

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: P893865

Luminaire Tested: 4MB-7HL-RFLW-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893865
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RFLW-UNV-L830
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3000K
Light Source: -
Ballast/Driver: -

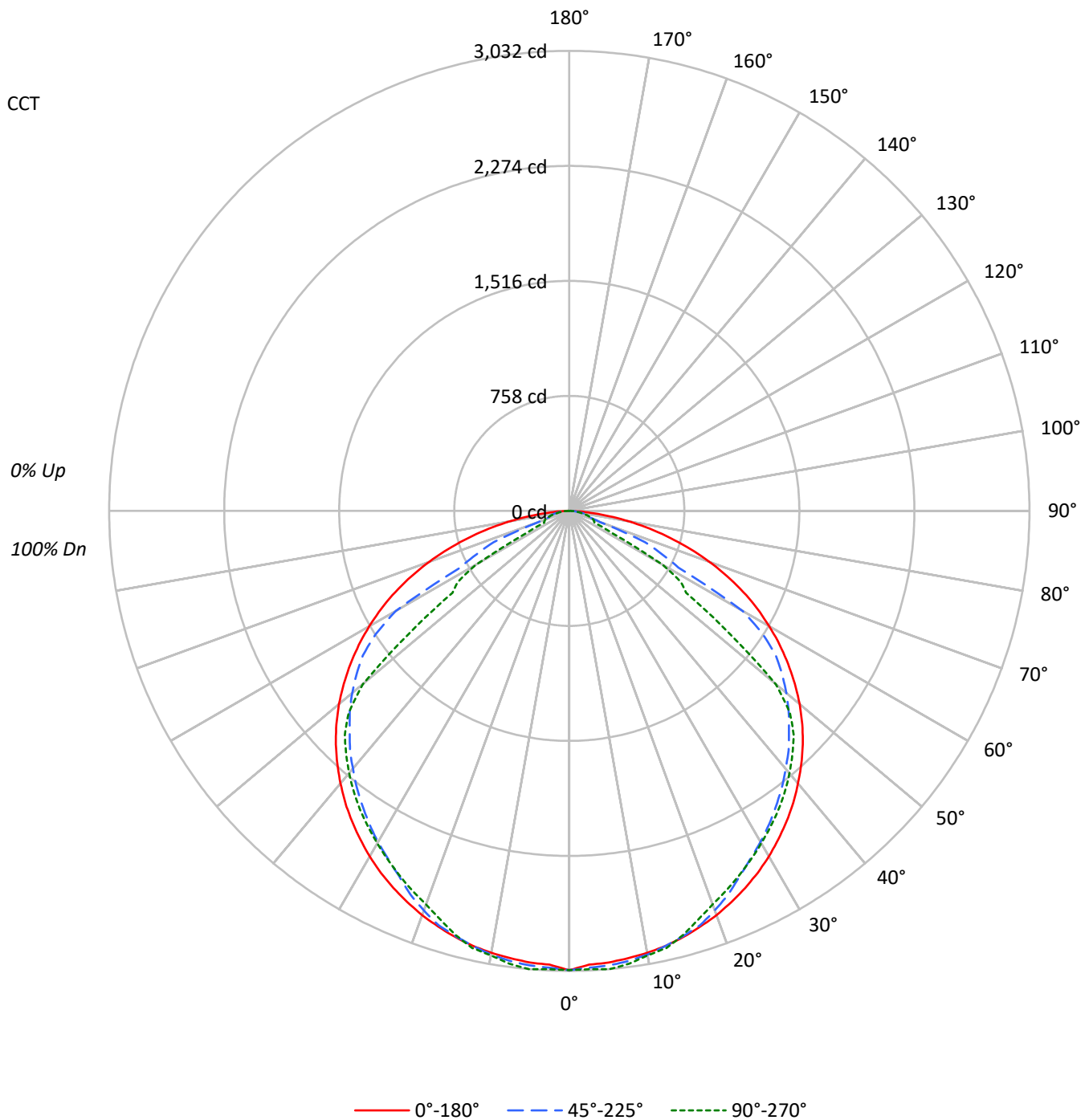
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7890.0 lumens
Efficiency: N/A
Efficacy: 152.3 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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				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	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39299	39299	39299
5°	38938	39194	39522
10°	38996	39143	39217
15°	39081	38993	38906
20°	39179	38729	38135
25°	39286	38044	37963
30°	39435	37786	37939
35°	39577	37642	38100
40°	39745	37595	38258
45°	39958	37578	38417
50°	40019	37720	35891
55°	39842	37605	21283
60°	39506	34273	18457
65°	38858	20718	5589
70°	37320	8216	6409
75°	34577	6738	6552
80°	29919	7111	6139
85°	21260	6675	5840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 40019 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.7	3.6
10°-20°	821.0	10.4
20°-30°	1240.6	15.7
30°-40°	1513.7	19.2
40°-50°	1601.2	20.3
50°-60°	1326.2	16.8
60°-70°	737.3	9.3
70°-80°	298.9	3.8
80°-90°	64.4	0.8
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°	2348.3	29.8
0°-40°	3862.0	48.9
0°-60°	6789.5	86.1
0°-90°	7890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3026	3026	3026	3026	3026	
5°	2987	3040	3007	3012	3032	284
15°	2907	2952	2901	2899	2894	821
25°	2742	2762	2655	2638	2650	1265
35°	2497	2466	2375	2384	2404	1563
45°	2176	2064	2046	2071	2092	1677
55°	1760	1641	1661	1140	940	1572
65°	1265	1159	674	227	182	1247
75°	689	384	134	132	131	728
85°	143	48	45	41	39	179
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3026.5	3026.5	3026.5	3026.5	3026.5
2.5°	2993.8	3046.1	3013.4	3020.0	3022.8
5°	2987.3	3040.5	3006.9	3011.6	3032.1
7.5°	2973.3	3027.4	2992.0	2994.8	3010.6
10°	2957.5	3006.9	2968.7	2964.0	2974.3
12.5°	2936.0	2980.8	2936.0	2937.9	2950.9
15°	2907.1	2951.9	2900.6	2898.7	2894.1
17.5°	2872.6	2914.6	2864.2	2834.4	2824.1
20°	2835.3	2867.9	2802.7	2757.0	2759.7
22.5°	2790.5	2818.5	2736.4	2694.5	2706.6
