

TEMP / TEMP

Cardinal LoE 366

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.50	0.28	0.65	00468-00002
Solar Grey	5049	2154	0.50	0.29	0.43	00468-00004
Solar Bronze	5041	2154	0.50	0.31	0.48	00468-00003
Evergreen	9881	2154	0.50	0.33	0.55	00468-00006
Azuria	5033	2154	0.50	0.33	0.55	00468-00005

Cardinal LoE 272

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	2011	2001	0.50	0.42	0.72	00465-00002
	5049	2011	0.50	0.37	0.48	00465-00015
	5041	2011	0.50	0.40	0.53	00465-00014
	9881	2011	0.50	0.38	0.61	00465-00017
	5033	2011	0.50	0.38	0.61	00465-00016

Solar Ban 70XL

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5432	2001	0.50	0.28	0.64	00455-00003
	5049	5432	0.50	0.29	0.43	00455-00021
	5041	5432	0.50	0.31	0.48	00455-00020
	9881	5432	0.50	0.32	0.55	00455-00023
	5033	5432	0.50	0.33	0.55	00455-00022

Solar Ban 60

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5281	2001	0.50	0.40	0.73	00455-00002
	5049	5281	0.50	0.36	0.48	00455-00017
	5041	5281	0.50	0.39	0.54	00455-00016
	9881	5281	0.50	0.37	0.62	00455-00019
	5033	5281	0.50	0.37	0.62	00455-00018

TEMP / LAM

Cardinal LoE 366

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	1810	0.50	0.28	0.63	00465-00005
Solar Grey	5049	30032	0.50	0.29	0.42	00465-00026
Solar Bronze	5041	30032	0.50	0.31	0.47	00465-00025
Evergreen	9881	30032	0.50	0.33	0.54	00465-00028
Azuria	5033	30032	0.50	0.33	0.54	00465-00027
White Lam	2154	1892	0.50	0.27	0.47	00465-00011

Cardinal LoE 272

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5432	1810	0.50	0.28	0.63	00455-00006
	5049	5432	0.50	0.29	0.43	00455-00021
	5041	5432	0.50	0.31	0.48	00455-00020
	9881	5432	0.50	0.32	0.55	00455-00023
	5033	5432	0.50	0.33	0.55	00455-00022
	5432	1892	0.50	0.27	0.46	00455-00013

Solar Ban 70XL

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5432	1810	0.50	0.28	0.63	00455-00006
	5049	5432	0.50	0.29	0.43	00455-00021
	5041	5432	0.50	0.31	0.48	00455-00020
	9881	5432	0.50	0.32	0.55	00455-00023
	5033	5432	0.50	0.33	0.55	00455-00022
	5432	1892	0.50	0.27	0.46	00455-00013

Solar Ban 60

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5281	1810	0.51	0.40	0.71	00456-00004
	5049	5281	0.50	0.36	0.48	00455-00017
	5041	5281	0.50	0.39	0.54	00455-00016
	9881	5281	0.50	0.37	0.62	00455-00019
	5033	5281	0.50	0.37	0.62	00455-00018
	5281	1892	0.51	0.38	0.52	00456-00011

1" O.A. - Temp / Lam (3/16" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
SGP Lam	2156	2067	0.50	0.27	0.61	00468-00001

1" O.A. - Temp / Lam (3/16" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	2013	2067	0.50	0.27	0.61	00468-00001

TRIPLE PANE

Cardinal LoE 366 + 180

1-5/16" O.A. - Temp / Temp / Temp

	Pane 1	Pane 3	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.35	0.24	0.57	00473-00011
Solar Grey	5049	2154	0.35	0.30	0.38	00473-00013
Solar Bronze	5041	2154	0.35	0.32	0.42	00473-00012
Evergreen	9881	2154	0.35	0.31	0.48	00473-00015
Azuria	5033	2154	0.35	0.30	0.49	00473-00014

Cardinal LoE 366 + 180

1-5/16" O.A. - Temp / Temp / Lam

	Pane 1	Pane 3	U-factor	SHGC	VT	CPD Line
	2154	1810	0.35	0.24	0.56	00474-00021
	5049	2154	0.35	0.30	0.38	00473-00013
	5041	2154	0.35	0.32	0.42	00473-00012
	9881	2154	0.35	0.31	0.48	00473-00015
	5033	2154	0.35	0.30	0.49	00473-00014

PLASTIC GLAZING

Double Dome Glazing

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30004	0.68	0.75	0.77	00479-00001
White	30007	0.68	0.52	0.43	00479-00002
Bronze	30010	0.68	0.41	0.22	00479-00003

Triple Dome Glazing

	Panes	U-factor	SHGC	VT	CPD Line
	30006	0.51	0.68	0.66	00481-00001
	30009	0.51	0.48	0.34	00481-00002
	30012	0.51	0.34	0.19	00481-00003

25mm Polycarb. MWS

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30005	0.51	0.57	0.57	00480-00001
White	30008	0.51	0.41	0.41	00480-00002
Bronze	30011	0.51	0.41	0.41	00480-00003

White Dome / 25 mm Clear MWS

	Panes	U-factor	SHGC	VT	CPD Line
	30013	0.39	0.31	0.29	00482-00001

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VT values for plastic glazing are not certified due to NFRC Test Procedure limitations. Values shown are center of glazing.

