

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: P894035

Luminaire Tested: 4MB-9HL-LVR-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894035
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-9HL-LVR-UNV-L840
Description: 9000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

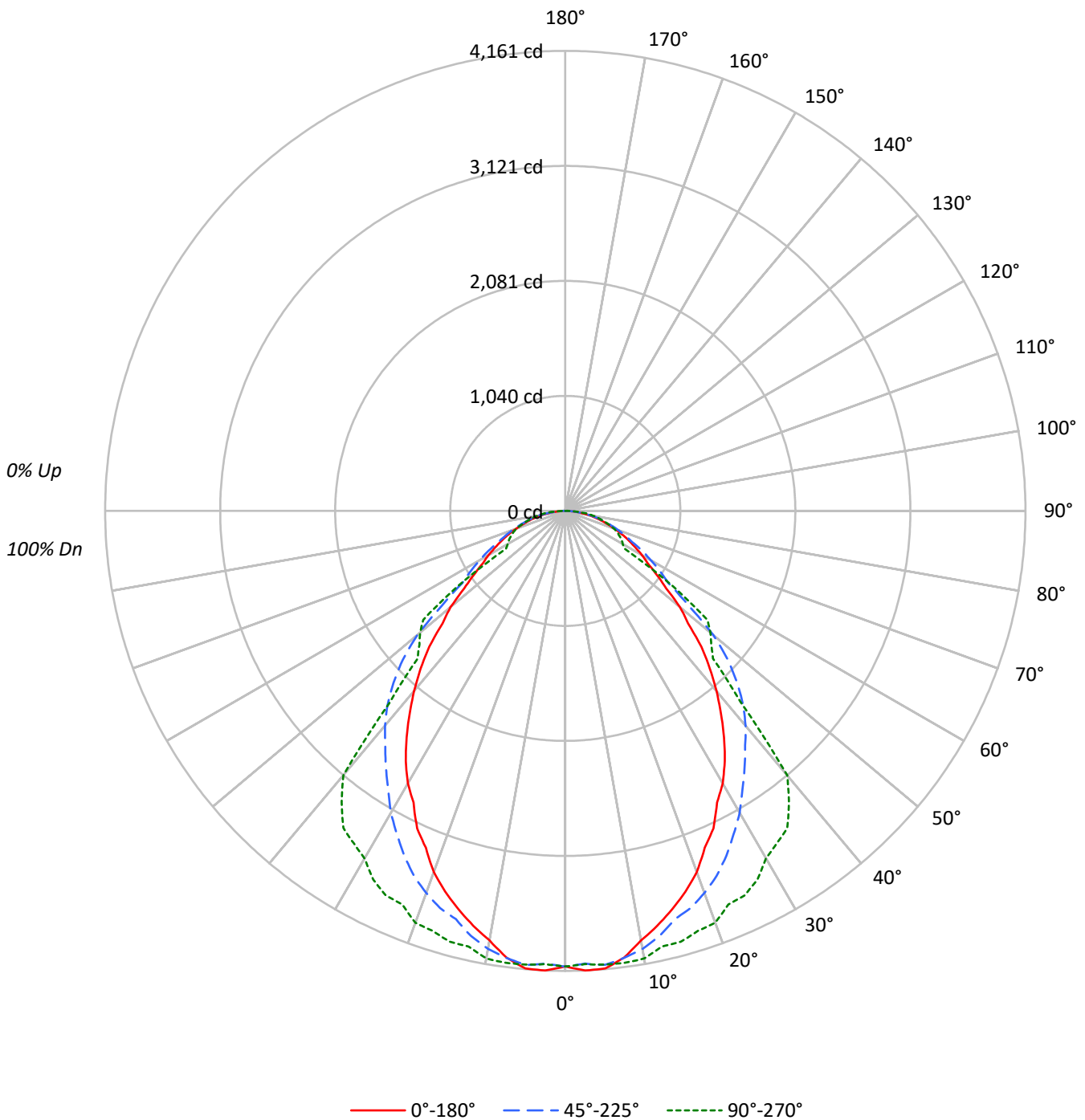
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8626.0 lumens
Efficiency: N/A
Efficacy: 133.9 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): 64.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.94
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P894035
CATALOG NUMBER: 4MB-9HL-LVR-UNV-L840

Luminous Intensity Polar Plot





TEST NUMBER: P894035

CATALOG NUMBER: 4MB-9HL-LVR-UNV-L840

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°	29320	29320	29320
5°	29674	29441	29424
10°	28505	29064	29702
15°	27484	28162	29722
20°	26327	27848	30020
25°	24874	27031	30128
30°	23376	25902	29820
35°	21739	24567	30401
40°	19750	23550	28990
45°	17499	22102	19009
50°	14977	19318	18969
55°	12551	14097	14758
60°	11418	12727	8542
65°	10697	11268	9128
70°	9844	10674	9769
75°	9250	10015	9949
80°	8629	9473	10661
85°	7412	7902	11364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 22102 cd/sqm



