

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: P892766

Luminaire Tested: 2MB-4HL-RFLW-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892766
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-RFLW-UNV-L835
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3500K
Light Source: -
Ballast/Driver: -

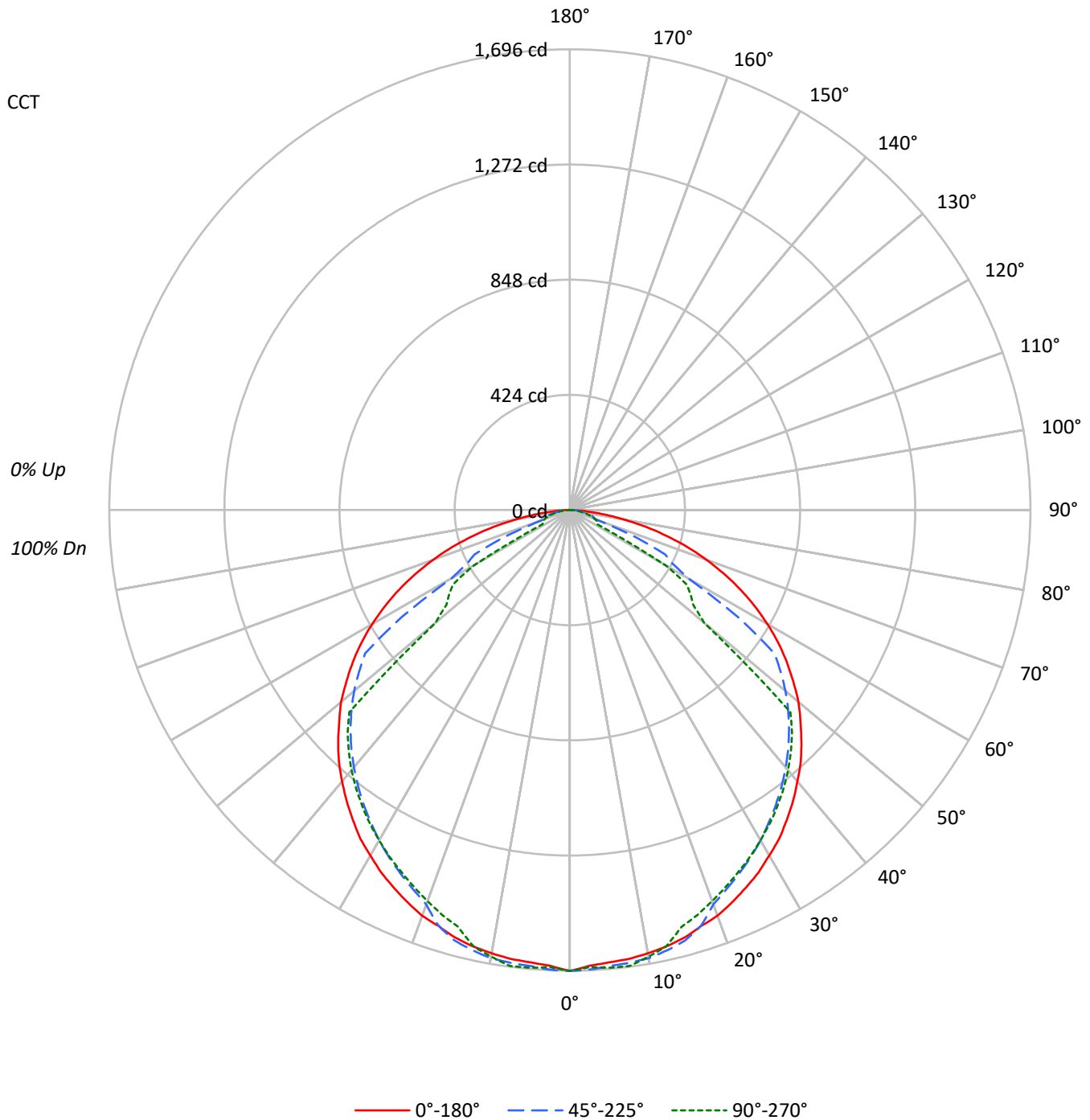
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4318.0 lumens
Efficiency: N/A
Efficacy: 156.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	49	49	49	47
6	72	60	51	45	70	59	51	45	57	50	44	55	49	44	54	48	43	43	43	43	42
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	39	39	39	37
8	63	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	35	35	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	31	31	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44292	44292	44292
5°	43806	44157	44336
10°	43928	44413	44260
15°	44060	44346	42944
20°	44167	42939	42564
25°	44187	42525	42332
30°	44271	42329	42329
35°	44385	42176	42453
40°	44446	42152	42609
45°	44528	42150	42715
50°	44646	42107	26173
55°	44389	41849	24689
60°	43887	26113	21341
65°	42836	23945	6771
70°	40892	7633	7633
75°	37253	8534	7566
80°	30506	8675	6946
85°	21598	8657	6351

