

SPI Technical Information



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Code Definitions

Optical Distributions

Four distinct optical distributions are created with premium 95% reflective aluminum and superwhite reflectors. For individual distribution descriptions, see page 5.

FT	Forward Throw
PW	Plane Wash
SY	Symmetric
VG	Vertical Graze



VG

The IPS product family offers two symmetrical distributions created with and superwhite reflectors. They either light a space with direct illumination or light a space while highlighting the ceiling plane with a combination of direct and indirect light. For further symmetric distribution descriptions, see page 4.



100% Direct

80% Direct/20% Indirect

Lamping

Lamping suffixes describe the quantity of lamps in a luminaire, lamp type and wattage per lamp.

Example: "1F54" = (1) 54 watt T5 fluorescent lamp.

F	Fluorescent
M	Metal Halide
T	Tungsten Halogen
DM	Dimming
M(watts)PS	Pulse Start Metal Halide

Finishes

See the SPI Color Chart at www.specspi.com/finishes for standard polyester powder coat paint finish color swatches.

Example: "PT13" = Painted Warm Gray

Custom paint colors are available. A color chip must be provided upon ordering for proper color matching. A one-time set-up charge will be assessed for each order entered.

PT__	Painted (include paint color code in the blank after "PT". Refer to the Color Chart at www.specspi.com/finishes for color swatches).
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Options

Option suffixes describe additional features that can be incorporated into a standard luminaire. Further explanation of each option is provided in Option Descriptions. Consult factory for additional details.

45S	45° Swivel
ADJ	Adjustable Bracket 30°
CM	Ceiling Mount Hardware
CN	Chain Mount
CR	Corrosion Resistant
CS	Cutoff Shield
DCL	Dust Cover Lens
DCN	Decorative Chain Mount
EMI	Integral Emergency
EMR	Remote Emergency
EPT	Encapsulated Core and Coil Power Tray™
F	Fusing
LD	Acrylic Prismatic Diffuser Lens
LL	Downlight Louver
LV1	Louver
LV2	Louver
LV3	Louver
LW	Luminous Window
OAH__	Overall Height
OAP__	Overall Projection
PC	Photo Control
Q	Standby Quartz Lighting
QEM	Quartz Emergency Light Circuit
RBE	Remote Wet Location Ballast Kit
REB	Remote Electronic Ballast
SAC	Four Stem Mounting For Accessible Ceilings
SAF	Two Stem Mounting For Accessible Ceilings
SAJ	Oversized Contemporary Ballast Cover
SKA	Decorative Stem Kit - Angled
SKM	Decorative Stem Kit - Multi
SS	Separate Switching
TS	Translucent Shield
WG	Wire Guard
WM	Wall Mount Kit

Remote Emergency with Dimming

The maximum distance requirements are based upon the dimming ballast and emergency lamp combination. Orders specified with dimming and remote emergency must be verified by engineering to ensure successful operation. Consult factory for details.

Code Definitions

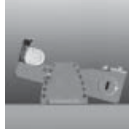
Option Descriptions

45S - 45° Swivel

For ceilings with a slope up to 45°. Consult factory for additional canopy options.

ADJ - Adjustable Bracket

Steel bracket option that allows the cove luminaire to adjust up to 30° up or down for application specific aiming flexibility.



CM - Ceiling Mount Hardware

Additional hardware needed to install yoke mount fixtures in lay-in ceilings.



CN - Chain Mount

Alternative chain pendant mount that replaces a standard stem.



Continuous Row

Continuous row applications use are available in any combination of the following lengths: 2', 3', 4', 5', 6' and 8'. Consult factory for special applications, lamp and ballast combinations and pricing.



CR - Corrosion Resistant

Fixture construction is composed of non-ferrous materials. Fixtures supplied with 2-3 mil, full-coverage, powder coat finish to protect against normal water-related corrosion. Some small components, such as lamps and sockets, may contain ferrous materials.

CS - Cutoff Shield

Eliminates direct sight of lamp at lower fixture-aiming angles. Cannot be used in conjunction with a dust cover lens.



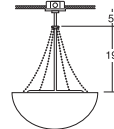
DCL - Dust Cover Lens

Acrylic lens, prevents debris from entering lamp compartment. Interior fluorescent fixtures only.



DCN - Decorative Chain Mount

Decorative chains add detail to a standard stem mount. Angled chains extend from the stem to the fixture edge.



