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*NFRC Accredited Computer Modeling & Simulation Laboratory***NFRC THERMAL SIMULATION REPORT****U-Factor (ANSI/NFRC 100-2023), CR (NFRC 500-2017)  
SHGC and VT (ANSI/NFRC 200-2023)****Fenestration Product:** **Aluminum Thermally Broken Sliding Glass Door****Report#:** SIM23D-046**Series#:** **Max T Slider (XO)****Submitted To:** David Olague**Manufacturer:** **PRL Aluminum****Address:** 14760 Don Julian Rd, City of Industry, CA 91746**Phone#:** (626) 923 – 1927**Baseline Product:** [2000mm (±25mm)][79.00"(±1")] X [2000mm (±25mm)] [79.00"(±1")]**Test Option 032:** **SNX51/23 / ARGON / IS-20\_6mm / SP-D spacer [U = 0.32 Btu/hr\*ft<sup>2</sup>\*F]**

Per ANSI/NFRC 100-2023: Sec. 4.2.6: The individual product selected as the baseline product shall have a simulated U-factor within 0.6 W/m<sup>2</sup>-K (0.1 Btu/h.ft<sup>2</sup>.deg F) or 20% of the lowest simulated U-factor, whichever is greater.

**Baseline Simulation Date:** 07/15/2023**Expiration Date:** Five years from the date of the oldest physical test conducted for the latest certification ratings**Revision Date:** n/a**Product Type:** Sliding Glass Door**Simulator:** Anis Jan**Simulator-in-Charge:** Anis Jan**Simulation Method:** Approved NFRC software THERM7 and WINDOW7 and NFRC WINDOW/THERM simulation manual**Model/Type:** DDSG

|                               |   |
|-------------------------------|---|
| <b>Size:</b>                  | [2000mm x 2000mm] / {79.00" x 79.00"}   |
| <b>Frame Type and Finish:</b> | Aluminum thermally broken / anodized all members (stated per client)  |
| <b>Sash Type and Finish:</b>  | Aluminum thermally broken / anodized all members (stated per client)  |
| <b>IG Glass Parameters:</b>   | See glazing matrix this report, pg# 3.  |
| <b>Glazing Method:</b>        | Both the panels were channel glazed with flexible vinyl.  |
| <b>Gas Fill Method:</b>       | Gas fill product simulated with Argon 90% & Air 10% using "two-probe gas fill method", (stated per client.)   |
| <b>Spacers:</b>               | A1-D = aluminum spacer, dual sealed with PIB & polysulfide sealant. SP-D = Technoform TGI-Spacer M, dual sealed with hot melt butyl and silicone sealant. |
| <b>Dividers:</b>              | None  |
| <b>Grouping:</b>              |   |
| <b>Center-of-Glazing:</b>     | Yes, ANSI/NFRC 100-2023: sec. 4.2.4.1   |
| <b>Frame:</b>                 | No  |
| <b>Spacer:</b>                | No  |
| <b>Divider:</b>               | No  |
| <b>Miscellaneous:</b>         |   |
| <b>SHGC and VT:</b>           | Default Frame Absorptivity 0.3, per ANSI/NFRC 200-2023: Sec. 4.5.D  |

Glazing Matrix:

