

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: P843302

Luminaire Tested: 24CGSB-35-L850

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843302  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-35-L850  
 Description: 2x4 CGSB AT 3500LM 5000K 80CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

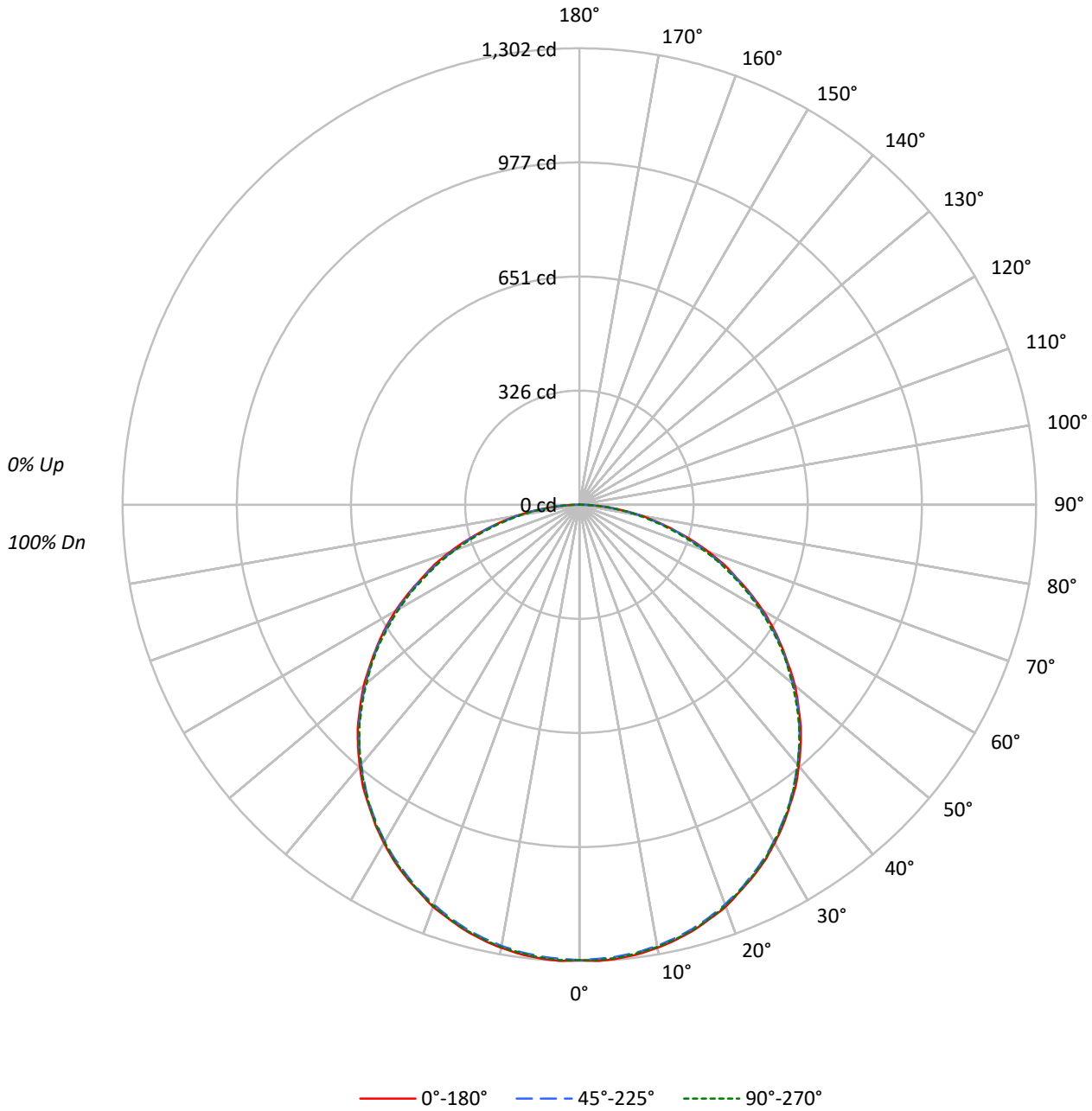
Lumens per Lamp: N/A  
 Luminaire Lumens: 3842.6 lumens  
 Efficiency: N/A  
 Efficacy: 139.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 27.5  
 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°	1748	1748	1748
5°	1754	1746	1751
10°	1753	1745	1750
15°	1751	1743	1748
20°	1748	1738	1743
25°	1738	1730	1735
30°	1731	1723	1725
35°	1719	1713	1715
40°	1709	1699	1701
45°	1699	1687	1685
50°	1680	1665	1658
55°	1652	1644	1636
60°	1628	1609	1596
65°	1576	1564	1542
70°	1542	1500	1476
75°	1459	1440	1391
80°	1395	1348	1293
85°	1243	1224	1133

