

LED Sunlight Visible - Direct Replacement - Energy-Efficient

12" (300mm) TrafficLED™ Light Balls, 120VAC 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 and Green
- Very Low Power Consumption, Super Intensity

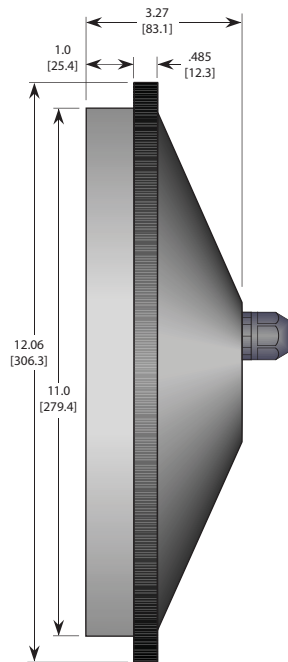
Red and Green Traffic LEDs meet and exceed ITE and Caltrans specifications.

Only **7.8-8.7 Watts** Energy Consumed Compared to 150W Incandescent



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

Dimensions in inches [mm]



Applications

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



Options

- For Solar-Powered Applications, 12VDC Is Available for Large Orders
- Other Colors (like White and Blue) Are Available for Large Orders



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

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-120A	TRF112-0PY-120A	TRF112-0BG-120A
Signal Color	Red	Yellow	Green
Wavelength	626nm	590nm	505nm
LED Material	AllnGaP	AllnGaP	InGaN
Lens Material	UV Resistant Polycarbonate		
Intensity (Peak typ)	517cd	1196cd	1212cd
Intensity (Peak min)	365cd	910cd	475cd
Power Consumption	7.8 W	8.6 W	8.7 W
Current	0.065 A	0.073 A	0.074 A
Power Factor (PF)	0.99	0.99	0.98
Total Harmonic Distortion	20%	20%	20%
IP Rating with Housing	IP34	IP34	IP34
IP Rating without Housing	IP65 IP34	IP65 IP34	IP65 IP34
Operating Temperature	-40°C ~ 74°C	-40°C ~ 74°C	-40°C ~ 74°C
Signal Diameter	ø300mm	ø300mm	ø300mm
Weight (Module Only)	1400g	1400g	1400g
Intensity Loss Due to Single LED Failure	4%	4%	4%

CALTRANS/ITE

LEDTRONICS

Signal: TRF 112-OER 120A
S/N: XX2

12 INCH RED BALL LED TRAFFIC CONTROL SIGNAL HEAD
Voltage: 120.00
Monitored by Fluke (Item 1.1)

Power: 7.55
Monitored by Valhalla (Item 1.10)
Date: 03/08/01

Performed by: J.P
W.O. No.: 2K-1062-2

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
			255%	150%	120%	147%	150%	130%	150%	270%		
2.5	n/a	n/a	90	166	295	390	389	295	166	90	n/a	n/a
			230	249	353	588	597	384	249	243		
	205%	276%	185%	121%	118%	180%	185%	134%	120%	190%	305%	243%
7.5	19	45	105	171	238	266	266	238	171	105	45	19
	39	124	194	206	281	478	492	318	205	200	137	46
	145%	295%	350%	309%	398%	662%	670%	425%	324%	384%	313%	168%
12.5	19	26	40	52	87	59	59	57	62	40	28	19
	28	77	140	161	227	391	395	242	168	153	82	32
	128%	260%	392%	459%	623%	992%	1041%	637%	459%	424%	296%	148%
17.5	19	24	26	26	26	26	26	26	26	26	24	19
	24	62	102	119	162	258	271	166	119	110	71	28

Lab. Conditions: 77° F 42% RH



(meets the ITE VTS-311 specification)

CALTRANS LED Test Data Sheet

12 inch Yellow Ball Traffic Control Signal Head

Vendor: Ledtronics, Inc.

Signal: TRF112-OPY-120A Voltage: 120VAC Power:

Performed by: Bruce C. Johnson 11/18/2009

S/N: A051122000500 Initial Intensity: No Warmup

Date: 11/17/2009

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	%			415%	255%	150%	106%	109%	147%	232%	376%		
	Req	n/a	n/a	181	333	589	798	798	589	333	181	n/a	n/a
	Actual			752	848	884	848	868	868	772	680		
7.5	%	326%	551%	402%	282%	203%	220%	225%	240%	289%	375%	378%	137%
	Req	38	90	209	342	475	532	532	475	342	209	90	38
	Actual	124	496	840	964	964	1168	1196	1140	988	784	340	52
12.5	%	189%	446%	652%	579%	670%	672%	676%	667%	606%	583%	269%	189%
	Req	38	52	81	105	114	119	119	114	105	81	52	38
	Actual	72	232	528	608	764	800	804	760	636	472	140	72
17.5	%	103%	183%	492%	646%	692%	708%	692%	692%	546%	500%	258%	100%
	Req	38	48	52	52	52	52	52	52	52	52	48	38
	Actual	39	88	256	336	360	368	360	360	284	260	124	38

Values are in candlepower (candela)

CALTRANS/ITE TEST DATA SHEET
12 INCH GREEN BALL TRAFFIC CONTROL SIGNAL HEAD

LEDTRONICS

Signal: TRF112-OBG-120A
S/N: 1

Voltage: 120.00
Monitored by Fluke (Item 1.1)
Warm Up Time: 60 minutes

Power: 12.86
Monitored by Valhalla (Item 1.10)
Date: 03/19/01

Performed by: J.P.
W.O. No.: 2k-1068-2

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	n/a	n/a	334%	218%	151%	180%	190%	203%	189%	337%		
			181	333	589	798	798	589	333	181	n/a	n/a
			605	724	890	1438	1513	1194	828	611		
	220%	323%	235%	162%	143%	212%	228%	184%	142%	230%	381%	339%
7.5	38	90	209	342	475	532	532	475	342	209	90	38
	84	291	481	556	677	1130	1212	876	487	481	343	129
	158%	399%	490%	460%	526%	806%	882%	673%	400%	496%	484%	234%
12.5	38	52	81	105	114	119	119	114	105	81	52	38
	60	208	397	483	600	959	1050	787	420	402	252	89
	162%	333%	454%	488%	584%	891%	942%	704%	456%	425%	357%	210%
17.5	38	48	52	52	52	52	52	52	52	52	48	38
	61	180	238	254	304	483	490	366	237	221	171	80

NOTES:

2. Values are in candlepower (candelas).
3. Values shaded on the data blocks are minimum requirements for 12" GREEN LED Traffic Signals.

CHROMATICITY

PASS

Acceptance Criteria:

y >=	0.4599128	506-519x	Measured Values	120 Vac	7.5 deg. V, 0 deg. H
y >=	0.2448	150+1.058x	x =	0.0888	
y <=	0.641	730-x	y =	0.5669	



Lab. Conditions: 77 deg. F. 41 % RH.