

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: P893661

Luminaire Tested: 4MB-5SL-RFLW-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893661
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-RFLW-UNV-L930
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3000K
Light Source: -
Ballast/Driver: -

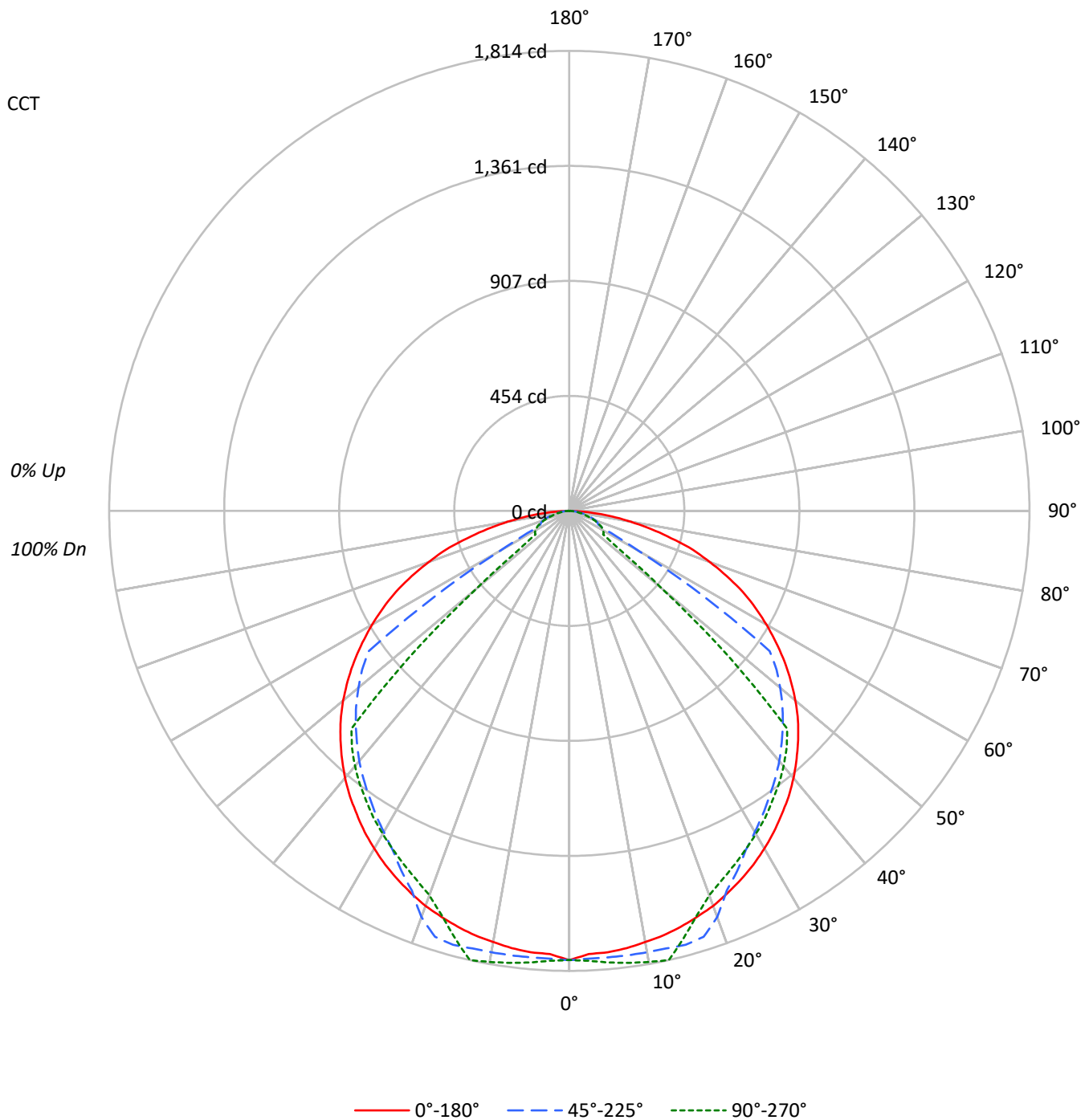
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4320.0 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P893661
CATALOG NUMBER: 4MB-5SL-RFLW-UNV-L930

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	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	77	77	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	66	66	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	61	55	51	51	51	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	40	40	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	36	36	36	35
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22999	22999	22999
5°	22770	23035	23299
10°	22765	23301	23810
15°	22828	23810	23429
20°	22904	23549	22286
25°	22961	22438	22060
30°	23055	21929	22050
35°	23152	21798	22121
40°	23309	21829	22277
45°	23425	21858	22306
50°	23512	21912	9642
55°	23452	21842	3679
60°	23316	8334	4010
65°	23155	3868	4120
70°	22366	4165	3857
75°	20891	3974	3361
80°	18380	3492	2886
85°	14526	3024	2414

