

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: P893385

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893385
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-L830
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

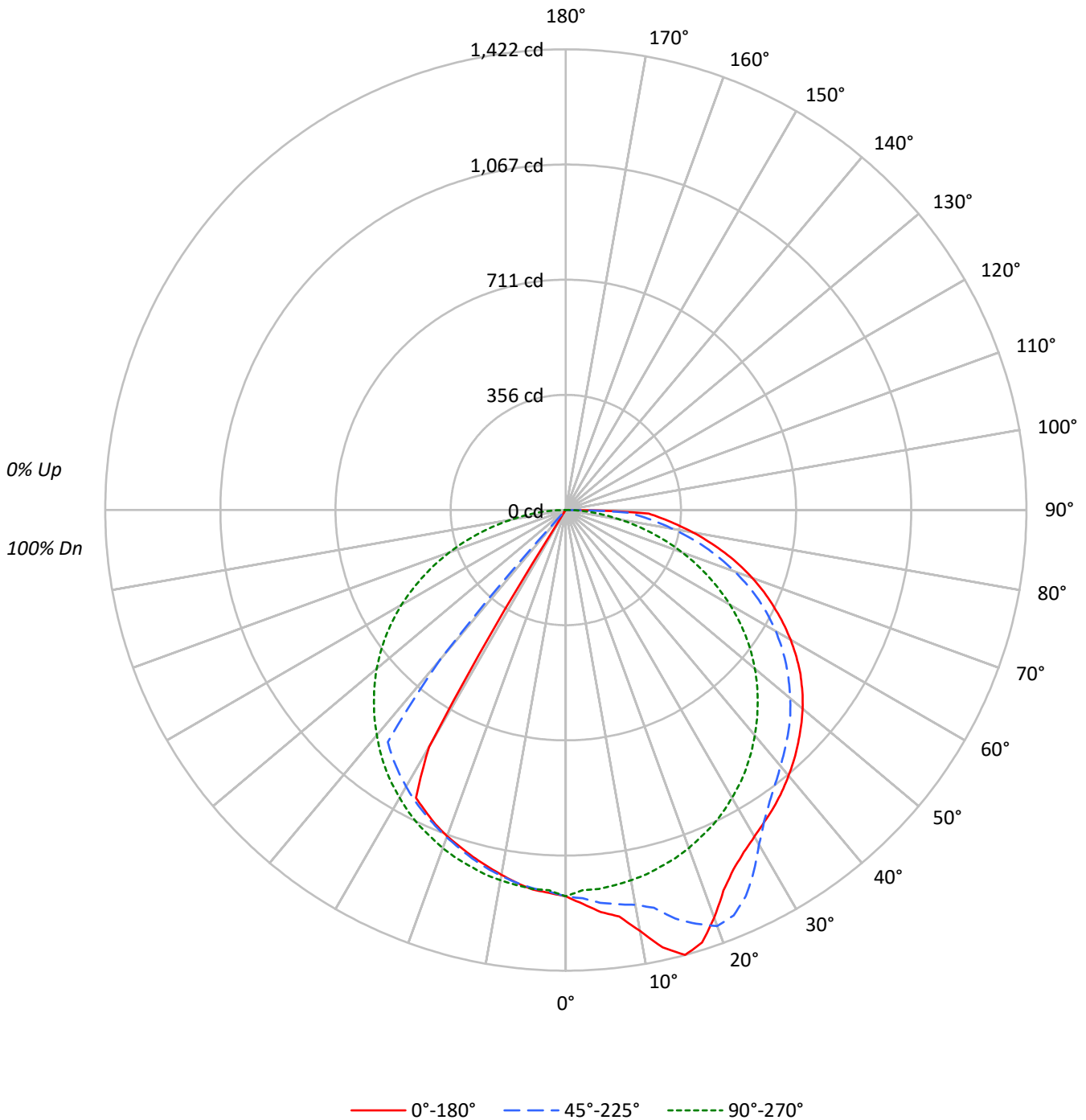
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3226.0 lumens
Efficiency: N/A
Efficacy: 152.9 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°	15482	15482	15482	15482	15482
5°	16236	15862	15301	15275	15327
10°	17397	16316	15298	15118	15074
15°	19113	17553	15304	14973	14899
20°	18506	18883	15344	14853	14806
25°	17534	18845	15381	14803	14696
30°	17457	17888	15379	14785	12656
35°	17754	17396	15405	14787	173
40°	18139	17480	15385	10198	115
45°	18635	17833	15387	187	75
50°	19286	18278	15395	137	28
55°	20022	18799	15351	93	16
60°	20820	19439	15216	36	18
65°	21800	20205	14939	43	43
70°	23258	21052	14469	53	53
75°	25457	22406	13842	135	70
80°	29874	25073	12817	202	105
85°	44458	35206	12008	298	209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 76239 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.3	3.5
10°-20°	341.1	10.6
20°-30°	524.4	16.3
30°-40°	562.0	17.4
40°-50°	510.4	15.8
50°-60°	465.6	14.4
60°-70°	346.4	10.7
70°-80°	243.8	7.6
80°-90°	118.1	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°	979.8	30.4
0°-40°	1541.8	47.8
0°-60°	2517.8	78.0
0°-90°	3226.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3226.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1192	1192	1192	1192	1192	
5°	1246	1217	1174	1172	1176	121
15°	1422	1306	1138	1114	1108	393
25°	1224	1315	1074	1033	1026	569
35°	1120	1097	972	933	11	702
45°	1015	971	838	10	4	784
55°	884	830	678	4	1	790
65°	710	658	486	1	1	702
75°	507	447	276	3	1	535
