

**2 or 3 Lamp T8 U1-5/8"
Specular or Semi-Specular**

These fixtures meet the basic requirements of IESNA RP-1 for use in spaces containing Video Display Terminals.

APPLICATION

- Select one of the four air handling functions:
 - Static; non-air handling.
 - Heat transfer; air return through lamp compartment.
 - Air supply; (or air return) through side slots.
 - Combination; both heat transfer and air supply features listed above.
- Adjustable pattern control blades are optional.
- Air boots by others.

CONSTRUCTION/FINISH

- Housing is multi-stage phosphate treated for maximum corrosion resistance and finish coat is high reflectance baked white enamel.
- Access plate (2 K.O.'s) factory installed includes grounding screw.
- T Bar grid clips (UL listed, patented) built into fixture end plates, on 2 Lamp models. GCP grid clips supplied for contractor installation on 3 Lamp models.

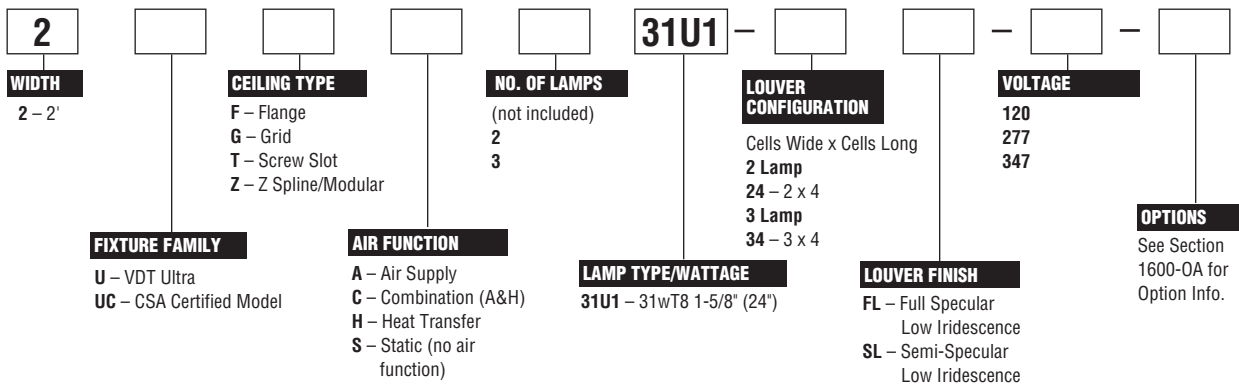
ELECTRICAL

- Class P, HPF, CBM certified ballasts comply with ©Federal Ballast Law (Public Law 100-357,1988).
- UL listed for damp locations. C.S.A. certified optional.
- Self-contained fluorescent emergency power packs can be incorporated.

ENCLOSURES

- Black reveal produces floating door appearance.
- Specular low iridescence anodized aluminum is standard for maximum brightness control and uniform appearance. Semi-specular low iridescence aluminum optional.
- Low iridescence aluminum minimizes the "rainbow effect" that can occur with Octron and other tri-phosphor lamps.
- Maximum average brightness meets the basic requirements of IESNA standard (Recommended Practice #1) for spaces with VDT's.
- Lamp shielding angles :
 - 2 Lamp 8 Cell: 36° crosswise, 37° lengthwise
 - 3 Lamp 12 Cell: 42° crosswise, 37° lengthwise
- Shipped with plastic film to keep out construction dirt.

CATALOG NUMBER



NOTES:

- With generic Electronic Ballasts (Brand selected by Day-Brite)
Suffix Catalog # with— **Ballast Quantity** - / - **EB** **Lamps Per Ballast**.

Example: -1/2-EB = One 2 Lamp Electronic Ballast.

