

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: P893430

Luminaire Tested: 4MB-3SL-LVRF-UNV-L935

Issue Date: 11/11/2024

**Test Information**

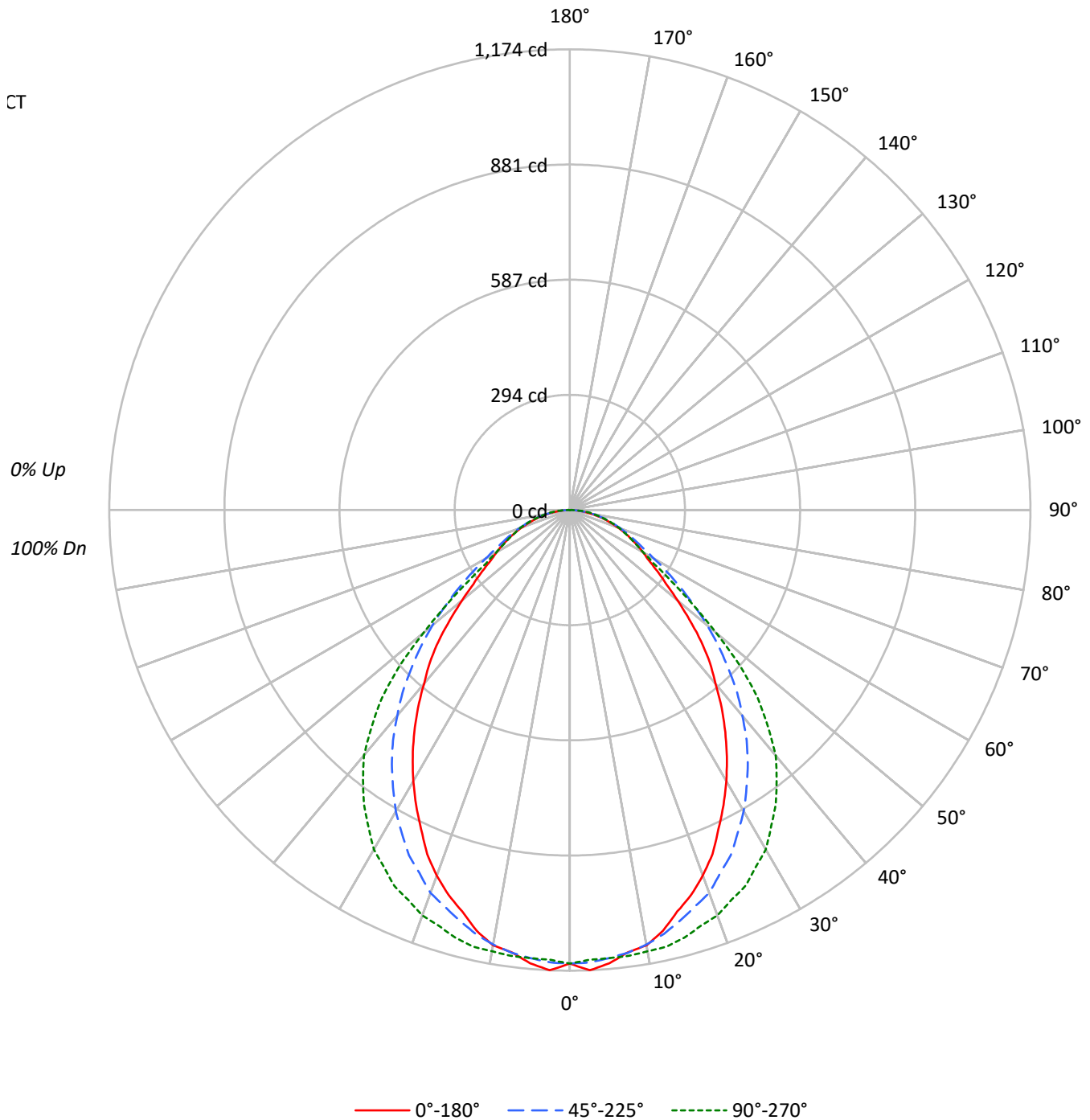
Test Method: LM-79-2019  
Report Number: P893430  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-LVRF-UNV-L935  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3500K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2402.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8223	8223	8223
5°	8280	8186	8186
10°	8137	8124	8250
15°	7801	7982	8310
20°	7504	7863	8323
25°	7040	7620	8304
30°	6552	7283	8207
35°	5998	6870	7945
40°	5370	6352	7581
45°	4765	5752	6815
50°	3965	5063	5375
55°	3378	4265	3906
60°	3062	3523	3088
65°	2884	3086	2874
70°	2713	2862	2800
75°	2529	2727	2678
80°	2315	2512	2585
85°	2008	2204	2898

