

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: P893391

Luminaire Tested: 4MB-3SL-ASYMR-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893391
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-L940
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

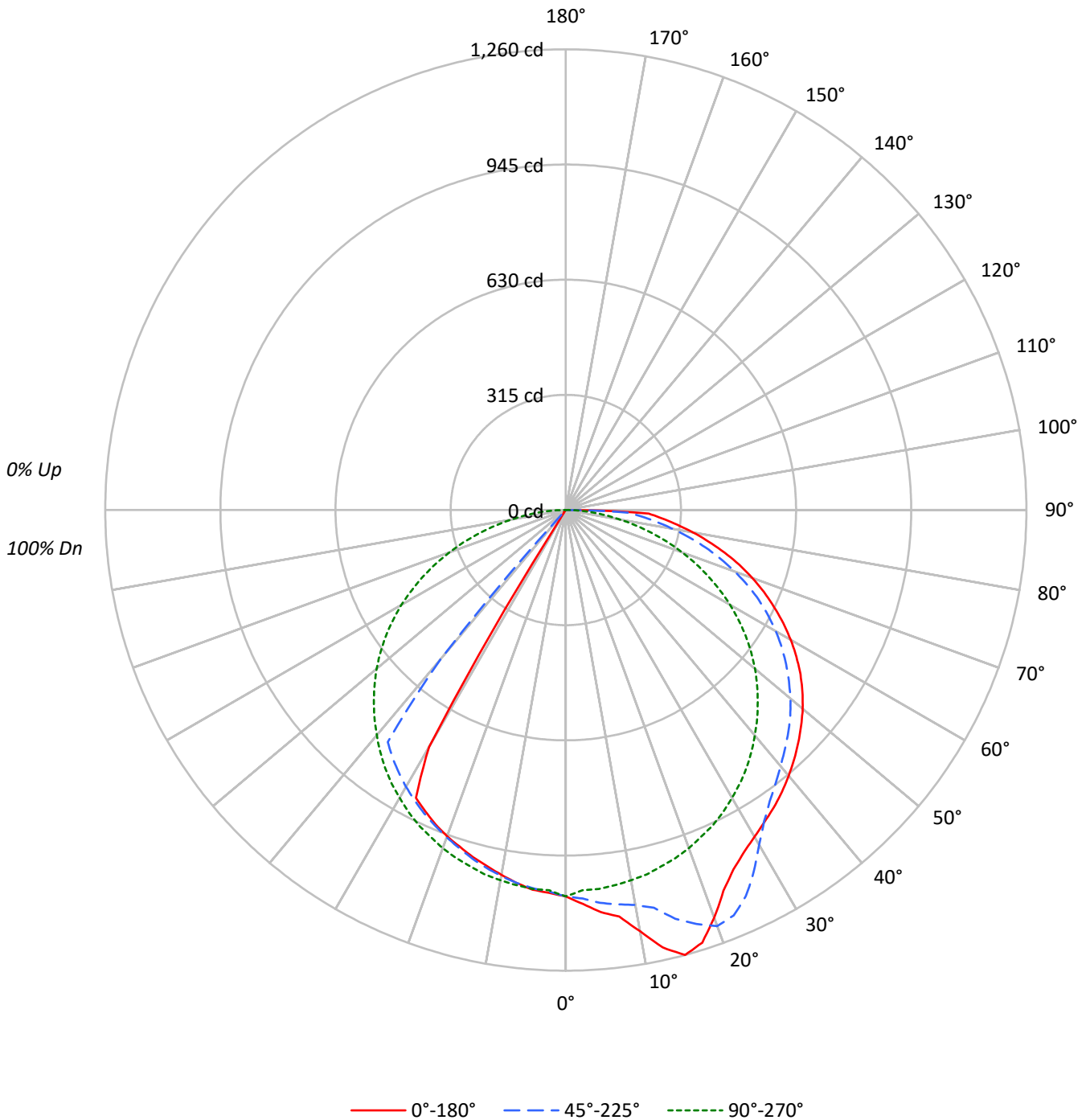
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2859.0 lumens
Efficiency: N/A
Efficacy: 135.5 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 (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°	13721	13721	13721	13721	13721
5°	14389	14058	13561	13537	13585
10°	15418	14459	13557	13398	13358
15°	16938	15556	13563	13270	13205
20°	16400	16734	13599	13163	13122
25°	15538	16700	13631	13120	13024
30°	15472	15853	13629	13103	11215
35°	15733	15418	13652	13105	154
40°	16076	15491	13634	9038	103
45°	16514	15804	13637	167	66
50°	17092	16199	13644	123	24
55°	17742	16660	13606	81	14
60°	18452	17226	13486	31	16
65°	19320	17907	13240	37	37
70°	20612	18656	12821	46	46
75°	22562	19857	12267	120	60
80°	26471	22224	11359	179	90
85°	39407	31198	10638	268	179

