

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: P893436

Luminaire Tested: 4MB-3SL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893436
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-3SL-RFLW-UNV-L850
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

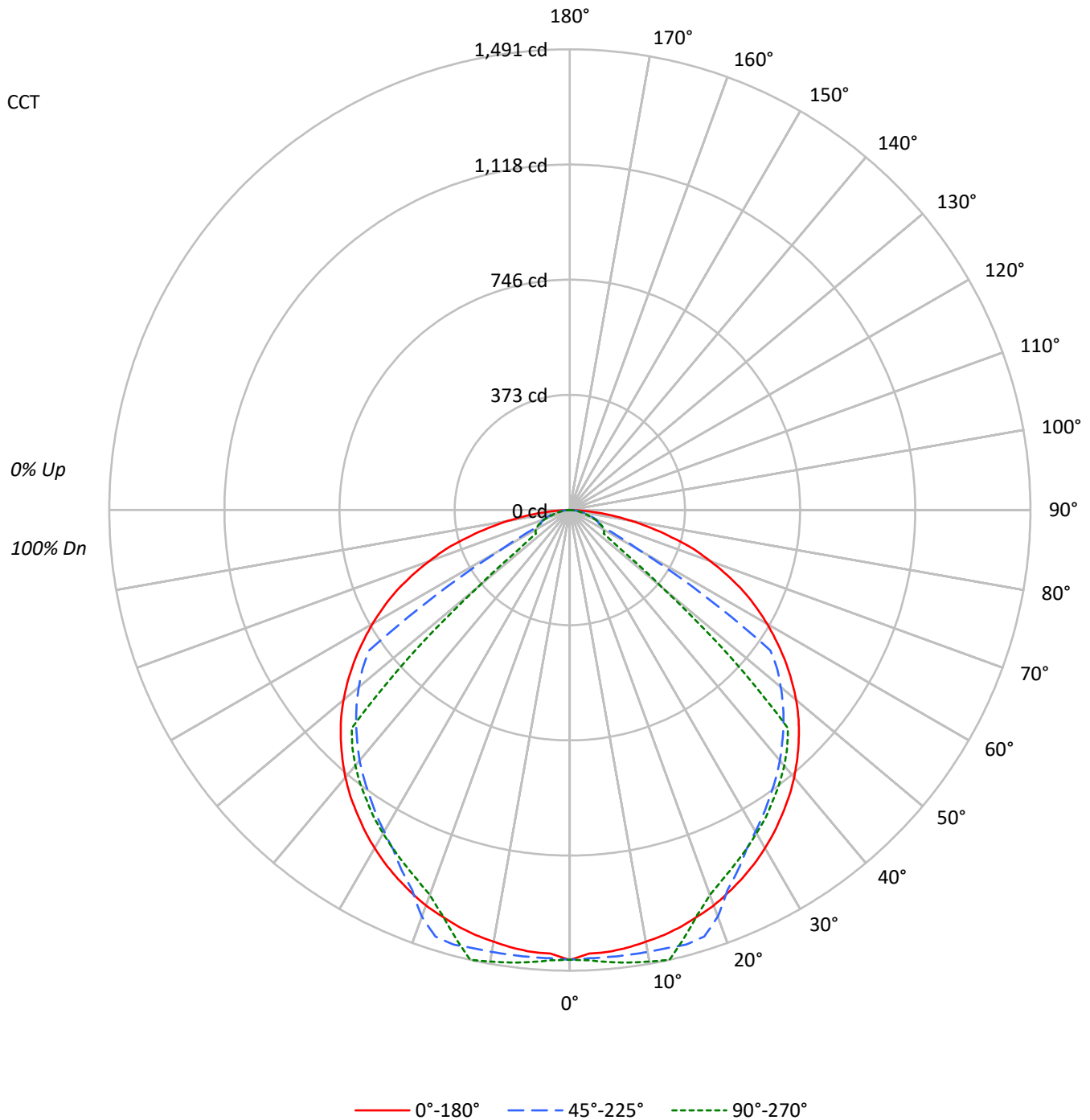
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3550.0 lumens
Efficiency: N/A
Efficacy: 168.2 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): 21.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.2
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	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°	18900	18900	18900
5°	18711	18929	19147
10°	18707	19148	19566
15°	18759	19566	19253
20°	18822	19351	18314
25°	18869	18438	18127
30°	18946	18020	18120
35°	19024	17913	18177
40°	19154	17939	18307
45°	19249	17962	18331
50°	19320	18005	7925
55°	19272	17950	3022
60°	19161	6848	3296
65°	19028	3180	3386
70°	18379	3421	3170
75°	17168	3266	2764
80°	15105	2871	2370
85°	11934	2488	1996

