

FEATURES & SPECIFICATIONS

INTENDED USE

ES8P provides a high-performance T8 (HPT8) energy-saving alternative to 3-lamp, 18-cell parabolic fixtures. Used in place of parabolics, ES8P can provide 44% energy savings while meeting IESNA recommended illuminance levels. Ideal for retail, educational, and commercial applications requiring lighting power density as low as 0.6 watts/square foot.

ATTRIBUTES

Designed and optimized for use with CEE (Consortium for Energy Efficiency) qualified, high-lumen T8 lamps and energy-efficient electronic ballasts.

Highly reflective surfaces combine with efficient design to produce up to 86% photometric efficiency and a Luminaire Efficacy Rating (LER) of up to 86 using listed lamps and ballast.

CONSTRUCTION

Robust design, precision-tooling and automated assembly combine to create the industry's strongest louver. Rotary sockets provide for simple lamp insertion and positive engagement into lamp contacts. Mechanical light seal requires no foam gasketing. Integral T-bar clips secure fixture to T-bar system. Housing formed of cold-rolled steel.

FINISH

Five-stage iron-phosphate pre-treatment ensures superior paint adhesion and rust resistance. Housing painted after fabrication with environmentally friendly, high gloss, very high reflectivity polyester powder-coat.

Louver painted after fabrication with low gloss, high reflectivity polyester powder coat.

OPTICAL

Mechanical shielding is provided with angled length blades, and linear faceted cross baffles. Contoured housing efficiently directs light downward. Lamp cut-out maximizes shielding even in shallow plenum applications and softens light distribution to deliver a balanced amount of light to both vertical and horizontal surfaces.

ELECTRICAL SYSTEM

Standard ballast is high-efficiency, CEE qualified, instant-start, ≤10% THD, universal voltage and sound rated A.

Optional program-start and step-dimming ballasts available.

Ballast disconnect standard on all configurations except EL options. See note in Ordering Information.

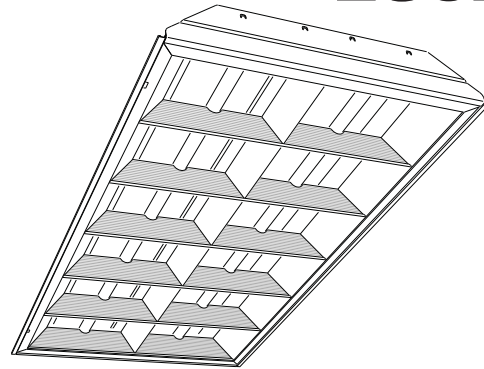
LISTING

Standard: UL; Optional: Canada – CSA or cUL. Mexico – NOM.

| | |
|----------------|------|
| Catalog Number | |
| Notes | Type |

Premium High-Performance T8 Lighting

ES8P 2'x4'



2 Lamps
T8

Specifications

Length: 48 (1218)

Width: 24 (609)

Depth: 3-11/16 (94)

Weight: 26 lbs (11.7 kg)

All dimensions are inches (millimeters) unless otherwise specified.

WARRANTY

Light fixture is guaranteed for one year against mechanical defects in manufacture.

Ballast is warranted for five years, and lamp is warranted for three years under system warranty terms provided by lamp and ballast manufacturer. For options, see below.

US PATENTS: 6,210,025; 6,231,213, additional patents pending.

Specifications subject to change without notice.

ORDERING INFORMATION

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

Example: 2ES8P 232 BILP L835HT8

| 2ES8P | | 232 | | | | | |
|--------|----------------------------|---------------------------------|----------------------------------|--|--|---|--|
| Series | Trim type | Number of lamps/wattage | Voltage | Ballast | Lamp | Options ⁴ | |
| 2ES8P | (blank) Lay-in grid | 232 2-lamp, 32W T8 (48") | (blank) MVOLT¹ | BILP IS, high efficiency, .78 bf (low) | L835HT8 3100 lumen, long life, 3500°K | EL Emergency battery pack (nominal 300 lumens)⁵ | |
| | F Overlap-ping flanged | Included. | 120 277 347 | BINP IS, high efficiency, .88 bf (normal) | L830HT8 3100 lumen, long life, 3000°K | EL14 Emergency battery pack (nominal 1400 lumens)⁵ | |
| | | | | BIHP IS, high efficiency, 1.20 bf (high) ² | L841HT8 3100 lumen, long life, 4100°K | PWS1836 6' prewire, 3/8" dia., 18-gauge, 3 wires | |
| | | | | BSNP PS, step-dimming, high efficiency, .88 bf (normal) ³ | | QFC___ Quick-flex, fixture cable, factory installed prewired cable (RELOC) ⁶ | |
| | | | | | | CP Chicago plenum approved | |
| | | | | | | CSA Listed and labeled to comply with Canadian standards | |
| | | | | | | NOM NOM Certified | |

NOTES:

1 MVOLT standard for 120V - 277V applications. 50 or 60 hz operation. Some options require voltage specified.

2 CEE qualified ballast is not available in 347V.

3 Not available with 347V.

4 Other options available may increase fixture depth to 4-1/2". Consult factory if plenum space is a concern.

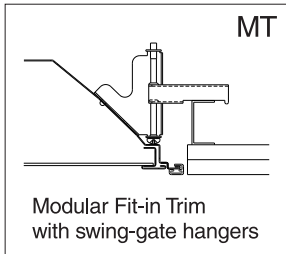
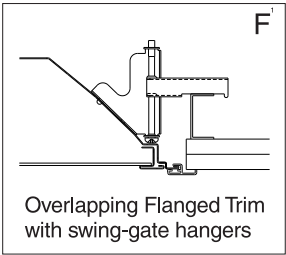
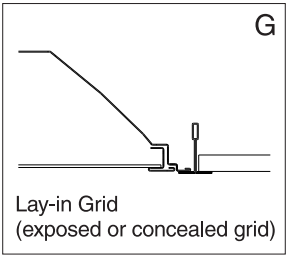
5 Ballast disconnect not standard with any EL option. Must specify BDP for inclusion with EL battery packs. UL Listed only. Consult factory for BDP CSA with EL option.

