



**GUARDIAN
SUNGUARD®**

VIDROS DE CONTROLE SOLAR E EFICIÊNCIA ENERGÉTICA

BUILD WITH LIGHT™

Fernando Simões - Architect
Product Manager Guardian Brazil

Guardian Industries

Since 1932 – U.S.A.

- Guardian one of the main glass fabricators in the world, creating solutions for following markets:
 - Residential
 - Commercial
 - Automotive
- Global presence – all continents



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Guardian in Brazil

Since 1994

- ***Porto Real – RJ***
 - 1998 – *Float Line*
 - 2000 – *Mirror Line*
 - 2009 – *Coater Line*
- ***Tatuí – SP***
 - 2009 – *Float Line*



Guardian in Brazil

- ***Coater Line Guardian:***
 - *5 Off line Solar products that can be used Monolithically*
 - *7 High Performance Low-E products, the only ones produced in Brazil*





LEED Certification

LEED – Glass applications

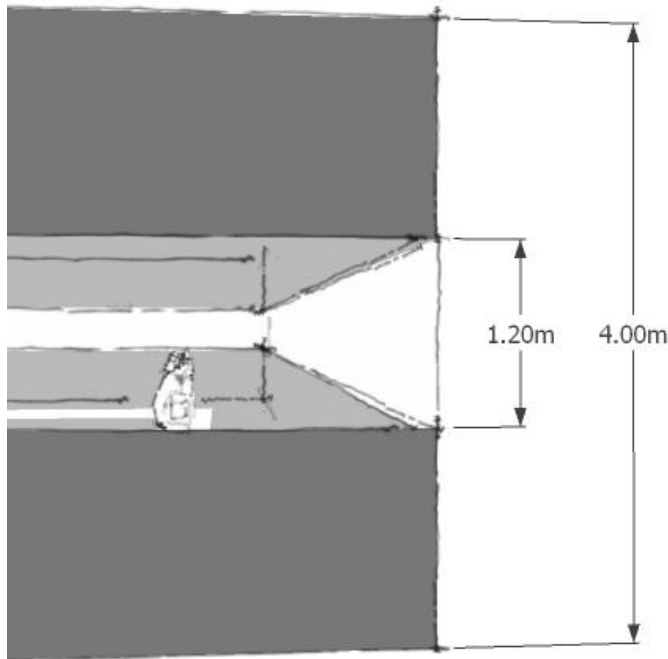
LEED CATEGORY	LEED CREDIT	POSSIBLE POINTS
ENERGY AND ATMOSPHERE	Credit 1: Optimize Energy Performance	2-19
MATERIALS AND RESOURCES	Credit 4: Recycled Content Credit 5: Regional Materials	1-4
INDOOR ENVIRONMENTAL QUALITY	Credits 8.1 and 8.2: Daylight and Views	1-2
INNOVATION AND DESIGN PROCESS	Credit 1: Innovation in Design	1-5
REGIONAL PRIORITY	Credit 1: Regional Priority	1-4
GRAND TOTAL		UP TO 34



