

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: P893614

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893614
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-ASYMR-UNV-L935
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

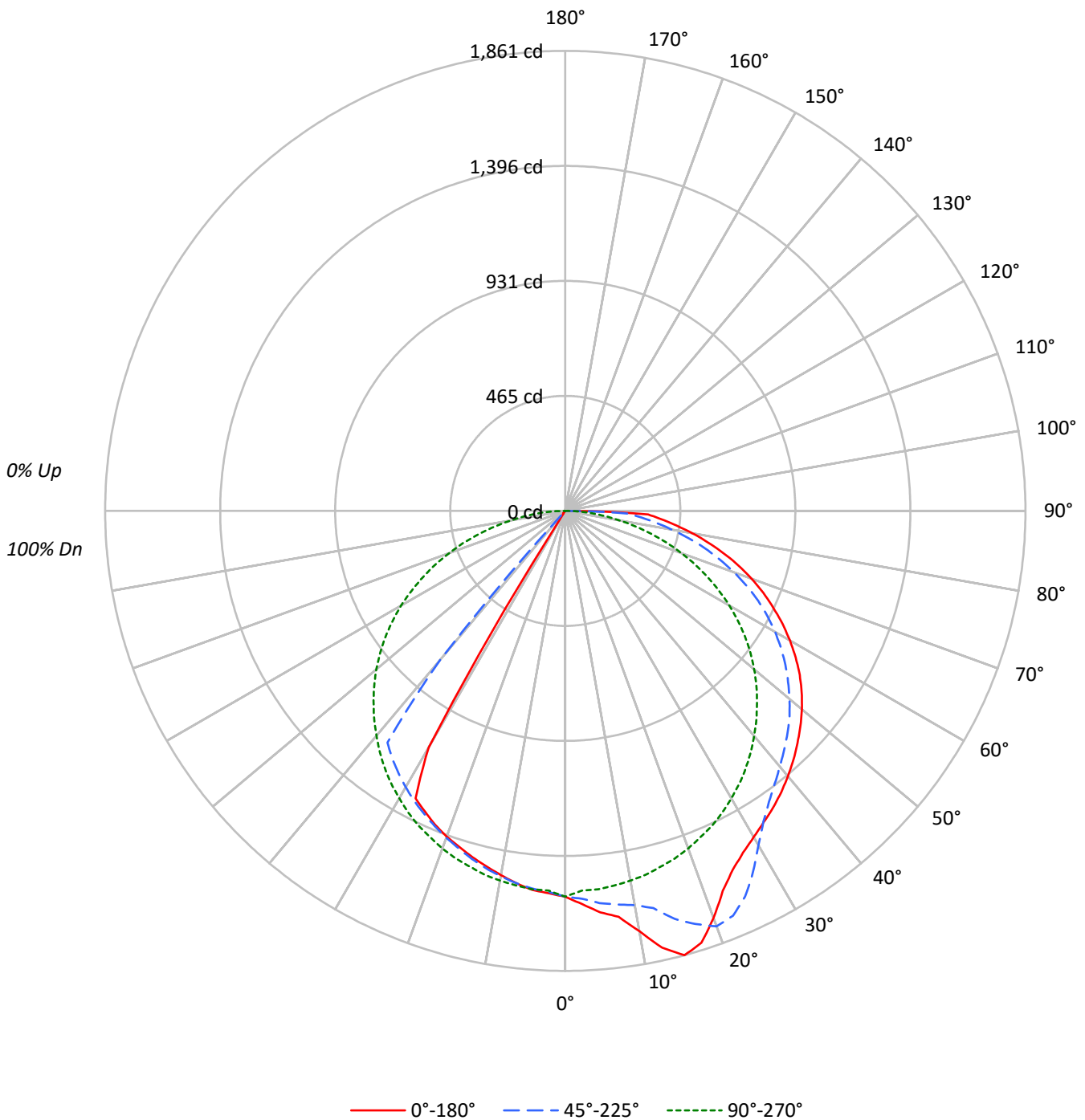
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4222.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.28 / 1.25
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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	100				
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83				
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69				
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59				
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50				
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44				
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39				
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	35				
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31				
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28				
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	20263	20263	20263	20263	20263
5°	21249	20759	20025	19990	20060
10°	22767	21352	20022	19786	19727
15°	25015	22972	20029	19596	19499
20°	24218	24713	20081	19438	19378
25°	22947	24662	20130	19374	19233
30°	22848	23411	20128	19351	16564
35°	23234	22766	20160	19352	227
40°	23740	22875	20134	13347	151
45°	24389	23338	20138	246	99
50°	25239	23922	20149	180	36
55°	26202	24604	20092	122	20
60°	27248	25438	19914	47	23
65°	28532	26445	19551	55	55
70°	30437	27552	18934	68	68
75°	33313	29325	18117	181	90
80°	39094	32813	16773	269	135
85°	58194	46067	15718	402	268

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 99786 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	3.5
10°-20°	446.5	10.6
20°-30°	686.3	16.3
30°-40°	735.5	17.4
40°-50°	668.0	15.8
50°-60°	609.3	14.4
60°-70°	453.3	10.7
70°-80°	319.1	7.6
80°-90°	154.6	3.7
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°	1282.3	30.4
