Architectural Testing

NFRC U-FACTOR, SHGC, VT, & CONDENSATION RESISTANCE COMPUTER SIMULATION REPORT

Rendered to:
UNITED STATES ALUMINUM

SERIES/MODEL:
HP3253 Curtain Wall

Baseline Product for Validation Testing	
Simulated Thermal Transmittance (U-Factor)	**0.215**
Unit Size:	78.75 inches wide by 78.75 inches high
Glazing Layer 1:	1/4" Cardinal E272 (e=0.042,#2)
Gap 1:	0.520 inch Coated Steel Spacer (CS-D) - 95% Krypton Fill
Glazing Layer 2:	1/4" Cardinal E272 (e=0.042,#4)
Gap 2:	0.75 inch Coated Steel Spacer (CS-D) - 95% Krypton Fill
Glazing Layer 3:	1/4" Clear
Notes:	PT305 Frame was used for Horizontal Frame Members

Report Number: **92668.03-116-45**
Report Date: **08/27/10**
Expiration Date: **07/21/14**

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COMPUTER SIMULATION REPORT

Rendered to:
UNITED STATES ALUMINUM
200 Singleton Drive
Waxahachie, TX 75165

Report Number:	92668.03-116-45
Simulation Date:	07/21/10
Report Date:	08/27/10
Expiration Date:	07/21/14

Project Summary:
Architectural Testing, Inc. was contracted to perform U-Factor, Solar Heat Gain Coefficient, Visible Transmittance, and Condensation Resistance* computer simulations in accordance with the National Fenestration Rating Council (NFRC). The products were evaluated in full compliance with NFRC requirements to the standards listed below.

**NFRC's Condensation Resistance rating is NOT equivalent to a Condensation Resistance Factor (CRF) determined in accordance with AAMA 1503.*

Standards:

NFRC 100-2010:	*Procedure for Determining Fenestration Product U-Factors*
NFRC 200-2010:	*Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*
NFRC 500-2010:	*Procedure for Determining Fenestration Product Condensation Resistance Values*

Software:

Frame and Edge Modeling:	THERM 5.2.14
Center-of-Glass Modeling:	WINDOW 5.2.17
Total Product Calculations:	WINDOW 5.2.17
Spectral Data Library:	17.4

Simulations Specimen Description:

Series/Model:	HP3253 Curtain Wall
Type:	Glazed Wall System , Curtain Wall
Frame Material:	AT Aluminum w/ Thermal Breaks - All Members
Sash Material:	NA Not Applicable
Standard Size:	2000mm x 2000mm

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Technical Interpretations:

None

Modeling Assumptions:

1) To prevent air infiltration, tape was applied to all interior sash crack locations.
2) The conductivity of the fastener MS222 was calculated using Equation 1 in THERM5.2/Window5.2 NFRC Simulation Manual Section 8.9.4
3) The PT325 Horizontal Mullion and PT305 are frame groupable according to NFRC 100-2010, Section 4.2.1.J.iv. PT325 was the group leader.
4) Product was simulated as fully debridged

Specialty Products Table:

The specialty products method allow the manufacturer to determine the overall product SHGC and VT for any glazing option. The center of glass SHGC and/or VT must be determined using WINDOW 5.2. The method gives overall product SHGC and VT indexed on center of glass properties. All values used in the calculations are truncated to six decimal place precision.

	No Dividers	Dividers < 1	Dividers > 1
SHGC0	0.006152	0.009595	0.012824
SHGC1	0.907243	0.805434	0.709945
VT0	0.000000	0.000000	0.000000
VT1	0.901090	0.795839	0.697120

SHGC = SHGC0 + SHGCc (SHGC1 - SHGC0)

VT = VT0 + VTc (VT1 - VT0)

Validation Matrix:

The following products are part of a validation matrix. Only one is required for validation

Product Line	*Report Number*
None	-

Spacer Option Description

	Sealant		
Spacer Type	*Primary*	*Secondary*	*Desiccant*
Aluminum Spacer	Butyl Rubber	Butyl Rubber	Yes
Intercept Spacer	Butyl Rubber	Butyl Rubber	Yes
Super Spacer	Butyl Rubber	None	No
Stainless Steel Spacer	PIB	Silicone	Yes
Steel Spacer	PIB	Silicone	Yes

Grid Option Description

Grid Size	*Grid Type*	*Grid Pattern*
None	-	-

Reinforcement Option Description

Location	*Material*
None	-

Gas Filling Technique Description

Fill Type	*Method*
90% Krypton	Two-Probe with Concentration Sensor
90% Argon	Single Probe Timed
95% Krypton	Evacuated Chamber

Edge-of-Glass Construction

Interior Condition	EPDM Gasket
Exterior Condition	EPDM Gasket

Weatherstripping

Type	*Quantity*	*Location*
None	-	-

Frame/Sash Materials Finish

Interior	Painted Aluminum
Exterior	Painted Aluminum

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
1	CLR/ARG/CLR/ARG/CLR											
	0.225	0.625	0.225	0.625	0.225			ARG90		CL	OF-S	N
	U-Factor	0.32		SHGC (N)	0.56				VT (N)	0.63	CR	63
2	SB70ST/ARG/SB70ST/ARG/CLR											
	0.223	0.625	0.223	0.625	0.223			ARG90	0.018(#2) / 0.018(#3)	CL	OF-S	N
	U-Factor	0.23		SHGC (N)	0.22				VT (N)	0.42	CR	69
3	SB70ST/ARG/SB70ST/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.018(#2) / 0.018(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.20				VT (N)	0.42	CR	75
4	CLR/AIR/CLR/AIR/CLR											
	0.225	0.625	0.225	0.625	0.225			AIR		CL	A1-D	N
	U-Factor	0.37		SHGC (N)	0.56				VT (N)	0.63	CR	52
5	CLR/ARG/CLR/ARG/CLR											
	0.225	0.625	0.225	0.625	0.225			ARG90		CL	A1-D	N
	U-Factor	0.36		SHGC (N)	0.56				VT (N)	0.63	CR	54
6	CLR/KRY/CLR/KRY/CLR											
	0.225	0.625	0.225	0.625	0.225			KRY90		CL	A1-D	N
	U-Factor	0.35		SHGC (N)	0.56				VT (N)	0.63	CR	54
7	SB60/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	CL	A1-D	N
	U-Factor	0.25		SHGC (N)	0.28				VT (N)	0.50	CR	60
	SB60/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	CL	A1-D	N
	U-Factor	0.25		SHGC (N)	0.30				VT (N)	0.50	CR	60

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/AIR/SB60/AIR/SB60											
	0.225	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	CL	A1-D	N
	U-Factor	0.25		SHGC (N)				0.33	VT (N)	0.50	CR	60
8	SB60/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	CL	A1-D	N
	U-Factor	0.22		SHGC (N)				0.28	VT (N)	0.50	CR	61
	SB60/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	CL	A1-D	N
	U-Factor	0.22		SHGC (N)				0.29	VT (N)	0.50	CR	61
	CLR/ARG/SB60/ARG/SB60											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	CL	A1-D	N
	U-Factor	0.22		SHGC (N)				0.33	VT (N)	0.50	CR	61
9	SB60/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	CL	A1-D	N
	U-Factor	0.22		SHGC (N)				0.28	VT (N)	0.50	CR	62
	SB60/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	CL	A1-D	N
	U-Factor	0.22		SHGC (N)				0.30	VT (N)	0.50	CR	62
	CLR/KRY/SB60/KRY/SB60											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	CL	A1-D	N
	U-Factor	0.22		SHGC (N)				0.33	VT (N)	0.50	CR	62
10	SB60ATL/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	GR	A1-D	N
	U-Factor	0.25		SHGC (N)				0.20	VT (N)	0.38	CR	60
	SB60ATL/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	GR	A1-D	N
	U-Factor	0.25		SHGC (N)				0.21	VT (N)	0.38	CR	60
	ATL/AIR/SB60/AIR/SB60											
	0.223	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	GR	A1-D	N
	U-Factor	0.25		SHGC (N)				0.23	VT (N)	0.38	CR	60

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
11	SB60ATL/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	GR	A1-D	N
	U-Factor 0.22			SHGC (N) 0.19					VT (N) 0.38		CR 61	
	SB60ATL/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	GR	A1-D	N
	U-Factor 0.22			SHGC (N) 0.20					VT (N) 0.38		CR 61	
	ATL/ARG/SB60/ARG/SB60											
	0.223	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	GR	A1-D	N
	U-Factor 0.22			SHGC (N) 0.22					VT (N) 0.38		CR 61	
12	SB60ATL/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	GR	A1-D	N
	U-Factor 0.22			SHGC (N) 0.19					VT (N) 0.38		CR 62	
	SB60ATL/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	GR	A1-D	N
	U-Factor 0.22			SHGC (N) 0.20					VT (N) 0.38		CR 62	
	ATL/KRY/SB60/KRY/SB60											
	0.223	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	GR	A1-D	N
	U-Factor 0.22			SHGC (N) 0.22					VT (N) 0.38		CR 62	
13	SB70ST/AIR/SB70ST/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.018(#2) / 0.018(#4)	CL	A1-D	N
	U-Factor 0.24			SHGC (N) 0.20					VT (N) 0.42		CR 60	
	SB70ST/AIR/CLR/AIR/SB70ST											
	0.223	0.625	0.225	0.625	0.223			AIR	0.018(#2) / 0.018(#5)	CL	A1-D	N
	U-Factor 0.24			SHGC (N) 0.22					VT (N) 0.42		CR 60	
	CLR/AIR/SB70ST/AIR/SB70ST											
	0.225	0.625	0.223	0.625	0.223			AIR	0.018(#3) / 0.018(#5)	CL	A1-D	N
	U-Factor 0.24			SHGC (N) 0.27					VT (N) 0.42		CR 60	
14	SB70ST/ARG/SB70ST/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.018(#2) / 0.018(#4)	CL	A1-D	N
	U-Factor 0.22			SHGC (N) 0.20					VT (N) 0.42		CR 61	