Solar Control Glass and Energetic Efficiency

Economy Comparatives: Vision Glass area X Control Glass Solution

Vision Glass area: Regular Green Glass



Vision Glass: 30%

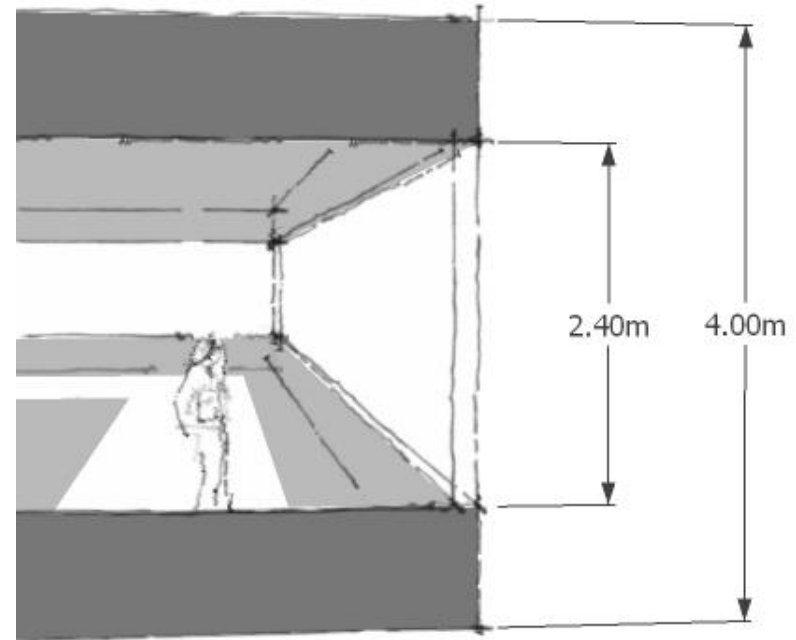
Glass: Regular Green Glass

Vision Glass: 4.800 sqm

Energy cost/year: US\$ 757 K

AC Capacity: 1.001 TR

Weather: São Paulo



Vision Glass: 60%

Glass: Regular Green Glass

Vision Glass: 9.600 sqm

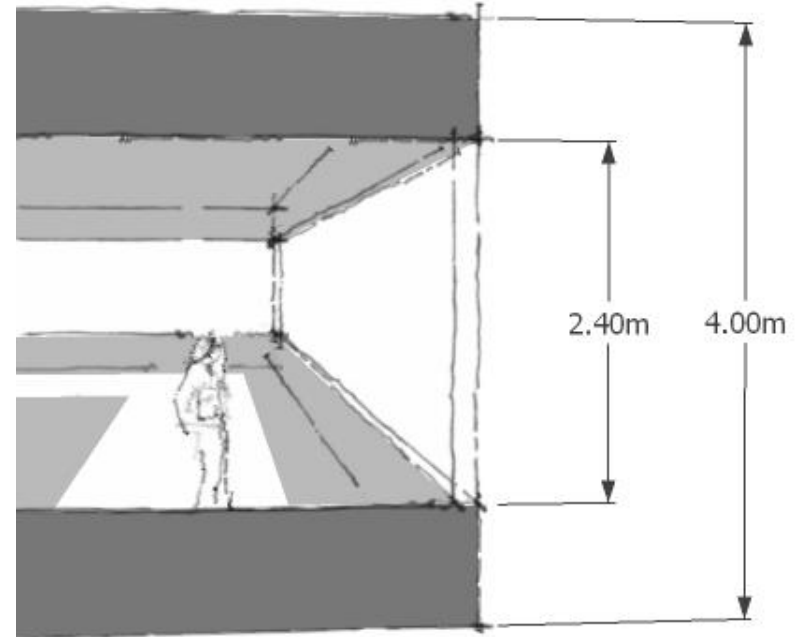
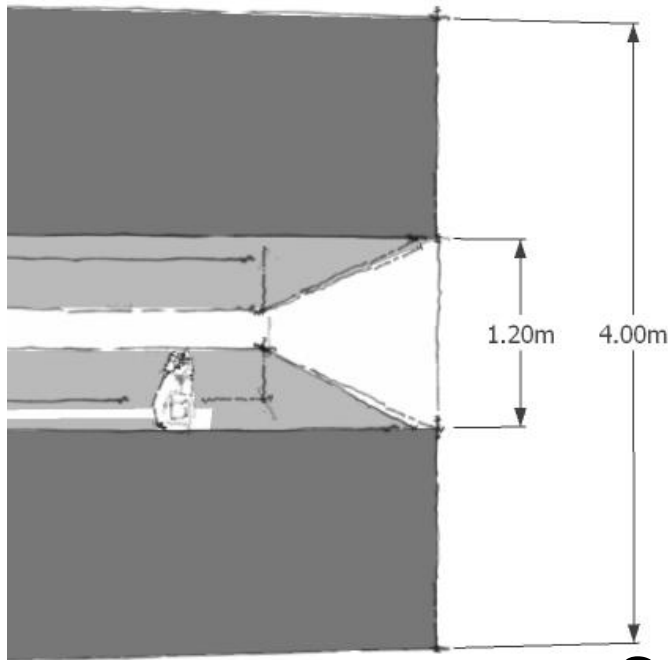
Energy cost/year: US\$ 816 K

