

Specification Submittal Data / Panasonic Ventilation Fan

Description:

Ventilating fan shall be Low Noise ceiling or wall mount type rated for continuous run. Fan shall be ENERGY STAR[®] rated and certified by the Home Ventilation Institute (HVI). Evaluated by Underwriters Laboratories and conform to both UL and cUL safety standards.

Motor/Blower:

- Enclosed DC brushless motor technology rated for continuous run.
- Fan ventilation rates shall be manually adjustable for 50-80-100 CFM.
- Power rating shall be 120 volts and 60 Hz.
- Fan shall be UL and cUL listed for tub/shower enclosure when GFCI protected and used in insulated ceiling (TYPE I.C).
- Motor equipped with thermal-cutoff fuse.
- Removable with permanently lubricated plug-in motor.

Housing:

- Rust proof epoxy and polyester resin coating, 26 gauge galvanized steel body.
- 4" round compatible, oval duct.
- Optional 24 gauge steel, fire code rated 4" oval to 3" round duct adaptor sold separately (Model # FV-VS43R).
- Built in backdraft damper.
- Built-in metal flange provides blocking for penetrations through drywall as an Air Barrier, and assists with the decrease in leakage in the Building Envelope during blower door testing.
- Unique L-shaped bracket simplifies installation and provides strong support.

Grille:

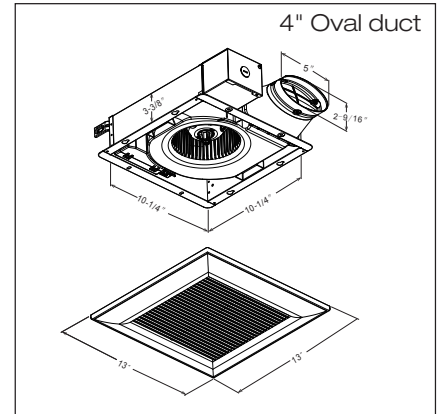
- Attractive design using Poly Pro material.
- Attaches directly to housing with torsion springs.

Warranty:

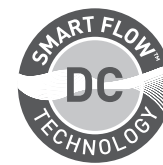
- DC Motor: 6 Years from original purchase date.
- ALL Parts: 3 Years from original purchase date.

Architectural Specifications:

Ventilation fan shall be ceiling or wall mount, ENERGY STAR[®] certified, with a built-in speed selector. Choose from 50-80-100 CFM and no more than <0.3/0.4/0.9 sone as certified by the Home Ventilating Institute (HVI) at 0.1 static pressure in inches water gauge (w.g.) with no less than 53/81/100 CFM and no more than 0.5/0.8/1.3 sone as certified by HVI at 0.25 w.g. Power Consumption shall be no greater than 4.4/7.2/11.1 watts at 0.1 w.g. and 7.5/11.5/16.0 watts at 0.25 w.g., with efficiency of no less than 12.8/11.4/9.2 CFM/watt at 0.1 w.g. and 7.9/7.2/6.4 CFM/watt at 0.25 w.g. The motor shall be totally enclosed with a brushless DC motor engineered to run continuously. DC motor speed shall automatically increase when the fan senses static pressure to maintain selected CFM. Power rating shall be 120v/60Hz. Duct diameter shall be no less than 4". Optional 24 gauge steel, fire code rated 4" oval to 3" round duct adaptor sold separately (Model # FV-VS43R). Fan shall be UL and cUL listed for ceiling or wall installation and tub/shower enclosure when GFCI protected. Fan can be used to comply with ASHRAE 62.2, LEED, EarthCraft, California Title-24 and WA Ventilation Code.



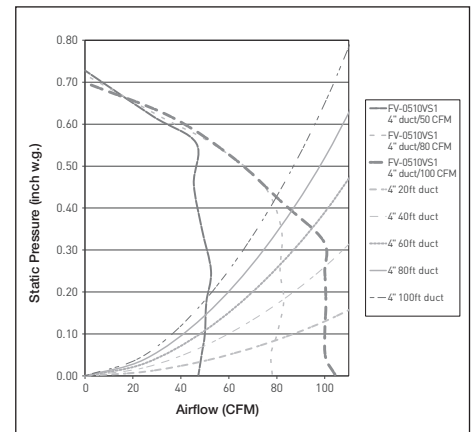
FV-0510VS1



DC Motor Technology

When the fan senses static pressure, its speed is automatically increased to ensure that the desired CFM is not compromised, which allows the fan to perform as rated.

