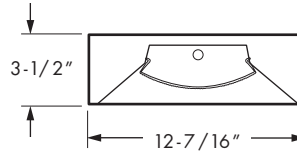
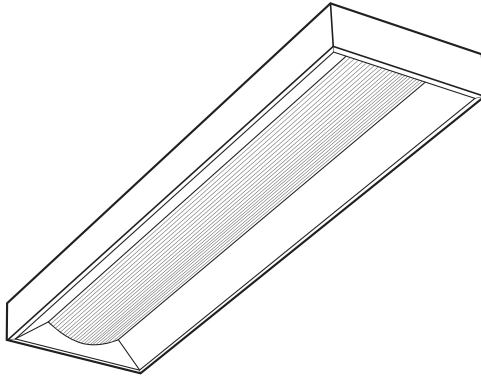


HIGH EFFICIENCY SURFACE MOUNT

SERIES **HES**
1'x4'



Dimensions: 48-7/8" x 12-7/16" x 3-1/2"

VOLTAGE TYPE JOB _____

SPECIFICATIONS

- HOUSING – 22 gauge die-formed C.R.S.
- SHIELDING – Ribbed acrylic diffuser.
- FINISH – Highly reflective matte white powder coat.
- ELECTRICAL – Electronic ballast standard, instant start T8, programmed start T5, rated Class P.
- LABELS – UL/CUL listed as fluorescent luminaire suitable for dry or damp locations.
- MOUNTING – Surface.

FEATURES

- Attractive, energy-efficient architectural fixture that delivers comfortable, uniform lighting.
- Frosted acrylic diffusers combined with highly reflective matte white paint provide high optical efficiencies while providing visual comfort.
- Tool-less access to the electrical from room side of fixture.
- All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.

ORDERING INFORMATION

Submittal

EXAMPLE: **HES** - **1** **4** - **1** **54T5H** - **A** - **OPTIONS** - **EB1** - **UNV**

SERIES	HES High Efficiency Surface Mount
NOMINAL WIDTH	1 1'
NOMINAL LENGTH	4 4'
TOTAL LAMPS	1

LAMP WATTAGE/TYPE	28T5S 4', 28-watt T5
	32 4', 32-watt T8
	54T5H 4', 54-watt T5HO
SHIELDING	A Acrylic lens

BALLAST TYPE	EB1 1-lamp electronic ballast
	EBHW1 1-lamp high wattage electronic ballast
VOLTAGE	120 120V
	277 277V
	UNV 120 - 277V
	347 347V



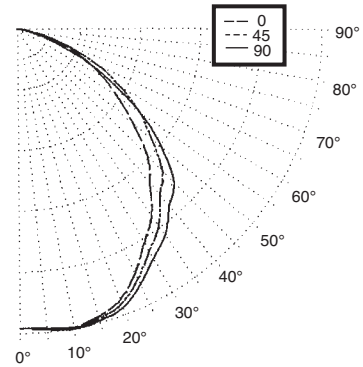
FLUORESCENT LIGHTING

Williams Catalog #HES-14-128T5S-A-EB1
Test Report #13151.1, Dated 06/22/06

Lamp Type: F28T5/835
Lamp Quantity: 1

CANDLEPOWER DISTRIBUTION

VERT. ANG.	HORIZONTAL ANGLE			ZONAL LUMENS
	0	45	90	
0	961.	961.	961.	
5	966.	967.	969.	92.3
15	957.	964.	971.	273.2
25	871.	892.	911.	412.3
35	740.	780.	816.	489.1
45	583.	652.	706.	501.4
55	390.	474.	477.	405.9
65	236.	283.	224.	253.6
75	108.	101.	67.	102.7
85	22.	9.	6.	13.1
90	0.	0.	0.	



LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXTURE
0 - 30	778.	26.8	30.6
0 - 40	1267.	43.7	49.8
0 - 60	2174.	75.0	85.5
0 - 90	2544.	87.7	100.0
90 - 120	0.	0.	0.
90 - 130	0.	0.	0.
90 - 150	0.	0.	0.
90 - 180	0.	0.	0.
Total Luminaire			
0-180	2544.	87.7	100.0

ZONAL CAVITY COEFFICIENTS

EFFECTIVE FLOOR CAVITY REFL. = .20

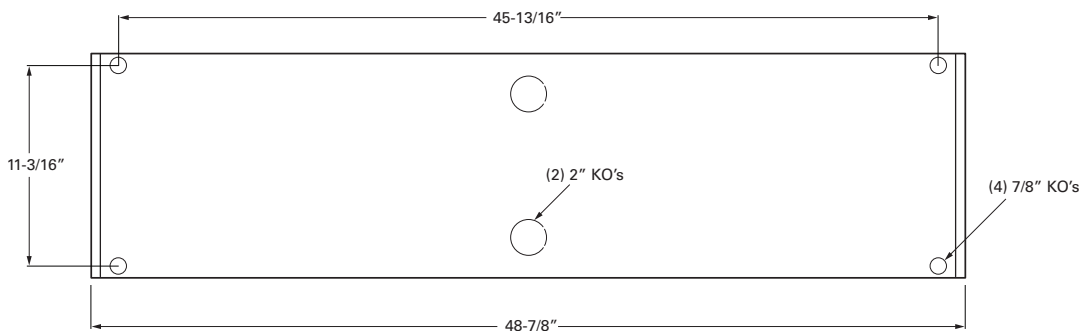
CEILING	.80			.70			.50		
	WALL RCR	.70	.50	.30	.70	.50	.30	.50	.30
0	104	104	104	102	102	102	97	97	97
1	.97	.94	.90	.95	.92	.89	.88	.86	.83
2	.90	.83	.78	.87	.82	.77	.79	.75	.71
3	.83	.75	.68	.81	.73	.67	.71	.66	.62
4	.76	.67	.60	.74	.66	.59	.63	.58	.53
5	.70	.59	.52	.68	.58	.51	.56	.50	.46
6	.64	.53	.46	.63	.52	.45	.51	.45	.40
7	.59	.48	.40	.58	.47	.40	.46	.40	.35
8	.54	.43	.36	.53	.42	.35	.41	.35	.30
9	.50	.38	.31	.49	.38	.31	.37	.31	.26
10	.46	.35	.28	.45	.34	.28	.34	.27	.23

TOTAL LUMINAIRE

OPTICAL EFFICIENCY = 87.7 %

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

BACK VIEW



FLUORESCENT LIGHTING

H.E. Williams, Inc. • Carthage, Missouri • www.hewilliams.com • 417-358-4065 • Fax: 417-358-6015

Information contained herein is subject to change without notice.

HEWJP59509 09/02/11RJ