LiveWire Enterprises
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Blue/Green LiveWire

for Indoors and Outdoors Use*

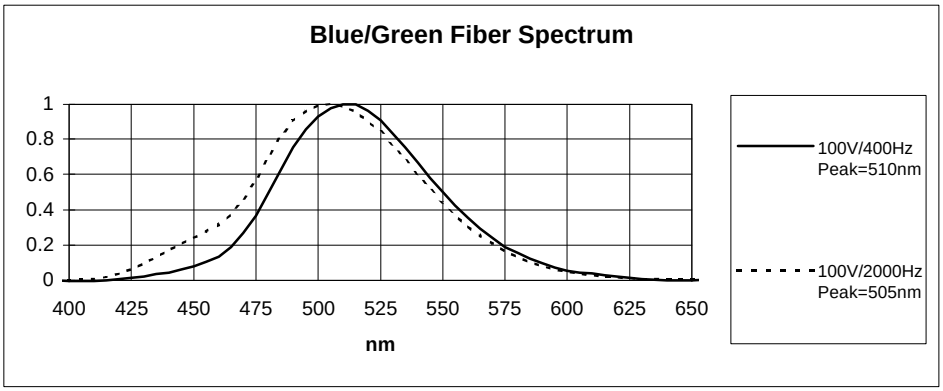
Product Specifications(Model **01S BG)**

Overall Diameter	2.1 - 2.6 mm (0.083" - 0.123")

Absolute Maximum Ratings

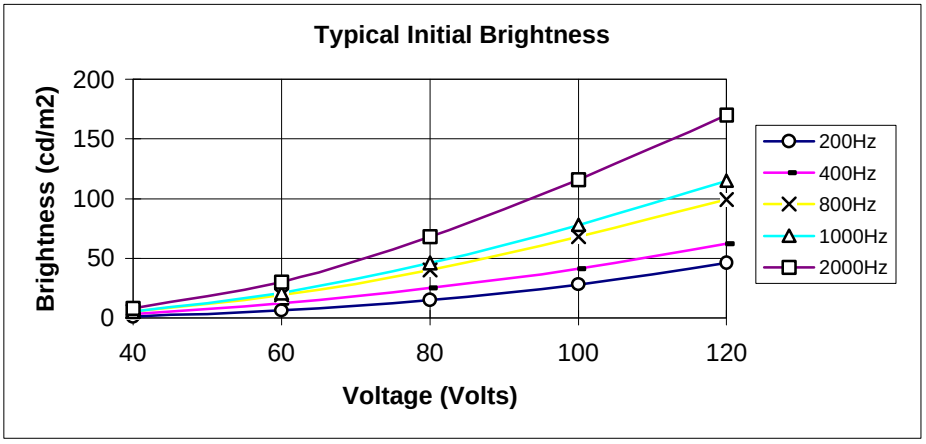
Power Supply Voltage	**130 Volts (RMS)**
Storage Temperature	**-20 to +65 deg. C (-4 to +149 deg.F)**
Operating Temperature	**-20 to +55 deg. C (-4 to +131 deg.F)**
Stretching Force	**1 Kg**
Bending Diameter	**at least 5 times the fiber diameter**
Twisting Angle	**30 degrees per meter**
Average AC current	**100 mAmp**
Insulation Breakdown Voltage	**4000 Volts per IEC 335-1**
Flammability	**850 deg C per IEC 335 -1**

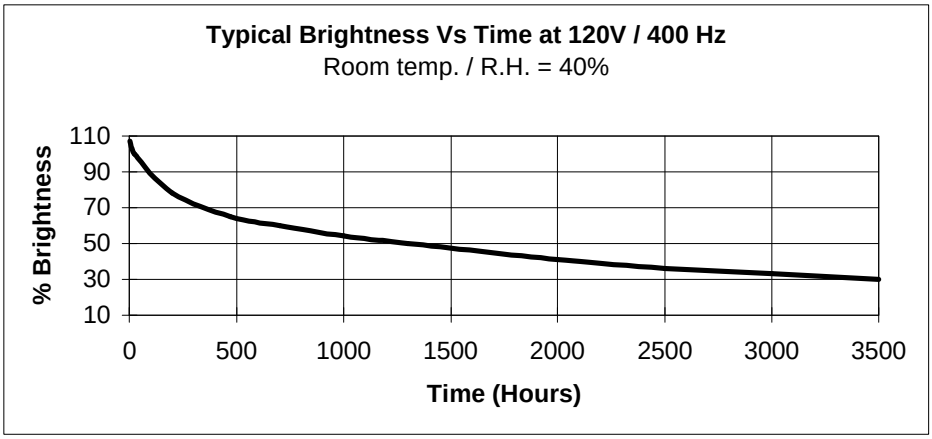
Electro-Optical Characteristics	Typical** Initial Performance
Brightness at 100 Volts / 400Hz	**41 cd/m^2**
Peak Wavelength at 100V/400 Hz	**510 nm**
Chromaticity Coordinates at 100V/400 Hz	**X = 0.194, Y = 0.546**
Brightness at 100 Volts / 800Hz	**68 cd/m^2**
Peak Wavelength at 100 Volts / 800Hz	**510 nm**
Chromaticity Coordinates at 100 Volts / 800Hz	**X = 0.185, Y = 0.515**
Brightness at 100 Volts / 2000Hz	**116 cd/m^2**
Peak Wavelength 100V / 2000 Hz	**505 nm**
Chromaticity Coordinates at 100 Volts / 2000Hz	**X = 0.176, Y = 0.449**
Dynamic Capacitance at 5 VAC in darkness	**5.3 nF +/- 0.8 nF**



