



## FEATURES & SPECIFICATIONS

**INTENDED USE** — The ES8RT relight assembly is the ideal solution for renovating obsolete parabolic or deep-lensed troffer systems when a one-for-one upgrade is desired. ES8RT louvered lighting systems provide exceptional efficiency and energy savings while providing even, glare-free lighting, higher vertical footcandles and reduced ceiling contrast for greater visual comfort.

The ES8RT relight assembly is ideal for retail, educational, commercial and other general lighting applications.

**CONSTRUCTION** — The ES8RT delivers more balanced light levels vertically and horizontally while eliminating the "cave effect" produced by traditional parabolic fixtures and the glare associated with lensed troffers. ES8RT provides substantial energy savings of up to 45% compared to a three-lamp T8 electronic ballast system and up to 56% savings compared to a three-lamp ES magnetic system.

The ES8RT assembly consists of six primary components plus hardware.

Universal end brackets containing the pre-wired ballast and sockets are constructed of 20-gauge powder-painted steel and are secured to the host fixture with provided TEK screws. A splice box is provided to enclose electrical connections, and a ballast disconnect plug system is provided as standard. Splice box replaces the typical wireway by providing a cover for the connections of incoming supply wire and is attached to the host fixture with two TEK screws.

The reflector system uses a highly reflective white finish for optimum efficiency and attaches securely to the end brackets with quarter-turn fasteners. Robust design, precision tooling and automated assembly combine to produce the industry's strongest louver. Trim kit to cover side reveals (if necessary) is provided as standard.

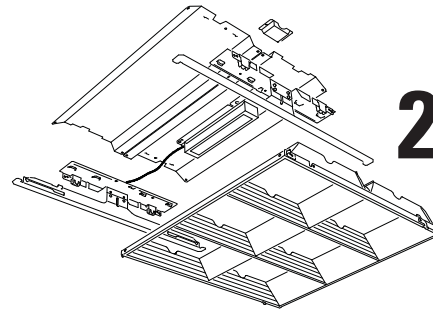
**OPTICS** — Mechanical optical shielding is provided with angled length blades and linear faceted cross baffles. A highly efficient reflector system directs the light downward. Lamp cut-outs maximize the shielding while minimizing overall assembly depth to provide consistent performance in any host fixture application. Vertical light levels are improved, providing a balanced amount of light across all surfaces while minimizing contrast and glare at the ceiling plane.

**ELECTRICAL** — Standard ballast is high-efficiency, CEE (Consortium for Energy Efficiency) qualified, instant start, <10% THD, universal voltage and sound rated A. Suggested lamps are high-lumen, long-life super T8 lamps which contribute to optimizing system performance. Optional program start and step-dim bi-level ballasts are available as well as several ballast factor options to maximize energy savings and to allow the amount of light to be balanced to the application.

Catalog Number	
Notes	Type



# 2ES8RT



2'x2' Louvered Relight  
2 Lamp  
High-performance T8

### Specifications

*Intended to be installed in any existing recessed parabolic or lensed troffer fixture:*

Weight: 11 lbs.

**INSTALLATION** — Louver assembly hinges from either side. Lamp access by hinging trim down to 90°, providing hands-free access to lamps. For hands-free ballast access, continue process by turning two quarter-turn latches to release and remove reflectors.

**LISTINGS** — UL/cUL Classified. Labeled for use in air-handling fixtures. Does not impact existing fixture UL listing. NYC approved (#49192).

**WARRANTY** — Fixture guaranteed for one year against mechanical defects in manufacture. System lamp (24 months) and ballast (60 months) warranty is provided by lamp and ballast manufacturer.

Protected by one or more of US Patent Nos. 6,210,025; 6,231,213 and additional patents pending.

*Specifications subject to change without notice.*

## ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold)**.

Example: 2ES8RT 217 **BSNP**

2ES8RT	217			
Series	Number of lamps/wattage	Voltage	Ballast	Options
<b>2ES8RT Recessed relight</b>	<b>217 2-lamp, 17W T8 (24<sup>h</sup>)<sup>1</sup></b>	(blank) <b>MVOLT<sup>2</sup></b> 347 347 volts	<b>BILP IS, high efficiency, .78 bf (low)</b> <b>BINP IS, high efficiency, .88 bf (normal)</b> BIHP IS, high efficiency, 1.20 bf (high) <sup>3</sup> BSNP PS, step-dimming, high efficiency, .88 bf (normal) <sup>4</sup>	<b>JP18 Job pack 18</b>

### NOTES:

- Lamps not included. Must be ordered separately.
- MVOLT standard for 120V-277V applications.
- Not available in high efficiency 347V.
- Not available in 347V.

