

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: P894131

Luminaire Tested: 4MB-SC3-AOL-UNV-CC93-LOW-5000K

Issue Date: 11/11/2024

**Test Information**

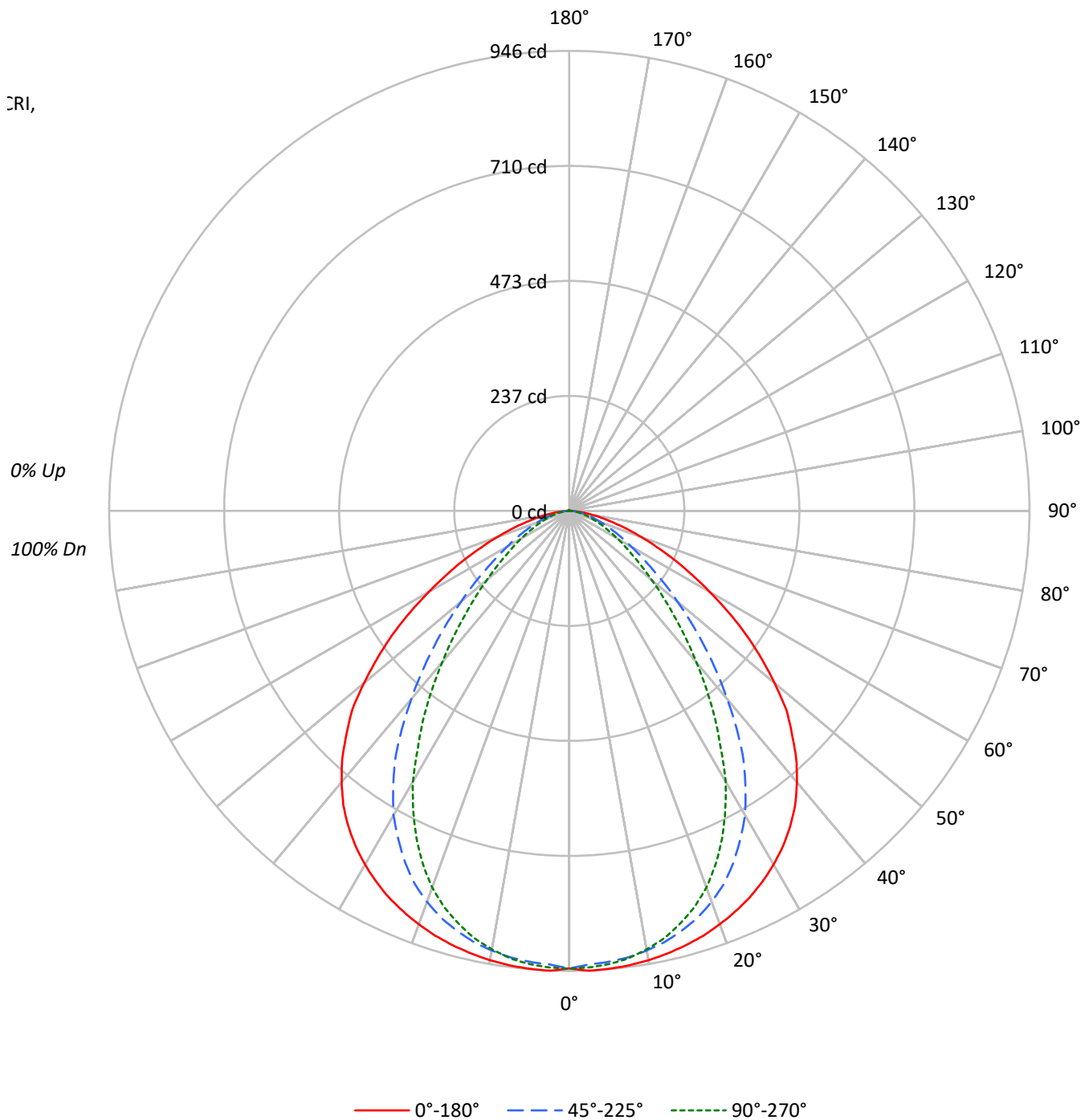
Test Method: LM-79-2019  
Report Number: P894131  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-AOL-UNV-CC93-LOW-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 900  
5000K CCT, LOW lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1879.9 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')  
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			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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	78	78	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	68	68	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	60	60	60	58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	54	54	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	43	43	43	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	39	39	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	36	36	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	33	33	33	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9584	9584	9584
5°	9663	9517	9566
10°	9702	9492	9467
15°	9752	9425	9268
20°	9805	9272	8930
25°	9859	8971	8351
30°	9877	8499	7563
35°	9844	7763	6505
40°	9680	6719	5406
45°	9320	5646	4374
50°	8722	4598	3503
55°	7880	3695	2809
60°	6797	3008	2326
65°	5752	2504	1913
70°	4696	2129	1623
75°	3762	1794	1381
80°	2927	1537	1185
85°	2267	1355	1075

