

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: P894736

Luminaire Tested: 8TMB-16HL-RND-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894736
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-16HL-RND-UNV-L850
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

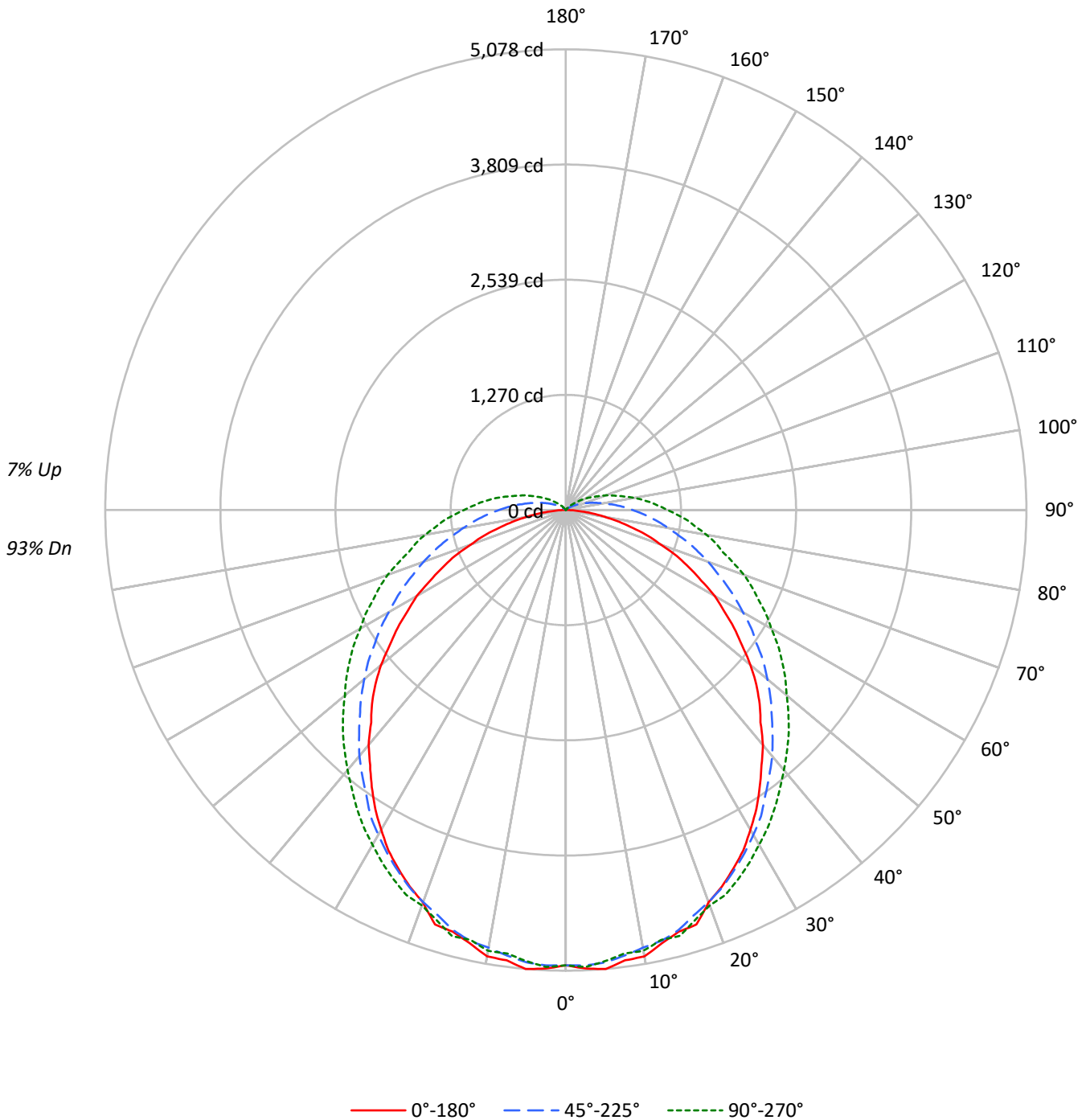
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16529.0 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 115.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17805	17805	17805
5°	18085	17824	17775
10°	17997	17649	17773
15°	17674	17615	17851
20°	17379	17361	17509
25°	17093	17165	17587
30°	16675	16938	17455
35°	16148	16615	17390
40°	15661	16395	17331
45°	15170	16103	17439
50°	14673	16004	17549
55°	14001	15890	18006
60°	13455	15996	18570
65°	12566	16420	19696
70°	11549	17337	21694
75°	10479	19197	24577
80°	9005	23453	32223
85°	7291	37942	55138

