	112	164	182	24
125°	37	56	97	134	151	33
135°	45	56	87	111	123	35
145°	51	55	79	95	105	32
155°	48	51	66	77	84	22
165°	42	43	49	57	66	12
175°	41	38	32	29	15	4
180°	30	30	30	30	30	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	767.7	767.7	767.7	767.7	767.7
2.5°	765.5	770.6	769.8	779.2	769.1
5°	761.9	772.7	771.3	764.8	755.4
7.5°	756.8	772.0	769.1	767.7	751.8
10°	748.2	760.4	765.5	766.9	722.2
12.5°	738.1	749.6	744.6	751.1	751.1
15°	726.5	735.9	743.8	747.4	740.2
17.5°	711.3	726.5	736.6	734.4	708.4
20°	686.8	707.7	707.7	720.7	718.6
22.5°	676.7	694.0	692.6	701.2	704.8
25°	660.1	670.2	687.5	686.8	682.4
27.5°	629.0	656.4	657.9	662.9	663.7
30°	615.3	633.3	644.9	652.8	649.9
32.5°	591.5	600.8	617.5	634.1	637.7
35°	567.6	577.0	592.2	623.2	629.0
37.5°	540.2	560.4	578.5	598.0	614.6
40°	521.4	528.6	551.7	580.6	598.7
42.5°	493.2	505.5	533.7	558.2	570.5
45°	460.7	471.6	511.3	546.0	566.9
47.5°	434.7	451.4	489.6	530.1	553.2
50°	408.7	422.5	467.2	504.8	529.3
52.5°	377.0	395.7	447.0	503.3	510.6
55°	349.5	370.5	427.5	481.7	507.0
57.5°	322.8	341.6	409.5	457.9	491.8
60°	296.8	317.0	384.2	442.0	467.2
62.5°	268.6	288.1	366.9	428.2	460.0
65°	234.7	262.9	344.5	407.3	444.1
67.5°	208.0	242.6	329.3	402.2	429.0
70°	179.8	215.9	310.5	377.0	400.8
72.5°	150.2	195.0	291.8	369.7	392.1
75°	121.3	175.5	276.6	351.7	377.7
77.5°	96.8	156.0	260.7	337.3	362.5
80°	70.1	137.2	243.4	319.2	344.5
82.5°	47.7	120.6	231.8	309.1	332.9
85°	30.3	106.9	215.2	292.5	323.5
87.5°	14.4	94.6	200.8	280.2	299.0
90°	4.3	84.5	186.3	269.4	297.5
92.5°	3.6	76.5	179.8	253.5	280.2
95°	5.1	70.1	167.5	239.8	266.5
97.5°	7.2	65.0	159.6	228.2	258.5
100°	7.9	60.7	148.0	218.8	245.5
102.5°	9.4	58.5	140.8	209.4	234.0
105°	11.6	57.8	135.0	199.3	223.9
107.5°	14.4	54.9	128.5	185.6	214.5
110°	17.3	55.6	120.6	179.8	204.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	20.9	54.9	117.0	169.0	194.3
115°	23.8	55.6	111.9	163.9	182.0
117.5°	27.4	54.9	108.3	153.1	170.4
120°	31.1	55.6	103.3	149.5	167.5
122.5°	33.9	56.3	100.4	140.8	155.3
125°	36.8	55.6	96.8	133.6	150.9
127.5°	39.7	56.3	94.6	127.1	142.3
130°	41.9	55.6	92.4	122.0	135.0
132.5°	44.1	55.6	88.8	116.3	128.5
135°	44.8	56.3	87.4	111.2	122.8
137.5°	46.2	57.1	84.5	106.2	115.5
140°	49.1	57.1	83.0	103.3	111.2
142.5°	49.8	55.6	80.2	97.5	106.2
145°	51.3	54.9	78.7	94.6	104.7
147.5°	51.3	54.9	75.1	88.8	98.2
150°	50.6	52.7	72.9	85.2	91.7
152.5°	49.1	52.7	69.3	81.6	85.9
155°	47.7	50.6	66.4	77.3	83.8
157.5°	48.4	49.8	61.4	75.1	78.0
160°	46.9	47.7	55.6	70.8	75.1
162.5°	44.8	45.5	54.2	65.0	71.5
165°	41.9	43.3	49.1	57.1	66.4
167.5°	41.2	40.4	46.2	51.3	62.8
170°	41.2	39.7	41.2	43.3	57.8
172.5°	40.4	38.3	36.8	34.7	42.6
175°	41.2	38.3	31.8	28.9	15.2
177.5°	41.9	39.0	31.1	21.7	15.9
180°	29.6	29.6	29.6	29.6	29.6



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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	15.30	16.61	15.94	17.28	18.05	18.45	19.76	19.09	20.43	21.20
	3H	16.77	17.97	17.42	18.64	19.45	21.28	22.48	21.94	23.15	23.96
	4H	17.24	18.38	17.92	19.07	19.88	22.70	23.84	23.37	24.53	25.34
	6H	17.53	18.60	18.22	19.29	20.12	24.18	25.24	24.86	25.93	26.76
	8H	17.59	18.61	18.29	19.33	20.16	24.93	25.95	25.63	26.67	27.50
	12H	17.61	18.59	18.32	19.30	20.16	25.74	26.72	26.45	27.43	28.29
4H	2H	16.40	17.54	17.08	18.23	19.04	18.82	19.95	19.49	20.64	21.46
	3H	18.12	19.10	18.81	19.82	20.65	21.88	22.85	22.57	23.58	24.41
	4H	18.72	19.63	19.43	20.35	21.21	23.49	24.39	24.19	25.11	25.97
	6H	19.15	19.94	19.87	20.69	21.56	25.17	25.96	25.89	26.71	27.58
	8H	19.26	20.01	19.98	20.76	21.64	26.04	26.79	26.76	27.54	28.42
	12H	19.32	20.00	20.07	20.77	21.66	26.98	27.67	27.73	28.44	29.33
8H	4H	19.73	20.48	20.45	21.23	22.11	23.68	24.43	24.41	25.18	26.06
	6H	20.39	21.03	21.14	21.81	22.70	25.55	26.19	26.30	26.98	27.86
	8H	20.61	21.19	21.38	21.98	22.88	26.58	27.16	27.34	27.95	28.84
	12H	20.76	21.28	21.53	22.06	23.02	27.72	28.24	28.49	29.02	29.97
12H	4H	20.04	20.73	20.79	21.50	22.38	23.68	24.37	24.43	25.13	26.02
	6H	20.86	21.44	21.62	22.23	23.12	25.59	26.17	26.35	26.96	27.85
	8H	21.21	21.73	21.98	22.50	23.46	26.68	27.20	27.45	27.98	28.94