

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: P892782

Luminaire Tested: 2MB-4HL-RNDU-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892782
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-L835
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, 5
Light Source: -
Ballast/Driver: -

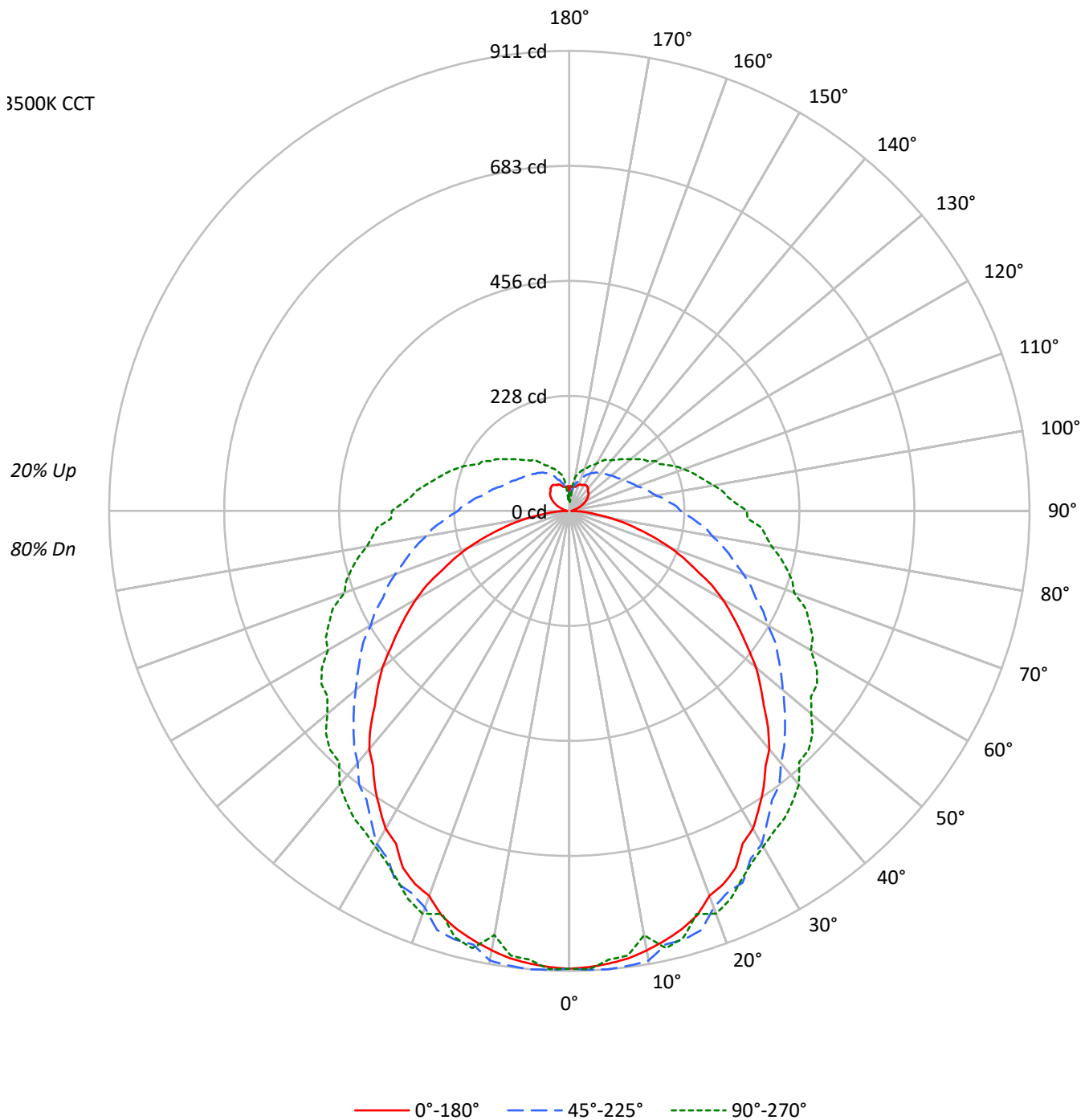
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3821.0 lumens
Efficiency: N/A
Efficacy: 138.4 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				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°	12971	12971	12971
5°	12805	12574	12226
10°	12603	12145	11299
15°	12360	11579	11291
20°	11894	10894	10772
25°	11730	10546	10134
30°	11316	9933	9634
35°	10904	9229	9376
40°	10568	8771	9046
45°	9961	8357	8751
50°	9547	7922	8417
55°	8950	7589	8378
60°	8484	7213	8102
65°	7655	6920	8164
70°	6891	6761	7903
75°	5686	6630	8098
80°	4266	6544	8161
85°	2667	6645	8635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9961 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	2.3
10°-20°	246.0	6.4
20°-30°	368.5	9.6
30°-40°	442.3	11.6
40°-50°	466.5	12.2
50°-60°	450.1	11.8
60°-70°	399.0	10.4
70°-80°	328.8	8.6
80°-90°	255.6	6.7
90°-100°	199.3	5.2
100°-110°	159.0	4.2
110°-120°	127.3	3.3
120°-130°	101.1	2.6
130°-140°	77.6	2.0
140°-150°	56.4	1.5
150°-160°	35.7	0.9
160°-170°	17.4	0.5
170°-180°	4.1	0.1
0°-30°	700.7	18.3
0°-40°	1143.1	29.9
0°-60°	2059.7	53.9
0°-90°	3043.2	79.6
90°-120°	485.5	12.7
90°-150°	720.6	18.9
90°-180°	778.0	20.4
0°-180°	3821.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	907	907	907	907	907	
5°	900	913	911	903	892	85
15°	858	869	879	883	874	241
25°	780	792	812	811	806	356
35°	670	682	699	736	743	419
45°	544	557	604	645	670	423
55°	413	438	505	569	599	370
65°	277	310	407	481	525	277
75°	143	207	327	415	446	154
85°	36	126	254	346	382	39
90°	5	100	220	318	351	4
95°	6	83	198	283	315	6
105°	14	68	160	235	264	15
115°	28	66	132	194	215	28
125°	44	66	114	158	178	39
135°	53	66	103	131	145	41
145°	61	65	93	112	124	37
