ETC

D40XTI

Desire Series

Type(s)

Project

Date

Notes

GENERAL INFORMATION

The Selador Desire D40XTI brings the amazing control of the seven-color x7 Color System to your permanent application. With its IP66 rating, this fixture is ready for installation inside or outside – wherever you need it. The x7 Color System produces the widest range of spectrally-balanced saturated and tinted color choices available. The D40XTI offers a rugged die-cast enclosure, noiseless fan-free operation, and multiple lens options that can be changed
on-site.

D40XTI LED Arrays

The D40XTI luminaire is available with any one of the following color arrays to best suit the intended application.

- D40XTI Vivid: Best all-around use as a color-changing wash fixture
- D40XTI Lustr+: Optimized with six colors plus high-intensity white LEDs to create an ideal frontlight wash fixture; full-range color, with an emphasis on lighter colors and white
- D40XTI Studio HD: Combines warm-white and cool-white LEDs with five carefully-chosen x7 LED colors, to fill in white LED spectral apps with variable color-temperature mixing for the richest variable white light possible in an LED fixture

Also available in the following static-white arrays:

- D40XTI Studio Daylight – Contains forty 5600 K LEDs for high-intensity, non-variable cool-white output
- D40XTI Studio Tungsten – Contains forty 3000 K LEDs for high-intensity, non-variable warm-white output

ORDERING INFORMATION

Selador Desire D40XTI

MODEL	DESCRIPTION	ETL PART NUMBER	CE PART NUMBER	
SELD40XTI-V	D40 Vivid wash fixture	7410A1101	7410A1101-0X	
SELD40XTI-L	D40 Lustr+ frontlight wash fixture	7410A1105	7410A1105-0X	
SELD40XTI-H	D40 Studio HD wash fixture	7410A1102	7410A1102-0X	
SELD40XTI-D	D40 Studio Daylight wash fixture	7410A1107	7410A1107-0X	
SELD40XTI-T	D40 Studio Tungsten wash fixture	7410A1106	7410A1106-0X	

Note: D40XTI luminaires ship with a hanging yoke, attached leads and a data- termination board. C-clamp, lenses or other accessories are not included.

PRODUCT SPECIFICATIONS

Source

LED details	40 Lumileds LUXEON® Rebel LED
Max lumens	Vivid: 2,252 Lustr+: 2,593 Studio HD: 3,194 Studio Daylight: 4,332 Studio Tungsten: 5,023
Lumens per watt	Vivid: 23.6 Lustr: 25.2 Studio HD: 33.2 Studio Daylight: 43.1 Studio Tungsten: 52.8
L70 rating (hours to 70% output)	50,000 hours

Color

Colors used	Lustr+: Red, Amber, Green, Cyan, Blue, Indigo, White Vivid: Red, Red-Orange, Amber, Green, Cyan, Blue, Indigo Studio HD: Red, Amber, Green/Cyan, Blue, Warm White, Cool White Studio Daylight: White Studio Tungsten: White
Color temperature range	2,700–6,500 K
Calibrated array	Vivid: Yes Lustr: Yes Studio HD: Yes Studio Daylight: No Studio Tungsten: No
Red shift	Yes (not available on static-white)

Optical

Beam angle range	8°–17°
Gate size	N/A
Aperture size	7.5 in
Pattern projection	No
Pattern size	N/A
Camera flicker control/Hz range	Yes: 900–25,000 Hz
Notes	Secondary lenses available for multiple beam-spread options

Control

Input method	DMX512 via termination board
Protocols	DMX512/RDM
Modes (footprint)	See page 8
RDM configuration	Yes
UI type	None (configure via RDM)
Local control	No
Onboard presets	Yes

Control

Onboard sequences	Yes
Onboard effects	No
Fixture-to-fixture control	No
Notes	15-bit virtual dimming engine

Electrical

Voltage range	100–240 VAC 50/60 Hz
Input method	Waterproof, 72 in power lead Requires power from non-dimmable source
Inrush	15 A at 120 V (First half-cycle) 40 A at 240 V (First half-cycle)
Fixtures per circuit	10 (15 A may be fed on same circuit)
Wattage typical	110
Current draw	1/0.5 A

Thermal

Ambient operating temp	-20°–40° C (-4°–104° F)
Fan (controllable)	No
Droop compensation	Yes
dB range	N/A
BTUs/hour	375.32

Physical

Materials	Die-cast, all metal housing
Color options	Black, white, silver, or custom color
Mounting options	Single-pole mount, wall or square pole mount, twin fixture pole mount
IP rating	IP66 for exterior, wet location use
Weight	6.8 kg (15 lb)
Included accessories	Hanging yoke, termination board, accessory ring for installation of secondary lenses
Notes	Cable diameter: Power 0.36 in / Data 0.34 in Effective projected area (EPA): 0.74

Warranty

Fixture	5 years
LED array	10 years

Regulatory and Compliance

Approved regulatory standards	cETLus Listed Conforms to UL1598 Certified to CSA C22.2 No. 250.0 CE Compliant

