



Sunlight Visible - Direct Replacement - Energy-Efficient

# 12" (300mm) TrafficLED™ Light Balls, 12VDC Type 1

## Features

- Major Energy Savings
- Solid-State, High Shock/Vibration Resistant
- Conforms to Industry Standards
- Long-Life LEDs are Maintenance Free for Over 5 Years
- Lens Design Improves Brightness

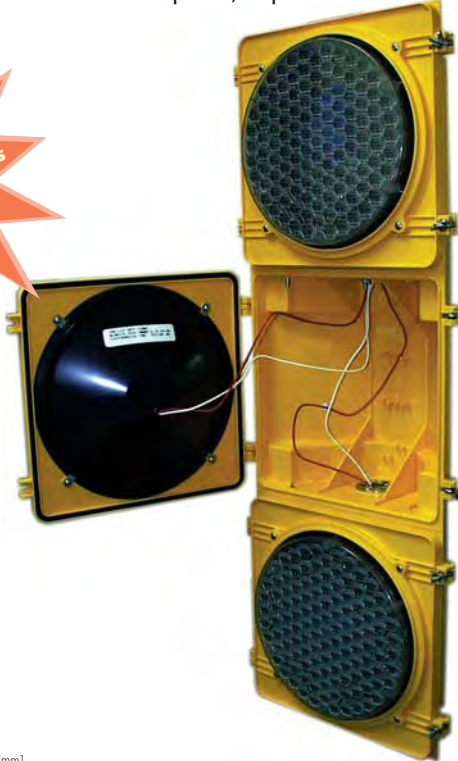
- Lamps Can be Retrofitted into Existing Traffic Housings
- UV-Resistant Polycarbonate Unit Eliminates Dust/Dirt Buildup
- Available in Red, Yellow, Green
- Very Low Power Consumption, Super Intensity

## Applications

- Traffic Signal Lights
- Traffic Warning Lights
- Railroad Crossings
- Road Closure Signs
- Tunnel Warning Lights



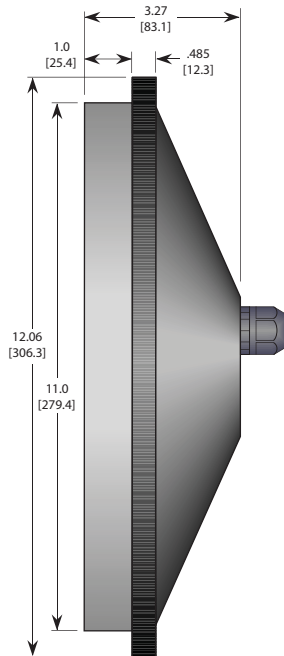
Traffic LEDs meet and exceed ITE and Caltrans specifications.



12" (300mm)  
Type 1 connection

**POLARITY WARNING:**  
Parts can be damaged if the wrong polarity is used when connecting the unit to a power supply.

## Dimensions in inches [mm]



## Ambient Operating Temperature Range:

~-40°F to ~+165°F [~-40°C to ~+74°C]  
(Meets the ITE VTCSh spec requirement)

Part Number, Type 1	TRF112-0ER-012V	TRF112-0PY-012V	TRF112-0BG-012V
Signal Color	Red	Yellow	Green
Wavelength	626nm	590nm	505nm
LED Material	AllnGaP	AllnGaP	InGaN
Lens Material	UV Resistant Polycarbonate		
Intensity (Peak typ)	>1106 cd	1188 cd	>1246 cd
Intensity (Peak min)	399 cd	910 cd	798 cd
Total Lumens	72 lm	-	170 lm
Power Consumption	5.2W (436mA)	6.9W (666mA)	8.1W (680mA)
Power Factor (PF)	1.0	>0.9	1.0
Total Harmonic Distortion	20%	20%	20%
IP Rating with housing	IP34	IP34	IP34
IP Rating without housing	IP65	IP65	IP65
Operating Temperature	-40°C ~ 74°C	-40°C ~ 74°C	-40°C ~ 74°C
Signal Diameter	ø300mm	ø300mm	ø300mm
Weight (Module only)	1350g	1350g	1350g
Intensity loss due to single LED failure	4%	4%	4%

**Note:**

Outer rubber seal ring supplied with module.  
Only the LED Replacement Bulbs or LED Traffic Balls, are offered.  
Traffic light fixtures not included.

CALTRANS LED Test Data Sheet

12 inch RED Ball Traffic Control Signal Head

Vendor: Ledtronics, Inc.

