

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: P843299

Luminaire Tested: 24CGSB-35-L830

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843299  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-35-L830  
 Description: 2x4 CGSB AT 3500LM 3000K 80CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

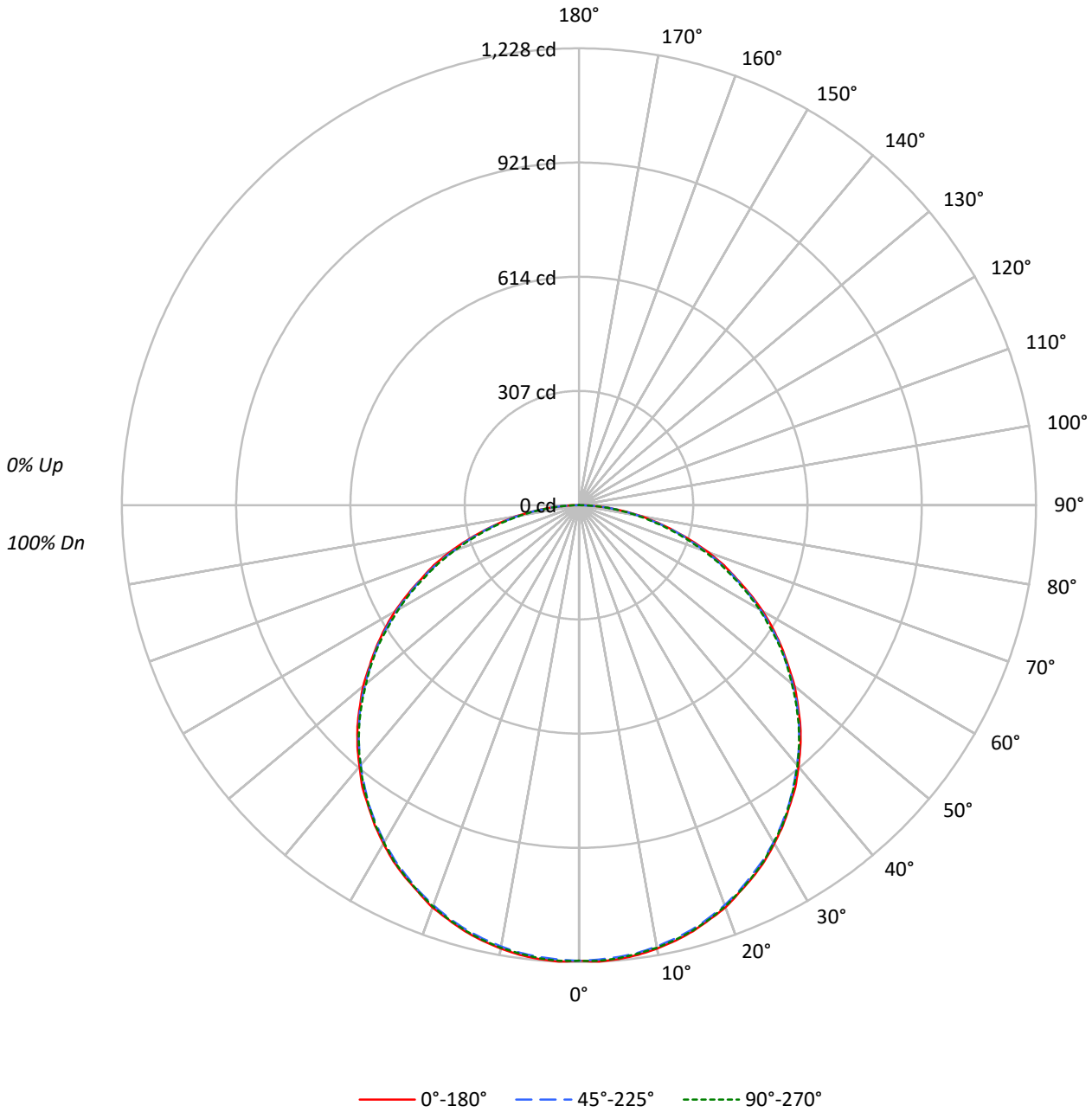
Lumens per Lamp: N/A  
 Luminaire Lumens: 3623.0 lumens  
 Efficiency: N/A  
 Efficacy: 131.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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	
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°	1648	1648	1648
5°	1654	1646	1651
10°	1653	1646	1650
15°	1651	1644	1648
20°	1648	1638	1643
25°	1639	1631	1636
30°	1632	1625	1627
35°	1621	1615	1617
40°	1612	1602	1604
45°	1602	1591	1589
50°	1584	1570	1563
55°	1558	1550	1542
60°	1535	1517	1505
65°	1486	1475	1454
70°	1454	1414	1392
75°	1376	1358	1312
80°	1315	1272	1220
85°	1172	1155	1068

