

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: P893529

Luminaire Tested: 4MB-4SL-LVRA-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893529
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-L830
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

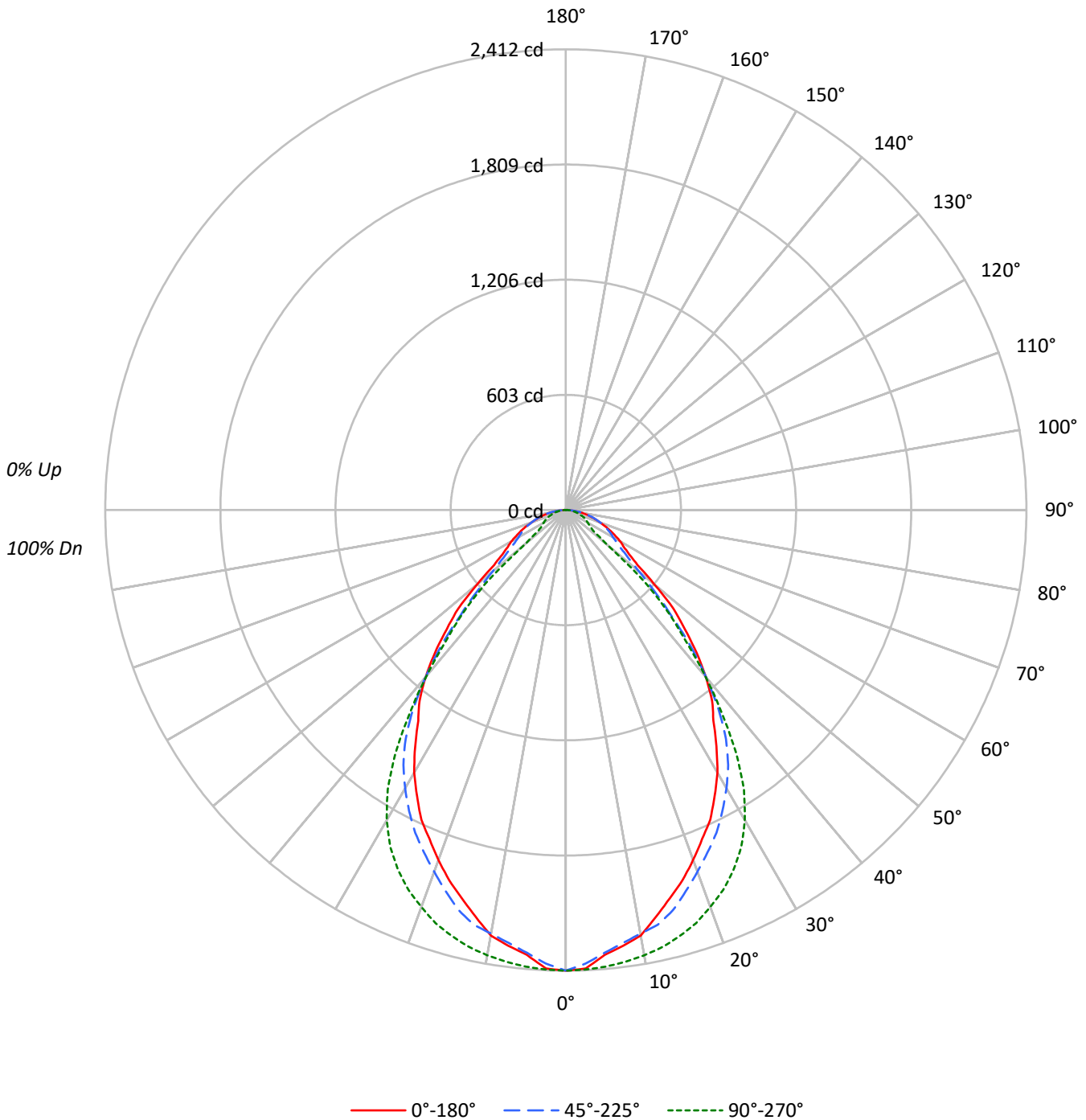
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3914.0 lumens
Efficiency: N/A
Efficacy: 131.3 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 (Ain): 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

TEST NUMBER: P893529
CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L830

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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	88	
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	78	
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	69	
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	62	
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	55	
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	50	
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	45	
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	41	
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	38	
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	35	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17159	17159	17159
5°	16696	16621	17140
10°	16341	16269	17100
15°	15498	15974	17004
20°	14763	15262	16745
25°	14043	14644	16317
30°	13047	13824	15406
35°	11699	12703	13513
40°	10599	10623	10564
45°	8862	7849	7655
50°	6695	5525	3130
55°	5035	4419	1974
60°	4679	4068	1901
65°	4354	4061	1904
70°	3982	3982	1874
75°	3777	3879	1812
80°	3491	3667	1860
85°	3045	3200	2033

