

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: P894924

Luminaire Tested: 8TMB-20HL-RFLW-UNV-L950

Issue Date: 11/11/2024

**Test Information**

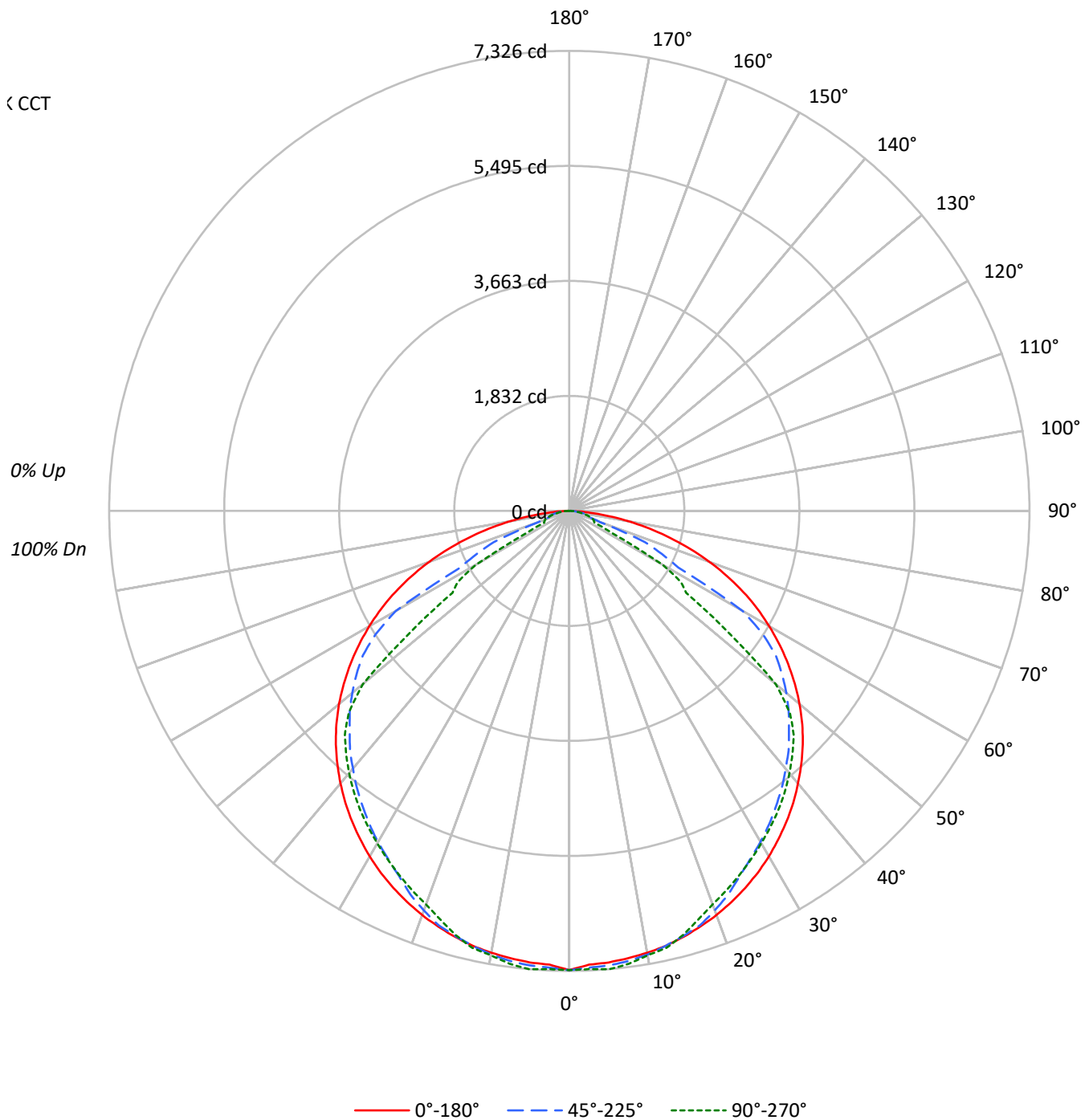
Test Method: LM-79-2019  
Report Number: P894924  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-20HL-RFLW-UNV-L950  
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 5000K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19063.0 lumens  
Efficiency: N/A  
Efficacy: 131.5 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°	47350	47350	47350
5°	46916	47224	47619
10°	46984	47162	47251
15°	47087	46981	46876
20°	47206	46663	45948
25°	47335	45837	45741
30°	47515	45526	45712
35°	47687	45353	45905
40°	47888	45297	46096
45°	48144	45276	46287
50°	48216	45447	43245
55°	48006	45309	25643
60°	47598	41295	22238
65°	46819	24963	6733
70°	44968	9898	7723
75°	41665	8119	7894
80°	36049	8569	7395
85°	25618	8039	7029

