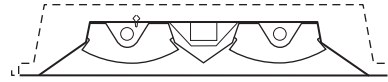
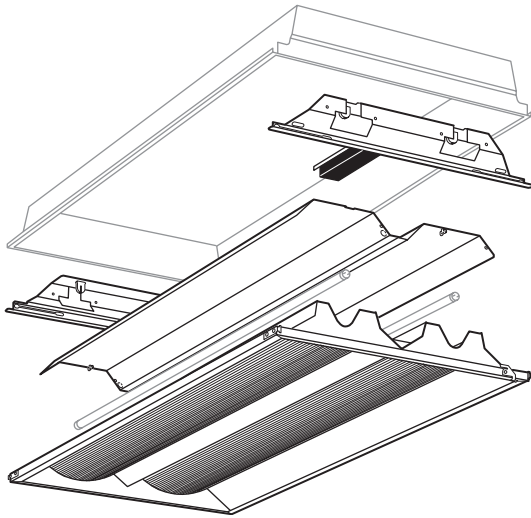


2' x 4' HIGH EFFICIENCY TROFFER RETROFIT KIT

SERIES **HETR**
2' x 4' T5



Housing provided by others.
See back for dimensional requirements.
Lamps not included.

JOB _____

TYPE _____

VOLTAGE _____

SPECIFICATIONS

- HOUSING – Provided by others, must fit within approved minimum dimensions (see back for details).
- REFLECTORS/WIREWAY COVERS – 25-gauge C.R.S.
- SHIELDING – Frosted, ribbed acrylic diffuser.
- DOOR – 22-gauge C.R.S., flat with mitered corners. T-slot steel hinge allows reversible hinging and latching.
- FINISH – Reflectors/Wireway Covers: 92% minimum average reflective white powder coat with multi-stage iron/phosphate prepared metal. Door: Highly-reflective textured matte white powder coat.
- ELECTRICAL – Electronic ballast standard, programmed start T5, rated Class P.
- LABELS – UL/CUL listed as recessed fluorescent luminaire suitable for dry or damp locations. UL/CUL classified as luminaire conversion, retrofit kit.
- MOUNTING – Designed to retrofit existing troffers and parabolics in grid ceiling applications.

FEATURES

- Attractive and environmentally sensitive—achieve the fresh appearance of a new architecturally designed fixture while recycling the existing fixture housing.
- Can improve optical efficiency as much as 20% when replacing dated troffers and parabolics, realizing substantial energy savings.
- Allows fixture upgrades without disturbing the ceiling.
- Frosted, ribbed acrylic diffusers combined with highly-reflective matte white paint produce high optical efficiencies while providing visual comfort.
- Designed to fit into most 2' x 4' fixture housings with a minimum fixture depth of 4".
- T-slot steel hinge allows reversible hinging and latching and ensures positive retention when door is opened.
- Cam latches close securely and allow hassle-free maintenance.
- Tool-less access to the electrical from room-side of fixture.
- Quick and easy installation.
- All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- This fixture is proudly made in the USA.

H.E. Williams, Inc. strongly recommends installing a trial fixture prior to ordering full project quantities.

ORDERING INFORMATION

Submittal

EXAMPLE: SERIES **HETR** - NOM. WIDTH **2** - NOM. LENGTH **4** - TOTAL LAMPS **2** - WATTAGE/TYPE **54T5H** - SHIELDING **A** - OPTIONS **OPTIONS** - BALLAST **EB2** - VOLTAGE **120**

| SERIES | |
|----------------|--------------------------------------|
| HETR | High Efficiency Troffer Retrofit Kit |
| NOMINAL WIDTH | |
| 2 | 2' |
| NOMINAL LENGTH | |
| 4 | 4' |
| TOTAL LAMPS | |
| 2 | |

| LAMP WATTAGE/TYPE | |
|--|----------------------------------|
| 28T5S | 4', 28-watt T5 |
| 54T5H | 4', 54-watt T5HO |
| SHIELDING | |
| A | Frosted, ribbed acrylic diffuser |
| OPTIONS | |
| For emergency ballasts and other options, consult factory. | |

| BALLAST TYPE | |
|---|---------------------------|
| EB2 | 2-lamp electronic ballast |
| For additional ballast combinations, consult factory. | |
| VOLTAGE | |
| 120 | 120V |
| 277 | 277V |
| UNV | 120 - 277V |
| 347 | 347V |

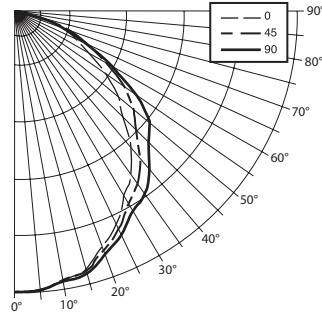


FLUORESCENT LIGHTING

Williams Catalog #HETR-24-254T5H-A-EB2-120 Lamp Type: FP54T5HO/835
 Test Report #14755.0, Dated 06/24/09 Lamp Quantity: 2