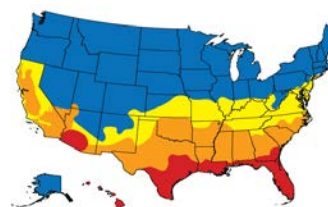
WINDOWS

CLIMATE ZONE	U-FACTOR ¹	SHGC ²	
Northern	≤ 0.30	Any	Prescriptive
	= 0.31	≥ 0.35	Equivalent Energy Performance
	= 0.32	≥ 0.40	
North Central	≤ 0.30	≤ 0.40	
South Central	≤ 0.30	≤ 0.25	
Southern	≤ 0.40	≤ 0.25	

SKYLIGHTS

CLIMATE ZONE	U-FACTOR ¹	SHGC ²
Northern	≤ 0.50	Any
North Central	≤ 0.53	≤ 0.35
South Central	≤ 0.53	≤ 0.28
Southern	≤ 0.60	≤ 0.28

 Air Leakage ≤ 0.3 cfm/ft²
¹ Btu/h ft² °F

² Solar Heat Gain Coefficient


- Northern
- North-Central
- South-Central
- Southern



Energy Code Prescriptive Maximum Requirements

	WINDOWS		SKYLIGHTS	
	U-factor	SHGC	U-factor	SHGC
2012 IECC (Zone 5 & Marine 4)	0.35	0.40	0.60	0.40
2015 IECC (Zone 5 & Marine 4)	0.32	NR	0.55	NR
WSEC (Residential)	0.30	NR	0.50	NR
WSEC (Commercial)	0.30	0.30	0.50	0.35
WSEC (Com. Metal Framing)	0.38	0.36		
SEC (Commercial)	0.30	0.35	0.45	0.32
SEC (Com. Metal Framing)	0.38	0.35		
SEC (Residential)	0.30	NR	0.50	NR



TEMP / TEMP

Cardinal LoE 366

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.48	0.27	0.64	00065-00001
Solar Grey	5049	2154	0.48	0.29	0.43	00065-00003
Solar Bronze	5041	2154	0.48	0.31	0.48	00065-00002
Evergreen	9881	2154	0.48	0.32	0.55	00065-00005
Azuria	5033	2154	0.48	0.33	0.55	00065-00004

TEMP / LAM

Cardinal LoE 366

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	1810	0.45	0.28	0.63	00073-00001
White Lam	2154	1892	0.45	0.27	0.46	00073-00006

TRIPLE PANE

PLASTIC GLAZING

WINDOWS			
CLIMATE ZONE	U-FACTOR ¹	SHGC ²	
Northern	≤ 0.30	Any	Prescriptive
	= 0.31	≥ 0.35	Equivalent Energy Performance
	= 0.32	≥ 0.40	
North Central	≤ 0.30	≤ 0.40	
South Central	≤ 0.30	≤ 0.25	
Southern	≤ 0.40	≤ 0.25	

SKYLIGHTS		
CLIMATE ZONE	U-FACTOR ¹	SHGC ²
Northern	≤ 0.50	Any
North Central	≤ 0.53	≤ 0.35
South Central	≤ 0.53	≤ 0.28
Southern	≤ 0.60	≤ 0.28

Air Leakage ≤ 0.3 cfm/ft²

¹ Btu/h ft²·F

² Solar Heat Gain Coefficient



Energy Code Prescriptive Maximum Requirements

	WINDOWS		SKYLIGHTS	
	U-factor	SHGC	U-factor	SHGC
2012 IECC (Zone 5 & Marine 4)	0.35	0.40	0.60	0.40
2015 IECC (Zone 5 & Marine 4)	0.32	NR	0.55	NR
WSEC (Residential)	0.30	NR	0.50	NR
WSEC (Commercial)	0.30	0.30		
WSEC (Com. Metal Framing)	0.38	0.36	0.50	0.35
SEC (Commercial)	0.30	0.35		
SEC (Com. Metal Framing)	0.38	0.35	0.45	0.32
SEC (Residential)	0.30	NR	0.50	NR

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TEMP / TEMP

Cardinal LoE 366

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.56	0.27	0.63	0841-00002
Solar Grey	5049	2154	0.56	0.29	0.42	0841-00004
Solar Bronze	5041	2154	0.56	0.30	0.47	0841-00003
Evergreen	9881	2154	0.56	0.32	0.54	0841-00006
Azuria	5033	2154	0.56	0.33	0.54	0841-00005

Cardinal LoE 272

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	2011	2001	0.56	0.41	0.70	0838-00002
	5049	2011	0.56	0.36	0.47	0838-00015
	5041	2011	0.56	0.39	0.52	0838-00014
	9881	2011	0.56	0.37	0.59	0838-00017
	5033	2011	0.56	0.37	0.60	0838-00016

Solar Ban 70XL

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5432	2001	0.56	0.27	0.63	0828-00003
	5049	5432	0.56	0.28	0.42	0828-00021
	5041	5432	0.56	0.30	0.46	0828-00020
	9881	5432	0.56	0.32	0.53	0828-00023
	5033	5432	0.56	0.32	0.54	0828-00022

Solar Ban 60

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5281	2001	0.56	0.40	0.71	0828-00002
	5049	5281	0.56	0.36	0.47	0828-00017
	5041	5281	0.56	0.38	0.53	0828-00016
	9881	5281	0.56	0.37	0.60	0828-00019
	5033	5281	0.56	0.36	0.61	0828-00018

TEMP / LAM

Cardinal LoE 366

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	1810	0.56	0.27	0.62	0838-00005
Solar Grey	5049	30032	0.56	0.29	0.41	0838-00026
Solar Bronze	5041	30032	0.56	0.30	0.46	0838-00025
Evergreen	9881	30032	0.56	0.32	0.53	0838-00028
Azuria	5033	30032	0.56	0.32	0.53	0838-00027
White Lam	2154	1892	0.56	0.26	0.45	0838-00011