Performance Curve 4" Oval duct



0.25=Installed Performance

For complete Installation Instructions visit panasonic.com

Model	Quantity	Comments	Project:
			Location:
			Architect:
			Engineer:
			Contractor:
			Submitted by:
			Date:

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Panasonic

WhisperValue® DC™ Ventilation Fans and Fan/Lights

WhisperValue® DC™ VENTILATION FAN

Fan Only Models: FV-0510VS1, FV-0810VSS1, FV-0510VSC1

Fan/Light Models: FV-0510VSL1, FV-0810VSSL1,
FV-0510VSL1



Powerful CFM output overcomes
0.375" static pressure to effectively
remove moist, polluted air*

(See PQ Curves)



- Pick-A-Flow™ Airflow Selector (50¹, 80 or 100 CFM) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Optional built-in Multi-Speed Control for ASHRAE 62.2 compliance²
- Optional built-in Condensation Sensor to control moisture in the bathroom³
- Lighted models incorporate one 10W dimmable LED chip panel with <1W LED night light for warm, energy efficient illumination (night light must be wired separately)
- 3-3/8" Housing Depth – lowest profile ENERGY STAR® fan available – fits anywhere!
- Unique L-Shaped bracket simplifies installation and provides strong support
- UL approved for ceiling or wall mount (actually fits in a 2 x 4 stud wall)
- Wall Installation reduces cost by eliminating the need to incorporate a radiation damper when penetrating fire rated ceilings, making it ideal for Multi-Family applications
- Can be used to comply with ASHRAE 62.2, LEED, IAP, California Title 24, CALGreen⁴ and WA Ventilation Code

ADDITIONAL BENEFITS

- 24 gauge steel, fire code rated 4" oval to 3" round duct adapter, sold separately (model #FV-VS43R)
- Transfer Register Box (model # FV-JD, sold separately), provides room-to-room powered circulation with ductless heat pumps
- UL listed for use with the Panasonic Ceiling Radiation Damper (model # PC-RD05C5)
- UL listed for tub/shower enclosure when GFCI protected
- Warranty⁵: 6 years ECM Motor, 5 years LED, 3 years all other parts

* Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

¹ 50 CFM option not included in FV-0810VSS1 and FV-0810VSSL1

² FV-0810VSS1 and FV-0810VSSL1 only

³ FV-0510VSC1 and FV-0510VSL1 only

⁴ FV-0510VSC1 and FV-0510VSL1 only, or when other WhisperValue DC models are combined with a Panasonic Condensation Sensor Plus(FV-WCCS1-W/A or FV-WCCS2-W/A)

⁵ One year additional fan or fan/light warranty available when WhisperValue DC is controlled by a Panasonic Condensation Sensor Plus.

Installed Performance



ECM Motor with SmartFlow™ Technology

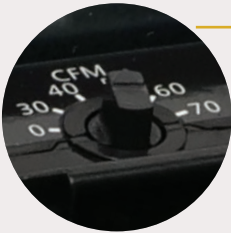
WhisperValue® DC™ is designed to perform as rated. When the fan senses static pressure, its speed is automatically increased to ensure optimal CFM output. This feature provides peace of mind, as the installer doesn't have to worry about compromising the fan's performance, even with a complicated duct run.



Pick-A-Flow Airflow Technology

Built-in Pick-A-Flow Airflow selector provides the unique ability to select your required airflow (50-80-100 CFM) with the simple flip of a switch.

Optional Built-In Controls



Multi-Speed for ASHRAE 62.2 Compliance

(FV-0810VSS1 and FV-0810VSSL1 only)

Multi-Speed for ASHRAE 62.2 Compliance allows you to select the proper CFM settings to satisfy ASHRAE 62.2 continuous ventilation requirements. The fan runs continuously at a preset lower level (0, 30-70, in 10 CFM increments), then elevates to a maximum level of operation (80 or 100 CFM) when the wall switch is turned on.



