

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: P894141

Luminaire Tested: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894141
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-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 3500K CCT, 1 lumen setting
Light Source: -
Ballast/Driver: -

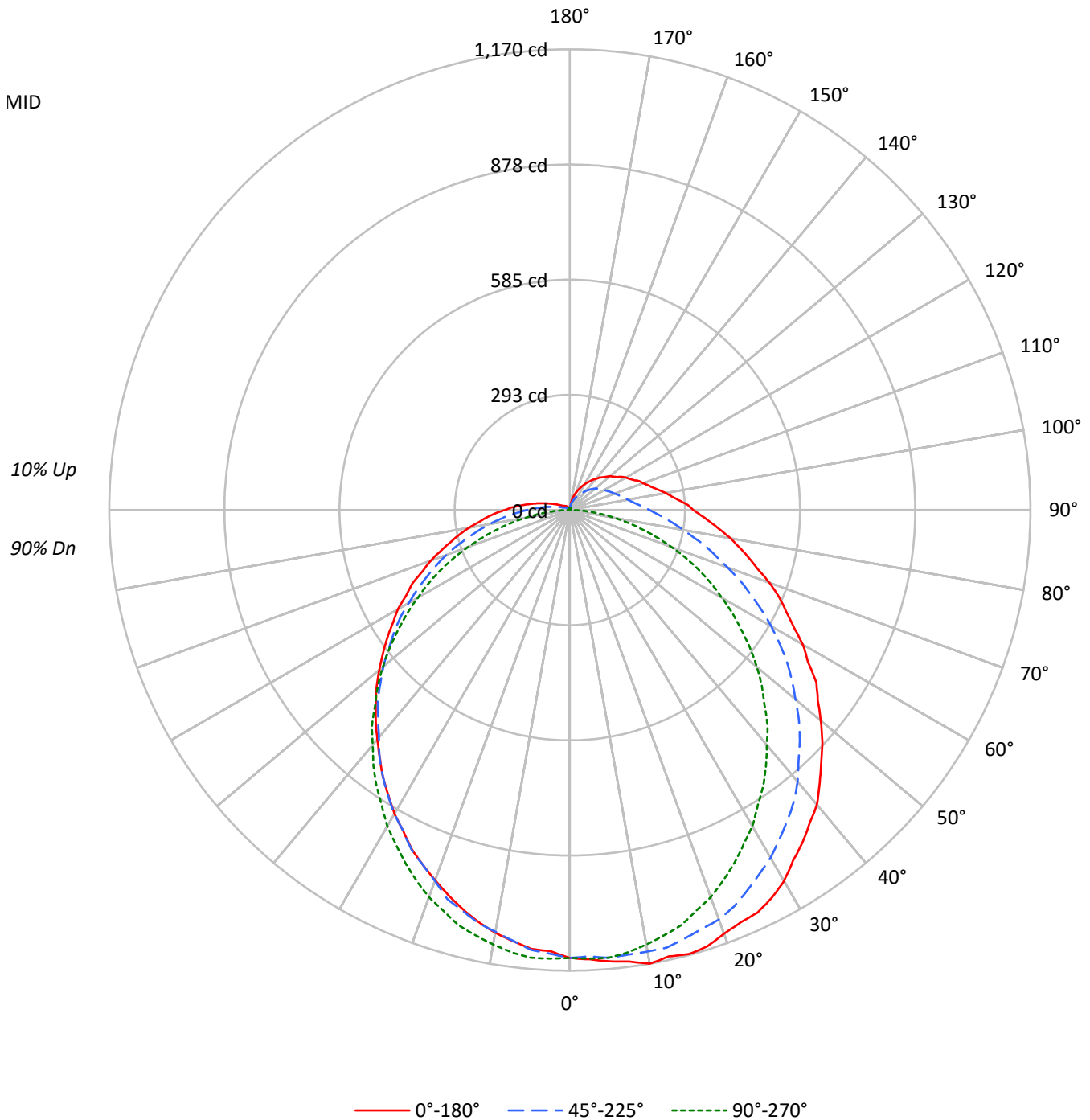
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3911.0 lumens
Efficiency: N/A
Efficacy: 116.7 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