155°	56	60	78	91	99	27
165°	50	51	58	67	78	14
175°	49	45	38	34	18	5
180°	35	35	35	35	35	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	906.7	906.7	906.7	906.7	906.7
2.5°	904.2	910.1	909.3	920.4	908.4
5°	899.9	912.7	911.0	903.3	892.2
7.5°	893.9	911.8	908.4	906.7	888.0
10°	883.7	898.2	904.2	905.9	853.0
12.5°	871.7	885.4	879.4	887.1	887.1
15°	858.1	869.2	878.6	882.8	874.3
17.5°	840.2	858.1	870.0	867.5	836.8
20°	811.2	835.9	835.9	851.3	848.7
22.5°	799.2	819.7	818.0	828.2	832.5
25°	779.6	791.6	812.0	811.2	806.1
27.5°	742.9	775.4	777.1	783.0	783.9
30°	726.7	748.1	761.7	771.1	767.7
32.5°	698.6	709.7	729.3	748.9	753.2
35°	670.4	681.5	699.4	736.1	742.9
37.5°	638.0	661.9	683.2	706.3	725.9
40°	615.9	624.4	651.7	685.8	707.1
42.5°	582.6	597.1	630.4	659.4	673.9
45°	544.2	557.0	603.9	644.9	669.6
47.5°	513.5	533.1	578.3	626.1	653.4
50°	482.8	499.0	551.9	596.2	625.2
52.5°	445.3	467.4	528.0	594.5	603.1
55°	412.8	437.6	505.0	568.9	598.8
57.5°	381.3	403.5	483.6	540.8	580.9
60°	350.6	374.5	453.8	522.0	551.9
62.5°	317.3	340.3	433.3	505.8	543.3
65°	277.2	310.5	406.9	481.1	524.6
67.5°	245.7	286.6	389.0	475.1	506.7
70°	212.4	255.0	366.8	445.3	473.4
72.5°	177.4	230.3	344.6	436.7	463.2
75°	143.3	207.3	326.7	415.4	446.1
77.5°	114.3	184.2	307.9	398.3	428.2
80°	82.7	162.1	287.5	377.0	406.9
82.5°	56.3	142.4	273.8	365.1	393.2
85°	35.8	126.2	254.2	345.5	382.1
87.5°	17.1	111.7	237.1	331.0	353.1
90°	5.1	99.8	220.1	318.2	351.4
92.5°	4.3	90.4	212.4	299.4	331.0
95°	6.0	82.7	197.9	283.2	314.7
97.5°	8.5	76.8	188.5	269.5	305.4
100°	9.4	71.7	174.9	258.5	290.0
102.5°	11.1	69.1	166.3	247.4	276.4
105°	13.6	68.2	159.5	235.4	264.4
107.5°	17.1	64.8	151.8	219.2	253.3
110°	20.5	65.7	142.4	212.4	241.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	24.7	64.8	138.2	199.6	229.5
115°	28.1	65.7	132.2	193.6	215.0
117.5°	32.4	64.8	127.9	180.8	201.3
120°	36.7	65.7	122.0	176.6	197.9
122.5°	40.1	66.5	118.6	166.3	183.4
125°	43.5	65.7	114.3	157.8	178.3
127.5°	46.9	66.5	111.7	150.1	168.0