6 Must specify voltage.

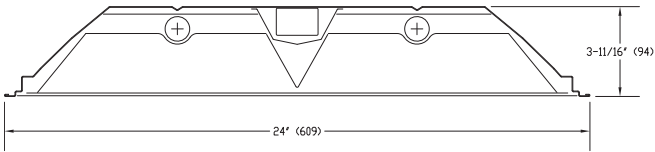
ES8P 2'x4' Premium High-Performance T8 Lighting

MOUNTING DATA

Continuous row mounting of flanged units requires CRE and CRM trim options (see Options).



DIMENSIONS

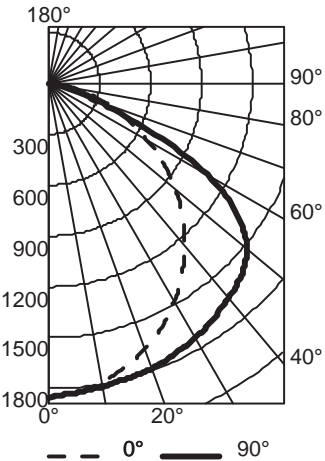


All dimensions are inches (millimeters) unless otherwise specified. Specifications subject to change without notice.

NOTE:

- 1 Recommended rough-in dimensions for F-trim fixtures 24"x48". (Tolerance is +1/4"-0".)
Swing-gate range 1-3/16" to 3-15/16". Swing-gate span 23-3/8" to 26-11/16". Fixture swing-gate points require additional 9/16" over nominal fixture height.

2ES8P 232, 3100 lumens per lamp, test no. LTL 16106



| CP Summary | | Coefficients of Utilization | | | | | | | | | | | | Zonal Lumen Summary | | | |
|------------|------|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------|---------------------|--------|--------|-----------|
| | | pf | 80% | | | 70% | | | 50% | | | | | | | | |
| | | 0° | 90 | pc | 70% | 50% | 30% | 50% | 30% | 10% | 50% | 30% | 10% | Zone | Lumens | % Lamp | % Fixture |
| 0° | 1850 | 1850 | 0 | 102 | 102 | 102 | 99 | 99 | 99 | 95 | 95 | 95 | 0° - 30° | 1441 | 23.2 | 27.2 | |
| 5° | 1833 | 1831 | 1 | 94 | 90 | 86 | 88 | 85 | 82 | 84 | 82 | 79 | 0° - 40° | 2389 | 38.5 | 45.0 | |
| 15° | 1733 | 1800 | 2 | 85 | 78 | 73 | 77 | 72 | 67 | 74 | 69 | 66 | 0° - 60° | 4375 | 70.6 | 82.5 | |
| 25° | 1581 | 1761 | 3 | 78 | 69 | 62 | 68 | 61 | 56 | 65 | 60 | 55 | 0° - 90° | 5304 | 85.6 | 100.0 | |
| 35° | 1371 | 1693 | 4 | 71 | 61 | 54 | 60 | 53 | 48 | 58 | 52 | 47 | 90° - 180° | 0 | 0.0 | 0.0 | |
| 45° | 1119 | 1606 | 5 | 65 | 54 | 47 | 53 | 46 | 41 | 52 | 45 | 41 | 0° - 180° | 5304 | 85.6 | 100.0 | |
| 55° | 827 | 1360 | 6 | 60 | 49 | 41 | 48 | 41 | 36 | 47 | 40 | 35 | | | | | |
| 65° | 522 | 653 | 7 | 56 | 44 | 37 | 44 | 36 | 31 | 42 | 36 | 31 | | | | | |
| 75° | 233 | 185 | 8 | 52 | 40 | 33 | 40 | 33 | 28 | 39 | 32 | 28 | | | | | |
| 85° | 56 | 33 | 9 | 48 | 37 | 30 | 36 | 30 | 25 | 35 | 29 | 25 | | | | | |
| 90 | 0 | 0 | 10 | 45 | 34 | 27 | 34 | 27 | 23 | 33 | 27 | 23 | Efficiency: 85.6% | | | | |

Efficiency: 85.6%

ENERGY AND LIGHT LEVEL COMPARISON

| System | Light level | Input watts | Watts/SF | Watts saved | % Savings | \$ Savings per year | LER |
|---|-------------|-------------|----------|-------------|-----------|---------------------|-----|
| Parabolic, (3) 2800 lumen T8 lamps .88 ballast factor | 69 | 85 | 1.06 | Base | Base | Base | 65 |
| ES8P, (2) 3100 lumen T8 lamps, .78 ballast factor | 52 | 48 | 0.60 | 37 | 44% | \$11.84 | 86 |

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.