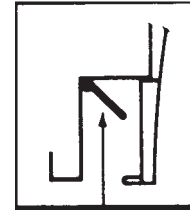
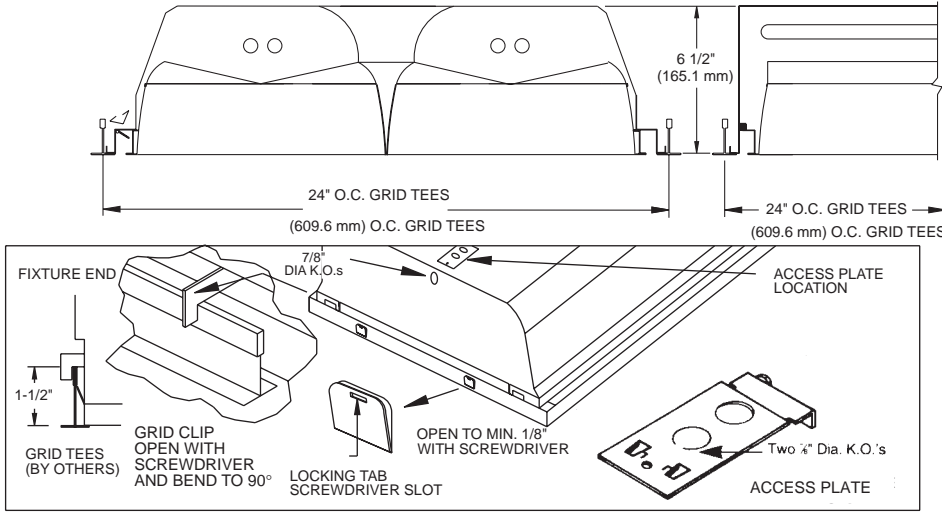
Example: -1/12-EB = One 2 Lamp Electronic Ballast and One 1 Lamp Electronic Ballast.

Example: -1/3-EB = One 3 Lamp Electronic Ballast,

2' x 2' VDT ULTRA 2 LAMP



DIMENSIONS



Optional Air Pattern Control
(on Air and Combination Units)

- Fully adjustable
 - Closed= Static
 - 45°= Horizontal Air Supply
 - 90°= (fully open) – Vertical Air Supply
- Side Slots may also be used for Return Air to Plenum

PHOTOMETRIC DATA

CATALOG #2UGS231U1-24FL-1/2-EB LAMPS = FBO 31 INPUT WATTS = 56
TEST #16396 S/MH=1.3 BALLAST = ELECTRONIC BALLAST FACTOR = .92

LER = FP-60

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.00 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 65.4%

CANDLEPOWER				
Angle	End	45	Cross	
0	2194	2194	2194	
5	2192	2194	2195	
10	2149	2163	2170	
15	2077	2098	2082	
20	1996	1975	1990	
25	1868	1859	1970	
30	1658	1759	1945	
35	1447	1644	1837	
40	1172	1479	1569	
45	748	1199	1166	
50	306	728	505	
55	30	214	116	
60	8	20	13	
65	4	4	3	
70	2	2	2	
75	1	1	1	
80	1	1	1	
85	0	0	0	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.76 2800 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	102	61	44	30
2 Lamp	2	-	78	47	33	-
	1	-	60	36	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	3537	5670	5514
55	175	1248	676
65	32	32	24
75	13	13	13
85	0	0	0

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise	Crosswise	8.5	10
30x30	99	98	99	97
40x40	99	99	99	98
60x30	99	99	99	98
60x60	100	99	100	99
100x100	100	100	100	98

COEFFICIENT OF UTILIZATION

pfc pcc pw	20			70			50		
	70	50	30	70	50	30	50	30	50
RCR									
0	78	78	78	76	76	76	72	72	72
1	73	71	69	71	69	68	67	66	66
2	68	65	61	68	64	60	61	59	59
3	65	59	56	63	58	55	56	54	54
4	59	55	50	58	54	50	52	48	48
5	56	50	45	55	48	45	47	44	44
6	53	46	40	52	45	40	44	40	40
7	50	41	38	48	41	36	40	36	36
8	46	39	34	46	39	34	38	34	34
9	44	35	32	42	35	30	34	30	30
10	40	34	28	40	33	28	33	28	28

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1669	29.8	45.6
0-40	2686	48.0	73.3
0-60	3656	65.3	99.8
0-90	3663	65.4	100.0

LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.88 @ 40% RATED LAMP LIFE BF = 0.92 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG #2UGS231U1-24SL-1/2-EB LAMPS = FBO 31 INPUT WATTS = 57
TEST #16397 S/MH=1.3 BALLAST = ELECTRONIC BALLAST FACTOR = .92

LER = FP-57

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.21 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 62.8%

CANDLEPOWER				
Angle	End	45	Cross	
0	2131	2131	2131	
5	2134	2121	2113	
10	2085	2082	2073	
15	2010	2002	2001	
20	1916	1893	1914	
25	1783	1768	1883	
30	1590	1665	1843	
35	1359	1536	1722	
40	1095	1368	1474	
45	718	1095	1105	
50	340	678	558	
55	72	239	154	
60	28	46	33	
65	15	16	15	
70	9	9	9	
75	4	5	5	
80	2	3	3	
85	1	1	1	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.76 2800 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	97	58	42	-
2 Lamp	2	-	74	44	32	-
	1	-	57	34	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	3395	5178	5225
55	420	1393	898
65	119	127	119
75	52	65	65
85	38	38	38