ETC

D40XTI

Desire Series

PRODUCT FEATURES

NOISELESS, FAN-FREE
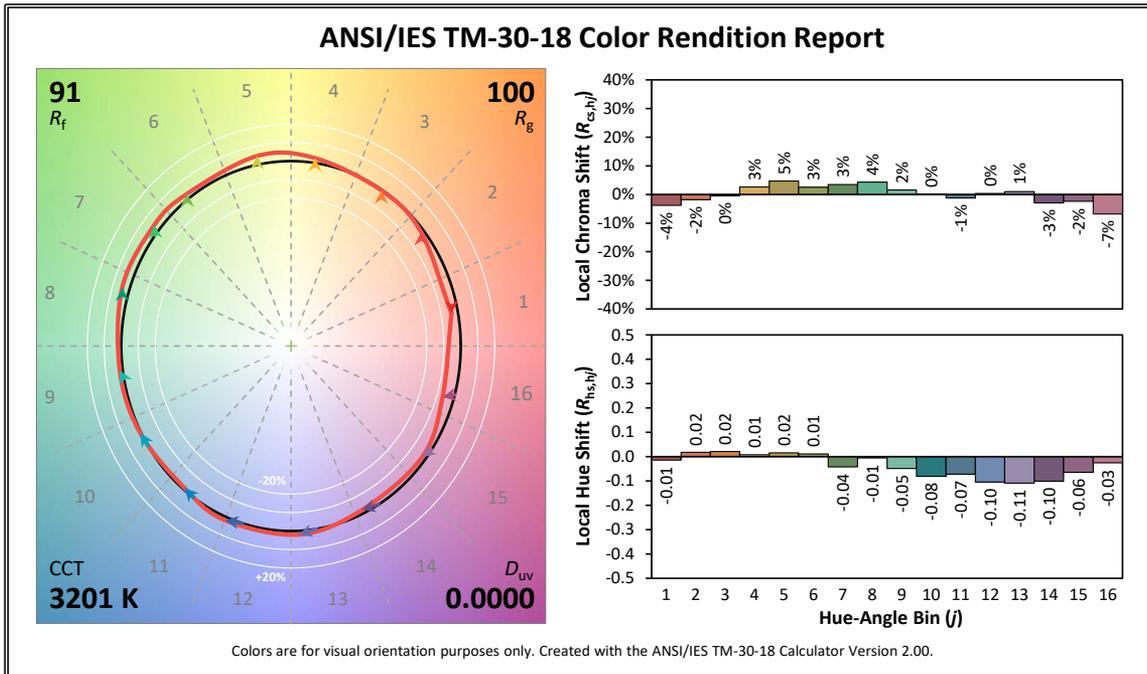Convection cooling for acoustically sensitive installations

MULTIPLE LED ARRAY OPTIONS
Also available in static white arrays

WATERPROOF OUTDOOR-RATED POWER LEAD
Rugged, durable fixture ETL 1598-rated for permanent indoor use and IP66-rated for long-term outdoor use.
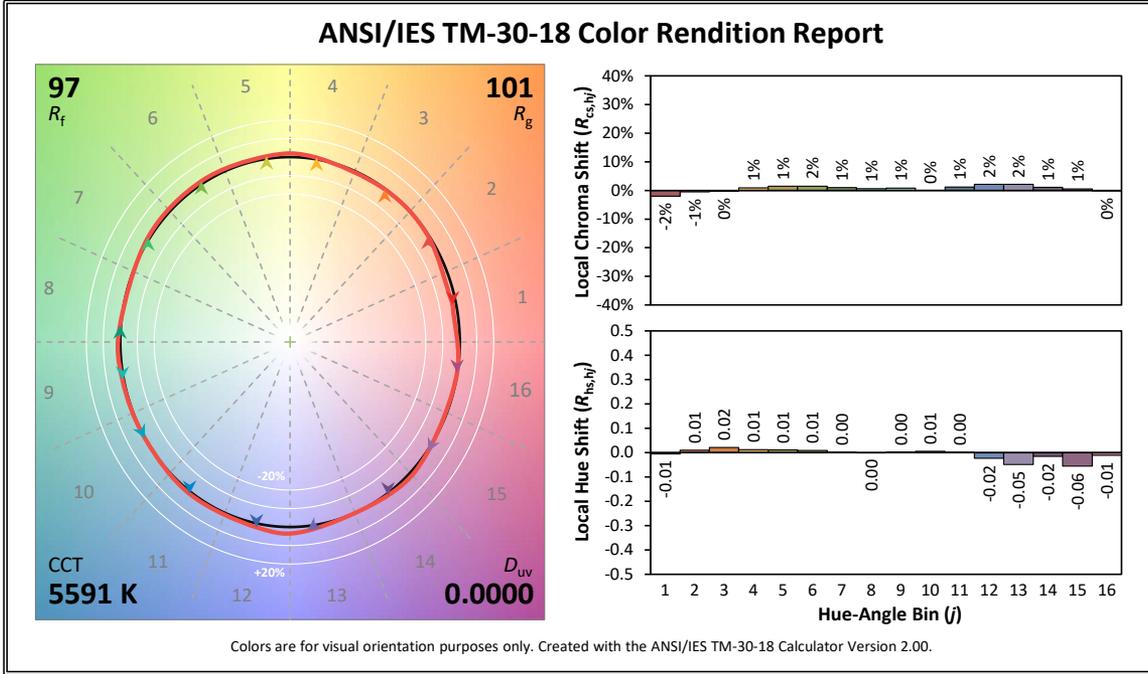
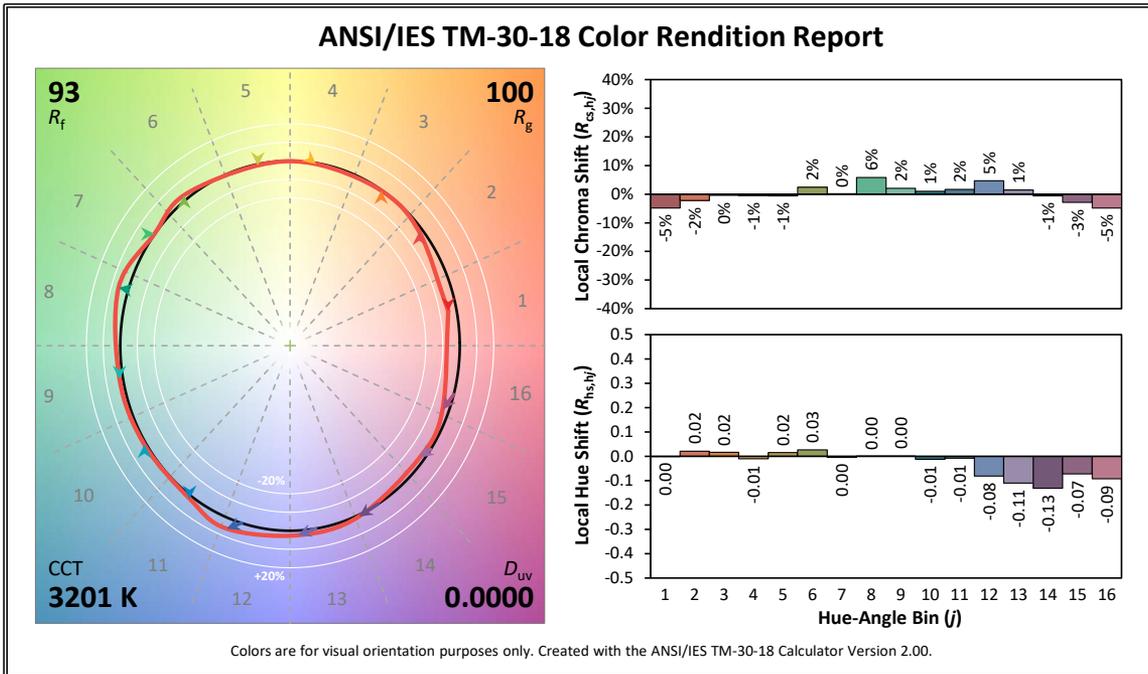## COLOR METRIC INFORMATION

