

| 2020 Supreme Casement              | Sizes Tested  |                  | NAFS Ratings                                               |                             |                       |                         |                  |
|------------------------------------|---------------|------------------|------------------------------------------------------------|-----------------------------|-----------------------|-------------------------|------------------|
|                                    | 38"x78"       |                  | AAMA/WDMA/CSA 101/I.S.2-/A440-17,CSA A440S1:19 : CW-PG55-C |                             |                       |                         |                  |
|                                    |               |                  |                                                            |                             |                       |                         |                  |
| Glass Option                       | Energy Rating | U-value (metric) | U-value (imperial)                                         | Solar Heat Gain Coefficient | Visible Transmittance | Condensation Resistance | Energy Star 2020 |
| Clear                              | 20            | 2.4              | 0.42                                                       | 0.57                        | 0.59                  | 43                      | N                |
| Clear W/Grilles                    | 18            | 2.4              | 0.42                                                       | 0.52                        | 0.54                  | 43                      | N                |
| LoE Argon                          | 36            | 1.5              | 0.27                                                       | 0.52                        | 0.58                  | 58                      | Y                |
| LoE Argon W/Grilles                | 33            | 1.5              | 0.27                                                       | 0.47                        | 0.53                  | 58                      | Y                |
| Energlass                          | 37            | 1.5              | 0.26                                                       | 0.52                        | 0.58                  | 60                      | Y                |
| Energlass W/Grilles                | 34            | 1.5              | 0.26                                                       | 0.47                        | 0.53                  | 60                      | Y                |
| LoE Argon-LSG                      | 23            | 1.5              | 0.26                                                       | 0.28                        | 0.51                  | 59                      | N                |
| LoE Argon-LSG W/Grilles            | 22            | 1.5              | 0.26                                                       | 0.26                        | 0.46                  | 59                      | N                |
| Energlass-LSG                      | 25            | 1.4              | 0.25                                                       | 0.28                        | 0.51                  | 61                      | N                |
| Energlass-LSG W/Grilles            | 24            | 1.4              | 0.25                                                       | 0.26                        | 0.46                  | 61                      | N                |
| Triple LoE Argonx1-LSG             | 30            | 1.1              | 0.20                                                       | 0.26                        | 0.46                  | 68                      | Y                |
| Triple LoE Argonx1-LSG W/Grilles   | 29            | 1.1              | 0.20                                                       | 0.24                        | 0.42                  | 68                      | Y                |
| Energlass Plus Argon-LSG           | 35            | 0.9              | 0.15                                                       | 0.24                        | 0.40                  | 72                      | Y                |
| Energlass Plus Argon-LSG W/Grilles | 34            | 0.9              | 0.15                                                       | 0.22                        | 0.36                  | 72                      | Y                |
| Triple LoE Argonx1                 | 41            | 1.1              | 0.20                                                       | 0.46                        | 0.53                  | 68                      | Y                |
| Triple LoE Argonx1 W/Grilles       | 39            | 1.1              | 0.20                                                       | 0.42                        | 0.48                  | 68                      | Y                |
| Energlass Plus Argon               | 46            | 0.9              | 0.16                                                       | 0.45                        | 0.52                  | 74                      | Y                |
| Energlass Plus Argon W/Grilles     | 43            | 0.9              | 0.16                                                       | 0.41                        | 0.47                  | 74                      | Y                |

| 2020 Supreme Awning                | Sizes Tested  |                  |                    | NAFS Ratings                                                 |                       |                         |                  |
|------------------------------------|---------------|------------------|--------------------|--------------------------------------------------------------|-----------------------|-------------------------|------------------|
|                                    | 36"x80"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-17, CSA A440S1:19 : CW-PG55-AP |                       |                         |                  |
|                                    | 60"x36"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-17, CSA A440S1:19 : LC-PG45-AP |                       |                         |                  |
|                                    | 48"x51"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-17, CSA A440S1:19 : CW-PG40-AP |                       |                         |                  |
|                                    | 48"x51"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-17, CSA A440S1:19 : LC-PG50-AP |                       |                         |                  |
| Glass Option                       | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                                  | Visible Transmittance | Condensation Resistance | Energy Star 2020 |
| Clear                              | 21            | 2.4              | 0.42               | 0.57                                                         | 0.59                  | 43                      | N                |
| Clear W/Grilles                    | 18            | 2.4              | 0.42               | 0.52                                                         | 0.54                  | 43                      | N                |
| LoE Argon                          | 36            | 1.5              | 0.27               | 0.52                                                         | 0.58                  | 57                      | Y                |
| LoE Argon W/Grilles                | 33            | 1.5              | 0.27               | 0.47                                                         | 0.53                  | 57                      | N                |
| Energlass                          | 37            | 1.5              | 0.26               | 0.52                                                         | 0.58                  | 58                      | Y                |
| Energlass W/Grilles                | 35            | 1.5              | 0.26               | 0.47                                                         | 0.53                  | 58                      | Y                |
| LoE Argon-LSG                      | 24            | 1.5              | 0.26               | 0.28                                                         | 0.51                  | 57                      | N                |