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise	Crosswise	8.5	10
30x30	98	97	98	96
40x40	99	99	99	98
60x30	99	99	99	98
60x60	99	99	99	99
100x100	100	99	100	99

COEFFICIENT OF UTILIZATION

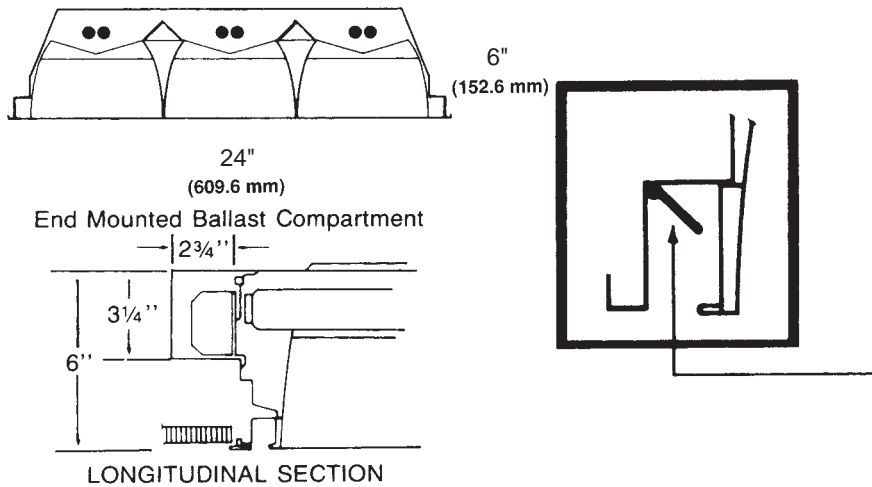
pfc pcc pw	20			70			50		
	70	50	30	70	50	30	50	30	50
RCR									
0	75	75	75	72	72	72	69	69	69
1	70	68	67	68	67	66	65	63	63
2	66	63	59	65	60	58	58	56	56
3	61	56	53	60	56	53	54	52	52
4	57	52	47	56	51	47	50	46	46
5	54	47	42	53	46	42	46	41	41
6	51	44	39	50	42	39	41	39	39
7	46	40	35	46	40	35	39	34	34
8	44	36	33	44	36	33	35	32	32
9	41	34	29	40	34	29	34	29	29
10	39	32	28	39	32	28	30	27	27

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1597	28.5	45.4
0-40	2551	45.6	72.5
0-60	3493	62.4	99.3
0-90	3518	62.8	100.0

LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.88 @ 40% RATED LAMP LIFE BF = 0.92 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

DIMENSIONS



Air Pattern Controller (APC) is optional and available on Air Supply or combination units. Controller is fully adjustable and may also be used as a volume control damper for return air function through side slots.

PHOTOMETRIC DATA

CATALOG # 2UGS331U1-34FL-1/3-EB
TEST # 13665 S/MH=1.2

LAMPS = FBO 31 INPUT WATTS = 83
BALLAST = ELECTRONIC BALLAST FACTOR = .93

LER = FP-52

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.62 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 55.3%

CANDLEPOWER				
Angle	End	45	Cross	
0	2860	2860	2860	
5	2853	2854	2863	
10	2801	2834	2863	
15	2704	2795	2883	
20	2582	2731	2874	
25	2429	2639	2652	
30	2250	2449	2375	
35	2031	2154	2131	
40	1773	1803	1448	
45	1343	1315	784	
50	795	669	278	
55	199	181	23	
60	15	19	8	
65	6	5	5	
70	2	3	4	
75	1	3	2	
80	1	1	1	
85	0	1	1	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.77 2800 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	131	78	56	39
3 Lamp	2	-	100	60	43	30
	1	-	78	47	34	33

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	6440	6306	3760	
55	1176	1070	136	
65	48	40	40	
75	13	39	26	
85	0	39	39	

TYPICAL V.C.P.'s					
Room Size	Mounting Height		Crosswise		
	Lengthwise	Crosswise	8.5	10	10
30x30	99	97	100	99	
40x40	99	98	100	99	
60x30	99	98	100	99	
60x60	99	99	100	99	
100x100	100	99	100	100	