Condensation Sensor

(FV-0510VSC1 and FV-0510VSL1 only)

Condensation Sensor helps control bathroom condensation to prevent mold and mildew. Sensor technology detects relative humidity and temperature to anticipate dew point, automatically turning the fan on to control humidity. Built-in Relative Humidity (RH) sensitivity adjustment enables fine tuning for moist conditions and for satisfying CALGreen requirements. The fan will run for 20 minutes before turning off.



LED Lighting

WhisperValue® DC™ fan/light models feature a contemporary flush mount grille that incorporates one 10W Dimmable LED chip panel with <1W LED night light for warm, energy efficient illumination. Panel specifications include: 3000 Kelvin Warm White/90CRI/700 lumens/70 LPW/ENERGY STAR 2.0 certified/50,000 hours rated average life.

WhisperValue® DC™ to WhisperValue®/ WhisperValue® Lite™ Cross Reference

	WhisperValue® DC™		WhisperValue®/ WhisperValue® Lite™	
	New Model #	Description	Discontinued Model #	Description
Fan Only	FV-0510VS1	Fan Only, 50-80-100 CFM	FV-05VS3	Fan Only, 50 CFM
			FV-08VS3	Fan Only, 80 CFM
			FV-10VS3E	Fan Only, 100 CFM
	FV-0510VSC1	Fan Only, 50-80-100 CFM, Condensation Sensor	N/A	N/A
	FV-0810VSS1	Fan Only, 80-100 CFM, Multi-Speed for ASHRAE 62.2	N/A	N/A
Fan/LED Light	FV-0510VSL1	Fan/LED Light, 50-80-100 CFM	FV-08VSL3	Fan/CFL Light, 80 CFM
			FV-10VSL3E	Fan/CFL Light, 100 CFM
	FV-0510VSL1	Fan/LED Light, 50-80-100 CFM, Condensation Sensor	N/A	N/A
	FV-0810VSSL1	Fan/LED Light, 80-100 CFM, Multi-Speed for ASHRAE 62.2	N/A	N/A
Contractor Packs	FV-0510VSA1	FV-0510VS1 Housing Can	FV-05-10VSA3	Universal Housing Can
			FV-05VSB3	Motor/Grille Assembly, 50 CFM
	FV-0510VSB1	FV-0510VS1 Motor/Grille Assembly, 50-80-100 CFM	FV-08VSB3	Motor/Grille Assembly, 80 CFM
			FV-10VSB3E	Motor/Grille Assembly, 100 CFM

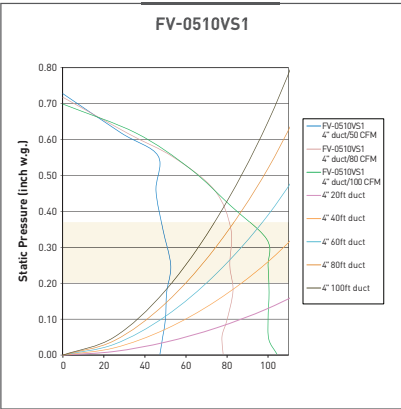
High Performing, Code Compliant Multi-Family Solution



