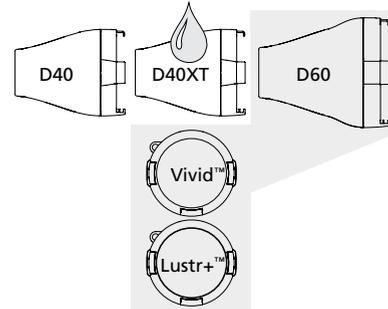100V   115/120V   230/240V

This datasheet covers D60 luminaires as shown.
See other datasheets for other versions.

GENERAL INFORMATION

The Selador® Desire D60 fixture puts the seven-color x7 system into a high-brightness, 60-emitter, round theatrical washlight. Highly efficient primary lenses and careful color choices make the D60 fixture ideal for stage, studio and anywhere strong color and high-intensity are requirements. The Selador x7 Color System™ produces the widest range of spectrally-balanced saturated and tinted color choices available. D60's rugged die-cast enclosure; quiet, fan-cooled operation; multiple lens options; and advanced user interface make it ideal for multiple applications.

D60 LED array options

D60 fixtures are based on the x7 Color System that uses seven different LED colors to achieve true, usable broad-spectrum color. The D60 luminaire is available with any one of the following x7 color arrays (not interchangeable) to best suit the intended application:

- D60 Vivid – the x7 Color System array balanced for best all-around use as a color-changing wash fixture
- D60 Lustr+ – optimized array with six colors plus high-intensity white LEDs to create an ideal frontlight wash fixture for full-range color, with an emphasis on lighter colors and white and natural illumination of skin tones
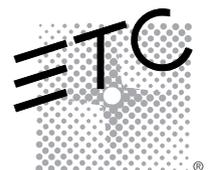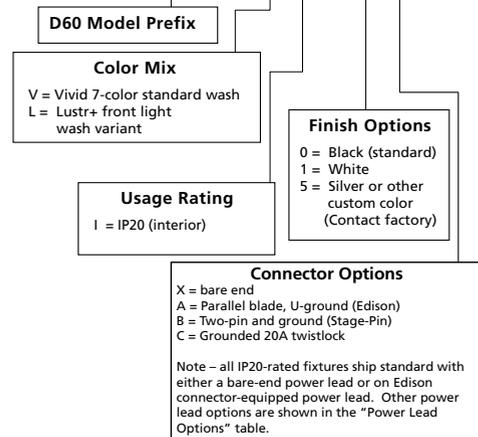
ORDERING INFORMATION

Selador D60

MODEL	DESCRIPTION
SELD60VI	D60 Vivid
SELD60LI	D60 Lustr+

Note: D60 luminaires ship with a hanging yoke, a Very Narrow secondary lens and an input lead with connector of choice. See page 2 for connector options. C-clamps are not included.

SELD60 V I – 0X

D60 Model Prefix

Color Mix

V = Vivid 7-color standard wash
L = Lustr+ front light wash variant

Usage Rating

I = IP20 (interior)

Finish Options

0 = Black (standard)
1 = White
5 = Silver or other custom color (Contact factory)

Connector Options

X = bare end
A = Parallel blade, U-ground (Edison)
B = Two-pin and ground (Stage-Pin)
C = Grounded 20A twistlock

Note – all IP20-rated fixtures ship standard with either a bare-end power lead or on Edison connector-equipped power lead. Other power lead options are shown in the "Power Lead Options" table.

SPECIFICATIONS

GENERAL
- 60-LED color mixing wash fixture
- ETL Listed to UL 1573 – the standard for stage and studio lighting units
- IP20-rated for indoor use
- Power and DMX in/thru connections for easy setup
- User-friendly control interface with multiple modes and fixture settings

PHYSICAL
- Rugged die-cast all-metal housing
- Easy access slots for secondary lenses and accessories
- Uses 8-7/8"/225mm lenses and accessories
- Available in black (standard), white or silver (optional) or custom colors (contact factory)
- Hanging yoke standard. Optional yoke/floor stand available

ELECTRICAL
- 100VAC to 240VAC 50/60Hz universal power input
- Neutrik power in and thru connections
- Up to nine fixtures (15A max) may be linked via power thru connector (10 fixtures total per circuit) when used with R20 Relay Module or Unison Echo Relay Panel. Consult breaker trip curves when used with other equipment
- Requires power from a non-dim source
- Inrush
  - 120V: 15A (First half-cycle)
  - 240V: 40A (First half-cycle)

LED*
- 50,000-hour LED life (50,000 hours to 70% intensity)
- 60 Luxeon® Rebel LED emitters

