

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: P893388

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893388
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-ASYMR-UNV-L850
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

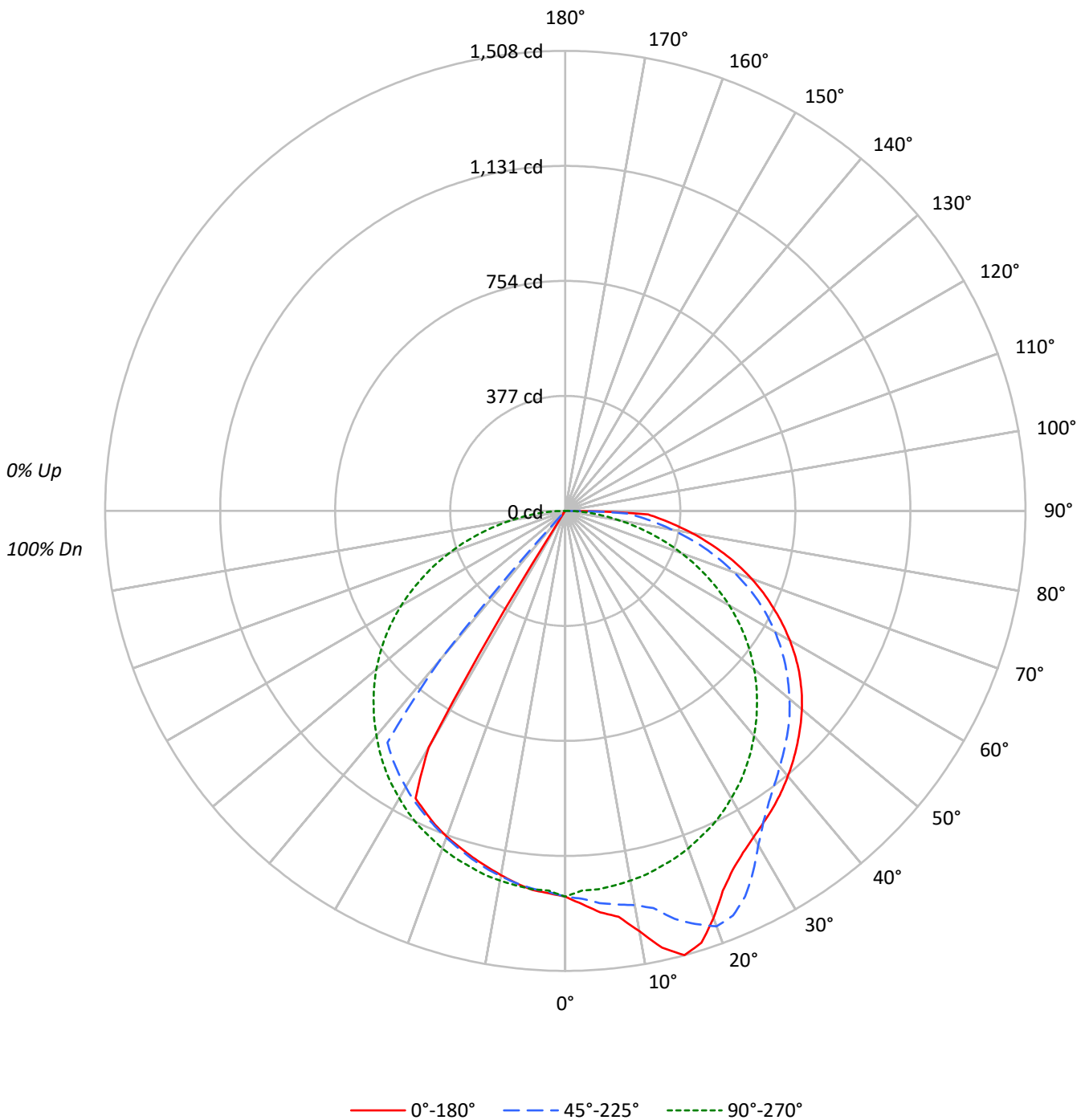
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3421.0 lumens
Efficiency: N/A
Efficacy: 162.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.28 / 1.25
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.2
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	85	85	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	71	71	71	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	30	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	27	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	16418	16418	16418	16418	16418
5°	17218	16821	16227	16198	16254
10°	18448	17302	16223	16032	15985
15°	20268	18613	16229	15878	15800
20°	19624	20024	16271	15752	15700
25°	18593	19984	16310	15699	15584
30°	18513	18969	16309	15679	13421
35°	18826	18447	16335	15681	184
40°	19236	18536	16313	10815	122
45°	19761	18911	16318	200	79
50°	20452	19383	16327	145	28
55°	21231	19936	16280	97	16
60°	22080	20613	16135	36	18
65°	23118	21428	15842	43	43
70°	24663	22324	15342	53	53
75°	26997	23761	14680	145	70
80°	31676	26591	13595	217	105
85°	47154	37336	12738	328	209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 80853 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.5
10°-20°	361.8	10.6
20°-30°	556.1	16.3
30°-40°	596.0	17.4
40°-50°	541.3	15.8
50°-60°	493.7	14.4
60°-70°	367.3	10.7
70°-80°	258.5	7.6
80°-90°	125.3	3.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1039.0	30.4
0°-40°	1635.0	47.8
0°-60°	2669.9	78.0
0°-90°	3421.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3421.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1264	1264	1264	1264	1264	
5°	1321	1290	1245	1243	1247	128
