

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: P893573

Luminaire Tested: 4MB-5SL-A-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893573
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-5SL-A-UNV-L930
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

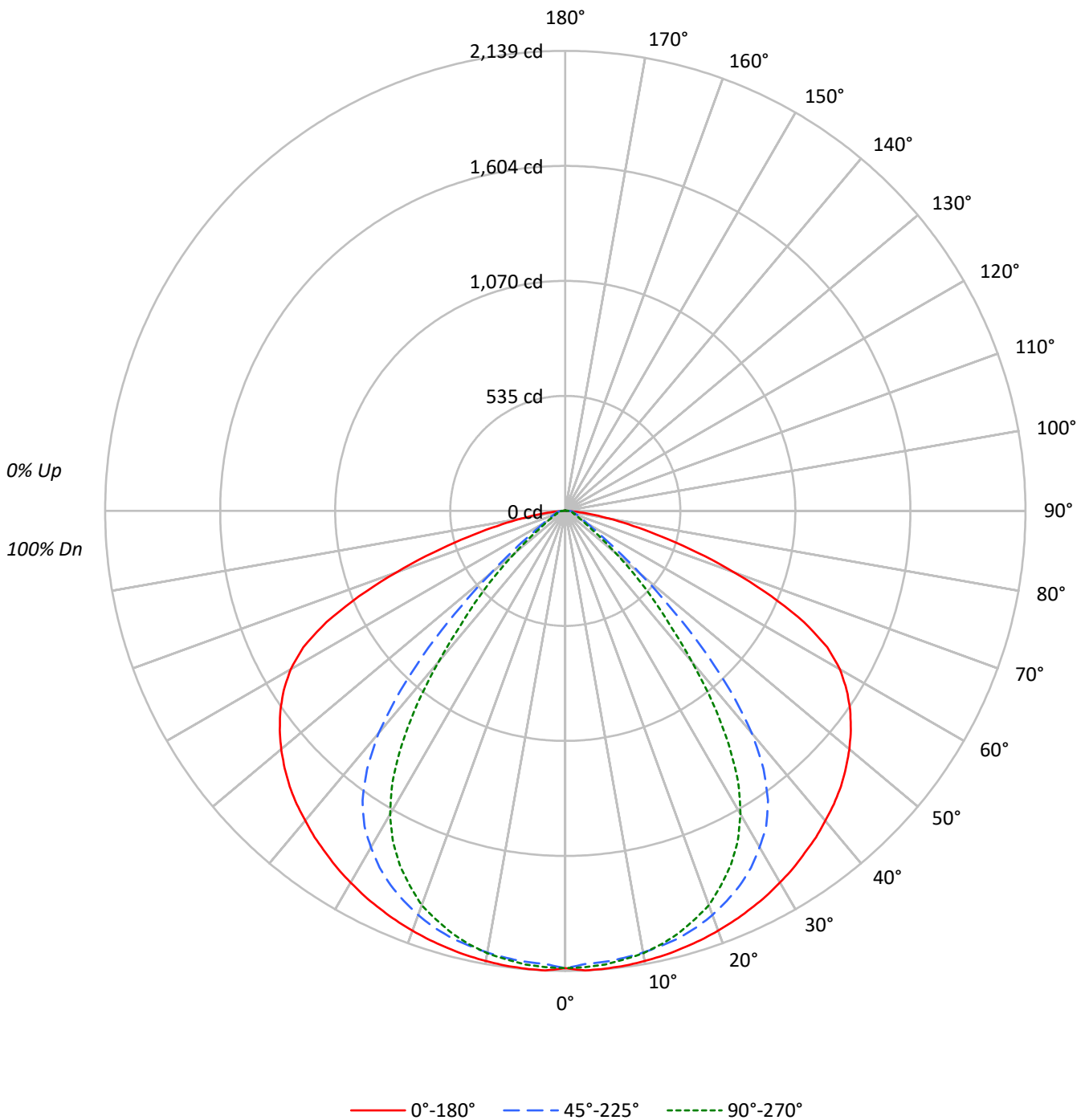
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4358.1 lumens
Efficiency: N/A
Efficacy: 124.5 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): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893573
CATALOG NUMBER: 4MB-5SL-A-UNV-L930

