

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: P892883

Luminaire Tested: 2MB-5HL-RNDU-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892883
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-L940
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 4
Light Source: -
Ballast/Driver: -

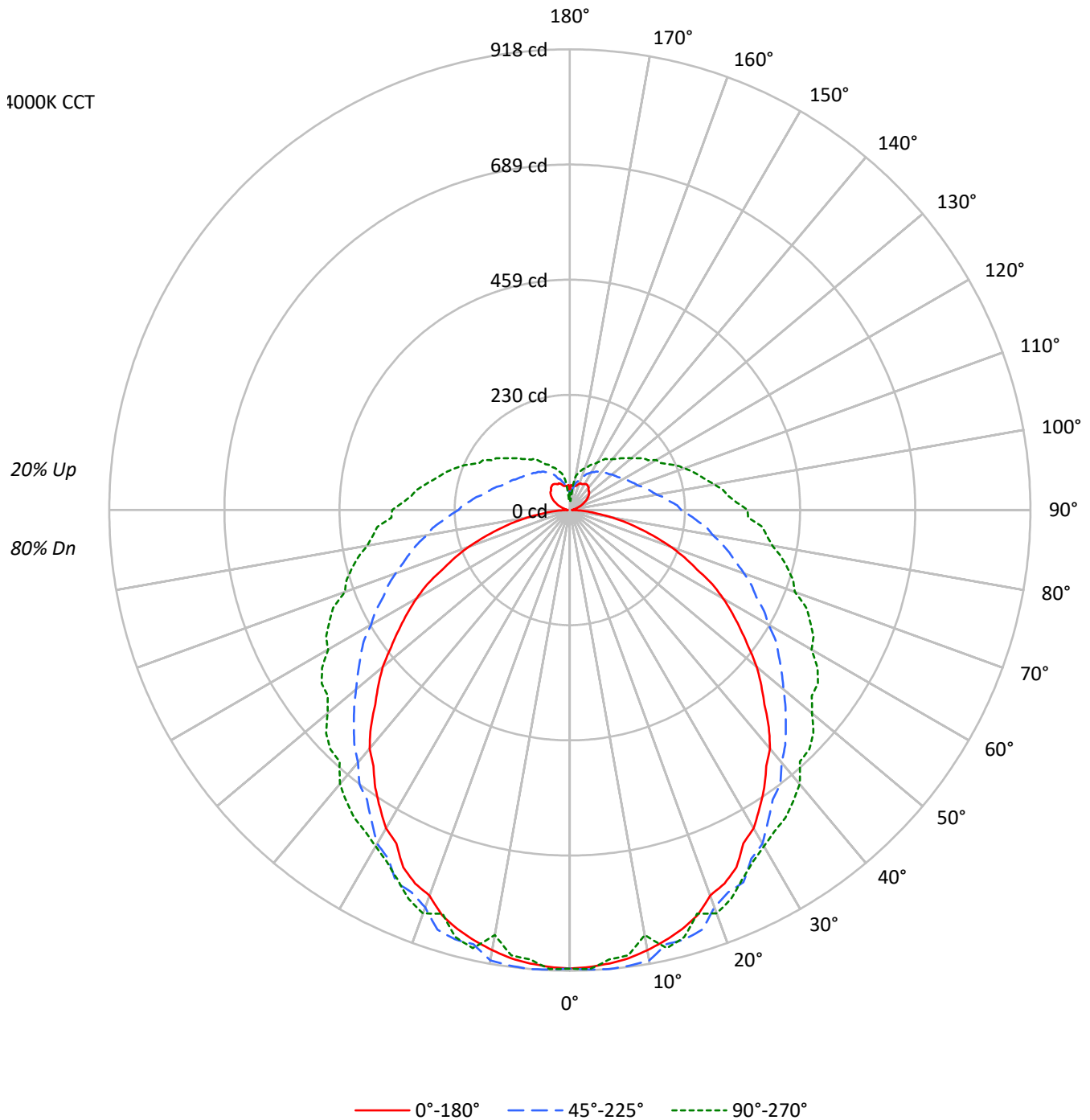
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3851.0 lumens
Efficiency: N/A
Efficacy: 114.3 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
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°	13072	13072	13072
5°	12906	12672	12322
10°	12701	12241	11388
15°	12456	11670	11380
20°	11988	10980	10857
25°	11821	10629	10214
30°	11405	10012	9709
35°	10990	9302	9451
40°	10650	8839	9117
45°	10040	8424	8819
50°	9622	7984	8483
55°	9022	7648	8444
60°	8549	7269	8165
65°	7716	6974	8228
70°	6946	6815	7965
75°	5730	6682	8161
80°	4302	6594	8225
85°	2689	6697	8703

