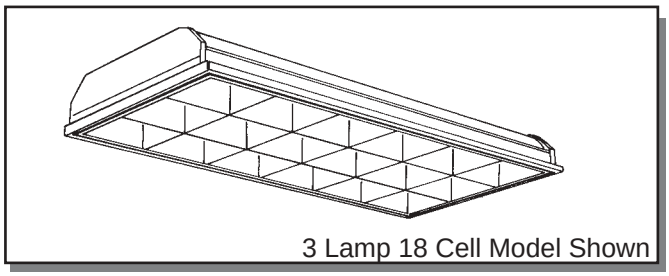
Day-Brite® Lighting

2' x 4' 4" PARALOUVER

3 Lamp 18 or 24 Cell
4 Lamp 12, 16, 24 or 32 Cell
T8



3 Lamp 18 Cell Model Shown

These 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).
- 3 lamp models have one wireway cover standard, with a second cover optional.

CONSTRUCTION/FINISH

- Housing is multi-stage phosphate treated for maximum corrosion resistance and finish coat is high reflectance baked white enamel.
- Flat black finish inside perimeter reveal for "floating door" appearance.
- T-bar grid clips (UL listed, patented) built into fixture end plates, no extra parts required. Designed for use with standard grid ceiling members, 1-7/8" maximum height.
- Factory installed access plate includes 7/8" hole, 7/8" knockout and grounding screw.
- One-piece housing features integral end plates that increase rigidity and minimize damage from handling or shipping.

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

- 4" parabolic-shaped louvers closely controlled for uniform low-brightness appearance, and interlocked to avoid vibration.
- Premium semi-specular low iridescence anodized aluminum is standard, specular low iridescence aluminum or white painted louvers are optional.
- 3 lamp 18 Cell: Lengthwise shielding is 30°. Crosswise shielding is 47°.
- 4 lamp 32 Cell: Lengthwise shielding is 38°. Crosswise shielding is 57°.
- 4 lamp 12 Cell: Lengthwise shielding is 30°. Crosswise shielding is 30°.
- 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.
- Shipped with plastic film to keep out construction dirt.

CATALOG NUMBER

2					32	R	–			–	–	
WIDTH	FIXTURE FAMILY	CEILING TYPE	AIR FUNCTION	NO. OF LAMPS	LAMP TYPE/WATTAGE	HOUSING		LOUVER CONFIGURATION	LOUVER FINISH		VOLTAGE	OPTIONS

WIDTH
2 – 2'

FIXTURE FAMILY
P4 – Paralouver (4")
P4C – CSA Certified Model

CEILING TYPE
F – Flange
G – Grid
T – Screw Slot
Z – Z Spline Modular

AIR FUNCTION
A – Air Supply, Air Return or Static
S – Static (no air function)
C – Combination (Air & Heat Transfer)
H – Heat Transfer

NO. OF LAMPS
(not included)
3
4

LAMP TYPE/WATTAGE
32 – 32wT8 (48")

HOUSING
R – Revised Housing, designed around T8

LOUVER CONFIGURATION
(cells wide x cells long)
3 lamp 36 – 3 x 6
38 – 3 x 8
4 lamp 46 – 4 x 6
48 – 4 x 8
26 – 2 x 6
28 – 2 x 8

LOUVER FINISH
FL – Full Specular Low Iridescence
SL – Semi-Specular Low Iridescence
W – White

VOLTAGE
120
277
347
UNV – Universal voltage, 120-277 volt (with electronic ballast option only)

OPTIONS
2WC – Two wireway covers (3 lamp only)
ASC – Snap-out air slot covers
APC – Adjustable air pattern control blades

See Section 1600-OA for Option Info.

NOTES:

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

Example: –1/3-EB = One 3 Lamp Electronic Ballast.
Example: –1/4-EB = One 4 Lamp Electronic Ballast.
Example: –2/2-EB = Two 2 Lamp Electronic Ballasts.
Example: –1/21-EB = One 2 Lamp Electronic Ballast and One 1 Lamp Electronic Ballast.

