

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: P894917

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894917
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-RFLW-UNV-L830
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3000K
Light Source: -
Ballast/Driver: -

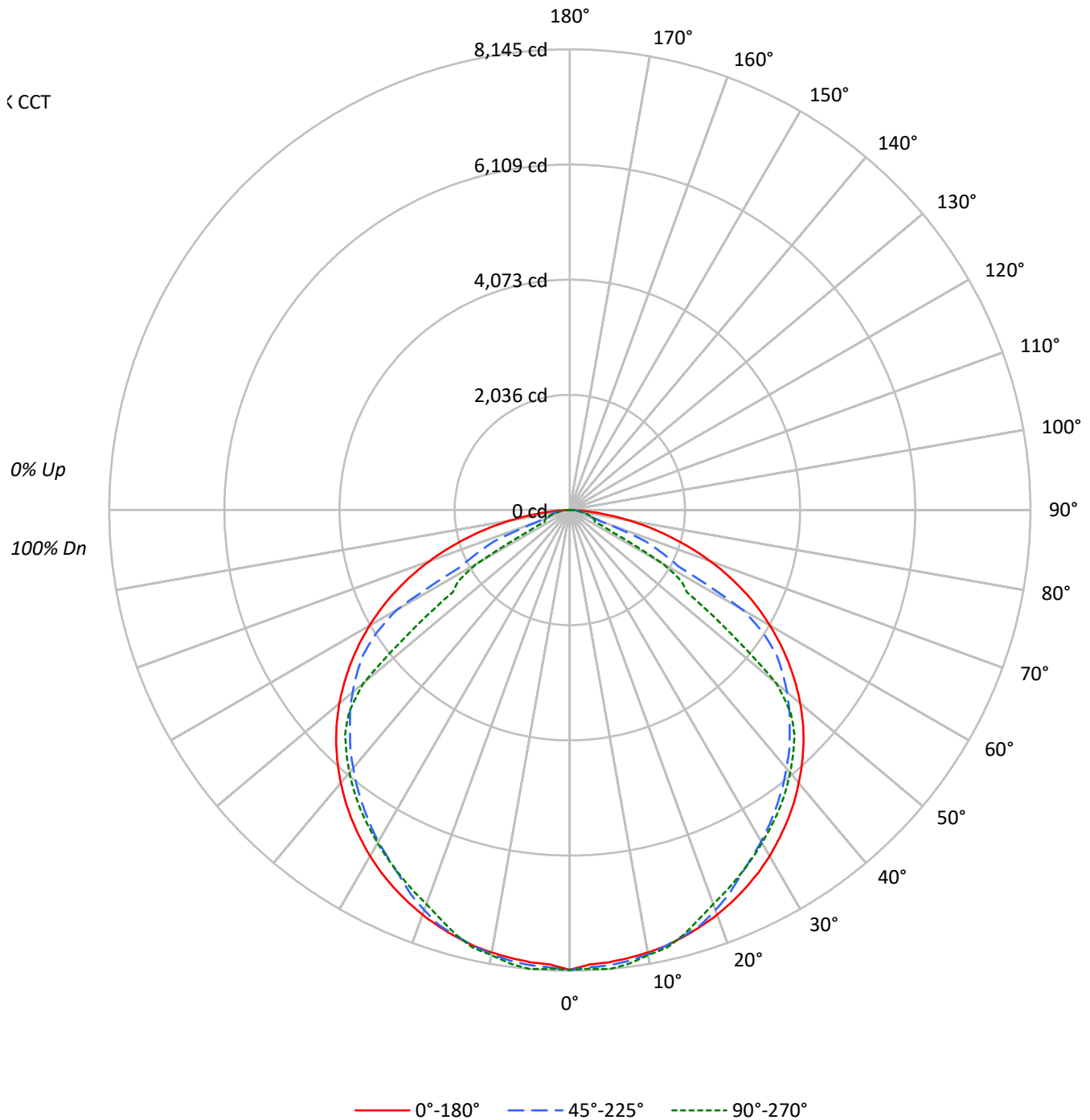
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21194.0 lumens
Efficiency: N/A
Efficacy: 146.2 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 145
Input Voltage (V): 120
Input Current (Ain): 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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	52643	52643	52643
5°	52161	52503	52942
10°	52237	52434	52533
15°	52351	52233	52116
20°	52483	51878	51085
25°	52626	50961	50854
30°	52826	50615	50822
35°	53017	50422	51037
40°	53240	50360	51249
45°	53526	50336	51461
50°	53607	50527	48079
55°	53372	50373	28510
60°	52920	45911	24723
65°	52053	27753	7485
70°	49994	11004	8586
75°	46321	9027	8774
80°	40080	9528	8223
85°	28478	8938	7816

