



ITE, Caltrans, and California Energy Commission Approved LED Signal Modules and Pedestrian Signals



Designed in the U.S.A
Meets Buy American provision under the
American Recovery and Reinvestment Act 2009
For projects requiring Buy American provision certification, consult factory for
additional information and special ordering details

California Energy Commission Approved LED Traffic Signal Modules

All of the LED traffic modules featured in this brochure are fully certified to the requirements of the State of California's Appliance Efficiency Program. Dialight is the first LED signal module manufacturer to fully support these requirements and has received certification for both Caltrans and ITE approved products.



According to the section in CEC requirements entitled "Traffic Signals for Vehicle and Pedestrian Control" all Federally regulated traffic signals for vehicle and pedestrian control manufactured on or after January 1, 2006 shall have a nominal wattage and maximum wattage no greater than the values shown in table M-1, and shall be installed with the compatible electrically connected signal control interface devices and conflict monitoring systems". CEC also has additional requirements for pedestrian signals that are not federally regulated. These requirements can be found in table M-2 of the CEC requirements. For reference a copy of tables M-1 and M-2 from the CEC requirements are shown below.

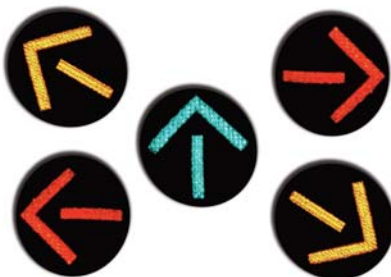
Table M-1
Standards for Traffic Signals for Vehicle and Pedestrian Control

Appliance	Maximum Wattage (at 74°C)	Nominal Wattage (at 25°C)
Traffic Signal Module Type		
12 - inch Red Ball	17	11
8 - inch Red Ball	13	8
12 - inch Red Arrow	12	9
12 - inch Green Ball	15	15
8 - inch Green Ball	12	12
12 - inch Green Arrow	11	11
Pedestrian Module Type		
Combination Walking Man/Hand	16	13
Walking Man	12	9
Orange Hand	16	13

Table M-2
Standards for Signal Modules for Pedestrian Control
Sold or Offered for Sale in the State of California

Appliance	Maximum Wattage (at 74°C)	Nominal Wattage (at 25°C)
Hand or 'Dont Walk' sign or Countdown	12	10
Walking Person or 'Walk' sign	12	9

ITE and Caltrans Approved LED ARROWS



- Allows for mounting in any orientation in the signal head
- Industry's lowest power for all colors
- Meets or exceeds intensity, color and uniformity specification
- Temperature compensated power supplies for longer LED life
- Uniform appearance
- 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
- ITE products are Intertek/ETL certified and listed on ETL certification program website
- All units operate at 80-135VAC RMS, 60±3Hz

Part Number	Color	Lens Type	Typical Wattage at 25oC	Dominant Wavelength (nm)	Peak Minimum Maintained Luminous Intensity (cd)	Compliance	CEC Approved
432-1314-001XOD	Red	Tinted	6	628	56.8	ITE, Omnidirectional	●
432-1374-001XOD	Red	Clear	6	628	56.8	ITE, Omnidirectional	●
431-3334-901XOD	Yellow	Tinted	6	590	141.6	ITE, Omnidirectional	●
431-3374-901XOD	Yellow	Clear	6	590	141.6	ITE, Omnidirectional	●
432-2324-001XOD	Green	Tinted	6	500	73.9	ITE, Omnidirectional	●
432-2374-001XOD	Green	Clear	6	500	73.9	ITE, Omnidirectional	●
432-1314-001	Red	Tinted	6	628	5,500 cd/m ²	Caltrans	●
431-3334-001	Yellow	Tinted	8	590	11,000 cd/m ²	Caltrans	●
432-2374-001	Green	Clear	7	500	11,000 cd/m ²	Caltrans	●

ITE and Caltrans Approved Uniform Appearance LED Traffic Signal Modules



- Industry's lowest power for all colors
- Meets or exceeds intensity, color and uniformity specification
- 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
- ITE products are Intertek/ETL certified and listed on ETL certification program website
- All units operate at 80-135VAC RMS, 60±3Hz

