

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: P893392

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L950

Issue Date: 11/11/2024

**Test Information**

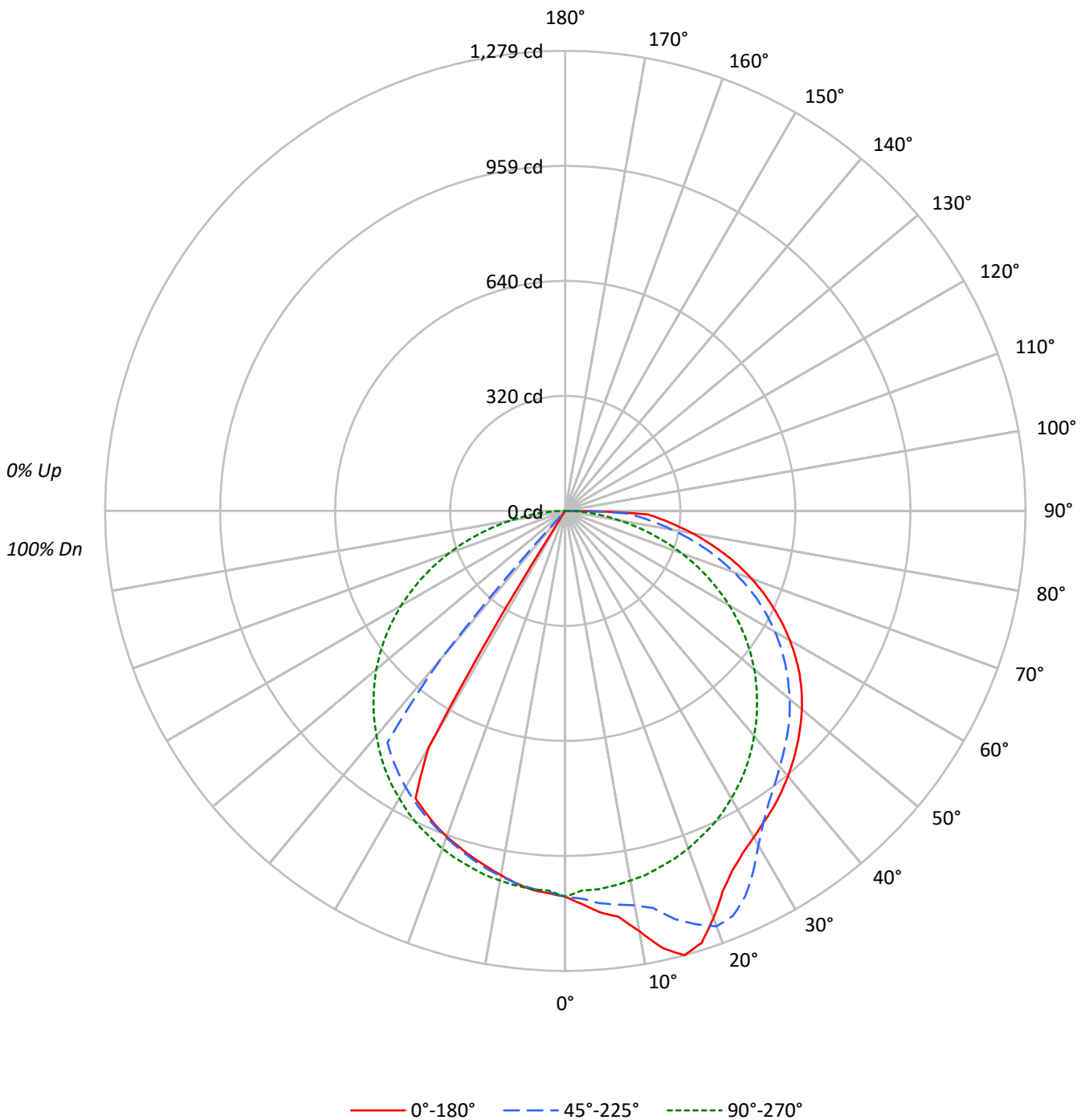
Test Method: LM-79-2019  
Report Number: P893392  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-ASYMR-UNV-L950  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2902.0 lumens  
Efficiency: N/A  
Efficacy: 137.5 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

