

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: P843298

Luminaire Tested: 24CGSB-30-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843298  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-30-L950  
 Description: 2x4 CGSB AT 3000LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

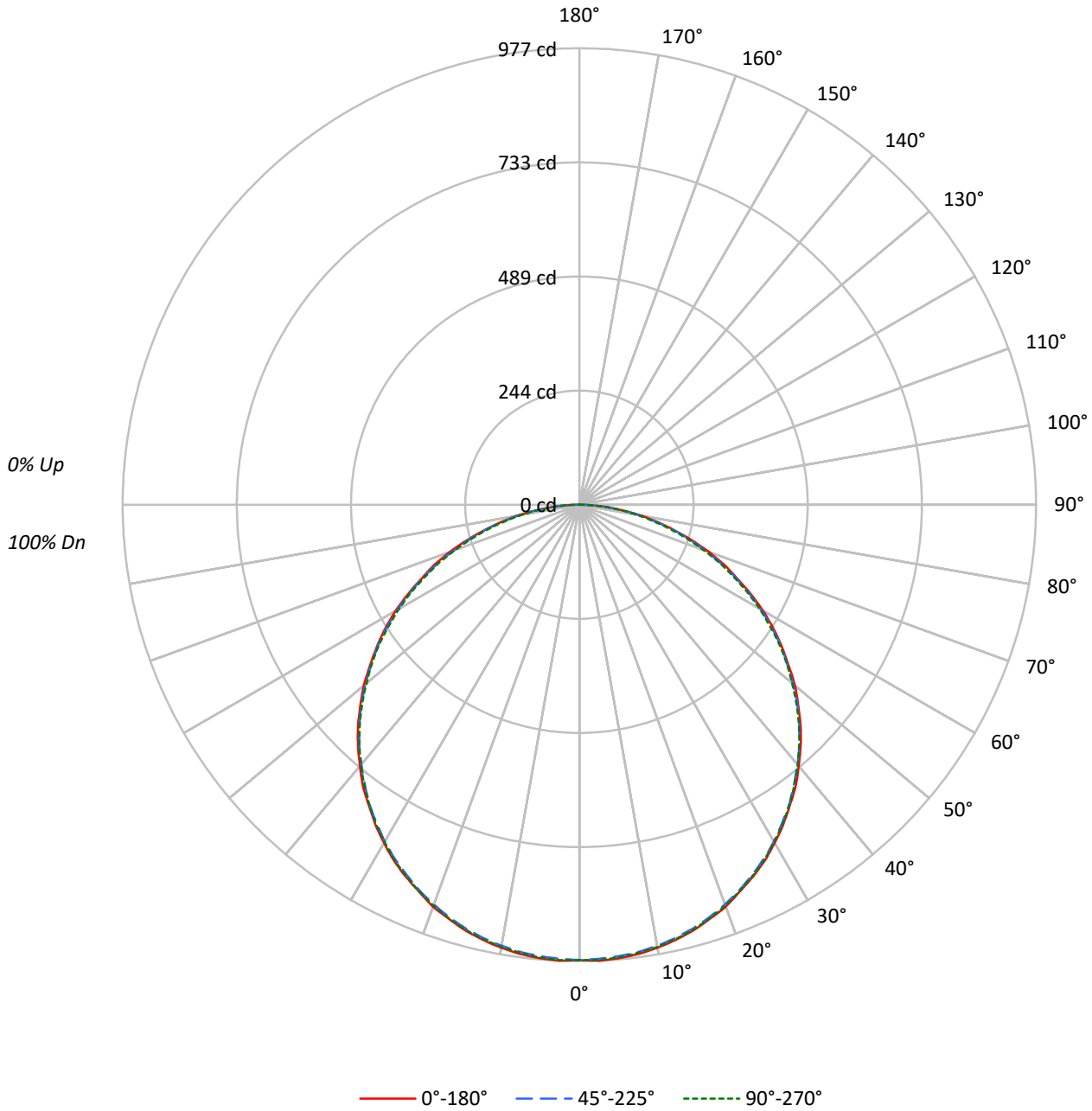
Lumens per Lamp: N/A  
 Luminaire Lumens: 2883.0 lumens  
 Efficiency: N/A  
 Efficacy: 118.2 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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

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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	
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°	1311	1311	1311
5°	1316	1310	1314
10°	1316	1310	1313
15°	1314	1308	1312
20°	1311	1304	1307
25°	1304	1298	1302
30°	1299	1293	1294
35°	1290	1285	1287
40°	1283	1275	1276
45°	1275	1266	1264
50°	1261	1249	1244
55°	1240	1234	1227
60°	1221	1207	1197
65°	1182	1174	1157
70°	1157	1125	1108
75°	1094	1081	1044
80°	1046	1012	970
85°	932	919	851

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1275 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.3	3.2
10°-20°	265.3	9.2
20°-30°	403.7	14.0
30°-40°	490.0	17.0
40°-50°	513.2	17.8
50°-60°	468.9	16.3
60°-70°	364.4	12.6
70°-80°	218.6	7.6
80°-90°	66.5	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°	761.4	26.4
0°-40°	1251.4	43.4
0°-60°	2233.5	77.5
0°-90°	2883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2883.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	974	972	970	970	973	93
15°	943	940	939	939	942	266
25°	878	875	874	875	877	405
35°	785	784	783	783	784	492
45°	670	666	665	664	664	516
55°	528	527	526	521	523	473
65°	371	370	369	364	363	370
75°	210	210	208	204	201	224
85°	60	60	60	58	55	68
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	974.4	974.4	974.4	974.4	974.4
2.5°	977.1	973.6	972.7	972.7	975.3
5°	974.4	971.8	970.0	970.0	972.7
7.5°	970.0	966.4	965.6	965.6	967.3
10°	962.9	960.2	958.5	958.5	961.1
12.5°	954.0	950.5	949.6	950.5	952.2
15°	943.4	939.8	938.9	938.9	941.6
17.5°	929.1	926.5	925.6	925.6	928.2
20°	915.8	911.4	910.5	911.4	913.1
22.5°	896.3	894.5	893.6	894.5	895.4
25°	878.5	875.0	874.1	875.0	876.7
27.5°	859.0	855.4	854.5	854.5	857.2
30°	835.9	833.2	832.3	832.3	833.2
32.5°	811.9	810.1	807.4	808.3	810.1
35°	785.2	783.5	782.6	782.6	783.5
37.5°	760.4	756.8	754.1	754.1	755.9
40°	730.2	728.4	725.7	726.6	726.6
42.5°	700.9	698.2	696.4	695.5	696.4
45°	669.8	666.2	665.3	664.4	664.4
47.5°	635.1	635.1	632.5	630.7	629.8
50°	602.3	598.7	596.9	594.3	594.3
52.5°	564.1	563.2	560.5	559.6	559.6
55°	528.5	526.7	525.9	521.4	523.2
57.5°	492.1	488.6	487.7	485.0	483.2
60°	453.9	452.1	448.6	445.0	445.0
62.5°	413.0	412.2	408.6	405.9	405.1
65°	371.3	370.4	368.6	364.2	363.3
67.5°	335.8	332.2	327.8	324.2	324.2
70°	294.0	289.6	286.0	282.5	281.6
72.5°	251.4	248.7	246.9	243.4	240.7
75°	210.5	209.6	207.9	204.3	200.8
77.5°	172.3	171.4	167.0	164.3	161.7
80°	135.0	131.5	130.6	127.0	125.2
82.5°	95.0	96.8	92.4	91.5	90.6
85°	60.4	59.5	59.5	57.7	55.1
87.5°	26.6	27.5	27.5	27.5	27.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)