NFRC Product Line Summary (2023 Std)

Simulation Report # FLE24004-SS

Manufacturer: Fleetwood Windows & Doors
Series/Model: 450-T Hopper
Operator Type: Projected-Awning
Frame Type: Aluminum w/Thermal Breaks (AT)
Sash Type: Aluminum w/Thermal Breaks (AT)

Product Line ID: FLE-M-114
Model Size: 1500mm x 600mm
Frame Abs.: 0.3

Simulation Orig Report Date: 8/20/2024
Simulation Revision Date: 8/20/2024
Report Type: Recertification
Simulation Lab Code: SWWW

Note: Options without numbers are grouped with the option(s) above

											No Dividers		Dividers < 1"		Dividers > 1"	
Option	Description/Code	Glass Thicknesses	Gap Width(s)	Gas	Emissivity(sfc)	Spacer/Seal	Divider	U-Factor	CR	Tint	SHGC	VT	SHGC	VT	SHGC	VT
173	CIG366/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.020(2)	SS-D	N,G	**0.33**	**58**	CL	**0.20**	0.46	**0.19**	0.42	**0.17**	0.38
174	CIG366/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.020(2)	SS-D	N,G	**0.33**	**60**	CL	**0.20**	0.45	**0.19**	0.41	**0.17**	0.37
175	CIG366-i89/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.020(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.20**	0.45	**0.18**	0.41	**0.17**	0.37
176	CIG366-i89/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.020(2) 0.149(4)	SS-D	N,G	**0.30**	**50**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
177	CIG272/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.042(2)	SS-D	N,G	**0.34**	**58**	CL	**0.30**	0.51	**0.28**	0.46	**0.25**	0.42
178	CIG272/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.042(2)	SS-D	N,G	**0.33**	**60**	CL	**0.30**	0.50	**0.27**	0.46	**0.25**	0.41
179	CIG272-i89/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.042(2) 0.149(4)	SS-D	N,G	**0.31**	**49**	CL	**0.30**	0.50	**0.27**	0.45	**0.25**	0.41
180	CIG272-i89/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.042(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.29**	0.49	**0.27**	0.44	**0.24**	0.40
181	CIG180/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.068(2)	SS-D	N,G	**0.35**	**57**	CL	**0.46**	0.56	**0.42**	0.51	**0.38**	0.46
182	CIG180/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.068(2)	SS-D	N,G	**0.34**	**59**	CL	**0.45**	0.55	**0.41**	0.50	**0.37**	0.45
183	CIG180-i89/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.068(2) 0.149(4)	SS-D	N,G	**0.31**	**48**	CL	**0.45**	0.55	**0.41**	0.50	**0.37**	0.45
184	CIG180-i89/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.068(2) 0.149(4)	SS-D	N,G	**0.31**	**49**	CL	**0.43**	0.54	**0.39**	0.49	**0.36**	0.44
185	CIG340/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.028(2)	SS-D	N,G	**0.33**	**58**	CL	**0.14**	0.28	**0.13**	0.25	**0.12**	0.23
186	CIG340/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.028(2)	SS-D	N,G	**0.33**	**60**	CL	**0.14**	0.27	**0.13**	0.25	**0.12**	0.22
187	CIG340-i89/Arg 5mm SS-D (1" IG)	0.197, 0.197	0.632	ARG	0.028(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.13**	0.27	**0.12**	0.24	**0.11**	0.22
188	CIG340-i89/Arg 6mm SS-D (1" IG)	0.236, 0.236	0.522	ARG	0.028(2) 0.149(4)	SS-D	N,G	**0.30**	**50**	CL	**0.13**	0.27	**0.12**	0.24	**0.12**	0.22
189	Clear/Air 5mm A1-D (1" IG)	0.197, 0.197	0.621	AIR		A1-D	N,G	**0.53**	**42**	CL	**0.53**	0.58	**0.49**	0.52	**0.44**	0.47
190	Clear/Air 6mm A1-D (1" IG)	0.236, 0.236	0.542	AIR		A1-D	N,G	**0.53**	**42**	CL	**0.52**	0.57	**0.47**	0.52	**0.43**	0.47
191	SN68/Air 5mm A1-D (1" IG)	0.197, 0.197	0.621	AIR	0.039(2)	A1-D	N,G	**0.42**	**51**	CL	**0.28**	0.49	**0.26**	0.45	**0.24**	0.40
	sBZ-SN68/Air 5mm A1-D (1" IG)	0.197, 0.197	0.621	AIR	0.039(3)	A1-D	N,G	**0.42**	**51**	BZ	**0.25**	0.32	**0.23**	0.29	**0.21**	0.26
192	SN68/Air 6mm A1-D (1" IG)	0.236, 0.236	0.542	AIR	0.039(2)	A1-D	N,G	**0.41**	**50**	CL	**0.28**	0.49	**0.26**	0.44	**0.23**	0.40
	sBZ-SN68/Air 6mm A1-D (1" IG)	0.236, 0.236	0.542	AIR	0.039(3)	A1-D	N,G	**0.41**	**50**	BZ	**0.24**	0.29	**0.22**	0.26	**0.20**	0.24
193	SN68/Arg 5mm A1-D (1" IG)	0.197, 0.197	0.621	ARG	0.039(2)	A1-D	N,G	**0.38**	**51**	CL	**0.28**	0.49	**0.26**	0.45	**0.23**	0.40
194	SN68/Arg 6mm A1-D (1" IG)	0.236, 0.236	0.542	ARG	0.039(2)	A1-D	N,G	**0.38**	**53**	CL	**0.28**	0.49	**0.25**	0.44	**0.23**	0.40