DM - Fluorescent Dimming Ballasts

Dimming ballasts utilized provide a range down to 10% of full light output. The ballast manufacturer is at the discretion of SPI Lighting Inc. For dimming with remote emergency or specific ballast requests, consult factory. Maximum mounting distances will vary depending on the dimming ballast and emergency lamp combination.

EMI - Integral Emergency

An integral fluorescent emergency ballast provides temporary lighting during power interruption. Operates lamp(s) for a minimum of 90 minutes, or until power is restored, at approximately 30% of full light output in emergency mode. Automatically recharges when power is restored. UL listed and exceeds NEC/NFPA-LSC emergency illumination requirements. Integrally mounted indicator light and test switch is standard, for remote, consult factory.

EMR - Remote Emergency

Allows the use of a fluorescent emergency ballast where the ballast cannot be integral or where remote mounting is desired. Provides temporary lighting during a power interruption and operates lamp(s) for a minimum of 90 minutes, or until power is restored, at approximately 30% of full light output in emergency mode. Automatically recharges when power is restored. UL listed and exceeds NEC/NFPA-LSC emergency illumination requirements. Not available in conjunction with certain dimming ballasts. For EMR with dimming, consult factory. Maximum mounting distances will vary depending on the dimming ballast and emergency lamp combination.

EPT - Encapsulated Core & Coil Power Tray™

Provides an integral Power Tray™ with quick connect plug. Ballasts are encapsulated core and coil magnetic CWA-HPF design (multi-tap) and thermally protected with a Class "B" sound rating. Silicone cushions minimize system noise and vibrations.

Exterior

Aluminum lens frame with gasketing for metal halide and quartz lampings. Snap-tight acrylic lens for fluorescent lampings. Fixture has flexible weatherproof power cord with watertight fittings. Extruded housings only.



F - Fusing

Individual fusing protects against line surges. Fuse is sized properly for electrical requirements. Fuse holder and fuse supplied by factory. Some fuse holders may require field installation.

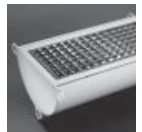
LD - Acrylic Prismatic Diffuser Lens

A clear prismatic acrylic lens used to diffuse lamp image and glare when a Lightruss module is used in a direct orientation.



LL - Downlight Louver

A parabolic silver louver used to shield lamp image when Lightruss module is used in a direct orientation.



LV1 - Louver

Unidirectional aluminum louver, set within the fixture profile, providing lengthwise shielding and minimizing direct view of the lamp.



Code Definitions

LV2 - Louver

Unidirectional aluminum louver providing lengthwise shielding and minimizing direct view of the lamp. Louver slightly increases the extents of the fixture.



LV3 - Louver

Aluminum louver providing bidirectional shielding and minimizing direct view of the lamp. Louver increases extents of the fixture. Contact factory for details.



LW - Luminous Window

A textured glass cutout, available in some plane wash optics, accents a space by creating a glowing effect.



MRI - Magnetic Resonance Imaging

For use with tungsten halogen fixtures, as the ballasts from fluorescent and metal halide lampings can generate RF noise that interferes with MRI equipment. Fixture is constructed out of non-ferrous materials. MRI specified fixtures are supplied with non-ferrous components, accessories and hardware. Some small components such as lamps and sockets may contain ferrous materials. Most fixtures can be modified to meet MRI requirements, contact factory for details or requests.

OAH__ - Overall Height

The standard fixture height is listed in the dimension chart. Longer and shorter heights may be specified with OAH_ option. The desired overall height, in inches, should be indicated in the blank.

OAP__ - Overall Projection

The standard fixture projection is listed in the dimension chart. Longer and shorter projections may be specified with OAP_ option. The desired overall projection, in inches, should be indicated in the blank. Consult factory for projections longer than standard, additional support may be needed.

PC - Photo Control

Button-style photoelectric control is single-pole and single-throw with a normally closed switch. Withstands a wide operating temperature range. Fixed footcandle level and time delay. Consult factory for details.



Q - Standby Quartz Lighting

Provides temporary lighting when power is on, until the metal halide lamp reaches 30% of full light output. Switch relay, quartz lamp and independent wiring to connect to owner supplied emergency system provided. Unless otherwise noted, the standard Echo 6.0 quartz lamp is 75W, while Echo 9.0 and 16.5 include a 100W lamp. Size 16.5 Echo fixtures are able to support higher wattage quartz lampings. Available upon request.