TEST NUMBER: P893392  
CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L950

### Luminous Intensity Polar Plot





TEST NUMBER: P893392  
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L950

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	13928	13928	13928	13928	13928
5°	14605	14269	13765	13741	13788
10°	15648	14677	13762	13599	13560
15°	17194	15790	13767	13469	13403
20°	16647	16986	13803	13361	13320
25°	15772	16952	13836	13317	13220
30°	15705	16091	13835	13301	11385
35°	15971	15649	13858	13301	155
40°	16317	15724	13839	9174	103
45°	16764	16041	13843	169	68
50°	17349	16444	13850	123	24
55°	18009	16911	13810	84	14
60°	18730	17486	13689	31	16
65°	19612	18177	13439	37	37
70°	20919	18937	13015	46	46
75°	22898	20158	12452	125	60
80°	26875	22553	11531	187	90
85°	40003	31675	10802	268	179

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 87.5°  
 Luminance: 68588 cd/sqm



TEST NUMBER: P893392  
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L950

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.8	3.5
10°-20°	306.9	10.6
20°-30°	471.7	16.3
30°-40°	505.6	17.4
40°-50°	459.1	15.8
50°-60°	418.8	14.4
60°-70°	311.6	10.7
70°-80°	219.3	7.6
80°-90°	106.2	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
<hr/>		
0°-30°	881.4	30.4
0°-40°	1386.9	47.8
0°-60°	2264.9	78.0
0°-90°	2902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2902.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1073	1073	1073	1073	1073	
5°	1120	1095	1056	1054	1058	109
15°	1279	1175	1024	1002	997	353
25°	1101	1183	966	930	923	512
35°	1008	987	874	839	10	631
45°	913	874	754	9	4	705
55°	796	747	610	4	1	710
65°	638	592	437	1	1	632
75°	456	402	248	2	1	481
85°	268	213	72	2	1	270
90°	0	0	0	0	0	



TEST NUMBER: P893392  
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L950

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1072.6	1072.6	1072.6	1072.6	1072.6	1072.6	1072.6	1072.6	1072.6
2.5°	1094.7	1082.4	1079.3	1087.9	1056.6	1077.5	1060.3	1064.0	1064.0
5°	1120.5	1103.3	1094.7	1092.2	1056.0	1070.1	1054.2	1054.2	1057.8
7.5°	1138.3	1119.3	1103.9	1097.8	1050.5	1062.8	1044.3	1044.3	1044.3
10°	1186.8	1151.2	1113.1	1102.1	1043.7	1052.9	1031.4	1032.7	1028.4
12.5°	1244.0	1212.0	1130.9	1100.2	1036.3	1040.6	1017.9	1017.3	1012.4
15°	1279.0	1255.0	1174.6	1097.8	1024.1	1027.7	1001.9	1000.1	997.0
17.5°	1259.3	1255.7	1204.7	1095.9	1013.0	1009.9	984.1	982.3	979.8
20°	1204.7	1213.9	1229.2	1092.2	998.9	992.7	966.9	965.7	963.9
22.5°	1143.8	1153.1	1218.2	1098.4	981.7	974.3	948.5	947.3	944.8
25°	1100.8	1100.8	1183.2	1113.1	965.7	952.2	929.5	927.6	922.7
27.5°	1070.7	1065.2	1130.9	1129.7	945.4	930.1	909.2	907.3	901.2
30°	1047.4	1038.2	1073.2	1137.7	922.7	906.1	887.1	885.2	759.3
32.5°	1026.5	1016.7	1024.7	1144.5	900.0	880.3	863.7	616.2	27.0
35°	1007.5	996.4	987.2	1139.5	874.2	854.5	839.1	17.8	9.8
37.5°	986.0	977.4	956.5	1113.7	846.5	826.9	812.1	9.8	8.6
40°	962.6	954.6	927.6	1075.7	816.4	799.8	541.2	8.6	6.1
42.5°	938.7	932.5	900.6	1020.4	786.3	769.7	17.2	6.8	4.9
45°	912.9	907.3	873.5	953.4	753.8	738.4	9.2	4.9	3.7
47.5°	886.4	878.5	845.3	881.5	720.6	705.2	8.0	3.7	2.5
50°	858.8	850.2	814.0	818.3	685.6	670.2	6.1	2.5	1.2
52.5°	828.1	817.6	780.8	761.1	648.7	634.6	4.9	1.2	0.6
55°	795.5	783.9	747.0	711.4	610.0	594.0	3.7	1.2	0.6
57.5°	759.3	746.4	711.4	664.1	568.9	401.8	2.5	1.2	0.6
60°	721.2	708.3	673.3	619.8	527.1	27.6	1.2	1.2	0.6
62.5°	680.7	667.1	633.4	575.0	482.2	22.7	1.2	1.2	1.2
65°	638.3	622.3	591.6	528.9	437.4	19.0	1.2	1.2	1.2
67.5°	595.9	575.6	546.7	481.6	391.3	16.0	1.2	1.2	1.2
70°	551.0	528.9	498.8	433.7	342.8	12.9	1.2	1.2	1.2
72.5°	505.0	483.5	450.9	385.2	297.3	9.8	1.2	1.2	1.2
75°	456.4	436.8	401.8	336.6	248.2	7.4	2.5	1.2	1.2
77.5°	406.1	390.7	351.4	286.9	200.3	4.9	2.5	1.2	1.2
80°	359.4	342.2	301.6	236.5	154.2	3.7	2.5	1.8	1.2
82.5°	311.5	296.1	255.6	190.4	110.6	3.1	2.5	1.8	1.2
85°	268.5	253.7	212.6	148.7	72.5	2.5	1.8	1.8	1.2
87.5°	230.4	216.9	176.3	108.7	41.2	1.8	1.8	1.8	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893392  
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L950

