

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: P893389

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893389
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-L930
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

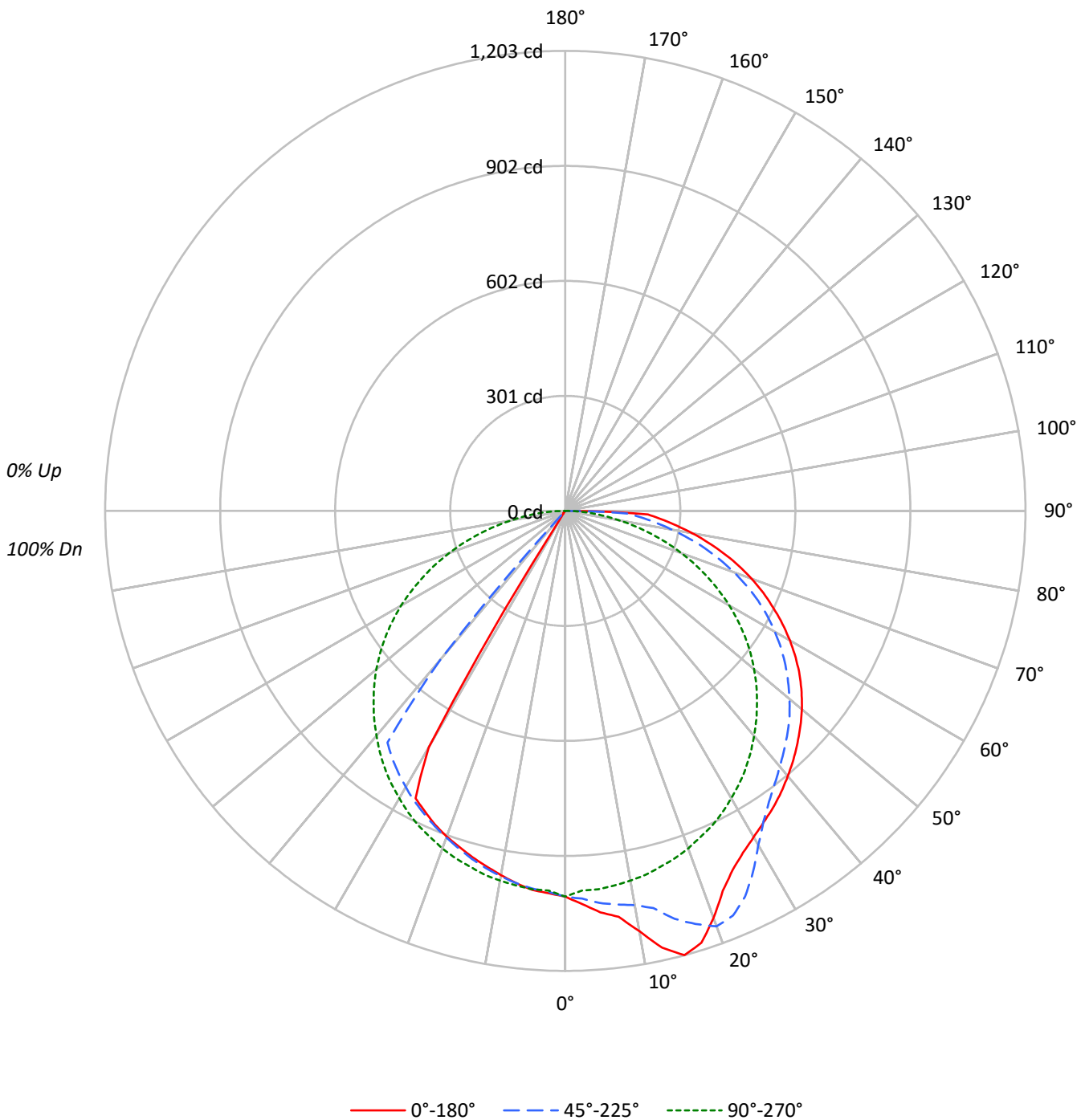
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2729.0 lumens
Efficiency: N/A
Efficacy: 129.3 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: P893389
CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L930