Cardinal LoE 272

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5432	1810	0.56	0.27	0.61	0828-00006
	5049	5432	0.56	0.28	0.42	0828-00021
	5041	5432	0.56	0.30	0.46	0828-00020
	9881	5432	0.56	0.32	0.53	0828-00023
	5033	5432	0.56	0.32	0.54	0828-00022
	5432	1892	0.56	0.26	0.45	0828-00013

Solar Ban 70XL

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5432	1810	0.56	0.27	0.61	0828-00006
	5049	5432	0.56	0.28	0.42	0828-00021
	5041	5432	0.56	0.30	0.46	0828-00020
	9881	5432	0.56	0.32	0.53	0828-00023
	5033	5432	0.56	0.32	0.54	0828-00022
	5432	1892	0.56	0.26	0.45	0828-00013

Solar Ban 60

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	5281	1810	0.57	0.39	0.69	0829-00004
	5049	5281	0.56	0.36	0.47	0828-00017
	5041	5281	0.56	0.38	0.53	0828-00016
	9881	5281	0.56	0.37	0.60	0828-00019
	5033	5281	0.56	0.36	0.61	0828-00018
	5281	1892	0.57	0.38	0.51	0829-00011

1" O.A. - Temp / Lam (3/16" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
SGP Lam	2156	2067	0.56	0.27	0.60	0841-00001

1" O.A. - Temp / Lam (3/16" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
	2013	2067	0.56	0.27	0.60	0841-00001

TRIPLE PANE

Cardinal LoE 366 + 180

1-5/16" O.A. - Temp / Temp / Temp

	Pane 1	Pane 3	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.42	0.23	0.56	0847-00011
Solar Grey	5049	2154	0.42	0.29	0.37	0847-00013
Solar Bronze	5041	2154	0.42	0.32	0.41	0847-00012
Evergreen	9881	2154	0.42	0.30	0.47	0847-00015
Azuria	5033	2154	0.42	0.30	0.47	0847-00014
	Pane 2	2191				

Cardinal LoE 366 + 180

1-5/16" O.A. - Temp / Temp / Lam

	Pane 1	Pane 3	U-factor	SHGC	VT	CPD Line
	2154	1810	0.42	0.23	0.54	0848-00021
	5049	2154	0.42	0.29	0.37	0847-00013
	5041	2154	0.42	0.32	0.41	0847-00012
	9881	2154	0.42	0.30	0.47	0847-00015
	5033	2154	0.42	0.30	0.47	0847-00014
	Pane 2	2191				

PLASTIC GLAZING

Double Dome Glazing

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30004	0.73	0.73	0.77	0852-00001
White	30007	0.73	0.51	0.43	0852-00002
Bronze	30010	0.73	0.40	0.22	0852-00003

Triple Dome Glazing

	Panes	U-factor	SHGC	VT	CPD Line
	30006	0.56	0.66	0.66	0853-00001
	30009	0.56	0.47	0.34	0853-00002
	30012	0.56	0.33	0.19	0853-00003

25mm Polycarb. MWS

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30005	0.57	0.56	0.57	0854-00001
White	30008	0.57	0.40	0.41	0854-00002
Bronze	30011	0.57	0.40	0.41	0854-00003

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VT values for plastic glazing are not certified due to NFRC Test Procedure limitations. Values shown are center of glazing.

CLIMATE ZONE	U-FACTOR ¹		SHGC ²	
	≤ 0.30	≥ 0.35		
Northern	≤ 0.30	Any	Any	Prescriptive
	= 0.31	≥ 0.35	Any	Equivalent Energy Performance
	= 0.32	≥ 0.40	Any	Equivalent Energy Performance
North Central	≤ 0.30	≤ 0.40	≤ 0.53	
South Central	≤ 0.30	≤ 0.25	≤ 0.28	
Southern	≤ 0.40	≤ 0.25	≤ 0.28	

CLIMATE ZONE	U-FACTOR ¹		SHGC ²
	≤ 0.50	Any	
Northern	≤ 0.50	Any	Any
North Central	≤ 0.53	≤ 0.35	≤ 0.35
South Central	≤ 0.53	≤ 0.28	≤ 0.28
Southern	≤ 0.60	≤ 0.28	≤ 0.28

Air Leakage ≤ 0.3 cfm/ft²

¹ Btu/h ft² °F

² Solar Heat Gain Coefficient



Energy Code Prescriptive Maximum Requirements

	WINDOWS		SKYLIGHTS	
	U-factor	SHGC	U-factor	SHGC
2012 IECC (Zone 5 & Marine 4)	0.35	0.40	0.60	0.40
2015 IECC (Zone 5 & Marine 4)	0.32	NR	0.55	NR
WSEC (Residential)	0.30	NR	0.50	NR
WSEC (Commercial)	0.30	0.30		
WSEC (Com. Metal Framing)	0.38	0.36	0.50	0.35
SEC (Commercial)	0.30	0.35		
SEC (Com. Metal Framing)	0.38	0.35	0.45	0.32
SEC (Residential)	0.30	NR	0.50	NR



TEMP / TEMP

Cardinal LoE 366

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.49	0.25	0.57	0790-00002
Solar Grey	5049	2154	0.49	0.26	0.38	0790-00004
Solar Bronze	5041	2154	0.49	0.27	0.42	0790-00003
Evergreen	9881	2154	0.49	0.29	0.48	0790-00006
Azuria	5033	2154	0.49	0.29	0.48	0790-00005

Cardinal LoE 272

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.49	0.37	0.63	0787-00002
Solar Grey	5049	2011	0.49	0.33	0.42	0787-00015
Solar Bronze	5041	2011	0.49	0.35	0.47	0787-00014
Evergreen	9881	2011	0.49	0.33	0.53	0787-00017
Azuria	5033	2011	0.49	0.33	0.54	0787-00016

