

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: P894090

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894090
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-A-UNV-CC93-HI-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT, HI lumen setting
Light Source: -
Ballast/Driver: -

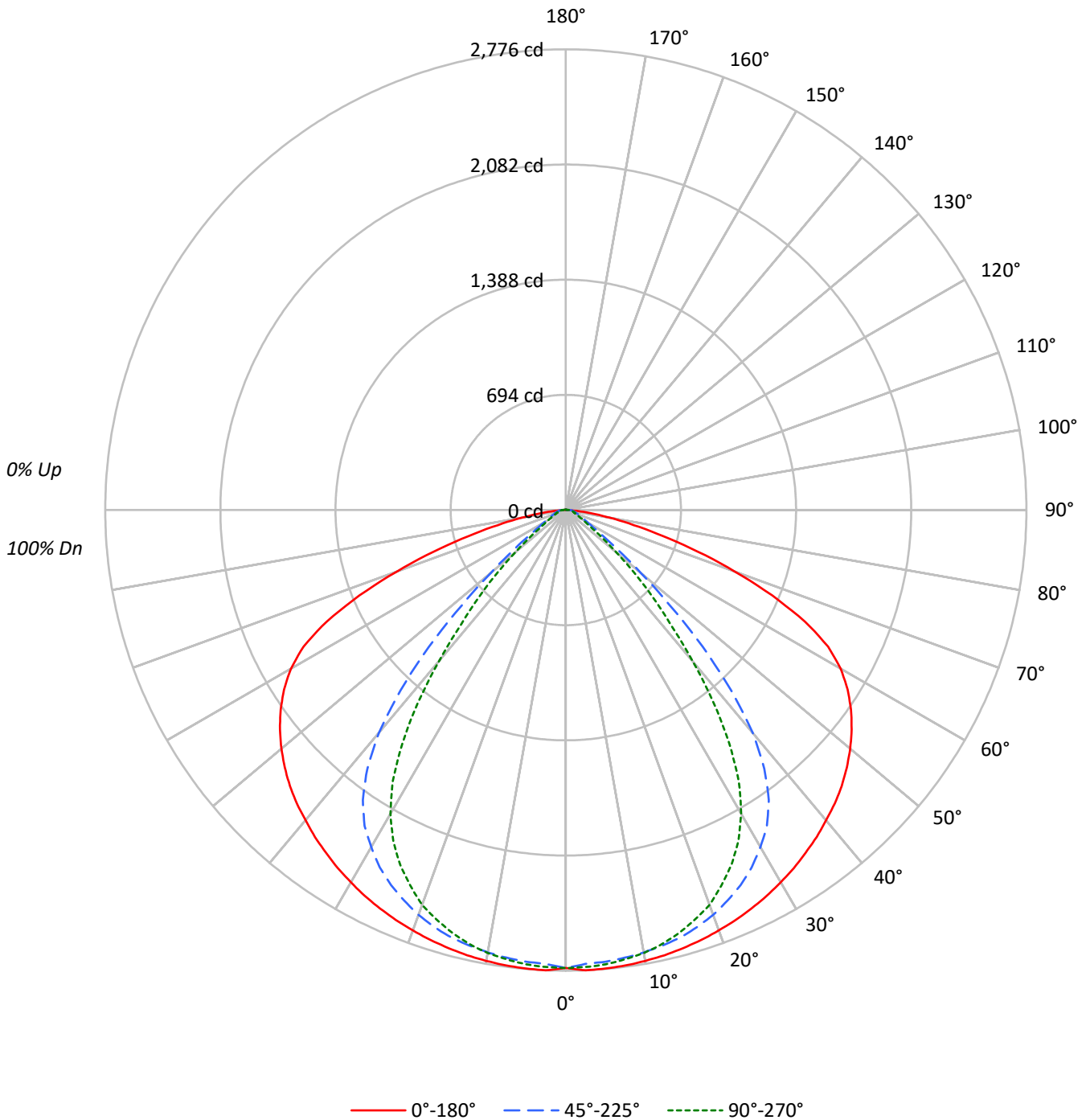
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5657.1 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
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	105	102	99	100	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28104	28104	28104
5°	28352	27931	28094
10°	28530	27993	28032
15°	28814	28113	27823
20°	29221	28137	27450
25°	29766	28015	26522
30°	30459	27577	24855
35°	31328	26515	21369
40°	32444	23288	15795
45°	33872	16805	10623
50°	35447	9387	6339
55°	37257	4854	3471
60°	38975	3157	2456
65°	38311	2595	1950
70°	32311	2388	1819
75°	23767	2436	1952
80°	15853	2868	2463
85°	8659	4639	3751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 39308 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.0	4.6
10°-20°	757.2	13.4
20°-30°	1151.9	20.4
30°-40°	1315.5	23.3
40°-50°	1061.3	18.8
50°-60°	580.9	10.3
60°-70°	306.3	5.4
70°-80°	150.2	2.7
80°-90°	52.9	0.9
90°-100°	11.4	0.2
100°-110°	1.6	0.0
110°-120°	1.0	0.0
120°-130°	0.9	0.0
130°-140°	0.9	0.0
140°-150°	1.1	0.0
150°-160°	1.0	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	2171.1	38.4
0°-40°	3486.6	61.6
0°-60°	5128.8	90.7
0°-90°	5638.2	99.7
90°-120°	13.9	0.2
90°-150°	16.8	0.3
90°-180°	19.0	0.3
0°-180°	5657.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2760	2760	2760	2760	2760	
5°	2773	2765	2732	2756	2748	264
15°	2733	2716	2666	2662	2639	773
25°	2649	2611	2493	2408	2360	1224
35°	2520	2414	2133	1842	1719	1581
45°	2352	2020	1167	797	738	1815
55°	2098	864	273	212	196	1872
65°	1590	199	108	87	81	1538
75°	604	112	62	52	50	667
85°	74	59	40	36	32	102
90°	3	30	24	21	20	5
95°	2	4	8	13	12	2
105°	1	0	1	2	2	1
115°	1	1	1	2	1	1
125°	1	1	1	2	1	1
135°	1	1	2	2	1	1
145°	2	2	2	2	2	1
155°	2	2	2	3	2	1
165°	2	2	3	3	3	0
175°	2	2	3	4	3	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2759.6	2759.6	2759.6	2759.6	2759.6
2.5°	2776.4	2768.8	2737.4	2764.2	2756.5
5°	2773.3	2764.9	2732.1	2756.5	2748.1
7.5°	2768.0	2757.3	2721.4	2743.6	2730.6
10°	2758.8	2748.1	2706.9	2724.5	2710.7
12.5°	2748.1	2733.6	2687.8	2697.0	2679.4
15°	2732.9	2716.1	2666.4	2661.9	2638.9
17.5°	2716.1	2695.4	2635.1	2615.3	2587.8
20°	2696.2	2671.0	2596.2	2557.2	2532.8
22.5°	2674.1	2641.2	2547.3	2487.8	2449.6
25°	2648.9	2610.7	2493.1	2408.3	2360.2
27.5°	2622.1	2570.2	2427.4	2315.9	2251.0
30°	2590.1	2527.5	2345.0	2194.5	2113.6
32.5°	2558.0	2474.0	2256.4	2038.0	1941.8
35°	2519.8	2413.7	2132.7	1842.5	1718.8
37.5°	2483.9	2341.1	1965.5	1597.4	1464.6
40°	2440.4	2255.6	1751.7	1315.7	1188.1
42.5°	2399.2	2156.4	1474.5	1043.8	933.1
45°	2351.8	2020.4	1166.8	797.2	737.6
47.5°	2296.9	1834.9	848.3	593.3	555.9
50°	2237.3	1579.9	592.5	430.7	400.1
52.5°	2171.6	1235.5	399.4	299.3	282.5
55°	2098.3	863.6	273.4	211.5	195.5
57.5°	2013.6	562.0	198.5	159.6	148.9
60°	1913.5	358.9	155.0	126.8	120.6
62.5°	1782.2	252.0	127.5	104.6	99.3
65°	1589.8	199.3	107.7	87.0	80.9
67.5°	1346.2	168.8	92.4	73.3	69.5
70°	1085.1	146.6	80.2	63.4	61.1
72.5°	833.8	128.3	69.5	56.5	55.0
75°	604.0	112.2	61.9	51.9	49.6
77.5°	418.4	97.0	55.0	46.6	45.1
80°	270.3	84.0	48.9	42.8	42.0
82.5°	155.0	70.2	44.3	41.2	40.5
85°	74.1	58.8	39.7	35.9	32.1
87.5°	23.7	43.5	31.3	27.5	24.4
90°	3.1	30.5	24.4	21.4	19.9
92.5°	3.1	16.8	17.6	17.6	16.8
95°	2.3	3.8	8.4	13.0	12.2
97.5°	2.3	1.5	5.3	9.2	9.2
100°	1.5	0.8	2.3	6.1	6.1
102.5°	1.5	0.8	0.8	3.8	3.8
105°	0.8	0.0	0.8	1.5	1.5
107.5°	0.8	0.8	0.8	1.5	0.8
110°	0.8	0.8	0.8	1.5	0.8



