PRYSM®

TD2 Tile

The TD2 Tile is the fundamental building block of Prysm's highly-scalable Laser Phosphor Display (LPD) system. Several, dozens, or hundreds of TD2 Tiles can be assembled to create videowalls of virtually any size or shape.

Beyond the immersive and engaging user experiences it enables, Prysm's TD2 Tile has several other advantages over legacy large format display technologies:

- ▸ **Wide Viewing Angles** – 178° in any direction with no color shift
- ▸ **Uniform Image Quality Over Time** – Automatic real-time monitoring and adjustment ensures brightness and color uniformity across the entire video wall over time
- ▸ **Bezel Free** – No frames or bezels break up the image
- ▸ **Virtually Seamless** – 0.5 mm separation between TD2 Tiles
- ▸ **No Consumables** – No costly consumables (e.g., bulbs) to replace over the 60,000 hour rated life (7 years at 24/7 operation)
- ▸ **24/7 Duty Cycle** – Designed for 24/7 operation
- ▸ **High Contrast & Deep Blacks** – Deep blacks and high contrast ratios are achieved by simply turning off lasers
- ▸ **Rapid Refresh Rate** – Eliminates motion artifacts that plague legacy large format display technologies
- ▸ **High Fill Factor** – A 91% phosphor fill factor delivers sharp images
- ▸ **Low Total Cost of Ownership** – LPD displays typically have lower life cycle costs than legacy large format displays
- ▸ **Low Power Consumption** – On average, 65% less power than legacy large format display technologies
- ▸ **Low Heat Generation** – No special cooling requirements; lower upfront/recurring HVAC costs

For more information, contact us at sales@prysm.com, 1.877.99.PRYSM or +1.408.586.1100.

Display Characteristics

Resolution - (w × h)[1]	320 × 240 (standard); 427 × 320 (enhanced)
Total Pixel Count	102,400
Aspect Ratio	4:3
Display Width - in. (mm)	20.0 (508.8)
Display Height - in. (mm)	15.0 (381.6)
Display Diagonal - in. (mm)	25.0 (636.0)
Display Area Total - sq in. (sq m)	300.9 (0.194)
Viewable Area (% of front surface)	100%
Bezel	None
Seams (typical Tile-to-Tile spacing) (mm)	0.50
Pixel Pitch (mm)	1.19 (vertical), 1.59 (horizontal)
Pixel Density (pixels/sq m)	527,405
Luminance (nits | cd sq m, max)	500 (Standard Deep Black Tile) 360 (Broadcast | Close Proximity Tile)
Contrast Ratio - Sequential	>40,000:1
Phosphor Fill Factor (%)	91%
Gamma	Adjustable from 0.3-3.0
Viewing Angle (degrees, horizontal or vertical)	178°
Color Shift (as a function of viewing angle)	None
Scan/Field Rate (Hz)	200 | 239.76 | 300 | 359.64
Frame Rate (Hz)	100 | 119.88 | 150 | 179.82
Pixel Rise Time (ms)	<0.003
Uniformity - Luminance	>96%
Uniformity - Perceptual Color (DeltaE*uv)	<15 (Full White, 1976 CIELUV Color Space)
Uniformity - Color (Delta u'v')	<0.015 (Full White, 1976 CIEu'v' Color Space)
Uniformity Maintenance Over Time	Automatic
Color Processing	4.4 trillion colors (14 bits per RGB color)
White Point (deg K)	2,400 to 11,000 (adjustable)
Color Gamut	98% | 89% (total area | overlap) of ITU Rec. BT.709 (HDTV) Color Gamut 1976 CIEu'v' Color Space

[1] The TD2 Tile's physical resolution is 320 × 320 pixels. Video input is scaled from 427 × 320 or 320 × 240 pixels to 320 × 320 pixels based upon the selected resolution mode.

