

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: P893185

Luminaire Tested: 4MB-10HL-LVR-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-LVR-UNV-L830
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

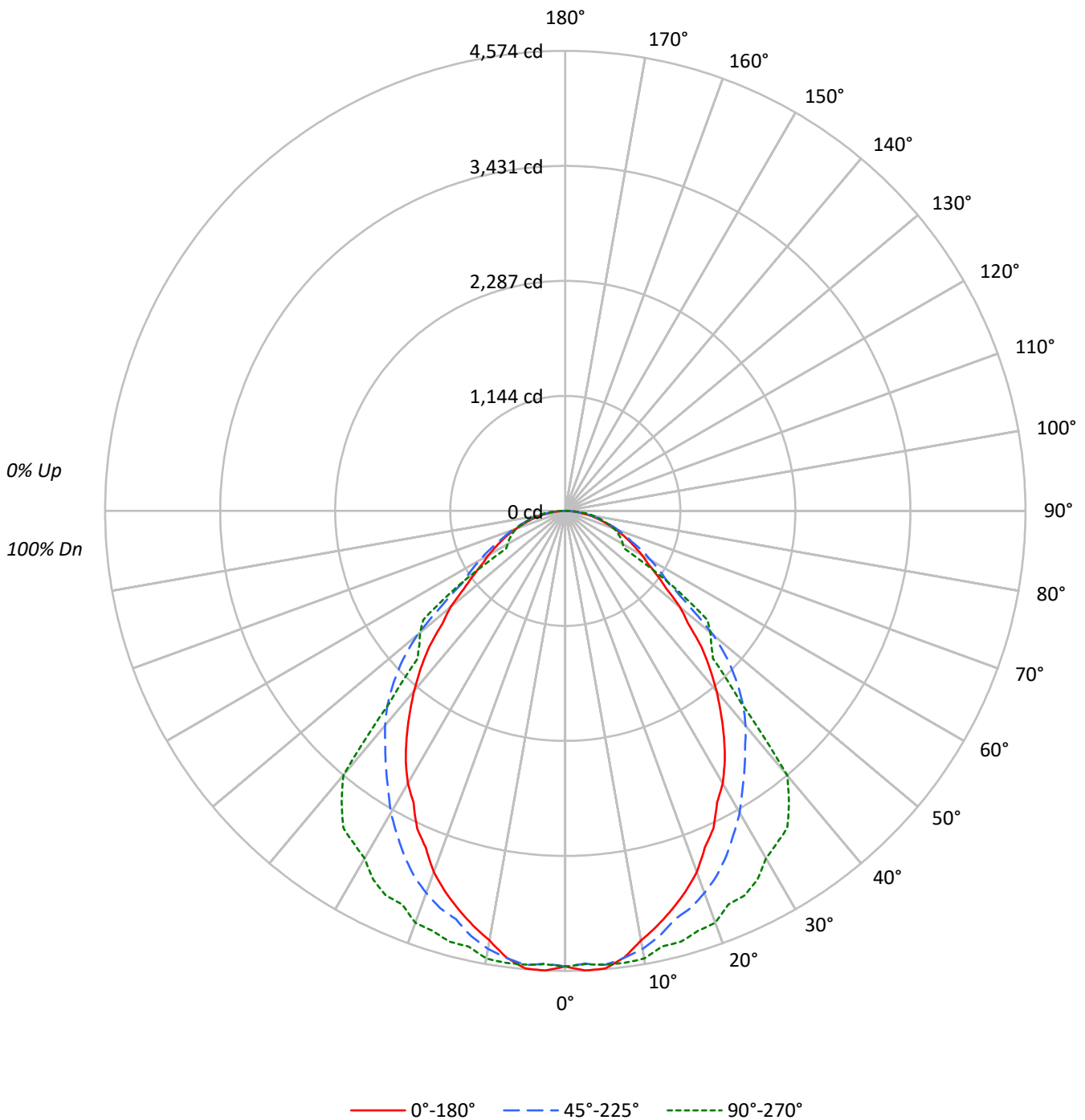
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9482.0 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 75.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.45
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	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32230	32230	32230
5°	32619	32363	32343
10°	31334	31949	32650
15°	30212	30956	32671
20°	28939	30611	32999
25°	27343	29713	33118
30°	25696	28472	32778
35°	23896	27004	33418
40°	21710	25886	31867
45°	19236	24296	20896
50°	16463	21235	20852
55°	13796	15496	16222
60°	12551	13990	9390
65°	11758	12386	10034
70°	10822	11735	10738
75°	10166	11007	10936
80°	9485	10411	11718
85°	8147	8686	12490

