

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: P894913

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

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P894913  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-20HL-LVRF-UNV-L930  
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3000K (C)  
Light Source: -  
Ballast/Driver: -

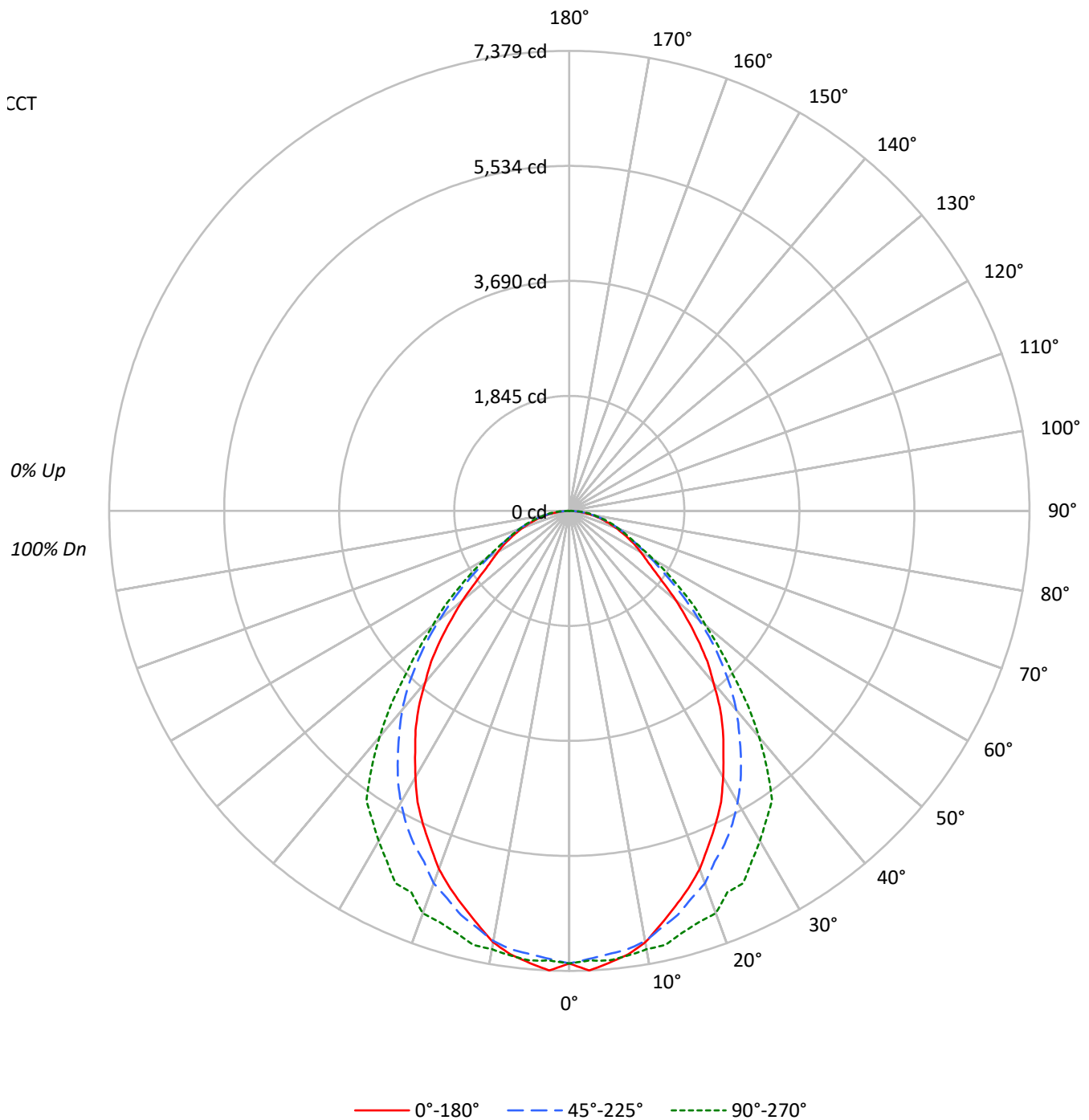
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14719.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21  
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<sub>in</sub>): 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	40	
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	37	
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	33	
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	30	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	25757	25757	25757
5°	25925	25423	25786
10°	25318	25240	25724
15°	24123	24657	25725
20°	23075	24002	25935
25°	21725	23084	25803
30°	20210	22122	25047
35°	18612	20765	24563
40°	16646	19300	21933
45°	14592	17358	18600
50°	12315	14998	15741
55°	10216	12552	13425
60°	9394	10673	11073
65°	8800	9384	9456
70°	8196	8893	8825
75°	7645	8301	8598
80°	7139	7715	8249
85°	6009	6538	9099