Luminous Intensity Polar Plot





TEST NUMBER: P893389

CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L930

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°	13097	13097	13097	13097	13097
5°	13735	13418	12943	12921	12967
10°	14716	13802	12941	12789	12752
15°	16168	14848	12946	12666	12604
20°	15654	15974	12980	12565	12525
25°	14832	15941	13011	12522	12432
30°	14769	15132	13010	12508	10706
35°	15018	14715	13032	12509	146
40°	15344	14786	13013	8626	98
45°	15763	15086	13016	160	64
50°	16314	15462	13024	117	24
55°	16936	15904	12986	79	14
60°	17613	16442	12873	31	16
65°	18441	17092	12637	37	37
70°	19674	17810	12240	46	46
75°	21533	18954	11710	115	60
80°	25268	21207	10843	172	90
85°	37619	29783	10161	253	179

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 64480 cd/sqm



TEST NUMBER: P893389
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	3.5
10°-20°	288.6	10.6
20°-30°	443.6	16.3
30°-40°	475.4	17.4
40°-50°	431.8	15.8
50°-60°	393.8	14.4
60°-70°	293.0	10.7
70°-80°	206.2	7.6
80°-90°	99.9	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°	828.8	30.4
0°-40°	1304.3	47.8
0°-60°	2129.9	78.0
0°-90°	2729.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2729.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1009	1009	1009	1009	1009	
5°	1054	1029	993	991	995	102
15°	1203	1104	963	942	938	332
25°	1035	1113	908	874	868	481
35°	947	928	822	789	9	593
45°	858	822	709	9	4	663
55°	748	702	574	4	1	668
65°	600	556	411	1	1	594
75°	429	378	233	2	1	453
85°	252	200	68	2	1	254
90°	0	0	0	0	0	



TEST NUMBER: P893389
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	1029.4	1017.9	1015.0	1023.1	993.6	1013.3	997.1	1000.6	1000.6
5°	1053.7	1037.5	1029.4	1027.1	993.0	1006.3	991.3	991.3	994.8
7.5°	1070.5	1052.5	1038.1	1032.3	987.8	999.4	982.1	982.1	982.1
10°	1116.1	1082.6	1046.8	1036.4	981.5	990.2	969.9	971.1	967.1
12.5°	1169.8	1139.8	1063.5	1034.6	974.6	978.6	957.2	956.7	952.0
15°	1202.7	1180.2	1104.5	1032.3	963.0	966.5	942.2	940.5	937.6
17.5°	1184.3	1180.8	1132.8	1030.6	952.6	949.7	925.5	923.7	921.4
20°	1132.8	1141.5	1156.0	1027.1	939.3	933.5	909.3	908.1	906.4
22.5°	1075.7	1084.3	1145.6	1032.9	923.1	916.2	892.0	890.8	888.5
25°	1035.2	1035.2	1112.6	1046.8	908.1	895.4	874.0	872.3	867.7
27.5°	1006.9	1001.7	1063.5	1062.4	889.1	874.6	855.0	853.2	847.5
30°	985.0	976.3	1009.2	1069.9	867.7	852.1	834.2	832.4	714.0
32.5°	965.3	956.1	963.6	1076.2	846.3	827.8	812.2	579.4	25.4
35°	947.4	937.0	928.3	1071.6	822.1	803.6	789.1	16.8	9.2
37.5°	927.2	919.1	899.5	1047.3	796.1	777.6	763.7	9.2	8.1
40°	905.2	897.7	872.3	1011.5	767.7	752.2	508.9	8.1	5.8
42.5°	882.7	876.9	846.9	959.5	739.4	723.8	16.2	6.4	4.6
45°	858.4	853.2	821.5	896.6	708.8	694.4	8.7	4.6	3.5
47.5°	833.6	826.1	794.9	829.0	677.6	663.2	7.5	3.5	2.3
50°	807.6	799.5	765.4	769.5	644.7	630.3	5.8	2.3	1.2
52.5°	778.7	768.9	734.2	715.8	610.0	596.8	4.6	1.2	0.6
55°	748.1	737.1	702.5	669.0	573.6	558.6	3.5	1.2	0.6
57.5°	714.0	701.9	669.0	624.5	534.9	377.8	2.3	1.2	0.6
60°	678.2	666.1	633.1	582.9	495.7	26.0	1.2	1.2	0.6
62.5°	640.1	627.4	595.6	540.7	453.5	21.4	1.2	1.2	1.2
65°	600.2	585.2	556.3	497.4	411.3	17.9	1.2	1.2	1.2
67.5°	560.4	541.3	514.1	452.9	368.0	15.0	1.2	1.2	1.2
70°	518.2	497.4	469.1	407.8	322.4	12.1	1.2	1.2	1.2
72.5°	474.9	454.6	424.0	362.2	279.6	9.2	1.2	1.2	1.2
75°	429.2	410.7	377.8	316.6	233.4	6.9	2.3	1.2	1.2
77.5°	381.9	367.4	330.4	269.8	188.3	4.6	2.3	1.2	1.2
80°	337.9	321.8	283.6	222.4	145.0	3.5	2.3	1.7	1.2
82.5°	292.9	278.4	240.3	179.1	104.0	2.9	2.3	1.7	1.2
85°	252.5	238.6	199.9	139.8	68.2	2.3	1.7	1.7	1.2
87.5°	216.6	203.9	165.8	102.3	38.7	1.7	1.7	1.7	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893389
 CATALOG NUMBER: 4MB-3SL-ASYMR-UNV-L930