D40XTI LUSTR+ 3200 K TM-30-18

ANSI/IES TM-30-18 Color Rendition Report

R_f 91

R_g 100

CCT 3201 K

D_{uv} 0.0000

Local Chroma Shift ($R_{cs,hj}$)

-4%, -2%, 0%, 3%, 5%, 3%, 3%, 4%, 2%, 0%, -1%, 0%, 1%, -3%, -2%, -7%

Local Hue Shift ($R_{hs,hj}$)

-0.01, 0.02, 0.02, 0.01, 0.02, 0.01, -0.04, -0.01, -0.05, -0.08, -0.07, -0.10, -0.11, -0.10, -0.06, -0.03

Hue-Angle Bin (j)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

COLOR METRIC INFORMATION

D40 LUSTR+ 5600 K TM-30-18

ANSI/IES TM-30-18 Color Rendition Report

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

D40 VIVD 3200 K TM-30-18

ANSI/IES TM-30-18 Color Rendition Report

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

COLOR METRIC INFORMATION

D40 VIVID 5600 K TM-30-18

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.
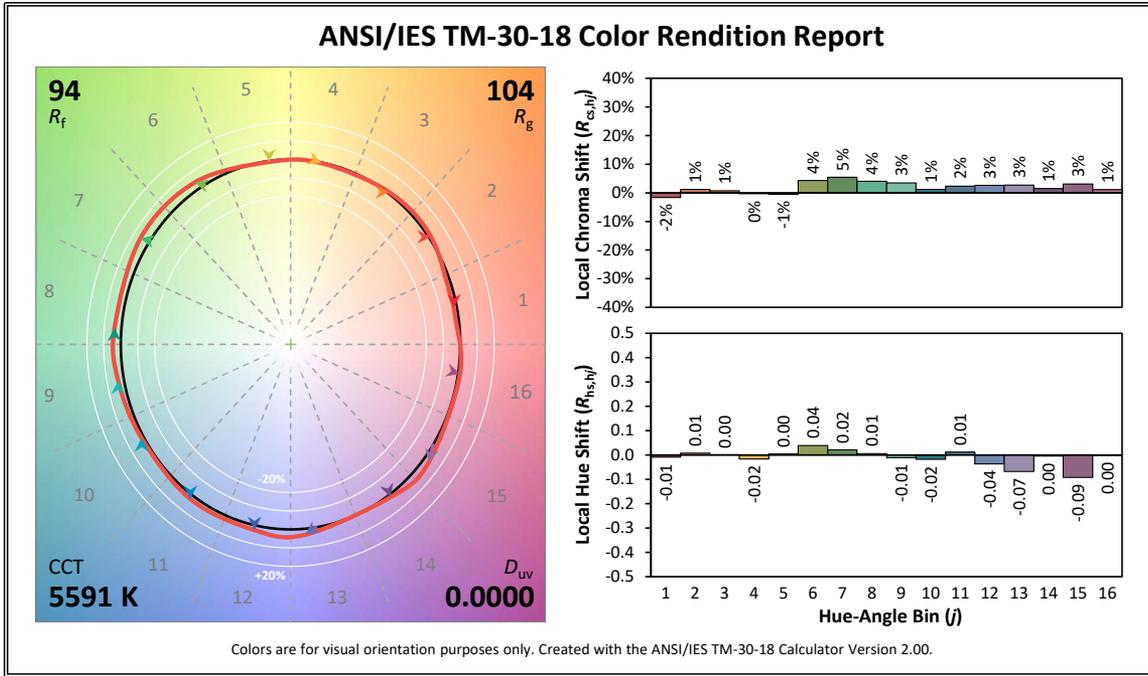
D40 STUDIO HD 3200 K TM-30-18

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.
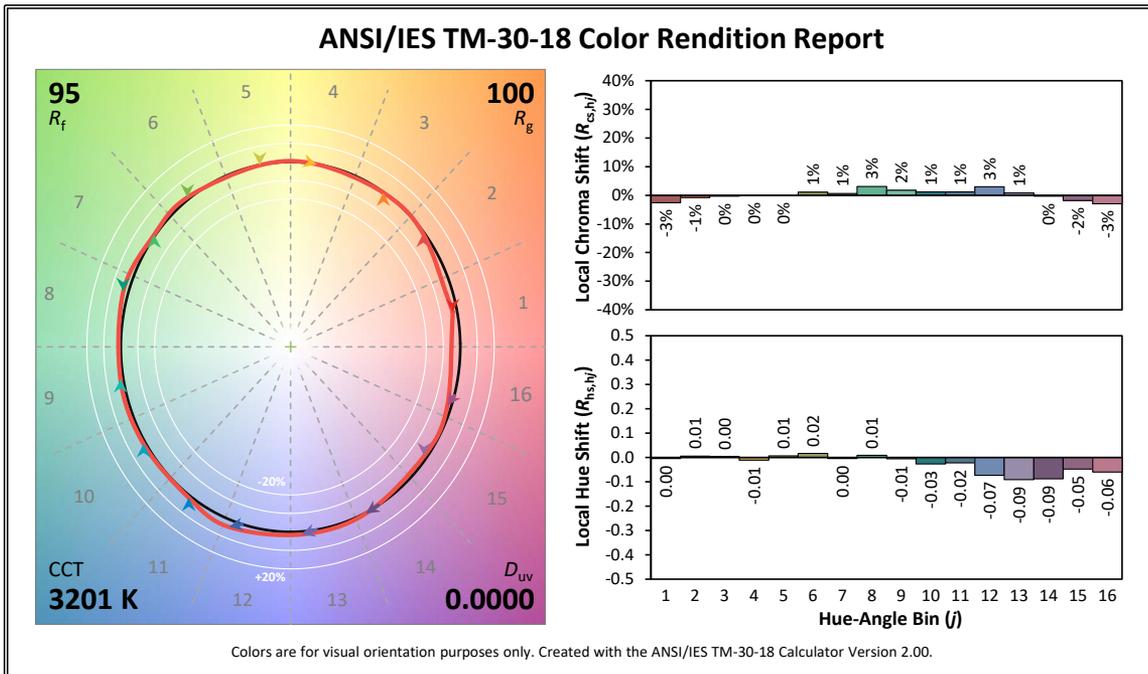
COLOR METRIC INFORMATION

