

TECHSPEC<sup>®</sup> 12mm Diameter x -12 FL, NIR II Inked, Plano-Concave Lens



Stock **#67-991-INK** [CONTACT US](#)

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-

1

+

£47<sup>.20</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | £47.20 each                   |
| Qty 10-25      | £42.40 each                   |
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Product Downloads

General

Plano-Concave Lens

Type:

Physical & Mechanical Properties

|                                                                                                                                                  |                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 12.00 ±0.025                                                                                                                                     | Diameter (mm):                                    |
| 2.20                                                                                                                                             | Center Thickness CT (mm):                         |
|                                                                                                                                                  |                                                   |
| ±0.05                                                                                                                                            | Center Thickness Tolerance (mm):                  |
| <1                                                                                                                                               | Centering (arcmin):                               |
|                                                                                                                                                  |                                                   |
| 11.00                                                                                                                                            | Clear Aperture CA (mm):                           |
| 3.97                                                                                                                                             | Edge Thickness ET (mm):                           |
| Optical Properties                                                                                                                               |                                                   |
| -12.00                                                                                                                                           | Effective Focal Length EFL (mm):                  |
| N-SF11                                                                                                                                           | Substrate: <input type="text"/>                   |
| 1.00                                                                                                                                             | f/#:                                              |
| NIR II (750-1550nm)                                                                                                                              | Coating:                                          |
| 750 - 1550                                                                                                                                       | Wavelength Range (nm):                            |
| -13.23                                                                                                                                           | Back Focal Length BFL (mm):                       |
|                                                                                                                                                  |                                                   |
| Coating Specification:<br>R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm |                                                   |
| 587.6                                                                                                                                            | Focal Length Specification Wavelength (nm):       |
| ±1.00                                                                                                                                            | Focal Length Tolerance (%):                       |
| -9.42                                                                                                                                            | Radius R <sub>1</sub> (mm):                       |
|                                                                                                                                                  |                                                   |
| 40-20                                                                                                                                            | Surface Quality:                                  |
| 8 J/cm <sup>2</sup> @ 1064nm, 10ns                                                                                                               | Damage Threshold, By Design: <input type="text"/> |
| 1.5λ                                                                                                                                             | Power (P-V) @ 632.8nm:                            |
| λ/4                                                                                                                                              | Irregularity (P-V) @ 632.8nm:                     |
| Regulatory Compliance                                                                                                                            |                                                   |
| View                                                                                                                                             | Certificate of Conformance:                       |

## Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

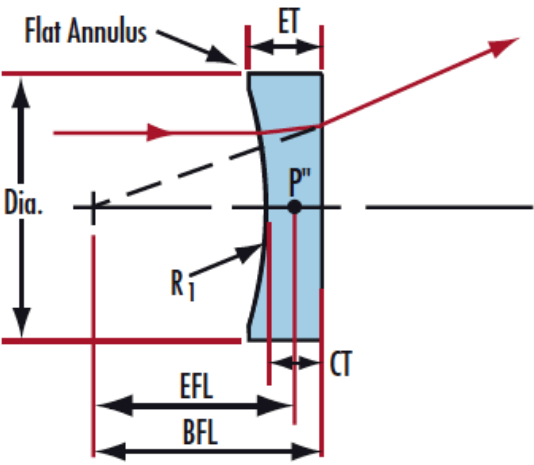
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), and [NIR I](#)

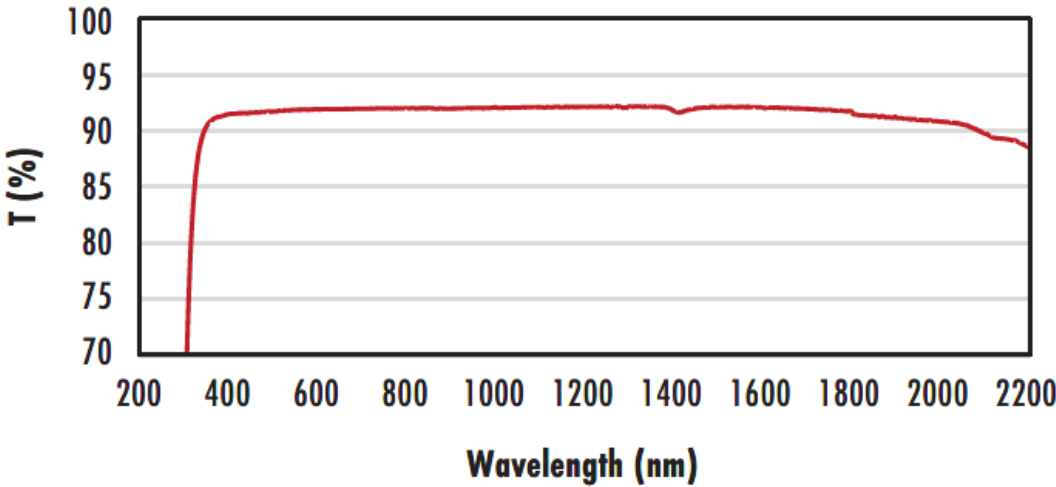
TECHSPEC® NIR II Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the lens's output side causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC NIR II Coated Plano-Concave (PCV) Lenses offer optimal performance in the 750 to 1550nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), or with [NIR I](#) AR coating options.

