

## Guardian SunGuard® Performance Comparison Table

| SunGuard® Solution                  |    |    |    |                        |      |      |       | SHGC                      |    |    |      | Solar Heat Gain Coefficient |      |      |                 |                           |   |    |      |      |      |      |
|-------------------------------------|----|----|----|------------------------|------|------|-------|---------------------------|----|----|------|-----------------------------|------|------|-----------------|---------------------------|---|----|------|------|------|------|
| Visible Light Levels (%) and Colors |    |    |    | RO Reflectance Outward |      |      |       | U U-Value                 |    |    |      | LSG Light-to-Solar Gain     |      |      |                 | CRI Color Rendering Index |   |    |      |      |      |      |
|                                     |    |    |    | T Transmission         |      |      |       |                           |    |    |      |                             |      |      |                 |                           |   |    |      |      |      |      |
|                                     |    |    |    | RI Reflectance Inward  |      |      |       |                           |    |    |      |                             |      |      |                 |                           |   |    |      |      |      |      |
| <b>Vitro - Solarban® (SB)</b>       |    |    |    |                        |      |      |       | RO                        | T  | RI | SHGC | U                           | LSG  | CRI  | <b>Viracon</b>  |                           |   |    |      |      |      |      |
| SB z50 on Optiblue®                 | 8  | 51 | 12 | 0.32                   | 0.29 | 1.57 | 91.0  | VE 1-85                   | 12 | 75 | 12   | 0.54                        | 0.31 | 1.39 | 96.0            |                           |   |    |      |      |      |      |
| SN 68 on CrystalBlue™               | 7  | 44 | 11 | 0.29                   | 0.29 | 1.51 | 91.1  | Neutral 78/65 (#3)        | 13 | 78 | 13   | 0.66                        | 0.31 | 1.18 | 96.9            |                           |   |    |      |      |      |      |
| SB 60                               | 11 | 70 | 13 | 0.39                   | 0.29 | 1.81 | 94.8  | VE 1-2M                   | 11 | 70 | 12   | 0.38                        | 0.29 | 1.85 | 93.9            |                           |   |    |      |      |      |      |
| SN 68                               | 11 | 68 | 12 | 0.38                   | 0.29 | 1.80 | 95.4  | SN 68                     | 11 | 68 | 12   | 0.38                        | 0.29 | 1.80 | 95.4            |                           |   |    |      |      |      |      |
| SB 67                               | 19 | 54 | 16 | 0.29                   | 0.29 | 1.85 | 91.4  | VE 1-48                   | 17 | 47 | 11   | 0.37                        | 0.31 | 1.27 | 90.7            |                           |   |    |      |      |      |      |
| SNE 50/25                           | 19 | 48 | 18 | 0.25                   | 0.29 | 1.90 | 88.9  | SNE 50/25                 | 19 | 48 | 18   | 0.25                        | 0.29 | 1.90 | 88.9            |                           |   |    |      |      |      |      |
| SB 70                               | 14 | 64 | 14 | 0.27                   | 0.29 | 2.35 | 91.3  | VE 1-45                   | 7  | 39 | 28   | 0.29                        | 0.29 | 1.33 | 94.0            |                           |   |    |      |      |      |      |
| SNX 62/27                           | 11 | 62 | 12 | 0.27                   | 0.29 | 2.31 | 93.0  | SN 54 on CrystalGray®     | 9  | 38 | 18   | 0.23                        | 0.29 | 1.67 | 91.3            |                           |   |    |      |      |      |      |
