

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: P894142

Luminaire Tested: 4MB-SC3-ASMF-UNV-CC83-MID-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894142
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-185-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-ASMF-UNV-CC83-MID-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 4000K CCT, 1 lumen setting
Light Source: -
Ballast/Driver: -

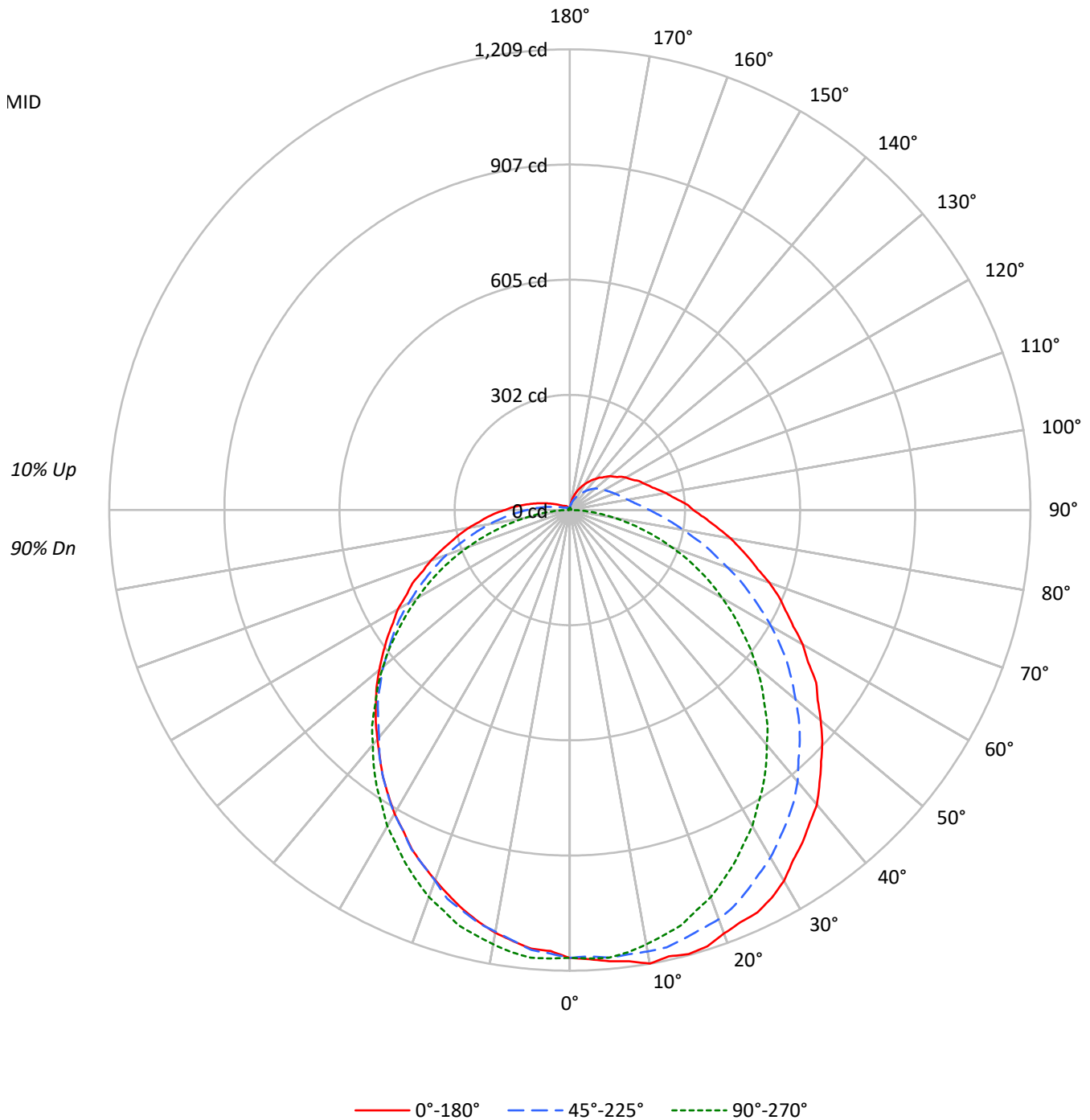
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4040.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.21 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 33.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9948
Total Harmonic Distortion (THDi): 5.65231997856897
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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	93	93	93	90
1	105	99	95	90	101	96	92	88	90	87	83	85	82	79	79	77	75	75	75	75	72
2	95	86	79	72	91	83	76	71	78	72	68	73	69	65	69	65	62	62	62	62	59
3	86	75	66	60	83	73	65	58	68	62	56	64	59	54	60	56	52	52	52	52	49
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	44	44	44	44	42
5	72	59	50	43	69	57	49	42	54	47	41	51	45	40	48	43	38	38	38	38	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	34	34	34	31
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30	30	30	30	28
8	57	44	35	29	55	43	35	29	41	33	28	39	32	27	37	31	27	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	24	24	24	22
10	50	37	29	24	49	36	29	23	34	28	23	33	27	22	31	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11967	11967	11967	11967	11967
5°	12118	11692	11578	11488	11782
10°	12430	11447	11052	10933	11583
15°	12611	11206	10562	10476	11340
20°	12673	10973	10003	9930	11074
25°	12903	10621	9415	9476	10873
30°	12981	10281	8856	8986	10627
35°	12951	9911	8268	8513	10400
40°	13067	9527	7666	7981	10175
45°	13028	9074	7072	7576	10050
50°	13128	8609	6501	7110	9968
55°	13418	8203	5846	6645	9934
60°	13642	7699	5175	6152	10066
65°	14113	7155	4495	5659	10293
70°	15268	6634	3686	5190	10646
75°	17155	6256	2818	4644	11379
80°	21321	5890	1888	4163	13366
85°	31872	5811	947	3664	18743

