NIRSPEC

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NIRSPEC Optics Design Note 27.01
Throughput

1. Introduction

This document gives the best estimate of optical throughput. In most cases, the numbers are based upon measurements made by manufacturers or their subcontractors.

element	% expected	% measured	Document
window (uncoated)	96.0%	93.0%	ISP
K1	94.0%	97.0%	SR ATP
filter	75.0%	94.0%	NODN191a
K2	94.0%	97.0%	SR ATP
OAPC	98.0%	99.0%	SR ATP
echelle	75.0%	72.0%	NODN170a
CD	85.0%	86.0%	NODN170a
TMA	94.0%	97.0%	SSG ATP
total w/o detector	37.4%	48.9%	
detector QE	80.0%	80.0%	SBRC
total w/detector	29.9%	39.1%	
LR Flat	99.0%	99.0%	SR ATP
total w/LR Flat w/detector	39.5%	53.8%	
SCAM lenses (96%, 6 surf.)	88.6%	88.6%	ISP Fax
SCAM detector QE	60.0%	60.0%	Rockwell
total in SCAM	33.8%	43.7%	