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10040 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.9	2.3
10°-20°	247.9	6.4
20°-30°	371.4	9.6
30°-40°	445.8	11.6
40°-50°	470.2	12.2
50°-60°	453.6	11.8
60°-70°	402.2	10.4
70°-80°	331.4	8.6
80°-90°	257.6	6.7
90°-100°	200.8	5.2
100°-110°	160.2	4.2
110°-120°	128.3	3.3
120°-130°	101.9	2.6
130°-140°	78.2	2.0
140°-150°	56.9	1.5
150°-160°	36.0	0.9
160°-170°	17.6	0.5
170°-180°	4.1	0.1
0°-30°	706.2	18.3
0°-40°	1152.1	29.9
0°-60°	2075.8	53.9
0°-90°	3067.1	79.6
90°-120°	489.3	12.7
90°-150°	726.3	18.9
90°-180°	784.0	20.4
0°-180°	3851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	907	920	918	910	899	86
15°	865	876	886	890	881	243
25°	786	798	818	818	812	359
35°	676	687	705	742	749	423
45°	548	561	609	650	675	426
55°	416	441	509	573	604	373
65°	279	313	410	485	529	280
75°	144	209	329	419	450	155
85°	36	127	256	348	385	39
90°	5	101	222	321	354	4
95°	6	83	199	285	317	6
105°	14	69	161	237	266	15
115°	28	66	133	195	217	28
125°	44	66	115	159	180	39
135°	53	67	104	132	146	42
145°	61	65	94	113	125	38
155°	57	60	79	92	100	27
165°	50	52	58	68	79	15
175°	49	46	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°	913.8	913.8	913.8	913.8	913.8
2.5°	911.3	917.3	916.4	927.6	915.6
5°	907.0	919.9	918.1	910.4	899.2
7.5°	900.9	919.0	915.6	913.8	894.9
10°	890.6	905.2	911.3	913.0	859.7
12.5°	878.6	892.3	886.3	894.1	894.1
15°	864.8	876.0	885.5	889.8	881.2
17.5°	846.8	864.8	876.9	874.3	843.3
20°	817.6	842.5	842.5	858.0	855.4
22.5°	805.5	826.2	824.4	834.7	839.0
25°	785.7	797.8	818.4	817.6	812.4
27.5°	748.8	781.4	783.2	789.2	790.0
30°	732.4	753.9	767.7	777.1	773.7
32.5°	704.1	715.3	735.0	754.8	759.1
35°	675.7	686.9	704.9	741.9	748.8
37.5°	643.0	667.1	688.6	711.8	731.6
40°	620.7	629.3	656.8	691.2	712.7
42.5°	587.2	601.8	635.3	664.5	679.1
45°	548.5	561.4	608.7	649.9	674.8
47.5°	517.5	537.3	582.9	631.0	658.5
50°	486.6	502.9	556.2	600.9	630.1
52.5°	448.8	471.1	532.1	599.2	607.8
55°	416.1	441.0	508.9	573.4	603.5
57.5°	384.3	406.6	487.4	545.0	585.4
60°	353.3	377.4	457.3	526.1	556.2
62.5°	319.8	343.0	436.7	509.8	547.6
65°	279.4	312.9	410.1	484.9	528.7
67.5°	247.6	288.9	392.0	478.8	510.6
70°	214.1	257.0	369.7	448.8	477.1
72.5°	178.8	232.1	347.3	440.2	466.8
75°	144.4	208.9	329.3	418.7	449.6
77.5°	115.2	185.7	310.3	401.5	431.6
80°	83.4	163.3	289.7	380.0	410.1
82.5°	56.7	143.6	276.0	367.9	396.3
85°	36.1	127.2	256.2	348.2	385.1
87.5°	17.2	112.6	239.0	333.6	355.9
90°	5.2	100.6	221.8	320.7	354.2
92.5°	4.3	91.1	214.1	301.7	333.6
95°	6.0	83.4	199.4	285.4	317.2
97.5°	8.6	77.4	190.0	271.7	307.8
100°	9.5	72.2	176.2	260.5	292.3
102.5°	11.2	69.6	167.6	249.3	278.5
105°	13.8	68.8	160.8	237.3	266.5
107.5°	17.2	65.3	153.0	220.9	255.3
110°	20.6	66.2	143.6	214.1	243.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	24.9	65.3	139.3	201.2	231.3
115°	28.4	66.2	133.3	195.1	216.6
117.5°	32.7	65.3	129.0	182.3	202.9
120°	37.0	66.2	122.9	178.0	199.4
122.5°	40.4	67.1	119.5	167.6	184.8
125°	43.8	66.2	115.2	159.0	179.7
127.5°	47.3	67.1	112.6	151.3	169.4
130°	49.9	66.2	110.0	145.3	160.8
132.5°	52.4	66.2	105.7	138.4	153.0
135°	53.3	67.1	104.0	132.4	146.1
137.5°	55.0	67.9	100.6	126.4	137.5
140°	58.5	67.9	98.9	122.9	132.4
142.5°	59.3	66.2	95.4	116.1	126.4
145°	61.0	65.3	93.7	112.6	124.7
147.5°	61.0	65.3	89.4	105.7	116.9
150°	60.2	62.8	86.8	101.4	109.2
152.5°	58.5	62.8	82.5	97.1	102.3
155°	56.7	60.2	79.1	92.0	99.7
157.5°	57.6	59.3	73.1	89.4	92.8
160°	55.9	56.7	66.2	84.2	89.4
162.5°	53.3	54.2	64.5	77.4	85.1
165°	49.9	51.6	58.5	67.9	79.1
167.5°	49.0	48.1	55.0	61.0	74.8
170°	49.0	47.3	49.0	51.6	68.8
172.5°	48.1	45.6	43.8	41.3	50.7
175°	49.0	45.6	37.8	34.4	18.1
177.5°	49.9	46.4	37.0	25.8	18.9
180°	35.2	35.2	35.2	35.2	35.2