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. (NFRC 500)

WESTLab

Initials: SZ

NFRC Product Line Summary (2023 Std)

Simulation Report # FLE24004-SS

Manufacturer: Fleetwood Windows & Doors
Series/Model: 450-T Hopper
Operator Type: Projected-Awning
Frame Type: Aluminum w/Thermal Breaks (AT)
Sash Type: Aluminum w/Thermal Breaks (AT)

Product Line ID: FLE-M-114
Model Size: 1500mm x 600mm
Frame Abs.: 0.3

Simulation Orig Report Date: 8/20/2024
Simulation Revision Date: 8/20/2024
Report Type: Recertification
Simulation Lab Code: SWWW

Note: Options without numbers are grouped with the option(s) above

											No Dividers		Dividers < 1"		Dividers > 1"	
Option	Description/Code	Glass Thicknesses	Gap Width(s)	Gas	Emissivity(sfc)	Spacer/Seal	Divider	U-Factor	CR	Tint	SHGC	VT	SHGC	VT	SHGC	VT
195	SNX62/Air 5mm A1-D (1" IG)	0.197, 0.197	0.621	AIR	0.020(2)	A1-D	N,G	**0.41**	**49**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
196	SNX62/Air 6mm A1-D (1" IG)	0.236, 0.236	0.542	AIR	0.020(2)	A1-D	N,G	**0.41**	**50**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
197	SNX62/Arg 5mm A1-D (1" IG)	0.197, 0.197	0.621	ARG	0.020(2)	A1-D	N,G	**0.38**	**52**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
198	SNX62/Arg 6mm A1-D (1" IG)	0.236, 0.236	0.542	ARG	0.020(2)	A1-D	N,G	**0.38**	**53**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
199	SN68/Arg 5mm ZF-S (1" IG)	0.197, 0.197	0.625	ARG	0.039(2)	ZF-S	N,G	**0.33**	**59**	CL	**0.28**	0.49	**0.26**	0.45	**0.23**	0.40
200	SN68/Arg 6mm ZF-S (1" IG)	0.236, 0.236	0.538	ARG	0.039(2)	ZF-S	N,G	**0.33**	**61**	CL	**0.28**	0.49	**0.25**	0.44	**0.23**	0.40
201	SN68-IS20/Arg 5mm ZF-S (1" IG)	0.197, 0.197	0.625	ARG	0.039(2) 0.198(4)	ZF-S	N,G	**0.30**	**50**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
202	SN68-IS20/Arg 6mm ZF-S (1" IG)	0.236, 0.236	0.538	ARG	0.039(2) 0.198(4)	ZF-S	N,G	**0.30**	**52**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
203	SNX62/Arg 5mm ZF-S (1" IG)	0.197, 0.197	0.625	ARG	0.020(2)	ZF-S	N,G	**0.32**	**59**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
204	SNX62/Arg 6mm ZF-S (1" IG)	0.236, 0.236	0.538	ARG	0.020(2)	ZF-S	N,G	**0.32**	**61**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
205	SNX62-IS20/Arg 5mm ZF-S (1" IG)	0.197, 0.197	0.625	ARG	0.020(2) 0.198(4)	ZF-S	N,G	**0.30**	**51**	CL	**0.19**	0.44	**0.18**	0.39	**0.16**	0.36
206	SNX62-IS20/Arg 6mm ZF-S (1" IG)	0.236, 0.236	0.538	ARG	0.020(2) 0.198(4)	ZF-S	N,G	**0.30**	**52**	CL	**0.19**	0.43	**0.18**	0.39	**0.16**	0.35
207	SN68/Arg 5mm TS-D (1" IG)	0.197, 0.197	0.596	ARG	0.039(2)	TS-D	N,G	**0.34**	**56**	CL	**0.28**	0.49	**0.26**	0.45	**0.23**	0.40
208	SN68/Arg 6mm TS-D (1" IG)	0.236, 0.236	0.534	ARG	0.039(2)	TS-D	N,G	**0.34**	**58**	CL	**0.28**	0.49	**0.25**	0.44	**0.23**	0.40
209	SN68-IS20/Arg 5mm TS-D (1" IG)	0.197, 0.197	0.596	ARG	0.039(2) 0.198(4)	TS-D	N,G	**0.32**	**50**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
210	SN68-IS20/Arg 6mm TS-D (1" IG)	0.236, 0.236	0.534	ARG	0.039(2) 0.198(4)	TS-D	N,G	**0.32**	**49**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
211	SNX62/Arg 5mm TS-D (1" IG)	0.197, 0.197	0.596	ARG	0.020(2)	TS-D	N,G	**0.34**	**57**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
212	SNX62/Arg 6mm TS-D (1" IG)	0.236, 0.236	0.534	ARG	0.020(2)	TS-D	N,G	**0.34**	**59**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
213	SNX62-IS20/Arg 5mm TS-D (1" IG)	0.197, 0.197	0.596	ARG	0.020(2) 0.198(4)	TS-D	N,G	**0.31**	**50**	CL	**0.19**	0.44	**0.18**	0.39	**0.16**	0.36
214	SNX62-IS20/Arg 6mm TS-D (1" IG)	0.236, 0.236	0.534	ARG	0.020(2) 0.198(4)	TS-D	N,G	**0.31**	**50**	CL	**0.19**	0.43	**0.18**	0.39	**0.16**	0.35
215	CIG366/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.020(2)	SS-D	N,G	**0.33**	**58**	CL	**0.21**	0.46	**0.19**	0.42	**0.17**	0.38
216	CIG366/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.020(2)	SS-D	N,G	**0.33**	**58**	CL	**0.20**	0.45	**0.19**	0.41	**0.17**	0.37
217	CIG366-i89/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.020(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.20**	0.45	**0.18**	0.41	**0.17**	0.37
218	CIG366-i89/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.020(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36

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WESTLab

Initials: SZ

NFRC Product Line Summary (2023 Std)

Simulation Report # FLE24004-SS

Manufacturer: Fleetwood Windows & Doors
Series/Model: 450-T Hopper
Operator Type: Projected-Awning
Frame Type: Aluminum w/Thermal Breaks (AT)
Sash Type: Aluminum w/Thermal Breaks (AT)

Product Line ID: FLE-M-114
Model Size: 1500mm x 600mm
Frame Abs.: 0.3

Simulation Orig Report Date: 8/20/2024
Simulation Revision Date: 8/20/2024
Report Type: Recertification
Simulation Lab Code: SWWW

