



Type(s)

Project

Date

Notes

## GENERAL INFORMATION

The ETC Desire D40 fixture puts the seven-color x7 system into a round theatrical washlight. Highly efficient primary lenses and careful color choices make the D40 fixture ideal for stage, studio and anywhere strong color and high-intensity are requirements. The x7 Color System produces the widest range of spectrally-balanced saturated and tinted color choices available. D40's rugged die-cast enclosure, noiseless fan-free operation, multiple lens options and advanced user interface make it ideal for multiple applications.

### D40 LED ARRAY OPTIONS

D40 fixtures are based on the x7 Color System, which uses seven different LED colors to achieve true, usable broad-spectrum color. The D40 luminaire is available with any one of the following x7 color arrays (not interchangeable) to best suit the intended application:

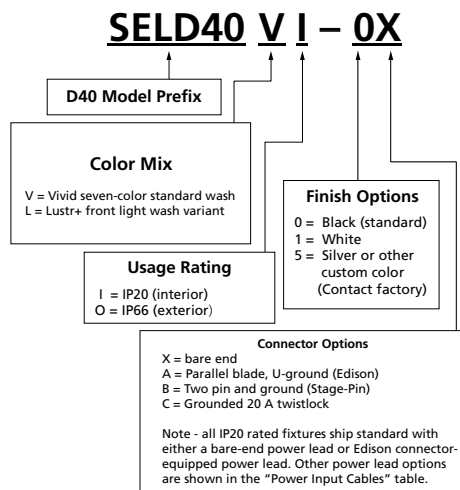
- D40 Vivid – the x7 Color System array balanced for best all-around use as a high-intensity color-changing wash fixture.
- D40 Lustr+ – optimized array with six colors plus high-intensity white LEDs to create an ideal frontlight wash fixture for full-range color, with an emphasis on lighter colors and white. It naturally lights skin tones.

## ORDERING INFORMATION

### Selador D40

MODEL	DESCRIPTION	ETL PART NUMBER	CE PART NUMBER	
SELD40VI	D40 Vivid	7410A1401	7410A1401-0X	
SELD40LI	D40 Lustr+	7410A1405	7410A1405-0X	

Note: D40 luminaires ship with a hanging yoke and an input lead with connector of choice. See page 7 for connector options. C-clamps are not included.



## PRODUCT SPECIFICATIONS

## Source

LED details	40 Lumileds LUXEON® Rebel LED
Max lumens	Lustr+: 2,593 Vivid: 2,252
Lumens per watt	Lustr+: 25.2 Vivid: 21.9
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
Color temperature range	2,700–6,500 K
Calibrated array	Yes
Red shift	Yes

## Optical

Beam angle range	10°–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

## Control

Input method	DMX512 via 5-pin XLR
Protocols	DMX-512/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	Neutrik powerCON in and thru
Inrush	15 A at 120 V (First half-cycle) 40 A at 240 V (First half-cycle)
Fixtures per circuit	9 (15 A power thru connector) 10 (R20 module or similar)
Wattage typical	103
Current draw	0.82 A at 120 V 0.40 A at 240 V

## Thermal

Ambient operating temp	-20°–40°C (-4°–104°F)
Fan (controllable)	No (N/A)
Droop compensation	Yes
dB range	N/A
BTUs/hour	351

## Physical

Materials	Die-cast, all metal housing
Color options	Black, white, silver, or custom color
Mounting options	
IP rating	IP20
Weight	6.4 kg (14 lb)
Included accessories	Hanging yoke, 5 ft power cord, media holder
Notes	Easy access slots for secondary lenses and standard 7.5 inch PAR accessories

## Warranty

Fixture	5 years
LED array	10 years

## Regulatory and Compliance

Approved regulatory standards	UL 1573 CSA C22.2 No. 166 CE Compliant EAC Compliant
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ETC utilizes a nationally recognized third-party lab for luminaire testing according to IES LM-84. See [etcconnect.com/About/News/ETC-Fixture-Ratings-and-Warranties-Extended.aspx](http://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.