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 53607 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	770.1	3.6
10°-20°	2205.3	10.4
20°-30°	3332.6	15.7
30°-40°	4066.1	19.2
40°-50°	4301.2	20.3
50°-60°	3562.5	16.8
60°-70°	1980.4	9.3
70°-80°	802.8	3.8
80°-90°	173.1	0.8
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°	6307.9	29.8
0°-40°	10374.0	48.9
0°-60°	18237.7	86.1
0°-90°	21194.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21194.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8130	8130	8130	8130	8130	
5°	8024	8167	8077	8090	8145	763
15°	7809	7929	7792	7786	7774	2206
25°	7366	7418	7133	7088	7118	3397
35°	6707	6624	6378	6404	6456	4198
45°	5845	5544	5497	5564	5619	4506
55°	4728	4407	4462	3062	2525	4224
65°	3397	3114	1811	609	488	3350
75°	1851	1032	361	356	351	1955
85°	383	128	120	110	105	481
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8129.7	8129.7	8129.7	8129.7	8129.7
2.5°	8042.0	8182.3	8094.6	8112.2	8119.7
5°	8024.5	8167.3	8077.1	8089.6	8144.7
7.5°	7986.9	8132.2	8037.0	8044.5	8087.1
10°	7944.3	8077.1	7974.4	7961.9	7989.4
12.5°	7886.7	8007.0	7886.7	7891.7	7926.8
15°	7809.0	7929.3	7791.5	7786.5	7774.0
17.5°	7716.3	7829.1	7693.8	7613.6	7586.1
20°	7616.1	7703.8	7528.4	7405.7	7413.2
22.5°	7495.9	7571.0	7350.6	7237.8	7270.4
25°	7365.6	7418.2	7132.6	7087.5	7117.6
27.5°	7222.8	7262.9	6944.7	6934.7	6959.7
30°	7065.0	7080.0	6769.3	6764.3	6796.9
32.5°	6889.6	6864.5	6581.4	6586.4	6629.0
35°	6706.7	6624.0	6378.5	6403.6	6456.2
37.5°	6513.8	6366.0	6178.1	6210.6	6268.3
40°	6298.3	6097.9	5957.6	6007.7	6062.8
42.5°	6077.9	5817.3	5744.7	5792.3	5844.9
45°	5844.9	5544.2	5496.6	5564.3	5619.4
47.5°	5591.8	5276.2	5268.7	5321.3	5296.2
50°	5321.3	4998.1	5015.6	4945.5	4772.6
52.5°	5030.7	4710.0	4745.0	4441.9	3590.1
55°	4727.5	4406.8	4461.9	3061.5	2525.3
57.5°	4416.9	4096.2	4061.1	2342.5	2340.0
60°	4086.2	3780.5	3545.0	2069.4	1909.0
62.5°	3752.9	3452.3	2177.1	1558.3	876.9
65°	3397.2	3114.1	1811.3	608.8	488.5
67.5°	3023.9	2770.9	1450.6	458.5	476.0
70°	2640.6	2415.1	581.2	443.4	453.5
72.5°	2249.8	1863.9	385.8	410.9	410.9
75°	1851.4	1032.2	360.8	355.8	350.7
77.5°	1455.6	691.5	315.7	293.1	285.6
80°	1074.8	248.0	255.5	228.0	220.5
82.5°	711.5	192.9	182.9	165.4	160.3
85°	383.3	127.8	120.3	110.2	105.2
87.5°	137.8	65.1	65.1	52.6	47.6
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	26.45	28.02	26.81	28.33	28.65	22.44	24.01	22.80	24.32	24.64
	3H	28.46	29.86	28.83	30.19	30.55	22.57	23.98	22.95	24.31	24.67
	4H	29.07	30.39	29.47	30.73	31.11	22.69	24.01	23.09	24.36	24.73
	6H	29.47	30.68	29.88	31.05	31.44	22.80	24.01	23.21	24.38	24.77
	8H	29.59	30.75	30.01	31.14	31.54	22.83	23.99	23.26	24.38	24.78
	12H	29.66	30.77	30.09	31.15	31.58	22.85	23.96	23.28	24.35	24.78
4H	2H	26.58	27.90	26.98	28.25	28.62	23.16	24.48	23.56	24.83	25.21
	3H	28.74	29.83	29.15	30.23	30.63	23.36	24.45	23.77	24.85	25.25
	4H	29.39	30.37	29.82	30.78	31.22	23.52	24.49	23.95	24.91	25.35
	6H	29.84	30.69	30.29	31.13	31.59	23.68	24.53	24.14	24.97	25.43
	8H	29.98	30.77	30.44	31.22	31.68	23.73	24.53	24.20	24.97	25.44
	12H	30.08	30.79	30.56	31.27	31.74	23.78	24.49	24.26	24.97	25.44
8H	4H	29.33	30.12	29.79	30.57	31.03	23.79	24.58	24.25	25.03	25.49
	6H	29.77	30.43	30.27	30.92	31.39	24.00	24.65	24.49	25.14	25.62
	8H	29.92	30.51	30.43	31.02	31.51	24.08	24.67	24.59	25.18	25.66
	12H	30.05	30.57	30.56	31.07	31.63	24.16	24.69	24.67	25.18	25.74
12H	4H	29.30	30.01	29.78	30.49	30.96	23.80	24.51	24.28	24.99	25.46
	6H	29.73	30.32	30.24	30.83	31.32	24.01	24.60	24.53	25.11	25.60
	8H	29.90	30.42	30.41	30.92	31.48	24.14	24.66	24.65	25.15	25.71