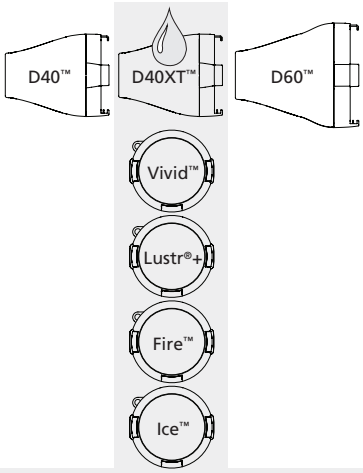
100/240V

Selador Desire™ Series



This datasheet covers D40XT fixtures as shown.
See other datasheets for other versions.

GENERAL INFORMATION

ETC's Desire Series D40XT luminaire transforms our renown Selador® Classic Line into a round theatrical wash light fully sealed and rated for IP66 outdoor use. The Selador x7 Color System™ produces the widest range of spectrally-balanced saturated and tinted colour choices available. The D40XT offers a rugged die cast enclosure, noiseless fan-free operation, multiple lens options and advanced user interface. Its watertight construction makes it ideal for outdoor events and installations.

D40XT LED ARRAY OPTIONS

D40XT fixtures are based on the x7 Color System that uses seven different LED colours to achieve true, usable broad-spectrum colour. Equip a D40XT luminaire with any one of the following x7 color arrays to best suit the intended application.

- *D40XT Vivid*™ – the x7 Color System array balanced for best all-round use as a colour-changing wash luminaire.
- *D40XT Lustr+*™ – optimized with a high-intensity white LED to create an ideal front light wash fixture. Full range colour, with an emphasis on lighter colours and white.
- *D40XT Ice*™ – uses the cool colours of the x7 System to provide extra-high brightness colour in the blue area of the spectrum.
- *D40XT Fire*™ - uses the warm colours of the x7 System to provide extra-high brightness colour in the red area of the spectrum.

ORDERING INFORMATION

Desire D40XT

PART NO.	DESCRIPTION
7410A1001-0X	D40XT Vivid outdoor wash luminaire, Black
7410A1001-1X	D40XT Vivid outdoor wash luminaire, White
7410A1001-5X	D40XT Vivid outdoor wash luminaire, Silver Grey
7410A1005-0X	D40XT Lustr+ outdoor wash luminaire, Black
7410A1005-1X	D40XT Lustr+ outdoor wash luminaire, White
7410A1005-5X	D40XT Lustr+ outdoor wash luminaire, Silver Grey
7410A1004-0X	D40XT Ice outdoor wash luminaire, Black
7410A1004-1X	D40XT Ice outdoor wash luminaire, White
7410A1004-5X	D40XT Ice outdoor wash luminaire, Silver Grey
7410A1003-0X	D40XT Fire outdoor wash luminaire, Black
7410A1003-1X	D40XT Fire outdoor wash luminaire, White
7410A1003-5X	D40XT Fire outdoor wash luminaire, Silver Grey
	BEAM SPREAD OPTIONS
7410A100_-_X**2**	- luminaire with 25° internal lens installed
7410A100_-_X**3**	- luminaire with 35° internal lens installed
7410A100_-_X**4**	- luminaire with 45° internal lens installed
7410A100_-_X**5**	- luminaire with 75° internal lens installed

Note: D40XT luminaires ship with hanging yoke and attached leads equipped with watertight Molex power connectors and watertight DMX connectors. Lenses or separate power lead are not included. Order Molex adaptors separately for XT luminaires if required.

SPECIFICATIONS

GENERAL

- 40 LED colour mixing wash fixture
- CE compliant,UL and cUL listed
- Rated for IP66 exterior wet location 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 standard 190mm PAR accessories. Option for factory-installed internal lenses.
- Available in black, white, silver grey or custom colours
- Hanging yoke is standard. Optional yoke/floor stand available
- Effective Projected Area (EPA): 0.74

ELECTRICAL

- 100VAC to 240VAC 50/60 Hz universal power input
- Max. consumption 110W 0.48A at 230V
- 1.0m power in and thru outdoor rated leads
- Up to 10 fixtures may be linked via power in/thru connections per 230V/15A circuit
- Requires power from a non-dim source

LED*

- 50,000 hour LED life (50,000 hours to 70% intensity)
- 40 Luxeon® Rebel 2.5W LED emitters

* See additional LED notes on page three

COLOUR

- Exclusive *x7 Color System*™ seven-colour LED array
- Broad spectrum color interacts seamlessly with conventional sources.
- Beautifully illuminates skin tones and other objects for natural appearance and high colour rendering
- Exclusive optional red-shift option emulates tungsten dimming performance characteristics.

