

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: P892880

Luminaire Tested: 2MB-5HL-RNDU-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892880
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-L850
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, 5
Light Source: -
Ballast/Driver: -

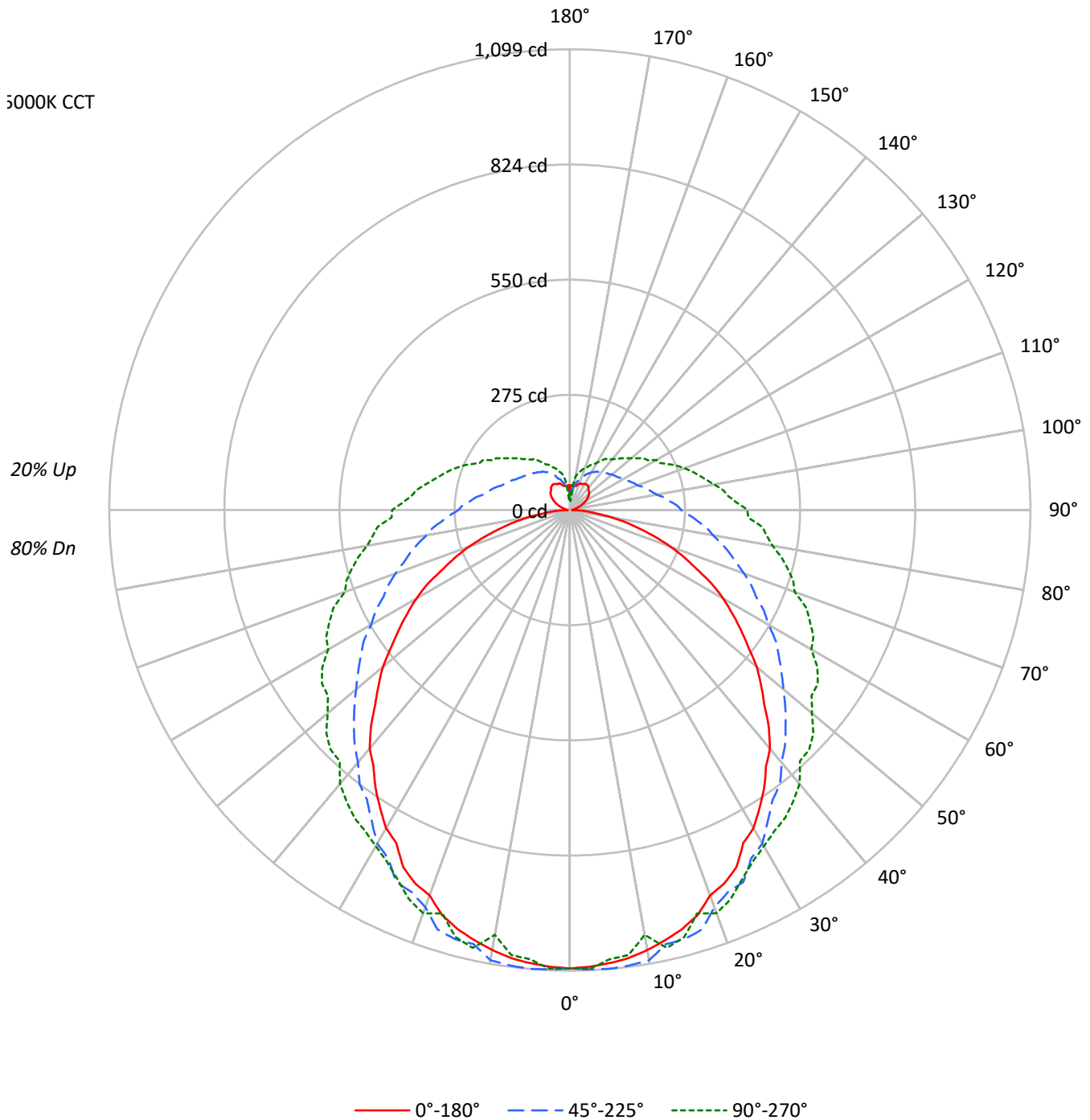
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4608.0 lumens
Efficiency: N/A
Efficacy: 136.7 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°	15643	15643	15643
5°	15441	15163	14745
10°	15198	14646	13627
15°	14905	13963	13617
20°	14344	13138	12991
25°	14146	12718	12221
30°	13647	11979	11618
35°	13150	11131	11309
40°	12744	10577	10910
45°	12013	10079	10554
50°	11513	9553	10152
55°	10795	9152	10103
60°	10231	8699	9769
65°	9232	8345	9845
70°	8309	8153	9531
75°	6857	7995	9766
80°	5148	7891	9842
85°	3218	8012	10414