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CANDELA DISTRIBUTION (continued):

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



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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	21.50	22.89	21.87	23.22	23.54	10.01	11.41	10.38	11.73	12.05
	3H	24.41	25.65	24.79	25.99	26.36	10.95	12.19	11.33	12.53	12.90
	4H	25.30	26.46	25.71	26.82	27.21	11.46	12.63	11.87	12.98	13.37
	6H	25.80	26.87	26.22	27.24	27.64	12.10	13.17	12.52	13.55	13.95
	8H	25.91	26.92	26.34	27.32	27.73	12.52	13.53	12.95	13.93	14.34
	12H	25.95	26.92	26.39	27.31	27.75	12.97	13.94	13.40	14.33	14.77
4H	2H	21.31	22.47	21.72	22.83	23.22	10.53	11.69	10.94	12.05	12.44
	3H	24.24	25.20	24.66	25.60	26.02	11.72	12.68	12.14	13.09	13.50
	4H	25.14	26.00	25.58	26.42	26.87	12.39	13.24	12.83	13.67	14.12
	6H	25.74	26.48	26.20	26.93	27.40	13.21	13.95	13.68	14.41	14.88
	8H	25.90	26.59	26.37	27.04	27.52	13.74	14.44	14.22	14.89	15.37
	12H	25.99	26.60	26.48	27.09	27.57	14.32	14.94	14.81	15.43	15.91
8H	4H	25.03	25.73	25.51	26.18	26.66	12.98	13.67	13.45	14.13	14.60
	6H	25.63	26.20	26.14	26.70	27.19	13.99	14.56	14.49	15.06	15.54
	8H	25.82	26.33	26.34	26.85	27.35	14.66	15.17	15.18	15.69	16.19
	12H	25.97	26.42	26.48	26.92	27.50	15.43	15.88	15.94	16.38	16.96
12H	4H	24.99	25.61	25.48	26.10	26.58	13.24	13.86	13.73	14.34	14.82
	6H	25.58	26.10	26.11	26.61	27.11	14.30	14.81	14.82	15.33	15.83
	8H	25.80	26.25	26.32	26.75	27.33	15.06	15.51	15.58	16.01	16.59