* See additional LED notes on page three and specific values by fixture pages five and six

OPTICAL

- Primary field angle of 17° and beam angle of 8°
- Secondary lenses available for multiple beam spread options
- Sealed, factory-installed lenses available for permanent installations
- Refer to *Accessories* for optional secondary lenses

CONTROL

- DMX512 in and thru via 1m cable with watertight five-pin XLR connectors on 1m leads
- Multiple control options including RGB, strobe, and console-free Master/Slave mode
- See DMX Control Table for additional information
- Separate intensity control channel increases dimming smoothness and minimizes colour shift during dimming
- 15-bit virtual dimming engine provides smooth, high quality theatrical fades
- RDM functionality for address and setting changes.

THERMAL

- Ambient operating temperature from -20°C to +40°C
- Active electronic thermal management for droop-free operation
- Convection cooling for acoustically sensitive installations
- Fixture is designed for continuous operation at +40°C ambient temperature and requires free airflow around fixture housing

ADDITIONAL ORDERING INFORMATION

Extension Power Cables

PART NO.	DESCRIPTION
W6437	Molex to Molex 1.5m extension cable
W6438	Molex to Molex 3.0m extension cable
W6433	Molex male to bare ends 1.0m converter cable
W6435	Molex female to bare ends 1.5m converter cable
W6436	Molex female to bare ends 7.6m converter cable
J2425	Molex female 15A IP67 Mini-Change cable connector (Spare)
J2426	Molex male 15A IP67 Mini-Change cable connector (Spare)

Accessories

PART NO.	DESCRIPTION
7410K1003	D40 Floorstanding Yoke Combo, Black
7410K1004	D40 Floorstanding Yoke, Combo, White
7410K1005	D40 Floorstanding Yoke, Combo, Silver Grey
PSF1095	Barn door, Short, Black*
7061A3007	Colour Frame, Black (spare)**
7061A3007-1	Colour Frame, White (spare)**
PSF1028	Egg Crate Louvre
PSF1022	Top Hat with 76mm Tube, Black
PSF1022-1	Top Hat with 76mm Tube, White
PSF1023	Top Hat with 153mm Tube, Black
PSF1023-1	Top Hat with 153mm Tube, White
PSF1027	Half Hat with 153mm Tube, Black
PSF1027-1	Half Hat with 153mm Tube, White

* Use as a flexible top hat to diminish aperture glare. Not suitable for beam shaping.

** For use with optional diffusion media.

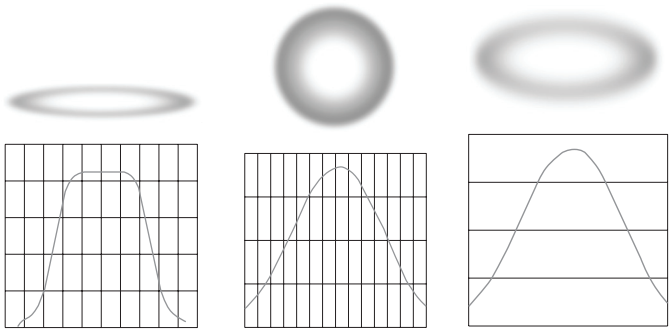
ADDITIONAL ORDERING INFORMATION

Secondary Lens Option

The following lenses are cut for D40 fixtures and create round, linear or oblong field patterns as described below. These lenses are not for use in Selador® Classic (Vivid™, Lustr®, Paletta®, etc.) fixtures. Supplied incl. frame.	
PART NO.	**DESCRIPTION**
Narrow Linear Field	
Linear lenses (same material as used with Selador Classic) may be combined to create desired field size, i.e. 40° x 60°	
7410K1017	Ø190mm 20° lens (narrow linear field)
7410K1018	Ø190mm 30° lens (narrow linear field)
7410K1019	Ø190mm 40° lens (narrow linear field)
7410K1020	Ø190mm 60° lens (narrow linear field)
7410K1021	Ø190mm 80° lens (narrow linear field)
Round Field	
7410K1010	190mm x 190mm 25° lens (round field)*
7410K1011	190mm x 190mm 35° lens (round field)*
7410K1012	190mm x 190mm 45° lens (round field)*
7410K1013	190mm x 190mm 75° lens (round field)*
Oval (oblong) Field	
7410K1014	Ø190mm 20° x 40° lens (oval field)
7410K1015	Ø190mm 30° x 70° lens (oval field)
7410K1016	Ø190mm 35° x 80° lens (oval field)

