

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: P893461

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893461
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-4SL-A-UNV-L930
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

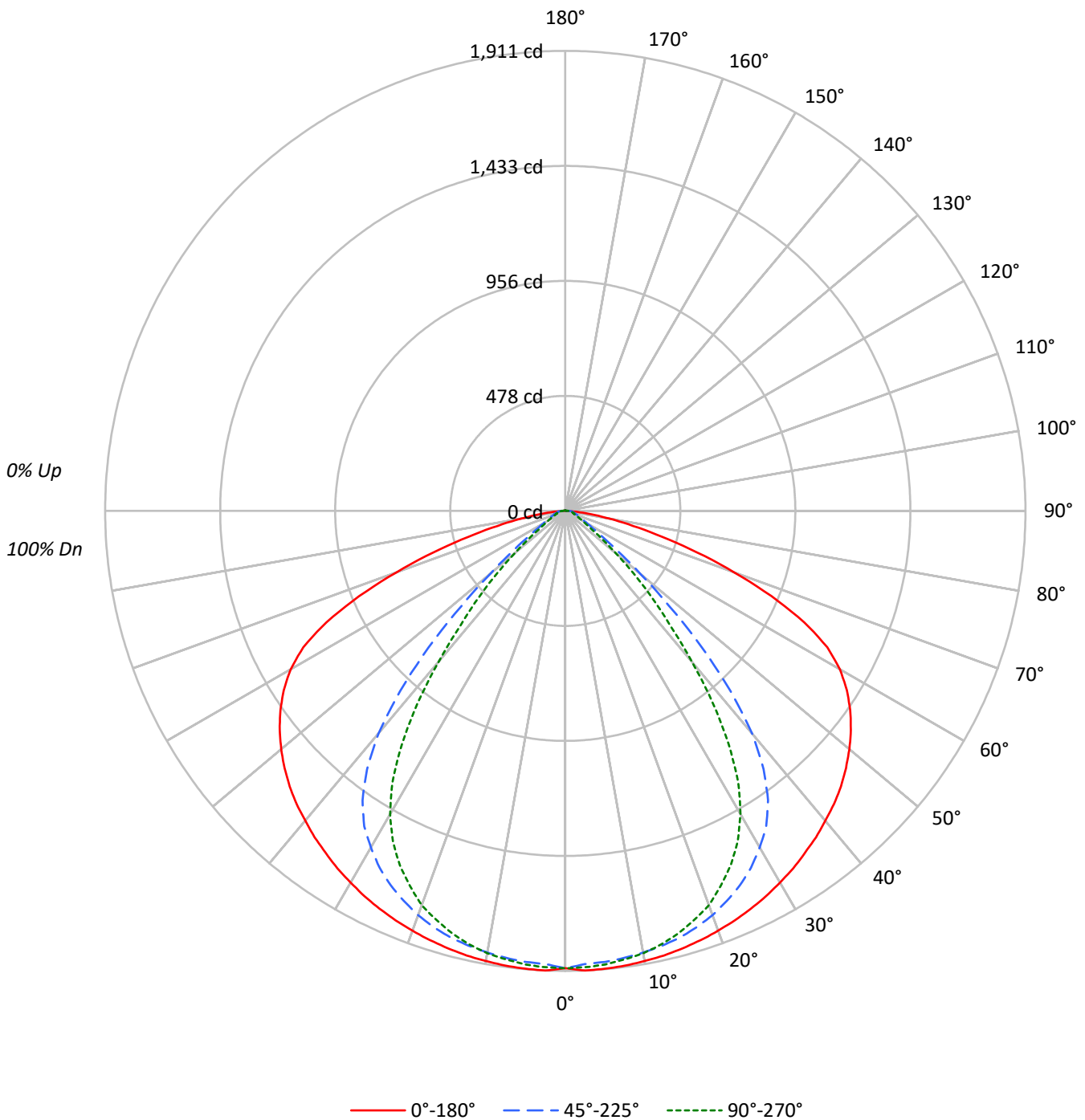
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3894.1 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
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	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19346	19346	19346
5°	19516	19226	19339
10°	19638	19269	19296
15°	19834	19351	19152
20°	20114	19368	18896
25°	20490	19284	18257
30°	20966	18983	17109
35°	21564	18251	14710
40°	22334	16031	10874
45°	23316	11567	7312
50°	24399	6463	4363
55°	25646	3342	2390
60°	26829	2173	1691
65°	26370	1786	1342
70°	22240	1644	1251
75°	16361	1676	1346
80°	10914	1971	1695
85°	5959	3190	2582

