

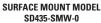
Spectra® IV SE Series Dome Systems

PREMIER INTEGRATED DOME SYSTEM

Product Features

- Four Autofocus, High Resolution Integrated Camera/Optics Packages; Multiple Back Box Models
- Day/Night, 540 TVL, 128X Wide Dynamic Range, Motion Detection, and Electronic Image Stabilization (SD435 Series)
- Day/Night, 470 TVL, 80X Wide Dynamic Range, and Motion Detection (SD4CBW Series)
- Window Blanking
- Camera Title Overlay, 20 User-Definable Characters
- · Horizontal and Zone Blanking
- On-Screen Compass and Tilt Display
- · Password Protection
- Freeze Frame During Presets
- Built-in Surge and Limited Lightning Protection
- Integrated Passive UTP Circuit
- Internal Scheduling Clock







PENDANT MODEL SD4CBW-PG-0

Modularity

Spectra® IV SE was designed with ease of installation and ease of maintenance in mind. Each dome system consists of three components: a back box, a dome drive, and a lower dome. These three system components are interchangeable with other Spectra IV SE dome systems, making retrofitting and application adjustments simple. Also, dome drives and lower domes can be removed and replaced reducing maintenance time.

Back Box

Spectra IV SE back box options include the following models: environmental in-ceiling (ideal for outdoor soffits), indoor in-ceiling, indoor surface mount, standard and environmental pendant, heavy-duty, pressurized, and stainless steel. Each back box model features built-in back box memory to store camera and location-specific dome settings, including labels, presets, patterns, and zones. A passive UTP circuit is located on the door assembly for convenient video transmission through twisted pair wire. For added flexibility, Pelco fiber modules can also be attached to the door assembly for transmission over single-mode or multimode fiber.

Dome Drive

The Spectra IV SE dome drive's unique integrated optics package incorporates many advanced features that allow the system to produce high quality video in the most difficult environments. All cameras in Spectra IV SE dome drives feature **LowLight**™ technology allowing the cameras to compensate for scenes where minimal light is present. The 35X day/night camera features advanced 128X wide dynamic range that enables the system to compensate for scenes where dramatic contrasts in lighting are present. **Electronic image stabilization** digitally reduces blurring of the camera image due to vibration caused by external sources such as wind and traffic. The 23X day/night camera features built-in motion detection and 80X wide dynamic range. Two standard cameras are also available. They are offered in color or black-white, with a 22X lens and EXview HAD™ imager for increased sensitivity.

Lower Dome

An important, but often overlooked, component of a high-speed dome system is the relationship between the dome bubble and the camera lens. Special consideration was taken when designing the Spectra IV SE lower dome bubble to ensure that an optimal optical relationship between the lens and bubble was achieved, providing crystal clear video at long focal lengths.

Dome Systems

Spectra IV SE dome systems feature many software enhancements that increase performance and make programming and operation easy. An internal scheduling clock allows for the scheduling of presets and patterns. Window blanking enables a user to program up to eight, foursided, user-defined privacy areas. Password protection prevents unauthorized users from changing the system settings. Programmable on-screen compass and tilt display provides positioning information when needed. Intuitive multilanguage on-screen programming can be displayed in English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech.

Spectra IV SE's variable speed capabilities range from a smooth, fast pan motion of 400 degrees per second to a smooth "creep" speed of 0.1 degree per second. The system is capable of continuous 360 degrees rotation and has an "auto flip" feature that allows the dome to rotate 180 degrees and reposition itself for uninterrupted viewing of any subject that passes directly beneath the dome.

Optional diagnostic/installation tools (IPS-RMK and IPS-CABLE) allow the installer to view video, control PTZ, and perform system setup and software upgrades at the installation site.