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6815 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.4	4.6
10°-20°	307.9	12.8
20°-30°	447.1	18.6
30°-40°	497.9	20.7
40°-50°	439.9	18.3
50°-60°	288.7	12.0
60°-70°	176.8	7.4
70°-80°	102.9	4.3
80°-90°	31.5	1.3
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°	864.5	36.0
0°-40°	1362.4	56.7
0°-60°	2090.9	87.0
0°-90°	2402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2402.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1159	1160	1146	1158	1146	109
15°	1059	1071	1084	1126	1128	299
25°	897	918	971	1032	1058	413
35°	691	728	791	874	915	431
45°	474	502	572	648	677	362
55°	272	292	344	341	315	247
65°	171	174	183	178	171	170
75°	92	93	99	101	97	98
85°	25	26	27	31	36	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1155.7	1155.7	1155.7	1155.7	1155.7
2.5°	1173.8	1159.3	1153.9	1159.3	1147.3
5°	1159.3	1159.9	1146.1	1157.5	1146.1
7.5°	1136.5	1144.3	1137.7	1155.1	1146.1
10°	1126.3	1126.9	1124.5	1142.5	1141.9
12.5°	1098.0	1099.8	1106.4	1133.5	1139.5
15°	1059.0	1071.0	1083.6	1126.3	1128.1
17.5°	1028.3	1042.7	1059.6	1105.2	1110.7
20°	991.1	997.1	1038.5	1078.8	1099.2
22.5°	949.6	961.0	1001.3	1055.4	1075.8
25°	896.7	918.3	970.6	1032.5	1057.8
27.5°	848.0	873.3	927.4	996.5	1025.9
30°	797.5	826.4	886.5	954.4	998.9
32.5°	745.2	781.3	838.4	916.5	955.6
35°	690.6	727.8	790.9	874.5	914.7
37.5°	635.9	671.9	740.4	830.0	866.0
40°	578.2	613.6	683.9	774.7	816.2
42.5°	528.3	558.9	631.1	708.6	747.0
45°	473.6	502.4	571.6	648.5	677.3
47.5°	413.5	447.1	514.5	577.6	589.0
50°	358.2	393.1	457.4	494.0	485.6
52.5°	309.5	339.0	397.9	413.5	393.7
55°	272.3	291.5	343.8	340.8	314.9
57.5°	238.0	250.0	294.5	277.7	253.0
60°	215.2	220.6	247.6	232.0	217.0
62.5°	193.5	195.9	210.4	201.9	190.5
65°	171.3	174.3	183.3	177.9	170.7
67.5°	150.9	152.1	160.5	159.3	150.3
70°	130.4	132.2	137.6	140.0	134.6
72.5°	110.6	112.4	117.8	120.2	115.4
75°	92.0	93.2	99.2	101.0	97.4
77.5°	73.9	76.3	79.9	82.9	78.7
80°	56.5	57.7	61.3	64.9	63.1
82.5°	39.7	41.5	43.9	48.7	49.9
85°	24.6	25.8	27.0	30.7	35.5
87.5°	9.6	10.2	12.0	13.2	17.4
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	14.85	16.33	15.21	16.64	16.96	15.50	16.98	15.87	17.30	17.61
	3H	16.45	17.78	16.83	18.11	18.47	16.94	18.26	17.32	18.59	18.95
	4H	17.07	18.31	17.47	18.66	19.04	17.54	18.79	17.94	19.13	19.51
	6H	17.54	18.69	17.95	19.05	19.45	18.03	19.18	18.44	19.54	19.94
	8H	17.69	18.78	18.12	19.17	19.57	18.23	19.32	18.65	19.71	20.11
	12H	17.79	18.84	18.22	19.22	19.65	18.39	19.44	18.83	19.82	20.25
4H	2H	15.47	16.71	15.87	17.06	17.44	16.00	17.24	16.40	17.59	17.97
	3H	17.29	18.32	17.70	18.72	19.12	17.69	18.72	18.10	19.12	19.52
	4H	18.03	18.96	18.46	19.37	19.81	18.45	19.37	18.88	19.79	20.23
	6H	18.63	19.43	19.09	19.88	20.34	19.08	19.89	19.54	20.33	20.79
	8H	18.83	19.58	19.29	20.02	20.49	19.34	20.09	19.80	20.53	21.00
	12H	18.97	19.64	19.45	20.12	20.59	19.56	20.23	20.04	20.71	21.18
8H	4H	18.35	19.10	18.81	19.55	20.01	18.72	19.47	19.18	19.91	20.38
	6H	19.07	19.70	19.57	20.19	20.67	19.49	20.11	19.99	20.61	21.08
	8H	19.35	19.91	19.86	20.42	20.91	19.84	20.40	20.35	20.91	21.40
	12H	19.56	20.06	20.07	20.55	21.12	20.15	20.65	20.66	21.14	21.71
12H	4H	18.38	19.06	18.87	19.54	20.01	18.74	19.41	19.22	19.89	20.36
	6H	19.14	19.70	19.65	20.21	20.70	19.54	20.10	20.05	20.61	21.10
	8H	19.47	19.97	19.98	20.46	21.03	19.94	20.44	20.45	20.93	21.50