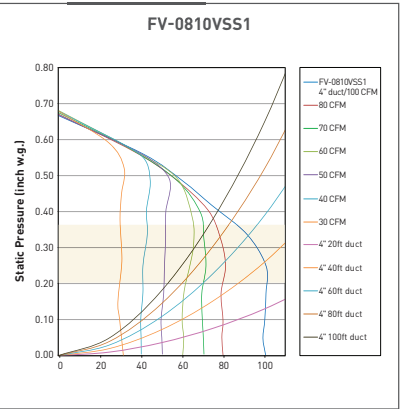
FV-0510VS1
FV-0810VSS1
FV-0510VSC1



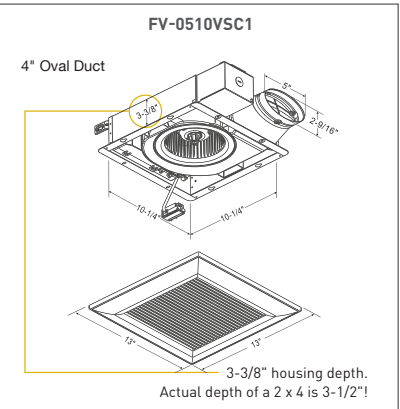
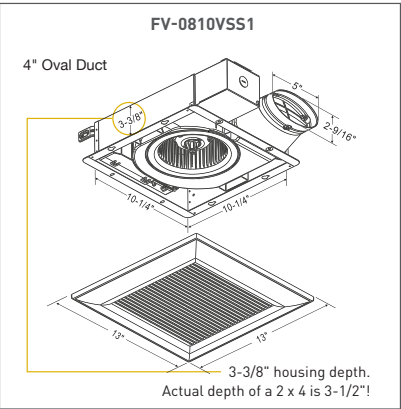
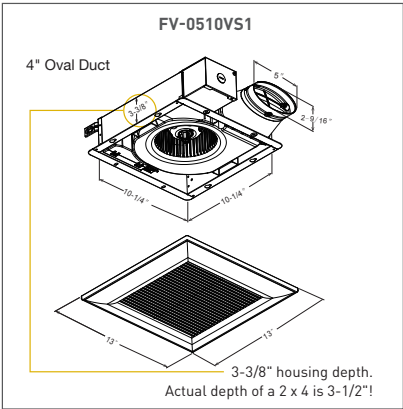
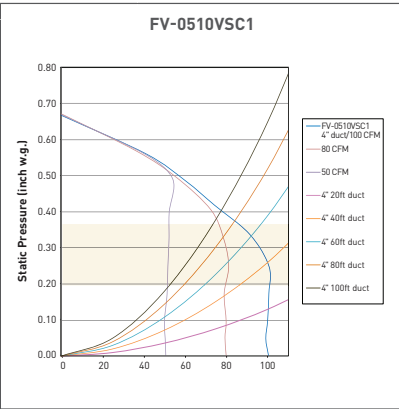
FV-0510VS1



FV-0810VSS1



FV-0510VSC1



WhisperValue® DC™ 4" Oval Duct (Fan Only Models)																										
SPECIFICATIONS		FV-0510VS1						FV-0810VSS1												FV-0510VSC1						
	Duct Diameter (Inches)	4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		
Characteristics (HVI tested data for 0.1" S.P.)	Static Pressure in inches w.g.	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	
	Air Volume [CFM]	100	100	80	81	50	53	100	101	80	81	70	72	60	64	50	52	40	41	30	31	100	101	80	81	
	Noise [sones]	0.9	1.3	0.4	0.8	<0.3	0.5	0.9	1.3	0.4	0.8	<0.3	0.6	<0.3	0.6	<0.3	0.5	<0.3	0.5	<0.3	0.5	0.9	1.3	0.4	0.8	
	Power Consumption (watts)	11.1	16.0	7.2	11.5	4.4	7.5	12.4	18.0	8.5	13.2	6.5	10.8	5.3	9.3	4.5	7.7	3.8	6.7	3.4	6.0	12.4	18.0	8.5	13.2	
	Energy Efficiency (CFM/Watt)	9.2	6.4	11.4	7.2	12.8	7.9	8.2	5.7	10.0	6.5	11.2	6.9	11.8	7.2	12.1	7.3	11.8	6.9	10.2	6.0	8.2	5.7	10.0	6.5	
	Speed (RPM)	902	1121	797	1070	708	1025	954	1176	856	1114	805	1088	770	1076	733	1050	723	1037	711	1033	954	1176	856	1114	
	Current (amps)	0.20	0.27	0.13	0.20	0.09	0.14	0.18	0.25	0.13	0.20	0.10	0.16	0.09	0.15	0.08	0.13	0.07	0.11	0.06	0.10	0.18	0.25	0.13	0.20	
	MAX. Current (amps)	0.39						0.39												0.39						
	Power Rating [W/Hz]	120/60						120/60												120/60						
Specifications	Motor Type	ECM						ECM												ECM						
	Type of Motor Bearing	Ball						Ball												Ball						
	Thermal Fuse Protection	Yes						Yes												Yes						
	Blower Wheel Type	Sirocco						Sirocco												Sirocco						
	ENERGY STAR Qualified	Yes						Yes												Yes						
Installation	Duct Diameter (Inches)	4 Oval						4 Oval												4 Oval						
	Mounting Opening (Inches sq.)	10-1/2						10-1/2												10-1/2						
	Grille Size (Inches sq.)	13						13												13						
Light Specifications	Lamp Watts	N/A						N/A												N/A						
	Lumens (lm)	N/A						N/A												N/A						
	Lumens Per Watt (LPW)	N/A						N/A												N/A						
	Color Rendering Index	N/A						N/A												N/A						
	Color Temperature (Kelvin)	N/A						N/A												N/A						
	Rated Life (hours)	N/A						N/A												N/A						
	Lamp Model #	N/A						N/A												N/A						
Night Light Specs	Night Light Watts	N/A						N/A												N/A						
Shipping	Gross Weight (lbs)	8.8						9.0												9.0						
Approved Code/Standard/Regulation	UL tub/Shower Enclosure	Yes						Yes												Yes						
	Washington VIAQ Code	Yes						Yes												Yes						
	California Title 24 Compliant	Yes						Yes												Yes						
	Mfg in ISO 9001 Certified Facility	Yes						Yes												Yes						



