

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: P893531

Luminaire Tested: 4MB-4SL-LVRA-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893531
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-L840
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

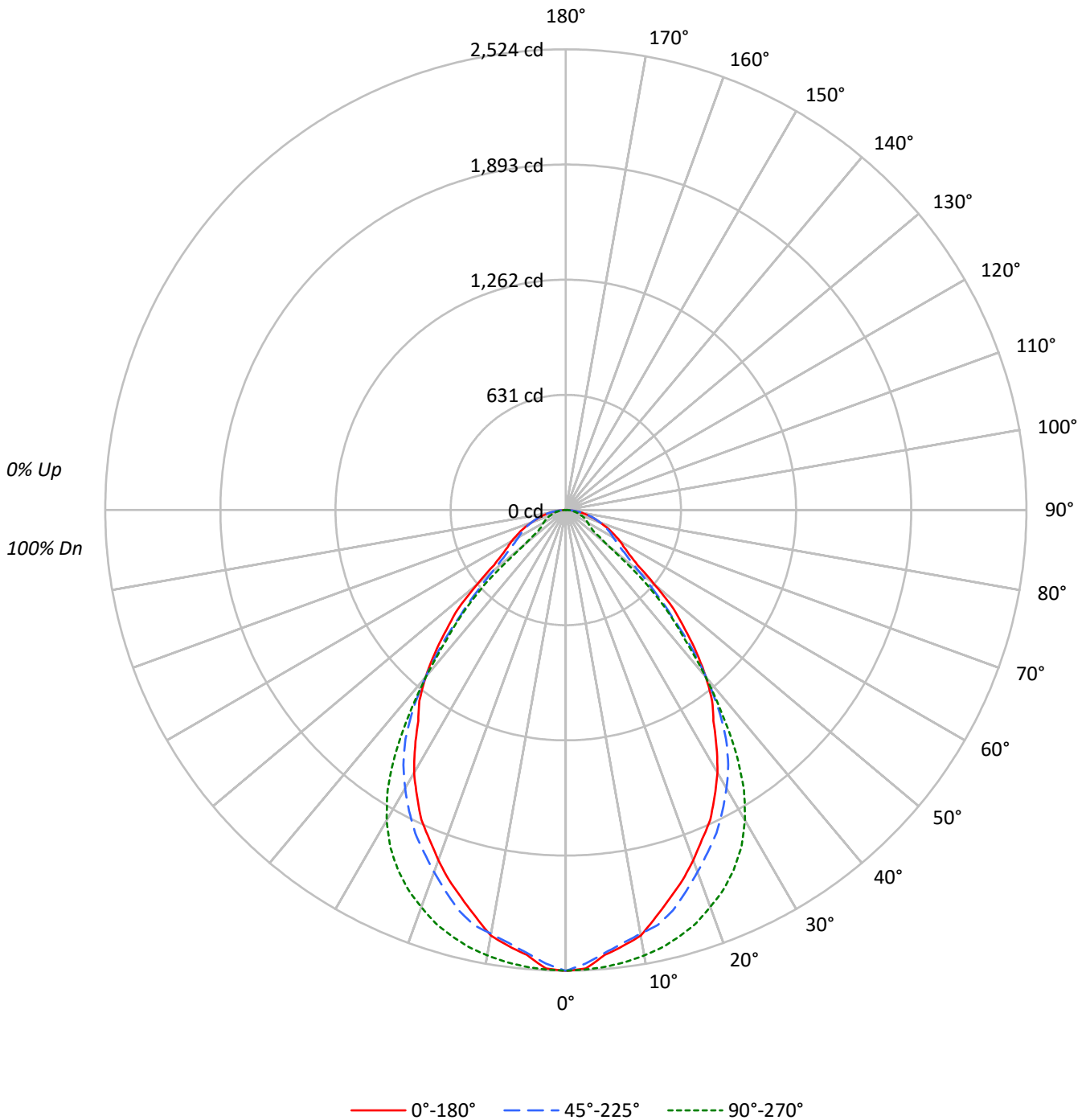
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4097.0 lumens
Efficiency: N/A
Efficacy: 137.5 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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17961	17961	17961
5°	17477	17398	17941
10°	17105	17030	17900
15°	16222	16721	17799
20°	15454	15976	17528
25°	14700	15328	17080
30°	13657	14469	16127
35°	12246	13297	14145
40°	11094	11119	11058
45°	9276	8216	8013
50°	7008	5782	3276
55°	5271	4624	2067
60°	4898	4259	1991
65°	4557	4249	1993
70°	4169	4169	1962
75°	3953	4060	1897
80°	3651	3839	1946
85°	3184	3347	2123

