

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: P893387

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893387
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-L840
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

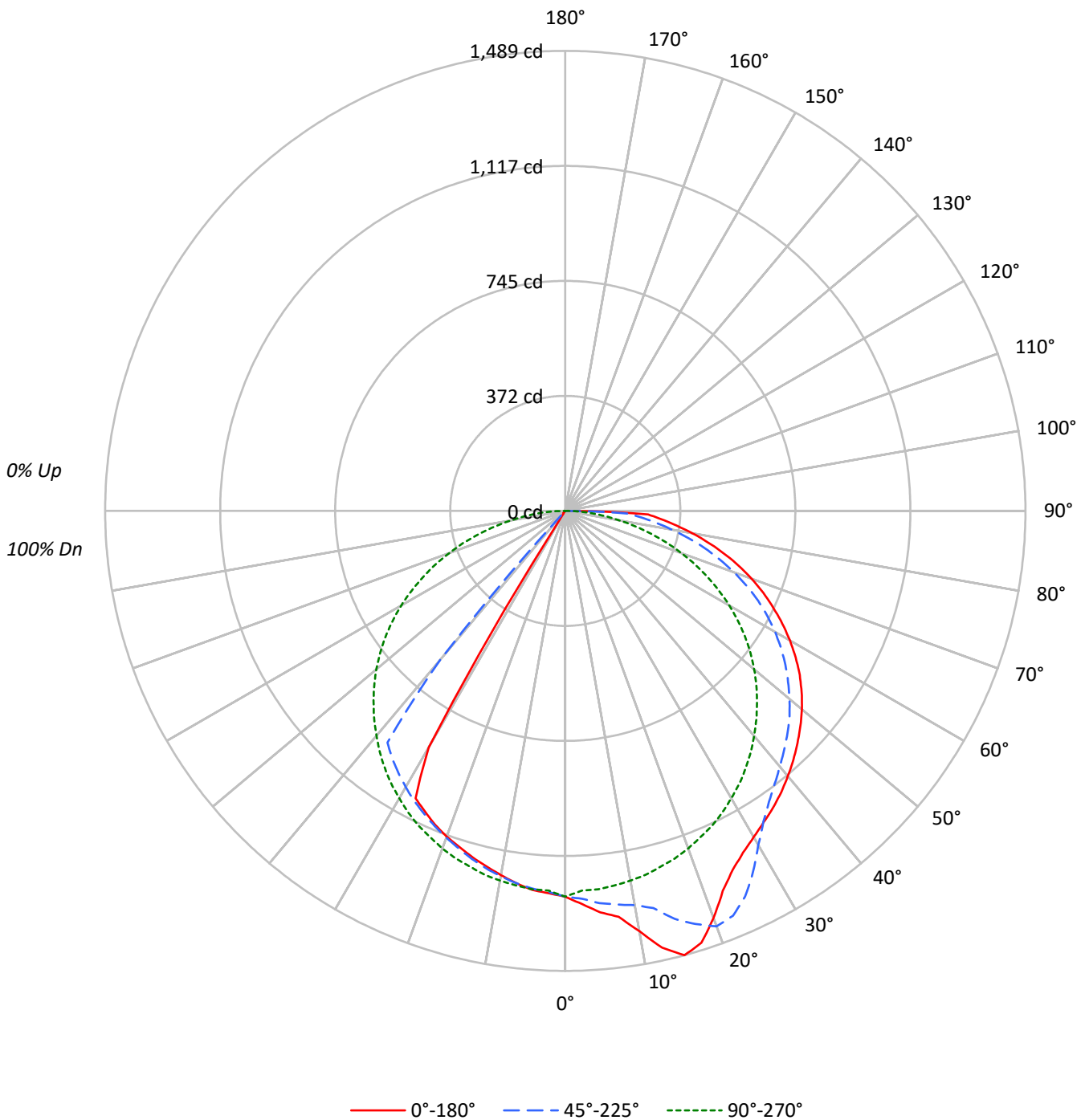
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3378.0 lumens
Efficiency: N/A
Efficacy: 160.1 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 (A_{in}): 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°	16212	16212	16212	16212	16212
5°	17001	16610	16022	15995	16051
10°	18216	17084	16019	15830	15783
15°	20014	18379	16024	15679	15602
20°	19378	19773	16067	15553	15503
25°	18359	19732	16105	15501	15388
30°	18281	18730	16103	15483	13252
35°	18589	18215	16129	15484	181
40°	18993	18303	16108	10679	122
45°	19513	18672	16112	196	79
50°	20195	19141	16121	145	28
55°	20964	19684	16076	97	16
60°	21802	20353	15933	36	18
65°	22829	21157	15642	43	43
70°	24351	22043	15148	53	53
75°	26656	23465	14494	145	70
80°	31280	26255	13423	217	105
85°	46558	36859	12575	313	209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 79841 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	3.5
10°-20°	357.2	10.6
20°-30°	549.1	16.3
30°-40°	588.5	17.4
40°-50°	534.5	15.8
50°-60°	487.5	14.4
60°-70°	362.7	10.7
70°-80°	255.3	7.6
80°-90°	123.7	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°	1026.0	30.4
0°-40°	1614.4	47.8
0°-60°	2636.4	78.0
0°-90°	3378.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3378.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1248	1248	1248	1248	1248	
5°	1304	1274	1229	1227	1231	126
15°	1489	1367	1192	1166	1161	411
25°	1281	1377	1124	1082	1074	596
35°	1173	1149	1018	977	11	735
45°	1063	1017	877	11	4	821
55°	926	870	710	4	1	827
