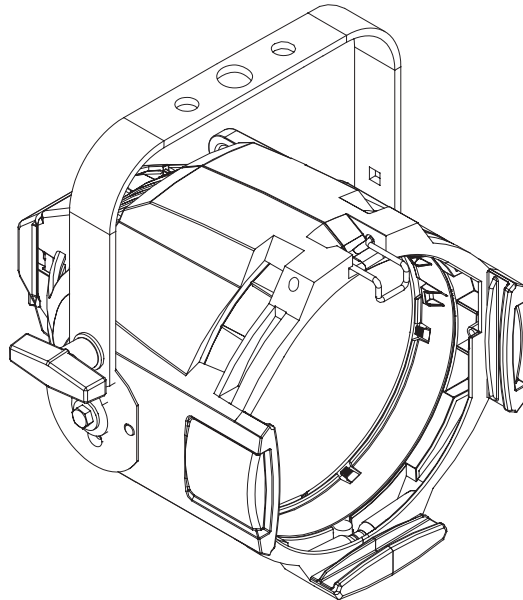




100V 115/120V 230/240V

PAR Series



SPECIFICATIONS

PHYSICAL

- Rugged die-cast aluminum construction
- Tool free access to the reflector and lens
- High-impact, thermally insulated knobs
- Sealed reflector housing
- Reflector temperature control through integral heat sink fins
- Gel frame holders with two accessory slots
- Top-mounted, gel-frame retainer
- Steel yoke with two mounting positions
- Positive locking yoke clutch
- UL and cUL Listed

ELECTRICAL

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

LAMP

- HPL — compact tungsten filament contained in a krypton/xenon-filled quartz envelope (see table for suitable lamp types)
- 575W maximum
- Patented filament geometry makes for extremely efficient light collection and transmission
- Integral die-cast aluminum heat sink lamp base

LENSES

- Four heat resistant, molded borosilicate glass lenses supplied with each unit: Very Narrow Spot (VNSP), Narrow Spot (NSP), Medium Flood (MFL) and Wide Flood (WFL).
- Round beam for VNSP and NSP, oblong beam shape for MFL and WFL
- Optional Extra Wide Flood lens (XWFL) also available
- Tool free lens changing
- Thermally insulated lens ring

SPECIFICATIONS

OPTICAL

- Modified parabolic and multifaceted reflector
- Computer designed reflector facets molded directly into heat sink casting, finished with an metal cold mirror, dichroic coating
- Cold mirror, dichroic coating removes 90% heat from beam for cooler stage environment
- Enhanced Aluminum (EA) also available

ORDERING INFORMATION

Source Four PAR MCM

MODEL	DESCRIPTION
PAR-MCM	Source Four PAR Metal Cold Mirror (Black)
PAR-MCM-1	Source Four PAR Metal Cold Mirror (White)

ETC Source Four PAR MCM are supplied with 4 lens set: VNSP, NSP, MFL, WFL; color frame and 3' (96cm) lead 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 PAR Accessories



PHOTOMETRICS

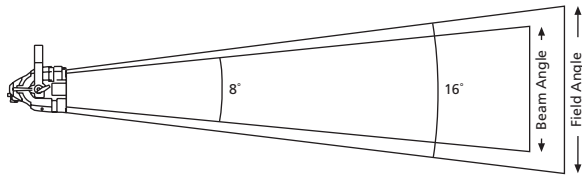
Photometric data below is measured with an HPL 575W/115V 300 hr lamp. To convert data when using any other HPL lamp, use the lumen or candela multiplying factors (Lm MF or Cd MF) for that specific lamp. These multiplying factors are listed in the Lamps table in this datasheet. For lumen data, multiply by the Lm MF. For candela or footcandle data, multiply by the Cd MF.

Source Four PAR MCM with VNSP lens

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
VNSP	343,440	7,798	4,203	47.2%	13.6

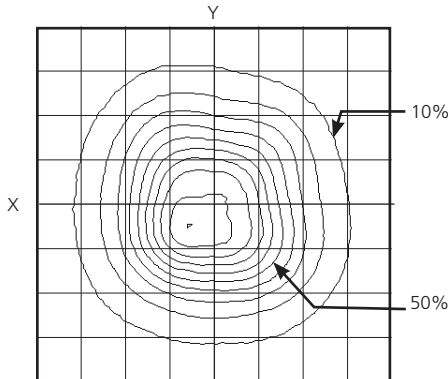
For Field diameter at any distance, multiply distance by 0.27

