

Dialight

HI-FLUX LED MODULES

“X” & “XL” Series TRAFFIC SIGNALS



Lighting Uniformity. ITE Conformity.

FEATURES / BENEFITS

- ▲ All modules (including yellow) meet the ITE VTCSH-LED Circular Signal Supplement over the full temperature range of -40°C to +74°C
- ▲ Robust Hi-Flux LED Technology
- ▲ Uniform non-pixelated illumination
- ▲ Expanded view radiation pattern suitable for span wire and steep grade applications
- ▲ Fuse and transient suppressor incorporated for superior line and load protection
- ▲ ENERGY STAR® qualified
- ▲ 90% reduction in power vs. incandescent
- ▲ Long life; Up to 10 times longer than incandescent
- ▲ Convex tinted lens reduces glare and sun reflection
- ▲ Hard coated lenses for abrasion resistance
- ▲ Easy to install into existing signal enclosure

SPECIFICATIONS

- ▲ Operating Voltage Range:
80VAC to 135VAC (120VAC nominal)
- ▲ Operating Temperature Range: -40°C to +74°C
- ▲ Turn-on / Turn-off Time < 75 msec
- ▲ Power Factor > 0.9
- ▲ Total Harmonic Distortion < 20%
- ▲ Meets FCC Title 47, Subpart B, Section 15 regulations for electrical noise
- ▲ Failed State Impedance > 250K ohm within 300ms
- ▲ Conforms to MIL-STD-810F for blowing rain
- ▲ Conforms to MIL-STD-883, Test Method 2007, for mechanical vibration
- ▲ Conforms to MIL-STD-883, Test Method 1010, temperature cycling requirements
- ▲ Provided with quick connect terminals and spade adapters
- ▲ Written manufacturer's warranty available on request
- ▲ All products traceable by serial number
- ▲ Luminance uniformity and color uniformity exceed ITE VTCSH-LED Circular Signal Supplement requirements
- ▲ Transient suppression exceeds ITE VTCSH-LED Circular Supplement requirements and meets the following standards:
 - NEMA TS-2 Sec. 2.1.6 and Sec. 2.1.8
 - IEC 1000-4-5, 3KV, 2 ohm source impedance
 - ANSI/IEEE C62, 41-2002; IEC 61000-4-12, 6KV, 200A, 100KHz ring wave
- ▲ Power supply is conformally coated for robust operation

**LOWEST WATTAGE
RED, YELLOW, GREEN
PACKAGE ON THE MARKET**

**WE MEET THE NEW
ITE REQUIREMENTS
EVEN YELLOW AT 74°C**

Dialight reserves the right to make changes at any time
in order to supply the best product possible.

Dialight Corporation

1501 Route 34 South • Farmingdale, NJ 07727 USA

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MDTS433XL001_A



Lighting Uniformity. ITE Conformity.

HI-FLUX LED MODULES

“X” & “XL” Series

TRAFFIC SIGNALS

8” (200MM) 120VAC SIGNAL MODULES

Part Number	Color	Lens Type	Dominant Wavelength (nm)	Typical Wattage at 25oC	Peak Minimum Maintained Luminous Intensity (cd)	Energy Star® Qualified*	Meets ITE VTCSH LED Circular Signal Supplement
433-1110-003X	Red	Tinted	625	6	165	✓	✓
433-3130-001X	Yellow	Tinted	590	13	410		✓
433-2120-001X	Green	Tinted	500	6	215	✓	✓
433-2170-001X	Green	Clear	500	6	215	✓	✓

12” (300MM) 120VAC SIGNAL MODULES

Part Number	Color	Lens Type	Dominant Wavelength (nm)	Typical Wattage at 25oC	Peak Minimum Maintained Luminous Intensity (cd)	Energy Star® Qualified*	Meets ITE VTCSH LED Circular Signal Supplement
433-1210-003XL	Red	Tinted	625	6	365	✓	✓
433-3230-001XL	Yellow	Tinted	590	19	910		✓
433-2220-001XL	Green	Tinted	500	9	475	✓	✓
433-2270-001XL	Green	Clear	500	9	475	✓	✓

* ENERGY STAR does not currently specify performance criteria for yellow LED traffic signal modules.