| LoE Argon-LSG W/Grilles            | 22            | 1.5              | 0.26               | 0.26                                                         | 0.46                  | 57                      | N                |
| Energlass-LSG                      | 25            | 1.4              | 0.25               | 0.28                                                         | 0.51                  | 59                      | N                |
| Energlass-LSG W/Grilles            | 24            | 1.4              | 0.25               | 0.26                                                         | 0.46                  | 59                      | N                |
| Triple LoE Argonx1-LSG             | 30            | 1.1              | 0.20               | 0.26                                                         | 0.46                  | 69                      | Y                |
| Triple LoE Argonx1-LSG W/Grilles   | 29            | 1.1              | 0.20               | 0.24                                                         | 0.42                  | 69                      | Y                |
| Energlass Plus Argon-LSG           | 35            | 0.9              | 0.15               | 0.24                                                         | 0.40                  | 67                      | Y                |
| Energlass Plus Argon-LSG W/Grilles | 34            | 0.9              | 0.15               | 0.22                                                         | 0.36                  | 67                      | Y                |
| Triple LoE Argonx1                 | 41            | 1.1              | 0.20               | 0.46                                                         | 0.53                  | 67                      | Y                |
| Triple LoE Argonx1 W/Grilles       | 39            | 1.1              | 0.20               | 0.42                                                         | 0.48                  | 67                      | Y                |
| Energlass Plus Argon               | 46            | 0.9              | 0.16               | 0.45                                                         | 0.52                  | 74                      | Y                |
| Energlass Plus Argon W/Grilles     | 44            | 0.9              | 0.16               | 0.41                                                         | 0.47                  | 74                      | Y                |

| 2020 Supreme Casement<br>Narrow Picture | Sizes Tested  |                  | NAFS Ratings                                                |                             |                       |                         |                  |
|-----------------------------------------|---------------|------------------|-------------------------------------------------------------|-----------------------------|-----------------------|-------------------------|------------------|
|                                         | 36"x90"       |                  | AAMA/WDMA/CSA 101/I.S.2-/A440-17,CSA A440S1:19 : CW-PG90-FW |                             |                       |                         |                  |
|                                         | 79"x79"       |                  | AAMA/WDMA/CSA 101/I.S.2-/A440-17,CSA A440S1:19 : CW-PG70-FW |                             |                       |                         |                  |
| Glass Option                            | Energy Rating | U-value (metric) | U-value (imperial)                                          | Solar Heat Gain Coefficient | Visible Transmittance | Condensation Resistance | Energy Star 2020 |
| Clear                                   | 23            | 2.6              | 0.45                                                        | 0.68                        | 0.71                  | 43                      | N                |
| Clear W/Grilles                         | 19            | 2.6              | 0.45                                                        | 0.61                        | 0.63                  | 43                      | N                |
| LoE Argon                               | 40            | 1.6              | 0.28                                                        | 0.61                        | 0.69                  | 58                      | Y                |
| LoE Argon W/Grilles                     | 37            | 1.6              | 0.28                                                        | 0.55                        | 0.62                  | 58                      | Y                |
| Energlass                               | 42            | 1.5              | 0.27                                                        | 0.61                        | 0.69                  | 60                      | Y                |
| Energlass W/Grilles                     | 38            | 1.5              | 0.27                                                        | 0.55                        | 0.62                  | 60                      | Y                |
| LoE Argon-LSG                           | 27            | 1.5              | 0.26                                                        | 0.33                        | 0.60                  | 59                      | N                |
| LoE Argon-LSG W/Grilles                 | 25            | 1.5              | 0.26                                                        | 0.30                        | 0.54                  | 59                      | N                |
| Energlass-LSG                           | 27            | 1.5              | 0.26                                                        | 0.33                        | 0.60                  | 61                      | N                |
| Energlass-LSG W/Grilles                 | 25            | 1.5              | 0.26                                                        | 0.30                        | 0.54                  | 61                      | N                |
| Triple LoE Argonx1-LSG                  | 33            | 1.1              | 0.20                                                        | 0.31                        | 0.55                  | 71                      | Y                |
| Triple LoE Argonx1-LSG W/Grilles        | 31            | 1.1              | 0.20                                                        | 0.28                        | 0.49                  | 71                      | Y                |
| Energlass Plus Argon-LSG                | 39            | 0.8              | 0.14                                                        | 0.28                        | 0.47                  | 73                      | Y                |
| Energlass Plus Argon-LSG W/Grilles      | 38            | 0.8              | 0.14                                                        | 0.26                        | 0.42                  | 73                      | Y                |
| Triple LoE Argonx1                      | 47            | 1.1              | 0.20                                                        | 0.55                        | 0.63                  | 70                      | Y                |
| Triple LoE Argonx1 W/Grilles            | 44            | 1.1              | 0.20                                                        | 0.50                        | 0.56                  | 70                      | Y                |
| Energlass Plus Argon                    | 51            | 0.9              | 0.16                                                        | 0.53                        | 0.61                  | 77                      | Y                |
| Energlass Plus Argon W/Grilles          | 48            | 0.9              | 0.16                                                        | 0.48                        | 0.55                  | 77                      | Y                |

| 2020 Supreme Casement<br>Wide Picture | Sizes Tested  |                  | NAFS Ratings                                                |                             |                       |                         |                  |