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 9069 cd/sqm



TEST NUMBER: P893529
 CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.8	5.7
10°-20°	613.8	15.7
20°-30°	870.4	22.2
30°-40°	896.7	22.9
40°-50°	626.3	16.0
50°-60°	300.5	7.7
60°-70°	210.9	5.4
70°-80°	131.8	3.4
80°-90°	40.8	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°	1707.0	43.6
0°-40°	2603.7	66.5
0°-60°	3530.6	90.2
0°-90°	3914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2412	2412	2412	2412	2412	
5°	2338	2335	2327	2388	2400	221
15°	2104	2120	2169	2231	2308	592
25°	1789	1807	1865	1992	2078	818
35°	1347	1384	1462	1493	1556	849
45°	881	901	780	740	761	679
55°	406	386	356	228	159	380
65°	259	242	241	183	113	256
75°	137	136	141	122	66	145
85°	37	37	39	38	25	42
90°	0	0	0	0	0	



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CATALOG NUMBER: 4MB-4SL-LVRA-UNV-L830

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2411.6	2411.6	2411.6	2411.6	2411.6
2.5°	2402.3	2394.9	2376.8	2409.8	2407.3
5°	2337.7	2334.6	2327.1	2388.0	2399.8
7.5°	2301.0	2294.8	2286.1	2353.2	2386.2
10°	2261.8	2269.3	2251.9	2313.4	2366.9
12.5°	2181.0	2200.9	2224.6	2272.4	2343.3
15°	2104.0	2119.5	2168.6	2230.8	2308.5
17.5°	2031.9	2049.9	2092.2	2185.4	2268.1
20°	1949.8	1974.7	2015.7	2135.0	2211.5
22.5°	1865.3	1888.3	1939.9	2067.9	2153.1
25°	1788.8	1806.9	1865.3	1991.5	2078.5
27.5°	1687.5	1721.1	1776.4	1898.2	1989.6
30°	1588.1	1616.7	1682.6	1785.1	1875.2
32.5°	1468.1	1509.8	1582.5	1660.8	1736.0
35°	1346.9	1383.6	1462.5	1493.0	1555.8
37.5°	1258.7	1268.6	1313.3	1309.6	1345.0
40°	1141.2	1161.1	1143.7	1097.0	1137.4
42.5°	1014.4	1038.0	967.8	913.7	928.0
45°	880.7	901.3	780.1	740.3	760.8
47.5°	765.1	763.3	629.0	602.3	573.7
50°	604.8	624.7	499.1	449.4	282.8
52.5°	472.4	479.8	411.5	287.2	185.8
55°	405.9	386.0	356.2	228.1	159.1
57.5°	360.5	335.6	315.8	212.0	145.4
60°	328.8	300.8	285.9	201.4	133.6
62.5°	292.8	271.0	265.4	192.1	123.1
65°	258.6	241.8	241.2	183.4	113.1
67.5°	224.4	215.1	217.5	172.8	101.9
70°	191.4	189.6	191.4	159.1	90.1
72.5°	163.5	161.6	166.6	141.7	77.1
75°	137.4	135.5	141.1	121.8	65.9
77.5°	109.4	110.6	114.4	101.3	55.3
80°	85.2	85.2	89.5	79.6	45.4
82.5°	60.9	61.5	64.0	58.4	35.4
85°	37.3	37.3	39.2	38.5	24.9
87.5°	12.4	14.3	16.8	18.0	12.4
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	15.52	16.88	15.89	17.19	17.50	11.86	13.21	12.22	13.52	13.84
	3H	17.26	18.47	17.64	18.80	19.16	13.83	15.04	14.21	15.37	15.73
	4H	17.93	19.06	18.33	19.41	19.79	14.54	15.66	14.94	16.01	16.40
	6H	18.44	19.48	18.85	19.85	20.24	15.06	16.10	15.47	16.47	16.86
	8H	18.61	19.60	19.04	19.99	20.39	15.24	16.23	15.67	16.62	17.02
	12H	18.72	19.66	19.15	20.05	20.48	15.38	16.33	15.82	16.71	17.14
4H	2H	16.05	17.18	16.45	17.53	17.91	13.48	14.61	13.88	14.96	15.34
	3H	18.03	18.96	18.44	19.36	19.77	15.66	16.59	16.07	16.99	17.39
	4H	18.83	19.67	19.27	20.09	20.53	16.53	17.37	16.97	17.79	18.23
	6H	19.48	20.20	19.94	20.65	21.11	17.18	17.90	17.64	18.35	18.81
	8H	19.70	20.37	20.16	20.82	21.29	17.39	18.06	17.85	18.51	18.98
	12H	19.85	20.45	20.33	20.93	21.40	17.54	18.14	18.03	18.63	19.10
8H	4H	19.12	19.79	19.58	20.24	20.71	17.18	17.86	17.65	18.31	18.78
	6H	19.90	20.46	20.40	20.95	21.43	18.05	18.60	18.55	19.10	19.58
	8H	20.20	20.70	20.72	21.21	21.71	18.37	18.87	18.89	19.39	19.88
	12H	20.44	20.88	20.95	21.37	21.94	18.64	19.08	19.15	19.57	20.14
12H	4H	19.13	19.73	19.62	20.22	20.69	17.26	17.86	17.74	18.34	18.81
	6H	19.95	20.45	20.47	20.97	21.46	18.18	18.68	18.70	19.20	19.69
	8H	20.32	20.76	20.83	21.25	21.82	18.60	19.04	19.11	19.53	20.10