  *See additional LED notes on page three

COLOR
- Exclusive *x7 Color System*™ seven-color LED arrays
- Beautifully illuminates skin tones and other objects for natural appearance and high color rendering
- Broad spectrum color interacts seamlessly with conventional sources
- Exclusive red-shift option emulates tungsten dimming performance
- Variable color temperature from 2700K-6500K

OPTICAL
- Primary field angle of 17˚ and beam angle of 8˚
- Secondary lenses available for multiple beam-spread options
- Each fixture ships with a Verry Narrow lens; additional lenses must be ordered separately
- Refer to accessory charts for lenses available

CONTROL
- DMX512 in and thru via five-pin XLR connectors
- Multiple control options including RGB, strobe, and console-free Master/Slave mode
- See DMX Control Table for additional information
- 15-bit virtual dimming engine provides smooth, high-quality theatrical fades and minimizes color-shift during dimming
- RDM functionality for address and setting changes

THERMAL
- Ambient operating temperature of -4˚ to 104˚F (-20˚ to 40˚C)
- Active electronic thermal management for droop-free operation
- Low-noise fan cooling
- Fixture is designed for continuous operation up to 104˚F (40˚C) ambient temperature and requires free flow of air around fixture housing

ADDITIONAL ORDERING INFORMATION

Power Input Cables

Use information below to order 5' power input leads with factory-fitted connectors

MODEL	DESCRIPTION
DPA-A	5' PowerCon™ to parallel blade U-ground (Edison) connector
DPA-B	5' PowerCon to 20A two-pin and ground (stage pin) connector
DPA-C	5' PowerCon to grounded 20A twistlock connector
DPA-X	5' PowerCon to bare-end power input lead

Power Thru Jumpers

Note: Power thru jumpers connect to fixture's output (thru) connector to provide to successive fixtures

MODEL	DESCRIPTION
DPJ-5	5' PowerCon to PowerCon fixture to fixture jumper
DPJ-10	10' PowerCon to PowerCon fixture to fixture jumper

Fixture Accessories

| MODEL	DESCRIPTION
SELD60FSY	D60 floor stand yoke combo
490BD	Barn door (Use only as a flexible top hat to diminish aperture glare. Not for beam shaping)
490CF	Color Frame (use for round and oblong lenses)
490L	Egg Crate Louver
490PTH3	Top Hat 3" Tube
490PTH6	Top Hat 6" Tube
490PHH	Half Hat 6" Tube
400CC	C-Clamp (does not ship with fixture)
400SC	Safety Cable (32")
DPSJ-25	25' PowerCon-to-Edison input power cable with inline switch

ADDITIONAL ORDERING INFORMATION

Secondary Lens Options

MODEL	DESCRIPTION: The following lenses are cut for D60 fixtures and create round, linear or oblong field patterns as described below. These lenses are not sized for use in Selador® Classic fixtures.	
Narrow Linear Field	Note: This is the same material as Selador Classic lenses	
SELLVN-9	9" Very Narrow lens	Linear lenses may be combined to create desired field size
SELLN-9	9" Narrow lens	
SELLM-9	9" Medium lens	
SELLW-9	9" Wide lens	
SELLEW-9	9" Extra Wide lens	
Round Field		
SELRVN-9	9" Very Narrow lens (round field)	
SELRN-9	9" Narrow lens (round field)	
SELRM-9	9" Medium lens (round field)	
SELRW-9	9" Wide lens (round field)	
Oblong Field		
SELON-9	9" Narrow lens (oblong field)	
SELOM-9	9" Medium lens (oblong field)	
SELOW-9	9" Wide lens (oblong field)	

Desire lenses compared to Source Four PAR EA

Typical Lens Field Profiles

Narrow Linear   Round   Oblong
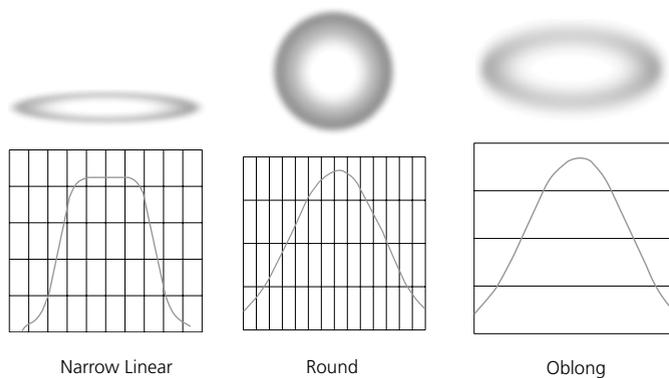
Power Consumption at Full Intensity

MODEL	VOLTAGE (V)	CURRENT (A)	WATTS
SelD60	120 / 240	1.35/0.68	161

NOTES ABOUT LED LUMINAIRES

All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. Based on the LED manufacturer's B50 L70 specification, a Selador luminaire will achieve ~70% of its initial output after 50,000 hours of typical usage. In individual situations, LEDs will be used for different durations and at different levels. This can eventually lead to minor alterations in color performance, necessitating slight adjustments to presets, cues or programs.