|---------------------------------------|---------------|------------------|-------------------------------------------------------------|-----------------------------|-----------------------|-------------------------|------------------|
|                                       | 79"x79"       |                  | AAMA/WDMA/CSA 101/I.S.2-/A440-17,CSA A440S1:19 : CW-PG70-FW |                             |                       |                         |                  |
|                                       |               |                  |                                                             |                             |                       |                         |                  |
| Glass Option                          | Energy Rating | U-value (metric) | U-value (imperial)                                          | Solar Heat Gain Coefficient | Visible Transmittance | Condensation Resistance | Energy Star 2020 |
| Clear                                 | 23            | 2.5              | 0.44                                                        | 0.65                        | 0.67                  | 43                      | N                |
| Clear W/Grilles                       | 19            | 2.5              | 0.44                                                        | 0.58                        | 0.60                  | 43                      | N                |
| LoE Argon                             | 40            | 1.5              | 0.27                                                        | 0.58                        | 0.66                  | 57                      | Y                |
| LoE Argon W/Grilles                   | 36            | 1.5              | 0.27                                                        | 0.52                        | 0.59                  | 57                      | Y                |
| Energlass                             | 40            | 1.5              | 0.27                                                        | 0.58                        | 0.66                  | 59                      | Y                |
| Energlass W/Grilles                   | 36            | 1.5              | 0.27                                                        | 0.52                        | 0.59                  | 59                      | Y                |
| LoE Argon-LSG                         | 26            | 1.5              | 0.26                                                        | 0.32                        | 0.57                  | 58                      | N                |
| LoE Argon-LSG W/Grilles               | 24            | 1.5              | 0.26                                                        | 0.28                        | 0.51                  | 58                      | N                |
| Energlass-LSG                         | 27            | 1.4              | 0.25                                                        | 0.32                        | 0.57                  | 60                      | N                |
| Energlass-LSG W/Grilles               | 25            | 1.4              | 0.25                                                        | 0.28                        | 0.51                  | 60                      | N                |
| Triple LoE Argonx1-LSG                | 32            | 1.1              | 0.20                                                        | 0.29                        | 0.52                  | 70                      | Y                |
| Triple LoE Argonx1-LSG W/Grilles      | 30            | 1.1              | 0.20                                                        | 0.26                        | 0.47                  | 70                      | Y                |
| Energlass Plus Argon-LSG              | 37            | 0.9              | 0.15                                                        | 0.27                        | 0.45                  | 72                      | Y                |
| Energlass Plus Argon-LSG W/Grilles    | 36            | 0.9              | 0.15                                                        | 0.25                        | 0.40                  | 72                      | Y                |
| Triple LoE Argonx1                    | 45            | 1.1              | 0.20                                                        | 0.52                        | 0.60                  | 70                      | Y                |
| Triple LoE Argonx1 W/Grilles          | 42            | 1.1              | 0.20                                                        | 0.47                        | 0.54                  | 70                      | Y                |
| Energlass Plus Argon                  | 49            | 0.9              | 0.16                                                        | 0.50                        | 0.58                  | 77                      | Y                |
| Energlass Plus Argon W/Grilles        | 46            | 0.9              | 0.16                                                        | 0.45                        | 0.52                  | 77                      | Y                |

| Supreme Single Hung               | Size Tested   |                  |                    | NAFS Ratings                                   |                       |                         |                        |
|-----------------------------------|---------------|------------------|--------------------|------------------------------------------------|-----------------------|-------------------------|------------------------|
|                                   | 44" x 78"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11:LC-PG65-H         |                       |                         |                        |
|                                   | 50" x 84"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11:LC-PG45-H         |                       |                         |                        |
|                                   | 50" x 74"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11:R-PG45-H          |                       |                         |                        |
|                                   | 44" x 78"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11/17/22:R/LC-PG45-H |                       |                         |                        |
| Glass Options                     | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                    | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                             | 16            | 2.7              | 0.47               | 0.62                                           | 0.65                  | 48                      | N                      |
| Clear w Grills                    | 13            | 2.7              | 0.47               | 0.56                                           | 0.58                  | 48                      | N                      |
| LoE/Argon                         | 33            | 1.8              | 0.31               | 0.56                                           | 0.63                  | 55                      | N                      |
| LoE/Argon w Grills                | 29            | 1.8              | 0.31               | 0.50                                           | 0.56                  | 55                      | N                      |
| Energias                          | 35            | 1.6              | 0.29               | 0.56                                           | 0.63                  | 58                      | Y                      |
| Energias w Grills                 | 32            | 1.6              | 0.29               | 0.50                                           | 0.56                  | 58                      | N                      |
| LoE/Argon-LSG                     | 20            | 1.6              | 0.29               | 0.28                                           | 0.54                  | 56                      | N                      |
| LoE/Argon-LSG w Grills            | 18            | 1.6              | 0.29               | 0.25                                           | 0.48                  | 56                      | N                      |
