Smart City Signage Powered by BoldVu®



Smart City Initiatives

Improve

Traffic management, public safety, waste management, parking, connectivity & mobility Business investment, education, talent, leisure & tourism, citizen engagement

Attract

Optimize

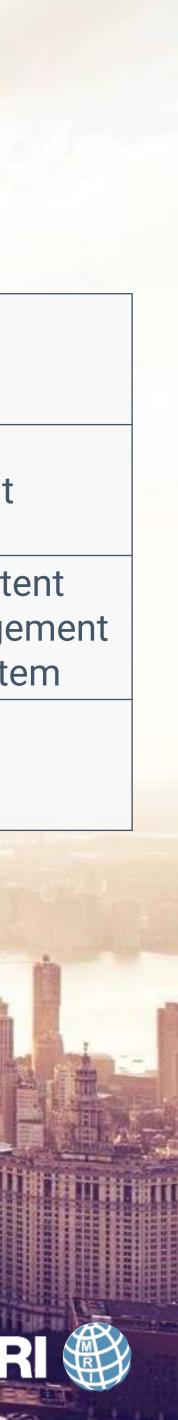
Revenue generation, waste reduction, public services, job creation, data collection, city communication



Smart City Kiosk System Architecture

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	CLIENT			EDGE		CLOUD		
	Wayfinding VoIP		Sensor & Safety Analytics		Dashboard – Remote Management			
	Environmental Sensing	Audience Analytics	Media Playback	Aggregate Au	dience Analytics	Environmental Metrics	Audience Analytics Metrics	Conte Manager Syster
	OS Platform			Content Storage		Cloud Server		
	Media Player		High-End Compute					
	Speaker/Mic	Display	Camera	FPGA	RAID			
	Beacon	Environmental Sensors	Personal Tablet / Touch Display					
	USB Charging	Ethernet Switch	Small Cell / WiFi Access Point					
Carlo								



Smart City Alignment

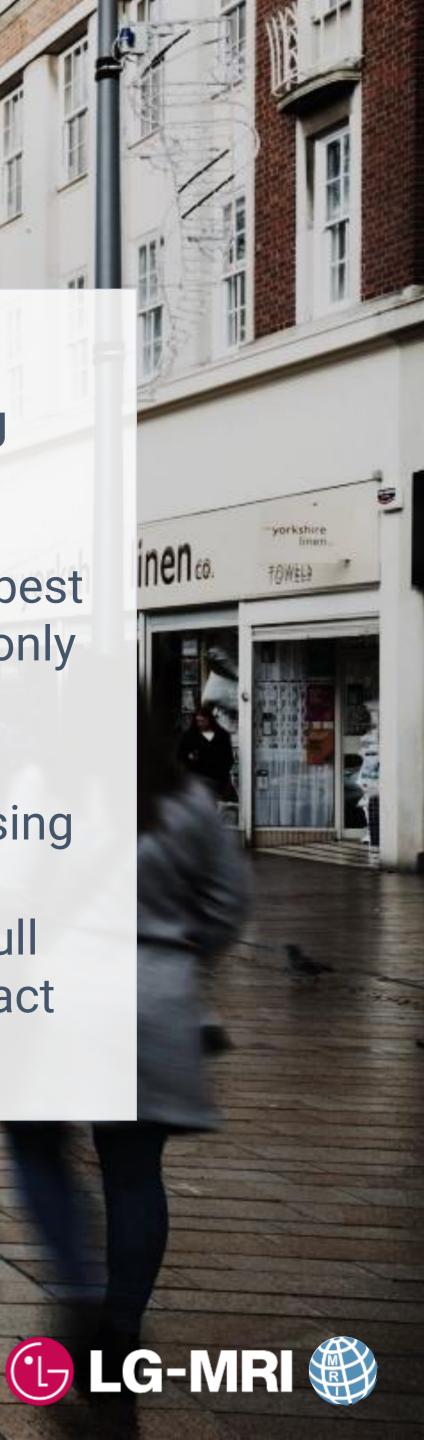
Long Contract Lengths (5-25 years)