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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	15.90	17.22	16.55	17.88	18.65	19.06	20.37	19.70	21.03	21.80
	3H	17.38	18.57	18.03	19.25	20.05	21.89	23.08	22.54	23.76	24.56
	4H	17.85	18.99	18.52	19.68	20.49	23.30	24.44	23.98	25.13	25.94
	6H	18.14	19.20	18.83	19.90	20.73	24.78	25.84	25.47	26.54	27.37
	8H	18.20	19.22	18.89	19.93	20.77	25.54	26.55	26.23	27.27	28.10
	12H	18.22	19.19	18.92	19.91	20.77	26.35	27.32	27.05	28.04	28.90
4H	2H	17.01	18.15	17.68	18.83	19.65	19.42	20.56	20.10	21.25	22.06
	3H	18.72	19.70	19.41	20.42	21.26	22.48	23.46	23.17	24.18	25.02
	4H	19.33	20.23	20.03	20.96	21.82	24.09	24.99	24.80	25.72	26.58
	6H	19.75	20.55	20.47	21.30	22.17	25.77	26.57	26.49	27.32	28.19
	8H	19.86	20.62	20.59	21.36	22.25	26.64	27.40	27.37	28.14	29.03
	12H	19.92	20.61	20.67	21.38	22.27	27.59	28.27	28.34	29.04	29.93
8H	4H	20.33	21.09	21.06	21.83	22.72	24.29	25.04	25.01	25.79	26.67
	6H	20.99	21.63	21.75	22.42	23.30	26.16	26.80	26.91	27.58	28.47
	8H	21.22	21.80	21.98	22.58	23.48	27.18	27.76	27.95	28.55	29.45
	12H	21.37	21.89	22.14	22.67	23.62	28.33	28.84	29.10	29.62	30.58
12H	4H	20.65	21.33	21.39	22.10	22.99	24.29	24.97	25.03	25.74	26.63
	6H	21.46	22.04	22.23	22.83	23.73	26.19	26.77	26.96	27.56	28.46
	8H	21.81	22.33	22.58	23.11	24.07	27.29	27.81	28.06	28.59	29.54