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	SB70ST/ARG/CLR/ARG/SB70ST											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.018(#2) / 0.018(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.22**	**VT (N)**	**0.42**	**CR**	**61**
	CLR/ARG/SB70ST/ARG/SB70ST											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.018(#3) / 0.018(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.27**	**VT (N)**	**0.42**	**CR**	**61**
15	SB70ST/KRY/SB70ST/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.018(#2) / 0.018(#4)	CL	A1-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.20**	**VT (N)**	**0.42**	**CR**	**62**
	SB70ST/KRY/CLR/KRY/SB70ST											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.018(#2) / 0.018(#5)	CL	A1-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.22**	**VT (N)**	**0.42**	**CR**	**62**
	CLR/KRY/SB70ST/KRY/SB70ST											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.018(#3) / 0.018(#5)	CL	A1-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.27**	**VT (N)**	**0.42**	**CR**	**62**
16	SB80/AIR/SB80/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.024(#2) / 0.024(#4)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.14**	**VT (N)**	**0.25**	**CR**	**60**
	SB80/AIR/CLR/AIR/SB80											
	0.223	0.625	0.225	0.625	0.223			AIR	0.024(#2) / 0.024(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.16**	**VT (N)**	**0.25**	**CR**	**60**
	CLR/AIR/SB80/AIR/SB80											
	0.225	0.625	0.223	0.625	0.223			AIR	0.024(#3) / 0.024(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.19**	**VT (N)**	**0.25**	**CR**	**60**
17	SB80/ARG/SB80/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.024(#2) / 0.024(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.14**	**VT (N)**	**0.25**	**CR**	**61**
	SB80/ARG/CLR/ARG/SB80											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.024(#2) / 0.024(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.15**	**VT (N)**	**0.25**	**CR**	**61**

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/ARG/SB80/ARG/SB80											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.024(#3) / 0.024(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.19**				**VT (N)**	**0.25**	**CR**	**61**
18	SB80/KRY/SB80/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.024(#2) / 0.024(#4)	CL	A1-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.14**				**VT (N)**	**0.25**	**CR**	**62**
	SB80/KRY/CLR/KRY/SB80											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.024(#2) / 0.024(#5)	CL	A1-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.15**				**VT (N)**	**0.25**	**CR**	**62**
	CLR/KRY/SB80/KRY/SB80											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.024(#3) / 0.024(#5)	CL	A1-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.19**				**VT (N)**	**0.25**	**CR**	**62**
19	E270/AIR/E270/AIR/CLR											
	0.236	0.625	0.236	0.625	0.225			AIR	0.037(#2) / 0.037(#4)	CL	A1-D	N
	U-Factor	**0.25**		**SHGC (N)**	**0.25**				**VT (N)**	**0.46**	**CR**	**60**
	E270/AIR/CLR/AIR/E270											
	0.236	0.625	0.225	0.625	0.236			AIR	0.037(#2) / 0.037(#5)	CL	A1-D	N
	U-Factor	**0.25**		**SHGC (N)**	**0.27**				**VT (N)**	**0.46**	**CR**	**60**
	CLR/AIR/E270/AIR/E270											
	0.225	0.625	0.236	0.625	0.236			AIR	0.037(#3) / 0.037(#5)	CL	A1-D	N
	U-Factor	**0.25**		**SHGC (N)**	**0.32**				**VT (N)**	**0.46**	**CR**	**60**
20	E270/ARG/E270/ARG/CLR											
	0.236	0.625	0.236	0.625	0.225			ARG90	0.037(#2) / 0.037(#4)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.25**				**VT (N)**	**0.46**	**CR**	**61**
	E270/ARG/CLR/ARG/E270											
	0.236	0.625	0.225	0.625	0.236			ARG90	0.037(#2) / 0.037(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.27**				**VT (N)**	**0.46**	**CR**	**61**
	CLR/ARG/E270/ARG/E270											
	0.225	0.625	0.236	0.625	0.236			ARG90	0.037(#3) / 0.037(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.32**				**VT (N)**	**0.46**	**CR**	**61**

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
21	E270/KRY/E270/KRY/CLR											
	0.236	0.625	0.236	0.625	0.225			KRY90	0.037(#2) / 0.037(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.26**	**VT (N)**	**0.46**	**CR**	**62**
	E270/KRY/CLR/KRY/E270											
	0.236	0.625	0.225	0.625	0.236			KRY90	0.037(#2) / 0.037(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.28**	**VT (N)**	**0.46**	**CR**	**62**
	CLR/KRY/E270/KRY/E270											
	0.225	0.625	0.236	0.625	0.236			KRY90	0.037(#3) / 0.037(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.32**	**VT (N)**	**0.46**	**CR**	**62**
22	E272/AIR/E270/AIR/CLR											
	0.224	0.625	0.236	0.625	0.225			AIR	0.042(#2) / 0.037(#4)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**60**
	E272/AIR/CLR/AIR/E270											
	0.224	0.625	0.225	0.625	0.236			AIR	0.042(#2) / 0.037(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**60**
23	E272/ARG/E270/ARG/CLR											
	0.224	0.625	0.236	0.625	0.225			ARG90	0.042(#2) / 0.037(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**61**
	E272/ARG/CLR/ARG/E270											
	0.224	0.625	0.225	0.625	0.236			ARG90	0.042(#2) / 0.037(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**61**
24	E272/KRY/E270/KRY/CLR											
	0.224	0.625	0.236	0.625	0.225			KRY90	0.042(#2) / 0.037(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**62**
	E272/KRY/CLR/KRY/E270											
	0.224	0.625	0.225	0.625	0.236			KRY90	0.042(#2) / 0.037(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**62**
25	CLR/AIR/E272/AIR/E272											
	0.225	0.625	0.224	0.625	0.224			AIR	0.042(#3) / 0.042(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**60**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
26	CLR/ARG/E272/ARG/E272											
	0.225	0.625	0.224	0.625	0.224			ARG90	0.042(#3) / 0.042(#5)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.35**		**VT (N)**	**0.49**	**CR**	**61**
27	CLR/KRY/E272/KRY/E272											
	0.225	0.625	0.224	0.625	0.224			KRY90	0.042(#3) / 0.042(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.35**		**VT (N)**	**0.49**	**CR**	**62**
28	VE12M/AIR/VE185/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.088(#4)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**59**
	VE12M/AIR/CLR/AIR/VE185											
	0.223	0.625	0.225	0.625	0.223			AIR	0.040(#2) / 0.088(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**59**
	CLR/AIR/VE12M/AIR/VE185											
	0.225	0.625	0.223	0.625	0.223			AIR	0.040(#3) / 0.088(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**			**0.35**		**VT (N)**	**0.54**	**CR**	**59**
29	VE12M/ARG/VE185/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.088(#4)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**61**
	VE12M/ARG/CLR/ARG/VE185											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.040(#2) / 0.088(#5)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**61**
	CLR/ARG/VE12M/ARG/VE185											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.040(#3) / 0.088(#5)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.35**		**VT (N)**	**0.54**	**CR**	**61**
30	VE12M/KRY/VE185/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.040(#2) / 0.088(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**62**
	VE12M/KRY/CLR/KRY/VE185											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.040(#2) / 0.088(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**62**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/KRY/VE12M/KRY/VE185											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.040(#3) / 0.088(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.35**				**VT (N)**	**0.54**	**CR**	**62**
31	TIAC36/AIR/TIAC36/AIR/CLR											
	0.222	0.625	0.222	0.625	0.225			AIR	0.034(#2) / 0.034(#4)	CL	A1-D	N
	U-Factor	**0.25**		**SHGC (N)**	**0.25**				**VT (N)**	**0.43**	**CR**	**60**
	TIAC36/AIR/CLR/AIR/TIAC36											
	0.222	0.625	0.225	0.625	0.222			AIR	0.034(#2) / 0.034(#5)	CL	A1-D	N
	U-Factor	**0.25**		**SHGC (N)**	**0.27**				**VT (N)**	**0.43**	**CR**	**60**
	CLR/AIR/TIAC36/AIR/TIAC36											
	0.225	0.625	0.222	0.625	0.222			AIR	0.034(#3) / 0.034(#5)	CL	A1-D	N
	U-Factor	**0.25**		**SHGC (N)**	**0.32**				**VT (N)**	**0.43**	**CR**	**60**
32	TIAC36/ARG/TIAC36/ARG/CLR											
	0.222	0.625	0.222	0.625	0.225			ARG90	0.034(#2) / 0.034(#4)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.25**				**VT (N)**	**0.43**	**CR**	**61**
	TIAC36/ARG/CLR/ARG/TIAC36											
	0.222	0.625	0.225	0.625	0.222			ARG90	0.034(#2) / 0.034(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.27**				**VT (N)**	**0.43**	**CR**	**61**
	CLR/ARG/TIAC36/ARG/TIAC36											
	0.225	0.625	0.222	0.625	0.222			ARG90	0.034(#3) / 0.034(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.32**				**VT (N)**	**0.43**	**CR**	**61**
33	TIAC36/KRY/TIAC36/KRY/CLR											
	0.222	0.625	0.222	0.625	0.225			KRY90	0.034(#2) / 0.034(#4)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.25**				**VT (N)**	**0.43**	**CR**	**62**
	TIAC36/KRY/CLR/KRY/TIAC36											
	0.222	0.625	0.225	0.625	0.222			KRY90	0.034(#2) / 0.034(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.27**				**VT (N)**	**0.43**	**CR**	**62**
	CLR/KRY/TIAC36/KRY/TIAC36											
	0.225	0.625	0.222	0.625	0.222			KRY90	0.034(#3) / 0.034(#5)	CL	A1-D	N
	U-Factor	**0.22**		**SHGC (N)**	**0.32**				**VT (N)**	**0.43**	**CR**	**62**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
34	TIAC23/AIR/TIAC23/AIR/CLR											
	0.228	0.625	0.228	0.625	0.225			AIR	0.041(#2) / 0.041(#4)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.14**	**VT (N)**	**0.15**	**CR**	**60**
	TIAC23/AIR/CLR/AIR/TIAC23											
	0.228	0.625	0.225	0.625	0.228			AIR	0.041(#2) / 0.041(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.17**	**VT (N)**	**0.15**	**CR**	**60**
	CLR/AIR/TIAC23/AIR/TIAC23											
	0.225	0.625	0.228	0.625	0.228			AIR	0.041(#3) / 0.041(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.29**	**VT (N)**	**0.15**	**CR**	**60**
35	TIAC23/ARG/TIAC23/ARG/CLR											
	0.228	0.625	0.228	0.625	0.225			ARG90	0.041(#2) / 0.041(#4)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.14**	**VT (N)**	**0.15**	**CR**	**61**
	TIAC23/ARG/CLR/ARG/TIAC23											
	0.228	0.625	0.225	0.625	0.228			ARG90	0.041(#2) / 0.041(#5)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.17**	**VT (N)**	**0.15**	**CR**	**61**
	CLR/ARG/TIAC23/ARG/TIAC23											
	0.225	0.625	0.228	0.625	0.228			ARG90	0.041(#3) / 0.041(#5)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.29**	**VT (N)**	**0.15**	**CR**	**61**
36	TIAC23/KRY/TIAC23/KRY/CLR											
	0.228	0.625	0.228	0.625	0.225			KRY90	0.041(#2) / 0.041(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.14**	**VT (N)**	**0.15**	**CR**	**62**
	TIAC23/KRY/CLR/KRY/TIAC23											
	0.228	0.625	0.225	0.625	0.228			KRY90	0.041(#2) / 0.041(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.17**	**VT (N)**	**0.15**	**CR**	**62**
	CLR/KRY/TIAC23/KRY/TIAC23											
	0.225	0.625	0.228	0.625	0.228			KRY90	0.041(#3) / 0.041(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.29**	**VT (N)**	**0.15**	**CR**	**62**
37	CG7138/AIR/CG7138/AIR/CLR											
	0.221	0.625	0.221	0.625	0.225			AIR	0.027(#2) / 0.027(#4)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**60**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CG7138/AIR/CLR/AIR/CG7138											
	0.221	0.625	0.225	0.625	0.221			AIR	0.027(#2) / 0.027(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**60**
	CLR/AIR/CG7138/AIR/CG7138											
	0.225	0.625	0.221	0.625	0.221			AIR	0.027(#3) / 0.027(#5)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.34**	**VT (N)**	**0.48**	**CR**	**60**
38	CG7138/ARG/CG7138/ARG/CLR											
	0.221	0.625	0.221	0.625	0.225			ARG90	0.027(#2) / 0.027(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**61**
	CG7138/ARG/CLR/ARG/CG7138											
	0.221	0.625	0.225	0.625	0.221			ARG90	0.027(#2) / 0.027(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**61**
	CLR/ARG/CG7138/ARG/CG7138											
	0.225	0.625	0.221	0.625	0.221			ARG90	0.027(#3) / 0.027(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.34**	**VT (N)**	**0.48**	**CR**	**61**
39	CG7138/KRY/CG7138/KRY/CLR											
	0.221	0.625	0.221	0.625	0.225			KRY90	0.027(#2) / 0.027(#4)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**62**
	CG7138/KRY/CLR/KRY/CG7138											
	0.221	0.625	0.225	0.625	0.221			KRY90	0.027(#2) / 0.027(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**62**
	CLR/KRY/CG7138/KRY/CG7138											
	0.225	0.625	0.221	0.625	0.221			KRY90	0.027(#3) / 0.027(#5)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.34**	**VT (N)**	**0.48**	**CR**	**62**
40	VE12M/AIR/VE12M/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.040(#4)	CL	A1-D	N
	U-Factor		**0.25**	**SHGC (N)**				**0.27**	**VT (N)**	**0.50**	**CR**	**60**
41	VE12M/ARG/VE12M/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.040(#4)	CL	A1-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.27**	**VT (N)**	**0.50**	**CR**	**61**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
42	CG7138/AIR/HMTC88/AIR/HMTC88/AIR/CLR											
	0.221	0.500	0.003	0.500	0.003	0.500	0.225	AIR	0.027(#2) / 0.127(#3) / 0.109(#4) / 0.127(#5) / 0.109(#6)	CL	A1-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.26**	**VT (N)**	**0.39**	**CR**	**62**
43	CG7138/ARG/HMTC88/ARG/HMTC88/ARG/CLR											
	0.221	0.500	0.003	0.500	0.003	0.500	0.225	ARG90	0.027(#2) / 0.127(#3) / 0.109(#4) / 0.127(#5) / 0.109(#6)	CL	A1-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.26**	**VT (N)**	**0.39**	**CR**	**63**
44	CG7138/KRY/HMTC88/KRY/HMTC88/KRY/CLR											
	0.221	0.500	0.003	0.500	0.003	0.500	0.225	KRY90	0.027(#2) / 0.127(#3) / 0.109(#4) / 0.127(#5) / 0.109(#6)	CL	A1-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.26**	**VT (N)**	**0.39**	**CR**	**64**
45	CLR/AIR/CLR/AIR/CLR											
	0.225	0.625	0.225	0.625	0.225			AIR		CL	CU-D	N
	U-Factor		**0.36**	**SHGC (N)**				**0.56**	**VT (N)**	**0.63**	**CR**	**57**
46	CLR/ARG/CLR/ARG/CLR											
	0.225	0.625	0.225	0.625	0.225			ARG90		CL	CU-D	N
	U-Factor		**0.34**	**SHGC (N)**				**0.56**	**VT (N)**	**0.63**	**CR**	**59**
47	CLR/KRY/CLR/KRY/CLR											
	0.225	0.625	0.225	0.625	0.225			KRY90		CL	CU-D	N
	U-Factor		**0.34**	**SHGC (N)**				**0.56**	**VT (N)**	**0.63**	**CR**	**59**
48	SB60/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**67**
	SB60/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.30**	**VT (N)**	**0.50**	**CR**	**67**
	CLR/AIR/SB60/AIR/SB60											
	0.225	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.33**	**VT (N)**	**0.50**	**CR**	**67**
49	SB60/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**69**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	SB60/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	CL	CU-D	N
	U-Factor 0.20			SHGC (N) 0.29					VT (N) 0.50		CR 69	
	CLR/ARG/SB60/ARG/SB60											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	CL	CU-D	N
	U-Factor 0.20			SHGC (N) 0.33					VT (N) 0.50		CR 69	
50	SB60/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.28					VT (N) 0.50		CR 71	
	SB60/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.30					VT (N) 0.50		CR 71	
	CLR/KRY/SB60/KRY/SB60											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.33					VT (N) 0.50		CR 71	
51	SB60ATL/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	GR	CU-D	N
	U-Factor 0.23			SHGC (N) 0.20					VT (N) 0.38		CR 67	
	SB60ATL/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	GR	CU-D	N
	U-Factor 0.23			SHGC (N) 0.21					VT (N) 0.38		CR 67	
	ATL/AIR/SB60/AIR/SB60											
	0.223	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	GR	CU-D	N
	U-Factor 0.23			SHGC (N) 0.23					VT (N) 0.38		CR 67	
52	SB60ATL/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	GR	CU-D	N
	U-Factor 0.20			SHGC (N) 0.19					VT (N) 0.38		CR 69	
	SB60ATL/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	GR	CU-D	N
	U-Factor 0.20			SHGC (N) 0.20					VT (N) 0.38		CR 69	