## Technical Information



N-BK7

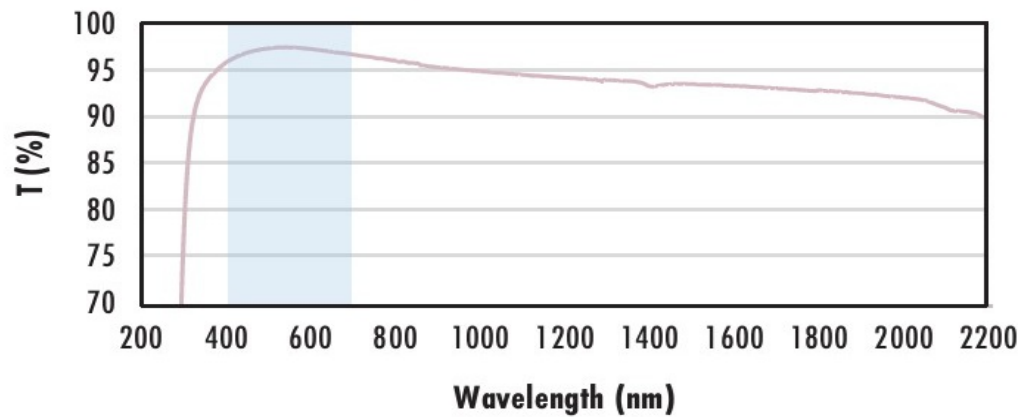
Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV- NIR spectra.

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N-BK7 with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

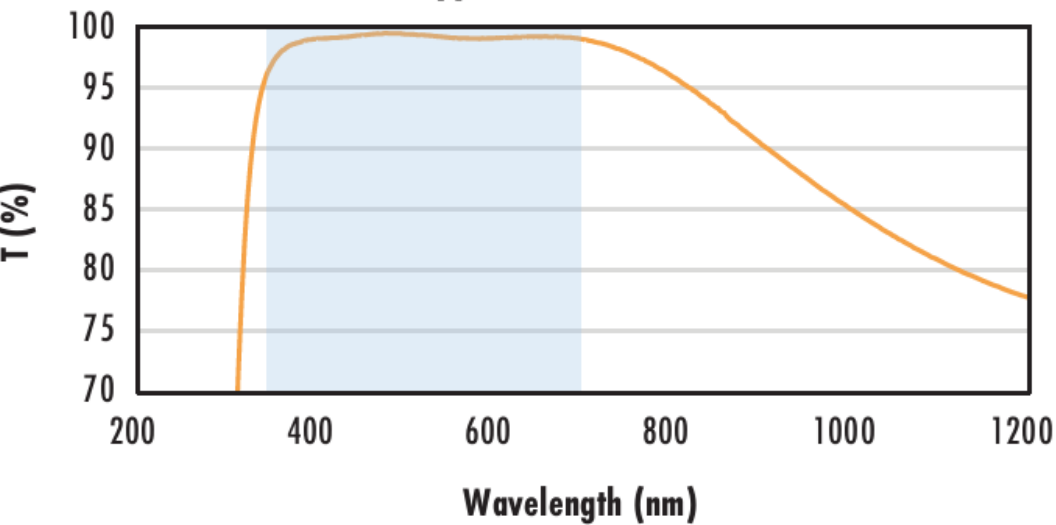
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$  (N-BK7)

Data outside this range is not guaranteed and is for reference only.

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N-BK7 with VIS-EXT Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

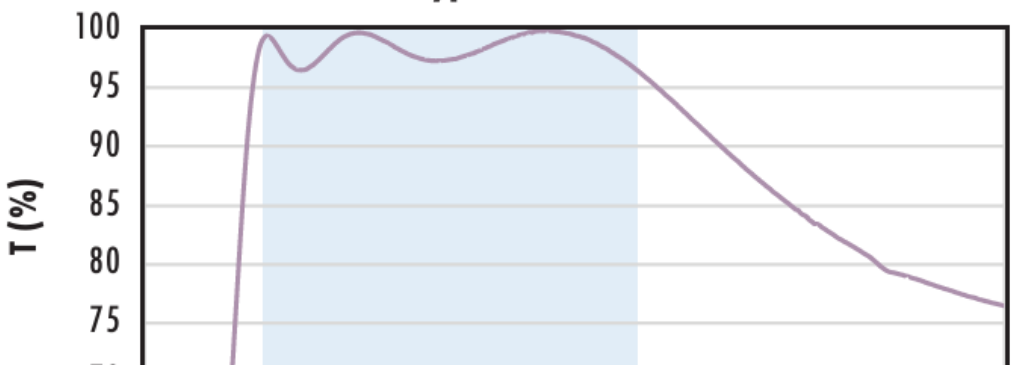
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$

Data outside this range is not guaranteed and is for reference only.

