

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: P894126

Luminaire Tested: 4MB-SC3-AOL-UNV-CC93-HI-3500K

Issue Date: 11/11/2024

**Test Information**

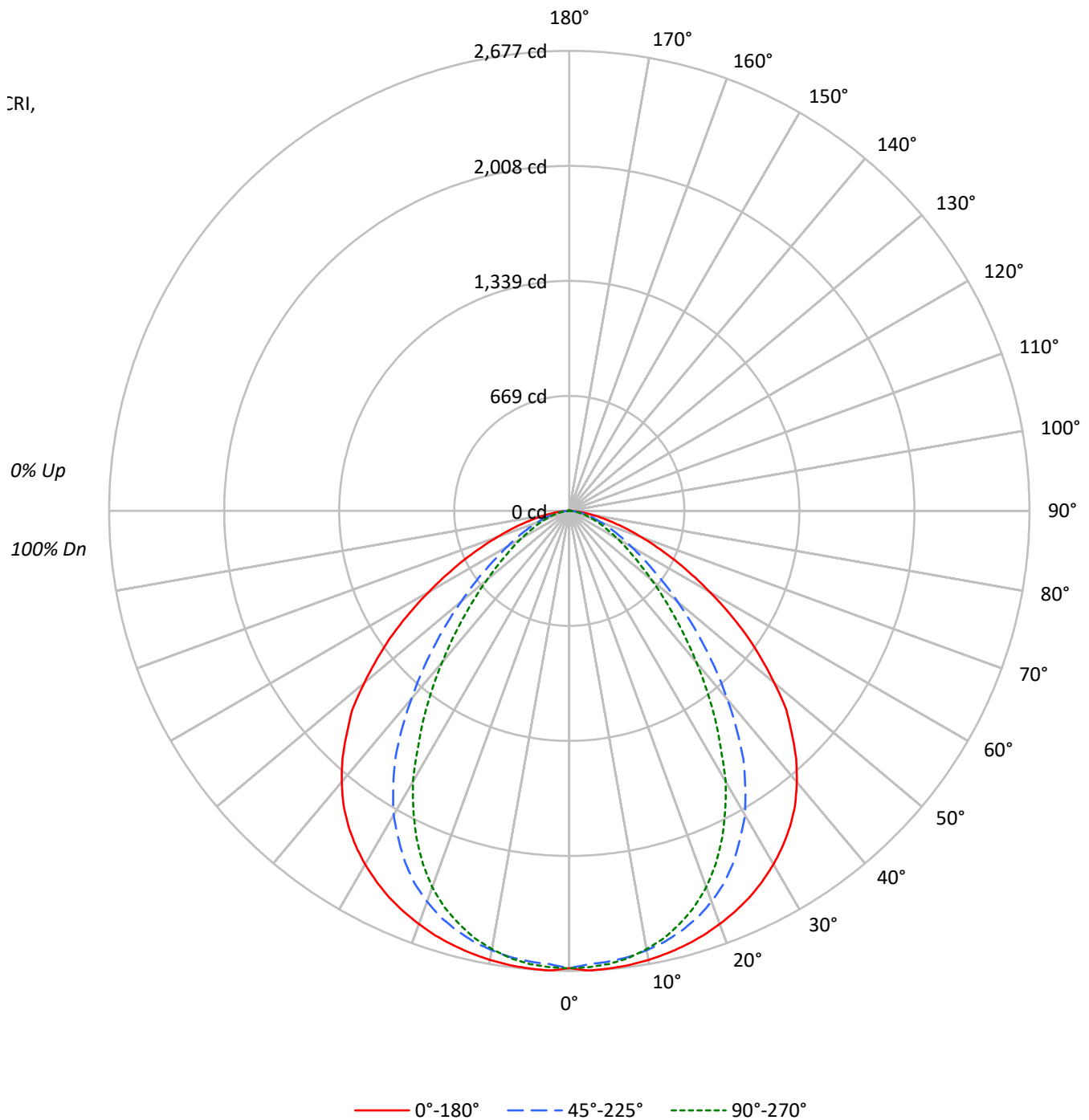
Test Method: LM-79-2019  
Report Number: P894126  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-AOL-UNV-CC93-HI-3500K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 90C  
3500K CCT, HI lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5317.0 lumens  
Efficiency: N/A  
Efficacy: 104.9 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): 50.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.39961257980444  
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	66	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°	27107	27107	27107
5°	27327	26914	27054
10°	27439	26846	26776
15°	27581	26655	26212
20°	27730	26224	25255
25°	27885	25371	23620
30°	27934	24037	21387
35°	27843	21957	18397
40°	27377	19002	15287
45°	26360	15968	12372
50°	24667	13005	9907
55°	22289	10453	7944
60°	19222	8508	6579
65°	16266	7085	5410
70°	13277	6024	4592
75°	10636	5076	3907
80°	8287	4346	3361
85°	6427	3833	3038