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	ATL/ARG/SB60/ARG/SB60											
	0.223	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	GR	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.22**		**VT (N)**	**0.38**	**CR**	**69**
53	SB60ATL/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	GR	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**			**0.19**		**VT (N)**	**0.38**	**CR**	**71**
	SB60ATL/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	GR	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**			**0.20**		**VT (N)**	**0.38**	**CR**	**71**
	ATL/KRY/SB60/KRY/SB60											
	0.223	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	GR	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**			**0.22**		**VT (N)**	**0.38**	**CR**	**71**
54	SB70ST/AIR/SB70ST/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.018(#2) / 0.018(#4)	CL	CU-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.20**		**VT (N)**	**0.42**	**CR**	**67**
	SB70ST/AIR/CLR/AIR/SB70ST											
	0.223	0.625	0.225	0.625	0.223			AIR	0.018(#2) / 0.018(#5)	CL	CU-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.22**		**VT (N)**	**0.42**	**CR**	**67**
	CLR/AIR/SB70ST/AIR/SB70ST											
	0.225	0.625	0.223	0.625	0.223			AIR	0.018(#3) / 0.018(#5)	CL	CU-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.27**		**VT (N)**	**0.42**	**CR**	**67**
55	SB70ST/ARG/SB70ST/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.018(#2) / 0.018(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.20**		**VT (N)**	**0.42**	**CR**	**70**
	SB70ST/ARG/CLR/ARG/SB70ST											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.018(#2) / 0.018(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.22**		**VT (N)**	**0.42**	**CR**	**70**
	CLR/ARG/SB70ST/ARG/SB70ST											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.018(#3) / 0.018(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.27**		**VT (N)**	**0.42**	**CR**	**70**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
56	SB70ST/KRY/SB70ST/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.018(#2) / 0.018(#4)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.20					VT (N) 0.42		CR 71	
	SB70ST/KRY/CLR/KRY/SB70ST											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.018(#2) / 0.018(#5)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.22					VT (N) 0.42		CR 71	
	CLR/KRY/SB70ST/KRY/SB70ST											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.018(#3) / 0.018(#5)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.27					VT (N) 0.42		CR 71	
57	SB80/AIR/SB80/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.024(#2) / 0.024(#4)	CL	CU-D	N
	U-Factor 0.22			SHGC (N) 0.14					VT (N) 0.25		CR 67	
	SB80/AIR/CLR/AIR/SB80											
	0.223	0.625	0.225	0.625	0.223			AIR	0.024(#2) / 0.024(#5)	CL	CU-D	N
	U-Factor 0.22			SHGC (N) 0.16					VT (N) 0.25		CR 67	
	CLR/AIR/SB80/AIR/SB80											
	0.225	0.625	0.223	0.625	0.223			AIR	0.024(#3) / 0.024(#5)	CL	CU-D	N
	U-Factor 0.22			SHGC (N) 0.19					VT (N) 0.25		CR 67	
58	SB80/ARG/SB80/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.024(#2) / 0.024(#4)	CL	CU-D	N
	U-Factor 0.20			SHGC (N) 0.14					VT (N) 0.25		CR 70	
	SB80/ARG/CLR/ARG/SB80											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.024(#2) / 0.024(#5)	CL	CU-D	N
	U-Factor 0.20			SHGC (N) 0.15					VT (N) 0.25		CR 70	
	CLR/ARG/SB80/ARG/SB80											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.024(#3) / 0.024(#5)	CL	CU-D	N
	U-Factor 0.20			SHGC (N) 0.19					VT (N) 0.25		CR 70	
59	SB80/KRY/SB80/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.024(#2) / 0.024(#4)	CL	CU-D	N
	U-Factor 0.19			SHGC (N) 0.14					VT (N) 0.25		CR 71	

