



Type(s)
Project
Date
Notes

GENERAL INFORMATION

ETC’s Desire Series D40XT Studio lighting fixture puts the newest technology in high-output white-light LEDs into a sealed IP66 outdoor-rated enclosure to create an ideal luminaire for video, film and other ‘white light only’ applications. Its watertight construction makes it ideal for location lighting. Three different LED options give the user a choice for just the right white light output for the job. The D40XT Studio offers a rugged die-cast enclosure; noiseless, no fan cooling; multiple lens options and advanced user interface. The user interface enables easy configuration and specific features for video and film professionals. The fixture can be configured to operate under console control for studio systems or in stand-alone ‘no console required’ settings.

D40XT Studio LED Array Options

D40XT Studio fixtures offer three different LED array choices based on specific white-light functions. The D40XT Studio fixture is available with any one of the following color arrays (not interchangeable) to best suit the application.

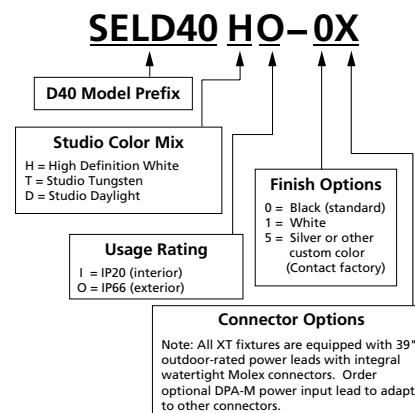
- D40XT Studio HD – Studio HD combines warm white and cool white LEDs for variable color temperature mixing. Added to this are five carefully chosen LED colors from the x7 Color System to fill in the white LED spectral gaps. D40XT Studio HD provides the richest variable white light possible in an LED fixture.
- D40XT Studio Daylight – Studio Daylight contains forty 5600 K LEDs for high-intensity, non-variable cool-white output.
- D40XT Studio Tungsten – Studio Tungsten contains forty 3000 K LEDs for high-intensity, non-variable warm-white output.

ORDERING INFORMATION

Selador D40XT Studio

| MODEL | DESCRIPTION |
|----------|---|
| SELD40HO | D40 Studio HD wash fixture – IP66-rated fixture for high-intensity variable white light output with broad spectrum richness and color rendering |
| SELD40DO | D40 Studio Daylight wash fixture – IP66-rated fixture with all 5600 K emitters for single color, non-adjustable daylight output |
| SELD40TO | D40 Studio Tungsten wash fixture – IP66-rated fixture with all 3000 K emitters for single color, non-adjustable warm white output |

Note: D40XT Studio luminaires ship with hanging yoke and attached leads equipped with watertight Molex power connectors and watertight DMX connectors. C-clamp, lenses or separate power lead are not included. Order DPA-M bare-end to Molex adaptors separately for XT luminaires if required.



PRODUCT SPECIFICATIONS

Source

| | |
|----------------------------------|--|
| LED details | 40 Lumileds LUXEON® Rebel LED |
| Max lumens | Studio HD: 3,194 Studio Daylight: 4,332 Studio Tungsten: 5,023 |
| Lumens per watt | Studio HD: 33.2 Studio Daylight: 43.1 Studio Tungsten: 52.8 |
| L70 rating (hours to 70% output) | 50,000 hours |

Color

| | |
|-------------------------|---|
| Colors used | Studio HD: Red, Amber, Green/Cyan, Blue, Warm White, Cool White Studio Daylight: White Studio Tungsten: White |
| Color temperature range | Studio HD: Studio Daylight: 3200 K Studio Tungsten: 5600 K |
| Calibrated array | Studio HD: Yes Studio Daylight: No Studio Tungsten: No |
| Red shift | Yes |

Optical

| | |
|---------------------------------|---|
| Beam angle range | 8°–71° |
| 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 - Sealed, factory-installed lenses available for permanent installations |

