

**2 Lamp T8 U6"**  
**9 or 16 Cell**

**SL & FL 16 cell fixtures meet the requirements of IESNA RP-1 for use in spaces containing Video Display Terminals.**

**APPLICATION**

- Low-brightness troffer for most ceilings:
  - Grid inverted T (NEMA "G")
  - Flange-type for concealed mechanical suspension (NEMA "F")
  - Modular and "Z" spline (NEMA "M/Z")
  - Screw Slot; with louvers at ceiling plane (NEMA "SS")
- Designed for air supply/return through side slots and/or heat transfer. Select the appropriate catalog no. for air function desired. Air boots by others.
- Air handling or combination models are available with optional factory installed snap-in air slot covers (ASC) or adjustable air pattern control blades (APC).
- Excellent visual comfort and inconspicuous appearance.

**CONSTRUCTION/FINISH**

- Housing is multi-stage phosphate treated for maximum corrosion resistance and finish coat is high reflectance baked white enamel.
- Painted after fabrication housing available.
- Flat black finish inside perimeter reveal for "floating door" appearance.
- Grid clips (catalog #GCP) must be ordered separately.
- Factory installed access plate includes 7/8" hole, 7/8" knockout and grounding screw.

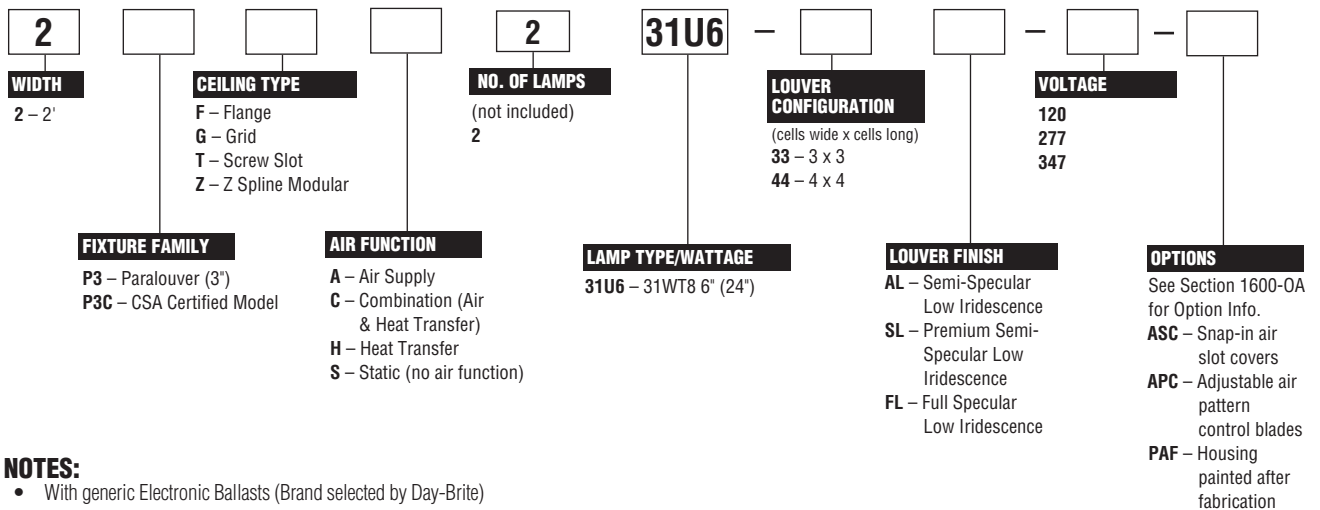
**ELECTRICAL**

- Class P, HPF 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, UL listed for dry locations.

**ENCLOSURES**

- Full 3" parabolic-shaped louvers closely controlled for uniform low-brightness appearance, and interlocked to avoid vibration.
- 9 Cell: Lengthwise shielding is 25°. Crosswise shielding is 25°.
- 16 Cell: Lengthwise shielding is 32°. Crosswise shielding is 32°.
- Bottom aluminum flange has mitered corners and fits flush with ceiling.
- T-hinges are standard for positive support of the enclosure.
- Guide-post spring loaded latches are standard for ease of use and secure retention of the louver.
- Can be hinged and latched from either side.
- Shipped with plastic film to keep out construction dirt.
- Guide-post spring loaded latches standard.