AC Capacity: 1.246 TR

Economy Comparatives: Vision Glass area X Control Glass Solution

Vision Glass area: Regular Green Glass

Weather: São Paulo



Comparative

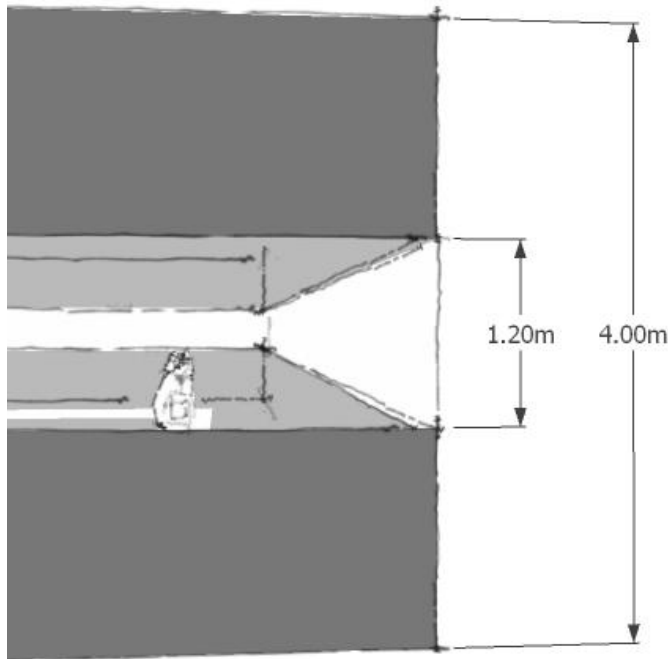
Vision Glass area difference: **+100%**

Energy cost/year increase: **+8,2% → US\$ 61 K**

AC Capacity increase: **+24,5% → 245 TR → US\$ 864 K**

Economy Comparatives: Vision Glass area X Control Glass Solution

Vision Glass area: Regular Green Glass X Solar Control Glass IGU Weather: São Paulo