Solar Ban 70XL

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	5432	2001	0.49	0.25	0.56	0777-00003
Solar Grey	5049	5432	0.49	0.26	0.38	0777-00021
Solar Bronze	5041	5432	0.49	0.27	0.42	0777-00020
Evergreen	9881	5432	0.49	0.28	0.48	0777-00023
Azuria	5033	5432	0.49	0.29	0.48	0777-00022

Solar Ban 60

1" O.A. - Temp / Temp (1/8" over 1/8")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	5281	2001	0.49	0.36	0.64	0777-00002
Solar Grey	5049	5281	0.49	0.32	0.42	0777-00017
Solar Bronze	5041	5281	0.49	0.34	0.47	0777-00016
Evergreen	9881	5281	0.49	0.33	0.54	0777-00019
Azuria	5033	5281	0.49	0.33	0.54	0777-00018

TEMP / LAM

Cardinal LoE 366

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	2154	1810	0.49	0.25	0.55	0787-00005
Solar Grey	5049	30032	0.49	0.26	0.37	0787-00026
Solar Bronze	5041	30032	0.49	0.27	0.41	0787-00025
Evergreen	9881	30032	0.49	0.29	0.47	0787-00028
Azuria	5033	30032	0.49	0.29	0.48	0787-00027
White Lam	2154	1892	0.49	0.23	0.41	0787-00011

Cardinal LoE 272

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	5432	1810	0.49	0.25	0.55	0777-00006
Solar Grey	5049	5432	0.49	0.26	0.38	0777-00021
Solar Bronze	5041	5432	0.49	0.27	0.42	0777-00020
Evergreen	9881	5432	0.49	0.28	0.48	0777-00023
Azuria	5033	5432	0.49	0.29	0.48	0777-00022
White Lam	5432	1892	0.49	0.24	0.41	0777-00013

Solar Ban 70XL

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	5432	1810	0.49	0.25	0.55	0777-00006
Solar Grey	5049	5432	0.49	0.26	0.38	0777-00021
Solar Bronze	5041	5432	0.49	0.27	0.42	0777-00020
Evergreen	9881	5432	0.49	0.28	0.48	0777-00023
Azuria	5033	5432	0.49	0.29	0.48	0777-00022
White Lam	5432	1892	0.49	0.24	0.41	0777-00013

Solar Ban 60

1" O.A. - Temp / Lam (1/8" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
Clear	5281	1810	0.50	0.35	0.62	0777-00004
Solar Grey	5049	5281	0.49	0.32	0.42	0777-00017
Solar Bronze	5041	5281	0.49	0.34	0.47	0777-00016
Evergreen	9881	5281	0.49	0.33	0.54	0777-00019
Azuria	5033	5281	0.49	0.33	0.54	0777-00018
White Lam	5281	1892	0.50	0.34	0.46	0777-00011

1" O.A. - Temp / Lam (3/16" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
SGP Lam	2156	2067	0.49	0.24	0.53	0790-00001

1" O.A. - Temp / Lam (3/16" over 1/4")

	Pane 1	Pane 2	U-factor	SHGC	VT	CPD Line
SGP Lam	2013	2067	0.49	0.24	0.53	0790-00001

TRIPLE PANE

Cardinal LoE 366 + 180

1-5/16" O.A. - Temp / Temp / Temp

	Pane 1	Pane 3	U-factor	SHGC	VT	CPD Line
Clear	2154	2001	0.35	0.21	0.50	0796-00011
Solar Grey	5049	2154	0.35	0.27	0.33	0796-00013
Solar Bronze	5041	2154	0.35	0.29	0.37	0796-00012
Evergreen	9881	2154	0.35	0.27	0.42	0796-00015
Azuria	5033	2154	0.35	0.27	0.43	0796-00014
	Pane 2	2191				

Cardinal LoE 272 + 180

1-5/16" O.A. - Temp / Temp / Lam

	Pane 1	Pane 3	U-factor	SHGC	VT	CPD Line
Clear	2154	1810	0.35	0.21	0.49	0797-00021
Solar Grey	5049	2154	0.35	0.27	0.33	0796-00013
Solar Bronze	5041	2154	0.35	0.29	0.37	0796-00012
Evergreen	9881	2154	0.35	0.27	0.42	0796-00015
Azuria	5033	2154	0.35	0.27	0.43	0796-00014
	Pane 2	2191				

PLASTIC GLAZING

Double Dome Glazing

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30004	0.66	0.66	0.77	0801-00001
White	30007	0.66	0.46	0.43	0801-00002
Bronze	30010	0.66	0.36	0.22	0801-00003

Triple Dome Glazing

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30006	0.49	0.60	0.66	0802-00001
White	30009	0.49	0.42	0.34	0802-00002
Bronze	30012	0.49	0.30	0.19	0802-00003

25mm Polycarb. MWS

	Panes	U-factor	SHGC	VT	CPD Line
Clear	30005	0.50	0.50	0.57	0803-00001
White	30008	0.50	0.36	0.41	0803-00002
Bronze	30011	0.50	0.36	0.41	0803-00003

This REFERENCE GUIDE shows NFRC Certified values for our common glazing configurations. Please contact us if you have a specific glazing requirement not shown.

VT values for plastic glazing are not certified due to NFRC Test Procedure limitations. Values shown are center of glazing.