BoldVu Panels perform reliably and consistently for 10+ years

Strongly Funded by Advertising

BoldVu Panels carry the industry's best performance track record and the only visual performance guarantee

BoldVu Panels ensure that advertising rate cards are maximized and consistently maintained for the full duration of the municipality contract



BoldVu[®] Panels

- Engineered for outdoors & direct sunlight
- Single/Double-sided configurations
- Touchscreen options
- Sealed chassis, no air filters, no regular maintenance
- House, power, and cool connected devices
- Designed, engineered, fabricated and assembled in the USA





Westfield Century City

3:43 PM

FOUCH SCREEN TO BEGIN







BoldVu[®] Panel Design

- Up to two display faces can share a common electronics chassis and thermal management system
- Unit is weather-proof, vandal-proof, self-cooled, and has its own power conditioning center
- Capacity to house, power, and cool peripheral devices inside the electronics chassis – no need for additional chassis
- Externally housed devices can be powered through the display

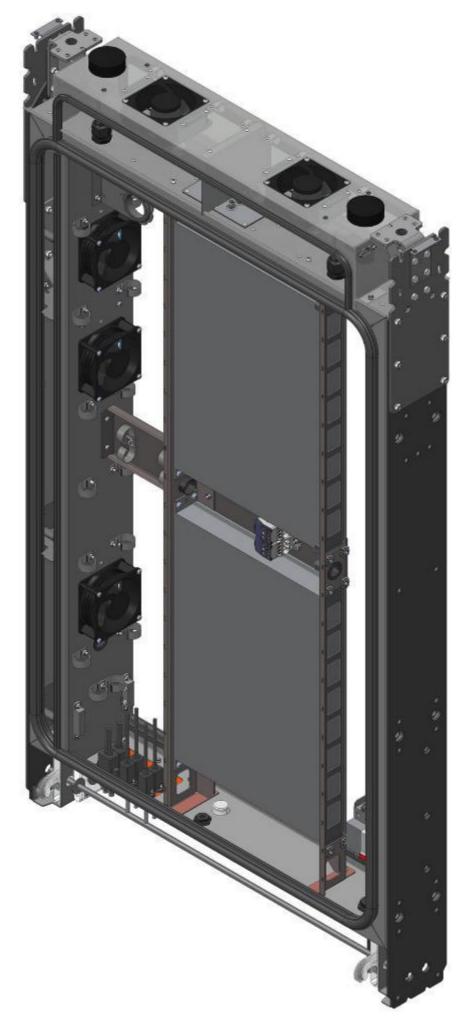






BoldVu[®] Panel Design

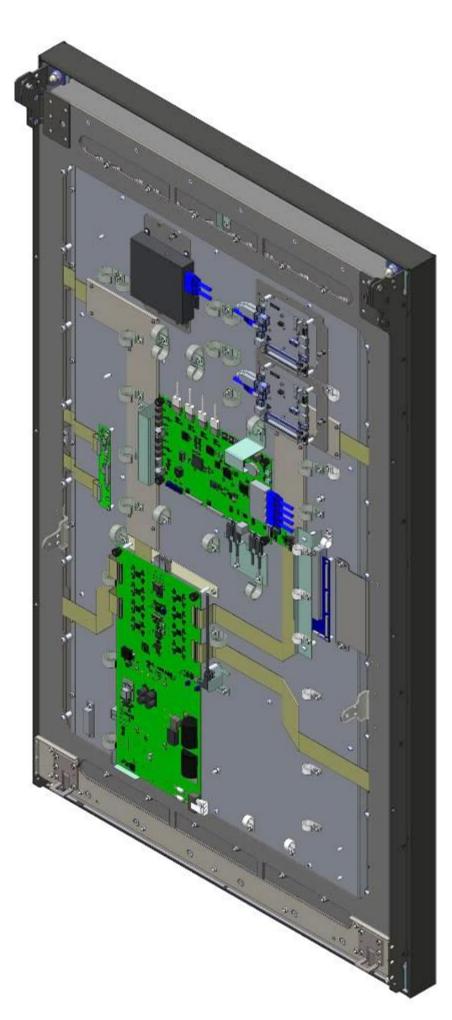
Hinges open on both sides for internal access