For Beam diameter at any distance, multiply distance by 0.14

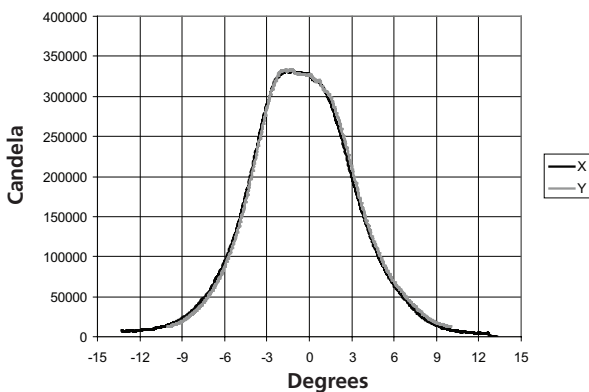


Throw Distance (d)	30'	50'	70'	85'
	9.1m	15.2m	21.3m	25.9m
Field Diameter	8.2'	13.7'	19.2'	23.3'
	2.5m	4.2m	5.8m	7.1m
Illuminance (fc)	382	137	70	48
Illuminance (lux)	4,108	1,479	754	512

Iso-Illuminance Diagram (Flat Surface Distribution)



Candela Plot

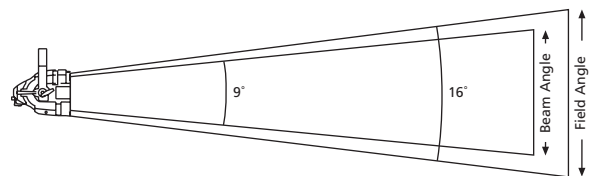


Source Four PAR MCM with NSP lens

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
NSP	297,851	7,997	4,604	48.4%	13.9

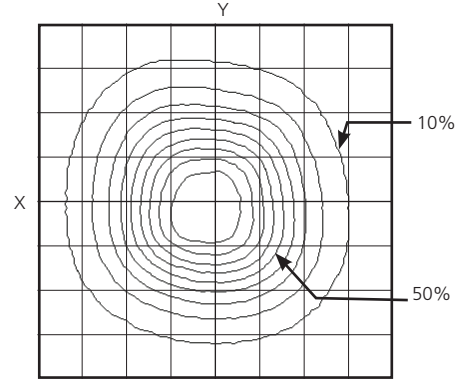
For Field diameter at any distance, multiply distance by 0.28

For Beam diameter at any distance, multiply distance by 0.15

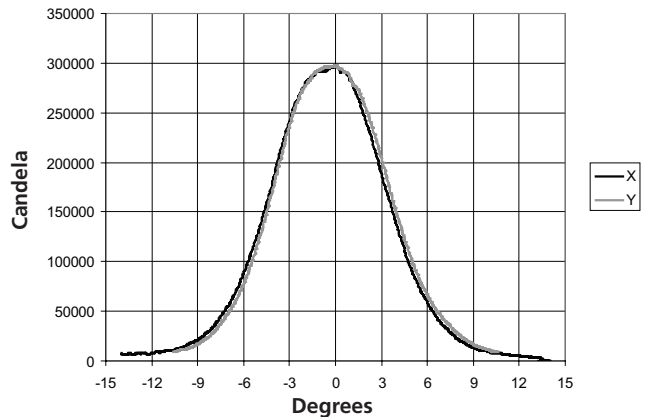


Throw Distance (d)	25'	45'	65'	80'
	7.6m	13.7m	19.8m	24.4m
Field Diameter	7.0'	12.7'	18.3'	22.5'
	2.1m	3.9m	5.6m	6.9m
Illuminance (fc)	477	147	70	47
Illuminance (lux)	5,130	1,583	759	501

Iso-Illuminance Diagram (Flat Surface Distribution)



Candela Plot



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

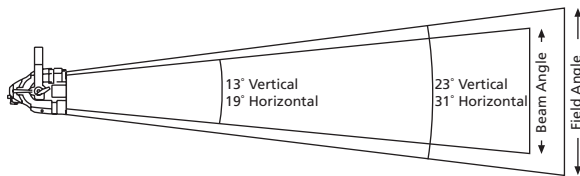
PHOTOMETRICS

Source Four PAR MCM with MFL lens

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
MFL	104,708	8,151	4,808	49.3%	14.2

For Field diameter at any distance, multiply distance by 0.41V / 0.56H

For Beam diameter at any distance, multiply distance by 0.22V / 0.33H



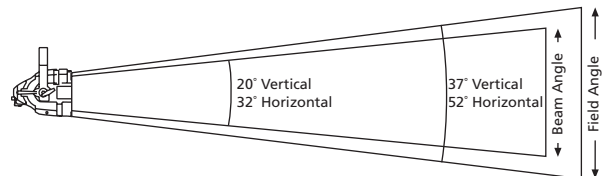
Throw Distance (d)	15' 4.6m	25' 7.6m	40' 12.2m	50' 15.2m
Field Diameter	6.1'/8.4' 1.9m/2.5m	10.2'/13.9' 3.1m/4.2m	16.3'/22.3' 5.0m/6.8m	20.4'/27.8' 6.2m/8.5m
Illuminance (fc)	465	168	65	42
Illuminance (lux)	5,009	1,803	704	451