WINDOWS			
CLIMATE ZONE	U-FACTOR ¹	SHGC ²	
Northern	≤ 0.30	Any	Prescriptive
	= 0.31	≥ 0.35	Equivalent Energy Performance
	= 0.32	≥ 0.40	
North Central	≤ 0.30	≤ 0.40	
South Central	≤ 0.30	≤ 0.25	
Southern	≤ 0.40	≤ 0.25	

SKYLIGHTS			
CLIMATE ZONE	U-FACTOR ¹	SHGC ²	
Northern	≤ 0.50	Any	
North Central	≤ 0.53	≤ 0.35	
South Central	≤ 0.53	≤ 0.28	
Southern	≤ 0.60	≤ 0.28	

Air Leakage ≤ 0.3 cfm/ft²
¹ Btu/h ft² °F
² Solar Heat Gain Coefficient



Energy Code Prescriptive Maximum Requirements

	WINDOWS		SKYLIGHTS	
	U-factor	SHGC	U-factor	SHGC
2012 IECC (Zone 5 & Marine 4)	0.35	0.40	0.60	0.40
2015 IECC (Zone 5 & Marine 4)	0.32	NR	0.55	NR
WSEC (Residential)	0.30	NR	0.50	NR
WSEC (Commercial)	0.30	0.30		
WSEC (Com. Metal Framing)	0.38	0.36	0.50	0.35
SEC (Commercial)	0.30	0.35		
SEC (Com. Metal Framing)	0.38	0.35	0.45	0.32
SEC (Residential)	0.30	NR	0.50	NR



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3962: 1" O.A. - 1/8" Temp Low E / 1/8"Temp

3903: 1" O.A. - 1/8" Clear Temp / 1/8"Temp (Air)

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear					
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT		
Clear	2	.29	.30	.51	1	.29	.20	.46	3	.29	.18	.28	4	.29	.28	.51	5	.29	.20	.46	6	.29	.18	.36						
Solar Grey	2	.29	.23	.14	1	.29	.15	.12	3	.29	.14	.08	4	.29	.21	.14	5	.29	.15	.12	6	.29	.14	.10						
Solar Bronze	2	.29	.23	.15	1	.29	.15	.14	3	.29	.14	.08	4	.29	.22	.15	5	.29	.15	.14	6	.29	.14	.12						
Evergreen	2	.29	.30	.43	1	.29	.20	.39	3	.29	.18	.24	4	.29	.28	.43	5	.29	.20	.39	6	.29	.17	.30						
Azuria	2	.29	.30	.43	1	.29	.20	.39	3	.29	.18	.24	4	.29	.28	.44	5	.29	.20	.39	6	.29	.17	.31						

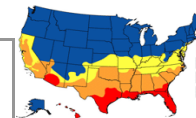
3962: 1" O.A. - 1/8" Temp Low E / 1/8"Temp

3903: 1" O.A. - Temp / Lam (1/8" over 1/8" Tint / 0.030 / 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear					
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT		
Clear	2	.29	.30	.50	1	.29	.20	.45	3	.29	.18	.28	4	.29	.28	.50	5	.29	.20	.45	6	.29	.18	.35						
White	2	.29	.30	.36	1	.29	.19	.32	3	.29	.18	.20	4	.29	.28	.36	5	.29	.20	.32	6	.29	.17	.25						
Solar Grey	2	.29	.23	.14	1	.29	.15	.12	3	.29	.14	.07	4	.29	.21	.14	5	.29	.15	.12	6	.29	.14	.10						
Solar Bronze	2	.29	.23	.15	1	.29	.15	.14	3	.29	.14	.08	4	.29	.21	.15	5	.29	.15	.14	6	.29	.14	.11						
Evergreen	2	.29	.30	.42	1	.29	.20	.38	3	.29	.18	.24	4	.29	.28	.43	5	.29	.20	.38	6	.29	.17	.30						
Azuria	2	.29	.30	.43	1	.29	.20	.39	3	.29	.18	.24	4	.29	.28	.43	5	.29	.20	.38	6	.29	.17	.30						

NOTES: Low E is ALWAYS on surface 2 of 3962 IG unit
 Tints are part of the laminated pane.

Blue Values indicates ENERGY STAR compliance in the Northern Climate Zone



Climate Zone	U-Factor ¹	SHGC ²
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
Central	≤ 0.57	≤ 0.30
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30





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4/25/2014

1" O.A. - Temp / Temp (1/8" over 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	562	.44	.41	.70	563	.43	.27	.63	564	.45	.26	.39	799	.45	.38	.70	800	.44	.27	.62	801	.44	.24	.47	561	.62	.76	.80
Solar Grey	562	.44	.36	.46	563	.43	.29	.42	564	.45	.36	.26	799	.45	.34	.47	800	.44	.28	.42	801	.44	.23	.31	561	.62	.57	.53
Solar Bronze	562	.44	.39	.51	563	.43	.30	.46	564	.45	.39	.29	799	.45	.36	.52	800	.44	.30	.46	801	.44	.24	.35	561	.62	.61	.53
Evergreen	562	.44	.37	.59	563	.43	.32	.53	564	.45	.36	.33	799	.45	.36	.59	800	.44	.31	.53	801	.44	.25	.40	561	.62	.50	.67
Azuria	562	.44	.37	.59	563	.43	.32	.54	564	.45	.35	.33	799	.45	.36	.60	800	.44	.32	.53	801	.44	.26	.40	561	.62	.48	.68

1" O.A. - Temp / Lam (1/8" over 1/8" / 0.030 / 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	576	.45	.40	.68	577	.44	.27	.61	578	.45	.25	.38	808	.45	.38	.69	809	.45	.27	.61	810	.45	.24	.46	575	.61	.73	.78
White	654	.45	.39	.50	655	.44	.26	.45					865	.45	.36	.50	866	.45	.26	.44	867	.45	.23	.34	653	.61	.69	.57
Solar Grey	576	.45	.36	.46	577	.44	.29	.41	578	.45	.36	.25	808	.45	.34	.46	809	.45	.28	.41	810	.45	.23	.31	575	.61	.54	.52
Solar Bronze	576	.45	.38	.51	577	.44	.30	.46	578	.45	.39	.28	808	.45	.36	.51	809	.45	.30	.45	810	.45	.24	.34	575	.61	.59	.52
Evergreen	576	.45	.36	.58	577	.44	.32	.52	578	.45	.36	.32	808	.45	.35	.58	809	.45	.31	.52	810	.45	.25	.39	575	.61	.49	.66
Azuria	576	.45	.36	.58	577	.44	.32	.53	578	.45	.35	.33	808	.45	.35	.59	809	.45	.32	.52	810	.45	.26	.40	575	.61	.46	.66

