

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: P894877

Luminaire Tested: 8TMB-20HL-FLT-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894877
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-FLT-UNV-L830
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

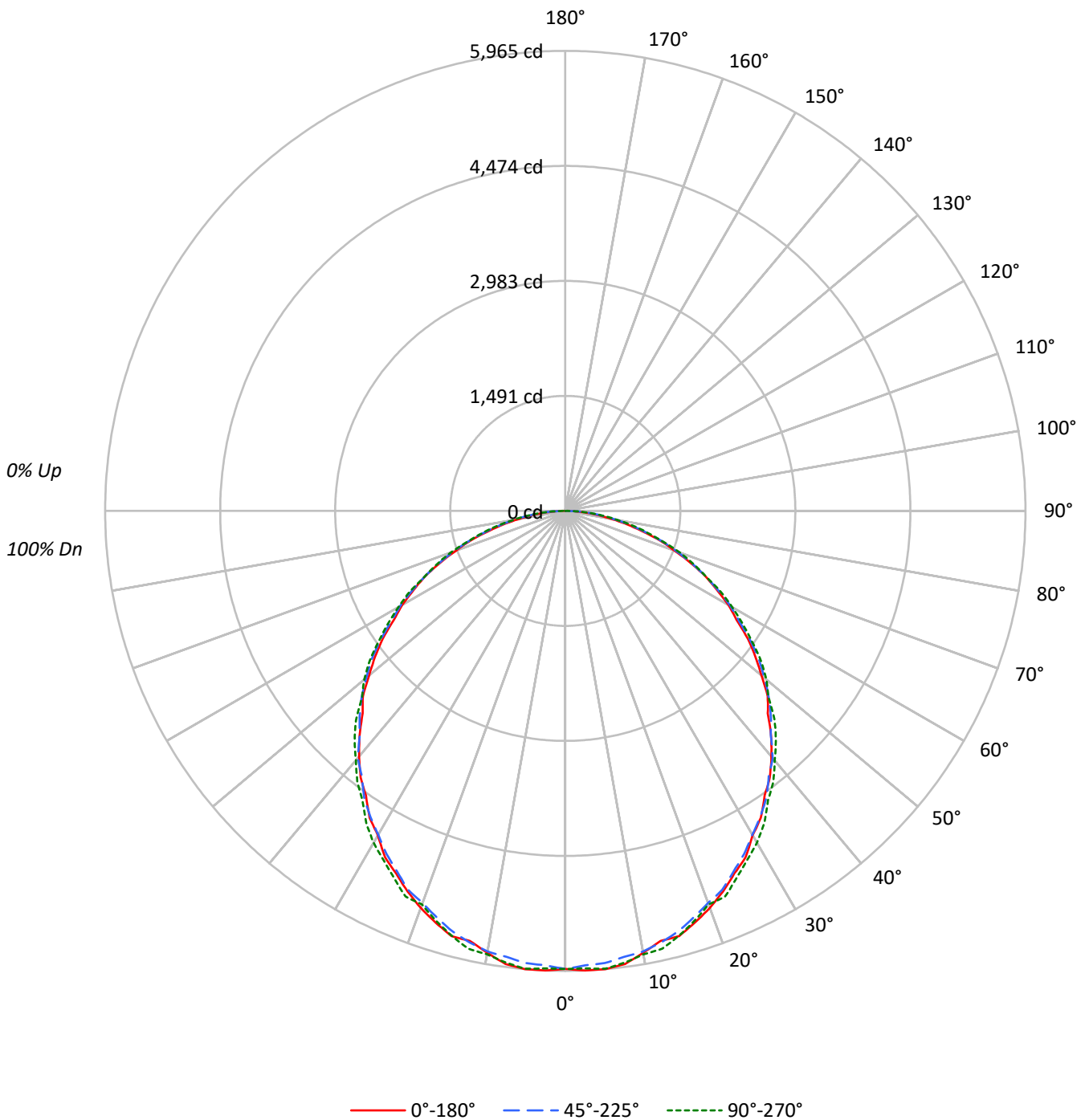
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16457.0 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 145
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.79
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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21074	21074	21074
5°	21246	20962	21227
10°	20955	20900	21038
15°	20959	20743	20941
20°	20683	20431	20508
25°	20310	20199	20560
30°	19898	19867	20361
35°	19514	19681	19848
40°	19251	19370	19560
45°	18628	18912	19259
50°	18326	18595	18779
55°	17871	18093	18283
60°	17314	17569	17733
65°	16801	16866	16866
70°	15623	15996	16395
75°	14385	14948	15265
80°	12687	13788	14258
85°	11387	12742	13683