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12013 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	2.3
10°-20°	296.6	6.4
20°-30°	444.4	9.6
30°-40°	533.5	11.6
40°-50°	562.6	12.2
50°-60°	542.8	11.8
60°-70°	481.2	10.4
70°-80°	396.6	8.6
80°-90°	308.3	6.7
90°-100°	240.3	5.2
100°-110°	191.7	4.2
110°-120°	153.5	3.3
120°-130°	121.9	2.6
130°-140°	93.6	2.0
140°-150°	68.1	1.5
150°-160°	43.0	0.9
160°-170°	21.0	0.5
170°-180°	4.9	0.1
0°-30°	845.1	18.3
0°-40°	1378.5	29.9
0°-60°	2483.9	53.9
0°-90°	3670.0	79.6
90°-120°	585.5	12.7
90°-150°	869.0	18.9
90°-180°	938.0	20.4
0°-180°	4608.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1094	1094	1094	1094	1094	
5°	1085	1101	1099	1089	1076	103
15°	1035	1048	1060	1065	1054	291
25°	940	955	979	978	972	430
35°	808	822	844	888	896	506
45°	656	672	728	778	808	510
55°	498	528	609	686	722	447
65°	334	374	491	580	633	335
75°	173	250	394	501	538	185
85°	43	152	306	417	461	47
90°	6	120	265	384	424	5
95°	7	100	239	342	380	7
105°	16	82	192	284	319	18
115°	34	79	159	234	259	34
125°	52	79	138	190	215	47
135°	64	80	124	158	175	50
145°	73	78	112	135	149	45
155°	68	72	95	110	119	32
165°	60	62	70	81	95	17
175°	59	54	45	41	22	6
180°	42	42	42	42	42	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1093.5	1093.5	1093.5	1093.5	1093.5
2.5°	1090.4	1097.6	1096.6	1109.9	1095.5
5°	1085.2	1100.7	1098.6	1089.4	1076.0
7.5°	1078.0	1099.6	1095.5	1093.5	1070.8
10°	1065.7	1083.2	1090.4	1092.4	1028.7
12.5°	1051.3	1067.8	1060.6	1069.8	1069.8
15°	1034.8	1048.2	1059.5	1064.7	1054.4
17.5°	1013.2	1034.8	1049.2	1046.2	1009.1
20°	978.3	1008.1	1008.1	1026.6	1023.5
22.5°	963.9	988.5	986.5	998.8	1004.0
25°	940.2	954.6	979.3	978.3	972.1
27.5°	896.0	935.1	937.1	944.3	945.3
30°	876.4	902.1	918.6	929.9	925.8
32.5°	842.5	855.9	879.5	903.2	908.3
35°	808.5	821.9	843.5	887.7	896.0
37.5°	769.4	798.2	824.0	851.7	875.4
40°	742.7	753.0	785.9	827.0	852.8
42.5°	702.6	720.1	760.2	795.2	812.6
45°	656.3	671.7	728.3	777.7	807.5
47.5°	619.3	642.9	697.4	755.0	788.0
50°	582.2	601.8	665.5	719.0	754.0
52.5°	537.0	563.7	636.7	717.0	727.3
55°	497.9	527.7	609.0	686.1	722.1
57.5°	459.8	486.6	583.3	652.2	700.5
60°	422.8	451.6	547.3	629.5	665.5
62.5°	382.7	410.4	522.6	610.0	655.3
65°	334.3	374.4	490.7	580.2	632.6
67.5°	296.3	345.6	469.1	573.0	611.0
70°	256.1	307.6	442.3	537.0	570.9
72.5°	214.0	277.7	415.6	526.7	558.6
75°	172.8	250.0	394.0	501.0	538.0
77.5°	137.8	222.2	371.3	480.4	516.4
80°	99.8	195.4	346.7	454.7	490.7
82.5°	67.9	171.8	330.2	440.3	474.2
85°	43.2	152.2	306.5	416.6	460.8
87.5°	20.6	134.8	286.0	399.1	425.9
90°	6.2	120.4	265.4	383.7	423.8
92.5°	5.1	109.0	256.1	361.1	399.1
95°	7.2	99.8	238.7	341.5	379.6
97.5°	10.3	92.6	227.3	325.1	368.3
100°	11.3	86.4	210.9	311.7	349.7
102.5°	13.4	83.3	200.6	298.3	333.3
105°	16.5	82.3	192.4	283.9	318.9
107.5°	20.6	78.2	183.1	264.4	305.5
110°	24.7	79.2	171.8	256.1	291.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	29.8	78.2	166.6	240.7	276.7
115°	33.9	79.2	159.4	233.5	259.2
117.5°	39.1	78.2	154.3	218.1	242.8
120°	44.2	79.2	147.1	212.9	238.7
122.5°	48.3	80.2	143.0	200.6	221.2
125°	52.5	79.2	137.8	190.3	215.0
127.5°	56.6	80.2	134.8	181.0	202.6
130°	59.7	79.2	131.7	173.8	192.4
132.5°	62.7	79.2	126.5	165.6	183.1
135°	63.8	80.2	124.5	158.4	174.9
137.5°	65.8	81.3	120.4	151.2	164.6
140°	69.9	81.3	118.3	147.1	158.4
142.5°	71.0	79.2	114.2	138.9	151.2
145°	73.0	78.2	112.1	134.8	149.2
147.5°	73.0	78.2	107.0	126.5	139.9
150°	72.0	75.1	103.9	121.4	130.6
152.5°	69.9	75.1	98.8	116.2	122.4
155°	67.9	72.0	94.6	110.1	119.3
157.5°	68.9	71.0	87.4	107.0	111.1
160°	66.9	67.9	79.2	100.8	107.0
162.5°	63.8	64.8	77.2	92.6	101.8
165°	59.7	61.7	69.9	81.3	94.6
167.5°	58.6	57.6	65.8	73.0	89.5
170°	58.6	56.6	58.6	61.7	82.3
172.5°	57.6	54.5	52.5	49.4	60.7
175°	58.6	54.5	45.3	41.1	21.6
177.5°	59.7	55.5	44.2	30.9	22.6
180°	42.2	42.2	42.2	42.2	42.2