* This lens variant may be installed permanently in the fixture by the factory - see ordering details

Typical Lens Field Profiles



Narrow Linear Round Oblong

Power Consumption at Full Intensity

MODEL	VOLTAGE (V)	CURRENT (A)	WATTS
D40XT all variants	230	0.48	110

NOTES ABOUT LED LUMINAIRES

Colour Rendering Index (CRI)
The previous colour rendition method developed at the time when fluorescent light sources was introduced. Generally not applicable for measuring LED lightsources.

Colour Quality Scale (CQS)
A new colour rendition method developed by NIST (The National Institute of Standards and Technology) in the US. Developed to better account for LED specifics.

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	Colour Fidelity	Duv
D40 Vivid™ at 3200K	87	89	89	0.000
D40 Vivid at 5600K	90	92	92	0.000
D40 Lustr+™ at 3200K	86	88	88	0.000
D40 Lustr+ at 5600K	93	92	90	0.000
D40 Studio HD™ at 3200K	89	90	91	0.000
D40 Studio HD at 5600K	92	94	94	0.000
D40 Studio Daylight™ at 5600K	71	70	69	0.001
D40 Studio Tungsten™ at 3000K	86	86	86	0.001

All D40 luminaire versions provide excellent colour rendering to the eye, particularly at higher colour temperature settings such as 5600K. In most cases the Duv is 0.000. A Duv rating of 0.000 indicates that the colour mix used is exactly on the black body line, with no green or magenta tint.

Typical LED source characteristics
All LED sources experience some lessening of light output and some colour shift over time. LED output will vary with thermal conditions. With typical usage, a Selador luminaire will still achieve 70% of its initial output after 50,000 hours. In individual situations, LEDs will be used for different durations and at different levels. This can eventually lead to minor alterations in colour performance, necessitating slight adjustment to presets, cues or programs.

CONTROL OPTIONS

User settings on D40XT 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 three-channel RGB profile – which effectively controls all seven LED colours via three channels – to nine-channel direct colour and intensity control.
- Multiple dimming curve options
- Preset colors and effects for stand-alone (no console required) operation
- White point selection – white light and colour behavior based on a specific colour 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 user control of maximum output versus maximum colour consistency

See the user manual for a complete explanation of all of the control settings and options for the D40XT.

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 use 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 colour consistency • 3200K white point setting
Stage	HSI Plus 7 Enabled	Theatrical lighting: Duplicates the colour and dimming behavior of tungsten stage lighting fixtures.	• Incandescent dimming curve • Regulated output for colour consistency • Red shift enabled • 3250K white point setting
XT Arch	HSI	Exterior Architectural lighting: Provides a high degree of colour consistency in high ambient temperature environments.	• Standard dimming curve • Protected output • 3200K 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 • Red shift disabled • 5600K white point setting
Studio	Studio	Video/film lighting: Enables three parameter control of white light via DMX from console or from fixture display – no console required	• Linear dimming curve • Regulated output mode for colour consistency

