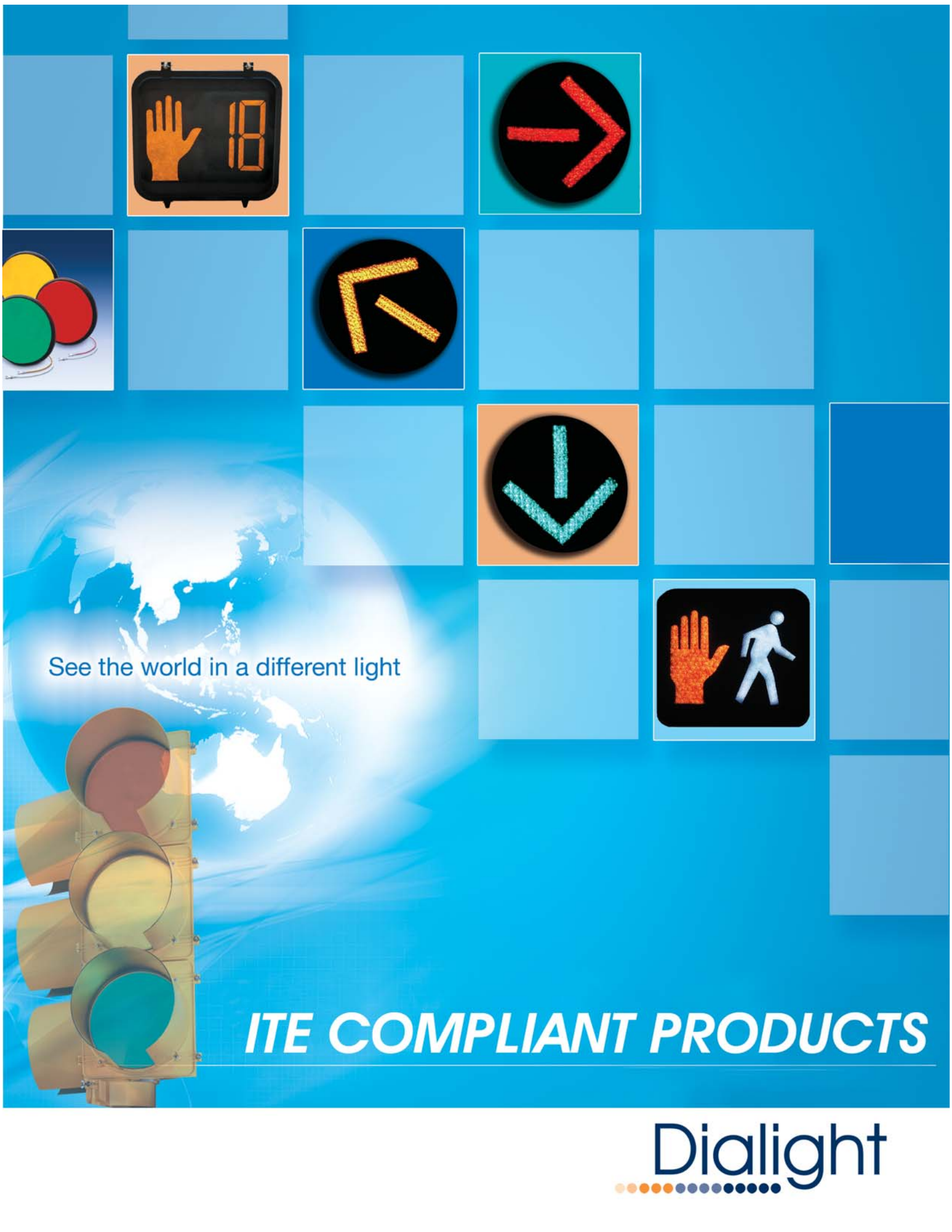


ITE COMPLIANT PRODUCTS

Dialight

ITE COMPLIANT LED TRAFFIC SIGNAL MODULE PERFORMANCE SPECIFICATIONS

July 2007

All LED Ball Signal Modules (8 inch (200mm) and 12 inch (300mm) shall be fully compliant to the ITE VTCSH LED Circular Supplement specifications dated and adopted June 27, 2005 or the latest adopted version as listed on the ITE website at time of bid. 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 ball LED signal modules, including yellow luminous intensity, to the ITE VTCSH LED Circular Supplement specifications across the temperature range of -40° centigrade to +74° centigrade. 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 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. Nominal wattage shall not exceed 6 watts for 12 inch red balls, and 9 watts for 12 inch green balls. Nominal wattage shall not exceed 6 watts for 8 inch red balls, and 6 watts for 8 inch green balls.