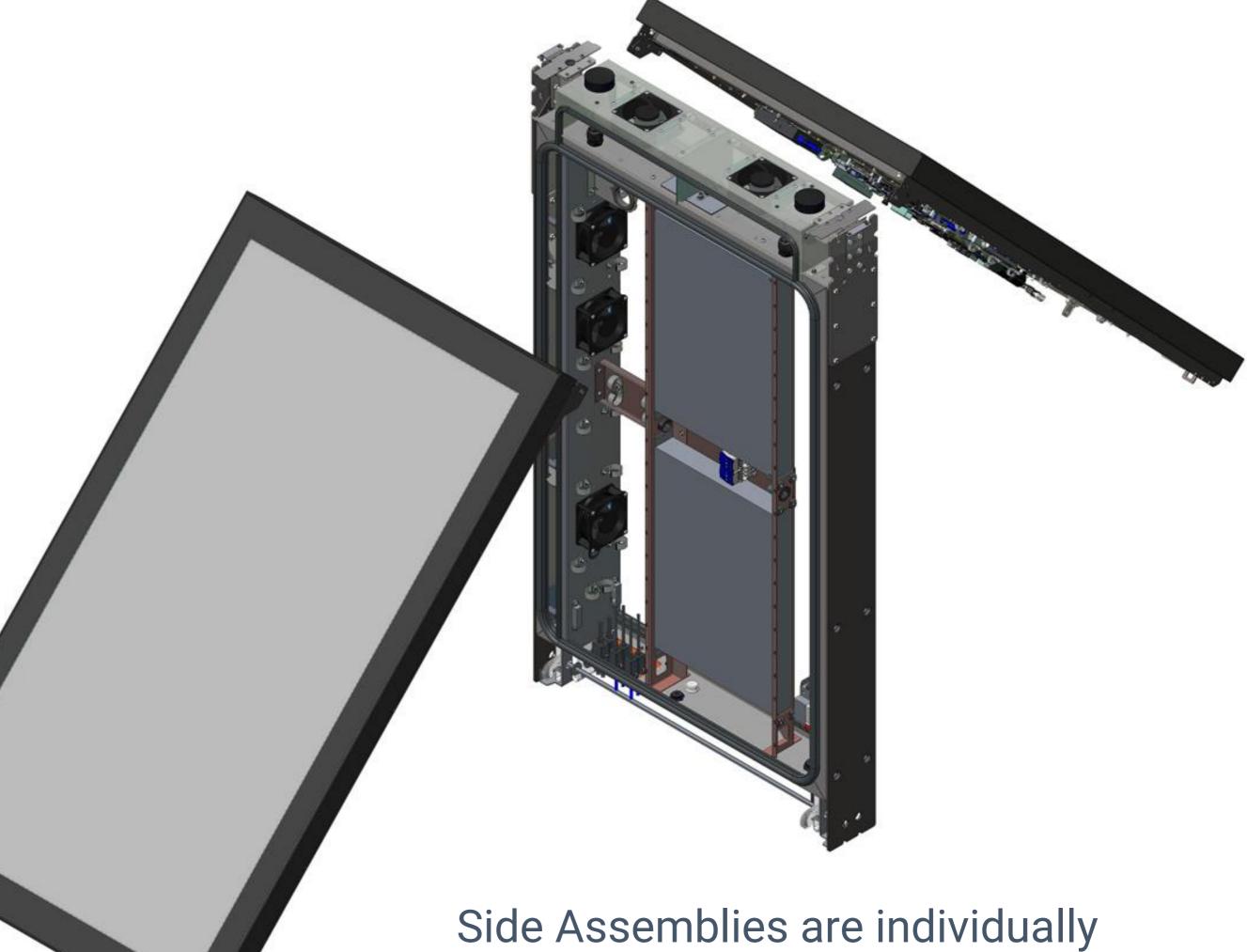
Center mounting rack & I/O for peripheral devices (2) RETMA 1U Rack Units



