

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: P893840

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-FLTU-UNV-L950
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 500
Light Source: -
Ballast/Driver: -

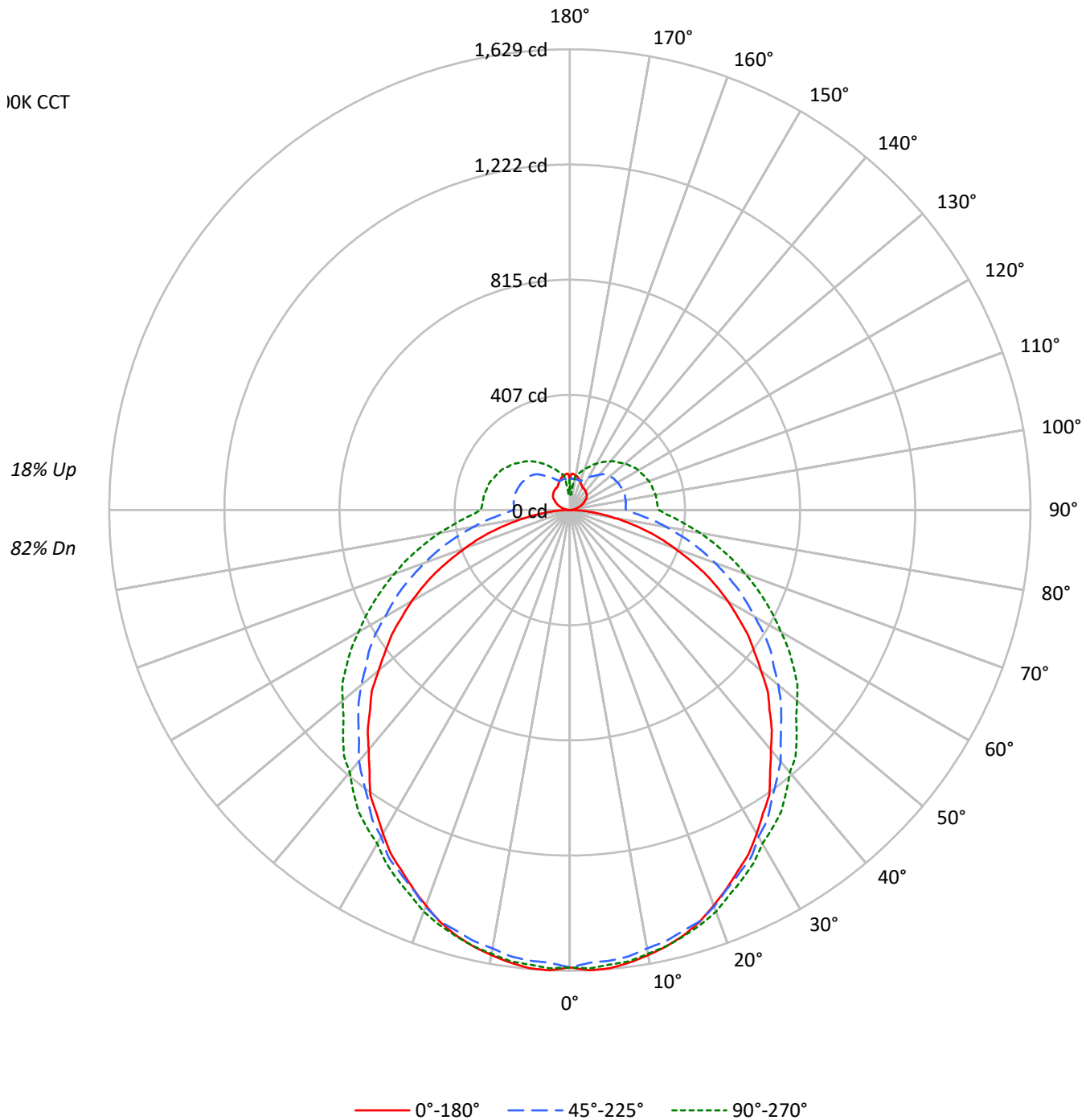
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6079.0 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	86	86	82
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	69	69	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	57	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	48	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	41	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	35	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	31	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	27	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	24	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	22	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	20	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11505	11505	11505
5°	11563	11017	10997
10°	11440	10580	10494
15°	11309	10194	10016
20°	11057	9788	9540
25°	10785	9290	9015
30°	10538	8804	8504
35°	10308	8342	8176
40°	9846	7944	7703
45°	9546	7471	7372
50°	9194	7073	7024
55°	8875	6695	6714
60°	8430	6179	6298
65°	7919	5762	5905
70°	7156	5247	5478
75°	6342	4735	5073
80°	5020	4174	4662
85°	3468	3631	4278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9546 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	2.5
10°-20°	437.4	7.2
20°-30°	657.0	10.8
30°-40°	787.4	13.0
40°-50°	825.5	13.6
50°-60°	774.4	12.7
60°-70°	643.2	10.6
70°-80°	459.9	7.6
80°-90°	272.8	4.5
90°-100°	200.1	3.3
100°-110°	197.1	3.2
110°-120°	183.9	3.0
120°-130°	161.4	2.7
130°-140°	129.9	2.1
140°-150°	93.3	1.5
150°-160°	59.3	1.0
160°-170°	32.8	0.5
170°-180°	10.3	0.2
0°-30°	1247.5	20.5
0°-40°	2034.9	33.5
0°-60°	3634.9	59.8
0°-90°	5010.8	82.4
90°-120°	581.1	9.6
90°-150°	965.7	15.9
90°-180°	1068.0	17.6
0°-180°	6079.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1617	1617	1617	1617	1617	
5°	1626	1623	1600	1608	1614	154
15°	1557	1547	1541	1552	1559	438
25°	1407	1420	1418	1434	1442	649
35°	1230	1235	1246	1282	1302	764
45°	998	1027	1058	1127	1134	772
55°	769	794	867	937	965	684
