

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: P893530

Luminaire Tested: 4MB-4SL-LVRA-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-LVRA-UNV-L835
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

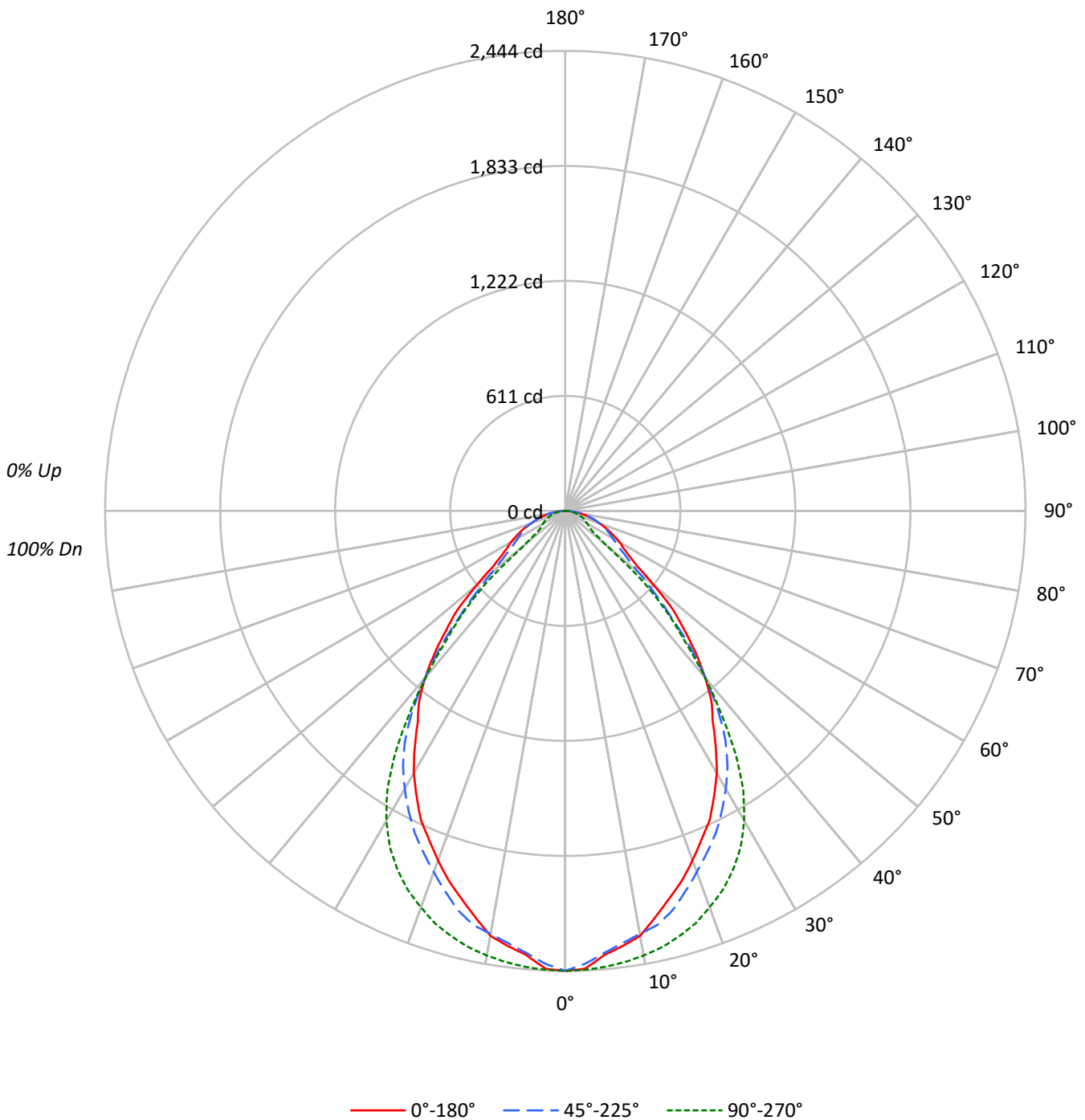
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3966.0 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' 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	100	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17387	17387	17387
5°	16918	16841	17368
10°	16558	16485	17327
15°	15704	16186	17230
20°	14959	15465	16967
25°	14230	14838	16534
30°	13221	14007	15611
35°	11854	12872	13692
40°	10740	10764	10705
45°	8979	7953	7757
50°	6783	5598	3172
55°	5102	4477	2000
60°	4741	4122	1927
65°	4411	4115	1929
70°	4036	4036	1899
75°	3827	3931	1836
80°	3536	3716	1885
85°	3086	3241	2057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 9189 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.7	5.7
10°-20°	622.0	15.7
20°-30°	882.0	22.2
30°-40°	908.6	22.9
40°-50°	634.6	16.0
50°-60°	304.5	7.7
60°-70°	213.6	5.4
70°-80°	133.6	3.4
80°-90°	41.3	1.0
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°	1729.7	43.6
0°-40°	2638.3	66.5
0°-60°	3577.5	90.2
0°-90°	3966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3966.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2444	2444	2444	2444	2444	
5°	2369	2366	2358	2420	2432	224
15°	2132	2148	2197	2260	2339	600
25°	1813	1831	1890	2018	2106	829
35°	1365	1402	1482	1513	1576	860
45°	892	913	790	750	771	688
55°	411	391	361	231	161	385
65°	262	245	244	186	115	260
75°	139	137	143	123	67	147
85°	38	38	40	39	25	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2443.7	2443.7	2443.7	2443.7	2443.7
2.5°	2434.2	2426.7	2408.4	2441.8	2439.3
5°	2368.7	2365.6	2358.0	2419.7	2431.7
7.5°	2331.6	2325.3	2316.5	2384.5	2417.9
10°	2291.9	2299.5	2281.8	2344.2	2398.3
12.5°	2210.0	2230.2	2254.1	2302.6	2374.4
15°	2131.9	2147.7	2197.4	2260.4	2339.1
17.5°	2058.9	2077.1	2120.0	2214.4	2298.2
20°	1975.7	2000.9	2042.5	2163.4	2240.9
22.5°	1890.1	1913.4	1965.7	2095.4	2181.7
25°	1812.6	1830.9	1890.1	2017.9	2106.1
27.5°	1709.9	1744.0	1800.0	1923.5	2016.0