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1699 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.1	3.2
10°-20°	353.6	9.2
20°-30°	538.1	14.0
30°-40°	653.1	17.0
40°-50°	684.0	17.8
50°-60°	625.0	16.3
60°-70°	485.7	12.6
70°-80°	291.3	7.6
80°-90°	88.6	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°	1014.8	26.4
0°-40°	1667.9	43.4
0°-60°	2976.9	77.5
0°-90°	3842.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1299	1299	1299	1299	1299	
5°	1299	1295	1293	1293	1296	123
15°	1257	1253	1251	1251	1255	355
25°	1171	1166	1165	1166	1168	540
35°	1047	1044	1043	1043	1044	656
45°	893	888	887	886	886	688
55°	704	702	701	695	697	630
65°	495	494	491	485	484	493
75°	281	279	277	272	268	298
85°	80	79	79	77	73	91
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1298.8	1298.8	1298.8	1298.8	1298.8
2.5°	1302.3	1297.6	1296.4	1296.4	1299.9
5°	1298.8	1295.2	1292.8	1292.8	1296.4
7.5°	1292.8	1288.1	1286.9	1286.9	1289.3
10°	1283.4	1279.8	1277.4	1277.4	1281.0
12.5°	1271.5	1266.8	1265.6	1266.8	1269.2
15°	1257.3	1252.6	1251.4	1251.4	1255.0
17.5°	1238.4	1234.8	1233.6	1233.6	1237.2
20°	1220.6	1214.7	1213.5	1214.7	1217.1
22.5°	1194.6	1192.2	1191.0	1192.2	1193.4
25°	1170.9	1166.2	1165.0	1166.2	1168.5
27.5°	1144.9	1140.1	1138.9	1138.9	1142.5
30°	1114.1	1110.5	1109.3	1109.3	1110.5
32.5°	1082.1	1079.7	1076.2	1077.4	1079.7
35°	1046.6	1044.2	1043.0	1043.0	1044.2
37.5°	1013.4	1008.7	1005.1	1005.1	1007.5
40°	973.2	970.8	967.3	968.4	968.4
42.5°	934.1	930.6	928.2	927.0	928.2
45°	892.7	887.9	886.8	885.6	885.6
47.5°	846.5	846.5	843.0	840.6	839.4
50°	802.7	798.0	795.6	792.0	792.0
52.5°	751.8	750.6	747.1	745.9	745.9
55°	704.4	702.1	700.9	695.0	697.3
57.5°	655.9	651.2	650.0	646.4	644.1
60°	605.0	602.6	597.9	593.1	593.1
62.5°	550.5	549.3	544.6	541.1	539.9
65°	494.9	493.7	491.3	485.4	484.2
67.5°	447.5	442.8	436.9	432.1	432.1
70°	391.9	386.0	381.2	376.5	375.3
72.5°	335.0	331.5	329.1	324.4	320.8
75°	280.6	279.4	277.0	272.3	267.6
77.5°	229.7	228.5	222.6	219.0	215.5
80°	180.0	175.2	174.0	169.3	166.9
82.5°	126.7	129.0	123.1	121.9	120.8
85°	80.5	79.3	79.3	77.0	73.4
87.5°	35.5	36.7	36.7	36.7	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)