

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: P843311

Luminaire Tested: 24CGSB-40-L930

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843311  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-40-L930  
 Description: 2x4 CGSB AT 4000LM 3000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

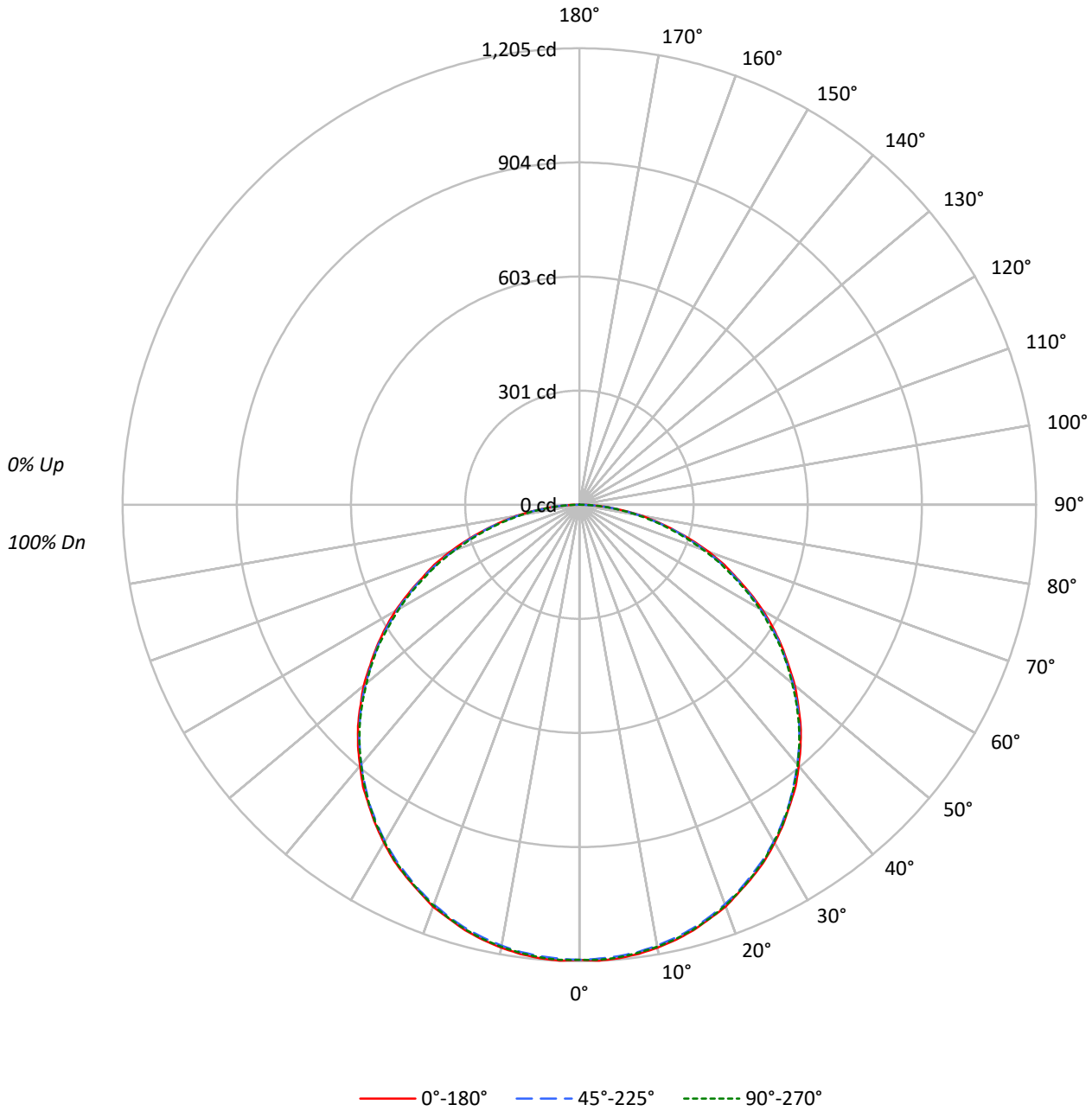
Lumens per Lamp: N/A  
 Luminaire Lumens: 3554.7 lumens  
 Efficiency: N/A  
 Efficacy: 110.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 32.1  
 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°	1617	1617	1617
5°	1623	1615	1620
10°	1622	1614	1619
15°	1620	1612	1617
20°	1617	1607	1612
25°	1608	1600	1605
30°	1601	1594	1596
35°	1590	1585	1587
40°	1581	1572	1574
45°	1571	1561	1559
50°	1554	1541	1534
55°	1529	1521	1513
60°	1506	1488	1477
65°	1457	1447	1426
70°	1426	1388	1366
75°	1350	1332	1287
80°	1290	1247	1196
85°	1150	1133	1048