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 44646 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	3.7
10°-20°	458.1	10.6
20°-30°	690.6	16.0
30°-40°	839.2	19.4
40°-50°	884.0	20.5
50°-60°	694.2	16.1
60°-70°	390.7	9.0
70°-80°	162.6	3.8
80°-90°	38.0	0.9
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°	1309.3	30.3
0°-40°	2148.5	49.8
0°-60°	3726.7	86.3
0°-90°	4318.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4318.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1672	1691	1685	1684	1692	159
15°	1630	1649	1641	1592	1589	460
25°	1534	1546	1476	1468	1470	708
35°	1393	1345	1323	1327	1332	872
45°	1206	1139	1142	1155	1157	931
55°	975	905	919	539	542	871
65°	693	638	388	105	110	684
75°	369	221	85	78	75	390
85°	72	32	29	24	21	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1696.5	1696.5	1696.5	1696.5	1696.5
2.5°	1679.2	1703.2	1693.6	1684.0	1684.0
5°	1671.5	1690.7	1684.9	1684.0	1691.7
7.5°	1666.7	1683.0	1681.1	1683.0	1692.6
10°	1657.0	1675.3	1675.3	1668.6	1669.5
12.5°	1645.5	1663.8	1659.9	1648.4	1644.5
15°	1630.1	1649.3	1640.7	1591.6	1588.8
17.5°	1606.1	1629.2	1606.1	1559.9	1562.8
20°	1589.7	1607.0	1545.5	1530.1	1532.0
22.5°	1562.8	1578.2	1509.9	1499.3	1501.2
25°	1533.9	1545.5	1476.2	1467.6	1469.5
27.5°	1504.1	1507.0	1441.6	1435.8	1437.8
30°	1468.5	1456.0	1404.1	1400.3	1404.1
32.5°	1434.9	1406.0	1363.7	1364.7	1369.5
35°	1392.6	1345.4	1323.3	1327.2	1332.0
37.5°	1350.3	1293.5	1281.0	1288.7	1292.6
40°	1304.1	1243.5	1236.8	1244.5	1250.2
42.5°	1258.9	1192.5	1190.6	1202.1	1205.0
45°	1206.0	1138.7	1141.6	1155.0	1156.9
47.5°	1152.1	1083.9	1090.6	1103.1	1101.2
50°	1099.2	1026.2	1036.7	1018.5	644.4
52.5°	1036.7	966.5	978.1	606.8	572.2
55°	975.2	905.0	919.4	538.6	542.4
57.5°	910.7	840.5	734.8	506.8	510.7
60°	840.5	775.1	500.1	474.1	408.7
62.5°	768.4	706.9	424.1	266.4	112.5
65°	693.4	637.6	387.6	104.8	109.6
67.5°	614.5	567.4	265.4	101.9	106.8
70°	535.7	440.5	100.0	98.1	100.0
72.5°	453.9	344.3	93.3	89.4	88.5
75°	369.3	221.2	84.6	77.9	75.0
77.5°	288.5	127.9	72.1	64.4	60.6
80°	202.9	65.4	57.7	49.0	46.2
82.5°	131.8	48.1	42.3	36.5	34.6
85°	72.1	31.7	28.9	24.0	21.2
87.5°	31.7	19.2	16.3	12.5	9.6
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	25.83	27.40	26.20	27.71	28.02	22.22	23.78	22.58	24.09	24.41
	3H	27.75	29.15	28.13	29.48	29.84	22.36	23.76	22.74	24.09	24.45
	4H	28.35	29.66	28.75	30.01	30.38	22.47	23.78	22.87	24.13	24.51
	6H	28.72	29.93	29.13	30.29	30.68	22.57	23.78	22.99	24.15	24.54
	8H	28.82	29.97	29.24	30.36	30.76	22.61	23.76	23.03	24.15	24.55
	12H	28.88	29.98	29.31	30.36	30.79	22.63	23.73	23.06	24.11	24.54
4H	2H	25.98	27.29	26.38	27.64	28.02	22.90	24.21	23.30	24.56	24.94
	3H	28.00	29.08	28.41	29.48	29.88	23.10	24.18	23.51	24.58	24.98
	4H	28.66	29.63	29.09	30.04	30.48	23.26	24.23	23.69	24.64	25.08
	6H	29.08	29.92	29.53	30.36	30.82	23.42	24.26	23.87	24.70	25.16
	8H	29.20	29.99	29.67	30.44	30.90	23.47	24.26	23.93	24.70	25.17
	12H	29.30	30.00	29.78	30.48	30.95	23.51	24.21	23.99	24.69	25.16
8H	4H	28.60	29.38	29.06	29.83	30.30	23.48	24.27	23.94	24.71	25.18
	6H	29.02	29.67	29.52	30.16	30.64	23.69	24.34	24.19	24.83	25.31
	8H	29.16	29.75	29.67	30.26	30.74	23.78	24.36	24.29	24.87	25.36
	12H	29.28	29.80	29.79	30.30	30.86	23.86	24.38	24.37	24.87	25.43
12H	4H	28.57	29.27	29.05	29.75	30.22	23.49	24.20	23.98	24.68	25.15
	6H	28.98	29.57	29.49	30.08	30.56	23.71	24.30	24.22	24.81	25.29
	8H	29.15	29.67	29.66	30.16	30.72	23.84	24.36	24.35	24.85	25.41