65°	743	689	509	1	1	736
75°	531	468	289	3	1	560
85°	312	247	84	2	1	314
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°	1248.5	1248.5	1248.5	1248.5	1248.5	1248.5	1248.5	1248.5	1248.5
2.5°	1274.3	1260.0	1256.4	1266.4	1229.9	1254.2	1234.2	1238.5	1238.5
5°	1304.3	1284.3	1274.3	1271.4	1229.2	1245.7	1227.1	1227.1	1231.4
7.5°	1325.0	1302.9	1285.0	1277.8	1222.8	1237.1	1215.6	1215.6	1215.6
10°	1381.5	1340.0	1295.7	1282.8	1214.9	1225.6	1200.6	1202.0	1197.0
12.5°	1448.0	1410.8	1316.4	1280.7	1206.3	1211.3	1184.9	1184.2	1178.4
15°	1488.8	1460.9	1367.2	1277.8	1192.0	1196.3	1166.3	1164.1	1160.6
17.5°	1465.9	1461.6	1402.3	1275.7	1179.2	1175.6	1145.5	1143.4	1140.5
20°	1402.3	1413.0	1430.9	1271.4	1162.7	1155.6	1125.5	1124.1	1121.9
22.5°	1331.5	1342.2	1418.0	1278.5	1142.7	1134.1	1104.1	1102.6	1099.8
25°	1281.4	1281.4	1377.2	1295.7	1124.1	1108.4	1081.9	1079.8	1074.0
27.5°	1246.4	1239.9	1316.4	1315.0	1100.5	1082.6	1058.3	1056.2	1049.0
30°	1219.2	1208.5	1249.2	1324.3	1074.0	1054.7	1032.6	1030.4	883.8
32.5°	1194.9	1183.4	1192.7	1332.2	1047.6	1024.7	1005.4	717.2	31.5
35°	1172.7	1159.8	1149.1	1326.5	1017.5	994.7	976.8	20.7	11.4
37.5°	1147.7	1137.7	1113.4	1296.4	985.4	962.5	945.3	11.4	10.0
40°	1120.5	1111.2	1079.8	1252.1	950.3	931.0	630.0	10.0	7.2
42.5°	1092.6	1085.5	1048.3	1187.7	915.3	896.0	20.0	7.9	5.7
45°	1062.6	1056.2	1016.8	1109.8	877.4	859.5	10.7	5.7	4.3
47.5°	1031.8	1022.6	983.9	1026.1	838.8	820.9	9.3	4.3	2.9
50°	999.7	989.7	947.5	952.5	798.0	780.1	7.2	2.9	1.4
52.5°	963.9	951.8	908.9	886.0	755.1	738.7	5.7	1.4	0.7
55°	926.0	912.4	869.5	828.1	710.1	691.5	4.3	1.4	0.7
57.5°	883.8	868.8	828.1	773.0	662.2	467.7	2.9	1.4	0.7
60°	839.5	824.5	783.7	721.5	613.5	32.2	1.4	1.4	0.7
62.5°	792.3	776.6	737.2	669.3	561.3	26.5	1.4	1.4	1.4
65°	743.0	724.4	688.6	615.7	509.1	22.2	1.4	1.4	1.4