| Energias-LSG                      | 23            | 1.5              | 0.27               | 0.28                                           | 0.54                  | 59                      | N                      |
| Energias-LSG w Grills             | 21            | 1.5              | 0.27               | 0.25                                           | 0.48                  | 59                      | N                      |
| Triple Clear                      | 21            | 2.0              | 0.35               | 0.56                                           | 0.59                  | 55                      | N                      |
| Triple w Grills                   | 21            | 2.0              | 0.35               | 0.50                                           | 0.53                  | 58                      | N                      |
| Triple LoE/Argon x 1 LSG          | 35            | 1.5              | 0.26               | 0.50                                           | 0.58                  | 62                      | Y                      |
| Triple LoE/Argon x 1 LSG w Grills | 30            | 1.6              | 0.28               | 0.45                                           | 0.51                  | 62                      | N                      |
| Energias Plus Argon LSG           | 38            | 1.2              | 0.22               | 0.46                                           | 0.56                  | 68                      | Y                      |
| Energias Plus Argon LSG w Grills  | 36            | 1.2              | 0.22               | 0.42                                           | 0.50                  | 68                      | Y                      |
| Triple LoE/Argon x 1              | 23            | 1.4              | 0.25               | 0.26                                           | 0.49                  | 65                      | N                      |
| Triple LoE/Argon x 1 w Grills     | 21            | 1.4              | 0.25               | 0.23                                           | 0.44                  | 66                      | N                      |
| Energias Plus Argon               | 26            | 1.2              | 0.21               | 0.23                                           | 0.41                  | 69                      | Y                      |
| Energias Plus Argon w Grills      | 25            | 1.2              | 0.21               | 0.21                                           | 0.37                  | 70                      | Y                      |

| Supreme Single Glider             | Size Tested   |                  |                    | NAFS Ratings                                 |                       |                         |                        |
|-----------------------------------|---------------|------------------|--------------------|----------------------------------------------|-----------------------|-------------------------|------------------------|
|                                   | 63" x 44"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-08:R-PG55-HS       |                       |                         |                        |
|                                   | 72" x 60"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11:LC-PG40-HS      |                       |                         |                        |
|                                   | 72" x 60"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-17/22:R/LC-PG35-HS |                       |                         |                        |
| Glass Options                     | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                  | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                             | 16            | 2.7              | 0.47               | 0.61                                         | 0.64                  | 46                      | N                      |
| Clear w Grills                    | 12            | 2.7              | 0.47               | 0.55                                         | 0.57                  | 46                      | N                      |
| LoE/Argon                         | 32            | 1.8              | 0.31               | 0.55                                         | 0.62                  | 55                      | N                      |
| LoE/Argon w Grills                | 29            | 1.8              | 0.31               | 0.50                                         | 0.56                  | 55                      | N                      |
| Energlass                         | 35            | 1.6              | 0.3                | 0.6                                          | 0.62                  | 58                      | Y                      |
| Energlass w Grills                | 32            | 1.6              | 0.29               | 0.50                                         | 0.56                  | 58                      | N                      |
| LoE/Argon-LSG                     | 18            | 1.6              | 0.29               | 0.27                                         | 0.54                  | 59                      | N                      |
| LoE/Argon-LSG w Grills            | 17            | 1.6              | 0.29               | 0.25                                         | 0.48                  | 59                      | N                      |
| Energlass-LSG                     | 20            | 1.6              | 0.28               | 0.27                                         | 0.54                  | 60                      | N                      |
| Energlass-LSG w Grills            | 19            | 1.6              | 0.28               | 0.25                                         | 0.48                  | 60                      | N                      |
| Triple Clear                      | 23            | 2.0              | 0.35               | 0.56                                         | 0.59                  | 54                      | N                      |
| Triple w Grills                   | 34            | 2.0              | 0.36               | 0.50                                         | 0.52                  | 56                      | Y                      |
| Triple LoE/Argon x 1 LSG          | 34            | 1.5              | 0.27               | 0.50                                         | 0.57                  | 62                      | Y                      |
| Triple LoE/Argon x 1 LSG w Grills | 30            | 1.6              | 0.28               | 0.45                                         | 0.51                  | 61                      | N                      |
| Energlass Plus Argon LSG          | 38            | 1.2              | 0.22               | 0.46                                         | 0.56                  | 67                      | Y                      |
| Energlass Plus Argon LSG w Grills | 34            | 1.3              | 0.23               | 0.41                                         | 0.50                  | 67                      | Y                      |
| Triple LoE/Argon x 1              | 22            | 1.5              | 0.26               | 0.26                                         | 0.49                  | 63                      | N                      |
| Triple LoE/Argon x 1 w Grills     | 21            | 1.4              | 0.25               | 0.23                                         | 0.44                  | 64                      | N                      |
| Energlass Plus Argon              | 26            | 1.2              | 0.21               | 0.23                                         | 0.41                  | 68                      | Y                      |
| Energlass Plus Argon w Grills     | 25            | 1.2              | 0.21               | 0.21                                         | 0.37                  | 69                      | Y                      |

| Supreme Single Hung Picture Window | Sizes Tested  |                  |                    | NAFS Ratings                                       |                       |                         |                        |
|------------------------------------|---------------|------------------|--------------------|----------------------------------------------------|-----------------------|-------------------------|------------------------|