IP66











CAMERA/OPTICS

	Day/Night (35X)	Day/Night (23X)		
Signal Format	NTSC (DD4CBW35) PAL (DD4CBW35-X)	NTSC (DD4CBW23) PAL (DD4CBW23-X)		
Scanning System	2:1 Interlace	2:1 Interlace		
Image Sensor Effective Pixels NTSC PAL	1/4-inch EXview HAD™ 768 (H) X 494 (V) 752 (H) X 582 (V)	1/4-inch EXview HAD 724 (H) X 494 (V) 724 (H) X 582 (V)		
Horizontal Resolution NTSC PAL	>540 TV Lines >540 TV Lines	>470 TV Lines >470 TV Lines		
Lens	F1.4 (f = 3.4~119 mm optical)	F1.6 (f = 3.6~82.8 mm optical)		
Zoom	35X optical, 12X digital	23X optical, 12X digital		
Zoom Speed (optical range)	3.2/4.6/6.6 seconds	2.9/4.2/5.8 seconds		
Horizontal Angle of view Focus	55.8° at 3.4 mm wide zoom; 1.7° at 119 mm telephoto zoom Automatic with manual override	54° at 3.6 mm wide zoom; 2.5° at 82.8 mm telephoto zoom Automatic with manual override		
Maximum Sensitivity @ 35 IRE NTSC/EIA PAL/CCIR	0.55 lux at 1/60 sec (color) 0.063 lux at 1/4 sec (color) 0.00018 lux at 1/2 sec (B-W) 0.50 lux at 1/50 sec (color) 0.062 lux at 1/3 sec (color) 0.00014 lux at 1/1.5 sec (B-W)	0.08 lux at 1/2 sec (color) 0.3 lux at 1/60 sec (B-W) 0.013 lux at 1/2 sec (B-W) 0.08 lux at 1/1.5 sec (color) 0.3 lux at 1/50 sec (B-W) 0.013 lux at 1/1.5 sec (B-W)		
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync	Internal/AC line lock, phase adjustable using remote control, V-Sync		
White Balance	Automatic with manual override	Automatic with manual override		
Shutter Speed NTSC PAL	Automatic (electronic iris)/Manual 1/2 ~1/30,000 1/1.5 ~1/30,000	Automatic (electronic iris)/Manual 1/2 ~1/30,000 1/1.5 ~1/30,000		
Iris Control	Automatic Iris Control with manual override	Automatic Iris Control with manual override		
Gain Control	Automatic/OFF	Automatic/OFF		
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms		
Video Signal to Noise	>50 dB	>50 dB		
Wide Dynamic Range	128X	80X		
Electronic Image Stabilization	Integrated			

DOME DRIVE FEATURES

- 256 Presets
- ±0.1° Preset Accuracy
- Electronic Image Stabilization
- Multilanguage Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- Window Blanking Up to eight, four-sided, user-defined shapes
- Eight Zones (programmable in size) Can Be Labeled with Up to 20 Characters Each or Set to Output Blank Video
- · Seven Alarm Inputs
- One Auxiliary (Form C) Relay Output and One Open Collector Auxiliary Output (can be alternately programmed to operate upon alarm)
- Programmable Locations of Labels and On-Screen Displays
- Action on Alarm Alarms can be individually programmed for three priority levels, to initiate a stored pattern, or to go to an associated preset when received

- Resume After Alarm Allows the dome to return to a previously programmed state after alarm acknowledgement or to its previous position before alarm
- Multiple Park and Power-Up Action
- Patterns Up to eight, on-screen, user-defined programmable patterns. Includes pan, tilt, zoom, and preset functions
- Proportional Pan and Tilt Continually decreases pan and tilt speeds in proportion to depth of zoom
- Variable Scan Speed Scan speed can be programmable between 1-40°/sec
- Pan Motion Allows 0.1-150°/sec Pan Speed
- Programmable Limit Stops for Auto/Random/Frame Scan Modes
- Auto-sensing Protocol (Coaxitron®, RS-422 P and D); Accepts Competitive Control Protocol with Optional Translator Card
- Digital Position and Zoom Control and Feedback Via D Protocol
- Built-in Menu System for Setup of Programmable Functions
- "Auto Flip" Rotates Dome 180° at Bottom of Tilt Travel
- Programmable Zoom Speeds

