

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: P892785

Luminaire Tested: 2MB-4HL-RNDU-UNV-L930

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P892785  
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-L930  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5  
Light Source: -  
Ballast/Driver: -

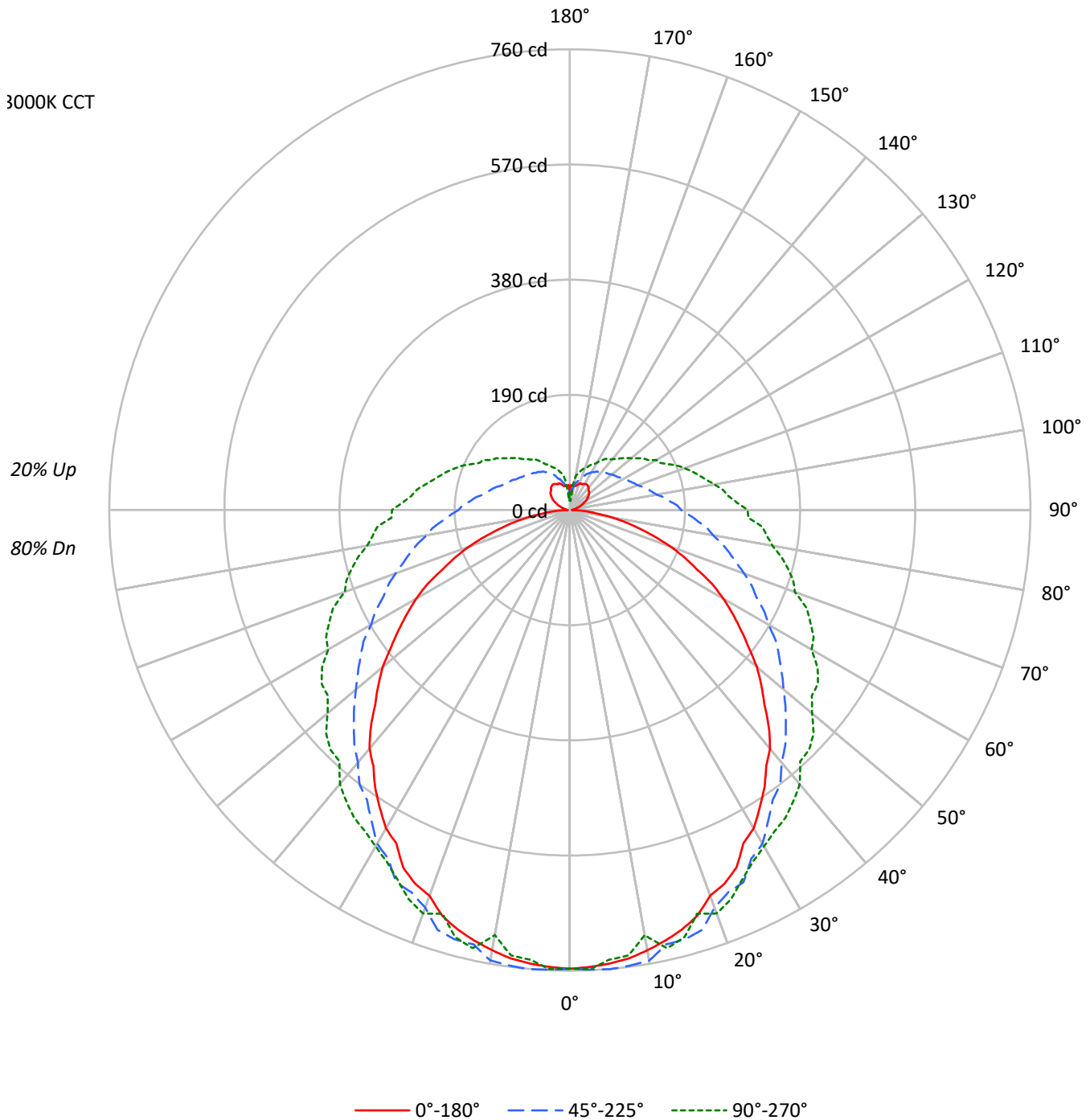
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3189.0 lumens  
Efficiency: N/A  
Efficacy: 115.5 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<sub>in</sub>): 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°	10825	10825	10825
5°	10687	10494	10203
10°	10518	10136	9430
15°	10316	9664	9423
20°	9926	9093	8990
25°	9790	8801	8457
30°	9444	8290	8040
35°	9102	7704	7827
40°	8820	7320	7550
45°	8314	6975	7303
50°	7967	6611	7025
55°	7471	6333	6993
60°	7081	6019	6761
65°	6390	5775	6813
70°	5752	5643	6596
75°	4746	5534	6758
80°	3565	5460	6811
85°	2227	5544	7207

