Quasar PN
Polycarbonate Prismatic Nanosphere Skylight

Highest Visible Transmittance with
100% Diffusion with the Impact and Fire Performance of Polycarbonate
Quasar PN
Polycarbonate Prismatic Nanosphere

For Energy Efficiency, It’s All About The Light!
The U.S. Department of Energy has documented that there isn’t a more cost effective solar energy saving solution than utilizing high performance skylights in conjunction with active lighting controls in industrial / commercial building applications. Research has shown that maximizing a skylight’s Visible Transmission (VT), while providing greater than 90% diffusion, produces the most hours annually that a skylight can replace the need for electric lighting at the optimum skylight to floor ratios of 5% or less.

For Building Performance, Impact And Fire Resistance Are Key! Polycarbonate has long been known as a top performer when it comes to impact and fire resistance from plastics. However long term exposure to UV from the sun and lower visible transmission values have reduced total daylighting performance against acrylic prismatic. Today, advancements in polycarbonate chemistry have increased the long term UV performance while new nano-technologies provide the necessary diffusion without greatly reducing visible transmission.

Quasar PN Revolutionizes Polycarbonate Daylighting Technology! Utilizing the latest technology in polycarbonate science, Quasar PN Polycarbonate Prismatic Nanospheres Skylights bring together the desired high impact, UV protection, and fire performance of polycarbonate with the highest visible light transmission and 100% diffusion available on the market today. With Quasar PN, you don’t have to give up building protection to get energy performance.

Product Test Data

<table>
<thead>
<tr>
<th>Test / Approval</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM D1003 - Visible Light Transmission (VT) and Diffusion (Haze)</td>
<td>72% VT and 100% Haze (Double Glazed Unit)</td>
</tr>
<tr>
<td>NFRC 101-2014 (U-Factor)</td>
<td>0.71</td>
</tr>
<tr>
<td>NFRC 200-2014 (Solar Heat Gain Coefficient)</td>
<td>0.42</td>
</tr>
<tr>
<td>NFPA Fire Rating</td>
<td>CC1 Rated / Glass A Plastic Performance</td>
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<tr>
<td>FM Global</td>
<td>Passed 4431 2” severe hail test</td>
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<tr>
<td>UL Listed</td>
<td>Class 4 hail rating (The Highest Rating)</td>
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<tr>
<td>OSBA</td>
<td>Meets CPR fall regulations</td>
</tr>
<tr>
<td>IECC 2015</td>
<td>Meets with controls all climate zones</td>
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</table>

Quasar PN 10 Year Leak Free and Hail Warranty
For a period of ten (10) years from date of purchase, Kingspan Light + Air warrants that Quasar PN Polycarbonate Prismatic Nanosphere Skylights will be free of defects in material and workmanship and that no water will leak through the commercial fixed curb mount or self flashed skylight. Warranty also includes coverage against documented 2” hail stones or smaller as well as cracking or crazing of polycarbonate dome material that would result in a water leak. Exceptions do apply. Please see full Quasar PN 10 Year Warranty document for more details.
### Quasar PN

**Poly carbonate Prismatic Nanosphere**

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#### Dimensions, Light Transmittance & Thermal Properties

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Inside Curb Dimensions</th>
<th>Model Number</th>
<th>Inside Curb Dimensions</th>
<th>Model Number</th>
<th>Inside Curb Dimensions</th>
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<td>2296</td>
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<td>38” x 59”</td>
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<td>4669</td>
<td>46 1/4” x 69 1/2”</td>
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<td>3037</td>
<td>30 1/4” x 37”</td>
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<td>46 1/4” x 89 1/2”</td>
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<td>30 1/4” x 46 1/4”</td>
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<td>48” x 72”</td>
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<td>48” x 96”</td>
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<tr>
<td>6060</td>
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<td>3746</td>
<td>37” x 46 1/4”</td>
<td>Call for additional sizes</td>
<td></td>
</tr>
</tbody>
</table>

*Solar Heat Gain Coefficient = 0.42; U-Factor = 0.71; Visible Light Transmittance = 72% (Typical for double glazed units)*

#### Options

1. Curb mounted (CM) or Self flashing (SF)
2. Three skylight frame designs:
   - Aluminum Frame (AL)
   - Aluminum Frame with Thermal Barrier Break (ALB)
   - Aluminum Frame with Poured & Debridged Thermal Break (ALT)
3. Four standard frame finishes:
   - Bronze Anodize (BA)
   - Clear Anodize (CA)
   - Mill Finish (MF)
   - White Paint (WP)
4. Custom, or specialized paint available upon request
5. EPDM curb seal tape (CMT)

#### Skylight Accessories

1. Gladiator
   - Structural curbs (SC)
   - Security grills (SG)
   - Safety screens (SCOR)
   - External safety cages (SCAGE)
2. QuickKit (Installation Kits)
   - Stainless steel (QKSS)
   - Zinc plated (QKZP)
Notes
All Kingspan Light + Air skylights are available with either zinc plated steel or architectural grade 6063-T5 aluminum frames. Frame types include: curb mount, self flashing (curb mount with an integral curb), or curb mount with a separate structural curb. All frames are designed with condensation gutters and non-clog weep holes. Frame options include: AAMA compliant thermal breaks, 1" polystyrene insulation, double wall, wood nailing, boxers, rain guards, and custom outside/inside curb, curb height and frame dimensions. All glazings are available in alternative dome shapes including; bubble, radial triarch, pyramid and double hip except Energy Star Fiberlite.

Performance information obtained by testing glazing materials, dome sets and skylights to NFRC, NAFC, ICC, AAMA, UL, FM, IES and ASTM standards by Kingspan Light + Air, material suppliers and independent third party laboratories.

OSHA compliance and other test results are for specific outer dome thicknesses.

For additional technical information and/or daylighting systems design consultation, contact Kingspan Light + Air for your specific needs.

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