## PRODUCT FEATURES

**NOISELESS, FAN-FREE**

Convection cooling for acoustically sensitive installations.

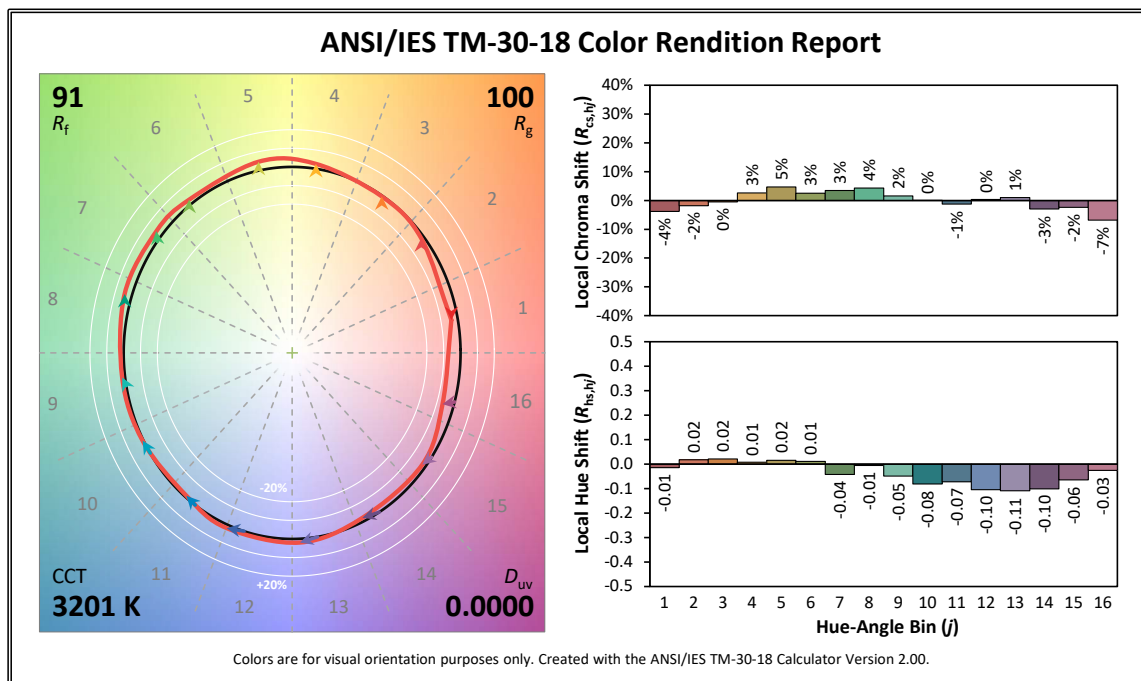
**EXCLUSIVE X7 COLOR SYSTEM**

Combining a balanced recipe of seven LED colors to give you the most color mixing options possible.