Control

| | |
|----------------------------|---------------------------------|
| Input method | DMX512 via watertight 5-pin XLR |
| Protocols | DMX512/RDM |
| Modes (footprint) | See page 5 |
| RDM configuration | Yes |
| UI type | LCD |
| Local control | Yes |
| Onboard presets | Yes |
| Onboard sequences | Yes |
| Onboard effects | No |
| Fixture-to-fixture control | Yes |
| Notes | 15-bit virtual dimming engine |

Electrical

| | |
|-----------------------|--|
| Voltage range | 100–240 VAC 50/60 Hz |
| Input method | Waterproof, 39 in power in and thru 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 |

*Note: All measurements are for 120 V, 60 Hz. Results may vary in different regions.

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 |
| IP rating | IP66 for exterior, wet location use |
| Weight | 6.4 kg (14 lb) |
| Included accessories | Hanging yoke, optional yoke/floor stand |

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 utilizes a nationally recognized 3rd party lab for luminaire testing according to IES LM-84. See etconnect.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.

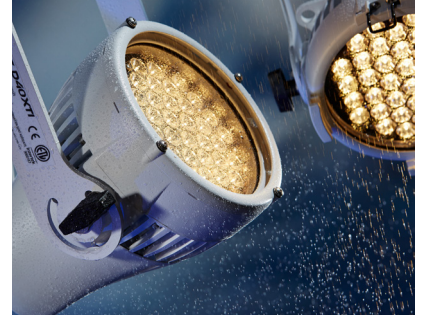
PRODUCT FEATURES



NOISELESS, FAN-FREE
 Convection cooling for acoustically sensitive installations



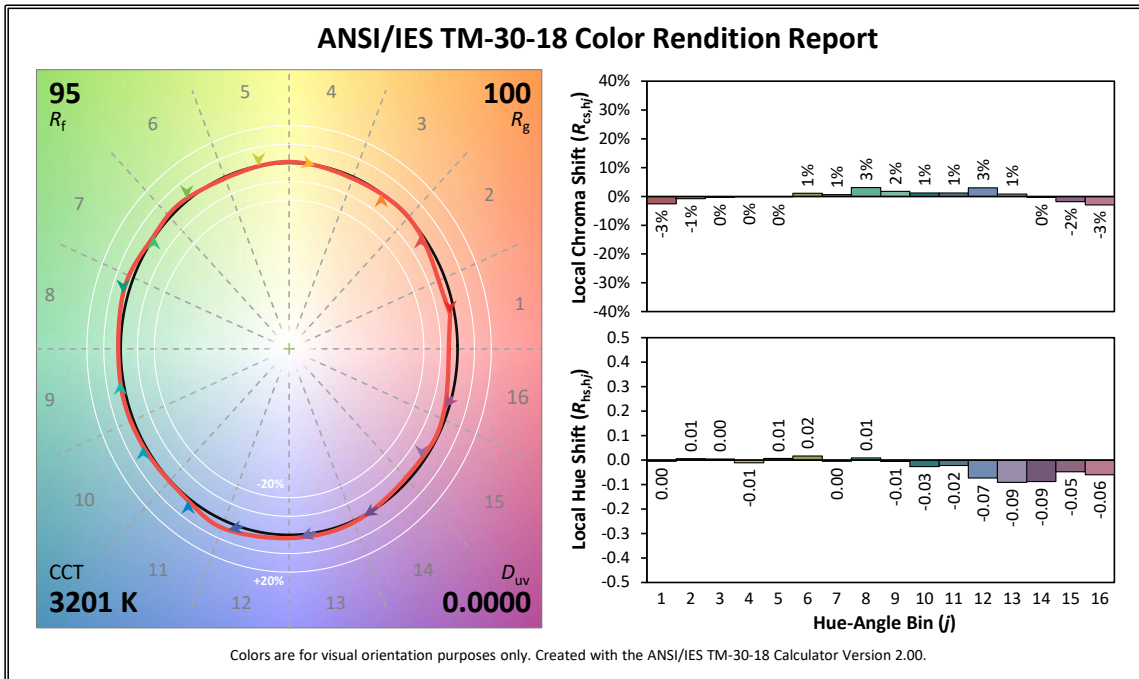
MULTIPLE LED ARRAY OPTIONS
 Also available in static white arrays



