

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: P843306

Luminaire Tested: 24CGSB-35-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843306  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-35-L950  
 Description: 2x4 CGSB AT 3500LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

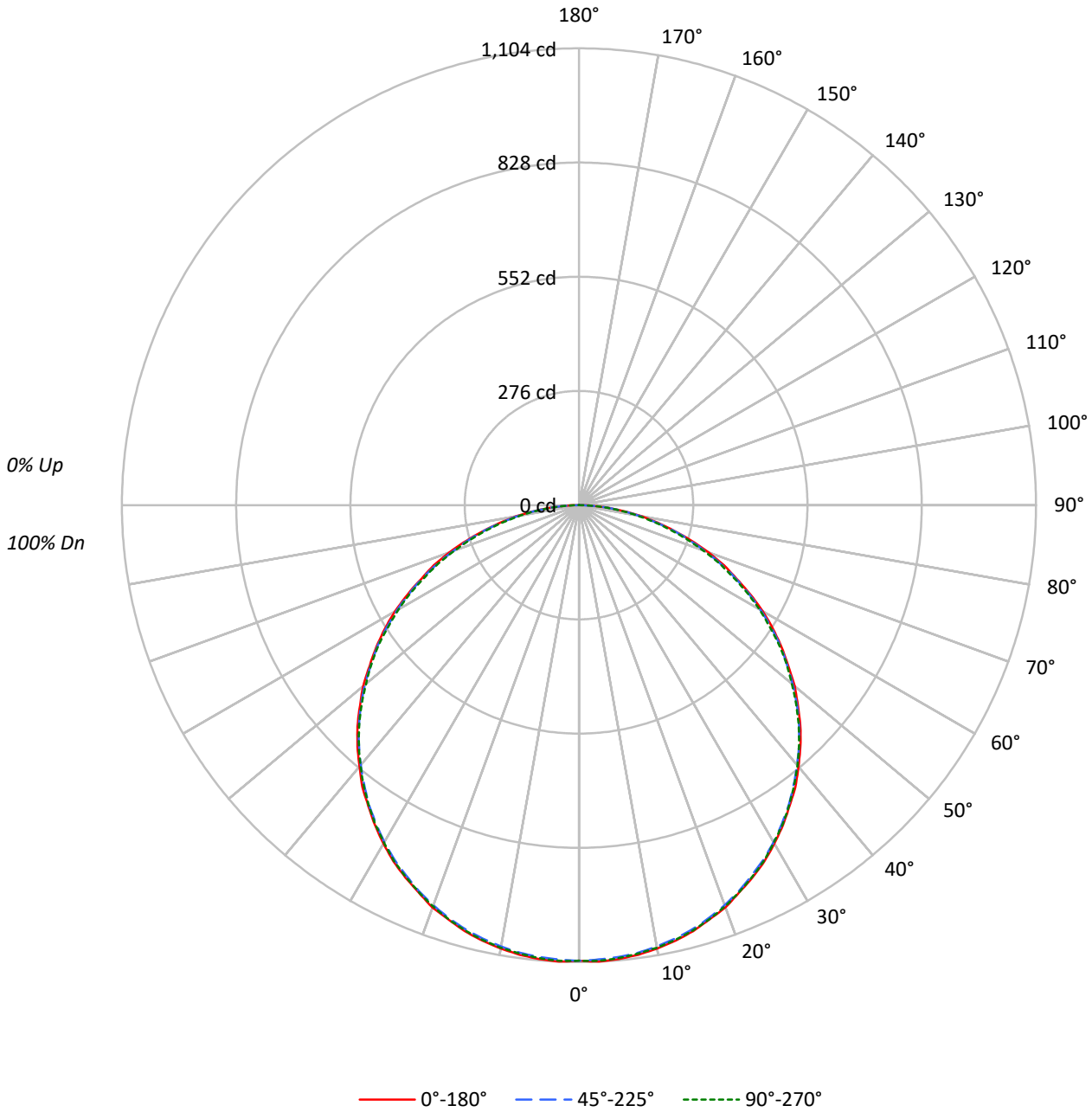
Lumens per Lamp: N/A  
 Luminaire Lumens: 3257.0 lumens  
 Efficiency: N/A  
 Efficacy: 118.4 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 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°	1481	1481	1481
5°	1487	1480	1484
10°	1486	1479	1483
15°	1484	1478	1482
20°	1481	1473	1477
25°	1473	1466	1470
30°	1467	1461	1462
35°	1457	1452	1454
40°	1449	1440	1442
45°	1440	1430	1428
50°	1424	1412	1405
55°	1401	1394	1387
60°	1380	1364	1353
65°	1336	1326	1307
70°	1307	1271	1251
75°	1236	1221	1179
80°	1182	1143	1096
85°	1053	1037	960