Note: Options without numbers are grouped with the option(s) above

											No Dividers		Dividers < 1"		Dividers > 1"	
Option	Description/Code	Glass Thicknesses	Gap Width(s)	Gas	Emissivity(sfc)	Spacer/Seal	Divider	U-Factor	CR	Tint	SHGC	VT	SHGC	VT	SHGC	VT
219	CIG272/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.042(2)	SS-D	N,G	**0.34**	**58**	CL	**0.30**	0.51	**0.28**	0.46	**0.25**	0.42
220	CIG272/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.042(2)	SS-D	N,G	**0.34**	**58**	CL	**0.30**	0.50	**0.27**	0.46	**0.25**	0.41
221	CIG272-i89/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.042(2) 0.149(4)	SS-D	N,G	**0.31**	**49**	CL	**0.30**	0.50	**0.27**	0.45	**0.25**	0.41
222	CIG272-i89/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.042(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.29**	0.49	**0.27**	0.44	**0.24**	0.40
223	CIG180/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.068(2)	SS-D	N,G	**0.35**	**58**	CL	**0.46**	0.56	**0.42**	0.51	**0.38**	0.46
224	CIG180/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.068(2)	SS-D	N,G	**0.34**	**58**	CL	**0.45**	0.55	**0.41**	0.50	**0.37**	0.45
225	CIG180-i89/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.068(2) 0.149(4)	SS-D	N,G	**0.31**	**48**	CL	**0.45**	0.55	**0.41**	0.50	**0.37**	0.45
226	CIG180-i89/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.068(2) 0.149(4)	SS-D	N,G	**0.31**	**48**	CL	**0.43**	0.54	**0.40**	0.49	**0.36**	0.44
227	CIG340/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.028(2)	SS-D	N,G	**0.33**	**58**	CL	**0.14**	0.28	**0.13**	0.25	**0.12**	0.23
228	CIG340/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.028(2)	SS-D	N,G	**0.33**	**58**	CL	**0.14**	0.27	**0.13**	0.25	**0.12**	0.22
229	CIG340-i89/Arg 5mm SS-D (1.25" IG)	0.197, 0.197	0.837	ARG	0.028(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.13**	0.27	**0.12**	0.24	**0.12**	0.22
230	CIG340-i89/Arg 6mm SS-D (1.25" IG)	0.236, 0.236	0.778	ARG	0.028(2) 0.149(4)	SS-D	N,G	**0.30**	**49**	CL	**0.13**	0.27	**0.12**	0.24	**0.11**	0.22
231	Clear/Air 5mm A1-D (1.25" IG)	0.197, 0.197	0.851	AIR		A1-D	N,G	**0.54**	**42**	CL	**0.53**	0.58	**0.49**	0.52	**0.44**	0.47
232	Clear/Air 6mm A1-D (1.25" IG)	0.236, 0.236	0.788	AIR		A1-D	N,G	**0.53**	**42**	CL	**0.52**	0.57	**0.47**	0.52	**0.43**	0.47
233	SN68/Air 5mm A1-D (1.25" IG)	0.197, 0.197	0.851	AIR	0.039(2)	A1-D	N,G	**0.42**	**49**	CL	**0.28**	0.49	**0.26**	0.45	**0.24**	0.40
	sBZ-SN68/Air 5mm A1-D (1.25" IG)	0.197, 0.197	0.851	AIR	0.039(3)	A1-D	N,G	**0.42**	**49**	BZ	**0.25**	0.32	**0.23**	0.29	**0.21**	0.26
234	SN68/Air 6mm A1-D (1.25" IG)	0.236, 0.236	0.788	AIR	0.039(2)	A1-D	N,G	**0.42**	**49**	CL	**0.28**	0.49	**0.26**	0.44	**0.23**	0.40
	sBZ-SN68/Air 6mm A1-D (1.25" IG)	0.236, 0.236	0.788	AIR	0.039(3)	A1-D	N,G	**0.42**	**49**	BZ	**0.23**	0.29	**0.22**	0.26	**0.20**	0.24
235	SN68/Arg 5mm A1-D (1.25" IG)	0.197, 0.197	0.851	ARG	0.039(2)	A1-D	N,G	**0.39**	**51**	CL	**0.28**	0.49	**0.26**	0.45	**0.23**	0.40
236	SN68/Arg 6mm A1-D (1.25" IG)	0.236, 0.236	0.788	ARG	0.039(2)	A1-D	N,G	**0.39**	**51**	CL	**0.28**	0.49	**0.25**	0.44	**0.23**	0.40
237	SNX62/Air 5mm A1-D (1.25" IG)	0.197, 0.197	0.851	AIR	0.020(2)	A1-D	N,G	**0.42**	**49**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
238	SNX62/Air 6mm A1-D (1.25" IG)	0.236, 0.236	0.788	AIR	0.020(2)	A1-D	N,G	**0.41**	**49**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
239	SNX62/Arg 5mm A1-D (1.25" IG)	0.197, 0.197	0.851	ARG	0.020(2)	A1-D	N,G	**0.38**	**52**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
240	SNX62/Arg 6mm A1-D (1.25" IG)	0.236, 0.236	0.788	ARG	0.020(2)	A1-D	N,G	**0.38**	**51**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36

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. (NFRC 500)

WESTLab

Initials: SZ

NFRC Product Line Summary (2023 Std)