Side Assembly



Core panel circuitry mounted to Side Assembly



removeable/replaceable



Peripheral Integration

Media player

Modem

WiFi Access Point

M2M device

Fiber to ethernet

Camera(s)

Ethernet router

Ethernet switch

Environmental sensors

USB charging station

Small cell

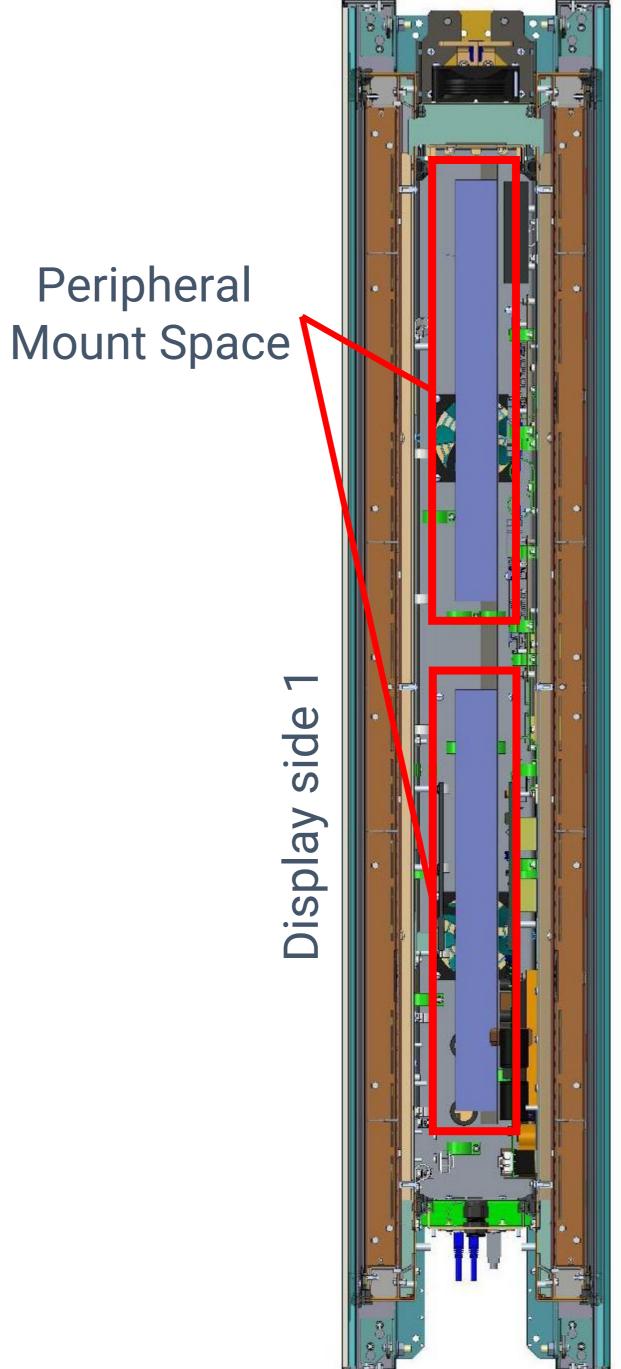
Personal touchscreen

Mount space and power available inside BoldVu chassis

Housed outside and powered through BoldVu panel



