

ALM-80

ALUMEN LUXE STSYEM



ALUMEN LUXE SYSTEM

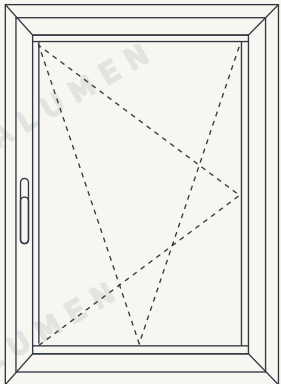
Casement | Awning | Tilt-Turn | Picture

German Precision.

Commercial-Grade Performance.

The Alumen Luxe 80 Series is a unified fenestration system designed for architectural consistency. Whether you need side-hinged ventilation, top-hinged airflow, or dual-action utility, every window is built on the same robust XLB-80 Thermally Broken Platform.

Rated CW-PG70, this system exceeds residential standards, utilizing heavy-gauge 2.0mm aluminum and authentic German ROTO™ hardware to deliver effortless operation and a commercial-grade seal against wind and water.



1 LUXE CASEMENT

Side-Hinged | Outward or Inward

The classic choice for maximum ventilation. Features multi-point locking handles (no cranks) for a sleek, modern aesthetic and superior sealing.

Max Size: **36" x 71"** (Standard) | **Up to 96"** (Architectural Upgrade)

2 LUXE AWNING

Top-Hinged | Project Out

Designed for ventilation even during light rain. The sash pushes out from the bottom, creating a protective canopy for airflow.

Max Size: **48" Wide x 36" Tall**

3 LUXE TILT-TURN

Dual-Action | Inward Opening

The European standard for versatility. Turn the handle 90° to swing it open like a door for cleaning, or turn it 180° to tilt the top in for secure, draft-free ventilation.

Max Size: **36" x 71"** (Standard) | **Up to 96"** (Architectural Upgrade)

TECHNICAL SPECIFICATIONS

Performance Class	CW-PG70 (Commercial)
Wind Load	105.0 PSF(5040 Pa)
Water Tightness	15.0 PSF(720 Pa)
Thermal Range	U-Factor 0.23-0.33
Acoustic Rating	STC up to 56 dB
Hardware	German ROTO™ Multi-Point



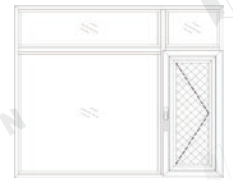
LUXE CASEMENT

Side-Hinged | Outward or Inward

The Alumen Luxe Casement is the classic choice for maximum ventilation and architectural clarity. Built on the robust XLB-80 Thermally Broken Platform, this system abandons traditional crank handles for sleek, multi-point locking hardware that delivers a modern aesthetic and superior sealing compression.



Features and Performance



Standard Max	36" x 71"
Architectural Upgrade	Up to 96" Height
Max Sash Weight	80KG
Blade Width	600-900mm
Blade Height	600-1800mm

Glass Performance Specifications

SERIES	U-Factor	SHGC	VT	Ideal For
Solar Lite	0.33	0.14	0.31	Basic thermal compliance
Meridian	0.27	0.13	0.23	High solar control areas
Artic	0.24	0.17	0.24	Cold climates / Passive heat
Artic Elite	0.23	0.12	0.24	Maximum energy efficiency



LUXE AWNING

Top-Hinged | Project Out

The Alumen Luxe Awning is engineered for ventilation even during adverse weather. The sash pushes out from the bottom, creating a protective glass canopy that allows fresh air to circulate while keeping rain out. It is often paired with fixed windows or used in clerestory applications.



Features and Performance

Standard Max	36" x 71"
Architectural Upgrade	Up to 96"
Max Sash Weight	80KG
Blade Width	600-900mm
Blade Height	600-1800mm

Glass Performance Specifications

SERIES	U-Factor	SHGC	VT	Ideal For
Solar Lite	0.30	0.19	0.33	Basic thermal compliance
Meridian	0.27	0.13	0.23	High solar control areas
Artic	0.24	0.17	0.24	Cold climates / Passive heat
Artic Elite	0.23	0.12	0.20	Maximum energy efficiency



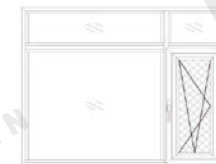
LUXE TILT-TURN

Dual-Action | Inward Opening

The Alumen Luxe Tilt-Turn represents the European standard for versatility. This intelligent dual-action window offers two distinct functions in one sash: turn the handle 90° to swing the window open like a door for easy cleaning and egress, or turn it 180° to tilt the top inward for secure, draft-free ventilation.



