

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: P892770

Luminaire Tested: 2MB-4HL-RFLW-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892770
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-L935
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3500K
Light Source: -
Ballast/Driver: -

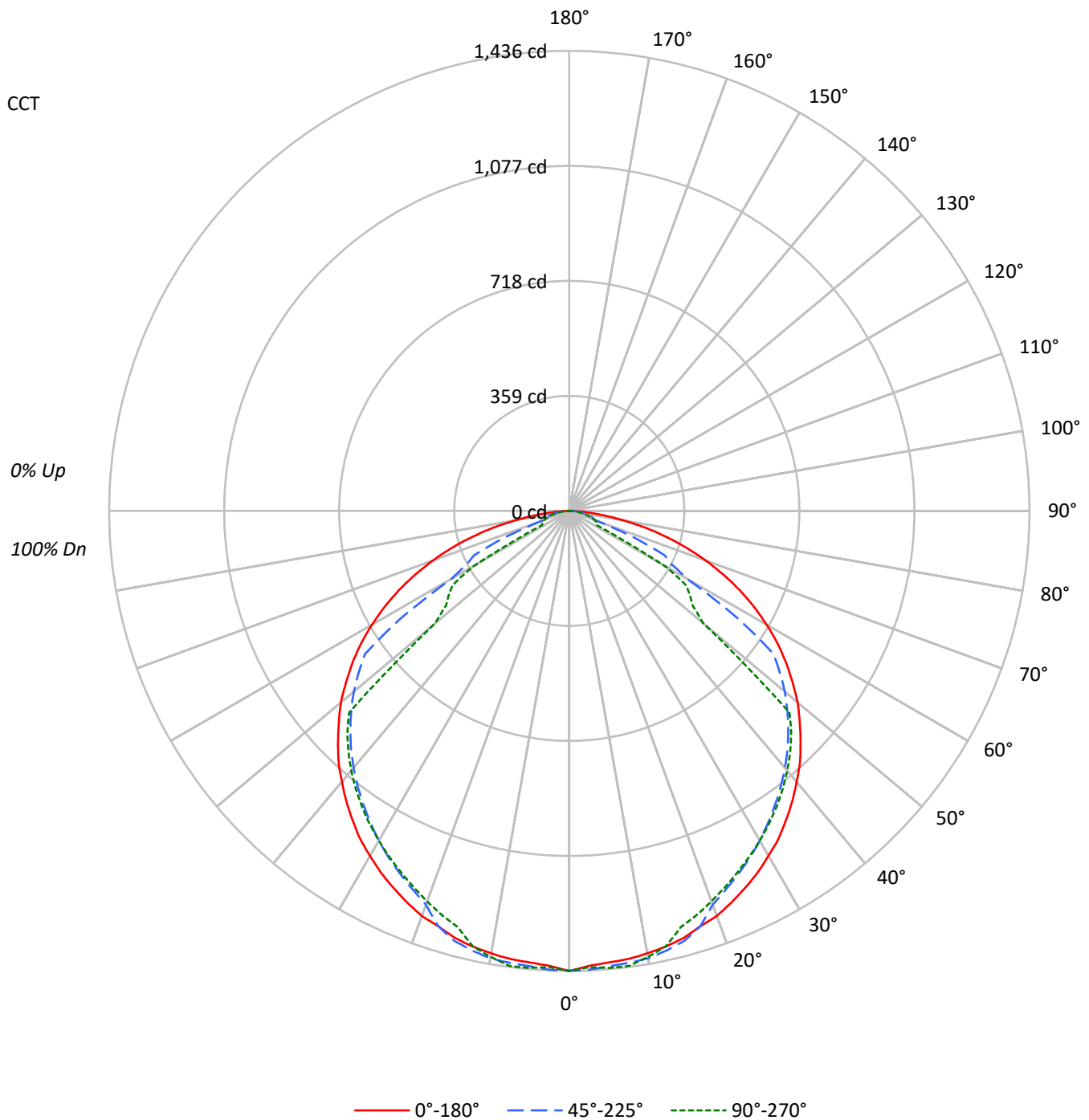
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3655.0 lumens
Efficiency: N/A
Efficacy: 132.4 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	37491	37491	37491
5°	37079	37377	37527
10°	37184	37595	37465
15°	37295	37538	36349
20°	37385	36346	36030
25°	37403	35997	35833
30°	37476	35830	35830
35°	37571	35700	35936
40°	37623	35680	36068
45°	37690	35678	36158
50°	37794	35645	22152
55°	37575	35422	20897
60°	37152	22103	18067
65°	36257	20269	5733
70°	34610	6466	6466
75°	31533	7223	6405
80°	25830	7337	5879
85°	18303	7309	5362