65°	523	563	654	742	763	516
75°	276	339	445	537	562	291
85°	68	149	260	348	381	75
90°	3	90	198	284	314	6
95°	8	94	198	280	309	8
105°	28	104	202	277	302	29
115°	50	113	198	263	289	49
125°	71	116	192	244	266	62
135°	82	112	178	221	239	64
145°	89	103	146	194	208	56
155°	98	103	119	150	170	45
165°	117	113	110	109	137	33
175°	129	124	111	92	56	12
180°	106	106	106	106	106	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1617.0	1617.0	1617.0	1617.0	1617.0
2.5°	1629.0	1616.1	1602.4	1623.0	1622.1
5°	1626.4	1623.0	1599.8	1607.5	1613.5
7.5°	1614.4	1605.8	1592.0	1610.9	1609.2
10°	1598.1	1587.7	1574.0	1585.2	1592.9
12.5°	1580.0	1571.4	1562.0	1574.0	1579.2
15°	1556.8	1547.4	1541.4	1552.5	1559.4
17.5°	1526.7	1524.2	1525.0	1525.9	1537.1
20°	1488.1	1489.8	1492.4	1507.8	1511.3
22.5°	1448.6	1458.0	1451.1	1475.2	1473.5
25°	1407.3	1420.2	1417.6	1434.0	1441.7
27.5°	1370.4	1371.2	1386.7	1409.9	1407.3
30°	1321.4	1336.0	1334.3	1362.6	1362.6
32.5°	1271.6	1293.1	1299.9	1324.8	1333.4
35°	1230.3	1234.6	1245.8	1281.9	1302.5
37.5°	1163.3	1183.9	1202.0	1249.2	1257.0
40°	1106.6	1127.2	1159.9	1214.9	1210.6
42.5°	1057.6	1079.1	1103.2	1166.8	1182.2
45°	998.4	1026.7	1057.6	1127.2	1134.1
47.5°	950.2	972.6	1013.0	1076.5	1085.1
50°	882.4	918.5	962.3	1036.2	1049.0
52.5°	822.2	853.2	909.0	985.5	1014.7
55°	769.0	793.9	866.9	937.4	964.8
57.5°	703.7	738.0	814.5	892.7	917.6
60°	646.1	679.6	753.5	842.8	862.6
62.5°	585.1	624.6	704.5	791.3	813.6
65°	523.2	562.8	653.8	741.5	762.9
67.5°	456.2	505.2	598.0	689.1	711.4
70°	393.5	446.8	546.4	637.5	659.8
72.5°	336.8	394.4	495.7	589.4	613.4
75°	275.8	339.4	445.1	537.0	561.9
77.5°	216.5	285.2	392.6	485.4	514.6
80°	158.9	234.6	347.1	436.5	467.4
82.5°	111.7	189.0	305.0	392.6	421.0
85°	67.9	148.6	260.3	348.0	380.6
87.5°	30.1	115.1	225.1	311.9	341.1
90°	2.6	90.2	198.5	283.5	314.5
92.5°	5.2	91.9	197.6	280.1	311.0
95°	7.7	94.5	198.5	280.1	309.3
97.5°	11.2	97.9	200.2	280.1	308.4
100°	16.3	99.7	201.0	280.1	308.4
102.5°	21.5	102.2	200.2	275.8	305.0
105°	27.5	104.0	201.9	276.7	302.4
107.5°	33.5	105.7	201.9	272.4	301.6
110°	39.5	108.3	200.2	269.8	298.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	44.7	110.8	199.3	264.6	292.1
115°	49.8	112.6	197.6	262.9	288.7
117.5°	55.0	113.4	196.8	258.6	283.5