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

CONTROL OPTIONS

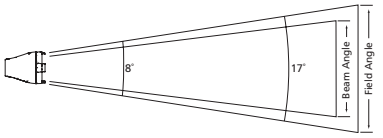
DMX Input Channel Profiles

DMX Profile	DMX Channels	Channel Assignments	Notes
The Studio HD color array is designed for white light use. RGB, HSI, and HSIC profiles will operate as described but will produce a limited intensity and gamut of deep colors.			
RGB	5 (Ch. 4 not used)	1 – Red 2 – Green 3 – Blue 4 – n/a 5 – Strobe	Effectively addresses all seven colours via three channels of control. RGB profile will produce medium quality colour cross-fades
Direct	9	1 – Red 2 – Orange (white if Lustr) 3 – Amber 4 – Green 5 – Cyan 6 – Blue 7 – Indigo 8 – Intensity 9 – Strobe	Direct control of each individual colour with a separate master intensity channel. Colour calibration of LEDs is not active in this mode. The nine channel profile will produce the highest quality color cross-fades.
HSI	5	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe	High resolution hue (two-channels), saturation, and intensity control.EHSI mode will produce arbitrary color cross-fades around the colour space.
HSIC	6	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Colour Point (CCT)	High-resolution hue, saturation and intensity control as above, with the addition of a colour point channel to adjust the colour temperature of the fixture in both white light and colour. Colour cross-fade performance is the same as EHSI.
Studio	3	1 – Intensity 2 – Colour Point (CCT) 3 – Tint	Controls fixture as a white light unit. If no DMX, i.e. console input, 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 colour control channels are available in RGB, HSI, HSIC and Studio input profile settings. For example HSI with 'Plus 7' enabled becomes a 14-channel profile:	
		1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – n/a 7 – Plus Seven Control on/off 8 – Red 9 – Orange (white if Lustr+) 10 – Amber 11 – Green 12 – Cyan 13 – Blue 14 – Indigo	The desired colour and intensity is achieved by using the HSI or RGB channels Placing channel sevem at a value over 51% gives the fixture a 14-channel profile. Channels 8-14 represent the native colours of the fixture and allow the operator to adjust individual colour channels to fine tune the colour output.
Strobe		Variable strobe control. 0% is no strobe. The fixture output will strobe more rapidly as the strobe channel value approaches 100%.	

PHOTOMETRICS

D40XT Vivid™

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Cold	17˚	101,900	2,540	1,200	26.7
Regulated	17˚	87,200	2,150	1,020	26.5

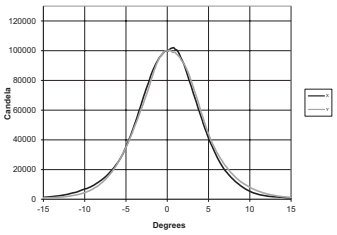


Throw Distance (d)	3.00m	4.6m	6.1m	7.6m	97m
Field Diameter	.9m	1.4m	1.9m	2.3m	–
Illuminance (lux)	10,968	4,875	2,742	1,755	10.76

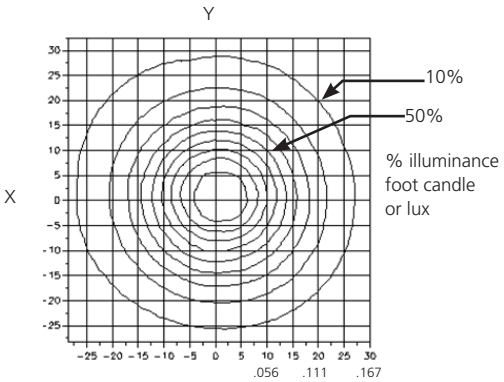
Conversions: For Feets multiply meters by 3.2808
For Foot Candles divide Lux by 10.764
For Field diameter at any distance, multiply distance by .308
For Beam diameter at any distance, multiply distance by .145

Colour Temperature	CQS	CRI
3200K	89	87
5600K	92	90

Cosine Candela Plot

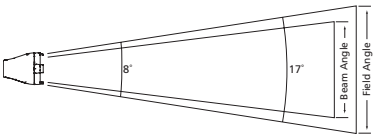


Iso-Illuminance Diagram
(Flat Surface Distribution)



D40XT Lustr+™

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Cold	17˚	121,500	2,980	1,450	30.3
Regulated	17˚	109,100	2,680	1,300	29.8

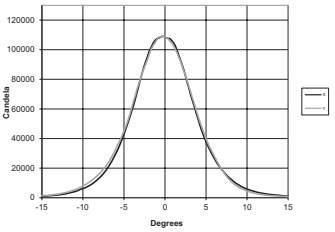


Throw Distance (d)	3.0m	4.6m	6.1m	7.6m	106m
Field Diameter	.9m	1.4m	1.8m	2.3m	–
Illuminance (lux)	13,078	5,813	3,270	2,093	10.76

