

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: P843305

Luminaire Tested: 24CGSB-35-L940

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843305
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-35-L940
 Description: 2x4 CGSB AT 3500LM 4000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

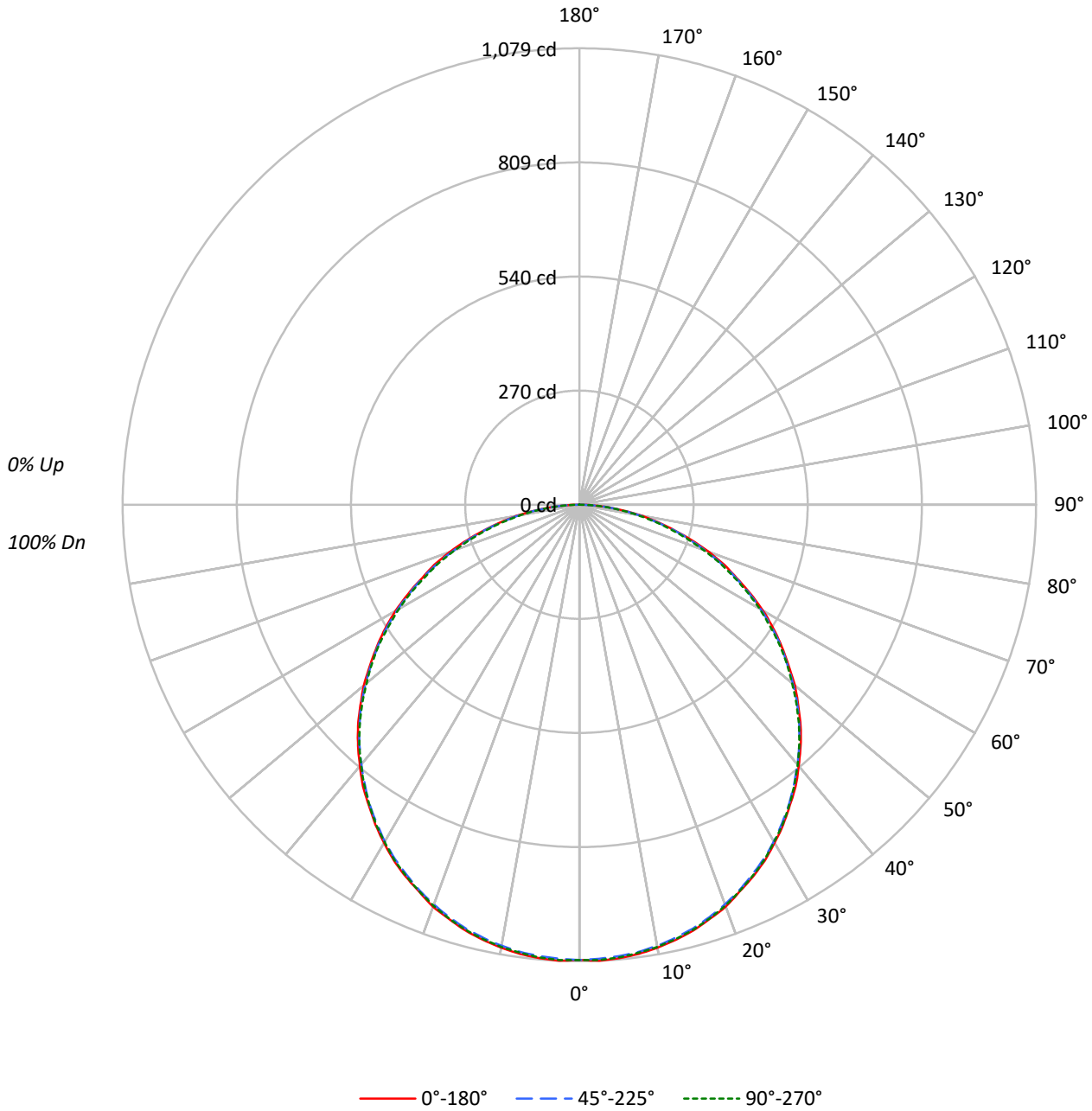
Lumens per Lamp: N/A
 Luminaire Lumens: 3183.8 lumens
 Efficiency: N/A
 Efficacy: 115.8 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	1448	1448	1448
5°	1453	1447	1451
10°	1453	1446	1450
15°	1451	1444	1448
20°	1448	1440	1444
25°	1440	1433	1437
30°	1434	1428	1430
35°	1424	1419	1421
40°	1416	1408	1409
45°	1407	1398	1396
50°	1392	1380	1374
55°	1369	1362	1355
60°	1349	1333	1323
65°	1305	1296	1277
70°	1277	1243	1223
75°	1209	1193	1153
80°	1155	1117	1072
85°	1030	1014	939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1407 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	3.2
10°-20°	293.0	9.2
20°-30°	445.9	14.0
30°-40°	541.1	17.0
40°-50°	566.8	17.8
50°-60°	517.9	16.3
60°-70°	402.5	12.6
70°-80°	241.4	7.6
80°-90°	73.4	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°	840.8	26.4
0°-40°	1382.0	43.4
0°-60°	2466.6	77.5
0°-90°	3183.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3183.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1076	1073	1071	1071	1074	102
15°	1042	1038	1037	1037	1040	294
25°	970	966	965	966	968	447
35°	867	865	864	864	865	543
45°	740	736	735	734	734	570
55°	584	582	581	576	578	522
