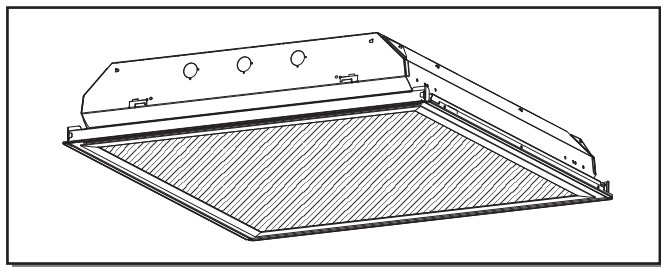


2' X 2' DESIGNER AIR HANDLING



2 or 3 Lamp T8 U1-5/8" or U6"
 3 Lamp T8U1-5/8"
 2, 3, or 4 Lamp 17wT8
 Prismatic Acrylic Lens

APPLICATION

- Premium quality recessed air handling troffer for:
 - Grid inverted T (NEMA "G") ceilings
 - Flange for concealed mechanical suspension (NEMA "F")
 - Modular and "Z" Spline (NEMA "M/Z") ceilings
 - Screw Slot (NEMA "SS") with door frame at ceiling plane
 - Contact Day-Brite for other ceiling types.
- 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, adjustable pattern control blade is optional.
 - Combination; both heat transfer and air supply features listed above.
- Air handling or combination models are available with optional factory installed snap-in air slot covers (ASC) or adjustable air pattern control blades (APC).
- 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.
- Factory installed access plate includes 7/8" hole, 7/8" knockout and grounding screw.

- Flat black finish inside perimeter reveal for "floating door" appearance.
- T-bar grid clips (UL listed, patented) built into fixture, no extra parts required. Designed for use with standard grid ceiling members, 1-1/2" maximum height.
- 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. Canadian certified optional.
- Self-contained fluorescent emergency power packs can be incorporated, UL listed for dry locations.

ENCLOSURES

- Mitered corner door frames with a choice of Flat Aluminum or Regressed Aluminum.
- Door frames standard with guide post spring loaded latches.
- Mechanically designed interlocks block light, no gaskets are needed.
- Prismatic acrylic pattern 12 lens standard (01). Other lenses or louvers optional.
- Choice of door finishes: white (standard), or black.
- T-hinges are standard for positive support of the enclosure.

CATALOG NUMBER

2											
WIDTH 2 - 2'	CEILING TYPE G - Grid F - Flange Z - Z Spline/Modular T - Screw Slot	NO. OF LAMPS (not included) 2 3 - 17 or 31U1 only 4 - 17 only	DOOR FRAME FA - Flat Aluminum RA - Regressed Aluminum	DOOR FINISH BLANK - White B - Black Door	OPTIONS See Section 1600-0A for Option Info. ASC - Snap-in air slot covers APC - Adjustable air pattern control blades PAF - Housing painted after fabrication	FIXTURE FAMILY DP - Designer DPC - Canadian Certified Model	AIR FUNCTION A - Air Supply C - Combination (A&H) H - Heat Transfer S - Static (no air function)	LAMP TYPE/WATTAGE 17 - 17wT8 (24") 31U1 - 31wT8 1-5/8" (24") 31U6 - 31wT8 6" (24")	LENS 01 - Pattern 12 prismatic acrylic 12 - DB-12, .125" nominal 19 - DB-19, .156" nominal 21 - Pattern 12, .125" nominal 30 - 1/2"x1/2"x1/2" silver plastic louver 34 - 1-1/2"x1-1/2"x1-1/2" silver plastic louver 52 - 3/4"x3/4"x1/2" silver plastic louver 93 - drop dish acrylic See Page 401-SR for other lens options	VOLTAGE 120 277 347	

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: -1/3-EB = One 3 Lamp Electronic Ballast.