TEST NUMBER: P894035
 CATALOG NUMBER: 4MB-9HL-LVR-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	391.6	4.5
10°-20°	1095.7	12.7
20°-30°	1596.8	18.5
30°-40°	1826.8	21.2
40°-50°	1562.7	18.1
50°-60°	1030.5	11.9
60°-70°	623.0	7.2
70°-80°	381.1	4.4
80°-90°	117.7	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°	3084.1	35.8
0°-40°	4910.9	56.9
0°-60°	7504.2	87.0
0°-90°	8626.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8626.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4121	4121	4121	4121	4121	
5°	4155	4151	4122	4114	4120	389
15°	3731	3775	3823	4068	4035	1049
25°	3168	3217	3443	3737	3838	1449
35°	2503	2629	2828	3272	3500	1559
45°	1739	1874	2197	2053	1889	1331
55°	1012	1069	1136	1347	1190	920
65°	635	651	669	598	542	628
75°	336	345	364	381	362	355
85°	91	90	97	115	139	103
90°	0	0	0	0	0	



TEST NUMBER: P894035

CATALOG NUMBER: 4MB-9HL-LVR-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4120.9	4120.9	4120.9	4120.9	4120.9
2.5°	4160.9	4148.8	4099.1	4146.3	4104.0
5°	4154.8	4151.2	4122.1	4113.7	4119.7
7.5°	4074.9	4083.4	4078.6	4169.3	4123.3
10°	3945.4	3962.4	4022.9	4150.0	4111.2
12.5°	3843.8	3857.1	3938.2	4127.0	4036.2
15°	3731.2	3774.8	3823.2	4067.7	4035.0
17.5°	3610.2	3651.3	3766.3	3987.8	3984.2
20°	3477.1	3553.3	3678.0	3883.7	3964.8
22.5°	3296.7	3399.6	3575.1	3836.5	3852.2
25°	3168.4	3216.9	3443.2	3737.3	3837.7
27.5°	2973.6	3065.6	3296.7	3594.5	3760.3
30°	2845.3	2921.6	3152.7	3511.0	3629.6
32.5°	2684.3	2775.1	2982.1	3420.2	3563.0
35°	2502.8	2628.7	2828.4	3272.5	3500.1
37.5°	2311.6	2436.2	2672.2	3150.3	3322.2
40°	2126.4	2232.9	2535.5	3003.9	3121.2
42.5°	1936.4	2051.4	2379.4	2714.6	2347.9
45°	1739.1	1873.5	2196.6	2052.6	1889.2
47.5°	1505.6	1670.2	1994.5	1649.6	1790.0
50°	1353.1	1442.6	1745.2	1555.2	1713.7
52.5°	1151.0	1272.0	1401.5	1452.3	1619.3
55°	1011.8	1068.7	1136.4	1347.0	1189.7
57.5°	883.5	934.3	1013.0	950.1	634.2
60°	802.4	825.4	894.4	679.0	600.3
62.5°	710.4	733.4	784.2	634.2	576.1
65°	635.4	651.1	669.3	597.9	542.2
67.5°	555.5	564.0	583.3	551.9	509.5
70°	473.2	485.3	513.1	504.7	469.6
72.5°	400.6	411.5	435.7	447.8	415.1
75°	336.5	344.9	364.3	381.2	361.9
77.5°	267.5	275.9	301.4	319.5	311.0
80°	210.6	211.8	231.2	249.3	260.2
82.5°	147.7	150.1	164.6	184.0	205.7
85°	90.8	89.6	96.8	115.0	139.2
87.5°	35.1	33.9	39.9	48.4	71.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P894035
 CATALOG NUMBER: 4MB-9HL-LVR-UNV-L840

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	19.56	21.04	19.93	21.36	21.67	19.24	20.72	19.61	21.03	21.35
	3H	21.12	22.45	21.50	22.78	23.14	20.86	22.18	21.24	22.51	22.87
	4H	21.72	22.96	22.12	23.31	23.69	21.61	22.85	22.01	23.20	23.58
	6H	22.18	23.33	22.59	23.69	24.08	22.28	23.42	22.69	23.79	24.18
	8H	22.33	23.42	22.76	23.81	24.21	22.55	23.64	22.98	24.03	24.43
	12H	22.43	23.48	22.86	23.86	24.29	22.77	23.82	23.20	24.20	24.63
4H	2H	20.16	21.40	20.56	21.75	22.13	19.90	21.14	20.30	21.49	21.87
	3H	21.94	22.97	22.36	23.37	23.78	21.79	22.81	22.20	23.22	23.62
	4H	22.67	23.60	23.11	24.01	24.45	22.68	23.61	23.12	24.02	24.46
	6H	23.26	24.06	23.71	24.50	24.96	23.49	24.29	23.95	24.74	25.20
	8H	23.45	24.21	23.92	24.65	25.12	23.82	24.57	24.28	25.02	25.48
	12H	23.59	24.26	24.07	24.74	25.21	24.09	24.76	24.57	25.24	25.71
8H	4H	22.99	23.75	23.46	24.19	24.66	23.00	23.76	23.47	24.20	24.67
	6H	23.70	24.33	24.20	24.82	25.30	23.95	24.58	24.45	25.07	25.55
	8H	23.97	24.53	24.49	25.05	25.53	24.37	24.93	24.89	25.44	25.93
	12H	24.18	24.68	24.69	25.17	25.74	24.74	25.24	25.25	25.73	26.29
12H	4H	23.03	23.71	23.52	24.18	24.66	23.03	23.70	23.51	24.18	24.65
	6H	23.77	24.34	24.29	24.85	25.34	24.01	24.57	24.52	25.08	25.57
	8H	24.10	24.60	24.61	25.09	25.66	24.48	24.98	24.99	25.47	26.04