



# LumiWheel™ UHT series

## LumiWheel™ UHT series for Projection Display

As part of the solution to your total light management challenge, Materion Balzers Optics offers our reliable, high performance UHT series LumiWheel™ solution. This design offers superb performance and flexibility for laser based illumination and light management in digital projection, video production and photo imaging.



### Benefits

The LumiWheel™ UHT serial 2x, 3x and 4x. Speed design offers a high degree of flexibility and can be customized for:

- Diameter
- Color
- Number of phosphor segments
- Diffuser/Dichroic filter/AR/Mirror segment integrated
- Additional cooling structure
- Reflection type
- Value-added coating
- Motor speed
- Integrated timing index sensor

More experiences at performance and reliability:

- High laser power density handling
- Excellent thermal conductivity
- Unique optical coating to enhance the optical performance
- Excellent color stability
- Value-added cooling solution
- Motor technology
- Precision dynamic balancing technique
- Low noise character

### Applications

For different applications (including projectors, solid state lighting, head-up display, professional lighting, etc.), Materion Balzers Optics provide users with a variety of customized UHT Series designs. The small size LumiWheel™ UHT Series can meet the requirements from small laser projectors to large size laser projector, laser television, or phosphor conversion lighting systems. The large size LumiWheel™ UHT Series can meet the requirements of large venue DLP™ projectors, cinema DLP™ projectors, large venue LCoS projector, Cinema LCoS projector. The UHT Series has excellent light conversion rate performance, high laser power density handling performance, and good thermal conductivity to meet the needs of laser illumination and projection with high brightness and high saturation color.

### Technical Data

#### Diameter and disc construction

18 mm ~ 120 mm (Other diameter is feasible)

Full ring design or segmental design based on requirement

#### Optical Coating

Anti-Reflective or Reflective or Dichroic

#### Speed

2 × 7200 rpm, 3 × 10,800 rpm, 4 × 14,400 rpm

#### Color

Standard yellow, reddish yellow, green available

Color coordinate deviation +/-2%

#### Balance

Better than ISO 1940 - 1986 dynamic balance G6.3 standard

#### Time Index Mark

Provide integrated hall sensors (optional)

#### Weight

45g (Suitable for 50mm diameter)

80g (Suitable for 80mm diameter)

100g (Suitable for 120mm diameter)

#### Work temperature

0°C ~ 85°C (base on motor's limit)

#### Storage temperature

-20°C ~ 85°C (Base on motor's requirement)

Materion Precision Optics (Shanghai) Ltd.  
33# Building, No. 76 Fu Te Dong San Road  
WQ Free Trade Zone, Pudong  
Shanghai 200131, P.R.C.

Shanghai  
T + 021 60574646  
info.mbo@materion.com  
www.materion.com/balzersoptics