Typical Initial Brightness (cd/m2)

Voltage (VRMS)	200Hz	400Hz	800Hz	1000Hz	2000Hz
40	**1**	**3**	**5**	**5**	**8**
60	**6**	**12**	**19**	**21**	**30**
80	**15**	**25**	**40**	**46**	**68**
100	**28**	**41**	**68**	**78**	**116**
120	**46**	**62**	**99**	**115**	**170**





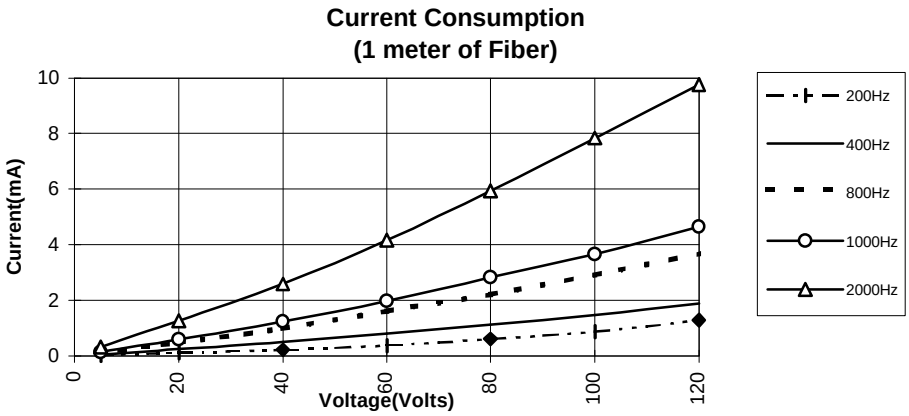
*** Remark: Product operation under direct sunlight is not recommended! For Outdoors system design, please, contact LiveWire Enterprises.**

**** Remark: Actual parameters of each lot may vary from typical values within +/-20%.**

Common Characteristics for All Color

Current Consumption(mAmp) of 1meter

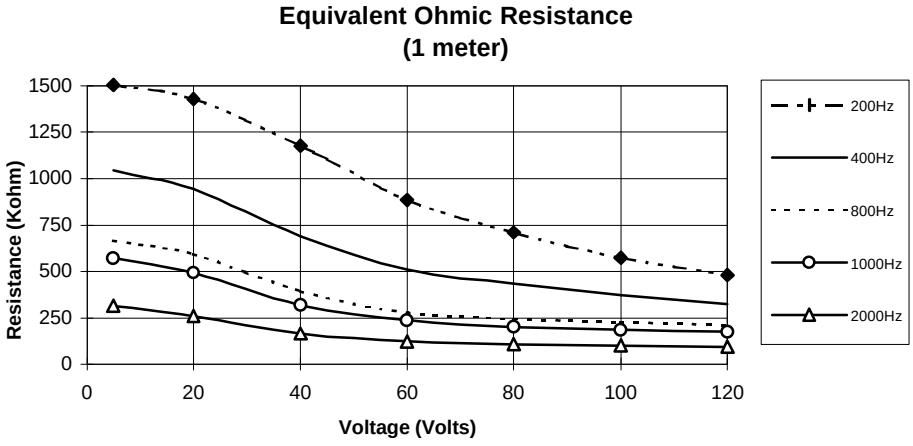
Voltage(VRMS)	200Hz	400Hz	800Hz	1000Hz	2000Hz
5	0.03	0.06	0.12	0.16	0.33
20	0.12	0.24	0.48	0.61	1.27
40	0.23	0.50	1.00	1.24	2.59
60	0.38	0.80	1.62	1.98	4.17
80	0.62	1.12	2.22	2.83	5.94
100	0.88	1.47	2.92	3.66	7.84
120	1.29	1.90	3.68	4.64	9.76