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 100085 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.8	2.9
10°-20°	1354.4	8.2
20°-30°	2029.6	12.3
30°-40°	2411.9	14.6
40°-50°	2497.0	15.1
50°-60°	2313.9	14.0
60°-70°	1926.5	11.7
70°-80°	1429.8	8.7
80°-90°	945.7	5.7
90°-100°	575.5	3.5
100°-110°	322.6	2.0
110°-120°	158.9	1.0
120°-130°	64.7	0.4
130°-140°	18.7	0.1
140°-150°	2.7	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	3859.7	23.4
0°-40°	6271.6	37.9
0°-60°	11082.5	67.0
0°-90°	15384.5	93.1
90°-120°	1057.0	6.4
90°-150°	1143.1	6.9
90°-180°	1144.0	6.9
0°-180°	16529.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5018	5018	5018	5018	5018	
5°	5078	5023	5004	5030	4990	480
15°	4812	4793	4795	4802	4860	1363
25°	4366	4362	4384	4469	4492	2010
35°	3728	3756	3836	3958	4015	2333
45°	3023	3067	3209	3409	3476	2329
55°	2263	2360	2569	2826	2911	2024
65°	1497	1637	1956	2243	2346	1487
75°	764	996	1400	1701	1793	818
85°	179	503	932	1263	1354	201
90°	9	326	737	1031	1122	14
95°	2	202	572	852	946	2
105°	2	67	310	526	599	2
115°	2	16	145	289	347	2
125°	2	5	53	133	170	2
135°	5	2	14	44	60	3
145°	5	2	0	5	7	3
155°	5	5	0	0	0	2
165°	7	5	0	0	0	2
175°	7	5	0	0	0	1
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5018.1	5018.1	5018.1	5018.1	5018.1
2.5°	5059.4	5034.1	5025.0	5013.5	5041.0
5°	5077.7	5022.7	5004.3	5029.5	4990.5
7.5°	5006.6	4992.8	4953.8	4967.6	4930.8
10°	4995.1	4919.4	4898.7	4944.6	4933.1
12.5°	4891.8	4827.5	4864.3	4896.4	4852.8
15°	4811.5	4793.1	4795.4	4802.3	4859.7
17.5°	4790.8	4708.2	4685.2	4742.6	4738.0
20°	4602.6	4586.5	4598.0	4673.7	4637.0
22.5°	4492.4	4441.9	4503.9	4577.3	4593.4
25°	4366.1	4361.5	4384.5	4469.4	4492.4
27.5°	4233.0	4203.1	4265.1	4363.8	4382.2
30°	4070.0	4058.5	4134.3	4219.2	4260.5
32.5°	3909.3	3916.2	4003.4	4074.6	4145.8
35°	3728.0	3755.5	3835.9	3957.5	4014.9
37.5°	3544.3	3578.8	3686.6	3826.7	3874.9
40°	3381.3	3388.2	3539.7	3682.1	3741.7
42.5°	3177.0	3245.9	3374.5	3562.7	3608.6
45°	3023.2	3066.9	3209.2	3408.9	3475.5
47.5°	2848.8	2899.3	3062.3	3257.4	3328.5
50°	2658.2	2704.2	2899.3	3121.9	3179.3
52.5°	2447.1	2541.2	2745.5	2975.0	3050.8
55°	2263.4	2359.8	2568.7	2825.8	2910.8
57.5°	2066.0	2162.4	2424.1	2662.8	2773.0
60°	1896.1	1987.9	2254.2	2550.4	2616.9
62.5°	1684.9	1815.8	2105.0	2396.6	2490.7
65°	1496.7	1636.7	1955.8	2242.7	2346.0
67.5°	1324.5	1469.2	1802.0	2109.6	2222.1
70°	1113.3	1303.9	1671.2	1974.2	2091.2
72.5°	957.2	1147.8	1531.1	1831.8	1937.4
75°	764.4	996.3	1400.3	1701.0	1792.8
77.5°	603.7	853.9	1264.8	1602.3	1694.1
80°	440.7	725.4	1147.8	1471.4	1577.0
82.5°	300.7	606.0	1039.9	1349.8	1450.8
85°	179.1	502.7	932.0	1262.6	1354.4
87.5°	78.0	410.9	833.3	1136.3	1230.4
90°	9.2	326.0	736.9	1030.7	1122.5
92.5°	2.3	261.7	651.9	936.6	1026.1
95°	2.3	202.0	571.6	851.6	945.8
97.5°	2.3	156.1	491.2	764.4	853.9
100°	2.3	119.4	424.7	672.6	769.0
102.5°	2.3	89.5	360.4	596.8	679.5
105°	2.3	66.6	309.9	525.7	599.1
107.5°	2.3	48.2	259.4	459.1	532.6
110°	2.3	34.4	218.1	397.1	470.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	25.3	176.8	342.0	404.0
115°	2.3	16.1	144.6	289.2	346.6
117.5°	2.3	11.5	114.8	243.3	298.4
120°	2.3	9.2	91.8	202.0	250.2
122.5°	2.3	6.9	71.2	165.3	211.2
125°	2.3	4.6	52.8	133.1	169.9
127.5°	2.3	4.6	39.0	105.6	137.7
130°	2.3	2.3	27.5	80.3	107.9
132.5°	2.3	2.3	18.4	59.7	80.3
135°	4.6	2.3	13.8	43.6	59.7
137.5°	4.6	2.3	9.2	29.8	41.3
140°	4.6	2.3	4.6	18.4	25.3
142.5°	4.6	2.3	2.3	9.2	13.8
145°	4.6	2.3	0.0	4.6	6.9
147.5°	4.6	2.3	0.0	2.3	2.3
150°	4.6	2.3	0.0	0.0	0.0
152.5°	4.6	2.3	0.0	0.0	0.0
155°	4.6	4.6	0.0	0.0	0.0
157.5°	4.6	4.6	0.0	0.0	0.0
160°	4.6	4.6	0.0	0.0	0.0
162.5°	4.6	4.6	0.0	0.0	0.0
165°	6.9	4.6	0.0	0.0	0.0
167.5°	6.9	4.6	0.0	0.0	0.0
170°	6.9	4.6	0.0	0.0	0.0
172.5°	6.9	4.6	0.0	0.0	0.0
175°	6.9	4.6	0.0	0.0	0.0
177.5°	6.9	4.6	0.0	0.0	0.0
180°	2.3	2.3	2.3	2.3	2.3



