

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: P843294

Luminaire Tested: 24CGSB-30-L850

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843294  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-30-L850  
 Description: 2x4 CGSB AT 3000LM 5000K 80CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

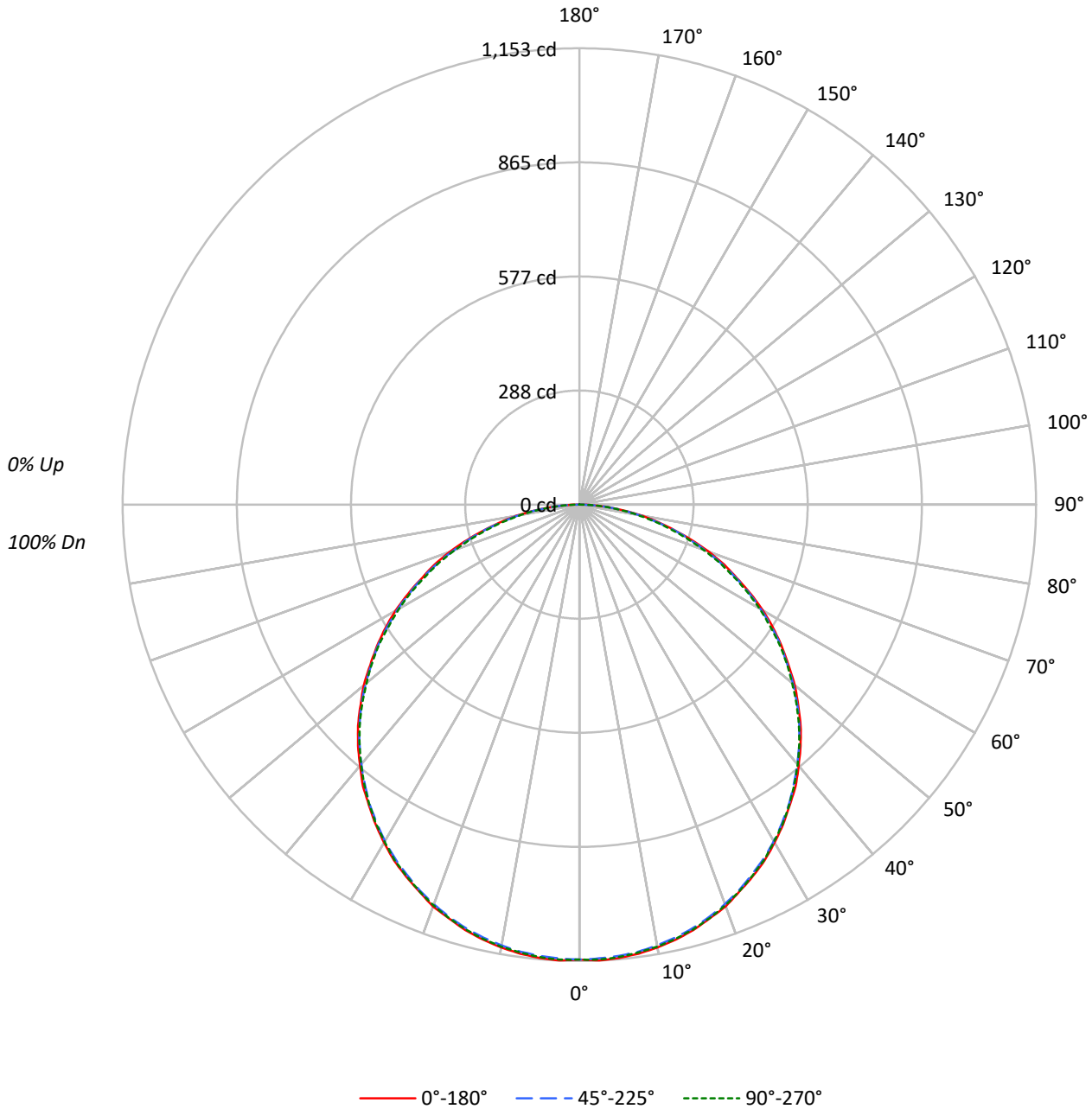
Lumens per Lamp: N/A  
 Luminaire Lumens: 3401.3 lumens  
 Efficiency: N/A  
 Efficacy: 139.4 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 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	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°	1547	1547	1547
5°	1553	1546	1550
10°	1552	1545	1549
15°	1550	1543	1547
20°	1547	1538	1543
25°	1539	1531	1536
30°	1532	1526	1527
35°	1522	1517	1518
40°	1513	1504	1506
45°	1504	1494	1492
50°	1487	1474	1468
55°	1463	1455	1448
60°	1441	1424	1413
65°	1395	1385	1365
70°	1365	1327	1307
75°	1291	1275	1231
80°	1234	1194	1145
85°	1101	1084	1003