WATERPROOF OUTDOOR-RATED
POWER LEAD
 Lorem ipsum

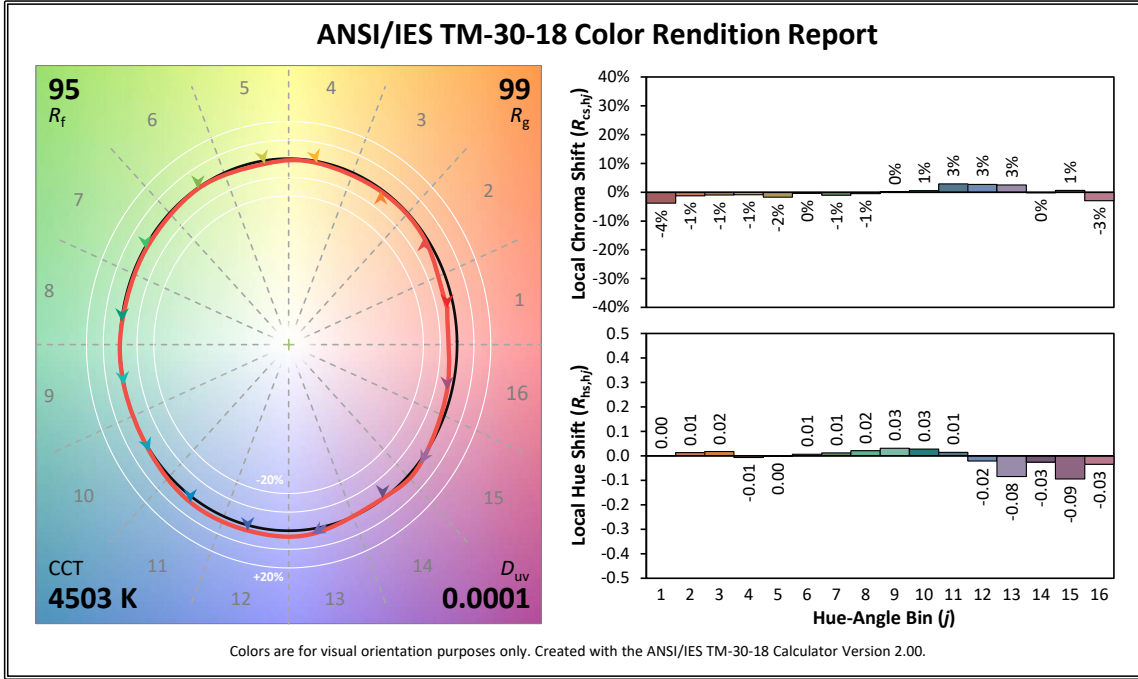
COLOR METRIC INFORMATION

D40 STUDIO HD 3200 K TM-30-18

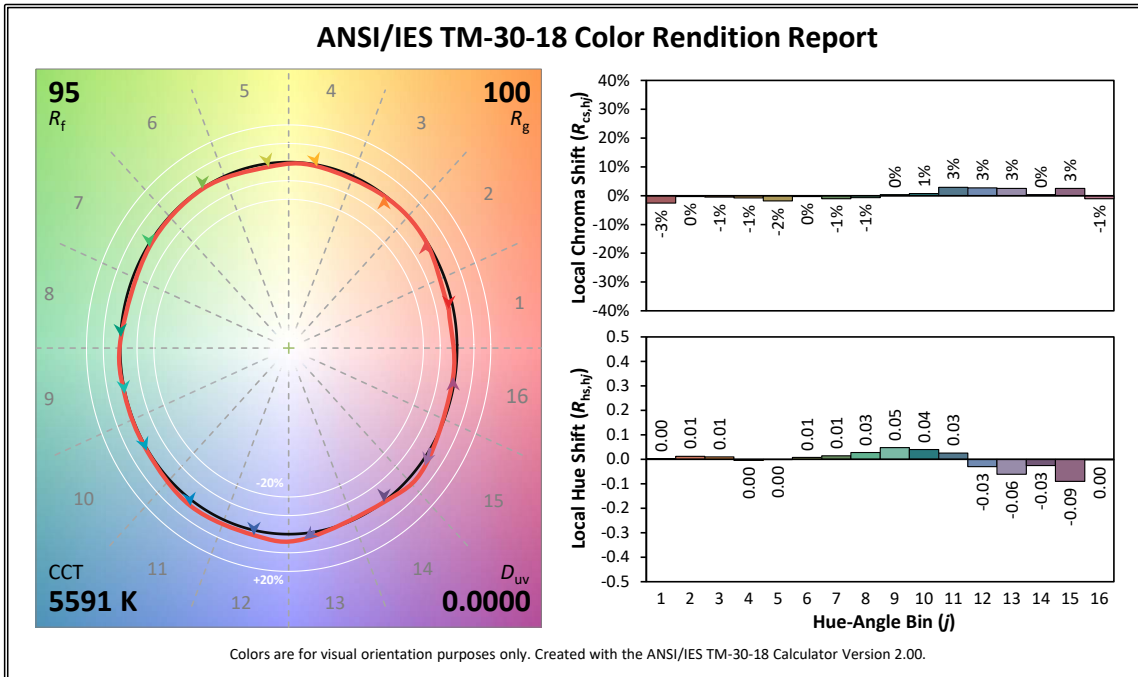


COLOR METRIC INFORMATION

D40 STUDIO HD 4500 K TM-30-18



D40 STUDIO HD 5600 K TM-30-18



ADDITIONAL ORDERING INFORMATION

Secondary Lens Options

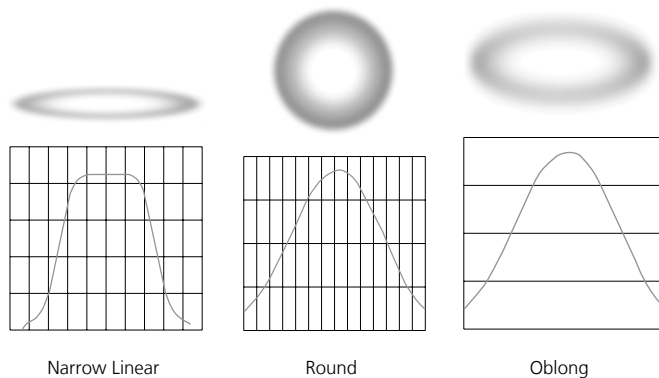
The following lenses are cut for D40 fixtures and create round, linear or oblong field patterns as described below. These lenses are not for use in Selador Classic (Vivid, Lustr+, etc.) fixtures.

Note: This is the same material as Selador Classic lenses

| MODEL | DESCRIPTION: |
|----------------------------|---|
| Narrow Linear Field | Linear lenses may be combined to create desired field size |
| SELLVN-7.5 | 7.5 in Very narrow lens |
| SELLN-7.5 | 7.5 in Narrow lens |
| SELLM-7.5 | 7.5 in Medium lens |
| SELLW-7.5 | 7.5 in Wide lens |
| SELLEW-7.5 | 7.5 in Extra wide lens |
| Round Field | Any one of the following round lenses may be installed permanently in the fixture at the factory as a special order |
| SELRN-7.5 | 7.5 in Narrow lens (round field) |
| SELRM-7.5 | 7.5 in Medium lens (round field) |
| SELRW-7.5 | 7.5 in Wide lens (round field) |
| Oblong Field | |
| SELON-7.5 | 7.5 in Narrow lens (oblong field) |
| SELOM-7.5 | 7.5 in Medium lens (oblong field) |
| SELOW-7.5 | 7.5 in Wide lens (oblong field) |

http://www.etconnect.com/docs/docs_downloads/miscdocs/Desire_vs_PAR_EA_revB.pdf

Typical Lens Field Profiles



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 3200 K and 5600 K.

