

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: P894921

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894921
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-L930
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3000K
Light Source: -
Ballast/Driver: -

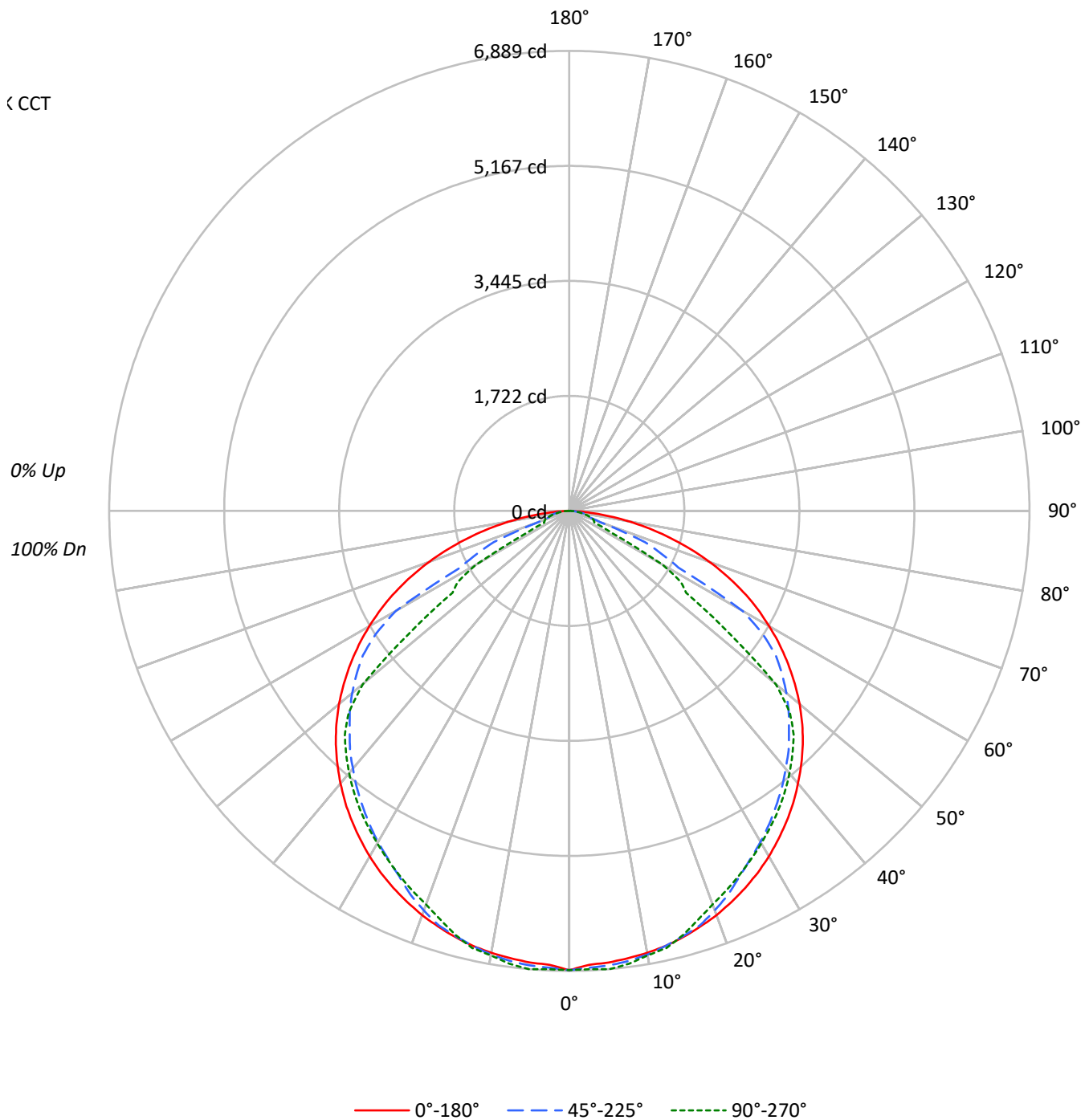
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17927.0 lumens
Efficiency: N/A
Efficacy: 123.6 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 (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	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°	44528	44528	44528
5°	44120	44409	44782
10°	44184	44352	44436
15°	44281	44182	44082
20°	44393	43881	43210
25°	44514	43106	43015
30°	44683	42814	42988
35°	44845	42650	43170
40°	45034	42598	43350
45°	45275	42577	43528
50°	45343	42739	40668
55°	45145	42608	24116
60°	44762	38835	20913
65°	44028	23475	6331
70°	42289	9307	7263
75°	39180	7636	7423
80°	33901	8062	6955
85°	24087	7556	6612

