

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: P893438

Luminaire Tested: 4MB-3SL-RFLW-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893438
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-L935
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3500K
Light Source: -
Ballast/Driver: -

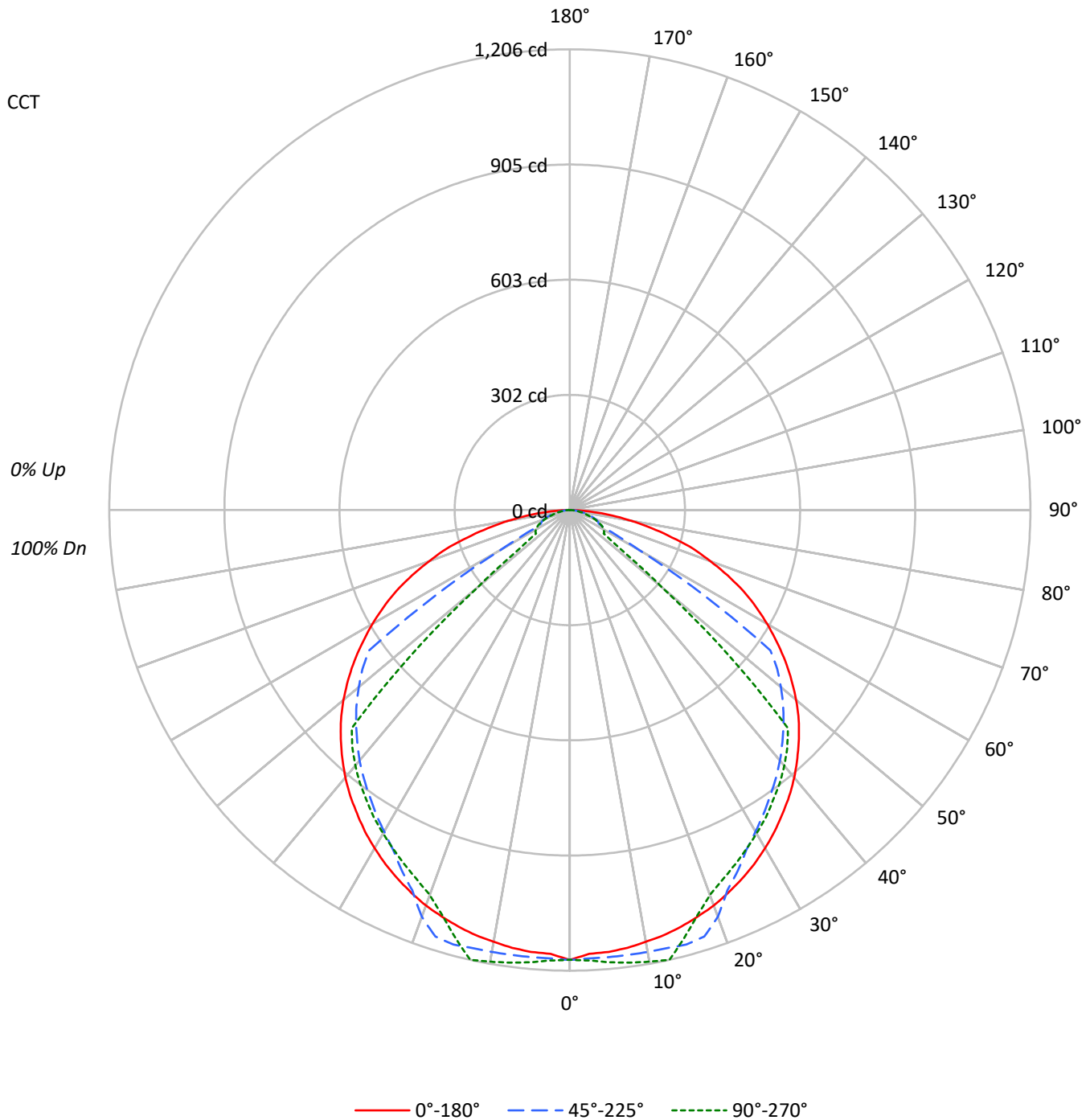
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2872.0 lumens
Efficiency: N/A
Efficacy: 136.1 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

TEST NUMBER: P893438
CATALOG NUMBER: 4MB-3SL-RFLW-UNV-L935

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°	15290	15290	15290
5°	15137	15313	15489
10°	15134	15490	15829
15°	15176	15829	15575
20°	15227	15656	14816
25°	15266	14918	14666
30°	15327	14579	14660
35°	15391	14492	14706
40°	15496	14512	14810
45°	15572	14531	14829
50°	15632	14567	6410
55°	15591	14521	2445
60°	15502	5542	2665
65°	15393	2572	2738
70°	14867	2768	2563
75°	13887	2644	2238
80°	12219	2326	1922
85°	9654	2011	1609