QEM - Quartz Emergency Light Circuit

Provides temporary lighting until the main power is restored. Up to a 250 watt auxiliary quartz lamp is provided with separate 120 volt circuit wiring for connection to an emergency power source.

RBE - Remote Wet Location Ballast Kit

Remote ballast is contained in a welded ballast box enclosure and sealed for exterior mounting. Remote fixtures only.

REB - Remote Electronic Ballast

Specifies an electronic ballast to replace a standard magnetic ballast.

SAC - Four Stem Mounting For Accessible Ceilings

Mounting hardware needed to install four stem pendant fixtures in lay-in ceilings.



SAF - Two Stem Mounting For Accessible Ceilings

Mounting hardware needed to install two stem pendant fixtures in lay-in ceilings.

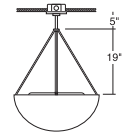


SAJ - Oversized Contemporary Ballast Cover

Allows for remote ballast mounting at the ceiling surface. Contact factory for availability, profile and dimensions.

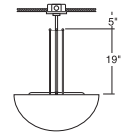
SKA - Decorative Stem Kit - Angled

Decorative stems add detail to standard stem mount. Angled stems extend from the stem to the fixture's edge.



SKM - Decorative Stem Kit - Multi

Decorative stems add detail to standard stem mount. Additional stems run parallel to the main stem mount.



SS - Separate Switching

Allows lamps on the same circuit to be switched independently. In the IPS family, separate switching (SS) is standard with all non-dimming lampings, except 2F36. SS must be specified for 2F36 lampings as an additional ballast is needed and will affect the fixture cost.

TS - Translucent Shield

Frosted acrylic lens for an even glow along the length of the fixture. Available up to four feet in length.



WG - Wire Guard

Stainless steel guard that protects luminaire from environmental debris.



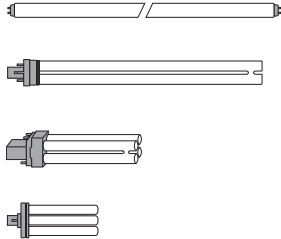
WM - Wall Mount Kit

Additional mounting hardware needed to alternatively mount a ceiling fixture or pendant to the wall.



Contact us at 262-242-1420 or visit www.specspi.com for more information.

Lamp Information



Fluorescent

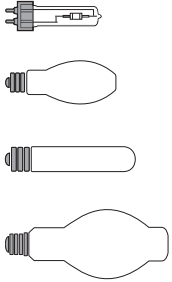
Lamp Designator	Lamp Type	Wattage (W)	Color Temp (K)	CRI	Rated Lamp Life (Hrs.)	Initial Lumens	Design Lumens
F14	F14WT5/Mini Bipin	14	3000, 3500, 4100, 6500	85	20,000	1,350	1,269
F21	F21WT5/Mini Bipin	21	3000, 3500, 4100, 6500	85	20,000	2,100	1,974
F24	F24WT5HO/Mini Bipin	24	3000, 3500, 4100, 6500	85	20,000	2,000	1,880
F26	F26WCFL/GX24Q-3	26	2700, 3000, 3500, 4100	82	10,000	1,800	1,548
F27	FT27W/2G11	27	3000, 3500, 4100	82	12,000	1,800	1,620
F28	F28WT5/Mini Bipin	28	3000, 3500, 4100, 6500	85	20,000	2,900	2,726
F32	F36WCFL/GX24Q-3	32	2700, 3000, 3500, 4100	82	10,000	2,400	2,040
F32	F32WT8/Med Bipin	32	3000, 3500, 4100, 5000	78	20,000	2,850	2,710
F35	F35WT5/Mini Bipin	35	3000, 3500, 4100, 6500	85	20,000	3,650	3,431
F39	F39WT5HO/Mini Bipin	39	3000, 3500, 4100, 6500	85	20,000	3,290	3,000
F39	F39W/2G11	39	3000, 3500, 4100	82	20,000	2,850	2,510
F40	F40W/2G11	40	3000, 3500, 4100	82	20,000	3,150	2,840
F42	F42WCFL/GX24Q-4	42	2700, 3000, 3500, 4100	82	10,000	3,200	2,720
F50	F50W/2G11	50	3000, 3500, 4100	82	14,000	4,000	3,400
F54	F54WT5HO/Mini Bipin	54	3000, 3500, 4100, 6500	85	20,000	5,000	4,700
F55	F55W/2G11	55	3000, 3500, 4100	82	12,000	4,800	4,080
F59	F59WT8/Bipin	59	3000, 3500, 4100	78	15,000	5,800	5,500
F80	F80WT5HO/Mini Bipin	80	3000, 3500, 4100, 6500	85	20,000	7,000	6,580

Data is for reference only. Actual data varies by manufacturer. Contact factory for specifics.

