

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: P894140

Luminaire Tested: 4MB-SC3-ASMF-UNV-CC83-LOW-5000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894140
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-5000K
Description: Selectable 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 5000K CCT, 1 lumen setting
Light Source: -
Ballast/Driver: -

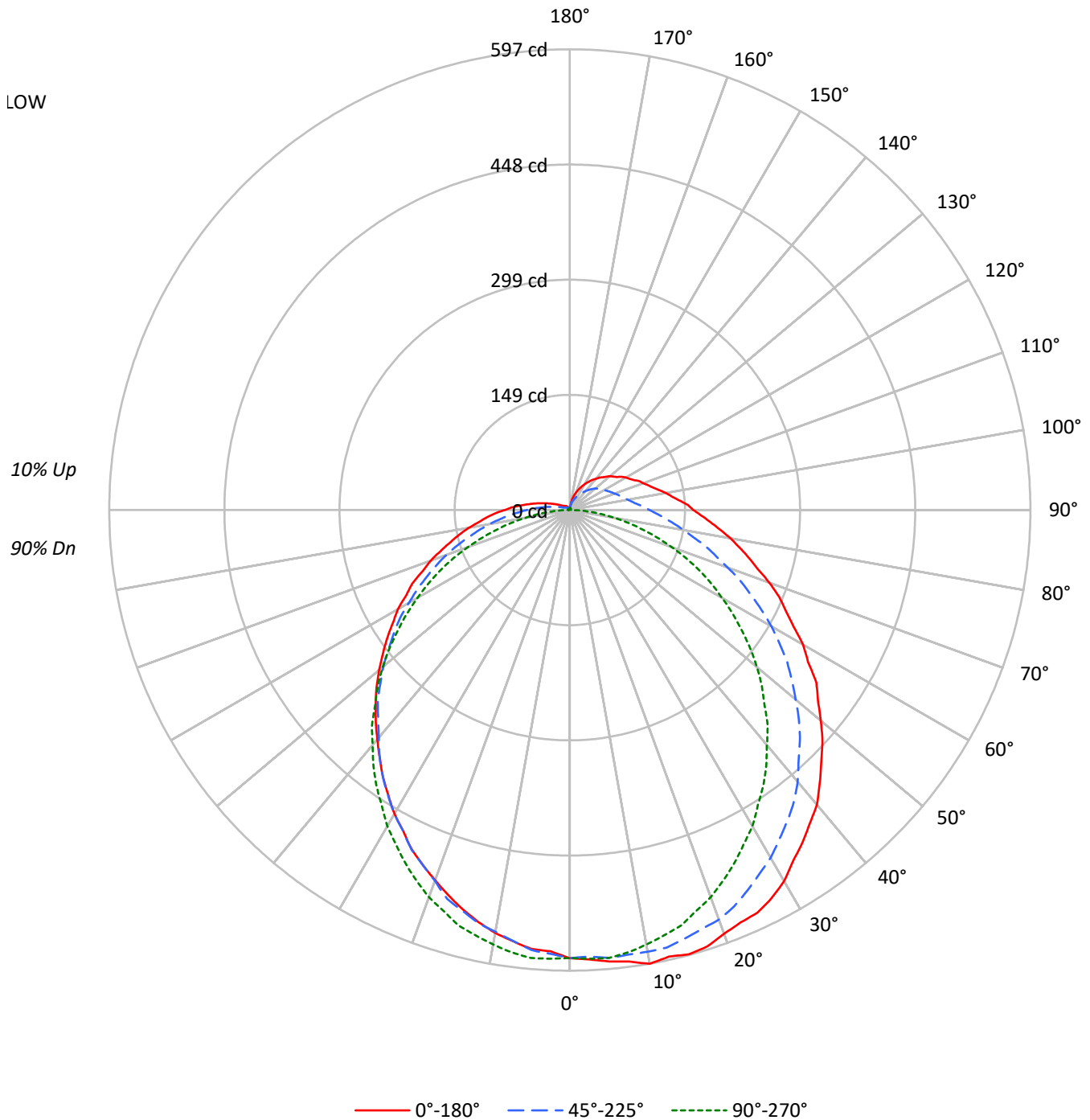
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1996.0 lumens
Efficiency: N/A
Efficacy: 119.5 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				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°	5913	5913	5913	5913	5913
5°	5987	5777	5720	5675	5821
10°	6141	5655	5460	5401	5723
15°	6230	5536	5218	5176	5602
20°	6261	5422	4942	4906	5471
25°	6375	5248	4652	4682	5372
30°	6414	5080	4375	4440	5251
35°	6399	4896	4086	4206	5139
40°	6456	4707	3788	3943	5027
45°	6437	4484	3493	3743	4966
50°	6486	4253	3212	3513	4925
55°	6629	4053	2888	3284	4908
60°	6740	3804	2557	3039	4974
65°	6974	3534	2221	2797	5087
70°	7543	3277	1821	2564	5260
75°	8474	3091	1392	2295	5625
80°	10533	2910	932	2057	6606
85°	15751	2870	467	1811	9260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 51837 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	2.8
10°-20°	157.9	7.9
20°-30°	238.1	11.9
30°-40°	285.7	14.3
40°-50°	297.5	14.9
50°-60°	275.8	13.8
60°-70°	227.1	11.4
70°-80°	163.8	8.2
80°-90°	104.0	5.2
90°-100°	64.1	3.2
100°-110°	42.8	2.1
110°-120°	30.4	1.5
120°-130°	22.3	1.1
130°-140°	15.3	0.8
140°-150°	9.3	0.5
150°-160°	4.6	0.2
160°-170°	1.7	0.1
170°-180°	0.3	0.0
0°-30°	451.0	22.6
0°-40°	736.8	36.9
0°-60°	1310.1	65.6
0°-90°	1805.1	90.4
90°-120°	137.3	6.9
90°-150°	184.3	9.2
90°-180°	191.0	9.6
0°-180°	1996.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	581	581	581	581	581	
5°	587	583	583	572	571	56
15°	596	575	557	538	536	168