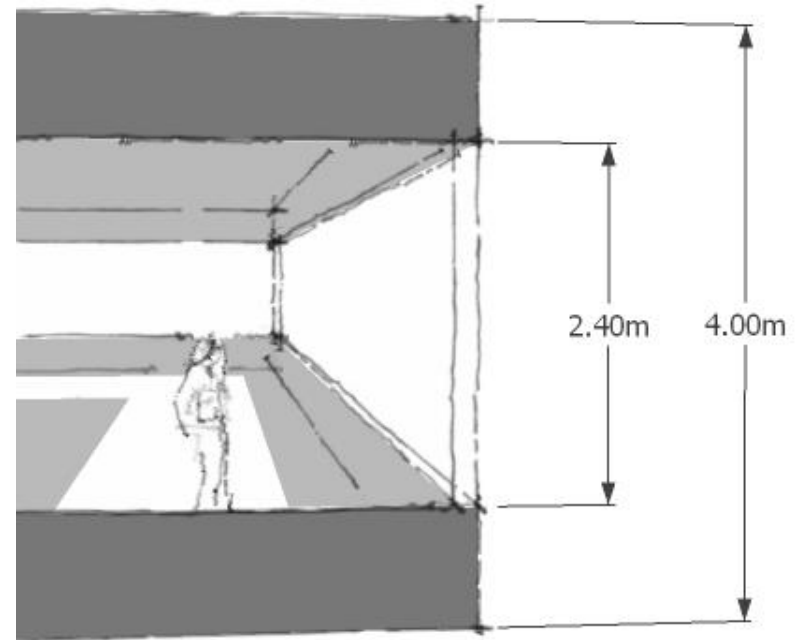
Vision Glass: 30%

Glass: Regular Green Glass

Vision Glass: 4.800 sqm

Energy cost/year: US\$ 757 K

AC Capacity: 1.001 TR



Vision Glass: 60%

Vidro: Solar Control Glass IGU

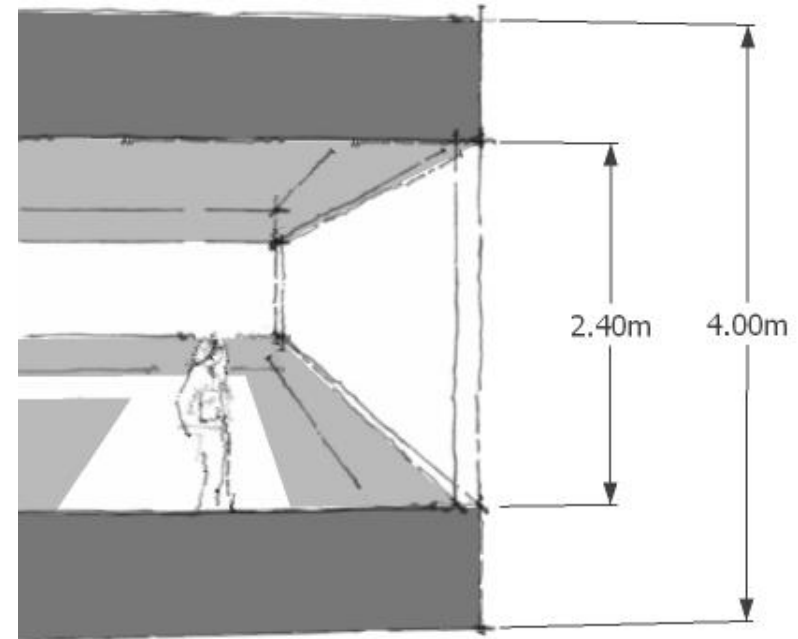
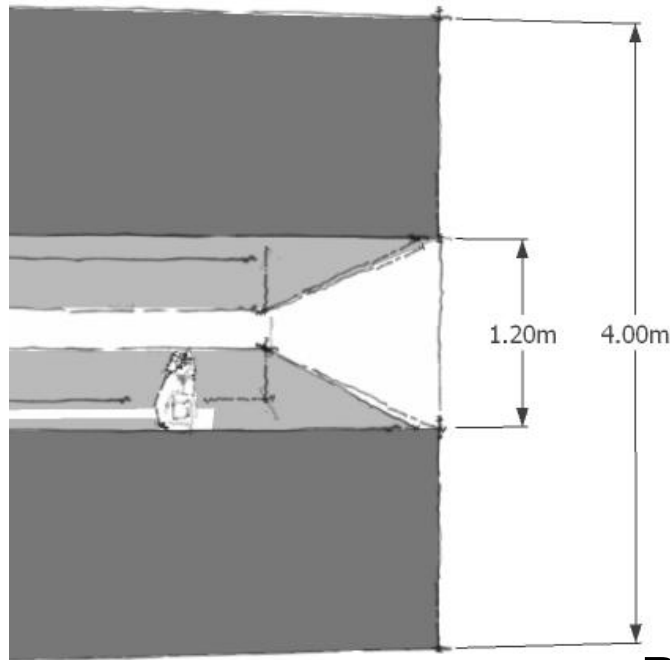
Vision Glass: 9.600 sqm

Energy cost/year: US\$ 750 K

AC Capacity: 953 TR

Economy Comparatives: Vision Glass area X Control Glass Solution

Vision Glass area: Regular Green Glass X Solar Control Glass IGU Weather: São Paulo