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 19259 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	562.2	3.4
10°-20°	1602.2	9.7
20°-30°	2403.1	14.6
30°-40°	2854.1	17.3
40°-50°	2922.2	17.8
50°-60°	2618.1	15.9
60°-70°	1988.9	12.1
70°-80°	1158.4	7.0
80°-90°	347.9	2.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4567.4	27.8
0°-40°	7421.5	45.1
0°-60°	12961.8	78.8
0°-90°	16457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5939	5939	5939	5939	5939	
5°	5965	5942	5886	5921	5960	565
15°	5706	5744	5647	5670	5701	1602
25°	5188	5234	5160	5226	5252	2394
35°	4505	4605	4544	4562	4582	2832
45°	3712	3805	3769	3800	3838	2887
55°	2889	2932	2925	2958	2956	2574
65°	2001	2001	2009	2034	2009	1965
75°	1049	1067	1090	1124	1114	1117
85°	280	285	313	334	336	313
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5939.4	5939.4	5939.4	5939.4	5939.4
2.5°	5965.1	5936.8	5898.3	5911.2	5936.8
5°	5965.1	5942.0	5885.5	5921.4	5959.9
7.5°	5926.6	5957.4	5834.2	5834.2	5906.0
10°	5816.2	5875.3	5800.9	5793.2	5839.3
12.5°	5711.1	5818.8	5731.6	5757.2	5813.7
15°	5705.9	5744.4	5646.9	5670.0	5700.8
17.5°	5595.6	5634.1	5528.9	5572.5	5572.5
20°	5477.6	5485.3	5410.9	5505.8	5431.4
22.5°	5341.6	5421.1	5318.5	5349.3	5413.4
25°	5187.7	5233.9	5159.5	5226.2	5251.8
27.5°	5062.0	5118.4	5015.8	5095.3	5103.0
30°	4856.7	4918.3	4849.0	4900.3	4969.6
32.5°	4718.2	4738.7	4702.8	4779.7	4800.3
35°	4505.2	4605.3	4543.7	4561.7	4582.2
37.5°	4356.4	4387.2	4333.3	4394.9	4428.3
40°	4156.3	4202.5	4182.0	4192.2	4223.0
42.5°	3948.5	3997.2	3943.3	4017.8	4040.8
45°	3712.4	3804.8	3768.9	3799.7	3838.2
47.5°	3558.5	3589.3	3579.0	3597.0	3571.3
50°	3319.9	3350.7	3368.7	3391.7	3402.0
52.5°	3107.0	3130.0	3163.4	3176.2	3199.3
55°	2888.9	2932.5	2924.8	2958.2	2955.6
57.5°	2634.9	2699.0	2678.5	2727.2	2727.2
60°	2439.9	2450.2	2475.8	2498.9	2498.9
62.5°	2214.1	2227.0	2239.8	2260.3	2275.7
65°	2001.2	2001.2	2008.9	2034.5	2008.9
67.5°	1754.9	1744.6	1770.3	1801.1	1798.5
70°	1506.0	1518.8	1541.9	1580.4	1580.4
72.5°	1293.1	1293.1	1318.7	1339.3	1336.7
75°	1049.3	1067.3	1090.4	1123.7	1113.5
77.5°	831.3	844.1	882.6	913.4	915.9
80°	620.9	633.7	674.8	705.5	697.8
82.5°	433.6	451.5	490.0	513.1	510.6
85°	279.7	284.8	313.0	333.5	336.1
87.5°	128.3	138.5	159.1	166.8	166.8
90°	0.0	0.0	0.0	0.0	0.0



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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	22.12	23.76	22.48	24.07	24.39	22.22	23.86	22.59	24.18	24.49
	3H	23.90	25.38	24.28	25.71	26.07	24.06	25.54	24.44	25.87	26.23
	4H	24.56	25.96	24.96	26.31	26.68	24.76	26.16	25.16	26.50	26.88
	6H	25.04	26.33	25.45	26.70	27.09	25.31	26.60	25.72	26.97	27.36
	8H	25.19	26.43	25.61	26.81	27.21	25.50	26.74	25.92	27.13	27.52
	12H	25.29	26.48	25.72	26.86	27.29	25.64	26.83	26.07	27.21	27.64
4H	2H	22.76	24.16	23.16	24.51	24.88	22.85	24.24	23.24	24.59	24.97
	3H	24.77	25.94	25.18	26.34	26.74	24.91	26.08	25.32	26.48	26.88
	4H	25.56	26.62	25.99	27.03	27.47	25.75	26.81	26.18	27.22	27.66
	6H	26.16	27.09	26.61	27.53	27.98	26.44	27.37	26.89	27.81	28.26
	8H	26.35	27.23	26.81	27.67	28.13	26.68	27.55	27.14	28.00	28.46
	12H	26.51	27.29	26.99	27.76	28.23	26.88	27.66	27.36	28.14	28.61
8H	4H	25.89	26.76	26.35	27.21	27.67	26.06	26.93	26.52	27.37	27.84
	6H	26.62	27.34	27.11	27.83	28.30	26.88	27.61	27.38	28.10	28.57
	8H	26.89	27.54	27.40	28.05	28.53	27.22	27.87	27.73	28.37	28.86
	12H	27.12	27.69	27.62	28.18	28.74	27.51	28.08	28.01	28.57	29.13
12H	4H	25.94	26.72	26.42	27.20	27.66	26.09	26.88	26.57	27.35	27.82
	6H	26.69	27.34	27.20	27.85	28.33	26.94	27.60	27.45	28.10	28.59
	8H	27.02	27.60	27.53	28.09	28.65	27.34	27.92	27.85	28.41	28.97