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 18600 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	685.2	4.7
10°-20°	1911.3	13.0
20°-30°	2752.6	18.7
30°-40°	3038.9	20.6
40°-50°	2607.6	17.7
50°-60°	1776.4	12.1
60°-70°	1117.5	7.6
70°-80°	636.2	4.3
80°-90°	193.4	1.3
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°	5349.1	36.3
0°-40°	8388.0	57.0
0°-60°	12771.9	86.8
0°-90°	14719.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14719.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7259	7259	7259	7259	7259	
5°	7279	7251	7138	7288	7240	687
15°	6567	6636	6712	7016	7003	1849
25°	5549	5660	5896	6372	6591	2548
35°	4297	4464	4794	5317	5671	2673
45°	2908	3101	3459	3668	3707	2241
55°	1652	1754	2029	2127	2170	1517
65°	1048	1066	1118	1172	1126	1041
75°	558	562	606	632	627	594
85°	148	152	161	191	224	170
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7259.4	7259.4	7259.4	7259.4	7259.4
2.5°	7378.7	7302.8	7194.3	7298.4	7218.1
5°	7278.9	7250.7	7137.8	7287.6	7239.8
7.5°	7176.9	7116.1	7096.6	7257.2	7194.3
10°	7027.2	6992.4	7005.5	7211.6	7140.0
12.5°	6790.6	6814.5	6844.9	7107.5	7129.2
15°	6567.1	6636.5	6712.5	7016.3	7003.3
17.5°	6347.9	6443.4	6515.0	6905.6	6916.5
20°	6111.3	6165.6	6356.6	6734.2	6868.7
22.5°	5818.3	5924.7	6089.6	6560.6	6621.3
25°	5549.2	5659.9	5896.5	6371.7	6590.9
27.5°	5267.1	5369.1	5662.1	6148.2	6334.9
30°	4932.9	5069.6	5399.5	5894.3	6113.5
32.5°	4598.7	4798.3	5115.2	5623.0	5876.9
35°	4297.0	4464.1	4794.0	5317.0	5670.8
37.5°	3962.8	4138.6	4472.8	4982.8	5208.5
40°	3593.9	3782.7	4166.8	4579.2	4735.4
42.5°	3277.0	3439.8	3826.1	4116.9	4240.6
45°	2908.1	3101.2	3459.3	3667.7	3706.7
47.5°	2552.2	2773.5	3094.7	3192.4	3268.3
50°	2231.0	2404.6	2717.1	2777.9	2851.7
52.5°	1903.3	2087.7	2361.2	2422.0	2530.5
55°	1651.5	1753.5	2029.1	2126.8	2170.2
57.5°	1467.1	1532.2	1727.5	1851.2	1864.2
60°	1323.8	1356.4	1504.0	1597.3	1560.4
62.5°	1191.4	1217.5	1291.3	1362.9	1315.1
65°	1048.2	1065.6	1117.7	1171.9	1126.3
67.5°	913.7	933.2	980.9	1020.0	980.9
70°	790.0	805.1	857.2	874.6	850.7
72.5°	674.9	681.4	724.9	755.2	740.0
75°	557.7	562.1	605.5	631.5	627.2
77.5°	451.4	457.9	494.8	518.7	505.7
80°	349.4	353.7	377.6	412.3	403.7
82.5°	245.2	253.9	269.1	299.5	323.4
85°	147.6	151.9	160.6	191.0	223.5
87.5°	56.4	60.8	65.1	80.3	106.3
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	18.74	20.22	19.11	20.53	20.85	20.10	21.58	20.47	21.90	22.21
	3H	20.32	21.65	20.70	21.97	22.34	21.39	22.71	21.77	23.04	23.40
	4H	20.93	22.17	21.33	22.52	22.90	21.94	23.18	22.34	23.53	23.91
	6H	21.40	22.54	21.81	22.91	23.30	22.39	23.54	22.81	23.91	24.30
	8H	21.55	22.64	21.98	23.03	23.44	22.58	23.67	23.01	24.06	24.46
	12H	21.65	22.70	22.08	23.08	23.51	22.74	23.78	23.17	24.16	24.59
4H	2H	19.35	20.60	19.76	20.95	21.32	20.47	21.71	20.87	22.06	22.44
	3H	21.16	22.19	21.57	22.59	22.99	22.03	23.05	22.44	23.45	23.86
	4H	21.88	22.81	22.32	23.23	23.66	22.73	23.66	23.16	24.07	24.51
	6H	22.48	23.28	22.94	23.73	24.19	23.34	24.14	23.80	24.59	25.05
	8H	22.68	23.43	23.15	23.88	24.35	23.58	24.34	24.05	24.78	25.25
	12H	22.82	23.49	23.30	23.97	24.44	23.80	24.47	24.28	24.95	25.42
8H	4H	22.21	22.96	22.67	23.41	23.87	22.96	23.71	23.43	24.16	24.63
	6H	22.93	23.56	23.43	24.05	24.53	23.71	24.33	24.20	24.82	25.30
	8H	23.21	23.77	23.72	24.28	24.77	24.04	24.60	24.55	25.11	25.60
	12H	23.42	23.92	23.93	24.41	24.98	24.34	24.84	24.85	25.33	25.90
12H	4H	22.25	22.92	22.73	23.40	23.87	22.98	23.65	23.46	24.13	24.60
	6H	23.00	23.56	23.52	24.07	24.56	23.74	24.30	24.26	24.82	25.30
	8H	23.34	23.83	23.85	24.33	24.89	24.13	24.63	24.64	25.12	25.69