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1440 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	3.2
10°-20°	299.7	9.2
20°-30°	456.1	14.0
30°-40°	553.6	17.0
40°-50°	579.8	17.8
50°-60°	529.8	16.3
60°-70°	411.7	12.6
70°-80°	246.9	7.6
80°-90°	75.1	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°	860.1	26.4
0°-40°	1413.7	43.4
0°-60°	2523.3	77.5
0°-90°	3257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3257.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1101	1101	1101	1101	1101	
5°	1101	1098	1096	1096	1099	105
15°	1066	1062	1061	1061	1064	301
25°	992	988	988	988	990	458
35°	887	885	884	884	885	556
45°	757	753	752	751	751	583
55°	597	595	594	589	591	534
65°	420	418	416	411	410	418
75°	238	237	235	231	227	253
85°	68	67	67	65	62	77
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1100.9	1100.9	1100.9	1100.9	1100.9
2.5°	1103.9	1099.9	1098.8	1098.8	1101.9
5°	1100.9	1097.8	1095.8	1095.8	1098.8
7.5°	1095.8	1091.8	1090.8	1090.8	1092.8
10°	1087.8	1084.8	1082.8	1082.8	1085.8
12.5°	1077.8	1073.8	1072.8	1073.8	1075.8
15°	1065.7	1061.7	1060.7	1060.7	1063.7
17.5°	1049.7	1046.7	1045.7	1045.7	1048.7
20°	1034.6	1029.6	1028.6	1029.6	1031.6
22.5°	1012.5	1010.5	1009.5	1010.5	1011.5
25°	992.5	988.5	987.5	988.5	990.5
27.5°	970.4	966.4	965.4	965.4	968.4
30°	944.3	941.3	940.3	940.3	941.3
32.5°	917.2	915.2	912.2	913.2	915.2
35°	887.1	885.1	884.1	884.1	885.1
37.5°	859.0	855.0	852.0	852.0	854.0
40°	824.9	822.9	819.9	820.9	820.9
42.5°	791.8	788.8	786.8	785.8	786.8
45°	756.6	752.6	751.6	750.6	750.6
47.5°	717.5	717.5	714.5	712.5	711.5
50°	680.4	676.4	674.4	671.4	671.4
52.5°	637.2	636.2	633.2	632.2	632.2
55°	597.1	595.1	594.1	589.1	591.1
57.5°	555.9	551.9	550.9	547.9	545.9
60°	512.8	510.8	506.8	502.8	502.8
62.5°	466.6	465.6	461.6	458.6	457.6
65°	419.5	418.5	416.5	411.4	410.4
67.5°	379.3	375.3	370.3	366.3	366.3
70°	332.2	327.1	323.1	319.1	318.1
72.5°	284.0	281.0	279.0	275.0	272.0
75°	237.8	236.8	234.8	230.8	226.8
77.5°	194.7	193.7	188.7	185.6	182.6
80°	152.5	148.5	147.5	143.5	141.5
82.5°	107.4	109.4	104.4	103.4	102.4
85°	68.2	67.2	67.2	65.2	62.2
87.5°	30.1	31.1	31.1	31.1	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)