

Hand & Person Pedestrian Signals

Features & Benefits

- Fully compliant to ITE PTCSI Part 2 LED Pedestrial Traffic Signal Module Specification dated 3/09/2004
- Meets or exceeds ITE uniformity ration of not more than 1 to 5 between the max and the min luminance values as measured in (.5") dia spots

Part Number	Size	Description	Typical Watt	age at 25°C	Min Luminance (cd/m2)		
Turchambor 0120	0120	Dosoription	Hand	Person	Hand	Person	
430-6450-001X	16x18	side-by-side Hand & Person	9	7	1,400	2,200	
430-6472-001X	16 x 18	Overlay Hand & Person	11	7	1,400	2,200	
430-5770-001X	12 x 12	Hand only	8	N/A	1,400	N/A	
430-7771-001X	12 x 12	Person only	N/A	6	N/A	2,200	
430-6772-001X	12x12	Overlay Hand & Person	8	10	1,400	2,200	

- Manufactured with anti-capillary wires
- Conformal coated power supply
- Fuse and transient suppressor incorporated for superior line and load protection
- Independent dedicated power supplies for added safety and reliability
- Intertek/ETL certified and listed on ETL certification program
- Transient suppression exceeds ITE and NEMA specifications (up to 6KV ring wave)
- All units operate at 80–135 VAC RMS, 60+/-3 Hz
- CSA C22.2 No. 250.0-08
- CSA C22.2 No. 250.13-17
- UL 1598, 3rd Edition