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 26360 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.1	4.7
10°-20°	717.3	13.5
20°-30°	1045.4	19.7
30°-40°	1126.9	21.2
40°-50°	944.7	17.8
50°-60°	639.6	12.0
60°-70°	364.7	6.9
70°-80°	166.8	3.1
80°-90°	43.7	0.8
90°-100°	5.4	0.1
100°-110°	3.7	0.1
110°-120°	2.0	0.0
120°-130°	1.2	0.0
130°-140°	1.1	0.0
140°-150°	0.9	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	2014.8	37.9
0°-40°	3141.6	59.1
0°-60°	4725.9	88.9
0°-90°	5301.1	99.7
90°-120°	11.0	0.2
90°-150°	14.2	0.3
90°-180°	16.0	0.3
0°-180°	5317.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2662	2662	2662	2662	2662	
5°	2673	2665	2633	2654	2646	254
15°	2616	2593	2528	2511	2486	739
25°	2482	2416	2258	2154	2102	1143
35°	2240	2071	1766	1550	1480	1398
45°	1830	1527	1109	914	859	1409
55°	1255	918	589	477	447	1118
65°	675	470	294	238	224	673
75°	270	198	129	105	99	295
85°	55	47	33	28	26	64
90°	8	8	5	4	3	8
95°	12	7	4	2	2	9
105°	8	5	2	2	1	8
115°	4	3	2	1	1	4
125°	2	2	2	1	1	2
135°	1	2	2	2	1	1
145°	2	2	2	2	2	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	0
175°	2	2	2	3	3	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2661.7	2661.7	2661.7	2661.7	2661.7
2.5°	2677.0	2670.1	2639.6	2664.7	2657.1
5°	2673.1	2664.7	2632.7	2654.1	2646.4
7.5°	2665.5	2654.8	2618.9	2635.0	2625.0
10°	2653.3	2640.3	2596.0	2605.2	2589.2
12.5°	2636.5	2620.5	2567.8	2565.5	2546.4
15°	2615.9	2593.0	2528.1	2511.3	2486.1
17.5°	2590.7	2561.7	2480.7	2447.1	2416.6
20°	2558.6	2521.2	2419.7	2366.2	2330.3
22.5°	2522.0	2471.6	2348.6	2263.1	2224.2
25°	2481.5	2415.8	2257.8	2153.9	2102.0
27.5°	2431.1	2348.6	2152.4	2018.0	1964.6
30°	2375.4	2270.8	2044.0	1872.2	1818.7
32.5°	2312.0	2181.4	1905.8	1714.9	1640.1
35°	2239.5	2070.7	1766.1	1550.0	1479.7
37.5°	2157.8	1955.4	1598.8	1383.5	1312.5
40°	2059.3	1818.7	1429.3	1216.3	1149.9
42.5°	1953.1	1679.8	1266.7	1057.5	1000.2
45°	1830.2	1527.1	1108.7	914.0	859.0
47.5°	1711.9	1372.8	960.5	782.6	737.6
50°	1556.9	1208.7	820.8	662.8	625.3
52.5°	1405.7	1056.7	701.7	566.5	531.4
55°	1255.3	918.5	588.7	477.2	447.4
57.5°	1096.4	783.4	495.5	403.9	384.1
60°	943.7	666.6	417.7	339.0	323.0
62.5°	804.0	558.9	353.5	286.3	271.1
65°	675.0	469.6	294.0	238.2	224.5
67.5°	552.8	386.4	245.1	198.5	188.6
70°	445.9	313.1	202.3	163.4	154.2
72.5°	353.5	250.4	161.9	133.6	123.7
75°	270.3	198.5	129.0	105.4	99.3
77.5°	201.6	149.7	99.3	80.9	76.4
80°	141.3	108.4	74.1	61.1	57.3
82.5°	96.2	74.8	51.9	42.8	40.5
85°	55.0	46.6	32.8	27.5	26.0
87.5°	28.3	24.4	17.6	13.0	11.5
90°	7.6	7.6	4.6	3.8	3.1
92.5°	12.2	6.9	4.6	3.1	2.3
95°	11.5	6.9	3.8	2.3	2.3
97.5°	10.7	6.9	3.1	2.3	1.5
100°	9.9	6.1	3.1	1.5	1.5
102.5°	9.2	6.1	3.1	1.5	1.5
105°	7.6	5.3	2.3	1.5	0.8
107.5°	6.9	4.6	2.3	1.5	0.8
110°	5.3	3.8	2.3	1.5	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	3.8	1.5	1.5	0.8
115°	3.8	3.1	1.5	0.8	0.8
117.5°	3.1	2.3	1.5	0.8	0.8
120°	2.3	2.3	1.5	0.8	0.8
122.5°	2.3	1.5	1.5	0.8	0.8
125°	1.5	1.5	1.5	0.8	0.8
127.5°	1.5	1.5	1.5	0.8	0.8
130°	1.5	1.5	1.5	0.8	0.8
132.5°	1.5	1.5	1.5	1.5	0.8
135°	0.8	1.5	1.5	1.5	0.8
137.5°	1.5	1.5	1.5	1.5	1.5
140°	1.5	1.5	1.5	1.5	1.5
142.5°	1.5	1.5	1.5	1.5	1.5
145°	1.5	1.5	1.5	1.5	1.5
147.5°	1.5	1.5	1.5	1.5	1.5
150°	1.5	1.5	1.5	1.5	1.5
152.5°	1.5	1.5	1.5	1.5	1.5
155°	1.5	1.5	1.5	2.3	2.3
157.5°	1.5	1.5	2.3	2.3	2.3
160°	1.5	1.5	2.3	2.3	2.3
162.5°	1.5	1.5	2.3	2.3	2.3
165°	1.5	2.3	2.3	2.3	2.3
167.5°	1.5	2.3	2.3	2.3	3.1
170°	1.5	2.3	2.3	3.1	3.1
172.5°	1.5	2.3	2.3	3.1	3.1
175°	2.3	2.3	2.3	3.1	3.1
177.5°	2.3	2.3	2.3	3.1	3.1
180°	2.3	2.3	2.3	2.3	2.3



