

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: P894789

Luminaire Tested: 8TMB-18HL-FLTU-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-18HL-FLTU-UNV-L830
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 30
Light Source: -
Ballast/Driver: -

Summary

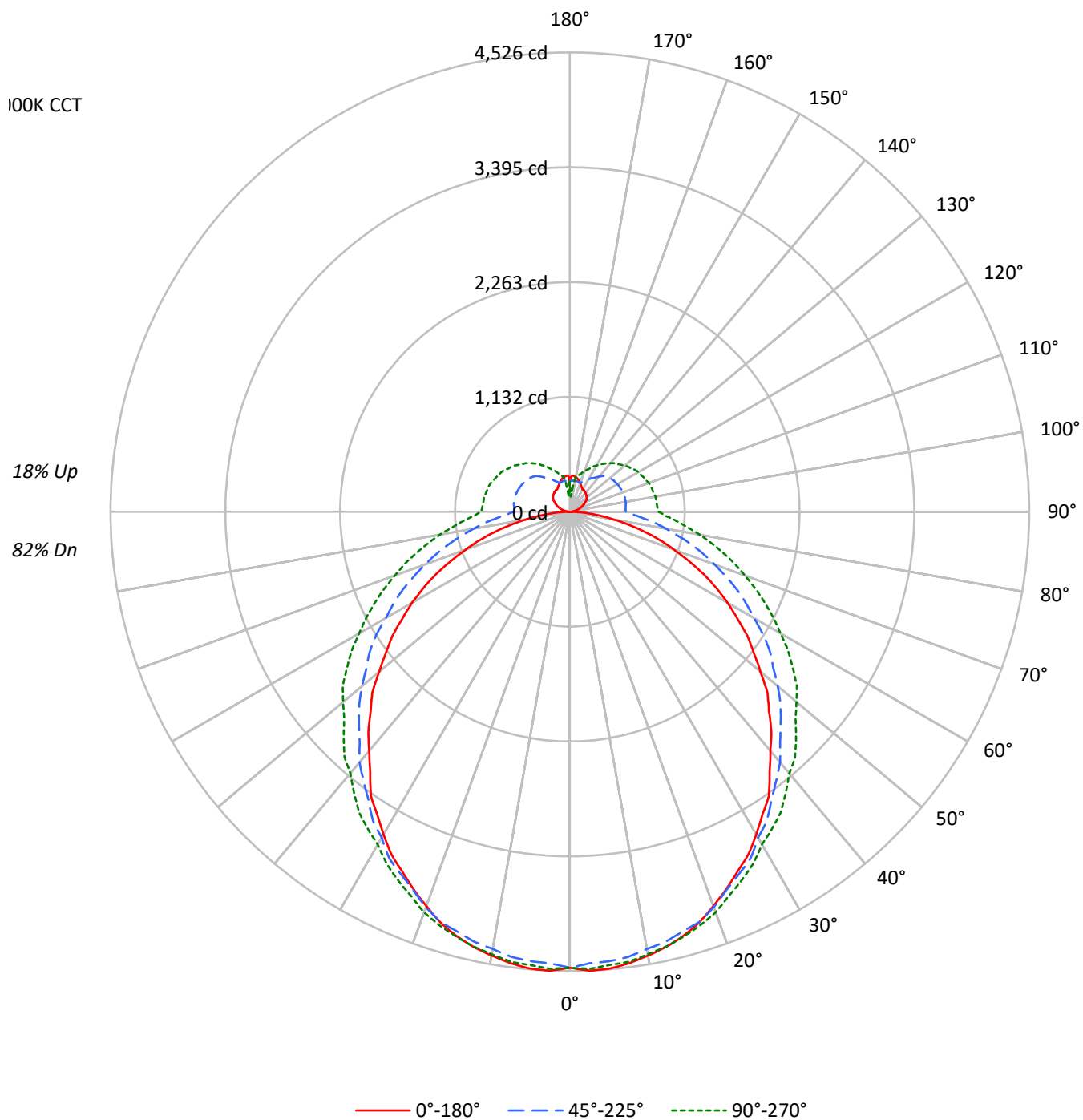
Lumens per Lamp: N/A
Luminaire Lumens: 16892.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 7.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 134.8
Input Voltage (V): 120
Input Current (A_{in}): 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	115	115	115	115	110	110	110	110	101	101	101		93	93	93		86
1	103	98	93	89	99	94	90	86	87	83	80		80	77	74		73
2	93	85	77	71	89	81	75	69	75	70	65		69	65	61		63
3	85	74	66	59	81	71	63	57	66	59	54		60	55	51		56
4	78	65	56	49	74	63	55	48	58	51	46		54	48	43		50
5	71	58	49	42	68	56	48	41	52	45	39		48	42	37		44
6	66	52	43	37	63	50	42	36	47	40	34		43	37	33		40
7	61	47	38	32	58	46	37	32	42	35	30		39	33	29		37
8	56	43	34	29	54	42	34	28	39	32	27		36	30	26		34
9	53	39	31	26	50	38	30	25	36	29	24		33	27	23		31
10	49	36	28	23	47	35	28	23	33	26	22		31	25	21		29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15942	15942	15942
5°	16060	15290	15239
10°	15926	14706	14542
15°	15780	14189	13879
20°	15466	13643	13220
25°	15126	12967	12492
30°	14820	12307	11785
35°	14543	11676	11330
40°	13937	11135	10673
45°	13566	10489	10216
50°	13126	9948	9734
55°	12742	9433	9304
60°	12189	8724	8727
65°	11559	8155	8183
70°	10584	7447	7592
75°	9574	6741	7030
80°	7861	5968	6461
85°	5913	5222	5928

