

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: P894139

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894139
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-LOW-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 4000K CCT, 1 lumen setting
Light Source: -
Ballast/Driver: -

Summary

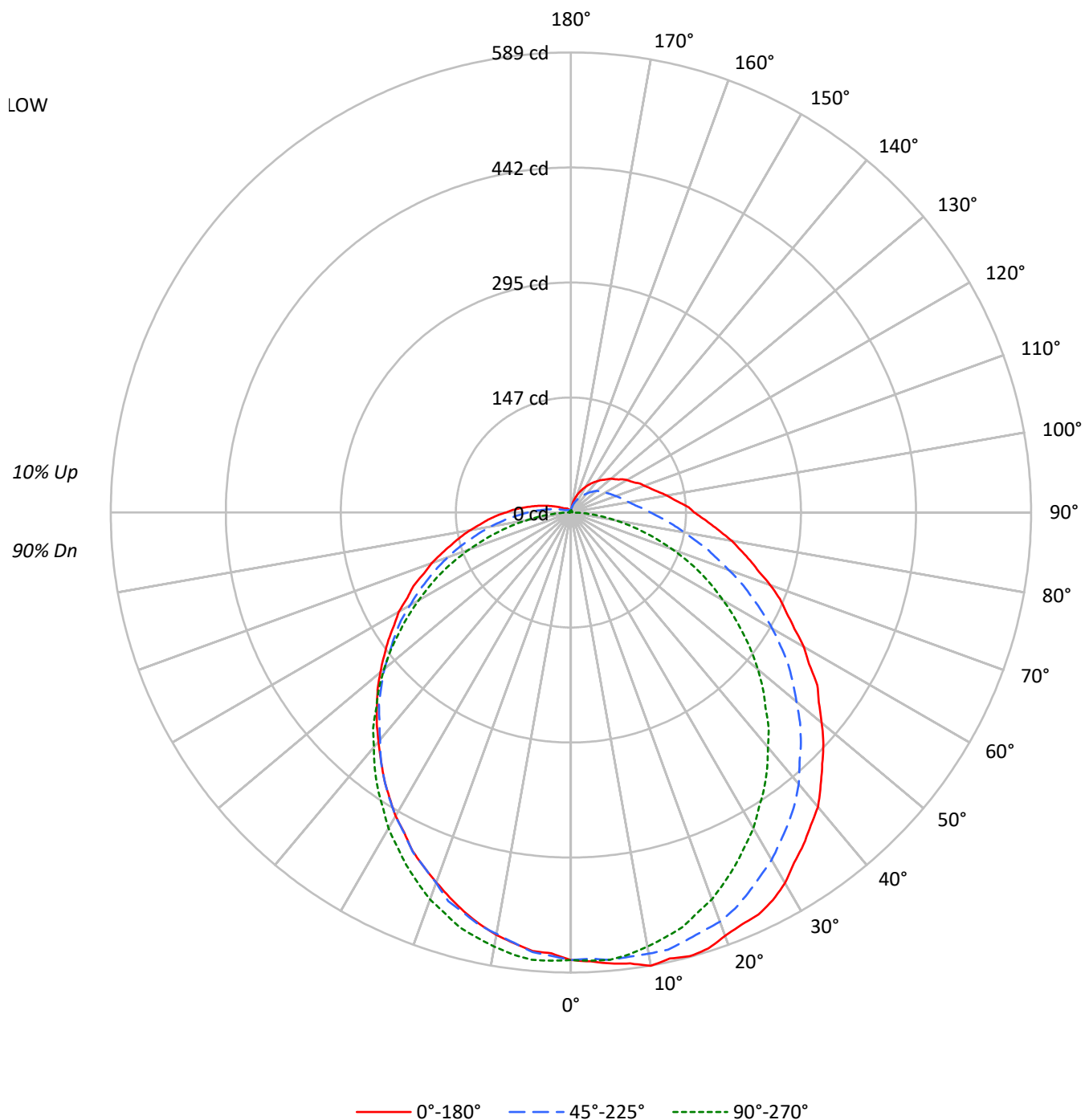
Lumens per Lamp: N/A
Luminaire Lumens: 1970.0 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.21 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')
CIE Type: Direct