Simulation Report # FLE24004-SS

Manufacturer: Fleetwood Windows & Doors
Series/Model: 450-T Hopper
Operator Type: Projected-Awning
Frame Type: Aluminum w/Thermal Breaks (AT)
Sash Type: Aluminum w/Thermal Breaks (AT)

Product Line ID: FLE-M-114
Model Size: 1500mm x 600mm
Frame Abs.: 0.3

Simulation Orig Report Date: 8/20/2024
Simulation Revision Date: 8/20/2024
Report Type: Recertification
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											No Dividers		Dividers < 1"		Dividers > 1"	
Option	Description/Code	Glass Thicknesses	Gap Width(s)	Gas	Emissivity(sfc)	Spacer/Seal	Divider	U-Factor	CR	Tint	SHGC	VT	SHGC	VT	SHGC	VT
241	SN68/Arg 5mm ZF-S (1.25" IG)	0.197, 0.197	0.875	ARG	0.039(2)	ZF-S	N,G	**0.33**	**60**	CL	**0.28**	0.49	**0.26**	0.45	**0.23**	0.40
242	SN68/Arg 6mm ZF-S (1.25" IG)	0.236, 0.236	0.750	ARG	0.039(2)	ZF-S	N,G	**0.33**	**58**	CL	**0.28**	0.49	**0.25**	0.44	**0.23**	0.40
243	SN68-IS20/Arg 5mm ZF-S (1.25" IG)	0.197, 0.197	0.875	ARG	0.039(2) 0.198(4)	ZF-S	N,G	**0.30**	**51**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
244	SN68-IS20/Arg 6mm ZF-S (1.25" IG)	0.236, 0.236	0.750	ARG	0.039(2) 0.198(4)	ZF-S	N,G	**0.30**	**50**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
245	SNX62/Arg 5mm ZF-S (1.25" IG)	0.197, 0.197	0.875	ARG	0.020(2)	ZF-S	N,G	**0.32**	**60**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
246	SNX62/Arg 6mm ZF-S (1.25" IG)	0.236, 0.236	0.750	ARG	0.020(2)	ZF-S	N,G	**0.32**	**59**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
247	SNX62-IS20/Arg 5mm ZF-S (1.25" IG)	0.197, 0.197	0.875	ARG	0.020(2) 0.198(4)	ZF-S	N,G	**0.30**	**52**	CL	**0.19**	0.44	**0.18**	0.39	**0.16**	0.36
248	SNX62-IS20/Arg 6mm ZF-S (1.25" IG)	0.236, 0.236	0.750	ARG	0.020(2) 0.198(4)	ZF-S	N,G	**0.29**	**50**	CL	**0.19**	0.43	**0.18**	0.39	**0.16**	0.35
249	SN68/Arg 5mm TS-D (1.25" IG)	0.197, 0.197	0.817	ARG	0.039(2)	TS-D	N,G	**0.34**	**57**	CL	**0.28**	0.49	**0.26**	0.45	**0.23**	0.40
250	SN68/Arg 6mm TS-D (1.25" IG)	0.236, 0.236	0.784	ARG	0.039(2)	TS-D	N,G	**0.34**	**57**	CL	**0.28**	0.49	**0.25**	0.44	**0.23**	0.40
251	SN68-IS20/Arg 5mm TS-D (1.25" IG)	0.197, 0.197	0.817	ARG	0.039(2) 0.198(4)	TS-D	N,G	**0.31**	**48**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