**USER-FRIENDLY INTERFACE**

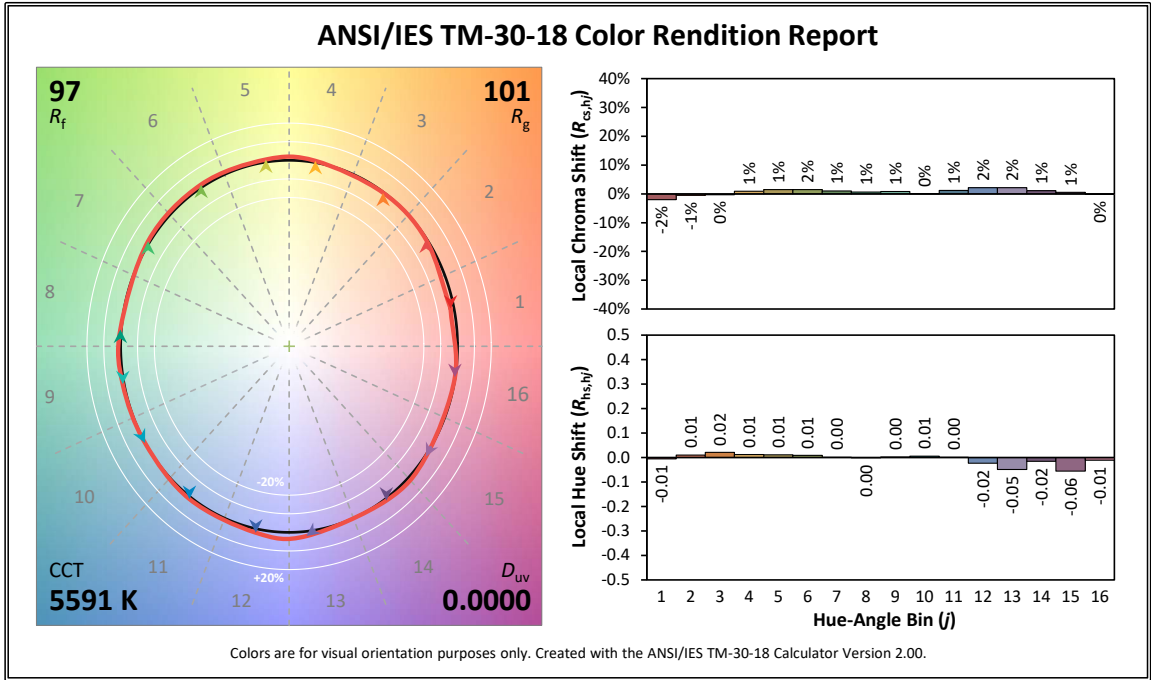
With multiple modes and fixture settings.