LPD™ Laser Phosphor Display

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Power Consumption

Maximum (Full White)	75 W (387 W/m²)
Average (35% APL)	30 W (155 W/m²)
Standby	5 W (26 W/m²)
Operating Voltage	100-240 VAC, 50/60 Hz

Lifetime

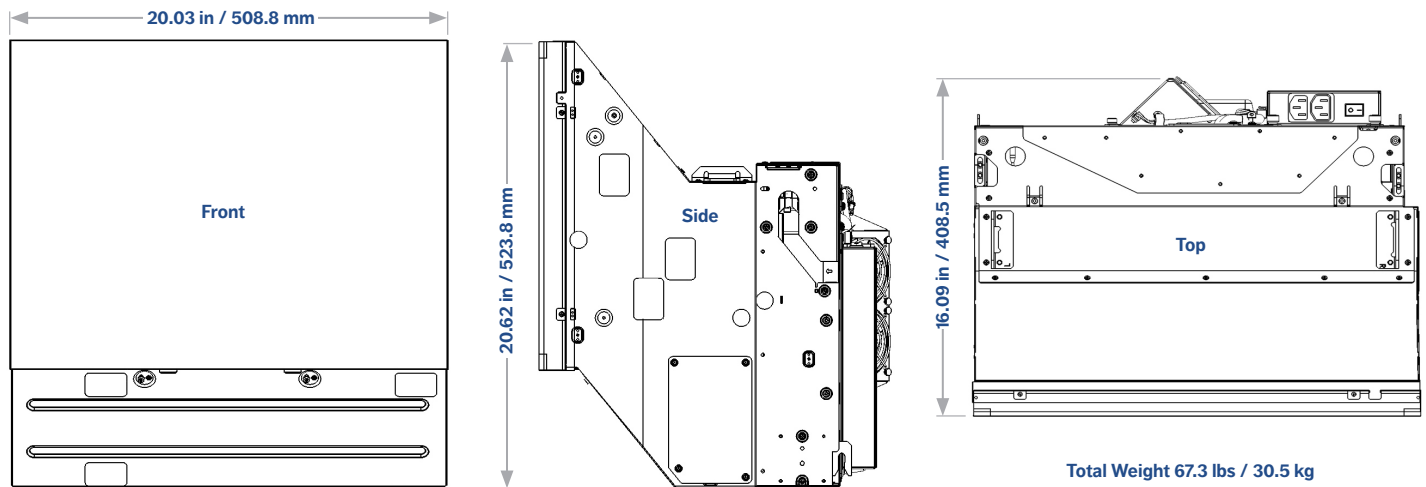|	
System Lifetime - Luminance (mean time to 50% reduction)	>60,000 hrs (7 years of 24/7 operation)
System Lifetime - L10 Life (mean time to 90% of Tiles fully functional)	>60,000 hrs (7 years of 24/7 operation)
Consumables	None

Regulatory

Compliance	RoHS, WEEE
Standards	IEC 60950-1 EN (5502)
Certifications	GOST, NRTL (US & Canada), FCC Part 15 (Class A), CE, CCC, T-Mark

Model Numbers

Standard Tile (Deep Black)	PR-TD2-DB
Broadcast Tile	PR-TD2-BR
Close Proximity Tile	PR-TD2-CP

Environmental

Rated Duty Cycle	24/7
Temperature Range - Operating (deg C)	0 – 40
Temperature Range - Operating (deg F)	32 – 104
Temperature Range - Storage (deg C)	-20 to 50
Temperature Range - Storage (deg F)	-4 to 122
Humidity - Operating (%, non-condensing)	20 – 80
Humidity - Storage (%, non-condensing)	10 – 90
Altitude - Operating (m)	0 to 3,000
Ingress Protection Rating	IP 50, Indoor Use Only (additional enclosures enable outdoor use)
Maximum Heat Output	256 BTU/hr (1,318 BTU/hr/m2)
Average Heat Output	102 BTU/hr (527 BTU/hr/m2)
Acoustic Noise Level	29 dBA at 1m in front of Tile
Vibration Resistance - Operating	Light Vibration 0.008"pp, 1G, 10-500Hz 20 min each axis
Vibration Resistance - Storage	Light Vibration 0.008"pp, 1G, 10-500Hz 20 min each axis
Shock Resistance - Non-Operating	4G 22ms
Tilt Tolerance - Operating	+/- 15 degrees
Tilt Tolerance - Non-Operating	+/- 90 degrees

20.03 in / 508.8 mm

Front

20.62 in / 523.8 mm

Side

16.09 in / 408.5 mm

Top

Total Weight 67.3 lbs / 30.5 kg

LPD™ Laser Phosphor Display