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 19320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	3.9
10°-20°	403.6	11.4
20°-30°	602.2	17.0
30°-40°	730.0	20.6
40°-50°	747.4	21.1
50°-60°	497.1	14.0
60°-70°	283.3	8.0
70°-80°	119.0	3.4
80°-90°	28.4	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°	1144.8	32.2
0°-40°	1874.8	52.8
0°-60°	3119.3	87.9
0°-90°	3550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3550.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1456	1456	1456	1456	1456	
5°	1436	1464	1452	1456	1469	137
15°	1395	1434	1456	1450	1432	394
25°	1317	1380	1287	1259	1265	608
35°	1200	1222	1130	1135	1147	752
45°	1048	985	978	990	998	809
55°	851	780	793	174	134	760
65°	619	554	104	110	110	609
75°	342	72	65	57	55	363
85°	80	20	17	13	13	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1455.5	1455.5	1455.5	1455.5	1455.5
2.5°	1437.2	1467.2	1452.2	1453.9	1458.9
5°	1435.5	1463.9	1452.2	1455.5	1468.9
7.5°	1428.8	1458.9	1452.2	1462.2	1477.2
10°	1418.8	1453.9	1452.2	1468.9	1483.9
12.5°	1408.8	1443.8	1452.2	1477.2	1490.6
15°	1395.4	1433.8	1455.5	1450.5	1432.2
17.5°	1378.7	1423.8	1447.2	1375.4	1373.7
20°	1362.1	1410.5	1400.4	1332.0	1325.3
22.5°	1340.4	1397.1	1332.0	1285.3	1293.6
25°	1317.0	1380.4	1286.9	1258.6	1265.2
27.5°	1291.9	1363.7	1238.5	1228.5	1236.9
30°	1263.6	1340.4	1201.8	1198.5	1208.5
32.5°	1233.5	1295.3	1166.8	1168.4	1180.1
35°	1200.1	1221.8	1130.0	1135.0	1146.7
37.5°	1166.8	1153.4	1095.0	1103.3	1115.0
40°	1130.0	1100.0	1058.3	1066.6	1080.0
42.5°	1090.0	1043.2	1018.2	1029.9	1041.6
45°	1048.2	984.8	978.1	989.8	998.2
47.5°	1004.8	934.7	936.4	944.8	707.7
50°	956.4	884.7	891.3	617.6	392.3
52.5°	904.7	832.9	846.3	343.9	198.6
55°	851.3	779.5	792.9	173.6	133.5
57.5°	794.5	726.1	517.4	125.2	131.9
60°	737.8	669.3	263.7	123.5	126.9
62.5°	679.4	612.6	125.2	118.5	120.2
65°	619.3	554.2	103.5	110.2	110.2
67.5°	552.5	492.4	98.5	98.5	96.8
70°	484.1	408.9	90.1	85.1	83.5
72.5°	420.6	156.9	78.5	70.1	68.4
75°	342.2	71.8	65.1	56.8	55.1
77.5°	272.1	60.1	51.7	45.1	43.4
80°	202.0	46.7	38.4	33.4	31.7
82.5°	140.2	31.7	26.7	21.7	21.7
85°	80.1	20.0	16.7	13.4	13.4
87.5°	31.7	10.0	8.3	5.0	5.0
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	23.14	24.66	23.50	24.97	25.29	10.90	12.42	11.27	12.74	13.05
	3H	25.16	26.52	25.54	26.84	27.21	13.22	14.58	13.60	14.90	15.27
	4H	25.62	26.89	26.02	27.24	27.62	13.93	15.20	14.33	15.55	15.93
	6H	26.03	27.20	26.44	27.57	27.96	14.42	15.59	14.83	15.95	16.35
	8H	26.18	27.29	26.60	27.68	28.08	14.55	15.67	14.98	16.06	16.46
	12H	26.27	27.34	26.70	27.72	28.15	14.64	15.71	15.07	16.09	16.52
4H	2H	22.98	24.25	23.38	24.60	24.98	11.70	12.97	12.10	13.32	13.70
	3H	25.18	26.23	25.59	26.63	27.03	14.21	15.26	14.62	15.66	16.06
	4H	25.63	26.57	26.06	26.98	27.42	15.03	15.97	15.47	16.39	16.83
	6H	26.10	26.91	26.55	27.35	27.81	15.63	16.44	16.08	16.88	17.34
	8H	26.29	27.05	26.75	27.49	27.96	15.80	16.56	16.26	17.00	17.47
	12H	26.44	27.12	26.92	27.60	28.07	15.91	16.59	16.40	17.07	17.54
8H	4H	25.55	26.31	26.01	26.75	27.22	15.87	16.63	16.34	17.08	17.54
	6H	26.01	26.64	26.51	27.13	27.61	16.49	17.12	16.99	17.61	18.09
	8H	26.21	26.77	26.72	27.28	27.77	16.69	17.26	17.21	17.77	18.26
	12H	26.39	26.89	26.90	27.39	27.95	16.85	17.35	17.36	17.85	18.41
12H	4H	25.52	26.20	26.00	26.68	27.15	15.94	16.62	16.43	17.10	17.57
	6H	25.96	26.53	26.48	27.04	27.53	16.59	17.15	17.10	17.66	18.15
	8H	26.18	26.68	26.69	27.18	27.74	16.84	17.34	17.35	17.83	18.40