

# Wiring Diagrams

## GE Survivor™ T12/HO Fluorescent All-Weather Sign Ballasts

GE Lighting

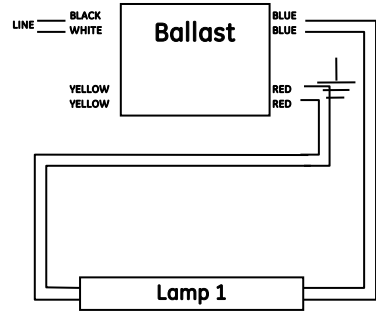


Figure 1

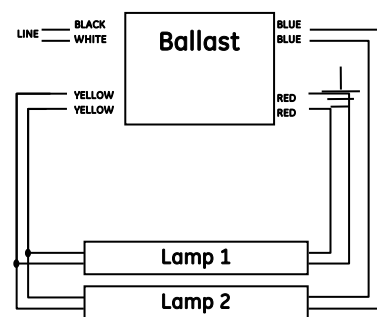


Figure 2

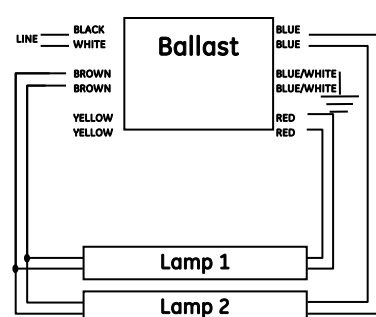


Figure 3

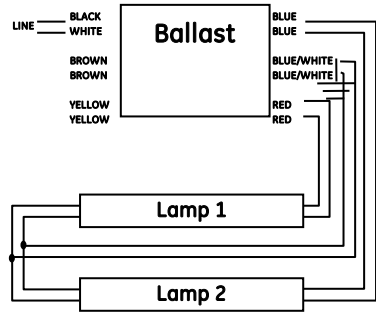


Figure 4

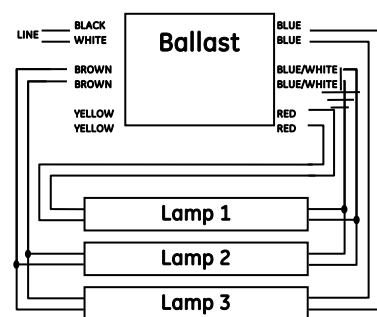


Figure 5

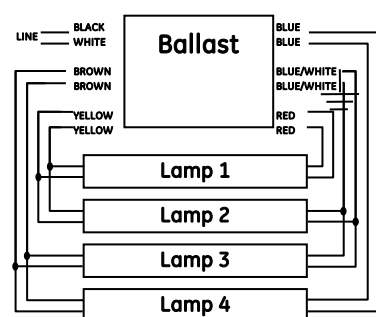


Figure 6

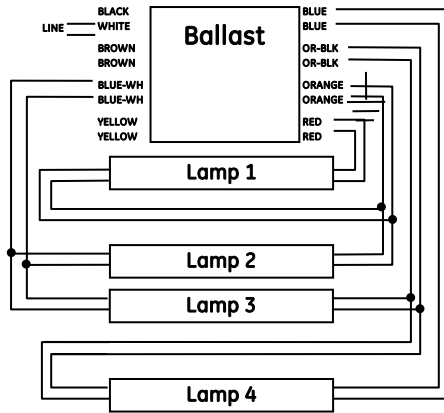


Figure 7

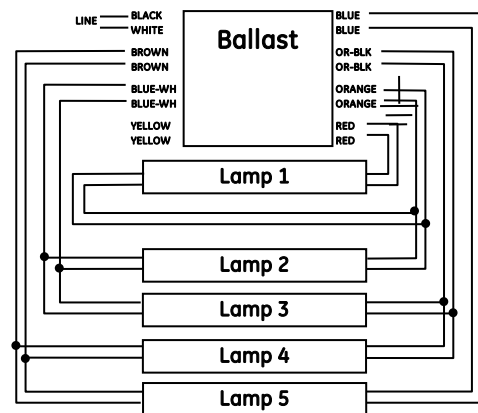


Figure 8

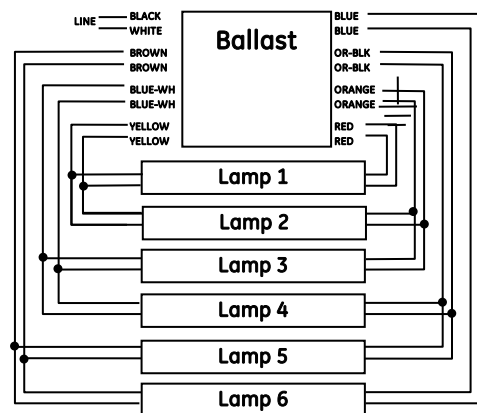
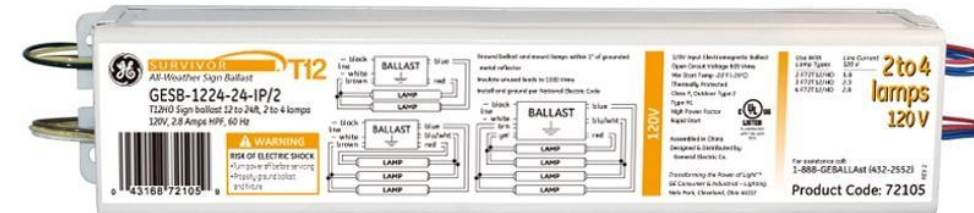


Figure 9



## GE Survivor™ T12/HO Fluorescent All-Weather Sign Ballasts



For additional product and application information, please consult GE's Website: [www.gelighting.com](http://www.gelighting.com)



imagination at work

# GE Survivor™

## T12/HO Fluorescent All-Weather Sign Ballasts

GE's line of T12HO Sign Ballasts provides a complete solution to all of your sign illumination needs. Designed with ease of retrofit in mind, the Survivor All-Weather Sign Ballast's foot-print, mirrors that of the most common sign ballasts found on the market today for quick and convenient replacement in existing box signs and displays.

The GE T12HO Survivor All-Weather Sign Ballast system simplifies the contractor's and distributor's life with just 6 SKUs to choose from for all of their sign ballast requirements.

### Performance Features

- 1 to 6 lamp operation, from 4' – 48'
- Rapid Start operation for extended lamp and cycle life