Part Number	Color	Lens Type	Dominant Wavelength (nm)	Typical Wattage at 25°C	Peak Minimum Maintained Luminous Intensity (cd)	Compliance	CEC Approved	Size (in)
433-1110-003XL	Red	Tinted	625	6	165	ITE	●	8
433-1170-003XL	Red	Clear	625	6	165	ITE	●	8
433-3130-901XL	Yellow	Tinted	590	7	410	ITE	●	8
433-3170-901XL	Yellow	Clear	590	7	410	ITE	●	8
433-2120-001XL	Green	Tinted	500	8	215	ITE	●	8
433-2170-001XL	Green	Clear	500	8	215	ITE	●	8
433-1110-003	Red	Tinted	625	6	133	Caltrans	●	8
433-3130-001	Yellow	Tinted	590	9	267	Caltrans	●	8
433-3170-001	Yellow	Clear	590	9	267	Caltrans	●	8
433-2120-001	Green	Tinted	500	7	267	Caltrans	●	8
433-2170-001	Green	Clear	500	7	267	Caltrans	●	8
433-1210-003XL	Red	Tinted	625	6	365	ITE	●	12
433-1270-003XL	Red	Clear	625	6	365	ITE	●	12
433-3230-901XL	Yellow	Tinted	590	12	910	ITE	●	12
433-3270-901XL	Yellow	Clear	590	12	910	ITE	●	12
433-2220-001XL	Green	Tinted	500	7	475	ITE	●	12
433-2270-001XL	Green	Clear	500	7	475	ITE	●	12
433-1210-003	Red	Tinted	625	6	339	Caltrans	●	12
433-3230-001	Yellow	Tinted	590	12	678	Caltrans	●	12
433-3270-001	Yellow	Clear	590	12	678	Caltrans	●	12
433-2220-001	Green	Tinted	500	9	678	Caltrans	●	12
433-2270-001	Green	Clear	500	9	678	Caltrans	●	12

Caltrans Approved Programmable Visibility LED Signal Modules



- Direct replacement for incandescent lamps in Programmable Visibility (PV) Signals
- Compatible with McCain and 3M signal heads
- 90% reduction in power vs. incandescent lamps
- Sealed lamp is moisture and dust resistant
- Fuse and transient suppressor incorporated for line and load protection
- Conformal coated power supply
- All units operate at 80 - 135VAC RMS, 60 ± 3Hz

Part Number	Color	Lens Type	Dominant Wavelength (nm)	Typical Wattage at 25°C	Peak Minimum Maintained Luminous Intensity	Compliance	CEC Approved
P46-3R33-003	Red	Clear	625	10	314 cd/m ²	Caltrans	●
P46-3Y33-003	Yellow	Clear	590	17	314 cd/m ²	Caltrans	●
P46-3B33-003	Green	Clear	500	8	314 cd/m ²	Caltrans	●

ITE and CalTrans Uniform Appearance Hand and Person Pedestrian Signals



- Meets / exceeds ITE uniformity ratio of not more than 1 to 5 between the max and min luminance values as measured in (.5") dia spots
- 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
- ITE products are Intertek/ETL certified and listed on ETL certification program website
- Transient suppression exceeds ITE and NEMA specifications (Up to 6kV ring wave)
- All units operate at 80-135VAC RMS, 60±3Hz

Part Number	Size	Description	Typical Wattage @ 25°C		Min. Luminance (cd/m ²)		Compliance	CEC Approved
			Hand	Person	Hand	Person		
430-6450-001X	16 x 18	Side-by-side Hand and Person	8	7	1,400	2,200	ITE	●
430-6472-001X	16 x 18	Overlay Hand and Person	8	6	1,400	2,200	ITE	●
430-5770-001X	12 x 12	Hand only	8	N/A	1,400	N/A	ITE	●
430-7771-001X	12 x 12	Person only	N/A	7	N/A	2,200	ITE	●
430-6772-001X	12 x 12	Overlay Hand and Person	8	6	1,400	2,200	ITE	●
430-5570-001X	9 x 9	Hand only	6	N/A	1,400	N/A	ITE	●
430-7570-001X	9 x 9	Person only	N/A	6	N/A	2,200	ITE	●
430-6450-001XC	16 x 18	Caltrans Side-by-Side	9	7	3,750	5,300	Caltrans	●
430-6473-001 ¹	16 x 18	Caltrans Side-by-Side	8	7	3,750	5,300	Caltrans	●

¹430-6473-001 is a pixilated product

Uniform Appearance Countdown Pedestrian Signals



- MUTCD compliant for countdown applications
- Full preemption compatibility
- Up to 8 units can be connected in parallel without affecting the monitoring of the Hand/Person
- Manufactured with anti-capillary wires
- Three (3) Independent dedicated power supplies for added safety and reliability
- ITE products are Intertek/ETL certified and listed on ETL certification program website
- Conformal coated power supply
- 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 80-135VAC RMS, 60±3Hz

Part Number	Housing Size	Symbol Color			Typical Wattage @ 25°C			Min. Luminance (cd/m ²)			Compliance	CEC Approved
		Countdown	Hand	Person	Countdown	Hand	Person	Countdown	Hand	Person		
430-6479-001X	16 x 18	Portland Orange	Portland Orange	Lunar White	7	8	8	1,400	1,400	2,200	ITE	●
430-6479-001XC	16 x 18	Portland Orange	Portland Orange	Lunar White	9	10	9	3,750	3,750	5,300	Caltrans	●

²countdown power is with the digits 88 displayed

Dialight reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.dialight.com/Assets/Brochures_And_Catalogs/Signaling/CEC_Brochure.pdf

CEC_Brochure_A