

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: P893888

Luminaire Tested: 4MB-7HL-RNDU-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893888
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RNDU-UNV-L950
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, 5
Light Source: -
Ballast/Driver: -

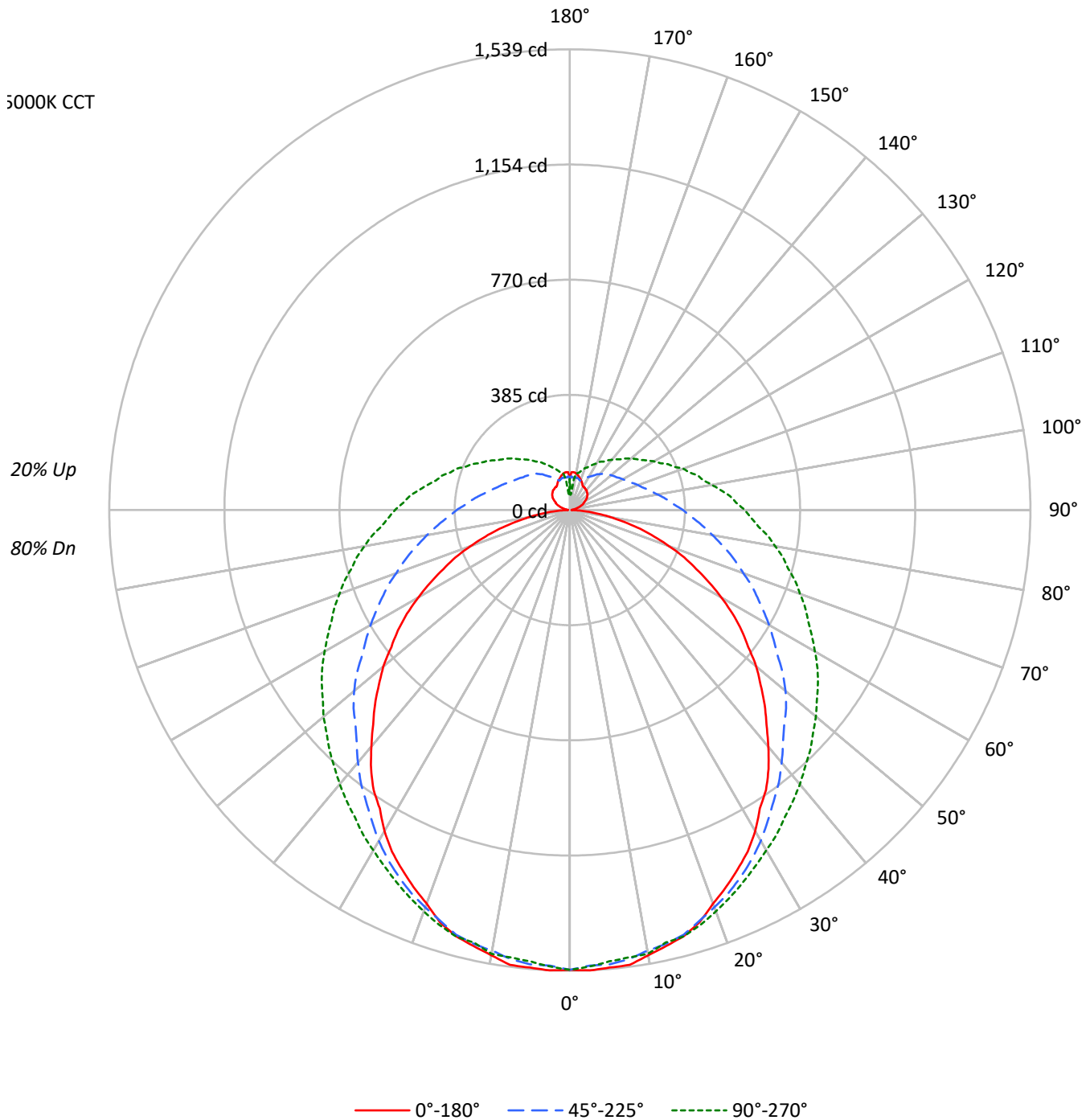
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6457.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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	77	76	73	71	69	67	65	65	65	65	61
2	92	82	75	68	87	79	72	66	72	66	61	66	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	38	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°	10929	10929	10929
5°	10908	10494	10316
10°	10811	10047	9915
15°	10702	9716	9468
20°	10398	9262	9008
25°	10158	8861	8573
30°	9878	8423	8192
35°	9573	7949	7862
40°	9179	7542	7608
45°	8805	7154	7382
50°	8476	6915	7190
55°	8091	6541	7042
60°	7632	6305	6905
65°	7061	6094	6802
70°	6422	5923	6798
75°	5590	5857	6817
80°	4398	5826	6950
85°	2896	5956	7107

