



**HELIOWORKS**  
*"Out Shines All Others"*  
**STEADY STATE IR SOURCE**  
**Model EK-8521**

Helioworks, Inc. offers a unique steady state black body infrared emitter in an industry standard TO-8 package that operates at up to 950° Centigrade. A Sapphire window provides spectral transmission to over 5 microns.

**Key Features include:**

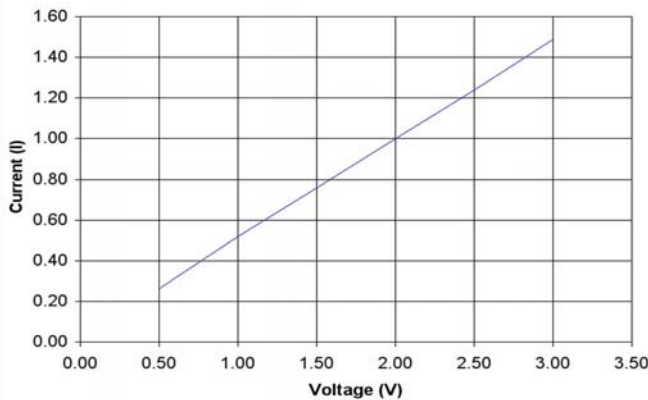
- Kanthal filament with emissivity,  $\epsilon = 0.7$
- Sapphire window
- Internal gold plated parabolic reflector
- Standard TO-8 package
- Inert gas backfill



**Electrical Specifications:**

Peak Voltage = 3.0 Volts DC MAXIMUM  
 Peak Current 1.48 Amps  
 Peak Power = 4.4 Watts

**Current vs. Voltage**

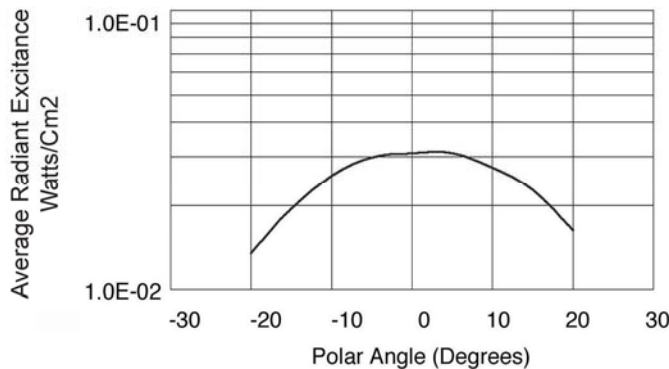


V	I	W=VI	R=V/I
0.50	0.26	0.13	1.90
1.00	0.52	0.52	1.92
1.50	0.76	1.14	1.97
2.00	1.00	2.00	2.00
2.50	1.24	3.10	2.02
2.80	1.39	3.89	2.01
3.00	1.48	4.47	2.01

Approximate 950° C

**Average Radiant Excitance (Watts/Cm2):**

Volts = 3.0, Distance = 3.0 inches from source



Polar Angle	Average Radiant Excitance (Watts/Cm2)
-20	1.35E-02
-15	1.95E-02
-10	2.58E-02
-5	2.98E-02
0	3.10E-02
5	3.09E-02
10	2.75E-02
15	2.28E-02
20	1.63E-02