COEFFICIENT OF UTILIZATION

p/c pcc pw RCR	20		70		50	
	70	50	30	70	50	30
0	66	66	66	64	64	60
1	61	60	58	60	58	57
2	58	55	53	56	55	52
3	55	51	47	54	50	46
4	51	46	42	50	46	42
5	47	42	39	46	41	39
6	45	39	34	44	39	34
7	41	35	32	41	35	32
8	40	34	29	39	33	29
9	36	30	27	36	30	27
10	34	28	25	34	28	25

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2249	26.8	48.4
0-40	3557	42.3	76.5
0-60	4638	55.2	99.8
0-90	4649	55.3	100.0

LLF = .77 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.88 @ 40% RATED LAMP LIFE BF = 0.93 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

PHOTOMETRIC DATA

CATALOG # 2UGS331U1-34SL-1/3-EB
TEST # 14845 S/MH=1.2

LAMPS = FBO 31 INPUT WATTS = 77
BALLAST = ELECTRONIC BALLAST FACTOR = .93

LER = FP-53

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.53 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 52.6%

CANDLEPOWER				
Angle	End	45	Cross	
0	2722	2722	2722	
5	2708	2717	2725	
10	2654	2695	2721	
15	2552	2642	2716	
20	2424	2556	2684	
25	2271	2446	2485	
30	2092	2256	2214	
35	1880	1971	1985	
40	1630	1632	1408	
45	1293	1206	784	
50	818	660	321	
55	233	228	66	
60	44	55	37	
65	22	22	23	
70	14	15	15	
75	8	9	10	
80	4	3	6	
85	1	3	6	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.77 2800 Lumens/Lamp very clean
- Room width divided by room height = 5 or more, 2 or 1

Fixture Size & # of Lamps	Room Width Room Height =	Approx. Area (sq. ft.) per Fixture				
		10 ft-c	30 ft-c	50 ft-c	70 ft-c	100 ft-c
2' X 2'	5	-	124	74	53	37
3 Lamp	2	-	95	57	41	-
	1	-	74	44	32	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS				
ANGLE	END	45°	CROSS	
45	6200	5783	3760	
55	1377	1348	390	
65	177	177	185	
75	105	118	131	
85	39	117	78	

TYPICAL V.C.P.'s					
Room Size	Mounting Height		Crosswise		
	Lengthwise	Crosswise	8.5	10	10
30x30	97	95	98	97	
40x40	98	97	99	98	
60x30	98	97	99	98	
60x60	99	98	99	98	
100x100	99	99	99	99	

COEFFICIENT OF UTILIZATION

p/c pcc pw RCR	20		70		50	
	70	50	30	70	50	30
0	63	63	63	60	60	57
1	58	56	56	57	56	54
2	56	53	50	54	52	50
3	52	47	45	51	46	46
4	48	44	40	47	42	41
5	46	40	36	45	40	35
6	42	36	33	41	36	33
7	40	34	30	39	34	29
8	38	32	28	36	30	28
9	34	28	26	34	28	25
10	33	27	23	33	27	23

LIGHT DISTRIBUTION

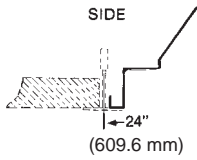
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2109	25.1	47.8
0-40	3316	39.5	75.1
0-60	4379	52.1	99.2
0-90	4416	52.6	100.0

LLF = .77 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.88 @ 40% RATED LAMP LIFE BF = 0.93 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

2 U G S 2 31U1

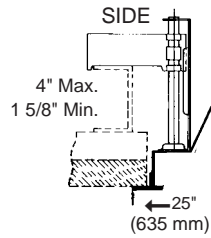
CEILING TYPE

G = GRID (NEMA G)



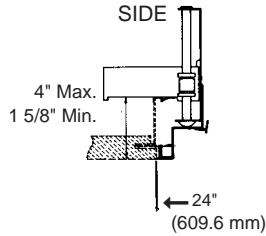
(NEMA Type G)
Lay-in acoustical ceilings using exposed grid suspension, with tees for fixtures on 24" x 24" spacing.

F = FLANGE (NEMA F)



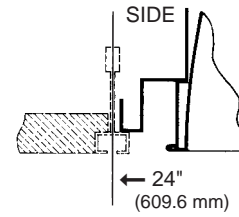
(NEMA Type F)
Flange for acoustical ceilings using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4" max. and 1 5/8" min.

Z = (NEMA M/Z) MODULAR AND "Z" SPLINE



(NEMA M/Z)
Modular and "Z" Spline using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4" max. and 1 5/8" min.

T = SCREW SLOT (NEMA SS)



Lensed fixture with door frame at the ceiling plane.
(NEMA Type SS)
Typical Screw Slot Ceiling System. Door frame is flush with ceiling plane.