| SB 72 on Starphire®                 | 14 | 68 | 14 | 0.28                   | 0.29 | 2.45 | 95.2  | VE 1-42                   | 19 | 37 | 14   | 0.31                        | 0.31 | 1.19 | 87.7            |                           |   |    |      |      |      |      |
| SNX 62/27 on UltraClear®            | 11 | 64 | 13 | 0.27                   | 0.29 | 2.40 | 95.0  | SNE 50/25                 | 19 | 48 | 18   | 0.25                        | 0.29 | 1.90 | 88.9            |                           |   |    |      |      |      |      |
| SN 68 on UltraClear®                | 11 | 71 | 13 | 0.39                   | 0.29 | 1.80 | 97.9  | VRE 1-65                  | 27 | 59 | 20   | 0.37                        | 0.29 | 1.58 | 94.8            |                           |   |    |      |      |      |      |
| SB z75 on Optiblue®                 | 9  | 48 | 13 | 0.24                   | 0.29 | 1.99 | 88.5  | VRE 1-59                  | 30 | 52 | 19   | 0.33                        | 0.30 | 1.58 | 93.8            |                           |   |    |      |      |      |      |
| SNX 62/27 on CrystalBlue™           | 7  | 40 | 11 | 0.21                   | 0.29 | 1.91 | 88.8  | VRE 1-54                  | 31 | 47 | 16   | 0.30                        | 0.30 | 1.54 | 92.4            |                           |   |    |      |      |      |      |
| SB 90                               | 13 | 51 | 19 | 0.23                   | 0.29 | 2.19 | 91.7  | VZRE1-54                  | 31 | 42 | 12   | 0.26                        | 0.29 | 1.59 | 91.2            |                           |   |    |      |      |      |      |
| SNX 51/23                           | 14 | 51 | 14 | 0.23                   | 0.29 | 2.18 | 91.9  | VZRE1-59                  | 29 | 47 | 14   | 0.29                        | 0.29 | 1.63 | 92.4            |                           |   |    |      |      |      |      |
| SB R100                             | 32 | 42 | 14 | 0.23                   | 0.29 | 1.79 | 89.7  | VRE 1-4725                | 25 | 47 | 20   | 0.25                        | 0.29 | 1.87 | 93.7            |                           |   |    |      |      |      |      |
| SNR 43                              | 28 | 43 | 14 | 0.23                   | 0.29 | 1.89 | 91.1  | SNR 50                    | 26 | 48 | 17   | 0.25                        | 0.29 | 1.91 | 91.3            |                           |   |    |      |      |      |      |
| SB R77                              | 25 | 47 | 16 | 0.25                   | 0.29 | 1.88 | 94.00 | VUE 1-50                  | 11 | 48 | 11   | 0.26                        | 0.29 | 1.88 | 86.3            |                           |   |    |      |      |      |      |
| SNR 50                              | 26 | 48 | 17 | 0.25                   | 0.29 | 1.91 | 91.3  | SNX 51/23                 | 14 | 51 | 14   | 0.23                        | 0.29 | 2.18 | 91.9            |                           |   |    |      |      |      |      |
| <b>AGC - Energy Select™ (ES)</b>    |    |    |    |                        |      |      |       | RO                        | T  | RI | SHGC | U                           | LSG  | CRI  | <b>VUE 1-40</b> |                           |   |    |      |      |      |      |
| ES 23                               | 22 | 50 | 22 | 0.23                   | 0.29 | 2.16 | 88.6  | SNE 50/25 on CrystalGray® | 16 | 34 | 16   | 0.21                        | 0.29 | 1.63 | 88.2            |                           |   |    |      |      |      |      |
| SNX 51/23                           | 14 | 51 | 14 | 0.23                   | 0.29 | 2.18 | 91.9  | VRE 1-46                  | 35 | 44 | 16   | 0.29                        | 0.30 | 1.53 | 92.0            |                           |   |    |      |      |      |      |
| ES 28                               | 13 | 62 | 14 | 0.28                   | 0.29 | 2.18 | 90.4  | VRE 1-43                  | 25 | 43 | 20   | 0.22                        | 0.29 | 1.95 | 88.8            |                           |   |    |      |      |      |      |