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1504 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.9	3.2
10°-20°	313.0	9.2
20°-30°	476.3	14.0
30°-40°	578.1	17.0
40°-50°	605.5	17.8
50°-60°	553.2	16.3
60°-70°	430.0	12.6
70°-80°	257.9	7.6
80°-90°	78.4	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°	898.2	26.4
0°-40°	1476.4	43.4
0°-60°	2635.1	77.5
0°-90°	3401.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3401.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1150	1146	1144	1144	1148	109
15°	1113	1109	1108	1108	1111	314
25°	1036	1032	1031	1032	1034	478
35°	926	924	923	923	924	580
45°	790	786	785	784	784	609
55°	624	621	620	615	617	558
65°	438	437	435	430	429	436
75°	248	247	245	241	237	264
85°	71	70	70	68	65	80
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1149.6	1149.6	1149.6	1149.6	1149.6
2.5°	1152.8	1148.6	1147.5	1147.5	1150.7
5°	1149.6	1146.5	1144.4	1144.4	1147.5
7.5°	1144.4	1140.2	1139.1	1139.1	1141.2
10°	1136.0	1132.9	1130.8	1130.8	1133.9
12.5°	1125.5	1121.3	1120.3	1121.3	1123.4
15°	1112.9	1108.7	1107.7	1107.7	1110.8
17.5°	1096.2	1093.0	1092.0	1092.0	1095.1
20°	1080.5	1075.2	1074.2	1075.2	1077.3
22.5°	1057.4	1055.3	1054.3	1055.3	1056.4
25°	1036.4	1032.2	1031.2	1032.2	1034.3
27.5°	1013.4	1009.2	1008.1	1008.1	1011.3
30°	986.1	983.0	981.9	981.9	983.0
32.5°	957.8	955.7	952.6	953.7	955.7
35°	926.4	924.3	923.3	923.3	924.3
37.5°	897.1	892.9	889.7	889.7	891.8
40°	861.4	859.3	856.2	857.2	857.2
42.5°	826.8	823.7	821.6	820.6	821.6
45°	790.2	786.0	784.9	783.9	783.9
47.5°	749.3	749.3	746.2	744.1	743.0
50°	710.5	706.3	704.2	701.1	701.1
52.5°	665.5	664.4	661.3	660.2	660.2
55°	623.5	621.4	620.4	615.2	617.3
57.5°	580.6	576.4	575.3	572.2	570.1
60°	535.5	533.4	529.2	525.0	525.0
62.5°	487.3	486.3	482.1	478.9	477.9
65°	438.1	437.0	434.9	429.7	428.6
67.5°	396.1	391.9	386.7	382.5	382.5
70°	346.9	341.6	337.4	333.3	332.2
72.5°	296.6	293.4	291.3	287.1	284.0
75°	248.4	247.3	245.2	241.0	236.8
77.5°	203.3	202.3	197.0	193.9	190.7
80°	159.3	155.1	154.1	149.9	147.8
82.5°	112.1	114.2	109.0	107.9	106.9
85°	71.3	70.2	70.2	68.1	65.0
87.5°	31.4	32.5	32.5	32.5	32.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)