

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: P894880

Luminaire Tested: 8TMB-20HL-FLT-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894880
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-L850
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

Summary

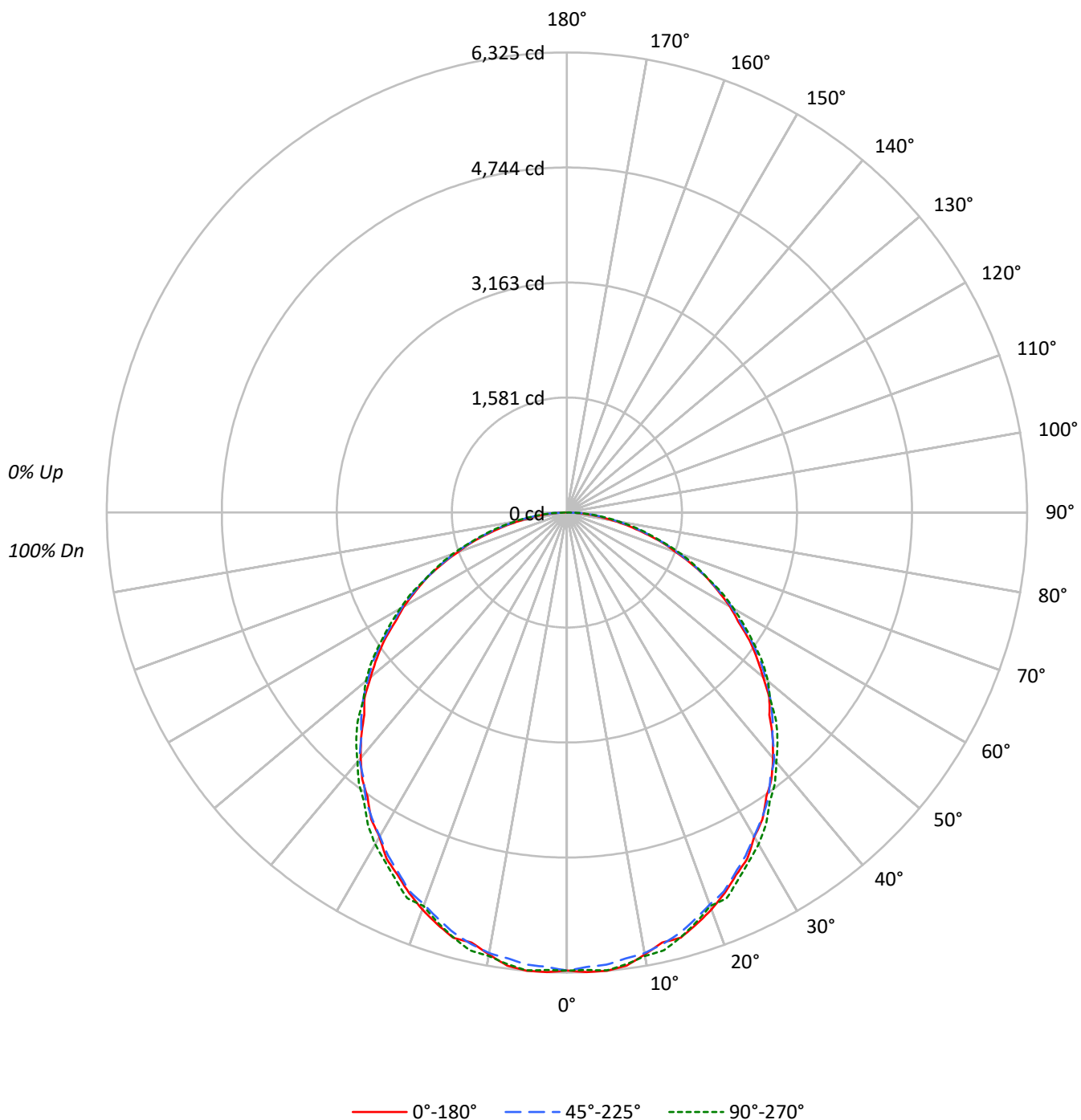
Lumens per Lamp: N/A
Luminaire Lumens: 17450.0 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 145
Input Voltage (V): 120
Input Current (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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	104	99	96	106	102	98	94	97	94	91		93	91	88		90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63		72	67	62		69	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46		58	51	46		56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41		52	45	40		51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36		48	41	36		46	40	35	33
8	60	47	38	33	59	46	38	32	45	37	32		44	37	32		42	36	32	30
9	57	43	35	29	55	42	35	29	41	34	29		40	34	29		39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22345	22345	22345
5°	22528	22227	22508
10°	22220	22161	22308
15°	22224	21994	22204
20°	21930	21664	21745
25°	21535	21418	21801
30°	21099	21065	21589
35°	20692	20869	21045
40°	20413	20539	20740
45°	19752	20053	20422
50°	19431	19717	19912
55°	18949	19185	19386
60°	18359	18629	18803
65°	17815	17883	17883
70°	16566	16962	17385
75°	15254	15850	16186
80°	13451	14620	15120
85°	12071	13512	14509