TEST NUMBER: P894141
CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P894141
 CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

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	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°	11585	11585	11585	11585	11585
5°	11730	11318	11208	11121	11406
10°	12033	11082	10700	10584	11213
15°	12209	10848	10224	10142	10978
20°	12268	10623	9683	9613	10721
25°	12491	10281	9114	9175	10525
30°	12568	9953	8573	8699	10288
35°	12537	9594	8005	8241	10068
40°	12650	9223	7421	7726	9850
45°	12612	8784	6846	7333	9729
50°	12708	8334	6294	6884	9650
55°	12990	7941	5659	6433	9616
60°	13207	7455	5011	5955	9746
65°	13664	6926	4353	5478	9965
70°	14780	6422	3567	5024	10306
75°	16606	6056	2728	4496	11017
80°	20639	5701	1827	4029	12938
85°	30858	5624	918	3549	18141

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 101599 cd/sqm



TEST NUMBER: P894141

CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	2.8
10°-20°	309.3	7.9
20°-30°	466.5	11.9
30°-40°	559.9	14.3
40°-50°	583.0	14.9
50°-60°	540.4	13.8
60°-70°	445.1	11.4
70°-80°	321.0	8.2
80°-90°	203.8	5.2
90°-100°	125.7	3.2
100°-110°	83.8	2.1
110°-120°	59.7	1.5
120°-130°	43.7	1.1
130°-140°	30.1	0.8
140°-150°	18.3	0.5
150°-160°	9.1	0.2
160°-170°	3.3	0.1
170°-180°	0.6	0.0
0°-30°	883.7	22.6
0°-40°	1443.6	36.9
0°-60°	2567.0	65.6
0°-90°	3536.9	90.4
90°-120°	269.1	6.9
90°-150°	361.2	9.2
90°-180°	374.0	9.6
0°-180°	3911.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1138	1138	1138	1138	1138	
5°	1151	1142	1142	1122	1119	110
15°	1168	1127	1092	1053	1050	329
25°	1128	1066	989	952	950	519
35°	1031	964	856	828	828	646
45°	903	826	699	690	697	699
55°	764	674	533	546	566	679
65°	605	506	363	400	441	603
75°	472	358	191	266	313	500
85°	359	243	50	154	211	305
90°	313	202	5	109	164	173
95°	279	171	3	73	127	222
105°	219	134	3	30	66	234
115°	180	111	3	14	32	180
125°	146	93	4	11	18	133
135°	117	74	4	8	14	92
145°	90	52	4	6	10	57
155°	61	35	5	4	6	29
165°	36	20	5	3	3	10
175°	5	8	5	2	1	1
180°	3	3	3	3	3	