15°	1508	1385	1207	1181	1175	416
25°	1298	1395	1138	1096	1088	603
35°	1188	1164	1030	989	12	744
45°	1076	1030	889	11	4	831
55°	938	881	719	4	1	838
65°	752	697	516	1	1	745
75°	538	474	293	3	1	567
85°	316	251	86	2	1	318
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1264.4	1264.4	1264.4	1264.4	1264.4	1264.4	1264.4	1264.4	1264.4
2.5°	1290.5	1276.0	1272.4	1282.5	1245.6	1270.2	1249.9	1254.3	1254.3
5°	1320.9	1300.6	1290.5	1287.6	1244.9	1261.5	1242.7	1242.7	1247.0
7.5°	1341.9	1319.4	1301.3	1294.1	1238.3	1252.8	1231.1	1231.1	1231.1
10°	1399.1	1357.1	1312.2	1299.2	1230.4	1241.2	1215.9	1217.3	1212.3
12.5°	1466.5	1428.8	1333.2	1297.0	1221.7	1226.8	1200.0	1199.2	1193.4
15°	1507.7	1479.5	1384.6	1294.1	1207.2	1211.5	1181.1	1179.0	1175.3
17.5°	1484.6	1480.2	1420.1	1291.9	1194.2	1190.5	1160.1	1158.0	1155.1
20°	1420.1	1431.0	1449.1	1287.6	1177.5	1170.3	1139.9	1138.4	1136.2
22.5°	1348.4	1359.3	1436.0	1294.8	1157.2	1148.5	1118.1	1116.7	1113.8
25°	1297.7	1297.7	1394.8	1312.2	1138.4	1122.5	1095.7	1093.5	1087.7
27.5°	1262.2	1255.7	1333.2	1331.8	1114.5	1096.4	1071.8	1069.6	1062.4
30°	1234.7	1223.9	1265.1	1341.2	1087.7	1068.2	1045.7	1043.5	895.1
32.5°	1210.1	1198.5	1207.9	1349.1	1060.9	1037.7	1018.2	726.3	31.9
35°	1187.6	1174.6	1163.7	1343.3	1030.5	1007.3	989.2	21.0	11.6
37.5°	1162.3	1152.2	1127.5	1312.9	997.9	974.7	957.4	11.6	10.1
40°	1134.8	1125.4	1093.5	1268.0	962.4	942.9	638.0	10.1	7.2
42.5°	1106.5	1099.3	1061.6	1202.9	926.9	907.4	20.3	8.0	5.8
45°	1076.1	1069.6	1029.8	1123.9	888.6	870.5	10.9	5.8	4.3
47.5°	1045.0	1035.6	996.5	1039.2	849.5	831.4	9.4	4.3	2.9
50°	1012.4	1002.3	959.5	964.6	808.2	790.1	7.2	2.9	1.4
52.5°	976.2	963.9	920.4	897.3	764.7	748.1	5.8	1.4	0.7
55°	937.8	924.0	880.6	838.6	719.1	700.3	4.3	1.4	0.7
57.5°	895.1	879.9	838.6	782.8	670.6	473.6	2.9	1.4	0.7
60°	850.2	835.0	793.7	730.7	621.3	32.6	1.4	1.4	0.7
62.5°	802.4	786.5	746.6	677.8	568.5	26.8	1.4	1.4	1.4