252	SN68-IS20/Arg 6mm TS-D (1.25" IG)	0.236, 0.236	0.784	ARG	0.039(2) 0.198(4)	TS-D	N,G	**0.31**	**49**	CL	**0.27**	0.48	**0.25**	0.43	**0.23**	0.39
253	SNX62/Arg 5mm TS-D (1.25" IG)	0.197, 0.197	0.817	ARG	0.020(2)	TS-D	N,G	**0.34**	**57**	CL	**0.20**	0.45	**0.18**	0.40	**0.17**	0.36
254	SNX62/Arg 6mm TS-D (1.25" IG)	0.236, 0.236	0.784	ARG	0.020(2)	TS-D	N,G	**0.34**	**57**	CL	**0.20**	0.44	**0.18**	0.40	**0.17**	0.36
255	SNX62-IS20/Arg 5mm TS-D (1.25" IG)	0.197, 0.197	0.817	ARG	0.020(2) 0.198(4)	TS-D	N,G	**0.31**	**48**	CL	**0.19**	0.44	**0.18**	0.39	**0.16**	0.36
256	SNX62-IS20/Arg 6mm TS-D (1.25" IG)	0.236, 0.236	0.784	ARG	0.020(2) 0.198(4)	TS-D	N,G	**0.31**	**49**	CL	**0.19**	0.43	**0.18**	0.39	**0.16**	0.35
257	CIG180-Clr-CIG180/Arg 5mm SS-D (1.75" IG)	0.197, 0.197, 0.197	0.580, 0.580	ARG	0.068(2) 0.068(5)	SS-D	N,G	**0.23**	**64**	CL	**0.40**	0.49	**0.36**	0.45	**0.33**	0.40
258	CIG180-Clr-CIG180/Arg 6mm SS-D (1.75" IG)	0.236, 0.236, 0.236	0.522, 0.522	ARG	0.068(2) 0.068(5)	SS-D	N,G	**0.23**	**65**	CL	**0.38**	0.48	**0.35**	0.43	**0.32**	0.39
259	CIG180-CIG180-CIGi89/Arg 5mm SS-D (1.75" IG)	0.197, 0.197, 0.197	0.580, 0.580	ARG	0.068(2) 0.068(4) 0.149(6)	SS-D	N,G	**0.22**	**63**	CL	**0.38**	0.48	**0.35**	0.44	**0.32**	0.39
260	CIG180-CIG180-CIGi89/Arg 6mm SS-D (1.75" IG)	0.236, 0.236, 0.236	0.522, 0.522	ARG	0.068(2) 0.068(4) 0.149(6)	SS-D	N,G	**0.22**	**64**	CL	**0.36**	0.47	**0.33**	0.42	**0.30**	0.38
261	CIG272-Clr-CIG180/Arg 5mm SS-D (1.75" IG)	0.197, 0.197, 0.197	0.580, 0.580	ARG	0.042(2) 0.068(5)	SS-D	N,G	**0.23**	**64**	CL	**0.27**	0.45	**0.25**	0.40	**0.23**	0.36
262	CIG272-Clr-CIG180/Arg 6mm SS-D (1.75" IG)	0.236, 0.236, 0.236	0.522, 0.522	ARG	0.042(2) 0.068(5)	SS-D	N,G	**0.23**	**65**	CL	**0.26**	0.43	**0.24**	0.39	**0.22**	0.35
263	CIG272-CIG180-CIGi89/Arg 5mm SS-D (1.75" IG)	0.197, 0.197, 0.197	0.580, 0.580	ARG	0.042(2) 0.068(4) 0.149(6)	SS-D	N,G	**0.22**	**64**	CL	**0.26**	0.44	**0.24**	0.40	**0.22**	0.36
264	CIG272-CIG180-CIGi89/Arg 6mm SS-D (1.75" IG)	0.236, 0.236, 0.236	0.522, 0.522	ARG	0.042(2) 0.068(4) 0.149(6)	SS-D	N,G	**0.22**	**64**	CL	**0.25**	0.42	**0.23**	0.38	**0.21**	0.35