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	SB80/KRY/CLR/KRY/SB80											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.024(#2) / 0.024(#5)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.15**	**VT (N)**	**0.25**	**CR**	**71**
	CLR/KRY/SB80/KRY/SB80											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.024(#3) / 0.024(#5)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.19**	**VT (N)**	**0.25**	**CR**	**71**
60	E270/AIR/E270/AIR/CLR											
	0.236	0.625	0.236	0.625	0.225			AIR	0.037(#2) / 0.037(#4)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.25**	**VT (N)**	**0.46**	**CR**	**67**
	E270/AIR/CLR/AIR/E270											
	0.236	0.625	0.225	0.625	0.236			AIR	0.037(#2) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.27**	**VT (N)**	**0.46**	**CR**	**67**
	CLR/AIR/E270/AIR/E270											
	0.225	0.625	0.236	0.625	0.236			AIR	0.037(#3) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.32**	**VT (N)**	**0.46**	**CR**	**67**
61	E270/ARG/E270/ARG/CLR											
	0.236	0.625	0.236	0.625	0.225			ARG90	0.037(#2) / 0.037(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.25**	**VT (N)**	**0.46**	**CR**	**69**
	E270/ARG/CLR/ARG/E270											
	0.236	0.625	0.225	0.625	0.236			ARG90	0.037(#2) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.27**	**VT (N)**	**0.46**	**CR**	**69**
	CLR/ARG/E270/ARG/E270											
	0.225	0.625	0.236	0.625	0.236			ARG90	0.037(#3) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.32**	**VT (N)**	**0.46**	**CR**	**69**
62	E270/KRY/E270/KRY/CLR											
	0.236	0.625	0.236	0.625	0.225			KRY90	0.037(#2) / 0.037(#4)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.26**	**VT (N)**	**0.46**	**CR**	**71**
	E270/KRY/CLR/KRY/E270											
	0.236	0.625	0.225	0.625	0.236			KRY90	0.037(#2) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.28**	**VT (N)**	**0.46**	**CR**	**71**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/KRY/E270/KRY/E270											
	0.225	0.625	0.236	0.625	0.236			KRY90	0.037(#3) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.32**	**VT (N)**	**0.46**	**CR**	**71**
63	E272/AIR/E270/AIR/CLR											
	0.224	0.625	0.236	0.625	0.225			AIR	0.042(#2) / 0.037(#4)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**67**
	E272/AIR/CLR/AIR/E270											
	0.224	0.625	0.225	0.625	0.236			AIR	0.042(#2) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**67**
64	E272/ARG/E270/ARG/CLR											
	0.224	0.625	0.236	0.625	0.225			ARG90	0.042(#2) / 0.037(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**69**
	E272/ARG/CLR/ARG/E270											
	0.224	0.625	0.225	0.625	0.236			ARG90	0.042(#2) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**69**
65	E272/KRY/E270/KRY/CLR											
	0.224	0.625	0.236	0.625	0.225			KRY90	0.042(#2) / 0.037(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**71**
	E272/KRY/CLR/KRY/E270											
	0.224	0.625	0.225	0.625	0.236			KRY90	0.042(#2) / 0.037(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**71**
66	CLR/AIR/E272/AIR/E272											
	0.225	0.625	0.224	0.625	0.224			AIR	0.042(#3) / 0.042(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**67**
67	CLR/ARG/E272/ARG/E272											
	0.225	0.625	0.224	0.625	0.224			ARG90	0.042(#3) / 0.042(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**70**
68	CLR/KRY/E272/KRY/E272											
	0.225	0.625	0.224	0.625	0.224			KRY90	0.042(#3) / 0.042(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**71**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
69	VE12M/AIR/VE185/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.088(#4)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**67**
	VE12M/AIR/CLR/AIR/VE185											
	0.223	0.625	0.225	0.625	0.223			AIR	0.040(#2) / 0.088(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**67**
	CLR/AIR/VE12M/AIR/VE185											
	0.225	0.625	0.223	0.625	0.223			AIR	0.040(#3) / 0.088(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.35**		**VT (N)**	**0.54**	**CR**	**67**
70	VE12M/ARG/VE185/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.088(#4)	CL	CU-D	N
	U-Factor		**0.21**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**69**
	VE12M/ARG/CLR/ARG/VE185											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.040(#2) / 0.088(#5)	CL	CU-D	N
	U-Factor		**0.21**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**69**
	CLR/ARG/VE12M/ARG/VE185											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.040(#3) / 0.088(#5)	CL	CU-D	N
	U-Factor		**0.21**	**SHGC (N)**			**0.35**		**VT (N)**	**0.54**	**CR**	**69**
71	VE12M/KRY/VE185/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.040(#2) / 0.088(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**70**
	VE12M/KRY/CLR/KRY/VE185											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.040(#2) / 0.088(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.30**		**VT (N)**	**0.54**	**CR**	**70**
	CLR/KRY/VE12M/KRY/VE185											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.040(#3) / 0.088(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.35**		**VT (N)**	**0.54**	**CR**	**70**
72	TIAC36/AIR/TIAC36/AIR/CLR											
	0.222	0.625	0.222	0.625	0.225			AIR	0.034(#2) / 0.034(#4)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.25**		**VT (N)**	**0.43**	**CR**	**67**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	TIAC36/AIR/CLR/AIR/TIAC36											
	0.222	0.625	0.225	0.625	0.222			AIR	0.034(#2) / 0.034(#5)	CL	CU-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.27**				**VT (N)**	**0.43**	**CR**	**67**
	CLR/AIR/TIAC36/AIR/TIAC36											
	0.225	0.625	0.222	0.625	0.222			AIR	0.034(#3) / 0.034(#5)	CL	CU-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.32**				**VT (N)**	**0.43**	**CR**	**67**
73	TIAC36/ARG/TIAC36/ARG/CLR											
	0.222	0.625	0.222	0.625	0.225			ARG90	0.034(#2) / 0.034(#4)	CL	CU-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.25**				**VT (N)**	**0.43**	**CR**	**69**
	TIAC36/ARG/CLR/ARG/TIAC36											
	0.222	0.625	0.225	0.625	0.222			ARG90	0.034(#2) / 0.034(#5)	CL	CU-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.27**				**VT (N)**	**0.43**	**CR**	**69**
	CLR/ARG/TIAC36/ARG/TIAC36											
	0.225	0.625	0.222	0.625	0.222			ARG90	0.034(#3) / 0.034(#5)	CL	CU-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.32**				**VT (N)**	**0.43**	**CR**	**69**
74	TIAC36/KRY/TIAC36/KRY/CLR											
	0.222	0.625	0.222	0.625	0.225			KRY90	0.034(#2) / 0.034(#4)	CL	CU-D	N
	U-Factor	**0.19**		**SHGC (N)**	**0.25**				**VT (N)**	**0.43**	**CR**	**71**
	TIAC36/KRY/CLR/KRY/TIAC36											
	0.222	0.625	0.225	0.625	0.222			KRY90	0.034(#2) / 0.034(#5)	CL	CU-D	N
	U-Factor	**0.19**		**SHGC (N)**	**0.27**				**VT (N)**	**0.43**	**CR**	**71**
	CLR/KRY/TIAC36/KRY/TIAC36											
	0.225	0.625	0.222	0.625	0.222			KRY90	0.034(#3) / 0.034(#5)	CL	CU-D	N
	U-Factor	**0.19**		**SHGC (N)**	**0.32**				**VT (N)**	**0.43**	**CR**	**71**
75	TIAC23/AIR/TIAC23/AIR/CLR											
	0.228	0.625	0.228	0.625	0.225			AIR	0.041(#2) / 0.041(#4)	CL	CU-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.14**				**VT (N)**	**0.15**	**CR**	**67**
	TIAC23/AIR/CLR/AIR/TIAC23											
	0.228	0.625	0.225	0.625	0.228			AIR	0.041(#2) / 0.041(#5)	CL	CU-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.17**				**VT (N)**	**0.15**	**CR**	**67**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/AIR/TIAC23/AIR/TIAC23											
	0.225	0.625	0.228	0.625	0.228			AIR	0.041(#3) / 0.041(#5)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.29**		**VT (N)**	**0.15**	**CR**	**67**
76	TIAC23/ARG/TIAC23/ARG/CLR											
	0.228	0.625	0.228	0.625	0.225			ARG90	0.041(#2) / 0.041(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.14**		**VT (N)**	**0.15**	**CR**	**69**
	TIAC23/ARG/CLR/ARG/TIAC23											
	0.228	0.625	0.225	0.625	0.228			ARG90	0.041(#2) / 0.041(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.17**		**VT (N)**	**0.15**	**CR**	**69**
	CLR/ARG/TIAC23/ARG/TIAC23											
	0.225	0.625	0.228	0.625	0.228			ARG90	0.041(#3) / 0.041(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.29**		**VT (N)**	**0.15**	**CR**	**69**
77	TIAC23/KRY/TIAC23/KRY/CLR											
	0.228	0.625	0.228	0.625	0.225			KRY90	0.041(#2) / 0.041(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.14**		**VT (N)**	**0.15**	**CR**	**70**
	TIAC23/KRY/CLR/KRY/TIAC23											
	0.228	0.625	0.225	0.625	0.228			KRY90	0.041(#2) / 0.041(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.17**		**VT (N)**	**0.15**	**CR**	**70**
	CLR/KRY/TIAC23/KRY/TIAC23											
	0.225	0.625	0.228	0.625	0.228			KRY90	0.041(#3) / 0.041(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.29**		**VT (N)**	**0.15**	**CR**	**70**
78	CG7138/AIR/CG7138/AIR/CLR											
	0.221	0.625	0.221	0.625	0.225			AIR	0.027(#2) / 0.027(#4)	CL	CU-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.28**		**VT (N)**	**0.48**	**CR**	**67**
	CG7138/AIR/CLR/AIR/CG7138											
	0.221	0.625	0.225	0.625	0.221			AIR	0.027(#2) / 0.027(#5)	CL	CU-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.30**		**VT (N)**	**0.48**	**CR**	**67**
	CLR/AIR/CG7138/AIR/CG7138											
	0.225	0.625	0.221	0.625	0.221			AIR	0.027(#3) / 0.027(#5)	CL	CU-D	N
	U-Factor		**0.22**	**SHGC (N)**			**0.34**		**VT (N)**	**0.48**	**CR**	**67**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
79	CG7138/ARG/CG7138/ARG/CLR											
	0.221	0.625	0.221	0.625	0.225			ARG90	0.027(#2) / 0.027(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**70**
	CG7138/ARG/CLR/ARG/CG7138											
	0.221	0.625	0.225	0.625	0.221			ARG90	0.027(#2) / 0.027(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**70**
	CLR/ARG/CG7138/ARG/CG7138											
	0.225	0.625	0.221	0.625	0.221			ARG90	0.027(#3) / 0.027(#5)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.34**	**VT (N)**	**0.48**	**CR**	**70**
80	CG7138/KRY/CG7138/KRY/CLR											
	0.221	0.625	0.221	0.625	0.225			KRY90	0.027(#2) / 0.027(#4)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**71**
	CG7138/KRY/CLR/KRY/CG7138											
	0.221	0.625	0.225	0.625	0.221			KRY90	0.027(#2) / 0.027(#5)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**71**
	CLR/KRY/CG7138/KRY/CG7138											
	0.225	0.625	0.221	0.625	0.221			KRY90	0.027(#3) / 0.027(#5)	CL	CU-D	N
	U-Factor		**0.19**	**SHGC (N)**				**0.34**	**VT (N)**	**0.48**	**CR**	**71**
81	VE12M/AIR/VE12M/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.040(#4)	CL	CU-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.27**	**VT (N)**	**0.50**	**CR**	**67**
82	VE12M/ARG/VE12M/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.040(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.27**	**VT (N)**	**0.50**	**CR**	**69**
83	VE12M/KRY/VE12M/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.040(#2) / 0.040(#4)	CL	CU-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**71**
84	CLR/AIR/CLR/AIR/CLR											
	0.225	0.625	0.225	0.625	0.225			AIR		CL	SS-D	N
	U-Factor		**0.36**	**SHGC (N)**				**0.56**	**VT (N)**	**0.63**	**CR**	**56**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
85	CLR/ARG/CLR/ARG/CLR											
	0.225	0.625	0.225	0.625	0.225			ARG90		CL	SS-D	N
	U-Factor	**0.34**		**SHGC (N)**	**0.56**				**VT (N)**	**0.63**	**CR**	**57**
86	CLR/KRY/CLR/KRY/CLR											
	0.225	0.625	0.225	0.625	0.225			KRY90		CL	SS-D	N
	U-Factor	**0.34**		**SHGC (N)**	**0.56**				**VT (N)**	**0.63**	**CR**	**58**
87	SB60/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	CL	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.28**				**VT (N)**	**0.50**	**CR**	**64**
	SB60/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	CL	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.30**				**VT (N)**	**0.50**	**CR**	**64**
	CLR/AIR/SB60/AIR/SB60											
	0.225	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	CL	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.33**				**VT (N)**	**0.50**	**CR**	**64**
88	SB60/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.28**				**VT (N)**	**0.50**	**CR**	**66**
	SB60/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.29**				**VT (N)**	**0.50**	**CR**	**66**
	CLR/ARG/SB60/ARG/SB60											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.33**				**VT (N)**	**0.50**	**CR**	**66**
89	SB60/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	CL	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.28**				**VT (N)**	**0.50**	**CR**	**67**
	SB60/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	CL	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.30**				**VT (N)**	**0.50**	**CR**	**67**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/KRY/SB60/KRY/SB60											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	CL	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.33**				**VT (N)**	**0.50**	**CR**	**67**
90	SB60ATL/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	GR	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.20**				**VT (N)**	**0.38**	**CR**	**64**
	SB60ATL/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	GR	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.21**				**VT (N)**	**0.38**	**CR**	**64**
	ATL/AIR/SB60/AIR/SB60											
	0.223	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	GR	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.23**				**VT (N)**	**0.38**	**CR**	**64**
91	SB60ATL/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	GR	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.19**				**VT (N)**	**0.38**	**CR**	**66**
	SB60ATL/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	GR	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.20**				**VT (N)**	**0.38**	**CR**	**66**
	ATL/ARG/SB60/ARG/SB60											
	0.223	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	GR	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.22**				**VT (N)**	**0.38**	**CR**	**66**
92	SB60ATL/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	GR	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.19**				**VT (N)**	**0.38**	**CR**	**67**
	SB60ATL/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	GR	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.20**				**VT (N)**	**0.38**	**CR**	**67**
	ATL/KRY/SB60/KRY/SB60											
	0.223	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	GR	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.22**				**VT (N)**	**0.38**	**CR**	**67**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
93	SB70ST/AIR/SB70ST/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.018(#2) / 0.018(#4)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.20**		**VT (N)**	**0.42**	**CR**	**65**
	SB70ST/AIR/CLR/AIR/SB70ST											
	0.223	0.625	0.225	0.625	0.223			AIR	0.018(#2) / 0.018(#5)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.22**		**VT (N)**	**0.42**	**CR**	**65**
	CLR/AIR/SB70ST/AIR/SB70ST											
	0.225	0.625	0.223	0.625	0.223			AIR	0.018(#3) / 0.018(#5)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.27**		**VT (N)**	**0.42**	**CR**	**65**
94	SB70ST/ARG/SB70ST/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.018(#2) / 0.018(#4)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.20**		**VT (N)**	**0.42**	**CR**	**67**
	SB70ST/ARG/CLR/ARG/SB70ST											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.018(#2) / 0.018(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.22**		**VT (N)**	**0.42**	**CR**	**67**
	CLR/ARG/SB70ST/ARG/SB70ST											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.018(#3) / 0.018(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.27**		**VT (N)**	**0.42**	**CR**	**67**
95	SB70ST/KRY/SB70ST/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.018(#2) / 0.018(#4)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.20**		**VT (N)**	**0.42**	**CR**	**68**
	SB70ST/KRY/CLR/KRY/SB70ST											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.018(#2) / 0.018(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.22**		**VT (N)**	**0.42**	**CR**	**68**
	CLR/KRY/SB70ST/KRY/SB70ST											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.018(#3) / 0.018(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**			**0.27**		**VT (N)**	**0.42**	**CR**	**68**
96	SB80/AIR/SB80/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.024(#2) / 0.024(#4)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**			**0.14**		**VT (N)**	**0.25**	**CR**	**65**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	SB80/AIR/CLR/AIR/SB80											
	0.223	0.625	0.225	0.625	0.223			AIR	0.024(#2) / 0.024(#5)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.16				VT (N)	0.25	CR	65
	CLR/AIR/SB80/AIR/SB80											
	0.225	0.625	0.223	0.625	0.223			AIR	0.024(#3) / 0.024(#5)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.19				VT (N)	0.25	CR	65
97	SB80/ARG/SB80/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.024(#2) / 0.024(#4)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.14				VT (N)	0.25	CR	67
	SB80/ARG/CLR/ARG/SB80											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.024(#2) / 0.024(#5)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.15				VT (N)	0.25	CR	67
	CLR/ARG/SB80/ARG/SB80											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.024(#3) / 0.024(#5)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.19				VT (N)	0.25	CR	67
98	SB80/KRY/SB80/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.024(#2) / 0.024(#4)	CL	SS-D	N
	U-Factor	0.20		SHGC (N)	0.14				VT (N)	0.25	CR	68
	SB80/KRY/CLR/KRY/SB80											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.024(#2) / 0.024(#5)	CL	SS-D	N
	U-Factor	0.20		SHGC (N)	0.15				VT (N)	0.25	CR	68
	CLR/KRY/SB80/KRY/SB80											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.024(#3) / 0.024(#5)	CL	SS-D	N
	U-Factor	0.20		SHGC (N)	0.19				VT (N)	0.25	CR	68
99	E270/AIR/E270/AIR/CLR											
	0.236	0.625	0.236	0.625	0.225			AIR	0.037(#2) / 0.037(#4)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.25				VT (N)	0.46	CR	64
	E270/AIR/CLR/AIR/E270											
	0.236	0.625	0.225	0.625	0.236			AIR	0.037(#2) / 0.037(#5)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.27				VT (N)	0.46	CR	64