Input Watts (W): 16.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9915
Total Harmonic Distortion (THDi): 6.67573310469889
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93
1	105	99	95	90	101	96	92	88	90	87	83	85	82	79	79	77	75
2	95	86	79	72	91	83	76	71	78	72	68	73	69	65	69	65	62
3	86	75	66	60	83	73	65	58	68	62	56	64	59	54	60	56	52
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	44
5	72	59	50	43	69	57	49	42	54	47	41	51	45	40	48	43	38
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30
8	57	44	35	29	55	43	35	29	41	33	28	39	32	27	37	31	27
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24
10	50	37	29	24	49	36	29	23	34	28	23	33	27	22	31	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5836	5836	5836	5836	5836
5°	5909	5701	5646	5602	5745
10°	6061	5582	5389	5331	5648
15°	6150	5464	5151	5108	5530
20°	6180	5351	4878	4842	5399
25°	6292	5179	4591	4621	5302
30°	6331	5013	4318	4381	5183
35°	6315	4832	4032	4150	5070
40°	6372	4645	3738	3891	4961
45°	6354	4425	3448	3694	4901
50°	6401	4197	3170	3467	4861
55°	6542	4000	2850	3240	4845
60°	6653	3755	2524	2999	4909
65°	6881	3489	2192	2760	5019
70°	7445	3235	1797	2531	5192
75°	8365	3050	1375	2265	5551
80°	10399	2871	921	2030	6516
85°	15545	2833	462	1788	9139