Features and Performance



Standard Max	36" x 71"
Architectural Upgrade	Up to 96"
Max Sash Weight	80KG
Blade Width	600-900mm
Blade Height	600-1800mm

Glass Performance Specifications

SERIES	U-Factor	SHGC	VT	Ideal For
Solar Lite	0.36	0.20	0.45	Maximum natural light
Meridian	0.29	0.19	0.38	Balanced performance
Artic	0.23	0.24	0.40	High passive heat gain
Artic Elite	0.20	0.17	0.29	Net-zero / Passive House projects



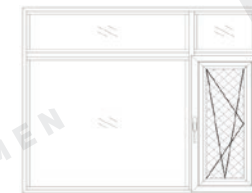
LUXE TILT-TURN

Dual-Action | Inward Opening

The Alumen Luxe Picture Window is the foundation of the system, designed to frame expansive views with zero visual obstruction. Built on the unified XLB-80 Thermally Broken Platform, this fixed configuration eliminates moving parts to achieve the highest possible energy efficiency and structural ratings in the series, delivering a commercial-grade barrier against the elements.



Features and Performance



Standard Max	60" x 60"
Architectural Upgrade	Up to 96" x 96"
Max Area	50 sq.ft
Max Frame Depth	80mm

Glass Performance Specifications

SERIES	U-Factor	SHGC	VT	Ideal For
Solar Lite	0.36	0.22	0.52	Max natural light & visibility
Meridian	0.22	0.21	0.40	high efficiency & solar control
Artic	0.17	0.27	0.42	Passive heat gain / Cold climates
Artic Elite	0.15	0.20	0.42	Ultra-Performance / Passive House

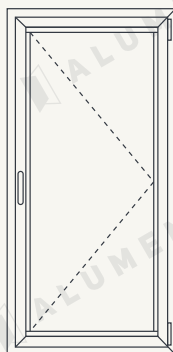
TECHNICAL SPECIFICATIONS

Performance Class	CW-PG1010 (Commercial)
Wind Load	±100.25 PSF(5040 Pa)
Water Tightness	15.04 PSF(720 Pa)
Test Size	1500mm x 1500mm
Acoustic Rating	STC up to 56 dB
Air Infiltration	0.08 / 0.03 (L/s·m²)*



Features and Performance

Thickness	2.0mm
Bearing	150KG
Blade Width	600-1300mm
Blade Height	1300-2500mm



KEY PERFORMANCE HIGHLIGHTS

■ Extreme Waterproofing (1050 Pa)

Rated to withstand 22.0 PSF of water pressure—more than double the standard for residential doors. This system remains impenetrable against driving coastal rain and severe storms.

■ Monumental Scale (11.5 ft)

Engineered for grand entrances. Heavy-duty hardware supports sash weights up to 330 lbs and heights up to 11.5 feet, allowing for floor-to-ceiling designs without structural compromise.

■ Commercial-Grade Engineering (CW-PG70)

Constructed from heavy-gauge 2.0mm aluminum profile, this system is tested to withstand extreme wind loads of 5040 Pa (105 PSF). It delivers structural rigidity far beyond residential standards for a lifetime of smooth operation.

TECHNICAL SPECIFICATIONS

Spec

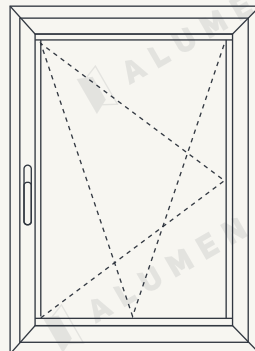
Rating/Standard

Performance Class	CW-PG70+ (Commercial)
Wind Load	105.0 PSF (5040 Pa)
Water Resistance	22,0 PSF (1050 Pa)
Max Sash Height	11.5 ft (3500mm)
Max Sash Weight	300 lbs (150kg)
Thermal Range	U-Factor 0.18-0.30
Sound Insulation	Rw up to 37 dB



Features and Performance

Thickness	2.0mm
Bearing	200KG
Blade Width	600-1500mm
Blade Height	1000-3000mm



KEY PERFORMANCE HIGHLIGHTS

■ Commercial Grade (CW-PG70)

Rated CW-PG70, this system far exceeds standard residential ratings. It features a heavy-gauge 2.0mm thermally broken frame tested to withstand commercial wind loads and torrential rain, ensuring longevity in harsh climates.