30°	1609.2	1638.1	1704.9	1808.8	1900.2
32.5°	1487.6	1529.8	1603.5	1682.9	1759.1
35°	1364.8	1402.0	1482.0	1512.8	1576.4
37.5°	1275.4	1285.5	1330.8	1327.0	1362.9
40°	1156.3	1176.5	1158.9	1111.6	1152.6
42.5°	1027.9	1051.8	980.6	925.8	940.3
45°	892.4	913.2	790.4	750.1	770.9
47.5°	775.3	773.4	637.4	610.3	581.3
50°	612.8	633.0	505.7	455.4	286.6
52.5°	478.7	486.2	416.9	291.0	188.3
55°	411.3	391.1	360.9	231.1	161.2
57.5°	365.3	340.1	319.9	214.8	147.4
60°	333.2	304.8	289.7	204.1	135.4
62.5°	296.6	274.6	268.9	194.6	124.7
65°	262.0	245.0	244.4	185.8	114.6
67.5°	227.4	217.9	220.4	175.1	103.3
70°	194.0	192.1	194.0	161.2	91.3
72.5°	165.6	163.8	168.8	143.6	78.1
75°	139.2	137.3	143.0	123.4	66.8
77.5°	110.8	112.1	115.9	102.7	56.1
80°	86.3	86.3	90.7	80.6	46.0
82.5°	61.7	62.4	64.9	59.2	35.9
85°	37.8	37.8	39.7	39.0	25.2
87.5°	12.6	14.5	17.0	18.3	12.6
90°	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	15.57	16.92	15.93	17.23	17.55	11.90	13.26	12.27	13.57	13.88
	3H	17.31	18.51	17.69	18.84	19.21	13.88	15.08	14.26	15.41	15.78
	4H	17.98	19.11	18.38	19.46	19.84	14.58	15.71	14.98	16.06	16.44
	6H	18.49	19.52	18.90	19.89	20.29	15.11	16.14	15.52	16.51	16.91
	8H	18.66	19.64	19.09	20.03	20.44	15.29	16.28	15.72	16.67	17.07
	12H	18.77	19.71	19.20	20.09	20.52	15.43	16.37	15.86	16.75	17.18
4H	2H	16.10	17.23	16.50	17.58	17.96	13.52	14.65	13.93	15.00	15.38
	3H	18.08	19.01	18.49	19.41	19.81	15.70	16.63	16.11	17.03	17.44
	4H	18.88	19.71	19.31	20.13	20.57	16.58	17.42	17.02	17.83	18.28
	6H	19.52	20.25	19.98	20.69	21.16	17.22	17.95	17.69	18.39	18.86
	8H	19.74	20.42	20.21	20.86	21.33	17.43	18.11	17.90	18.56	19.03
	12H	19.90	20.50	20.38	20.98	21.45	17.59	18.19	18.08	18.67	19.15
8H	4H	19.16	19.84	19.63	20.29	20.76	17.23	17.91	17.70	18.35	18.82
	6H	19.95	20.50	20.45	21.00	21.48	18.09	18.65	18.59	19.14	19.62
	8H	20.25	20.75	20.77	21.26	21.75	18.42	18.92	18.94	19.43	19.92
	12H	20.48	20.92	21.00	21.42	21.99	18.68	19.12	19.20	19.62	20.19
12H	4H	19.18	19.78	19.66	20.26	20.73	17.30	17.90	17.79	18.38	18.86
	6H	20.00	20.50	20.52	21.01	21.50	18.23	18.73	18.75	19.24	19.73
	8H	20.36	20.80	20.88	21.30	21.87	18.64	19.08	19.16	19.58	20.15