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 27058 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.4	4.6
10°-20°	521.2	13.4
20°-30°	792.9	20.4
30°-40°	905.5	23.3
40°-50°	730.5	18.8
50°-60°	399.9	10.3
60°-70°	210.8	5.4
70°-80°	103.4	2.7
80°-90°	36.4	0.9
90°-100°	7.8	0.2
100°-110°	1.1	0.0
110°-120°	0.6	0.0
120°-130°	0.6	0.0
130°-140°	0.6	0.0
140°-150°	0.8	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1494.5	38.4
0°-40°	2400.0	61.6
0°-60°	3530.4	90.7
0°-90°	3881.0	99.7
90°-120°	9.6	0.2
90°-150°	11.6	0.3
90°-180°	13.0	0.3
0°-180°	3894.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1900	1900	1900	1900	1900	
5°	1909	1903	1881	1898	1892	182
15°	1881	1870	1835	1832	1816	532
25°	1823	1797	1716	1658	1625	842
35°	1734	1662	1468	1268	1183	1088
45°	1619	1391	803	549	508	1250
55°	1444	594	188	146	135	1289
65°	1094	137	74	60	56	1058
75°	416	77	43	36	34	459
85°	51	40	27	25	22	70
90°	2	21	17	15	14	3
95°	2	3	6	9	8	1
105°	0	0	0	1	1	1
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
145°	1	1	1	2	1	1
155°	1	1	2	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	3	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1899.6	1899.6	1899.6	1899.6	1899.6
2.5°	1911.1	1905.9	1884.3	1902.7	1897.5
5°	1909.0	1903.2	1880.6	1897.5	1891.7
7.5°	1905.3	1898.0	1873.3	1888.5	1879.6
10°	1899.0	1891.7	1863.3	1875.4	1865.9
12.5°	1891.7	1881.7	1850.2	1856.5	1844.4
15°	1881.2	1869.6	1835.4	1832.3	1816.5
17.5°	1869.6	1855.4	1813.9	1800.2	1781.3
20°	1855.9	1838.6	1787.1	1760.3	1743.5
22.5°	1840.7	1818.1	1753.4	1712.4	1686.2
25°	1823.4	1797.1	1716.1	1657.8	1624.7
27.5°	1805.0	1769.2	1670.9	1594.2	1549.5
30°	1782.9	1739.8	1614.2	1510.6	1454.9
32.5°	1760.8	1703.0	1553.2	1402.9	1336.6
35°	1734.5	1661.5	1468.0	1268.3	1183.2
37.5°	1709.8	1611.5	1352.9	1099.6	1008.1
40°	1679.9	1552.7	1205.8	905.6	817.9
42.5°	1651.5	1484.3	1015.0	718.5	642.3
45°	1618.9	1390.8	803.1	548.7	507.7
47.5°	1581.0	1263.0	584.0	408.4	382.6
50°	1540.0	1087.5	407.9	296.4	275.4
52.5°	1494.8	850.4	274.9	206.0	194.5
55°	1444.4	594.5	188.2	145.6	134.6
57.5°	1386.0	386.9	136.7	109.9	102.5
60°	1317.2	247.0	106.7	87.3	83.0
62.5°	1226.8	173.5	87.8	72.0	68.3
65°	1094.3	137.2	74.1	59.9	55.7
67.5°	926.7	116.2	63.6	50.5	47.8
70°	746.9	100.9	55.2	43.6	42.0
72.5°	574.0	88.3	47.8	38.9	37.8
75°	415.8	77.3	42.6	35.7	34.2
77.5°	288.0	66.8	37.8	32.1	31.0
80°	186.1	57.8	33.6	29.4	28.9
82.5°	106.7	48.4	30.5	28.4	27.9
85°	51.0	40.5	27.3	24.7	22.1
87.5°	16.3	30.0	21.6	18.9	16.8
90°	2.1	21.0	16.8	14.7	13.7
92.5°	2.1	11.6	12.1	12.1	11.6
95°	1.6	2.6	5.8	8.9	8.4
97.5°	1.6	1.1	3.7	6.3	6.3
100°	1.1	0.5	1.6	4.2	4.2
102.5°	1.1	0.5	0.5	2.6	2.6
105°	0.5	0.0	0.5	1.1	1.1
107.5°	0.5	0.5	0.5	1.1	0.5
110°	0.5	0.5	0.5	1.1	0.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.5	0.5	0.5	1.1	0.5
115°	0.5	0.5	0.5	1.1	0.5
117.5°	0.5	0.5	0.5	1.1	0.5
120°	0.5	0.5	0.5	1.1	0.5
122.5°	0.5	0.5	0.5	1.1	0.5
125°	0.5	0.5	0.5	1.1	0.5
127.5°	0.5	0.5	0.5	1.1	0.5
130°	0.5	0.5	1.1	1.1	0.5
132.5°	0.5	0.5	1.1	1.1	0.5
135°	0.5	0.5	1.1	1.1	0.5
137.5°	0.5	0.5	1.1	1.1	1.1
140°	1.1	0.5	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.6	1.1
145°	1.1	1.1	1.1	1.6	1.1
147.5°	1.1	1.1	1.6	1.6	1.1
150°	1.1	1.1	1.6	1.6	1.1
152.5°	1.1	1.1	1.6	1.6	1.6
155°	1.1	1.1	1.6	2.1	1.6
157.5°	1.1	1.1	1.6	2.1	1.6
160°	1.1	1.6	2.1	2.1	1.6
162.5°	1.1	1.6	2.1	2.1	2.1
165°	1.1	1.6	2.1	2.1	2.1
167.5°	1.6	1.6	2.1	2.6	2.1
170°	1.6	1.6	2.1	2.6	2.1
172.5°	1.6	1.6	2.1	2.6	2.1
175°	1.6	1.6	2.1	2.6	2.1
177.5°	1.6	1.6	2.1	2.6	2.6
180°	2.1	2.1	2.1	2.1	2.1



