

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: P892769

Luminaire Tested: 2MB-4HL-RFLW-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892769
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-RFLW-UNV-L930
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3000K
Light Source: -
Ballast/Driver: -

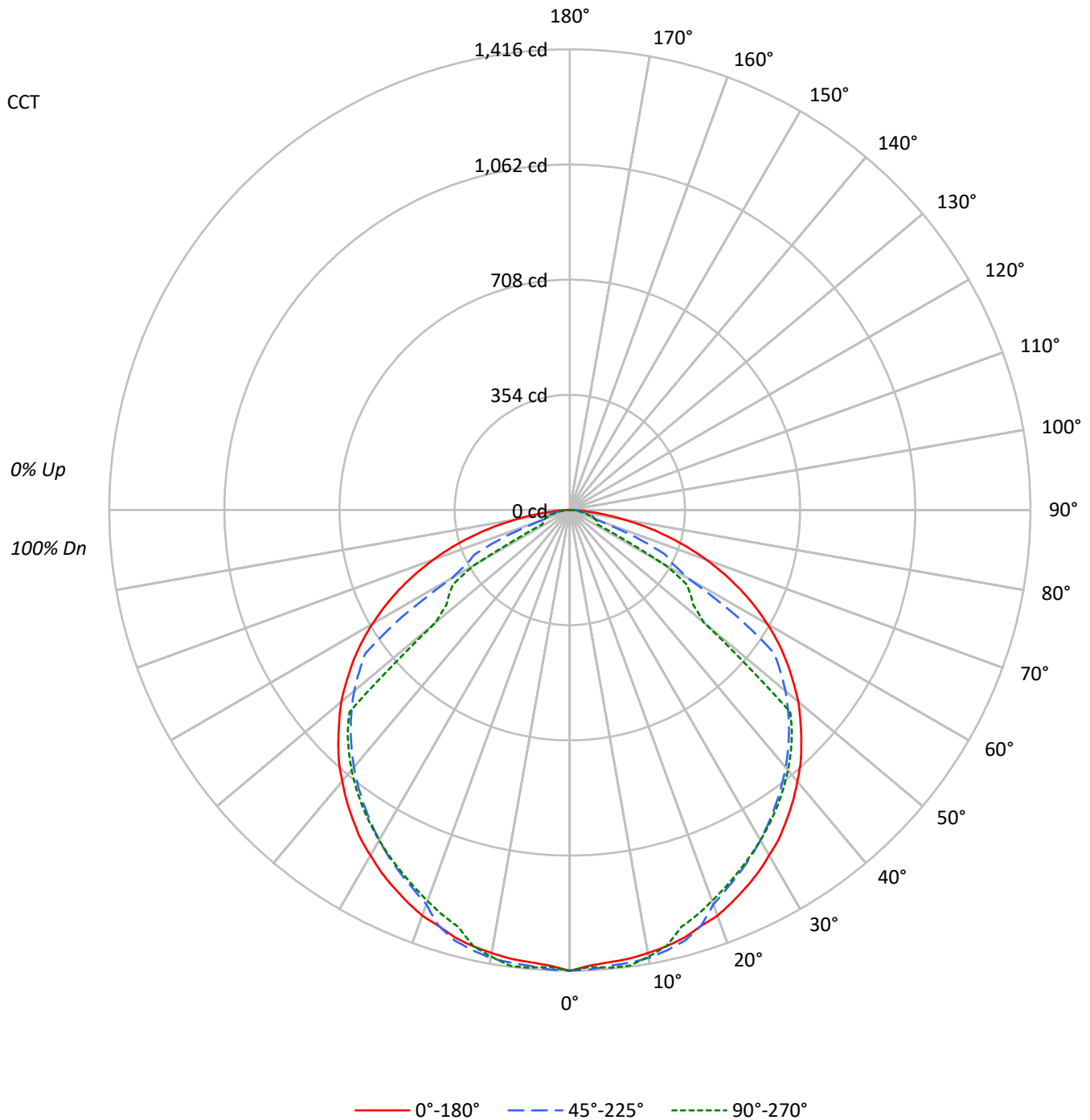
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3604.0 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P892769
CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L930

Luminous Intensity Polar Plot





TEST NUMBER: P892769
 CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L930

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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	65	65	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	49	49	49	47
6	72	60	51	45	70	59	51	45	57	50	44	55	49	44	54	48	43	43	43	43	42
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	39	39	39	37
8	63	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	35	35	35	33
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	31	31	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	29	29	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36969	36969	36969
5°	36562	36856	37003
10°	36664	37070	36943
15°	36776	37013	35843
20°	36866	35838	35527
25°	36882	35493	35332
30°	36951	35329	35329
35°	37045	35203	35432
40°	37098	35182	35564
45°	37166	35179	35652
50°	37266	35146	21844
55°	37047	34930	20606
60°	36635	21795	17811
65°	35750	19985	5653
70°	34129	6374	6374
75°	31089	7122	6315
80°	25469	7247	5788
85°	18033	7219	5302

