

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: P893187

Luminaire Tested: 4MB-10HL-LVR-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893187
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-L840
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

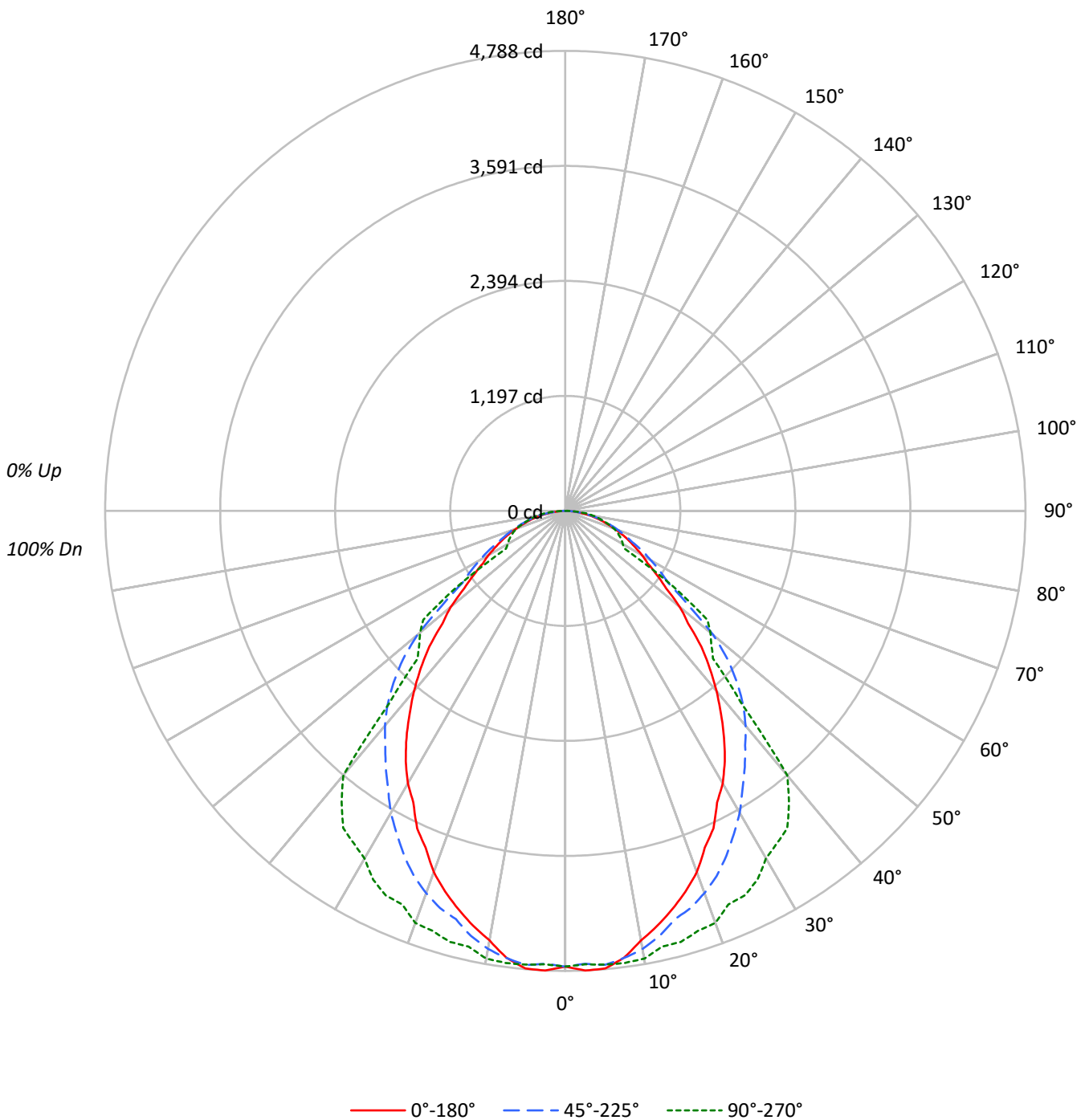
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9926.9 lumens
Efficiency: N/A
Efficacy: 131.5 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°	33742	33742	33742
5°	34150	33881	33862
10°	32804	33448	34182
15°	31630	32409	34205
20°	30298	32048	34548
25°	28625	31108	34672
30°	26901	29808	34317
35°	25018	28271	34986
40°	22729	27101	33362
45°	20138	25436	21876
50°	17235	22231	21830
55°	14444	16223	16983
60°	13140	14647	9830
65°	12310	12967	10505
70°	11329	12284	11242
75°	10644	11524	11447
80°	9928	10899	12268
85°	8531	9094	13078