Source Four PAR MCM with WFL lens

Degree	Candela	Field Lumens	Beam Lumens	Efficiency	Lumens per watt
WFL	34,656	7,628	4,546	46.2%	13.3

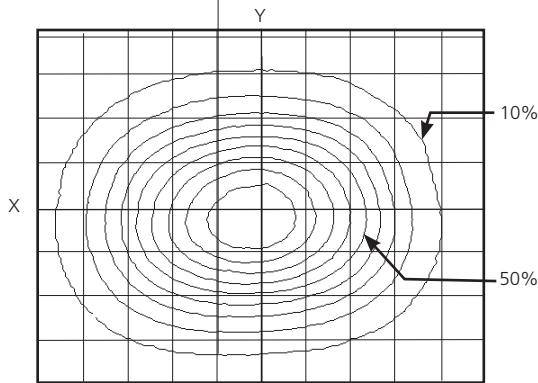
For Field diameter at any distance, multiply distance by 0.68V / 0.98H

For Beam diameter at any distance, multiply distance by 0.36V / 0.57H

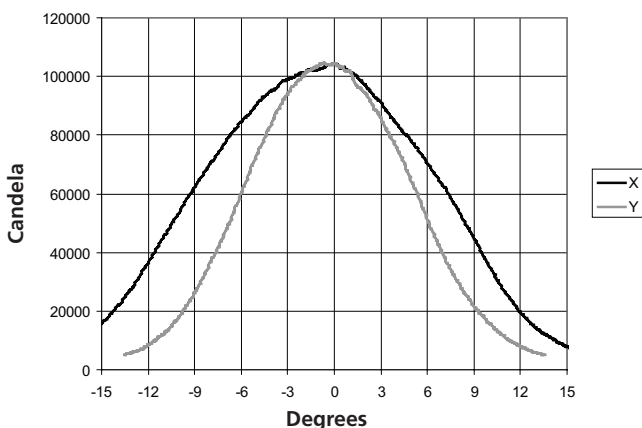


Throw Distance (d)	8.0' 2.4m	16.0' 4.9m	24.0' 7.3m	30.0' 9.1m
Field Diameter	5.4'/7.8' 1.7m/2.4m	10.8'/15.7' 3.3m/4.8m	16.3'/23.5' 5.0m/7.2m	20.3'/29.4' 6.2m/9.0m
Illuminance (fc)	542	135	60	39
Illuminance (lux)	5,829	1,457	648	414

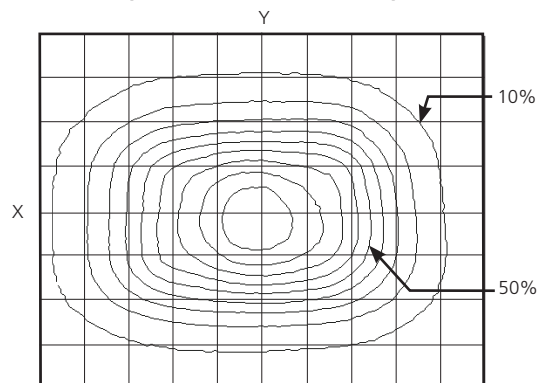
Iso-Illuminance Diagram (Flat Surface Distribution)



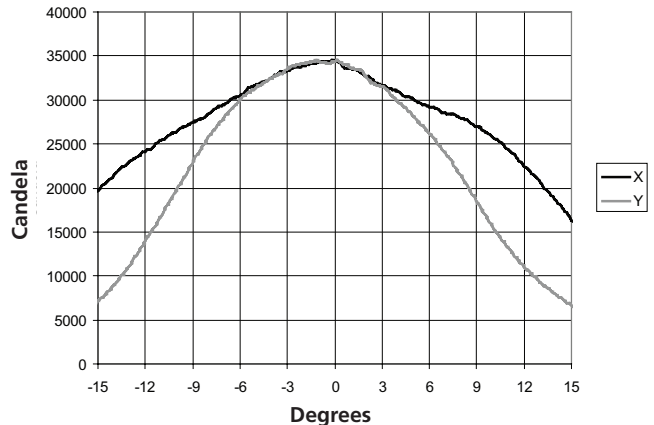
Candela Plot



Iso-Illuminance Diagram (Flat Surface Distribution)