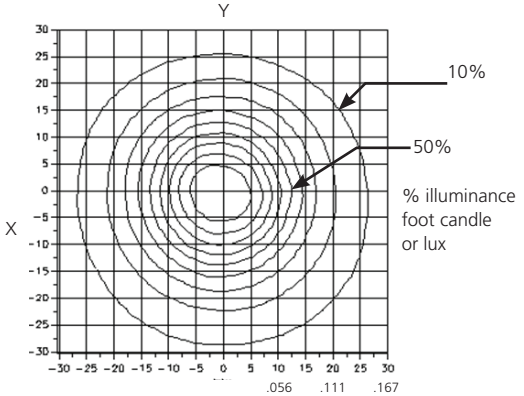
Conversions: For Feets multiply meters by 3.2808
For Foot Candles divide Lux by 10.764
For Field diameter at any distance, multiply distance by .301
For Beam diameter at any distance, multiply distance by .145

Colour Temperature	CQS	CRI
3200K	88	86
5600K	92	93

Cosine Candela Plot



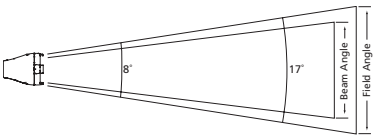
Iso-Illuminance Diagram
(Flat Surface Distribution)



PHOTOMETRICS

D40XT Fire™

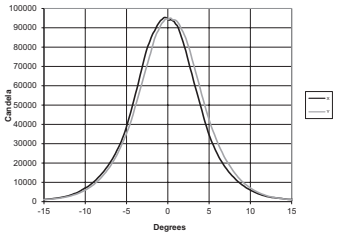
Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Cold	17˚	94,900	2,540	1,200	28.7
Regulated	17˚	82,500	2,220	1,040	27.7



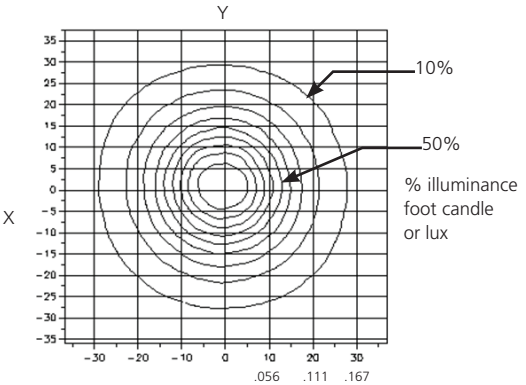
Throw Distance (d)	3.0m	4.6m	6.1m	7.6m	93m
Field Diameter	1.0m	1.5m	1.9m	2.4m	–
Illuminance (lux)	10,215	4,540	2,554	1,634	10.76

Conversions: For Feets multiply meters by 3.2808
For Foot Candles divide Lux by 10.764
For Field diameter at any distance, multiply distance by .318
For Beam diameter at any distance, multiply distance by .148

Cosine Candela Plot

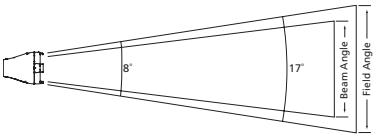


Iso-Illuminance Diagram
(Flat Surface Distribution)



D40XT Ice™

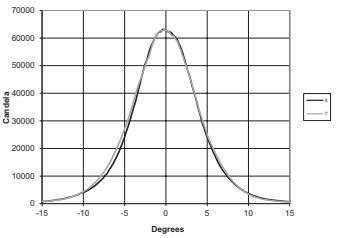
Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Cold	17˚	70,900	1,830	890	18.1
Regulated	17˚	63,200	1,630	790	18.0



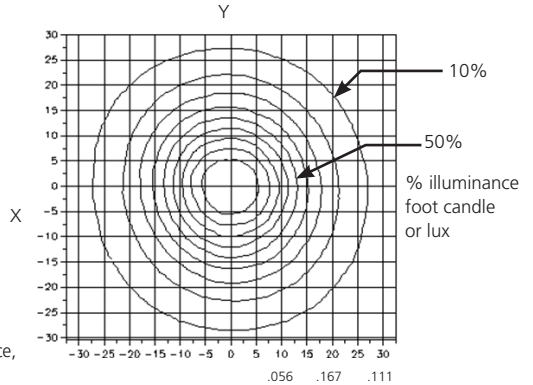
Throw Distance (d)	3.0m	4.6m	6.1m	9.1m	81m
Field Diameter	0.9m	1.4m	1.9m	2.8m	–
Illuminance (lux)	7,632	3,395	1,908	848	10.76

Conversions: For Feets multiply meters by 3.2808
For Foot Candles divide Lux by 10.764
For Field diameter at any distance, multiply distance by .310
For Beam diameter at any distance, multiply distance by .147

Cosine Candela Plot



Iso-Illuminance Diagram
(Flat Surface Distribution)



Throw Distance Multiplier (TDM)

To determine the distance from the center of the beam (Origin) to a certain illuminance level at a particular distance, multiply the desired throw distance by the TDM desired on the Iso-Illuminance diagram.

