



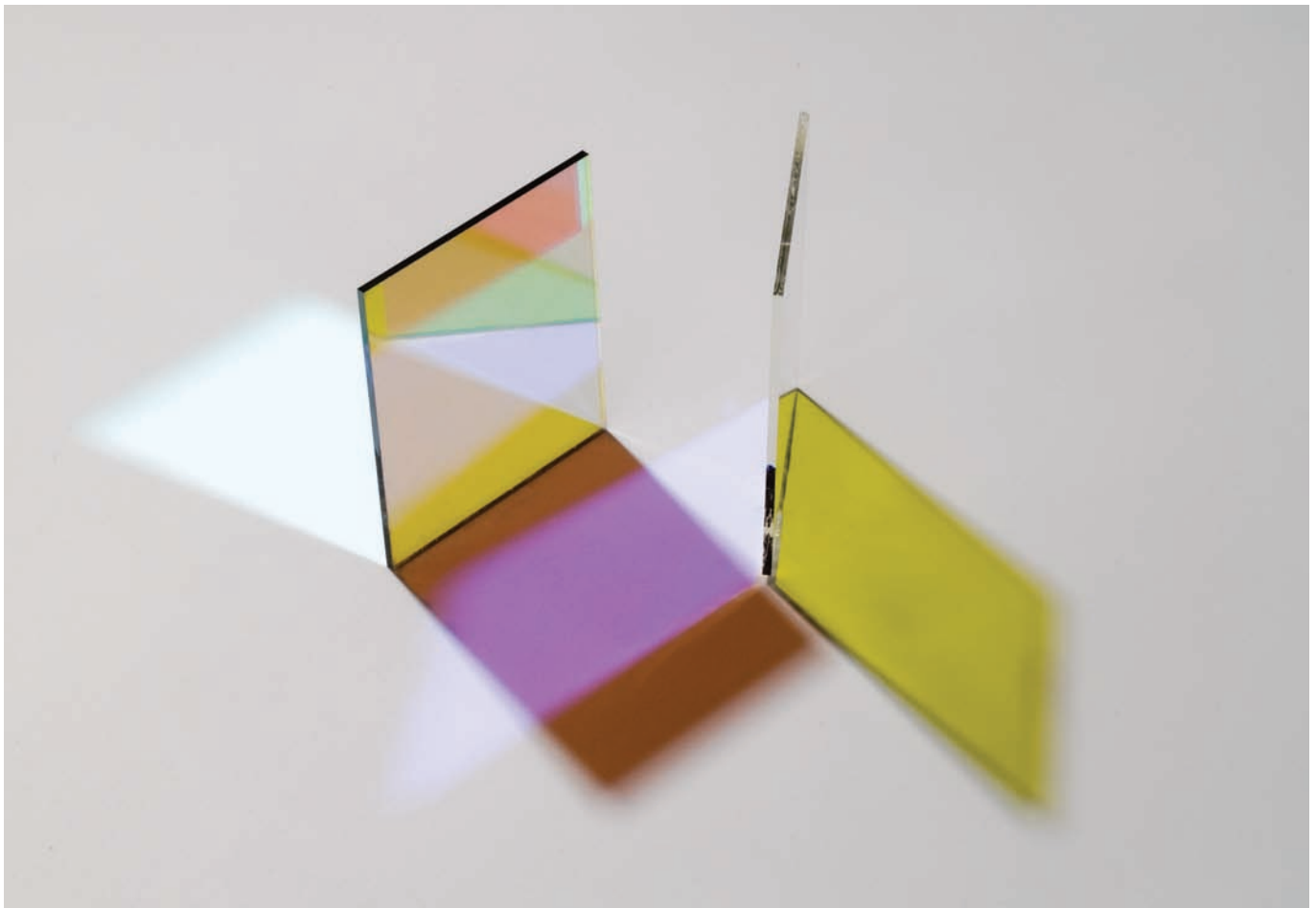
## Hybrid Wire Grid Polarizer & Thin Film Dichroic Filter

**Bookham and Moxtek, Inc. have collaborated to produce a hybrid Optical Wire Grid Polarizer and Thin Film Dichroic Filter combined on a common glass substrate and specifically designed for projection devices.**

The Bookham AED coating technology produces dichroic filters with industry leading performance and quality. Combined with Moxtek's best in class ProFlux™ wire grid polarizers, the hybrid dichroic/polarizer provides an unbeatable combination of price and performance.