*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".
As tested by an EPA recognized lab

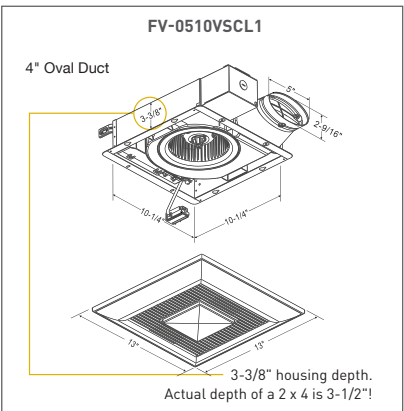
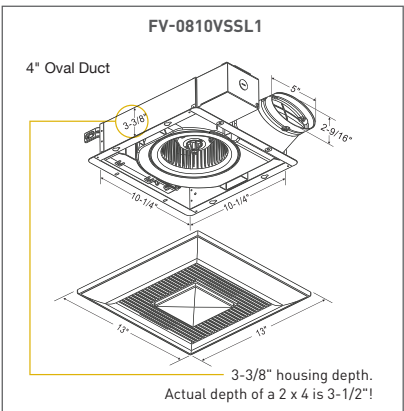
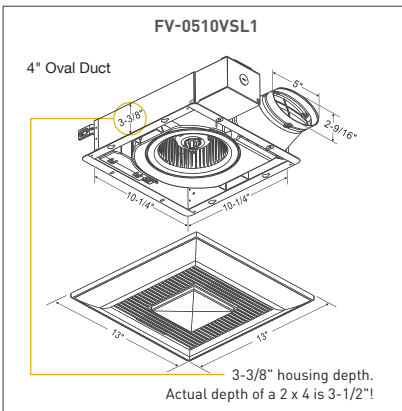
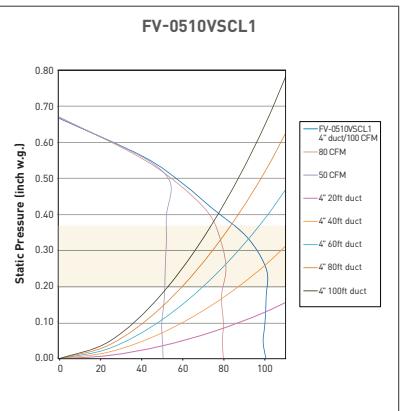
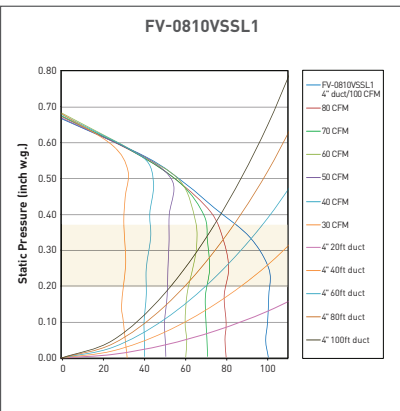
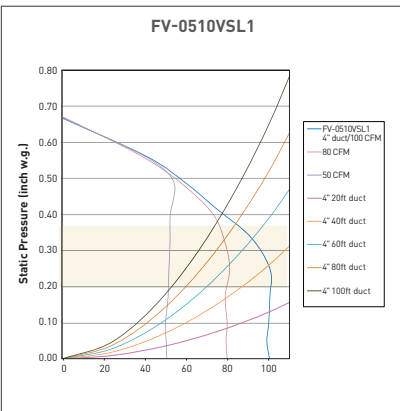


FV-0510VSL1
FV-0810VSSL1
FV-0510VSCL1



FV-0510VSL1
FV-0810VSSL1
FV-0510VSCL1

Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".