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/AIR/E270/AIR/E270											
	0.225	0.625	0.236	0.625	0.236			AIR	0.037(#3) / 0.037(#5)	CL	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.32**				**VT (N)**	**0.46**	**CR**	**64**
100	E270/ARG/E270/ARG/CLR											
	0.236	0.625	0.236	0.625	0.225			ARG90	0.037(#2) / 0.037(#4)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.25**				**VT (N)**	**0.46**	**CR**	**66**
	E270/ARG/CLR/ARG/E270											
	0.236	0.625	0.225	0.625	0.236			ARG90	0.037(#2) / 0.037(#5)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.27**				**VT (N)**	**0.46**	**CR**	**66**
	CLR/ARG/E270/ARG/E270											
	0.225	0.625	0.236	0.625	0.236			ARG90	0.037(#3) / 0.037(#5)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.32**				**VT (N)**	**0.46**	**CR**	**66**
101	E270/KRY/E270/KRY/CLR											
	0.236	0.625	0.236	0.625	0.225			KRY90	0.037(#2) / 0.037(#4)	CL	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.26**				**VT (N)**	**0.46**	**CR**	**67**
	E270/KRY/CLR/KRY/E270											
	0.236	0.625	0.225	0.625	0.236			KRY90	0.037(#2) / 0.037(#5)	CL	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.28**				**VT (N)**	**0.46**	**CR**	**67**
	CLR/KRY/E270/KRY/E270											
	0.225	0.625	0.236	0.625	0.236			KRY90	0.037(#3) / 0.037(#5)	CL	SS-D	N
	U-Factor	**0.20**		**SHGC (N)**	**0.32**				**VT (N)**	**0.46**	**CR**	**67**
102	E272/AIR/E270/AIR/CLR											
	0.224	0.625	0.236	0.625	0.225			AIR	0.042(#2) / 0.037(#4)	CL	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.28**				**VT (N)**	**0.48**	**CR**	**64**
	E272/AIR/CLR/AIR/E270											
	0.224	0.625	0.225	0.625	0.236			AIR	0.042(#2) / 0.037(#5)	CL	SS-D	N
	U-Factor	**0.23**		**SHGC (N)**	**0.30**				**VT (N)**	**0.48**	**CR**	**64**
103	E272/ARG/E270/ARG/CLR											
	0.224	0.625	0.236	0.625	0.225			ARG90	0.042(#2) / 0.037(#4)	CL	SS-D	N
	U-Factor	**0.21**		**SHGC (N)**	**0.28**				**VT (N)**	**0.48**	**CR**	**66**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	E272/ARG/CLR/ARG/E270											
	0.224	0.625	0.225	0.625	0.236			ARG90	0.042(#2) / 0.037(#5)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**66**
104	E272/KRY/E270/KRY/CLR											
	0.224	0.625	0.236	0.625	0.225			KRY90	0.042(#2) / 0.037(#4)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**67**
	E272/KRY/CLR/KRY/E270											
	0.224	0.625	0.225	0.625	0.236			KRY90	0.042(#2) / 0.037(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**67**
105	CLR/AIR/E272/AIR/E272											
	0.225	0.625	0.224	0.625	0.224			AIR	0.042(#3) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**64**
106	CLR/ARG/E272/ARG/E272											
	0.225	0.625	0.224	0.625	0.224			ARG90	0.042(#3) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**66**
107	CLR/KRY/E272/KRY/E272											
	0.225	0.625	0.224	0.625	0.224			KRY90	0.042(#3) / 0.042(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**68**
108	VE12M/AIR/VE185/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.088(#4)	CL	SS-D	N
	U-Factor		**0.24**	**SHGC (N)**				**0.30**	**VT (N)**	**0.54**	**CR**	**64**
	VE12M/AIR/CLR/AIR/VE185											
	0.223	0.625	0.225	0.625	0.223			AIR	0.040(#2) / 0.088(#5)	CL	SS-D	N
	U-Factor		**0.24**	**SHGC (N)**				**0.30**	**VT (N)**	**0.54**	**CR**	**64**
	CLR/AIR/VE12M/AIR/VE185											
	0.225	0.625	0.223	0.625	0.223			AIR	0.040(#3) / 0.088(#5)	CL	SS-D	N
	U-Factor		**0.24**	**SHGC (N)**				**0.35**	**VT (N)**	**0.54**	**CR**	**64**
109	VE12M/ARG/VE185/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.088(#4)	CL	SS-D	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.54**	**CR**	**66**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	VE12M/ARG/CLR/ARG/VE185											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.040(#2) / 0.088(#5)	CL	SS-D	N
	U-Factor	0.22		SHGC (N)	0.30				VT (N)	0.54	CR	66
	CLR/ARG/VE12M/ARG/VE185											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.040(#3) / 0.088(#5)	CL	SS-D	N
	U-Factor	0.22		SHGC (N)	0.35				VT (N)	0.54	CR	66
110	VE12M/KRY/VE185/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.040(#2) / 0.088(#4)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.30				VT (N)	0.54	CR	67
	VE12M/KRY/CLR/KRY/VE185											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.040(#2) / 0.088(#5)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.30				VT (N)	0.54	CR	67
	CLR/KRY/VE12M/KRY/VE185											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.040(#3) / 0.088(#5)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.35				VT (N)	0.54	CR	67
111	TIAC36/AIR/TIAC36/AIR/CLR											
	0.222	0.625	0.222	0.625	0.225			AIR	0.034(#2) / 0.034(#4)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.25				VT (N)	0.43	CR	64
	TIAC36/AIR/CLR/AIR/TIAC36											
	0.222	0.625	0.225	0.625	0.222			AIR	0.034(#2) / 0.034(#5)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.27				VT (N)	0.43	CR	64
	CLR/AIR/TIAC36/AIR/TIAC36											
	0.225	0.625	0.222	0.625	0.222			AIR	0.034(#3) / 0.034(#5)	CL	SS-D	N
	U-Factor	0.23		SHGC (N)	0.32				VT (N)	0.43	CR	64
112	TIAC36/ARG/TIAC36/ARG/CLR											
	0.222	0.625	0.222	0.625	0.225			ARG90	0.034(#2) / 0.034(#4)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.25				VT (N)	0.43	CR	66
	TIAC36/ARG/CLR/ARG/TIAC36											
	0.222	0.625	0.225	0.625	0.222			ARG90	0.034(#2) / 0.034(#5)	CL	SS-D	N
	U-Factor	0.21		SHGC (N)	0.27				VT (N)	0.43	CR	66

