Tuning wavelength from UV to IR with xenon light source and monochromator

Features

- Monochromatic illumination by 0.1 nm interval from 250nm to 900nm. *Depends on configurations
- Resolution: 2.6nm~
- Adjustable light intensity
- Uniform illumination by collimator lens
- Remote control software *Option

System Configuration Example

Monochromatic Illuminator System

Applications

- CCD characterization
- Photoisomerization
- Photocatalytic reaction
**System Components**

**Xenon Light Source / MAX-350**

Xenon light source 300W

Xenon spectrum is specified by a mirror module.

Type of mirror modules: UV / UV-VIS / VIS / IR

**Spectrum Comparison**

<table>
<thead>
<tr>
<th>Wavelength (nm)</th>
<th>Relative intensity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>0</td>
</tr>
<tr>
<td>400</td>
<td>10</td>
</tr>
<tr>
<td>600</td>
<td>20</td>
</tr>
<tr>
<td>800</td>
<td>30</td>
</tr>
<tr>
<td>1000</td>
<td>40</td>
</tr>
</tbody>
</table>

**Monochromator / CMS-100**

<table>
<thead>
<tr>
<th>F-number</th>
<th>F/2.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocal linear dispersion</td>
<td>8.3mm/mm (at 550nm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resolution</th>
<th>1) 2.6nm 2) 4.3nm 3) 8.6nm</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>It depends on the slit width. (Calculated value at 546.1nm)</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Silt</th>
<th>W x H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 0.3 x 3.0mm</td>
<td></td>
</tr>
<tr>
<td>2) 0.5 x 3.0mm</td>
<td></td>
</tr>
<tr>
<td>3) 1.0 x 3.0mm</td>
<td></td>
</tr>
</tbody>
</table>

*It can be selected automatically by controller.*

**Collimator Lens**

Each collimator lens is designed to provide the uniform illumination by using with the light guide.

- **x0.5 Type RLQL80-05**
  - Size: 43mm dia. x 245mm
  - Material: Quartz
- **x1.0 (STD) Type RLQL80-1**
  - Size: 28mm dia. x 192mm
  - Material: Quartz
- **x2.0 Type RLQL80-2**
  - Size: 55mm dia. x 217mm
  - Material: Quartz

**Light Guide**

The output light from the MAX-350 is delivered to a desired direction by the light guide.

**Spectral Performance**

- **Quartz Light Guide**
  - Length(L): 1m, 2m
  - Fiber bundle: 5mm dia.
  - Core: 200μm dia.
  - Numerical aperture: 0.22

- **Hybrid Light Guide**
  - Length(L): 1m, 2m
  - Fiber bundle: 5mm dia.
  - Core: 50μm dia.
  - Numerical aperture: 0.57

*Product specifications are subject to change without notice.*