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 9493 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.2	5.7
10°-20°	642.5	15.7
20°-30°	911.1	22.2
30°-40°	938.6	22.9
40°-50°	655.6	16.0
50°-60°	314.6	7.7
60°-70°	220.7	5.4
70°-80°	138.0	3.4
80°-90°	42.7	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°	1786.8	43.6
0°-40°	2725.4	66.5
0°-60°	3695.6	90.2
0°-90°	4097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4097.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2524	2524	2524	2524	2524	
5°	2447	2444	2436	2500	2512	232
15°	2202	2219	2270	2335	2416	620
25°	1872	1891	1952	2085	2176	856
35°	1410	1448	1531	1563	1628	888
45°	922	943	816	775	796	710
55°	425	404	373	239	167	398
65°	271	253	252	192	118	268
75°	144	142	148	128	69	151
85°	39	39	41	40	26	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2524.4	2524.4	2524.4	2524.4	2524.4
2.5°	2514.6	2506.8	2488.0	2522.4	2519.8
5°	2447.0	2443.7	2435.9	2499.7	2512.0
7.5°	2408.6	2402.1	2393.0	2463.2	2497.7
10°	2367.6	2375.4	2357.2	2421.6	2477.6
12.5°	2283.0	2303.8	2328.6	2378.7	2452.8
15°	2202.3	2218.6	2270.0	2335.1	2416.4
17.5°	2126.9	2145.7	2190.0	2287.6	2374.1
20°	2041.0	2067.0	2110.0	2234.9	2314.9
22.5°	1952.5	1976.6	2030.6	2164.6	2253.7
25°	1872.5	1891.3	1952.5	2084.6	2175.7
27.5°	1766.4	1801.6	1859.5	1987.0	2082.6
30°	1662.3	1692.3	1761.2	1868.6	1962.9
32.5°	1536.8	1580.4	1656.5	1738.5	1817.2
35°	1409.9	1448.3	1530.9	1562.8	1628.5
37.5°	1317.5	1327.9	1374.8	1370.9	1407.9
40°	1194.5	1215.4	1197.1	1148.3	1190.6
42.5°	1061.8	1086.5	1013.0	956.4	971.4
45°	921.9	943.4	816.5	774.9	796.4
47.5°	800.9	799.0	658.4	630.4	600.5
50°	633.1	653.9	522.4	470.4	296.0
52.5°	494.5	502.3	430.7	300.6	194.5
55°	424.9	404.0	372.8	238.8	166.6
57.5°	377.4	351.3	330.5	221.9	152.2
60°	344.2	314.9	299.3	210.8	139.9
62.5°	306.4	283.7	277.8	201.0	128.8
65°	270.7	253.1	252.4	191.9	118.4
67.5°	234.9	225.1	227.7	180.9	106.7
70°	200.4	198.4	200.4	166.6	94.3
72.5°	171.1	169.2	174.4	148.3	80.7
75°	143.8	141.8	147.7	127.5	69.0
77.5°	114.5	115.8	119.7	106.1	57.9
80°	89.1	89.1	93.7	83.3	47.5
82.5°	63.8	64.4	67.0	61.2	37.1
85°	39.0	39.0	41.0	40.3	26.0
87.5°	13.0	15.0	17.6	18.9	13.0
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	15.68	17.03	16.05	17.35	17.66	12.01	13.37	12.38	13.68	14.00
	3H	17.42	18.63	17.80	18.96	19.32	13.99	15.20	14.37	15.53	15.89
	4H	18.09	19.22	18.49	19.57	19.95	14.69	15.82	15.10	16.17	16.55
	6H	18.60	19.64	19.01	20.01	20.40	15.22	16.26	15.63	16.63	17.02
	8H	18.77	19.75	19.20	20.15	20.55	15.40	16.39	15.83	16.78	17.18
	12H	18.88	19.82	19.31	20.20	20.63	15.54	16.48	15.97	16.87	17.30
4H	2H	16.21	17.34	16.61	17.69	18.07	13.64	14.76	14.04	15.11	15.50
	3H	18.19	19.12	18.60	19.52	19.92	15.81	16.74	16.23	17.15	17.55
	4H	18.99	19.83	19.43	20.24	20.69	16.69	17.53	17.13	17.95	18.39
	6H	19.63	20.36	20.10	20.80	21.27	17.34	18.06	17.80	18.51	18.97
	8H	19.85	20.53	20.32	20.98	21.45	17.55	18.22	18.01	18.67	19.14
	12H	20.01	20.61	20.49	21.09	21.56	17.70	18.30	18.19	18.79	19.26
8H	4H	19.27	19.95	19.74	20.40	20.87	17.34	18.02	17.81	18.47	18.94
	6H	20.06	20.61	20.56	21.11	21.59	18.20	18.76	18.70	19.25	19.74
	8H	20.36	20.86	20.88	21.37	21.86	18.53	19.03	19.05	19.55	20.04
	12H	20.59	21.04	21.11	21.53	22.10	18.80	19.24	19.31	19.73	20.30
12H	4H	19.29	19.89	19.78	20.37	20.85	17.42	18.02	17.90	18.50	18.97
	6H	20.11	20.61	20.63	21.12	21.61	18.34	18.84	18.86	19.35	19.85
	8H	20.47	20.92	20.99	21.41	21.98	18.76	19.20	19.27	19.69	20.26