

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: P894091

Luminaire Tested: 4MB-SC3-A-UNV-CC93-HI-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894091
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-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 4000K CCT, HI lumen setting
Light Source: -
Ballast/Driver: -

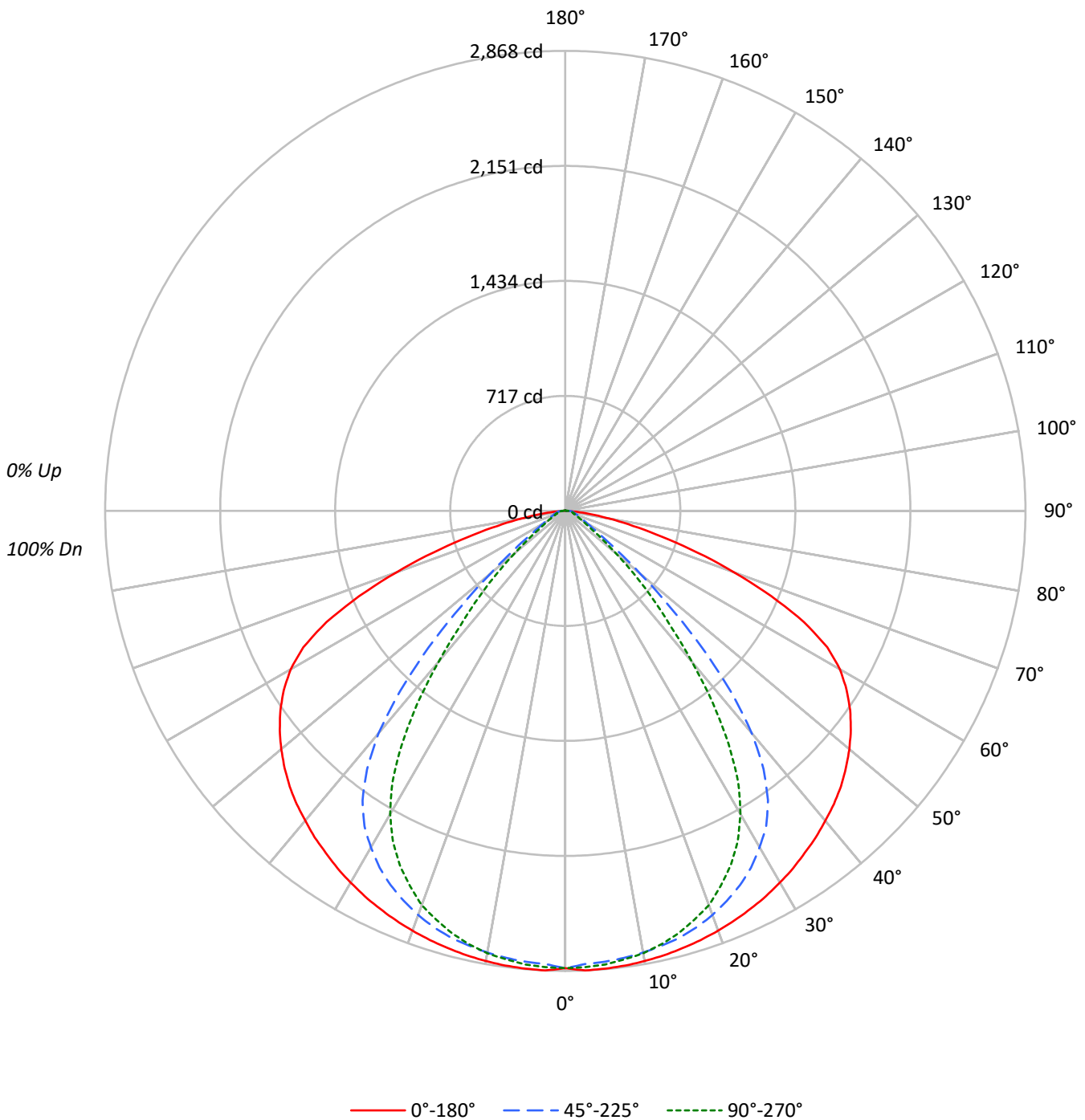
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5843.1 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 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°	29028	29028	29028
5°	29284	28849	29018
10°	29468	28913	28954
15°	29761	29038	28738
20°	30182	29062	28353
25°	30745	28936	27394
30°	31460	28483	25673
35°	32358	27387	22072
40°	33512	24054	16315
45°	34987	17357	10973
50°	36613	9696	6548
55°	38482	5014	3585
60°	40258	3261	2538
65°	39571	2680	2015
70°	33371	2466	1879
75°	24550	2514	2019
80°	16375	2962	2545
85°	8939	4791	3868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 40600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.6	4.6
10°-20°	782.1	13.4
20°-30°	1189.7	20.4
30°-40°	1358.7	23.3
40°-50°	1096.2	18.8
50°-60°	600.0	10.3
60°-70°	316.4	5.4
70°-80°	155.1	2.7
80°-90°	54.7	0.9
90°-100°	11.8	0.2
100°-110°	1.6	0.0
110°-120°	1.0	0.0
120°-130°	0.9	0.0
130°-140°	1.0	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°	2242.5	38.4
0°-40°	3601.2	61.6
0°-60°	5297.4	90.7
0°-90°	5823.6	99.7
90°-120°	14.4	0.2
90°-150°	17.4	0.3
90°-180°	20.0	0.3
0°-180°	5843.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2850	2850	2850	2850	2850	
5°	2864	2856	2822	2847	2838	273
15°	2823	2805	2754	2749	2726	799
25°	2736	2696	2575	2488	2438	1264
35°	2603	2493	2203	1903	1775	1633
45°	2429	2087	1205	823	762	1875
55°	2167	892	282	218	202	1934
65°	1642	206	111	90	84	1588
75°	624	116	64	54	51	689
85°	76	61	41	37	33	106
90°	3	32	25	22	20	5
95°	2	4	9	13	13	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	1