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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	20.23	21.77	20.70	22.23	22.71	21.81	23.34	22.28	23.80	24.28
	3H	22.00	23.40	22.48	23.87	24.39	24.39	25.80	24.87	26.26	26.78
	4H	22.65	23.98	23.16	24.47	25.00	25.65	26.98	26.15	27.46	28.00
	6H	23.13	24.37	23.65	24.87	25.42	27.03	28.27	27.55	28.77	29.32
	8H	23.28	24.47	23.81	24.99	25.55	27.76	28.95	28.29	29.47	30.03
	12H	23.38	24.52	23.91	25.03	25.62	28.61	29.75	29.14	30.26	30.85
4H	2H	21.19	22.52	21.69	23.00	23.54	22.38	23.71	22.88	24.19	24.73
	3H	23.23	24.37	23.74	24.89	25.45	25.25	26.38	25.76	26.91	27.47
	4H	24.04	25.08	24.58	25.62	26.21	26.72	27.77	27.26	28.30	28.89
	6H	24.69	25.61	25.25	26.17	26.78	28.34	29.26	28.90	29.83	30.43
	8H	24.92	25.79	25.48	26.35	26.97	29.20	30.07	29.76	30.63	31.25
	12H	25.09	25.88	25.67	26.47	27.09	30.19	30.98	30.77	31.57	32.19
8H	4H	24.89	25.76	25.45	26.32	26.94	27.10	27.96	27.66	28.52	29.14
	6H	25.81	26.55	26.41	27.15	27.78	28.97	29.71	29.57	30.31	30.94
	8H	26.20	26.86	26.80	27.48	28.11	30.03	30.70	30.64	31.31	31.95
	12H	26.52	27.11	27.12	27.72	28.42	31.29	31.89	31.90	32.49	33.19
12H	4H	25.15	25.94	25.73	26.53	27.15	27.14	27.93	27.72	28.52	29.14
	6H	26.24	26.90	26.84	27.52	28.16	29.08	29.75	29.69	30.37	31.00
	8H	26.78	27.37	27.38	27.98	28.68	30.26	30.85	30.86	31.46	32.16