UNIFORM APPEARANCE

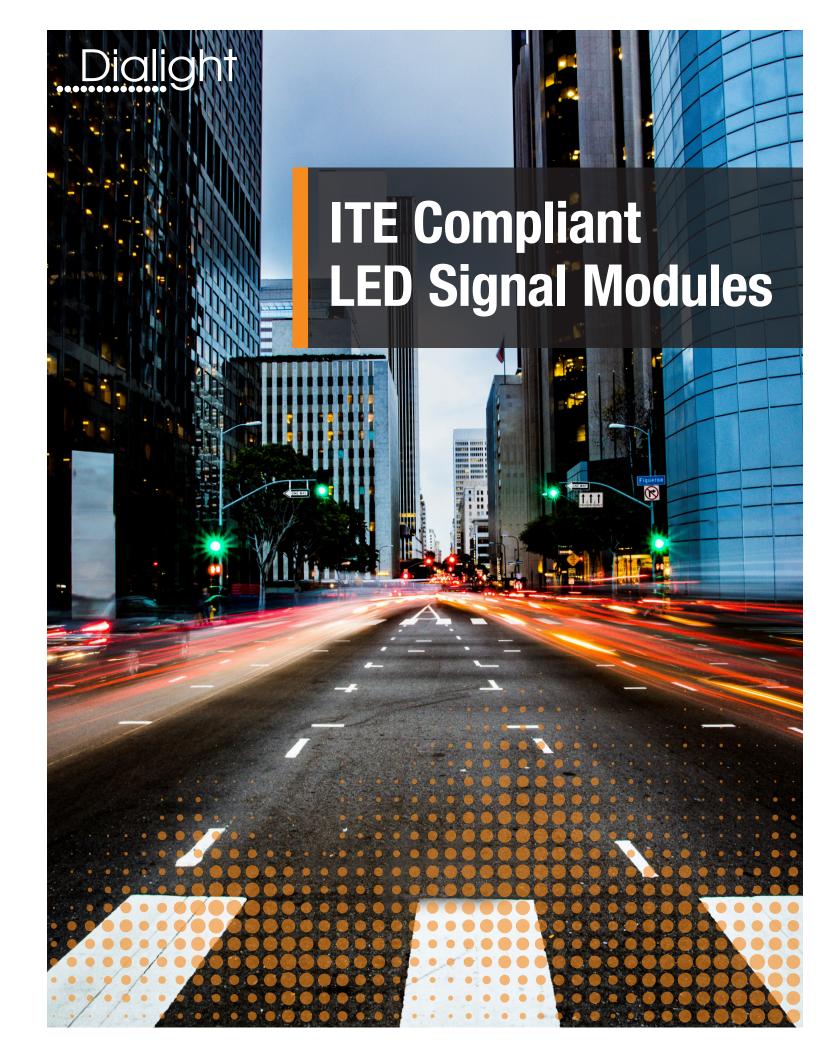
Countdown Pedestrian Signals

Features & Benefits

- Fully compliant to ITE PTCSI Part 2 LED Pedestrial Traffic Signal Module Specification dated 8/04/2010
- MUTCD compliant for countdown applications
- Full preemption compatibility
- Up to 8 units can be connected in parallel without affecting monitoring of the Hand/Person
- Manufactured with anti-capillary wires
- Three (3) independent dedicated power supplies for added safety and reliability
- Intertek/ETL certified and listed on ETL certification program

- Reduced off-state icon visibility, increasing pedestrian safety
- Conformal coated power supply
- New improved one piece housing design
- Improved optical design to provide superior uniform appearance of the icons
- Transient suppression exceeds ITE and NEMA specifications (up to 6KV ring wave)
- All units operate at 80–135 VAC RMS, 60±3 Hz
- CSA C22.2 No. 250.0-08
- CSA C22.2 No. 250.13-17
- UL 1598, 3rd Edition

Part Number	Size	Symbol Color			Typical Wattage at 25°C			Min Luminance (cd/m2)		
Fait Nullibei		Countdown	Hand	Person	Countdown	Hand	Person	Countdown	Hand	Person
430-6479-001X	16 x 18	Portland Orange	Portland Orange	Lunar White	8	11	10	1,400	1,400	2,200
430-7773-001X	12 x 12	Portland Orange	N/A	N/A	5	N/A	N/A	1,400	N/A	N/A





ITE Compliant LED Traffic Signal

Module Performance Specifications

LED Ball Signal Modules: 8" (200 mm) and 12" (300 mm)

All shall be fully compliant to the ITE VTCSH LED Circular Supplement specifications dated and adopted June 27, 2005. Compliance to the ITE VTCSH-2 Interim Purchase Specification is not sufficient, and will not substitute for compliance to the ITE VTCSH LED Circular Supplement specifications. Additionally, prior to bid award, the manufacturer shall submit to purchaser, reports from ETL/Intertek, that certify full compliance of all LED ball signal modules to the entire ITE specification. These tests should include but not be limited to the luminous intensity measurements and requirements outlined in the ITE specification sections 6.4.4 through 6.4.4.4.2 (25°C and 74°C / 49°C). Evidence of full compliance to all required testing methods, procedures and sections as outlined in the above ITE document Figure 2, Design Qualification Testing Flow Chart must be included without any exceptions, changes or omissions. The manufacturer must also submit a datasheet showing the catalog number of the items submitted on the bid and the Independent Lab report must show full qualification of this catalog number.

LED 12" (300 mm) Arrow Signal Modules

All shall be fully compliant to the "Omni-directional" specifications of the ITE VTCSH-LED Vehicle Arrow Traffic Signal Supplement adopted July 1, 2007. Additionally, prior to bid award, the manufacturer shall submit to purchaser, reports from ETL/Intertek that certify full compliance of all LED Arrow signal modules. These tests should include but not be limited to the luminous intensity measurements and requirements outlined in the ITE specification sections 6.4.4 through 6.4.4.4.2 (25°C and 74°C / 49°C). Evidence of full compliance to all required testing methods, procedures and sections as outlined in the above ITE document Attachment 1, "Design Qualification Testing Flow Chart" must be included without any exceptions, changes or omissions. The manufacturer must also submit a data sheet showing the catalog number of the items submitted on the bid and the Independent Lab report must show full qualification of this catalog number.