65°	752.4	733.6	697.4	623.5	515.6	22.4	1.4	1.4	1.4
67.5°	702.4	678.6	644.5	567.8	461.3	18.8	1.4	1.4	1.4
70°	649.6	623.5	588.0	511.3	404.1	15.2	1.4	1.4	1.4
72.5°	595.3	569.9	531.5	454.1	350.5	11.6	1.4	1.4	1.4
75°	538.1	514.9	473.6	396.8	292.6	8.7	2.9	1.4	1.4
77.5°	478.7	460.6	414.2	338.2	236.1	5.8	2.9	1.4	1.4
80°	423.6	403.4	355.6	278.8	181.8	4.3	2.9	2.2	1.4
82.5°	367.2	349.1	301.3	224.5	130.4	3.6	2.9	2.2	1.4
85°	316.5	299.1	250.6	175.3	85.5	2.9	2.2	2.2	1.4
87.5°	271.6	255.6	207.8	128.2	48.5	2.2	2.2	2.2	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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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	24.25	25.87	24.62	26.18	26.50	19.69	21.30	20.05	21.62	21.93
	3H	26.70	28.17	27.08	28.49	28.85	20.33	21.79	20.71	22.12	22.48
	4H	27.83	29.21	28.22	29.56	29.93	20.47	21.86	20.87	22.20	22.58
	6H	28.92	30.20	29.33	30.57	30.96	20.51	21.80	20.93	22.16	22.55
	8H	29.45	30.68	29.87	31.06	31.46	20.50	21.73	20.93	22.12	22.52
	12H	30.02	31.19	30.45	31.58	32.00	20.48	21.66	20.91	22.04	22.47
4H	2H	24.91	26.29	25.31	26.64	27.02	20.81	22.20	21.21	22.54	22.92
	3H	27.60	28.77	28.01	29.17	29.57	22.16	23.32	22.57	23.72	24.12
	4H	28.90	29.96	29.33	30.37	30.81	22.69	23.75	23.12	24.17	24.60
	6H	30.18	31.11	30.63	31.55	32.01	22.97	23.90	23.42	24.34	24.80
	8H	30.80	31.68	31.26	32.12	32.59	23.00	23.88	23.46	24.32	24.79
	12H	31.49	32.28	31.97	32.76	33.23	23.02	23.81	23.49	24.28	24.75
8H	4H	29.26	30.14	29.72	30.58	31.04	23.64	24.52	24.10	24.96	25.42
	6H	30.74	31.48	31.23	31.97	32.44	24.23	24.97	24.72	25.45	25.93
	8H	31.53	32.19	32.03	32.70	33.18	24.41	25.07	24.91	25.58	26.06
	12H	32.42	33.01	32.92	33.50	34.06	24.51	25.10	25.01	25.59	26.15
12H	4H	29.30	30.09	29.78	30.57	31.03	23.86	24.65	24.34	25.12	25.59
	6H	30.83	31.50	31.34	32.00	32.49	24.58	25.25	25.09	25.75	26.23
	8H	31.71	32.30	32.22	32.79	33.35	24.89	25.48	25.40	25.97	26.53