**CATALOG NUMBER**



**NOTES:**

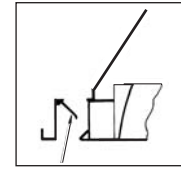
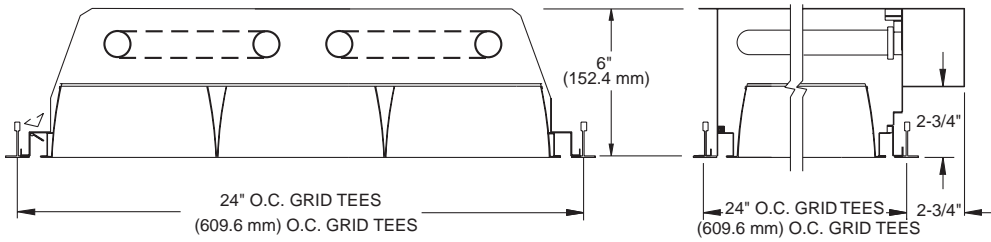
- With generic Electronic Ballasts (Brand selected by Day-Brite)  
Suffix Catalog # with- **Ballast Quantity** - / - **EB** **Lamps Per Ballast**.

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

# 2' x 2' 9 CELL



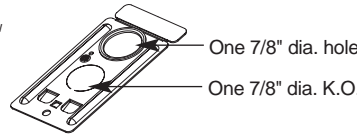
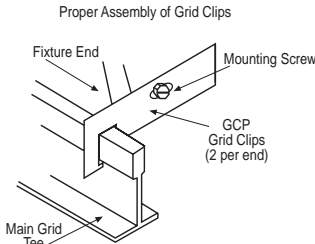
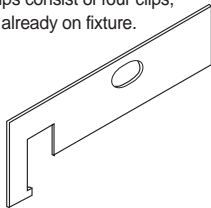
## DIMENSIONS



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
- Snap-in Air Slot Covers (ASC) also available

**GCP SOLD SEPARATELY -**  
GCP grid clips consist of four clips, use screws already on fixture.



Access Plate

NVLAQ® The photometric results were obtained in the Day-Brite Lighting Laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

## PHOTOMETRIC DATA

CATALOG # 2P3GS231U6-33FL-1/2-EB LAMPS = FBO 31U6 INPUT WATTS = 58  
TEST #16449 S/MH = 1.4 BALLAST = ELECTRONIC BALLAST FACTOR = .92

LER = FP-59

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$4.07 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 66.3%

CANDLEPOWER				
Angle	End	45	Cross	
0	1472	1472	1472	
5	1468	1472	1483	
10	1441	1479	1515	
15	1400	1480	1554	
20	1345	1475	1575	
25	1278	1463	1535	
30	1200	1393	1477	
35	1113	1300	1356	
40	1025	1190	1236	
45	917	1052	1035	
50	794	874	852	
55	634	702	933	
60	501	535	836	
65	154	245	203	
70	7	26	9	
75	3	3	3	
80	1	2	2	
85	0	1	1	

### MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture\*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.78 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	100 ft-c
2 Lamp FBO31U6	5	-	104	62	45
	2	-	74	44	32
	1	-	55	33	-

\*Observe Fixture S/MH Requirements for Specific Applications

### AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	4397	5045	4963
55	3748	4150	5516
65	1236	1966	1629
75	39	39	39
85	0	39	39

LLF = .78 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90 LLD = 0.91 @ 40% RATED LAMP LIFE BF = .92 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

### TYPICAL V.C.P.'s Room Mounting Height

Room Size	Mounting Height Lengthwise Crosswise			
	8.5	10	8.5	10
30x30	86	79	83	75
40x40	91	85	89	83
60x30	91	85	89	83
60x60	93	90	92	88
100x100	96	94	95	93

