

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: P843293

Luminaire Tested: 24CGSB-30-L840

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843293
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-30-L840
 Description: 2x4 CGSB AT 3000LM 4000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

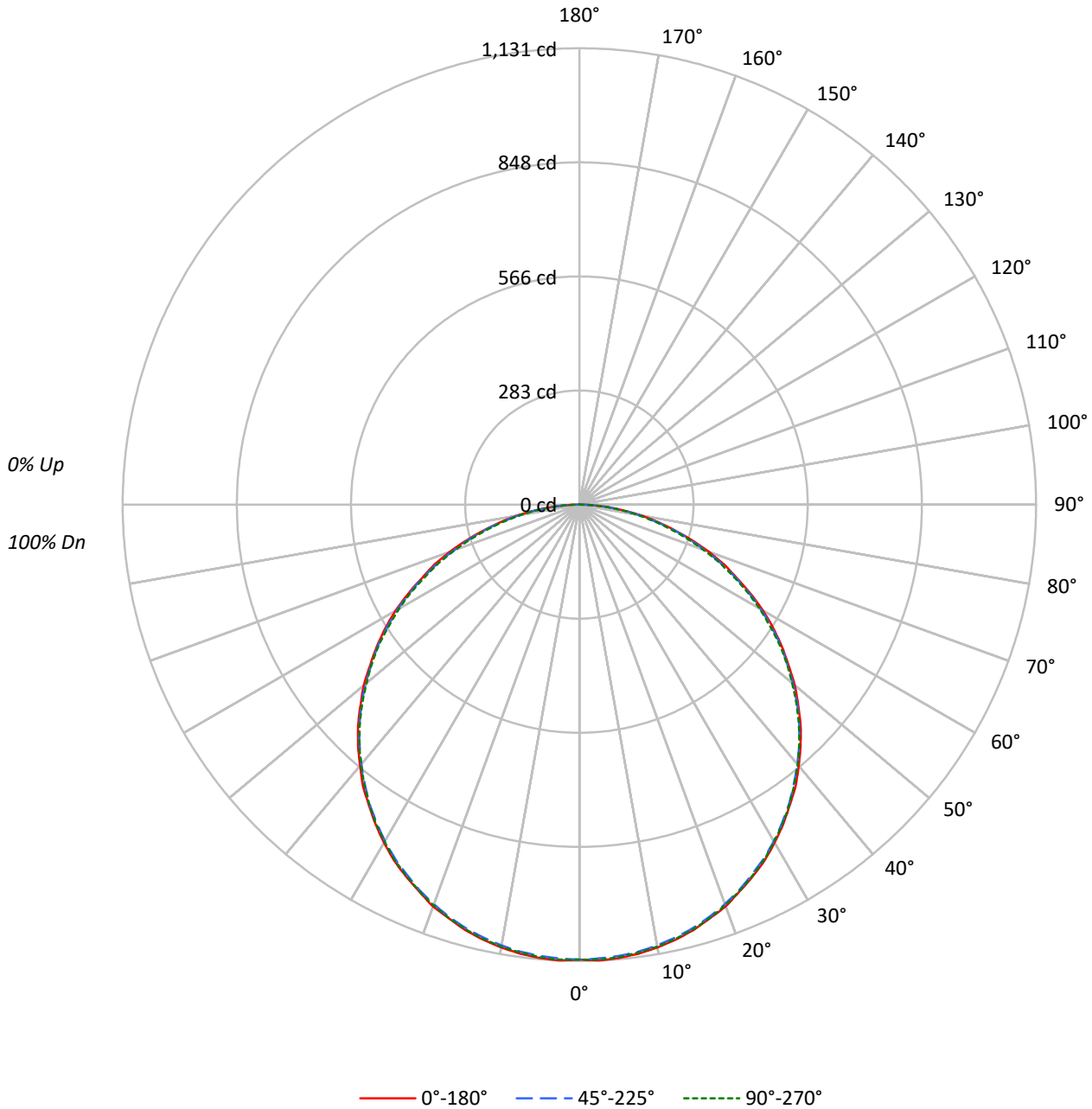
Lumens per Lamp: N/A
 Luminaire Lumens: 3336.5 lumens
 Efficiency: N/A
 Efficacy: 136.7 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 24.4
 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