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 20422 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	596.1	3.4
10°-20°	1698.8	9.7
20°-30°	2548.1	14.6
30°-40°	3026.3	17.3
40°-50°	3098.5	17.8
50°-60°	2776.1	15.9
60°-70°	2108.9	12.1
70°-80°	1228.3	7.0
80°-90°	368.9	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°	4843.0	27.8
0°-40°	7869.3	45.1
0°-60°	13743.9	78.8
0°-90°	17450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6298	6298	6298	6298	6298	
5°	6325	6300	6241	6279	6320	599
15°	6050	6091	5988	6012	6045	1698
25°	5501	5550	5471	5542	5569	2538
35°	4777	4883	4818	4837	4859	3003
45°	3936	4034	3996	4029	4070	3062
55°	3063	3109	3101	3137	3134	2729
65°	2122	2122	2130	2157	2130	2084
75°	1113	1132	1156	1192	1181	1185
85°	296	302	332	354	356	332
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6297.8	6297.8	6297.8	6297.8	6297.8
2.5°	6325.0	6295.1	6254.2	6267.9	6295.1
5°	6325.0	6300.5	6240.6	6278.7	6319.5
7.5°	6284.2	6316.8	6186.2	6186.2	6262.4
10°	6167.2	6229.8	6150.9	6142.7	6191.7
12.5°	6055.7	6169.9	6077.4	6104.6	6164.5
15°	6050.2	6091.0	5987.6	6012.1	6044.8
17.5°	5933.2	5974.0	5862.5	5908.8	5908.8
20°	5808.1	5816.3	5737.4	5838.0	5759.1
22.5°	5663.9	5748.3	5639.4	5672.1	5740.1
25°	5500.7	5549.7	5470.8	5541.5	5568.7
27.5°	5367.4	5427.2	5318.4	5402.8	5410.9
30°	5149.8	5215.0	5141.6	5196.0	5269.5
32.5°	5002.9	5024.6	4986.5	5068.1	5089.9
35°	4777.1	4883.2	4817.9	4836.9	4858.7
37.5°	4619.3	4651.9	4594.8	4660.1	4695.4
40°	4407.1	4456.1	4434.3	4445.2	4477.8
42.5°	4186.7	4238.4	4181.3	4260.2	4284.7
45°	3936.4	4034.4	3996.3	4028.9	4069.8
47.5°	3773.2	3805.9	3795.0	3814.0	3786.8
50°	3520.2	3552.9	3571.9	3596.4	3607.3
52.5°	3294.4	3318.9	3354.3	3367.9	3392.4
55°	3063.2	3109.4	3101.3	3136.6	3133.9
57.5°	2793.9	2861.9	2840.1	2891.8	2891.8
60°	2587.1	2598.0	2625.2	2649.7	2649.7
62.5°	2347.7	2361.3	2374.9	2396.7	2413.0
65°	2121.9	2121.9	2130.1	2157.3	2130.1
67.5°	1860.8	1849.9	1877.1	1909.7	1907.0
70°	1596.9	1610.5	1635.0	1675.8	1675.8
72.5°	1371.1	1371.1	1398.3	1420.1	1417.3
75°	1112.7	1131.7	1156.2	1191.5	1180.7
77.5°	881.4	895.0	935.8	968.5	971.2
80°	658.3	671.9	715.5	748.1	740.0
82.5°	459.8	478.8	519.6	544.1	541.4
85°	296.5	302.0	331.9	353.7	356.4
87.5°	136.0	146.9	168.7	176.8	176.8
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	22.32	23.96	22.69	24.28	24.59	22.43	24.07	22.79	24.38	24.69
	3H	24.10	25.59	24.48	25.91	26.27	24.27	25.75	24.64	26.07	26.43
	4H	24.77	26.16	25.16	26.51	26.89	24.96	26.36	25.36	26.71	27.08
	6H	25.24	26.54	25.65	26.90	27.29	25.51	26.81	25.92	27.17	27.56
	8H	25.39	26.63	25.81	27.02	27.42	25.70	26.94	26.13	27.33	27.73
	12H	25.50	26.68	25.93	27.07	27.49	25.85	27.03	26.28	27.41	27.84
4H	2H	22.97	24.36	23.37	24.71	25.09	23.05	24.45	23.45	24.79	25.17
	3H	24.97	26.14	25.38	26.54	26.94	25.11	26.29	25.52	26.68	27.08
	4H	25.76	26.82	26.19	27.24	27.67	25.95	27.01	26.38	27.43	27.86
	6H	26.36	27.29	26.81	27.73	28.19	26.64	27.57	27.09	28.01	28.47
	8H	26.56	27.43	27.02	27.87	28.34	26.89	27.76	27.35	28.20	28.66
	12H	26.71	27.49	27.19	27.97	28.44	27.08	27.87	27.56	28.34	28.81
8H	4H	26.10	26.97	26.56	27.41	27.87	26.27	27.14	26.72	27.58	28.04
	6H	26.82	27.55	27.31	28.03	28.51	27.09	27.81	27.58	28.30	28.78
	8H	27.09	27.74	27.60	28.25	28.73	27.42	28.07	27.93	28.58	29.06
	12H	27.32	27.90	27.83	28.39	28.95	27.71	28.29	28.22	28.78	29.34
12H	4H	26.14	26.92	26.62	27.40	27.87	26.30	27.08	26.78	27.56	28.03
	6H	26.89	27.55	27.40	28.05	28.54	27.15	27.80	27.66	28.30	28.79
	8H	27.23	27.80	27.73	28.29	28.85	27.54	28.12	28.05	28.61	29.17