### COEFFICIENT OF UTILIZATION

pfc pcc pw	20				70				50			
	70	50	30	10	70	50	30	10	50	30	10	30
RCR	0	1	2	3	4	5	6	7	8	9	10	
	79	79	79	77	77	77	73	73	73	68	67	65
	73	70	68	71	69	68	67	65	65	59	58	56
	68	64	59	66	61	58	59	56	56	51	51	54
	63	56	52	60	56	51	54	50	47	44	44	44
	57	51	45	56	50	45	47	44	44	40	42	39
	53	46	40	52	45	40	42	39	39	34	34	34
	48	40	35	47	40	34	39	34	34	28	28	26
	46	36	32	45	36	32	35	30	30	28	28	28
	42	34	28	41	34	28	33	28	28	23	23	23
	40	30	26	39	30	26	29	26	26	22	22	22
	36	28	23	35	28	23	28	23	23	23	23	23

### LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1217	21.7	32.8
0-40	2013	35.9	54.2
0-60	3463	61.8	93.2
0-90	3715	66.3	100.0

## PHOTOMETRIC DATA

CATALOG # 2P3GS231U6-33SL-1/2-EB LAMPS = FBO 31U6 INPUT WATTS = 58  
TEST #16448 S/MH = 1.4 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= 64.0%

CANDLEPOWER				
Angle	End	45	Cross	
0	1466	1466	1466	
5	1460	1468	1475	
10	1432	1468	1500	
15	1385	1461	1524	
20	1328	1443	1527	
25	1260	1413	1488	
30	1182	1344	1438	
35	1096	1255	1328	
40	995	1135	1162	
45	891	998	967	
50	761	807	860	
55	611	638	875	
60	459	477	703	
65	162	247	249	
70	38	56	41	
75	16	14	16	
80	6	6	7	
85	2	2	2	

### MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture\*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.78 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	100 ft-c
2 Lamp FBO31U6	5	-	100	60	43
	2	-	71	43	31
	1	-	53	32	-

\*Observe Fixture S/MH Requirements for Specific Applications

### AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	4273	4786	4637
55	3612	3772	5173
65	1300	1982	1998
75	210	183	210
85	78	78	78

LLF = .78 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90 LLD = 0.91 @ 40% RATED LAMP LIFE BF = .92 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

### TYPICAL V.C.P.'s Room Mounting Height

Room Size	Mounting Height Lengthwise Crosswise			
	8.5	10	8.5	10
30x30	82	76	80	73
40x40	87	82	85	80
60x30	88	83	86	81
60x60	91	86	89	84
100x100	95	92	94	90

### COEFFICIENT OF UTILIZATION

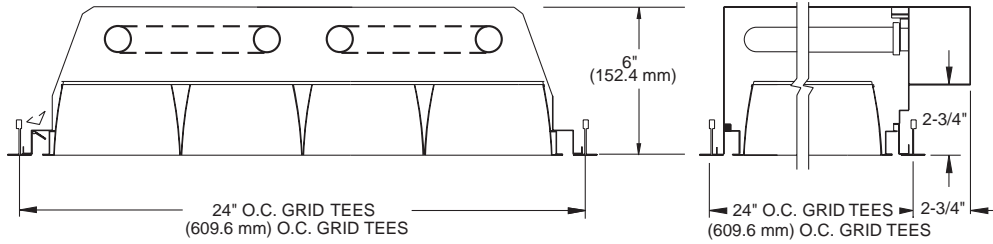
pfc pcc pw	20				70				50			
	70	50	30	10	70	50	30	10	50	30	10	30
RCR	0	1	2	3	4	5	6	7	8	9	10	
	76	76	76	73	73	73	70	70	70	66	65	63
	70	68	66	68	67	65	65	63	63	57	57	55
	66	60	57	64	59	56	57	55	55	51	51	54
	59	55	50	58	54	48	52	47	47	44	44	44
	56	48	44	54	47	42	46	41	41	38	38	34
	51	44	39	50	42	38	41	38	38	34	34	34
	47	40	34	46	39	34	38	34	34	28	28	28
	44	35	30	42	35	30	34	29	29	25	25	27
	40	33	28	40	33	28	32	27	27	23	23	23
	38	29	25	38	29	25	28	25	25	22	22	22
	35	28	23	34	28	23	27	23	23	23	23	23

