

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: P843359

Luminaire Tested: 24CGSB-80-L930

Issue Date: 5/31/2024

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.

**Test Information**

Test Method: LM-79-2019  
 Report Number: P843359  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-80-L930  
 Description: 2x4 CGSB AT 8000LM 3000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

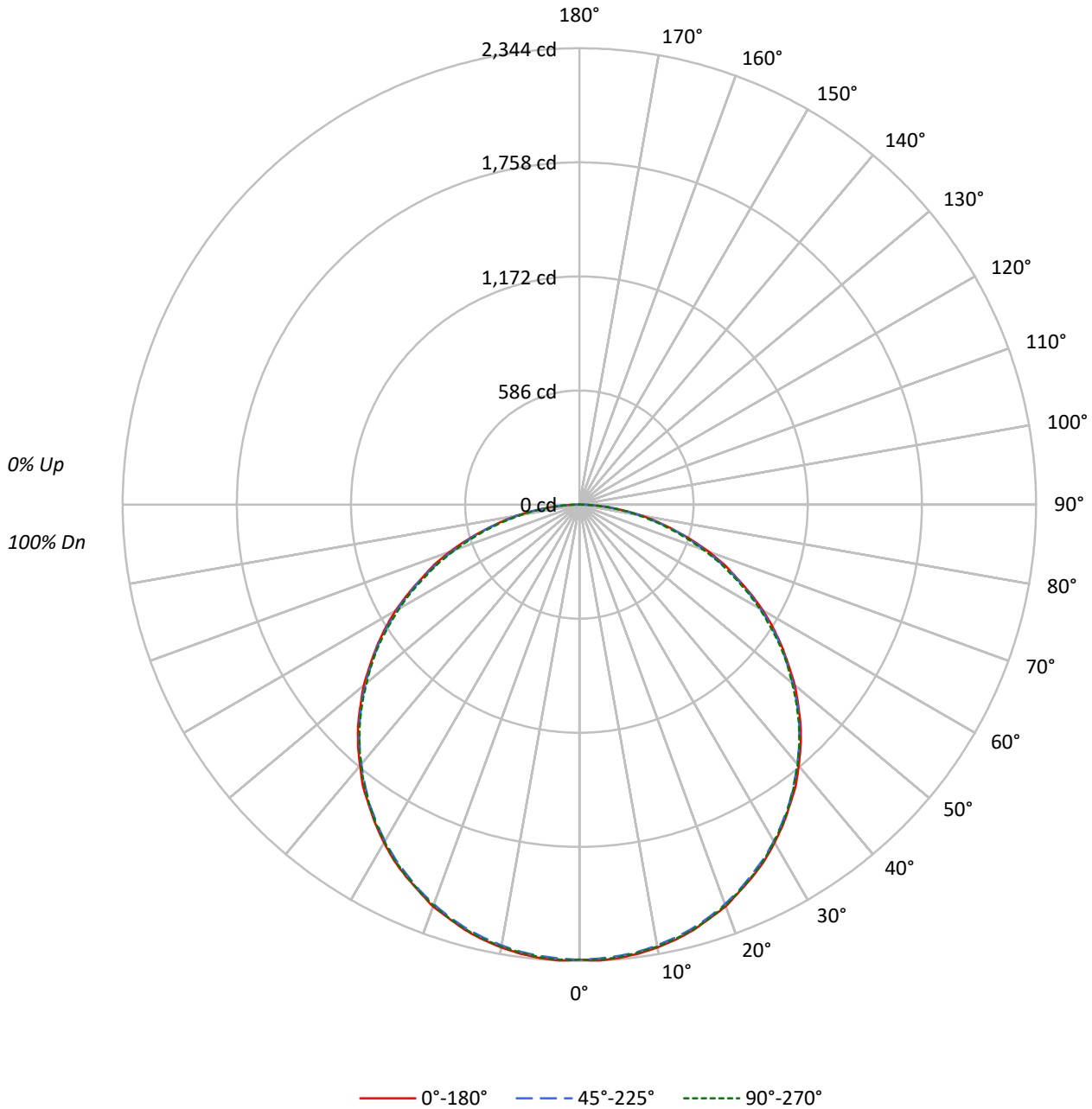
Lumens per Lamp: N/A  
 Luminaire Lumens: 6915.3 lumens  
 Efficiency: N/A  
 Efficacy: 103.4 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 66.9  
 Input Voltage (V): 120  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: NR  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