All D40XT 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 set up are recommended to determine the best configuration.

CONTROL OPTIONS

Studio HD

User settings on D40XT Studio 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 sequences 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., 3200 K, 5600 K, 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 D40XT Studio.

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* |
|---------------|--------------------|--|--|
| Studio | Studio | Studio factory default: Enables three parameter control of white light (intensity, white point, and tint) via DMX from console or from fixture display – no console required | <ul style="list-style-type: none"> • Linear dimming curve • Regulated output mode for color consistency |
| General | Direct | For general purpose use including interior architectural applications | <ul style="list-style-type: none"> • 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. | <ul style="list-style-type: none"> • Incandescent dimming curve • Regulated output for color consistency • 3200 K white point setting |
| XT Arch | HSI | Exterior architectural lighting: Provides a high degree of color consistency in high ambient temperature environments. | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • Quick dimming curve • Boost mode for maximum intensity • 5600 K white point setting |

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

CONTROL OPTIONS

Studio HD

DMX Input Channel Profiles

| DMX Profile | DMX Channels | Channel Assignments | Notes |
|-------------|-----------------------|--|---|
| Studio | 3 | 1 – Intensity 2 – Color 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 UI at the back of the unit. |
| Direct | 9 | 1 – Red 2 – Amber 3 – Green/Cyan 4 – Blue 5 – 3000 K White 6 – 5000 K White 7 – n/a 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 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. HSI mode will produce color cross-fades 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 cross-fade performance is the same as HSI. |
| 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 cross-fades |

Additional profile options

| | | |
|--------|--|---|
| Plus 7 | <p>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:</p> <p>1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – n/a 7 – Plus 7 Control on/off 8 – Red 9 – Amber 10 – Green/Cyan 11 – Blue 12 – 3000 K White 13 – 6000 K White 14 – n/a</p> | <p>The desired color and intensity is achieved by using the HSI or RGB channels.</p> <p>Placing channel seven at a value over 51% gives the fixture a 14-channel profile.</p> <p>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.</p> |
| Strobe | <p>Variable strobe control: 0% is no strobe. The fixture output will strobe more rapidly as the strobe channel value approaches 100%.</p> | |

CONTROL OPTIONS

Studio Daylight and Studio Tungsten (only)

Quick Setups

| Setting Title | Profile | Description | Typical Features |
|----------------|---------|---|--|
| Studio | Studio | Enables control of intensity from luminaire UI; no console required | <ul style="list-style-type: none"> • Linear dimming curve • Regulated output for intensity stability |
| Single Channel | Direct | For general purpose architectural use | <ul style="list-style-type: none"> • Standard dimming curve • Regulated output for consistency |
| Stage | Direct | Matches conventional luminaire performance | <ul style="list-style-type: none"> • Incandescent dimming curve • Regulated output |

DMX Input Channel Profiles

| DMX Profile | DMX Channels | Channel Assignments | Notes |
|-------------|--------------|---|---|
| Studio | 3 | 1 – Intensity 2 – Strobe 3 – Fan Control (D60 only) | Control of parameters is also enabled from the luminaire's user interface. No console required. |
| Direct | 3 | 1 – Intensity 2 – Strobe 3 – Fan Control (D60 only) | |

