

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: P843303

Luminaire Tested: 24CGSB-35-L930

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843303  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-35-L930  
 Description: 2x4 CGSB AT 3500LM 3000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

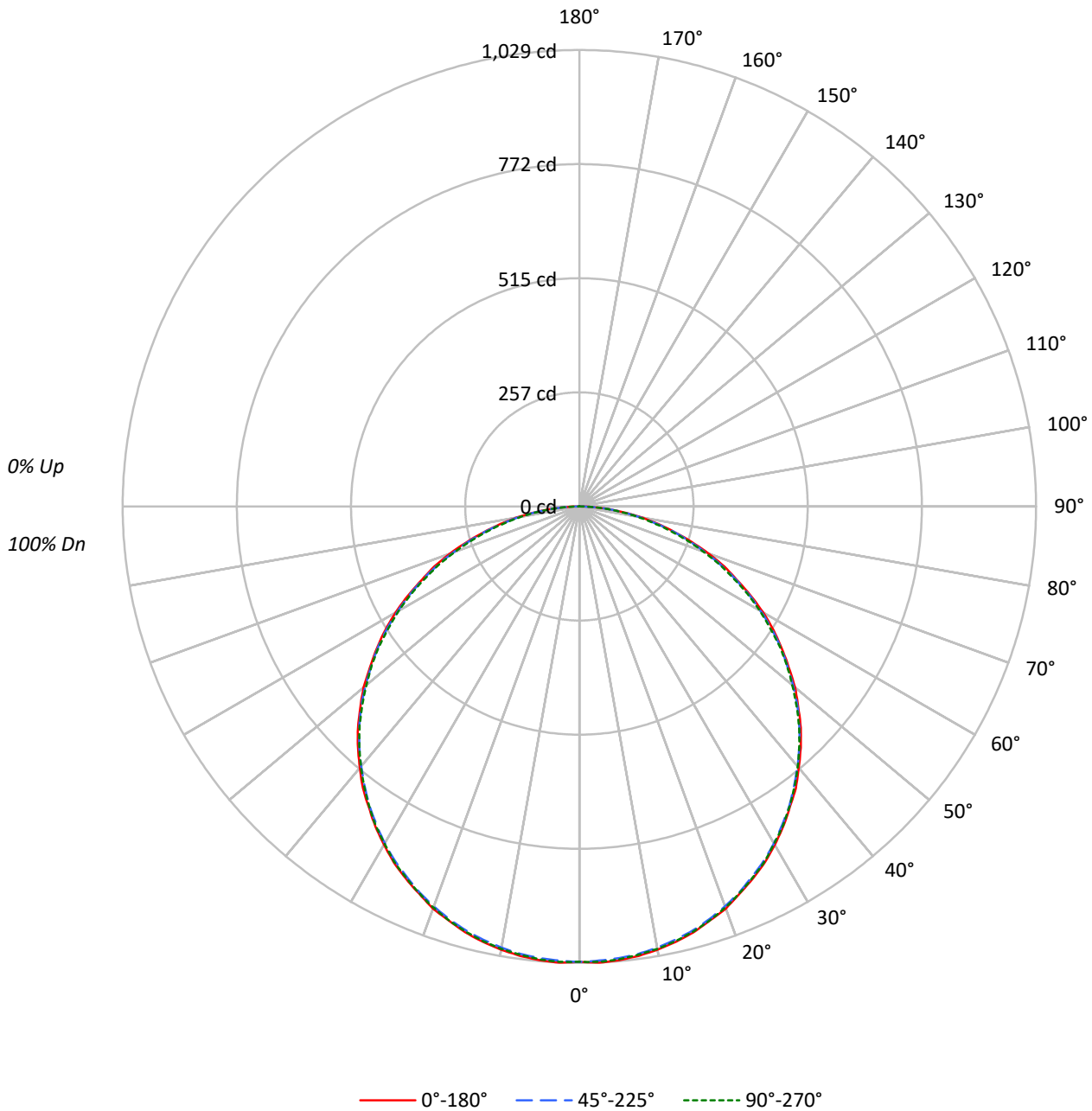
Lumens per Lamp: N/A  
 Luminaire Lumens: 3037.4 lumens  
 Efficiency: N/A  
 Efficacy: 110.5 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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°	1381	1381	1381
5°	1387	1380	1384
10°	1386	1380	1383
15°	1384	1378	1382
20°	1382	1374	1378
25°	1374	1367	1371
30°	1368	1362	1364
35°	1359	1354	1356
40°	1351	1343	1345
45°	1343	1334	1332
50°	1328	1316	1311
55°	1306	1300	1293
60°	1287	1272	1262
65°	1245	1237	1219
70°	1219	1185	1167
75°	1153	1138	1099
80°	1103	1066	1023
85°	982	968	895