TEST NUMBER: P843359  
CATALOG NUMBER: 24CGSB-80-L930

### Luminous Intensity Polar Plot



TEST NUMBER: P843359  
 CATALOG NUMBER: 24CGSB-80-L930

**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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

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

	0°	45°	90°
0°	3145	3145	3145
5°	3157	3143	3151
10°	3155	3141	3150
15°	3152	3137	3146
20°	3145	3127	3136
25°	3128	3113	3122
30°	3115	3102	3105
35°	3094	3083	3087
40°	3076	3057	3061
45°	3057	3037	3033
50°	3024	2997	2984
55°	2974	2959	2944
60°	2930	2895	2873
65°	2835	2815	2774
70°	2774	2699	2657
75°	2625	2592	2503
80°	2510	2427	2328
85°	2237	2205	2039

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3057 cd/sqm

TEST NUMBER: P843359  
 CATALOG NUMBER: 24CGSB-80-L930

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.5	3.2
10°-20°	636.3	9.2
20°-30°	968.4	14.0
30°-40°	1175.4	17.0
40°-50°	1231.0	17.8
50°-60°	1124.8	16.3
60°-70°	874.2	12.6
70°-80°	524.3	7.6
80°-90°	159.4	2.3
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°	1826.2	26.4
0°-40°	3001.6	43.4
0°-60°	5357.4	77.5
0°-90°	6915.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6915.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2337	2337	2337	2337	2337	
5°	2337	2331	2327	2327	2333	222
15°	2263	2254	2252	2252	2258	638
25°	2107	2099	2097	2099	2103	972
35°	1884	1879	1877	1877	1879	1180
45°	1606	1598	1596	1594	1594	1238
55°	1268	1264	1261	1251	1255	1134
65°	891	888	884	874	871	887
75°	505	503	499	490	482	537
85°	145	143	143	138	132	163
90°	0	0	0	0	0	

TEST NUMBER: P843359  
 CATALOG NUMBER: 24CGSB-80-L930

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2337.3	2337.3	2337.3	2337.3	2337.3
2.5°	2343.7	2335.2	2333.1	2333.1	2339.4
5°	2337.3	2330.9	2326.7	2326.7	2333.1
7.5°	2326.7	2318.1	2316.0	2316.0	2320.3
10°	2309.6	2303.2	2299.0	2299.0	2305.4
12.5°	2288.3	2279.8	2277.7	2279.8	2284.0
15°	2262.7	2254.2	2252.1	2252.1	2258.5
17.5°	2228.7	2222.3	2220.1	2220.1	2226.5
20°	2196.7	2186.0	2183.9	2186.0	2190.3
22.5°	2149.8	2145.6	2143.4	2145.6	2147.7
25°	2107.2	2098.7	2096.6	2098.7	2102.9
27.5°	2060.3	2051.8	2049.7	2049.7	2056.1
30°	2004.9	1998.5	1996.4	1996.4	1998.5
32.5°	1947.4	1943.1	1936.8	1938.9	1943.1
35°	1883.5	1879.2	1877.1	1877.1	1879.2
37.5°	1823.8	1815.3	1808.9	1808.9	1813.2
40°	1751.4	1747.1	1740.7	1742.9	1742.9
42.5°	1681.1	1674.7	1670.4	1668.3	1670.4
45°	1606.5	1598.0	1595.9	1593.7	1593.7
47.5°	1523.4	1523.4	1517.0	1512.8	1510.6
50°	1444.6	1436.1	1431.8	1425.4	1425.4
52.5°	1353.0	1350.8	1344.4	1342.3	1342.3
55°	1267.7	1263.5	1261.3	1250.7	1254.9
57.5°	1180.4	1171.9	1169.7	1163.3	1159.1
60°	1088.8	1084.5	1076.0	1067.5	1067.5
62.5°	990.7	988.6	980.1	973.7	971.6
65°	890.6	888.5	884.2	873.6	871.4
67.5°	805.4	796.9	786.2	777.7	777.7
70°	705.2	694.6	686.1	677.5	675.4
72.5°	603.0	596.6	592.3	583.8	577.4
75°	505.0	502.8	498.6	490.0	481.5
77.5°	413.3	411.2	400.6	394.2	387.8
80°	323.9	315.3	313.2	304.7	300.4
82.5°	228.0	232.2	221.6	219.5	217.3
85°	144.9	142.8	142.8	138.5	132.1
87.5°	63.9	66.0	66.0	66.0	66.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)