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°	21651	21651	21651
5°	21842	21517	21643
10°	21978	21565	21596
15°	22197	21657	21435
20°	22511	21676	21147
25°	22930	21582	20432
30°	23464	21244	19148
35°	24134	20427	16462
40°	24994	17940	12168
45°	26095	12945	8184
50°	27308	7233	4883
55°	28702	3739	2674
60°	30025	2432	1892
65°	29513	1998	1504
70°	24890	1840	1402
75°	18309	1873	1503
80°	12211	2205	1900
85°	6672	3576	2886

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 30283 cd/sqm



TEST NUMBER: P893573
 CATALOG NUMBER: 4MB-5SL-A-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.9	4.6
10°-20°	583.3	13.4
20°-30°	887.4	20.4
30°-40°	1013.4	23.3
40°-50°	817.6	18.8
50°-60°	447.5	10.3
60°-70°	236.0	5.4
70°-80°	115.7	2.7
80°-90°	40.8	0.9
90°-100°	8.8	0.2
100°-110°	1.2	0.0
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.7	0.0
140°-150°	0.9	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1672.6	38.4
0°-40°	2686.0	61.6
0°-60°	3951.1	90.7
0°-90°	4343.5	99.7
90°-120°	10.7	0.2
90°-150°	13.0	0.3
90°-180°	15.0	0.3
0°-180°	4358.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2126	2126	2126	2126	2126	
5°	2136	2130	2105	2124	2117	204
15°	2105	2092	2054	2051	2033	596
25°	2041	2011	1921	1855	1818	943
35°	1941	1859	1643	1419	1324	1218
45°	1812	1556	899	614	568	1398
55°	1616	665	211	163	151	1442
65°	1225	154	83	67	62	1185
75°	465	86	48	40	38	514
85°	57	45	31	28	25	79
90°	2	24	19	16	15	3
95°	2	3	6	10	9	1
105°	1	0	1	1	1	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
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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CATALOG NUMBER: 4MB-5SL-A-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2125.9	2125.9	2125.9	2125.9	2125.9
2.5°	2138.9	2133.0	2108.9	2129.4	2123.6
5°	2136.5	2130.0	2104.7	2123.6	2117.1
7.5°	2132.4	2124.1	2096.5	2113.6	2103.6
10°	2125.3	2117.1	2085.3	2098.9	2088.3
12.5°	2117.1	2105.9	2070.6	2077.7	2064.1
15°	2105.3	2092.4	2054.1	2050.6	2033.0
17.5°	2092.4	2076.5	2030.0	2014.7	1993.6
20°	2077.1	2057.7	2000.0	1970.0	1951.2
22.5°	2060.0	2034.7	1962.4	1916.5	1887.1
25°	2040.6	2011.2	1920.6	1855.3	1818.3
27.5°	2020.0	1980.0	1870.0	1784.1	1734.1
30°	1995.3	1947.1	1806.5	1690.6	1628.3
32.5°	1970.6	1905.9	1738.3	1570.0	1495.9
35°	1941.2	1859.4	1643.0	1419.4	1324.1
37.5°	1913.6	1803.6	1514.1	1230.6	1128.3
40°	1880.0	1737.7	1349.4	1013.5	915.3
42.5°	1848.3	1661.2	1135.9	804.1	718.8
45°	1811.8	1556.5	898.8	614.1	568.2
47.5°	1769.4	1413.6	653.5	457.1	428.2
50°	1723.6	1217.1	456.5	331.8	308.2
52.5°	1673.0	951.8	307.7	230.6	217.7
55°	1616.5	665.3	210.6	162.9	150.6
57.5°	1551.2	432.9	152.9	122.9	114.7
60°	1474.1	276.5	119.4	97.6	92.9
62.5°	1373.0	194.1	98.2	80.6	76.5
65°	1224.7	153.5	82.9	67.1	62.4
67.5°	1037.1	130.0	71.2	56.5	53.5
70°	835.9	112.9	61.8	48.8	47.1
72.5°	642.4	98.8	53.5	43.5	42.4
75°	465.3	86.5	47.6	40.0	38.2
77.5°	322.4	74.7	42.4	35.9	34.7
80°	208.2	64.7	37.6	32.9	32.4
82.5°	119.4	54.1	34.1	31.8	31.2
85°	57.1	45.3	30.6	27.6	24.7
87.5°	18.2	33.5	24.1	21.2	18.8
90°	2.4	23.5	18.8	16.5	15.3
92.5°	2.4	12.9	13.5	13.5	12.9
95°	1.8	2.9	6.5	10.0	9.4
97.5°	1.8	1.2	4.1	7.1	7.1
100°	1.2	0.6	1.8	4.7	4.7
102.5°	1.2	0.6	0.6	2.9	2.9
105°	0.6	0.0	0.6	1.2	1.2
107.5°	0.6	0.6	0.6	1.2	0.6
110°	0.6	0.6	0.6	1.2	0.6



