Solatube Tubular Daylighting Device Visible Transmittance (VT) Summary 2017

VT_{annual} and **VT** Data for Product Perfromance Tested and Reported per the NFRC 203 Standard

Product	Description	VT_{annual}	VT_{max} Solar Postion	VT_{max}	$VT_{(SALT=60,SAZ=0)}$	VT_{normal}	Test Report	Cetified for CPD
S160/290-DS-DA-LN	Single Dome w/ Diffuser/Fixture & Natural Effect Lens	**0.51**	SALT=20, SAZ=0	**0.582**	0.466	0.467	E1047.01-301-41	Yes
S160/290-DS-DA-LS	Single Dome w/ Diffuser/Fixture & Softening Effect Lens	**0.46**	SALT=20, SAZ=0	**0.548**	0.425	0.422	E1047.05-301-41	Yes
S160/290-DS-DA-TIP-LN	Single Dome w/ Diffuser/Fixture & Natural Effect Lens and TIP	**0.35**	SALT=20, SAZ=0	**0.433**	0.331	0.371	E1047.09-301-41	Yes

Product	Description	VT_{annual}					Test Report	Cetified for CPD
Smart LED	Single Dome w/ Diffuser/Fixture & Natural Effect Lens	**0.58**	SALT=20, SAZ=0	**0.78**	0.578	0.596	G9904.02-301-41-r0	Yes

Product	Description	VT_{annual}					Test Report	Cetified for CPD
S330DS-C-DA-LN	Single Dome w/ Diffuser and Dual Glazed Transition Box	**0.34**	SALT=20, SAZ=0	**0.416**	0.335	0.446	F0909.01-301-41	Yes
S330DS-C-DA-TIP-LN	Single Dome w/ Diffuser and Dual Glazed Transition Box and TIP	**0.38**	SALT=70, SAZ=60	**0.512**	0.454	0.582	G3705.03-301-41	Yes
S750DS-C-DA-LN	Single Dome w/ Diffuser and Dual Glazed Transition Box	**0.40**	SALT=20, SAZ=30	**0.718**	0.238	0.249	F0909.02-301-41	Yes
S750DS-C-DAI-LN	Double Dome w/ Diffuser and Dual Glazed Transition Box	**0.36**	SALT=20, SAZ=0	**0.645**	0.210	0.205	F0909.03-301-41	Yes
S750DS-C-DA-TIP-LN	Single Dome w/ Diffuser and Dual Glazed Transition Box and TIP	**0.53**	SALT=20, SAZ=60	**0.718**	0.440	0.402	G3940.06-301-41-r0	Yes
S750DS-C-DAI-TIP-LN	Double Dome w/ Diffuser and Dual Glazed Transition Box and TIP	**0.37**	SALT=20, SAZ=0	**0.524**	0.281	0.300	G3705.04-301-41	Yes
S330DS-O-DA	Single Dome w/ Diffuser and Dual Glazed Transition Box	**0.74**	SALT=20, SAZ=60	**0.784**	0.722	0.752	G3940.12-301-41-r0	Yes
S330DS-O-DA-TIP	Single Dome w/ Diffuser and Dual Glazed Transition Box and TIP	**0.54**	SALT=70, SAZ=30	**0.604**	0.569	0.639	G3940.18-301-41-r0	Yes
S750DS-O-DA	Single Dome w/ Diffuser and Dual Glazed Transition Box	**0.70**	SALT=20, SAZ=0	**1.023**	0.528	0.501	G3940.09-301-41-r0	Yes
S750DS-O-DAI	Double Dome w/ Diffuser and Dual Glazed Transition Box	**0.59**	SALT=20, SAZ=30	**0.834**	0.449	0.412	G3940.14-301-41-r0	Yes
S750DS-O-DA-TIP	Single Dome w/ Diffuser and Dual Glazed Transition Box and TIP	**0.51**	SALT=20, SAZ=30	**0.744**	0.377	0.400	G3940.16-301-41-r0	Yes
S750DS-O-DAI-TIP	Double Dome w/ Diffuser and Dual Glazed Transition Box and TIP	**0.48**	SALT=20, SAZ=60	**0.706**	0.350	0.368	G3940.19-301-41-r0	Yes

Product	Description	VT_{annual}					Test Report	Cetified for CPD
M74 DS-O---DP-----B-L2	Core Single Dome	**0.52**	SALT=70, SAZ=30	**0.715**	0.655	0.751	E1047.11-301-41	Yes
M74 DS-O---DP-TIP-B-L2	Core Single Dome with TIP	**0.37**	SALT=70, SAZ=0	**0.529**	0.496	0.573	F6776.01-301-41	Yes
M74 DS-O---DP-----A-L2	Single Dome w/Amplifier	**0.60**	SALT=20, SAZ=30	**0.684**	0.652	0.703	E2465.03-301-41	Yes
M74 DS-O---DP-TIP-A-L2	Single Dome w/ TIP & Amplifier	**0.47**	SALT=70, SAZ=0	**0.579**	0.552	0.620	F6776.02-301-41	Yes
M74 DS O-C-DP-----A-L2	Single Dome w/Amplifier & Collector	**1.03**	SALT=20, SAZ=0	**1.351**	0.839	0.685	E2465.01-301-41	Yes

Notes:

1. All reported Visible Transmittance Data were generated through Third-Party Testing of Solatube TDD Products in accordance with NFRC 203-2014: "Procedure for Determining Visible Transmittance of Tubular Daylighting Devices"

2. NFRC 203-2014 Testing yields the collection and reporting of 21 unique clear sky Visible Transmittance (VT) values for a range of Solar Positions representing a wide range of critical Solar Altitude and Solar Azimuth angle pairs that are encountered over the course of the Solar Year.

3. **VT_{annual}** provides a product's yearly-average Visible Transmittance. **VT_{annual}** accounts for the annual, clear sky sun path using 18 individual VT data points, and represents the **annual average** clear sky Visible Transmittance for a 9:00 AM to 5:00 PM Day for a "Middle America" site located at a 40 degree latitude.

4. **VT_{max}** represents the Maximum Visible Transmittance measured for the range of Daytime Solar Positions tested under NFRC 203-2014 for Solar Altitude angles between 20 and 70 degrees. **VT_{normal}** represents the direct-normal Visible Transmittance for a beam of light perpendicular to the TDD Dome Opening. **$VT_{(Salt=60,AZ=0)}$** represents the Visible Transmittance occurring for the Solar Positon used to test and rate TDDs for Solar Heat Gain Coefficient (SHGC).