Equivalent Ohmic Resistance(kOhm) of 1 meter

(Ohmic Component of the Parallel RC Circuit)

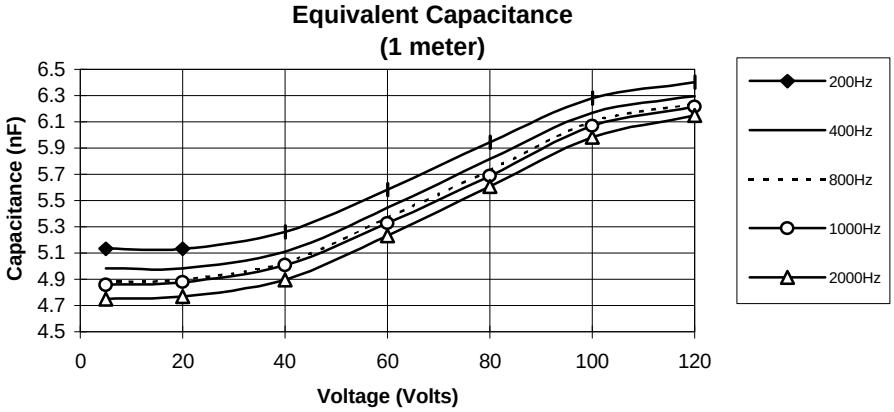
Voltage	200Hz	400Hz	800Hz	1000Hz	2000Hz
5	1504	1043	663	569	314
20	1428	942	592	494	259
40	1175	691	393	316	165
60	886	510	280	235	123
80	709	435	243	200	107
100	572	374	226	184	101
120	480	323	210	174	94



Equivalent Capacitance(nF) of 1 meter

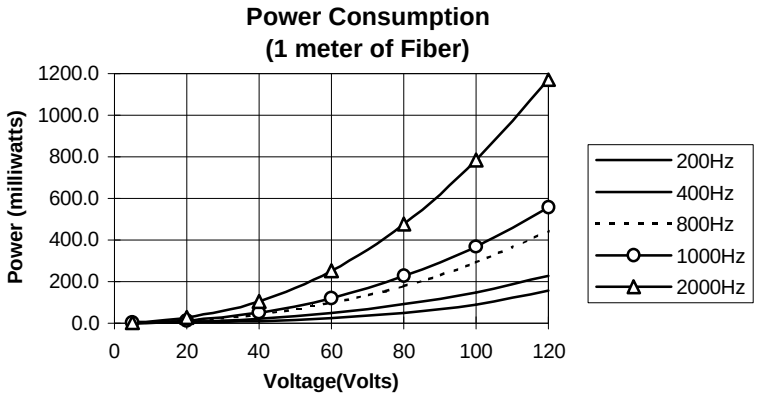
(Capacitive Component of the Parallel RC Circuit)

Voltage (VRMS)	200Hz	400Hz	800Hz	1000Hz	2000Hz
5	5.1	5.0	4.9	4.9	4.7
20	5.1	5.0	4.9	4.9	4.8
40	5.3	5.1	5.0	5.0	4.9
60	5.6	5.4	5.4	5.3	5.2
80	5.9	5.8	5.7	5.7	5.6
100	6.3	6.2	6.1	6.1	6.0
120	6.4	6.3	6.2	6.2	6.1



Power Consumption (milliWatt/meter)

Voltage(VRMS)	200Hz	400Hz	800Hz	1000Hz	2000Hz
5	0.2	0.3	0.6	0.8	1.7
20	2.5	4.9	9.7	12.2	25.5
40	9.1	20.2	39.9	49.7	103.6
60	22.8	47.8	97.1	118.9	250.5
80	49.6	89.8	177.2	226.6	475.4
100	88.0	147.0	291.8	366.4	783.8
120	154.4	227.5	442.2	557.2	1170.6



Relative Efficiency

Voltage(VRMS)	200Hz	400Hz	800Hz	1000Hz	2000Hz
40	164.0	144.5	115.6	105.9	72.6
60	276.3	243.4	190.6	174.1	118.8
80	310.5	277.1	223.2	203.3	142.2
100	318.2	282.2	231.6	212.8	147.5
120	301.0	271.8	224.9	206.7	145.0