Throw Distance (TD) x Throw Distance Multiplier (TDM) = Distance from the Origin (DfO) (distance from the center of the beam)

Example: 10m (TD) x 0.047 (TDM) = 0.470m feet from center of beam (DfO)

For illumination with any lamp, multiply the candlepower of a beam spread by the multiplying factor (mf) shown for that lamp.

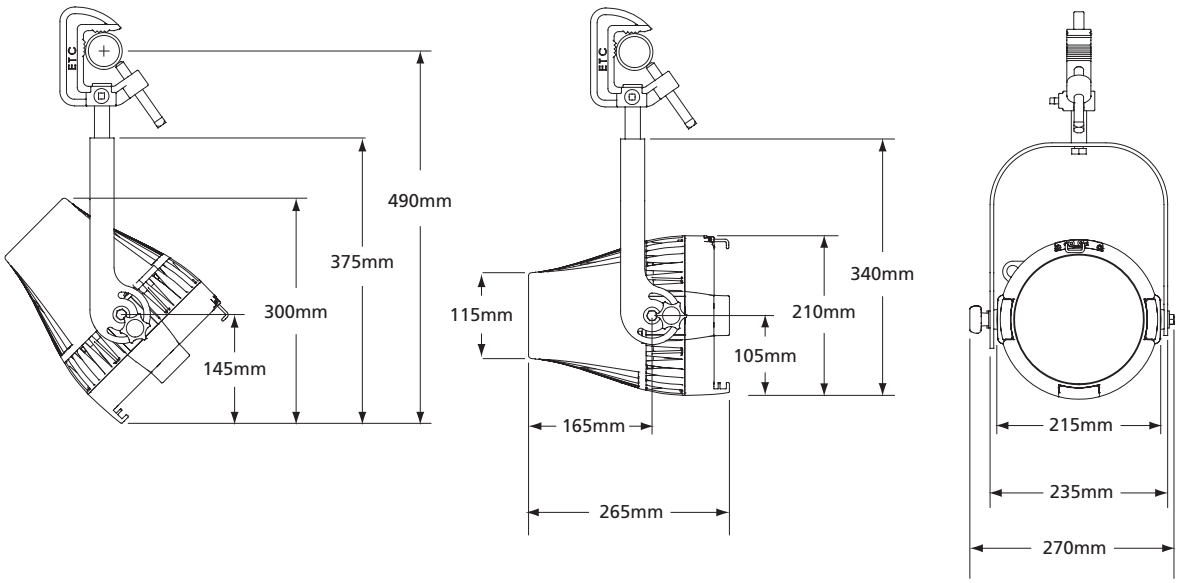
To determine illumination in footcandles or lux at any throw distance, divide candlepower by distance squared.

PHYSICAL

Selador D40XT Weights and Dimensions

WEIGHT*	SHIPPING WEIGHT
Kg	Kg
6.4	7.8

* Does not include mounting hardware



AVAILABLE FROM

Corporate Headquarters • 3031 Pleasant View Rd, PO Box 620979, Middleton WI 53562 0979 USA • Tel +1 608 831 4116 • Fax +1 608 836 1736
London, UK • Unit 26-28, Victoria Industrial Estate, Victoria Road, London W3 6UU, UK • Tel +44 (0)20 8896 1000 • Fax +44 (0)20 8896 2000
Rome, IT • Via Pieve Torina, 48, 00156 Rome, Italy •Tel +39 (06) 32 111 683 • Fax +44 (0)20 8752 8486
Holzkirchen, DE • Ohmstrasse 3, 83607 Holzkirchen, Germany • Tel +49 (80 24) 47 00-0 • Fax +49 (80 24) 47 00-3 00
Hong Kong • Room 1801, 18/F, Tower 1 Phase 1, Enterprise Square, 9 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong • Tel +852 2799 1220 • Fax +852 2799 9325
Web •