| SNX 62/27                           | 11 | 62 | 12 | 0.27                   | 0.29 | 2.31 | 93.0  | SNR 43                    | 28 | 43 | 14   | 0.23                        | 0.29 | 1.89 | 91.1            |                           |   |    |      |      |      |      |
| ES 31                               | 21 | 62 | 21 | 0.31                   | 0.29 | 2.01 | 95.9  | VRE1-38                   | 43 | 36 | 21   | 0.23                        | 0.29 | 1.56 | 90.8            |                           |   |    |      |      |      |      |
| SNE 50/25                           | 19 | 48 | 18 | 0.25                   | 0.29 | 1.90 | 88.9  | VRE3117                   | 29 | 32 | 21   | 0.17                        | 0.29 | 1.87 | 85.9            |                           |   |    |      |      |      |      |
| ES R34                              | 25 | 54 | 21 | 0.34                   | 0.29 | 1.58 | 95.7  | VRE1-30                   | 48 | 28 | 15   | 0.20                        | 0.30 | 1.43 | 90.8            |                           |   |    |      |      |      |      |
| SNR 50                              | 26 | 48 | 17 | 0.25                   | 0.29 | 1.91 | 91.3  | SNR 35                    | 35 | 33 | 19   | 0.17                        | 0.29 | 1.92 | 89.8            |                           |   |    |      |      |      |      |
| ES 36                               | 14 | 65 | 17 | 0.36                   | 0.29 | 1.79 | 94.9  | VUE 1-30                  | 19 | 30 | 20   | 0.18                        | 0.29 | 1.68 | 85.2            |                           |   |    |      |      |      |      |
| ES 40                               | 12 | 69 | 13 | 0.39                   | 0.29 | 1.79 | 94.8  | SNR 43 on CrystalGray®    | 16 | 31 | 14   | 0.19                        | 0.29 | 1.59 | 87.9            |                           |   |    |      |      |      |      |
| SN 68                               | 11 | 68 | 12 | 0.38                   | 0.29 | 1.80 | 95.4  | VNE 1-63                  | 10 | 62 | 11   | 0.29                        | 0.29 | 2.16 | 92.2            |                           |   |    |      |      |      |      |
| ES R42                              | 26 | 62 | 21 | 0.42                   | 0.30 | 1.46 | 96.8  | SNX 62/27                 | 11 | 62 | 12   | 0.27                        | 0.29 | 2.31 | 93.0            |                           |   |    |      |      |      |      |
| SNR 50                              | 26 | 48 | 17 | 0.25                   | 0.29 | 1.91 | 91.3  | VNE 1-53                  | 19 | 49 | 21   | 0.23                        | 0.29 | 2.11 | 85.9            |                           |   |    |      |      |      |      |
| ES 63 (#3)                          | 11 | 78 | 11 | 0.55                   | 0.30 | 1.40 | 95.8  | SNE 50/25                 | 19 | 48 | 18   | 0.25                        | 0.29 | 1.90 | 88.9            |                           |   |    |      |      |      |      |
| ES 73 Plus (#3)                     | 17 | 74 | 16 | 0.68                   | 0.34 | 1.08 | 96.0  | VS 1-20                   | 25 | 18 | 34   | 0.23                        | 0.42 | 0.79 | 95.7            |                           |   |    |      |      |      |      |
| Neutral 78/65 (#3)                  | 13 | 78 | 13 | 0.66                   | 0.31 | 1.18 | 96.9  | VS 1-14                   | 33 | 12 | 38   | 0.18                        | 0.40 | 0.67 | 95.7            |                           |   |    |      |      |      |      |
| <b>Cardinal - LoE</b>               |    |    |    |                        |      |      |       | RO                        | T  | RI | SHGC | U                           | LSG  | CRI  | VS 1-08         | 42                        | 8 | 38 | 0.14 | 0.38 | 0.55 | 95.8 |
| LoE-180 (#3)                        | 14 | 77 | 15 | 0.64                   | 0.30 | 1.21 | 96.6  | VP 1-22                   | 18 | 22 | 36   | 0.28                        | 0.44 | 0.76 | 93.3            |                           |   |    |      |      |      |      |
