

# **Quasar PN**

## Polycarbonate Prismatic Nanosphere Skylight





## **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
Nanosphere 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**

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

### **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.



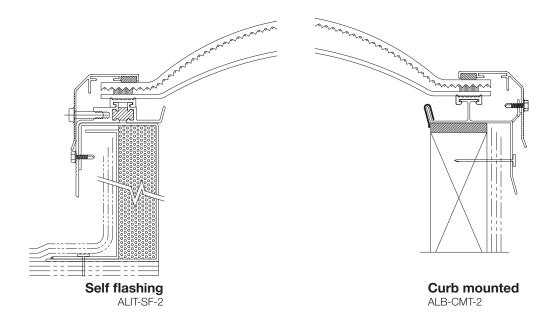






## **Quasar PN**

## **Polycarbonate Prismatic Nanosphere**



## **Dimensions, Light Transmittance & Thermal Properties**

Model Number	Inside Curb Dimensions			Model Number	Inside Cu	rb Di	mensions	Model Number	Inside Curb Dimensions		
1414	14 1/4"	Х	14 1/4"	2296	22 1/4"	Х	96"	3775	37"	Х	75"
1919	19"	Х	19"	2448	24"	Х	48"	3859	38"	Х	59"
2222	22 1/4"	Х	22 1/4"	2496	24"	Х	96"	4669	46 1/4"	Х	69 1/2"
3030	30 1/4"	Х	30 1/4"	3037	30 1/4"	Х	37"	4689	46 1/4"	Х	89 1/2"
3737	37"	Х	37"	3046	30 1/4"	Х	46 1/4"	4872	48"	Х	72"
4242	42"	Х	42"	3069	30 1/4"	Х	69 1/2"	4884	48"	Х	84"
4646	46 1/4"	Х	46 1/4"	3096	30 1/4"	Х	96"	4896	48"	Х	96"
4848	48"	Х	48"	3496	34"	Х	96"	5460	54"	Х	60"
5555	55"	Х	55"	3696	36"	Х	96"	6072	60"	Х	72"
6060	60"	Х	60"	3746	37"	Х	46 1/4"	Call for additional sizes			

Solar Heat Gain Coefficient = 0.42; U-Factor = 0.71; Visible Light Transmittance = 72% (Typical for double glazed units) Example Model Number: XXXX-ALB-CMT-2-CPP-WPN-XX

## **Options**

- 1. Curb mounted (CM) or Self flashing (SF)
- 2. Three skylight frame designs:
  - a. Aluminum Frame (AL)
  - b. Aluminum Frame with Thermal Barrier Break (ALB)
  - c. Aluminum Frame with Poured & Debridged Thermal Break (ALT)
- 3. Four standard frame finishes\*:
  - a. Bronze Anodize (BA)
  - b. Clear Anodize (CA)
  - c. Mill Finish (MF)
  - d. White Paint (WP)
  - \*Custom, or specialized paint available upon request
- 4. Self flashing curb heights\*:
  - a. 6"
  - b. 9"
  - c. 12"
  - \*Custom heights available upon request
- 5. EPDM curb seal tape (CMT)

## **Skylight Accessories**

- 1. Gladiator
  - a. Structural curbs (SC)
  - b. Security grills (SG)
  - c. Safety screens (SSCRN)
  - d. External safety cages (SCAGE)
  - Gladiator
    - a. Stainless steel (QKSS)
    - b. 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" polyisocyanurate insulation, double wall, wood nailer, louvers, rain guards, and custom outside/inside curb, curb height and flange 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, NAFS, 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.

#### Kingspan Light + Air North America

401 E Goetz Ave, Santa Ana, CA 92707

Toll Free: (800) 854-8618 Office: (714) 540-8950 Fax: (714) 540-5415

Email: info@kingspanlightandair.us www.kingspanlightandair.us