0°-40°	2017.8	47.8
0°-60°	3295.1	78.0
0°-90°	4222.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4222.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1560	1560	1560	1560	1560	
5°	1630	1593	1536	1534	1539	158
15°	1861	1709	1490	1458	1450	514
25°	1602	1721	1405	1352	1342	745
35°	1466	1436	1272	1221	14	918
45°	1328	1271	1097	13	5	1026
55°	1157	1087	888	5	1	1034
65°	929	861	636	2	2	919
75°	664	584	361	4	2	700
85°	391	309	106	3	2	392
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1560.5	1560.5	1560.5	1560.5	1560.5	1560.5	1560.5	1560.5	1560.5
2.5°	1592.6	1574.8	1570.3	1582.8	1537.2	1567.6	1542.6	1547.9	1547.9
5°	1630.2	1605.1	1592.6	1589.1	1536.3	1556.9	1533.6	1533.6	1539.0
7.5°	1656.1	1628.4	1606.0	1597.1	1528.3	1546.2	1519.3	1519.3	1519.3
10°	1726.7	1674.9	1619.4	1603.4	1518.5	1531.9	1500.6	1502.4	1496.1
12.5°	1809.8	1763.3	1645.4	1600.7	1507.7	1514.0	1480.9	1480.0	1472.9
15°	1860.8	1825.9	1708.8	1597.1	1489.9	1495.2	1457.7	1455.0	1450.5
17.5°	1832.2	1826.8	1752.6	1594.4	1473.8	1469.3	1431.8	1429.1	1425.5
20°	1752.6	1766.0	1788.4	1589.1	1453.2	1444.3	1406.7	1405.0	1402.3
22.5°	1664.1	1677.5	1772.3	1598.0	1428.2	1417.5	1379.9	1378.1	1374.6
25°	1601.6	1601.6	1721.3	1619.4	1405.0	1385.3	1352.2	1349.5	1342.4
27.5°	1557.8	1549.7	1645.4	1643.6	1375.5	1353.1	1322.7	1320.0	1311.1
30°	1523.8	1510.4	1561.4	1655.2	1342.4	1318.3	1290.6	1287.9	1104.7
32.5°	1493.4	1479.1	1490.7	1665.0	1309.3	1280.7	1256.6	896.4	39.3
35°	1465.7	1449.6	1436.2	1657.9	1271.8	1243.2	1220.8	25.9	14.3
37.5°	1434.4	1421.9	1391.5	1620.3	1231.6	1203.0	1181.5	14.3	12.5
40°	1400.5	1388.9	1349.5	1564.9	1187.8	1163.6	787.4	12.5	8.9
42.5°	1365.6	1356.7	1310.2	1484.5	1144.0	1119.8	25.0	9.8	7.1
45°	1328.1	1320.0	1270.9	1387.1	1096.6	1074.3	13.4	7.1	5.4
47.5°	1289.7	1278.0	1229.8	1282.5	1048.4	1026.0	11.6	5.4	3.6
50°	1249.4	1236.9	1184.2	1190.5	997.4	975.1	8.9	3.6	1.8
52.5°	1204.8	1189.6	1135.9	1107.3	943.8	923.2	7.1	1.8	0.9
55°	1157.4	1140.4	1086.8	1034.9	887.5	864.2	5.4	1.8	0.9