CRI AND CQS RATINGS

Desire fixtures were evaluated for CRI and CQS performance using measured output spectrum and optimized mix solutions for a best spectral match to black body sources at 3200K and 5600K.

Fixture	CRI	CQS	Color Fidelity	Duv
D60 Vivid at 3200K	87	89	89	0.000
D60 Vivid at 5600K	90	92	92	0.000
D60 Lustr+ at 3200K	86	88	88	0.000
D60 Lustr+ at 5600K	93	92	92	0.000
D60 Studio HD at 3200K	89	90	91	0.000
D60 Studio HD at 5600K	92	94	94	0.000
D60 Studio Daylight at 5600K	71	70	63	0.001
D60 Studio Tungsten at 3000K	86	86	86	0.001

All D60 luminaire versions provide excellent color rendering to the eye, particularly at higher color temperature settings, such as 5600K. In most cases the Duv is 0.000. A Duv rating of 0.000 indicates that the color mix used is exactly on the black body line, with no green or magenta tint.

LENS INFORMATION

Desire diffusion angle measurements

NOMINAL									
	No Lens	Very Narrow	Narrow	Medium	Wide	Extra Wide	Narrow Oval	Medium Oval	Wide Oval
		25°	35°	45°	75°	N/A	20° x 40°	30° x 70°	35° x 80°
D60									
LUSTR+	18	22	27	42	69	104	20 x 37	25 x 60	30 x 82
VIVID	18	22	27	42	69	104	20 x 37	25 x 60	30 x 82
STUDIO HD	18	23	28	42	69	104	21 x 29	25 x 61	30 x 82
STUDIO D	22	25	30	43	70	105	24 x 39	28 x 62	32 x 80
STUDIO T	23	25	30	43	70	105	24 x 39	28 x 62	32 x 80

Values in black refer to old lens descriptions.

CONTROL OPTIONS

User settings on D60 fixtures allow multiple operational modes and settings for either console operation via DMX protocol or stand-alone operation. The expanded LCD display provides easy navigation to all possible settings and options. Some of the setting options are:

- Multiple DMX choices ranging from a simple RGB profile – which effectively controls all seven LED colors via three channels – to nine-channel 'direct' color and intensity control
- Multiple dimming curve options
- Preset colors and effects for stand-alone (no console required) operation
- White point selection – white light and color behavior based on a specific color temperature white light, i.e. 3200K, 5600K, etc.
- Loss of data behavior options – instant off, hold last look for two minutes, etc.
- Output modes – three output options that offer the user a choice between maximum output and maximum consistency

See the User Manual for a complete explanation of all of the control settings and options for the D60.

Quick Setups

To assist in managing the numerous control and fixture behavior choices, five combinations of operational settings are available to quickly get started. These settings are specifically created for different situations and are easily accessible at the fixture display. Each setting can then be modified as required to take advantage of all of the possible control features.

Setting Title	Profile	Description	Typical Features*
General	Direct	Factory Default: For general-purpose use, including interior architectural applications	• Standard dimming curve • Regulated output for color consistency
Stage	HSI Plus 7 Enabled	Theatrical lighting: Duplicates the color and dimming behavior of tungsten stage lighting fixtures	• Incandescent dimming curve • Regulated output for color consistency • 3200K white point setting
XT Arch	HSI	Exterior architectural lighting: Provides a high degree of color consistency in high ambient temperature envionments	• Standard dimming curve • Protected output • 3200 white point setting
High Impact	RGB	Event lighting: Enables quickest response, simple RGB control and strobe channel for maximum effect usage	• Quick dimming curve • Boost mode for maximum intensity • 5600K white point setting
Studio	Studio	Studio Factory Default: Enables three-parameter control of white light (intensity, white point, and tint) via DMX from a console or console-free fixture display	• Linear dimming curve • Regulated output mode for color consistency