### Product Features:

- The Polarizer and Dichroic Filter combination will replace each of the two separate elements in a standard system
- Improved optical efficiency with less optical surfaces
- Reduces the cost of an extra optical component and manufacturing assembly process



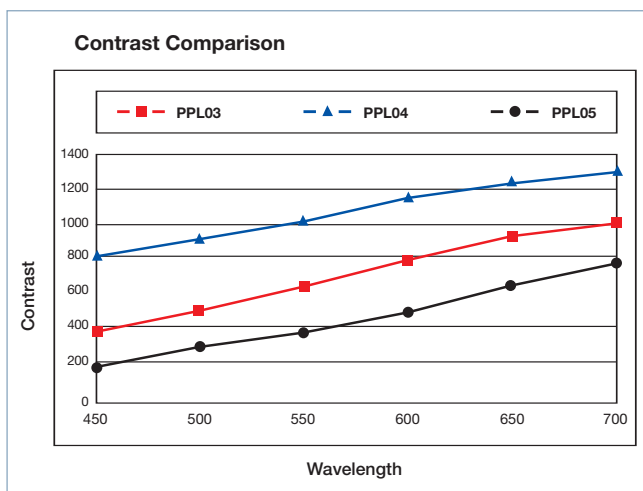
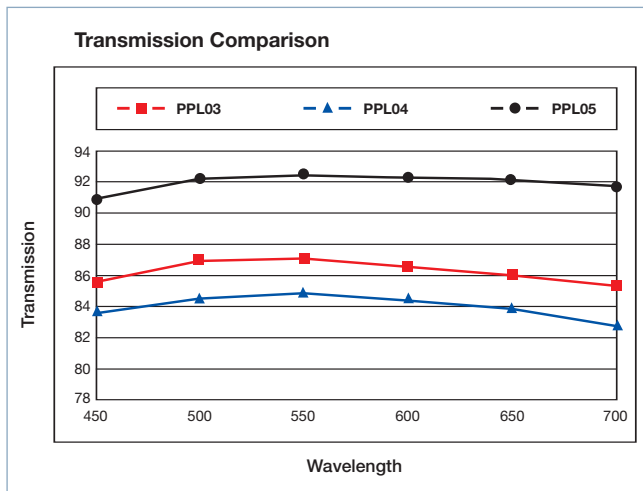


## ProFlux™ polarizers are superior to all other normal incidence polarizers

- Operate without degradation at high heat and light levels.
- Operate at acceptance angles of  $\pm 20^\circ$  without depolarization of the skew rays and without compensation films.
- Operate without degradation in typical consumer display environments.
- Operate in combination with ProFlux™ beam splitters enabling system contrast of  $>10,000:1$

ProFlux™ polarizers are recommended for use as prepolarizers and analyzers and in polarization recovery products with incident angles less than  $20^\circ$ . They may be ordered in any rectangular size from 10mm x 10mm to 90mm x 90mm. Smaller sizes, other shapes (such as circles and triangles) are available as special orders.

In order to provide optimum application performance, ProFlux™ polarizers are available with various combinations of high contrast and high transmission.



### ProFlux™ Products

#### PPL03 – General Purpose Polarizer

Designed to be used where both Transmission and contrast are of Equal importance:

- Optical systems where  $T_p$  and  $T_c$  are equally critical
- General purpose applications
- Optical instruments

#### PPL04 – High Contrast Polarizer

Designed to be used when system contrast is of key importance:

- Prepolarizer for transmissive light valve systems
- Cleanup polarizer for transmissive systems with advanced designs.
- Polarizer for systems requiring high contrast

#### PPL05 – Very High Transmission Polarizer

Designed to maximize light transmission:

- Polarization recovery in light sources
- Illumination stage pre-polarizer

**The following chart contains the performance specifications for all ProFlux™ normal incidence polarizers with standard AR coating.**