T5 and T8 lamps supplied by others.

Fluorescent lamps contain Mercury (Hg). Dispose of these lamps in accordance with local, state and federal laws.

Lamp Information



High Intensity Discharge (HID)

Lamp Designator	Lamp Type	Wattage (W)	Color Temp (K)	CRI	Rated Lamp Life (Hrs.)	Initial Lumens	Design Lumens
M20	PSCMH20/T4.5/G8.5	20	3,000	83	12,000	1,700	1,275
M39	PSCMH39/T4.5/G8.5	39	3,000	82	12,000	3,400	2,720
M39	PSCMH39/T6/G12	39	4,200	82	12,000	3,400	2,600
M70	PSCMH70/T6/G12	70	4,200	93	15,000	6,200	5,000
M100PS	PSMH100/ED17/Med	150	3,000	75	10,000	7,900	5,800
M150	PSCMH150/T6/G12	150	4,200	94	12,000	12,700	11,000
M175PS	PSMH175/BT28/Mog	175	4,200	65	9,000	12,800	8,300
M250PS	PSMH250/ED28/Mog	250	4,000	70	10,000	25,000	N/A
M315PS	PSCMH315/T9/PGZ18	315	3,000	90	20,000	37,800	34,000
M320PS	PSMH320/ED28/Mog	320	4,000	68	20,000	30,000	24,000
M350PS	PSMH350/ED28/Mog	350	3,700	70	20,000	33,000	26,000
M400PS	PSMH400/ED28/Mog	400	4,000	70	10,000	40,000	N/A
M1000PS	PSMH1000/BT37/Mog	1000	3,800	65	15,000	107,800	86,300
M1000	MH1000/BT56/Mog	1000	3,400	70	18,000	110,000	88,000

Data is for reference only. Actual data varies by manufacturer. Contact factory for specifics.

HID lamps contain Mercury (Hg). Dispose of these lamps in accordance with local, state and federal laws.

Tungsten Halogen



Lamp Designator	Lamp Type	Wattage (W)	Color Temp (K)	Rated Lamp Life (Hrs.)	Initial Lumens
T150	T150W/T4/DC Bay	150	2,950	2,000	2,700
T250	T250W/T4/DC Bay	250	2,950	2,000	4,850
T500	T500W/T4/DC Bay	500	2,950	2,000	10,100

Data is for reference only. Actual data varies by manufacturer. Contact factory for specifics.

Lamps supplied by others.

Fluorescent Ballasts

Fluorescent Ballasts

Standard Fluorescent Ballast Features

- Integral electronic, HPF
- Thermally protected
- Class "A" sound rated
- Low harmonic distortion (less than 20%)
- FCC and NEMA compliant
- Minimum start temperature is 0° F
- 54W T5HO minimum start temperature is -20° F

Emergency Fluorescent Ballasts

A fluorescent emergency ballast provides temporary lighting during power interruption. Operates lamp(s) for a minimum of 90 minutes, or until power is restored, at approximately 30% of full light output in emergency mode. Automatically recharges when power is restored. UL Listed and exceeds NEC/NFPA-LSC emergency illumination requirements.

EMI - Integral Emergency Ballast

A fluorescent emergency ballast, indicator light and test switch are mounted integrally in the fixture.

EMR - Remote Emergency Ballast

Allows for the use of a fluorescent emergency ballast where the ballast cannot be integral with the fixture, or where remote mounting is desired. Indicator light and test switch provided.

EMR with Dimming (DM)

The EMR distance is limited to ½ the maximum remote distance of the dimming ballast. While this varies by ballast model, there are combinations that may restrict the EMR to 0 or 3 feet. For EMR with DM, consult factory.

Dimming Ballasts

Dimming ballasts enable the control of delivering satisfactory light levels, while limiting consumed energy.

DM - Fluorescent Dimming

- Dimming ballasts utilized provide a dimming range down to 10% of full light output.
- The manufacturer of the ballasts used is at the discretion of SPI Lighting, Inc. For other requests, consult factory.