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 104938 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	2.8
10°-20°	319.5	7.9
20°-30°	481.8	11.9
30°-40°	578.3	14.3
40°-50°	602.2	14.9
50°-60°	558.2	13.8
60°-70°	459.7	11.4
70°-80°	331.6	8.2
80°-90°	210.5	5.2
90°-100°	129.8	3.2
100°-110°	86.5	2.1
110°-120°	61.6	1.5
120°-130°	45.2	1.1
130°-140°	31.1	0.8
140°-150°	18.9	0.5
150°-160°	9.4	0.2
160°-170°	3.4	0.1
170°-180°	0.6	0.0
0°-30°	912.9	22.6
0°-40°	1491.2	36.9
0°-60°	2651.7	65.6
0°-90°	3653.6	90.4
90°-120°	277.9	6.9
90°-150°	373.1	9.2
90°-180°	386.0	9.6
0°-180°	4040.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1175	1175	1175	1175	1175	
5°	1189	1179	1179	1159	1156	114
15°	1206	1164	1128	1088	1085	340
25°	1165	1102	1022	983	982	536
35°	1065	995	884	855	855	667
45°	933	854	722	713	720	722
55°	790	696	550	564	585	702
65°	625	523	375	414	456	623
75°	487	370	197	274	323	516
85°	371	252	52	159	218	315
90°	324	209	5	113	170	179
95°	288	177	3	76	131	229
105°	226	139	3	31	69	242
115°	186	115	4	15	33	186
125°	151	96	4	12	19	137
135°	121	76	4	9	14	95
145°	93	54	4	6	10	59
155°	64	36	5	4	6	30
165°	37	21	5	3	4	11
175°	5	9	5	2	1	1
180°	4	4	4	4	4	