Resultados

Vision Glass area difference: **+100%**

Energy cost/year decrease: **-0,6%** → **-US\$ 7 K**

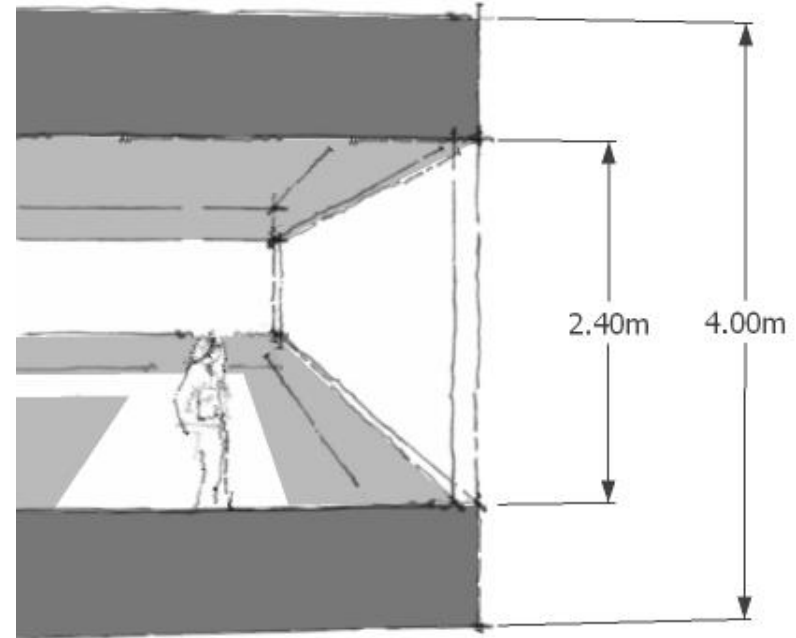
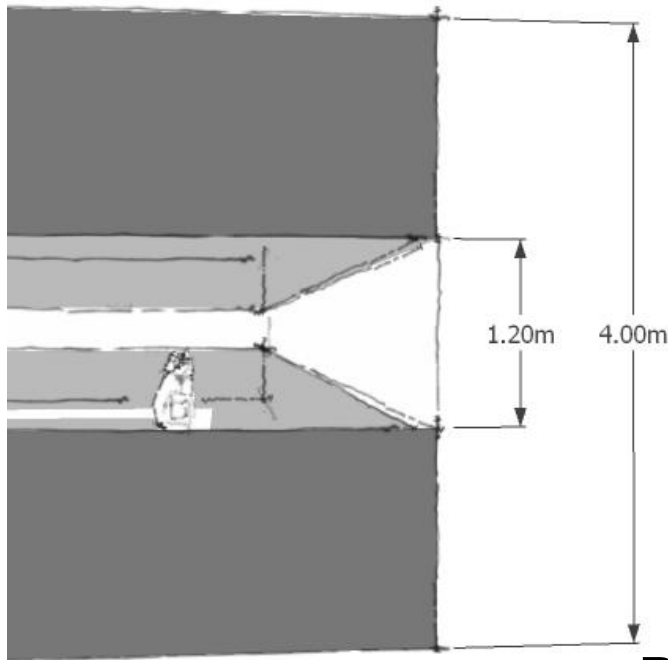
AC Capacity decrease: **-4,7%** → **-48 TR** → **-US\$ 169 K**

[São Paulo]

Economy Comparatives: Vision Glass area X Control Glass Solution

Weather: Rio de Janeiro

Vision Glass area: Regular Green Glass X Solar Control Glass IGU



Resultados

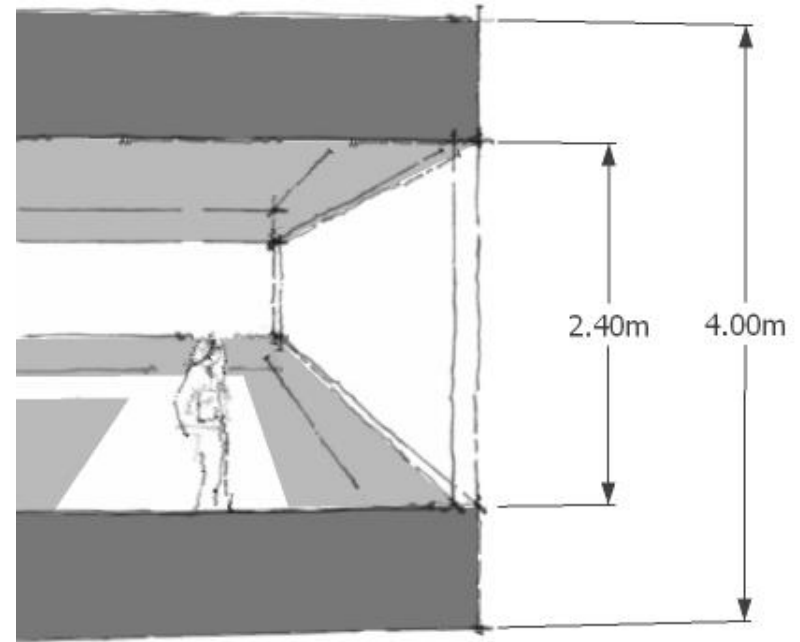
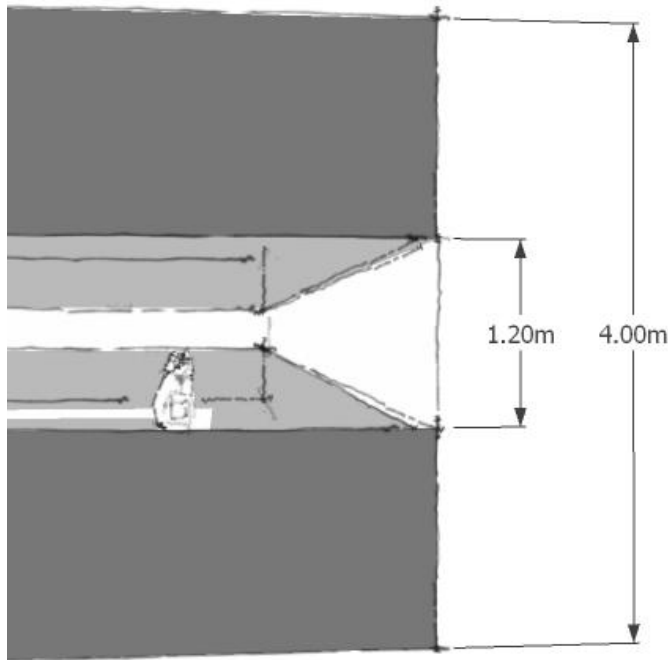
Vision Glass area difference: **+100%**