Lamp to Emergency Ballast Maximum Distance

Lamp	Detail	Lumens	Distance
F14	T5 FL	450	9 feet
F17	T8 FL	650	9 feet
F21	T5 FL	500	9 feet
F24	T5HO FL	450	10 feet
F25	T8 FL	650	9 feet
F26 1-lamp	Quad	425	6 feet
F26 2-lamp	Quad	700	6 feet
F26 1-lamp	Triple	425	6 feet
F26 2-lamp	Triple	700	6 feet
F27	Biax	N/A	N/A
F28	T5 FL	800	9 feet
F32 1-lamp	Triple	600	6 feet
F32 2-lamp	Triple	725	6 feet
F32	T8 FL	700	10 feet
F35	T5 FL	N/A	N/A
F39	T5HO FL	700	10 feet
F39	Biax	600	12 feet
F40	Biax	600	10 feet
F40	T8 FL	600	9 feet
F42 1-lamp	Triple	750	6 feet
F42 2-lamp	Triple	750	6 feet
F50	Biax	625	12 feet
F54	T5HO FL	825	10 feet
F55	Biax	650	12 feet
F59	T8 FL	650	9 feet
F80	T5HO FL	N/A	N/A

International Market

50 and 60Hz ballasts are available in different voltages. Please contact factory for specific information.

Fluorescent 347 Volt Operation

Lamp	Description	Available
F14	T5 FL	yes+
F17	T8 FL	yes
F21	T5 FL	no
F24	T5HO FL	yes+
F25	T8 FL	yes
F26	Quad	yes
F26	Triple	yes
F27	Biax	yes
F28	T5 FL	yes
F32	Triple	yes
F32	T8 FL	yes
F35	T5 FL	yes+
F39	T5HO	no
F39	Biax	yes
F40	Biax	yes**
F40	T8 FL	yes
F42	Triple	yes
F50	Biax	yes
F54	T5HO FL	yes
F55	Biax	yes
F59	T8 FL	yes
F80	T5HO FL	no

+ Available in one-lamp configuration only.

** Available in 2 or 3 lamp configuration only.

High Intensity Discharge (HID) Ballasts

HID Ballasts

Magnetic HID Ballasts

Integral: 175, 250, 400 Watt

- Universal 120 - 277 volt operation
- Open core and coil
- CWA-HPF design
- Thermally protected
- Ballast box for remote mounting included

Remote: 1000 Watt

- Multi-tap, 120/208/240/277 volt operation
- Enclosed
- CWA-HPF design
- Not thermally protected
- Power leads at top of unit and lamp leads at both ends
- 16 gauge mounting legs
- Allow 9" between ballasts in all directions when gang mounting to a common surface to provide ventilation
- Field assembly required

Electronic HID Ballasts

Remote or Integral: 175, 250, 400 Watt

- Universal 120 - 277 volt operation
- Thermally protected
- Class "A" sound rated
- Low harmonic distortion (less than 15%)
- HPF electronic design
- Power mains must be cycled off and on to reset ballast after replacing failed lamps

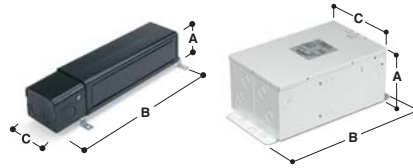
Electronic Ceramic Metal Halide Ballasts

Remote or Integral: 20, 39, 70, 150, 315 Watt

- Thermally protected
- Class "A" sound rated
- Low harmonic distortion (less than 10%)
- FCC compliant
- Maximum 50 ft. remote distance
- Minimum start temperature is -20°F

Standard Remote Ballast Kit

Allows for remote mounting of the HID ballast for Echo products.



