

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: P843338

Luminaire Tested: 24CGSB-55-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843338  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-55-L950  
 Description: 2x4 CGSB AT 5500LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

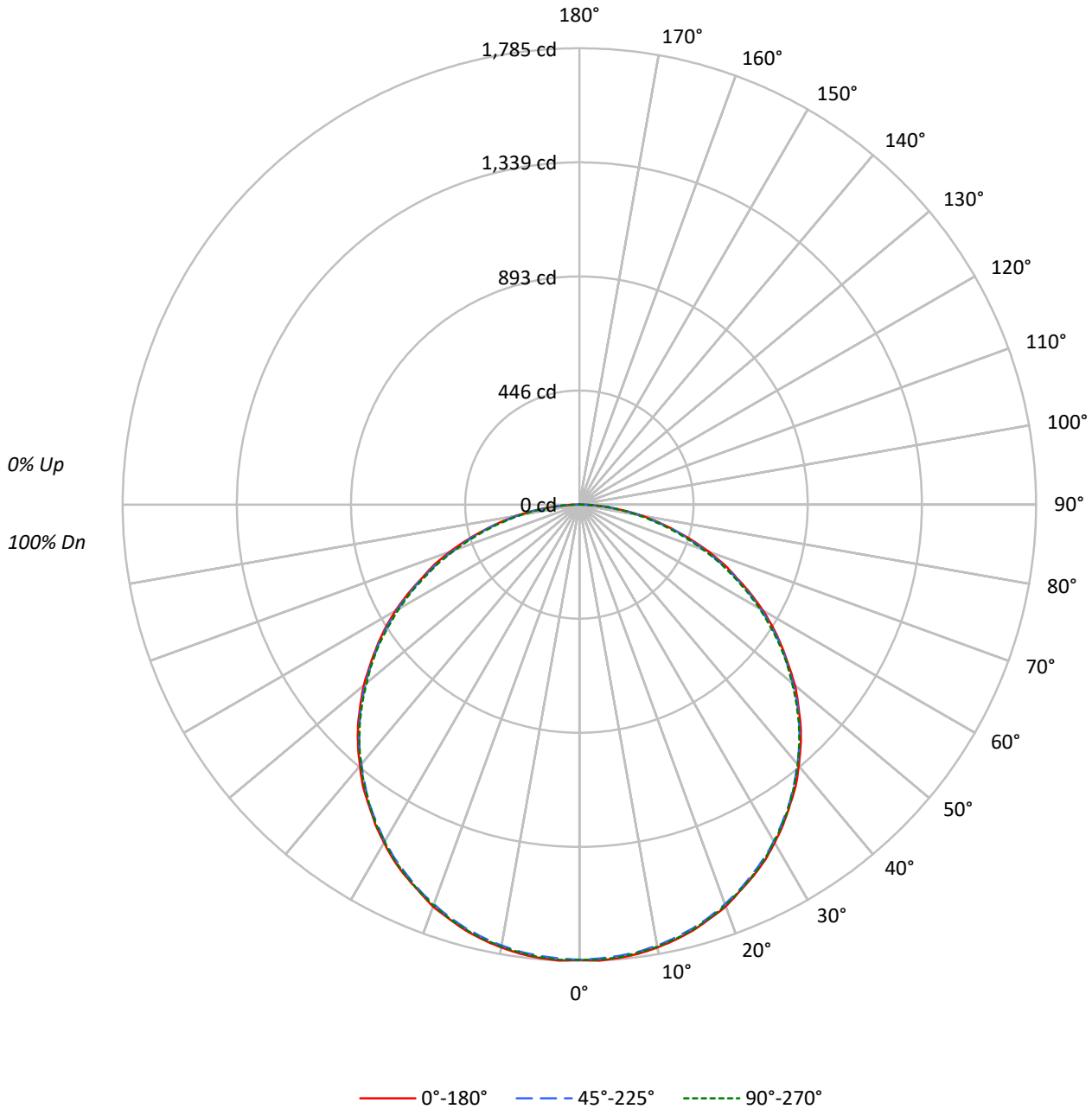
Lumens per Lamp: N/A  
 Luminaire Lumens: 5267.4 lumens  
 Efficiency: N/A  
 Efficacy: 116.0 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 45.4  
 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