|                                    | 60" x 96"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11:LC-PG35-FW            |                       |                         |                        |
|                                    | 72" x 80"     |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-11/17/22:R/LC/CW-PG55-FW |                       |                         |                        |
|                                    |               |                  |                    |                                                    |                       |                         |                        |
| Glass Options                      | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                        | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                              | 20            | 2.6              | 0.46               | 0.64                                               | 0.67                  | 47                      | N                      |
| Clear w Grills                     | 16            | 2.6              | 0.46               | 0.57                                               | 0.59                  | 47                      | N                      |
| LoE/Argon                          | 36            | 1.7              | 0.30               | 0.58                                               | 0.65                  | 57                      | Y                      |
| LoE/Argon w Grills                 | 33            | 1.7              | 0.30               | 0.52                                               | 0.58                  | 57                      | N                      |
| Energlass                          | 40            | 1.5              | 0.27               | 0.58                                               | 0.65                  | 61                      | Y                      |
| Energlass w Grills                 | 37            | 1.5              | 0.27               | 0.52                                               | 0.58                  | 61                      | Y                      |
| LoE/Argon-LSG                      | 21            | 1.6              | 0.28               | 0.28                                               | 0.56                  | 58                      | N                      |
| LoE/Argon-LSG w Grills             | 20            | 1.6              | 0.28               | 0.26                                               | 0.50                  | 58                      | N                      |
| Energlass-LSG                      | 24            | 1.5              | 0.26               | 0.28                                               | 0.56                  | 61                      | N                      |
| Energlass-LSG w Grills             | 23            | 1.5              | 0.26               | 0.26                                               | 0.50                  | 61                      | N                      |
| Triple Clear                       | 31            | 1.9              | 0.34               | 0.58                                               | 0.61                  | 56                      | N                      |
| Triple w Grills                    | 26            | 2.0              | 0.35               | 0.52                                               | 0.54                  | 57                      | N                      |
| Triple LoE/Argon x 1 LSG           | 39            | 1.4              | 0.25               | 0.52                                               | 0.59                  | 65                      | Y                      |
| Triple LoE/Argon x 1 LSG w Grills  | 34            | 1.5              | 0.27               | 0.47                                               | 0.53                  | 64                      | Y                      |
| Energlass Plus Argon LSG           | 41            | 1.2              | 0.21               | 0.47                                               | 0.58                  | 70                      | Y                      |
| Energlass Plus Argon LSG w Grills  | 39            | 1.2              | 0.21               | 0.43                                               | 0.52                  | 71                      | Y                      |
| Triple LoE/Argon x 1               | 26            | 1.4              | 0.24               | 0.27                                               | 0.51                  | 66                      | N                      |
| Triple LoE/Argon x 1 w Grills      | 24            | 1.4              | 0.24               | 0.24                                               | 0.46                  | 67                      | N                      |
| Energlass Plus Argon               | 30            | 1.1              | 0.19               | 0.24                                               | 0.43                  | 72                      | Y                      |
| Energlass Plus Argon w Grills      | 28            | 1.1              | 0.20               | 0.22                                               | 0.38                  | 72                      | Y                      |

| 2019 Supreme Double Hung           | Size Tested   |                  |                    | NAFS Ratings                                                     |                       |                         |                        |
|------------------------------------|---------------|------------------|--------------------|------------------------------------------------------------------|-----------------------|-------------------------|------------------------|
|                                    | 40" x 78"     |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-11&A440S1-17:R-PG50-H              |                       |                         |                        |
|                                    |               |                  |                    |                                                                  |                       |                         |                        |
| Glass Options                      | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                                      | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                              | 18            | 2.6              | 0.45               | 0.61                                                             | 0.63                  | 43                      | N                      |
| Clear W/Grilles                    | 14            | 2.6              | 0.45               | 0.54                                                             | 0.56                  | 43                      | N                      |
| LoE Argon                          | 34            | 1.6              | 0.29               | 0.55                                                             | 0.62                  | 56                      | Y                      |
| LoE Argon W/Grilles                | 31            | 1.6              | 0.29               | 0.49                                                             | 0.55                  | 56                      | N                      |
| Energlass                          | 34            | 1.6              | 0.29               | 0.55                                                             | 0.62                  | 58                      | Y                      |
| Energlass W/Grilles                | 31            | 1.6              | 0.29               | 0.49                                                             | 0.55                  | 58                      | N                      |
| LoE Argon-LSG                      | 19            | 1.6              | 0.28               | 0.27                                                             | 0.53                  | 57                      | N                      |
| LoE Argon-LSG W/Grilles            | 18            | 1.6              | 0.28               | 0.24                                                             | 0.47                  | 57                      | N                      |
