

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: P843304

Luminaire Tested: 24CGSB-35-L935

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843304  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-35-L935  
 Description: 2x4 CGSB AT 3500LM 3500K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

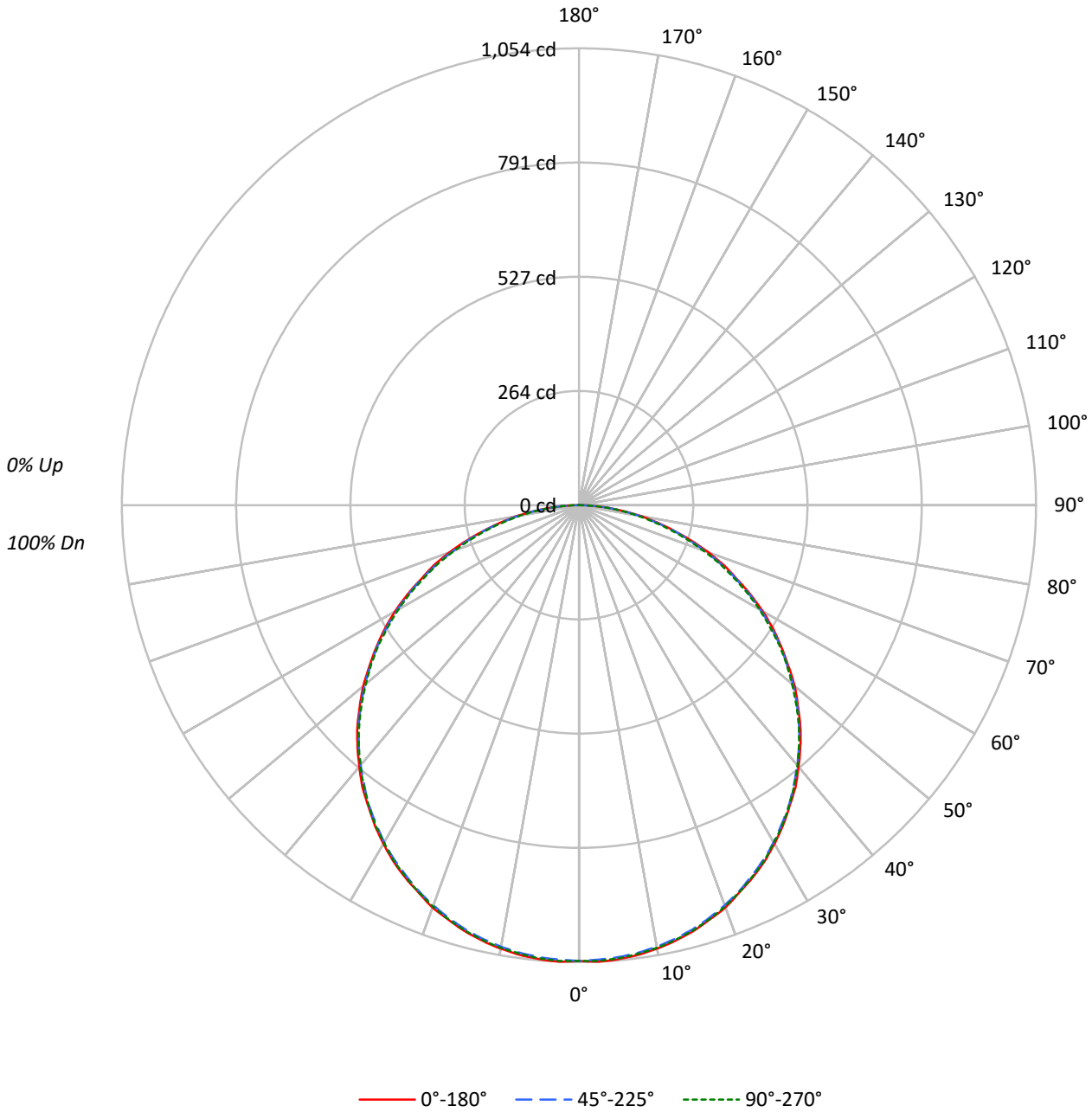
Lumens per Lamp: N/A  
 Luminaire Lumens: 3110.7 lumens  
 Efficiency: N/A  
 Efficacy: 113.1 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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°	1415	1415	1415
5°	1420	1414	1417
10°	1419	1413	1417
15°	1418	1411	1415
20°	1415	1407	1411
25°	1407	1400	1404
30°	1401	1395	1397
35°	1392	1387	1388
40°	1384	1375	1377
45°	1375	1366	1364
50°	1360	1348	1342
55°	1338	1331	1324
60°	1318	1302	1292
65°	1275	1266	1248
70°	1248	1214	1195
75°	1181	1166	1126
80°	1129	1092	1047
85°	1007	991	917