LED 16" x 18" Countdown Pedestrian Signal Modules

All shall be fully compliant to the ITE PTCSI Part-2: LED Pedestrian Traffic Signal Modules specifications adopted August 4, 2010 or the latest adopted version as listed on the ITE website at time of bid. Additionally, prior to bid award, the manufacturer shall submit to purchaser, reports from ETL/Intertek that certify full compliance of LED signal modules, to these specifications. Evidence of full compliance to all required testing methods, procedures and sections as outlined in the above ITE document Attachment 2, "Design Qualification Testing Flow Chart" must be included without any exceptions, changes or omissions. The manufacturer must also submit a data sheet showing the exact catalog number of the items submitted on the bid and the Independent Lab report must show full qualification of this catalog number. Combination hand/person pedestrian signal modules shall incorporate separate power supplies for the hand and the person icons.

In addition to, and in excess of the above applicable ITE specification compliance, the on-board circuitry of all LED traffic signal modules shall include voltage surge protection, to withstand high-repetition noise transients and low-repetition high-energy transients as stated in Section 2.1.8, NEMA Standard TS 2-2003. In addition, the module shall comply with the following standards: IEC 1000-4-5 at 3kV with a 2 ohm source impedance, ANSI/IEEE C62, 41-2002; IEC 61000-4-12 (6kV, 200A, 100kHz ring wave).



Part Number

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LED Traffic Signal Modules

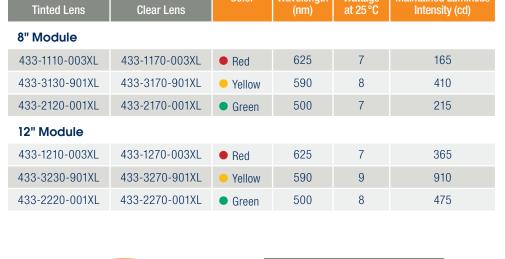
Peak Minimum

Features & Benefits

- Fully compliant to ITE VTCSH-LED Circular Signal Supplement dated 6/27/2005
- Industry's lowest power for all colors
- Meets or exceeds ITE intensity, color and uniformity specifications, including 49°C/74°C requirements

 Temperature compensated power
supplies for longer LED life

- Uniform appearance
- Expanded view radiation pattern suitable for span wire and steep grade applications
- Transient suppression exceeds ITE and NEMA specifications (up to 6KV ring wave)
- Manufactured with anti-capillary wires
- Conformal coated power supply
- Secondary lens treatment for abrasion resistance
- Patent No. 7,281,818 and other patents pending
- Intertek/ETL certified and listed on ETL certification program
- All units operate at 80–135 VAC RMS, 60±3 Hz
- CSA C22.2 No. 250.0-08
- CSA C22.2 No. 250.13-17
- UL 1598, 3rd Edition

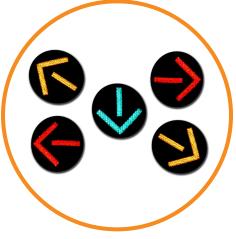


UNIFORM APPEARANCE

12" Omni-Directional LED Arrow

Features & Benefits

- Fully compliant to ITE VTCSH-LED Vehicle Arrow Signal Supplement dated 7/1/2007
- Allows for mounting in any orientation in the signal head
- Industry's lowest power for all colors
- Meets or exceeds ITE intensity, color and uniformity specifications, including 49°C/74°C requirements at 48 VDC
- Temperature compensated power supplies for longer LED life
- Uniform appearance
- Manufactured with anti-capillary wires
- Conformal coated power supply
- Secondary lens treatment for abrasion resistance
- All units operate at 36-60 VDC
- CSA C22.2 No. 250.0-08
- CSA C22.2 No. 250.13-17
- UL 1598, 3rd Edition



Part N	Color	Dominant Wavelength	Typical Wattage	Peak Minimum Maintained Luminous		
Tinted Lens	Clear Lens	GUIUI	(nm)	at 25°C	Intensity (cd)	
432-1314-001X0D	432-1374-001X0D	Red	628	6	58.6	
431-3334-901X0D	431-3374-901X0D	Yellow	590	7	141.6	
432-2324-001X0D	432-2374-001X0D	Green	500	6	73.9	