

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: P894830

Luminaire Tested: 8TMB-18HL-RND-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894830
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-18HL-RND-UNV-L835
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

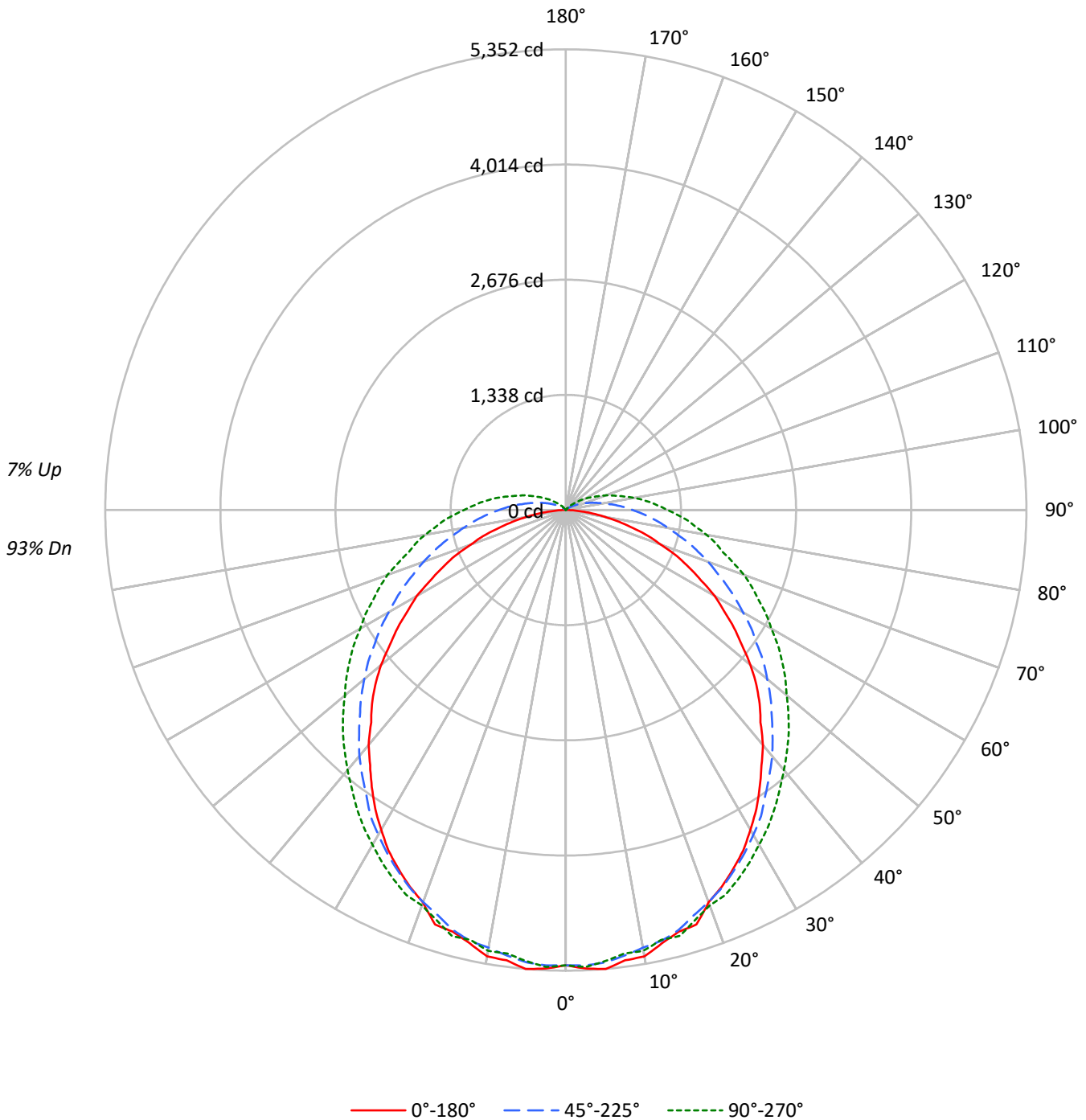
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17421.0 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 134.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.62
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18766	18766	18766
5°	19061	18786	18734
10°	18968	18602	18733
15°	18628	18566	18814
20°	18317	18298	18453
25°	18016	18091	18536
30°	17575	17852	18398
35°	17019	17512	18329
40°	16507	17280	18266
45°	15989	16972	18380
50°	15465	16867	18497
55°	14757	16747	18977
60°	14181	16860	19572
65°	13244	17307	20760
70°	12173	18272	22865
75°	11045	20233	25904
80°	9491	24718	33962
85°	7682	39990	58114