CAMERA/OPTICS (Continued)

	Color (22X)	Black-White (22X)		
Signal Format	NTSC (DD4C22) Pal (DD4C22-X)	EIA (DD4M22) CCIR (DD4M22-X)		
Scanning System	2:1 Interlace	2:1 Interlace		
Image Sensor Effective Pixels NTSC PAL	1/4-inch EXview HAD CCD 768 (H) X 494 (V) 752 (H) X 582 (V)	1/4-inch EXview HAD CCD 768 (H) X 494 (V) 752 (H) X 582 (V)		
Horizontal Resolution NTSC PAL	>470 TV Lines >460 TV Lines	>500 TV Lines >500 TV Lines		
Lens	F1.6 (f = 4~88 mm optical)	F1.6 (f = 4~88 mm optical)		
Zoom	22X optical, 12X digital	22X optical, 12X digital		
Zoom Speed (optical range)	2.4/3.9/6.3 seconds	2.4/3.9/6.3 seconds		
Horizontal Angle of view Focus	47° at 4.0 mm wide zoom; 2.2° at 88 mm telephoto zoom Automatic with manual override	47° at 4.0 mm wide zoom; 2.2° at 88 mm telephoto zoom Automatic with manual override		
Maximum Sensitivity @ 35 IRE NTSC/EIA	0.02 lux at 1/2 sec shutter	0.005 lux at 1/2 sec shutter		
PAL/CCIR	0.02 lux at 1/1.5 sec shutter	0.005 lux at 1/1.5 sec shutter		
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync	Internal/AC line lock, phase adjustable using remote control, V-Sync		
White Balance	Automatic with manual override	_		
Shutter Speed NTSC PAL	Automatic (electronic iris)/Manual 1/2 ~1/30,000 1/1.5 ~1/30,000	Automatic (electronic iris)/Manual 1/2 ~1/30,000 1/1.5 ~1/30,000		
Iris Control	Automatic Iris Control with manual override	Automatic Iris Control with manual override		
Gain Control	Automatic/OFF	Automatic/OFF		
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms		
Video Signal to Noise	>50 dB	>48 dB		
Wide Dynamic Range	_	_		
Electronic Image Stabilization	_	_		

WINDOW BLANKING

Window blanking allows a user to program up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the dome system. A blanked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.









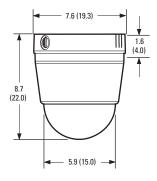
WIDE DYNAMIC RANGE

The Wide Dynamic Range (WDR) setting balances the brightest and darkest sections of a scene to produce a picture that provides more detail.

AFTER

BACK BOX FEATURES

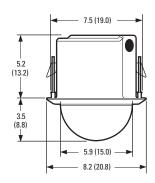




Surface Mount (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Available in Black or White Finish
- · Quick Disconnect to Dome Drive
- Injection-Molded Plastic
- Integrated Passive UTP

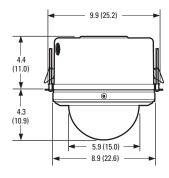




In-Ceiling (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 5.25-Inch Space Above Ceiling and 3.25 Inches Below
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces
- · Integrated Passive UTP



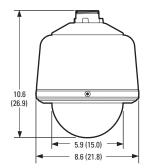


Environmental In-Ceiling

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Hard Ceiling Applications
- Requires 4.4-Inch Space Above Ceiling and 4.3 Inches Below
- Includes Heater and Fan
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Integrated Passive UTP



(ENVIRONMENTAL DOME WITH SUN SHROUD SHOWN)



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

Standard and Environmental Pendant

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- Standard Pendant Available in Black or Gray Finish; Environmental Pendant Gray Finish Only
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Environmental Model Includes Sun Shield, Fan, and Heater
- Integrated Passive UTP

MECHANICAL (Dome Drive Only)

Pan Movement Vertical Tilt 360° continuous pan rotation Unobstructed +2° to -92°

Manual Pan/Tilt Speeds

Pan 0.1°-80°/sec manual operation, 150°/sec Turbo
Tilt 0.1°-40°/sec manual operation

