

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: P893429

Luminaire Tested: 4MB-3SL-LVRF-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893429
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-L930
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3000K C
Light Source: -
Ballast/Driver: -

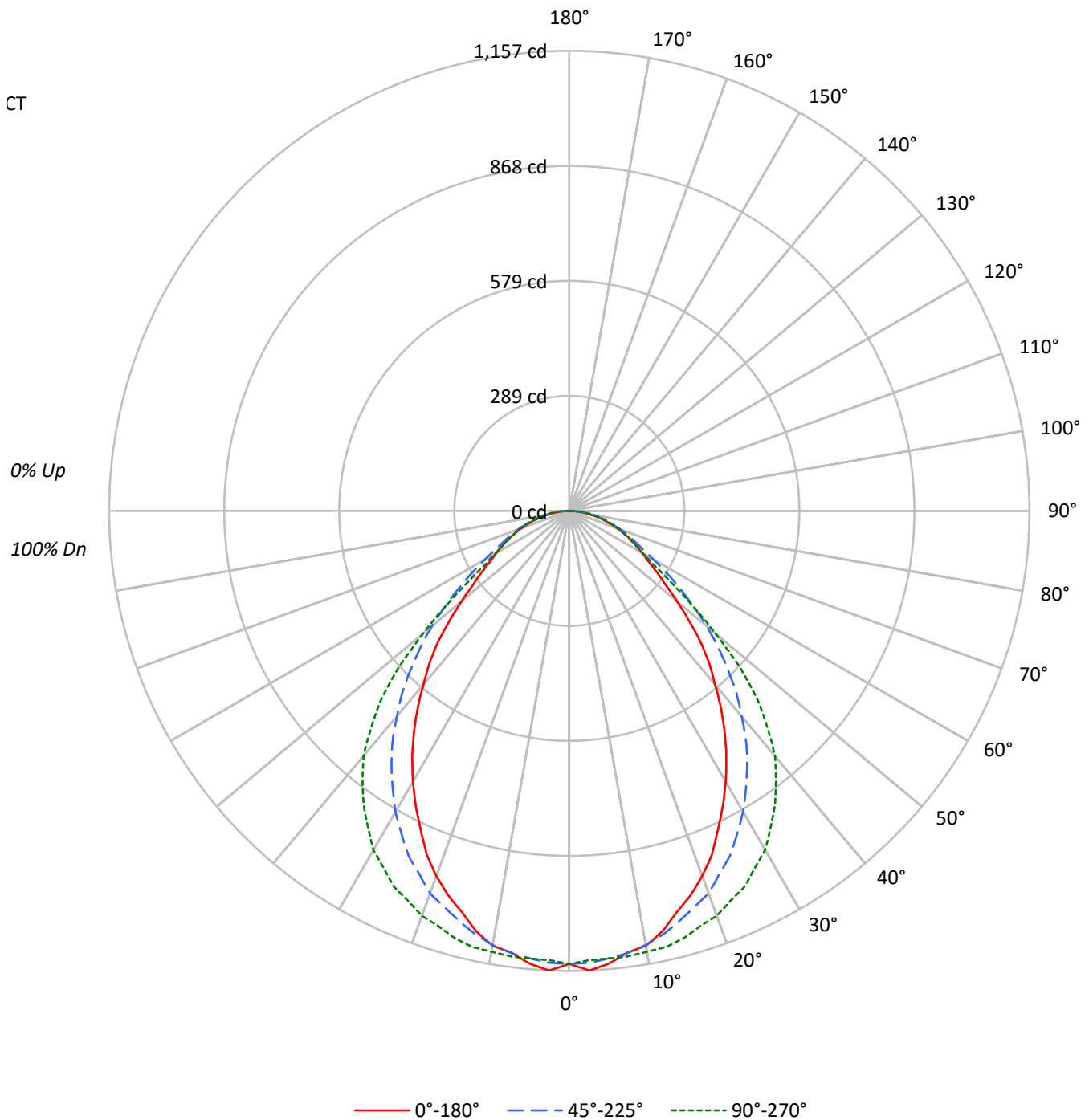
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2368.0 lumens
Efficiency: N/A
Efficacy: 112.2 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_{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	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°	8107	8107	8107
5°	8163	8070	8070
10°	8022	8009	8133
15°	7690	7869	8192
20°	7397	7752	8205
25°	6940	7512	8187
30°	6459	7180	8090
35°	5913	6772	7833
40°	5294	6263	7473
45°	4698	5670	6718
50°	3908	4991	5299
55°	3329	4204	3852
60°	3018	3474	3044
65°	2844	3042	2833
70°	2675	2823	2761
75°	2493	2689	2639
80°	2282	2475	2549
85°	1984	2180	2857