TEST NUMBER: P894142

CATALOG NUMBER: 4MB-SC3-ASM-F-UNV-CC83-MID-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1175.1	1175.1	1175.1	1175.1	1175.1	1175.1	1175.1	1175.1	1175.1
2.5°	1179.8	1183.3	1172.1	1179.2	1178.0	1179.2	1165.1	1176.8	1158.6
5°	1188.6	1190.3	1179.2	1183.3	1179.2	1169.2	1158.6	1154.5	1155.7
7.5°	1194.5	1203.9	1176.2	1177.4	1170.4	1159.8	1139.8	1143.3	1141.0
10°	1208.6	1198.0	1176.2	1171.0	1157.4	1146.3	1123.4	1125.1	1126.3
12.5°	1199.7	1197.4	1175.7	1156.3	1142.7	1133.3	1109.8	1104.0	1106.9
15°	1206.2	1196.2	1163.9	1148.6	1128.1	1111.6	1088.1	1084.0	1084.6
17.5°	1200.3	1192.1	1152.2	1131.0	1102.2	1092.2	1069.9	1062.8	1059.3
20°	1182.7	1178.6	1143.3	1106.9	1081.1	1061.7	1034.6	1030.5	1033.5
22.5°	1171.0	1161.0	1125.7	1089.3	1051.7	1034.6	1007.6	1007.0	1007.6
25°	1165.1	1152.2	1101.6	1063.4	1021.7	1006.4	982.9	974.1	981.8
27.5°	1147.5	1135.7	1076.4	1034.6	988.2	967.7	948.3	946.5	947.7
30°	1123.9	1101.0	1053.4	1002.3	957.7	936.5	920.7	908.9	920.1
32.5°	1090.5	1077.5	1023.5	967.7	918.3	903.6	887.8	886.6	886.6
35°	1064.6	1055.2	995.3	937.1	884.2	864.3	854.9	850.7	854.9
37.5°	1034.6	1020.5	965.3	900.1	846.0	829.0	819.6	816.1	819.0
40°	1008.8	982.9	930.1	861.9	804.3	789.1	779.1	782.6	785.5
42.5°	970.6	955.9	888.3	823.1	768.5	752.0	743.8	746.8	753.8
45°	933.0	919.5	853.7	782.6	722.1	713.3	712.7	710.9	719.7
47.5°	898.9	879.5	815.5	742.6	683.3	673.3	674.5	680.4	688.0
50°	859.6	836.6	773.2	699.8	640.4	633.9	638.6	642.8	652.7
52.5°	820.2	802.0	734.4	659.2	596.9	592.2	598.7	612.2	618.1
55°	789.6	756.7	696.2	611.6	550.5	551.1	564.0	571.7	584.6
57.5°	740.9	716.2	652.7	569.3	507.0	511.2	528.8	541.7	549.9
60°	706.2	675.1	610.4	524.1	461.2	467.7	487.7	507.0	521.1
62.5°	661.6	634.5	566.4	479.4	418.9	428.3	450.6	473.6	483.5
65°	625.1	594.6	522.9	434.8	374.8	386.0	413.6	439.5	455.9
67.5°	594.0	562.3	484.1	393.6	330.2	346.6	379.0	404.2	417.1
70°	557.0	520.0	440.1	347.8	283.8	303.2	344.3	373.7	388.4
72.5°	517.6	487.7	401.9	305.5	240.9	264.4	309.6	340.2	354.3
75°	487.1	453.6	369.6	263.2	197.4	225.6	274.4	309.0	323.1
77.5°	455.9	425.4	333.1	224.4	158.6	190.4	243.2	281.4	296.1
80°	428.3	393.1	302.6	192.7	118.1	155.7	213.9	251.5	268.5
82.5°	397.8	367.2	276.1	159.2	84.0	124.0	185.1	226.2	240.3
85°	370.7	339.0	251.5	132.8	51.7	95.8	158.6	200.9	218.0
87.5°	346.1	319.6	228.5	112.8	25.9	72.9	133.4	176.3	195.6
90°	323.7	293.8	209.2	94.6	4.7	52.9	112.8	155.1	169.8
92.5°	309.6	273.8	193.3	82.8	2.9	37.6	94.0	135.7	152.8
95°	288.5	256.8	176.8	74.0	2.9	25.3	75.8	116.3	131.0
97.5°	270.3	240.9	165.1	68.7	2.4	17.0	62.3	97.5	112.8
100°	256.2	228.5	154.5	64.0	2.9	12.3	49.4	82.8	96.4
102.5°	240.3	215.0	146.3	61.1	2.9	8.8	38.8	69.9	82.3
105°	226.2	203.9	138.7	58.2	2.9	7.6	31.1	57.6	68.7
107.5°	215.6	192.1	132.2	56.4	2.9	7.6	24.7	47.0	56.4
110°	205.0	182.7	125.7	54.6	2.9	7.1	19.4	38.8	47.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	198.0	173.9	119.9	52.9	3.5	7.1	15.9	32.3	38.8
115°	185.7	166.3	114.6	52.3	3.5	6.5	14.7	26.4	32.9
117.5°	176.8	159.2	109.3	50.5	3.5	6.5	14.1	21.7	26.4
120°	170.4	151.0	104.6	48.8	3.5	5.9	12.9	19.4	22.3
122.5°	162.2	143.4	100.5	47.6	3.5	5.9	12.3	18.2	20.0
125°	151.0	136.3	95.8	45.2	4.1	5.9	11.8	17.0	18.8
127.5°	143.9	129.8	92.2	42.3	4.1	5.3	11.2	15.9	17.6
130°	138.1	122.8	88.1	39.4	4.1	5.3	10.6	14.7	16.5
132.5°	129.3	115.7	82.3	37.0	4.1	4.7	9.4	13.5	15.3
135°	121.0	109.9	76.4	34.7	4.1	4.7	8.8	12.9	14.1
137.5°	115.7	104.0	71.1	32.3	4.1	4.1	8.2	11.8	12.9
140°	106.9	97.5	65.2	30.0	4.1	4.1	7.6	11.2	11.8
142.5°	100.5	91.1	59.9	27.6	4.1	4.1	7.1	10.0	11.2
145°	92.8	84.6	54.1	25.3	4.1	3.5	6.5	9.4	10.0
147.5°	85.8	77.0	49.4	23.5	4.1	3.5	5.9	8.2	8.8
150°	78.7	69.3	44.7	21.7	4.1	3.5	5.3	7.1	8.2
152.5°	71.1	59.9	40.0	20.0	4.1	3.5	4.7	6.5	7.1
155°	63.5	52.3	35.8	18.2	4.7	3.5	4.1	5.3	6.5
157.5°	57.0	45.2	31.7	16.5	4.7	2.9	4.1	4.7	5.3
160°	49.4	38.8	28.2	14.7	4.7	2.9	3.5	4.1	4.7
162.5°	43.5	32.3	24.7	13.5	4.7	2.9	3.5	3.5	4.1
165°	37.0	27.0	20.6	12.3	4.7	2.9	2.9	2.9	3.5
167.5°	30.0	21.2	17.0	11.2	4.7	2.9	2.9	2.4	2.9
170°	22.3	15.9	14.1	10.0	4.7	2.9	2.4	1.8	2.4
172.5°	10.0	12.3	11.2	8.8	5.3	2.9	2.4	1.8	1.2
175°	5.3	8.8	8.8	7.6	5.3	2.9	2.4	1.8	0.6
177.5°	4.1	5.3	6.5	6.5	5.3	3.5	2.4	1.2	0.6
180°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5



