

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: P843297

Luminaire Tested: 24CGSB-30-L940

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: P843297  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-30-L940  
 Description: 2x4 CGSB AT 3000LM 4000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

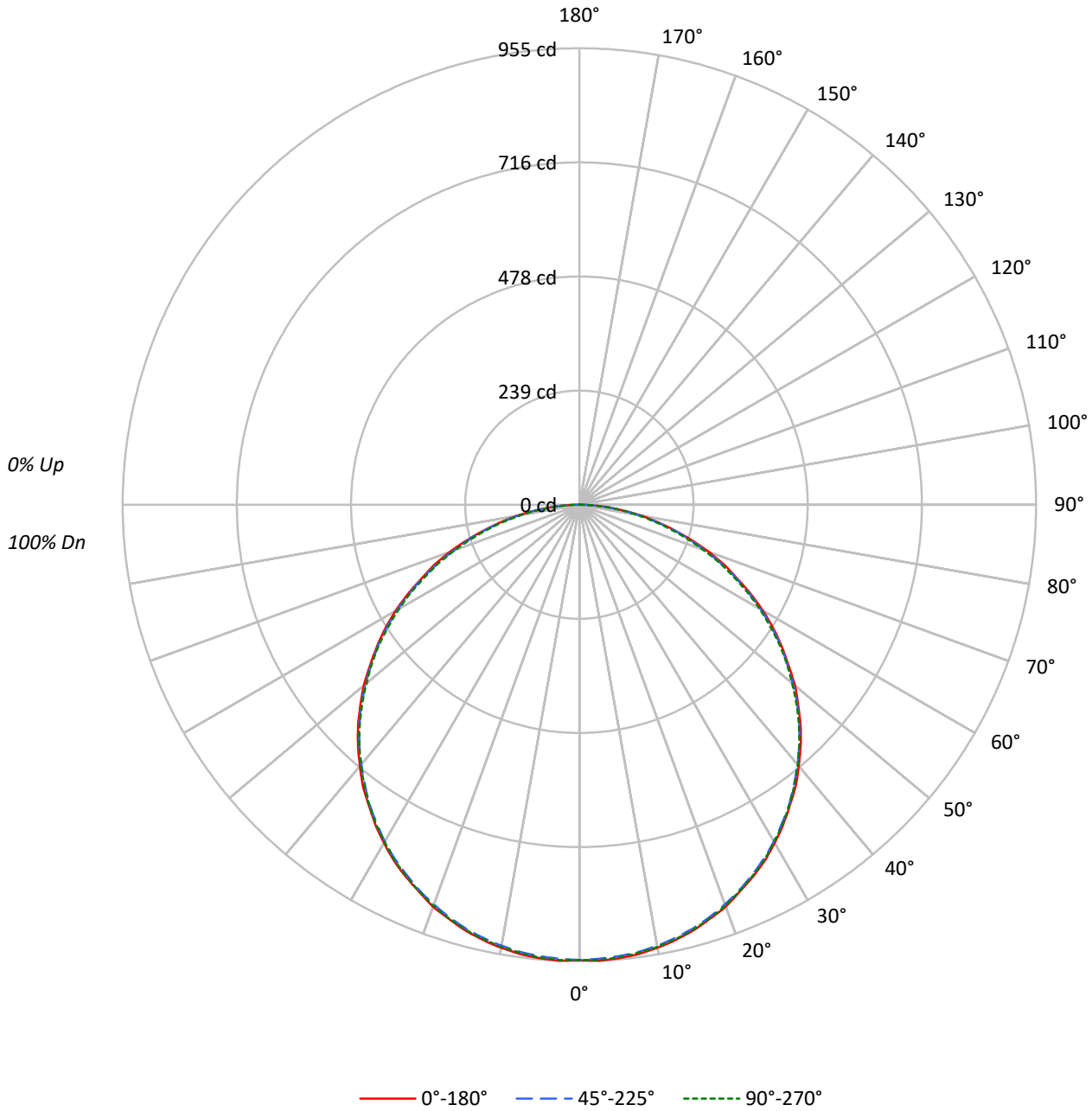
Lumens per Lamp: N/A  
 Luminaire Lumens: 2818.2 lumens  
 Efficiency: N/A  
 Efficacy: 115.5 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 24.4  
 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: P843297  
CATALOG NUMBER: 24CGSB-30-L940

