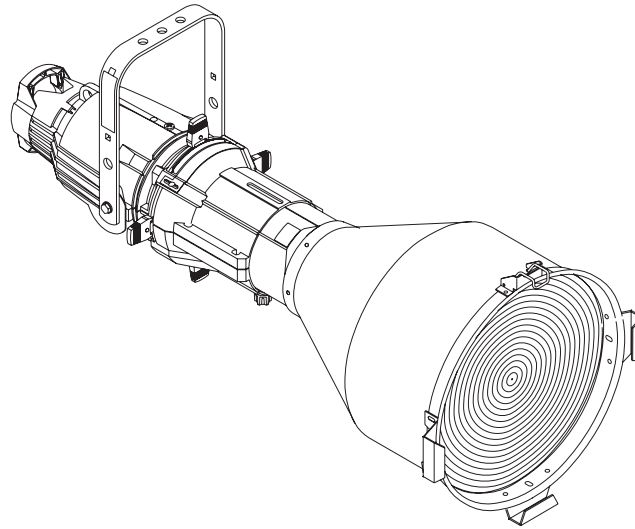




100V 115/120V 230/240V

Ellipsoidal Series



SPECIFICATIONS

PHYSICAL

- Rugged, die cast aluminum construction
- Rotating shutter assembly  $\pm 25^\circ$
- 20 gauge stainless steel shutters in a tri-plane assembly
- Interchangeable lens tubes with smooth-running teflon guides provide nine user-fit field angle options
- Thermally insulated rear handle
- High impact, thermally insulated knobs and shutter handles
- Two accessory slots and a top mounted, gel frame retainer
- Steel yoke with two mounting positions
- Positive locking single-clutch fixture body
- Slot for glass or stainless steel patterns
- Wide accessory slot with sliding cover for motorized pattern devices or optional iris
- UL and cUL Listed

ELECTRICAL

- 115-240V, 50/60Hz
- High temperature 3-conductor 36" leads in a glass fiber outer sleeve.
- Supports ETC Dimmer Doubling™ technology

LAMP

- 750W maximum
- HPL – compact tungsten filament contained in a krypton-filled quartz envelope (see table for suitable lamp types)
- Patented filament geometry provides extremely efficient light collection and transmission
- Integral die cast aluminum heat sink lamp base

SPECIFICATIONS

OPTICAL

- Re-optimized optical system for improved photometric performance and field uniformity
- Faceted borosilicate reflector with dichroic cold mirror coating removes greater than 90% infrared radiation (heat) and reflects greater than 95% of visible light
- Reflector secured with anti-vibration shock mounts
- Micro-groove plastic fresnel lens
- Lens(es) secured with anti-vibration shock mounts
- Tool free, positive locking X, Y and Z lamp centering adjustments, unaffected by relamping
- Beam edge continually adjustable hard-to-soft
- Interchangeable lens barrels permit selection of 5°, 10°, 14°, 19°, 26°, 36°, 50°, 70° and 90° field angles as well as 19°, 26°, 36°, and 50° EDLT lenses

ORDERING INFORMATION

Source Four

MODEL	DESCRIPTION
410	10° ellipsoidal (black)
410-1	10° ellipsoidal (white)

ETC Source Fours are supplied with C-clamp, color frame and 3' (96cm) leads as standard

Connector Designation

Use Suffixes below to specify Factory-Fitted Connector type

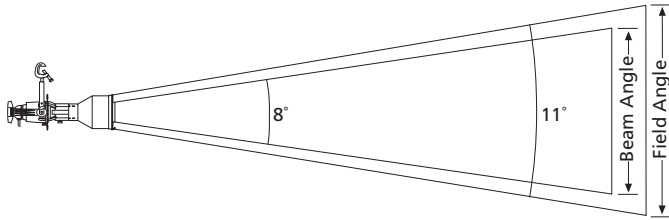
MODEL	DESCRIPTION
-A	Parallel-blade U-ground connector
-B	Two-pin and ground, 20 amp connector
-C	Grounded, 20 amp, twistlock connector
-M	Dimmer Doubling Connector (NEMA L515P)

See back page for Source Four 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, 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.



<b>Throw Distance (d)</b>	45' 13.7m	70' 21.3m	100' 30.5m	125' 38.1m
<b>Field Diameter</b>	8.5' 2.6m	13.2' 4.0m	18.9' 5.8m	23.6' 7.2m
<b>Illuminance (fc)</b>	387	160	78	50
<b>Illuminance (lux)</b>	4,164	1,721	843	540

Source Four 10°(cosine)

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
10°	783,310	11,925	8,615	54.5%	15.9

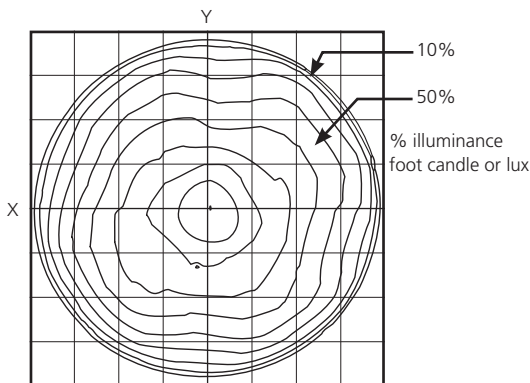
Metric Conversions: For Meters multiply feet by .3048  
For Lux multiply footcandles by 10.76

To determine center beam illumination in footcandles at any throw distance, divide candela by the throw distance squared.