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8314 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	2.3
10°-20°	205.3	6.4
20°-30°	307.6	9.6
30°-40°	369.2	11.6
40°-50°	389.4	12.2
50°-60°	375.6	11.8
60°-70°	333.0	10.4
70°-80°	274.5	8.6
80°-90°	213.3	6.7
90°-100°	166.3	5.2
100°-110°	132.7	4.2
110°-120°	106.2	3.3
120°-130°	84.4	2.6
130°-140°	64.7	2.0
140°-150°	47.1	1.5
150°-160°	29.8	0.9
160°-170°	14.6	0.5
170°-180°	3.4	0.1
0°-30°	584.8	18.3
0°-40°	954.0	29.9
0°-60°	1719.0	53.9
0°-90°	2539.8	79.6
90°-120°	405.2	12.7
90°-150°	601.4	18.9
90°-180°	649.0	20.4
0°-180°	3189.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	751	762	760	754	745	71
15°	716	725	733	737	730	201
25°	651	661	678	677	673	297
35°	560	569	584	614	620	350
45°	454	465	504	538	559	353
55°	345	365	421	475	500	309
65°	231	259	340	402	438	232
75°	120	173	273	347	372	128
85°	30	105	212	288	319	32
90°	4	83	184	266	293	4
95°	5	69	165	236	263	5
105°	11	57	133	196	221	12
115°	24	55	110	162	179	24
125°	36	55	95	132	149	32
135°	44	56	86	110	121	34
145°	50	54	78	93	103	31
155°	47	50	66	76	83	22
165°	41	43	48	56	66	12
175°	41	38	31	28	15	4
180°	29	29	29	29	29	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	756.7	756.7	756.7	756.7	756.7
2.5°	754.6	759.6	758.9	768.1	758.2
5°	751.1	761.7	760.3	753.9	744.6
7.5°	746.1	761.0	758.2	756.7	741.1
10°	737.5	749.6	754.6	756.0	711.9
12.5°	727.6	738.9	734.0	740.4	740.4
15°	716.2	725.4	733.3	736.8	729.7
17.5°	701.2	716.2	726.1	724.0	698.4
20°	677.0	697.7	697.7	710.5	708.3
22.5°	667.0	684.1	682.7	691.3	694.8
25°	650.7	660.6	677.7	677.0	672.7
27.5°	620.1	647.1	648.5	653.5	654.2
30°	606.5	624.3	635.7	643.6	640.7
32.5°	583.0	592.3	608.7	625.0	628.6
35°	559.6	568.8	583.8	614.4	620.1
37.5°	532.5	552.4	570.2	589.5	605.8
40°	514.0	521.1	543.9	572.4	590.2
42.5°	486.2	498.3	526.1	550.3	562.4
45°	454.2	464.9	504.0	538.2	558.8
47.5°	428.6	444.9	482.7	522.5	545.3
50°	402.9	416.5	460.6	497.6	521.8
52.5°	371.6	390.1	440.7	496.2	503.3
55°	344.6	365.2	421.4	474.8	499.8
57.5°	318.2	336.7	403.6	451.3	484.8
60°	292.6	312.5	378.7	435.7	460.6
62.5°	264.8	284.0	361.6	422.2	453.5
65°	231.4	259.1	339.6	401.5	437.8
67.5°	205.0	239.2	324.6	396.5	422.9
70°	177.3	212.9	306.1	371.6	395.1
72.5°	148.1	192.2	287.6	364.5	386.6
75°	119.6	173.0	272.7	346.7	372.3
77.5°	95.4	153.8	257.0	332.5	357.4
80°	69.1	135.3	239.9	314.7	339.6
82.5°	47.0	118.9	228.5	304.7	328.2
85°	29.9	105.4	212.1	288.3	318.9
87.5°	14.2	93.3	197.9	276.2	294.7
90°	4.3	83.3	183.7	265.5	293.3
92.5°	3.6	75.5	177.3	249.9	276.2
95°	5.0	69.1	165.2	236.3	262.7
97.5°	7.1	64.1	157.3	225.0	254.9
100°	7.8	59.8	145.9	215.7	242.0
102.5°	9.3	57.7	138.8	206.4	230.7
105°	11.4	57.0	133.1	196.5	220.7
107.5°	14.2	54.1	126.7	183.0	211.4
110°	17.1	54.8	118.9	177.3	201.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	20.6	54.1	115.3	166.6	191.5
115°	23.5	54.8	110.3	161.6	179.4
117.5°	27.1	54.1	106.8	150.9	168.0
120°	30.6	54.8	101.8	147.4	165.2
122.5°	33.5	55.5	99.0	138.8	153.1
125°	36.3	54.8	95.4	131.7	148.8
127.5°	39.2	55.5	93.3	125.3	140.2
130°	41.3	54.8	91.1	120.3	133.1
132.5°	43.4	54.8	87.6	114.6	126.7
135°	44.1	55.5	86.1	109.6	121.0
137.5°	45.6	56.2	83.3	104.6	113.9
140°	48.4	56.2	81.9	101.8	109.6
142.5°	49.1	54.8	79.0	96.1	104.6
145°	50.5	54.1	77.6	93.3	103.2
147.5°	50.5	54.1	74.0	87.6	96.8
150°	49.8	52.0	71.9	84.0	90.4
152.5°	48.4	52.0	68.3	80.4	84.7
155°	47.0	49.8	65.5	76.2	82.6
157.5°	47.7	49.1	60.5	74.0	76.9
160°	46.3	47.0	54.8	69.8	74.0
162.5°	44.1	44.8	53.4	64.1	70.5
165°	41.3	42.7	48.4	56.2	65.5
167.5°	40.6	39.9	45.6	50.5	61.9
170°	40.6	39.2	40.6	42.7	57.0
172.5°	39.9	37.7	36.3	34.2	42.0
175°	40.6	37.7	31.3	28.5	14.9
177.5°	41.3	38.4	30.6	21.4	15.7
180°	29.2	29.2	29.2	29.2	29.2