TEST NUMBER: P843338  
CATALOG NUMBER: 24CGSB-55-L950

### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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						100														
1	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83						83														
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69						69														
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58						58														
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49						49														
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42						42														
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37						37														
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32						32														
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29						29														
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26						26														
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23						23														

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2395	2395	2395
5°	2405	2394	2400
10°	2403	2392	2399
15°	2401	2389	2396
20°	2396	2382	2389
25°	2383	2371	2378
30°	2373	2363	2365
35°	2356	2349	2351
40°	2343	2329	2332
45°	2328	2313	2310
50°	2303	2283	2273
55°	2265	2254	2242
60°	2232	2206	2188
65°	2160	2144	2113
70°	2113	2056	2024
75°	1999	1974	1907
80°	1912	1849	1773
85°	1704	1678	1553

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2328 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.7	3.2
10°-20°	484.7	9.2
20°-30°	737.6	14.0
30°-40°	895.3	17.0
40°-50°	937.6	17.8
50°-60°	856.7	16.3
60°-70°	665.9	12.6
70°-80°	399.3	7.6
80°-90°	121.5	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°	1391.0	26.4
0°-40°	2286.3	43.4
0°-60°	4080.7	77.5
0°-90°	5267.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5267.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1780	1776	1772	1772	1777	169
15°	1724	1717	1715	1715	1720	486
25°	1605	1599	1597	1599	1602	740
35°	1435	1431	1430	1430	1431	899
45°	1224	1217	1216	1214	1214	943
55°	966	962	961	953	956	863
65°	678	677	674	665	664	676
75°	385	383	380	373	367	409
85°	110	109	109	106	101	124
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1780.3	1780.3	1780.3	1780.3	1780.3
2.5°	1785.2	1778.7	1777.1	1777.1	1782.0
5°	1780.3	1775.5	1772.2	1772.2	1777.1
7.5°	1772.2	1765.7	1764.1	1764.1	1767.3
10°	1759.2	1754.4	1751.1	1751.1	1756.0
12.5°	1743.0	1736.5	1734.9	1736.5	1739.8
15°	1723.5	1717.0	1715.4	1715.4	1720.3
17.5°	1697.6	1692.7	1691.1	1691.1	1695.9
20°	1673.2	1665.1	1663.5	1665.1	1668.3
22.5°	1637.5	1634.3	1632.6	1634.3	1635.9
25°	1605.1	1598.6	1596.9	1598.6	1601.8
27.5°	1569.4	1562.9	1561.2	1561.2	1566.1
30°	1527.2	1522.3	1520.7	1520.7	1522.3
32.5°	1483.3	1480.1	1475.2	1476.8	1480.1
35°	1434.6	1431.4	1429.8	1429.8	1431.4
37.5°	1389.2	1382.7	1377.8	1377.8	1381.1
40°	1334.0	1330.8	1325.9	1327.5	1327.5
42.5°	1280.5	1275.6	1272.4	1270.7	1272.4
45°	1223.7	1217.2	1215.6	1213.9	1213.9
47.5°	1160.4	1160.4	1155.5	1152.3	1150.6
50°	1100.3	1093.8	1090.6	1085.7	1085.7
52.5°	1030.5	1028.9	1024.1	1022.4	1022.4
55°	965.6	962.4	960.8	952.6	955.9
57.5°	899.1	892.6	891.0	886.1	882.9
60°	829.3	826.1	819.6	813.1	813.1
62.5°	754.7	753.0	746.5	741.7	740.0
65°	678.4	676.8	673.5	665.4	663.8
67.5°	613.5	607.0	598.9	592.4	592.4
70°	537.2	529.1	522.6	516.1	514.5
72.5°	459.3	454.4	451.2	444.7	439.8
75°	384.6	383.0	379.8	373.3	366.8
77.5°	314.8	313.2	305.1	300.2	295.4
80°	246.7	240.2	238.6	232.1	228.8
82.5°	173.7	176.9	168.8	167.2	165.5
85°	110.4	108.7	108.7	105.5	100.6
87.5°	48.7	50.3	50.3	50.3	50.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)