

# iSHELL

## iSHELL ETC needs

- Slit width
- On-chip itime
- Coadds
- Cycles
- Seeing
- SN

Slit Width (arcsec):

itime (sec)

coadds

cycles

seeing (arcsec)

SN

The iSHELL ETC is simpler than the SpeX ETC since iSHELL covers a much smaller one-shot wavelength range. Note that the ETC  $R$  for a given slit-width is slightly smaller than the actual values (see the iSHELL PASP paper)

## INPUT PARAMETERS

- Slit width (arcsec)= 0.750000
- SN= 100.000
- on-chip ITIME (sec)= 180.000
- number of coadds= 1.00000
- number of cycles= 10.0000
- $R$  (per spectral resolution element)= 38000
- Seeing FWHM at K (arcsec)= 0.800000

(1)	(2)	(3)	(4)	(5)
1.10um	9.4879374	9.9693583	2.3195521e-14	1.4887980e-14
1.25um	9.6790971	10.130847	1.4632401e-14	9.6519624e-15
1.65um	10.230420	10.623293	4.0385956e-15	2.8124260e-15
2.22um	10.022064	10.362918	2.3699773e-15	1.7314197e-15
2.50um	9.8260599	10.150282	2.3166142e-15	1.7185609e-15
3.00um	9.2049662	9.5097861	1.9703003e-15	1.4880052e-15
3.55um	8.3970556	8.6922990	2.7355749e-15	2.0842570e-15
4.00um	7.0776486	7.3722780	6.2126507e-15	4.7361470e-15
4.77um	5.7064570	6.0121534	1.3817658e-14	1.0426916e-14

- (1) Wavelength (microns)
- (2) Point source magnitude (Vega)
- (3) Extended source magnitude per square arcsecond (Vega)
- (4) Point source line flux (erg per second per square cm)
- (5) Extended source line flux (erg per second per square cm per arcsec)