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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°	1517	1517	1517
5°	1523	1516	1520
10°	1523	1515	1520
15°	1521	1514	1518
20°	1518	1509	1513
25°	1509	1502	1506
30°	1503	1496	1498
35°	1493	1488	1489
40°	1484	1475	1477
45°	1475	1465	1463
50°	1459	1446	1440
55°	1435	1428	1420
60°	1414	1397	1386
65°	1368	1358	1339
70°	1339	1302	1282
75°	1266	1251	1208
80°	1211	1171	1123
85°	1079	1064	983

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1475 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.9	3.2
10°-20°	307.0	9.2
20°-30°	467.2	14.0
30°-40°	567.1	17.0
40°-50°	593.9	17.8
50°-60°	542.7	16.3
60°-70°	421.8	12.6
70°-80°	252.9	7.6
80°-90°	76.9	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°	881.1	26.4
0°-40°	1448.2	43.4
0°-60°	2584.9	77.5
0°-90°	3336.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3336.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1128	1128	1128	1128	1128	
5°	1128	1125	1123	1123	1126	107
15°	1092	1088	1087	1087	1090	308
25°	1017	1013	1012	1013	1015	469
35°	909	907	906	906	907	569
45°	775	771	770	769	769	597
55°	612	610	609	603	606	547
65°	430	429	427	422	420	428
75°	244	243	241	236	232	259
85°	70	69	69	67	64	79
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1127.7	1127.7	1127.7	1127.7	1127.7
2.5°	1130.8	1126.7	1125.7	1125.7	1128.8
5°	1127.7	1124.6	1122.6	1122.6	1125.7
7.5°	1122.6	1118.5	1117.4	1117.4	1119.5
10°	1114.4	1111.3	1109.2	1109.2	1112.3
12.5°	1104.1	1100.0	1098.9	1100.0	1102.0
15°	1091.7	1087.6	1086.6	1086.6	1089.7
17.5°	1075.3	1072.2	1071.2	1071.2	1074.3
20°	1059.9	1054.7	1053.7	1054.7	1056.8
22.5°	1037.3	1035.2	1034.2	1035.2	1036.2
25°	1016.7	1012.6	1011.6	1012.6	1014.6
27.5°	994.1	990.0	988.9	988.9	992.0
30°	967.4	964.3	963.2	963.2	964.3
32.5°	939.6	937.5	934.5	935.5	937.5
35°	908.8	906.7	905.7	905.7	906.7
37.5°	880.0	875.9	872.8	872.8	874.8
40°	845.0	843.0	839.9	840.9	840.9
42.5°	811.1	808.0	806.0	804.9	806.0
45°	775.1	771.0	770.0	768.9	768.9
47.5°	735.0	735.0	731.9	729.9	728.9
50°	697.0	692.9	690.8	687.7	687.7
52.5°	652.8	651.8	648.7	647.6	647.6
55°	611.7	609.6	608.6	603.4	605.5
57.5°	569.5	565.4	564.4	561.3	559.2
60°	525.3	523.3	519.1	515.0	515.0
62.5°	478.0	477.0	472.9	469.8	468.8
65°	429.7	428.7	426.6	421.5	420.5
67.5°	388.6	384.5	379.3	375.2	375.2
70°	340.3	335.1	331.0	326.9	325.9
72.5°	290.9	287.8	285.8	281.7	278.6
75°	243.6	242.6	240.6	236.4	232.3
77.5°	199.4	198.4	193.3	190.2	187.1
80°	156.3	152.1	151.1	147.0	144.9
82.5°	110.0	112.1	106.9	105.9	104.9
85°	69.9	68.9	68.9	66.8	63.7
87.5°	30.8	31.9	31.9	31.9	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)