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 51189 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	2.8
10°-20°	155.8	7.9
20°-30°	235.0	11.9
30°-40°	282.0	14.3
40°-50°	293.7	14.9
50°-60°	272.2	13.8
60°-70°	224.2	11.4
70°-80°	161.7	8.2
80°-90°	102.7	5.2
90°-100°	63.3	3.2
100°-110°	42.2	2.1
110°-120°	30.0	1.5
120°-130°	22.0	1.1
130°-140°	15.1	0.8
140°-150°	9.2	0.5
150°-160°	4.6	0.2
160°-170°	1.7	0.1
170°-180°	0.3	0.0
0°-30°	445.1	22.6
0°-40°	727.2	36.9
0°-60°	1293.0	65.6
0°-90°	1781.6	90.4
90°-120°	135.5	6.9
90°-150°	181.9	9.2
90°-180°	188.0	9.5
0°-180°	1970.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	573	573	573	573	573	
5°	580	575	575	565	564	56
15°	588	568	550	531	529	166
25°	568	537	498	479	479	261
35°	519	485	431	417	417	325
45°	455	416	352	348	351	352
55°	385	340	268	275	285	342
65°	305	255	183	202	222	304
75°	238	180	96	134	158	252
85°	181	123	25	77	106	153
90°	158	102	2	55	83	87
95°	141	86	1	37	64	112
105°	110	68	1	15	34	118
115°	90	56	2	7	16	91
125°	74	47	2	6	9	67
135°	59	37	2	4	7	46
145°	45	26	2	3	5	29
155°	31	18	2	2	3	15
165°	18	10	2	1	2	5
175°	3	4	3	1	0	0
180°	2	2	2	2	2	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
2.5°	575.3	577.0	571.6	575.0	574.4	575.0	568.1	573.8	565.0
5°	579.6	580.4	575.0	577.0	575.0	570.1	565.0	563.0	563.5
7.5°	582.4	587.0	573.6	574.1	570.7	565.5	555.8	557.5	556.4
10°	589.3	584.2	573.6	571.0	564.4	559.0	547.8	548.6	549.2
12.5°	585.0	583.9	573.3	563.8	557.2	552.6	541.2	538.3	539.8
15°	588.2	583.3	567.5	560.1	550.1	542.0	530.6	528.6	528.9
17.5°	585.3	581.3	561.8	551.5	537.5	532.6	521.7	518.3	516.5
20°	576.7	574.7	557.5	539.8	527.2	517.7	504.5	502.5	503.9
22.5°	571.0	566.1	548.9	531.2	512.8	504.5	491.3	491.1	491.3
25°	568.1	561.8	537.2	518.6	498.2	490.8	479.3	475.0	478.7
27.5°	559.5	553.8	524.9	504.5	481.9	471.9	462.4	461.5	462.1
30°	548.1	536.9	513.7	488.8	467.0	456.7	448.9	443.2	448.7
32.5°	531.7	525.4	499.1	471.9	447.8	440.6	432.9	432.3	432.3
35°	519.1	514.5	485.3	457.0	431.2	421.4	416.8	414.8	416.8
37.5°	504.5	497.6	470.7	438.9	412.6	404.2	399.7	397.9	399.4
40°	491.9	479.3	453.5	420.3	392.2	384.8	379.9	381.6	383.0
42.5°	473.3	466.1	433.2	401.4	374.7	366.7	362.7	364.1	367.6
45°	455.0	448.4	416.3	381.6	352.1	347.8	347.5	346.7	351.0
47.5°	438.3	428.9	397.7	362.1	333.2	328.3	328.9	331.8	335.5
50°	419.1	408.0	377.0	341.2	312.3	309.1	311.4	313.4	318.3
52.5°	399.9	391.1	358.1	321.4	291.1	288.8	291.9	298.5	301.4
55°	385.0	369.0	339.5	298.2	268.4	268.7	275.0	278.8	285.1
57.5°	361.3	349.2	318.3	277.6	247.2	249.3	257.8	264.1	268.2
60°	344.4	329.2	297.7	255.6	224.9	228.0	237.8	247.2	254.1
62.5°	322.6	309.4	276.2	233.8	204.3	208.9	219.7	230.9	235.8
65°	304.8	289.9	255.0	212.0	182.8	188.2	201.7	214.3	222.3
67.5°	289.6	274.2	236.1	192.0	161.0	169.0	184.8	197.1	203.4
70°	271.6	253.5	214.6	169.6	138.4	147.8	167.9	182.2	189.4
72.5°	252.4	237.8	196.0	149.0	117.5	128.9	151.0	165.9	172.8
75°	237.5	221.2	180.2	128.3	96.3	110.0	133.8	150.7	157.6
77.5°	222.3	207.4	162.4	109.4	77.4	92.8	118.6	137.2	144.4
80°	208.9	191.7	147.5	94.0	57.6	75.9	104.3	122.6	130.9
82.5°	194.0	179.1	134.7	77.6	41.0	60.5	90.2	110.3	117.2
85°	180.8	165.3	122.6	64.7	25.2	46.7	77.4	98.0	106.3
87.5°	168.7	155.9	111.4	55.0	12.6	35.5	65.0	85.9	95.4
90°	157.9	143.2	102.0	46.1	2.3	25.8	55.0	75.6	82.8
92.5°	151.0	133.5	94.3	40.4	1.4	18.3	45.8	66.2	74.5
95°	140.7	125.2	86.2	36.1	1.4	12.3	37.0	56.7	63.9
97.5°	131.8	117.5	80.5	33.5	1.1	8.3	30.4	47.6	55.0
100°	124.9	111.4	75.3	31.2	1.4	6.0	24.1	40.4	47.0
102.5°	117.2	104.9	71.3	29.8	1.4	4.3	18.9	34.1	40.1
105°	110.3	99.4	67.6	28.4	1.4	3.7	15.2	28.1	33.5
107.5°	105.1	93.7	64.5	27.5	1.4	3.7	12.0	22.9	27.5
110°	100.0	89.1	61.3	26.6	1.4	3.4	9.5	18.9	22.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	96.5	84.8	58.4	25.8	1.7	3.4	7.7	15.8	18.9
115°	90.5	81.1	55.9	25.5	1.7	3.2	7.2	12.9	16.0
117.5°	86.2	77.6	53.3	24.6	1.7	3.2	6.9	10.6	12.9
120°	83.1	73.6	51.0	23.8	1.7	2.9	6.3	9.5	10.9
122.5°	79.1	69.9	49.0	23.2	1.7	2.9	6.0	8.9	9.7
125°	73.6	66.5	46.7	22.1	2.0	2.9	5.7	8.3	9.2
127.5°	70.2	63.3	45.0	20.6	2.0	2.6	5.4	7.7	8.6
130°	67.3	59.9	43.0	19.2	2.0	2.6	5.2	7.2	8.0
132.5°	63.0	56.4	40.1	18.0	2.0	2.3	4.6	6.6	7.4
135°	59.0	53.6	37.2	16.9	2.0	2.3	4.3	6.3	6.9
137.5°	56.4	50.7	34.7	15.8	2.0	2.0	4.0	5.7	6.3
140°	52.1	47.6	31.8	14.6	2.0	2.0	3.7	5.4	5.7
142.5°	49.0	44.4	29.2	13.5	2.0	2.0	3.4	4.9	5.4
145°	45.3	41.3	26.4	12.3	2.0	1.7	3.2	4.6	4.9
147.5°	41.8	37.5	24.1	11.5	2.0	1.7	2.9	4.0	4.3
150°	38.4	33.8	21.8	10.6	2.0	1.7	2.6	3.4	4.0
152.5°	34.7	29.2	19.5	9.7	2.0	1.7	2.3	3.2	3.4
155°	30.9	25.5	17.5	8.9	2.3	1.7	2.0	2.6	3.2
157.5°	27.8	22.1	15.5	8.0	2.3	1.4	2.0	2.3	2.6
160°	24.1	18.9	13.8	7.2	2.3	1.4	1.7	2.0	2.3
162.5°	21.2	15.8	12.0	6.6	2.3	1.4	1.7	1.7	2.0
165°	18.0	13.2	10.0	6.0	2.3	1.4	1.4	1.4	1.7
167.5°	14.6	10.3	8.3	5.4	2.3	1.4	1.4	1.1	1.4
170°	10.9	7.7	6.9	4.9	2.3	1.4	1.1	0.9	1.1
172.5°	4.9	6.0	5.4	4.3	2.6	1.4	1.1	0.9	0.6
175°	2.6	4.3	4.3	3.7	2.6	1.4	1.1	0.9	0.3
177.5°	2.0	2.6	3.2	3.2	2.6	1.7	1.1	0.6	0.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7