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 23512 cd/sqm



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 CATALOG NUMBER: 4MB-5SL-RFLW-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.2	3.9
10°-20°	491.2	11.4
20°-30°	732.8	17.0
30°-40°	888.3	20.6
40°-50°	909.6	21.1
50°-60°	604.9	14.0
60°-70°	344.8	8.0
70°-80°	144.8	3.4
80°-90°	34.5	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°	1393.2	32.2
0°-40°	2281.4	52.8
0°-60°	3795.9	87.9
0°-90°	4320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4320.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1771	1771	1771	1771	1771	
5°	1747	1781	1767	1771	1788	166
15°	1698	1745	1771	1765	1743	480
25°	1603	1680	1566	1532	1540	739
35°	1460	1487	1375	1381	1396	915
45°	1276	1198	1190	1204	1215	984
55°	1036	949	965	211	162	925
65°	754	674	126	134	134	742
75°	416	87	79	69	67	442
85°	98	24	20	16	16	117
90°	0	0	0	0	0	



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CATALOG NUMBER: 4MB-5SL-RFLW-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1771.2	1771.2	1771.2	1771.2	1771.2
2.5°	1748.9	1785.5	1767.2	1769.2	1775.3
5°	1746.9	1781.4	1767.2	1771.2	1787.5
7.5°	1738.7	1775.3	1767.2	1779.4	1797.6
10°	1726.5	1769.2	1767.2	1787.5	1805.8
12.5°	1714.4	1757.0	1767.2	1797.6	1813.9
15°	1698.1	1744.8	1771.2	1765.1	1742.8
17.5°	1677.8	1732.6	1761.1	1673.7	1671.7
20°	1657.5	1716.4	1704.2	1620.9	1612.8
22.5°	1631.1	1700.1	1620.9	1564.0	1574.2
25°	1602.6	1679.8	1566.1	1531.5	1539.7
27.5°	1572.2	1659.5	1507.2	1495.0	1505.1
30°	1537.6	1631.1	1462.5	1458.4	1470.6
32.5°	1501.1	1576.2	1419.8	1421.9	1436.1
35°	1460.5	1486.9	1375.1	1381.2	1395.5
37.5°	1419.8	1403.6	1332.5	1342.6	1356.9
40°	1375.1	1338.6	1287.8	1298.0	1314.2
42.5°	1326.4	1269.5	1239.1	1253.3	1267.5
45°	1275.6	1198.4	1190.3	1204.5	1214.7
47.5°	1222.8	1137.5	1139.5	1149.7	861.2
50°	1163.9	1076.6	1084.7	751.6	477.3
52.5°	1100.9	1013.6	1029.8	418.4	241.7
55°	1035.9	948.6	964.8	211.2	162.5
57.5°	966.9	883.6	629.7	152.3	160.5
60°	897.8	814.5	320.9	150.3	154.4
62.5°	826.7	745.5	152.3	144.2	146.2
65°	753.6	674.4	125.9	134.1	134.1
67.5°	672.3	599.2	119.8	119.8	117.8
70°	589.1	497.7	109.7	103.6	101.6
72.5°	511.9	190.9	95.5	85.3	83.3
75°	416.4	87.3	79.2	69.1	67.0
77.5°	331.1	73.1	63.0	54.8	52.8
80°	245.8	56.9	46.7	40.6	38.6
82.5°	170.6	38.6	32.5	26.4	26.4
85°	97.5	24.4	20.3	16.2	16.2
87.5°	38.6	12.2	10.2	6.1	6.1
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	23.82	25.34	24.18	25.65	25.97	11.58	13.10	11.95	13.42	13.73
	3H	25.84	27.20	26.22	27.53	27.89	13.90	15.26	14.28	15.59	15.95
	4H	26.30	27.57	26.70	27.92	28.30	14.61	15.88	15.01	16.23	16.61
	6H	26.71	27.88	27.12	28.25	28.64	15.10	16.27	15.51	16.64	17.03
	8H	26.86	27.97	27.28	28.36	28.76	15.23	16.35	15.66	16.74	17.14
	12H	26.96	28.02	27.39	28.41	28.84	15.32	16.39	15.75	16.77	17.20
4H	2H	23.66	24.93	24.06	25.28	25.66	12.38	13.65	12.78	14.00	14.38
	3H	25.86	26.91	26.28	27.31	27.71	14.89	15.94	15.30	16.34	16.74
	4H	26.31	27.25	26.74	27.67	28.11	15.71	16.65	16.15	17.07	17.51
	6H	26.78	27.59	27.24	28.04	28.50	16.31	17.12	16.76	17.56	18.02
	8H	26.97	27.73	27.43	28.17	28.64	16.48	17.24	16.94	17.68	18.15
	12H	27.12	27.80	27.60	28.28	28.75	16.59	17.27	17.08	17.75	18.22
8H	4H	26.23	26.99	26.69	27.44	27.90	16.55	17.31	17.02	17.76	18.23
	6H	26.69	27.32	27.19	27.81	28.29	17.18	17.80	17.67	18.30	18.77
	8H	26.89	27.45	27.40	27.96	28.45	17.38	17.94	17.89	18.45	18.94
	12H	27.07	27.58	27.58	28.07	28.63	17.53	18.03	18.04	18.53	19.09
12H	4H	26.20	26.88	26.68	27.36	27.83	16.62	17.30	17.11	17.78	18.25
	6H	26.64	27.21	27.16	27.72	28.21	17.27	17.83	17.78	18.34	18.83
	8H	26.87	27.37	27.38	27.86	28.42	17.52	18.02	18.03	18.52	19.08