### LIGHT DISTRIBUTION

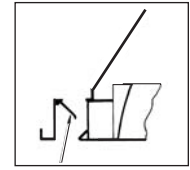
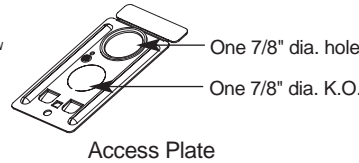
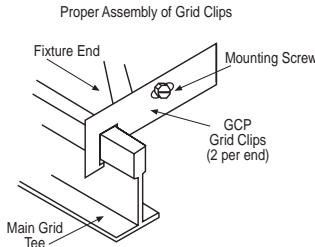
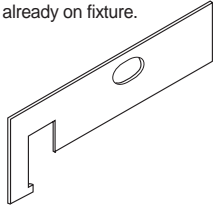
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1192	21.3	33.3
0-40	1962	35.0	54.8
0-60	3314	59.2	92.5
0-90	3582	64.0	100.0

# 226A.1-PLV

**DIMENSIONS**



**GCP SOLD SEPARATELY –**  
GCP grid clips consist of four clips, use screws already on fixture.



- 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
  - Snap-in Air Slot Covers (ASC) also available

**PHOTOMETRIC DATA**

**CATALOG #** 2P3GS231U6-44FL-1/2-EB  
**TEST #** 16450 **S/MH** = 1.3

**LAMPS** = FBO 31U6  
**BALLAST** = ELECTRONIC **BALLAST FACTOR** = .92

**INPUT WATTS** = 58

**LER = FP-56**

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = **\$4.29** BASED ON 3000 HRS. AND \$.08 PER KWH.

**FIXTURE EFFICIENCY=** 62.7%

CANDLEPOWER			
Angle	End	45	Cross
0	1582	1582	1582
5	1580	1584	1592
10	1547	1593	1630
15	1494	1582	1604
20	1429	1526	1535
25	1350	1440	1471
30	1257	1334	1433
35	1158	1241	1261
40	1057	1111	1032
45	919	950	1091
50	775	838	1317
55	633	769	991
60	327	394	293
65	31	27	14
70	5	5	5
75	2	2	2
80	1	1	1
85	0	1	1

**MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture\***

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.78 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
2 Lamp FBO31U6	5	-	99	60	43
	2	-	72	43	31
	1	-	53	32	-

\*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS			
ANGLE	END	45°	CROSS
45	4407	4556	5232
55	3742	4546	5858
65	249	217	112
75	26	26	26
85	0	39	39

TYPICAL V.C.P.'s			
Room Size	Mounting Height		Crosswise
	Lengthwise	8.5	
30x30	93	87	91
40x40	96	92	95
60x30	96	92	95
60x60	97	94	96
100x100	98	97	98

LLF = .78 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90  
LLD = 0.91 @ 40% RATED LAMP LIFE BF = .92 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION						
pfc pcc pw	20		70		50	
	70	50	30	70	50	30
RCR						
0	75	75	75	72	72	69
1	69	68	66	68	66	65
2	65	60	57	64	59	56
3	59	55	50	58	54	50
4	56	48	44	54	47	46
5	51	44	39	50	44	39
6	47	40	34	46	40	34
7	44	36	32	42	35	30
8	40	33	28	40	33	28
9	39	30	26	38	29	26
10	35	28	23	34	28	23

LIGHT DISTRIBUTION			
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1345	24.0	38.3
0-40	2110	37.7	60.1
0-60	3472	62.0	98.8
0-90	3513	62.7	100.0