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13566 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.6	2.5
10°-20°	1215.3	7.2
20°-30°	1825.6	10.8
30°-40°	2188.0	13.0
40°-50°	2294.0	13.6
50°-60°	2152.0	12.7
60°-70°	1787.4	10.6
70°-80°	1278.0	7.6
80°-90°	757.9	4.5
90°-100°	556.0	3.3
100°-110°	547.8	3.2
110°-120°	511.0	3.0
120°-130°	448.4	2.7
130°-140°	361.1	2.1
140°-150°	259.2	1.5
150°-160°	164.7	1.0
160°-170°	91.3	0.5
170°-180°	28.7	0.2
0°-30°	3466.6	20.5
0°-40°	5654.6	33.5
0°-60°	10100.6	59.8
0°-90°	13923.9	82.4
90°-120°	1614.8	9.6
90°-150°	2683.4	15.9
90°-180°	2968.0	17.6
0°-180°	16892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4493	4493	4493	4493	4493	
5°	4519	4510	4445	4467	4484	429
15°	4326	4300	4283	4314	4333	1218
25°	3911	3946	3939	3985	4006	1805
35°	3419	3431	3462	3562	3619	2122
45°	2774	2853	2939	3132	3151	2146
55°	2137	2206	2409	2605	2681	1901
65°	1454	1564	1817	2060	2120	1433
75°	766	943	1237	1492	1561	810
85°	189	413	723	967	1058	207
90°	7	251	552	788	874	15
95°	22	263	552	778	860	22
105°	76	289	561	769	840	81
115°	138	313	549	731	802	137
125°	198	322	532	678	740	174
135°	229	310	494	614	664	178
145°	248	286	406	540	578	156
155°	272	286	332	418	473	126
165°	325	315	306	303	380	91
175°	358	344	308	256	155	33
180°	296	296	296	296	296	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4493.1	4493.1	4493.1	4493.1	4493.1
2.5°	4526.5	4490.7	4452.5	4509.8	4507.4
5°	4519.4	4509.8	4445.4	4466.9	4483.6
7.5°	4486.0	4462.1	4423.9	4476.4	4471.6
10°	4440.6	4412.0	4373.8	4404.8	4426.3
12.5°	4390.5	4366.6	4340.3	4373.8	4388.1
15°	4326.0	4299.7	4283.0	4314.1	4333.2
17.5°	4242.4	4235.3	4237.7	4240.1	4271.1
20°	4135.0	4139.8	4146.9	4189.9	4199.5
22.5°	4025.2	4051.5	4032.4	4099.2	4094.4
25°	3910.6	3946.4	3939.2	3984.6	4006.1
27.5°	3807.9	3810.3	3853.3	3917.8	3910.6
30°	3671.9	3712.4	3707.7	3786.4	3786.4
32.5°	3533.4	3593.1	3612.2	3681.4	3705.3
35°	3418.8	3430.7	3461.8	3562.0	3619.3
37.5°	3232.6	3289.9	3340.0	3471.3	3492.8
40°	3075.0	3132.3	3223.0	3375.8	3363.9
42.5°	2938.9	2998.6	3065.4	3242.1	3285.1
45°	2774.2	2853.0	2938.9	3132.3	3151.4
47.5°	2640.5	2702.6	2814.8	2991.4	3015.3
50°	2451.9	2552.2	2673.9	2879.2	2915.0
52.5°	2284.8	2370.7	2525.9	2738.4	2819.5
55°	2136.7	2206.0	2408.9	2604.7	2681.1
57.5°	1955.3	2050.8	2263.3	2480.5	2549.8
60°	1795.3	1888.4	2093.8	2342.1	2397.0
62.5°	1625.8	1735.7	1957.7	2198.8	2260.9
65°	1453.9	1563.8	1816.8	2060.3	2120.0
67.5°	1267.7	1403.8	1661.6	1914.7	1976.8
70°	1093.4	1241.5	1518.4	1771.5	1833.5
72.5°	935.9	1095.8	1377.5	1637.8	1704.6
75°	766.4	943.0	1236.7	1492.1	1561.4
77.5°	601.6	792.6	1091.1	1348.9	1430.1
80°	441.7	651.8	964.5	1212.8	1298.8
82.5°	310.4	525.2	847.5	1091.1	1169.8
85°	188.6	413.0	723.4	966.9	1057.6
87.5°	83.6	319.9	625.5	866.6	947.8
90°	7.2	250.7	551.5	787.8	873.8
92.5°	14.3	255.5	549.1	778.3	864.2
95°	21.5	262.6	551.5	778.3	859.5
97.5°	31.0	272.2	556.3	778.3	857.1
100°	45.4	276.9	558.7	778.3	857.1
102.5°	59.7	284.1	556.3	766.4	847.5
105°	76.4	288.9	561.0	768.7	840.4
107.5°	93.1	293.7	561.0	756.8	838.0
110°	109.8	300.8	556.3	749.6	828.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	124.1	308.0	553.9	735.3	811.7
115°	138.5	312.8	549.1	730.6	802.2
117.5°	152.8	315.1	546.7	718.6	787.8
120°	164.7	319.9	541.9	704.3	780.7
122.5°	179.1	322.3	534.8	690.0	766.4
125°	198.2	322.3	532.4	678.0	740.1
127.5°	207.7	324.7	522.8	663.7	728.2
130°	217.3	317.5	518.1	647.0	709.1
132.5°	224.4	315.1	506.1	630.3	685.2
135°	229.2	310.4	494.2	613.6	663.7
137.5°	236.4	303.2	477.5	601.6	649.4
140°	241.1	298.4	453.6	577.8	625.5
142.5°	245.9	291.3	429.7	556.3	601.6
145°	248.3	286.5	405.9	539.6	577.8
147.5°	255.5	279.3	391.5	518.1	551.5
150°	253.1	274.6	370.0	491.8	525.2
152.5°	260.2	281.7	351.0	456.0	503.7
155°	272.2	286.5	331.9	417.8	472.7
157.5°	284.1	296.0	317.5	384.4	448.8
160°	300.8	300.8	300.8	358.1	429.7
162.5°	310.4	310.4	303.2	327.1	403.5
165°	324.7	315.1	305.6	303.2	379.6
167.5°	339.0	319.9	310.4	293.7	362.9
170°	341.4	327.1	308.0	276.9	351.0
172.5°	351.0	334.2	305.6	262.6	272.2
175°	358.1	343.8	308.0	255.5	155.2
177.5°	355.7	343.8	315.1	255.5	150.4
180°	296.0	296.0	296.0	296.0	296.0