■ Precision Gliding (Roto Alversa™)

Powered by 100% German Roto Patio Alversa™ hardware. Unlike traditional sliders that rely on brush seals, this system uses perimeter compression sealing to lock out drafts completely while gliding effortlessly under weights up to 440 lbs.

■ Architectural Scale (10ft Spans)

Engineered for grand living. The robust sash design supports heights up to 10 feet (3000mm), allowing for floor-to-ceiling glass walls that maintain structural rigidity and ease of operation.

AVAILABLE CONFIGURATIONS

- **2-Panel (OX):** Standard slide. One fixed, one active sash.
- **3-Panel (OXO / OOX):** Wide span options with center or side opening.
- **4-Panel (OXXO):** "Grand Slider." Two center panels slide apart for maximum opening

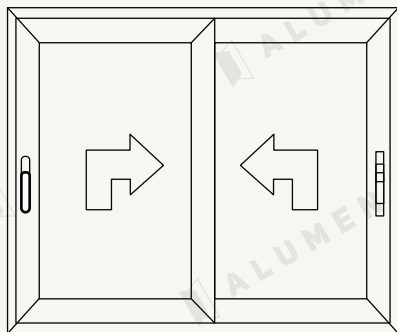
TECHNICAL SPECIFICATIONS

Spec	Rating/Standard
Performance Class	CW-PG70+ (Commercial)
Design Pressure	+/-70.0 PSF (3360 Pa)
Max Wind Load	105.0 PSF (5000 Pa)
Water Resistance	15.0 PSF (720 Pa)
Hardware System	Roto Patio Alversa™
Max Sash Height	10 ft (3000mm)
Bearing Capacity	440 lbs (200kg)



Features and Performance

Thickness	3.0mm
Bearing	300KG
Blade Width	600-2500mm
Blade Height	1500-3500mm



KEY PERFORMANCE HIGHLIGHTS

- Ultra-Rigid 3.0mm Frame**
 The Horizon SlimLine utilizes a heavy-gauge 3.0mm aluminum profile—50% thicker than standard commercial systems. This structural integrity defies gravity, enabling soaring heights and ultra-slim sightlines without compromising rigidity.
- Minimalist "Invisible" Interlock**
 Engineered for the view, the 25mm (approx. 1 inch) center interlock dissolves the barrier between indoors and out. This minimalist design allows expansive glass panels to take center stage for a truly panoramic experience.
- Automation & Pocket Ready**
 Future-proof your luxury with the XLB-125 platform. It accommodates concealed UL-certified electric motors (Stanley or Nabtesco) and serves as a seamless Pocket Door, allowing panels to disappear completely into the wall cavity.

AVAILABLE CONFIGURATIONS

- 2-Panel (OX):** Standard slide. One fixed, one active sash.
- 3-Panel (OXO / OOX):** Wide span options.
- 4-Panel (OXXO):** "Grand Slider" with center opening.
- Pocket System:** Panels slide into wall cavity (Manual or Motorized).

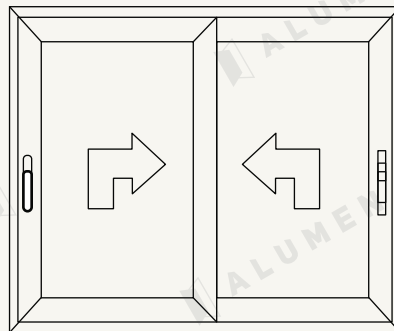
TECHNICAL SPECIFICATIONS

Spec	Rating/Standard
Profile Thickness	3.0mm Ultra-Heavy Gauge
Design Pressure	±45.0 PSF (2160 Pa)
Max Wind Load	45.0 PSF (2160 Pa)
Water Resistance	6.9 PSF (330 Pa)
Sound Insulation	Rw up to 37dB
Max Sash Height	11.5 ft (3500mm)
Bearing Capacity	660 lbs (300kg)
Automation	Stanley / Nabtesco Compatible



Features and Performance

Thickness	3.0mm
Bearing	300KG
Blade Width	600-2500mm
Blade Height	1500-3500mm



KEY PERFORMANCE HIGHLIGHTS

Commercial Grade (CW-PG50)

Built on the 150mm XLB-150 thermally broken platform, this heavy-gauge system handles ± 50 PSF wind loads and torrential rain. It ensures extreme structural performance in coastal and high-velocity zones.