- Durable construction – Survivor Ballasts are manufactured from high-grade steel laminations and tightly wound, vacuum impregnated, copper coils, encased in high quality potting and secured in a rugged white powder coated steel case.
- Ideal for high moisture environments – UL & CUL 935 listed for Type 2 Outdoor and Hazardous Locations
- Reliable rapid start low-temperature starting down to -20°F
- Class P thermal protection
- Ease of replacement/insulation – Survivor dimensions are equivalent to all ballasts manufactured by competition
- SKU reduction – 6 SKUs address most sign applications
- Lamp flexibility and compatibility, each Survivor works with multiple, and varying lengths of T12HO lamps
- 2 year limited warranty

Our rugged GE Survivor All-Weather Ballasts are designed and manufactured to demanding specifications. The Survivor is crafted from high-grade steel laminations and tightly wound, vacuum impregnated, copper coils for superior heat dissipation and water resistance. These components are then encased in high quality potting material for additional heat sinking and weather resistance. Finally, components are secured in a durable white steel powder coated box for superior corrosion protection and long life. All GE Survivor All-Weather Ballasts are backed by a 2 year limited warranty.

**Count on GE to answer your sign lamp and ballast questions at 1-888-GEBALLAST.**

### Applications

- Replacement and retrofit of T12HO Sign Ballasts in existing signs
- Any newly designed box sign or illuminated sign using T12 HO lamps
- Outdoor displays where reliability and durability are put to the test by inclement weather