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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	20.20	21.60	20.57	21.92	22.24	8.72	10.11	9.09	10.44	10.76
	3H	23.11	24.35	23.49	24.69	25.06	9.65	10.89	10.03	11.23	11.60
	4H	24.00	25.17	24.41	25.52	25.91	10.17	11.33	10.58	11.69	12.08
	6H	24.50	25.57	24.92	25.95	26.35	10.80	11.87	11.22	12.25	12.65
	8H	24.61	25.63	25.05	26.02	26.44	11.22	12.24	11.65	12.63	13.05
	12H	24.66	25.63	25.09	26.02	26.45	11.67	12.64	12.11	13.03	13.47
4H	2H	20.01	21.18	20.42	21.53	21.92	9.23	10.40	9.64	10.75	11.14
	3H	22.94	23.90	23.36	24.31	24.72	10.42	11.38	10.84	11.79	12.20
	4H	23.85	24.70	24.28	25.12	25.57	11.09	11.95	11.53	12.37	12.82
	6H	24.44	25.18	24.91	25.63	26.10	11.91	12.65	12.38	13.11	13.58
	8H	24.60	25.29	25.07	25.74	26.22	12.45	13.14	12.92	13.59	14.07
	12H	24.69	25.31	25.18	25.79	26.28	13.03	13.64	13.52	14.13	14.61
8H	4H	23.74	24.43	24.21	24.88	25.36	11.68	12.37	12.15	12.83	13.30
	6H	24.34	24.91	24.84	25.41	25.89	12.69	13.26	13.19	13.76	14.24
	8H	24.52	25.04	25.05	25.56	26.05	13.36	13.88	13.89	14.39	14.89
	12H	24.67	25.12	25.19	25.62	26.20	14.13	14.58	14.65	15.08	15.66
12H	4H	23.70	24.31	24.19	24.80	25.28	11.94	12.56	12.43	13.05	13.53
	6H	24.28	24.80	24.81	25.32	25.82	13.00	13.51	13.52	14.03	14.53
	8H	24.50	24.96	25.02	25.46	26.03	13.76	14.22	14.28	14.72	15.29