1" O.A. - Temp / Cardinal SGP Lam (3/16" over 3/16" / 0.090 / 3/16")

For PPG Glas with 0.060 interlayer, Use 0.030 Above

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	604	.45	.39	.66	605	.44	.26	.59	606	.45	.24	.36																

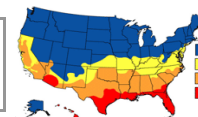
1-5/16" O.A. TRIPLE GLAZED

Plastic Glazing Options NOTE: VT Values are not NFRC Certified

	T / T / T C-366 + C-180				T / T / L C-366 + C-180			
	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	966	.30	.23	.55	966	.30	.23	.54
Solar Grey	966	.30	.29	.37	966	.30	.29	.36
Solar Bronze	966	.30	.32	.41	966	.30	.31	.40
Evergreen	966	.30	.30	.47	966	.30	.29	.46
Azuria	966	.30	.29	.47	966	.30	.29	.46

Structured Sheet			
Line	U	SHGC	VT
679	.45	.55	.52
679	.45	.40	.24
679	.45	.40	.22

Blue Values indicates ENERGY STAR compliance in the Northern Climate Zone



Climate Zone	U-Factor ¹	SHGC ²
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30





This REFERENCE GUIDE shows NFRC Certified values for our common glazing configurations. Please contact us if you have a specific glazing requirement not shown.



1" O.A. - Temp / Temp (1/8" over 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	290	.49	.40	.69	291	.48	.27	.62	292	.49	.25	.38	408	.49	.38	.69	409	.49	.27	.62	410	.49	.24	.47	289	.66	.75	.79
Solar Grey	290	.49	.36	.46	291	.48	.28	.41	292	.49	.36	.25	408	.49	.34	.46	409	.49	.28	.41	410	.49	.23	.31	289	.66	.56	.52
Solar Bronze	290	.49	.38	.51	291	.48	.30	.46	292	.49	.39	.28	408	.49	.36	.51	409	.49	.29	.45	410	.49	.24	.34	289	.66	.60	.52
Evergreen	290	.49	.36	.58	291	.48	.31	.52	292	.49	.35	.32	408	.49	.35	.59	409	.49	.31	.52	410	.49	.25	.39	289	.66	.50	.66
Azuria	290	.49	.36	.59	291	.48	.32	.53	292	.49	.35	.33	408	.49	.35	.59	409	.49	.32	.53	410	.49	.26	.40	289	.66	.47	.67

1" O.A. - Temp / Lam (1/8" over 1/8" / 0.030 / 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	304	.50	.40	.67	305	.49	.27	.60	306	.50	.25	.37	417	.50	.37	.68	418	.49	.27	.60	419	.50	.23	.46	303	.65	.72	.77
White	382	.50	.38	.49	383	.49	.26	.44					474	.50	.36	.49	475	.50	.26	.44	476	.50	.22	.33	381	.66	.68	.56
Solar Grey	304	.50	.35	.45	305	.49	.28	.41	306	.50	.36	.25	417	.50	.34	.45	418	.49	.28	.40	419	.50	.23	.30	303	.65	.54	.51
Solar Bronze	304	.50	.38	.50	305	.49	.30	.45	306	.50	.39	.28	417	.50	.36	.50	418	.49	.29	.45	419	.50	.24	.34	303	.65	.58	.51
Evergreen	304	.50	.36	.57	305	.49	.31	.52	306	.50	.35	.32	417	.50	.35	.58	418	.49	.31	.51	419	.50	.25	.39	303	.65	.48	.65
Azuria	304	.50	.36	.58	305	.49	.32	.52	306	.50	.35	.32	417	.50	.35	.58	418	.49	.31	.52	419	.50	.26	.39	303	.65	.45	.65

1" O.A. - Temp / Cardinal SGP Lam (3/16" over 3/16" / 0.090 / 3/16")

For PPG Glas with 0.060 interlayer, Use 0.030 Above

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	332	.50	.38	.65	333	.49	.26	.58	334	.50	.24	.36																

1-5/16" O.A. TRIPLE GLAZED

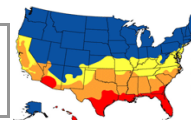
	T / T / T C-366 + C-180				T / T / L C-366 + C-180			
	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	494	.36	.23	.54	494	.36	.23	.53
Solar Grey	494	.36	.29	.36	494	.36	.28	.36
Solar Bronze	494	.36	.31	.40	494	.36	.31	.39
Evergreen	494	.36	.29	.46	494	.36	.29	.45
Azuria	494	.36	.29	.46	494	.36	.29	.46

Plastic Glazing Options

NOTE: VT Values are Not NFRC Certified

Structured Sheet				
	Line	U	SHGC	VT
Clear	407	.50	.55	0.55
White	407	.50	.39	0.26
Bronze	407	.50	.39	0.23

Blue Values indicates ENERGY STAR compliance in the Northern Climate Zone



Climate Zone	U-Factor ¹	SHGC ²
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30





This REFERENCE GUIDE shows NFRC Certified values for our common glazing configurations. Please contact us if you have a specific glazing requirement not shown.