| Energlass-LSG                      | 21            | 1.5              | 0.27               | 0.27                                                             | 0.53                  | 59                      | N                      |
| Energlass-LSG W/Grilles            | 19            | 1.5              | 0.27               | 0.24                                                             | 0.47                  | 59                      | N                      |
| Triple Clear                       | 32            | 1.8              | 0.31               | 0.55                                                             | 0.58                  | 58                      | N                      |
| Triple Clear W/Grilles             | 28            | 1.8              | 0.31               | 0.49                                                             | 0.51                  | 58                      | N                      |
| Triple LoE Argonx1-LSG             | 26            | 1.2              | 0.22               | 0.25                                                             | 0.48                  | 68                      | N                      |
| Triple LoE Argonx1-LSG W/Grilles   | 25            | 1.2              | 0.22               | 0.23                                                             | 0.43                  | 68                      | N                      |
| Energlass Plus Argon-LSG           | 30            | 1.0              | 0.17               | 0.22                                                             | 0.41                  | 72                      | Y                      |
| Energlass Plus Argon-LSG W/Grilles | 29            | 1.0              | 0.17               | 0.20                                                             | 0.36                  | 72                      | Y                      |
| Triple LoE Argonx1                 | 38            | 1.3              | 0.23               | 0.49                                                             | 0.56                  | 65                      | Y                      |
| Triple LoE Argonx1 W/Grilles       | 35            | 1.3              | 0.23               | 0.44                                                             | 0.50                  | 65                      | Y                      |
| Energlass Plus Argon               | 42            | 1.0              | 0.18               | 0.45                                                             | 0.55                  | 71                      | Y                      |
| Energlass Plus Argon W/Grilles     | 40            | 1.0              | 0.18               | 0.41                                                             | 0.49                  | 71                      | Y                      |
|                                    |               |                  |                    |                                                                  |                       |                         |                        |
| 2019 Supreme Double Glider         | Size Tested   |                  |                    | NAFS Ratings                                                     |                       |                         |                        |
|                                    | 63"x43"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-11&17, CSA A440S1-17&19: R-PG40-HS |                       |                         |                        |
|                                    |               |                  |                    |                                                                  |                       |                         |                        |
| Glass Options                      | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                                      | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                              | 16            | 2.6              | 0.45               | 0.59                                                             | 0.62                  | 43                      | N                      |
| Clear w Grills                     | 13            | 2.6              | 0.45               | 0.53                                                             | 0.55                  | 43                      | N                      |
| LoE/Argon                          | 33            | 1.6              | 0.29               | 0.54                                                             | 0.60                  | 57                      | N                      |
| LoE/Argon w Grills                 | 30            | 1.6              | 0.29               | 0.48                                                             | 0.54                  | 57                      | N                      |
| Energlass                          | 34            | 1.6              | 0.28               | 0.54                                                             | 0.60                  | 59                      | Y                      |
| Energlass w Grills                 | 31            | 1.6              | 0.28               | 0.48                                                             | 0.54                  | 59                      | N                      |
| LoE/Argon-LSG                      | 18            | 1.6              | 0.28               | 0.26                                                             | 0.52                  | 58                      | N                      |
| LoE/Argon-LSG w Grills             | 17            | 1.6              | 0.28               | 0.24                                                             | 0.46                  | 58                      | N                      |
| Energlass-LSG                      | 20            | 1.5              | 0.27               | 0.26                                                             | 0.52                  | 60                      | N                      |
| Energlass-LSG w Grills             | 18            | 1.5              | 0.27               | 0.24                                                             | 0.46                  | 60                      | N                      |
| Triple Clear                       | 31            | 1.8              | 0.31               | 0.54                                                             | 0.56                  | 58                      | N                      |
| Triple w Grills                    | 27            | 1.8              | 0.31               | 0.48                                                             | 0.50                  | 58                      | N                      |
| Triple LoE/Argon x 1 LSG           | 25            | 1.2              | 0.22               | 0.25                                                             | 0.47                  | 67                      | N                      |
| Triple LoE/Argon x 1 LSG w Grills  | 23            | 1.2              | 0.22               | 0.22                                                             | 0.42                  | 67                      | N                      |
| Energls Plus Argon LSG             | 29            | 1.0              | 0.17               | 0.22                                                             | 0.40                  | 72                      | Y                      |
| Energls Plus Argon LSG w Grills    | 28            | 1.0              | 0.17               | 0.20                                                             | 0.35                  | 72                      | Y                      |
| Triple LoE/Argon x 1               | 38            | 1.2              | 0.22               | 0.48                                                             | 0.55                  | 66                      | Y                      |
| Triple LoE/Argon x 1 w Grills      | 36            | 1.2              | 0.22               | 0.43                                                             | 0.49                  | 66                      | Y                      |
| Energlass Plus Argon               | 41            | 1.0              | 0.18               | 0.44                                                             | 0.54                  | 71                      | Y                      |