Remote Ballast Kit Dimensions

Lamp	Ballast	A	B	C
M39	electronic	2.50"	4.80"	7.00"
M70	electronic	2.50"	4.80"	7.00"
M150	electronic	2.50"	4.80"	7.00"
M175PS	electronic	2.60"	12.00"	4.20"
M250PS	electronic	2.60"	12.00"	4.20"
M250PS	magnetic	5.50"	17.20"	6.10"
M400PS	electronic	2.60"	12.00"	4.20"
M400PS	magnetic	5.50"	17.20"	6.10"
M1000	magnetic	5.75"	14.43"	7.68"

HID Lamp to Ballast Maximum Distance

Lamp	Type	Ballast	Distance
M20PSC	PSC	electronic	50 feet
M39PSC	PSC	electronic	50 feet
M70PSC	PSC	electronic	50 feet
M100PS	PS	magnetic	50 feet
M150PSC	PSC	electronic	50 feet
M175PS	PS	magnetic	270 feet
M250PS	PS	magnetic	130 feet
M315PSC	PSC	electronic	30 feet
M320PS	PS	magnetic	50 feet
M350PS	PS	magnetic	50 feet
M400PS	PS	magnetic	50 feet
M1000	MH	magnetic	190 feet
M1000PS	PS	magnetic	feet

PS = Pulse Start Metal Halide
 PSC = Pulse Start Ceramic Metal Halide
 MH = Metal Halide

International Market

50 and 60Hz ballasts are available in different voltages. Please contact factory for specific information.

HID 347 Volt Operation

Lamp	Description	Available
M20	T4.5 CMH	no
M39	T4.5 CMH	no
M39	T6/G12 MH	yes
M70	T6/G12 MH	yes
M150	T6/G12 MH	yes
M175PS	BT28 MH	yes
M250PS	T15 PSMH	yes*
M315	T9 CMH	no
M400PS	ED28	yes*
M1000	BT37	yes

* For integral and Power Tray™ ballast configurations. If remote ballast is required, a special ballast enclosure will need to be ordered. Contact factory.

Ballast Sound

Magnetic HID ballasts may hum slightly due to the magnetic action in the core and coil assembly. This hum may be amplified by the resonant qualities of the ceilings, walls, floors or furnishings within the space. Careful consideration of these components within the lighting design will ensure the quietest installation possible. For "library quiet" installations use electronic or remote mount ballasts. Please consult factory for additional suggestions.

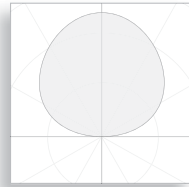
ENGINEERED TO PERFORM

Performance Optics

Symmetric Lighting

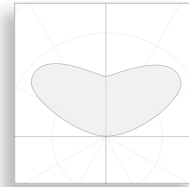
Optics distributing light symmetrically are used for areas requiring uniform lighting. A symmetrical light pattern is one in which light is equally distributed at all points around the fixture. This optic provides a directed light distribution used to provide indirect illumination to the work plane, while providing architectural highlighting of the ceiling.

A wide indirect distribution, created by Echo double pendants, provides a symmetrically directed “bat-wing” light distribution that delivers light at low angles providing superior uniform ceiling brightness and maximizing fixture spacing.



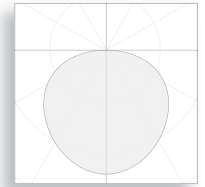
Symmetric Indirect

Appropriate for providing indirect illumination at the work plane and architectural highlighting of the ceiling.



Wide Indirect

A bat-wing distribution pattern allowing maximum luminaire spacing while providing uniform ceiling brightness.



Symmetric Direct

Used in applications requiring luminaires to distribute illumination into a space and light the work plane directly.



Performance Optics

Asymmetric Lighting

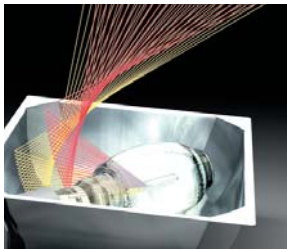
Asymmetric optics project light into a space to provide direct or indirect illumination at the work plane. SPI offers three asymmetric optics: forward throw, plane wash and vertical graze. The forward throw optic throws light into a space and provides high levels of usable light on the work plane. Both wall and ceiling planes are uniformly “washed” with light using the plane wash optic. The vertical graze optic puts light back onto the wall and dramatically accents space architecture and textures.

Lamp and Ballasts



State-of-the-Art Sources We work with industry-leading manufacturers to incorporate state-of-the-art lamp and ballast technology into our lighting products. We base our designs on leading-edge fluorescent, metal halide and tungsten halogen lamp technology. We also evaluate the specific performance characteristics of each source to optimize its performance in the intended application.

Optical Designs



Appropriate Geometry

We develop specific reflector geometries around the performance and physical lamp characteristics. The optical design for each performance lighting luminaire balances optimal lamp output, maximum efficiency and the overall appearance of the luminaire within the space.