### GE Survivor™ SKU Map

Description	Brand	Footage	# Lamps	Total Lamp Footage												# of Lamps													
				2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	1	2
GESB-0412-12-IP	GE	4'-12'	1,2	█												█													
	Advance	4'-12'	1,2	█												█													
	ULT	4'-12'	1,2	█												█													
GESB-0620-24-IP	GE	6'-20'	2,3,4	█												█													
	Advance	6'-20'	2,3,4	█												█													
	ULT	8'-16'	1,2,3,4	█												█													
GESB-1224-24-IP	GE	12'-24'	2,3,4	█												█													
	Advance	12'-24'	2,3,4	█												█													
	ULT	10'-24'	1,2,3,4	█												█													
GESB-1240-46-IP	GE	12'-40'	4,5,6	█												█													
	Advance	12'-40'	4,5,6	█												█													
	ULT	16'-32'	2,3,4	█												█													
	Advance	24'-32'	3,4	█												█													
GESB-2040-24-IP	GE	20'-40'	4,5,6	█												█													
	Advance	20'-40'	2,3,4	█												█													
	ULT	20'-36'	4,5,6	█												█													
GESB-2448-46-IP	GE	24'-48'	4,5,6	█												█													
	Advance	24'-48'	4,5,6	█												█													
	ULT	20'-48'	4,5,6	█												█													

This information is based on data publicly available at the time of printing. GE and competitors product offerings may change at any time.

# GE Survivor™

## Specifications; 1-6 Lamp T12HO Survivor Sign Ballast

Part #	Description	Lamp Type	# of lamps	Min Starting Temp.	Lamp length	Input Volts	Input Watts	Input Current (Amps)	Open Circuit Volts	Dim. (Type)	Wiring Diagram (Fig.)
72103	GESB-0412-12-IP	F24T12/HO	2	(-20°F)	4'-12'	120	90	0.9	480	1	1 & 2
		F48T12/HO	1				80	0.82	480	1	1 & 2
		F48T12/HO	2				130	1.13	480	1	1 & 2
		F72T12/HO	1				100	0.92	480	1	1 & 2
		F72T12/HO	2				170	1.48	480	1	1 & 2
		F96T12/HO	1				120	1.03	480	1	1 & 2
72104	GESB-0620-24-IP	F36T12/HO	2		6'-20'	120	115	1.41	600	1	3, 5, & 6
		F60T12/HO	4				300	2.56	600	1	3, 5, & 6
		F72T12/HO	3				240	2.34	600	1	3, 5, & 6
72105	GESB-1224-24-IP	F72T12/HO	2		12'-24'	120	170	1.6	785	2	3, 5, & 6
		F72T12/HO	3				230	2.1	785	2	3, 5, & 6
		F72T12/HO	4				285	2.7	785	2	3, 5, & 6
72106	GESB-1240-46-IP	F36T12/HO	4		12'-40'	120	196	2.8	725	3	7, 8, & 9
		F48T12/HO	5				237	2.9	725	3	7, 8, & 9
		F72T12/HO	5				372	3.5	725	3	7, 8, & 9
		F96T12/HO + F72T12/HO	6				466	4	725	3	7, 8, & 9
72107	GESB-2040-24-IP	F120T12HO	2		20'-40'	120	255	3	720	3	4, 5, & 6
		F120T12HO	3				357	3.4	720	3	4, 5, & 6
		F120T12HO	4				464	4	720	3	4, 5, & 6
72108	GESB-2448-46-IP	F72T12/HO	4		24'-48'	120	373	4	722	3	7, 8, & 9
		F72T12/HO	5				453	4.3	722	3	7, 8, & 9
		F96T12/HO	5				546	4.7	722	3	7, 8, & 9
		F96T12/HO	6				621	5.2	722	3	7, 8, & 9

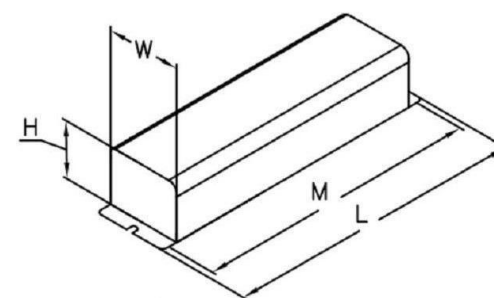
### Specifications

- Line Voltage 120VAC, +5% -10% 50-60Hz
- UL & cUL 935 Listed for Outdoor use and Hazardous Locations
- Class P thermal protection
- Integral ANSI color coded side lead wires
- Integral mounting feet

### Lamp Operations

- F24T12/HO
- F36T12/HO
- F48T12/HO
- F60T12/HO
- F72T12/HO
- F96T12/HO
- F120T12/HO

### Lamp Schematics



Type	Length 'L'	Width 'W'	Height 'H'	Mounting 'M'	Weight (lbs)
1	11.75	3.19	2.63	11	12.25
2	14.3	3.19	2.63	13.75	14.5
3	19.5	3.19	2.43	18.63	22.2