85°	298	236	81	2	1	300
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°	1192.3	1192.3	1192.3	1192.3	1192.3	1192.3	1192.3	1192.3	1192.3
2.5°	1216.9	1203.3	1199.8	1209.4	1174.6	1197.8	1178.7	1182.8	1182.8
5°	1245.6	1226.5	1216.9	1214.2	1173.9	1189.6	1171.9	1171.9	1175.9
7.5°	1265.4	1244.2	1227.2	1220.3	1167.8	1181.4	1160.9	1160.9	1160.9
10°	1319.4	1279.7	1237.4	1225.1	1160.2	1170.5	1146.6	1147.9	1143.2
12.5°	1382.9	1347.4	1257.2	1223.1	1152.0	1156.8	1131.6	1130.9	1125.4
15°	1421.8	1395.2	1305.7	1220.3	1138.4	1142.5	1113.8	1111.8	1108.3
17.5°	1399.9	1395.8	1339.2	1218.3	1126.1	1122.7	1094.0	1092.0	1089.2
20°	1339.2	1349.4	1366.5	1214.2	1110.4	1103.6	1074.9	1073.5	1071.5
22.5°	1271.6	1281.8	1354.2	1221.0	1091.3	1083.1	1054.4	1053.0	1050.3
25°	1223.8	1223.8	1315.3	1237.4	1073.5	1058.5	1033.2	1031.2	1025.7
27.5°	1190.3	1184.1	1257.2	1255.8	1051.0	1033.9	1010.7	1008.6	1001.8
30°	1164.3	1154.1	1193.0	1264.7	1025.7	1007.3	986.1	984.1	844.1
32.5°	1141.1	1130.2	1139.1	1272.2	1000.4	978.6	960.2	684.9	30.0
35°	1120.0	1107.7	1097.4	1266.8	971.8	949.9	932.8	19.8	10.9
37.5°	1096.0	1086.5	1063.3	1238.1	941.0	919.2	902.8	10.9	9.6
40°	1070.1	1061.2	1031.2	1195.8	907.6	889.1	601.6	9.6	6.8
42.5°	1043.5	1036.6	1001.1	1134.3	874.1	855.7	19.1	7.5	5.5
45°	1014.8	1008.6	971.1	1059.9	837.9	820.8	10.2	5.5	4.1
47.5°	985.4	976.5	939.7	980.0	801.0	784.0	8.9	4.1	2.7
50°	954.7	945.1	904.8	909.6	762.1	745.0	6.8	2.7	1.4
52.5°	920.5	908.9	868.0	846.1	721.1	705.4	5.5	1.4	0.7
55°	884.4	871.4	830.4	790.8	678.1	660.4	4.1	1.4	0.7
57.5°	844.1	829.7	790.8	738.2	632.4	446.6	2.7	1.4	0.7
60°	801.7	787.4	748.5	689.0	585.9	30.7	1.4	1.4	0.7
62.5°	756.6	741.6	704.1	639.2	536.1	25.3	1.4	1.4	1.4
65°	709.5	691.8	657.6	588.0	486.2	21.2	1.4	1.4	1.4