57.5°	1104.7	1085.9	1034.9	966.1	827.6	584.5	3.6	1.8	0.9
60°	1049.2	1030.5	979.5	901.8	766.8	40.2	1.8	1.8	0.9
62.5°	990.3	970.6	921.4	836.5	701.6	33.1	1.8	1.8	1.8
65°	928.6	905.4	860.7	769.5	636.3	27.7	1.8	1.8	1.8
67.5°	866.9	837.4	795.4	700.7	569.3	23.2	1.8	1.8	1.8
70°	801.7	769.5	725.7	631.0	498.7	18.8	1.8	1.8	1.8
72.5°	734.6	703.4	656.0	560.4	432.6	14.3	1.8	1.8	1.8
75°	664.0	635.4	584.5	489.8	361.1	10.7	3.6	1.8	1.8
77.5°	590.8	568.4	511.2	417.4	291.4	7.1	3.6	1.8	1.8
80°	522.8	497.8	438.8	344.1	224.3	5.4	3.6	2.7	1.8
82.5°	453.1	430.8	371.8	277.1	160.9	4.5	3.6	2.7	1.8
85°	390.6	369.1	309.2	216.3	105.5	3.6	2.7	2.7	1.8
87.5°	335.2	315.5	256.5	158.2	59.9	2.7	2.7	2.7	1.8
90°	0.0	0.0	0.0	0.0	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	24.99	26.60	25.35	26.91	27.23	20.42	22.03	20.78	22.35	22.66
	3H	27.43	28.90	27.81	29.22	29.58	21.06	22.52	21.44	22.85	23.21
	4H	28.56	29.94	28.95	30.29	30.66	21.20	22.59	21.60	22.93	23.31
	6H	29.65	30.93	30.06	31.30	31.69	21.25	22.53	21.66	22.89	23.29
	8H	30.18	31.41	30.60	31.80	32.19	21.23	22.46	21.66	22.85	23.25
	12H	30.75	31.92	31.18	32.31	32.74	21.22	22.39	21.64	22.78	23.20
4H	2H	25.64	27.02	26.04	27.37	27.75	21.54	22.93	21.94	23.27	23.65
	3H	28.33	29.50	28.74	29.90	30.30	22.89	24.06	23.30	24.45	24.85
	4H	29.63	30.69	30.06	31.10	31.54	23.42	24.49	23.85	24.90	25.33
	6H	30.91	31.84	31.36	32.28	32.74	23.70	24.63	24.15	25.07	25.53
	8H	31.53	32.41	31.99	32.85	33.32	23.74	24.61	24.19	25.05	25.52
	12H	32.22	33.01	32.70	33.49	33.96	23.75	24.54	24.23	25.01	25.48
8H	4H	29.99	30.87	30.45	31.31	31.77	24.37	25.25	24.83	25.69	26.15
	6H	31.47	32.21	31.96	32.70	33.17	24.96	25.70	25.45	26.18	26.66
	8H	32.26	32.92	32.76	33.43	33.91	25.14	25.80	25.65	26.31	26.79
	12H	33.15	33.74	33.65	34.23	34.79	25.24	25.83	25.75	26.32	26.88
12H	4H	30.03	30.82	30.51	31.30	31.77	24.59	25.38	25.07	25.85	26.32
	6H	31.56	32.23	32.07	32.73	33.22	25.31	25.98	25.82	26.48	26.97
	8H	32.44	33.03	32.95	33.52	34.08	25.62	26.21	26.13	26.70	27.26