To ensure optimal quality of illumination; uniformity; reliability; and appearance, all ball traffic signal modules shall utilize Hi-flux LEDs rated at 1-watt or higher, as their source of illumination. To ensure competency of design and manufacturing, manufacturers of ball, arrow, and pedestrian signal modules shall have a minimum of 7 years of experience in utilizing Hi-flux LEDs rated at 1-watt or higher, as the source of illumination in their ball traffic signal modules. Additionally, manufacturers must have utilized in excess of 20 million Hi-flux LEDs in their LED traffic signal modules during the most recent 10 year period.

All LED 12 inch (300 mm) Arrow Signal Modules shall be fully compliant to the omnidirectional specifications of the ITE VTCSH - LED Vehicle Arrow Traffic Signal Supplement. Additionally, prior to bid award, the manufacturer shall submit to purchaser, reports from ETL/Intertek that certify full compliance of LED Arrow signal modules, including yellow luminous intensity, to these specification across the temperature range of -40° centigrade to +74° centigrade. 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 exact catalog number of the items submitted on the bid and the Independent Lab report must show full qualification of this catalog number. The module shall incorporate a single lens approach. In order to optimize optical efficiency; definition of the arrow icon; and uniformity; an arrow cookie-cutter shall be incorporated behind the outer lens. The cookie-cutter shall be solidly attached to the LED printed circuit board with screws, surround the perimeter of the LED array, and extend from the surface of the LED printed circuit board towards the lens surface.

All LED Pedestrian Signal Modules shall be fully compliant to the ITE PTCSI Part-2: LED Pedestrian Traffic Signal Modules specifications Version September 30, 2004, Adopted March 2004 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 specification across the temperature range of -40° centigrade to +74° centigrade. 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).

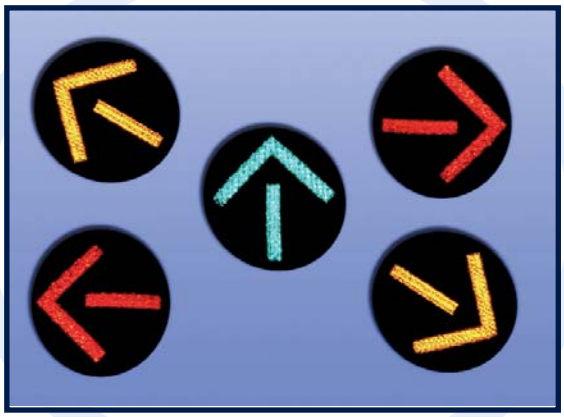
Warranty- Manufacturer shall provide at time of bid, a written warranty which provides for repair or replacement of modules that fail to function as intended due to workmanship or material defects within the first 60 months from date of delivery. Modules which exhibit luminous intensities less than the minimum as specified in the ITE specifications as indicated above, within the first 60 months from date of delivery shall be replaced or repaired.

ITE COMPLIANT "XL" Series LED TRAFFIC SIGNALS

- All modules (including yellow) meet the ITE VTCSH-LED Circular Signal Supplement over the full temperature range of -40°C to +74°C
- EPACT 2005 compliant
- Robust Hi-Flux LED Technology
- Meets or exceeds ITE uniformity specifications (Better than 10-to-1)
- Expanded view radiation pattern suitable for span wire and steep grade applications
- Transient suppression exceeds ITE and NEMA specifications (Up to 6KV)
- Lowest wattage Red, Yellow, Green package on the market
- Long life; Up to 10 times longer than incandescent
- Meets or exceeds ITE moisture intrusion specifications
- Meets or exceeds ITE failed state impedance specifications
- Hard coated lenses for abrasion resistance