D40 STUDIO HD 4500 K TM-30-18

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.
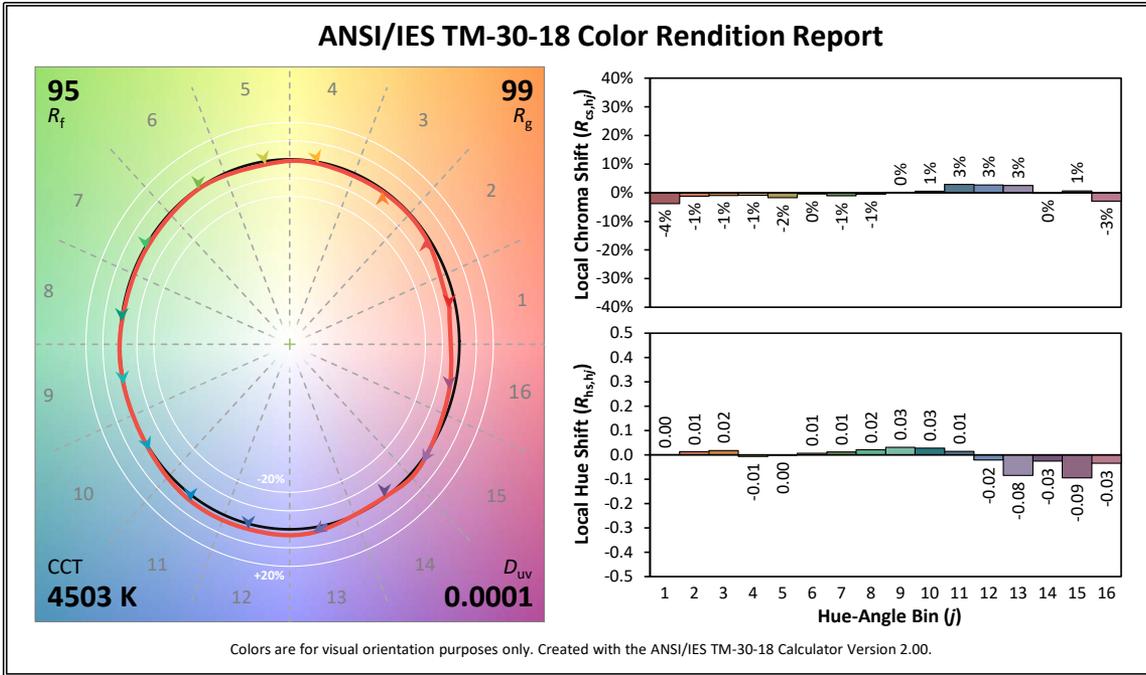
D40 STUDIO HD 5600 K TM-30-18

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.
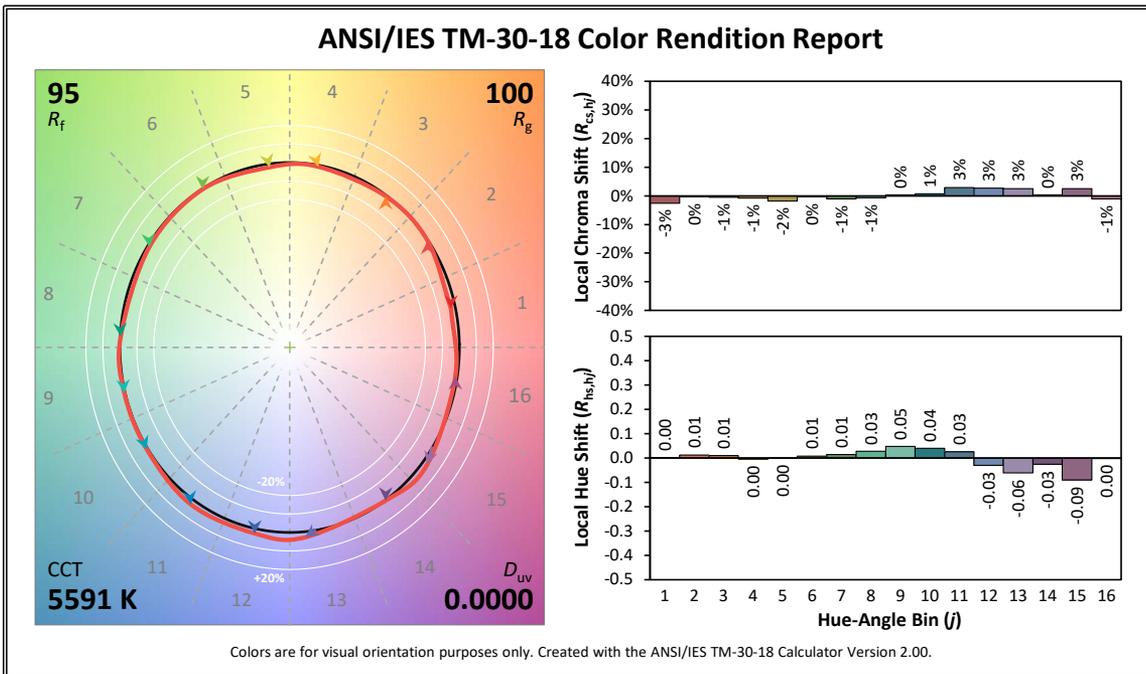
ETC utilizes a nationally recognized 3rd party lab for luminaire testing according to IES LM-84. See etcconnect.com/About/News/ETC-Fixture-Ratings-and-Warranties-Extended.aspx.

