

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: P892751

Luminaire Tested: 2MB-4HL-LVRA-UNV-L840

Issue Date: 11/11/2024

**Test Information**

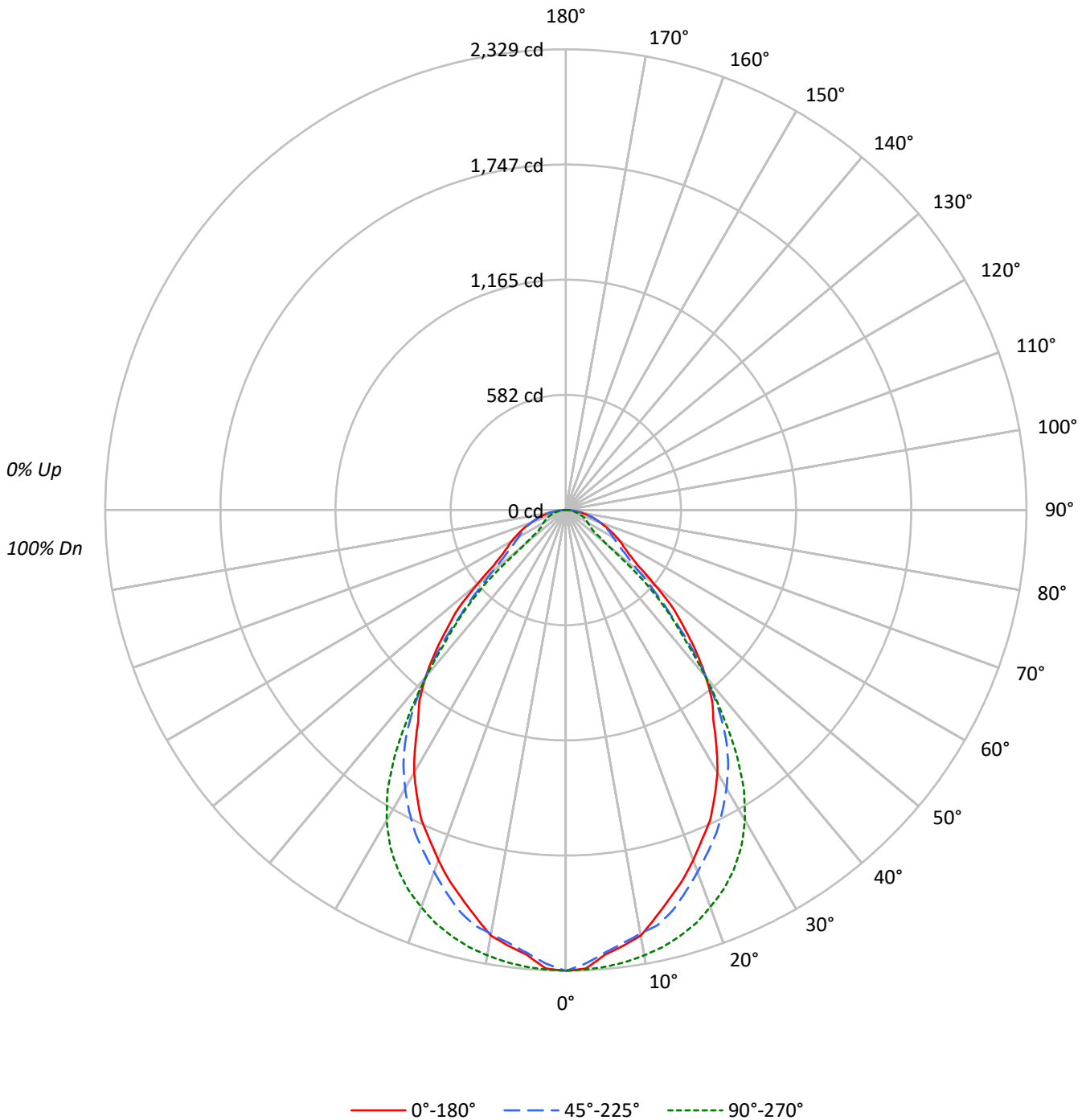
Test Method: LM-79-2019  
Report Number: P892751  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-LVRA-UNV-L840  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3780.0 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	33319	33319	33319
5°	32419	32273	33282
10°	31731	31592	33205
15°	30093	31018	33018
20°	28668	29636	32515
25°	27269	28434	31684
30°	25335	26843	29915
35°	22717	24668	26239
40°	20581	20626	20514
45°	17209	15240	14864
50°	12999	10727	6078
55°	9777	8580	3833
60°	9084	7899	3694
65°	8452	7884	3700
70°	7734	7734	3639
75°	7335	7534	3515
80°	6772	7118	3608
85°	5909	6204	3939