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 24296 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.5	4.5
10°-20°	1204.4	12.7
20°-30°	1755.3	18.5
30°-40°	2008.1	21.2
40°-50°	1717.8	18.1
50°-60°	1132.8	11.9
60°-70°	684.8	7.2
70°-80°	419.0	4.4
80°-90°	129.4	1.4
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°	3390.1	35.8
0°-40°	5398.2	56.9
0°-60°	8248.8	87.0
0°-90°	9482.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9482.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4530	4530	4530	4530	4530	
5°	4567	4563	4531	4522	4528	428
15°	4102	4149	4203	4471	4435	1153
25°	3483	3536	3785	4108	4219	1593
35°	2751	2890	3109	3597	3847	1714
45°	1912	2059	2415	2256	2077	1464
55°	1112	1175	1249	1481	1308	1012
65°	698	716	736	657	596	690
75°	370	379	400	419	398	390
85°	100	98	106	126	153	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4529.9	4529.9	4529.9	4529.9	4529.9
2.5°	4573.8	4560.5	4505.9	4557.8	4511.2
5°	4567.1	4563.1	4531.2	4521.9	4528.5
7.5°	4479.3	4488.6	4483.3	4583.1	4532.5
10°	4337.0	4355.6	4422.1	4561.8	4519.2
12.5°	4225.2	4239.8	4329.0	4536.5	4436.7
15°	4101.5	4149.4	4202.6	4471.3	4435.4
17.5°	3968.4	4013.7	4140.1	4383.5	4379.5
20°	3822.1	3905.9	4042.9	4269.1	4358.2
22.5°	3623.9	3737.0	3929.9	4217.2	4234.5
25°	3482.9	3536.1	3784.9	4108.1	4218.6
27.5°	3268.7	3369.8	3623.9	3951.2	4133.4
30°	3127.7	3211.5	3465.6	3859.4	3989.7
32.5°	2950.7	3050.5	3278.0	3759.6	3916.6
35°	2751.2	2889.5	3109.0	3597.3	3847.4
37.5°	2541.0	2678.0	2937.4	3462.9	3651.8
40°	2337.4	2454.5	2787.1	3301.9	3431.0
42.5°	2128.6	2255.0	2615.5	2984.0	2580.9
45°	1911.7	2059.4	2414.6	2256.3	2076.7
47.5°	1655.0	1835.9	2192.4	1813.3	1967.6
50°	1487.3	1585.8	1918.4	1709.5	1883.8
52.5°	1265.2	1398.2	1540.6	1596.4	1780.0
55°	1112.2	1174.7	1249.2	1480.7	1307.7
57.5°	971.2	1027.0	1113.5	1044.3	697.1
60°	882.0	907.3	983.1	746.3	659.9
62.5°	780.9	806.2	862.1	697.1	633.2
65°	698.4	715.7	735.7	657.2	596.0
67.5°	610.6	619.9	641.2	606.6	560.1
70°	520.2	533.5	564.1	554.8	516.2
72.5°	440.3	452.3	478.9	492.2	456.3
75°	369.8	379.2	400.4	419.1	397.8
77.5°	294.0	303.3	331.3	351.2	341.9
80°	231.5	232.8	254.1	274.1	286.0
82.5°	162.3	165.0	180.9	202.2	226.2
85°	99.8	98.4	106.4	126.4	153.0
87.5°	38.6	37.2	43.9	53.2	78.5
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	19.89	21.37	20.26	21.68	22.00	19.57	21.05	19.93	21.36	21.68
	3H	21.45	22.78	21.83	23.10	23.47	21.19	22.51	21.57	22.84	23.20
	4H	22.05	23.29	22.45	23.64	24.02	21.94	23.18	22.34	23.53	23.90
	6H	22.51	23.65	22.92	24.02	24.41	22.60	23.75	23.02	24.12	24.51
	8H	22.66	23.75	23.09	24.14	24.54	22.88	23.97	23.31	24.36	24.76
	12H	22.76	23.80	23.19	24.19	24.62	23.10	24.15	23.53	24.53	24.96
4H	2H	20.48	21.73	20.89	22.07	22.45	20.23	21.47	20.63	21.82	22.20
	3H	22.27	23.30	22.68	23.70	24.10	22.12	23.14	22.53	23.54	23.95
	4H	23.00	23.93	23.43	24.34	24.78	23.01	23.94	23.44	24.35	24.79
	6H	23.58	24.39	24.04	24.83	25.29	23.82	24.62	24.28	25.07	25.53
	8H	23.78	24.53	24.25	24.98	25.45	24.15	24.90	24.61	25.34	25.81
	12H	23.92	24.59	24.40	25.07	25.54	24.42	25.09	24.90	25.57	26.04
8H	4H	23.32	24.08	23.79	24.52	24.99	23.33	24.09	23.80	24.53	25.00
	6H	24.03	24.66	24.53	25.15	25.63	24.28	24.91	24.78	25.40	25.88
	8H	24.30	24.86	24.82	25.37	25.86	24.70	25.26	25.21	25.77	26.26
	12H	24.51	25.01	25.02	25.50	26.07	25.07	25.56	25.58	26.06	26.62
12H	4H	23.36	24.03	23.84	24.51	24.98	23.36	24.03	23.84	24.51	24.98
	6H	24.10	24.66	24.62	25.18	25.66	24.33	24.90	24.85	25.41	25.90
	8H	24.43	24.93	24.94	25.42	25.99	24.81	25.31	25.32	25.80	26.37