

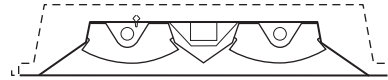
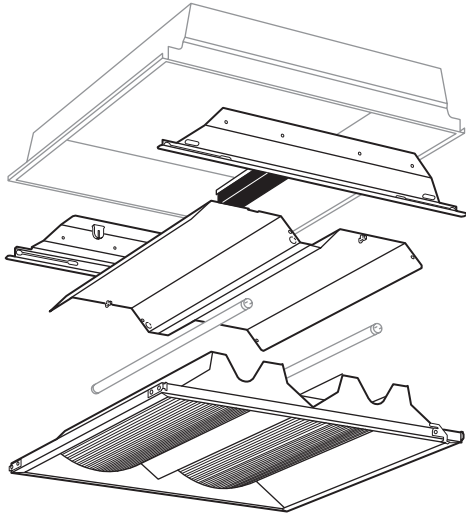
2' x 2' HIGH EFFICIENCY TROFFER RETROFIT KIT

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

JOB _____

TYPE _____

VOLTAGE _____



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

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 2' 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 **2** - TOTAL LAMPS **2** - WATTAGE/TYPE **24T5H** - SHIELDING **A** - OPTIONS **OPTIONS** - BALLAST **EB2** - VOLTAGE **120**

SERIES	HETR High Efficiency Troffer Retrofit Kit	LAMP WATTAGE/TYPE	14T5S 2', 14-watt T5 24T5H 2', 24-watt T5HO	BALLAST TYPE	EB2 2-lamp electronic ballast For additional ballast combinations, consult factory.
NOMINAL WIDTH	2 2'	SHIELDING	A Frosted, ribbed acrylic diffuser	VOLTAGE	120 120V 277 277V UNV 120 - 277V 347 347V
NOMINAL LENGTH	2 2'	OPTIONS	For emergency ballasts and other options, consult factory.		
TOTAL LAMPS	2				

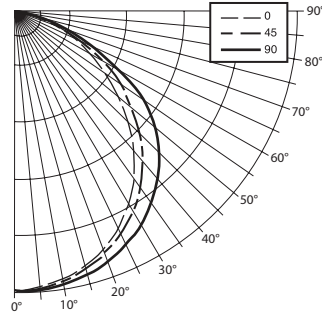


FLUORESCENT LIGHTING

Williams Catalog #HETR-22-224T5H-A-EB2-120 Lamp Type: FP24T5HO/835
 Test Report #14753.0, Dated 06/22/09 Lamp Quantity: 2

CANDLEPOWER DISTRIBUTION

VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0	45	90	
0	1258.	1258.	1258.	
5	1241.	1258.	1258.	119.9
15	1183.	1210.	1223.	342.4
25	1071.	1120.	1153.	517.4
35	909.	986.	1044.	616.7
45	693.	805.	893.	618.8
55	481.	596.	681.	527.8
65	284.	373.	356.	341.2
75	125.	144.	124.	143.2
85	20.	16.	14.	18.3
90	0.	0.	0.	



LUMEN SUMMARY

ZONE	LUMENS	%LAMP	% FIXTURE
0 - 30	980.	24.5	30.2
0 - 40	1596.	39.9	49.2
0 - 60	2743.	68.6	84.5
0 - 90	3245.	81.1	100.0
0 - 180	3245.	81.1	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	.97	.97	.97	.94	.94	.94	.90	.90	.90
1	.90	.86	.83	.88	.85	.82	.81	.79	.77
2	.83	.77	.72	.81	.75	.71	.73	.69	.66
3	.76	.69	.63	.74	.67	.62	.65	.60	.57
4	.70	.61	.55	.68	.60	.54	.58	.53	.49
5	.64	.54	.48	.63	.54	.47	.52	.46	.42
6	.59	.49	.42	.58	.48	.42	.47	.41	.37
7	.54	.44	.37	.53	.43	.37	.42	.36	.32
8	.50	.39	.33	.49	.39	.32	.38	.32	.28
9	.46	.35	.29	.45	.35	.28	.34	.28	.24
10	.43	.32	.26	.42	.32	.25	.31	.25	.21

TOTAL LUMINAIRE

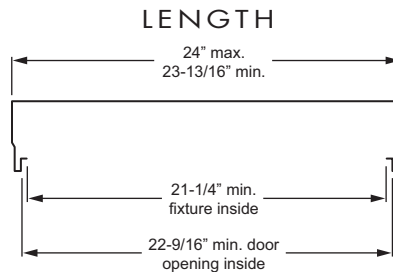
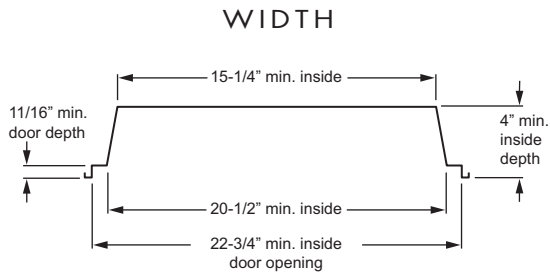
OPTICAL EFFICIENCY = **81.1%**

SPACING CRITERIA: END=1.2 DIAG=1.3 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.