JOB INFORMATION

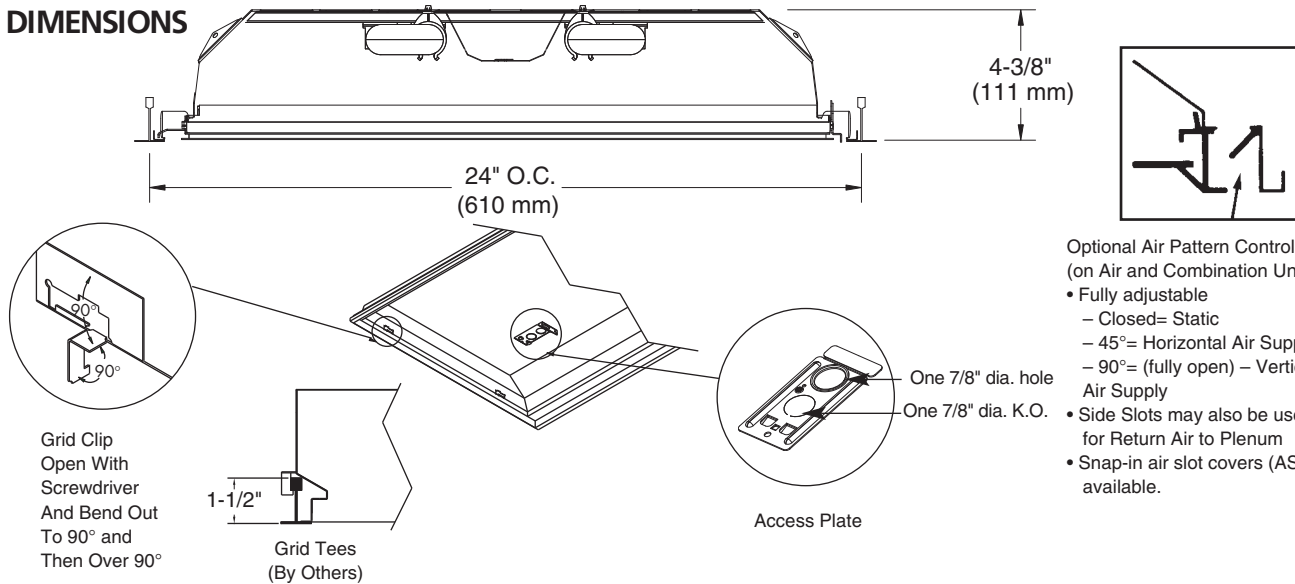
513.3-AH

PHILIPS
Day-Brite

2' x 2' 2 LAMP

PHILIPS
Day-Brite

DIMENSIONS



Optional Air Pattern Control (APC)
(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 # 2DPGS231U1-FA01-1/2-EB
TEST #22806 S/MH = 1.3

LAMPS = FBO 31
BALLAST = ELECTRONIC

INPUT WATTS = 54
BALLAST FACTOR = .88

LER = FL-72

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$3.33 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 78.7%

CANDLEPOWER				
Angle	End	45	Cross	
0	1802	1802	1802	
5	1796	1793	1799	
10	1765	1771	1787	
15	1716	1737	1768	
20	1644	1686	1741	
25	1549	1618	1702	
30	1431	1532	1648	
35	1293	1417	1560	
40	1141	1274	1416	
45	973	1086	1215	
50	786	895	973	
55	609	698	756	
60	454	489	555	
65	338	330	402	
70	268	221	287	
75	220	170	211	
80	166	138	161	
85	92	80	87	

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	-	118	71	50	35
2 Lamp	2	-	82	49	35	-
	1	-	61	37	-	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	5075	5665	6337
55	3916	4488	4861
65	2950	2880	3508
75	3135	2423	3007
85	3893	3385	3682

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

Room Size	Mounting Height			
	Lengthwise	Crosswise	8.5	10
30x30	45	50	44	49
40x40	40	45	40	44
60x30	47	52	47	51
60x60	36	40	36	39
100x100	34	35	35	36