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 25436 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	450.7	4.5
10°-20°	1260.9	12.7
20°-30°	1837.7	18.5
30°-40°	2102.3	21.2
40°-50°	1798.4	18.1
50°-60°	1186.0	11.9
60°-70°	717.0	7.2
70°-80°	438.6	4.4
80°-90°	135.5	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°	3549.2	35.8
0°-40°	5651.5	56.9
0°-60°	8635.9	87.0
0°-90°	9926.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9926.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4742	4742	4742	4742	4742	
5°	4781	4777	4744	4734	4741	448
15°	4294	4344	4400	4681	4644	1207
25°	3646	3702	3962	4301	4416	1668
35°	2880	3025	3255	3766	4028	1794
45°	2001	2156	2528	2362	2174	1532
55°	1164	1230	1308	1550	1369	1059
65°	731	749	770	688	624	723
75°	387	397	419	439	416	409
85°	104	103	111	132	160	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4742.4	4742.4	4742.4	4742.4	4742.4
2.5°	4788.4	4774.5	4717.4	4771.7	4722.9
5°	4781.4	4777.3	4743.8	4734.1	4741.1
7.5°	4689.5	4699.3	4693.7	4798.2	4745.2
10°	4540.5	4560.0	4629.6	4775.9	4731.3
12.5°	4423.5	4438.8	4532.1	4749.4	4645.0
15°	4294.0	4344.1	4399.8	4681.2	4643.6
17.5°	4154.7	4202.0	4334.4	4589.2	4585.1
20°	4001.5	4089.2	4232.7	4469.5	4562.8
22.5°	3794.0	3912.3	4114.3	4415.1	4433.2
25°	3646.3	3702.0	3962.5	4300.9	4416.5
27.5°	3422.1	3527.9	3794.0	4136.6	4327.4
30°	3274.4	3362.2	3628.2	4040.5	4177.0
32.5°	3089.2	3193.7	3431.8	3936.0	4100.4
35°	2880.3	3025.1	3254.9	3766.1	4027.9
37.5°	2660.2	2803.7	3075.3	3625.4	3823.2
40°	2447.1	2569.7	2917.9	3456.9	3592.0
42.5°	2228.5	2360.8	2738.2	3124.0	2702.0
45°	2001.4	2156.0	2527.9	2362.2	2174.1
47.5°	1732.6	1922.0	2295.3	1898.4	2059.9
50°	1557.1	1660.2	2008.4	1789.7	1972.2
52.5°	1324.5	1463.8	1612.9	1671.3	1863.6
55°	1164.4	1229.8	1307.8	1550.2	1369.1
57.5°	1016.7	1075.2	1165.8	1093.3	729.8
60°	923.4	949.9	1029.3	781.4	690.8
62.5°	817.6	844.0	902.5	729.8	663.0
65°	731.2	749.3	770.2	688.0	624.0
67.5°	639.3	649.0	671.3	635.1	586.4
70°	544.6	558.5	590.5	580.8	540.4
72.5°	461.0	473.5	501.4	515.3	477.7
75°	387.2	396.9	419.2	438.7	416.4
77.5°	307.8	317.6	346.8	367.7	357.9
80°	242.3	243.7	266.0	286.9	299.4
82.5°	169.9	172.7	189.4	211.7	236.8
85°	104.5	103.1	111.4	132.3	160.2
87.5°	40.4	39.0	46.0	55.7	82.2
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	20.05	21.53	20.42	21.84	22.16	19.73	21.21	20.09	21.52	21.84
	3H	21.61	22.94	21.99	23.26	23.63	21.35	22.67	21.72	23.00	23.36
	4H	22.21	23.45	22.61	23.80	24.18	22.09	23.34	22.49	23.68	24.06
	6H	22.67	23.81	23.08	24.18	24.57	22.76	23.91	23.18	24.28	24.67
	8H	22.82	23.91	23.25	24.30	24.70	23.04	24.13	23.47	24.52	24.92
	12H	22.92	23.96	23.35	24.34	24.77	23.26	24.30	23.69	24.69	25.12
4H	2H	20.64	21.88	21.04	22.23	22.61	20.39	21.63	20.79	21.98	22.36
	3H	22.43	23.46	22.84	23.86	24.26	22.27	23.30	22.69	23.70	24.10
	4H	23.16	24.09	23.59	24.50	24.94	23.17	24.10	23.60	24.51	24.95
	6H	23.74	24.55	24.20	24.99	25.45	23.98	24.78	24.43	25.22	25.69
	8H	23.94	24.69	24.40	25.14	25.61	24.31	25.06	24.77	25.50	25.97
	12H	24.08	24.75	24.56	25.23	25.70	24.58	25.25	25.06	25.73	26.20
8H	4H	23.48	24.23	23.95	24.68	25.15	23.49	24.24	23.96	24.69	25.16
	6H	24.19	24.82	24.69	25.31	25.79	24.44	25.06	24.94	25.56	26.03
	8H	24.46	25.02	24.98	25.53	26.02	24.86	25.42	25.37	25.93	26.42
	12H	24.67	25.17	25.18	25.66	26.23	25.23	25.72	25.74	26.22	26.78
12H	4H	23.52	24.19	24.00	24.67	25.14	23.52	24.19	24.00	24.67	25.14
	6H	24.26	24.82	24.78	25.33	25.82	24.49	25.05	25.01	25.57	26.05
	8H	24.59	25.09	25.10	25.58	26.15	24.97	25.47	25.48	25.96	26.53