### Luminous Intensity Polar Plot



TEST NUMBER: P843297  
 CATALOG NUMBER: 24CGSB-30-L940

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	
RW	70	50	30	10	70	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	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°	1282	1282	1282
5°	1286	1281	1284
10°	1286	1280	1284
15°	1285	1278	1282
20°	1282	1274	1278
25°	1275	1268	1272
30°	1269	1264	1265
35°	1261	1257	1258
40°	1254	1246	1248
45°	1246	1238	1236
50°	1232	1221	1216
55°	1212	1206	1200
60°	1194	1180	1171
65°	1156	1147	1131
70°	1131	1100	1083
75°	1070	1056	1020
80°	1023	989	948
85°	911	898	831

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1246 cd/sqm

TEST NUMBER: P843297  
 CATALOG NUMBER: 24CGSB-30-L940

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.3	3.2
10°-20°	259.3	9.2
20°-30°	394.7	14.0
30°-40°	479.0	17.0
40°-50°	501.7	17.8
50°-60°	458.4	16.3
60°-70°	356.3	12.6
70°-80°	213.6	7.6
80°-90°	65.0	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°	744.3	26.4
0°-40°	1223.3	43.4
0°-60°	2183.3	77.5
0°-90°	2818.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2818.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	952	950	948	948	951	91
15°	922	919	918	918	920	260
25°	859	855	854	855	857	396
35°	768	766	765	765	766	481
45°	655	651	650	650	650	504
55°	517	515	514	510	511	462
65°	363	362	360	356	355	361
75°	206	205	203	200	196	219
85°	59	58	58	56	54	66
90°	0	0	0	0	0	

TEST NUMBER: P843297  
 CATALOG NUMBER: 24CGSB-30-L940

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	952.5	952.5	952.5	952.5	952.5
2.5°	955.1	951.7	950.8	950.8	953.4
5°	952.5	949.9	948.2	948.2	950.8
7.5°	948.2	944.7	943.9	943.9	945.6
10°	941.3	938.6	936.9	936.9	939.5
12.5°	932.6	929.1	928.2	929.1	930.8
15°	922.2	918.7	917.8	917.8	920.4
17.5°	908.3	905.7	904.8	904.8	907.4
20°	895.2	890.9	890.0	890.9	892.6
22.5°	876.1	874.4	873.5	874.4	875.3
25°	858.8	855.3	854.4	855.3	857.0
27.5°	839.7	836.2	835.3	835.3	837.9
30°	817.1	814.5	813.6	813.6	814.5
32.5°	793.6	791.9	789.3	790.2	791.9
35°	767.6	765.9	765.0	765.0	765.9
37.5°	743.3	739.8	737.2	737.2	738.9
40°	713.8	712.0	709.4	710.3	710.3
42.5°	685.1	682.5	680.8	679.9	680.8
45°	654.7	651.2	650.4	649.5	649.5
47.5°	620.8	620.8	618.2	616.5	615.6
50°	588.7	585.2	583.5	580.9	580.9
52.5°	551.4	550.5	547.9	547.0	547.0
55°	516.6	514.9	514.0	509.7	511.4
57.5°	481.0	477.6	476.7	474.1	472.4
60°	443.7	442.0	438.5	435.0	435.0
62.5°	403.8	402.9	399.4	396.8	396.0
65°	363.0	362.1	360.4	356.0	355.1
67.5°	328.2	324.8	320.4	316.9	316.9
70°	287.4	283.1	279.6	276.1	275.3
72.5°	245.7	243.1	241.4	237.9	235.3
75°	205.8	204.9	203.2	199.7	196.2
77.5°	168.5	167.6	163.2	160.6	158.0
80°	132.0	128.5	127.6	124.2	122.4
82.5°	92.9	94.6	90.3	89.4	88.6
85°	59.0	58.2	58.2	56.4	53.8
87.5°	26.0	26.9	26.9	26.9	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)