25°	2742.0	2761.6	2655.3	2638.5	2649.7
27.5°	2688.9	2703.8	2585.3	2581.6	2590.9
30°	2630.1	2635.7	2520.1	2518.2	2530.3
32.5°	2564.8	2555.5	2450.1	2452.0	2467.8
35°	2496.7	2466.0	2374.6	2383.9	2403.5
37.5°	2424.9	2369.9	2299.9	2312.1	2333.5
40°	2344.7	2270.1	2217.9	2236.5	2257.0
42.5°	2262.6	2165.6	2138.6	2156.3	2175.9
45°	2175.9	2064.0	2046.3	2071.4	2092.0
47.5°	2081.7	1964.2	1961.4	1981.0	1971.6
50°	1981.0	1860.7	1867.2	1841.1	1776.7
52.5°	1872.8	1753.4	1766.5	1653.6	1336.5
55°	1759.9	1640.6	1661.1	1139.7	940.1
57.5°	1644.3	1524.9	1511.8	872.0	871.1
60°	1521.2	1407.4	1319.7	770.4	710.7
62.5°	1397.1	1285.2	810.5	580.1	326.4
65°	1264.7	1159.3	674.3	226.6	181.9
67.5°	1125.7	1031.5	540.0	170.7	177.2
70°	983.0	899.1	216.4	165.1	168.8
72.5°	837.5	693.9	143.6	153.0	153.0
75°	689.2	384.3	134.3	132.4	130.6
77.5°	541.9	257.4	117.5	109.1	106.3
80°	400.1	92.3	95.1	84.9	82.1
82.5°	264.9	71.8	68.1	61.6	59.7
85°	142.7	47.6	44.8	41.0	39.2
87.5°	51.3	24.2	24.2	19.6	17.7
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	25.43	27.01	25.80	27.32	27.63	21.42	22.99	21.79	23.31	23.62
	3H	27.44	28.85	27.82	29.17	29.54	21.55	22.96	21.93	23.29	23.65
	4H	28.05	29.37	28.45	29.72	30.10	21.67	22.99	22.07	23.34	23.72
	6H	28.45	29.67	28.86	30.03	30.43	21.78	23.00	22.19	23.36	23.76
	8H	28.57	29.73	29.00	30.12	30.52	21.82	22.97	22.24	23.36	23.76
	12H	28.64	29.75	29.07	30.13	30.56	21.84	22.95	22.27	23.33	23.76
4H	2H	25.56	26.88	25.96	27.23	27.61	22.15	23.47	22.55	23.81	24.19
	3H	27.72	28.81	28.13	29.21	29.61	22.35	23.43	22.76	23.83	24.23
	4H	28.38	29.35	28.81	29.77	30.21	22.50	23.48	22.93	23.89	24.33
	6H	28.82	29.67	29.28	30.11	30.57	22.67	23.51	23.12	23.96	24.42
	8H	28.96	29.76	29.43	30.20	30.67	22.72	23.51	23.18	23.95	24.42
	12H	29.07	29.78	29.55	30.25	30.72	22.76	23.47	23.25	23.95	24.42
8H	4H	28.31	29.11	28.78	29.55	30.02	22.77	23.57	23.24	24.01	24.48
	6H	28.76	29.41	29.25	29.90	30.38	22.98	23.64	23.48	24.13	24.60
	8H	28.90	29.49	29.42	30.00	30.49	23.06	23.65	23.58	24.16	24.65
	12H	29.04	29.56	29.54	30.05	30.61	23.15	23.67	23.66	24.16	24.73
12H	4H	28.29	29.00	28.77	29.47	29.94	22.79	23.50	23.27	23.97	24.44
	6H	28.71	29.30	29.23	29.81	30.30	23.00	23.59	23.51	24.10	24.58
	8H	28.89	29.41	29.39	29.90	30.46	23.12	23.64	23.63	24.13	24.70