All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. In individual situations, LEDs will be used for different durations and levels. This can eventually lead to minor alterations in color performance, necessitating slight adjustments to presets, cues or programs.

PHOTOMETRICS

D40XTI Vivid

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Full	10.5°	57,265	2,252	845	23.6
Regulated - Full	10.5°	47,449	1,866	700	22.7
Regulated 3200 K	10.5°	32,749	1,288	483	24.1
Regulated 5600 K	10.5°	33,876	1,332	500	22.2

Metric conversions: For meters, multiply feet by 0.3048.
For lux, multiply foot-candles by 10.76.

Cosine Candela Plot
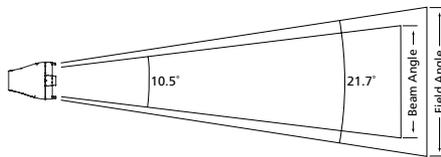
| Throw Distance (d)	10.0 ft 3.0 m	15.0 ft 4.6 m	20.0 ft 6.1 m	30.0 ft 9.1 m	217.8 ft 66.4 m
Field Diameter	3.8 ft 1.2 m	5.7 ft 1.8 m	7.7 ft 2.3 m	11.5 ft 3.5 m	–
Illuminance (fc)	474	211	119	53	1
Illuminance (lux)	5,107	2,270	1,277	567	10.76

To determine center beam illumination in foot-candles at any throw distance, divide candela by the throw distance squared.

For field diameter at any distance, multiply distance by 0.308.
For beam diameter at any distance, multiply by 0.145.

Iso-Illuminance Diagram
(Flat Surface Distribution)

10%
50%

% illuminance foot-candle or lux

0   .069   .138
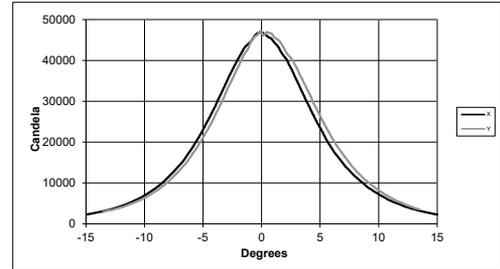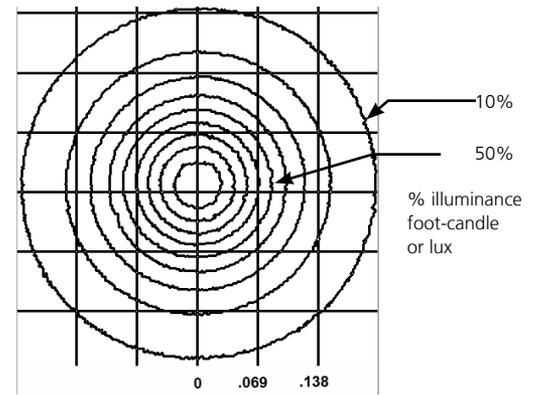
D40XTI Lustr+

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Full	10.5°	71,324	2,593	1,042	25.2
Regulated - Full	10.5°	64,071	2,329	936	25.0
Regulated 3200 K	10.5°	46,299	1,683	676	29.4
Regulated 5600 K	10.5°	40,173	1,460	587	26.8

Metric conversions: For meters, multiply feet by 0.3048.
For lux multiply foot-candles by 10.76.

Cosine Candela Plot
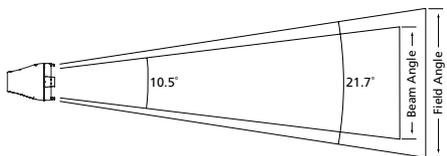
| Throw Distance (d)	10.0 ft 3.0 m	15.0 ft 4.6 m	20.0 ft 6.1 m	30.0 ft 9.1 m	253.1 ft 77.2 m
Field Diameter	3.8 ft 1.2 m	5.7 ft 1.8 m	7.7 ft 2.3 m	11.5 ft 3.5 m	–
Illuminance (fc)	641	285	160	71	1
Illuminance (lux)	6,897	3,065	1,724	766	10.76

To determine center beam illumination in foot-candles at any throw distance, divide candela by the throw distance squared.

For field diameter at any distance, multiply distance by 0.301.
For beam diameter at any distance, multiply by 0.145.

Iso-Illuminance Diagram
(Flat Surface Distribution)

10%
50%
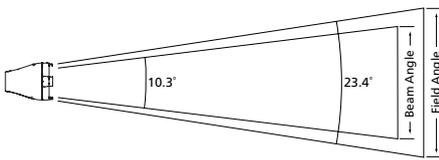
% illuminance foot-candle or lux

0   .069   .138
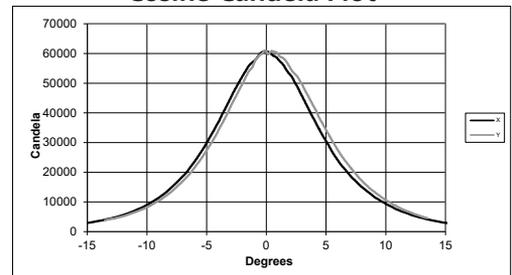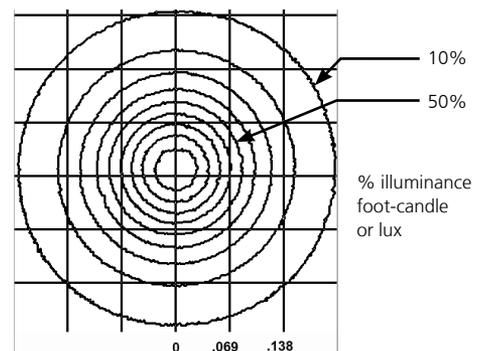
PHOTOMETRICS

