

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: P893866

Luminaire Tested: 4MB-7HL-RFLW-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893866
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-L835
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3500K
Light Source: -
Ballast/Driver: -

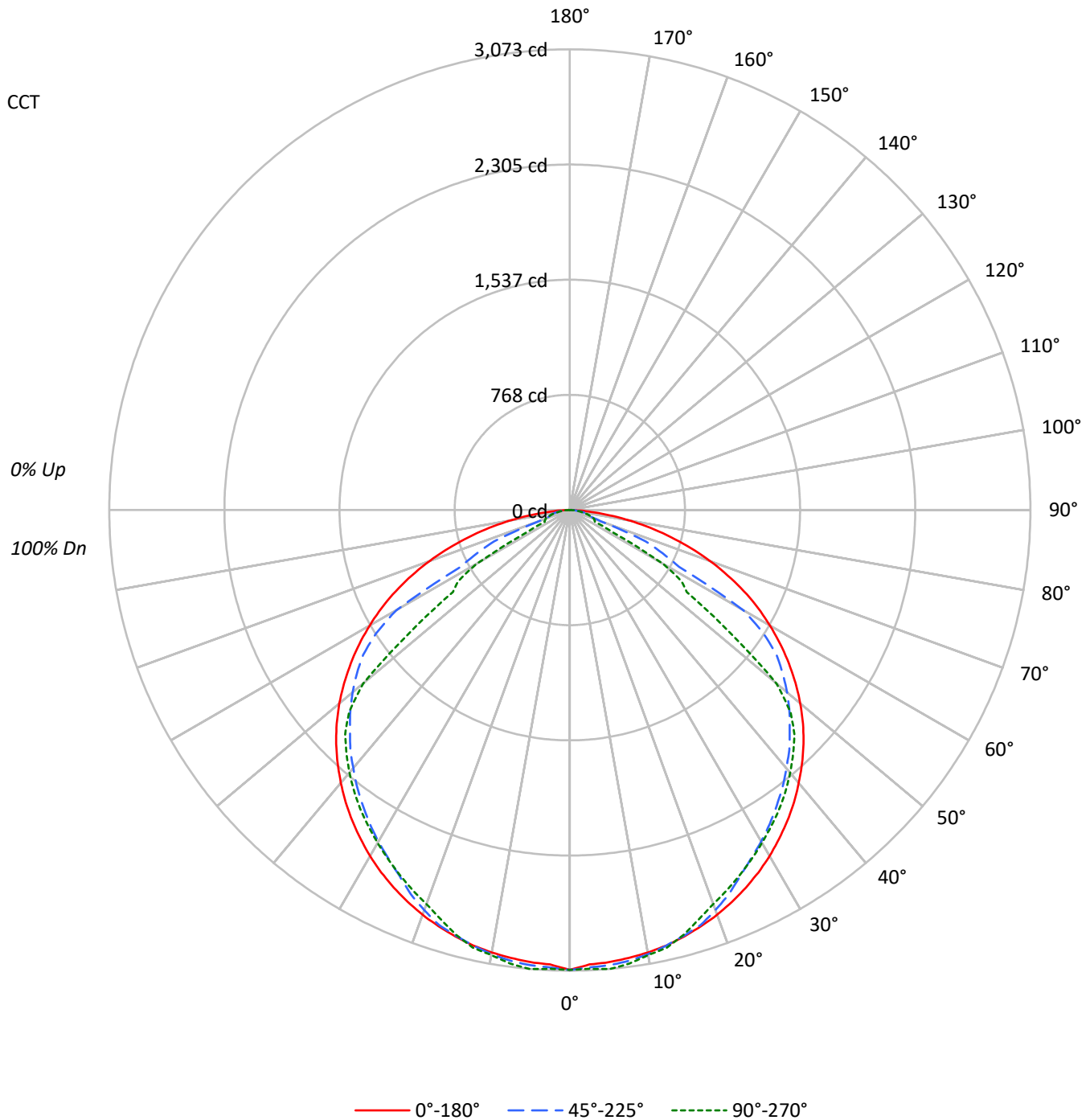
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7996.0 lumens
Efficiency: N/A
Efficacy: 154.4 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86		
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	73		
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	62		
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54		
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47		
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41		
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36		
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32		
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29		
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39827	39827	39827
5°	39462	39721	40053
10°	39519	39668	39743
15°	39606	39516	39427
20°	39706	39248	38647
25°	39815	38555	38473
30°	39965	38293	38449
35°	40110	38147	38612
40°	40279	38100	38773
45°	40494	38083	38933
50°	40556	38227	36374
55°	40379	38110	21570
60°	40036	34732	18704
65°	39381	20998	5663
70°	37822	8326	6496
75°	35044	6828	6638
80°	30323	7209	6222
85°	21544	6764	5915