25°	576	544	505	486	485	265
35°	526	492	437	422	422	330
45°	461	422	357	352	356	357
55°	390	344	272	279	289	347
65°	309	258	185	204	225	308
75°	241	183	98	136	160	255
85°	183	124	26	78	108	155
90°	160	103	2	56	84	88
95°	142	87	2	37	65	113
105°	112	68	2	15	34	119
115°	92	57	2	7	16	92
125°	75	47	2	6	9	68
135°	60	38	2	4	7	47
145°	46	27	2	3	5	29
155°	31	18	2	2	3	15
165°	18	10	2	2	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°	580.6	580.6	580.6	580.6	580.6	580.6	580.6	580.6	580.6
2.5°	582.9	584.6	579.1	582.6	582.0	582.6	575.6	581.4	572.4
5°	587.2	588.1	582.6	584.6	582.6	577.6	572.4	570.4	571.0
7.5°	590.1	594.8	581.1	581.7	578.2	573.0	563.1	564.9	563.7
10°	597.1	591.9	581.1	578.5	571.8	566.3	555.0	555.9	556.5
12.5°	592.7	591.6	580.8	571.3	564.6	559.9	548.3	545.4	546.9
15°	595.9	591.0	575.0	567.5	557.3	549.2	537.6	535.6	535.8
17.5°	593.0	589.0	569.2	558.8	544.6	539.6	528.6	525.1	523.4
20°	584.3	582.3	564.9	546.9	534.1	524.5	511.2	509.1	510.6
22.5°	578.5	573.6	556.2	538.2	519.6	511.2	497.8	497.5	497.8
25°	575.6	569.2	544.3	525.4	504.8	497.2	485.6	481.3	485.1
27.5°	566.9	561.1	531.8	511.2	488.2	478.1	468.5	467.6	468.2
30°	555.3	544.0	520.5	495.2	473.1	462.7	454.9	449.1	454.6
32.5°	538.8	532.4	505.7	478.1	453.7	446.4	438.6	438.0	438.0
35°	526.0	521.3	491.7	463.0	436.9	427.0	422.4	420.3	422.4
37.5°	511.2	504.2	476.9	444.7	418.0	409.6	404.9	403.2	404.6
40°	498.4	485.6	459.5	425.8	397.4	389.8	384.9	386.6	388.1
42.5°	479.5	472.3	438.9	406.7	379.7	371.6	367.5	368.9	372.4
45°	461.0	454.3	421.8	386.6	356.7	352.4	352.1	351.2	355.6
47.5°	444.1	434.5	402.9	366.9	337.6	332.7	333.2	336.1	339.9
50°	424.7	413.4	382.0	345.7	316.4	313.2	315.5	317.6	322.5
52.5°	405.2	396.2	362.8	325.7	294.9	292.6	295.8	302.5	305.4
55°	390.1	373.9	344.0	302.2	272.0	272.3	278.7	282.4	288.8
57.5°	366.0	353.8	322.5	281.3	250.5	252.5	261.2	267.6	271.7
