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| **AUTHOR(S)** | DATE | Document Change Notice, Release or Approval |
| J**. Richardson** | 16 Apr 2020 | v1 |
| J**. Richardson** | **3** **June** 2020 | v2 – **updates** surface finish requirements |

# Description

50.8 mm (2”) Ø 50:50 beamsplitter @ 1064 nm

# Material

Corning HPFS 7980 (high purity fused silica, UV grade)

Grade 0A

# Dimensions

**Diameter**: 50.8 mm +0.0/-0.1 mm

**Thickness**: 9.53 mm ± 0.2 mm

**Wedge**: 0.5° ± 0.1°

Plano / Plano (|R| > 500 m)

# **Surface Roughness & Quality**

**Both Sides:**

**Super-polished**

< 5 Å RMS over central 80% of diameter

10-5 scratch-dig

# **Surface Figure**

**Both Sides:**

Flat < λ/10 PV at 632.8 nm over central 80% of diameter

# **Coating**

Ion Beam Sputtered (IBS) coatings

Wavelength: **1064 nm**

Polarization: **p-polarization**

Angle of incidence: 45°

**Side 1:**

50:50 (R:T)

Absolute value (R – T) < 1%

**Side 2**

AR coating

R < 0.2%

# **Serial numbers and marks**

Each optic shall be laser engraved on the barrel for in-vacuum use—**no pencil marks shall be present**

Each barrel shall be inscribed as follows:

* Label centered on the thickest location:

**E2000227-v2 SN0x**

* + - with “**x**” starting at **1**
* Arrow pointing towards Side 1