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 40556 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.5	3.6
10°-20°	832.0	10.4
20°-30°	1257.3	15.7
30°-40°	1534.0	19.2
40°-50°	1622.7	20.3
50°-60°	1344.1	16.8
60°-70°	747.2	9.3
70°-80°	302.9	3.8
80°-90°	65.3	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°	2379.8	29.8
0°-40°	3913.9	48.9
0°-60°	6880.7	86.1
0°-90°	7996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3067	3067	3067	3067	3067	
5°	3028	3081	3047	3052	3073	288
15°	2946	2992	2940	2938	2933	832
25°	2779	2799	2691	2674	2685	1282
35°	2530	2499	2406	2416	2436	1584
45°	2205	2092	2074	2099	2120	1700
55°	1784	1663	1683	1155	953	1594
65°	1282	1175	683	230	184	1264
75°	698	389	136	134	132	738
85°	145	48	45	42	40	182
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3067.1	3067.1	3067.1	3067.1	3067.1
2.5°	3034.1	3087.0	3053.9	3060.5	3063.4
5°	3027.5	3081.3	3047.3	3052.0	3072.8
7.5°	3013.3	3068.1	3032.2	3035.0	3051.1
10°	2997.2	3047.3	3008.5	3003.8	3014.2
12.5°	2975.5	3020.8	2975.5	2977.4	2990.6
15°	2946.2	2991.5	2939.5	2937.7	2932.9
17.5°	2911.2	2953.7	2902.7	2872.4	2862.0
20°	2873.4	2906.5	2840.3	2794.0	2796.8
22.5°	2828.0	2856.4	2773.2	2730.7	2742.9
25°	2778.9	2798.7	2691.0	2673.9	2685.3
27.5°	2725.0	2740.1	2620.1	2616.3	2625.7
30°	2665.4	2671.1	2553.9	2552.0	2564.3
32.5°	2599.3	2589.8	2483.0	2484.9	2501.0
35°	2530.3	2499.1	2406.5	2415.9	2435.8
37.5°	2457.5	2401.7	2330.8	2343.1	2364.9
40°	2376.2	2300.6	2247.7	2266.6	2287.4
42.5°	2293.0	2194.7	2167.3	2185.3	2205.1
45°	2205.1	2091.7	2073.8	2099.3	2120.1
47.5°	2109.7	1990.6	1987.7	2007.6	1998.1
50°	2007.6	1885.7	1892.3	1865.8	1800.6
52.5°	1897.9	1777.0	1790.2	1675.8	1354.5
55°	1783.6	1662.6	1683.4	1155.0	952.8
57.5°	1666.4	1545.4	1532.2	883.8	882.8
60°	1541.6	1426.3	1337.4	780.7	720.2
62.5°	1415.9	1302.5	821.4	587.9	330.8
65°	1281.7	1174.9	683.4	229.7	184.3
67.5°	1140.8	1045.4	547.3	173.0	179.6
70°	996.2	911.2	219.3	167.3	171.1
72.5°	848.8	703.2	145.6	155.0	155.0
75°	698.5	389.4	136.1	134.2	132.3
77.5°	549.2	260.9	119.1	110.6	107.8
80°	405.5	93.6	96.4	86.0	83.2
82.5°	268.4	72.8	69.0	62.4	60.5
85°	144.6	48.2	45.4	41.6	39.7
87.5°	52.0	24.6	24.6	19.8	18.0
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	25.48	27.05	25.84	27.37	27.68	21.47	23.04	21.83	23.36	23.67
	3H	27.49	28.89	27.86	29.22	29.58	21.60	23.01	21.98	23.34	23.70
	4H	28.10	29.42	28.50	29.77	30.14	21.72	23.04	22.12	23.39	23.76
	6H	28.50	29.72	28.91	30.08	30.47	21.83	23.05	22.24	23.41	23.80
	8H	28.62	29.78	29.04	30.17	30.57	21.86	23.02	22.29	23.41	23.81
	12H	28.69	29.80	29.12	30.18	30.61	21.89	23.00	22.32	23.38	23.81
4H	2H	25.61	26.93	26.01	27.28	27.65	22.19	23.51	22.59	23.86	24.24
	3H	27.77	28.86	28.18	29.26	29.66	22.39	23.48	22.80	23.88	24.28
	4H	28.42	29.40	28.86	29.82	30.25	22.55	23.52	22.98	23.94	24.38
	6H	28.87	29.72	29.33	30.16	30.62	22.71	23.56	23.17	24.00	24.46
	8H	29.01	29.80	29.47	30.25	30.71	22.76	23.56	23.23	24.00	24.47
	12H	29.11	29.82	29.60	30.30	30.77	22.81	23.52	23.29	24.00	24.47
8H	4H	28.36	29.15	28.82	29.60	30.06	22.82	23.61	23.28	24.06	24.52
	6H	28.80	29.46	29.30	29.95	30.43	23.03	23.68	23.52	24.17	24.65
	8H	28.95	29.54	29.46	30.05	30.54	23.11	23.70	23.62	24.21	24.70
	12H	29.08	29.60	29.59	30.10	30.66	23.20	23.72	23.70	24.21	24.77
12H	4H	28.33	29.04	28.81	29.52	29.99	22.83	23.54	23.31	24.02	24.49
	6H	28.76	29.35	29.27	29.86	30.35	23.04	23.63	23.56	24.14	24.63
	8H	28.93	29.45	29.44	29.95	30.51	23.17	23.69	23.68	24.18	24.74