60°	348.9	333.5	301.6	258.9	227.9	231.1	240.9	250.5	257.5
62.5°	326.9	313.5	279.8	236.9	207.0	211.6	222.6	234.0	238.9
65°	308.9	293.8	258.3	214.8	185.2	190.7	204.4	217.1	225.3
67.5°	293.5	277.8	239.2	194.5	163.1	171.3	187.2	199.7	206.1
70°	275.2	256.9	217.4	171.8	140.2	149.8	170.1	184.6	191.9
72.5°	255.7	240.9	198.5	150.9	119.0	130.6	153.0	168.1	175.0
75°	240.6	224.1	182.6	130.0	97.5	111.5	135.6	152.7	159.7
77.5°	225.3	210.2	164.6	110.9	78.4	94.0	120.2	139.0	146.3
80°	211.6	194.2	149.5	95.2	58.3	76.9	105.7	124.2	132.7
82.5°	196.5	181.4	136.4	78.7	41.5	61.2	91.4	111.8	118.7
85°	183.2	167.5	124.2	65.6	25.5	47.3	78.4	99.3	107.7
87.5°	171.0	157.9	112.9	55.7	12.8	36.0	65.9	87.1	96.7
90°	159.9	145.1	103.3	46.7	2.3	26.1	55.7	76.6	83.9
92.5°	153.0	135.3	95.5	40.9	1.5	18.6	46.4	67.1	75.5
95°	142.5	126.9	87.4	36.6	1.5	12.5	37.4	57.5	64.7
97.5°	133.5	119.0	81.6	34.0	1.2	8.4	30.8	48.2	55.7
100°	126.6	112.9	76.3	31.6	1.5	6.1	24.4	40.9	47.6
102.5°	118.7	106.2	72.3	30.2	1.5	4.4	19.2	34.5	40.6
105°	111.8	100.7	68.5	28.7	1.5	3.8	15.4	28.4	34.0
107.5°	106.5	94.9	65.3	27.9	1.5	3.8	12.2	23.2	27.9
110°	101.3	90.3	62.1	27.0	1.5	3.5	9.6	19.2	23.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	97.8	85.9	59.2	26.1	1.7	3.5	7.8	16.0	19.2
115°	91.7	82.1	56.6	25.8	1.7	3.2	7.3	13.1	16.3
117.5°	87.4	78.7	54.0	25.0	1.7	3.2	7.0	10.7	13.1
120°	84.2	74.6	51.7	24.1	1.7	2.9	6.4	9.6	11.0
122.5°	80.1	70.8	49.6	23.5	1.7	2.9	6.1	9.0	9.9
125°	74.6	67.3	47.3	22.4	2.0	2.9	5.8	8.4	9.3
127.5°	71.1	64.2	45.6	20.9	2.0	2.6	5.5	7.8	8.7
130°	68.2	60.7	43.5	19.4	2.0	2.6	5.2	7.3	8.1
132.5°	63.9	57.2	40.6	18.3	2.0	2.3	4.6	6.7	7.5
135°	59.8	54.3	37.7	17.1	2.0	2.3	4.4	6.4	7.0
137.5°	57.2	51.4	35.1	16.0	2.0	2.0	4.1	5.8	6.4
140°	52.8	48.2	32.2	14.8	2.0	2.0	3.8	5.5	5.8
142.5°	49.6	45.0	29.6	13.6	2.0	2.0	3.5	4.9	5.5
145°	45.9	41.8	26.7	12.5	2.0	1.7	3.2	4.6	4.9