67.5°	693.6	670.0	636.4	560.6	455.5	18.6	1.4	1.4	1.4
70°	641.4	615.7	580.6	504.8	399.0	15.0	1.4	1.4	1.4
72.5°	587.8	562.8	524.9	448.4	346.1	11.4	1.4	1.4	1.4
75°	531.3	508.4	467.7	391.9	288.9	8.6	2.9	1.4	1.4
77.5°	472.7	454.8	409.0	333.9	233.1	5.7	2.9	1.4	1.4
80°	418.3	398.3	351.1	275.3	179.5	4.3	2.9	2.1	1.4
82.5°	362.5	344.7	297.5	221.7	128.7	3.6	2.9	2.1	1.4
85°	312.5	295.3	247.4	173.0	84.4	2.9	2.1	2.1	1.4
87.5°	268.2	252.4	205.2	126.6	47.9	2.1	2.1	2.1	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	24.21	25.82	24.58	26.14	26.45	19.64	21.26	20.01	21.57	21.89
	3H	26.66	28.12	27.03	28.45	28.81	20.29	21.75	20.66	22.08	22.44
	4H	27.78	29.16	28.18	29.51	29.89	20.43	21.81	20.83	22.16	22.54
	6H	28.87	30.16	29.29	30.52	30.91	20.47	21.76	20.88	22.12	22.51
	8H	29.40	30.63	29.83	31.02	31.42	20.46	21.69	20.88	22.08	22.47
	12H	29.97	31.15	30.40	31.53	31.96	20.44	21.62	20.87	22.00	22.43
4H	2H	24.87	26.25	25.27	26.60	26.97	20.77	22.15	21.17	22.50	22.88
	3H	27.56	28.72	27.97	29.12	29.52	22.11	23.28	22.52	23.68	24.08
	4H	28.85	29.91	29.28	30.33	30.76	22.65	23.71	23.08	24.12	24.56
	6H	30.13	31.07	30.59	31.51	31.96	22.92	23.86	23.38	24.30	24.75
	8H	30.76	31.64	31.22	32.08	32.54	22.96	23.84	23.42	24.28	24.74
	12H	31.45	32.24	31.93	32.71	33.18	22.97	23.76	23.45	24.24	24.71
8H	4H	29.22	30.09	29.67	30.53	31.00	23.59	24.47	24.05	24.91	25.38
	6H	30.70	31.44	31.19	31.92	32.40	24.19	24.92	24.68	25.41	25.88
	8H	31.48	32.15	31.99	32.65	33.14	24.36	25.03	24.87	25.53	26.02
	12H	32.37	32.96	32.88	33.45	34.01	24.47	25.06	24.97	25.55	26.11
12H	4H	29.26	30.05	29.74	30.52	30.99	23.81	24.60	24.29	25.08	25.55
	6H	30.79	31.45	31.29	31.96	32.44	24.54	25.20	25.04	25.71	26.19
	8H	31.67	32.26	32.17	32.75	33.31	24.85	25.44	25.35	25.93	26.49