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 105486 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	501.4	2.9
10°-20°	1427.5	8.2
20°-30°	2139.1	12.3
30°-40°	2542.0	14.6
40°-50°	2631.7	15.1
50°-60°	2438.8	14.0
60°-70°	2030.4	11.7
70°-80°	1507.0	8.7
80°-90°	996.8	5.7
90°-100°	606.5	3.5
100°-110°	340.0	2.0
110°-120°	167.4	1.0
120°-130°	68.1	0.4
130°-140°	19.7	0.1
140°-150°	2.8	0.0
150°-160°	0.7	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	4068.0	23.4
0°-40°	6610.1	37.9
0°-60°	11680.6	67.0
0°-90°	16214.8	93.1
90°-120°	1114.0	6.4
90°-150°	1204.7	6.9
90°-180°	1206.0	6.9
0°-180°	17421.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5289	5289	5289	5289	5289	
5°	5352	5294	5274	5301	5260	506
15°	5071	5052	5054	5061	5122	1436
25°	4602	4597	4621	4711	4735	2118
35°	3929	3958	4043	4171	4232	2458
45°	3186	3232	3382	3593	3663	2455
55°	2386	2487	2707	2978	3068	2133
65°	1578	1725	2061	2364	2473	1567
75°	806	1050	1476	1793	1890	862
85°	189	530	982	1331	1428	212
90°	10	344	777	1086	1183	14
95°	2	213	602	898	997	2
105°	2	70	327	554	632	3
115°	2	17	152	305	365	2
125°	2	5	56	140	179	2
135°	5	2	14	46	63	3
145°	5	2	0	5	7	3
155°	5	5	0	0	0	2
165°	7	5	0	0	0	2
175°	7	5	0	0	0	1
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5288.9	5288.9	5288.9	5288.9	5288.9
2.5°	5332.4	5305.8	5296.1	5284.0	5313.1
5°	5351.8	5293.7	5274.4	5301.0	5259.8
7.5°	5276.8	5262.3	5221.1	5235.6	5196.9
10°	5264.7	5184.8	5163.1	5211.4	5199.4
12.5°	5155.8	5088.1	5126.8	5160.6	5114.7
15°	5071.1	5051.8	5054.2	5061.4	5121.9
17.5°	5049.3	4962.2	4938.1	4998.5	4993.7
20°	4851.0	4834.0	4846.1	4926.0	4887.2
22.5°	4734.8	4681.6	4746.9	4824.3	4841.3
25°	4601.8	4596.9	4621.1	4710.6	4734.8
27.5°	4461.4	4430.0	4495.3	4599.3	4618.7
30°	4289.6	4277.5	4357.4	4446.9	4490.5
32.5°	4120.3	4127.5	4219.5	4294.5	4369.5
35°	3929.2	3958.2	4042.9	4171.1	4231.6
37.5°	3735.6	3771.9	3885.6	4033.2	4084.0
40°	3563.8	3571.1	3730.8	3880.8	3943.7
42.5°	3348.5	3421.1	3556.6	3755.0	3803.3
45°	3186.4	3232.4	3382.4	3592.9	3663.0
47.5°	3002.5	3055.7	3227.5	3433.2	3508.2
50°	2801.7	2850.1	3055.7	3290.4	3350.9
52.5°	2579.1	2678.3	2893.6	3135.6	3215.4
55°	2385.6	2487.2	2707.3	2978.3	3067.8
57.5°	2177.5	2279.1	2554.9	2806.5	2922.7
60°	1998.4	2095.2	2375.9	2688.0	2758.1
62.5°	1775.9	1913.8	2218.6	2525.9	2625.1
65°	1577.5	1725.1	2061.4	2363.8	2472.7
67.5°	1396.0	1548.4	1899.3	2223.5	2342.0
70°	1173.4	1374.2	1761.3	2080.7	2204.1
72.5°	1008.9	1209.7	1613.8	1930.7	2042.0
75°	805.7	1050.0	1475.9	1792.8	1889.6
77.5°	636.3	900.0	1333.1	1688.8	1785.5
80°	464.5	764.5	1209.7	1550.9	1662.1
82.5°	316.9	638.7	1096.0	1422.6	1529.1
85°	188.7	529.9	982.3	1330.7	1427.5
87.5°	82.3	433.1	878.3	1197.6	1296.8
90°	9.7	343.6	776.6	1086.3	1183.1
92.5°	2.4	275.8	687.1	987.1	1081.5
95°	2.4	212.9	602.4	897.6	996.8
97.5°	2.4	164.5	517.8	805.7	900.0
100°	2.4	125.8	447.6	708.9	810.5
102.5°	2.4	94.4	379.9	629.1	716.2
105°	2.4	70.2	326.6	554.0	631.5
107.5°	2.4	50.8	273.4	483.9	561.3
110°	2.4	36.3	229.8	418.6	496.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.4	26.6	186.3	360.5	425.8
115°	2.4	16.9	152.4	304.8	365.3
117.5°	2.4	12.1	121.0	256.5	314.5
120°	2.4	9.7	96.8	212.9	263.7
122.5°	2.4	7.3	75.0	174.2	222.6
125°	2.4	4.8	55.6	140.3	179.0
127.5°	2.4	4.8	41.1	111.3	145.2
130°	2.4	2.4	29.0	84.7	113.7
132.5°	2.4	2.4	19.4	62.9	84.7
135°	4.8	2.4	14.5	46.0	62.9
137.5°	4.8	2.4	9.7	31.5	43.5
140°	4.8	2.4	4.8	19.4	26.6
142.5°	4.8	2.4	2.4	9.7	14.5
145°	4.8	2.4	0.0	4.8	7.3
147.5°	4.8	2.4	0.0	2.4	2.4
150°	4.8	2.4	0.0	0.0	0.0
152.5°	4.8	2.4	0.0	0.0	0.0
155°	4.8	4.8	0.0	0.0	0.0
157.5°	4.8	4.8	0.0	0.0	0.0
160°	4.8	4.8	0.0	0.0	0.0
162.5°	4.8	4.8	0.0	0.0	0.0
165°	7.3	4.8	0.0	0.0	0.0
167.5°	7.3	4.8	0.0	0.0	0.0
170°	7.3	4.8	0.0	0.0	0.0
172.5°	7.3	4.8	0.0	0.0	0.0
175°	7.3	4.8	0.0	0.0	0.0
177.5°	7.3	4.8	0.0	0.0	0.0
180°	2.4	2.4	2.4	2.4	2.4