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 15632 cd/sqm



TEST NUMBER: P893438
 CATALOG NUMBER: 4MB-3SL-RFLW-UNV-L935

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	3.9
10°-20°	326.5	11.4
20°-30°	487.2	17.0
30°-40°	590.5	20.6
40°-50°	604.7	21.1
50°-60°	402.1	14.0
60°-70°	229.2	8.0
70°-80°	96.3	3.4
80°-90°	23.0	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°	926.2	32.2
0°-40°	1516.7	52.8
0°-60°	2523.5	87.9
0°-90°	2872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1178	1178	1178	1178	1178	
5°	1161	1184	1175	1178	1188	110
15°	1129	1160	1178	1174	1159	319
25°	1066	1117	1041	1018	1024	492
35°	971	988	914	918	928	608
45°	848	797	791	801	808	654
55°	689	631	641	140	108	615
65°	501	448	84	89	89	493
75°	277	58	53	46	45	294
85°	65	16	14	11	11	78
90°	0	0	0	0	0	



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CATALOG NUMBER: 4MB-3SL-RFLW-UNV-L935

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1177.5	1177.5	1177.5	1177.5	1177.5
2.5°	1162.7	1187.0	1174.8	1176.2	1180.2
5°	1161.3	1184.3	1174.8	1177.5	1188.3
7.5°	1155.9	1180.2	1174.8	1182.9	1195.1
10°	1147.8	1176.2	1174.8	1188.3	1200.5
12.5°	1139.7	1168.1	1174.8	1195.1	1205.9
15°	1128.9	1160.0	1177.5	1173.5	1158.6
17.5°	1115.4	1151.9	1170.8	1112.7	1111.4
20°	1101.9	1141.1	1133.0	1077.6	1072.2
22.5°	1084.4	1130.3	1077.6	1039.8	1046.6
25°	1065.5	1116.8	1041.2	1018.2	1023.6
27.5°	1045.2	1103.3	1002.0	993.9	1000.6
30°	1022.2	1084.4	972.3	969.6	977.7
32.5°	997.9	1047.9	943.9	945.3	954.7
35°	970.9	988.5	914.2	918.3	927.7
37.5°	943.9	933.1	885.9	892.6	902.1
40°	914.2	889.9	856.1	862.9	873.7
42.5°	881.8	844.0	823.7	833.2	842.6
45°	848.0	796.7	791.3	800.8	807.5
47.5°	812.9	756.2	757.6	764.3	572.6
50°	773.8	715.7	721.1	499.6	317.3
52.5°	731.9	673.8	684.6	278.2	160.7
55°	688.7	630.6	641.4	140.4	108.0
57.5°	642.8	587.4	418.6	101.3	106.7
60°	596.9	541.5	213.4	99.9	102.6
62.5°	549.6	495.6	101.3	95.9	97.2
65°	501.0	448.3	83.7	89.1	89.1
67.5°	447.0	398.4	79.7	79.7	78.3
70°	391.6	330.8	72.9	68.9	67.5
72.5°	340.3	126.9	63.5	56.7	55.4
75°	276.8	58.1	52.7	45.9	44.6
77.5°	220.1	48.6	41.9	36.5	35.1
80°	163.4	37.8	31.1	27.0	25.7
82.5°	113.4	25.7	21.6	17.6	17.6
85°	64.8	16.2	13.5	10.8	10.8
87.5°	25.7	8.1	6.8	4.1	4.1
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	22.40	23.92	22.77	24.24	24.55	10.17	11.69	10.53	12.00	12.32
	3H	24.42	25.78	24.80	26.11	26.47	12.48	13.84	12.86	14.17	14.53
	4H	24.88	26.16	25.28	26.50	26.88	13.20	14.47	13.60	14.82	15.19
	6H	25.29	26.46	25.70	26.83	27.22	13.68	14.85	14.09	15.22	15.61
	8H	25.44	26.55	25.87	26.94	27.35	13.82	14.93	14.24	15.32	15.72
	12H	25.54	26.61	25.97	26.99	27.42	13.90	14.97	14.34	15.35	15.78
4H	2H	22.24	23.51	22.64	23.86	24.24	10.97	12.24	11.37	12.59	12.96
	3H	24.45	25.49	24.86	25.89	26.29	13.48	14.52	13.89	14.92	15.32
	4H	24.89	25.83	25.33	26.25	26.69	14.30	15.24	14.73	15.65	16.09
	6H	25.36	26.17	25.82	26.62	27.08	14.89	15.70	15.35	16.15	16.61
	8H	25.55	26.31	26.01	26.76	27.22	15.06	15.82	15.52	16.27	16.73
	12H	25.70	26.38	26.18	26.86	27.33	15.18	15.86	15.66	16.34	16.81
8H	4H	24.81	25.57	25.28	26.02	26.48	15.14	15.90	15.60	16.34	16.81
	6H	25.27	25.90	25.77	26.39	26.87	15.76	16.39	16.26	16.88	17.36
	8H	25.47	26.04	25.99	26.55	27.03	15.96	16.53	16.47	17.04	17.52
	12H	25.66	26.16	26.17	26.65	27.21	16.12	16.62	16.63	17.11	17.68
12H	4H	24.78	25.46	25.26	25.94	26.41	15.21	15.89	15.69	16.36	16.84
	6H	25.22	25.79	25.74	26.30	26.79	15.85	16.42	16.37	16.93	17.42
	8H	25.45	25.95	25.96	26.44	27.01	16.11	16.61	16.62	17.10	17.66