WhisperValue® DC™ 4" Oval Duct (Fan/LED Light Models)

SPECIFICATIONS		FV-0510VSL1						FV-0810VSSL1												FV-0510VSCL1					
Characteristics (HVI tested data for 0.1" S.P.)	Duct Diameter (Inches)	4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval		4 Oval	
	Static Pressure in inches w.g.	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
	Air Volume (CFM)	100	101	80	81	50	52	100	101	80	81	70	72	60	64	50	52	40	41	30	31	100	101	80	81
	Noise (sones)	0.9	1.3	0.4	0.8	<0.3	0.5	0.9	1.3	0.4	0.8	<0.3	0.6	<0.3	0.6	<0.3	0.5	<0.3	0.5	<0.3	0.5	0.9	1.3	0.4	0.8
	Power Consumption (watts)	12.4	18.0	8.5	13.2	4.5	7.7	12.4	18.0	8.5	13.2	6.5	10.8	5.3	9.3	4.5	7.7	3.8	6.7	3.4	6.0	12.4	18.0	8.5	13.2
	Energy Efficiency (CFM/Watt)	8.2	5.7	10.0	6.5	12.1	7.3	8.2	5.7	10.0	6.5	11.2	6.9	11.8	7.2	12.1	7.3	11.8	6.9	10.2	6.0	8.2	5.7	10.0	6.5
	Speed (RPM)	954	1176	856	1114	733	1050	954	1176	856	1114	805	1088	770	1076	733	1050	723	1037	711	1033	954	1176	856	1114
	Current (amps)	0.18	0.25	0.13	0.20	0.08	0.13	0.18	0.25	0.13	0.20	0.10	0.16	0.09	0.15	0.08	0.13	0.07	0.11	0.06	0.10	0.18	0.25	0.13	0.20
	MAX. Current (amps)	0.39						0.39						0.39						0.39					
	Power Rating (W/Hz)	120/60						120/60						120/60						120/60					
Specifications	Motor Type	ECM						ECM						ECM						ECM					
	Type of Motor Bearing	Ball						Ball						Ball						Ball					
	Thermal Fuse Protection	Yes						Yes						Yes						Yes					
	Blower Wheel Type	Sirocco						Sirocco						Sirocco						Sirocco					
	ENERGY STAR Qualified	Yes						Yes						Yes						Yes					
Installation	Duct Diameter (Inches)	4 Oval						4 Oval						4 Oval						4 Oval					
	Mounting Opening (Inches sq.)	10-1/2						10-1/2						10-1/2						10-1/2					
	Grille Size (Inches sq.)	13						13						13						13					
Light Specifications	Lamp Watts	10.0						10.0						10.0						10.0					
	Lumens (lm)	700						700						700						700					
	Lumens Per Watt (LPW)	70						70						70						70					
	Color Rendering Index	90						90						90						90					
	Color Temperature (Kelvin)	3,000						3,000						3,000						3,000					
	Rated Life (hours)	50,000						50,000						50,000						50,000					
	Lamp Model #	N/A						N/A						N/A						N/A					
	Type of Lamp Socket	LED chip						LED Chip						LED Chip						LED chip					
Night Light Specs	Night Light Watts	0.2						0.2						0.2						0.2					
Shipping	Gross Weight (lbs)	9.9						9.9						9.9						9.9					
Approved Code/Standard/Regulation	UL tub/Shower Enclosure	Yes						Yes						Yes						Yes					
	Washington VIAQ Code	Yes						Yes						Yes						Yes					
	California Title 24 Compliant	Yes						Yes						Yes						Yes					
	Mfg in ISO 9001 Certified Facility	Yes						Yes						Yes						Yes					