Signal: **TRF112-0ER-012V** Voltage: 12Vdc Power: 5.2W Performed by: AG

S/N: Initial Intensity: No Warmup Date:12-1-09 W.O.: Stock

Vertical Degrees Down		HORIZONTAL DEGREES											
		LEFT						RIGHT					
		27.5	22.5	17.5	12.5	7.5	2.5	2.5	7.5	12.5	17.5	22.5	27.5
2.5	%			396%	308%	197%	243%	277%	304%	294%	427%		
	Req	n/a	n/a	90	166	295	399	399	295	166	90	n/a	n/a
	Actual			356.4	511.6	580	969.2	1106.4	897.6	488.4	384.4		
7.5	%	143%	175%	225%	214%	145%	228%	290%	218%	159%	228%	308%	344%
	Req	19	45	105	171	236	266	266	236	171	105	45	19
	Actual	27.12	78.6	236.2	365.6	341.2	605.6	772	515.2	272	238.96	138.64	65.4
12.5	%	132%	288%	537%	539%	474%	738%	1058%	743%	452%	501%	458%	257%
	Req	19	26	40	52	57	59	59	57	52	40	26	19
	Actual	25	75	214.6	280.48	270.24	435.6	624	423.6	234.92	200.32	118.96	48.76
17.5	%	100%	161%	210%	255%	307%	372%	414%	338%	218%	183%	195%	165%
	Req	19	24	26	26	26	26	26	26	26	26	24	19
	Actual	19.08	38.72	54.68	66.28	79.84	96.64	107.6	87.8	56.56	47.6	46.88	31.32

CALTRANS LED Test Data Sheet

12 inch Yellow Ball Traffic Control Signal Head

Vendor: Ledtronics, Inc.

Signal: **TRF112-0PY-012V** Voltage: 12VDC Power: 6.9W Performed by: Bruce C. Johnson

S/N: A053122001922 Initial Intensity: No Warmup Date: 11/19/2009 W.O.: Stock

Vertical Degrees Down		HORIZONTAL DEGREES											
		LEFT						RIGHT					
		27.5	22.5	17.5	12.5	7.5	2.5	2.5	7.5	12.5	17.5	22.5	27.5
2.5	%			506%	299%	184%	134%	129%	168%	271%	429%		
	Req	n/a	n/a	181	333	589	798	798	589	333	181	n/a	n/a
	Actual			916	996	1084	1068	1032	992	904	776		
7.5	%	411%	556%	356%	261%	218%	219%	223%	236%	283%	410%	609%	495%
	Req	38	90	209	342	475	532	532	475	342	209	90	38
	Actual	156	500	744	892	1036	1164	1188	1120	968	856	548	188
12.5	%	316%	646%	632%	587%	621%	659%	666%	611%	583%	617%	600%	358%
	Req	38	52	81	105	114	119	119	114	105	81	52	38
	Actual	120	336	512	616	708	784	792	696	612	500	312	136
17.5	%	158%	333%	654%	769%	923%	954%	915%	915%	754%	662%	358%	189%
	Req	38	48	52	52	52	52	52	52	52	48	38	38
	Actual	60	160	340	400	480	496	476	476	392	344	172	72

CALTRANS LED Test Data Sheet

12 inch Green Ball Traffic Control Signal Head

Vendor: Ledtronics, Inc.

Signal: **TRF112-0BG-012V** Voltage: 12Vdc Power: 8.1W Performed by: AG

S/N: Initial Intensity: No Warmup Date: 12-2-09 W.O.: Stock

Vertical Degrees Down		HORIZONTAL DEGREES											
		LEFT						RIGHT					
		27.5	22.5	17.5	12.5	7.5	2.5	2.5	7.5	12.5	17.5	22.5	27.5
2.5	%			282%	160%	139%	153%	156%	141%	183%	290%		
	Req	n/a	n/a	181	333	589	798	798	589	333	181	n/a	n/a
	Actual			510.4	532.8	819.2	1222	1246.8	830.8	610.8	525.6		
7.5	%	223%	245%	174%	116%	127%	171%	159%	105%	113%	144%	177%	151%
	Req	38	90	209	342	475	532	532	475	342	209	90	38
	Actual	84.76	220.72	364.4	397.2	601.6	907.2	846.4	500	385.2	301.8	159.44	57.48
12.5	%	183%	249%	209%	172%	255%	329%	335%	241%	220%	243%	225%	115%
	Req	38	52	81	105	114	119	119	114	105	81	52	38
	Actual	69.6	129.36	169.44	180.92	291.2	391.6	398.8	274.32	230.6	196.96	116.76	43.52
17.5	%	102%	135%	150%	168%	246%	293%	333%	267%	234%	209%	167%	102%
	Req	38	48	52	52	52	52	52	52	52	48	38	38
	Actual	38.84	64.68	77.8	87.4	128.08	152.44	173.12	138.72	121.72	108.84	80.36	38.6

Values are in candlepower (candela)