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8805 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	2.3
10°-20°	415.5	6.4
20°-30°	623.9	9.7
30°-40°	749.2	11.6
40°-50°	792.5	12.3
50°-60°	763.7	11.8
60°-70°	677.5	10.5
70°-80°	555.6	8.6
80°-90°	430.1	6.7
90°-100°	335.5	5.2
100°-110°	267.1	4.1
110°-120°	213.5	3.3
120°-130°	168.4	2.6
130°-140°	128.5	2.0
140°-150°	90.3	1.4
150°-160°	57.8	0.9
160°-170°	32.4	0.5
170°-180°	10.3	0.2
0°-30°	1184.8	18.3
0°-40°	1934.0	30.0
0°-60°	3490.1	54.1
0°-90°	5153.3	79.8
90°-120°	816.1	12.6
90°-150°	1203.3	18.6
90°-180°	1304.0	20.2
0°-180°	6457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1534	1538	1524	1535	1514	146
15°	1473	1474	1469	1478	1474	414
25°	1326	1347	1352	1375	1371	611
35°	1142	1160	1187	1236	1252	712
45°	921	948	1013	1109	1136	710
55°	701	736	847	962	1012	625
65°	466	531	692	835	879	464
75°	243	350	551	699	755	257
85°	57	213	427	581	632	64
90°	6	169	378	526	584	6
95°	8	140	334	480	537	8
105°	26	113	267	393	443	27
115°	50	111	222	320	362	48
125°	70	112	191	263	291	61
135°	82	109	171	222	240	63
145°	88	100	141	186	198	56
155°	98	103	116	146	163	45
165°	116	113	109	106	132	33
175°	127	123	109	89	57	12
180°	104	104	104	104	104	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.0	1536.0	1536.0	1536.0	1536.0
2.5°	1539.4	1544.6	1523.1	1536.0	1526.5
5°	1534.3	1538.5	1523.9	1535.1	1513.6
7.5°	1532.5	1530.8	1512.8	1527.4	1507.6
10°	1510.2	1516.2	1494.7	1514.5	1505.0
12.5°	1491.3	1503.3	1484.4	1499.9	1480.1
15°	1473.3	1474.1	1469.0	1478.4	1474.1
17.5°	1443.2	1450.9	1438.9	1460.4	1452.6
20°	1399.4	1423.4	1412.3	1432.0	1426.9
22.5°	1363.3	1375.3	1384.8	1407.1	1400.2
25°	1325.5	1347.0	1352.1	1375.3	1371.0
27.5°	1286.8	1296.3	1316.1	1341.0	1341.8
30°	1238.7	1249.0	1276.5	1304.9	1312.6
32.5°	1182.0	1214.7	1231.0	1274.0	1286.0
35°	1142.5	1159.7	1187.2	1236.2	1252.5
37.5°	1091.0	1110.7	1147.7	1205.2	1225.0
40°	1031.7	1060.9	1101.3	1172.6	1195.8
42.5°	972.4	1006.8	1054.0	1137.4	1164.0
45°	920.9	948.4	1012.8	1109.0	1135.7
47.5°	865.1	898.6	980.2	1072.1	1102.2
50°	813.5	847.9	940.7	1037.7	1073.8
52.5°	751.7	791.2	897.7	998.2	1040.3
55°	701.0	736.2	847.0	962.1	1012.0
57.5°	645.1	684.7	807.5	935.5	981.0
60°	585.0	634.8	768.8	902.0	945.8
62.5°	525.7	585.0	729.3	869.4	912.3
65°	466.5	530.9	691.5	835.0	878.8
67.5°	413.2	482.8	657.2	797.2	851.3
70°	353.1	436.4	616.8	762.0	818.7
72.5°	296.4	394.3	584.1	733.6	790.3
75°	243.1	349.6	550.6	699.3	755.1
77.5°	189.8	307.5	515.4	668.3	729.3
80°	139.2	273.2	484.5	638.3	696.7
82.5°	96.2	243.1	454.4	613.4	668.3
85°	56.7	213.0	426.9	580.7	632.3
87.5°	25.8	189.0	398.6	555.8	606.5
90°	6.0	169.2	378.0	525.7	584.1
92.5°	6.0	153.8	353.1	503.4	556.7
95°	7.7	140.0	334.2	480.2	536.9
97.5°	10.3	129.7	317.0	458.7	508.6
100°	14.6	122.8	298.1	433.8	482.8
102.5°	19.8	117.7	280.9	411.5	457.0
105°	25.8	113.4	267.2	392.6	443.3
107.5°	31.8	111.7	253.4	374.5	417.5
110°	37.8	110.8	243.1	355.6	403.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	43.8	110.0	231.9	338.5	377.1
115°	49.8	110.8	221.6	320.4	361.7
117.5°	53.3	110.8	212.2	305.0	339.3
120°	58.4	111.7	205.3	288.6	324.7
122.5°	63.6	111.7	198.4	276.6	308.4
125°	69.6	112.5	190.7	262.9	291.2
127.5°	73.0	112.5	186.4	253.4	279.2
130°	76.5	111.7	180.4	241.4	268.0
132.5°	79.9	110.0	177.0	230.2	255.1
135°	81.6	109.1	170.9	222.5	239.7
137.5°	84.2	106.5	164.9	211.3	230.2
140°	86.8	105.7	156.3	202.7	219.1
142.5°	86.8	103.1	150.3	195.0	209.6
145°	88.5	100.5	140.9	186.4	197.6
147.5°	90.2	99.6	134.0	177.8	191.6
150°	90.2	98.8	128.0	168.4	181.3
152.5°	91.9	99.6	122.0	159.8	171.8
155°	97.9	103.1	116.0	146.0	163.2
157.5°	103.1	106.5	110.0	135.7	153.8
160°	107.4	109.1	104.8	125.4	149.5
162.5°	110.8	111.7	105.7	116.0	140.0
165°	116.0	113.4	109.1	106.5	132.3
167.5°	120.3	115.1	110.8	103.9	126.3
170°	123.7	118.5	109.1	97.9	123.7
172.5°	126.3	119.4	110.0	91.9	103.9
175°	127.1	122.8	109.1	89.3	56.7
177.5°	126.3	123.7	112.5	88.5	50.7
180°	103.9	103.9	103.9	103.9	103.9



