Spectrum Illumination lighting selection chart

Select a lighting technique that creates the highest possible contrast between the feature of interest and its surroundings or background.

1. Look for change in elevation.
2. Texture is both the presence of texture (matte, diffused, bumpy, rough) and its absence (shiny, specular, reflective, polished, smooth, glossy).
3. Surface texture, elevation, shape and translucency are affected by the direction of light. Uniformity of lighting increases from Diffused Axial to Domes to Domes w/Diffused Axial.
4. Surface absorption is effected by the color (spectrum) of illumination. Using the same light spectrum will make a part feature appear lighter. Using the opposite light spectrum will make a part feature appear darker. Using the same light spectrum will make a green feature darker than red. Using the opposite light spectrum will make a green feature brighter than red.

7 diffuser options

<table>
<thead>
<tr>
<th>Ø&quot;</th>
<th>20</th>
<th>28</th>
<th>32</th>
<th>36</th>
<th>Standard</th>
<th>Ø&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD</td>
<td>W/D</td>
<td>LCT</td>
<td>P</td>
<td>T</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>

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Our Customers

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PRODUCT APPLICATIONS
Machine Vision Lighting Applications

**Typical Applications**

- **Object: Large engine block.**
  - Bar lights use LED arrays in compact, linear units to provide wide area illumination when used in opposing pairs or as a single light.
  - Large surface inspection
  - Product defect inspection
  - Label inspection and placement verification
  - Diminish clear glass or plastic housings
  - View openings, such as drilled holes
  - Measure translucency
  - Locate or measure outside dimension
  - Locate mounting holes
  - Differentiate specular, diffuse, or absorptive features
  - Emphasize elevation changes
  - Illuminate flat, diffused surfaces

- **Object: Metal hinge.**
  - High Speed Strobe & Constant: 24 VDC LEDs
  - 5 sizes plus 40 mm spot light
  - 3 colors, IR & UV

- **Object: Light bulb.**
  - High Speed Strobe & Constant
  - 5 times brighter than standard back light
  - 10 year warranty - 100,000 hours

- **Object: Injection Molded Part. Back light.**
  - Monster Back light: 5 times brighter than standard back light
  - 10 year warranty - 100,000 hours

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**Functionality**

- **10 year warranty - 100,000 hours**
- **12 lens options**