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N-BK7 with VIS-NIR Coating Typical Transmission



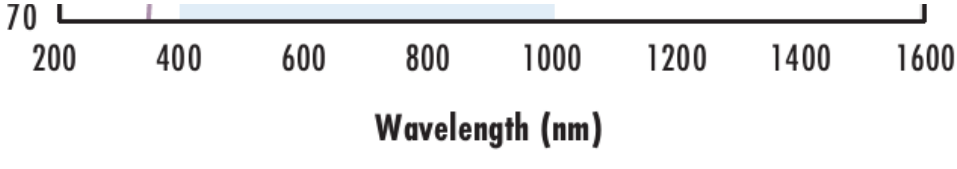
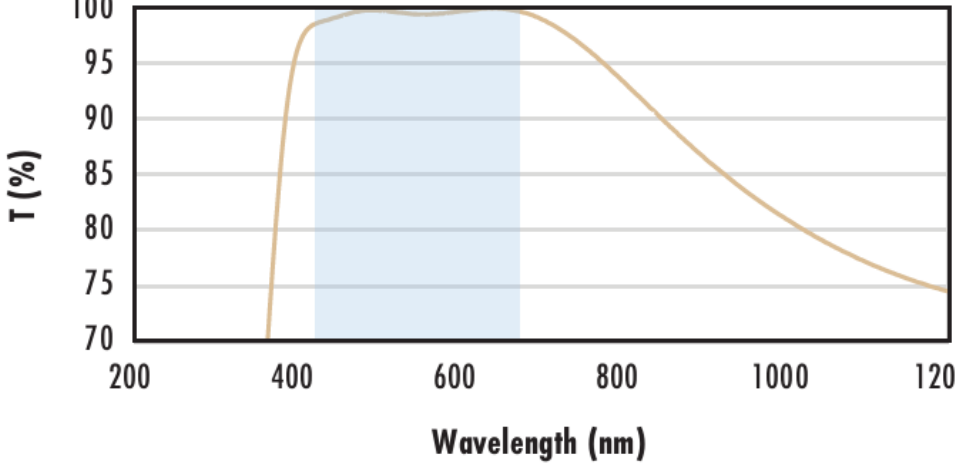
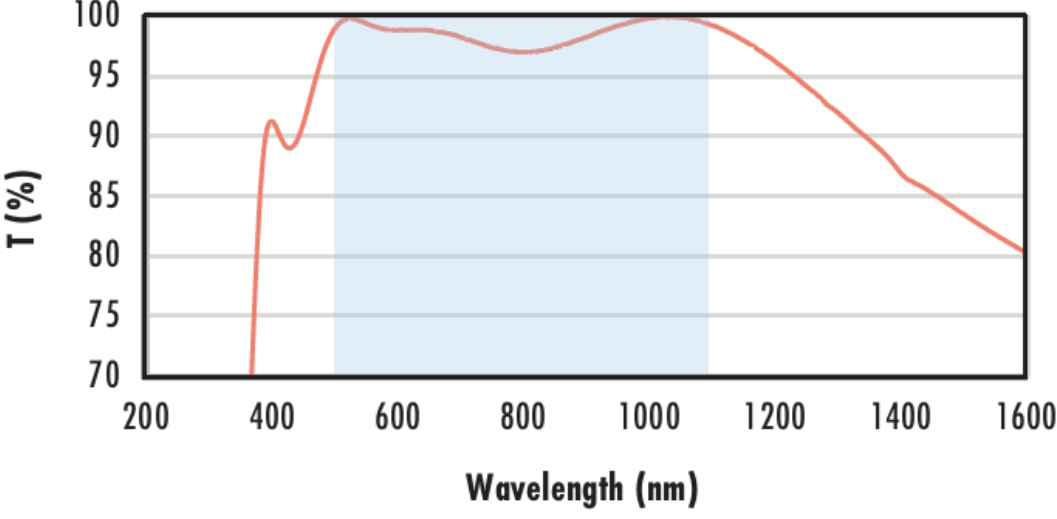
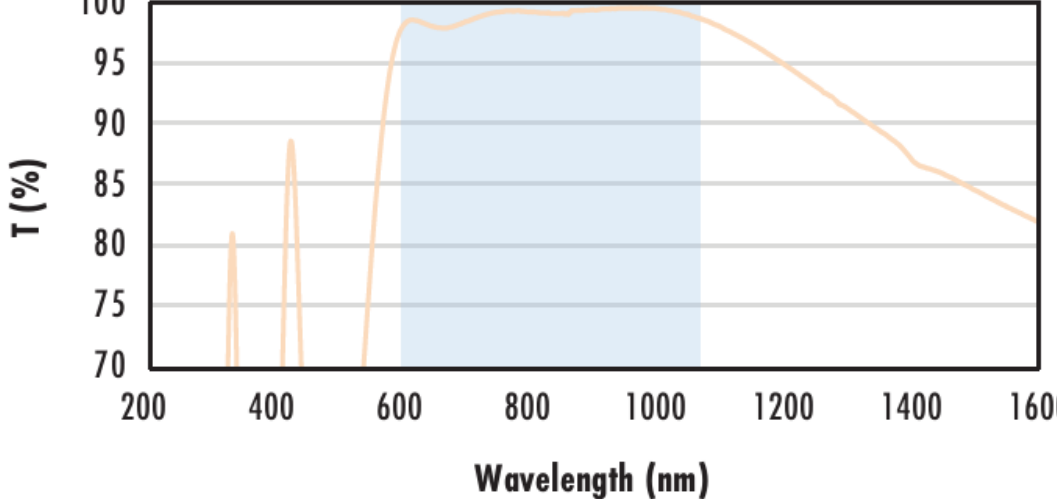
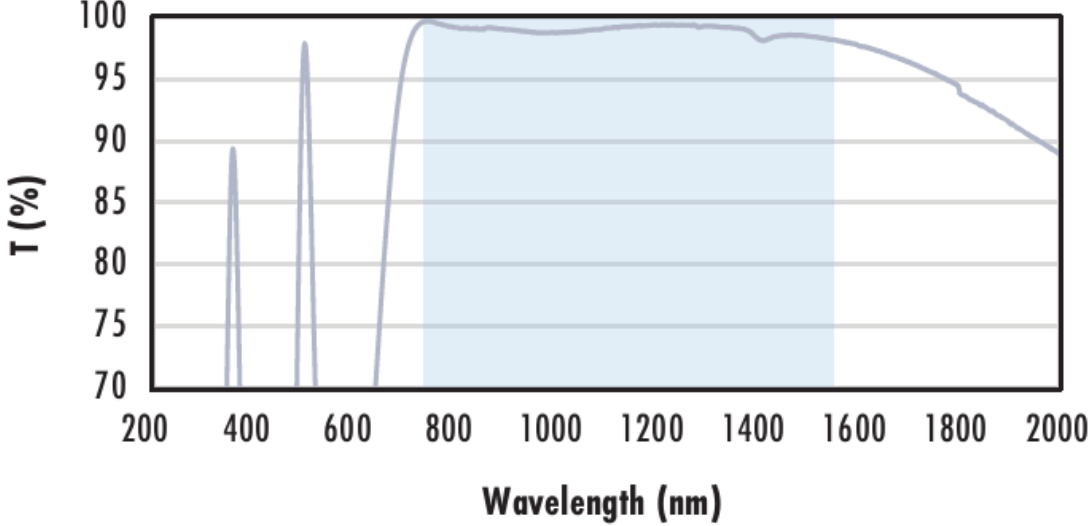
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 880\text{nm}$   
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$   
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

|                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p data-bbox="596 261 974 350"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1339 394 1843 442">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1339 457 1850 504">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 519 1711 543"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 557 1839 605">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 620 1711 644"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                        |
| <p data-bbox="569 857 1037 946"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 985 1843 1032">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1339 1047 1850 1095">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1493 1110 1688 1133"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math></p> <p data-bbox="1493 1136 1694 1160"><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math></p> <p data-bbox="1472 1163 1715 1187"><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p data-bbox="1339 1202 1839 1249">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1264 1711 1288"><a href="#">Click Here to Download Data</a></p>            |
| <p data-bbox="617 1495 1008 1584"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1653 1843 1700">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1339 1715 1850 1762">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1472 1777 1715 1801"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p data-bbox="1339 1816 1839 1863">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1878 1711 1902"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                           |
| <p data-bbox="606 2133 1016 2223"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 2261 1843 2309">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1339 2323 1850 2371">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1474 2386 1703 2410"><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math></p> <p data-bbox="1474 2412 1711 2436"><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math></p> <p data-bbox="1474 2439 1711 2463"><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p data-bbox="1339 2496 1839 2543">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 2558 1711 2582"><a href="#">Click Here to Download Data</a></p> |

Compatible Mounts

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