147.5°	42.4	38.0	24.4	11.6	2.0	1.7	2.9	4.1	4.4
150°	38.9	34.3	22.1	10.7	2.0	1.7	2.6	3.5	4.1
152.5°	35.1	29.6	19.7	9.9	2.0	1.7	2.3	3.2	3.5
155°	31.3	25.8	17.7	9.0	2.3	1.7	2.0	2.6	3.2
157.5°	28.2	22.4	15.7	8.1	2.3	1.5	2.0	2.3	2.6
160°	24.4	19.2	13.9	7.3	2.3	1.5	1.7	2.0	2.3
162.5°	21.5	16.0	12.2	6.7	2.3	1.5	1.7	1.7	2.0
165°	18.3	13.4	10.2	6.1	2.3	1.5	1.5	1.5	1.7
167.5°	14.8	10.4	8.4	5.5	2.3	1.5	1.5	1.2	1.5
170°	11.0	7.8	7.0	4.9	2.3	1.5	1.2	0.9	1.2
172.5°	4.9	6.1	5.5	4.4	2.6	1.5	1.2	0.9	0.6
175°	2.6	4.4	4.4	3.8	2.6	1.5	1.2	0.9	0.3
177.5°	2.0	2.6	3.2	3.2	2.6	1.7	1.2	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	16.54	18.02	17.04	18.52	19.06	15.51	16.99	16.01	17.49	18.03
	3H	18.62	19.97	19.14	20.48	21.07	17.38	18.73	17.90	19.24	19.82
	4H	19.57	20.84	20.11	21.37	21.97	18.13	19.40	18.67	19.93	20.53
	6H	20.49	21.68	21.04	22.22	22.83	18.76	19.95	19.31	20.49	21.10
	8H	20.92	22.05	21.48	22.62	23.24	19.01	20.15	19.58	20.72	21.33
	12H	21.34	22.43	21.91	22.99	23.63	19.25	20.34	19.82	20.89	21.54
4H	2H	17.03	18.31	17.57	18.83	19.43	16.07	17.35	16.61	17.88	18.47
	3H	19.34	20.43	19.90	21.00	21.62	18.13	19.22	18.68	19.79	20.41
	4H	20.46	21.45	21.03	22.03	22.68	18.98	19.98	19.56	20.56	21.21
	6H	21.56	22.44	22.15	23.05	23.71	19.74	20.62	20.33	21.22	21.89
	8H	22.09	22.92	22.69	23.52	24.19	20.06	20.88	20.65	21.48	22.16
	12H	22.62	23.37	23.24	24.00	24.68	20.35	21.10	20.97	21.73	22.41
8H	4H	20.71	21.54	21.31	22.14	22.82	19.32	20.15	19.92	20.75	21.43
	6H	22.00	22.70	22.63	23.34	24.02	20.21	20.91	20.84	21.55	22.23
	8H	22.67	23.30	23.31	23.95	24.64	20.61	21.24	21.25	21.89	22.58
	12H	23.37	23.93	24.01	24.58	25.33	20.99	21.56	21.64	22.20	22.96
12H	4H	20.73	21.48	21.35	22.11	22.79	19.39	20.14	20.01	20.77	21.45
	6H	22.05	22.69	22.69	23.34	24.03	20.32	20.95	20.96	21.60	22.30
	8H	22.79	23.36	23.44	24.00	24.76	20.78	21.34	21.42	21.99	22.74