Energy cost/year decrease: **-1,3% → -R\$ 11 K**

AC Capacity decrease: **-6,7% → -77 TR → -R\$ 271 K**

[Rio de Janeiro]

Economy Comparatives: Vision Glass area X Control Glass Solution



Results

We can get the same, or even better performance with the double of Vision Glass → specification



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**GUARDIAN
CLIMAGUARD®**

LUZ E CONFORTO TÉRMICO



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Solar Control Glass products in Brazil

Climaguard

Residential Market Products: 4 options

Sunguard Solar

Commercial Products (can be used even monolithically) :

5 coaters x 4 substrates = 20 options

Sunguard High Performance

Low-E products (the only ones produced in Brazil):

7 coaters x 4 substrates = 28 options

Solar Control Glass Imported

Super Neutral

Double and triple silver layers products, with high light transmission and low solar heat gain

U.S.A.

- SN 54
- SN 62
- SN 68
- **SNX 62/27**

Europe

- HS SN 40
- HS SN 51
- HS SN 62



Projects with Climaguard



**Residence in Tremembé –
Climaguard Silver**





Residence in Tremembé
Climaguard Silver





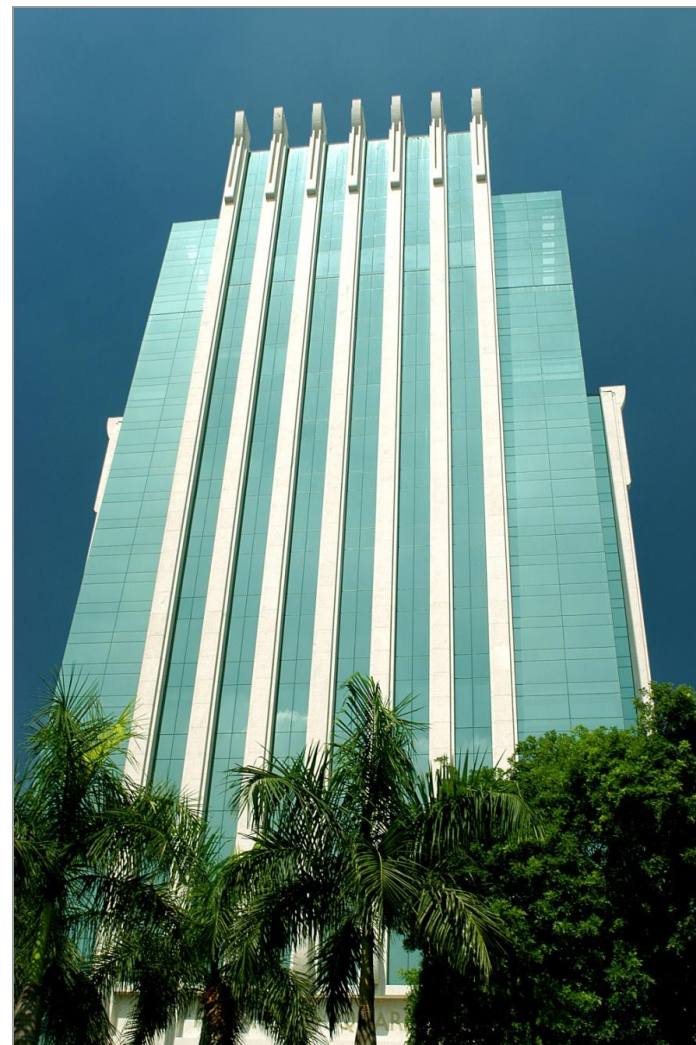
Casa Cor SP 2011 (Color House SP)
Climaguard Light