LENS INFORMATION

Desire diffusion angle measurements

| NOMINAL | | | | | | | | | |
|---------------------|---------|-------------|--------|--------|------|------------|-------------|-------------|-----------|
| | No Lens | Very Narrow | Narrow | Medium | Wide | Extra Wide | Narrow Oval | Medium Oval | Wide Oval |
| D40XT STUDIO | | 25° | 35° | 45° | 75° | N/A | 20° x 40° | 30° x 70° | 35° x 80° |
| LUSTR+ | 22 | 26 | 27 | 47 | 79 | 101 | 23 x 43 | 35 x 63 | 35 x 63 |
| VIVID | 22 | 26 | 27 | 49 | 80 | 102 | 23 x 43 | 35 x 63 | 35 x 63 |
| STUDIO HD | 24 | 26 | 26 | 48 | 79 | 102 | 23 x 43 | 35 x 63 | 35 x 63 |
| STUDIO D | 31 | 33 | 42 | 51 | 82 | 106 | 25 x 48 | 38 x 68 | 38 x 68 |
| STUDIO T | 26 | 29 | 30 | 51 | 82 | 105 | 22 x 42 | 36 x 65 | 70 x 97 |

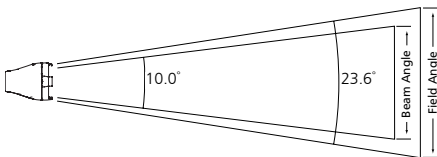
Values in black refer to old lens descriptions.

PHOTOMETRICS

D40XT Studio HD

| Mode | Degree | Candela | Field Lumens | Beam Lumens | Lumens Per Watt |
|------------------|--------|---------|--------------|-------------|-----------------|
| Boost Full | 10.0° | 65,670 | 2,492 | 939 | 24.0 |
| Regulated Full | 10.0° | 61,518 | 2,334 | 880 | 24.0 |
| Regulated 3200 K | 10.0° | 42,089 | 1,597 | 602 | 23.4 |
| Regulated 5600 K | 10.0° | 43,543 | 1,652 | 623 | 23.9 |

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

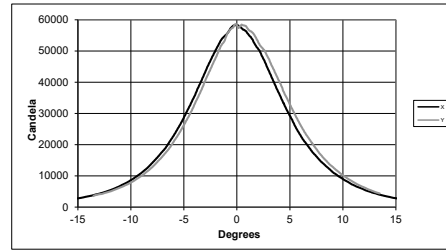


| Throw Distance (d) | 10.0 ft | 15.0 ft | 20.0 ft | 30.0 ft | 248.0 ft |
|--------------------|---------|---------|---------|---------|----------|
| | 3.0 m | 4.6 m | 6.1 m | 9.1 m | 75.6 m |
| Field Diameter | 4.2 ft | 6.3 ft | 8.3 ft | 12.5 ft | - |
| | 1.3 m | 1.9 m | 2.5 m | 3.8 m | |
| Illuminance (fc) | 615 | 273 | 154 | 68 | 1 |
| Illuminance (lux) | 6,622 | 2,943 | 1,655 | 736 | 10.76 |

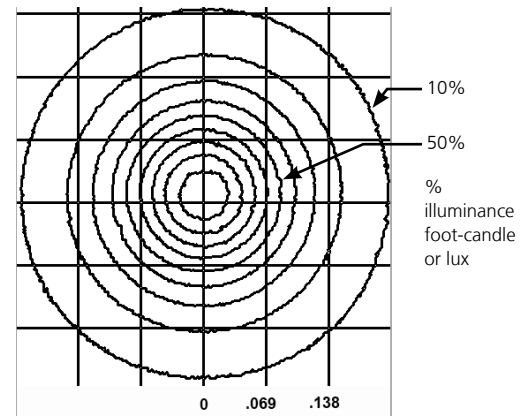
To determine center beam illumination in foot-candles at any throw distance, divide candela by the throw distance squared.

For field diameter at any distance, multiply distance by 0.417.
For beam diameter at any distance, multiply by 0.175.

Cosine Candela Plot



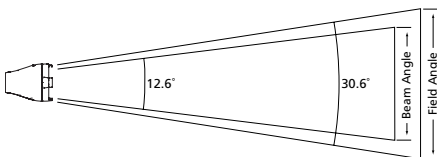
Iso-Illuminance Diagram (Flat Surface Distribution)



D40XT 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.