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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	16.53	17.84	17.17	18.51	19.27	19.68	20.99	20.32	21.66	22.43
	3H	18.00	19.20	18.65	19.87	20.67	22.51	23.71	23.17	24.38	25.19
	4H	18.47	19.61	19.15	20.30	21.11	23.93	25.07	24.60	25.75	26.57
	6H	18.76	19.83	19.45	20.52	21.35	25.40	26.47	26.09	27.16	27.99
	8H	18.82	19.84	19.52	20.56	21.39	26.16	27.18	26.86	27.90	28.73
	12H	18.84	19.82	19.55	20.53	21.39	26.97	27.95	27.68	28.66	29.52
4H	2H	17.63	18.77	18.31	19.46	20.27	20.04	21.18	20.72	21.87	22.68
	3H	19.35	20.32	20.04	21.05	21.88	23.11	24.08	23.79	24.81	25.64
	4H	19.95	20.85	20.66	21.58	22.44	24.72	25.62	25.42	26.34	27.20
	6H	20.38	21.17	21.10	21.92	22.79	26.40	27.19	27.12	27.94	28.81
	8H	20.49	21.24	21.21	21.99	22.87	27.27	28.02	27.99	28.77	29.65
	12H	20.55	21.23	21.30	22.00	22.89	28.21	28.90	28.96	29.67	30.56
8H	4H	20.96	21.71	21.68	22.46	23.34	24.91	25.66	25.64	26.41	27.29
	6H	21.61	22.26	22.37	23.04	23.93	26.78	27.42	27.53	28.21	29.09
	8H	21.84	22.42	22.61	23.21	24.11	27.81	28.39	28.57	29.17	30.07
	12H	21.99	22.51	22.76	23.29	24.25	28.95	29.47	29.72	30.25	31.20
12H	4H	21.27	21.95	22.02	22.72	23.61	24.91	25.59	25.66	26.36	27.25
	6H	22.09	22.67	22.85	23.45	24.35	26.82	27.40	27.58	28.18	29.08
	8H	22.44	22.95	23.21	23.73	24.69	27.91	28.43	28.68	29.21	30.17