



100V 115/120V 230/240V

**Fresnel Series**

PRELIMINARY

**GENERAL INFORMATION**

ETC combines the efficiency of the HPL lamp with the singular optical qualities of the fresnel optical system to create the truly advanced ETC Source Four Fresnel. Traditional fresnel optics provide a unique quality of blending wash light and beam shaping via barn doors for well-defined, soft-edged area lighting. The Source Four Fresnel combines this classic system with a unique reflector design enabling the HPL 750W-equipped Source Four Fresnel to equal the lumen output of other 1000W fresnel fixtures. Spot-to-flood focus is accomplished by large, easy-to-use knob for quick adjustments in inconvenient positions. The unique Quick Xchange socket design permits re-lamping from underneath the fixture without breaking focus in most situations.

**SPECIFICATIONS****PHYSICAL**

- Rugged die-cast aluminum construction
- Convenient full-size zoom adjustment knob
- Unique HPL quick exchange socket enables easy lamp changes
- Sliding yoke mount for variable balance point
- Fully enclosed accessory slots for no light leak
- UL and cUL listed

**ELECTRICAL**

- 100V-240V, 50/60Hz
- High temperature three-conductor 36" leads in a glass fiber outer sleeve
- Supports ETC Dimmer Doubling™ technology

**OPTICAL**

- 7"/175mm aperture
- 20° - 65° field angle zoom range
- True fresnel optical system for good barn-door beam shaping performance
- Glass reflector with dichroic coating optimized for HPL performance

**SPECIFICATIONS****LAMP**

- HPL – compact tungsten filament contained in a krypton/xenon-filled quartz glass envelope (see table for suitable lamp types)
- Uses same lamp as all Source Four fixtures for common inventory
- 750W maximum
- Patented filament geometry makes for extremely efficient light collection and transmission
- Integral die-cast aluminum heat sink lamp base

**ORDERING INFORMATION****Source Four Fresnel**

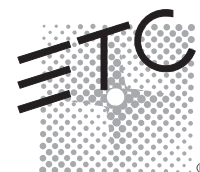
MODEL	DESCRIPTION
FRES7	7" Source Four Fresnel (Black)
FRES7-1	7" Source Four Fresnel (White)

**Connector Designation**

Use suffixes below to specify factory-fitted connector type

MODEL	DESCRIPTION
A	Parallel-blade U-ground connector (Edison)
B	Two-pin and ground, 20A connector
C	Grounded 20A twist lock connector
M	Dimmer Doubling Connector (NEMA L515P)

See back page for Source Four Fresnel accessories



PHOTOMETRICS

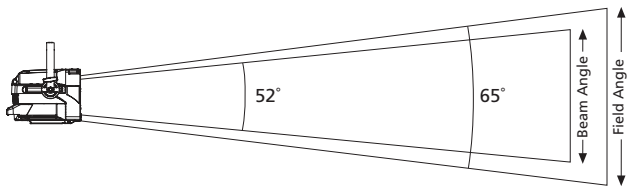
Photometric data below is measured with an HPL 750W/115V 300 hr lamp. To convert data when using any other HPL lamp, use the lumen or candela multiplying factors (Lm MF or Cd MF) for that specific lamp. These multiplying factors are listed in the Lamps table in this datasheet. For lumen data, multiply by the Lm MF. For candela or footcandle data, multiply by the Cd MF.

**Source Four Fresnel - Flood Focus (115V)**

Degree	Candela	Field Lumens	Beam Lumens	Lumens per Watt
65°	17,600	10,690	7,590	14.3

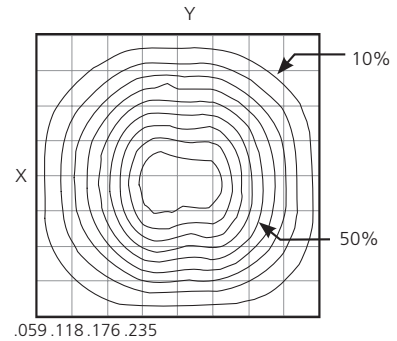
For field diameter at any distance, multiply distance by 1.262