JOB INFORMATION

210.1-PLV

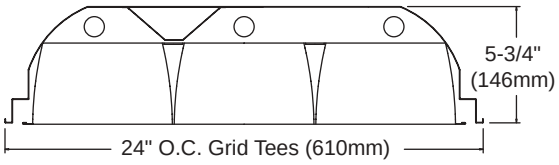
Job Name:
Type:

2' x 4' 3 LAMP 18 CELL

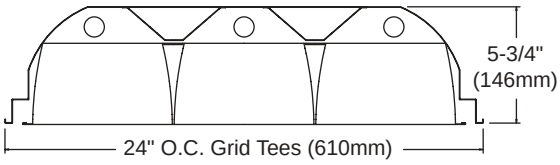
Day-Brite® Lighting

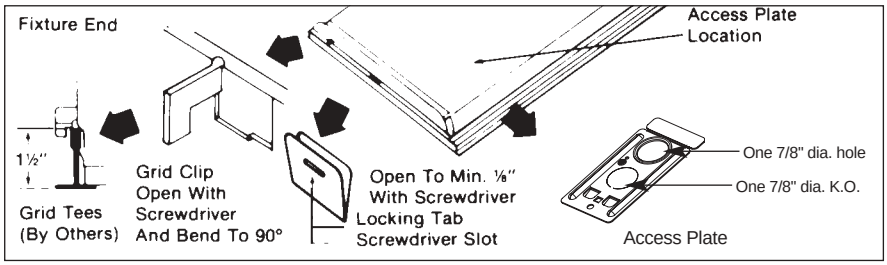
DIMENSIONS

STANDARD LUMINAIRE WITH 1 WWC



WITH 2-WC OPTION





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 # 2P4GA332-36SL-1/3-EB **LAMPS =** F32 T8 **INPUT WATTS =** 90
TEST #16012 **S/MH=** 1.6 **BALLAST =** ELECTRONIC **BALLAST FACTOR =** .93

LER = FP-65

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = **$3.69** BASED ON 3000 HRS. AND $.08 PER KWH.

FIXTURE EFFICIENCY= 71.9%

CANDLEPOWER

Angle	End	45	Cross
0	2574	2574	2574
5	2564	2582	2592
10	2505	2594	2649
15	2425	2584	2698
20	2332	2558	2767
25	2221	2530	2797
30	2098	2502	3029
35	1956	2468	3111
40	1792	2490	2485
45	1597	2199	1765
50	1371	1562	1172
55	1081	986	728
60	619	503	383
65	145	137	71
70	60	42	31
75	29	20	15
80	13	10	7
85	4	4	2

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.77 2900 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 4' 3 Lamp	5	–	–	104	74	52
	2	–	126	75	54	38
	1	–	94	56	40	–

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2900 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	3704	5101	4094
55	3091	2820	2082
65	563	532	276
75	184	127	95
85	75	75	38

TYPICAL V.C.P.'s

Room Size	Mounting Height Lengthwise 8.5	10	Crosswise 8.5	10
30x30	90	86	93	88
40x40	93	90	95	92
60x30	94	91	95	92
60x60	95	92	97	95
100x100	97	96	98	97

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 = .93 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION

pfc	20							
pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	85	85	85	83	83	83	80	80
1	80	78	75	78	76	73	72	70
2	73	69	66	72	68	65	66	63
3	68	63	57	67	61	56	58	56
4	64	56	51	61	55	50	54	48
5	58	51	45	57	50	45	48	44
6	55	46	40	53	45	40	44	39
7	51	41	35	50	40	35	40	34
8	46	38	33	46	38	33	36	32
9	44	34	29	42	34	29	34	28
10	40	32	27	40	32	27	30	27

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2144	24.6	34.3
0-40	3705	42.6	59.3
0-60	6044	69.5	96.7
0-90	6252	71.9	100.0

PHOTOMETRIC DATA

CATALOG # 2P4GA332-36FL-1/3-EB **LAMPS =** F32 T8 **INPUT WATTS =** 90
TEST #16011 **S/MH=** 1.6 **BALLAST =** ELECTRONIC **BALLAST FACTOR =** .93

LER = FP-68

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = **$3.53** BASED ON 3000 HRS. AND $.08 PER KWH.