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9320 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.1	4.7
10°-20°	253.6	13.5
20°-30°	369.6	19.7
30°-40°	398.4	21.2
40°-50°	334.0	17.8
50°-60°	226.1	12.0
60°-70°	129.0	6.9
70°-80°	59.0	3.1
80°-90°	15.4	0.8
90°-100°	1.9	0.1
100°-110°	1.3	0.1
110°-120°	0.7	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	712.4	37.9
0°-40°	1110.8	59.1
0°-60°	1671.0	88.9
0°-90°	1874.3	99.7
90°-120°	3.9	0.2
90°-150°	4.9	0.3
90°-180°	6.0	0.3
0°-180°	1879.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	941	941	941	941	941	
5°	945	942	931	938	936	90
15°	925	917	894	888	879	261
25°	877	854	798	762	743	404
35°	792	732	624	548	523	494
45°	647	540	392	323	304	498
55°	444	325	208	169	158	395
65°	239	166	104	84	79	238
75°	96	70	46	37	35	104
85°	19	16	12	10	9	23
90°	3	3	2	1	1	3
95°	4	2	1	1	1	3
105°	3	2	1	0	0	3
115°	1	1	0	0	0	1
125°	0	0	0	0	0	1
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	1	1	0
165°	0	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	941.1	941.1	941.1	941.1	941.1
2.5°	946.5	944.1	933.3	942.2	939.5
5°	945.2	942.2	930.9	938.4	935.7
7.5°	942.5	938.7	926.0	931.7	928.2
10°	938.2	933.6	917.9	921.2	915.5
12.5°	932.2	926.6	907.9	907.1	900.4
15°	924.9	916.8	893.9	887.9	879.0
17.5°	916.0	905.8	877.1	865.3	854.5
20°	904.7	891.5	855.5	836.6	824.0
22.5°	891.7	873.9	830.4	800.2	786.4
25°	877.4	854.2	798.3	761.6	743.2
27.5°	859.6	830.4	761.1	713.5	694.6
30°	839.9	802.9	722.7	662.0	643.1
32.5°	817.5	771.3	673.9	606.4	579.9
35°	791.8	732.2	624.4	548.0	523.2
37.5°	762.9	691.4	565.3	489.2	464.1
40°	728.1	643.1	505.4	430.1	406.6
42.5°	690.6	593.9	447.9	373.9	353.7
45°	647.1	539.9	392.0	323.2	303.7
47.5°	605.3	485.4	339.6	276.7	260.8
50°	550.5	427.4	290.2	234.3	221.1
52.5°	497.0	373.6	248.1	200.3	187.9
55°	443.8	324.8	208.1	168.7	158.2
57.5°	387.7	277.0	175.2	142.8	135.8
60°	333.7	235.7	147.7	119.9	114.2
62.5°	284.3	197.6	125.0	101.2	95.8
65°	238.7	166.0	103.9	84.2	79.4
67.5°	195.5	136.6	86.7	70.2	66.7
70°	157.7	110.7	71.5	57.8	54.5
72.5°	125.0	88.6	57.2	47.2	43.7
75°	95.6	70.2	45.6	37.3	35.1
77.5°	71.3	52.9	35.1	28.6	27.0
80°	49.9	38.3	26.2	21.6	20.2
82.5°	34.0	26.5	18.4	15.1	14.3
85°	19.4	16.5	11.6	9.7	9.2
87.5°	10.0	8.6	6.2	4.6	4.0
90°	2.7	2.7	1.6	1.3	1.1
92.5°	4.3	2.4	1.6	1.1	0.8
95°	4.0	2.4	1.3	0.8	0.8
97.5°	3.8	2.4	1.1	0.8	0.5
100°	3.5	2.2	1.1	0.5	0.5
102.5°	3.2	2.2	1.1	0.5	0.5
105°	2.7	1.9	0.8	0.5	0.3
107.5°	2.4	1.6	0.8	0.5	0.3
110°	1.9	1.3	0.8	0.5	0.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.3	0.5	0.5	0.3
115°	1.3	1.1	0.5	0.3	0.3
117.5°	1.1	0.8	0.5	0.3	0.3
120°	0.8	0.8	0.5	0.3	0.3
122.5°	0.8	0.5	0.5	0.3	0.3
125°	0.5	0.5	0.5	0.3	0.3
127.5°	0.5	0.5	0.5	0.3	0.3
130°	0.5	0.5	0.5	0.3	0.3
132.5°	0.5	0.5	0.5	0.5	0.3
135°	0.3	0.5	0.5	0.5	0.3
137.5°	0.5	0.5	0.5	0.5	0.5
140°	0.5	0.5	0.5	0.5	0.5
142.5°	0.5	0.5	0.5	0.5	0.5
145°	0.5	0.5	0.5	0.5	0.5
147.5°	0.5	0.5	0.5	0.5	0.5
150°	0.5	0.5	0.5	0.5	0.5
152.5°	0.5	0.5	0.5	0.5	0.5
155°	0.5	0.5	0.5	0.8	0.8
157.5°	0.5	0.5	0.8	0.8	0.8
160°	0.5	0.5	0.8	0.8	0.8
162.5°	0.5	0.5	0.8	0.8	0.8
165°	0.5	0.8	0.8	0.8	0.8
167.5°	0.5	0.8	0.8	0.8	1.1
170°	0.5	0.8	0.8	1.1	1.1
172.5°	0.5	0.8	0.8	1.1	1.1
175°	0.8	0.8	0.8	1.1	1.1
177.5°	0.8	0.8	0.8	1.1	1.1
180°	0.8	0.8	0.8	0.8	0.8