For beam diameter at any distance, multiply distance by .978

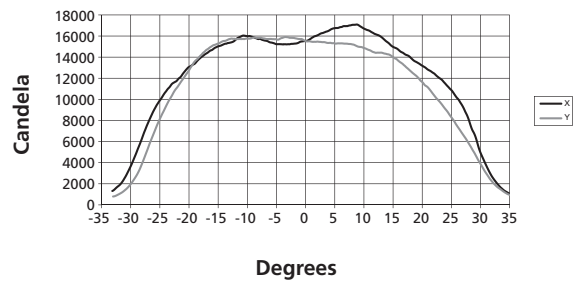


<b>Throw Distance (d)</b>	10.0' 3.0m	15.0' 4.6m	20.0' 6.1m	25.0' 7.6m
<b>Field Diameter</b>	12.6' 3.8m	18.9' 5.8m	25.2' 7.7m	31.5' 9.6m
<b>Illuminance (fc)</b>	176	78	44	28
<b>Illuminance (lux)</b>	1,894	842	474	303

**Iso-Illuminance Diagram (Flat Surface Distribution)**



**Candela Plot**

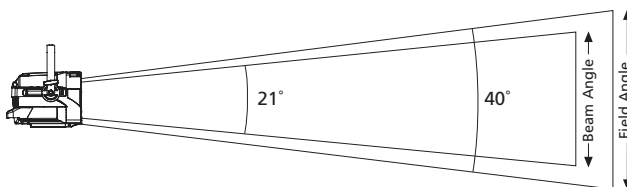


**Source Four Fresnel - Medium Focus (115V)**

Degree	Candela	Field Lumens	Beam Lumens	Lumens per Watt
40°	51,500	7,390	3,580	9.9

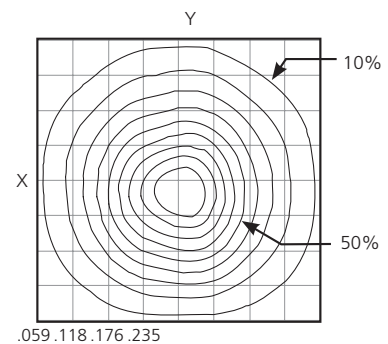
For field diameter at any distance, multiply distance by 0.716

For beam diameter at any distance, multiply distance by 0.367

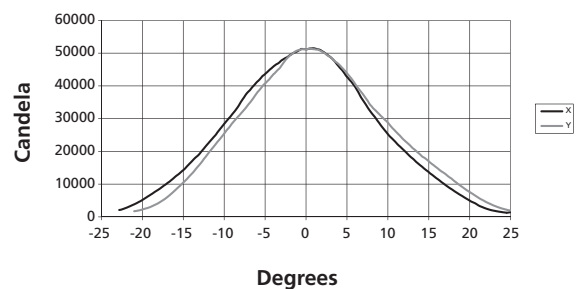


<b>Throw Distance (d)</b>	10.0' 3.0m	15.0' 4.6m	20.0' 6.1m	25.0' 7.6m
<b>Field Diameter</b>	7.2' 2.2m	10.7' 3.3m	14.3' 4.4m	17.9' 5.5m
<b>Illuminance (fc)</b>	515	229	129	82
<b>Illuminance (lux)</b>	5,543	2,464	1,386	887

**Iso-Illuminance Diagram (Flat Surface Distribution)**



**Candela Plot**



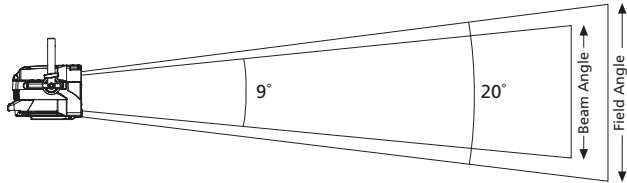
PHOTOMETRICS

**Source Four Fresnel - Narrow Focus (115V)**

Degree	Candela	Field Lumens	Beam Lumens	Lumens per Watt
20°	124,300	3,990	1,930	5.3