130°	49.5	65.7	109.2	144.2	159.5
132.5°	52.0	65.7	104.9	137.3	151.8
135°	52.9	66.5	103.2	131.4	145.0
137.5°	54.6	67.4	99.8	125.4	136.5
140°	58.0	67.4	98.1	122.0	131.4
142.5°	58.9	65.7	94.7	115.2	125.4
145°	60.6	64.8	93.0	111.7	123.7
147.5°	60.6	64.8	88.7	104.9	116.0
150°	59.7	62.3	86.2	100.7	108.3
152.5°	58.0	62.3	81.9	96.4	101.5
155°	56.3	59.7	78.5	91.3	98.9
157.5°	57.1	58.9	72.5	88.7	92.1
160°	55.4	56.3	65.7	83.6	88.7
162.5°	52.9	53.7	64.0	76.8	84.4
165°	49.5	51.2	58.0	67.4	78.5
167.5°	48.6	47.8	54.6	60.6	74.2
170°	48.6	46.9	48.6	51.2	68.2
172.5°	47.8	45.2	43.5	40.9	50.3
175°	48.6	45.2	37.5	34.1	17.9
177.5°	49.5	46.1	36.7	25.6	18.8
180°	35.0	35.0	35.0	35.0	35.0



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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	15.88	17.19	16.52	17.86	18.62	19.03	20.34	19.67	21.01	21.78
	3H	17.35	18.55	18.00	19.22	20.02	21.86	23.06	22.51	23.73	24.54
	4H	17.82	18.96	18.50	19.65	20.46	23.28	24.42	23.95	25.10	25.92
	6H	18.11	19.17	18.80	19.87	20.70	24.75	25.82	25.44	26.51	27.34
	8H	18.17	19.19	18.87	19.91	20.74	25.51	26.53	26.21	27.24	28.08
	12H	18.19	19.17	18.90	19.88	20.74	26.32	27.30	27.03	28.01	28.87
4H	2H	16.98	18.12	17.66	18.81	19.62	19.39	20.53	20.07	21.22	22.03
	3H	18.70	19.67	19.38	20.40	21.23	22.46	23.43	23.14	24.16	24.99
	4H	19.30	20.20	20.01	20.93	21.79	24.07	24.97	24.77	25.69	26.55
	6H	19.73	20.52	20.45	21.27	22.14	25.75	26.54	26.47	27.29	28.16
	8H	19.84	20.59	20.56	21.34	22.22	26.62	27.37	27.34	28.12	29.00
	12H	19.90	20.58	20.65	21.35	22.24	27.56	28.25	28.31	29.02	29.91
8H	4H	20.31	21.06	21.03	21.81	22.69	24.26	25.01	24.99	25.76	26.64
	6H	20.96	21.61	21.72	22.39	23.28	26.13	26.77	26.88	27.56	28.44
	8H	21.19	21.77	21.96	22.56	23.46	27.16	27.74	27.92	28.52	29.42
	12H	21.34	21.86	22.11	22.64	23.60	28.30	28.82	29.07	29.60	30.55
12H	4H	20.62	21.30	21.37	22.07	22.96	24.26	24.94	25.01	25.71	26.60
	6H	21.44	22.02	22.20	22.80	23.70	26.17	26.75	26.93	27.53	28.43
	8H	21.79	22.30	22.56	23.08	24.04	27.26	27.78	28.03	28.56	29.52