| Glz ID | Name  | Group | UCOG  | Thick. | ID1   | Gap fill 1 | ID2  |
|--------|---|-------|-------|--------|-------|------------|------|
| 1      | CLEAR / AIR / CLEAR_6mm                       | L1    | 0.474 | 1.097  | 103   | AIR        | 103  |
| 8      | BLUEGREEN / AIR / CLEAR_6mm                   | 1     | 0.474 | 1.097  | 9874  | AIR        | 103  |
| 7      | EVERGREEN / AIR / CLEAR_6mm                   | 1     | 0.474 | 1.097  | 9884  | AIR        | 103  |
| 9      | SUPERGRAY / AIR / CLEAR_6mm                   | 1     | 0.474 | 1.097  | 9894  | AIR        | 103  |
| 11     | GRAYLITE II / AIR / CLEAR_6mm                 | 1     | 0.474 | 1.097  | 5057  | AIR        | 103  |
| 10     | PACIFICA / AIR / CLEAR_6mm                    | 1     | 0.474 | 1.097  | 5087  | AIR        | 103  |
| 3      | Solarbronze / AIR / CLEAR_6mm                 | 1     | 0.474 | 1.097  | 5044  | AIR        | 103  |
| 2      | AZURIA / AIR / CLEAR_6mm                      | 1     | 0.474 | 1.097  | 5036  | AIR        | 103  |
| 4      | STARPHIRE / AIR / CLEAR_6mm                   | 1     | 0.474 | 1.097  | 5004  | AIR        | 103  |
| 6      | SOLEXIA / AIR / CLEAR_6mm                     | 1     | 0.474 | 1.097  | 5020  | AIR        | 103  |
| 5      | Solargray / AIR / CLEAR_6mm                   | 1     | 0.474 | 1.097  | 5052  | AIR        | 103  |
| 12     | Energy Adv LOW-E / AIR / CLEAR_6mm            | L2    | 0.337 | 1.097  | 9924  | AIR        | 103  |
| 13     | SGSN68 / AIR / CLEAR_6mm                      | L3    | 0.3   | 1.097  | 3110  | AIR        | 103  |
| 17     | SNX5123 / AIR / CLEAR_6mm                     | 3     | 0.294 | 1.097  | 26143 | AIR        | 103  |
| 18     | SGSNR43 / AIR / CLEAR_6mm                     | 3     | 0.296 | 1.097  | 3425  | AIR        | 103  |
| 16     | SGSN54_Crystal Gray / AIR / CLEAR_6mm         | 3     | 0.296 | 1.097  | 3152  | AIR        | 103  |
| 14     | SNX6227 / AIR / CLEAR_6mm                     | 3     | 0.294 | 1.097  | 3413  | AIR        | 103  |
| 15     | SGSN54 / AIR / CLEAR_6mm                      | 3     | 0.296 | 1.097  | 3114  | AIR        | 103  |
| 19     | SNX51/23 / AIR / IS20_6mm                     | L4    | 0.238 | 1.097  | 26143 | AIR        | 3293 |
| 20     | SNX62/27 Ultra Clear / AIR / Starphire_6mm    | L5    | 0.294 | 1.097  | 3422  | AIR        | 5004 |
| 21     | SB60 / AIR / CLEAR_6mm                        | L6    | 0.299 | 1.097  | 5284  | AIR        | 103  |
| 22     | SB70 / AIR / CLEAR_6mm                        | 6     | 0.293 | 1.097  | 5439  | AIR        | 103  |
| 23     | CG7036 / AIR / Ultra Clear_5mm                | L7    | 0.308 | 1.144  | 3255  | AIR        | 3004 |
| 24     | SB90 / AIR / CLEAR_5mm                        | 7     | 0.304 | 1.144  | 5446  | AIR        | 5011 |