# Wiring Diagrams

## GE Survivor™ T12/HO Fluorescent All-Weather Sign Ballasts

GE Lighting

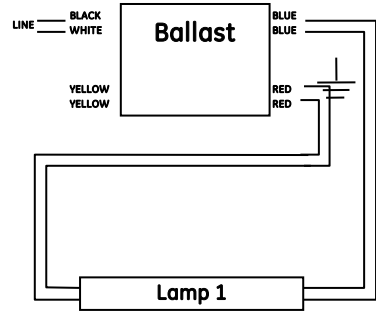


Figure 1

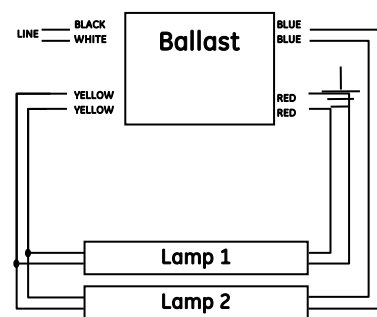


Figure 2

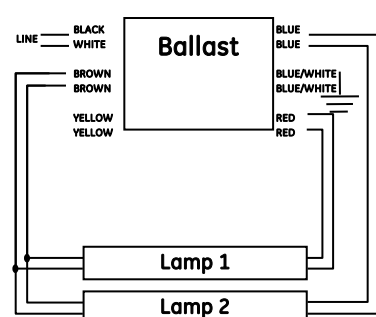


Figure 3

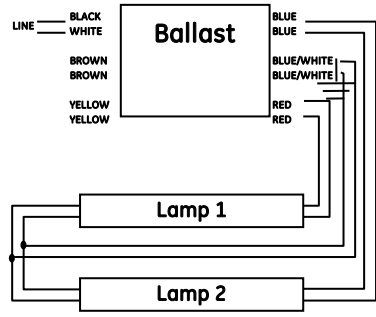


Figure 4

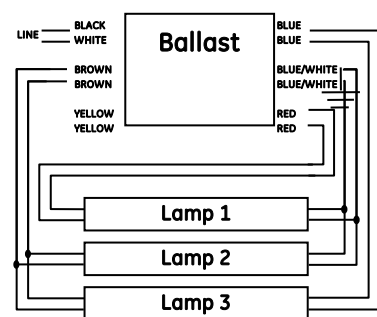


Figure 5

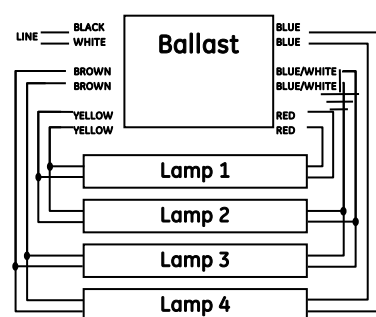


Figure 6

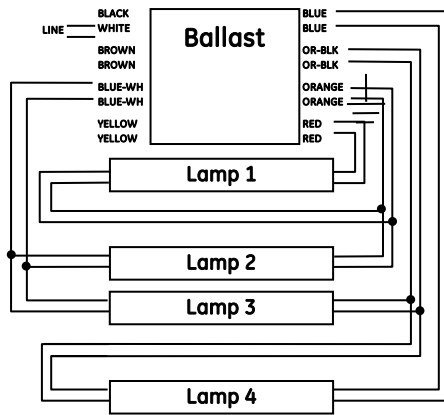


Figure 7

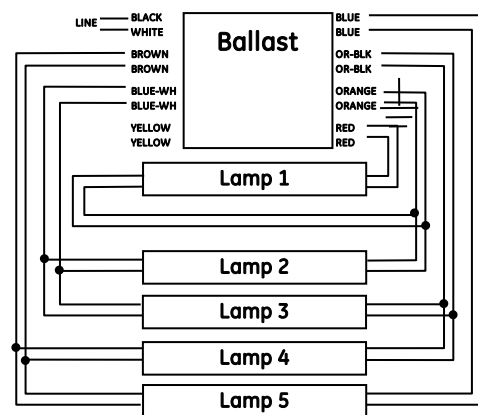


Figure 8

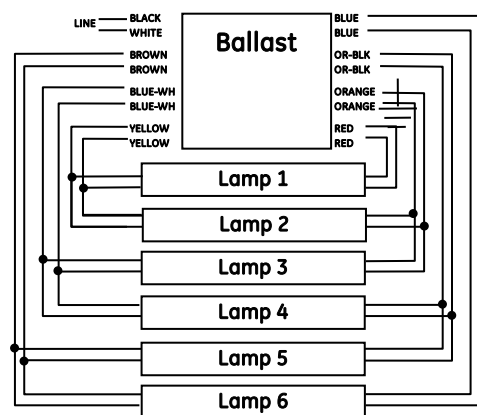
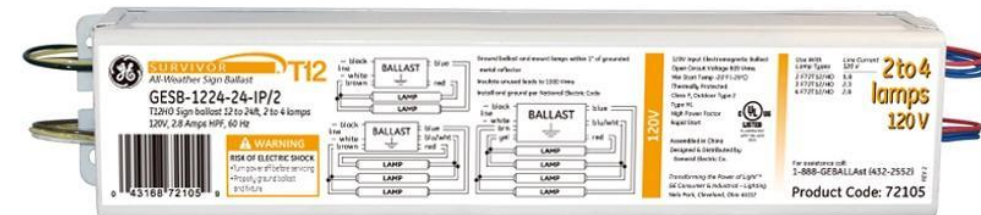


Figure 9



## GE Survivor™ T12/HO Fluorescent All-Weather Sign Ballasts



For additional product and application information, please consult GE's Website: [www.gelighting.com](http://www.gelighting.com)



imagination at work

# GE Survivor™

## T12/HO Fluorescent All-Weather Sign Ballasts

GE's line of T12HO Sign Ballasts provides a complete solution to all of your sign illumination needs. Designed with ease of retrofit in mind, the Survivor All-Weather Sign Ballast's foot-print, mirrors that of the most common sign ballasts found on the market today for quick and convenient replacement in existing box signs and displays.

The GE T12HO Survivor All-Weather Sign Ballast system simplifies the contractor's and distributor's life with just 6 SKUs to choose from for all of their sign ballast requirements.

### Performance Features

- 1 to 6 lamp operation, from 4' – 48'
- Rapid Start operation for extended lamp and cycle life
- Durable construction – Survivor Ballasts are manufactured from high-grade steel laminations and tightly wound, vacuum impregnated, copper coils, encased in high quality potting and secured in a rugged white powder coated steel case.
- Ideal for high moisture environments – UL & CUL 935 listed for Type 2 Outdoor and Hazardous Locations
- Reliable rapid start low-temperature starting down to -20°F
- Class P thermal protection
- Ease of replacement/insulation – Survivor dimensions are equivalent to all ballasts manufactured by competition
- SKU reduction – 6 SKUs address most sign applications