D40XTI Studio HD

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Full	10.3°	79,390	3,194	1,296	33.2
Regulated - Full	10.3°	74,890	3,015	1,197	33.0
Regulated - 3200K	10.3°	72,160	2,928	1,176	36.1
Regulated - 5600K	10.3°	59,459	2,477	951	32.1

Metric conversions: For meters, multiply feet by 0.3048
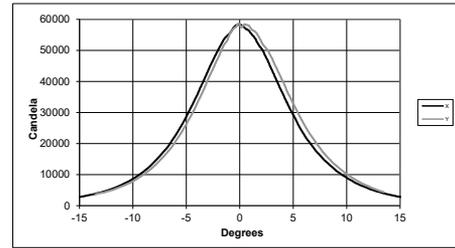For lux, multiply foot-candles by 10.76

Beam Angle: 10.3° Field Angle: 23.4°

| Throw Distance (d)	10.0 ft 3.0 m	15.0 ft 4.6 m	20.0 ft 6.1 m	30.0 ft 9.1 m	273.7 ft 83.4 m
Field Diameter	4.1 ft 1.3 m	6.2 ft 1.9 m	8.3 ft 2.5 m	12.4 ft 3.8 m	–
Illuminance (fc)	749	333	187	83	1
Iluminance (lux)	8,061	3,583	2,015	896	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 0.313
For beam diameter at any distance, multiply by 0.143

Cosine Candela Plot

Iso-Illuminance Diagram
(Flat Surface Distribution)

10%
50%
% illuminance footcandle or lux

0   .069   .138
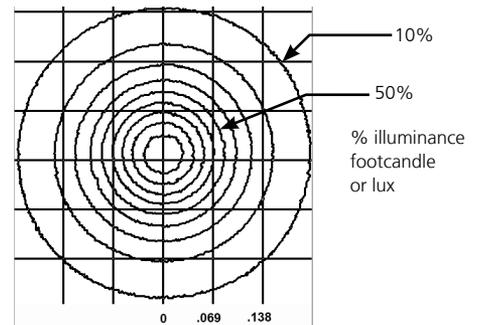
D40XTI Studio Daylight

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Boost - Full	12.6°	67,325	4,332	1,640	43.1
Regulated - Full	12.6°	61,743	3,973	1,504	43.0

Metric conversions: For meters, multiply feet by 0.3048
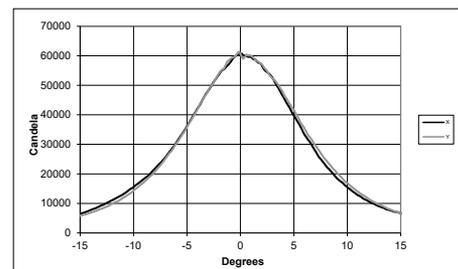For lux, multiply foot-candles by 10.76

Beam Angle: 12.6° Field Angle: 30.6°
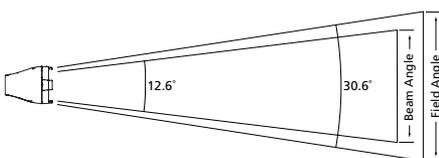
| Throw Distance (d)	10.0 ft 3.0 m	15.0 ft 4.6 m	20.0 ft 6.1 m	30.0 ft 9.1 m	248.5 ft 75.7 m
Field Diameter	5.5 ft 1.7 m	8.2 ft 2.5 m	10.9 ft 3.3 m	16.4 ft 5.0 m	–
Illuminance (fc)	617	274	154	69	1
Illuminance (lux)	6,646	2,954	1,661	738	10.76

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 0.390
For beam diameter at any distance, multiply by 0.198

Cosine Candela Plot

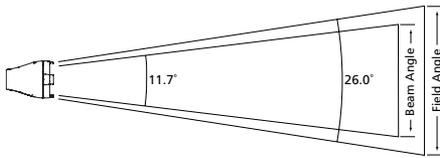### Iso-Illuminance Diagram
(Flat Surface Distribution)

10%
50%
% illuminance footcandle or lux

0   .088   .177   .265
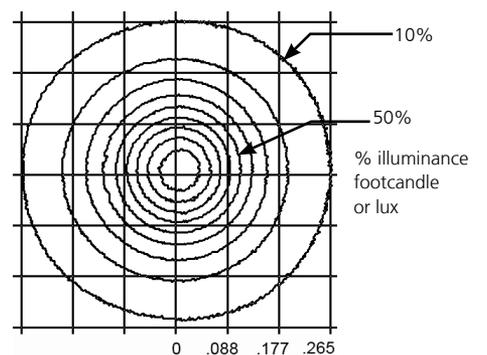
PHOTOMETRICS

D40XTI Studio Tungsten

Mode	Degree	Candela	Field Lumens	Beam Lumens	Lumens Per Watt
Regulated - Full	11.7˚	97,389	5,023	2,018	52.8

Metric conversions: For meters, multiply feet by 0.3048.
For lux, multiply foot-candles by 10.76.

Cosine Candela Plot

| Throw Distance (d)	10.0 ft 3.0 m	15.0 ft 4.6 m	20.0 ft 6.1 m	30.0 ft 9.1 m	312.1 ft 95.1 m
Field Diameter	4.6 ft 1.4 m	6.9 ft 2.1 m	9.2 ft 2.8 m	13.9 ft 4.2 m	–
Illuminance (fc)	974	433	243	108	1
Illuminance (lux)	10,483	4,659	2,621	1,165	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 0.414.
For beam diameter at any distance, multiply by 0.189.

Iso-Illuminance Diagram
(Flat Surface Distribution)

% illuminance footcandle or lux
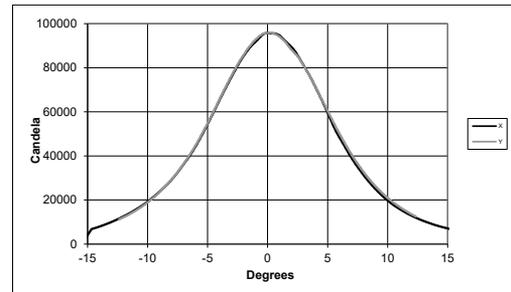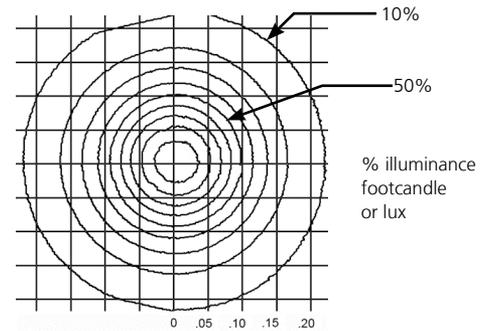
CRI AND CQS RATINGS

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 3200 K and 5600 K.