TEST NUMBER: P894141

CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5
2.5°	1142.1	1145.5	1134.7	1141.5	1140.4	1141.5	1127.9	1139.2	1121.6
5°	1150.6	1152.3	1141.5	1145.5	1141.5	1131.9	1121.6	1117.6	1118.8
7.5°	1156.3	1165.4	1138.7	1139.8	1133.0	1122.8	1103.4	1106.8	1104.6
10°	1170.0	1159.7	1138.7	1133.6	1120.5	1109.7	1087.5	1089.2	1090.3
12.5°	1161.4	1159.2	1138.1	1119.3	1106.3	1097.2	1074.4	1068.7	1071.6
15°	1167.7	1158.0	1126.7	1111.9	1092.0	1076.1	1053.4	1049.4	1050.0
17.5°	1162.0	1154.0	1115.4	1094.9	1067.0	1057.3	1035.7	1028.9	1025.5
20°	1144.9	1141.0	1106.8	1071.6	1046.5	1027.8	1001.6	997.6	1000.5
22.5°	1133.6	1123.9	1089.8	1054.5	1018.1	1001.6	975.4	974.9	975.4
25°	1127.9	1115.4	1066.4	1029.5	989.1	974.3	951.6	943.0	950.4
27.5°	1110.8	1099.4	1042.0	1001.6	956.7	936.8	918.0	916.3	917.4
30°	1088.1	1065.9	1019.8	970.3	927.1	906.6	891.3	879.9	890.7
32.5°	1055.6	1043.1	990.8	936.8	889.0	874.8	859.4	858.3	858.3
35°	1030.6	1021.5	963.5	907.2	856.0	836.7	827.6	823.6	827.6
37.5°	1001.6	988.0	934.5	871.4	819.0	802.5	793.4	790.0	792.9
40°	976.6	951.6	900.4	834.4	778.6	763.9	754.2	757.6	760.4
42.5°	939.6	925.4	860.0	796.8	744.0	728.0	720.1	722.9	729.7
45°	903.2	890.1	826.4	757.6	699.0	690.5	689.9	688.2	696.7
47.5°	870.2	851.5	789.5	718.9	661.5	651.8	652.9	658.6	666.0
50°	832.1	809.9	748.5	677.4	620.0	613.7	618.3	622.2	631.9
52.5°	794.0	776.4	711.0	638.2	577.9	573.3	579.6	592.7	598.3
55°	764.4	732.6	674.0	592.1	532.9	533.5	546.0	553.4	565.9
57.5°	717.2	693.3	631.9	551.1	490.9	494.8	511.9	524.4	532.4
60°	683.7	653.5	591.0	507.3	446.5	452.7	472.1	490.9	504.5
62.5°	640.4	614.3	548.3	464.1	405.5	414.6	436.2	458.4	468.1
65°	605.2	575.6	506.2	420.9	362.9	373.7	400.4	425.4	441.4
67.5°	575.0	544.3	468.7	381.1	319.6	335.6	366.9	391.3	403.8
70°	539.2	503.4	426.0	336.7	274.7	293.5	333.3	361.7	376.0
72.5°	501.1	472.1	389.0	295.8	233.2	255.9	299.7	329.3	343.0
75°	471.5	439.1	357.8	254.8	191.1	218.4	265.6	299.2	312.8
77.5°	441.4	411.8	322.5	217.3	153.6	184.3	235.5	272.4	286.7
80°	414.6	380.5	292.9	186.6	114.3	150.7	207.0	243.4	259.9
82.5°	385.1	355.5	267.3	154.1	81.3	120.0	179.2	219.0	232.6
85°	358.9	328.2	243.4	128.5	50.1	92.7	153.6	194.5	211.0
87.5°	335.0	309.4	221.3	109.2	25.0	70.5	129.1	170.6	189.4
90°	313.4	284.4	202.5	91.6	4.6	51.2	109.2	150.2	164.4
92.5°	299.7	265.0	187.1	80.2	2.8	36.4	91.0	131.4	147.9
95°	279.3	248.6	171.2	71.7	2.8	24.5	73.4	112.6	126.8
97.5°	261.6	233.2	159.8	66.5	2.3	16.5	60.3	94.4	109.2
100°	248.0	221.3	149.6	62.0	2.8	11.9	47.8	80.2	93.3
102.5°	232.6	208.2	141.6	59.2	2.8	8.5	37.5	67.7	79.6
105°	219.0	197.4	134.2	56.3	2.8	7.4	30.1	55.7	66.5
107.5°	208.7	186.0	128.0	54.6	2.8	7.4	23.9	45.5	54.6
110°	198.5	176.9	121.7	52.9	2.8	6.8	18.8	37.5	45.5