TEST NUMBER: P893573

CATALOG NUMBER: 4MB-5SL-A-UNV-L930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.6	1.2	0.6
115°	0.6	0.6	0.6	1.2	0.6
117.5°	0.6	0.6	0.6	1.2	0.6
120°	0.6	0.6	0.6	1.2	0.6
122.5°	0.6	0.6	0.6	1.2	0.6
125°	0.6	0.6	0.6	1.2	0.6
127.5°	0.6	0.6	0.6	1.2	0.6
130°	0.6	0.6	1.2	1.2	0.6
132.5°	0.6	0.6	1.2	1.2	0.6
135°	0.6	0.6	1.2	1.2	0.6
137.5°	0.6	0.6	1.2	1.2	1.2
140°	1.2	0.6	1.2	1.2	1.2
142.5°	1.2	1.2	1.2	1.8	1.2
145°	1.2	1.2	1.2	1.8	1.2
147.5°	1.2	1.2	1.8	1.8	1.2
150°	1.2	1.2	1.8	1.8	1.2
152.5°	1.2	1.2	1.8	1.8	1.8
155°	1.2	1.2	1.8	2.4	1.8
157.5°	1.2	1.2	1.8	2.4	1.8
160°	1.2	1.8	2.4	2.4	1.8
162.5°	1.2	1.8	2.4	2.4	2.4
165°	1.2	1.8	2.4	2.4	2.4
167.5°	1.8	1.8	2.4	2.9	2.4
170°	1.8	1.8	2.4	2.9	2.4
172.5°	1.8	1.8	2.4	2.9	2.4
175°	1.8	1.8	2.4	2.9	2.4
177.5°	1.8	1.8	2.4	2.9	2.9
180°	2.4	2.4	2.4	2.4	2.4



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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	20.59	21.99	20.96	22.31	22.63	9.10	10.50	9.47	10.82	11.15
	3H	23.50	24.75	23.88	25.08	25.45	10.04	11.28	10.42	11.62	11.99
	4H	24.39	25.56	24.80	25.91	26.30	10.56	11.72	10.96	12.08	12.47
	6H	24.89	25.96	25.31	26.34	26.74	11.19	12.26	11.61	12.64	13.04
	8H	25.00	26.02	25.44	26.42	26.83	11.61	12.63	12.04	13.02	13.44
	12H	25.05	26.02	25.48	26.41	26.85	12.06	13.03	12.50	13.42	13.86
4H	2H	20.40	21.57	20.81	21.92	22.31	9.62	10.78	10.03	11.14	11.53
	3H	23.33	24.29	23.75	24.70	25.11	10.81	11.77	11.23	12.18	12.59
	4H	24.24	25.09	24.68	25.52	25.96	11.48	12.34	11.92	12.76	13.21
	6H	24.83	25.57	25.30	26.02	26.49	12.30	13.05	12.77	13.50	13.97
	8H	24.99	25.68	25.46	26.14	26.61	12.84	13.53	13.31	13.98	14.46
	12H	25.08	25.70	25.57	26.19	26.67	13.42	14.03	13.91	14.52	15.00
8H	4H	24.13	24.82	24.60	25.27	25.75	12.07	12.76	12.54	13.22	13.69
	6H	24.73	25.30	25.23	25.80	26.28	13.08	13.65	13.58	14.15	14.64
	8H	24.91	25.43	25.44	25.95	26.44	13.75	14.27	14.28	14.79	15.28
	12H	25.06	25.52	25.58	26.01	26.59	14.52	14.97	15.04	15.47	16.05
12H	4H	24.09	24.70	24.58	25.19	25.67	12.33	12.95	12.82	13.44	13.92
	6H	24.67	25.19	25.20	25.71	26.21	13.39	13.90	13.91	14.42	14.92
	8H	24.89	25.35	25.41	25.85	26.42	14.15	14.61	14.67	15.11	15.68