- Lamp flexibility and compatibility, each Survivor works with multiple, and varying lengths of T12HO lamps
- 2 year limited warranty

Our rugged GE Survivor All-Weather Ballasts are designed and manufactured to demanding specifications. The Survivor is crafted from high-grade steel laminations and tightly wound, vacuum impregnated, copper coils for superior heat dissipation and water resistance. These components are then encased in high quality potting material for additional heat sinking and weather resistance. Finally, components are secured in a durable white steel powder coated box for superior corrosion protection and long life. All GE Survivor All-Weather Ballasts are backed by a 2 year limited warranty.

**Count on GE to answer your sign lamp and ballast questions at 1-888-GEBALLAST.**

### Applications

- Replacement and retrofit of T12HO Sign Ballasts in existing signs
- Any newly designed box sign or illuminated sign using T12 HO lamps
- Outdoor displays where reliability and durability are put to the test by inclement weather

### GE Survivor™ SKU Map

Description	Brand	Footage	# Lamps	Total Lamp Footage						# of Lamps																							
				2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	1	2	3	4	5	6
GESB-0412-12-IP	GE	4'-12'	1,2																														
	Advance	4'-12'	1,2																														
	ULT	4'-12'	1,2																														
GESB-0620-24-IP	GE	6'-20'	2,3,4																														
	Advance	6'-20'	2,3,4																														
	ULT	8'-16'	1,2,3,4																														
GESB-1224-24-IP	GE	12'-24'	2,3,4																														
	Advance	12'-24'	2,3,4																														
	ULT	10'-24'	1,2,3,4																														
GESB-1240-46-IP	GE	12'-40'	4,5,6																														
	Advance	12'-40'	4,5,6																														
	ULT	16'-32'	2,3,4																														
GESB-2040-24-IP	GE	20'-40'	3,4																														
	Advance	20'-40'	2,3,4																														
	ULT	20'-36'	4,5,6																														
GESB-2448-46-IP	GE	24'-48'	4,5,6																														
	Advance	24'-48'	4,5,6																														
	ULT	20'-48'	4,5,6																														