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°	2850.3	2850.3	2850.3	2850.3	2850.3
2.5°	2867.7	2859.8	2827.5	2855.1	2847.2
5°	2864.5	2855.8	2821.9	2847.2	2838.5
7.5°	2859.0	2848.0	2810.9	2833.8	2820.4
10°	2849.5	2838.5	2795.9	2814.0	2799.8
12.5°	2838.5	2823.5	2776.2	2785.7	2767.5
15°	2822.7	2805.4	2754.1	2749.4	2725.7
17.5°	2805.4	2784.1	2721.8	2701.3	2672.9
20°	2784.9	2758.8	2681.5	2641.3	2616.1
22.5°	2762.0	2728.1	2631.1	2569.6	2530.1
25°	2736.0	2696.5	2575.1	2487.5	2437.8
27.5°	2708.4	2654.7	2507.2	2392.1	2325.1
30°	2675.2	2610.6	2422.1	2266.7	2183.1
32.5°	2642.1	2555.4	2330.6	2105.0	2005.6
35°	2602.7	2493.0	2202.8	1903.1	1775.3
37.5°	2565.6	2418.1	2030.1	1649.9	1512.7
40°	2520.7	2329.8	1809.3	1358.9	1227.2
42.5°	2478.1	2227.3	1523.0	1078.1	963.8
45°	2429.2	2086.9	1205.1	823.4	761.9
47.5°	2372.4	1895.2	876.2	612.8	574.2
50°	2310.9	1631.8	612.0	444.8	413.3
52.5°	2243.0	1276.1	412.5	309.2	291.8
55°	2167.3	892.0	282.4	218.5	201.9
57.5°	2079.8	580.5	205.1	164.8	153.8
60°	1976.5	370.7	160.1	130.9	124.6
62.5°	1840.8	260.3	131.7	108.1	102.5
65°	1642.1	205.8	111.2	89.9	83.6
67.5°	1390.5	174.3	95.4	75.7	71.8
70°	1120.7	151.4	82.8	65.5	63.1
72.5°	861.2	132.5	71.8	58.4	56.8
75°	623.9	115.9	63.9	53.6	51.3
77.5°	432.2	100.2	56.8	48.1	46.5
80°	279.2	86.8	50.5	44.2	43.4
82.5°	160.1	72.6	45.7	42.6	41.8
85°	76.5	60.7	41.0	37.1	33.1
87.5°	24.4	45.0	32.3	28.4	25.2
90°	3.2	31.5	25.2	22.1	20.5
92.5°	3.2	17.4	18.1	18.1	17.4
95°	2.4	3.9	8.7	13.4	12.6
97.5°	2.4	1.6	5.5	9.5	9.5
100°	1.6	0.8	2.4	6.3	6.3
102.5°	1.6	0.8	0.8	3.9	3.9
105°	0.8	0.0	0.8	1.6	1.6
107.5°	0.8	0.8	0.8	1.6	0.8
110°	0.8	0.8	0.8	1.6	0.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.8	0.8	0.8	1.6	0.8
115°	0.8	0.8	0.8	1.6	0.8
117.5°	0.8	0.8	0.8	1.6	0.8
120°	0.8	0.8	0.8	1.6	0.8
122.5°	0.8	0.8	0.8	1.6	0.8
125°	0.8	0.8	0.8	1.6	0.8
127.5°	0.8	0.8	0.8	1.6	0.8
