

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: P894737

Luminaire Tested: 8TMB-16HL-RND-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894737
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-L930
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

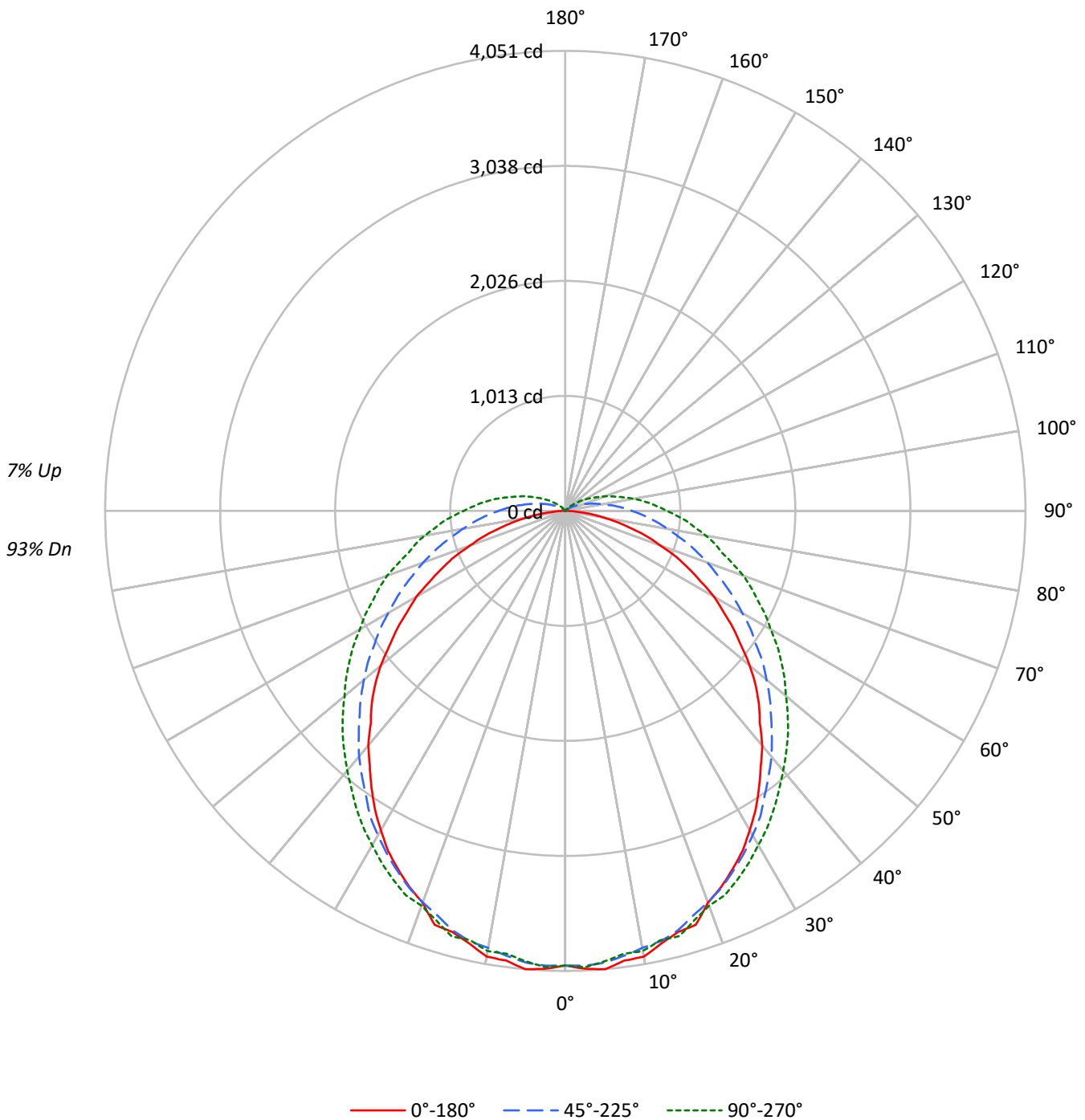
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13186.0 lumens
Efficiency: N/A
Efficacy: 113.9 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 (A_{in}): 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	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	96	96	96	96	96	93
	1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	74	74	74	74	74	74	74	74	74
	2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	60	60	60	60	60	60	60	60	60
	3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50	50	50	50	50	50	50	50	50
	4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	43	43	43	43	43	43	43	43	43
	5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37	37	37	37	37	37	37	37	37
	6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	32	32	32	32	32	32	32	32	32
	7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	28	28	28	28	28	28	28	28	28
	8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	25	25	25	25	25	25	25	25	25
	9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	23	23	23	23	23	23	23	23	23
	10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	21	21	21	21	21	21	21	21	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14204	14204	14204
5°	14428	14219	14180
10°	14357	14080	14179
15°	14099	14052	14241
20°	13864	13850	13968
25°	13636	13693	14030
30°	13302	13512	13925
35°	12882	13255	13873
40°	12494	13079	13826
45°	12102	12846	13912
50°	11706	12767	14000
55°	11169	12676	14364
60°	10734	12761	14814
65°	10024	13099	15713
70°	9214	13831	17307
75°	8360	15314	19607
80°	7184	18708	25707
85°	5813	30268	43987