Display side 2



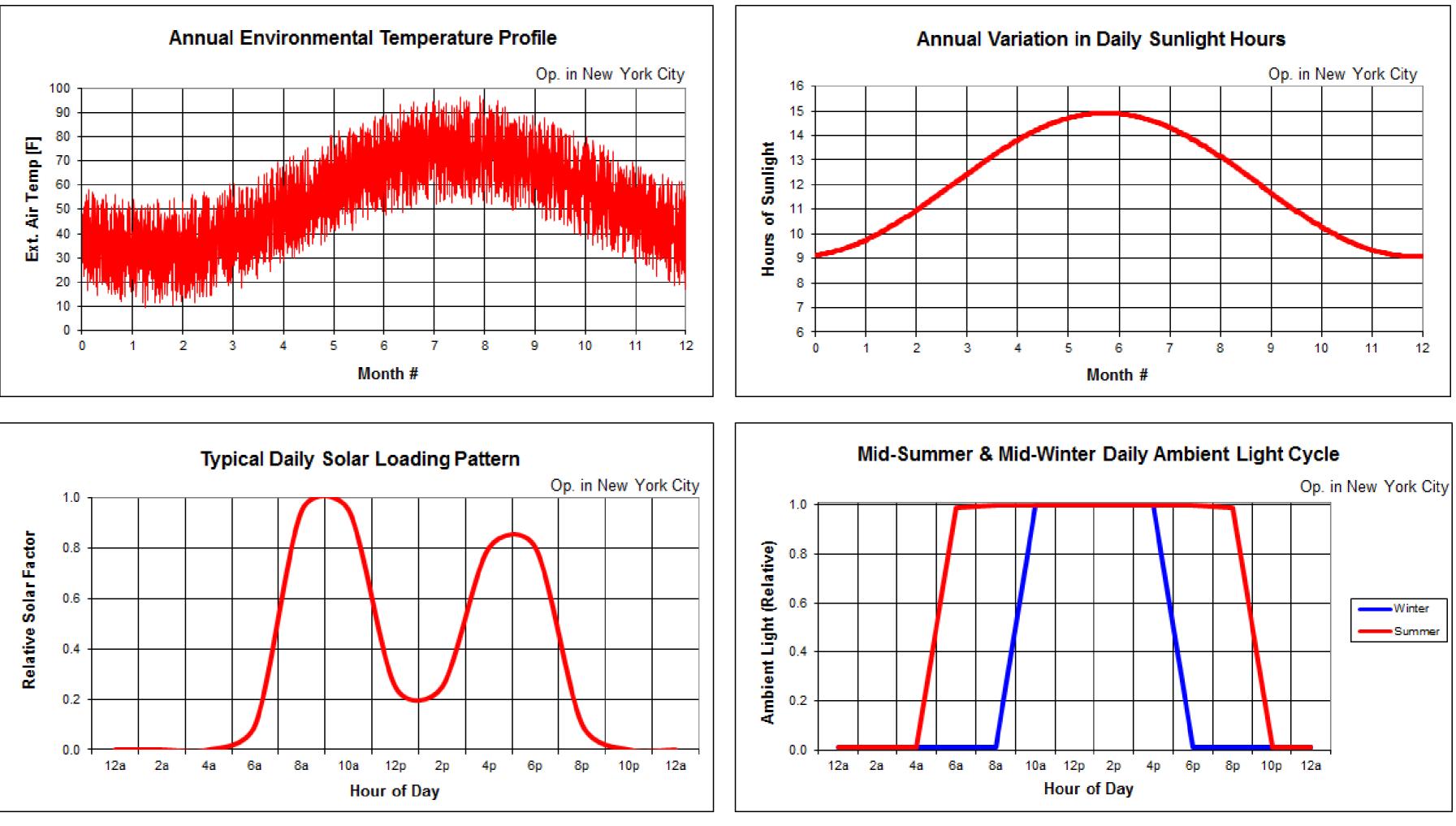
15-Year Backlight Performance Analysis

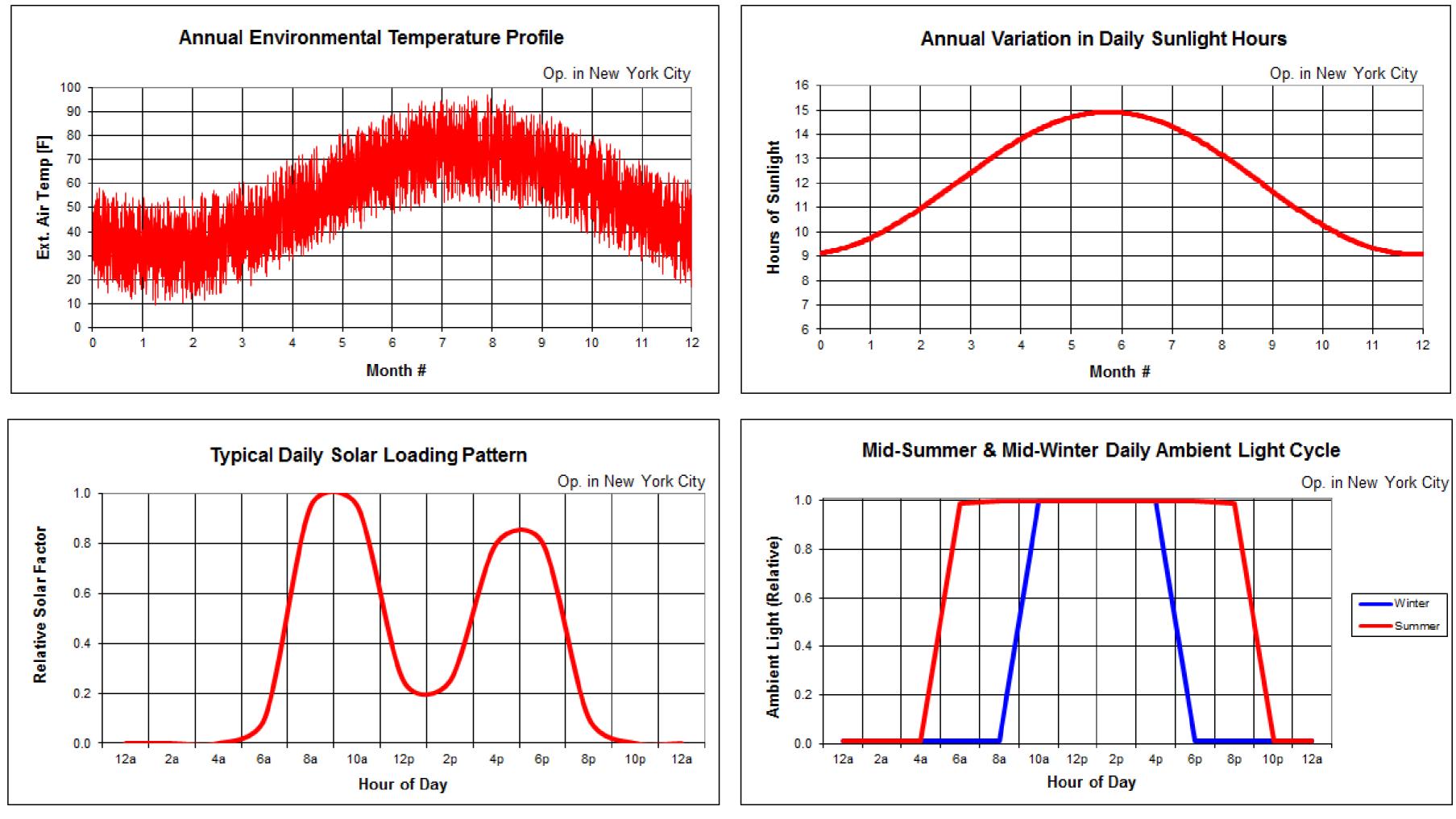
Location: New York City

Luminance: 3500 nits (day) 500 nits (night)