CANDLEPOWER DISTRIBUTION

| VERTICAL ANGLE | HORIZONTAL ANGLE | | | ZONAL LUMENS |
|----------------|------------------|-------|-------|--------------|
| | 0 | 45 | 90 | |
| 0 | 3119. | 3119. | 3119. | |
| 5 | 3114. | 3100. | 3103. | 296.5 |
| 15 | 2979. | 2993. | 3022. | 849.7 |
| 25 | 2631. | 2687. | 2758. | 1245.4 |
| 35 | 2237. | 2354. | 2483. | 1480.9 |
| 45 | 1690. | 1880. | 2079. | 1457.1 |
| 55 | 1234. | 1477. | 1658. | 1312.9 |
| 65 | 758. | 973. | 902. | 888.1 |
| 75 | 360. | 410. | 334. | 407.4 |
| 85 | 82. | 75. | 73. | 84.8 |
| 90 | 0. | 0. | 0. | |



LUMEN SUMMARY

| ZONE | LUMENS | %LAMP | % FIXTURE |
|---------|--------|-------|-----------|
| 0 - 30 | 2392. | 23.9 | 29.8 |
| 0 - 40 | 3872. | 38.7 | 48.3 |
| 0 - 60 | 6642. | 66.4 | 82.8 |
| 0 - 90 | 8023. | 80.2 | 100.0 |
| 0 - 180 | 8023. | 80.2 | 100.0 |

ZONAL CAVITY COEFFICIENTS

EFFECTIVE FLOOR CAVITY REFL. = .20

| WALL RCR | CEILING .80 | | | .70 | | | .50 | | |
|----------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | .70 | .50 | .30 | .70 | .50 | .30 | .50 | .30 | .10 |
| 0 | .96 | .96 | .96 | .93 | .93 | .93 | .89 | .89 | .89 |
| 1 | .88 | .85 | .82 | .86 | .83 | .81 | .80 | .78 | .76 |
| 2 | .81 | .75 | .71 | .79 | .74 | .70 | .71 | .67 | .64 |
| 3 | .75 | .67 | .61 | .73 | .66 | .61 | .64 | .59 | .55 |
| 4 | .69 | .60 | .53 | .67 | .59 | .53 | .57 | .52 | .48 |
| 5 | .63 | .53 | .46 | .61 | .52 | .46 | .51 | .45 | .41 |
| 6 | .58 | .48 | .41 | .57 | .47 | .41 | .46 | .40 | .35 |
| 7 | .53 | .43 | .36 | .52 | .42 | .36 | .41 | .35 | .31 |
| 8 | .49 | .39 | .32 | .48 | .38 | .32 | .37 | .31 | .27 |
| 9 | .45 | .35 | .28 | .44 | .34 | .28 | .33 | .27 | .23 |
| 10 | .42 | .31 | .25 | .41 | .31 | .25 | .30 | .25 | .21 |

TOTAL LUMINAIRE

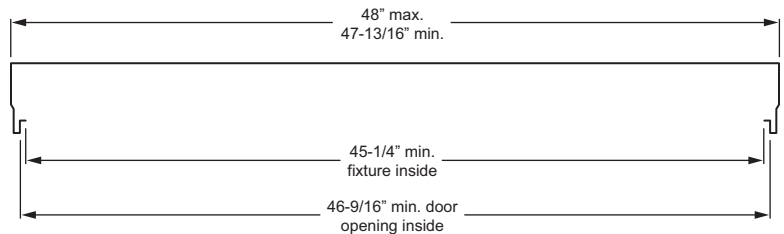
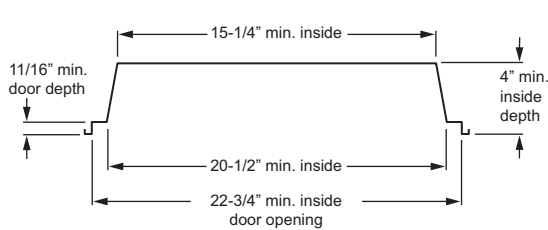
OPTICAL EFFICIENCY = 80.2%

SPACING CRITERIA: END=1.2 DIAG=1.2 ACROSS=1.2

ADDITIONAL INFORMATION

MINIMUM FIXTURE HOUSING DIMENSIONS

H.E. Williams, Inc. strongly recommends installing a trial fixture prior to ordering full project quantities.



H. E. WILLIAMS, INC.