130°	0.8	0.8	1.6	1.6	0.8
132.5°	0.8	0.8	1.6	1.6	0.8
135°	0.8	0.8	1.6	1.6	0.8
137.5°	0.8	0.8	1.6	1.6	1.6
140°	1.6	0.8	1.6	1.6	1.6
142.5°	1.6	1.6	1.6	2.4	1.6
145°	1.6	1.6	1.6	2.4	1.6
147.5°	1.6	1.6	2.4	2.4	1.6
150°	1.6	1.6	2.4	2.4	1.6
152.5°	1.6	1.6	2.4	2.4	2.4
155°	1.6	1.6	2.4	3.2	2.4
157.5°	1.6	1.6	2.4	3.2	2.4
160°	1.6	2.4	3.2	3.2	2.4
162.5°	1.6	2.4	3.2	3.2	3.2
165°	1.6	2.4	3.2	3.2	3.2
167.5°	2.4	2.4	3.2	3.9	3.2
170°	2.4	2.4	3.2	3.9	3.2
172.5°	2.4	2.4	3.2	3.9	3.2
175°	2.4	2.4	3.2	3.9	3.2
177.5°	2.4	2.4	3.2	3.9	3.9
180°	3.2	3.2	3.2	3.2	3.2



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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	21.61	23.01	21.98	23.33	23.65	10.12	11.52	10.49	11.84	12.17
	3H	24.52	25.76	24.90	26.10	26.47	11.06	12.30	11.44	12.64	13.01
	4H	25.41	26.57	25.82	26.93	27.32	11.58	12.74	11.98	13.10	13.49
	6H	25.91	26.98	26.33	27.36	27.76	12.21	13.28	12.63	13.66	14.06
	8H	26.02	27.04	26.46	27.43	27.85	12.63	13.64	13.06	14.04	14.45
	12H	26.06	27.04	26.50	27.43	27.86	13.08	14.05	13.51	14.44	14.88
4H	2H	21.42	22.59	21.83	22.94	23.33	10.64	11.80	11.05	12.16	12.55
	3H	24.35	25.31	24.77	25.72	26.13	11.83	12.79	12.25	13.20	13.61
	4H	25.25	26.11	25.69	26.53	26.98	12.50	13.36	12.94	13.78	14.23
	6H	25.85	26.59	26.31	27.04	27.51	13.32	14.06	13.79	14.52	14.99
	8H	26.01	26.70	26.48	27.15	27.63	13.86	14.55	14.33	15.00	15.48
	12H	26.10	26.72	26.59	27.20	27.68	14.43	15.05	14.93	15.54	16.02
8H	4H	25.15	25.84	25.62	26.29	26.77	13.09	13.78	13.56	14.24	14.71
	6H	25.74	26.32	26.25	26.82	27.30	14.10	14.67	14.60	15.17	15.66
	8H	25.93	26.45	26.46	26.97	27.46	14.77	15.29	15.30	15.80	16.30
	12H	26.08	26.53	26.60	27.03	27.61	15.54	15.99	16.06	16.49	17.07
12H	4H	25.11	25.72	25.60	26.21	26.69	13.35	13.97	13.84	14.46	14.94
	6H	25.69	26.21	26.22	26.73	27.23	14.41	14.92	14.93	15.44	15.94
	8H	25.91	26.37	26.43	26.87	27.44	15.17	15.63	15.69	16.13	16.70