All D40XTI Studio luminaire versions provide excellent color rendering to the eye, particularly at higher color-temperature settings, such as 5600 K. 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.

Notes to videographers:
- All Desire fixtures use Luxeon Rebel ES emitters specified by the strictest binning standards. However, on-camera LED response varies with different cameras and settings. Daylight LEDs can appear slightly greener than other 5600 K sources on camera.
- Fixtures with non-variable, single-color daylight arrays, such as Studio Daylight, may use standard color-correction filters (Rosco 3314, Rosco 3316 or similar) to achieve the desired on-camera result.
- Camera tests using your specific setup are recommended to determine the best configuration.

NOTES ABOUT LED LUMINAIRES

All LED sources experience some reduction of light output and some color shift over time. LED output will vary with thermal conditions. Thermal conditions can be affected by ambient temperatures and orientation. See the D40 Ambient Temperature and Power Budgeting Guide for more details. 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.

ADDITIONAL ORDERING INFORMATION

Secondary Lens Options

The following lenses are cut for D40 fixtures and create round, linear or oblong field patterns as described below. These lenses are not sized for use in Selador Classic fixtures.

Note: This is the same material as Selador Classic lenses.

MODEL	DESCRIPTION	PART NUMBER	
Narrow Linear Field	**Linear lenses may be combined to create desired field size**		
D40XTI-LN	D40XTI Narrow, Linear Diffuser Kit	7410K1062	
D40XTI-LM	D40XTI Medium, Linear Diffuser Kit	7410K1063	
D40XTI-LW	D40XTI Wide, Linear Diffuser Kit	7410K1064	
D40XTI-LXW	D40XTI Xtra Wide, Linear Diffuser Kit	7410K1065	
Round Field	**Any one of the following round lenses may be installed permanently in the fixture at the factory as a special order**		
D40XTI-RVN	D40XTI Very Narrow, Round Diffuser Kit, black	7410K1053	
D40XTI-RN	D40XTI Narrow, Round Diffuser Kit, black	7410K1054	
D40XTI-RM	D40XTI Medium, Round Diffuser Kit, black	7410K1055	
D40XTI-RW	D40XTI Wide, Round Diffuser Kit, black	7410K1056	
DX40XTI-RXW	D40XTI Xtra Wide, Round Diffuser Kit, black	7410K1057	
Oblong Field			
D40XTI-ON	D40XTI Narrow, Oval Diffuser Kit, black	7410K1058	
D40XTI-OM	D40XTI Medium, Oval Diffuser Kit, black	7410K1059	
D40XTI-OW	D40XTI Wide, Oval Diffuser Kit, black	7410K1060	

Desire lenses compared to Source Four PAR EA

Fixture Accessories

MODEL	DESCRIPTION	PART NUMBER	
D40XTIWM	Wall-mount kit (black)	7410K1050	
D40XTIWM-1	Wall-mount kit (white)	7410K1050-1	
D40XTISPM	Single pole-mount kit (black)	7410K1051	
D40XTISPM-1	Single pole-mount kit (white)	7410K1051-1	
D40XTIDPM	Double pole-mount kit (black)	7410K1052	
D40XTIDPM-1	Double pole-mount kit (white)	7410K1052-1	
D40XTIL	Egg crate (black)	7410K1066	
D40XTIL-1	Egg crate (white)	7410K1066-1	
D40XTIHH	Half shield (black)	7410K1067	
D40XTIHH-1	Half shield (white)	7410K1067-1	
400CC	C-clamp (does not ship with fixture)	7060A2009 (not CE)	
400SC	Safety cable (32 in)	7060A1022	
D40XTIG	D40XTI Glass Lens	7410A4001	

ETC

D40XTI

Desire Series

CONTROL OPTIONS

User settings on D40XTI 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 choices. Some of the setting options are:

- Multiple DMX options, 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 sequences for standalone (no console required) operation
- White-point selection: white light and color behavior based on a specific color-temperature white light, such as 3200 K or 5600 K
- 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 D40XTI.

Quick Setups

Use one of five Quick Setups on the fixture display to get started. You can modify the setting as needed.

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 • 3250 K white-point setting
XT Arch	HSI	Exterior architectural lighting: Provides a high degree of color consistency in high ambient-temperature environments	• Standard dimming curve • Protected output • 3200 K 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 • 5600 K white-point setting
Studio	Studio	Video/film lighting: Enables three-parameter control of white light (intensity, white point and tint) via DMX from console or from fixture display – no console required	• 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	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 color with a separate master-intensity channel. Color calibration of LEDs is not active in this mode. The nine-channel profile will produce the highest-quality color crossfades
HSI	5	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe	High-resolution hue (two channels), saturation, and intensity control. HSI mode will produce color crossfades around the color space
HSIC	6	1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – 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 EHSI
RGB	5 (Ch. 4 not used)	1 – Red 2 – Green 3 – Blue 4 – n/a 5 - Strobe	Effectively addresses all seven colors via three channels of control. RGB profile will produce medium-quality color crossfades
Studio	3	1 – Intensity 2 – Color Point (CCT) 3 – Tint	Controls fixture as a white-light unit. If no DMX, (console input, for example) is present, the fixture can be adjusted for these three parameters on the user interface at the back of the unit

Additional profile options

Plus 7		Seven additional color-control channels are available in RGB, HSI, HSIC, and Studio 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 7 Control on/off 8 – Red 9 – Orange (white if Lustr+) 10 – Amber 11 – Green 12 – Cyan 13 – Blue 14 – 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 14-channel profile. Channels 8-14 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%.