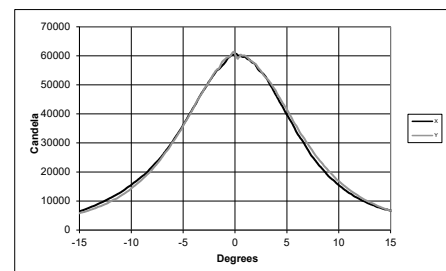


| Throw Distance (d) | 10 ft | 15 ft | 20 ft | 30 ft | 248.5 ft |
|--------------------|--------|--------|---------|---------|----------|
| | 3.0 m | 4.6 m | 6.1 m | 9.1 m | 75.7 m |
| Field Diameter | 5.5 ft | 8.2 ft | 10.9 ft | 16.4 ft | - |
| | 1.7 m | 2.5 m | 3.3 m | 5.0 m | |
| Illuminance (fc) | 617 | 274 | 154 | 69 | 1 |
| Illuminance (lux) | 6,646 | 2,954 | 1,661 | 738 | 10.76 |

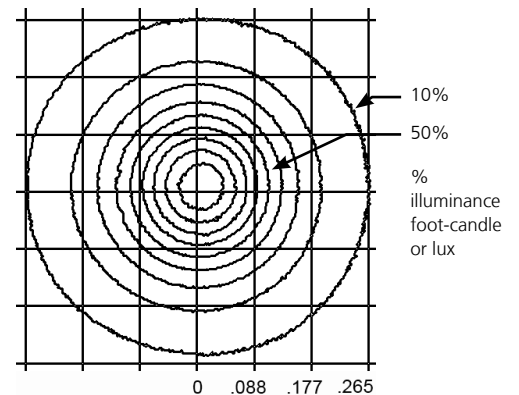
To determine center beam illumination in foot-candles at any throw distance, divide candela by the throw distance squared.

For field diameter at any distance, multiply distance by 0.547.
For beam diameter at any distance, multiply by 0.221.

Cosine Candela Plot



Iso-Illuminance Diagram (Flat Surface Distribution)

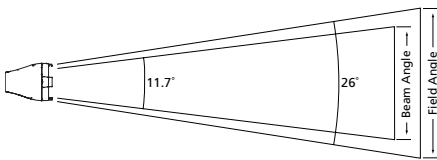


PHOTOMETRICS

D40XT Studio Tungsten

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

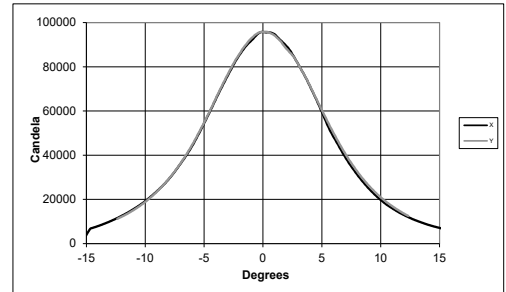
Metric conversions: For meters, multiply feet by 0.3048.
For lux, multiply foot-candles by 10.76.



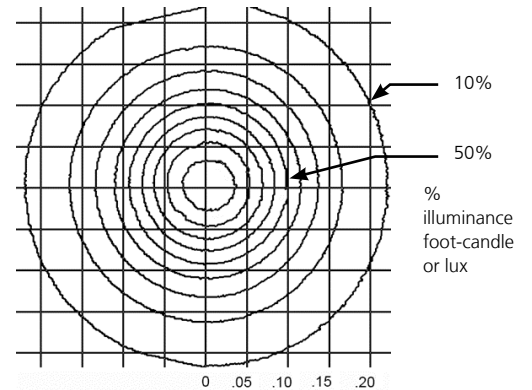
| Throw Distance (d) | 10.0 ft 3.0 m | 15.0 ft 4.6 m | 20.0 ft 6.1 m | 30.0 ft 9.1 m | 310.9 ft 94.8 m |
|--------------------|------------------|------------------|------------------|------------------|--------------------|
| Field Diameter | 4.6 ft 1.4 m | 6.9 ft 2.1 m | 9.2 ft 2.8 m | 13.9 ft 4.2 m | - |
| Illuminance (fc) | 966 | 429 | 242 | 107 | 1 |
| Illuminance (lux) | 10,402 | 4,623 | 2,600 | 1,156 | 10.76 |

