

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: P843312

Luminaire Tested: 24CGSB-40-L935

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843312
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-40-L935
 Description: 2x4 CGSB AT 4000LM 3500K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

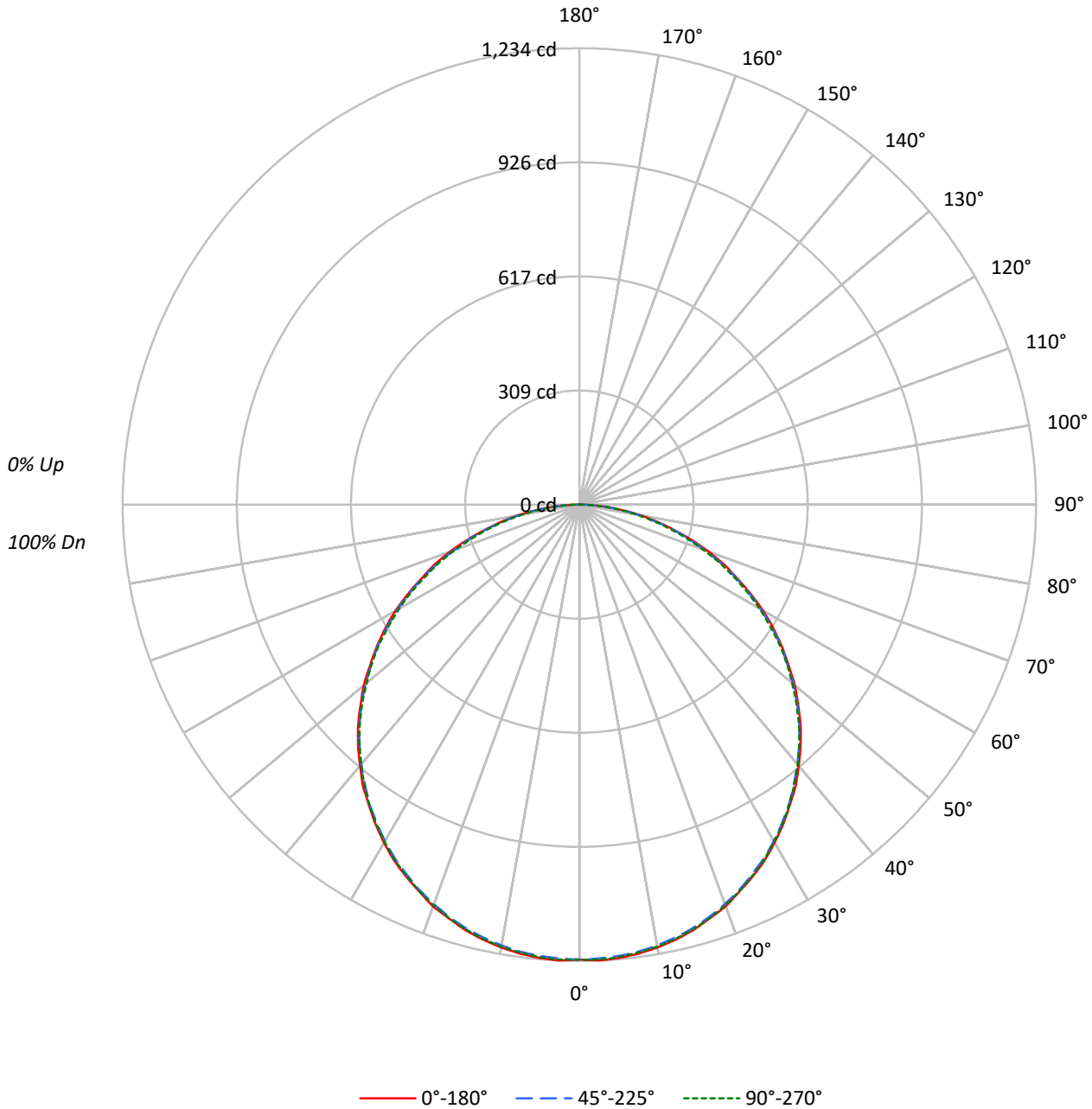
Lumens per Lamp: N/A
 Luminaire Lumens: 3640.3 lumens
 Efficiency: N/A
 Efficacy: 113.4 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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	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°	1655	1655	1655
5°	1662	1654	1659
10°	1661	1653	1658
15°	1659	1651	1656
20°	1656	1646	1651
25°	1647	1639	1643
30°	1640	1633	1635
35°	1629	1623	1625
40°	1619	1610	1612
45°	1609	1599	1596
50°	1592	1578	1571
55°	1566	1558	1550
60°	1542	1524	1512
65°	1493	1482	1460
70°	1461	1421	1399
75°	1382	1365	1318
80°	1321	1278	1225
85°	1178	1159	1073