67.5°	662.4	639.9	607.8	535.4	435.0	17.8	1.4	1.4	1.4
70°	612.6	588.0	554.5	482.1	381.1	14.3	1.4	1.4	1.4
72.5°	561.3	537.4	501.2	428.2	330.5	10.9	1.4	1.4	1.4
75°	507.4	485.5	446.6	374.2	275.9	8.2	2.7	1.4	1.4
77.5°	451.4	434.3	390.6	318.9	222.6	5.5	2.7	1.4	1.4
80°	399.5	380.4	335.3	262.9	171.4	4.1	2.7	2.0	1.4
82.5°	346.2	329.2	284.1	211.7	122.9	3.4	2.7	2.0	1.4
85°	298.4	282.0	236.3	165.3	80.6	2.7	2.0	2.0	1.4
87.5°	256.1	241.1	196.0	120.9	45.8	2.0	2.0	2.0	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	24.05	25.66	24.42	25.98	26.29	19.48	21.10	19.85	21.41	21.73
	3H	26.50	27.96	26.87	28.29	28.65	20.13	21.59	20.50	21.92	22.28
	4H	27.62	29.00	28.02	29.35	29.73	20.27	21.65	20.67	22.00	22.38
	6H	28.71	30.00	29.13	30.36	30.75	20.31	21.60	20.72	21.96	22.35
	8H	29.24	30.47	29.67	30.86	31.26	20.30	21.53	20.72	21.92	22.31
	12H	29.81	30.99	30.24	31.37	31.80	20.28	21.46	20.71	21.84	22.27
4H	2H	24.71	26.09	25.11	26.44	26.81	20.61	21.99	21.01	22.34	22.72
	3H	27.40	28.56	27.81	28.96	29.36	21.95	23.12	22.36	23.52	23.92
	4H	28.69	29.75	29.12	30.17	30.60	22.49	23.55	22.92	23.96	24.40
	6H	29.97	30.91	30.43	31.35	31.80	22.76	23.70	23.22	24.14	24.59
	8H	30.60	31.48	31.06	31.92	32.38	22.80	23.68	23.26	24.12	24.58
	12H	31.29	32.08	31.77	32.55	33.02	22.81	23.60	23.29	24.08	24.55
8H	4H	29.06	29.93	29.51	30.37	30.84	23.43	24.31	23.89	24.75	25.22
	6H	30.54	31.27	31.03	31.76	32.24	24.03	24.76	24.52	25.25	25.72
	8H	31.32	31.99	31.83	32.49	32.98	24.20	24.87	24.71	25.37	25.86
	12H	32.21	32.80	32.72	33.29	33.85	24.31	24.90	24.81	25.39	25.94
12H	4H	29.10	29.89	29.58	30.36	30.83	23.65	24.44	24.13	24.92	25.39
	6H	30.63	31.29	31.13	31.80	32.28	24.38	25.04	24.88	25.55	26.03
	8H	31.51	32.10	32.01	32.59	33.15	24.69	25.28	25.19	25.77	26.33