Part Number	Color	Lens Type	Dominant Wavelength (nm)	Typical Wattage at 25°C	Peak Minimum Maintained Luminous Intensity (cd)	Meets ITE VTCSH LED Circular Signal Supplement	Size (in)
433-1110-003XL	Red	Tinted	625	6	165	✔	8
433-3130-001XL	Yellow	Tinted	590	11	410	✔	8
433-2120-001XL	Green	Tinted	500	8	215	✔	8
433-2170-001XL	Green	Clear	500	8	215	✔	8
433-1210-003XL	Red	Tinted	625	6	365	✔	12
433-3230-001XL	Yellow	Tinted	590	19	910	✔	12
433-2220-001XL	Green	Tinted	500	9	475	✔	12
433-2270-001XL	Green	Clear	500	9	475	✔	12

OMNI-DIRECTIONAL, UNIFORM APPEARANCE LED ARROWS



- All models (including yellow) meet the ITE VTCSH LED Vehicle Arrow Traffic Signal Supplement version July 1, 2007 over the full temperature range of -40°C to +74°C
- Uniform, non-pixelated appearance
- Omni-Directional, expanded view radiation pattern meets ITE VTCSH LED Vehicle Arrow Traffic Signal Supplement version July 1, 2007
- EPACT 2005 compliant
- 90% reduction in power vs. incandescent
- Fuse and transient suppressor incorporated for superior line and load protection
- Convex tinted lens reduces glare and sun reflection
- Hard coated lenses for abrasion resistance
- Easy to install into existing signal enclosure

Part Number	Color	Lens Type	Typical Wattage at 25°C	Dominant Wavelength (nm)	Peak Minimum Maintained Luminous Intensity (cd)
432-1314-001XOD	Red	Tinted	6	628	56.8
431-3334-001XOD	Yellow	Tinted	9	590	141.6
432-2324-001XOD	Green	Tinted	6	500	73.9
432-2374-001XOD	Green	Clear	6	500	73.9

UNIFORM APPEARANCE HAND and PERSON PEDESTRIAN SIGNALS

- Uniform non-pixelated appearance
- Exceeds ITE PTCSI Part 2 requirements for LED pedestrian signals
- EPACT 2005 compliant
- Fuse and transient suppressor incorporated for superior line and load protection
- 90% reduction in power vs. incandescent
- Sealed moisture resistant enclosure
- Lens has a textured surface to reduce glare
- Easy to install into existing signal enclosure

Part Number	Size	Description	Typical Wattage @ 25°C		Min. Luminance (cd/m²)	
			Hand	Person	Hand	Person
430-6450-001X	16 x 18	Side-by-side Hand and Person	8	7	1,400	2,200
430-6472-001X	16 x 18	Overlay Hand and Person	8	6	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	7	N/A	2,200
430-6772-001X	12 x 12	Overlay Hand and Person	8	6	1,400	2,200

UNIFORM APPEARANCE COUNTDOWN PEDESTRIAN SIGNALS

- Uniform appearance symbols exceed ITE PTCSI-2 requirements
- EPACT 2005 compliant
- 9” high 2-row countdown digits for maximum visibility
- Countdown is fully MUTCD-compliant (even for crosswalks over 100 ft.)
- Unique memory feature allows countdown time to remain stored internally, even when power is removed for extended periods of time
- Full preemption compatibility... Countdown reverts to it’s previous timing immediately following a preemption call
- Up to 4 units can be connected in parallel without disturbing the monitoring of the Hand/Person
- Automatically adjusts to traffic controller interval changes
- 90% reduction in power vs. incandescent
- Sealed moisture resistant enclosure
- Lens has a textured surface to reduce glare
- Easy to install into existing signal enclosure

Part Number	Housing Size (inches)	SYMBOL COLOR			TYPICAL WATTAGE @ 25°C			MIN. LUMINANCE (cd/m²)		
		Countdown	Hand	Person	Countdown	Hand	Person	Countdown	Hand	Person
430-6479-001X	16 x 18	Portland Orange	Portland Orange	Lunar White	5	8	6	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