| Energlass Plus Argon w Grills      | 39            | 1.0              | 0.18               | 0.40                                                             | 0.48                  | 71                      | Y                      |

| 2019 Supreme Double Hung Picture Window | Sizes Tested  |                  |                    | NAFS Ratings                                                 |                       |                         |                        |
|-----------------------------------------|---------------|------------------|--------------------|--------------------------------------------------------------|-----------------------|-------------------------|------------------------|
|                                         | 36"x90"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-17, CSA A440S1:19 : CW-PG90-FW |                       |                         |                        |
|                                         | 79"x79"       |                  |                    | AAMA/WDMA/CSA 101/I.S.2-/A440-17, CSA A440S1:19 : CW-PG70-FW |                       |                         |                        |
| Glass Options                           | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                                  | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                                   | 23            | 2.6              | 0.45               | 0.68                                                         | 0.71                  | 43                      | N                      |
| Clear W/Grilles                         | 19            | 2.6              | 0.45               | 0.61                                                         | 0.63                  | 43                      | N                      |
| LoE Argon                               | 40            | 1.6              | 0.28               | 0.61                                                         | 0.69                  | 58                      | Y                      |
| LoE Argon W/Grilles                     | 37            | 1.6              | 0.28               | 0.55                                                         | 0.62                  | 58                      | Y                      |
| Energlass                               | 42            | 1.5              | 0.27               | 0.61                                                         | 0.69                  | 60                      | Y                      |
| Energlass W/Grilles                     | 38            | 1.5              | 0.27               | 0.55                                                         | 0.62                  | 60                      | Y                      |
| LoE Argon-LSG                           | 27            | 1.5              | 0.26               | 0.33                                                         | 0.60                  | 59                      | N                      |
| LoE Argon-LSG W/Grilles                 | 25            | 1.5              | 0.26               | 0.30                                                         | 0.54                  | 59                      | N                      |
| Energlass-LSG                           | 27            | 1.5              | 0.26               | 0.33                                                         | 0.60                  | 61                      | N                      |
| Energlass-LSG W/Grilles                 | 25            | 1.5              | 0.26               | 0.30                                                         | 0.54                  | 61                      | N                      |
| Triple LoE Argonx1-LSG                  | 33            | 1.1              | 0.20               | 0.31                                                         | 0.55                  | 71                      | Y                      |
| Triple LoE Argonx1-LSG W/Grilles        | 31            | 1.1              | 0.20               | 0.28                                                         | 0.49                  | 71                      | Y                      |
| Energlass Plus Argon-LSG                | 39            | 0.8              | 0.14               | 0.28                                                         | 0.47                  | 73                      | Y                      |
| Energlass Plus Argon-LSG W/Grilles      | 38            | 0.8              | 0.14               | 0.26                                                         | 0.42                  | 73                      | Y                      |
| Triple LoE Argonx1                      | 47            | 1.1              | 0.20               | 0.55                                                         | 0.63                  | 70                      | Y                      |
| Triple LoE Argonx1 W/Grilles            | 44            | 1.1              | 0.20               | 0.50                                                         | 0.56                  | 70                      | Y                      |
| Energlass Plus Argon                    | 51            | 0.9              | 0.16               | 0.53                                                         | 0.61                  | 77                      | Y                      |
| Energlass Plus Argon W/Grilles          | 48            | 0.9              | 0.16               | 0.48                                                         | 0.55                  | 77                      | Y                      |

| Tilt and Turn Window              | Size Tested   |                  |                    | NAFS Ratings                                             |                       |                         |                        |
|-----------------------------------|---------------|------------------|--------------------|----------------------------------------------------------|-----------------------|-------------------------|------------------------|
|                                   | 48"x71"       |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-17: CW-PG95-DAW, CSA A440S1-17 |                       |                         |                        |
|                                   |               |                  |                    |                                                          |                       |                         |                        |
| Glass Options                     | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient                              | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                             | 19            | 2.3              | 0.41               | 0.53                                                     | 0.55                  | 46                      | N                      |
| Clear w Grills                    | 16            | 2.3              | 0.41               | 0.47                                                     | 0.48                  | 46                      | N                      |
| LoE/Argon                         | 33            | 1.6              | 0.28               | 0.48                                                     | 0.53                  | 61                      | N                      |
| LoE/Argon w Grills                | 30            | 1.6              | 0.28               | 0.43                                                     | 0.47                  | 61                      | N                      |
| Energlass                         | 34            | 1.5              | 0.27               | 0.48                                                     | 0.53                  | 62                      | Y                      |
| Energlass w Grills                | 31            | 1.5              | 0.27               | 0.43                                                     | 0.47                  | 62                      | N                      |
| LoE/Argon-LSG                     | 21            | 1.5              | 0.26               | 0.24                                                     | 0.46                  | 62                      | N                      |