| 25     | SNX62/27 Crystal Gray / AIR / CLEAR_6mm       | L8    | 0.294 | 1.097  | 3416  | AIR        | 103  |
| 26     | CLEAR / ARG90% / CLEAR_6mm                    | L9    | 0.451 | 1.097  | 103   | ARG(90)    | 103  |
| 33     | BLUEGREEN / ARG90% / CLEAR_6mm                | 9     | 0.451 | 1.097  | 9874  | ARG(90)    | 103  |
| 32     | EVERGREEN / ARG90% / CLEAR_6mm                | 9     | 0.451 | 1.097  | 9884  | ARG(90)    | 103  |
| 34     | SUPERGRAY / ARG90% / CLEAR_6mm                | 9     | 0.451 | 1.097  | 9894  | ARG(90)    | 103  |
| 36     | GRAYLITE II / ARG90% / CLEAR_6mm              | 9     | 0.451 | 1.097  | 5057  | ARG(90)    | 103  |
| 35     | PACIFICA / ARG90% / CLEAR_6mm                 | 9     | 0.451 | 1.097  | 5087  | ARG(90)    | 103  |
| 28     | Solarbronze / ARG90% / CLEAR_6mm              | 9     | 0.451 | 1.097  | 5044  | ARG(90)    | 103  |
| 27     | AZURIA / ARG90% / CLEAR_6mm                   | 9     | 0.451 | 1.097  | 5036  | ARG(90)    | 103  |
| 29     | STARPHIRE / ARG90% / CLEAR_6mm                | 9     | 0.451 | 1.097  | 5004  | ARG(90)    | 103  |
| 31     | SOLEXIA / ARG90% / CLEAR_6mm                  | 9     | 0.451 | 1.097  | 5020  | ARG(90)    | 103  |
| 30     | Solargray / ARG90% / CLEAR_6mm                | 9     | 0.451 | 1.097  | 5052  | ARG(90)    | 103  |
| 37     | Energy Adv LOW-E / ARG90% / CLEAR_6mm         | L10   | 0.297 | 1.097  | 9924  | ARG(90)    | 103  |
| 38     | SGSN68 / ARG90% / CLEAR_6mm                   | L11   | 0.254 | 1.097  | 3110  | ARG(90)    | 103  |
| 40     | SGSN54 / ARG90% / CLEAR_6mm                   | L12   | 0.25  | 1.097  | 3114  | ARG(90)    | 103  |
| 42     | SNX5123 / ARG90% / CLEAR_6mm                  | 12    | 0.247 | 1.097  | 26143 | ARG(90)    | 103  |
| 43     | SGSNR43 / ARG90% / CLEAR_6mm                  | 12    | 0.249 | 1.097  | 3425  | ARG(90)    | 103  |
| 39     | SNX6227 / ARG90% / CLEAR_6mm                  | 12    | 0.247 | 1.097  | 3413  | ARG(90)    | 103  |
| 41     | SGSN54_Crystal Gray / ARG90% / CLEAR_6mm      | 12    | 0.25  | 1.097  | 3152  | ARG(90)    | 103  |
| 44     | SNX62/27 Ultra Clear / ARG90% / Starphire_6mm | L13   | 0.247 | 1.097  | 3422  | ARG(90)    | 5004 |
| 45     | SNX62/27 Crystal Gray / ARG90% / CLEAR_6mm    | 13    | 0.247 | 1.097  | 3416  | ARG(90)    | 103  |
| 46     | SB60 / ARG90% / CLEAR_6mm                     | L14   | 0.253 | 1.097  | 5284  | ARG(90)    | 103  |
| 47     | SB70 / ARG90% / CLEAR_6mm                     | 14    | 0.246 | 1.097  | 5439  | ARG(90)    | 103  |
| 48     | CG7036 / ARG90% / UltraClear_5mm              | L15   | 0.261 | 1.144  | 3255  | ARG(90)    | 3004 |
| 49     | SB90 / ARG90% / CLEAR_5mm                     | 15    | 0.256 | 1.144  | 5446  | ARG(90)    | 5011 |
| 50     | SNX5123 / ARG90% / IS-20_6mm                  | L16   | 0.204 | 1.097  | 26143 | ARG(90)    | 3293 |