# 2ES8RT Relight Assembly

## ENERGY AND LIGHT LEVEL COMPARISON

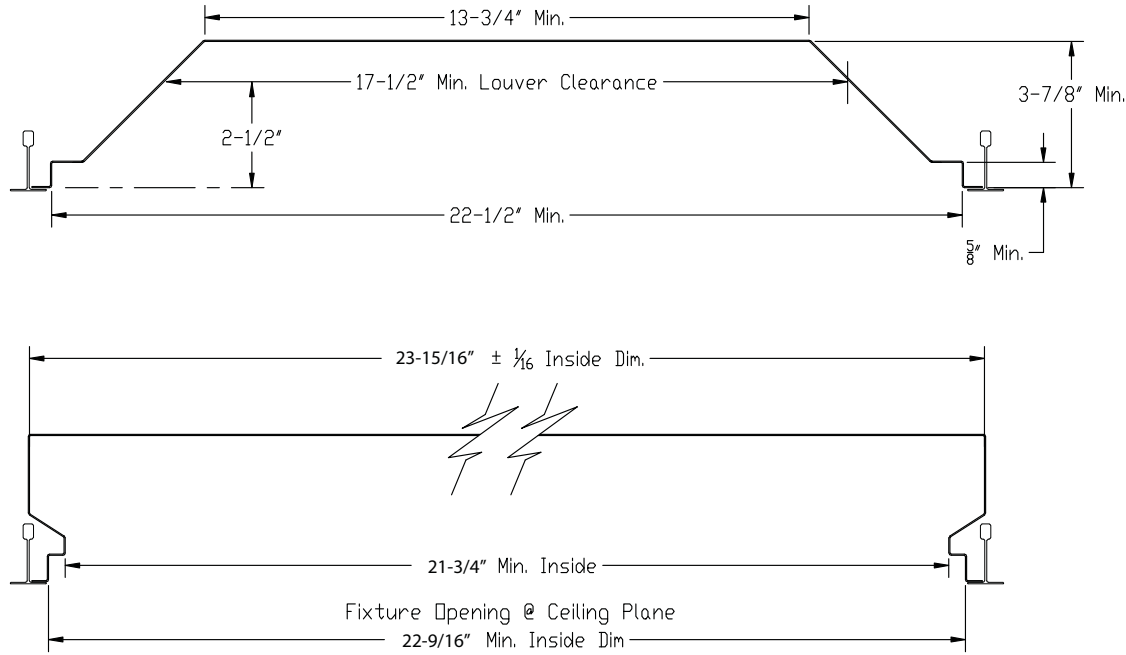
System	Light level	Input watts	Watts/SF	Watts saved	% Savings	\$ Savings per year	LER
Parabolic, (2) 2700 lumen U31W T8 lamps .88 bf	47	60	0.92	Base	Base	Base	52
ES8P, (2) 1400 lumen T8 lamps, 1.24 bf	42	41	0.66	19	32%	\$6.08	71

Light level in footcandles is calculated based on 8x10 mounting centers 9 foot ceilings, 60 x 60 room, 80/50/20 reflectances, .95 LLD, .90 LDD, horizontal light level on 2.5 foot workplane height.

Annual savings based on 4000 operating hours, \$.08/kwh. Luminaire Efficacy Rating (LER) is fixture lumen output divided by fixture input wattage.

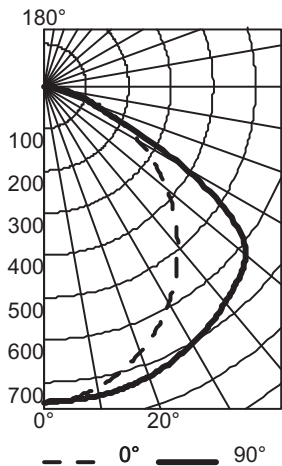
## FIT COMPATIBILITY

The ES8™ relight assembly (ES8R) was engineered to upgrade recessed 2x4 or 2x2 fixtures, including most parabolic and lensed troffers from all major manufacturers. Dimensional requirements are below but **Lithonia Lighting recommends a trial installation prior to purchasing project quantities.**



## PHOTOMETRICS

2ES8R 217, 1400 lumens per lamp, Test No. LTL 16485



### CP Summary

CP	0°	90°
0°	748	748
5°	742	745
15°	700	738
25°	632	718
35°	543	687
45°	437	648
55°	319	541
65°	201	199
75°	94	81
85°	26	16
90°	0	0

### Coefficients of Utilization

RCP	pc	Coefficients of Utilization									
		80%			20%			50%			
		70%	50%	30%	50%	30%	10%	50%	30%	10%	
0	92	92	92	90	90	90	86	86	86		
1	85	81	78	80	77	74	76	74	72		
2	77	71	66	70	65	61	67	63	60		
3	71	63	57	62	56	51	59	54	50		
4	65	56	49	55	48	44	53	47	43		
5	60	50	43	49	42	38	47	42	37		
6	55	45	38	44	37	33	43	37	32		
7	51	40	34	40	33	29	39	33	29		
8	47	37	30	36	30	26	35	30	26		
9	44	34	27	33	27	23	32	27	23		
10	41	31	25	31	25	21	30	25	21		

### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	583	21.6	27.8
0° - 40°	963	35.7	46.0
0° - 60°	1745	64.6	83.3
0° - 90°	2094	77.6	100.0
90° - 180°	0	0.0	0.0
0° - 180°	2094	77.6	100.0

Efficiency: 77.6%



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