

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: P893569

Luminaire Tested: 4MB-5SL-A-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893569
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-L830
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

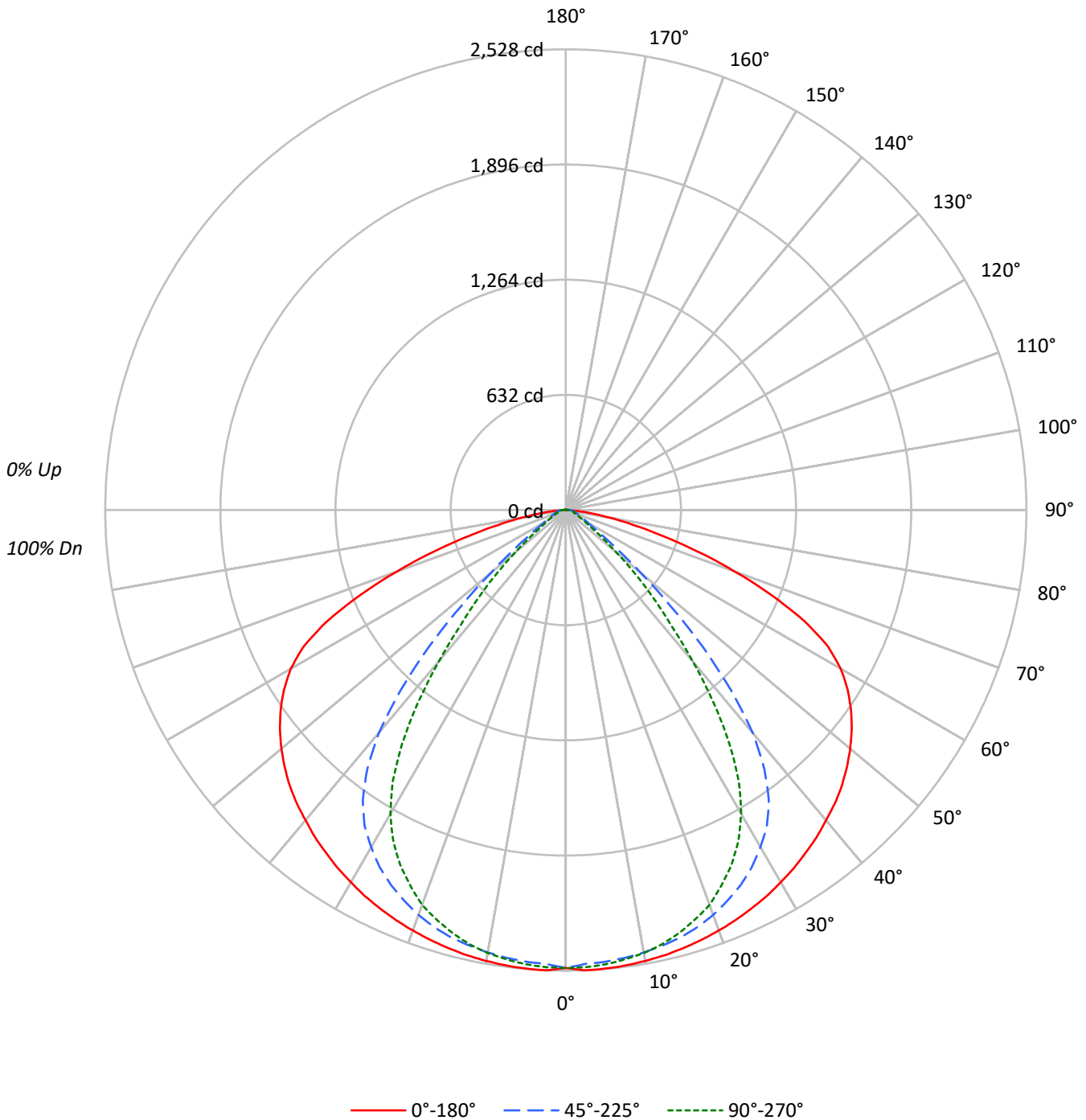
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5152.0 lumens
Efficiency: N/A
Efficacy: 147.2 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): 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