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. (NFRC 500)

WESTLab

Initials: SZ

NFRC Product Line Summary (2023 Std)

Simulation Report # FLE24004-SS

Manufacturer: Fleetwood Windows & Doors
Series/Model: 450-T Hopper
Operator Type: Projected-Awning
Frame Type: Aluminum w/Thermal Breaks (AT)
Sash Type: Aluminum w/Thermal Breaks (AT)

Product Line ID: FLE-M-114
Model Size: 1500mm x 600mm
Frame Abs.: 0.3

Simulation Orig Report Date: 8/20/2024
Simulation Revision Date: 8/20/2024
Report Type: Recertification
Simulation Lab Code: SWWW

Note: Options without numbers are grouped with the option(s) above

											No Dividers		Dividers < 1"		Dividers > 1"	
Option	Description/Code	Glass Thicknesses	Gap Width(s)	Gas	Emissivity(sfc)	Spacer/Seal	Divider	U-Factor	CR	Tint	SHGC	VT	SHGC	VT	SHGC	VT
265	SN68-Clr-SN68/Air 5mm A1-D (1.75" IG)	0.197, 0.197, 0.197	0.571, 0.571	AIR	0.039(2) 0.039(5)	A1-D	N,G	**0.29**	**56**	CL	**0.24**	0.38	**0.22**	0.34	**0.20**	0.31
266	SN68-Clr-SN68/Air 6mm A1-D (1.75" IG)	0.236, 0.236, 0.236	0.509, 0.509	AIR	0.039(2) 0.039(5)	A1-D	N,G	**0.30**	**56**	CL	**0.24**	0.37	**0.22**	0.34	**0.20**	0.30
267	SN68-Clr-SN68/Arg 5mm A1-D (1.75" IG)	0.197, 0.197, 0.197	0.571, 0.571	ARG	0.039(2) 0.039(5)	A1-D	N,G	**0.27**	**56**	CL	**0.24**	0.38	**0.22**	0.34	**0.20**	0.31
268	SN68-Clr-SN68/Arg 6mm A1-D (1.75" IG)	0.236, 0.236, 0.236	0.509, 0.509	ARG	0.039(2) 0.039(5)	A1-D	N,G	**0.27**	**57**	CL	**0.24**	0.37	**0.22**	0.34	**0.20**	0.30
269	SNX62-Clr-SNX62/Air 5mm A1-D (1.75" IG)	0.197, 0.197, 0.197	0.571, 0.571	AIR	0.020(2) 0.020(5)	A1-D	N,G	**0.29**	**56**	CL	**0.17**	0.31	**0.16**	0.28	**0.15**	0.26
270	SNX62-Clr-SNX62/Air 6mm A1-D (1.75" IG)	0.236, 0.236, 0.236	0.509, 0.509	AIR	0.020(2) 0.020(5)	A1-D	N,G	**0.29**	**56**	CL	**0.17**	0.31	**0.16**	0.28	**0.15**	0.25
271	SNX62-Clr-SNX62/Arg 5mm A1-D (1.75" IG)	0.197, 0.197, 0.197	0.571, 0.571	ARG	0.020(2) 0.020(5)	A1-D	N,G	**0.27**	**56**	CL	**0.17**	0.31	**0.16**	0.28	**0.15**	0.26
272	SNX62-Clr-SNX62/Arg 6mm A1-D (1.75" IG)	0.236, 0.236, 0.236	0.509, 0.509	ARG	0.020(2) 0.020(5)	A1-D	N,G	**0.27**	**57**	CL	**0.17**	0.31	**0.16**	0.28	**0.15**	0.25