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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	21.83	23.27	22.20	23.59	23.91	16.68	18.11	17.05	18.43	18.76
	3H	23.14	24.42	23.53	24.76	25.13	17.69	18.97	18.07	19.31	19.68
	4H	23.57	24.77	23.97	25.12	25.51	18.02	19.22	18.43	19.58	19.97
	6H	23.83	24.94	24.25	25.31	25.71	18.25	19.35	18.67	19.73	20.13
	8H	23.90	24.95	24.34	25.35	25.76	18.32	19.37	18.75	19.76	20.17
	12H	23.94	24.95	24.38	25.34	25.77	18.36	19.36	18.80	19.75	20.19
4H	2H	21.83	23.03	22.24	23.39	23.77	17.30	18.50	17.71	18.85	19.24
	3H	23.30	24.29	23.71	24.69	25.10	18.50	19.48	18.91	19.89	20.30
	4H	23.82	24.71	24.26	25.13	25.58	18.91	19.80	19.35	20.22	20.67
	6H	24.20	24.97	24.66	25.42	25.89	19.22	19.99	19.69	20.44	20.91
	8H	24.31	25.03	24.78	25.48	25.95	19.32	20.03	19.79	20.48	20.96
	12H	24.39	25.02	24.88	25.51	25.99	19.39	20.03	19.88	20.51	20.99
8H	4H	23.80	24.52	24.27	24.97	25.45	19.25	19.96	19.72	20.41	20.89
	6H	24.24	24.83	24.74	25.32	25.81	19.64	20.23	20.14	20.73	21.21
	8H	24.39	24.92	24.91	25.44	25.94	19.78	20.31	20.30	20.83	21.33
	12H	24.52	24.99	25.04	25.49	26.06	19.90	20.37	20.42	20.87	21.45
12H	4H	23.78	24.41	24.26	24.90	25.38	19.29	19.93	19.78	20.42	20.90
	6H	24.20	24.73	24.72	25.25	25.75	19.71	20.24	20.23	20.75	21.25
	8H	24.39	24.86	24.91	25.36	25.93	19.90	20.37	20.41	20.87	21.44