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/ARG/TIAC36/ARG/TIAC36											
	0.225	0.625	0.222	0.625	0.222			ARG90	0.034(#3) / 0.034(#5)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.32**	**VT (N)**	**0.43**	**CR**	**66**
113	TIAC36/KRY/TIAC36/KRY/CLR											
	0.222	0.625	0.222	0.625	0.225			KRY90	0.034(#2) / 0.034(#4)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.25**	**VT (N)**	**0.43**	**CR**	**68**
	TIAC36/KRY/CLR/KRY/TIAC36											
	0.222	0.625	0.225	0.625	0.222			KRY90	0.034(#2) / 0.034(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.27**	**VT (N)**	**0.43**	**CR**	**68**
	CLR/KRY/TIAC36/KRY/TIAC36											
	0.225	0.625	0.222	0.625	0.222			KRY90	0.034(#3) / 0.034(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.32**	**VT (N)**	**0.43**	**CR**	**68**
114	TIAC23/AIR/TIAC23/AIR/CLR											
	0.228	0.625	0.228	0.625	0.225			AIR	0.041(#2) / 0.041(#4)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.14**	**VT (N)**	**0.15**	**CR**	**64**
	TIAC23/AIR/CLR/AIR/TIAC23											
	0.228	0.625	0.225	0.625	0.228			AIR	0.041(#2) / 0.041(#5)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.17**	**VT (N)**	**0.15**	**CR**	**64**
	CLR/AIR/TIAC23/AIR/TIAC23											
	0.225	0.625	0.228	0.625	0.228			AIR	0.041(#3) / 0.041(#5)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.29**	**VT (N)**	**0.15**	**CR**	**64**
115	TIAC23/ARG/TIAC23/ARG/CLR											
	0.228	0.625	0.228	0.625	0.225			ARG90	0.041(#2) / 0.041(#4)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.14**	**VT (N)**	**0.15**	**CR**	**66**
	TIAC23/ARG/CLR/ARG/TIAC23											
	0.228	0.625	0.225	0.625	0.228			ARG90	0.041(#2) / 0.041(#5)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.17**	**VT (N)**	**0.15**	**CR**	**66**
	CLR/ARG/TIAC23/ARG/TIAC23											
	0.225	0.625	0.228	0.625	0.228			ARG90	0.041(#3) / 0.041(#5)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.29**	**VT (N)**	**0.15**	**CR**	**66**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
116	TIAC23/KRY/TIAC23/KRY/CLR											
	0.228	0.625	0.228	0.625	0.225			KRY90	0.041(#2) / 0.041(#4)	CL	SS-D	N
	U-Factor 0.20			SHGC (N) 0.14					VT (N) 0.15		CR 67	
	TIAC23/KRY/CLR/KRY/TIAC23											
	0.228	0.625	0.225	0.625	0.228			KRY90	0.041(#2) / 0.041(#5)	CL	SS-D	N
	U-Factor 0.20			SHGC (N) 0.17					VT (N) 0.15		CR 67	
	CLR/KRY/TIAC23/KRY/TIAC23											
	0.225	0.625	0.228	0.625	0.228			KRY90	0.041(#3) / 0.041(#5)	CL	SS-D	N
	U-Factor 0.20			SHGC (N) 0.29					VT (N) 0.15		CR 67	
117	CG7138/AIR/CG7138/AIR/CLR											
	0.221	0.625	0.221	0.625	0.225			AIR	0.027(#2) / 0.027(#4)	CL	SS-D	N
	U-Factor 0.23			SHGC (N) 0.28					VT (N) 0.48		CR 65	
	CG7138/AIR/CLR/AIR/CG7138											
	0.221	0.625	0.225	0.625	0.221			AIR	0.027(#2) / 0.027(#5)	CL	SS-D	N
	U-Factor 0.23			SHGC (N) 0.30					VT (N) 0.48		CR 65	
	CLR/AIR/CG7138/AIR/CG7138											
	0.225	0.625	0.221	0.625	0.221			AIR	0.027(#3) / 0.027(#5)	CL	SS-D	N
	U-Factor 0.23			SHGC (N) 0.34					VT (N) 0.48		CR 65	
118	CG7138/ARG/CG7138/ARG/CLR											
	0.221	0.625	0.221	0.625	0.225			ARG90	0.027(#2) / 0.027(#4)	CL	SS-D	N
	U-Factor 0.21			SHGC (N) 0.28					VT (N) 0.48		CR 67	
	CG7138/ARG/CLR/ARG/CG7138											
	0.221	0.625	0.225	0.625	0.221			ARG90	0.027(#2) / 0.027(#5)	CL	SS-D	N
	U-Factor 0.21			SHGC (N) 0.30					VT (N) 0.48		CR 67	
	CLR/ARG/CG7138/ARG/CG7138											
	0.225	0.625	0.221	0.625	0.221			ARG90	0.027(#3) / 0.027(#5)	CL	SS-D	N
	U-Factor 0.21			SHGC (N) 0.34					VT (N) 0.48		CR 67	
119	CG7138/KRY/CG7138/KRY/CLR											
	0.221	0.625	0.221	0.625	0.225			KRY90	0.027(#2) / 0.027(#4)	CL	SS-D	N
	U-Factor 0.20			SHGC (N) 0.28					VT (N) 0.48		CR 68	