Residence in Vinhedo – Climaguard Light

Projects with Sunguard Serie Solar

FARIA LIMA SQUARE – S20 GREEN



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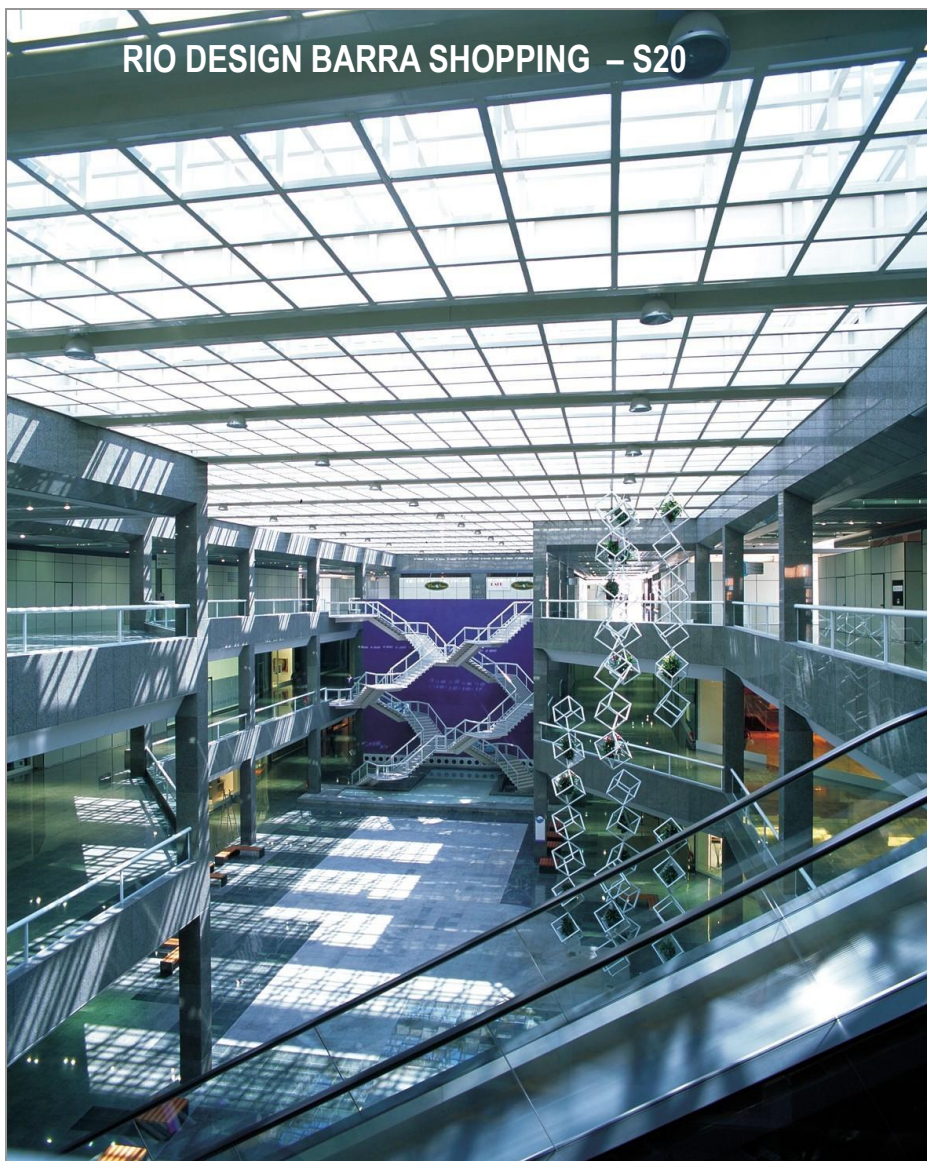
FARIA LIMA SQUARE – S20 GREEN



