

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: P893435

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893435
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-RFLW-UNV-L840
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

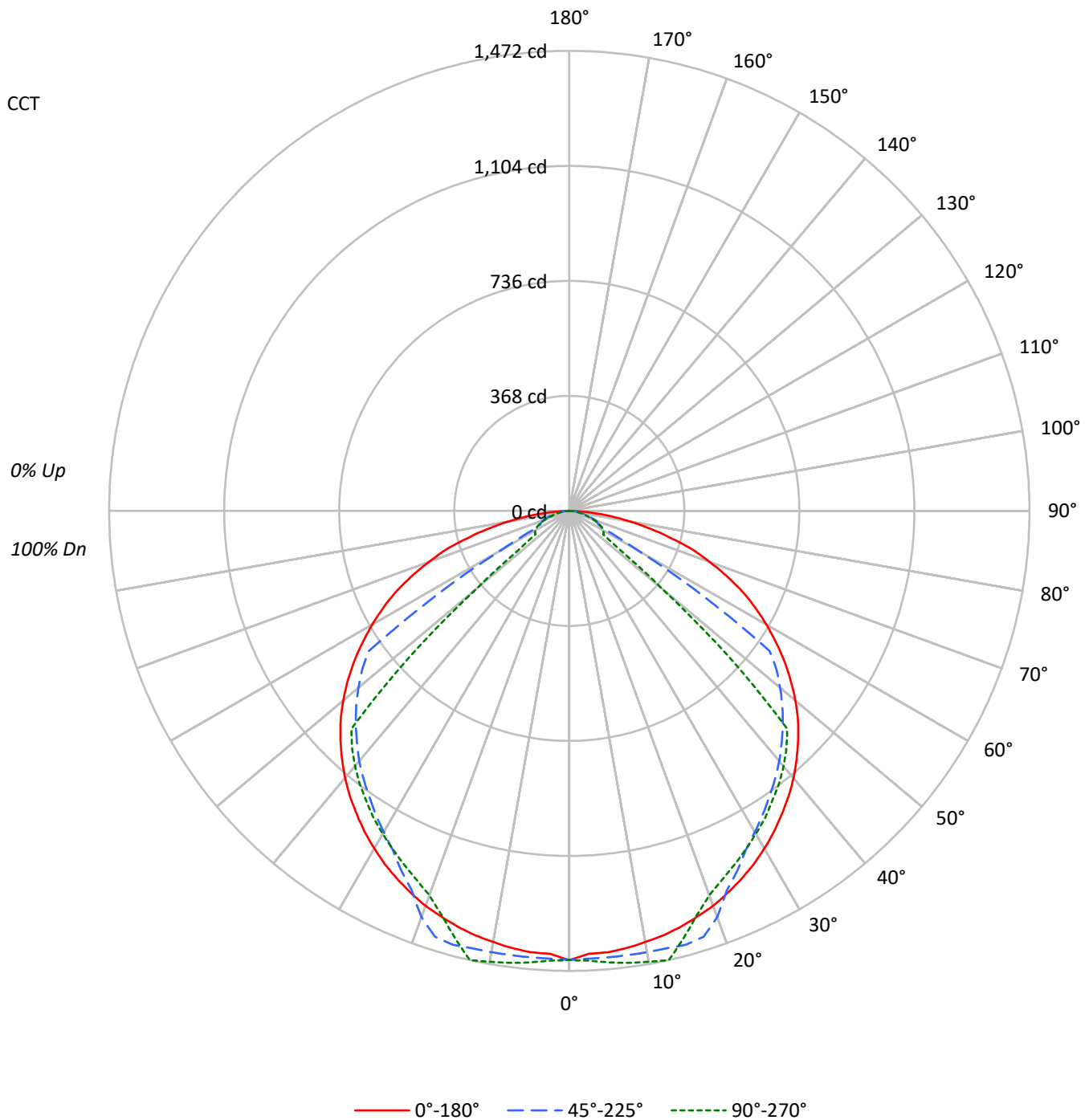
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3505.0 lumens
Efficiency: N/A
Efficacy: 166.1 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V): 120
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	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	77	77	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	66	66	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	61	55	51	51	51	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	40	40	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	36	36	36	35
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18661	18661	18661
5°	18474	18689	18904
10°	18470	18905	19318
15°	18521	19319	19009
20°	18583	19107	18081
25°	18630	18204	17898
30°	18706	17792	17891
35°	18783	17686	17947
40°	18912	17710	18075
45°	19006	17734	18097
50°	19076	17777	7824
55°	19028	17722	2984
60°	18917	6763	3251
65°	18785	3140	3343
70°	18144	3379	3128
75°	16948	3226	2729
80°	14911	2834	2341
85°	11785	2458	1967

