

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: P892872

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892872
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-RND-UNV-L850
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

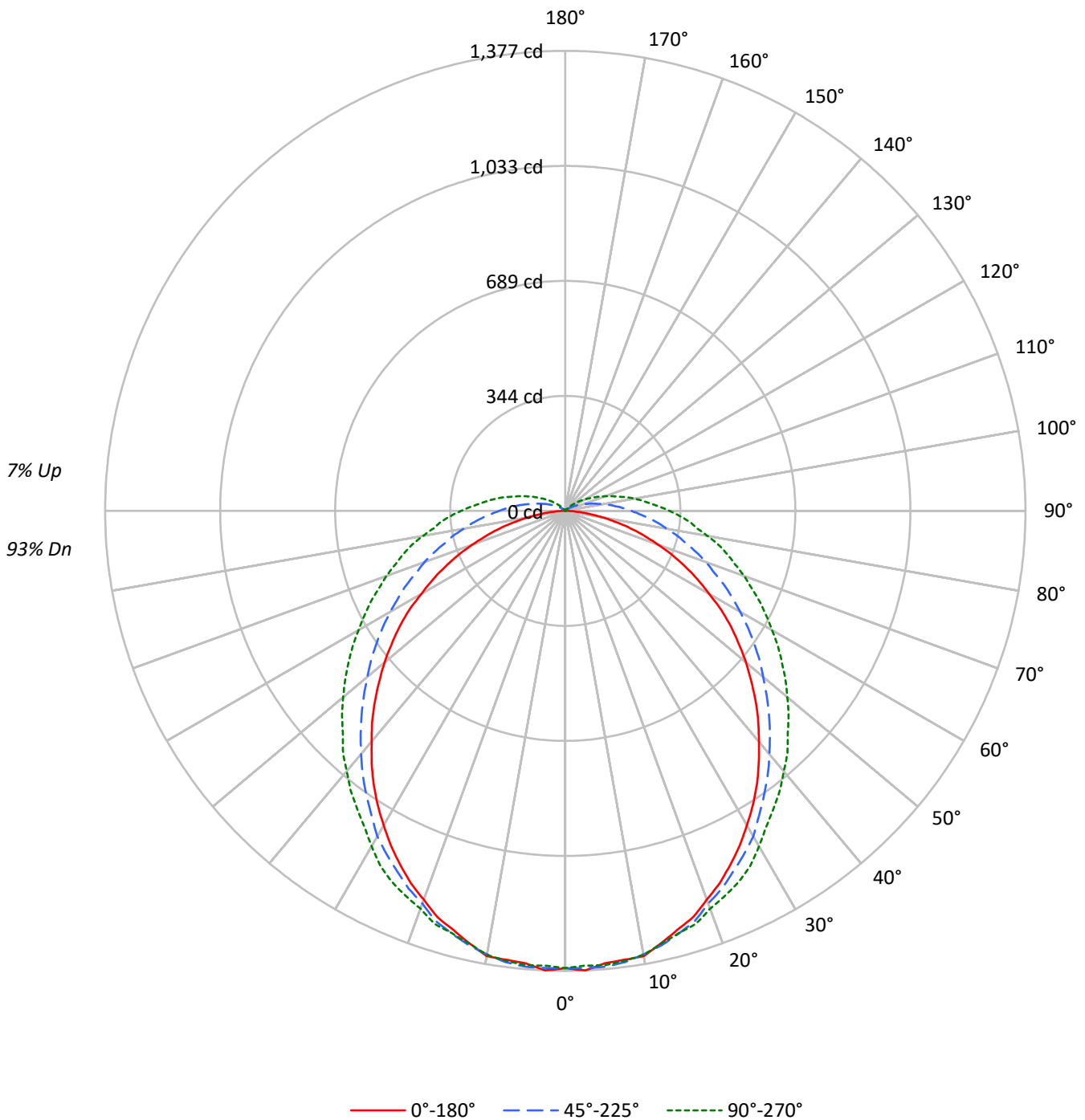
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4461.0 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: 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				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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	66	63	63	63	63	60
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	43	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	38	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	31	31	31	28
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	40	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19578	19578	19578
5°	19520	19668	19594
10°	19657	19583	19597
15°	19221	19403	19388
20°	18853	19040	19290
25°	18447	18787	19353
30°	17951	18577	19152
35°	17455	18119	18978
40°	16828	17746	18990
45°	16302	17443	19039
50°	15719	17203	19302
55°	15112	17182	19738
60°	14225	17304	20443
65°	13465	17768	21721
70°	12393	18738	23799
75°	11220	20628	27763
80°	9457	25423	35638
85°	7567	41231	61256