Tilt Preset Speeds

Pan 400°/sec Tilt 200°/sec

For variable-speed operation an appropriate controller is required. (With non-variable speed control, Spectra IV SE pan/tilt speed is

20°/sec)

ELECTRICAL

Input Voltage 18-32 VAC; 24 VAC nominal 22-27 VDC; 24 VDC nominal

Input Power 24 VAC

24 VDC

23 VA nominal (without heater); 73 VA nominal (with heater) 0.7 A nominal (without heater); 3 A nominal (with heater)

Fuse 1.25 A
Auxiliary Outputs 2
Alarm Inputs 7

CERTIFICATIONS/RATINGS/PATENTS

- CE, Class B
- UL Listed
- · UL Listed to Canadian safety standards
- Complies with Argentina compliance requirements under Res. 92/98
- FCC, Class E
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2; 7.161.615 B2

Meets the following standards:

- NEMA Type 4X, IP66 when installed properly (BB4-F-E, BB4-PB, BB4-PG, and BB4-PG-E)
- NEMA Type 1, IP40 (BB4-SMW, BB4-SMB and BB4-F)

GENERAL

Construction Back Box

Surface Mount Plastic In-Ceiling Aluminum Pendant Aluminum

Dome Drive Aluminum, thermo plastic

Bubble Acrylic

Light Attenuation

Smoked 1/2 F-stop light loss
Clear Zero light loss
Chrome 2 F-stops light loss
Gold 2 F-stops light loss

Cable Entry (Back Box) In-Ceiling and

Surface Mount 0.75-inch conduit fitting

Pendant Through 1.5-inch NPT pendant mount

Weight (approximate) <u>Unit Shipping</u> Back Box

Surface Mount 0.7 lb (0.32 kg) 2 lb (0.90 kg) 1.5 lb (0.68 kg) 2 lb (0.90 kg) In-Ceiling Environmental 2.1 lb (0.95 kg) In-Ceiling 3 lb (1.36 kg) Standard Pendant 2.4 lb (1.09 kg) 4 lb (1.81 kg) 5 lb (2.27 kg) **Environmental Pendant** 3.5 lb (1.59 kg) Dome Drive 3.3 lb (1.48 kg) 5 lb (2.27 kg)

Lower Dome

Surface Mount 0.4 lb (0.18 kg) 1 lb (0.45 kg) In-Ceiling 0.2 lb (0.09 kg) 1 lb (0.45 kg)

Pendant and Environmental

In-Ceiling 0.6 lb (0.27 kg) 2 lb (0.90 kg)

Environment

Surface Mount Indoor In-Ceiling Indoor Environmental In-Ceiling Outdoor

Pendant, Standard

and Environmental Indoor/outdoor

Operating Temperature Surface Mount and

Indoor In-Ceiling 32° to 122°F (0° to 50°C)
Standard Pendant (Assumes no wind chill factor)
Maximum 113°F (45°C) absolute maximum;
95°F (35°C) sustained maximum
25°F (-4°C) sustained minimum

Environmental In-Ceiling and

Environmental Pendant (Assumes no wind chill factor)
Maximum 140°F (60°C) absolute maximum;
122°F (50°C) sustained maximum

Minimum -60°F (-51°C) absolute minimum; prevents icing at sustained minimum of -50°F (-45°C);

de-ices 0.1 inch (2.5 mm) within 3 hours after power-up

powe

Effective Projected Area (EPA)

ea (EPA) 20.5 square inches (without mount)
47 square inches (with IWM Series mount)

RELATED PRODUCTS

OPTIONAL ACCESSORIES

DD5-FM Fixed camera mount adapter. Interchangeable

with all Spectra IV dome drives.

IPS-RMK Remote monitor kit. Stand-alone kit consist-

ing of a 5.6-inch TFT-LCD monitor, Palm™ OS compatible handheld, cables and carrying case. Allows viewing of camera video, local PTZ control, system setup, and system software upgrades at any installed dome.