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 37794 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	3.7
10°-20°	387.8	10.6
20°-30°	584.6	16.0
30°-40°	710.4	19.4
40°-50°	748.3	20.5
50°-60°	587.6	16.1
60°-70°	330.7	9.0
70°-80°	137.7	3.8
80°-90°	32.2	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°	1108.3	30.3
0°-40°	1818.6	49.8
0°-60°	3154.5	86.3
0°-90°	3655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1436	1436	1436	1436	1436	
5°	1415	1431	1426	1425	1432	135
15°	1380	1396	1389	1347	1345	389
25°	1298	1308	1250	1242	1244	599
35°	1179	1139	1120	1123	1128	738
45°	1021	964	966	978	979	788
55°	826	766	778	456	459	737
65°	587	540	328	89	93	579
75°	313	187	72	66	64	330
85°	61	27	24	20	18	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1436.0	1436.0	1436.0	1436.0	1436.0
2.5°	1421.3	1441.7	1433.5	1425.4	1425.4
5°	1414.8	1431.1	1426.2	1425.4	1431.9
7.5°	1410.8	1424.6	1423.0	1424.6	1432.7
10°	1402.6	1418.1	1418.1	1412.4	1413.2
12.5°	1392.8	1408.3	1405.1	1395.3	1392.0
15°	1379.8	1396.1	1388.8	1347.3	1344.8
17.5°	1359.5	1379.0	1359.5	1320.4	1322.8
20°	1345.6	1360.3	1308.2	1295.2	1296.8
22.5°	1322.8	1335.9	1278.1	1269.1	1270.7
25°	1298.4	1308.2	1249.6	1242.2	1243.9
27.5°	1273.2	1275.6	1220.3	1215.4	1217.0
30°	1243.1	1232.5	1188.5	1185.3	1188.5
32.5°	1214.6	1190.1	1154.3	1155.1	1159.2
35°	1178.8	1138.9	1120.1	1123.4	1127.5
37.5°	1142.9	1094.9	1084.3	1090.8	1094.1
40°	1103.9	1052.6	1046.9	1053.4	1058.3
42.5°	1065.6	1009.4	1007.8	1017.6	1020.0
45°	1020.8	963.8	966.3	977.7	979.3
47.5°	975.2	917.4	923.1	933.7	932.1
50°	930.5	868.6	877.6	862.1	545.4
52.5°	877.6	818.1	827.9	513.7	484.4
55°	825.5	766.0	778.2	455.9	459.1
57.5°	770.9	711.5	621.9	429.0	432.3
60°	711.5	656.1	423.3	401.3	346.0
62.5°	650.4	598.3	359.0	225.5	95.2
65°	586.9	539.7	328.1	88.7	92.8
67.5°	520.2	480.3	224.7	86.3	90.4
70°	453.4	372.8	84.7	83.0	84.7
72.5°	384.2	291.4	79.0	75.7	74.9
75°	312.6	187.2	71.6	65.9	63.5
77.5°	244.2	108.3	61.1	54.5	51.3
80°	171.8	55.4	48.8	41.5	39.1
82.5°	111.5	40.7	35.8	30.9	29.3
85°	61.1	26.9	24.4	20.4	17.9
87.5°	26.9	16.3	13.8	10.6	8.1
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	25.26	26.82	25.62	27.13	27.45	21.64	23.20	22.00	23.52	23.83
	3H	27.17	28.57	27.55	28.90	29.26	21.78	23.18	22.16	23.51	23.87
	4H	27.77	29.08	28.17	29.43	29.80	21.90	23.21	22.29	23.55	23.93
	6H	28.14	29.35	28.55	29.71	30.10	22.00	23.21	22.41	23.57	23.96
	8H	28.24	29.39	28.67	29.78	30.18	22.03	23.18	22.45	23.57	23.97
	12H	28.30	29.40	28.73	29.78	30.21	22.05	23.15	22.48	23.53	23.96
4H	2H	25.40	26.71	25.80	27.06	27.44	22.32	23.63	22.72	23.98	24.36
	3H	27.42	28.50	27.83	28.90	29.30	22.52	23.60	22.93	24.00	24.40
	4H	28.08	29.05	28.51	29.46	29.90	22.68	23.65	23.11	24.06	24.50
	6H	28.50	29.34	28.95	29.78	30.24	22.84	23.68	23.29	24.12	24.58
	8H	28.62	29.41	29.09	29.86	30.32	22.89	23.68	23.35	24.12	24.59
	12H	28.72	29.42	29.20	29.90	30.37	22.93	23.64	23.41	24.11	24.58
8H	4H	28.02	28.81	28.48	29.25	29.72	22.90	23.69	23.36	24.13	24.60
	6H	28.44	29.09	28.94	29.58	30.06	23.11	23.76	23.61	24.25	24.73
	8H	28.58	29.17	29.09	29.68	30.16	23.20	23.78	23.71	24.29	24.78
	12H	28.71	29.23	29.21	29.72	30.28	23.28	23.80	23.79	24.29	24.85
12H	4H	27.99	28.70	28.47	29.17	29.64	22.92	23.62	23.40	24.10	24.57
	6H	28.40	28.99	28.91	29.50	29.99	23.13	23.72	23.64	24.23	24.72
	8H	28.57	29.09	29.08	29.58	30.14	23.26	23.78	23.77	24.27	24.84