273	SN68-Clr-SN68/Arg 5mm ZF-S (1.75" IG)	0.197, 0.197, 0.197	0.562, 0.562	ARG	0.039(2) 0.039(5)	ZF-S	N,G	**0.22**	**66**	CL	**0.24**	0.38	**0.22**	0.34	**0.20**	0.31
274	SN68-Clr-SN68/Arg 6mm ZF-S (1.75" IG)	0.236, 0.236, 0.236	0.500, 0.500	ARG	0.039(2) 0.039(5)	ZF-S	N,G	**0.22**	**66**	CL	**0.24**	0.37	**0.22**	0.34	**0.20**	0.30
275	SN68-SN68-IS20/Arg 5mm ZF-S (1.75" IG)	0.197, 0.197, 0.197	0.562, 0.562	ARG	0.039(2) 0.039(4) 0.198(6)	ZF-S	N,G	**0.21**	**66**	CL	**0.22**	0.37	**0.20**	0.33	**0.18**	0.30
276	SN68-SN68-IS20/Arg 6mm ZF-S (1.75" IG)	0.236, 0.236, 0.236	0.500, 0.500	ARG	0.039(2) 0.039(4) 0.198(6)	ZF-S	N,G	**0.21**	**66**	CL	**0.21**	0.36	**0.20**	0.33	**0.18**	0.30
277	SNX62-Clr-SNX62/Arg 5mm ZF-S (1.75" IG)	0.197, 0.197, 0.197	0.562, 0.562	ARG	0.020(2) 0.020(5)	ZF-S	N,G	**0.21**	**66**	CL	**0.17**	0.31	**0.16**	0.28	**0.15**	0.26
278	SNX62-Clr-SNX62/Arg 6mm ZF-S (1.75" IG)	0.236, 0.236, 0.236	0.500, 0.500	ARG	0.020(2) 0.020(5)	ZF-S	N,G	**0.22**	**66**	CL	**0.17**	0.31	**0.16**	0.28	**0.15**	0.25
279	SNX62-SNX62-IS20/Arg 5mm ZF-S (1.75" IG)	0.197, 0.197, 0.197	0.562, 0.562	ARG	0.020(2) 0.020(4) 0.198(6)	ZF-S	N,G	**0.21**	**66**	CL	**0.15**	0.30	**0.14**	0.27	**0.13**	0.25
280	SNX62-SNX62-IS20/Arg 6mm ZF-S (1.75" IG)	0.236, 0.236, 0.236	0.500, 0.500	ARG	0.020(2) 0.020(4) 0.198(6)	ZF-S	N,G	**0.21**	**66**	CL	**0.15**	0.30	**0.14**	0.27	**0.13**	0.24
281	SN68-SN68-IS20/Arg 5mm TS-D (1.75" IG)	0.197, 0.197, 0.197	0.577, 0.577	ARG	0.039(2) 0.039(4) 0.198(6)	TS-D	N,G	**0.22**	**63**	CL	**0.22**	0.37	**0.20**	0.33	**0.18**	0.30
282	SN68-SN68-IS20/Arg 6mm TS-D (1.75" IG)	0.236, 0.236, 0.236	0.514, 0.514	ARG	0.039(2) 0.039(4) 0.198(6)	TS-D	N,G	**0.23**	**63**	CL	**0.21**	0.36	**0.20**	0.33	**0.18**	0.30
283	SNX62-SNX62-IS20/Arg 5mm TS-D (1.75" IG)	0.197, 0.197, 0.197	0.577, 0.577	ARG	0.020(2) 0.020(4) 0.198(6)	TS-D	N,G	**0.22**	**64**	CL	**0.15**	0.30	**0.14**	0.27	**0.13**	0.25
284	SNX62-SNX62-IS20/Arg 6mm TS-D (1.75" IG)	0.236, 0.236, 0.236	0.514, 0.514	ARG	0.020(2) 0.020(4) 0.198(6)	TS-D	N,G	**0.22**	**63**	CL	**0.15**	0.30	**0.14**	0.27	**0.13**	0.24