Note: L denotes the group leader per ANSI/NFRC 100-2023 (as applicable)

SHGC 0 and 1 & VT 0 and 1

|       | No-divider | Divider < 25.4 mm | Divider >= 25.4 mm |
|-------|------------|-------------------|--------------------|
| SHGC0 | 0.010169   | 0.013333          | 0.016284           |
| SHGC1 | 0.777523   | 0.683814          | 0.596424           |
| VT0   | 0          | 0                 | 0                  |
| VT1   | 0.767354   | 0.670481          | 0.580140           |

Total window -- SHGC = SHGC0 + SHGCc \* (SHGC1 - SHGC0)

Total window -- VT = VT0 + VTc \* (VT1 - VT0)

SHGCc = center of glass SHGC value only

VTc = center of glass VT value only

Series#: Max T Slider (XO)

### Total Window U-Factor, SHGC & VT Values

Report#: SIM23D-046

Product: Aluminum T.B. Sliding Glass Door

Report Date: 07/15/2023

|                       |  |                                   |  |                    |  |                               |  |                          |  |            |  |
|-----------------------|--|-----------------------------------|--|--------------------|--|-------------------------------|--|--------------------------|--|------------|--|
|                       |  |                                   |  |                    |  | <b>Sim Lab Code:</b>          |  | SFSE                     |  |            |  |
|                       |  | <b>Operator Type:</b>             |  | DDSG               |  | <b>2020 Model Size:</b>       |  | 2000 mm x 2000 mm        |  |            |  |
| <b>Mfr Name:</b>      |  | PRL Aluminum                      |  | <b>Frame Type:</b> |  | AT                            |  | <b>Sim Report#:</b>      |  | SIM23D-046 |  |
| <b>Series/Model#:</b> |  | Max T Slider – sliding glass door |  | <b>Sash Type:</b>  |  | AT                            |  | <b>Residential Size:</b> |  |            |  |
|                       |  | <b>Thermal Break Type:</b>        |  | P                  |  |                               |  | <b>Non Res Size:</b>     |  |            |  |
|                       |  |                                   |  |                    |  | <b>Sim Rpt date:</b>          |  | 07/15/2023               |  |            |  |
|                       |  |                                   |  |                    |  | <b>Sim Rpt revision date:</b> |  | n/a                      |  |            |  |
|                       |  |                                   |  |                    |  | <b>Frame Absorptance:</b>     |  | 0.3                      |  |            |  |
|                       |  |                                   |  |                    |  | <b>Rating Procedure:</b>      |  | 2020                     |  |            |  |

