

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: P894881

Luminaire Tested: 8TMB-20HL-FLT-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894881
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-L930
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

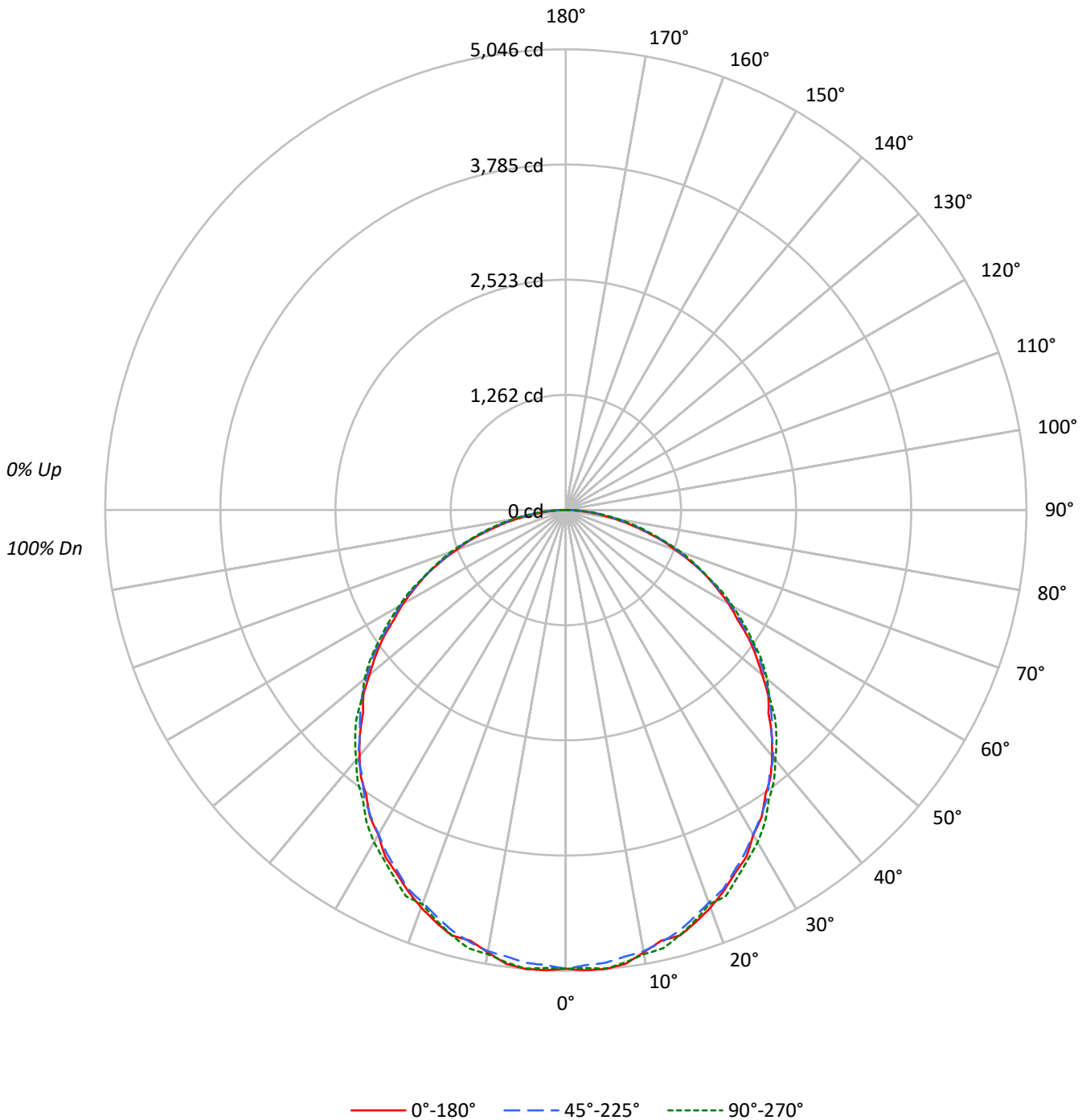
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13920.0 lumens
Efficiency: N/A
Efficacy: 96.0 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				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°	17825	17825	17825
5°	17970	17731	17955
10°	17725	17678	17795
15°	17728	17545	17713
20°	17494	17281	17347
25°	17178	17085	17391
30°	16831	16804	17222
35°	16506	16647	16788
40°	16283	16384	16545
45°	15756	15996	16290
50°	15500	15728	15884
55°	15115	15304	15465
60°	14645	14860	14999
65°	14211	14266	14266
70°	13214	13530	13868
75°	12168	12644	12911
80°	10731	11661	12062
85°	9628	10780	11574