FIXTURE EFFICIENCY= 75.4%

CANDLEPOWER

Angle	End	45	Cross
0	2602	2602	2602
5	2593	2615	2626
10	2542	2635	2694
15	2468	2641	2730
20	2378	2616	2829
25	2272	2610	2859
30	2149	2604	3160
35	2012	2603	3295
40	1851	2773	2637
45	1668	2443	1887
50	1444	1705	1265
55	1143	1100	765
60	644	525	415
65	53	68	25
70	7	7	6
75	4	3	3
80	3	2	1
85	2	1	1

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.77 2900 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 4' 3 Lamp	5	–	–	109	78	55
	2	–	132	79	57	40
	1	–	98	59	42	–

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2900 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	3869	5667	4377
55	3269	3146	2188
65	206	264	97
75	25	19	19
85	38	19	19

TYPICAL V.C.P.'s

Room Size	Mounting Height Lengthwise 8.5	10	Crosswise 8.5	10
30x30	94	89	95	91
40x40	96	93	97	94
60x30	96	93	97	94
60x60	97	95	98	96
100x100	99	97	99	98

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 =.93 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION

pfc	20							
pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	90	90	90	88	88	88	83	83
1	83	81	79	81	80	78	77	75
2	78	72	68	76	71	68	68	66
3	71	66	60	70	65	59	63	58
4	67	58	54	65	57	53	56	52
5	61	53	47	59	53	46	51	46
6	56	47	41	56	47	41	46	40
7	53	44	38	52	42	38	41	36
8	50	40	34	47	40	34	39	34
9	46	36	30	45	35	30	35	30
10	42	34	28	41	34	28	33	28

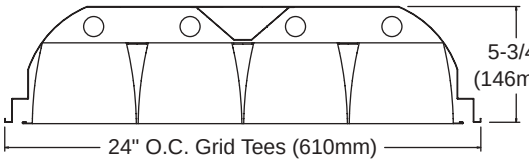
LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2203	25.3	33.6
0-40	3865	44.4	58.9
0-60	6430	73.9	98.0
0-90	6564	75.4	100.0

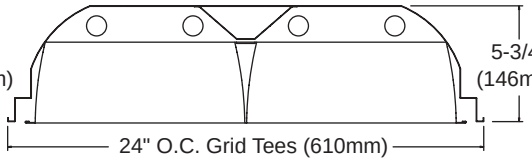
2' x 4' 4 LAMP 32 CELL

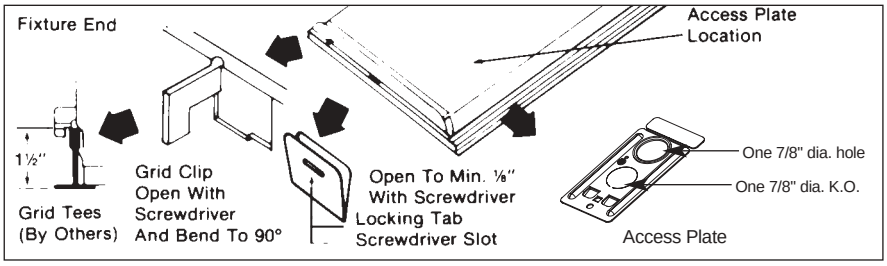
DIMENSIONS

24 OR 32 CELL



12 OR 16 CELL





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 # 2P4GA432-48SL-1/4-EB **LAMPS =** F32 T8 **INPUT WATTS =** 110
TEST #16047 **S/MH=** 1.3 **BALLAST =** ELECTRONIC **BALLAST FACTOR =** .91

LER = FP-60

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

FIXTURE EFFICIENCY= 62.4%

CANDLEPOWER

Angle	End	45	Cross
0	3425	3425	3425
5	3419	3438	3439
10	3346	3450	3517
15	3243	3443	3578
20	3119	3401	3646
25	2971	3326	3905
30	2796	3375	3436
35	2593	3184	2689
40	2355	2544	2109
45	2056	1922	1810
50	1671	1482	1555
55	1081	1052	1321
60	275	315	320
65	70	97	134
70	33	45	65
75	18	23	32
80	9	11	15
85	3	4	4

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.75 2900 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 4' 4 Lamp	5	–	–	118	84	59
	2	–	145	87	62	44
	1	–	110	66	47	33

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2900 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	4769	4458	4199
55	3091	3008	3778
65	272	376	520
75	114	146	203
85	56	75	75

TYPICAL V.C.P.'s

Room Size	Mounting Height Lengthwise 8.5	10	Crosswise 8.5	10
30x30	93	89	92	87
40x40	96	92	94	90
60x30	96	93	95	91
60x60	97	95	96	92
100x100	98	97	98	96