| Mfr Prod. Code                             | Product Num | Pane Thick. 1 | Pane Thick. 2 | Pane Thick. 3 | Gap 1 | Gap 2 | Emiss 1 | Emiss 2 | Emiss 3 | Emiss 4 | Emiss 5 | Emiss 6 | Spacer Type | Grid | Grid Size | U factor cog | SHGC cog | VT cog   | Total U-factor | Total SHGC | Total VT | Total CR |
|--|-------------|---------------|---------------|---------------|-------|-------|---------|---------|---------|---------|---------|---------|-------------|------|-----------|--------------|----------|----------|----------------|------------|----------|----------|
| CLEAR / AIR / CLEAR_6mm                    | 001         | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.704810 | 0.786104 | 0.54           | 0.55       | 0.60     | 41       |
| AZURIA / AIR / CLEAR_6mm                   | 001-0001    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.392458 | 0.607054 |                | 0.31       | 0.47     |          |
| Solarbronze / AIR / CLEAR_6mm              | 001-0002    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.510663 | 0.472127 |                | 0.40       | 0.36     |          |
| SOLEXIA / AIR / CLEAR_6mm                  | 001-0003    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.497011 | 0.686580 |                | 0.39       | 0.53     |          |
| STARPHIRE / AIR / CLEAR_6mm                | 001-0004    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.786483 | 0.810418 |                | 0.61       | 0.62     |          |
| BLUEGREEN / AIR / CLEAR_6mm                | 001-0005    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.504051 | 0.669910 |                | 0.40       | 0.51     |          |
| PACIFICA / AIR / CLEAR_6mm                 | 001-0006    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.356773 | 0.377484 |                | 0.28       | 0.29     |          |
| EVERGREEN / AIR / CLEAR_6mm                | 001-0007    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.399581 | 0.583425 |                | 0.32       | 0.45     |          |
| SUPERGRAY / AIR / CLEAR_6mm                | 001-0008    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.214270 | 0.075579 |                | 0.17       | 0.06     |          |
| Solargray / AIR / CLEAR_6mm                | 001-0009    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.456660 | 0.394763 |                | 0.36       | 0.30     |          |
| GRAYLITE II / AIR / CLEAR_6mm              | 001-0010    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.47         | 0.218048 | 0.079696 |                | 0.18       | 0.06     |          |
| Energy Advantage_Low-E / AIR / CLEAR_6mm   | 002         | 0.236         | 0.236         |               | 0.625 |       |         | 0.157   |         |         |         |         | A1-D        | N    |           | 0.34         | 0.620674 | 0.729866 | 0.44           | 0.49       | 0.56     | 44       |
| SGSN68 / AIR / CLEAR_6mm                   | 003         | 0.236         | 0.236         |               | 0.625 |       |         | 0.039   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.374039 | 0.671688 | 0.41           | 0.30       | 0.52     | 44       |
| SNX6227 / AIR / CLEAR_6mm                  | 003-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | A1-D        | N    |           | 0.29         | 0.264469 | 0.610072 |                | 0.21       | 0.47     |          |
| SGSN54 / AIR / CLEAR_6mm                   | 003-0002    | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.281451 | 0.537634 |                | 0.23       | 0.41     |          |
| SGSN54_Crystal Gray / AIR / CLEAR_6mm      | 003-0003    | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.230136 | 0.389283 |                | 0.19       | 0.30     |          |
| SNX5123 / AIR / CLEAR_6mm                  | 003-0004    | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | A1-D        | N    |           | 0.29         | 0.229983 | 0.503727 |                | 0.19       | 0.39     |          |
| SGSNR43 / AIR / CLEAR_6mm                  | 003-0005    | 0.236         | 0.236         |               | 0.625 |       |         | 0.025   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.224596 | 0.425280 |                | 0.18       | 0.33     |          |
| SNX51/23 / AIR / IS20_6mm                  | 004         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         | 0.198   |         |         | A1-D        | N    |           | 0.24         | 0.220525 | 0.493710 | 0.36           | 0.18       | 0.38     | 41       |
| SNX62/27 Ultra Clear / AIR / Starphire_6mm | 005         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | A1-D        | N    |           | 0.29         | 0.264087 | 0.642129 | 0.41           | 0.21       | 0.49     | 44       |
| Solarban60 / AIR / CLEAR_6mm               | 006         | 0.236         | 0.236         |               | 0.625 |       |         | 0.035   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.389115 | 0.702065 | 0.41           | 0.31       | 0.54     | 44       |
| Solarban70 / AIR / CLEAR_6mm               | 006-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.018   |         |         |         |         | A1-D        | N    |           | 0.29         | 0.272170 | 0.641746 |                | 0.22       | 0.49     |          |
| Climaguard 7036 / AIR / Ultra Clear_5mm    | 007         | 0.197         | 0.197         |               | 0.750 |       |         | 0.036   |         |         |         |         | A1-D        | N    |           | 0.31         | 0.382311 | 0.703283 | 0.42           | 0.30       | 0.54     | 44       |
| Solarban / AIR / CLEAR_5mm                 | 007-0001    | 0.197         | 0.197         |               | 0.750 |       |         | 0.023   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.230133 | 0.516238 |                | 0.19       | 0.40     |          |
| SNX62/27 Crystal Gray / AIR / CLEAR_6mm    | 008         | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | A1-D        | N    |           | 0.29         | 0.220981 | 0.443302 | 0.41           | 0.18       | 0.34     | 44       |
| CLEAR / ARG90% / CLEAR_6mm                 | 009         | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.705369 | 0.786104 | 0.52           | 0.55       | 0.60     | 42       |
| AZURIA / ARG90% / CLEAR_6mm                | 009-0001    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.389340 | 0.607054 |                | 0.31       | 0.47     |          |
| Solarbronze / ARG90% / CLEAR_6mm           | 009-0002    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.509056 | 0.472127 |                | 0.40       | 0.36     |          |
| SOLEXIA / ARG90% / CLEAR_6mm               | 009-0003    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.495019 | 0.686580 |                | 0.39       | 0.53     |          |