**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	23.68	25.30	24.05	25.61	25.93	19.12	20.73	19.48	21.04	21.36
	3H	26.13	27.59	26.51	27.92	28.28	19.76	21.22	20.14	21.55	21.91
	4H	27.25	28.64	27.65	28.98	29.36	19.90	21.29	20.30	21.63	22.01
	6H	28.35	29.63	28.76	30.00	30.39	19.94	21.23	20.35	21.59	21.98
	8H	28.88	30.10	29.30	30.49	30.89	19.93	21.16	20.36	21.55	21.95
	12H	29.44	30.62	29.87	31.00	31.43	19.91	21.09	20.34	21.47	21.90
4H	2H	24.34	25.72	24.74	26.07	26.45	20.24	21.63	20.64	21.97	22.35
	3H	27.03	28.20	27.44	28.59	28.99	21.59	22.75	21.99	23.15	23.55
	4H	28.32	29.39	28.76	29.80	30.24	22.12	23.18	22.55	23.60	24.03
	6H	29.61	30.54	30.06	30.98	31.43	22.40	23.33	22.85	23.77	24.22
	8H	30.23	31.11	30.69	31.55	32.02	22.43	23.31	22.89	23.75	24.22
	12H	30.92	31.71	31.40	32.19	32.65	22.44	23.24	22.92	23.71	24.18
8H	4H	28.69	29.56	29.15	30.01	30.47	23.07	23.94	23.53	24.39	24.85
	6H	30.17	30.91	30.66	31.39	31.87	23.66	24.39	24.15	24.88	25.36
	8H	30.95	31.62	31.46	32.12	32.61	23.84	24.50	24.34	25.01	25.49
	12H	31.84	32.44	32.35	32.93	33.48	23.94	24.53	24.44	25.02	25.58
12H	4H	28.73	29.52	29.21	29.99	30.46	23.28	24.08	23.76	24.55	25.02
	6H	30.26	30.92	30.77	31.43	31.91	24.01	24.67	24.51	25.18	25.66
	8H	31.14	31.73	31.64	32.22	32.78	24.32	24.91	24.82	25.40	25.96