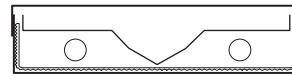
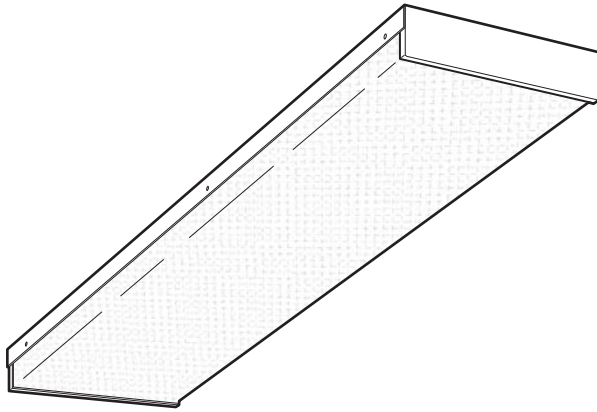
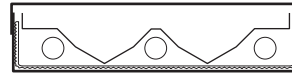


12" WIDE VANDAL WRAP

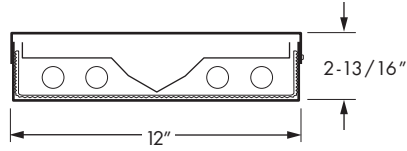
SERIES **V12**
 JOB _____
 TYPE _____
 VOLTAGE _____



2-lamp T8



3-lamp T8



4-lamp T8

SPECIFICATIONS

- HOUSING – 20-gauge die-formed C.R.S. standard– 16-gauge C.R.S. housing optional.
- SHIELDING – .130" thick acrylic lens with 50% DR additive standard – .156" thick polycarbonate lens optional. Lens is secured to housing with six #8-32 x 3/4" tamper-resistant tri-groove screws.
- FINISH – 92% minimum average reflective white powder coat with multi-stage iron/phosphate prepared metal.
- ELECTRICAL – Electronic ballast standard, instant start T8, rated Class P.
- LABELS – UL/CUL listed as fluorescent luminaire suitable for dry or damp locations. Wet location under covered ceilings optional.
- MOUNTING – Surface.

FEATURES

- Ideal for schools, hallways, dormitories, locker rooms, or any other vandal prone areas.
- Heavy-gauge C.R.S. housing designed to withstand harsh environments.
- Tamper-resistant screws protect against vandals.
- Steel end caps envelop diffuser for added strength and durability.
- Surface mount to ceilings or walls.
- All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- This fixture is proudly made in the USA.

ORDERING INFORMATION

Submittal

EXAMPLE: **V12** **16** - **4** - **3** **32** - **PC** - **OPTIONS** - **EB3** - **UNV**

SERIES	
V12	Vandal Wrap, 12" wide
HOUSING	
16	16-gauge C.R.S.
20	20-gauge C.R.S.
NOMINAL LENGTH	
4	4'
TOTAL LAMPS	
2, 3, or 4	

LAMP WATTAGE/TYPE	
32	4', 32-watt T8
SHIELDING	
DR	Acrylic, 50% DR additive, .130" thick
PC	Polycarbonate lens, .156" thick
OPTIONS	
WET/CC	Wet location under covered ceiling

BALLAST TYPE	
EB2	2-lamp electronic ballast
EB3	3-lamp electronic ballast
EB4	4-lamp electronic ballast
EB2/1	(1) 2-lamp & (1) 1-lamp electronic ballast
EB2/2	(2) 2-lamp electronic ballasts
VOLTAGE	
120	120V
277	277V
UNV	120-277V
347	347V

This fixture requires a tamper-resistant tool. A tamper-resistant tool must be ordered as a separate line item. Please specify quantity required per project.

Note: For more options/accessories, ballast combinations, and product details, please consult factory.



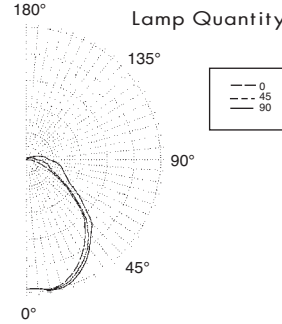
FLUORESCENT LIGHTING

Williams Catalog #V1216-4-332-DR-EB3
 Test Report #12930.0, Dated 01/10/06

Lamp Type: F32T8/835
 Lamp Quantity: 3

CANDLEPOWER DISTRIBUTION

VERT. ANG.	HORIZONTAL ANGLE			ZONAL LUMENS
	0	45	90	
0	2544.	2544.	2544.	
5	2542.	2546.	2547.	242.9
15	2554.	2584.	2612.	732.3
25	2318.	2388.	2447.	1104.2
35	1976.	2075.	2136.	1296.2
45	1572.	1633.	1796.	1286.2
55	953.	1021.	1251.	956.4
65	520.	592.	871.	642.1
75	255.	447.	722.	492.3
85	90.	306.	578.	354.3
90	8.	207.	447.	



LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXTURE
0 - 30	2079.	23.5	27.3
0 - 40	3376.	38.1	44.3
0 - 60	5619.	63.5	73.7
0 - 90	7108.	80.3	93.2
90 - 120	423.	4.8	5.5
90 - 130	465.	5.3	6.1
90 - 150	509.	5.7	6.7
90 - 180	516.	5.8	6.8
0 - 180	7623.	86.1	100.0

ZONAL CAVITY COEFFICIENTS

EFFECTIVE FLOOR CAVITY REFL. = .20

CEILING WALL RCR	.80			.70			.50		
	.70	.50	.30	.70	.50	.30	.50	.30	.10
0	101	101	101	98	98	98	.92	.92	.92
1	.92	.88	.85	.89	.86	.82	.81	.78	.76
2	.85	.78	.72	.82	.76	.71	.72	.67	.64
3	.78	.69	.63	.75	.68	.61	.64	.59	.55
4	.72	.62	.55	.69	.60	.54	.58	.52	.47
5	.66	.55	.48	.64	.54	.47	.51	.45	.41
6	.61	.50	.42	.59	.49	.42	.46	.40	.36
7	.56	.45	.37	.54	.44	.37	.42	.36	.31
8	.52	.40	.33	.50	.39	.33	.38	.32	.27
9	.48	.36	.29	.46	.35	.29	.34	.28	.24
10	.44	.33	.26	.43	.32	.26	.31	.25	.21

TOTAL LUMINAIRE

OPTICAL EFFICIENCY = **86.1%**

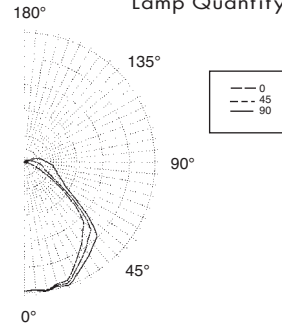
SPACING CRITERIA: END = 1.3 DIAG. = 1.3 ACROSS = 1.4

Williams Catalog #V1216-4-332-PC-EB3-UNV
 Test Report #12919.0, Dated 12/27/05

Lamp Type: F32T8/835
 Lamp Quantity: 3

CANDLEPOWER DISTRIBUTION

VERT. ANG.	HORIZONTAL ANGLE			ZONAL LUMENS
	0	45	90	
0	2083.	2083.	2083.	
5	2077.	2081.	2082.	198.5
15	2037.	2058.	2079.	583.4
25	1890.	1949.	2011.	902.8
35	1619.	1731.	1835.	1085.7
45	1353.	1525.	1664.	1177.3
55	694.	840.	994.	760.6
65	306.	453.	668.	462.1
75	121.	323.	534.	334.7
85	43.	255.	453.	263.8
90	3.	202.	378.	



LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% FIXTURE
0 - 30	1685.	19.0	27.4
0 - 40	2770.	31.3	45.0
0 - 60	4708.	53.2	76.4
0 - 90	5769.	65.2	93.7
90 - 120	339.	3.8	5.5
90 - 130	366.	4.1	5.9
90 - 150	387.	4.4	6.3
90 - 180	391.	4.4	6.3
0 - 180	6159.	69.6	100.0

ZONAL CAVITY COEFFICIENTS

EFFECTIVE FLOOR CAVITY REFL. = .20

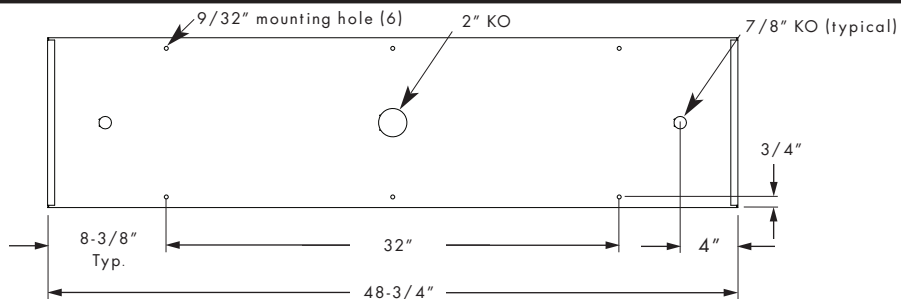
CEILING WALL RCR	.80			.70			.50		
	.70	.50	.30	.70	.50	.30	.50	.30	.10
0	82	82	82	79	79	79	.75	.75	.75
1	.75	.72	.69	.73	.70	.67	.66	.64	.62
2	.69	.64	.59	.67	.62	.58	.59	.55	.52
3	.63	.57	.51	.61	.55	.50	.53	.49	.45
4	.58	.51	.45	.57	.50	.44	.47	.43	.39
5	.54	.45	.39	.52	.44	.39	.42	.37	.34
6	.50	.41	.35	.48	.40	.34	.38	.33	.30
7	.46	.37	.31	.44	.36	.30	.34	.29	.26
8	.42	.33	.27	.41	.32	.27	.31	.26	.23
9	.39	.29	.24	.37	.29	.23	.27	.23	.19
10	.36	.27	.21	.35	.26	.21	.25	.20	.17

TOTAL LUMINAIRE

OPTICAL EFFICIENCY = **69.6%**

SPACING CRITERIA: END = 1.3 DIAG. = 1.3 ACROSS = 1.4

BACK VIEW



H. E. WILLIAMS, INC.