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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	18.22	19.66	18.59	19.98	20.30	13.06	14.50	13.43	14.82	15.15
	3H	19.53	20.81	19.91	21.15	21.52	14.08	15.36	14.46	15.69	16.06
	4H	19.96	21.15	20.36	21.51	21.90	14.41	15.61	14.82	15.97	16.35
	6H	20.22	21.33	20.64	21.70	22.10	14.64	15.74	15.06	16.12	16.52
	8H	20.29	21.34	20.73	21.74	22.15	14.70	15.75	15.14	16.15	16.56
	12H	20.33	21.34	20.77	21.72	22.16	14.75	15.75	15.18	16.14	16.58
4H	2H	18.22	19.42	18.63	19.77	20.16	13.69	14.89	14.09	15.24	15.63
	3H	19.69	20.67	20.10	21.08	21.49	14.88	15.87	15.30	16.28	16.69
	4H	20.21	21.10	20.65	21.52	21.97	15.30	16.19	15.74	16.61	17.06
	6H	20.59	21.36	21.05	21.81	22.27	15.61	16.38	16.08	16.83	17.30
	8H	20.70	21.42	21.17	21.87	22.34	15.70	16.42	16.18	16.87	17.35
	12H	20.78	21.41	21.26	21.90	22.38	15.78	16.41	16.26	16.90	17.38
8H	4H	20.19	20.91	20.66	21.36	21.84	15.63	16.35	16.11	16.80	17.28
	6H	20.62	21.21	21.13	21.71	22.20	16.03	16.62	16.53	17.12	17.60
	8H	20.78	21.31	21.30	21.83	22.32	16.17	16.70	16.69	17.22	17.71
	12H	20.91	21.38	21.43	21.88	22.45	16.29	16.76	16.81	17.26	17.83
12H	4H	20.16	20.80	20.65	21.29	21.77	15.68	16.32	16.17	16.80	17.28
	6H	20.59	21.12	21.11	21.64	22.14	16.09	16.63	16.62	17.14	17.64
	8H	20.78	21.25	21.30	21.75	22.32	16.28	16.75	16.80	17.25	17.83