| Mfr. Prod. Code                               | Product Num | Pane Thick. 1 | Pane Thick. 2 | Pane Thick. 3 | Gap 1 | Gap 2 | Emiss 1 | Emiss 2 | Emiss 3 | Emiss 4 | Emiss 5 | Emiss 6 | Spacer Type | Grid | Grid Size | U factor cog | SHGC cog | VT cog   | Total U-factor | Total SHGC | Total VT | Total CR |
|---|-------------|---------------|---------------|---------------|-------|-------|---------|---------|---------|---------|---------|---------|-------------|------|-----------|--------------|----------|----------|----------------|------------|----------|----------|
| STARPHIRE / ARG90% / CLEAR_6mm                | 009-0004    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.788192 | 0.810418 |                | 0.61       | 0.62     |          |
| BLUEGREEN / ARG90% / CLEAR_6mm                | 009-0005    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.502144 | 0.669910 |                | 0.40       | 0.51     |          |
| PACIFICA / ARG90% / CLEAR_6mm                 | 009-0006    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.353429 | 0.377484 |                | 0.28       | 0.29     |          |
| EVERGREEN / ARG90% / CLEAR_6mm                | 009-0007    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.396578 | 0.583425 |                | 0.31       | 0.45     |          |
| SUPERGRAY / ARG90% / CLEAR_6mm                | 009-0008    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.209716 | 0.075579 |                | 0.17       | 0.06     |          |
| Solargray / ARG90% / CLEAR_6mm                | 009-0009    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.454459 | 0.394763 |                | 0.36       | 0.30     |          |
| GRAYLITE II / ARG90% / CLEAR_6mm              | 009-0010    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | A1-D        | N    |           | 0.45         | 0.213557 | 0.079696 |                | 0.17       | 0.06     |          |
| Energy Advantage Low-E / ARG90% / CLEAR_6mm   | 010         | 0.236         | 0.236         |               | 0.625 |       |         | 0.157   |         |         |         |         | A1-D        | N    |           | 0.30         | 0.620407 | 0.729866 | 0.41           | 0.49       | 0.56     | 44       |
| SGSN68 / ARG90% / CLEAR_6mm                   | 011         | 0.236         | 0.236         |               | 0.625 |       |         | 0.039   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.370598 | 0.671688 | 0.38           | 0.29       | 0.52     | 44       |
| SGSN54 / ARG90% / CLEAR_6mm                   | 012         | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.276505 | 0.537634 | 0.38           | 0.22       | 0.41     | 44       |
| SNX6227 / ARG90% / CLEAR_6mm                  | 012-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.259853 | 0.610072 |                | 0.21       | 0.47     |          |
| SGSN54 Crystal Gray / ARG90% / CLEAR_6mm      | 012-0002    | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.222064 | 0.389283 |                | 0.18       | 0.30     |          |
| SNX5123 / ARG90% / CLEAR_6mm                  | 012-0003    | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.224135 | 0.503727 |                | 0.18       | 0.39     |          |
| SGSNR43 / ARG90% / CLEAR_6mm                  | 012-0004    | 0.236         | 0.236         |               | 0.625 |       |         | 0.025   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.219822 | 0.425280 |                | 0.18       | 0.33     |          |
| SNX62/27 Ultra Clear / ARG90% / Starphire_6mm | 013         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.261008 | 0.642129 | 0.37           | 0.21       | 0.49     | 44       |
| SNX62/27 Crystal Gray / ARG90% / CLEAR_6mm    | 013-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.212995 | 0.443302 |                | 0.17       | 0.34     |          |
| Solarban60 / ARG90% / CLEAR_6mm               | 014         | 0.236         | 0.236         |               | 0.625 |       |         | 0.035   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.385371 | 0.702065 | 0.38           | 0.31       | 0.54     | 44       |
| Solarban70 / ARG90% / CLEAR_6mm               | 014-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.018   |         |         |         |         | A1-D        | N    |           | 0.25         | 0.267664 | 0.641746 |                | 0.22       | 0.49     |          |
| Climaguard 7036 / ARG90% / UltraClear_5mm     | 015         | 0.197         | 0.197         |               | 0.750 |       |         | 0.036   |         |         |         |         | A1-D        | N    |           | 0.26         | 0.379446 | 0.703283 | 0.38           | 0.30       | 0.54     | 44       |
| Solarban90 / ARG90% / CLEAR_5mm               | 015-0001    | 0.197         | 0.197         |               | 0.750 |       |         | 0.023   |         |         |         |         | A1-D        | N    |           | 0.26         | 0.226001 | 0.516238 |                | 0.18       | 0.40     |          |
| SNX5123 / ARG90% / IS-20_6mm                  | 016         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         | 0.198   |         |         | A1-D        | N    |           | 0.20         | 0.216100 | 0.493710 | 0.33           | 0.18       | 0.38     | 43       |
| CLEAR / AIR / CLEAR_6mm                       | 017         | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.704810 | 0.786104 | 0.53           | 0.55       | 0.60     | 43       |
| AZURIA / AIR / CLEAR_6mm                      | 017-0001    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.392458 | 0.607054 |                | 0.31       | 0.47     |          |
| Solarbronze / AIR / CLEAR_6mm                 | 017-0002    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.510663 | 0.472127 |                | 0.40       | 0.36     |          |
| SOLEXIA / AIR / CLEAR_6mm                     | 017-0003    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.497011 | 0.686580 |                | 0.39       | 0.53     |          |
| STARPHIRE / AIR / CLEAR_6mm                   | 017-0004    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.786483 | 0.810418 |                | 0.61       | 0.62     |          |
| BLUEGREEN / AIR / CLEAR_6mm                   | 017-0005    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.504051 | 0.669910 |                | 0.40       | 0.51     |          |
| PACIFICA / AIR / CLEAR_6mm                    | 017-0006    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.356773 | 0.377484 |                | 0.28       | 0.29     |          |
| EVERGREEN / AIR / CLEAR_6mm                   | 017-0007    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.399581 | 0.583425 |                | 0.32       | 0.45     |          |
| SUPERGRAY / AIR / CLEAR_6mm                   | 017-0008    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.214270 | 0.075579 |                | 0.17       | 0.06     |          |
| Solargray / AIR / CLEAR_6mm                   | 017-0009    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.456660 | 0.394763 |                | 0.36       | 0.30     |          |
| GRAYLITE II / AIR / CLEAR_6mm                 | 017-0010    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.47         | 0.218048 | 0.079696 |                | 0.18       | 0.06     |          |
| Energy Advantage Low-E / AIR / CLEAR_6mm      | 018         | 0.236         | 0.236         |               | 0.625 |       |         | 0.157   |         |         |         |         | SP-D        | N    |           | 0.34         | 0.620674 | 0.729866 | 0.43           | 0.49       | 0.56     | 46       |
| SGSN68 / AIR / CLEAR_6mm                      | 019         | 0.236         | 0.236         |               | 0.625 |       |         | 0.039   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.374039 | 0.671688 | 0.40           | 0.30       | 0.52     | 46       |
| SNX6227 / AIR / CLEAR_6mm                     | 019-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | SP-D        | N    |           | 0.29         | 0.264469 | 0.610072 |                | 0.21       | 0.47     |          |
| SGSN54 / AIR / CLEAR_6mm                      | 019-0002    | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.281451 | 0.537634 |                | 0.23       | 0.41     |          |
| SGSN54 Crystal Gray / AIR / CLEAR_6mm         | 019-0003    | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.230136 | 0.389283 |                | 0.19       | 0.30     |          |
| SNX5123 / AIR / CLEAR_6mm                     | 019-0004    | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | SP-D        | N    |           | 0.29         | 0.229983 | 0.503727 |                | 0.19       | 0.39     |          |

