



**LiteZone® Passive House Performance Values  
For PHI Cold Climate Environmental Conditions (1)**

| <b>LiteZone® L0679 Insulating Glass Unit (IGU) Options</b> |                                       |   |                                  |                                  |                                  |
|--|---------------------------------------|---|----------------------------------|----------------------------------|----------------------------------|
|  | <b>Option 1<br/>PHI Certified (2)</b> | <b>Option 2<br/>To Be PHI Certified (3)</b> | <b>Option 3<br/>Low gain (4)</b> | <b>Option 4<br/>Low gain (4)</b> | <b>Option 5<br/>Low gain (4)</b> |
| LiteZone® insulating glass unit                            | L0679 PH Arctic ID942                 | L0679 PH Cold ID971                         | L0679-05E ID940                  | L0679-05E ID581                  | L0679-05E ID619                  |
| Exterior glass lite  | Clear 6 mm EnAdv OW                   | Clear 6 mm EnAdv OW                         | Clear 6 mm Solarban 70           | Clear 6 mm Solarban 70           | Clear 6 mm Solarban 70           |
| Gap #1   | 18.5 mm                               | 20 mm                                       | 20 mm                            | 20 mm                            | 20 mm                            |
| Layer #2   | EnAdv 3 mm glass                      | Uncoated film                               | HM88 film                        | HM77 Film                        | HM77 Film                        |
| Gap #2   | 17 mm                                 | 20 mm                                       | 20 mm                            | 20 mm                            | 20 mm                            |
| Layer #3   | EnAdv 3 mm glass                      | Uncoated film                               | HM88 film                        | HM88 film                        | HM77 Film                        |
| Gap #3   | 17 mm                                 | 20 mm                                       | 20 mm                            | 20 mm                            | 20 mm                            |
| Layer #4   | EnAdv 3 mm glass                      | Uncoated film                               | HM88 film                        | HM88 film                        | HM88 film                        |
| Gap #4   | 17 mm                                 | 20 mm                                       | 20 mm                            | 20 mm                            | 20 mm                            |
| Layer #5   | EnAdv 3 mm glass                      | HM88 film                                   | HM88 film                        | HM88 film                        | HM88 film                        |
| Gap #5   | 18.5 mm                               | 20 mm                                       | 20 mm                            | 20 mm                            | 20 mm                            |
| Interior glass lite  | Clear 6 mm EnAdv OW                   | Clear 6 mm EnAdv OW                         | Clear 6 mm Uncoated              | Clear 6 mm Uncoated              | Clear 6 mm Uncoated              |
| Number of layers   | 6                                     | 6   | 6                                | 6                                | 6                                |
| Number of low-e coats                                      | 6                                     | 3   | 5                                | 5                                | 5                                |
| Fill   | air                                   | air   | air                              | air                              | air                              |
| Ug - centre of glass U-value [W/m <sup>2</sup> K]          | 0.396                                 | 0.497                                       | 0.328                            | 0.318                            | 0.308                            |
| G - solar heat gain coefficient (SHGC)                     | 0.420                                 | 0.413                                       | 0.188                            | 0.171                            | 0.157                            |
| Shading coefficient  | 0.471                                 | 0.475                                       | 0.216                            | 0.197                            | 0.181                            |
| Tvis - visible light transmission (VLT)                    | 39.7%                                 | 45.5%                                       | 39.1%                            | 35.6%                            | 32.6%                            |
| G/Ug - passive house efficiency                            | 1.061                                 | 0.831                                       | 0.573                            | 0.538                            | 0.510                            |
| Glass unit thickness                                       | 111.4 mm (4.39")                      | 111.4 mm (4.39")                            | 111.4 mm (4.39")                 | 111.4 mm (4.39")                 | 111.4 mm (4.39")                 |
| Expected life of glass unit                                | >60 years                             | >60 years                                   | >60 years                        | >60 years                        | >60 years                        |

| <b>LiteZone® L0679 PH FRAMELESS™ fixed window - PHI certified for the cold climate zone</b> |                 |                 |                 |                 |                 |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
|   | <b>Option 1</b> | <b>Option 2</b> | <b>Option 3</b> | <b>Option 4</b> | <b>Option 5</b> |
| Ug - centre of glass U-value [W/m <sup>2</sup> K]   | 0.396           | 0.497           | 0.328           | 0.318           | 0.308           |
| Uf - frame U-value [W/m <sup>2</sup> K]   | 0.340           | 0.340           | 0.340           | 0.340           | 0.340           |
| Psi - glazing edge [W/mK]   | 0.034           | 0.034           | 0.034           | 0.034           | 0.034           |
| Frame width   | 33 mm           | 33 mm           | 33 mm           | 33 mm           | 33 mm           |
| Uw - window U-value [W/m <sup>2</sup> K] - size 1.230 m x 1.480 m                           | 0.491           | 0.578           | 0.425           | 0.416           | 0.407           |
| Uw - window U-value [W/m <sup>2</sup> K] - size 1.500 m x 2.500 m                           | 0.467           | 0.557           | 0.400           | 0.391           | 0.381           |
| Uw - window U-value [W/m <sup>2</sup> K] - size 1.829 m x 3.048 m                           | 0.454           | 0.546           | 0.387           | 0.377           | 0.368           |

**Note 1.** The performance values above have been derived using Window 7.8 and Therm 7.8 software from Lawrence Berkeley National Laboratory, Berkeley, CA, and are based on the Passive House Institute's (PHI) cold climate zone environmental conditions in a PHI certified LiteZone® L0679 PH FRAMELESS™ fixed window for the indicated dimensions.

**Note 2.** Option 1 - "LiteZone® L0679 PH Arctic" IGU ID942 is PHI certified for the cold climate zone.

**Note 3.** Option 2 - "LiteZone® L0679 PH Cold" IGU ID971 meets the requirements for and will be PHI certified for the cold climate zone.

**Note 4.** Options 3 to 5 are for low solar gain IGUs that are not PHI certified.