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6718 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	4.6
10°-20°	303.5	12.8
20°-30°	440.8	18.6
30°-40°	490.9	20.7
40°-50°	433.7	18.3
50°-60°	284.5	12.0
60°-70°	174.3	7.4
70°-80°	101.4	4.3
80°-90°	31.1	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°	852.2	36.0
0°-40°	1343.1	56.7
0°-60°	2061.3	87.0
0°-90°	2368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2368.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1139	1139	1139	1139	1139	
5°	1143	1144	1130	1141	1130	108
15°	1044	1056	1068	1110	1112	295
25°	884	905	957	1018	1043	407
35°	681	718	780	862	902	425
45°	467	495	564	639	668	357
55°	268	287	339	336	310	243
65°	169	172	181	175	168	168
75°	91	92	98	100	96	96
85°	24	26	27	30	35	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1139.4	1139.4	1139.4	1139.4	1139.4
2.5°	1157.1	1142.9	1137.6	1142.9	1131.1
5°	1142.9	1143.5	1129.9	1141.2	1129.9
7.5°	1120.4	1128.1	1121.6	1138.8	1129.9
10°	1110.3	1110.9	1108.6	1126.3	1125.7
12.5°	1082.5	1084.3	1090.8	1117.5	1123.4
15°	1044.0	1055.8	1068.3	1110.3	1112.1
17.5°	1013.8	1028.0	1044.6	1089.6	1094.9
20°	977.0	983.0	1023.8	1063.5	1083.7
22.5°	936.1	947.4	987.1	1040.4	1060.6
25°	884.0	905.3	956.9	1017.9	1042.8
27.5°	836.0	860.9	914.2	982.4	1011.4
30°	786.2	814.7	873.9	940.9	984.7
32.5°	734.7	770.2	826.5	903.6	942.1
35°	680.8	717.5	779.7	862.1	901.8
37.5°	626.9	662.4	730.0	818.2	853.8
40°	570.0	604.9	674.3	763.7	804.6
42.5°	520.8	551.0	622.1	698.6	736.5
45°	466.9	495.3	563.5	639.3	667.7
47.5°	407.6	440.8	507.2	569.4	580.6
50°	353.1	387.5	450.9	487.0	478.7
52.5°	305.1	334.2	392.2	407.6	388.1
55°	268.4	287.4	338.9	335.9	310.5
57.5°	234.6	246.5	290.3	273.7	249.4
60°	212.1	217.4	244.1	228.7	213.9
62.5°	190.8	193.2	207.4	199.1	187.8
65°	168.9	171.8	180.7	175.4	168.3
67.5°	148.7	149.9	158.2	157.0	148.1
70°	128.6	130.3	135.7	138.1	132.7
72.5°	109.0	110.8	116.1	118.5	113.8
75°	90.7	91.8	97.8	99.5	96.0
77.5°	72.9	75.2	78.8	81.8	77.6
80°	55.7	56.9	60.4	64.0	62.2
82.5°	39.1	40.9	43.3	48.0	49.2
85°	24.3	25.5	26.7	30.2	35.0
87.5°	9.5	10.1	11.8	13.0	17.2
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	14.80	16.28	15.17	16.59	16.91	15.45	16.93	15.82	17.25	17.56
	3H	16.40	17.73	16.78	18.06	18.42	16.89	18.21	17.27	18.54	18.90
	4H	17.02	18.26	17.42	18.61	18.99	17.49	18.73	17.89	19.08	19.46
	6H	17.49	18.64	17.90	19.00	19.40	17.98	19.13	18.39	19.49	19.89
	8H	17.64	18.73	18.07	19.12	19.52	18.18	19.27	18.60	19.66	20.06
	12H	17.74	18.79	18.17	19.17	19.60	18.34	19.39	18.78	19.77	20.20
4H	2H	15.42	16.66	15.82	17.01	17.39	15.95	17.19	16.35	17.54	17.92
	3H	17.24	18.27	17.65	18.67	19.07	17.64	18.67	18.05	19.07	19.47
	4H	17.98	18.91	18.41	19.32	19.76	18.40	19.32	18.83	19.74	20.18
	6H	18.58	19.38	19.04	19.83	20.29	19.03	19.84	19.49	20.28	20.74
	8H	18.78	19.53	19.24	19.97	20.44	19.29	20.04	19.75	20.48	20.95
	12H	18.92	19.59	19.40	20.07	20.54	19.51	20.18	19.99	20.66	21.13
8H	4H	18.30	19.05	18.76	19.50	19.96	18.67	19.42	19.13	19.86	20.33
	6H	19.02	19.65	19.52	20.14	20.62	19.44	20.06	19.94	20.56	21.03
	8H	19.30	19.86	19.81	20.37	20.86	19.79	20.35	20.30	20.86	21.35
	12H	19.51	20.01	20.02	20.50	21.07	20.10	20.60	20.61	21.09	21.66
12H	4H	18.33	19.01	18.82	19.49	19.96	18.69	19.36	19.17	19.84	20.31
	6H	19.09	19.65	19.60	20.16	20.65	19.49	20.05	20.00	20.56	21.05
	8H	19.42	19.92	19.93	20.41	20.98	19.89	20.39	20.40	20.88	21.45