Dialight reserves the right to make changes at any time in order to supply the best product possible.

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ISO 9001

Dialight Corporation



MDTS433XL001_A

Hi-Flux LED Modules 433 Series TRAFFIC SIGNALS



FEATURES / BENEFITS

- ▲ Robust Hi-Flux LED Technology
- ▲ Uniform illumination - better than incandescent
- ▲ 90% reduction in power vs. incandescent
- ▲ Long life; Up to 10 times longer than incandescent
- ▲ Hard coated lenses for abrasion resistance
- ▲ Wide selection of products
- ▲ Easy to install into existing signal enclosure
- ▲ ITE VTCSH- 2 compliant types available
- ▲ Caltrans approved types available
- ▲ EPA ENERGY STAR® qualified types available
- ▲ CSA approved types available

SPECIFICATIONS

- ▲ Operating Voltage Range:
 - 80VAC to 135VAC (120VAC nominal)
 - 195VAC to 265VAC (230VAC nominal)
- ▲ Convex tinted lens reduces glare & sun reflection
- ▲ Fuse and transient suppressor incorporated for line and load protection
- ▲ Operating Temperature Range: -40°C to +74°C
- ▲ Turn on / Turn off Time = 75 msec max
- ▲ Power factor > 0.9
- ▲ Total harmonic distortion < 20%
- ▲ Meets FCC Title 47, Subpart B, Section 15 Regulations for electrical noise
- ▲ Conforms to MIL-STD-810F for blowing rain
- ▲ Provided with quick connect terminals and spade adapters
- ▲ Written manufacturer's warranty available on request
- ▲ All products traceable by serial number

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8" (200mm) SIGNAL MODULES

Part Number	Color	CSA Approved ¹	ENERGY STAR [®] Qualified	Approved by Caltrans	Meets ITE VTCSH - 2	EN 12368 class A2/1 Type W	Lens Type	Typical Wattage at 25°C	Min Luminous Intensity ² (cd)	Dominant Wavelength (nm)
120 Volt										
433-1110-003	Red	✓	✓	✓	✓		Tinted	6	133	622
433-3130-001	Yellow	✓		✓			Tinted	9	331	590
433-2120-001	Green	✓	✓	✓	✓		Tinted	10	267	505
433-2170-001	Green	✓	✓	✓	✓		Clear	10	267	505
230 Volt										
433-1110-002	Red					✓	Tinted	6	250	622
433-3130-002	Yellow					✓	Tinted	9	250	590
433-2120-002	Green					✓	Tinted	10	250	505

¹ CSA approval is to Std. 250 for Luminaires

² Initial: Measured at peak intensity point

12" (300mm) SIGNAL MODULES

Part Number	Color	CSA Approved ¹	ENERGY STAR [®] Qualified	Approved by Caltrans	Meets ITE VTCSH - 2	EN 12368 class A2/1 Type W	Lens Type	Typical Wattage at 25°C	Min Luminous Intensity ² (cd)	Dominant Wavelength (nm)
120 Volt										
433-1210-003	Red	✓	✓	✓	✓		Tinted	6	339	622
433-3230-001	Yellow	✓		✓			Tinted	12	678	590
433-3230-805	Yellow ³						Tinted	23	1571	590
433-2220-001	Green	✓	✓	✓	✓		Tinted	14	678	505
433-2270-001	Green	✓	✓	✓	✓		Clear	14	678	505
230 Volt										
433-1210-002	Red					✓	Tinted	6	250	622
433-3230-002	Yellow					✓	Tinted	12	250	590
433-2220-002	Green					✓	Tinted	14	250	505

¹ CSA approval is to Std. 250 for Luminaires

² Initial: Measured at peak intensity point.

³ Extreme Bright Yellow for high visibility is 2.3 times brighter than standard 12" yellow LED signals.

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