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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°	25595	25595	25595
5°	25822	25437	25586
10°	25983	25494	25530
15°	26242	25604	25340
20°	26612	25625	25000
25°	27108	25514	24154
30°	27740	25114	22636
35°	28532	24148	19462
40°	29548	21209	14386
45°	30849	15304	9676
50°	32283	8549	5773
55°	33931	4421	3161
60°	35496	2876	2238
65°	34891	2364	1776
70°	29425	2174	1656
75°	21646	2215	1779
80°	14439	2610	2240
85°	7887	4230	3412

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 35799 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.6	4.6
10°-20°	689.6	13.4
20°-30°	1049.0	20.4
30°-40°	1198.1	23.3
40°-50°	966.5	18.8
50°-60°	529.0	10.3
60°-70°	278.9	5.4
70°-80°	136.8	2.7
80°-90°	48.2	0.9
90°-100°	10.4	0.2
100°-110°	1.4	0.0
110°-120°	0.9	0.0
120°-130°	0.8	0.0
130°-140°	0.8	0.0
140°-150°	1.0	0.0
150°-160°	0.9	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	1977.3	38.4
0°-40°	3175.4	61.6
0°-60°	4670.9	90.7
0°-90°	5134.8	99.7
90°-120°	12.7	0.2
90°-150°	15.3	0.3
90°-180°	17.0	0.3
0°-180°	5152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2513	2513	2513	2513	2513	
5°	2526	2518	2488	2510	2503	241
15°	2489	2474	2428	2424	2403	704
25°	2412	2378	2270	2193	2150	1115
35°	2295	2198	1942	1678	1565	1440
45°	2142	1840	1063	726	672	1653
55°	1911	786	249	193	178	1705
65°	1448	182	98	79	74	1400
75°	550	102	56	47	45	607
85°	68	54	36	33	29	93
90°	3	28	22	20	18	4
95°	2	4	8	12	11	2
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	3	2	1
165°	1	2	3	3	3	0
175°	2	2	3	4	3	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2513.2	2513.2	2513.2	2513.2	2513.2
2.5°	2528.5	2521.6	2493.1	2517.4	2510.5
5°	2525.8	2518.1	2488.2	2510.5	2502.8
7.5°	2520.9	2511.2	2478.5	2498.6	2486.8
10°	2512.5	2502.8	2465.3	2481.3	2468.7
12.5°	2502.8	2489.6	2447.9	2456.2	2440.2
15°	2488.9	2473.6	2428.4	2424.2	2403.4
17.5°	2473.6	2454.8	2399.9	2381.8	2356.8
20°	2455.5	2432.6	2364.4	2329.0	2306.7
22.5°	2435.4	2405.5	2319.9	2265.7	2230.9
25°	2412.4	2377.6	2270.5	2193.3	2149.5
27.5°	2388.1	2340.8	2210.7	2109.2	2050.1
30°	2358.9	2301.8	2135.6	1998.6	1924.9
32.5°	2329.7	2253.2	2055.0	1856.1	1768.4
35°	2294.9	2198.2	1942.3	1678.0	1565.4
37.5°	2262.2	2132.2	1790.0	1454.8	1333.8
40°	2222.6	2054.3	1595.3	1198.2	1082.1
42.5°	2185.0	1963.9	1342.9	950.6	849.8
45°	2141.9	1840.1	1062.6	726.0	671.8
47.5°	2091.8	1671.1	772.6	540.3	506.3
50°	2037.6	1438.8	539.6	392.2	364.4
52.5°	1977.8	1125.2	363.7	272.6	257.3
55°	1911.0	786.5	249.0	192.6	178.0
57.5°	1833.8	511.8	180.8	145.3	135.6
60°	1742.7	326.8	141.2	115.4	109.9
62.5°	1623.1	229.5	116.1	95.3	90.4
65°	1447.9	181.5	98.1	79.3	73.7
67.5°	1226.0	153.7	84.1	66.8	63.3
70°	988.2	133.5	73.0	57.7	55.6
72.5°	759.4	116.8	63.3	51.5	50.1
75°	550.1	102.2	56.3	47.3	45.2
77.5°	381.1	88.3	50.1	42.4	41.0
80°	246.2	76.5	44.5	38.9	38.2
82.5°	141.2	64.0	40.3	37.6	36.9
85°	67.5	53.5	36.2	32.7	29.2
87.5°	21.6	39.6	28.5	25.0	22.3
90°	2.8	27.8	22.3	19.5	18.1
92.5°	2.8	15.3	16.0	16.0	15.3
95°	2.1	3.5	7.6	11.8	11.1
97.5°	2.1	1.4	4.9	8.3	8.3
100°	1.4	0.7	2.1	5.6	5.6
102.5°	1.4	0.7	0.7	3.5	3.5
105°	0.7	0.0	0.7	1.4	1.4
107.5°	0.7	0.7	0.7	1.4	0.7
110°	0.7	0.7	0.7	1.4	0.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	0.7	0.7	1.4	0.7
115°	0.7	0.7	0.7	1.4	0.7
117.5°	0.7	0.7	0.7	1.4	0.7
120°	0.7	0.7	0.7	1.4	0.7
122.5°	0.7	0.7	0.7	1.4	0.7
125°	0.7	0.7	0.7	1.4	0.7
127.5°	0.7	0.7	0.7	1.4	0.7
130°	0.7	0.7	1.4	1.4	0.7
132.5°	0.7	0.7	1.4	1.4	0.7
135°	0.7	0.7	1.4	1.4	0.7
137.5°	0.7	0.7	1.4	1.4	1.4
140°	1.4	0.7	1.4	1.4	1.4
142.5°	1.4	1.4	1.4	2.1	1.4
145°	1.4	1.4	1.4	2.1	1.4
147.5°	1.4	1.4	2.1	2.1	1.4
150°	1.4	1.4	2.1	2.1	1.4
152.5°	1.4	1.4	2.1	2.1	2.1
155°	1.4	1.4	2.1	2.8	2.1
157.5°	1.4	1.4	2.1	2.8	2.1
160°	1.4	2.1	2.8	2.8	2.1
162.5°	1.4	2.1	2.8	2.8	2.8
165°	1.4	2.1	2.8	2.8	2.8
167.5°	2.1	2.1	2.8	3.5	2.8
170°	2.1	2.1	2.8	3.5	2.8
172.5°	2.1	2.1	2.8	3.5	2.8
175°	2.1	2.1	2.8	3.5	2.8
177.5°	2.1	2.1	2.8	3.5	3.5
180°	2.8	2.8	2.8	2.8	2.8