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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	17.37	18.69	17.98	19.32	20.04	19.96	21.28	20.57	21.91	22.63
	3H	18.80	20.00	19.42	20.64	21.39	22.36	23.56	22.98	24.20	24.95
	4H	19.26	20.41	19.91	21.06	21.82	23.50	24.64	24.14	25.29	26.05
	6H	19.53	20.59	20.19	21.25	22.03	24.66	25.72	25.31	26.38	27.16
	8H	19.58	20.60	20.25	21.28	22.06	25.24	26.25	25.91	26.94	27.72
	12H	19.60	20.57	20.27	21.25	22.06	25.87	26.84	26.55	27.52	28.33
4H	2H	18.25	19.40	18.90	20.05	20.81	20.30	21.44	20.95	22.09	22.85
	3H	19.91	20.88	20.57	21.56	22.35	22.91	23.88	23.57	24.57	25.35
	4H	20.49	21.38	21.16	22.07	22.88	24.21	25.10	24.89	25.79	26.60
	6H	20.86	21.64	21.56	22.36	23.18	25.54	26.32	26.23	27.04	27.86
	8H	20.95	21.69	21.65	22.40	23.24	26.22	26.95	26.92	27.66	28.50
	12H	20.99	21.66	21.72	22.40	23.24	26.96	27.62	27.68	28.36	29.20
8H	4H	21.13	21.86	21.83	22.58	23.41	24.36	25.10	25.06	25.81	26.64
	6H	21.66	22.28	22.39	23.04	23.87	25.83	26.45	26.56	27.21	28.05
	8H	21.83	22.39	22.57	23.14	24.00	26.63	27.19	27.37	27.95	28.80
	12H	21.93	22.43	22.68	23.18	24.09	27.53	28.03	28.27	28.78	29.69
12H	4H	21.29	21.96	22.01	22.70	23.53	24.35	25.02	25.07	25.76	26.60
	6H	21.91	22.47	22.66	23.23	24.08	25.85	26.41	26.59	27.17	28.02
	8H	22.16	22.66	22.91	23.41	24.32	26.70	27.20	27.45	27.95	28.86