

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: P893237

Luminaire Tested: 4MB-2SL-A-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-A-UNV-L930
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

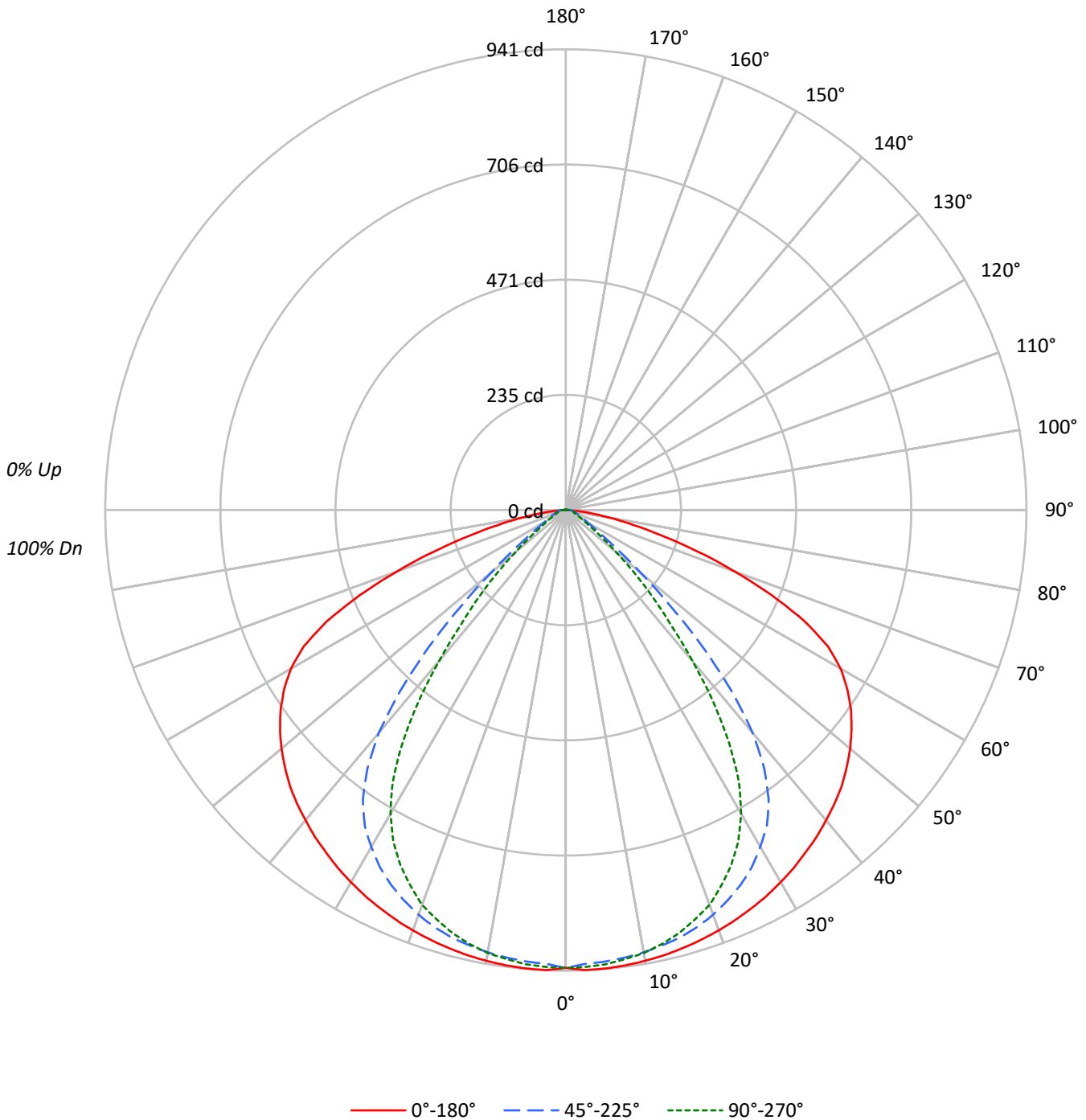
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1917.1 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
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	111	107	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9523	9523	9523
5°	9608	9465	9521
10°	9668	9486	9500
15°	9764	9527	9429
20°	9903	9535	9302
25°	10086	9493	8987
30°	10322	9344	8422
35°	10616	8985	7242
40°	10995	7892	5352
45°	11479	5695	3601
50°	12013	3181	2148
55°	12626	1644	1175
60°	13207	1069	833
65°	12982	880	660
70°	10949	810	616
75°	8055	826	661
80°	5372	974	833
85°	2933	1577	1274