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 45343 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	651.4	3.6
10°-20°	1865.3	10.4
20°-30°	2818.9	15.7
30°-40°	3439.3	19.2
40°-50°	3638.2	20.3
50°-60°	3013.4	16.8
60°-70°	1675.1	9.3
70°-80°	679.0	3.8
80°-90°	146.4	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°	5335.6	29.8
0°-40°	8774.9	48.9
0°-60°	15426.4	86.1
0°-90°	17927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6876	6876	6876	6876	6876	
5°	6788	6908	6832	6843	6889	646
15°	6605	6707	6590	6586	6576	1866
25°	6230	6275	6033	5995	6020	2874
35°	5673	5603	5395	5416	5461	3551
45°	4944	4690	4649	4707	4753	3811
55°	3999	3728	3774	2590	2136	3573
65°	2874	2634	1532	515	413	2834
75°	1566	873	305	301	297	1654
85°	324	108	102	93	89	407
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6876.5	6876.5	6876.5	6876.5	6876.5
2.5°	6802.4	6921.0	6846.9	6861.7	6868.1
5°	6787.5	6908.3	6832.0	6842.6	6889.3
7.5°	6755.7	6878.7	6798.1	6804.5	6840.5
10°	6719.7	6832.0	6745.2	6734.6	6757.9
12.5°	6671.0	6772.7	6671.0	6675.2	6704.9
15°	6605.3	6707.0	6590.5	6586.2	6575.6
17.5°	6526.9	6622.2	6507.8	6440.0	6416.7
20°	6442.1	6516.3	6367.9	6264.1	6270.5
22.5°	6340.4	6404.0	6217.5	6122.1	6149.7
25°	6230.2	6274.7	6033.1	5995.0	6020.4
27.5°	6109.4	6143.3	5874.2	5865.7	5886.9
30°	5975.9	5988.6	5725.9	5721.6	5749.2
32.5°	5827.6	5806.4	5566.9	5571.2	5607.2
35°	5672.9	5602.9	5395.3	5416.5	5461.0
37.5°	5509.7	5384.7	5225.7	5253.3	5302.0
40°	5327.5	5157.9	5039.3	5081.6	5128.3
42.5°	5141.0	4920.6	4859.1	4899.4	4943.9
45°	4943.9	4689.6	4649.3	4706.6	4753.2
47.5°	4729.9	4462.9	4456.5	4501.0	4479.8
50°	4501.0	4227.6	4242.5	4183.1	4036.9
52.5°	4255.2	3983.9	4013.6	3757.2	3036.7
55°	3998.8	3727.5	3774.1	2589.6	2136.1
57.5°	3736.0	3464.8	3435.1	1981.4	1979.3
60°	3456.3	3197.7	2998.6	1750.4	1614.8
62.5°	3174.4	2920.1	1841.5	1318.1	741.7
65°	2873.5	2634.1	1532.1	514.9	413.2
67.5°	2557.8	2343.7	1227.0	387.8	402.6
70°	2233.6	2042.8	491.6	375.1	383.6
72.5°	1903.0	1576.6	326.3	347.5	347.5
75°	1566.0	873.1	305.2	300.9	296.7
77.5°	1231.2	584.9	267.0	247.9	241.6
80°	909.1	209.8	216.2	192.8	186.5
82.5°	601.8	163.2	154.7	139.9	135.6
85°	324.2	108.1	101.7	93.2	89.0
87.5°	116.6	55.1	55.1	44.5	40.3
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	25.87	27.44	26.23	27.75	28.07	21.86	23.43	22.22	23.74	24.06
	3H	27.87	29.28	28.25	29.61	29.97	21.99	23.40	22.37	23.72	24.08
	4H	28.49	29.80	28.88	30.15	30.53	22.11	23.43	22.51	23.77	24.15
	6H	28.89	30.10	29.30	30.47	30.86	22.22	23.43	22.63	23.80	24.19
	8H	29.00	30.16	29.43	30.55	30.95	22.25	23.41	22.68	23.80	24.20
	12H	29.07	30.18	29.50	30.57	31.00	22.27	23.38	22.70	23.76	24.19
4H	2H	26.00	27.32	26.40	27.66	28.04	22.58	23.90	22.98	24.25	24.63
	3H	28.16	29.24	28.57	29.64	30.04	22.78	23.87	23.19	24.27	24.67
	4H	28.81	29.79	29.24	30.20	30.64	22.93	23.91	23.37	24.33	24.76
	6H	29.26	30.11	29.71	30.55	31.01	23.10	23.95	23.56	24.39	24.85
	8H	29.40	30.19	29.86	30.63	31.10	23.15	23.95	23.61	24.39	24.86
	12H	29.50	30.21	29.98	30.69	31.16	23.20	23.91	23.68	24.39	24.86
8H	4H	28.75	29.54	29.21	29.98	30.45	23.21	24.00	23.67	24.44	24.91
	6H	29.19	29.85	29.69	30.34	30.81	23.41	24.07	23.91	24.56	25.04
	8H	29.34	29.93	29.85	30.44	30.92	23.50	24.09	24.01	24.60	25.08
	12H	29.47	29.99	29.98	30.48	31.05	23.58	24.11	24.09	24.60	25.16
12H	4H	28.72	29.43	29.20	29.91	30.38	23.22	23.93	23.70	24.41	24.88
	6H	29.15	29.74	29.66	30.25	30.73	23.43	24.02	23.94	24.53	25.02
	8H	29.32	29.84	29.83	30.33	30.90	23.55	24.08	24.06	24.57	25.13