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 79846 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.5	2.9
10°-20°	1080.4	8.2
20°-30°	1619.1	12.3
30°-40°	1924.1	14.6
40°-50°	1992.0	15.1
50°-60°	1845.9	14.0
60°-70°	1536.8	11.7
70°-80°	1140.6	8.7
80°-90°	754.4	5.7
90°-100°	459.1	3.5
100°-110°	257.4	2.0
110°-120°	126.7	1.0
120°-130°	51.6	0.4
130°-140°	14.9	0.1
140°-150°	2.1	0.0
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	3079.1	23.4
0°-40°	5003.2	37.9
0°-60°	8841.1	67.0
0°-90°	12273.0	93.1
90°-120°	843.2	6.4
90°-150°	911.9	6.9
90°-180°	913.0	6.9
0°-180°	13186.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4003	4003	4003	4003	4003	
5°	4051	4007	3992	4012	3981	383
15°	3838	3824	3826	3831	3877	1087
25°	3483	3479	3498	3566	3584	1603
35°	2974	2996	3060	3157	3203	1861
45°	2412	2447	2560	2719	2772	1858
55°	1806	1882	2049	2254	2322	1615
65°	1194	1306	1560	1789	1872	1186
75°	610	795	1117	1357	1430	652
85°	143	401	744	1007	1080	160
90°	7	260	588	822	896	11
95°	2	161	456	679	754	1
105°	2	53	247	419	478	2
115°	2	13	115	231	276	2
125°	2	4	42	106	136	2
135°	4	2	11	35	48	2
145°	4	2	0	4	6	2
155°	4	4	0	0	0	2
165°	6	4	0	0	0	1
175°	6	4	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°	4003.2	4003.2	4003.2	4003.2	4003.2
2.5°	4036.1	4016.0	4008.7	3999.5	4021.5
5°	4050.8	4006.8	3992.2	4012.3	3981.2
7.5°	3994.0	3983.0	3951.9	3962.9	3933.6
10°	3984.8	3924.4	3907.9	3944.6	3935.4
12.5°	3902.4	3851.2	3880.5	3906.1	3871.3
15°	3838.3	3823.7	3825.5	3831.0	3876.8
17.5°	3821.9	3755.9	3737.6	3783.4	3779.7
20°	3671.7	3658.9	3668.0	3728.5	3699.2
22.5°	3583.8	3543.5	3593.0	3651.6	3664.4
25°	3483.1	3479.4	3497.7	3565.5	3583.8
27.5°	3376.9	3353.1	3402.5	3481.2	3495.9
30°	3246.8	3237.7	3298.1	3365.9	3398.8
32.5°	3118.7	3124.1	3193.7	3250.5	3307.3
35°	2974.0	2996.0	3060.1	3157.1	3202.9
37.5°	2827.5	2855.0	2941.0	3052.7	3091.2
40°	2697.5	2703.0	2823.8	2937.4	2985.0
42.5°	2534.5	2589.4	2692.0	2842.1	2878.8
45°	2411.8	2446.6	2560.1	2719.4	2772.5
47.5°	2272.6	2312.9	2442.9	2598.6	2655.3
50°	2120.6	2157.2	2312.9	2490.5	2536.3
52.5°	1952.1	2027.2	2190.2	2373.3	2433.8
55°	1805.6	1882.5	2049.2	2254.3	2322.1
57.5°	1648.1	1725.1	1933.8	2124.3	2212.2
60°	1512.6	1585.9	1798.3	2034.5	2087.6
62.5°	1344.2	1448.5	1679.3	1911.8	1986.9
65°	1194.0	1305.7	1560.2	1789.2	1871.6
67.5°	1056.6	1172.0	1437.5	1682.9	1772.7
70°	888.2	1040.2	1333.2	1574.9	1668.3
72.5°	763.6	915.6	1221.5	1461.4	1545.6
75°	609.8	794.8	1117.1	1357.0	1430.2
77.5°	481.6	681.2	1009.0	1278.2	1351.5
80°	351.6	578.7	915.6	1173.8	1258.1
82.5°	239.9	483.5	829.6	1076.8	1157.4
85°	142.8	401.0	743.5	1007.2	1080.5
87.5°	62.3	327.8	664.8	906.5	981.6
90°	7.3	260.0	587.8	822.2	895.5
92.5°	1.8	208.8	520.1	747.2	818.6
95°	1.8	161.2	456.0	679.4	754.5
97.5°	1.8	124.5	391.9	609.8	681.2
100°	1.8	95.2	338.8	536.6	613.5
102.5°	1.8	71.4	287.5	476.1	542.1
105°	1.8	53.1	247.2	419.4	478.0
107.5°	1.8	38.5	206.9	366.3	424.9
110°	1.8	27.5	174.0	316.8	375.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	20.1	141.0	272.9	322.3
115°	1.8	12.8	115.4	230.7	276.5
117.5°	1.8	9.2	91.6	194.1	238.1
120°	1.8	7.3	73.3	161.2	199.6
122.5°	1.8	5.5	56.8	131.9	168.5
125°	1.8	3.7	42.1	106.2	135.5
127.5°	1.8	3.7	31.1	84.2	109.9
130°	1.8	1.8	22.0	64.1	86.1
132.5°	1.8	1.8	14.7	47.6	64.1
135°	3.7	1.8	11.0	34.8	47.6
137.5°	3.7	1.8	7.3	23.8	33.0
140°	3.7	1.8	3.7	14.7	20.1
142.5°	3.7	1.8	1.8	7.3	11.0
145°	3.7	1.8	0.0	3.7	5.5
147.5°	3.7	1.8	0.0	1.8	1.8
150°	3.7	1.8	0.0	0.0	0.0
152.5°	3.7	1.8	0.0	0.0	0.0
155°	3.7	3.7	0.0	0.0	0.0
157.5°	3.7	3.7	0.0	0.0	0.0
160°	3.7	3.7	0.0	0.0	0.0
162.5°	3.7	3.7	0.0	0.0	0.0
165°	5.5	3.7	0.0	0.0	0.0
167.5°	5.5	3.7	0.0	0.0	0.0
170°	5.5	3.7	0.0	0.0	0.0
172.5°	5.5	3.7	0.0	0.0	0.0
175°	5.5	3.7	0.0	0.0	0.0
177.5°	5.5	3.7	0.0	0.0	0.0
180°	1.8	1.8	1.8	1.8	1.8