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 13319 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	4.6
10°-20°	256.6	13.4
20°-30°	390.3	20.4
30°-40°	445.8	23.3
40°-50°	359.6	18.8
50°-60°	196.9	10.3
60°-70°	103.8	5.4
70°-80°	50.9	2.7
80°-90°	17.9	0.9
90°-100°	3.9	0.2
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.3	0.0
130°-140°	0.3	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	735.7	38.4
0°-40°	1181.5	61.6
0°-60°	1738.0	90.7
0°-90°	1910.6	99.7
90°-120°	4.8	0.2
90°-150°	5.8	0.3
90°-180°	6.0	0.3
0°-180°	1917.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	940	937	926	934	931	90
15°	926	920	904	902	894	262
25°	898	885	845	816	800	415
35°	854	818	723	624	582	536
45°	797	685	395	270	250	615
55°	711	293	93	72	66	634
65°	539	68	36	30	27	521
75°	205	38	21	18	17	226
85°	25	20	14	12	11	35
90°	1	10	8	7	7	2
95°	1	1	3	4	4	1
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	1	0	0
155°	0	0	1	1	1	0
165°	0	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.1	935.1	935.1	935.1	935.1
2.5°	940.8	938.3	927.6	936.7	934.1
5°	939.8	937.0	925.8	934.1	931.3
7.5°	938.0	934.4	922.2	929.7	925.3
10°	934.9	931.3	917.3	923.2	918.6
12.5°	931.3	926.4	910.8	913.9	908.0
15°	926.1	920.4	903.6	902.0	894.3
17.5°	920.4	913.4	893.0	886.2	876.9
20°	913.7	905.1	879.8	866.6	858.3
22.5°	906.2	895.0	863.2	843.0	830.1
25°	897.6	884.7	844.8	816.1	799.8
27.5°	888.6	871.0	822.6	784.8	762.8
30°	877.7	856.5	794.6	743.7	716.2
32.5°	866.8	838.4	764.6	690.6	658.0
35°	853.9	817.9	722.7	624.4	582.5
37.5°	841.7	793.3	666.0	541.3	496.3
40°	827.0	764.4	593.6	445.8	402.6
42.5°	813.0	730.7	499.7	353.7	316.2
45°	797.0	684.7	395.4	270.1	250.0
47.5°	778.3	621.8	287.5	201.1	188.4
50°	758.2	535.4	200.8	145.9	135.6
52.5°	735.9	418.7	135.3	101.4	95.7
55°	711.1	292.7	92.6	71.7	66.2
57.5°	682.3	190.4	67.3	54.1	50.5
60°	648.4	121.6	52.5	43.0	40.9
62.5°	603.9	85.4	43.2	35.4	33.6
65°	538.7	67.5	36.5	29.5	27.4
67.5°	456.2	57.2	31.3	24.8	23.5
70°	367.7	49.7	27.2	21.5	20.7
72.5°	282.6	43.5	23.5	19.1	18.6
75°	204.7	38.0	21.0	17.6	16.8
77.5°	141.8	32.9	18.6	15.8	15.3
80°	91.6	28.5	16.6	14.5	14.2
82.5°	52.5	23.8	15.0	14.0	13.7
85°	25.1	19.9	13.5	12.2	10.9
87.5°	8.0	14.7	10.6	9.3	8.3
90°	1.0	10.4	8.3	7.2	6.7
92.5°	1.0	5.7	6.0	6.0	5.7
95°	0.8	1.3	2.8	4.4	4.1
97.5°	0.8	0.5	1.8	3.1	3.1
100°	0.5	0.3	0.8	2.1	2.1
102.5°	0.5	0.3	0.3	1.3	1.3
105°	0.3	0.0	0.3	0.5	0.5
107.5°	0.3	0.3	0.3	0.5	0.3
110°	0.3	0.3	0.3	0.5	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.3	0.3	0.3	0.5	0.3
115°	0.3	0.3	0.3	0.5	0.3
117.5°	0.3	0.3	0.3	0.5	0.3
120°	0.3	0.3	0.3	0.5	0.3
122.5°	0.3	0.3	0.3	0.5	0.3
125°	0.3	0.3	0.3	0.5	0.3
127.5°	0.3	0.3	0.3	0.5	0.3
130°	0.3	0.3	0.5	0.5	0.3
132.5°	0.3	0.3	0.5	0.5	0.3
135°	0.3	0.3	0.5	0.5	0.3
137.5°	0.3	0.3	0.5	0.5	0.5
140°	0.5	0.3	0.5	0.5	0.5
142.5°	0.5	0.5	0.5	0.8	0.5
145°	0.5	0.5	0.5	0.8	0.5
147.5°	0.5	0.5	0.8	0.8	0.5
150°	0.5	0.5	0.8	0.8	0.5
152.5°	0.5	0.5	0.8	0.8	0.8
155°	0.5	0.5	0.8	1.0	0.8
157.5°	0.5	0.5	0.8	1.0	0.8
160°	0.5	0.8	1.0	1.0	0.8
162.5°	0.5	0.8	1.0	1.0	1.0
165°	0.5	0.8	1.0	1.0	1.0
167.5°	0.8	0.8	1.0	1.3	1.0
170°	0.8	0.8	1.0	1.3	1.0
172.5°	0.8	0.8	1.0	1.3	1.0
175°	0.8	0.8	1.0	1.3	1.0
177.5°	0.8	0.8	1.0	1.3	1.3
180°	1.0	1.0	1.0	1.0	1.0