Environment: **Fully-exposed outdoor** East/West facing

Product: 55" BoldVu Double-sided

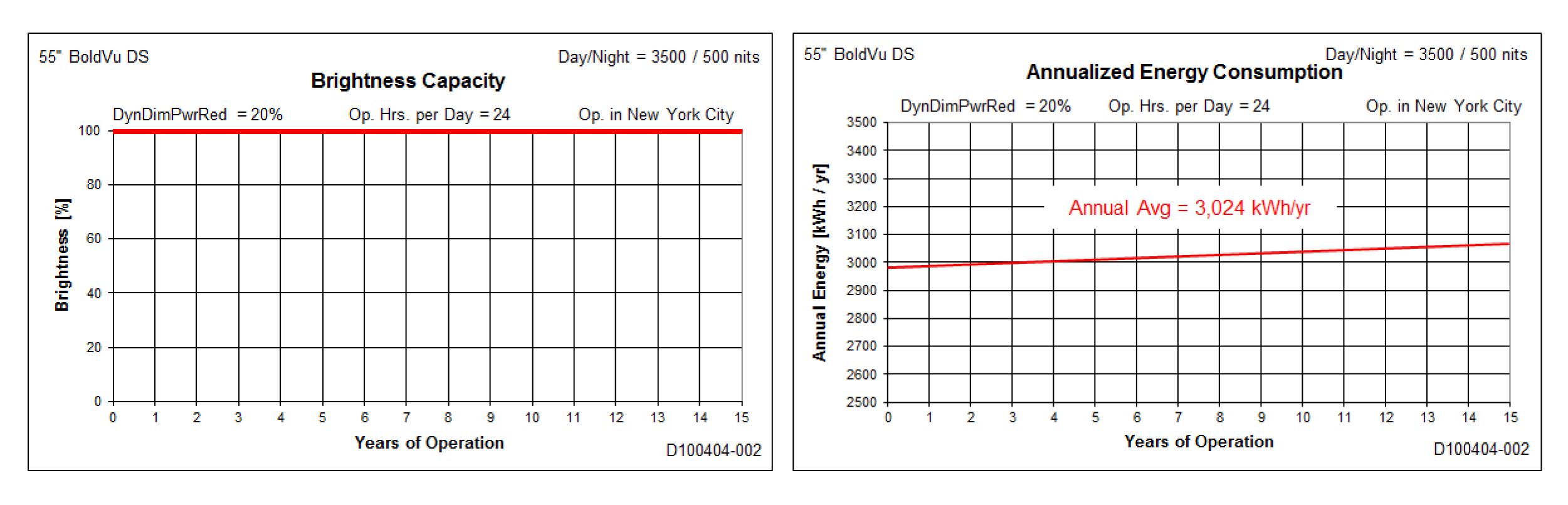








15-Year Backlight Performance Analysis



Display maintains luminance capacity over 15 years

<4% increase in power consumption over 15 years







Smart City Benefits

Media Advertising

Generate jobs and revenue

Location-based, digital advertising revenue

Jobs created to build, install, and maintain kiosks

Self-sustaining digital network

Citywide Alerting Promote public safety

Real-time emergency messaging

Security cameras available

Emergency calling

Public information

Public high-speed internet

LTE small-cell support

Bluetooth beaconing

VOIP



Connectivity Enable access to **Data &** Analytics Value-added insights

Environmental sensors

Pedestrian and traffic analytics

Parking, lighting, waste management optimization

Concierge & Information Citizen

engagement

Transit information

Real-time arrival & departures

Interactive wayfinding

City events and points of interest





CFD LG-MRI (CONTROLOGIES CONTROLOGIES CONTRO