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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	21.17	22.57	21.54	22.89	23.21	9.68	11.08	10.05	11.40	11.73
	3H	24.08	25.33	24.47	25.66	26.04	10.62	11.86	11.00	12.20	12.57
	4H	24.97	26.14	25.38	26.49	26.88	11.14	12.30	11.55	12.66	13.05
	6H	25.47	26.54	25.89	26.92	27.32	11.77	12.84	12.19	13.22	13.62
	8H	25.58	26.60	26.02	27.00	27.41	12.19	13.21	12.63	13.60	14.02
	12H	25.63	26.60	26.07	26.99	27.43	12.64	13.61	13.08	14.00	14.44
4H	2H	20.99	22.15	21.39	22.51	22.89	10.20	11.37	10.61	11.72	12.11
	3H	23.92	24.87	24.33	25.28	25.69	11.40	12.35	11.81	12.76	13.17
	4H	24.82	25.67	25.26	26.10	26.55	12.06	12.92	12.50	13.34	13.79
	6H	25.41	26.15	25.88	26.60	27.07	12.89	13.63	13.35	14.08	14.55
	8H	25.57	26.26	26.05	26.72	27.19	13.42	14.11	13.89	14.56	15.04
	12H	25.66	26.28	26.15	26.77	27.25	14.00	14.61	14.49	15.10	15.58
8H	4H	24.71	25.40	25.18	25.85	26.33	12.65	13.35	13.13	13.80	14.28
	6H	25.31	25.88	25.81	26.38	26.87	13.66	14.23	14.16	14.73	15.22
	8H	25.50	26.01	26.02	26.53	27.03	14.33	14.85	14.86	15.37	15.87
	12H	25.64	26.10	26.16	26.60	27.17	15.10	15.56	15.62	16.06	16.63
12H	4H	24.67	25.28	25.16	25.77	26.25	12.92	13.53	13.41	14.02	14.50
	6H	25.26	25.77	25.78	26.29	26.79	13.97	14.48	14.49	15.00	15.50
	8H	25.47	25.93	25.99	26.43	27.00	14.73	15.19	15.25	15.69	16.26