| Mfr. Prod. Code                               | Product Num | Pane Thick. 1 | Pane Thick. 2 | Pane Thick. 3 | Gap 1 | Gap 2 | Emiss 1 | Emiss 2 | Emiss 3 | Emiss 4 | Emiss 5 | Emiss 6 | Spacer Type | Grid | Grid Size | U factor cog | SHGC cog | VT cog   | Total U-factor | Total SHGC | Total VT | Total CR |
|---|-------------|---------------|---------------|---------------|-------|-------|---------|---------|---------|---------|---------|---------|-------------|------|-----------|--------------|----------|----------|----------------|------------|----------|----------|
| SGSNR43 / AIR / CLEAR_6mm                     | 019-0005    | 0.236         | 0.236         |               | 0.625 |       |         | 0.025   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.224596 | 0.425280 |                | 0.18       | 0.33     |          |
| SNX51/23 / AIR / IS20_6mm                     | 020         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         | 0.198   |         |         | SP-D        | N    |           | 0.24         | 0.220525 | 0.493710 | 0.35           | 0.18       | 0.38     | 44       |
| SNX62/27 Ultra Clear / AIR / Starphire_6mm    | 021         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | SP-D        | N    |           | 0.29         | 0.264087 | 0.642129 | 0.39           | 0.21       | 0.49     | 46       |
| Solarban60 / AIR / CLEAR_6mm                  | 022         | 0.236         | 0.236         |               | 0.625 |       |         | 0.035   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.389115 | 0.702065 | 0.40           | 0.31       | 0.54     | 46       |
| Solarban70 / AIR / CLEAR_6mm                  | 022-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.018   |         |         |         |         | SP-D        | N    |           | 0.29         | 0.272170 | 0.641746 |                | 0.22       | 0.49     |          |
| Climaguard 7036 / AIR / Ultra Clear_5mm       | 023         | 0.197         | 0.197         |               | 0.750 |       |         | 0.036   |         |         |         |         | SP-D        | N    |           | 0.31         | 0.382311 | 0.703283 | 0.40           | 0.30       | 0.54     | 46       |
| Solarban90 / AIR / CLEAR_5mm                  | 023-0001    | 0.197         | 0.197         |               | 0.750 |       |         | 0.023   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.230133 | 0.516238 |                | 0.19       | 0.40     |          |
| SNX62/27 Crystal Gray / AIR / CLEAR_6mm       | 024         | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | SP-D        | N    |           | 0.29         | 0.220981 | 0.443302 | 0.39           | 0.18       | 0.34     | 46       |
| CLEAR / ARG90% / CLEAR_6mm                    | 025         | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.705369 | 0.786104 | 0.51           | 0.55       | 0.60     | 44       |
| AZURIA / ARG90% / CLEAR_6mm                   | 025-0001    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.389340 | 0.607054 |                | 0.31       | 0.47     |          |
| Solarbronze / ARG90% / CLEAR_6mm              | 025-0002    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.509056 | 0.472127 |                | 0.40       | 0.36     |          |
| STARPHIRE / ARG90% / CLEAR_6mm                | 025-0003    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.788192 | 0.810418 |                | 0.61       | 0.62     |          |
| PACIFICA / ARG90% / CLEAR_6mm                 | 025-0004    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.353429 | 0.377484 |                | 0.28       | 0.29     |          |
| SOLEXIA / ARG90% / CLEAR_6mm                  | 025-0005    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.495019 | 0.686580 |                | 0.39       | 0.53     |          |
| BLUEGREEN / ARG90% / CLEAR_6mm                | 025-0006    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.502144 | 0.669910 |                | 0.40       | 0.51     |          |
| EVERGREEN / ARG90% / CLEAR_6mm                | 025-0007    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.396578 | 0.583425 |                | 0.31       | 0.45     |          |
| SUPERGRAY / ARG90% / CLEAR_6mm                | 025-0008    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.209716 | 0.075579 |                | 0.17       | 0.06     |          |
| Solargray / ARG90% / CLEAR_6mm                | 025-0009    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.454459 | 0.394763 |                | 0.36       | 0.30     |          |
| GRAYLITE II / ARG90% / CLEAR_6mm              | 025-0010    | 0.236         | 0.236         |               | 0.625 |       |         |         |         |         |         |         | SP-D        | N    |           | 0.45         | 0.213557 | 0.079696 |                | 0.17       | 0.06     |          |
| Energy Advantage Low-E / ARG90% / CLEAR_6mm   | 026         | 0.236         | 0.236         |               | 0.625 |       |         | 0.157   |         |         |         |         | SP-D        | N    |           | 0.30         | 0.620407 | 0.729866 | 0.40           | 0.49       | 0.56     | 46       |
| SGSN68 / ARG90% / CLEAR_6mm                   | 027         | 0.236         | 0.236         |               | 0.625 |       |         | 0.039   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.370598 | 0.671688 | 0.37           | 0.29       | 0.52     | 47       |
| SGSN54 / ARG90% / CLEAR_6mm                   | 028         | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.276505 | 0.537634 | 0.36           | 0.22       | 0.41     | 47       |
| SNX6227 / ARG90% / CLEAR_6mm                  | 028-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.259853 | 0.610072 |                | 0.21       | 0.47     |          |
| SGSN54 Crystal Gray / ARG90% / CLEAR_6mm      | 028-0002    | 0.236         | 0.236         |               | 0.625 |       |         | 0.027   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.222064 | 0.389283 |                | 0.18       | 0.30     |          |
| SNX5123 / ARG90% / CLEAR_6mm                  | 028-0003    | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.224135 | 0.503727 |                | 0.18       | 0.39     |          |
| SGSNR43 / ARG90% / CLEAR_6mm                  | 028-0004    | 0.236         | 0.236         |               | 0.625 |       |         | 0.025   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.219822 | 0.425280 |                | 0.18       | 0.33     |          |
| SNX62/27 Ultra Clear / ARG90% / Starphire_6mm | 029         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.261008 | 0.642129 | 0.36           | 0.21       | 0.49     | 47       |
| SNX62/27 Crystal Gray / ARG90% / CLEAR_6mm    | 029-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.020   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.212995 | 0.443302 |                | 0.17       | 0.34     |          |
| Solarban60 / ARG90% / CLEAR_6mm               | 030         | 0.236         | 0.236         |               | 0.625 |       |         | 0.035   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.385371 | 0.702065 | 0.36           | 0.31       | 0.54     | 47       |
| Solarban70 / ARG90% / CLEAR_6mm               | 030-0001    | 0.236         | 0.236         |               | 0.625 |       |         | 0.018   |         |         |         |         | SP-D        | N    |           | 0.25         | 0.267664 | 0.641746 |                | 0.22       | 0.49     |          |
| Climaguard 7036 / ARG90% / UltraClear_5mm     | 031         | 0.197         | 0.197         |               | 0.750 |       |         | 0.036   |         |         |         |         | SP-D        | N    |           | 0.26         | 0.379446 | 0.703283 | 0.37           | 0.30       | 0.54     | 47       |
| Solarban90 / ARG90% / CLEAR_5mm               | 031-0001    | 0.197         | 0.197         |               | 0.750 |       |         | 0.023   |         |         |         |         | SP-D        | N    |           | 0.26         | 0.226001 | 0.516238 |                | 0.18       | 0.40     |          |
| SNX5123 / ARG90% / IS-20_6mm                  | 032         | 0.236         | 0.236         |               | 0.625 |       |         | 0.021   |         | 0.198   |         |         | SP-D        | N    |           | 0.20         | 0.216100 | 0.493710 | 0.32           | 0.18       | 0.38     | 46       |