| Neutral 78/65 (#3)                  | 13 | 78 | 13 | 0.66                   | 0.31 | 1.18 | 96.9  | VP 1-18                   | 25 | 16 | 42   | 0.23                        | 0.43 | 0.69 | 91.8            |                           |   |    |      |      |      |      |
| LoE²-240                            | 14 | 38 | 10 | 0.25                   | 0.30 | 1.51 | 87.4  | VP 1-13                   | 30 | 12 | 46   | 0.20                        | 0.42 | 0.61 | 91.9            |                           |   |    |      |      |      |      |
| SN 54 on CrystalGray®               | 9  | 38 | 18 | 0.23                   | 0.29 | 1.67 | 91.3  | SNR35                     | 35 | 33 | 19   | 0.17                        | 0.29 | 1.92 | 89.8            |                           |   |    |      |      |      |      |
| LoE²-270                            | 12 | 68 | 13 | 0.36                   | 0.29 | 1.88 | 94.0  | <b>Pilkington</b>         |    |    |      |                             |      |      |                 |                           |   |    |      |      |      |      |
| LoE²-272                            | 10 | 70 | 12 | 0.40                   | 0.29 | 1.73 | 95.4  | Energy Advantage™ (#3)    | 17 | 73 | 16   | 0.66                        | 0.33 | 1.10 | 96.9            |                           |   |    |      |      |      |      |
| SN 68                               | 11 | 68 | 12 | 0.38                   | 0.29 | 1.80 | 95.4  | Neutral 78/65 (#3)        | 13 | 78 | 13   | 0.66                        | 0.31 | 1.18 | 96.9            |                           |   |    |      |      |      |      |
| LoE³-340                            | 13 | 38 | 15 | 0.19                   | 0.29 | 2.00 | 80.1  | Eclipse Advantage™        | 29 | 60 | 31   | 0.55                        | 0.35 | 1.09 | 98.6            |                           |   |    |      |      |      |      |
| SNX 51/23 on CrystalGray®           | 9  | 36 | 13 | 0.20                   | 0.29 | 1.85 | 88.8  | SNR 50                    | 26 | 48 | 17   | 0.25                        | 0.29 | 1.91 | 91.3            |                           |   |    |      |      |      |      |
| LoE³-366                            | 11 | 63 | 12 | 0.28                   | 0.29 | 2.26 | 90.4  | Solar-E™                  | 11 | 53 | 16   | 0.45                        | 0.33 | 1.19 | 91.7            |                           |   |    |      |      |      |      |
| SNX 62/27                           | 11 | 62 | 12 | 0.27                   | 0.29 | 2.31 | 93.0  | SN 54                     | 13 | 54 | 18   | 0.28                        | 0.29 | 1.92 | 94.4            |                           |   |    |      |      |      |      |

- All information is based upon publicly-available resources, manufacturer website, and represents center-of-glass conditions (independently of spacers and fra.
- Except as otherwise noted, each glazing configuration consists of 6 mm clear glass with a #2 surface coating : 1/2" air fill : clear glass.
- This list is not meant to be a comprehensive listing of comparable products. Please consult with your Guardian representative for other products or configurations.
- Where low-iron glass is referenced, both panes are low-iron glass. Where tinted glass is referenced, the inboard pane remains clear glass.
- Digital color depictions are not exact, and physical samples should be reviewed.
- This information was compiled in March of 2022, and is subject to variations within manufacturing tolerances.
- Product specifications may be changed by manufacturers without notice or obligation.
- Solarban®, Optiblue®, and Starphire® are Vitro trademarks. Energy Select™ is a AGC Glass Company of North America trademark. LoE products are Cardinal Glass Industries trademarks. Energy Advantage™, Eclipse Advantage™, and Solar-E™ are Pilkington NA trademarks.