65°	410	409	407	402	401	408
75°	232	232	230	226	222	247
85°	67	66	66	64	61	75
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1076.1	1076.1	1076.1	1076.1	1076.1
2.5°	1079.1	1075.1	1074.2	1074.2	1077.1
5°	1076.1	1073.2	1071.2	1071.2	1074.2
7.5°	1071.2	1067.3	1066.3	1066.3	1068.3
10°	1063.4	1060.4	1058.5	1058.5	1061.4
12.5°	1053.6	1049.6	1048.6	1049.6	1051.6
15°	1041.8	1037.9	1036.9	1036.9	1039.8
17.5°	1026.1	1023.1	1022.2	1022.2	1025.1
20°	1011.4	1006.5	1005.5	1006.5	1008.4
22.5°	989.8	987.8	986.8	987.8	988.8
25°	970.2	966.2	965.3	966.2	968.2
27.5°	948.6	944.7	943.7	943.7	946.6
30°	923.1	920.1	919.2	919.2	920.1
32.5°	896.6	894.6	891.7	892.7	894.6
35°	867.2	865.2	864.2	864.2	865.2
37.5°	839.7	835.8	832.8	832.8	834.8
40°	806.4	804.4	801.4	802.4	802.4
42.5°	774.0	771.0	769.1	768.1	769.1
45°	739.6	735.7	734.7	733.8	733.8
47.5°	701.4	701.4	698.4	696.5	695.5
50°	665.1	661.2	659.2	656.3	656.3
52.5°	622.9	621.9	619.0	618.0	618.0
55°	583.7	581.7	580.7	575.8	577.8
57.5°	543.5	539.5	538.5	535.6	533.6
60°	501.3	499.3	495.4	491.5	491.5
62.5°	456.1	455.2	451.2	448.3	447.3
65°	410.0	409.1	407.1	402.2	401.2
67.5°	370.8	366.9	362.0	358.1	358.1
70°	324.7	319.8	315.9	311.9	311.0
72.5°	277.6	274.7	272.7	268.8	265.8
75°	232.5	231.5	229.5	225.6	221.7
77.5°	190.3	189.3	184.4	181.5	178.5
80°	149.1	145.2	144.2	140.3	138.3
82.5°	105.0	106.9	102.0	101.0	100.1
85°	66.7	65.7	65.7	63.8	60.8
87.5°	29.4	30.4	30.4	30.4	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)