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1571 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.9	3.2
10°-20°	327.1	9.2
20°-30°	497.8	14.0
30°-40°	604.2	17.0
40°-50°	632.8	17.8
50°-60°	578.2	16.3
60°-70°	449.4	12.6
70°-80°	269.5	7.6
80°-90°	82.0	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°	938.7	26.4
0°-40°	1542.9	43.4
0°-60°	2753.9	77.5
0°-90°	3554.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3554.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1202	1198	1196	1196	1199	114
15°	1163	1159	1158	1158	1161	328
25°	1083	1079	1078	1079	1081	499
35°	968	966	965	965	966	607
45°	826	821	820	819	819	636
55°	652	650	648	643	645	583
65°	458	457	454	449	448	456
75°	260	258	256	252	248	276
85°	74	73	73	71	68	84
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.5	1201.5	1201.5	1201.5	1201.5
2.5°	1204.7	1200.4	1199.3	1199.3	1202.5
5°	1201.5	1198.2	1196.0	1196.0	1199.3
7.5°	1196.0	1191.6	1190.5	1190.5	1192.7
10°	1187.2	1183.9	1181.7	1181.7	1185.0
12.5°	1176.3	1171.9	1170.8	1171.9	1174.1
15°	1163.1	1158.7	1157.6	1157.6	1160.9
17.5°	1145.6	1142.3	1141.2	1141.2	1144.5
20°	1129.2	1123.7	1122.6	1123.7	1125.9
22.5°	1105.1	1102.9	1101.8	1102.9	1104.0
25°	1083.2	1078.8	1077.7	1078.8	1081.0
27.5°	1059.1	1054.7	1053.6	1053.6	1056.9
30°	1030.6	1027.3	1026.2	1026.2	1027.3
32.5°	1001.0	998.8	995.6	996.6	998.8
35°	968.2	966.0	964.9	964.9	966.0
37.5°	937.5	933.1	929.8	929.8	932.0
40°	900.3	898.1	894.8	895.9	895.9
42.5°	864.1	860.8	858.7	857.6	858.7
45°	825.8	821.4	820.3	819.2	819.2
47.5°	783.1	783.1	779.8	777.6	776.5
50°	742.6	738.2	736.0	732.7	732.7
52.5°	695.5	694.4	691.1	690.0	690.0
55°	651.7	649.5	648.4	642.9	645.1
57.5°	606.8	602.4	601.3	598.0	595.8
60°	559.7	557.5	553.1	548.7	548.7
62.5°	509.3	508.2	503.8	500.5	499.4
65°	457.8	456.7	454.5	449.0	447.9
67.5°	414.0	409.6	404.1	399.8	399.8
70°	362.5	357.0	352.7	348.3	347.2
72.5°	309.9	306.7	304.5	300.1	296.8
75°	259.6	258.5	256.3	251.9	247.5
77.5°	212.5	211.4	205.9	202.6	199.3
80°	166.5	162.1	161.0	156.6	154.4
82.5°	117.2	119.4	113.9	112.8	111.7
85°	74.5	73.4	73.4	71.2	67.9
87.5°	32.9	34.0	34.0	34.0	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)