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1375 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.6	3.2
10°-20°	286.2	9.2
20°-30°	435.6	14.0
30°-40°	528.7	17.0
40°-50°	553.7	17.8
50°-60°	506.0	16.3
60°-70°	393.2	12.6
70°-80°	235.8	7.6
80°-90°	71.7	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°	821.5	26.4
0°-40°	1350.2	43.4
0°-60°	2409.9	77.5
0°-90°	3110.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3110.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1051	1048	1047	1047	1050	100
15°	1018	1014	1013	1013	1016	287
25°	948	944	943	944	946	437
35°	847	845	844	844	845	531
45°	723	719	718	717	717	557
55°	570	568	567	563	564	510
65°	401	400	398	393	392	399
75°	227	226	224	220	217	242
85°	65	64	64	62	59	73
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051.4	1051.4	1051.4	1051.4	1051.4
2.5°	1054.3	1050.4	1049.5	1049.5	1052.3
5°	1051.4	1048.5	1046.6	1046.6	1049.5
7.5°	1046.6	1042.8	1041.8	1041.8	1043.7
10°	1038.9	1036.0	1034.1	1034.1	1037.0
12.5°	1029.3	1025.5	1024.5	1025.5	1027.4
15°	1017.8	1014.0	1013.0	1013.0	1015.9
17.5°	1002.5	999.6	998.7	998.7	1001.5
20°	988.1	983.3	982.4	983.3	985.2
22.5°	967.0	965.1	964.2	965.1	966.1
25°	947.9	944.0	943.1	944.0	946.0
27.5°	926.8	923.0	922.0	922.0	924.9
30°	901.9	899.0	898.0	898.0	899.0
32.5°	876.0	874.1	871.2	872.2	874.1
35°	847.2	845.3	844.4	844.4	845.3
37.5°	820.4	816.6	813.7	813.7	815.6
40°	787.8	785.9	783.0	784.0	784.0
42.5°	756.2	753.3	751.4	750.4	751.4
45°	722.6	718.8	717.9	716.9	716.9
47.5°	685.3	685.3	682.4	680.5	679.5
50°	649.8	646.0	644.1	641.2	641.2
52.5°	608.6	607.6	604.8	603.8	603.8
55°	570.3	568.3	567.4	562.6	564.5
57.5°	531.0	527.1	526.2	523.3	521.4
60°	489.7	487.8	484.0	480.2	480.2
62.5°	445.7	444.7	440.9	438.0	437.0
65°	400.6	399.7	397.7	392.9	392.0
67.5°	362.3	358.4	353.7	349.8	349.8
70°	317.2	312.4	308.6	304.8	303.8
72.5°	271.2	268.4	266.4	262.6	259.7
75°	227.1	226.2	224.3	220.4	216.6
77.5°	185.9	185.0	180.2	177.3	174.4
80°	145.7	141.8	140.9	137.1	135.1
82.5°	102.6	104.5	99.7	98.7	97.8
85°	65.2	64.2	64.2	62.3	59.4
87.5°	28.8	29.7	29.7	29.7	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)