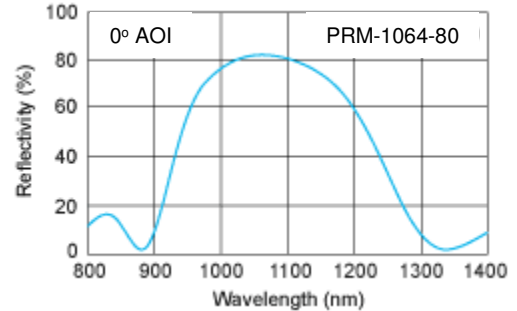
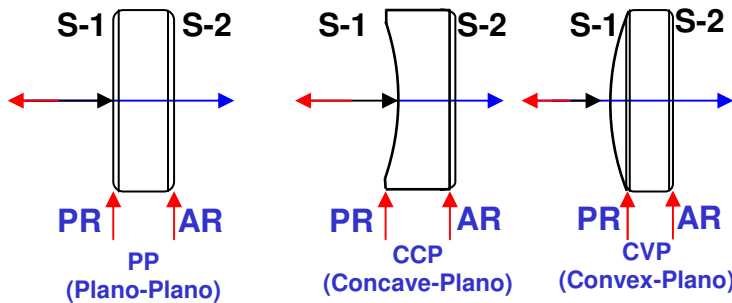


# High Energy Partially Reflecting Laser Cavity Mirrors/Couplers

**(193 ~ 10,600nm)**

**PHOTONIK** hv

PHOTONIK SPECTRUM WORLD



Typical PR Spectrum R% on S-1

## General Specifications:

Substrate Material:

BK7, UV grade fused silica, Silicon, GaAs, CaF<sub>2</sub>, or ZnSe  
Selection of substrate is per wavelength and applications.

Surface Figure:

$\lambda / 10$  typical at 633nm

Transmitted Wavefront:

$\lambda / 10$  typical at 633nm

Surface Quality:

10 - 5 scratch and dig laser quality(MIL SPECS 0-13830B)

Diameter or Length/Width Tolerance:

+ 0.00mm, - 0.25mm

Thickness Tolerance:

$\pm 0.25$ mm

Wedge:

$\leq 5$  minutes if unspecified by users

Chamfer:

0.35mm at 45° typ.

Concentricity:

$\leq 0.05$ mm

Radius of Curvature (ROC)/Tolerance:

Per customer drawings or custom request/ $\pm 0.5\%$

Coating Technology:

Electron beam multi-layer dielectric standard

Adhesion and Durability:

Per MIL-C-675C, insoluble in lab solvents.

Clear Aperture:

> 85% of dimension, central area

Angle of Incidence(AOI):

0° standard; Others per specified for special order.

Damage Threshold:

20-J/cm<sup>2</sup>, 8nsec pulse; 1-MW/cm<sup>2</sup>, CW @ 1064nm typ.

Antireflection Coating(Surface 2):

R < 0.25% @ specified center wavelength

*Other substrate, reflectance values and dimensions, ROC or coupler designs are available upon request; Photonik reserves the rights to change product designs and specifications at any time without notice.*

## Ordering Information:

**PRM** — ① — ② — ③ — ④ — ⑤ — ⑥ — ⑦ — ⑧ — ⑨

① — Center Wavelength: e.g. **355**: 355nm

193, 213, 244-248, 266, 308, 337, 351, 355, 400-410, 488-515, 532, 632, 650-690, 755, 780-785, 800-810, 830, 850, 870, 915, 940, 976-980, 1032, 1047, 1053, 1064, 1235, 1310, 1319, 1480, 1550, 1610, ..., 10600.

② — Reflectance(%): e.g. **95**: R=95% (Normally, R is guaranteed @center wavelength  $\pm 10$ nm)

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 87, 90, 92, 93, 94, 95, 96, 97, 98, 99, 99.5, or > 99.80(for HR mirror)

③ — Dimension/Thickness: e.g. **15/2**:  $\phi 15 \times T2$ mm; **12.7/6**:  $\phi 0.5 \times 6$ mm; **25.4/10**:  $\phi 1 \times T10$ mm; or user specified;

④ — Radius of Curvature(ROC)(mm): e.g. **200CC**: ROC= -200mm Concave; **1000CV**: ROC= +1000mm Convex;

**PP**: Plano-Plano Surfaces; or user specified;

⑤ — Option for Wedge(S-2): **NW**: No wedge; **W1**: Wedged at 1°; **W3**: Wedged at 3°; or user specified;

## Contact Information:

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