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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	20.42	21.95	20.88	22.41	22.89	21.99	23.53	22.46	23.98	24.46
	3H	22.18	23.58	22.66	24.05	24.57	24.58	25.98	25.06	26.44	26.97
	4H	22.84	24.17	23.34	24.65	25.19	25.83	27.16	26.33	27.65	28.18
	6H	23.31	24.55	23.83	25.05	25.60	27.22	28.46	27.73	28.95	29.50
	8H	23.46	24.65	23.99	25.17	25.73	27.95	29.13	28.47	29.65	30.21
	12H	23.56	24.70	24.10	25.22	25.81	28.79	29.93	29.32	30.44	31.03
4H	2H	21.37	22.70	21.87	23.18	23.72	22.56	23.89	23.06	24.37	24.91
	3H	23.41	24.55	23.93	25.07	25.63	25.43	26.57	25.94	27.09	27.65
	4H	24.22	25.27	24.76	25.80	26.39	26.91	27.95	27.44	28.48	29.08
	6H	24.88	25.80	25.43	26.36	26.96	28.53	29.45	29.08	30.01	30.62
	8H	25.10	25.97	25.66	26.53	27.15	29.38	30.25	29.94	30.81	31.43
	12H	25.27	26.06	25.85	26.65	27.27	30.38	31.16	30.96	31.75	32.38
8H	4H	25.07	25.94	25.63	26.50	27.12	27.28	28.14	27.84	28.71	29.33
	6H	26.00	26.73	26.59	27.34	27.96	29.16	29.89	29.75	30.50	31.12
	8H	26.38	27.04	26.98	27.66	28.30	30.22	30.88	30.82	31.50	32.13
	12H	26.70	27.29	27.31	27.90	28.60	31.47	32.07	32.08	32.67	33.37
12H	4H	25.34	26.12	25.92	26.71	27.34	27.32	28.11	27.90	28.70	29.32
	6H	26.42	27.09	27.02	27.70	28.34	29.27	29.93	29.87	30.55	31.18
	8H	26.96	27.56	27.57	28.16	28.86	30.44	31.04	31.05	31.64	32.34