CONTROL OPTIONS

Studio Daylight and Studio Tungsten only

Quick Setups

Setting Title	Profile	Description	Typical Features*
Studio	Studio	Simple mode for linear intensity control	• Linear dimming curve • Regulated output for intensity stability
Single Channel	Direct	For general-purpose architectural use	• Standard dimming curve • Regulated output for consistency
Stage	Direct	Matches conventional luminaire performance	• Incandescent dimmingcurve • Regulated output

DMX Input Channel Profiles

DMX Profile	DMX Channels	Channel Assignments	Notes
Studio	3	1 – Intensity 2 – Strobe	Control of parameters is also enabled from the luminaire's user interface. No console required.
Direct	3	1 – Intensity 2 – Strobe	

LENS INFORMATION

Desire diffusion angle measurements

NOMINAL		No Lens	Very Narrow	Narrow	Medium	Wide	Extra Wide	Narrow Oval	Medium Oval	Wide Oval
D40XTI			25°	35°	45°	75°	N/A	20° x 40°	30° x 70°	35° x 80°
LUSTR+		22	26	32	54	77	97	29 x 43	33 x 63	33 x 97
VIVID		22	26	32	54	77	97	29 x 43	33 x 63	33 x 97
STUDIO HD		22	26	32	54	77	97	29 x 43	33 x 63	33 x 97
STUDIO D		31	33	38	60	81	97	36 x 48	41 x 68	35 x 97
STUDIO T		31	33	38	60	81	97	36 x 48	41 x 68	35 x 97

Values in black refer to old lens descriptions.

ETC D40XTI

Desire Series

MOUNTING OPTIONS

MODEL	DESCRIPTION
D40XTISPM	Single-pole-mount pole-top mounting adapter for 4" pole (provided by others). See installation sheet for details.

MODEL	DESCRIPTION
D40XTIWM	Wall or square pole mount. See installation sheet for details.
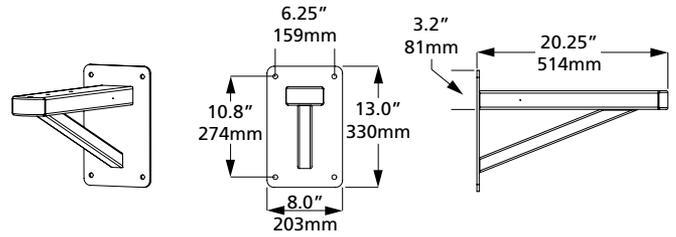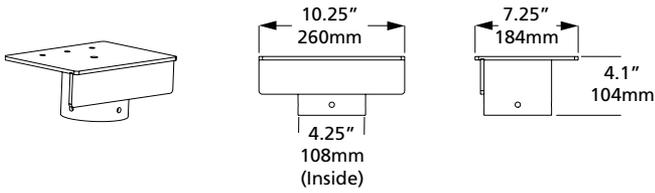
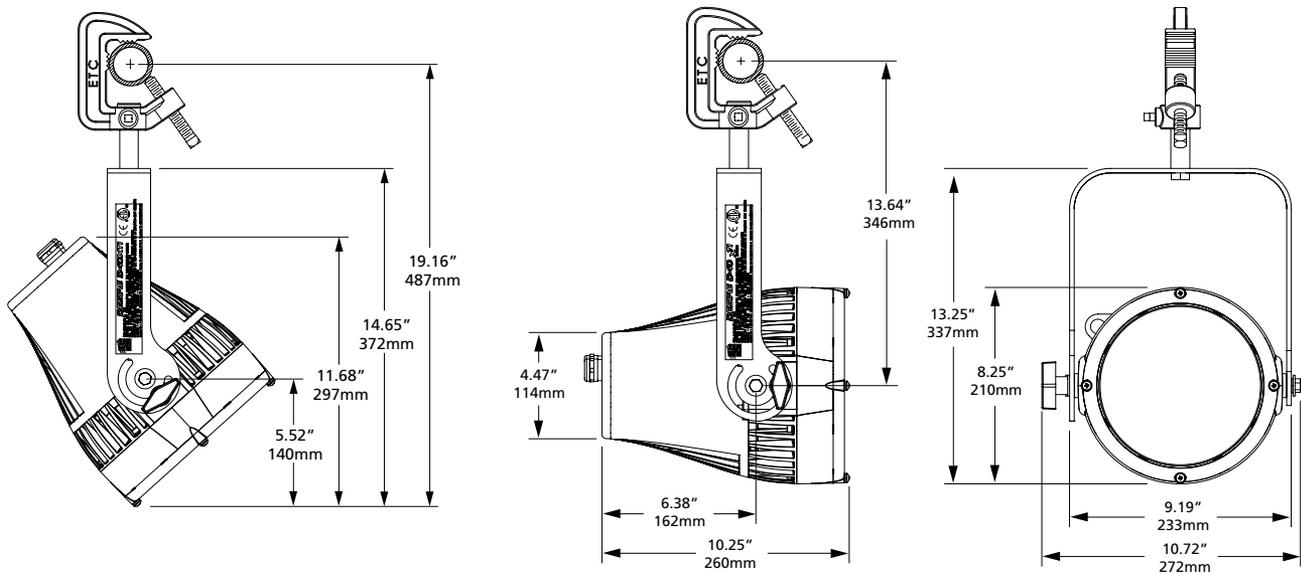| MODEL	DESCRIPTION
D40XTIDPM	Twin fixture pole top mount adapter for standard 4" pole (provided by others). See installation sheet for details.

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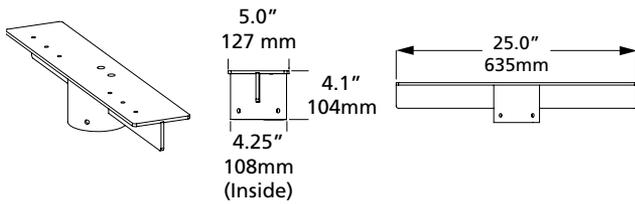
PHYSICAL

Selador D40XTI Weights and Dimensions

Total weight depends on how the individual fixture is configured.

WEIGHT*		SHIPPING WEIGHT	
lb	kg	lb	kg
15	6.8	18	8.2

* Does not include mounting hardware

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