This information is based on data publicly available at the time of printing. GE and competitors product offerings may change at any time.

# GE Survivor™

## Specifications; 1-6 Lamp T12HO Survivor Sign Ballast

Part #	Description	Lamp Type	# of lamps	Min Starting Temp.	Lamp length	Input Volts	Input Watts	Input Current (Amps)	Open Circuit Volts	Dim. (Type)	Wiring Diagram (Fig.)		
72103	GESB-0412-12-IP	F24T12/HO	2	(-20°F)	4'-12'	120	90	0.9	480	1	1 & 2		
		F48T12/HO	1				80	0.82	480	1	1 & 2		
		F48T12/HO	2				130	1.13	480	1	1 & 2		
		F72T12/HO	1				100	0.92	480	1	1 & 2		
		F72T12/HO	2				170	1.48	480	1	1 & 2		
		F96T12/HO	1				120	1.03	480	1	1 & 2		
72104	GESB-0620-24-IP	F36T12/HO	2		6'-20'	120	115	1.41	600	1	3, 5, & 6		
		F60T12/HO	4				300	2.56	600	1	3, 5, & 6		
		F72T12/HO	3				240	2.34	600	1	3, 5, & 6		
72105	GESB-1224-24-IP	F72T12/HO	2				12'-24'	120	170	1.6	785	2	3, 5, & 6
		F72T12/HO	3						230	2.1	785	2	3, 5, & 6
		F72T12/HO	4						285	2.7	785	2	3, 5, & 6
72106	GESB-1240-46-IP	F36T12/HO	4		12'-40'	120			196	2.8	725	3	7, 8, & 9
		F48T12/HO	5						237	2.9	725	3	7, 8, & 9
		F72T12/HO	5						372	3.5	725	3	7, 8, & 9
		F96T12/HO + F72T12/HO	6				466	4	725	3	7, 8, & 9		
72107	GESB-2040-24-IP	F120T12HO	2				20'-40'	120	255	3	720	3	4, 5, & 6
		F120T12HO	3						357	3.4	720	3	4, 5, & 6
		F120T12HO	4		464	4			720	3	4, 5, & 6		
72108	GESB-2448-46-IP	F72T12/HO	4		24'-48'	120			373	4	722	3	7, 8, & 9
		F72T12/HO	5						453	4.3	722	3	7, 8, & 9
		F96T12/HO	5						546	4.7	722	3	7, 8, & 9
		F96T12/HO	6				621	5.2	722	3	7, 8, & 9		

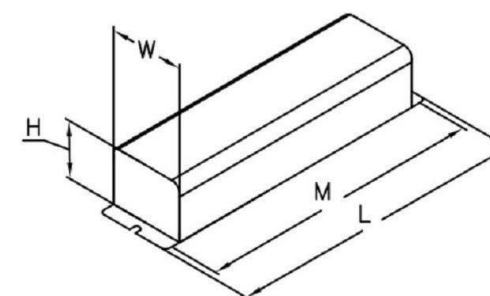
### Specifications

- Line Voltage 120VAC, +5% -10% 50-60Hz
- UL & cUL 935 Listed for Outdoor use and Hazardous Locations
- Class P thermal protection
- Integral ANSI color coded side lead wires
- Integral mounting feet

### Lamp Operations

- F24T12/HO
- F36T12/HO
- F48T12/HO
- F60T12/HO
- F72T12/HO
- F96T12/HO
- F120T12/HO

### Lamp Schematics



Type	Length 'L'	Width 'W'	Height 'H'	Mounting 'M'	Weight (lbs)
1	11.75	3.19	2.63	11	12.25
2	14.3	3.19	2.63	13.75	14.5
3	19.5	3.19	2.43	18.63	22.2