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 19076 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.2	3.9
10°-20°	398.5	11.4
20°-30°	594.6	17.0
30°-40°	720.7	20.6
40°-50°	738.0	21.1
50°-60°	490.8	14.0
60°-70°	279.7	8.0
70°-80°	117.5	3.4
80°-90°	28.0	0.8
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°	1130.3	32.2
0°-40°	1851.0	52.8
0°-60°	3079.8	87.9
0°-90°	3505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1417	1445	1434	1437	1450	135
15°	1378	1416	1437	1432	1414	389
25°	1300	1363	1271	1243	1249	600
35°	1185	1206	1116	1121	1132	742
45°	1035	972	966	977	986	798
55°	840	770	783	171	132	751
65°	611	547	102	109	109	602
75°	338	71	64	56	54	359
85°	79	20	16	13	13	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1437.1	1437.1	1437.1	1437.1	1437.1
2.5°	1418.9	1448.6	1433.8	1435.4	1440.4
5°	1417.3	1445.3	1433.8	1437.1	1450.3
7.5°	1410.7	1440.4	1433.8	1443.7	1458.5
10°	1400.8	1435.4	1433.8	1450.3	1465.1
12.5°	1390.9	1425.5	1433.8	1458.5	1471.7
15°	1377.7	1415.7	1437.1	1432.1	1414.0
17.5°	1361.3	1405.8	1428.8	1358.0	1356.3
20°	1344.8	1392.6	1382.7	1315.1	1308.5
22.5°	1323.4	1379.4	1315.1	1269.0	1277.2
25°	1300.3	1362.9	1270.6	1242.6	1249.2
27.5°	1275.6	1346.4	1222.8	1212.9	1221.2
30°	1247.6	1323.4	1186.6	1183.3	1193.2
32.5°	1217.9	1278.9	1152.0	1153.6	1165.2
35°	1184.9	1206.4	1115.7	1120.7	1132.2
37.5°	1152.0	1138.8	1081.1	1089.3	1100.9
40°	1115.7	1086.0	1044.8	1053.1	1066.3
42.5°	1076.2	1030.0	1005.3	1016.8	1028.4
45°	1035.0	972.3	965.7	977.3	985.5
47.5°	992.1	922.9	924.5	932.8	698.8
50°	944.3	873.5	880.0	609.8	387.3
52.5°	893.2	822.4	835.5	339.5	196.1
55°	840.5	769.6	782.8	171.4	131.8
57.5°	784.5	716.9	510.9	123.6	130.2
60°	728.4	660.9	260.4	122.0	125.2
62.5°	670.7	604.8	123.6	117.0	118.7
65°	611.4	547.1	102.2	108.8	108.8
67.5°	545.5	486.2	97.2	97.2	95.6
70°	477.9	403.8	89.0	84.0	82.4
72.5°	415.3	154.9	77.5	69.2	67.6
75°	337.8	70.9	64.3	56.0	54.4
77.5°	268.6	59.3	51.1	44.5	42.8
80°	199.4	46.1	37.9	33.0	31.3
82.5°	138.4	31.3	26.4	21.4	21.4
85°	79.1	19.8	16.5	13.2	13.2
87.5°	31.3	9.9	8.2	4.9	4.9
90°	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	23.09	24.61	23.46	24.93	25.24	10.86	12.38	11.22	12.69	13.01
	3H	25.11	26.47	25.49	26.80	27.16	13.17	14.53	13.55	14.86	15.22
	4H	25.58	26.85	25.98	27.20	27.57	13.89	15.16	14.29	15.51	15.89
	6H	25.98	27.16	26.40	27.52	27.91	14.37	15.54	14.78	15.91	16.30
	8H	26.13	27.25	26.56	27.64	28.04	14.51	15.62	14.93	16.01	16.41
	12H	26.23	27.30	26.66	27.68	28.11	14.59	15.66	15.02	16.04	16.47
4H	2H	22.93	24.21	23.33	24.56	24.93	11.66	12.93	12.06	13.28	13.66
	3H	25.14	26.19	25.55	26.59	26.99	14.17	15.21	14.58	15.61	16.02
	4H	25.59	26.52	26.02	26.94	27.38	14.99	15.93	15.42	16.34	16.78
	6H	26.05	26.87	26.51	27.31	27.77	15.58	16.39	16.04	16.84	17.30
	8H	26.24	27.00	26.71	27.45	27.92	15.75	16.51	16.21	16.95	17.42
	12H	26.39	27.07	26.88	27.55	28.02	15.87	16.55	16.35	17.02	17.50
8H	4H	25.50	26.27	25.97	26.71	27.18	15.83	16.59	16.29	17.03	17.50
	6H	25.96	26.59	26.46	27.08	27.56	16.45	17.08	16.95	17.57	18.05
	8H	26.16	26.73	26.68	27.24	27.73	16.65	17.21	17.16	17.73	18.21
	12H	26.35	26.85	26.86	27.34	27.91	16.81	17.31	17.32	17.80	18.37
12H	4H	25.47	26.15	25.96	26.63	27.10	15.90	16.58	16.38	17.06	17.53
	6H	25.92	26.48	26.43	26.99	27.48	16.54	17.11	17.06	17.62	18.11
	8H	26.14	26.64	26.65	27.13	27.70	16.80	17.30	17.31	17.79	18.35