IPS-CABLE Remote monitor cable and software kit

consisting of the Spectra IV remote monitor interface cable and necessary software for use with a PC (Windows® 95, 98, Me, 2000), Palm™ OS compatible handheld or iPaq™

Series Pocket PC.

See www.pelco.com for a list of compatible

Remote data port. 24 VAC, wall/pole mount IPS-RDPE-2*

video/data breakout box. Allows ground-level control/programming and Spectra IV OS software upgrades when used with the

IPS-RMK or IPS-CABLE.

Translator boards for AD Manchester, Hernis, TXB Series*

Bosch (Philips, Burle), Sensormatic, Vicon, and NTCIP protocols.

FS85011* Fiber transmitter sends one unidirectional

composite video channel and one bidirectional data channel over one multimode or single-mode fiber optical cable.

*If TXB or FS85011 boards are installed, remote upload of system software





IPS-RMK REMOTE MONITOR KIT



FS85011 FIBER MODULE

RELATED PRODUCTS

RECOMMENDED MOUNTS

Surface Mount Domes

PASMB Pendant adapter for surface mount dome,

olack

SD53SM-P 2' x 2' drop ceiling panel for BB4-SMW and

BB4T-SMW series back boxes. Replaces 2' x 2' ceiling tile. Aluminum construction.

In-Ceiling Domes

SD5-P 2' x 2' drop ceiling panel, aluminum

construction. Replaces 2' x 2' ceiling tile.

SCA1 Support rails for BB4-F; for use in ceiling tile

applications.

Pendant Domes

BB5-PCA-BK**

Pendant conduit adapter, black

BB5-PCA-GY**

Pendant conduit adapter, gray

IWM Series Wall mount, with or without integral 24 VAC,

100 VA transformer. Black or gray finish. Can be adapted for corner, parapet or pole

applications.

MRCA Ceiling mount, black
MRWA Wall mount, black
PP4348 Parapet roof mount
PP350/PP351 Parapet wall/roof mount

SWM Series Compact wall mount, black or gray finish.

Can be adapted for corner or pole

applications.

RECOMMENDED POWER SUPPLIES

MCS Series Indoor, 24 VAC power supply MCS*E Series Indoor, 24 VAC power supply WCS Series Outdoor, 24 VAC power supply

Refer to individual power supply specifications for more information.

^{**}Not suitable for use with heavy-duty, pressurized, or stainless steel Spectra domes.