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VIDROS DE CONTROLE SOLAR E EFICIÊNCIA ENERGÉTICA

RIO DESIGN BARRA SHOPPING – S20



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Burj Khalifa

Silver 20 and
Climaguard



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Campos do Jordão – Silver 20

HOSPITAL BAHIA – S32 GREEN



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Cristo Redentor – Light Blue 52 on green



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VIDROS DE CONTROLE SOLAR E EFICIÊNCIA ENERGÉTICA

HOTEL SHERATON BARRA RJ – LB52 GREEN



HOTEL SHERATON BARRA RJ – LB52 GREEN

Projects com Sunguard Serie High Performance Low-E

TORRE ALMIRANTE RJ — N40 GREEN e N61



Landmark – SP

RB 40



Igarassú – SP

RB 40



Eco Berrini

Neutral Plus 50 on Crystal Gray



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www.sunguardglass.com – Web Site



www.sunguardglass.com - Samples

http://www.sunguardglass.com/HowWeWork/ContactUs/index.htm

Arquitetural Glass Manufacturers - SunGuard by Gua...

PRODUTOS SUNGUARD | PROJETOS | ESPECIFICAÇÕES E FERRAMENTAS | INTRODUÇÃO AO SUNGUARD | **COMO COMPRAR SUNGUARD**

Home > Como Comprar SunGuard > Solicite Amostras ou Informações

Solicite Amostras ou Informações.

Entre em contato conosco através do formulário abaixo, nos envie um [e-mail](#) ou ligue no número 0800 - 709-2700.

Empresa *

Tipo * Selecionar

Nome do Projeto

Nome *

E-mail *

País * Selecionar

CEP * 00000-000

Endereço *

Número *

Complemento *

Bairro *

Estado * Selecionar

Cidade *

Telefone *

Comentários / Dúvidas / Outras Solicitações (insira um link para completar sua caixa de solicitações especial)

70 Crematite Mult. OC, Canada

VEJA MAIS

Fazendo o download da imagem <http://www.sunguardglass.com/shell/ndev/groups/sunguard/documents/web>

Internet

Feito PC Suite | One Touch Acces... | SUNGUARD APRE... | Architectural Glas... | Replicação - Lote... | PT

www.sunguardglass.com – Products



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www.sunguardglass.com - Projects

The screenshot shows the SunGuard Projects website. At the top, the URL <http://www.sunguardglass.com/ProjectDatabase/index.htm> is visible in the browser's address bar. Below the address bar, there are navigation links: "Exibir", "Favoritos", "Ferramentas", and "Ajuda". A breadcrumb trail shows the path: "» Architectural Glass Manufacturers» SunGuard".

Encontre projetos com vidros de controle solar e eficiência energética SunGuard

A Guardian dispõe de um arquivo de projetos para facilitar a procura por exemplos de obras comerciais que contam com produtos SunGuard. Mostramos alguns projetos abaixo, mas você pode buscar pela base de dados completa para ver uma grande variedade de obras comerciais com vidro SunGuard. Você pode procurar por um dos critérios abaixo ou por **palavra-chave**.

Você também pode clicar e ver todos os projetos. Uma vez que encontrar um projeto, você pode ver detalhes na composição do vidro ou até mesmo clicar no Google Maps para saber exatamente onde ele está localizado. Se precisar de ajuda, por favor ligue para 0800 709 2700.

Produto SunGuard:

Localização:

Tipo de Edifício:

Aparência Externa:

Arquiteto:

Tipo de Vidro:

LEED:

Palavra Chave:

[Ver todos os sites](#)

[75 Greenwich](#)

[One Tower](#)

[Birla Centre for Quality](#)

[Concordia University](#)

[Concordia Park](#)

[Francisco de Paula](#)

[Heller International](#)

[Hospital da Bahia](#)

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