Precision Gliding

German Roto Patio Lift™ hardware allows a 180° handle turn to lift 660lb panels for fingertip operation. Dual compression seals engage upon closing, providing weather resistance that far outperforms standard brush-sealed sliders.

Architectural Scale

The reinforced sash supports floor-to-ceiling spans up to 11.5 feet high. This engineering ensures structural rigidity and effortless movement, providing massive, unobstructed views without sacrificing performance or ease of daily use.

AVAILABLE CONFIGURATIONS

- **2-Panel (OX)**: Standard slide. One fixed, one active sash.
- **3-Panel (OXO / OOX)**: Wide span options with center or side opening.
- **4-Panel (OXXO)**: "Grand Slider." Two center panels slide apart for maximum opening width.

TECHNICAL SPECIFICATIONS

Spec	Rating/Standard
Performance Class	CW-PG50+ (Commercial)
Design Pressure	± 50.0 PSF (3360 Pa)
Max Wind Load	105.0 PSF (5000 Pa)
Water Resistance	15.0 PSF (720 Pa)
Hardware System	Roto Patio Lift™
Max Sash Height	11.5 ft (3500mm)
Bearing Capacity	660 lbs (300kg)



KEY PERFORMANCE HIGHLIGHTS

■ Best-in-Class Waterproofing (720 Pa)

Engineered to solve the #1 failure of bi-fold doors: leaking. Rated at 15.0 PSF (720 Pa), this system offers the highest water tightness in its class, ensuring a weather-tight seal even during driving rainstorms

■ "Invisible" Hardware Design

Aesthetics meet engineering. When closed, all hinges, pulleys, and fittings are completely concealed within the frame, creating a sleek, uninterrupted profile that looks like a fixed window rather than a bulky door.

■ Unlimited Architectural Freedom

Flexible structural design allows for unlimited panel numbers and configurations. With sash heights up to 11.5 feet (3500mm) and fully automatic single-pull locking, you can open entire walls with effortless operation.

AVAILABLE CONFIGURATIONS

■ **Panel Options:** 2, 3, 4, 5, or Custom (Unlimited).

■ **Opening Direction:** Inward or Outward Folding.

■ **Access:** Primary "Traffic Door" active leaf available for easy daily entry without opening the full wall.

TECHNICAL SPECIFICATIONS

Features and Performance

Thickness **2.0mm**

Bearing **120KG**

Blade Width **600-1000mm**

Blade Height **1500-3500mm**



Spec

Rating/Standard

Performance Class

CW Rated (Commercial)

Wind Load

75.0 PSF (3600 Pa)

Water Resistance

15.0 PSF (720 Pa)

Max Sash Height

11.5 ft (3500mm)

Max Bearing Weight

265 lbs (120kg)

Thermal Range

U-Factor **0.27-0.43**

Sound Insulation

Rw up to **37** dB

ALM-80

ALUMEN LUXE STSYEM

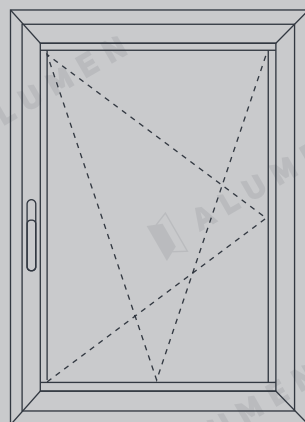
Hurricane-resistant





Features and Performance

Thickness	2.0mm
Bearing	180KG
Blade Width	500-1600mm
Blade Height	800-2500mm



KEY PERFORMANCE HIGHLIGHTS

- HVHZ Certified (**FL47759**) Fully approved for High Velocity Hurricane Zones. Validated for use in the strictest coastal areas (including Miami-Dade) for seamless permitting.
- Extreme Wind Resistance (**335 km/h**) Engineered to withstand wind loads up to **208 mph**, far exceeding **Category 5** storm intensity without system failure.
- Zero-Entry Impact Shield Designed for sacrificial safety. Even if debris shatters the outer glass, the laminated interlayer remains intact—keeping the home sealed against rain and pressure.

TECHNICAL SPECIFICATIONS

Spec

Rating/Standard

FL Product Approval	FL47759 (HVHZ Approved)
Standards	TAS 201, 202, 203
Design Pressure	+/- 75.0 PSF
Impact Rating	Large Missile (Level D)
Air Infiltration	0.00 cfm/ft ² (Airtight)
Water Resistance	11.25 PSF
Frame	Thermally Broken Aluminum