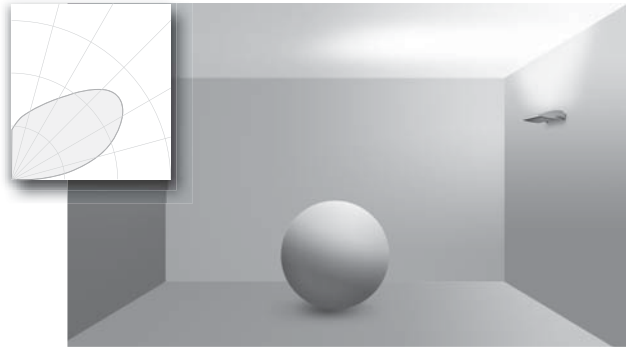
Reflector Materials



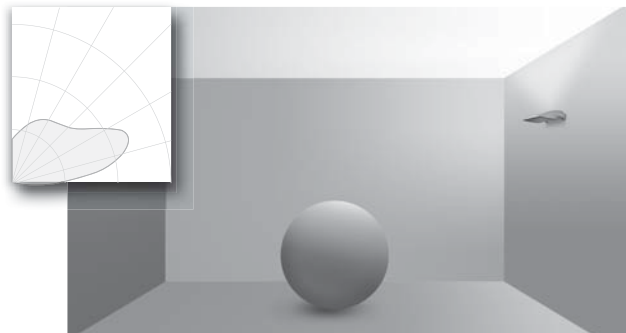
Premium Optical Materials

As the reflector geometry is being developed, our engineers also evaluate the various reflective materials and methods of forming the reflector assembly. Through computer simulation, lab testing and visual evaluation, we select the materials that provide the best overall luminaire efficiency, appropriate distribution and visual performance.

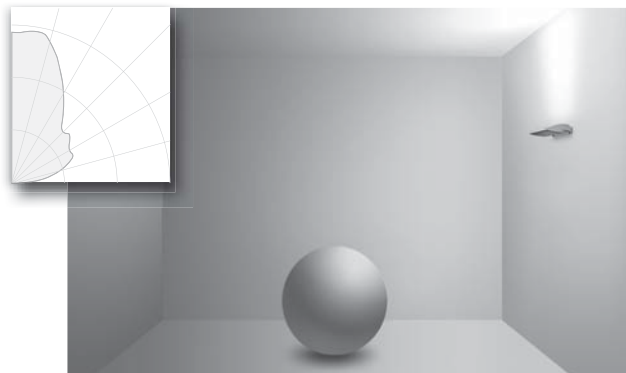
Multiple Optical Distributions



Forward Throw The best choice for delivering indirect illumination to the work plane for the highest level of usable light. Also effective when used to accent objects on horizontal surfaces.



Plane Wash Provides respectable uniformity and a visually clean light pattern. Ideal solution for uniform illumination of wall or ceiling planes.



Vertical Graze Delivers light onto the wall and ceiling planes above the luminaire. This distribution is effective for highlighting columns, emphasizing the verticality of a space or accentuating wall texture.

IP66 Rating

IP66 Rated Information



IP66 Rated Per IEC 60529

The IP classification is described in a specific format, with each letter and numeral depicting a degree of protection from a certain "threat." The following is a breakdown of Echo Reflections and Velocity's IP66 ratings and the IP format.

IP - International Protection

Code letters depicting an international protection rating, sometimes referred to as ingress protection.

6 - Solid Object Protection

The first number symbolizes the degree of protection against ingress of solid foreign objects. A rating of "6" indicates equipment is dust-tight and dust will not enter. In addition, people handling the fixture have no access to hazardous parts with a 1mm wire.

6 - Water Protection

The second numeral represents the level of protection against the ingress of water with harmful effects. The "6" rating represents the equipment is protected against powerful water jets.

IEC - International Electrotechnical Comm.

The International Electrotechnical Commission created the protection standards Velocity was tested against to earn its IP66 rating.

IP Classification

The International Electrotechnical Commission (IEC), a not-for-profit, non-governmental global organization creating electrical, electronic and related standards, developed the international protection rating system. Today, the IEC is the leading international organization; currently working with over 130 countries, 67 of which are members. IEC's standards have been adopted as national standards by all members and are recognized and accepted by a majority of the global community.