*See user manual for complete list of features for each Quick Setup

CONTROL OPTIONS

DMX Input Channel Profiles

| DMX Profile	DMX Channels	Channel Assignments	Notes
Direct	10	1 – Red 2 – Orange (white if Lustr+) 3 – Amber 4 – Green 5 – Cyan 6 – Blue 7 – Indigo 8 – Intensity 9 – Strobe 10 – Fan Control	Direct control of each individual color with a separate master intensity channel. Color calibration of LEDs is not active in this mode. The ten-channel profile will produce the highest-quality color crossfades.
HSI	6	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control	High-resolution hue (two channels), saturation, and intensity control. HSI mode will produce color crossfades around the color space.
HSIC	7	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control 7 – Color Point (CCT)	High-resolution hue, saturation and intensity control as above, with the addition of a color-point channel to adjust the color temperature of the fixture in both white light and color. Color crossfade performance is the same as HSI.
RGB	6 (Ch. 4 not used)	1 – Red 2 – Green 3 – Blue 4 – n/a 5 – Strobe 6 – Fan Control	Effectively addresses all seven colors via three channels of control. RGB profile will produce medium-quality color crossfades
Studio	6 (Ch. 4 not used)	1 – Intensity 2 – Color Point (CCT) 3 – Tint 4 – n/a 5 – Strobe 6 – Fan Control	Controls fixture as a white light unit. If no DMX, (console input, for example) is present, fixture can be adjusted for these three parameters on the U/I at the back of the unit.

Additional profile options	
Plus 7	Seven additional color-control channels are available in RGB, HSI, and HSIC input profile settings. For example, HSI with 'Plus 7' enabled becomes a 15-channel profile:

1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control 7 – n/a 8 – Plus7 Control on/off 9 – Red 10 – Orange (white if Lustr+) 11 – Amber 12 – Green 13 – Cyan 14 – Blue 15 – Indigo	The desired color and intensity are achieved by using the HSI or RGB channels Placing channel seven at a value over 51% gives the fixture a 15-channel profile. Channels 9-15 represent the native colors of the fixture and allow the operator to adjust individual color channels to fine-tune the color output.

Strobe	Variable strobe control: 0% is no strobe. The fixture output will strobe more rapidly as the strobe-channel value approaches 100%.

Desire Series

PHOTOMETRICS

D60 Vivid

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - cold	17°	170,540	3,760	1,667	28.8
Regulated	17°	132,451	3,050	1,305	28.3

Metric conversions: For meters, multiply feet by 0.3048
For lux, multiply footcandles by 10.76

Cosine Candela Plot
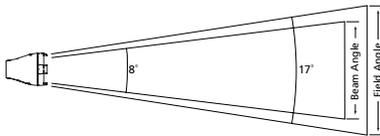
Throw Distance (d)	10' 3m	15' 4.6m	20' 6.1m	25' 7.6m	402.1' 122.6m
Field Diameter	3.0' 0.9m	4.4 1.4m	5.9' 1.8m	7.4' 2.3m	–
Illuminance (fc)	1,617	719	404	259	1
Illuminance (lux)	17,405	7,736	4,351	2,785	10.76

To determine center beam illumination in footcandles at any throw distance, divide candela by the throw distance squared

For field diameter at any distance, multiply distance by 0.295
For beam diameter at any distance, multiply by 0.145
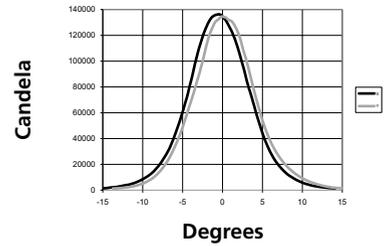
Iso-Illuminance Diagram
(Flat Surface Distribution)
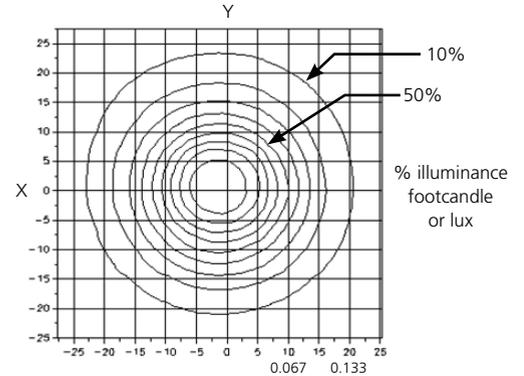
D60 Lustr+™

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - cold	16°	195,012	4,317	1,931	33.3
Regulated	16°	180,097	3,850	1,748	32.7

Metric conversions: For meters, multiply feet by 0.3048
For lux, multiply footcandles by 10.76

Cosine Candela Plot
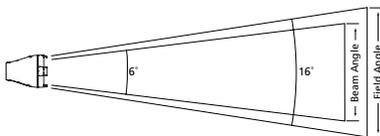
Throw Distance (d)	10' 3m	15' 4.6m	20' 6.1m	25' 7.6m	427.6' 130.3m
Field Diameter	2.9' .9m	4.3' 1.3m	5.8' 1.8m	7.2' 2.2m	–
Illuminance (fc)	1,828	812	457	292	1
Illuminance (lux)	19,676	8,745	4,919	3,148	10.76