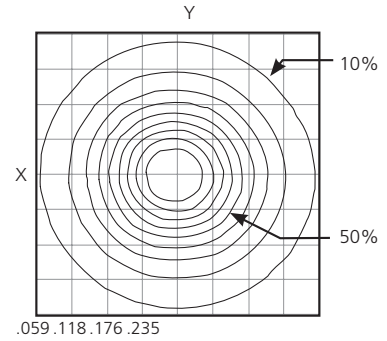
For field diameter at any distance, multiply distance by 0.42

For beam diameter at any distance, multiply distance by 0.21

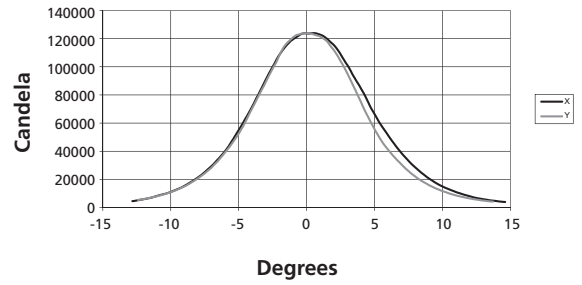


<b>Throw Distance (d)</b>	10.0'	15.0'	20.0'	25.0'
	3.0m	4.6m	6.1m	7.6m
<b>Field Diameter</b>	3.5'	5.2'	6.9'	8.6'
	1.1m	1.6m	2.1m	2.6m
<b>Illuminance (fc)</b>	1,243	552	311	199
<b>Illuminance (lux)</b>	13,380	5,946	3,345	2,141

**Iso-Illuminance Diagram  
(Flat Surface Distribution)**



**Candela Plot**



## Fresnel Series

## L A M P S

To determine Candela (Cd) or Lumens (Lm) for any other HPL lamp, multiply the Candela or Lumen value by the appropriate multiplying factor (CdMF or LmMF) shown for that lamp in the table below.

ETC Part #	Lamp Code	Watts	Volts	Initial Lumens	Color Temp. K	Avg. Rated Life	Spot Cd MF	Spot Lm MF	Flood Cd MF	Flood Lm MF
RT116	HPL 750/115**	750	115	21,900	3,250	300	1.00	1.00	1.00	1.00
RT196	HPL 750/115X	750	115	16,400	3,050	1,500				
RT113	HPL 575/115**	575	115	16,520	3,250	300				
RT114	HPL 575/115X	575	115	12,360	3,050	2,000				
RT142	HPL 375/115	375	115	10,540	3,250	300				
RT143	HPL 375/115X	375	115	8,500	3,050	1,000				
N/A	HPL 750/120	750	120	21,900	3,250	300				
N/A	HPL 750/120X	750	120	16,400	3,050	1,500				
RT115	HPL 575/120	575	120	16,520	3,250	300				
RT171	HPL 575/120X	575	120	12,360	3,050	2,000				
RT112	HPL 550/77*	550	77	16,170	3,250	300				
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000				
RT160	HPL 750/230**	750	230	19,750	3,200	300	.78	.86	.81	.84
N/A	HPL 750/230X	750	230	15,600	3,050	1,500				
RT129	HPL 575/230**	575	230	14,900	3,200	400				
RT138	HPL 575/230X	575	230	11,780	3,050	1,500				
RT154	HPL 375/230X	375	230	7,800	3,050	1,000				
N/A	HPL 750/240	750	240	19,750	3,200	300				
N/A	HPL 750/240X	750	240	15,600	3,050	1,500				
RT130	HPL 575/240	575	240	14,900	3,200	400				
RT139	HPL 575/240X	575	240	11,780	3,050	1,500				
RT155	HPL 375/240X	375	240	7,800	3,050	1,000				

Source Four Fresnels rated for 750W maximum.

\*77 Volt HPL lamps are for use with ETC Dimmer Doubling™ technology only.