120°	59.3	115.1	195.0	253.5	280.9
122.5°	64.4	116.0	192.5	248.3	275.8
125°	71.3	116.0	191.6	244.0	266.3
127.5°	74.7	116.8	188.2	238.8	262.0
130°	78.2	114.3	186.4	232.8	255.2
132.5°	80.8	113.4	182.1	226.8	246.6
135°	82.5	111.7	177.8	220.8	238.8
137.5°	85.1	109.1	171.8	216.5	233.7
140°	86.8	107.4	163.2	207.9	225.1
142.5°	88.5	104.8	154.7	200.2	216.5
145°	89.4	103.1	146.1	194.2	207.9
147.5°	91.9	100.5	140.9	186.4	198.5
150°	91.1	98.8	133.2	177.0	189.0
152.5°	93.6	101.4	126.3	164.1	181.3
155°	97.9	103.1	119.4	150.4	170.1
157.5°	102.2	106.5	114.3	138.3	161.5
160°	108.3	108.3	108.3	128.9	154.7
162.5°	111.7	111.7	109.1	117.7	145.2
165°	116.8	113.4	110.0	109.1	136.6
167.5°	122.0	115.1	111.7	105.7	130.6
170°	122.9	117.7	110.8	99.7	126.3
172.5°	126.3	120.3	110.0	94.5	97.9
175°	128.9	123.7	110.8	91.9	55.8
177.5°	128.0	123.7	113.4	91.9	54.1
180°	106.5	106.5	106.5	106.5	106.5



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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	16.21	17.54	16.82	18.16	18.88	18.72	20.05	19.33	20.68	21.39
	3H	17.64	18.85	18.27	19.48	20.23	21.09	22.29	21.71	22.93	23.68
	4H	18.11	19.25	18.75	19.90	20.66	22.20	23.35	22.85	24.00	24.76
	6H	18.38	19.44	19.03	20.10	20.88	23.32	24.38	23.98	25.04	25.82
	8H	18.43	19.44	19.10	20.13	20.91	23.87	24.88	24.54	25.57	26.35
	12H	18.44	19.42	19.12	20.09	20.90	24.45	25.42	25.13	26.10	26.91
4H	2H	17.08	18.22	17.73	18.87	19.64	19.07	20.21	19.71	20.86	21.62
	3H	18.74	19.71	19.40	20.40	21.18	21.65	22.62	22.31	23.31	24.09
	4H	19.32	20.21	20.00	20.90	21.71	22.92	23.81	23.60	24.50	25.32
	6H	19.70	20.48	20.39	21.19	22.01	24.21	24.99	24.91	25.71	26.53
	8H	19.79	20.52	20.49	21.24	22.07	24.86	25.59	25.56	26.30	27.14
	12H	19.83	20.49	20.55	21.23	22.07	25.55	26.21	26.27	26.95	27.79
8H	4H	19.94	20.68	20.64	21.39	22.23	23.08	23.81	23.78	24.53	25.36
	6H	20.48	21.10	21.21	21.85	22.69	24.51	25.13	25.24	25.89	26.72
	8H	20.65	21.21	21.39	21.96	22.81	25.28	25.84	26.02	26.59	27.45
	12H	20.75	21.25	21.50	22.00	22.91	26.13	26.63	26.87	27.37	28.29
12H	4H	20.10	20.77	20.82	21.51	22.35	23.07	23.74	23.79	24.47	25.31
	6H	20.73	21.28	21.47	22.04	22.89	24.53	25.09	25.27	25.85	26.70
	8H	20.97	21.47	21.72	22.22	23.13	25.35	25.85	26.10	26.60	27.51