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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	18.99	20.47	19.49	20.97	21.51	17.96	19.44	18.46	19.94	20.48
	3H	21.07	22.42	21.59	22.93	23.52	19.83	21.18	20.35	21.69	22.27
	4H	22.02	23.29	22.56	23.82	24.42	20.58	21.85	21.12	22.38	22.98
	6H	22.94	24.12	23.49	24.67	25.28	21.21	22.40	21.76	22.94	23.55
	8H	23.37	24.50	23.93	25.07	25.69	21.47	22.60	22.03	23.17	23.78
	12H	23.79	24.88	24.36	25.44	26.08	21.70	22.79	22.27	23.34	23.99
4H	2H	19.48	20.76	20.02	21.29	21.88	18.52	19.80	19.06	20.33	20.92
	3H	21.80	22.88	22.35	23.45	24.07	20.58	21.67	21.13	22.24	22.86
	4H	22.91	23.90	23.48	24.48	25.13	21.43	22.43	22.01	23.01	23.66
	6H	24.01	24.89	24.60	25.50	26.16	22.19	23.07	22.78	23.67	24.34
	8H	24.54	25.37	25.14	25.97	26.64	22.51	23.33	23.10	23.94	24.61
	12H	25.07	25.82	25.69	26.45	27.13	22.80	23.55	23.42	24.18	24.86
8H	4H	23.16	23.99	23.76	24.59	25.27	21.77	22.60	22.37	23.20	23.88
	6H	24.45	25.15	25.08	25.79	26.47	22.66	23.36	23.29	24.00	24.68
	8H	25.12	25.75	25.76	26.40	27.09	23.06	23.69	23.70	24.34	25.03
	12H	25.82	26.38	26.46	27.03	27.78	23.45	24.01	24.09	24.65	25.41
12H	4H	23.18	23.93	23.80	24.56	25.24	21.84	22.59	22.46	23.22	23.90
	6H	24.50	25.14	25.14	25.79	26.48	22.77	23.40	23.41	24.05	24.75
	8H	25.24	25.81	25.89	26.45	27.21	23.23	23.79	23.87	24.44	25.19