## COLOR METRIC INFORMATION

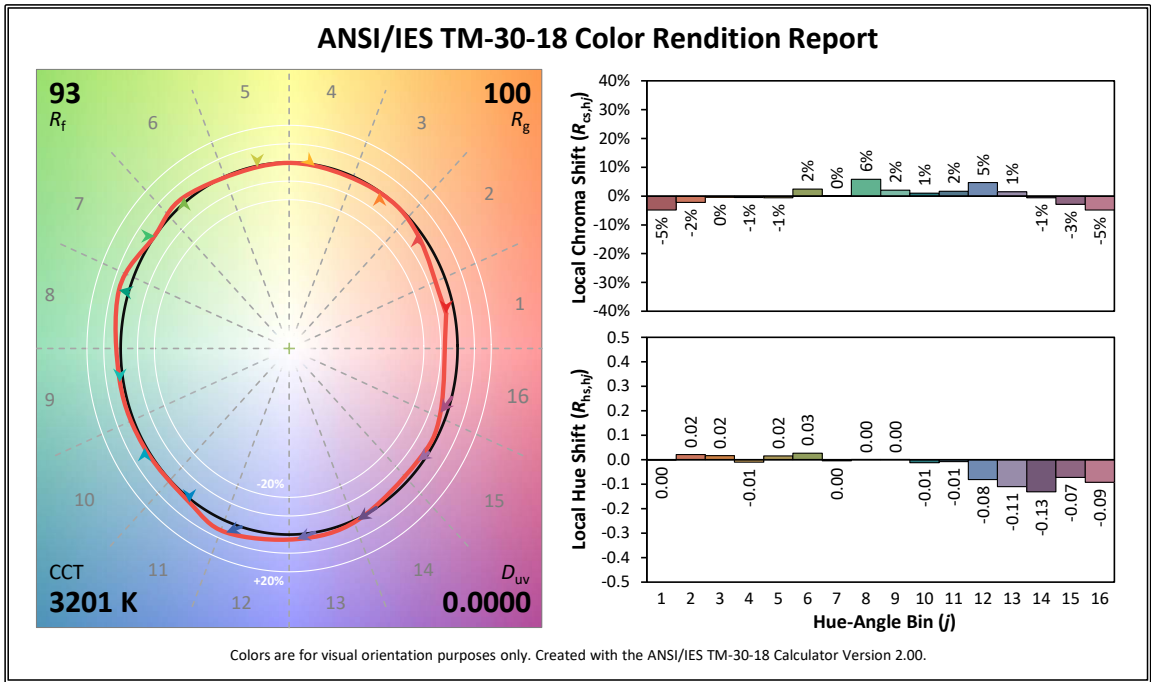
**D40 LUSTR+ 3200 K TM-30-18**

COLOR METRIC INFORMATION

D40 LUSTR+ 5600 K TM-30-18

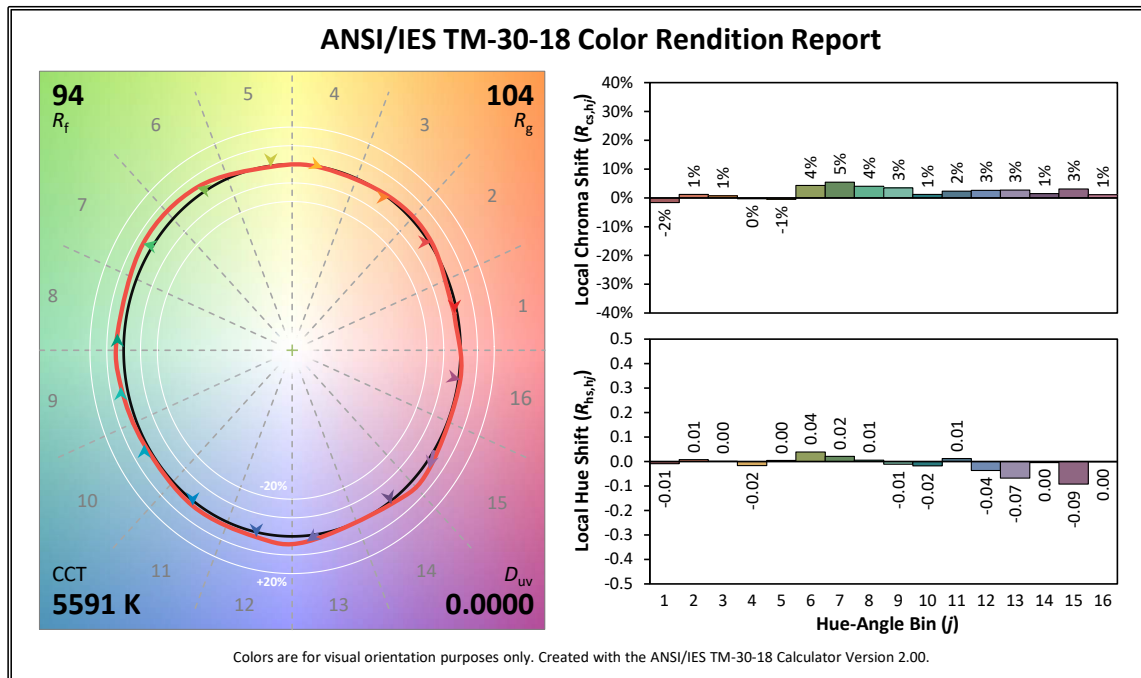


D40 VIVD 3200 K TM-30-18



## COLOR METRIC INFORMATION

## D40 VIVID 5600 K TM-30-18



## 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.

Fixture	CRI	CQS	Color 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 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.