SUMMARY AND ASSUMPTIONS:

1. For glass matrix, refer to Glazing Matrix detail this report...
2. This aluminum anodized thermally broken sliding glass door consists of 7 cross-sections.  
Thermal break material, polyamide, stated per client.  
Frame weather-strip: strip of mohair facing interior & exterior.  
Sash weather-strips: strip of mohair, facing exterior & interior on fixed and vent jamb sash only.  
Fixed and Vent mullion has mohair facing exterior & interior and flexible vinyl.
3. Manufacturer offers this product with NO dividers.
4. The Condensation Resistance results obtained from this procedure are for controlled laboratory conditions and do not include the effects of air movement through the specimen, solar radiation, and the thermal bridging that may occur due to the specific design and construction of the fenestration system opening.
5. As per ANSI/NFRC 200-2023: For SHGC & VT, actual glazing infill pane thicknesses in Table 4-1 for the range of glazing infill pane thicknesses were used.
6. For SHGC ratings, the values are calculated for the best glazing option model with the highest frame and edge U-factor frame per ANSI/NFRC 200-2023. The values calculated from that one case are then used to calculate the SHGC & VT for any other glazing options using Equations 4-1 and 4-2 in ANSI/NFRC 200-2023.
7. Drawings will be sent as a separate package and that the product simulated confirms to drawings supplied by manufacturer.

### **WINDOW SIMULATION REPORT:**

The fenestration products documented in this report were simulated in accordance with the ANSI/NFRC 100-2023: Procedure for Determining Fenestration Product Thermal Performance, ANSI/NFRC 200-2023 (SHGC/VT) & NFRC 500-2017. The fenestration products were simulated using computer programs Therm 7.8.57, Window 7.8.57 & Spectral Data #92.0 as specified in ANSI/NFRC 100-2023 and ANSI/NFRC 200-2023 (SHGC/VT). The WINDOW program models the one-dimensional heat flow through the center-of-glass portion of the window. The Therm program models the two-dimensional heat flow through the frame, edge-of-glass, divider, and divider-edge portions of the fenestration product. The input data for both programs is based on manufacturer's specifications. Defaults for material thermal and optical properties are given in the computer programs. When values other than defaults were used, they are documented.

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It is the policy of this laboratory to prepare a report and submit it to the manufacturer for his approval. Upon notification in writing from the manufacturer that he approves of the report, (in approving report, manufacturer takes responsibility of all information provided to this laboratory) the report is sent to the certification agency. The data shall be kept for a period of five years after which they may be destroyed.

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- F. Name and signature of the individual performing the simulations and accepting the responsibility for the technical accuracy of this simulation report.

*Anis Jan*

*Anis Jan*

*Simulator-in-responsible-charge*