The IP classification system, entitled IEC 60528 and 60529, specifies the environmental protection an enclosure provides from solid objects. It prevents dust, wires and water, as well as hands and fingers from accessing electrical enclosures, ensuring user safety and preventing electrical malfunctions. The enclosure protection ratings refer to unmachined, standard enclosures, but do not factor in fixture aging.

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Durable



IP66 rated Echo[®] fixtures are unaffected by harsh elements and provide the quality illumination and efficient light control demanded.

Watertight



Rain, storms and even powerful water jets will not affect luminaire performance. The IP66 rating is complemented by a UL Ground Mount listing.

Dust and Insect Proof



Sealed tight, dust and insects are unable to penetrate inside the fixture, reducing maintenance costs and sustaining quality illumination.

Finishes Color Chart

Paint Finishes



PT01 Superwhite* **PT02** White **PT03** Morning Light **PT04** Warm White **PT05** Putty **PT06** Warm Beige



PT07 Light Taupe **PT08** Medium Taupe **PT09** Medium Gray **PT10** Dark Gray **PT11** Black **PT12** Dark Chocolate



PT13 Warm Gray **PT14** Light Gray **PT15** Sage **PT16** Spruce **PT17** Red **PT18** Deep Red



PT19 Blue **PT20** Dark Green **PT40** Yellow **PT41** Orange **PT42** Sky Blue **PT43** Teal



PT44 Green **PT45** Purple

For over 20 years SPI Lighting Inc. has used eco-friendly powder paints that provide high-quality, scratch-resistant, lasting color. The finishes shown here are printed representations of the standard color selections available for SPI products. SPI is able to match any RAL®, Pantone® or custom color. All paint finishes are textured, unless otherwise noted. There may be slight variations in color, texture and finish between the samples shown here and the actual product finishes. **Finish sample can be requested by contacting finishes@spilighting.com.**

* Indicates glossy paint.

Metallic Paint Finishes



PT21 Pearl White* **PT22** Platinum* **PT27** Deep Copper* **PT28** Dark Stainless* **PT29** Red Brass* **PT31** Medium Bronze*



PT32 Dark Bronze* **PT46** Aluminum **PT47** Deep Red Brass **PT48** Brass **PT49** Bronze

SPI Lighting Inc. Brands

SPI Lighting Inc.

A privately held company headquartered just north of Milwaukee, Wisconsin, SPI Lighting Inc. offers high-performance and architectural product lines and specializes in customizing products to exceed the demands of high quality, creative lighting design.

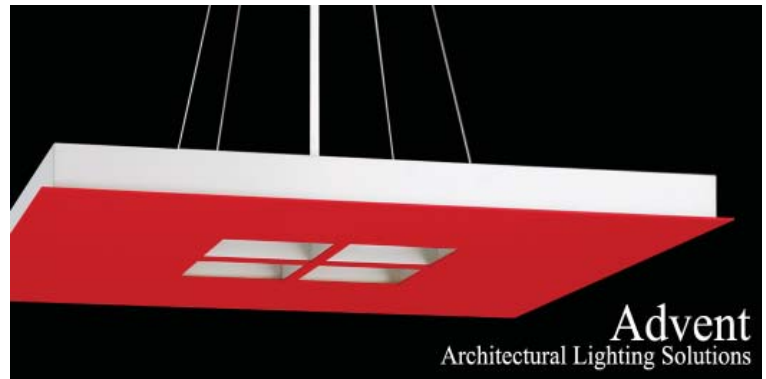


SPI

Emphasizing functionality and performance, SPI's product lines provide the light control and high-performance lighting necessary to deliver the required light levels. From various forms with a palette of high-performance optics to performance lighting modules in a flexible modular truss support system, SPI offers multiple families with industry-leading efficiencies. For more information visit www.specspi.com.

Advent

A high-quality line of architectural fixtures, Advent offers luminaire families for interior and exterior commercial environments. This line features multiple levels of detailing, varying levels of performance and customization options. Advent is available in 37 standard powder coat paints and 18 metal finishes, in addition to its signature hand-painted acrylic bowls and lenses. Visit www.specadvent.com for more information.



Stile®

A great fit for environmentally conscious designers, Stile features recyclable components and efficient electronic ballasts. Dimming ballasts are available to even further reduce a project's energy consumption. This modern luminaire product line utilizes efficient T5, T5HO and long-lasting LED sources and provides functional illumination, as well as quality accent lighting. For more information, visit www.specstile.com.