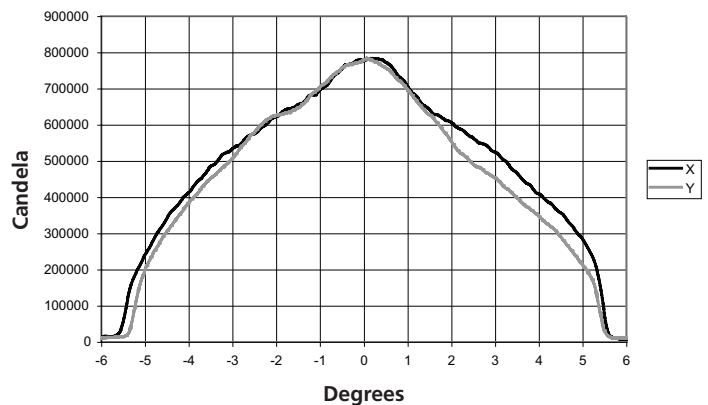
For Field diameter at any distance, multiply distance by .19

For Beam diameter at any distance, multiply distance by .14

Iso-Illuminance Diagram  
(Flat Surface Distribution)



Cosine Candela Plot



Complete IES photometry data files (LM-63-02 format) may be downloaded from the ETC website.

Go to <http://www.etcconnect.com/downloads.asp>

## Ellipsoidal 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	Average Rated Life	10° Cd MF	10° Lm MF
RT116	HPL 750/115**	750	115	21,900	3,250	300	1.00	1.00
RT196	HPL 750/115X	750	115	16,400	3,050	1,500	.64	.74
RT113	HPL 575/115**	575	115	16,520	3,250	300	.86	.82
RT114	HPL 575/115X	575	115	12,360	3,050	2,000	.56	.56
RT142	HPL 375/115	375	115	10,540	3,250	300	.72	.53
RT143	HPL 375/115X	375	115	8,500	3,050	1,000	.50	.40
N/A	HPL 750/120	750	120	21,900	3,250	300	1.00	1.00
N/A	HPL 750/120X	750	120	16,400	3,050	1,500	.64	.74
RT115	HPL 575/120	575	120	16,520	3,250	300	.86	.82
RT171	HPL 575/120X	575	120	12,360	3,050	2,000	.56	.56
RT112	HPL 550/77*	550	77	16,170	3,250	300	.87	.81
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000	.59	.56
RT160	HPL 750/230**	750	230	19,750	3,200	300	.77	.77
N/A	HPL 750/230X	750	230	15,600	3,050	1,500	.48	.61
RT129	HPL 575/230**	575	230	14,900	3,200	400	.65	.63
RT138	HPL 575/230X	575	230	11,780	3,050	1,500	.46	.46
RT154	HPL 375/230X	375	230	7,800	3,050	1,000	.36	.33
N/A	HPL 750/240	750	240	19,750	3,200	300	.77	.77
N/A	HPL 750/240X	750	240	15,600	3,050	1,500	.48	.61
RT130	HPL 575/240	575	240	14,900	3,200	400	.61	.63
RT139	HPL 575/240X	575	240	11,780	3,050	1,500	.43	.46
RT155	HPL 375/240X	375	240	7,800	3,050	1,000	.36	.33

Source Four is rated for 750W maximum.

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

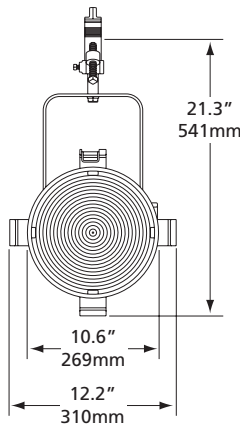
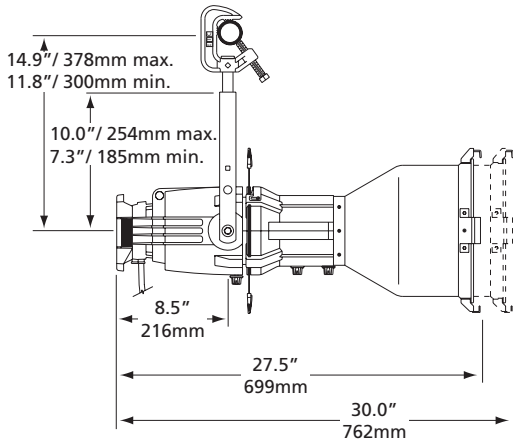
\*\*Photometric data was prepared using a production fixture and the Prometric CCD measurement system. Fixture adjusted for cosine distribution and tested with calibrated lamp at rated voltage. All data normalized to nominal lamp lumens in accordance with IES LM-73-04. Testing performed at ETC West, 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.etcconnect.com](http://www.etcconnect.com).

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

Ellipsoidal Series

PHYSICAL



Source Four Weights\*

MODEL	WEIGHT		SHIPPING WEIGHT	
	lbs	kgs	lbs	kgs
10°	15	6.8	24	10.9

\*Includes 2.3 lbs for C-clamp

ORDERING INFORMATION

Continued from front page...

Source Four Accessories

MODEL	DESCRIPTION
410LT	10° lens tube with lens installed (black)
410LT-1	10° lens tube with lens installed (white)
400CC	C-clamp (included)
400PH-A	Pattern holder (A size)
400PH-B	Pattern holder (B size)
400PH-G	Glass pattern holder
400SC	Safety cable
400RS	Drop-in iris
410CF	Colorframe for 10° (12") (included)
410DN	Donut for 10° (12")
410TH	Top hat
410FB	Source Four Fixture Body, Double Clutch

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

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

U.S.	USRE36,3316, US5,345,371, US5,446,637, US5,544,029, 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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