## LENS INFORMATION

## Desire diffusion angle measurements

NOMINAL									
	No Lens	Very Narrow	Narrow	Medium	Wide	Extra Wide	Narrow Oval	Medium Oval	Wide Oval
<b>D40</b>		25°	35°	45°	75°	N/A	20° x 40°	30° x 70°	35° x 80°
<b>LUSTR+</b>	22	26	32	54	77	97	29 x 43	33 x 63	33 x 97
<b>VIVID</b>	22	26	32	54	77	97	29 x 43	33 x 63	33 x 97
<b>STUDIO HD</b>	22	26	32	54	77	97	29 x 43	33 x 63	33 x 97
<b>STUDIO D</b>	31	33	38	60	81	97	36 x 48	41 x 68	35 x 97
<b>STUDIO T</b>	31	33	38	60	81	97	36 x 48	41 x 68	35 x 97

Values in black refer to old lens descriptions.

## 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	
<b>Narrow Linear Field</b>	Linear lenses may be combined to create desired field size		
SELLN-7.5	7.5 in narrow lens	7410K1018	
SELLM-7.5	7.5 in medium lens	7410K1019	
SELLW-7.5	7.5 in wide lens	7410K1020	
SELLEW-7.5	7.5 in extra wide lens	7410K1021	
<b>Round Field</b>			
SELRVN-7.5	7.5 in very narrow lens (round field)	7410K1010	
SELRN-7.5	7.5 in narrow lens (round field)	7410K1011	
SELRM-7.5	7.5 in medium lens (round field)	7410K1012	
SELRW-7.5	7.5 in wide lens (round field)	7410K1013	
SELRXW-7.5	7.5 in extra wide lens (round field)	7410K1039	
<b>Oblong Field</b>			
SELON-7.5	7.5 in narrow lens (oblong field)	7410K1014	
SELOM-7.5	7.5 in medium lens (oblong field)	7410K1015	
SELOW-7.5	7.5 in wide lens (oblong field)	7410K1016	

[Desire lenses compared to Source Four PAR EA](#)

## ADDITIONAL ORDERING INFORMATION

### Power Input Cables

Use information below to order 5 ft power input leads with factory-fitted connectors. CE Fixtures ship with powerCON to bare end cable in the box.

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

### Power Thru Jumpers

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

MODEL	DESCRIPTION	PART NUMBER	
DPJ-5	5 ft powerCON to PowerCON fixture to fixture jumper	7410B7020	
DPJ-10	10 ft powerCON to PowerCON fixture to fixture jumper	7410B7010	

### Fixtures Accessories

MODEL	DESCRIPTION	PART NUMBER	
SELD40FSY	Yoke with floor-stand attachment	7410K1003	
400BD	Barn door (Use only as a flexible top hat to diminish aperture glare. Not for beam shaping)	PSF1019	
407CF	Color frame (use for round and oblong lenses)	7061A3007	
400L	Egg crate louver	PSF1028	
400PTH3	Top hat 3 in tube	PSF1022	
400PTH6	Top hat 6 in tube	PSF1023	
400PHH	Half hat 6 in tube	PSF1027	
400CC	C-Clamp (does not ship with fixture)	7060A2009 (not CE)	
400SC	Safety cable (32 in)	7060A1022	
DPSJ-25	25 ft powerCON to Edison input power cable with inline switch	7400B7030	

## CONTROL OPTIONS

User settings on D40 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 D40.

## 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	<ul style="list-style-type: none"> <li>• Standard dimming curve</li> <li>• Regulated output for color consistency</li> </ul>
Stage	HSI Plus 7 Enabled	Theatrical lighting: Duplicates the color and dimming behavior of tungsten stage-lighting fixtures	<ul style="list-style-type: none"> <li>• Incandescent dimming curve</li> <li>• Regulated output for color consistency</li> <li>• 3250 K white-point setting</li> </ul>
XT Arch	HSI	Exterior architectural lighting: Provides a high degree of color consistency in high ambient-temperature environments	<ul style="list-style-type: none"> <li>• Standard dimming curve</li> <li>• Protected output</li> <li>• 3200 K white-point setting</li> </ul>
High Impact	RGB	Event lighting: Enables quickest response, simple RGB control and strobe channel for maximum effect usage	<ul style="list-style-type: none"> <li>• Quick dimming curve</li> <li>• Boost mode for maximum intensity</li> <li>• 5600 K white-point setting</li> </ul>
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 from a fixture display.	<ul style="list-style-type: none"> <li>• Linear dimming curve</li> <li>• Regulated output mode for color consistency</li> </ul>