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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	16.49	17.97	17.00	18.47	19.02	15.46	16.94	15.97	17.44	17.99
	3H	18.58	19.93	19.10	20.44	21.02	17.33	18.68	17.85	19.19	19.78
	4H	19.52	20.80	20.06	21.33	21.92	18.08	19.36	18.62	19.89	20.48
	6H	20.44	21.63	20.99	22.17	22.78	18.71	19.90	19.27	20.44	21.05
	8H	20.87	22.01	21.43	22.57	23.19	18.97	20.11	19.53	20.67	21.29
	12H	21.29	22.38	21.86	22.94	23.59	19.20	20.29	19.77	20.85	21.50
4H	2H	16.99	18.26	17.53	18.79	19.39	16.03	17.30	16.57	17.83	18.43
	3H	19.30	20.39	19.85	20.96	21.57	18.09	19.17	18.64	19.74	20.36
	4H	20.41	21.41	20.98	21.99	22.64	18.94	19.93	19.51	20.51	21.16
	6H	21.52	22.40	22.11	23.00	23.66	19.70	20.57	20.29	21.18	21.84
	8H	22.05	22.87	22.64	23.47	24.15	20.01	20.84	20.61	21.44	22.11
	12H	22.57	23.32	23.19	23.95	24.63	20.30	21.05	20.92	21.68	22.36
8H	4H	20.67	21.50	21.27	22.10	22.77	19.28	20.10	19.87	20.71	21.38
	6H	21.95	22.65	22.58	23.30	23.98	20.16	20.86	20.79	21.51	22.19
	8H	22.62	23.25	23.26	23.91	24.60	20.56	21.19	21.20	21.85	22.54
	12H	23.32	23.89	23.97	24.53	25.29	20.95	21.51	21.59	22.16	22.91
12H	4H	20.69	21.44	21.31	22.07	22.75	19.34	20.09	19.96	20.72	21.40
	6H	22.01	22.64	22.65	23.29	23.99	20.27	20.90	20.91	21.56	22.25
	8H	22.75	23.31	23.39	23.96	24.71	20.73	21.30	21.38	21.94	22.70