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1602 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.0	3.2
10°-20°	333.4	9.2
20°-30°	507.4	14.0
30°-40°	615.8	17.0
40°-50°	644.9	17.8
50°-60°	589.3	16.3
60°-70°	458.0	12.6
70°-80°	274.7	7.6
80°-90°	83.5	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°	956.8	26.4
0°-40°	1572.6	43.4
0°-60°	2806.8	77.5
0°-90°	3623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3623.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1224	1224	1224	1224	1224	
5°	1224	1221	1219	1219	1222	116
15°	1186	1181	1180	1180	1183	335
25°	1104	1100	1098	1100	1102	509
35°	987	984	983	983	984	618
45°	842	837	836	835	835	648
55°	664	662	661	655	658	594
65°	467	466	463	458	457	465
75°	265	263	261	257	252	281
85°	76	75	75	73	69	85
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1224.5	1224.5	1224.5	1224.5	1224.5
2.5°	1227.9	1223.4	1222.3	1222.3	1225.7
5°	1224.5	1221.2	1219.0	1219.0	1222.3
7.5°	1219.0	1214.5	1213.4	1213.4	1215.6
10°	1210.0	1206.7	1204.5	1204.5	1207.8
12.5°	1198.9	1194.4	1193.3	1194.4	1196.6
15°	1185.5	1181.0	1179.9	1179.9	1183.2
17.5°	1167.6	1164.3	1163.2	1163.2	1166.5
20°	1150.9	1145.3	1144.2	1145.3	1147.5
22.5°	1126.3	1124.1	1123.0	1124.1	1125.2
25°	1104.0	1099.5	1098.4	1099.5	1101.8
27.5°	1079.4	1075.0	1073.8	1073.8	1077.2
30°	1050.4	1047.1	1045.9	1045.9	1047.1
32.5°	1020.3	1018.0	1014.7	1015.8	1018.0
35°	986.8	984.5	983.4	983.4	984.5
37.5°	955.5	951.1	947.7	947.7	949.9
40°	917.6	915.3	912.0	913.1	913.1
42.5°	880.7	877.4	875.2	874.0	875.2
45°	841.7	837.2	836.1	835.0	835.0
47.5°	798.1	798.1	794.8	792.5	791.4
50°	756.8	752.4	750.1	746.8	746.8
52.5°	708.8	707.7	704.4	703.2	703.2
55°	664.2	661.9	660.8	655.2	657.5
57.5°	618.4	613.9	612.8	609.5	607.2
60°	570.4	568.2	563.7	559.3	559.3
62.5°	519.1	517.9	513.5	510.1	509.0
65°	466.6	465.5	463.3	457.7	456.6
67.5°	421.9	417.5	411.9	407.4	407.4
70°	369.5	363.9	359.4	355.0	353.9
72.5°	315.9	312.6	310.3	305.9	302.5
75°	264.6	263.4	261.2	256.7	252.3
77.5°	216.6	215.4	209.9	206.5	203.2
80°	169.7	165.2	164.1	159.6	157.4
82.5°	119.4	121.7	116.1	115.0	113.9
85°	75.9	74.8	74.8	72.6	69.2
87.5°	33.5	34.6	34.6	34.6	34.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)