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1609 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	3.2
10°-20°	335.0	9.2
20°-30°	509.8	14.0
30°-40°	618.7	17.0
40°-50°	648.0	17.8
50°-60°	592.1	16.3
60°-70°	460.2	12.6
70°-80°	276.0	7.6
80°-90°	83.9	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°	961.4	26.4
0°-40°	1580.1	43.4
0°-60°	2820.2	77.5
0°-90°	3640.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3640.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1230	1230	1230	1230	1230	
5°	1230	1227	1225	1225	1228	117
15°	1191	1187	1186	1186	1189	336
25°	1109	1105	1104	1105	1107	511
35°	992	989	988	988	989	621
45°	846	841	840	839	839	651
55°	667	665	664	658	661	597
65°	469	468	466	460	459	467
75°	266	265	262	258	254	283
85°	76	75	75	73	70	86
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.4	1230.4	1230.4	1230.4	1230.4
2.5°	1233.8	1229.3	1228.2	1228.2	1231.5
5°	1230.4	1227.0	1224.8	1224.8	1228.2
7.5°	1224.8	1220.3	1219.2	1219.2	1221.4
10°	1215.8	1212.5	1210.2	1210.2	1213.6
12.5°	1204.6	1200.1	1199.0	1200.1	1202.4
15°	1191.1	1186.7	1185.5	1185.5	1188.9
17.5°	1173.2	1169.8	1168.7	1168.7	1172.1
20°	1156.4	1150.8	1149.6	1150.8	1153.0
22.5°	1131.7	1129.5	1128.3	1129.5	1130.6
25°	1109.3	1104.8	1103.7	1104.8	1107.0
27.5°	1084.6	1080.1	1079.0	1079.0	1082.4
30°	1055.4	1052.1	1050.9	1050.9	1052.1
32.5°	1025.2	1022.9	1019.5	1020.7	1022.9
35°	991.5	989.3	988.1	988.1	989.3
37.5°	960.1	955.6	952.2	952.2	954.5
40°	922.0	919.7	916.4	917.5	917.5
42.5°	884.9	881.6	879.3	878.2	879.3
45°	845.7	841.2	840.1	839.0	839.0
47.5°	802.0	802.0	798.6	796.3	795.2
50°	760.5	756.0	753.7	750.4	750.4
52.5°	712.2	711.1	707.7	706.6	706.6
55°	667.4	665.1	664.0	658.4	660.6
57.5°	621.4	616.9	615.8	612.4	610.2
60°	573.1	570.9	566.4	561.9	561.9
62.5°	521.5	520.4	515.9	512.6	511.5
65°	468.8	467.7	465.5	459.9	458.7
67.5°	424.0	419.5	413.9	409.4	409.4
70°	371.3	365.6	361.2	356.7	355.5
72.5°	317.4	314.1	311.8	307.3	304.0
75°	265.8	264.7	262.5	258.0	253.5
77.5°	217.6	216.5	210.9	207.5	204.1
80°	170.5	166.0	164.9	160.4	158.1
82.5°	120.0	122.3	116.6	115.5	114.4
85°	76.3	75.1	75.1	72.9	69.5
87.5°	33.6	34.8	34.8	34.8	34.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)