1" O.A. - Temp / Temp (1/8" over 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	328	.42	.37	.62	329	.41	.25	.55	330	.42	.24	.34	446	.43	.35	.62	447	.43	.25	.55	448	.43	.22	.42	327	.58	.68	.70
Solar Grey	328	.42	.33	.41	329	.41	.26	.37	330	.42	.33	.23	446	.43	.31	.41	447	.43	.26	.37	448	.43	.21	.28	327	.58	.51	.47
Solar Bronze	328	.42	.35	.45	329	.41	.28	.41	330	.42	.36	.25	446	.43	.33	.46	447	.43	.27	.41	448	.43	.22	.31	327	.58	.55	.47
Evergreen	328	.42	.33	.52	329	.41	.29	.47	330	.42	.33	.29	446	.43	.32	.53	447	.43	.29	.47	448	.43	.23	.35	327	.58	.45	.59
Azuria	328	.42	.33	.52	329	.41	.30	.47	330	.42	.32	.29	446	.43	.32	.53	447	.43	.29	.47	448	.43	.24	.36	327	.58	.43	.60

1" O.A. - Temp / Lam (1/8" over 1/8" / 0.030 / 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	342	.42	.36	.60	343	.42	.25	.54	344	.43	.23	.33	455	.44	.34	.61	456	.43	.25	.54	457	.43	.22	.41	341	.58	.65	.69
White	420	.42	.35	.44	421	.42	.24	.39					512	.44	.33	.44	513	.43	.24	.39	514	.43	.21	.30	419	.58	.62	.50
Solar Grey	342	.42	.33	.40	343	.42	.26	.36	344	.43	.33	.22	455	.44	.31	.41	456	.43	.26	.36	457	.43	.21	.27	341	.58	.49	.46
Solar Bronze	342	.42	.35	.45	343	.42	.27	.40	344	.43	.35	.25	455	.44	.33	.45	456	.43	.27	.40	457	.43	.22	.30	341	.58	.53	.46
Evergreen	342	.42	.33	.51	343	.42	.29	.46	344	.43	.32	.29	455	.44	.32	.52	456	.43	.28	.46	457	.43	.23	.35	341	.58	.44	.58
Azuria	342	.42	.33	.52	343	.42	.29	.47	344	.43	.32	.29	455	.44	.32	.52	456	.43	.29	.46	457	.43	.24	.35	341	.58	.41	.59

1" O.A. - Temp / Cardinal SGP Lam (3/16" over 3/16" / 0.090 / 3/16")

For PPG Glas with 0.060 interlayer, Use 0.030 Above

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	370	.42	.35	.58	371	.42	.24	.52	372	.43	.22	.32																

1-5/16" O.A. TRIPLE GLAZED

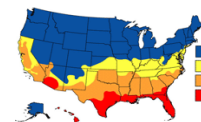
	T / T / T C-366 + C-180				T / T / L C-366 + C-180			
	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	532	.28	.21	.49	532	.28	.21	.48
Solar Grey	532	.28	.27	.32	532	.28	.26	.32
Solar Bronze	532	.28	.29	.36	532	.28	.28	.35
Evergreen	532	.28	.27	.41	532	.28	.27	.41
Azuria	532	.28	.27	.42	532	.28	.26	.41

Plastic Glazing Options

NOTE: VT Values are Not NFRC Certified

	Structured Sheet			
	Line	U	SHGC	VT
Clear	445	.42	.50	.46
White	445	.42	.36	.21
Bronze	445	.42	.36	.19

Blue Values indicates ENERGY STAR compliance in the Northern Climate Zone



Climate Zone	U-Factor ¹	SHGC ²
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30





This REFERENCE GUIDE shows NFRC Certified values for our common glazing configurations. Please contact us if you have a specific glazing requirement not shown.



4/25/2014

1" O.A. - Temp / Temp (1/8" over 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	291	.39	.36	.61	292	.39	.25	.55	293	.40	.23	.34	409	.41	.34	.62	410	.41	.25	.55	411	.41	.21	.42	290	.56	.67	.70
Solar Grey	291	.39	.32	.41	292	.39	.26	.37	293	.40	.33	.23	409	.41	.31	.41	410	.41	.25	.36	411	.41	.21	.28	290	.56	.50	.46
Solar Bronze	291	.39	.34	.45	292	.39	.27	.40	293	.40	.35	.25	409	.41	.33	.45	410	.41	.27	.40	411	.41	.22	.31	290	.56	.54	.46
Evergreen	291	.39	.33	.52	292	.39	.29	.46	293	.40	.32	.29	409	.41	.32	.52	410	.41	.28	.46	411	.41	.23	.35	290	.56	.45	.59
Azuria	291	.39	.33	.52	292	.39	.29	.47	293	.40	.32	.29	409	.41	.32	.52	410	.41	.29	.47	411	.41	.24	.35	290	.56	.42	.59

1" O.A. - Temp / Lam (1/8" over 1/8" / 0.030 / 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	305	.40	.36	.60	306	.40	.24	.54	307	.41	.23	.33	418	.41	.34	.60	419	.41	.24	.53	420	.41	.21	.41	304	.56	.64	.68
White	383	.40	.35	.43	384	.40	.23	.39					475	.42	.33	.44	476	.41	.23	.39	477	.41	.20	.29	382	.56	.61	.50
Solar Grey	305	.40	.32	.40	306	.40	.26	.36	307	.41	.32	.22	418	.41	.30	.40	419	.41	.25	.36	420	.41	.21	.27	304	.56	.48	.45
Solar Bronze	305	.40	.34	.44	306	.40	.27	.40	307	.41	.35	.25	418	.41	.32	.45	419	.41	.27	.40	420	.41	.22	.30	304	.56	.52	.45
Evergreen	305	.40	.33	.51	306	.40	.28	.46	307	.41	.32	.28	418	.41	.32	.51	419	.41	.28	.45	420	.41	.23	.34	304	.56	.43	.58
Azuria	305	.40	.32	.51	306	.40	.29	.46	307	.41	.31	.29	418	.41	.32	.51	419	.41	.28	.46	420	.41	.23	.35	304	.56	.41	.58