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 37266 cd/sqm



TEST NUMBER: P892769
 CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.0	3.7
10°-20°	382.4	10.6
20°-30°	576.4	16.0
30°-40°	700.4	19.4
40°-50°	737.8	20.5
50°-60°	579.4	16.1
60°-70°	326.1	9.0
70°-80°	135.7	3.8
80°-90°	31.7	0.9
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°	1092.8	30.3
0°-40°	1793.2	49.8
0°-60°	3110.5	86.3
0°-90°	3604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1395	1411	1406	1406	1412	133
15°	1361	1377	1369	1328	1326	384
25°	1280	1290	1232	1225	1226	591
35°	1162	1123	1104	1108	1112	728
45°	1007	950	953	964	966	777
55°	814	755	767	450	453	727
65°	579	532	324	88	92	571
75°	308	185	71	65	63	326
85°	60	26	24	20	18	77
90°	0	0	0	0	0	



TEST NUMBER: P892769

CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1416.0	1416.0	1416.0	1416.0	1416.0
2.5°	1401.5	1421.6	1413.5	1405.5	1405.5
5°	1395.1	1411.1	1406.3	1405.5	1411.9
7.5°	1391.1	1404.7	1403.1	1404.7	1412.7
10°	1383.0	1398.3	1398.3	1392.7	1393.5
12.5°	1373.4	1388.7	1385.5	1375.8	1372.6
15°	1360.6	1376.6	1369.4	1328.5	1326.1
17.5°	1340.5	1359.8	1340.5	1302.0	1304.4
20°	1326.9	1341.3	1289.9	1277.1	1278.7
22.5°	1304.4	1317.2	1260.2	1251.4	1253.0
25°	1280.3	1289.9	1232.1	1224.9	1226.5
27.5°	1255.4	1257.8	1203.2	1198.4	1200.0
30°	1225.7	1215.3	1171.9	1168.7	1171.9
32.5°	1197.6	1173.5	1138.2	1139.0	1143.0
35°	1162.3	1123.0	1104.5	1107.7	1111.7
37.5°	1127.0	1079.6	1069.2	1075.6	1078.8
40°	1088.5	1037.9	1032.3	1038.7	1043.5
42.5°	1050.7	995.3	993.7	1003.4	1005.8
45°	1006.6	950.4	952.8	964.0	965.6
47.5°	961.6	904.6	910.3	920.7	919.1
50°	917.5	856.5	865.3	850.1	537.8
52.5°	865.3	806.7	816.3	506.5	477.6
55°	813.9	755.3	767.4	449.5	452.7
57.5°	760.2	701.6	613.3	423.0	426.2
60°	701.6	647.0	417.4	395.7	341.1
62.5°	641.4	590.0	354.0	222.3	93.9
65°	578.7	532.2	323.5	87.5	91.5
67.5°	512.9	473.6	221.5	85.1	89.1
70°	447.1	367.6	83.5	81.9	83.5
72.5°	378.9	287.4	77.9	74.7	73.8
75°	308.2	184.6	70.6	65.0	62.6
77.5°	240.8	106.8	60.2	53.8	50.6
80°	169.4	54.6	48.2	40.9	38.5
82.5°	110.0	40.1	35.3	30.5	28.9
85°	60.2	26.5	24.1	20.1	17.7
87.5°	26.5	16.1	13.6	10.4	8.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P892769
 CATALOG NUMBER: 2MB-4HL-RFLW-UNV-L930

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	25.21	26.77	25.57	27.08	27.40	21.59	23.15	21.95	23.47	23.78
	3H	27.12	28.52	27.50	28.85	29.21	21.73	23.13	22.11	23.46	23.82
	4H	27.72	29.03	28.12	29.38	29.76	21.85	23.16	22.25	23.50	23.88
	6H	28.09	29.30	28.50	29.66	30.06	21.95	23.16	22.36	23.52	23.91
	8H	28.19	29.34	28.62	29.73	30.13	21.98	23.13	22.40	23.52	23.92
	12H	28.25	29.35	28.68	29.73	30.16	22.00	23.10	22.43	23.48	23.91
4H	2H	25.35	26.66	25.75	27.01	27.39	22.27	23.58	22.67	23.93	24.31
	3H	27.37	28.45	27.78	28.85	29.25	22.47	23.55	22.88	23.95	24.35
	4H	28.03	29.00	28.46	29.42	29.85	22.63	23.60	23.06	24.01	24.45
	6H	28.45	29.29	28.91	29.73	30.19	22.79	23.63	23.25	24.07	24.53
	8H	28.58	29.36	29.04	29.81	30.27	22.84	23.63	23.30	24.07	24.54
	12H	28.67	29.37	29.15	29.85	30.32	22.88	23.59	23.36	24.06	24.54
8H	4H	27.97	28.76	28.43	29.20	29.67	22.85	23.64	23.32	24.08	24.55
	6H	28.39	29.04	28.89	29.53	30.01	23.06	23.71	23.56	24.20	24.68
	8H	28.53	29.12	29.05	29.63	30.12	23.15	23.73	23.66	24.24	24.73
	12H	28.66	29.18	29.17	29.67	30.23	23.23	23.75	23.74	24.24	24.81
12H	4H	27.94	28.65	28.42	29.12	29.60	22.87	23.57	23.35	24.05	24.52
	6H	28.35	28.94	28.87	29.45	29.94	23.08	23.67	23.60	24.18	24.67
	8H	28.52	29.04	29.03	29.53	30.09	23.21	23.73	23.72	24.22	24.79