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	23.47	25.08	23.83	25.40	25.71	18.90	20.52	19.27	20.83	21.14
	3H	25.92	27.38	26.29	27.71	28.07	19.54	21.01	19.92	21.33	21.70
	4H	27.04	28.42	27.44	28.77	29.15	19.69	21.07	20.09	21.42	21.79
	6H	28.13	29.42	28.54	29.78	30.17	19.73	21.01	20.14	21.38	21.77
	8H	28.66	29.89	29.09	30.28	30.68	19.72	20.95	20.14	21.33	21.73
	12H	29.23	30.41	29.66	30.79	31.22	19.70	20.88	20.13	21.26	21.69
4H	2H	24.13	25.51	24.52	25.86	26.23	20.03	21.41	20.43	21.76	22.13
	3H	26.81	27.98	27.22	28.38	28.78	21.37	22.54	21.78	22.94	23.34
	4H	28.11	29.17	28.54	29.59	30.02	21.91	22.97	22.34	23.38	23.82
	6H	29.39	30.33	29.84	30.77	31.22	22.18	23.12	22.63	23.56	24.01
	8H	30.02	30.90	30.48	31.34	31.80	22.22	23.10	22.68	23.54	24.00
	12H	30.71	31.50	31.18	31.97	32.44	22.23	23.02	22.71	23.50	23.97
8H	4H	28.47	29.35	28.93	29.79	30.26	22.85	23.73	23.31	24.17	24.64
	6H	29.96	30.69	30.45	31.18	31.65	23.44	24.18	23.94	24.67	25.14
	8H	30.74	31.40	31.25	31.91	32.39	23.62	24.29	24.13	24.79	25.28
	12H	31.63	32.22	32.14	32.71	33.27	23.72	24.32	24.23	24.80	25.36
12H	4H	28.51	29.31	28.99	29.78	30.25	23.07	23.86	23.55	24.34	24.81
	6H	30.04	30.71	30.55	31.22	31.70	23.79	24.46	24.30	24.96	25.45
	8H	30.92	31.52	31.43	32.01	32.56	24.11	24.70	24.61	25.19	25.75