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 67576 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.3	3.5
10°-20°	302.3	10.6
20°-30°	464.7	16.3
30°-40°	498.1	17.4
40°-50°	452.3	15.8
50°-60°	412.6	14.4
60°-70°	307.0	10.7
70°-80°	216.0	7.6
80°-90°	104.7	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°	868.3	30.4
0°-40°	1366.4	47.8
0°-60°	2231.3	78.0
0°-90°	2859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2859.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1057	1057	1057	1057	1057	
5°	1104	1078	1040	1038	1042	107
15°	1260	1157	1009	987	982	348
25°	1084	1166	951	916	909	504
35°	992	973	861	827	10	622
45°	899	861	743	9	4	695
55°	784	736	601	4	1	700
65°	629	583	431	1	1	623
75°	450	396	244	2	1	474
85°	264	209	71	2	1	266
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°	1056.7	1056.7	1056.7	1056.7	1056.7	1056.7	1056.7	1056.7	1056.7
2.5°	1078.5	1066.4	1063.4	1071.8	1041.0	1061.5	1044.6	1048.2	1048.2
5°	1103.9	1087.0	1078.5	1076.1	1040.4	1054.3	1038.5	1038.5	1042.2
7.5°	1121.5	1102.7	1087.6	1081.5	1034.9	1047.0	1028.9	1028.9	1028.9
10°	1169.3	1134.2	1096.6	1085.7	1028.2	1037.3	1016.1	1017.4	1013.1
12.5°	1225.5	1194.1	1114.2	1083.9	1021.0	1025.2	1002.8	1002.2	997.4
15°	1260.0	1236.4	1157.2	1081.5	1008.9	1012.5	987.1	985.3	982.3
17.5°	1240.7	1237.0	1186.8	1079.7	998.0	995.0	969.5	967.7	965.3
20°	1186.8	1195.9	1211.0	1076.1	984.1	978.0	952.6	951.4	949.6
22.5°	1126.9	1136.0	1200.1	1082.1	967.1	959.9	934.4	933.2	930.8
25°	1084.5	1084.5	1165.6	1096.6	951.4	938.1	915.7	913.9	909.0
27.5°	1054.9	1049.4	1114.2	1113.0	931.4	916.3	895.7	893.9	887.8
30°	1031.9	1022.8	1057.3	1120.8	909.0	892.7	873.9	872.1	748.0
32.5°	1011.3	1001.6	1009.5	1127.5	886.6	867.3	850.9	607.0	26.6
35°	992.5	981.6	972.6	1122.7	861.2	841.8	826.7	17.6	9.7
37.5°	971.4	962.9	942.3	1097.2	834.0	814.6	800.1	9.7	8.5
40°	948.4	940.5	913.9	1059.7	804.3	788.0	533.2	8.5	6.1
42.5°	924.8	918.7	887.2	1005.3	774.7	758.3	16.9	6.7	4.8
45°	899.3	893.9	860.6	939.3	742.6	727.5	9.1	4.8	3.6
47.5°	873.3	865.4	832.8	868.5	709.9	694.8	7.9	3.6	2.4
50°	846.1	837.6	801.9	806.1	675.4	660.3	6.1	2.4	1.2
52.5°	815.8	805.5	769.2	749.9	639.1	625.2	4.8	1.2	0.6
55°	783.7	772.2	735.9	700.8	601.0	585.2	3.6	1.2	0.6
57.5°	748.0	735.3	700.8	654.2	560.4	395.8	2.4	1.2	0.6
60°	710.5	697.8	663.3	610.7	519.3	27.2	1.2	1.2	0.6
62.5°	670.6	657.3	624.0	566.5	475.1	22.4	1.2	1.2	1.2
65°	628.8	613.1	582.8	521.1	430.9	18.8	1.2	1.2	1.2
67.5°	587.1	567.1	538.6	474.5	385.5	15.7	1.2	1.2	1.2
70°	542.9	521.1	491.4	427.3	337.7	12.7	1.2	1.2	1.2
72.5°	497.5	476.3	444.2	379.5	292.9	9.7	1.2	1.2	1.2
75°	449.7	430.3	395.8	331.7	244.5	7.3	2.4	1.2	1.2
77.5°	400.0	384.9	346.2	282.6	197.3	4.8	2.4	1.2	1.2
80°	354.0	337.1	297.2	233.0	151.9	3.6	2.4	1.8	1.2
82.5°	306.8	291.7	251.8	187.6	108.9	3.0	2.4	1.8	1.2
85°	264.5	250.0	209.4	146.5	71.4	2.4	1.8	1.8	1.2
87.5°	227.0	213.6	173.7	107.1	40.5	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



