

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: P843300

Luminaire Tested: 24CGSB-35-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843300  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-35-L835  
 Description: 2x4 CGSB AT 3500LM 3500K 80CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

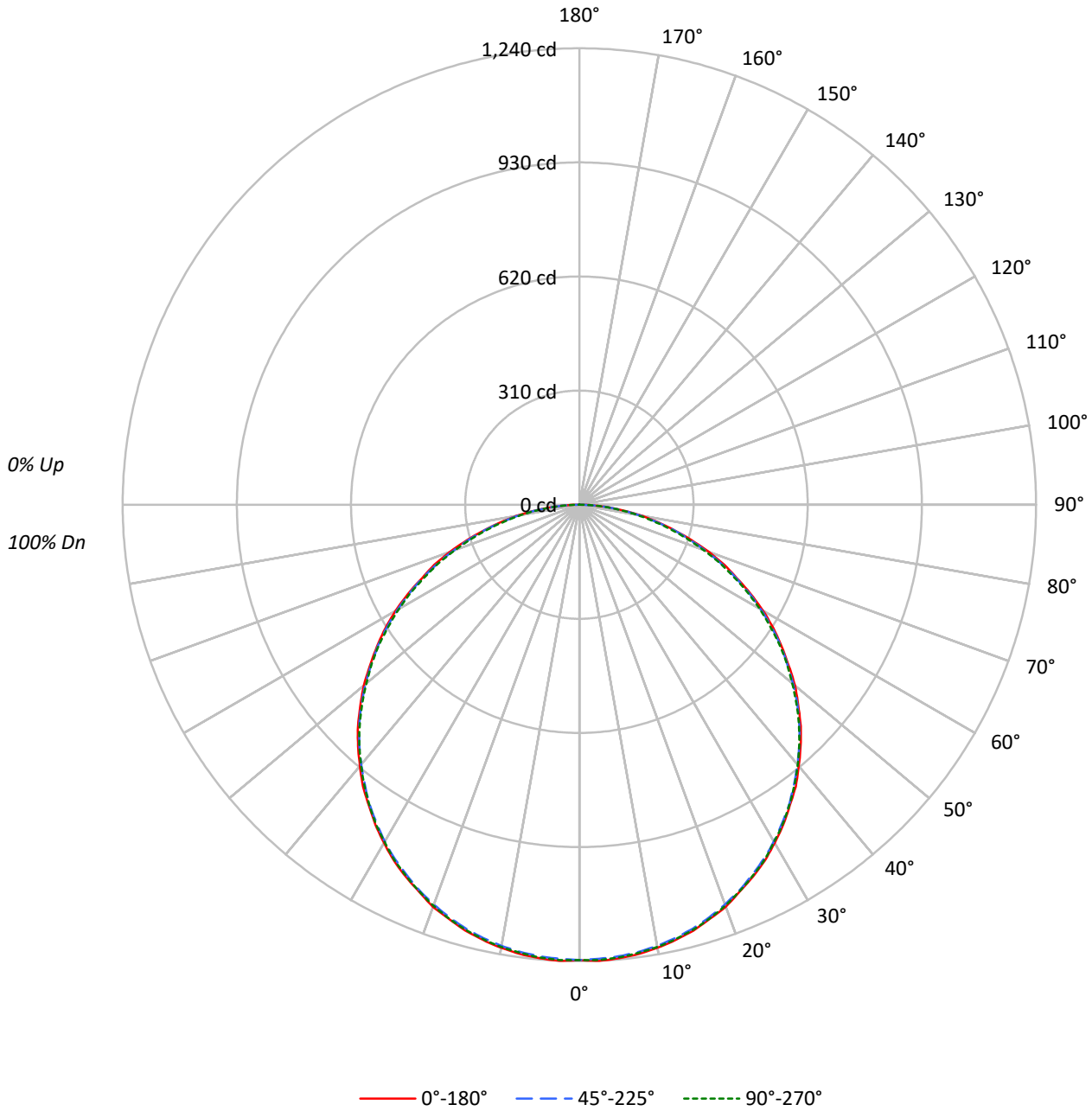
Lumens per Lamp: N/A  
 Luminaire Lumens: 3659.6 lumens  
 Efficiency: N/A  
 Efficacy: 133.1 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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°	1664	1664	1664
5°	1671	1663	1668
10°	1670	1662	1667
15°	1668	1660	1665
20°	1665	1655	1660
25°	1655	1647	1652
30°	1648	1641	1643
35°	1637	1632	1634
40°	1628	1618	1620
45°	1618	1607	1605
50°	1600	1586	1579
55°	1574	1566	1558
60°	1551	1532	1520
65°	1500	1490	1468
70°	1468	1428	1406
75°	1389	1371	1325
80°	1328	1284	1232
85°	1184	1166	1079