\*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 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
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 U/I 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	<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		Variable strobe control: 0% is no strobe. The fixture output will strobe more rapidly as the strobe channel value approaches 100%.	

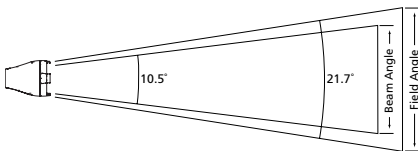


## PHOTOMETRICS

## D40 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.

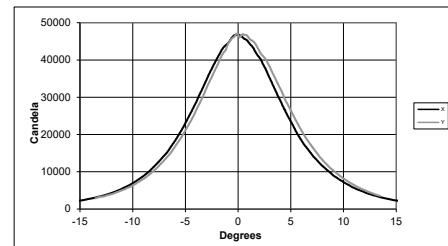
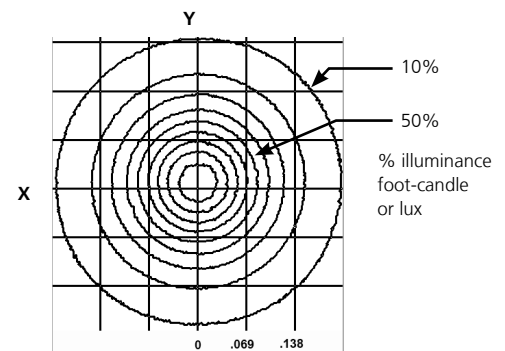


Throw Distance (d)	10 ft 3.0 m	15 ft 4.6 m	20 ft 6.1 m	25 ft 7.6 m	217.8 ft 66.4 m
Field Diameter	3.8 ft 1.2 m	5.7 ft 1.8 m	7.7 ft 2.3 m	11.5 ft 3.5 m	—
Illuminance (fc)	474	211	119	53	1
Illuminance (lux)	5,107	2,270	1,277	567	10.76

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 0.383.  
For beam diameter at any distance, multiply by 0.184.

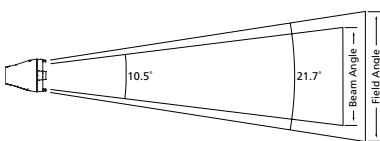
## Cosine Candela Plot

Iso-Illuminance Diagram  
(Flat Surface Distribution)

## D40 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
Regualted 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.

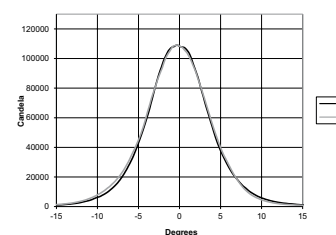
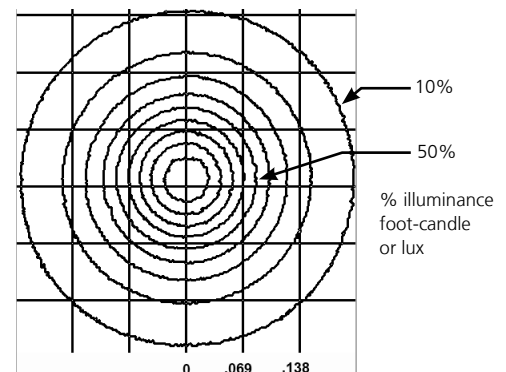


Throw Distance (d)	10 ft 3.0 m	15 ft 4.6 m	20 ft 6.1 m	30 ft 9.1 m	253.1 ft 77.2 m
Field Diameter	3.8 ft 1.2 m	5.7 ft 1.8 m	7.7 ft 2.3 m	11.5 ft 3.5 m	—
Illuminance (fc)	641	285	160	71	1
Illuminance (lux)	6,897	3,065	1,724	766	10.76

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 0.383.  
For beam diameter at any distance, multiply by 0.184.