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1343 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.3	3.2
10°-20°	279.5	9.2
20°-30°	425.4	14.0
30°-40°	516.3	17.0
40°-50°	540.7	17.8
50°-60°	494.1	16.3
60°-70°	384.0	12.6
70°-80°	230.3	7.6
80°-90°	70.0	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°	802.2	26.4
0°-40°	1318.4	43.4
0°-60°	2353.2	77.5
0°-90°	3037.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3037.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1027	1027	1027	1027	1027	
5°	1027	1024	1022	1022	1025	98
15°	994	990	989	989	992	280
25°	926	922	921	922	924	427
35°	827	825	824	824	825	518
45°	706	702	701	700	700	544
55°	557	555	554	549	551	498
65°	391	390	388	384	383	390
75°	222	221	219	215	212	236
85°	64	63	63	61	58	72
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1026.6	1026.6	1026.6	1026.6	1026.6
2.5°	1029.4	1025.7	1024.8	1024.8	1027.6
5°	1026.6	1023.8	1022.0	1022.0	1024.8
7.5°	1022.0	1018.2	1017.3	1017.3	1019.2
10°	1014.5	1011.7	1009.8	1009.8	1012.6
12.5°	1005.1	1001.4	1000.4	1001.4	1003.2
15°	993.9	990.1	989.2	989.2	992.0
17.5°	978.9	976.1	975.2	975.2	978.0
20°	964.9	960.2	959.3	960.2	962.1
22.5°	944.3	942.4	941.5	942.4	943.3
25°	925.6	921.8	920.9	921.8	923.7
27.5°	905.0	901.2	900.3	900.3	903.1
30°	880.6	877.8	876.9	876.9	877.8
32.5°	855.4	853.5	850.7	851.6	853.5
35°	827.3	825.4	824.5	824.5	825.4
37.5°	801.1	797.4	794.5	794.5	796.4
40°	769.3	767.4	764.6	765.5	765.5
42.5°	738.4	735.6	733.7	732.8	733.7
45°	705.6	701.9	701.0	700.0	700.0
47.5°	669.1	669.1	666.3	664.5	663.5
50°	634.5	630.8	628.9	626.1	626.1
52.5°	594.3	593.3	590.5	589.6	589.6
55°	556.8	555.0	554.0	549.4	551.2
57.5°	518.5	514.7	513.8	511.0	509.1
60°	478.2	476.4	472.6	468.9	468.9
62.5°	435.2	434.2	430.5	427.7	426.8
65°	391.2	390.3	388.4	383.7	382.8
67.5°	353.8	350.0	345.3	341.6	341.6
70°	309.8	305.1	301.3	297.6	296.7
72.5°	264.8	262.0	260.2	256.4	253.6
75°	221.8	220.9	219.0	215.2	211.5
77.5°	181.6	180.6	175.9	173.1	170.3
80°	142.3	138.5	137.6	133.8	132.0
82.5°	100.1	102.0	97.3	96.4	95.5
85°	63.6	62.7	62.7	60.8	58.0
87.5°	28.1	29.0	29.0	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)