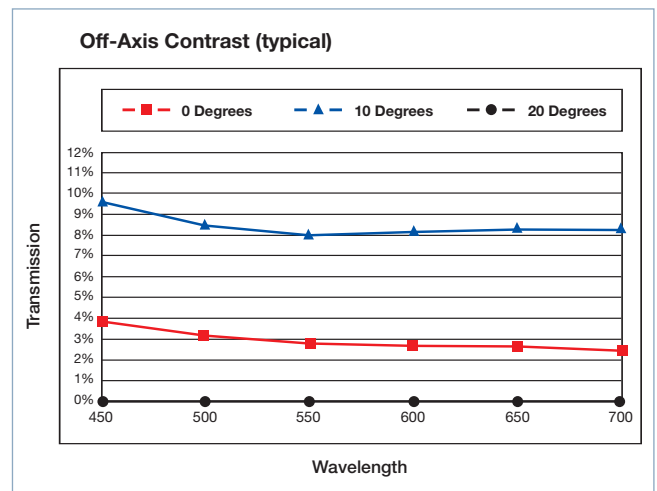
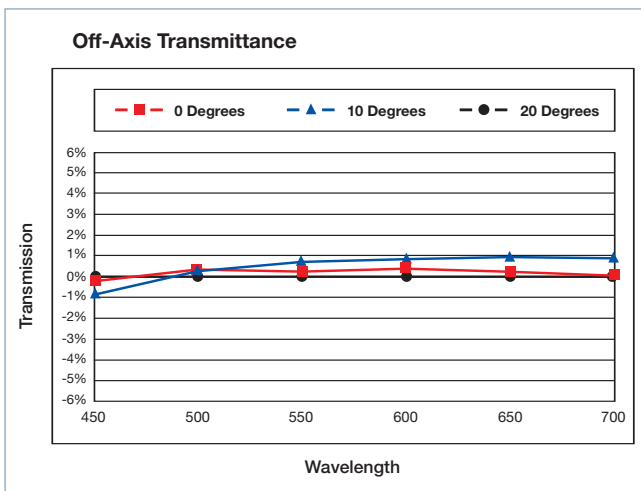
Performance Specifications at Normal Incidence

		450 nm		550nm		650nm	
Product		Typical	Min/Max	Typical	Min/Max	Typical	Min/Max
PPL03C (General Purpose)	Tp(%)	85.7	84.0 Min	87.0	84.7 Min	86.1	84.2 Min
	Ts(%)	0.23	0.27 Max	0.14	0.16 Max	0.09	0.11 Max
	Contrast	370	310 Min	620	530 Min	950	760 Min
PPL04C (High Contrast)	Tp(%)	83.5	82.0 Min	84.9	82.0 Min	83.9	82.0 Min
	Ts(%)	0.10	0.12 Max	0.08	0.10 Max	0.07	0.08 Max
	Contrast	835	680 Min	1060	820 Min	1200	1020 Min
PPL05 (Very High Transmission)	Tp(%)	91.1	88.6 Min	92.5	90.0 Min	92.1	88.5 Min
	Ts(%)	0.52	0.89 Max	0.25	0.43 Max	0.15	0.26 Max
	Contrast	175	100 Min	370	210 Min	614	340 Min

**Off-Axis Performance**

The light entering a polarizer is typically a cone. The size of the cone depends upon the f/number of the system. Most systems use a cone half angle of less than 20°. The ProFlux™ polarizer performance changes very little

with angle of incidence, resulting in uniform system performance over the aperture. This is illustrated in the typical off-axis 1/2 angle performance graphs of transmittance and contrast shown below.

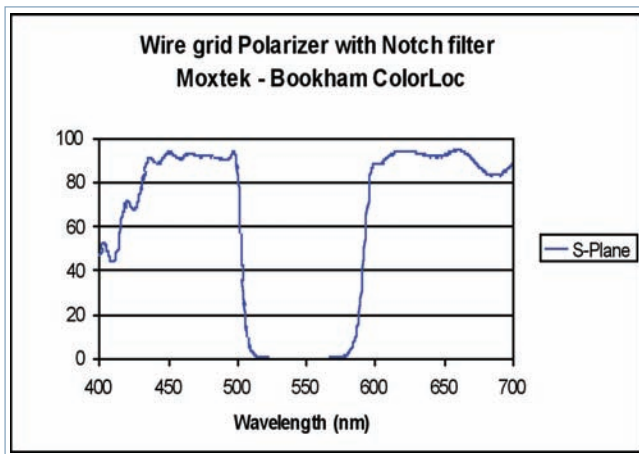




## Dichroic Filters

Bookham Dichroic Filters are optimized for enhanced resolution, color purity, and high brightness used in high performance digital

projectors. The ultra hard-coated interference filter permits precise visible spectrum selection by either transmission or reflection.



### Product Features:

- Precise edge control
- Excellent blocking levels for better color purity
- High transmission for better light output
- Steep slopes for excellent color control
- Durable hard coatings
- Custom filter designs
- Competitive pricing
- Unmatched stability with lifetime and environmental exposure

## Contact Information

### Bookham Display Products

3640 Westwind Boulevard  
Santa Rosa, CA  
95403 – 1037

Tel: 707 292-3693  
Fax: 707 636-1199  
Sales@bookham.com  
www.bookham.com

### Bookham Worldwide

2584 Junction Avenue  
San Jose, CA  
95134-1902

Tel: 408 919-1500  
Fax: 408 919-6083

### Important Notice

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