| LoE/Argon-LSG w Grills            | 20            | 1.5              | 0.26               | 0.21                                                     | 0.40                  | 62                      | N                      |
| Energlass-LSG                     | 21            | 1.5              | 0.26               | 0.24                                                     | 0.46                  | 64                      | N                      |
| Energlass-LSG w Grills            | 20            | 1.5              | 0.26               | 0.21                                                     | 0.40                  | 64                      | N                      |
| Triple Clear                      | 30            | 1.7              | 0.30               | 0.48                                                     | 0.50                  | 63                      | N                      |
| Triple w Grills                   | 27            | 1.7              | 0.30               | 0.43                                                     | 0.44                  | 63                      | N                      |
| Triple LoE/Argon x 1 LSG          | 25            | 1.3              | 0.22               | 0.22                                                     | 0.42                  | 73                      | N                      |
| Triple LoE/Argon x 1 LSG w Grills | 24            | 1.3              | 0.22               | 0.20                                                     | 0.37                  | 73                      | N                      |
| Energlass Plus Argon LSG          | 30            | 1.0              | 0.17               | 0.20                                                     | 0.35                  | 73                      | Y                      |
| Energlass Plus Argon LSG w Grills | 29            | 1.0              | 0.17               | 0.18                                                     | 0.31                  | 73                      | Y                      |
| Triple LoE/Argon x 1              | 25            | 1.3              | 0.22               | 0.22                                                     | 0.42                  | 73                      | N                      |
| Triple LoE/Argon x 1 w Grills     | 24            | 1.3              | 0.22               | 0.20                                                     | 0.37                  | 73                      | N                      |
| Energlass Plus Argon              | 41            | 1.0              | 0.18               | 0.41                                                     | 0.48                  | 73                      | Y                      |
| Energlass Plus Argon w Grills     | 39            | 1.0              | 0.18               | 0.37                                                     | 0.42                  | 73                      | Y                      |

| Tilt and Turn Picture Window      | Sizes Tested  |                  |                    | NAFS Ratings                             |                       |                         |                        |
|-----------------------------------|---------------|------------------|--------------------|------------------------------------------|-----------------------|-------------------------|------------------------|
|                                   | 60"x96"       |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-08: AW-PG70-FW |                       |                         |                        |
|                                   | 72"x72"       |                  |                    | AAMA/WDMA/CSA/I.S.2-/A440-08: CW-PG75-FW |                       |                         |                        |
|                                   |               |                  |                    |                                          |                       |                         |                        |
| Glass Options                     | Energy Rating | U-value (metric) | U-value (imperial) | Solar Heat Gain Coefficient              | Visible Transmittance | Condensation Resistance | Energy Star Zones 2020 |
| Clear                             | 21            | 2.5              | 0.44               | 0.63                                     | 0.66                  | 46                      | N                      |
| Clear w Grills                    | 18            | 2.5              | 0.44               | 0.57                                     | 0.59                  | 46                      | N                      |
| LoE/Argon                         | 38            | 1.6              | 0.28               | 0.57                                     | 0.64                  | 61                      | Y                      |
| LoE/Argon w Grills                | 34            | 1.6              | 0.28               | 0.51                                     | 0.57                  | 61                      | Y                      |
| Energlass                         | 39            | 1.5              | 0.3                | 0.6                                      | 0.64                  | 62                      | Y                      |
| Energlass w Grills                | 36            | 1.5              | 0.27               | 0.51                                     | 0.57                  | 62                      | Y                      |
| LoE/Argon-LSG                     | 23            | 1.5              | 0.26               | 0.28                                     | 0.55                  | 62                      | N                      |
| LoE/Argon-LSG w Grills            | 22            | 1.5              | 0.26               | 0.26                                     | 0.49                  | 62                      | N                      |
| Energlass-LSG                     | 25            | 1.4              | 0.25               | 0.28                                     | 0.55                  | 64                      | N                      |
| Energlass-LSG w Grills            | 24            | 1.4              | 0.25               | 0.26                                     | 0.49                  | 64                      | N                      |
| Triple Clear                      | 34            | 1.8              | 0.31               | 0.57                                     | 0.60                  | 63                      | Y                      |
| Triple w Grills                   | 31            | 1.8              | 0.31               | 0.52                                     | 0.54                  | 63                      | N                      |
| Triple LoE/Argon x 1 LSG          | 29            | 1.2              | 0.21               | 0.26                                     | 0.51                  | 73                      | Y                      |
| Triple LoE/Argon x 1 LSG w Grills | 27            | 1.2              | 0.21               | 0.24                                     | 0.45                  | 73                      | Y                      |
| Energlass Plus Argon LSG          | 34            | 0.9              | 0.15               | 0.23                                     | 0.42                  | 75                      | Y                      |
| Energlass Plus Argon LSG w Grills | 33            | 0.9              | 0.15               | 0.21                                     | 0.38                  | 75                      | Y                      |
| Triple LoE/Argon x 1              | 43            | 1.2              | 0.21               | 0.51                                     | 0.59                  | 72                      | Y                      |
| Triple LoE/Argon x 1 w Grills     | 40            | 1.2              | 0.21               | 0.46                                     | 0.53                  | 72                      | Y                      |
| Energlass Plus Argon              | 47            | 1.0              | 0.17               | 0.49                                     | 0.57                  | 74                      | Y                      |
| Energlass Plus Argon w Grills     | 44            | 1.0              | 0.17               | 0.45                                     | 0.51                  | 74                      | Y                      |