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>

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	VNSP Cd MF	VNSP Lm MF	NSP Cd MF	NSP Lm MF	MFL Cd MF	MFL Lm MF	WFL Cd MF	WFL Lm MF
RT113	HPL 575/115**	575	115	16,520	3,250	300	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT114	HPL 575/115X	575	115	12,360	3,050	2,000	.61	.75	.64	.75	.70	.73	.75	.73
RT142	HPL 375/115	375	115	10,540	3,250	300	.84	.64	.84	.64	.84	.64	.84	.64
RT143	HPL 375/115X	375	115	8,500	3,050	1,000	.58	.48	.58	.48	.58	.48	.58	.48
RT115	HPL 575/120	575	120	16,520	3,250	300	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT171	HPL 575/120X	575	120	12,360	3,050	2,000	.61	.75	.64	.75	.70	.73	.75	.73
RT112	HPL 550/77*	550	77	16,170	3,250	300	1.02	.98	1.02	.98	1.02	.98	1.02	.98
RT117	HPL 550/77X*	550	77	12,160	3,050	2,000	.64	.75	.67	.75	.74	.73	.79	.73
RT129	HPL 575/230**	575	230	14,900	3,200	400	.61	.81	.65	.80	.78	.79	.81	.78
RT138	HPL 575/230X	575	230	11,780	3,050	1,500	.40	.65	.42	.63	.51	.62	.53	.62
RT154	HPL 375/230X	375	230	7,800	3,050	1,000	.34	.42	.36	.42	.43	.41	.45	.41
RT130	HPL 575/240	575	240	14,900	3,200	400	.58	.81	.62	.80	.74	.79	.77	.78
RT139	HPL 575/240X	575	240	11,780	3,050	1,500	.37	.65	.39	.63	.48	.62	.50	.62
RT155	HPL 375/240X	375	240	7,800	3,050	1,000	.34	.42	.36	.42	.43	.41	.45	.41

Source Four PAR MCM is rated for 575W maximum.

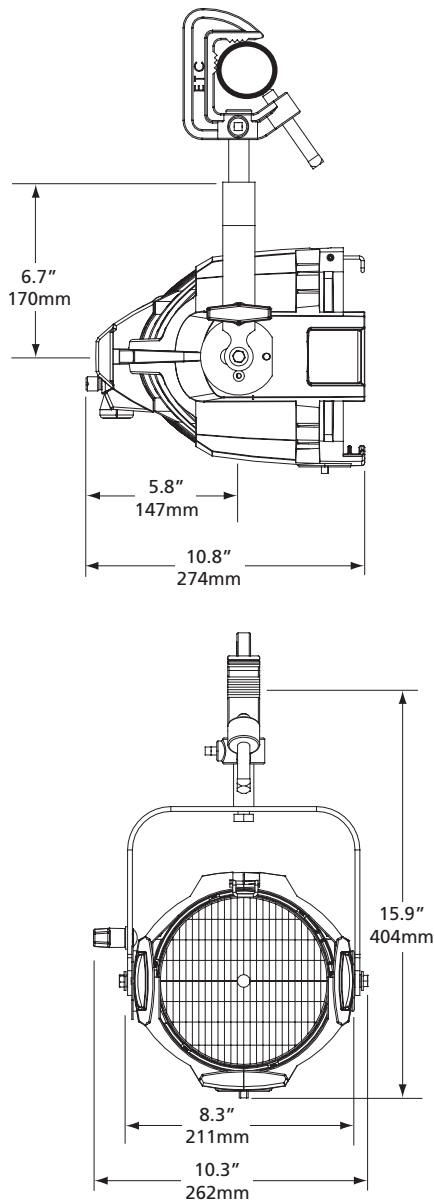
\*77 Volt HPL lamps are for use with ETC Dimmer Doubling technology only.

\*\*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

PHYSICAL



Source Four PAR Weights\*

MODEL	WEIGHT		SHIPPING WEIGHT	
	lbs	kgs	lbs	kgs
S4PAR-MCM	7.5	3.4	12.8	5.8

\*Add 2.3 lbs for C-clamp

ORDERING INFORMATION

Continued from front page...

Source Four PAR Accessories

MODEL	DESCRIPTION
407CF	Color frame (7.5") (included)
400SC	Safety Cable
400CC	C-Clamp
400-VNSP	Very Narrow Spot lens
400-NSP	Narrow Spot lens
400-MFL	Medium Flood lens
400-WFL	Wide Flood lens
400-LS4	Set of four Source Four PAR lenses (VNSP, NSP, MFL, WFL)
400-XWFL	Extra Wide Flood lens (optional - not included with fixture)
400PTH3	Top hat, 3"
400PTH6	Top hat, 6"
400PHH	Half hat
400XBTH	Cross baffle top hat
400PGE3	Gel extender, 3"
400PGE6	Gel extender, 6"
400BD	Barn door
400L	Egg crate louver
400WB	Weighted base

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, 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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