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 17609 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.1	5.7
10°-20°	592.8	15.7
20°-30°	840.6	22.2
30°-40°	866.0	22.9
40°-50°	604.9	16.0
50°-60°	290.2	7.7
60°-70°	203.6	5.4
70°-80°	127.3	3.4
80°-90°	39.4	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°	1648.5	43.6
0°-40°	2514.6	66.5
0°-60°	3409.7	90.2
0°-90°	3780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3780.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2329	2329	2329	2329	2329	
5°	2258	2255	2247	2306	2318	214
15°	2032	2047	2094	2154	2229	572
25°	1728	1745	1801	1923	2007	790
35°	1301	1336	1412	1442	1502	820
45°	851	870	753	715	735	655
55°	392	373	344	220	154	367
65°	250	234	233	177	109	247
75°	133	131	136	118	64	140
85°	36	36	38	37	24	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2329.1	2329.1	2329.1	2329.1	2329.1
2.5°	2320.1	2312.9	2295.5	2327.3	2324.9
5°	2257.6	2254.6	2247.4	2306.3	2317.7
7.5°	2222.2	2216.2	2207.8	2272.6	2304.5
10°	2184.4	2191.6	2174.8	2234.2	2285.9
12.5°	2106.4	2125.6	2148.4	2194.6	2263.0
15°	2031.9	2046.9	2094.4	2154.4	2229.4
17.5°	1962.3	1979.7	2020.5	2110.6	2190.4
20°	1883.1	1907.1	1946.7	2062.0	2135.8
22.5°	1801.4	1823.6	1873.5	1997.1	2079.4
25°	1727.6	1745.0	1801.4	1923.3	2007.3
27.5°	1629.8	1662.2	1715.6	1833.2	1921.5
30°	1533.7	1561.3	1625.0	1724.0	1811.0
32.5°	1417.9	1458.1	1528.3	1603.9	1676.6
35°	1300.8	1336.2	1412.5	1441.9	1502.5
37.5°	1215.6	1225.2	1268.4	1264.8	1299.0
40°	1102.1	1121.3	1104.5	1059.5	1098.5
42.5°	979.7	1002.5	934.6	882.4	896.2
45°	850.6	870.4	753.3	714.9	734.7
47.5°	738.9	737.1	607.5	581.7	554.1
50°	584.1	603.3	482.0	434.0	273.1
52.5°	456.2	463.4	397.4	277.3	179.5
55°	392.0	372.8	344.0	220.3	153.7
57.5°	348.2	324.1	304.9	204.7	140.5
60°	317.5	290.5	276.1	194.5	129.1
62.5°	282.7	261.7	256.3	185.5	118.9
65°	249.7	233.5	232.9	177.1	109.3
67.5°	216.7	207.7	210.1	166.9	98.4
70°	184.9	183.1	184.9	153.7	87.0
72.5°	157.9	156.1	160.9	136.9	74.4
75°	132.7	130.9	136.3	117.7	63.6
77.5°	105.6	106.8	110.5	97.8	53.4
80°	82.2	82.2	86.4	76.8	43.8
82.5°	58.8	59.4	61.8	56.4	34.2
85°	36.0	36.0	37.8	37.2	24.0
87.5°	12.0	13.8	16.2	17.4	12.0
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	17.83	19.18	18.19	19.49	19.81	14.16	15.51	14.53	15.83	16.14
	3H	19.57	20.77	19.95	21.10	21.47	16.14	17.34	16.52	17.67	18.04
	4H	20.24	21.37	20.64	21.72	22.10	16.84	17.97	17.24	18.32	18.70
	6H	20.74	21.78	21.16	22.15	22.55	17.36	18.40	17.78	18.77	19.16
	8H	20.92	21.90	21.35	22.29	22.70	17.55	18.53	17.98	18.92	19.33
	12H	21.03	21.97	21.46	22.35	22.78	17.69	18.63	18.12	19.01	19.44
4H	2H	18.36	19.49	18.76	19.84	20.22	15.78	16.91	16.18	17.26	17.64
	3H	20.34	21.27	20.75	21.67	22.07	17.96	18.89	18.37	19.29	19.70
	4H	21.14	21.97	21.57	22.39	22.83	18.84	19.68	19.28	20.09	20.54
	6H	21.78	22.51	22.24	22.95	23.42	19.48	20.21	19.94	20.65	21.12
	8H	22.00	22.68	22.47	23.12	23.59	19.69	20.37	20.16	20.81	21.28
	12H	22.15	22.75	22.64	23.24	23.71	19.85	20.45	20.33	20.93	21.40
8H	4H	21.42	22.10	21.89	22.55	23.02	19.49	20.17	19.96	20.61	21.08
	6H	22.20	22.76	22.71	23.26	23.74	20.35	20.91	20.85	21.40	21.88
	8H	22.51	23.01	23.03	23.52	24.01	20.68	21.18	21.20	21.69	22.18
	12H	22.74	23.18	23.25	23.68	24.25	20.94	21.38	21.45	21.88	22.45
12H	4H	21.44	22.04	21.92	22.52	22.99	19.56	20.16	20.05	20.64	21.12
	6H	22.26	22.76	22.78	23.27	23.76	20.49	20.99	21.01	21.50	21.99
	8H	22.62	23.06	23.13	23.56	24.13	20.90	21.34	21.41	21.84	22.40