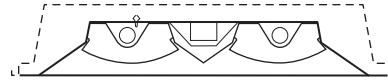
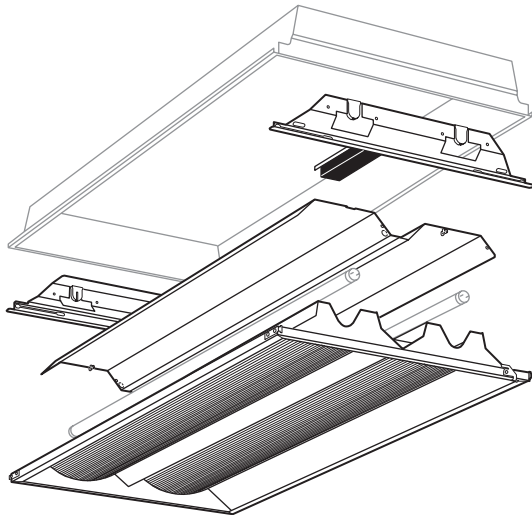


2' x 4' HIGH EFFICIENCY TROFFER RETROFIT KIT

SERIES **HETR**
2' x 4' T8



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, instant start T8, 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 WATTAGE/LAMPS **32** - TYPE **A** - 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	32 4', 32-watt T8
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



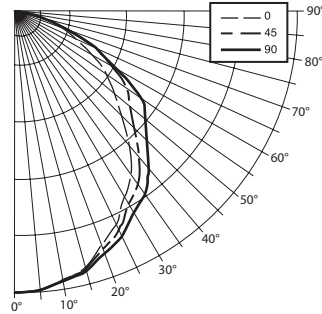
FLUORESCENT LIGHTING

Williams Catalog #HETR-24-232-A-EB2-120
Test Report #14754.0, Dated 06/22/09

Lamp Type: F32WT8/835/RS
Lamp Quantity: 2

CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0	45	90	
0	1898.	1898.	1898.	
5	1893.	1894.	1894.	180.8
15	1799.	1814.	1821.	513.2
25	1600.	1639.	1684.	759.4
35	1359.	1438.	1517.	902.7
45	1011.	1129.	1253.	874.9
55	755.	918.	1030.	811.4
65	463.	602.	575.	551.9
75	219.	257.	216.	255.6
85	49.	46.	46.	51.4
90	0.	0.	0.	



LUMEN SUMMARY

ZONE	LUMENS	%LAMP	% FIXTURE
0 - 30	1453.	24.6	29.7
0 - 40	2356.	39.9	48.1
0 - 60	4042.	68.5	82.5
0 - 90	4901.	83.1	100.0
0 - 180	4901.	83.1	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	.99	.99	.99	.97	.97	.97	.92	.92	.92
1	.92	.88	.85	.89	.86	.83	.83	.80	.78
2	.84	.78	.73	.82	.77	.72	.74	.70	.66
3	.77	.70	.63	.76	.68	.63	.66	.61	.57
4	.71	.62	.55	.69	.61	.55	.59	.53	.49
5	.65	.55	.48	.63	.54	.47	.52	.46	.42
6	.60	.49	.42	.58	.49	.42	.47	.41	.37
7	.55	.44	.37	.54	.44	.37	.42	.36	.32
8	.51	.40	.33	.50	.39	.33	.38	.32	.28
9	.47	.36	.29	.46	.35	.29	.34	.28	.24
10	.44	.32	.26	.42	.32	.26	.31	.25	.21

TOTAL LUMINAIRE

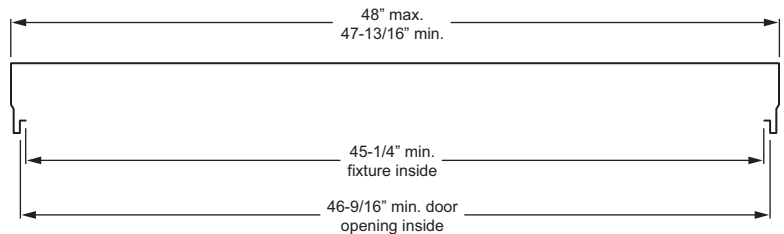
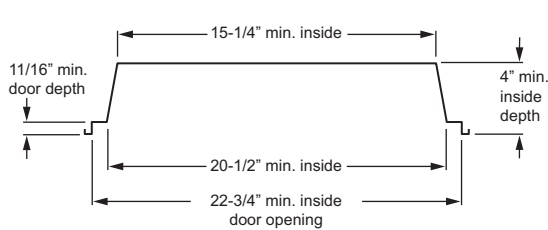
OPTICAL EFFICIENCY = **83.1%**

SPACING CRITERIA: END=1.2 DIAG=1.2 ACROSS=1.3

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.