**PHOTOMETRIC DATA**

**CATALOG #** 2P3GS231U6-44SL-1/2-EB  
**TEST #** 16451 **S/MH** = 1.3

**LAMPS** = FBO 31U6  
**BALLAST** = ELECTRONIC **BALLAST FACTOR** = .92

**INPUT WATTS** = 58

**LER = FP-53**

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

**FIXTURE EFFICIENCY=** 59.5%

CANDLEPOWER			
Angle	End	45	Cross
0	1549	1549	1549
5	1548	1551	1557
10	1516	1549	1577
15	1461	1524	1546
20	1393	1465	1476
25	1316	1373	1408
30	1223	1263	1348
35	1120	1161	1199
40	1012	1041	1021
45	875	894	1075
50	732	773	1164
55	584	651	896
60	253	336	287
65	42	58	53
70	18	21	24
75	9	10	11
80	4	5	5
85	1	2	2

**MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture\***

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.78 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
2 Lamp FBO31U6	5	-	94	56	40
	2	-	68	41	-
	1	-	51	30	-

\*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS			
ANGLE	END	45°	CROSS
45	4196	4287	5155
55	3452	3848	5297
65	337	465	425
75	118	131	144
85	39	78	78

TYPICAL V.C.P.'s			
Room Size	Mounting Height		Crosswise
	Lengthwise	8.5	
30x30	91	85	89
40x40	94	90	92
60x30	94	91	93
60x60	96	93	95
100x100	98	96	97

LLF = .78 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90  
LLD = 0.91 @ 40% RATED LAMP LIFE BF = .92 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

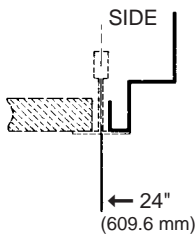
COEFFICIENT OF UTILIZATION						
pfc pcc pw	20		70		50	
	70	50	30	70	50	30
RCR						
0	70	70	70	68	68	66
1	66	64	61	65	63	60
2	61	57	54	59	56	54
3	56	52	47	56	51	48
4	53	46	41	51	46	44
5	48	41	36	47	40	35
6	45	38	33	44	38	33
7	41	34	29	40	34	29
8	39	32	27	38	30	27
9	36	28	25	35	28	25
10	34	27	23	34	27	23

LIGHT DISTRIBUTION			
DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1294	23.1	38.9
0-40	2020	36.1	60.7
0-60	3261	58.2	97.9
0-90	3329	59.5	100.0

2 P3 G S 2 31U6

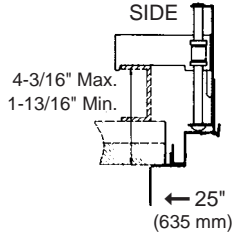
CEILING TYPE

**G = GRID (NEMA G)**



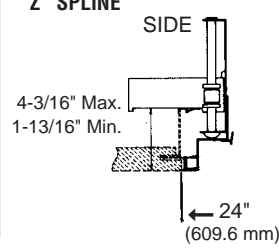
(NEMA Type G)  
Lay-in acoustical ceilings using exposed grid suspension, with tees for fixtures on 24" x 24" spacing.

**F = FLANGE (NEMA F)**



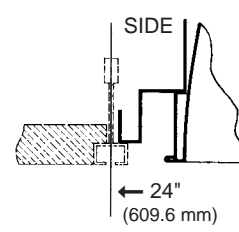
(NEMA Type F)  
Flange for acoustical ceilings using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4-3/16" max. and 1-13/16" min. Refer to sheet 801-CL for cut-out information.

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



(NEMA M/Z)  
Modular and "Z" Spline using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4-3/16" max. and 1-13/16" min.

**T = SCREW SLOT (NEMA SS)**



Louvered fixture with louvers at the ceiling plane.  
(NEMA Type SS)  
Typical Screw Slot Ceiling System. Bottom of louver is flush with ceiling plane.