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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	15.35	16.67	15.99	17.33	18.10	18.76	20.07	19.40	20.74	21.50
	3H	16.80	18.00	17.46	18.68	19.48	21.60	22.80	22.25	23.47	24.27
	4H	17.28	18.42	17.95	19.10	19.91	23.05	24.19	23.72	24.87	25.68
	6H	17.55	18.62	18.24	19.31	20.14	24.61	25.67	25.29	26.36	27.19
	8H	17.61	18.63	18.31	19.35	20.18	25.42	26.44	26.12	27.16	27.99
	12H	17.63	18.61	18.33	19.32	20.18	26.30	27.28	27.01	27.99	28.85
4H	2H	16.49	17.63	17.16	18.31	19.13	19.10	20.24	19.77	20.93	21.74
	3H	18.19	19.17	18.88	19.89	20.72	22.17	23.15	22.85	23.87	24.70
	4H	18.79	19.69	19.49	20.42	21.28	23.80	24.71	24.51	25.43	26.29
	6H	19.20	20.00	19.92	20.75	21.61	25.56	26.36	26.28	27.11	27.98
	8H	19.31	20.07	20.04	20.81	21.69	26.50	27.25	27.22	27.99	28.87
	12H	19.37	20.06	20.12	20.82	21.71	27.51	28.19	28.25	28.96	29.85
8H	4H	19.82	20.57	20.55	21.32	22.20	23.99	24.74	24.71	25.48	26.36
	6H	20.47	21.11	21.22	21.90	22.78	25.93	26.57	26.68	27.35	28.23
	8H	20.70	21.28	21.46	22.06	22.96	27.01	27.59	27.77	28.37	29.27
	12H	20.84	21.36	21.61	22.14	23.09	28.21	28.73	28.98	29.51	30.46
12H	4H	20.15	20.84	20.90	21.61	22.49	23.98	24.67	24.73	25.44	26.32
	6H	20.96	21.54	21.72	22.32	23.22	25.96	26.54	26.72	27.32	28.22
	8H	21.31	21.83	22.07	22.60	23.56	27.10	27.62	27.87	28.40	29.35