SYSTEM AND COMPONENT MODELS

SYSTEM MODEL NUMBERS

Туре	Back Box Color	Lower Dome	35X Day/Night*	23X Day/Night*	22X Color*	22X Black-White*
Surface Mount	White	Smoked	SD435-SMW-0	SD4CBW-SMW-0	SD4C22-SMW-0	SD4M22-SMW-0
		Clear	SD435-SMW-1	SD4CBW-SMW-1	SD4C22-SMW-1	SD4M22-SMW-1
		Chrome	SD435-SMW-2	SD4CBW-SMW-2	SD4C22-SMW-2	SD4M22-SMW-2
		Gold	SD435-SMW-3	SD4CBW-SMW-3	SD4C22-SMW-3	SD4M22-SMW-3
	Black	Smoked	SD435-SMB-0	SD4CBW-SMB-0	SD4C22-SMB-0	SD4M22-SMB-0
		Clear	SD435-SMB-1	SD4CBW-SMB-1	SD4C22-SMB-1	SD4M22-SMB-1
		Chrome	SD435-SMB-2	SD4CBW-SMB-2	SD4C22-SMB-2	SD4M22-SMB-2
		Gold	SD435-SMB-3	SD4CBW-SMB-3	SD4C22-SMB-3	SD4M22-SMB-3
In-Ceiling, Indoor	Black	Smoked	SD435-F0	SD4CBW-F0	SD4C22-F0	SD4M22-F0
		Clear	SD435-F1	SD4CBW-F1	SD4C22-F1	SD4M22-F1
		Chrome	SD435-F2	SD4CBW-F2	SD4C22-F2	SD4M22-F2
		Gold	SD435-F3	SD4CBW-F3	SD4C22-F3	SD4M22-F3
In-Ceiling, Environmental**	Black	Smoked	SD435-F-E0	SD4CBW-F-E0	SD4C22-F-E0	SD4M22-F-E0
		Clear	SD435-F-E1	SD4CBW-F-E1	SD4C22-F-E1	SD4M22-F-E1
Pendant, Standard	Black	Smoked	SD435-PB-0	SD4CBW-PB-0	SD4C22-PB-0	SD4M22-PB-0
		Clear	SD435-PB-1	SD4CBW-PB-1	SD4C22-PB-1	SD4M22-PB-1
		Chrome	SD435-PB-2	SD4CBW-PB-2	SD4C22-PB-2	SD4M22-PB-2
		Gold	SD435-PB-3	SD4CBW-PB-3	SD4C22-PB-3	SD4M22-PB-3
	Lt. Gray	Smoked	SD435-PG-0	SD4CBW-PG-0	SD4C22-PG-0	SD4M22-PG-0
		Clear	SD435-PG-1	SD4CBW-PG-1	SD4C22-PG-1	SD4M22-PG-1
		Chrome	SD435-PG-2	SD4CBW-PG-2	SD4C22-PG-2	SD4M22-PG-2
		Gold	SD435-PG-3	SD4CBW-PG-3	SD4C22-PG-3	SD4M22-PG-3
Pendant, Environmental**	Lt. Gray	Smoked	SD435-PG-E0	SD4CBW-PG-E0	SD4C22-PG-E0	SD4M22-PG-E0
		Clear	SD435-PG-E1	SD4CBW-PG-E1	SD4C22-PG-E1	SD4M22-PG-E1

COMPONENT MODEL NUMBERS

Back Box*		Dome Drive*		Lower Dome***	
BB4-SMB BB4-SMW BB4-F BB4-F-E BB4-PB BB4-PG BB4-PG-E	Surface mount, black Surface mount, white In-ceiling, black In-ceiling, black, environmental Pendant mount, black, standard Pendant mount, gray, standard Pendant mount, gray, environmental	DD4C22 DD4M22 DD4CBW23 DD4CBW35 DD5-FM	Color (NTSC) camera (22X) Black-white (EIA) camera (22X) Day/Night (NTSC) camera (23X) Day/Night (NTSC) camera (35X) Removable, fixed mount bracket only (camera and lens not included). Interchangeable with all Spectra IV dome drives.	LD53SMB-0 LD53SMB-1 LD53SMB-2 LD53SMB-3 LD53SMW-0 LD53SMW-1 LD53SMW-2 LD53SMW-3	Smoked, surface, black Clear, surface, black Chrome, surface, black Gold, surface, black Smoked, surface, white Clear, surface, white Chrome, surface, white
Notes: To order a fixed mount dome system refer to the component models above and select one each of the following: back box (BB4-F), dome drive (DD5-FM), plus choice of lower dome (LD5F-0, LD5F-1, LD5F-2 or LD5F-3).				- LD5F-0 LD5F-1 LD5F-2 LD5F-3 LD53PB-0 LD53PB-1 LD53PB-2 LD53PB-3	Smoked, in-ceiling Clear, in-ceiling Chrome, in-ceiling Gold, in-ceiling Smoked, pendant, black Clear, pendant, black Chrome, pendant, black**** Gold, bendant, black****
For environmental applications, you must order an environmental back box (BB4-F-E) or (BB4-PG-E). DD5-FM is ideal for use with Pelco's CCC1380/CCC1390/MCC1380 Series cameras with selected Pelco lenses.					

^{*}For PAL and CCIR models add "-X" suffix to part number. (Example: SD435-SMW-0- \mathbf{X})



^{**}Environmental dome systems include a heater, fan, and the environmental pendant also includes a sun shield.

^{***}Use the pendant lower domes with the environmental in-ceiling and environmental pendant back boxes.

^{****}Not recommended for outdoor use due to possible light reflections.