For field diameter at any distance, multiply distance by 0.462.
For beam diameter at any distance, multiply by 0.205.

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: 25 feet (TD) x 0.047 (TDM) = 1.175 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.

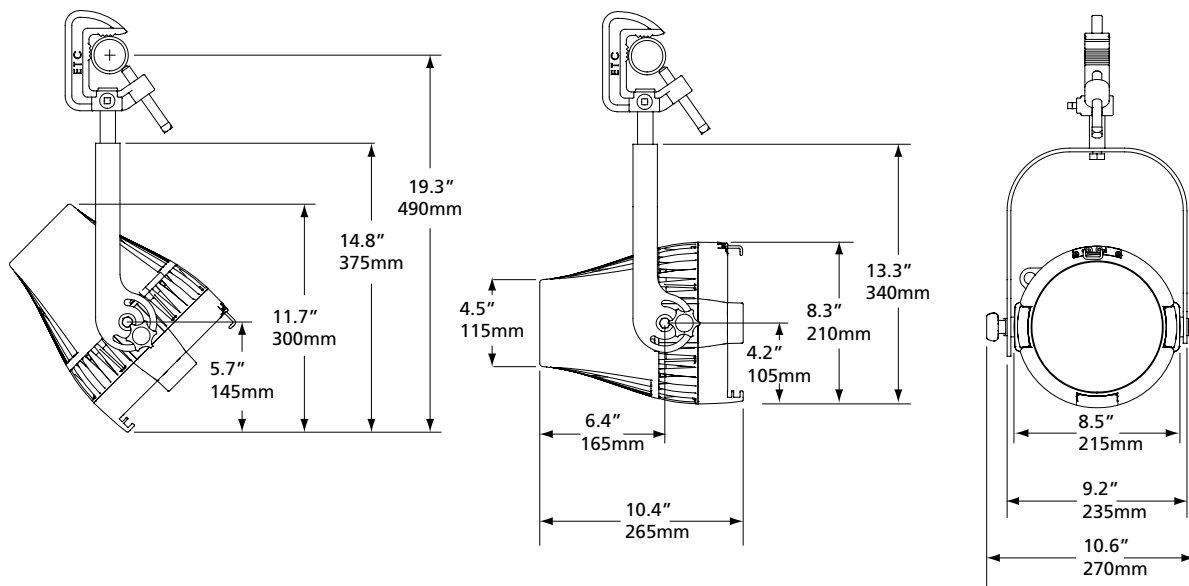
To determine illumination in foot-candles or lux at any throw distance, divide candlepower by distance squared.

PHYSICAL

Desire D40XT Studio Weights and Dimensions

| WEIGHT* | | SHIPPING WEIGHT | |
|---------|-----|-----------------|-----|
| lb | kg | lb | kg |
| 14 | 6.4 | 17 | 7.8 |

* Does not include mounting hardware



Note: D40XT Studio fixtures are equipped with attached 39" power and data leads



Corporate Headquarters • Middleton, WI USA
 Global Offices • London, UK • Rome, IT • Holzkirchen, DE • Paris, FR • Hong Kong
 Dubai, UAE • Singapore • New York, NY • Orlando, FL • Los Angeles, CA • Austin, TX
 ©2023 ETC. All Rights Reserved. All product information and specifications subject to change. Rev U 2023-07
 *Trademark and patent info: etconnect.com/IP • Third-party license agreement info: etconnect.com/licenses