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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	19.45	20.99	19.92	21.44	21.92	21.02	22.56	21.49	23.01	23.50
	3H	21.21	22.62	21.69	23.08	23.60	23.61	25.01	24.09	25.48	26.00
	4H	21.87	23.20	22.37	23.68	24.22	24.87	26.20	25.37	26.68	27.22
	6H	22.35	23.59	22.86	24.08	24.64	26.25	27.49	26.76	27.98	28.54
	8H	22.50	23.68	23.02	24.20	24.76	26.98	28.17	27.50	28.69	29.24
	12H	22.59	23.73	23.13	24.25	24.84	27.82	28.96	28.35	29.47	30.06
4H	2H	20.40	21.73	20.91	22.22	22.75	21.59	22.92	22.10	23.41	23.94
	3H	22.44	23.58	22.96	24.11	24.67	24.46	25.60	24.98	26.12	26.68
	4H	23.26	24.30	23.79	24.83	25.43	25.94	26.98	26.47	27.52	28.11
	6H	23.91	24.83	24.46	25.39	26.00	27.56	28.48	28.11	29.04	29.65
	8H	24.13	25.00	24.69	25.56	26.18	28.42	29.28	28.98	29.84	30.46
	12H	24.30	25.09	24.88	25.68	26.30	29.41	30.20	29.99	30.78	31.41
8H	4H	24.11	24.97	24.67	25.53	26.15	26.31	27.18	26.87	27.74	28.36
	6H	25.03	25.77	25.62	26.37	26.99	28.19	28.92	28.78	29.53	30.15
	8H	25.41	26.08	26.02	26.69	27.33	29.25	29.91	29.85	30.53	31.17
	12H	25.73	26.33	26.34	26.93	27.63	30.51	31.10	31.11	31.70	32.41
12H	4H	24.37	25.16	24.95	25.75	26.37	26.35	27.14	26.94	27.73	28.36
	6H	25.45	26.12	26.06	26.73	27.37	28.30	28.97	28.90	29.58	30.22
	8H	25.99	26.59	26.60	27.19	27.89	29.47	30.07	30.08	30.67	31.37