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CG7138/KRY/CLR/KRY/CG7138											
	0.221	0.625	0.225	0.625	0.221			KRY90	0.027(#2) / 0.027(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**68**
	CLR/KRY/CG7138/KRY/CG7138											
	0.225	0.625	0.221	0.625	0.221			KRY90	0.027(#3) / 0.027(#5)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.34**	**VT (N)**	**0.48**	**CR**	**68**
120	VE12M/AIR/VE12M/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.040(#4)	CL	SS-D	N
	U-Factor		**0.23**	**SHGC (N)**				**0.27**	**VT (N)**	**0.50**	**CR**	**64**
121	VE12M/ARG/VE12M/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.040(#4)	CL	SS-D	N
	U-Factor		**0.21**	**SHGC (N)**				**0.27**	**VT (N)**	**0.50**	**CR**	**66**
122	VE12M/KRY/VE12M/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.040(#2) / 0.040(#4)	CL	SS-D	N
	U-Factor		**0.20**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**67**
123	SB60/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**71**
	SB60/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.30**	**VT (N)**	**0.50**	**CR**	**71**
	CLR/AIR/SB60/AIR/SB60											
	0.225	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.33**	**VT (N)**	**0.50**	**CR**	**71**
124	SB60/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**74**
	SB60/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.29**	**VT (N)**	**0.50**	**CR**	**74**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/ARG/SB60/ARG/SB60											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.33**	**VT (N)**	**0.50**	**CR**	**74**
125	SB60/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.28**	**VT (N)**	**0.50**	**CR**	**76**
	SB60/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.30**	**VT (N)**	**0.50**	**CR**	**76**
	CLR/KRY/SB60/KRY/SB60											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.33**	**VT (N)**	**0.50**	**CR**	**76**
126	SB60ATL/AIR/SB60/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.035(#2) / 0.035(#4)	GR	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.20**	**VT (N)**	**0.38**	**CR**	**71**
	SB60ATL/AIR/CLR/AIR/SB60											
	0.223	0.625	0.225	0.625	0.223			AIR	0.035(#2) / 0.035(#5)	GR	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.21**	**VT (N)**	**0.38**	**CR**	**71**
	ATL/AIR/SB60/AIR/SB60											
	0.223	0.625	0.223	0.625	0.223			AIR	0.035(#3) / 0.035(#5)	GR	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.23**	**VT (N)**	**0.38**	**CR**	**71**
127	SB60ATL/ARG/SB60/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.035(#2) / 0.035(#4)	GR	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.19**	**VT (N)**	**0.38**	**CR**	**74**
	SB60ATL/ARG/CLR/ARG/SB60											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.035(#2) / 0.035(#5)	GR	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.20**	**VT (N)**	**0.38**	**CR**	**74**
	ATL/ARG/SB60/ARG/SB60											
	0.223	0.625	0.223	0.625	0.223			ARG90	0.035(#3) / 0.035(#5)	GR	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.22**	**VT (N)**	**0.38**	**CR**	**74**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
128	SB60ATL/KRY/SB60/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.035(#2) / 0.035(#4)	GR	OF-S	N
	U-Factor	0.18		SHGC (N)	0.19				VT (N)	0.38	CR	76
	SB60ATL/KRY/CLR/KRY/SB60											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.035(#2) / 0.035(#5)	GR	OF-S	N
	U-Factor	0.18		SHGC (N)	0.20				VT (N)	0.38	CR	76
	ATL/KRY/SB60/KRY/SB60											
	0.223	0.625	0.223	0.625	0.223			KRY90	0.035(#3) / 0.035(#5)	GR	OF-S	N
	U-Factor	0.18		SHGC (N)	0.22				VT (N)	0.38	CR	76
129	SB70ST/AIR/CLR/AIR/SB70ST											
	0.223	0.625	0.225	0.625	0.223			AIR	0.018(#2) / 0.018(#5)	CL	OF-S	N
	U-Factor	0.20		SHGC (N)	0.22				VT (N)	0.42	CR	72
	CLR/AIR/SB70ST/AIR/SB70ST											
	0.225	0.625	0.223	0.625	0.223			AIR	0.018(#3) / 0.018(#5)	CL	OF-S	N
	U-Factor	0.20		SHGC (N)	0.27				VT (N)	0.42	CR	72
130	SB70ST/ARG/CLR/ARG/SB70ST											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.018(#2) / 0.018(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.22				VT (N)	0.42	CR	75
	CLR/ARG/SB70ST/ARG/SB70ST											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.018(#3) / 0.018(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.27				VT (N)	0.42	CR	75
131	SB70ST/KRY/CLR/KRY/SB70ST											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.018(#2) / 0.018(#5)	CL	OF-S	N
	U-Factor	0.17		SHGC (N)	0.22				VT (N)	0.42	CR	77
	CLR/KRY/SB70ST/KRY/SB70ST											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.018(#3) / 0.018(#5)	CL	OF-S	N
	U-Factor	0.17		SHGC (N)	0.27				VT (N)	0.42	CR	77
132	SB80/AIR/SB80/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.024(#2) / 0.024(#4)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.14				VT (N)	0.25	CR	72

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	SB80/AIR/CLR/AIR/SB80											
	0.223	0.625	0.225	0.625	0.223			AIR	0.024(#2) / 0.024(#5)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**			**0.16**		**VT (N)**	**0.25**	**CR**	**72**
	CLR/AIR/SB80/AIR/SB80											
	0.225	0.625	0.223	0.625	0.223			AIR	0.024(#3) / 0.024(#5)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**			**0.19**		**VT (N)**	**0.25**	**CR**	**72**
133	SB80/ARG/SB80/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.024(#2) / 0.024(#4)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**			**0.14**		**VT (N)**	**0.25**	**CR**	**75**
	SB80/ARG/CLR/ARG/SB80											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.024(#2) / 0.024(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**			**0.15**		**VT (N)**	**0.25**	**CR**	**75**
	CLR/ARG/SB80/ARG/SB80											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.024(#3) / 0.024(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**			**0.19**		**VT (N)**	**0.25**	**CR**	**75**
134	SB80/KRY/SB80/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.024(#2) / 0.024(#4)	CL	OF-S	N
	U-Factor		**0.17**	**SHGC (N)**			**0.14**		**VT (N)**	**0.25**	**CR**	**76**
	SB80/KRY/CLR/KRY/SB80											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.024(#2) / 0.024(#5)	CL	OF-S	N
	U-Factor		**0.17**	**SHGC (N)**			**0.15**		**VT (N)**	**0.25**	**CR**	**76**
	CLR/KRY/SB80/KRY/SB80											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.024(#3) / 0.024(#5)	CL	OF-S	N
	U-Factor		**0.17**	**SHGC (N)**			**0.19**		**VT (N)**	**0.25**	**CR**	**76**
135	E270/AIR/E270/AIR/CLR											
	0.236	0.625	0.236	0.625	0.225			AIR	0.037(#2) / 0.037(#4)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**			**0.25**		**VT (N)**	**0.46**	**CR**	**71**
	E270/AIR/CLR/AIR/E270											
	0.236	0.625	0.225	0.625	0.236			AIR	0.037(#2) / 0.037(#5)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**			**0.27**		**VT (N)**	**0.46**	**CR**	**71**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/AIR/E270/AIR/E270											
	0.225	0.625	0.236	0.625	0.236			AIR	0.037(#3) / 0.037(#5)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.32				VT (N)	0.46	CR	71
136	E270/ARG/E270/ARG/CLR											
	0.236	0.625	0.236	0.625	0.225			ARG90	0.037(#2) / 0.037(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.25				VT (N)	0.46	CR	74
	E270/ARG/CLR/ARG/E270											
	0.236	0.625	0.225	0.625	0.236			ARG90	0.037(#2) / 0.037(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.27				VT (N)	0.46	CR	74
	CLR/ARG/E270/ARG/E270											
	0.225	0.625	0.236	0.625	0.236			ARG90	0.037(#3) / 0.037(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.32				VT (N)	0.46	CR	74
137	E270/KRY/E270/KRY/CLR											
	0.236	0.625	0.236	0.625	0.225			KRY90	0.037(#2) / 0.037(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.26				VT (N)	0.46	CR	76
	E270/KRY/CLR/KRY/E270											
	0.236	0.625	0.225	0.625	0.236			KRY90	0.037(#2) / 0.037(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.28				VT (N)	0.46	CR	76
	CLR/KRY/E270/KRY/E270											
	0.225	0.625	0.236	0.625	0.236			KRY90	0.037(#3) / 0.037(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.32				VT (N)	0.46	CR	76
138	E272/AIR/E270/AIR/CLR											
	0.224	0.625	0.236	0.625	0.225			AIR	0.042(#2) / 0.037(#4)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.28				VT (N)	0.48	CR	71
	E272/AIR/CLR/AIR/E270											
	0.224	0.625	0.225	0.625	0.236			AIR	0.042(#2) / 0.037(#5)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.30				VT (N)	0.48	CR	71
139	E272/ARG/E270/ARG/CLR											
	0.224	0.625	0.236	0.625	0.225			ARG90	0.042(#2) / 0.037(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.28				VT (N)	0.48	CR	74

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	E272/ARG/CLR/ARG/E270											
	0.224	0.625	0.225	0.625	0.236			ARG90	0.042(#2) / 0.037(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**74**
140	E272/KRY/E270/KRY/CLR											
	0.224	0.625	0.236	0.625	0.225			KRY90	0.042(#2) / 0.037(#4)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.28**	**VT (N)**	**0.48**	**CR**	**76**
	E272/KRY/CLR/KRY/E270											
	0.224	0.625	0.225	0.625	0.236			KRY90	0.042(#2) / 0.037(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.30**	**VT (N)**	**0.48**	**CR**	**76**
141	CLR/AIR/E272/AIR/E272											
	0.225	0.625	0.224	0.625	0.224			AIR	0.042(#3) / 0.042(#5)	CL	OF-S	N
	U-Factor		**0.21**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**71**
142	CLR/ARG/E272/ARG/E272											
	0.225	0.625	0.224	0.625	0.224			ARG90	0.042(#3) / 0.042(#5)	CL	OF-S	N
	U-Factor		**0.19**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**74**
143	CLR/KRY/E272/KRY/E272											
	0.225	0.625	0.224	0.625	0.224			KRY90	0.042(#3) / 0.042(#5)	CL	OF-S	N
	U-Factor		**0.18**	**SHGC (N)**				**0.35**	**VT (N)**	**0.49**	**CR**	**76**
144	VE12M/AIR/VE185/AIR/CLR											
	0.223	0.625	0.223	0.625	0.225			AIR	0.040(#2) / 0.088(#4)	CL	OF-S	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.54**	**CR**	**71**
	VE12M/AIR/CLR/AIR/VE185											
	0.223	0.625	0.225	0.625	0.223			AIR	0.040(#2) / 0.088(#5)	CL	OF-S	N
	U-Factor		**0.22**	**SHGC (N)**				**0.30**	**VT (N)**	**0.54**	**CR**	**71**
	CLR/AIR/VE12M/AIR/VE185											
	0.225	0.625	0.223	0.625	0.223			AIR	0.040(#3) / 0.088(#5)	CL	OF-S	N
	U-Factor		**0.22**	**SHGC (N)**				**0.35**	**VT (N)**	**0.54**	**CR**	**71**
145	VE12M/ARG/VE185/ARG/CLR											
	0.223	0.625	0.223	0.625	0.225			ARG90	0.040(#2) / 0.088(#4)	CL	OF-S	N
	U-Factor		**0.19**	**SHGC (N)**				**0.30**	**VT (N)**	**0.54**	**CR**	**73**