LLF = .75 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 = .91 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION

pfc	20								
pcc	80			70			50		
pw	70	50	30	70	50	30	50	30	
RCR									
0	73	73	73	72	72	72	68	68	
1	69	68	66	68	66	64	64	61	
2	65	60	57	63	59	56	57	55	
3	59	55	51	58	54	50	52	48	
4	56	50	45	55	48	45	47	44	
5	52	45	40	51	45	40	42	40	
6	47	40	35	46	40	35	40	35	
7	45	38	33	44	36	33	35	32	
8	41	34	29	40	34	29	33	28	
9	39	32	27	39	32	27	30	27	
10	36	29	25	35	28	25	28	25	

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2857	24.6	39.5
0-40	4631	39.9	64.0
0-60	7081	61.0	97.9
0-90	7234	62.4	100.0

PHOTOMETRIC DATA

CATALOG # 2P4GA432-48FL-1/4-EB **LAMPS =** F32 T8 **INPUT WATTS =** 110
TEST #16046 **S/MH=** 1.4 **BALLAST =** ELECTRONIC **BALLAST FACTOR =** .91

LER = FP-63

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = **$3.81** BASED ON 3000 HRS. AND $.08 PER KWH.

FIXTURE EFFICIENCY= 65.8%

CANDLEPOWER

Angle	End	45	Cross
0	3460	3460	3460
5	3463	3478	3480
10	3395	3505	3590
15	3290	3532	3695
20	3166	3521	3789
25	3025	3470	4343
30	2849	3696	3916
35	2648	3618	2951
40	2416	2914	2220
45	2133	2133	1882
50	1758	1667	1686
55	1144	1217	1597
60	166	164	66
65	22	17	14
70	10	8	6
75	6	4	3
80	3	3	2
85	2	2	1

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.75 2900 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 4' 4 Lamp	5	–	–	125	89	62
	2	–	–	92	66	46
	1	–	116	70	50	35

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2900 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	4948	4948	4366
55	3271	3480	4567
65	85	66	54
75	38	25	19
85	38	38	19

TYPICAL V.C.P.'s

Room Size	Mounting Height Lengthwise 8.5	10	Crosswise 8.5	10
30x30	96	92	97	91
40x40	98	95	98	94
60x30	98	95	98	94
60x60	99	97	99	96
100x100	98	99	99	98

LLF = .75 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 = .91 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)

COEFFICIENT OF UTILIZATION

pfc	20								
pcc	80			70			50		
pw	70	50	30	70	50	30	50	30	
RCR									
0	78	78	78	76	76	76	72	72	
1	73	70	68	71	69	68	67	66	
2	68	65	60	67	63	59	60	58	
3	64	57	54	61	56	54	56	52	
4	58	53	47	57	52	47	51	46	
5	55	47	42	54	46	42	46	41	
6	51	44	39	50	42	38	41	38	
7	47	40	34	46	39	34	38	34	
8	45	36	32	44	35	30	34	30	
9	41	34	28	40	33	28	33	28	
10	39	30	26	38	30	26	29	26	

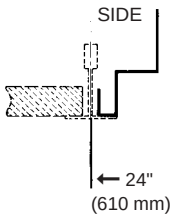
LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2983	25.7	39.1
0-40	4923	42.4	64.5
0-60	7591	65.4	99.5
0-90	7631	65.8	100.0

2	P4	G	A	3	32	R

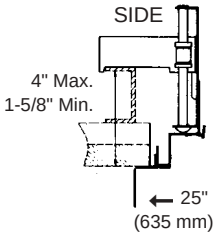
CEILING TYPE

G = GRID (NEMA G)



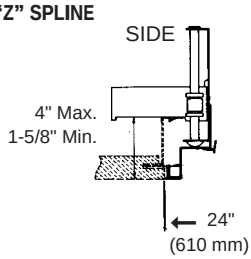
(NEMA Type G)
Lay-in acoustical ceilings using exposed grid suspension, with tees for fixtures on 24" x 48" spacing.

F = FLANGE (NEMA F)



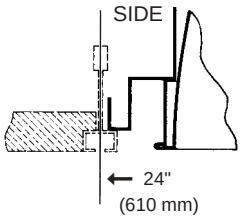
(NEMA Type F)
Flange for acoustical ceilings using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 4 3/16" max.and 1 13/16" min.

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.

DAY-BRITE LIGHTING • www.daybritelighting.com
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