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. (NFRC 500)

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ANSI/NFRC 100/200-2023 /NFRC 500-2017 Simulation Report

WESTLab Report No.:	**FLE24004-SS**
WESTLab Report Date:	**8/20/2024**
Revision/Addendum Date:	**8/20/2024**
NFRC Product Line ID:	**FLE-M-114**
Report Type:	**Recertification**

Manufacturer: **Fleetwood Windows & Doors**

Contact: **Joe Zammit**

Address: 1 Fleetwood Way
Corona, CA 92879

Phone: 951-279-1070

RECERTIFICATION REPORT

Model/Series: **450-T Hopper**

Operator Type: Projected-Awning

Frame Type: Aluminum w/Thermal Breaks (AT)

Sash Type: Aluminum w/Thermal Breaks (AT)

Baseline Product for U-Factor Validation Testing:

Description: **No Validation Unit required:** This product validates with FLE-M-111 450-T Casement. See WESTLab report FLE24001-SS for validation product details.

Simulated U-factor:

Test Size (mm): **x**

Physical Test Tolerance: *to*

Notes: *Manufacturer must have the product described above tested by an accredited physical testing laboratory. Physical test window U-factor results must be within the tolerance range listed above. The baseline product simulated U-factor is within 20% or 0.10 of the lowest simulated U-factor listed in the matrix (as allowed by ANSI/NFRC 100-2023) unless otherwise noted in the "Other Notes and Comments" section.*

Signature of Simulator In-Responsible-Charge: Staci Zastrow

Staci Zastrow, Certified Simulator

Disclaimers/Notes:

The window U-factor, SHGC, VT & CR values presented in this report were determined using the Therm and Window computer programs in full compliance with ANSI/NFRC 100-2023, ANSI/200-2023 and NFRC 500-2017, and from information supplied by the manufacturer. This report does not constitute certification of this product and only relates to the fenestration products simulated. Authorized use of any U-factor, SHGC Visible Transmittance and Condensation Resistance ratings may only be granted by the Certification Program Administrator.
WESTLab does not imply or claim that the product simulated in this report will perform as stated in actual use conditions. This report is the property of WESTLab and the client, and must not be reproduced, except in full, without written approval from WESTLab and the client.
Ratings values included in this report are for submittal to an NFRC-licensed IA are not meant to be used directly for labeling purposes. Only those values identified on a valid Certificate of Authorization (CA) by an NFRC accredited Inspection Agency (IA) are to be used for labeling purposes. Rounding of values in this report is per NFRC 601 NFRC unit and measurement policy.

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