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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	17.73	19.13	18.11	19.45	19.78	6.25	7.65	6.62	7.97	8.30
	3H	20.65	21.89	21.03	22.23	22.60	7.19	8.43	7.57	8.77	9.14
	4H	21.54	22.70	21.95	23.06	23.45	7.70	8.87	8.11	9.22	9.61
	6H	22.04	23.11	22.46	23.48	23.88	8.34	9.41	8.76	9.78	10.19
	8H	22.15	23.16	22.58	23.56	23.97	8.76	9.77	9.19	10.17	10.58
	12H	22.19	23.16	22.63	23.55	23.99	9.21	10.18	9.64	10.57	11.00
4H	2H	17.55	18.71	17.96	19.07	19.46	6.77	7.93	7.18	8.29	8.68
	3H	20.48	21.43	20.90	21.84	22.25	7.96	8.92	8.38	9.33	9.74
	4H	21.38	22.24	21.82	22.66	23.11	8.63	9.48	9.07	9.91	10.36
	6H	21.98	22.72	22.44	23.17	23.64	9.45	10.19	9.92	10.64	11.12
	8H	22.14	22.83	22.61	23.28	23.76	9.98	10.68	10.46	11.13	11.61
	12H	22.23	22.84	22.72	23.33	23.81	10.56	11.18	11.06	11.67	12.15
8H	4H	21.27	21.97	21.75	22.42	22.90	9.22	9.91	9.69	10.36	10.84
	6H	21.87	22.44	22.38	22.94	23.43	10.23	10.80	10.73	11.30	11.78
	8H	22.06	22.57	22.58	23.09	23.59	10.90	11.41	11.43	11.93	12.43
	12H	22.21	22.66	22.72	23.16	23.74	11.67	12.13	12.19	12.62	13.20
12H	4H	21.23	21.85	21.72	22.34	22.82	9.48	10.10	9.97	10.58	11.06
	6H	21.82	22.34	22.35	22.85	23.35	10.54	11.05	11.06	11.57	12.07
	8H	22.04	22.49	22.56	22.99	23.57	11.30	11.76	11.82	12.26	12.83