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16290 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.5	3.4
10°-20°	1355.2	9.7
20°-30°	2032.6	14.6
30°-40°	2414.1	17.3
40°-50°	2471.7	17.8
50°-60°	2214.5	15.9
60°-70°	1682.3	12.1
70°-80°	979.8	7.0
80°-90°	294.3	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°	3863.3	27.8
0°-40°	6277.4	45.1
0°-60°	10963.6	78.8
0°-90°	13920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5024	5024	5024	5024	5024	
5°	5046	5026	4978	5009	5041	478
15°	4826	4859	4776	4796	4822	1355
25°	4388	4427	4364	4420	4442	2025
35°	3811	3895	3843	3858	3876	2395
45°	3140	3218	3188	3214	3246	2442
55°	2444	2480	2474	2502	2500	2177
65°	1693	1693	1699	1721	1699	1662
75°	888	903	922	950	942	945
85°	236	241	265	282	284	265
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5023.8	5023.8	5023.8	5023.8	5023.8
2.5°	5045.5	5021.6	4989.1	4999.9	5021.6
5°	5045.5	5026.0	4978.2	5008.6	5041.1
7.5°	5012.9	5039.0	4934.8	4934.8	4995.6
10°	4919.6	4969.5	4906.6	4900.1	4939.2
12.5°	4830.6	4921.8	4848.0	4869.7	4917.4
15°	4826.3	4858.9	4776.4	4795.9	4822.0
17.5°	4733.0	4765.5	4676.6	4713.5	4713.5
20°	4633.2	4639.7	4576.7	4657.0	4594.1
22.5°	4518.2	4585.4	4498.6	4524.7	4578.9
25°	4387.9	4427.0	4364.1	4420.5	4442.2
27.5°	4281.6	4329.4	4242.5	4309.8	4316.3
30°	4108.0	4160.1	4101.5	4144.9	4203.5
32.5°	3990.8	4008.2	3977.8	4042.9	4060.3
35°	3810.7	3895.3	3843.2	3858.4	3875.8
37.5°	3684.8	3710.9	3665.3	3717.4	3745.6
40°	3515.6	3554.6	3537.3	3545.9	3572.0
42.5°	3339.8	3381.0	3335.4	3398.4	3417.9
45°	3140.1	3218.3	3187.9	3213.9	3246.5
47.5°	3009.9	3036.0	3027.3	3042.5	3020.8
50°	2808.1	2834.2	2849.3	2868.9	2877.6
52.5°	2628.0	2647.5	2675.7	2686.6	2706.1
55°	2443.5	2480.4	2473.9	2502.1	2500.0
57.5°	2228.7	2282.9	2265.6	2306.8	2306.8
60°	2063.8	2072.4	2094.1	2113.7	2113.7
62.5°	1872.8	1883.6	1894.5	1911.9	1924.9
65°	1692.7	1692.7	1699.2	1720.9	1699.2
67.5°	1484.3	1475.7	1497.4	1523.4	1521.2
70°	1273.8	1284.7	1304.2	1336.8	1336.8
72.5°	1093.7	1093.7	1115.4	1132.8	1130.6
75°	887.6	902.8	922.3	950.5	941.8
77.5°	703.1	714.0	746.5	772.6	774.7
80°	525.2	536.0	570.7	596.8	590.3
82.5°	366.7	381.9	414.5	434.0	431.9
85°	236.5	240.9	264.8	282.1	284.3
87.5°	108.5	117.2	134.5	141.1	141.1
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	21.54	23.18	21.90	23.49	23.80	21.64	23.28	22.01	23.59	23.91
	3H	23.32	24.80	23.69	25.13	25.49	23.48	24.96	23.86	25.29	25.65
	4H	23.98	25.38	24.38	25.73	26.10	24.18	25.57	24.58	25.92	26.30
	6H	24.46	25.75	24.87	26.12	26.51	24.73	26.02	25.14	26.39	26.78
	8H	24.61	25.84	25.03	26.23	26.63	24.92	26.16	25.34	26.54	26.94
	12H	24.71	25.90	25.14	26.28	26.71	25.06	26.25	25.49	26.63	27.06
4H	2H	22.18	23.58	22.58	23.93	24.30	22.26	23.66	22.66	24.01	24.39
	3H	24.18	25.36	24.59	25.75	26.15	24.33	25.50	24.74	25.90	26.30
	4H	24.98	26.04	25.41	26.45	26.89	25.17	26.23	25.60	26.64	27.08
	6H	25.58	26.51	26.03	26.95	27.40	25.86	26.78	26.31	27.23	27.68
	8H	25.77	26.64	26.23	27.09	27.55	26.10	26.97	26.56	27.41	27.88
	12H	25.92	26.71	26.40	27.18	27.65	26.30	27.08	26.78	27.56	28.03
8H	4H	25.31	26.18	25.77	26.62	27.09	25.48	26.35	25.94	26.79	27.26
	6H	26.04	26.76	26.53	27.25	27.72	26.30	27.03	26.80	27.52	27.99
	8H	26.31	26.96	26.82	27.46	27.95	26.64	27.29	27.14	27.79	28.28
	12H	26.54	27.11	27.04	27.60	28.16	26.92	27.50	27.43	27.99	28.55
12H	4H	25.36	26.14	25.84	26.61	27.08	25.51	26.30	25.99	26.77	27.24
	6H	26.11	26.76	26.62	27.27	27.75	26.36	27.01	26.87	27.52	28.00
	8H	26.44	27.02	26.95	27.51	28.07	26.76	27.33	27.26	27.82	28.38