## Cosine Candela Plot

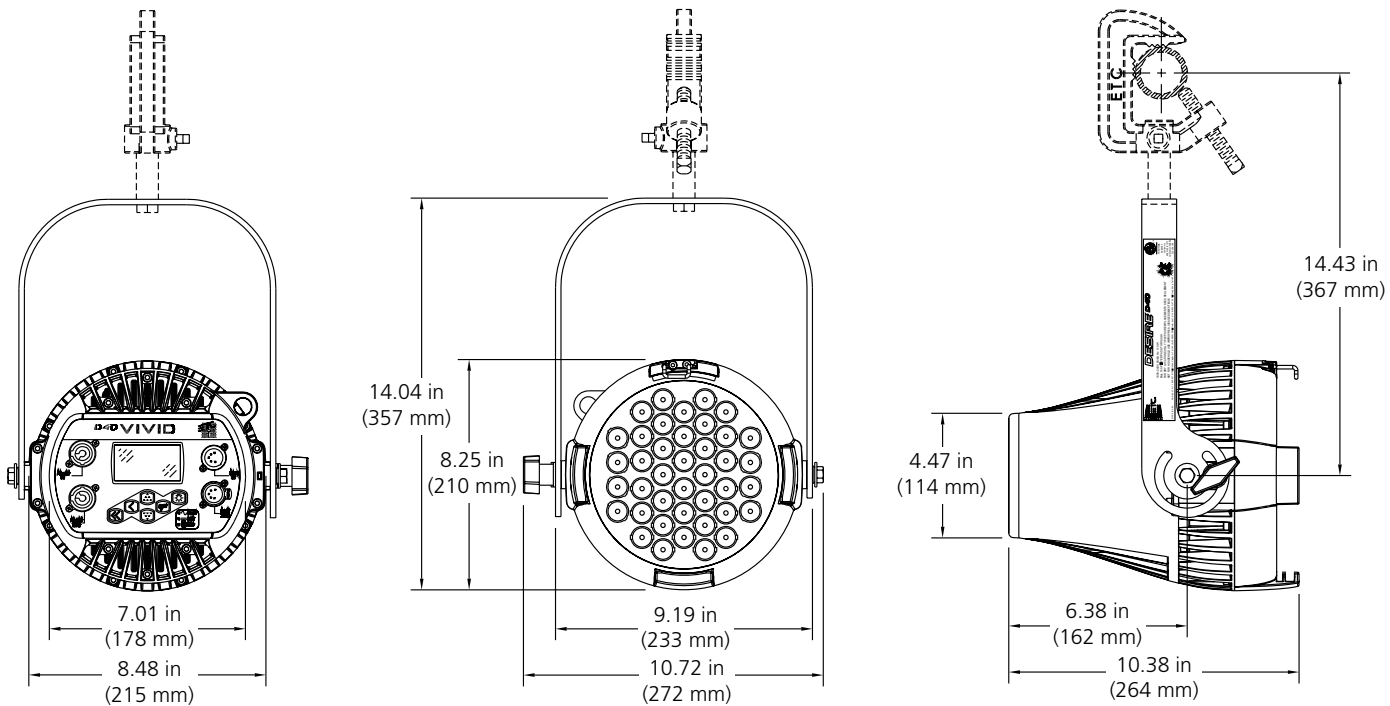
Iso-Illuminance Diagram  
(Flat Surface Distribution)

PHYSICAL

Selador D40 Weights and Dimensions

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

\* Does not include mounting hardware



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