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1618 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.2	3.2
10°-20°	336.8	9.2
20°-30°	512.5	14.0
30°-40°	622.0	17.0
40°-50°	651.4	17.8
50°-60°	595.2	16.3
60°-70°	462.6	12.6
70°-80°	277.4	7.6
80°-90°	84.4	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°	966.4	26.4
0°-40°	1588.5	43.4
0°-60°	2835.1	77.5
0°-90°	3659.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3659.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1237	1234	1231	1231	1235	118
15°	1198	1193	1192	1192	1195	338
25°	1115	1111	1110	1111	1113	514
35°	997	994	993	993	994	624
45°	850	846	844	843	843	655
55°	671	669	668	662	664	600
65°	471	470	468	462	461	469
75°	267	266	264	259	255	284
85°	77	76	76	73	70	86
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1236.9	1236.9	1236.9	1236.9	1236.9
2.5°	1240.3	1235.8	1234.7	1234.7	1238.0
5°	1236.9	1233.5	1231.3	1231.3	1234.7
7.5°	1231.3	1226.8	1225.6	1225.6	1227.9
10°	1222.3	1218.9	1216.6	1216.6	1220.0
12.5°	1211.0	1206.5	1205.3	1206.5	1208.7
15°	1197.5	1192.9	1191.8	1191.8	1195.2
17.5°	1179.4	1176.0	1174.9	1174.9	1178.3
20°	1162.5	1156.9	1155.7	1156.9	1159.1
22.5°	1137.7	1135.4	1134.3	1135.4	1136.6
25°	1115.1	1110.6	1109.5	1110.6	1112.9
27.5°	1090.3	1085.8	1084.7	1084.7	1088.1
30°	1061.0	1057.6	1056.5	1056.5	1057.6
32.5°	1030.6	1028.3	1024.9	1026.1	1028.3
35°	996.7	994.5	993.4	993.4	994.5
37.5°	965.2	960.7	957.3	957.3	959.5
40°	926.8	924.6	921.2	922.3	922.3
42.5°	889.6	886.2	884.0	882.9	884.0
45°	850.2	845.7	844.5	843.4	843.4
47.5°	806.2	806.2	802.8	800.6	799.4
50°	764.5	760.0	757.7	754.3	754.3
52.5°	716.0	714.9	711.5	710.4	710.4
55°	670.9	668.6	667.5	661.9	664.1
57.5°	624.7	620.1	619.0	615.6	613.4
60°	576.2	573.9	569.4	564.9	564.9
62.5°	524.3	523.2	518.7	515.3	514.2
65°	471.3	470.2	467.9	462.3	461.2
67.5°	426.2	421.7	416.1	411.6	411.6
70°	373.2	367.6	363.1	358.6	357.4
72.5°	319.1	315.7	313.5	308.9	305.6
75°	267.2	266.1	263.8	259.3	254.8
77.5°	218.7	217.6	212.0	208.6	205.2
80°	171.4	166.9	165.7	161.2	159.0
82.5°	120.6	122.9	117.3	116.1	115.0
85°	76.7	75.5	75.5	73.3	69.9
87.5°	33.8	35.0	35.0	35.0	35.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)