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	VE12M/ARG/CLR/ARG/VE185											
	0.223	0.625	0.225	0.625	0.223			ARG90	0.040(#2) / 0.088(#5)	CL	OF-S	N
	U-Factor	0.19		SHGC (N)	0.30				VT (N)	0.54	CR	73
	CLR/ARG/VE12M/ARG/VE185											
	0.225	0.625	0.223	0.625	0.223			ARG90	0.040(#3) / 0.088(#5)	CL	OF-S	N
	U-Factor	0.19		SHGC (N)	0.35				VT (N)	0.54	CR	73
146	VE12M/KRY/VE185/KRY/CLR											
	0.223	0.625	0.223	0.625	0.225			KRY90	0.040(#2) / 0.088(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.30				VT (N)	0.54	CR	75
	VE12M/KRY/CLR/KRY/VE185											
	0.223	0.625	0.225	0.625	0.223			KRY90	0.040(#2) / 0.088(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.30				VT (N)	0.54	CR	75
	CLR/KRY/VE12M/KRY/VE185											
	0.225	0.625	0.223	0.625	0.223			KRY90	0.040(#3) / 0.088(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.35				VT (N)	0.54	CR	75
147	TIAC36/AIR/TIAC36/AIR/CLR											
	0.222	0.625	0.222	0.625	0.225			AIR	0.034(#2) / 0.034(#4)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.25				VT (N)	0.43	CR	71
	TIAC36/AIR/CLR/AIR/TIAC36											
	0.222	0.625	0.225	0.625	0.222			AIR	0.034(#2) / 0.034(#5)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.27				VT (N)	0.43	CR	71
	CLR/AIR/TIAC36/AIR/TIAC36											
	0.225	0.625	0.222	0.625	0.222			AIR	0.034(#3) / 0.034(#5)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.32				VT (N)	0.43	CR	71
148	TIAC36/ARG/TIAC36/ARG/CLR											
	0.222	0.625	0.222	0.625	0.225			ARG90	0.034(#2) / 0.034(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.25				VT (N)	0.43	CR	74
	TIAC36/ARG/CLR/ARG/TIAC36											
	0.222	0.625	0.225	0.625	0.222			ARG90	0.034(#2) / 0.034(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.27				VT (N)	0.43	CR	74

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CLR/ARG/TIAC36/ARG/TIAC36											
	0.225	0.625	0.222	0.625	0.222			ARG90	0.034(#3) / 0.034(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.32				VT (N)	0.43	CR	74
149	TIAC36/KRY/TIAC36/KRY/CLR											
	0.222	0.625	0.222	0.625	0.225			KRY90	0.034(#2) / 0.034(#4)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.25				VT (N)	0.43	CR	76
	TIAC36/KRY/CLR/KRY/TIAC36											
	0.222	0.625	0.225	0.625	0.222			KRY90	0.034(#2) / 0.034(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.27				VT (N)	0.43	CR	76
	CLR/KRY/TIAC36/KRY/TIAC36											
	0.225	0.625	0.222	0.625	0.222			KRY90	0.034(#3) / 0.034(#5)	CL	OF-S	N
	U-Factor	0.18		SHGC (N)	0.32				VT (N)	0.43	CR	76
150	TIAC23/AIR/TIAC23/AIR/CLR											
	0.228	0.625	0.228	0.625	0.225			AIR	0.041(#2) / 0.041(#4)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.14				VT (N)	0.15	CR	71
	TIAC23/AIR/CLR/AIR/TIAC23											
	0.228	0.625	0.225	0.625	0.228			AIR	0.041(#2) / 0.041(#5)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.17				VT (N)	0.15	CR	71
	CLR/AIR/TIAC23/AIR/TIAC23											
	0.225	0.625	0.228	0.625	0.228			AIR	0.041(#3) / 0.041(#5)	CL	OF-S	N
	U-Factor	0.21		SHGC (N)	0.29				VT (N)	0.15	CR	71
151	TIAC23/ARG/TIAC23/ARG/CLR											
	0.228	0.625	0.228	0.625	0.225			ARG90	0.041(#2) / 0.041(#4)	CL	OF-S	N
	U-Factor	0.19		SHGC (N)	0.14				VT (N)	0.15	CR	74
	TIAC23/ARG/CLR/ARG/TIAC23											
	0.228	0.625	0.225	0.625	0.228			ARG90	0.041(#2) / 0.041(#5)	CL	OF-S	N
	U-Factor	0.19		SHGC (N)	0.17				VT (N)	0.15	CR	74
	CLR/ARG/TIAC23/ARG/TIAC23											
	0.225	0.625	0.228	0.625	0.228			ARG90	0.041(#3) / 0.041(#5)	CL	OF-S	N
	U-Factor	0.19		SHGC (N)	0.29				VT (N)	0.15	CR	74

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ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
152	TIAC23/KRY/TIAC23/KRY/CLR											
	0.228	0.625	0.228	0.625	0.225			KRY90	0.041(#2) / 0.041(#4)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.14					VT (N) 0.15		CR 76	
	TIAC23/KRY/CLR/KRY/TIAC23											
	0.228	0.625	0.225	0.625	0.228			KRY90	0.041(#2) / 0.041(#5)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.17					VT (N) 0.15		CR 76	
	CLR/KRY/TIAC23/KRY/TIAC23											
	0.225	0.625	0.228	0.625	0.228			KRY90	0.041(#3) / 0.041(#5)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.29					VT (N) 0.15		CR 76	
153	CG7138/AIR/CG7138/AIR/CLR											
	0.221	0.625	0.221	0.625	0.225			AIR	0.027(#2) / 0.027(#4)	CL	OF-S	N
	U-Factor 0.21			SHGC (N) 0.28					VT (N) 0.48		CR 71	
	CG7138/AIR/CLR/AIR/CG7138											
	0.221	0.625	0.225	0.625	0.221			AIR	0.027(#2) / 0.027(#5)	CL	OF-S	N
	U-Factor 0.21			SHGC (N) 0.30					VT (N) 0.48		CR 71	
	CLR/AIR/CG7138/AIR/CG7138											
	0.225	0.625	0.221	0.625	0.221			AIR	0.027(#3) / 0.027(#5)	CL	OF-S	N
	U-Factor 0.21			SHGC (N) 0.34					VT (N) 0.48		CR 71	
154	CG7138/ARG/CG7138/ARG/CLR											
	0.221	0.625	0.221	0.625	0.225			ARG90	0.027(#2) / 0.027(#4)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.28					VT (N) 0.48		CR 74	
	CG7138/ARG/CLR/ARG/CG7138											
	0.221	0.625	0.225	0.625	0.221			ARG90	0.027(#2) / 0.027(#5)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.30					VT (N) 0.48		CR 74	
	CLR/ARG/CG7138/ARG/CG7138											
	0.225	0.625	0.221	0.625	0.221			ARG90	0.027(#3) / 0.027(#5)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.34					VT (N) 0.48		CR 74	
155	CG7138/KRY/CG7138/KRY/CLR											
	0.221	0.625	0.221	0.625	0.225			KRY90	0.027(#2) / 0.027(#4)	CL	OF-S	N
	U-Factor 0.18			SHGC (N) 0.28					VT (N) 0.48		CR 76	

NFRC 100/200/500 Summary Sheet
HP3253 Curtain Wall

ID	Pane Thickness 1	Gap Width 1	Pane Thickness 2	Gap Width 2	Pane Thickness 3	Gap Width 3	Pane Thickness 4	Gap Fill	Low-e (Surface#)	Tint	Spacer	Grid Type
	U-Factor			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)					Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance	
	CG7138/KRY/CLR/KRY/CG7138											
	0.221	0.625	0.225	0.625	0.221			KRY90	0.027(#2) / 0.027(#5)	CL	OF-S	N
	U-Factor		0.18	SHGC (N)				0.30	VT (N)	0.48	CR	76
	CLR/KRY/CG7138/KRY/CG7138											
	0.225	0.625	0.221	0.625	0.221			KRY90	0.027(#3) / 0.027(#5)	CL	OF-S	N
	U-Factor		0.18	SHGC (N)				0.34	VT (N)	0.48	CR	76
156	CG7138/AIR/HMTC88/AIR/HMTC88/AIR/CLR											
	0.221	0.500	0.003	0.500	0.003	0.500	0.225	AIR	0.027(#2) / 0.127(#3) / 0.109(#4) / 0.127(#5) / 0.109(#6)	CL	CS-D	N
	U-Factor		0.21	SHGC (N)				0.26	VT (N)	0.39	CR	66
157	CG7138/ARG/HMTC88/ARG/HMTC88/ARG/CLR											
	0.221	0.500	0.003	0.500	0.003	0.500	0.225	ARG90	0.027(#2) / 0.127(#3) / 0.109(#4) / 0.127(#5) / 0.109(#6)	CL	CS-D	N
	U-Factor		0.19	SHGC (N)				0.26	VT (N)	0.39	CR	68
158	CG7138/KRY/HMTC88/KRY/HMTC88/KRY/CLR											
	0.221	0.500	0.003	0.500	0.003	0.500	0.225	KRY90	0.027(#2) / 0.127(#3) / 0.109(#4) / 0.127(#5) / 0.109(#6)	CL	CS-D	N
	U-Factor		0.17	SHGC (N)				0.26	VT (N)	0.39	CR	68

The Condensation Resistance results obtained from this procedure are for controlled laboratory conditions and do not include the effects of air movement through the specimen, solar radiation, and the thermal bridging that may occur due to the specific design and construction of the fenestration system opening.

Ratings values included in this report are for submittals to an NFRC-licensed IA and are not meant to be used directly for labeling purposes. Only those values identified on a valid Certification Authorization Report (CAR) by an NFRC accredited Inspection Agency (IA) are to be used for labeling purposes. The ratings values were rounded in accordance to NFRC 601, NFRC Unit and Measurement Policy.

Architectural Testing is an NFRC accredited simulation laboratory and all simulations were conducted in full compliance with NFRC approved procedures and specifications. The NFRC procedure requires that the computational results be verified through actual test results.

Detailed drawings, simulation data files, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire. Results obtained are simulated values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the product simulated. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

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Attachments (pages): This report is complete only when all attachments listed are included.

Appendix A: Drawings and Bills of Material (16)

Revision Log

Rev. #	Date	Page(s)	Revision(s)
.02 R0	6/23/2009	All	Original Report Issued
.03 R0	8/27/2010	All	Added Options 4-158 Revised Options 1-3 using horizontal frame group leader Revised SHGC Table due to revised modeling