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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	23.63	25.24	24.00	25.56	25.87	19.06	20.68	19.43	20.99	21.31
	3H	26.08	27.54	26.45	27.87	28.23	19.71	21.17	20.08	21.50	21.86
	4H	27.20	28.58	27.60	28.93	29.31	19.85	21.23	20.25	21.58	21.96
	6H	28.29	29.58	28.71	29.94	30.33	19.89	21.18	20.30	21.54	21.93
	8H	28.82	30.05	29.25	30.44	30.84	19.88	21.11	20.30	21.50	21.89
	12H	29.39	30.57	29.82	30.95	31.38	19.86	21.04	20.29	21.42	21.85
4H	2H	24.29	25.67	24.69	26.02	26.39	20.19	21.57	20.59	21.92	22.30
	3H	26.98	28.14	27.39	28.54	28.94	21.53	22.70	21.94	23.10	23.50
	4H	28.27	29.33	28.70	29.75	30.18	22.07	23.13	22.50	23.54	23.98
	6H	29.55	30.49	30.01	30.93	31.38	22.34	23.28	22.80	23.72	24.17
	8H	30.18	31.06	30.64	31.50	31.96	22.38	23.26	22.84	23.70	24.16
	12H	30.87	31.66	31.35	32.13	32.60	22.39	23.18	22.87	23.66	24.13
8H	4H	28.64	29.51	29.10	29.95	30.42	23.01	23.89	23.47	24.33	24.80
	6H	30.12	30.86	30.61	31.34	31.82	23.61	24.34	24.10	24.83	25.30
	8H	30.90	31.57	31.41	32.07	32.56	23.78	24.45	24.29	24.95	25.44
	12H	31.79	32.38	32.30	32.87	33.43	23.89	24.48	24.39	24.97	25.52
12H	4H	28.68	29.47	29.16	29.94	30.41	23.23	24.02	23.71	24.50	24.97
	6H	30.21	30.87	30.71	31.38	31.86	23.96	24.62	24.46	25.13	25.61
	8H	31.09	31.68	31.59	32.17	32.73	24.27	24.86	24.77	25.35	25.91