\*\*Photometric data was prepared using a production fixture and the Prometric CCD measurement system. Fixture adjusted for cosine distribution and tested with calibrated lamp at rated voltage. All data normalized to nominal lamp lumens in accordance with IES LM-73-04. Testing performed at ETC West, Hollywood, CA. All other multiplying factors extrapolated from primary test data.

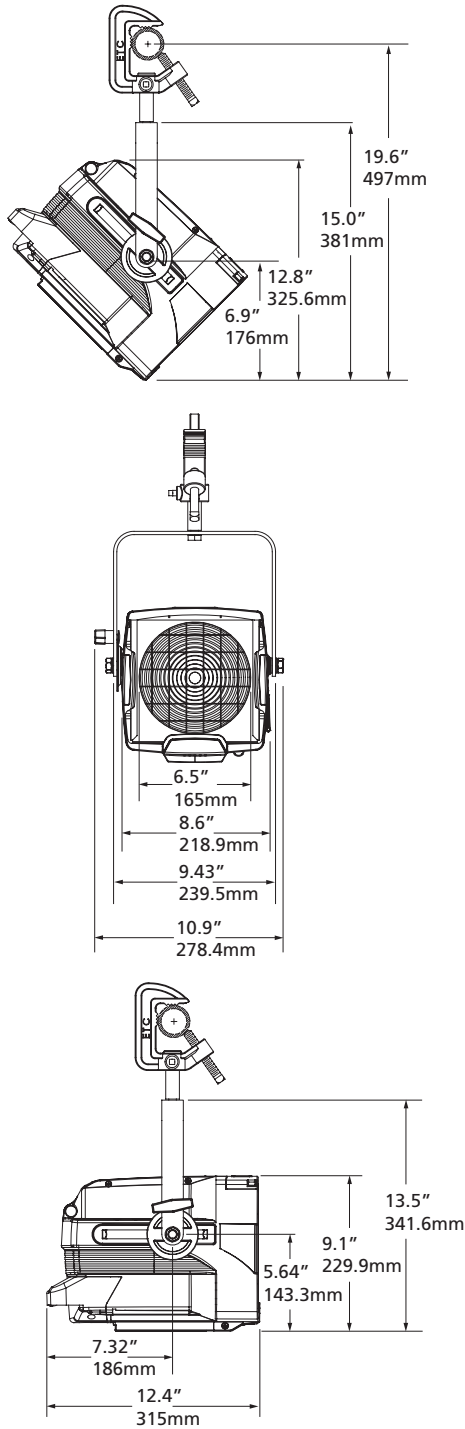
For links to photometry file downloads (IES LM-63-02 format) go to [www.etconnect.com](http://www.etconnect.com).

HPL Specified Tolerances: Watts +/- 5%, Lumens +/-7%, Average life +/-10%, Color Temperature +/- 50K

"N/A" lamps are not available for purchase from ETC. Contact your dealer for purchase.

**Fresnel Series**

PHYSICAL



**Source Four Fresnel Weights\***

MODEL	WEIGHT		SHIPPING WEIGHT	
	lbs	kgs	lbs	kgs
Fresnel	13.3	6.1	17.5	8.0

\*Add 2.3 lbs for C-clamp

ORDERING INFORMATION

Continued from front page...

**Source Four Fresnel Accessories**

MODEL	DESCRIPTION
407CF	Color frame (7.5") (included)
400SC	Safety Cable
400CC	C-Clamp
400BD	Barn Door
400PTH3	Top hat, 3"
400PTH6	Top hat, 6"
400PHH	Half hat
400PGE3	Gel extender, 3"
400PGE6	Gel extender, 6"
400WB	Weighted base
400XBTH	Cross baffle top hat
400L	Egg crate louver

Note: For colors other than black and white, please call ETC.

Source Four products are protected by one or more of the following patents:

U.S.	USRE36,3316, US5,345,371, US6,092,914 and US5,775,799
U.K.	GB0592589, GB0673488, 99930527.9*
Germany	DE0592589, GB0673488, 99930527.9*
Japan	JP2,501,772

\* European patent application number



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