



lamps  
switched off



uniform  
lighting



zero harmful  
radiation



quality  
guaranteed



thermal  
comfort



full color  
rendering

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## PRODUCT DATASHEET

**Group of Products:** Comfort Lux Linea Series (Continuous Vault)

**Subgroup of Products:** Single Glazed Polycarbonate Prismatic Lenses

### Product Description

Comfort Lux Linea Series (Continuous Vault) with Single-Glazed Polycarbonate Prismatic Lenses are applied to industrial and logistic buildings, functioning as a gateway to external light, while substituting or complementing traditional electric lighting systems. Mechanical and optical filters are applied to the incoming daylight, which blocks most of the ultraviolet (98%) and infrared (65%) specters of sunlight, letting only pure, visible daylight through. When reaching the lenses, sunlight is diffracted at a 45° angle, which allows better distribution and larger coverage area. These features make for more efficient daylighting and prevents from glare over the system's users. Comfort Lux Linea Series (Continuous Vault) with Single-Glazed Polycarbonate Prismatic Lenses can be installed in brand-new and existing buildings, without the need for structural reinforcement, while guaranteeing safe and leak-free results.

### Specifications

Skylights found and specified in this datasheet are developed and registered by Comfort Lux Sistemas de Iluminação Ltda. and are manufactured at its headquarters at Rua Lauro Müller, 860, Prédios 4-5, CEP (ZIP Code) 90.240-130, Porto Alegre, Rio Grande do Sul, Brazil. Comfort Lux Linea Series (Continuous Vault) with Single-Glazed Polycarbonate Prismatic Lenses are fabricated under the following specifications:

Curved modules in prismatic polycarbonate, milky white color, 62% light transmittance;

Longitudinal frame in 0.80mm thick aluzinc, fixed onto the roof's structure.

Inner shaft designed according to NBR10.844/1989 for rain water drainage.

Polycarbonate H-form link profile designed for fitting prismatic lenses onto 0.90mm steel arcs installed every 60mm.



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## Properties of the Prismatic Polycarbonate

### PHYSICAL-OPTICAL CHARACTERISTICS

TESTED PROPERTY	TEST METHOD	UNITS	RESULTS
Specific Gravity / Relative Density	GB/T 1033	g/cm <sup>3</sup>	1,20
Optical Refractive Index	GB/T 2410	%	1,61
Light Transmission – Milky White	ASTM D-1003	%	62
Water Absorption	GB/T 1033	%	0,25

### CHEMICAL CHARACTERISTICS

TESTED PROPERTY	TEST METHOD	UNITS	RESULTS
Yellowing Index	GB/T		2,3

### MECHANICAL CHARACTERISTICS

TESTED PROPERTY	TEST METHOD	UNITS	RESULTS
Tensile Strength	GB/T 1040	psi	87460
Tensile Elongation – Maximum	GB/T 1040	%	108
Flexural Strength	GB/T 9341	psi	104140
Impact Strength	GB/T 1843	KT/m <sup>2</sup>	6,2
Shore Hardness	GB/T 9342	HD	85

### FLAMMABILITY CHARACTERISTICS

TESTED PROPERTY	TEST METHOD	UNITS	RESULTS
Flammability (Burning Rate)	ASTM D-635	In/min	1.019
Flame Spreading Index	NBR 9442		14 (Classe A)
Flamability Pattern	UL 94		V2
Smoke Specific Optical Density (Maximum)	ASTM E662		130
Fire Classification (Brazilian Norms)	Inst. Técnica 10/2011 CBPM/SP		II-A

### THERMAL CHARACTERISTICS

TESTED PROPERTY	TEST METHOD	UNITS	RESULTS
Thermal Conductivity – Milky White	W/m.K	BTU-ft/(hr.ft <sup>2</sup> .°F)	0,177



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## Available Models

Sizes are adjustable and thus consistent with different roof pannel's spans.