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 112294 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	2.9
10°-20°	368.8	8.3
20°-30°	550.0	12.3
30°-40°	651.2	14.6
40°-50°	670.8	15.0
50°-60°	620.3	13.9
60°-70°	515.5	11.6
70°-80°	385.7	8.6
80°-90°	255.6	5.7
90°-100°	156.4	3.5
100°-110°	88.4	2.0
110°-120°	44.0	1.0
120°-130°	18.2	0.4
130°-140°	5.3	0.1
140°-150°	0.8	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1048.4	23.5
0°-40°	1699.6	38.1
0°-60°	2990.7	67.0
0°-90°	4147.5	93.0
90°-120°	288.8	6.5
90°-150°	313.2	7.0
90°-180°	313.0	7.0
0°-180°	4461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1359	1352	1370	1366	1364	130
15°	1298	1298	1310	1322	1309	366
25°	1169	1173	1190	1213	1226	538
35°	1000	1010	1038	1080	1087	624
45°	806	814	862	923	941	621
55°	606	620	689	764	791	540
65°	398	428	525	607	642	393
75°	203	261	373	464	502	215
85°	46	134	251	337	373	53
90°	4	87	198	279	312	4
95°	1	54	154	231	255	1
105°	1	18	84	142	164	1
115°	1	5	40	80	96	1
125°	1	1	15	38	48	1
135°	1	1	4	12	17	1
145°	1	1	0	1	2	1
155°	1	1	0	0	0	0
165°	1	1	0	0	0	0
175°	2	1	0	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1368.6	1368.6	1368.6	1368.6	1368.6
2.5°	1376.8	1360.4	1369.6	1367.6	1362.4
5°	1359.3	1352.2	1369.6	1365.5	1364.5
7.5°	1355.2	1352.2	1362.4	1358.3	1358.3
10°	1353.2	1332.7	1348.1	1358.3	1349.1
12.5°	1325.5	1320.4	1331.7	1332.7	1326.5
15°	1297.8	1297.8	1310.1	1322.4	1309.1
17.5°	1274.3	1272.2	1287.6	1296.8	1296.8
20°	1238.4	1241.5	1250.7	1268.1	1267.1
22.5°	1206.6	1214.8	1224.0	1244.5	1247.6
25°	1168.7	1172.8	1190.2	1212.8	1226.1
27.5°	1129.7	1135.9	1158.4	1183.0	1198.4
30°	1086.7	1086.7	1124.6	1153.3	1159.4
32.5°	1044.6	1045.7	1079.5	1111.3	1119.5
35°	999.5	1009.8	1037.5	1080.5	1086.7
37.5°	951.3	957.5	995.4	1034.4	1054.9
40°	901.1	911.4	950.3	1004.6	1016.9
42.5°	855.0	863.2	906.2	962.6	984.1
45°	805.8	814.0	862.2	922.6	941.1
47.5°	754.5	764.8	817.0	888.8	906.2
50°	706.3	714.5	773.0	845.7	867.3
52.5°	655.1	668.4	732.0	802.7	830.4
55°	605.9	620.2	688.9	763.7	791.4
57.5°	554.6	574.1	646.9	724.8	754.5
60°	497.2	522.8	604.8	687.9	714.5
62.5°	448.0	475.7	562.8	644.8	677.6
65°	397.8	428.5	524.9	606.9	641.7
67.5°	347.5	384.4	481.8	569.0	602.8
70°	296.3	343.4	448.0	535.1	569.0
72.5°	248.1	301.4	411.1	502.3	533.1
75°	203.0	261.4	373.2	464.4	502.3
77.5°	157.9	225.5	343.4	435.7	469.5
80°	114.8	190.7	308.6	400.8	432.6
82.5°	78.9	160.9	280.9	370.1	396.7
85°	46.1	134.3	251.2	337.3	373.2
87.5°	21.5	108.7	222.5	307.5	342.4
90°	4.1	87.1	197.9	278.8	311.6
92.5°	1.0	69.7	176.3	256.3	282.9
95°	1.0	54.3	153.8	230.7	255.3
97.5°	1.0	42.0	134.3	207.1	233.7
100°	1.0	31.8	115.8	185.6	210.2
102.5°	1.0	24.6	98.4	163.0	188.6
105°	1.0	18.5	84.1	142.5	164.0
107.5°	1.0	13.3	70.7	126.1	146.6
110°	1.0	10.3	59.5	110.7	128.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.0	7.2	48.2	94.3	111.7
115°	1.0	5.1	40.0	80.0	96.4
117.5°	1.0	3.1	31.8	67.7	82.0
120°	1.0	2.1	25.6	56.4	69.7
122.5°	1.0	2.1	19.5	46.1	58.4
125°	1.0	1.0	15.4	37.9	48.2
127.5°	1.0	1.0	11.3	29.7	37.9
130°	1.0	1.0	8.2	22.6	29.7
132.5°	1.0	1.0	5.1	17.4	22.6
135°	1.0	1.0	4.1	12.3	17.4
137.5°	1.0	1.0	2.1	8.2	11.3
140°	1.0	1.0	1.0	5.1	7.2
142.5°	1.0	1.0	1.0	3.1	4.1
145°	1.0	1.0	0.0	1.0	2.1
147.5°	1.0	1.0	0.0	1.0	1.0
150°	1.0	1.0	0.0	0.0	0.0
152.5°	1.0	1.0	0.0	0.0	0.0
155°	1.0	1.0	0.0	0.0	0.0
157.5°	1.0	1.0	0.0	0.0	0.0
160°	1.0	1.0	0.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0
165°	1.0	1.0	0.0	0.0	0.0
167.5°	1.0	1.0	0.0	0.0	0.0
170°	1.0	1.0	0.0	0.0	0.0
172.5°	2.1	1.0	0.0	0.0	0.0
175°	2.1	1.0	0.0	0.0	0.0
177.5°	2.1	1.0	0.0	0.0	0.0
180°	1.0	1.0	1.0	1.0	1.0