TEST NUMBER: P894141

CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	191.7	168.4	116.0	51.2	3.4	6.8	15.4	31.3	37.5
115°	179.7	161.0	110.9	50.6	3.4	6.3	14.2	25.6	31.9
117.5°	171.2	154.1	105.8	48.9	3.4	6.3	13.7	21.0	25.6
120°	164.9	146.2	101.2	47.2	3.4	5.7	12.5	18.8	21.6
122.5°	157.0	138.8	97.3	46.1	3.4	5.7	11.9	17.6	19.3
125°	146.2	132.0	92.7	43.8	4.0	5.7	11.4	16.5	18.2
127.5°	139.3	125.7	89.3	41.0	4.0	5.1	10.8	15.4	17.1
130°	133.7	118.9	85.3	38.1	4.0	5.1	10.2	14.2	15.9
132.5°	125.1	112.0	79.6	35.8	4.0	4.6	9.1	13.1	14.8
135°	117.2	106.4	73.9	33.6	4.0	4.6	8.5	12.5	13.7
137.5°	112.0	100.7	68.8	31.3	4.0	4.0	8.0	11.4	12.5
140°	103.5	94.4	63.1	29.0	4.0	4.0	7.4	10.8	11.4
142.5°	97.3	88.2	58.0	26.7	4.0	4.0	6.8	9.7	10.8
145°	89.9	81.9	52.3	24.5	4.0	3.4	6.3	9.1	9.7
147.5°	83.0	74.5	47.8	22.8	4.0	3.4	5.7	8.0	8.5
150°	76.2	67.1	43.2	21.0	4.0	3.4	5.1	6.8	8.0
152.5°	68.8	58.0	38.7	19.3	4.0	3.4	4.6	6.3	6.8
155°	61.4	50.6	34.7	17.6	4.6	3.4	4.0	5.1	6.3
157.5°	55.2	43.8	30.7	15.9	4.6	2.8	4.0	4.6	5.1
160°	47.8	37.5	27.3	14.2	4.6	2.8	3.4	4.0	4.6
162.5°	42.1	31.3	23.9	13.1	4.6	2.8	3.4	3.4	4.0
165°	35.8	26.2	19.9	11.9	4.6	2.8	2.8	2.8	3.4
167.5°	29.0	20.5	16.5	10.8	4.6	2.8	2.8	2.3	2.8
170°	21.6	15.4	13.7	9.7	4.6	2.8	2.3	1.7	2.3
172.5°	9.7	11.9	10.8	8.5	5.1	2.8	2.3	1.7	1.1
175°	5.1	8.5	8.5	7.4	5.1	2.8	2.3	1.7	0.6
177.5°	4.0	5.1	6.3	6.3	5.1	3.4	2.3	1.1	0.6
180°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4



TEST NUMBER: P894141
 CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-MID-3500K

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	18.87	20.35	19.38	20.85	21.40	17.85	19.32	18.35	19.83	20.37
	3H	20.96	22.31	21.48	22.82	23.40	19.72	21.06	20.24	21.58	22.16
	4H	21.90	23.18	22.44	23.71	24.31	20.46	21.74	21.00	22.27	22.86
	6H	22.82	24.01	23.38	24.55	25.16	21.10	22.29	21.65	22.83	23.44
	8H	23.25	24.39	23.82	24.95	25.57	21.35	22.49	21.92	23.05	23.67
	12H	23.67	24.77	24.24	25.32	25.97	21.58	22.67	22.15	23.23	23.88
4H	2H	19.37	20.64	19.91	21.17	21.77	18.41	19.69	18.95	20.21	20.81
	3H	21.68	22.77	22.24	23.34	23.96	20.47	21.56	21.02	22.13	22.74
	4H	22.80	23.79	23.37	24.37	25.02	21.32	22.32	21.89	22.90	23.55
	6H	23.90	24.78	24.49	25.38	26.04	22.08	22.96	22.67	23.56	24.22
	8H	24.43	25.25	25.02	25.86	26.53	22.39	23.22	22.99	23.82	24.50
	12H	24.96	25.71	25.57	26.34	27.02	22.69	23.44	23.30	24.07	24.75
8H	4H	23.05	23.88	23.65	24.48	25.16	21.66	22.49	22.26	23.09	23.76
	6H	24.33	25.03	24.96	25.68	26.36	22.54	23.25	23.17	23.89	24.57
	8H	25.00	25.63	25.64	26.29	26.98	22.94	23.58	23.58	24.23	24.92
	12H	25.71	26.27	26.35	26.91	27.67	23.33	23.90	23.97	24.54	25.30
12H	4H	23.07	23.82	23.69	24.45	25.13	21.72	22.47	22.34	23.11	23.79
	6H	24.39	25.02	25.03	25.68	26.37	22.65	23.29	23.29	23.94	24.63
	8H	25.13	25.70	25.77	26.34	27.10	23.12	23.68	23.76	24.32	25.08