

POINT FIVE WINDOWS

Draft and Condensation Control Using Forced Air Window Wash Vs. Heated Glass

Forced air design criteria Reference: ARSHAE 2005 Fundamentals handbook, chapter 33
Install floor supply air outlets 6 inches from wall, Discharge air vertically
Air velocity of 150 feet per minute 7 feet above floor

A typical outlet such as a Titus CT-PP-0 bar grille has performance characteristics of:

| | | | |
|-------------------|--------------------|-------------------|----------------------|
| Air outlet depth: | 2 inches | Air outlet width: | 48 inches |
| Throw @ 150fpm | 7 feet | Flow Rate: | 200 cubic Ft./Minute |
| Pressure Drop: | 0.053 inches water | Flow Rate/ LF: | 50CFM/LF |

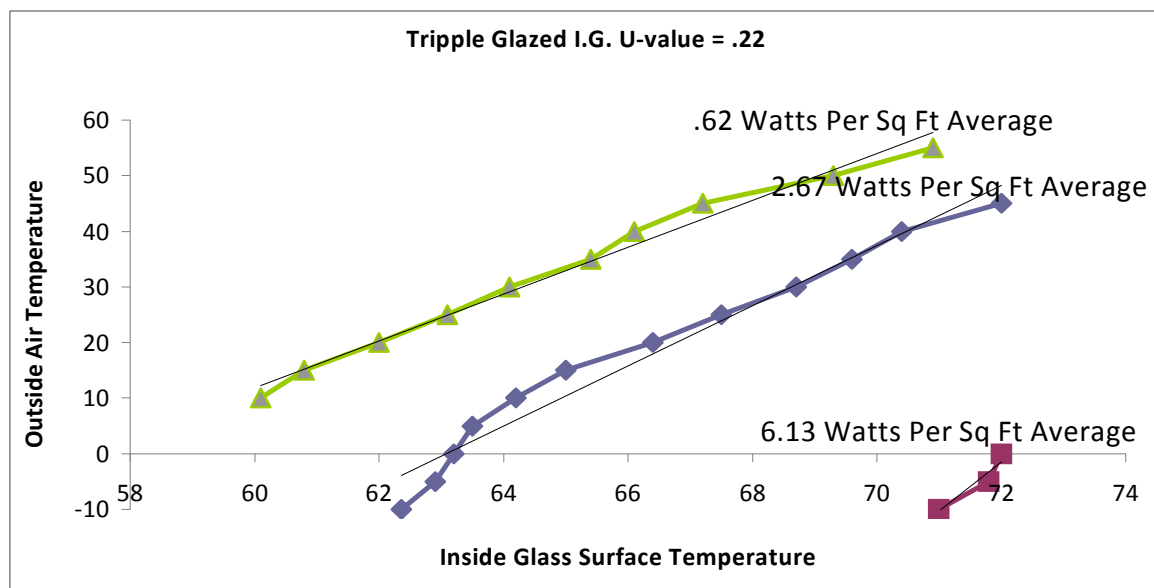
A typical blower motor such as a First Co. Fan Coil MB has performance data of:

| | | | |
|--------------|---------------|------------------------|--------------|
| Air Supply: | 1770 CFM | External Static Press: | 0.5 IN Water |
| Motor: | 0.75 HP | Amps: | 10.5 Amps |
| Voltage: | 120 Volts | KW Demand: | 1.26 KW |
| KW/LF Glass: | 0.03559 KW/LF | Watts/LF | 35.5932 W/LF |

| | | |
|-----------------------------------|--------|------------------|
| A standard 6 feet of glass height | Watts= | 5.9322 / Sq. Ft. |
|-----------------------------------|--------|------------------|

As glass height above the floor increases, so does the CFM/HP requirements and subsequent Watts/Sq. Ft.

The energy cost for **higher comfort levels and zero condensation through heated glass** with Dual glaze and triple glaze units for various interior glass surface temperatures is charted below:



This page is offered for reference only. The cost of energy used to heat the radiant glass is valid only for Point Five Windows radiant glass systems with the U-value shown.

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