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 50°  
 Luminance: 48216 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	692.6	3.6
10°-20°	1983.5	10.4
20°-30°	2997.5	15.7
30°-40°	3657.3	19.2
40°-50°	3868.7	20.3
50°-60°	3204.3	16.8
60°-70°	1781.3	9.3
70°-80°	722.1	3.8
80°-90°	155.7	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°	5673.7	29.8
0°-40°	9331.0	48.9
0°-60°	16404.0	86.1
0°-90°	19063.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19063.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7312	7312	7312	7312	7312	
5°	7218	7346	7265	7276	7326	687
15°	7024	7132	7008	7004	6992	1984
25°	6625	6672	6415	6375	6402	3056
35°	6032	5958	5737	5760	5807	3776
45°	5257	4987	4944	5005	5054	4053
55°	4252	3964	4013	2754	2271	3799
65°	3056	2801	1629	548	439	3013
75°	1665	928	324	320	316	1758
85°	345	115	108	99	95	433
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7312.3	7312.3	7312.3	7312.3	7312.3
2.5°	7233.4	7359.6	7280.7	7296.5	7303.3
5°	7217.6	7346.1	7265.0	7276.2	7325.8
7.5°	7183.8	7314.5	7228.9	7235.7	7274.0
10°	7145.5	7265.0	7172.6	7161.3	7186.1
12.5°	7093.7	7201.9	7093.7	7098.2	7129.8
15°	7023.9	7132.0	7008.1	7003.6	6992.3
17.5°	6940.5	7041.9	6920.2	6848.1	6823.3
20°	6850.3	6929.2	6771.5	6661.1	6667.8
22.5°	6742.2	6809.8	6611.5	6510.1	6539.4
25°	6625.0	6672.3	6415.4	6374.9	6401.9
27.5°	6496.6	6532.6	6246.4	6237.4	6260.0
30°	6354.6	6368.1	6088.7	6084.2	6113.5
32.5°	6196.9	6174.3	5919.7	5924.2	5962.5
35°	6032.4	5958.0	5737.2	5759.7	5807.0
37.5°	5858.8	5725.9	5556.9	5586.2	5638.0
40°	5665.1	5484.8	5358.6	5403.7	5453.2
42.5°	5466.8	5232.4	5167.1	5209.9	5257.2
45°	5257.2	4986.8	4944.0	5004.8	5054.4
47.5°	5029.6	4745.7	4738.9	4786.2	4763.7
50°	4786.2	4495.5	4511.3	4448.2	4292.7
52.5°	4524.8	4236.4	4267.9	3995.3	3229.1
55°	4252.2	3963.7	4013.3	2753.7	2271.4
57.5°	3972.7	3684.3	3652.8	2106.9	2104.7
60°	3675.3	3400.4	3188.6	1861.3	1717.1
62.5°	3375.6	3105.2	1958.2	1401.6	788.7
65°	3055.6	2801.0	1629.2	547.6	439.4
67.5°	2719.9	2492.3	1304.7	412.4	428.1
70°	2375.1	2172.3	522.8	398.9	407.9
72.5°	2023.6	1676.5	347.0	369.6	369.6
75°	1665.3	928.4	324.5	320.0	315.5
77.5°	1309.2	621.9	283.9	263.6	256.9
80°	966.7	223.1	229.8	205.1	198.3
82.5°	640.0	173.5	164.5	148.7	144.2
85°	344.8	114.9	108.2	99.1	94.6
87.5°	123.9	58.6	58.6	47.3	42.8
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	26.08	27.65	26.45	27.97	28.28	22.07	23.64	22.44	23.96	24.27
	3H	28.09	29.49	28.46	29.82	30.18	22.20	23.61	22.58	23.94	24.30
	4H	28.70	30.02	29.10	30.37	30.74	22.32	23.64	22.72	23.99	24.37
	6H	29.10	30.32	29.51	30.68	31.07	22.43	23.65	22.84	24.01	24.40
	8H	29.22	30.38	29.64	30.77	31.17	22.46	23.62	22.89	24.01	24.41
	12H	29.29	30.40	29.72	30.78	31.21	22.49	23.60	22.92	23.98	24.41
4H	2H	26.21	27.53	26.61	27.88	28.25	22.80	24.11	23.19	24.46	24.84
	3H	28.37	29.46	28.78	29.86	30.26	22.99	24.08	23.40	24.48	24.88
	4H	29.02	30.00	29.46	30.42	30.85	23.15	24.13	23.58	24.54	24.98
	6H	29.47	30.32	29.93	30.76	31.22	23.31	24.16	23.77	24.60	25.06
	8H	29.61	30.40	30.07	30.85	31.31	23.37	24.16	23.83	24.60	25.07
	12H	29.71	30.42	30.20	30.90	31.37	23.41	24.12	23.89	24.60	25.07
8H	4H	28.96	29.75	29.42	30.20	30.66	23.42	24.21	23.88	24.66	25.12
	6H	29.40	30.06	29.90	30.55	31.03	23.63	24.28	24.12	24.77	25.25
	8H	29.55	30.14	30.06	30.65	31.14	23.71	24.30	24.22	24.81	25.30
	12H	29.68	30.21	30.19	30.70	31.26	23.80	24.32	24.31	24.81	25.37
12H	4H	28.93	29.64	29.42	30.12	30.59	23.43	24.14	23.92	24.62	25.09
	6H	29.36	29.95	29.87	30.46	30.95	23.64	24.23	24.16	24.74	25.23
	8H	29.53	30.06	30.04	30.55	31.11	23.77	24.29	24.28	24.78	25.35