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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	15.25	16.56	15.89	17.23	18.00	18.40	19.71	19.04	20.38	21.15
	3H	16.72	17.92	17.38	18.59	19.40	21.23	22.43	21.89	23.10	23.91
	4H	17.19	18.33	17.87	19.02	19.83	22.65	23.79	23.32	24.48	25.29
	6H	17.48	18.55	18.17	19.24	20.07	24.13	25.19	24.81	25.88	26.71
	8H	17.54	18.56	18.24	19.28	20.11	24.88	25.90	25.58	26.62	27.45
	12H	17.56	18.54	18.27	19.25	20.11	25.69	26.67	26.40	27.38	28.24
4H	2H	16.35	17.49	17.03	18.18	18.99	18.76	19.90	19.44	20.59	21.40
	3H	18.07	19.05	18.76	19.77	20.60	21.83	22.80	22.51	23.53	24.36
	4H	18.67	19.58	19.38	20.30	21.16	23.44	24.34	24.14	25.06	25.92
	6H	19.10	19.89	19.82	20.64	21.51	25.12	25.91	25.84	26.66	27.53
	8H	19.21	19.96	19.94	20.71	21.59	25.99	26.74	26.71	27.49	28.37
	12H	19.27	19.96	20.02	20.72	21.61	26.93	27.62	27.68	28.39	29.28
8H	4H	19.68	20.43	20.40	21.18	22.06	23.63	24.38	24.36	25.13	26.01
	6H	20.34	20.98	21.09	21.76	22.65	25.50	26.14	26.26	26.93	27.81
	8H	20.56	21.14	21.33	21.93	22.83	26.53	27.11	27.29	27.90	28.79
	12H	20.71	21.23	21.48	22.01	22.97	27.67	28.19	28.44	28.97	29.92
12H	4H	19.99	20.68	20.74	21.45	22.33	23.63	24.32	24.38	25.08	25.97
	6H	20.81	21.39	21.57	22.18	23.07	25.54	26.12	26.30	26.91	27.81
	8H	21.16	21.68	21.93	22.46	23.41	26.64	27.15	27.40	27.93	28.89