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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	20.42	21.95	20.89	22.41	22.90	22.15	23.69	22.63	24.14	24.63
	3H	22.15	23.55	22.64	24.02	24.55	24.73	26.13	25.21	26.59	27.12
	4H	22.80	24.13	23.30	24.61	25.15	26.03	27.35	26.53	27.84	28.38
	6H	23.27	24.51	23.79	25.00	25.56	27.42	28.66	27.94	29.16	29.71
	8H	23.42	24.60	23.95	25.12	25.68	28.15	29.34	28.68	29.86	30.42
	12H	23.51	24.65	24.05	25.16	25.76	29.00	30.14	29.53	30.65	31.24
4H	2H	21.39	22.72	21.90	23.20	23.74	22.71	24.03	23.21	24.52	25.06
	3H	23.40	24.54	23.92	25.06	25.63	25.57	26.70	26.09	27.23	27.79
	4H	24.20	25.24	24.74	25.78	26.37	27.09	28.12	27.62	28.66	29.26
	6H	24.84	25.76	25.40	26.32	26.93	28.72	29.64	29.28	30.20	30.81
	8H	25.06	25.93	25.63	26.49	27.11	29.58	30.44	30.14	31.01	31.63
	12H	25.23	26.02	25.81	26.61	27.23	30.57	31.36	31.16	31.95	32.58
8H	4H	25.08	25.94	25.64	26.50	27.13	27.44	28.31	28.01	28.87	29.49
	6H	25.99	26.73	26.58	27.33	27.96	29.34	30.07	29.93	30.68	31.30
	8H	26.37	27.03	26.98	27.65	28.29	30.40	31.07	31.01	31.68	32.32
	12H	26.69	27.28	27.30	27.89	28.59	31.66	32.25	32.26	32.85	33.56
12H	4H	25.35	26.14	25.93	26.73	27.35	27.48	28.27	28.07	28.86	29.49
	6H	26.43	27.10	27.04	27.71	28.35	29.44	30.11	30.05	30.72	31.36
	8H	26.97	27.56	27.58	28.17	28.87	30.62	31.22	31.23	31.82	32.53