To determine center beam illumination in footcandles at any throw distance, divide candela by the throw distance squared

For field diameter at any distance, multiply distance by 0.288
For beam diameter at any distance, multiply by 0.112
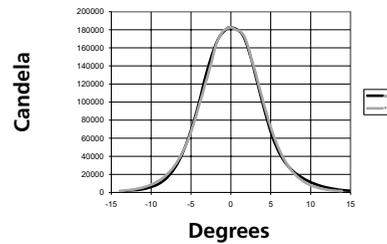
Iso-Illuminance Diagram
(Flat Surface Distribution)
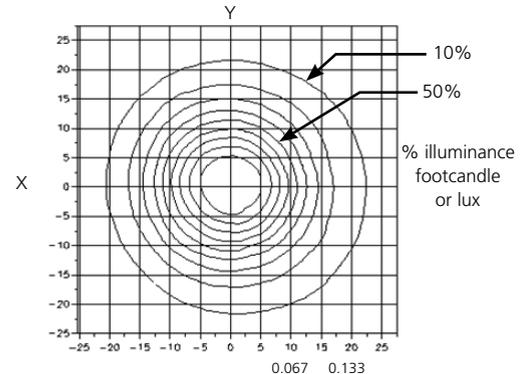
D60 ACOUSTICAL INFORMATION

FIXTURE	SPEED	SOUND PRESSURE LEVEL*
Background noise level in test chamber	N/A	18.3 dBA
Selador Classic	Single fan speed	28.1 dBA
Desire D60	30%	25.0 dBA
	51%	37.4 dBA
	60%	38.6 dBA
	100%	43.1 dBA

* Average of readings from four sides of fixture

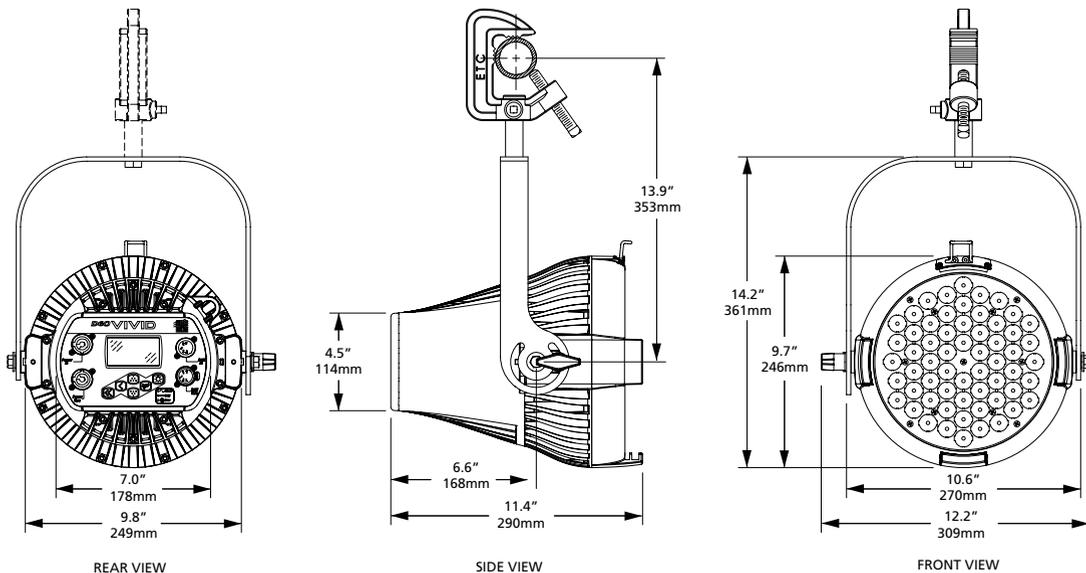The fan in all D60 fixtures is thermostatically controlled to run as needed.

- In regulated mode, fan speed in color-mixing fixtures (Vivid, Lustr+, etc.) will typically not rise above 30% when at full intensity in normal room temperature.
- 60% fan speed may be noted in Studio Daylight and Studio Tungsten fixtures at high intensities at room temperature.

PHYSICAL

Selador D60 weights and dimensions

WEIGHT*		SHIPPING WEIGHT	
lbs	kgs	lbs	kgs
19.1	8.7	21.5	9.7

* Does not include mounting hardware

REAR VIEW

SIDE VIEW

FRONT VIEW