1" O.A. - Temp / Cardinal SGP Lam (3/16" over 3/16" / 0.090 / 3/16")

For PPG Glas with 0.060 interlayer, Use 0.030 Above

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	333	.40	.35	.57	334	.39	.24	.52	335	.40	.22	.32																

1-5/16" O.A. TRIPLE GLAZED

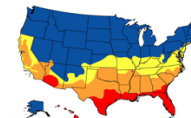
	T / T / T C-366 + C-180				T / T / L C-366 + C-180			
	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	495	.25	.21	.48	495	.25	.21	.47
Solar Grey	495	.25	.26	.32	495	.25	.26	.32
Solar Bronze	495	.25	.28	.36	495	.25	.28	.35
Evergreen	495	.25	.27	.41	495	.25	.26	.40
Azuria	495	.25	.26	.41	495	.25	.26	.40

Plastic Glazing Options

NOTE: VT Values are Not NFRC Certified

	Structured Sheet			
	Line	U	SHGC	VT
Clear	408	.40	.49	.55
White	408	.40	.36	.26
Bronze	408	.40	.36	.23

Blue Values indicates ENERGY STAR compliance in the Northern Climate Zone



Climate Zone	U-Factor ^a	SHGC ^c
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30





This REFERENCE GUIDE shows NFRC Certified values for our common glazing configurations. Please contact us if you have a specific glazing requirement not shown.



4/25/2014

1" O.A. - Temp / Temp (1/8" over 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	221	.34	.38	.65	222	.33	.26	.58	223	.34	.24	.36	172	.36	.36	.65	173	.36	.26	.58	174	.36	.22	.44	220	.51	.71	.74
Solar Grey	221	.34	.34	.43	222	.33	.27	.39	223	.34	.35	.24	172	.36	.32	.44	173	.36	.26	.39	174	.36	.21	.29	220	.51	.53	.49
Solar Bronze	221	.34	.36	.48	222	.33	.29	.43	223	.34	.38	.27	172	.36	.34	.48	173	.36	.28	.43	174	.36	.23	.32	220	.51	.57	.49
Evergreen	221	.34	.34	.55	222	.33	.30	.49	223	.34	.34	.31	172	.36	.33	.55	173	.36	.29	.49	174	.36	.23	.37	220	.51	.47	.63
Azuria	221	.34	.34	.55	222	.33	.30	.50	223	.34	.33	.31	172	.36	.33	.56	173	.36	.29	.50	174	.36	.24	.38	220	.51	.45	.63

1" O.A. - Temp / Lam (1/8" over 1/8" / 0.030 / 1/8")

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	235	.33	.38	.63	236	.32	.25	.57	237	.33	.23	.35	181	.35	.36	.64	182	.35	.25	.57	183	.35	.22	.43	234	.50	.68	.72
White	267	.33	.37	.46	268	.32	.25	.41					205	.35	.35	.46	206	.35	.25	.41	207	.35	.21	.31	266	.50	.64	.53
Solar Grey	235	.33	.34	.42	236	.32	.27	.38	237	.33	.35	.24	181	.35	.32	.43	182	.35	.26	.38	183	.35	.21	.29	234	.50	.51	.48
Solar Bronze	235	.33	.36	.47	236	.32	.29	.42	237	.33	.37	.26	181	.35	.34	.47	182	.35	.28	.42	183	.35	.22	.32	234	.50	.55	.48
Evergreen	235	.33	.34	.54	236	.32	.29	.49	237	.33	.34	.30	181	.35	.33	.54	182	.35	.29	.48	183	.35	.23	.37	234	.50	.46	.61
Azuria	235	.33	.34	.54	236	.32	.30	.49	237	.33	.33	.30	181	.35	.33	.55	182	.35	.29	.49	183	.35	.24	.37	234	.50	.43	.62

1" O.A. - Temp / Cardinal SGP Lam (3/16" over 3/16" / 0.090 / 3/16")

For PPG Glas with 0.060 interlayer, Use 0.030 Above

	Cardinal 272				Cardinal 366				Cardinal 240				Solar Ban 60				Solar Ban 70XL				Solar Ban 80				Clear / Clear			
	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT	Line	U	SHGC	VT
Clear	263	.33	.37	.61	264	.32	.26	.55	265	.33	.23	.34																
White																												
Solar Grey																												
Solar Bronze																												
Evergreen																												
Azuria																												

1" O.A. - Temp / Temp (1/8" over 1/8")

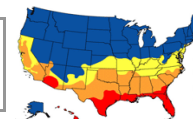
	Cardinal 366/i81			
	Line	U	SHGC	VT
Clear	291	.28	.23	.52

Plastic Glazing Options

NOTE: VT Values are Not NFRC Certified

	Structured Sheet			
	Line	U	SHGC	VT
Clear	290	.38	.52	.50
White	290	.38	.38	.23
Bronze	290	.38	.38	.21

Blue Values indicates ENERGY STAR compliance in the Northern Climate Zone



Climate Zone	U-Factor ¹	SHGC ²
Northern	≤ 0.55	Any
North-Central	≤ 0.55	≤ 0.40
South-Central	≤ 0.57	≤ 0.30
Southern	≤ 0.70	≤ 0.30