COEFFICIENT OF UTILIZATION

pfc	20			
	70	50	30	50
pcc	80	70	50	30
pw	70	50	30	50
RCR	0	1	2	3
0	93	93	93	86
1	85	82	80	78
2	79	72	68	67
3	72	65	58	57
4	67	57	52	51
5	61	52	46	45
6	56	46	40	39
7	53	42	35	35
8	50	39	33	32
9	46	35	29	28
10	44	34	27	27

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1409	25.2	31.9
0-40	2295	41.0	52.0
0-60	3744	66.9	84.9
0-90	4409	78.7	100.0

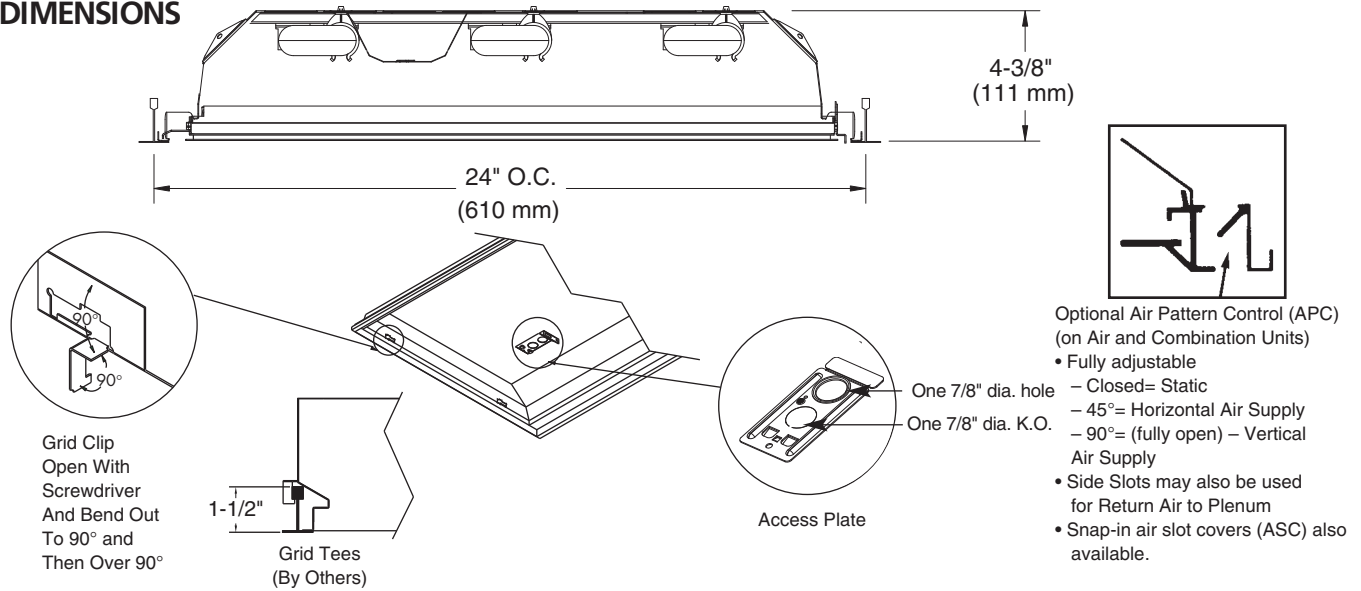
LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.92 @ 40% RATED LAMP LIFE BF = 0.88 ELECTRONIC BALLAST & FBO31U1 LAMP (RELAMP AT 70% LAMP LIFE)

**FOR ADDITIONAL PHOTOMETRIC TESTS ON
F17-T8 FIXTURES ASK FOR TEST #'S:**

Catalog #	Test #
2DPGS217-FA01-1/2-EB	22863
2DPGS317-FA01-1/3-EB	22835
2DPGS417-FA01-1/4-EB	22867

PHOTOMETRIC TESTS ARE ALSO AVAILABLE ON-LINE @ www.daybritelighting.com

DIMENSIONS



PHOTOMETRIC DATA

CATALOG # 2DPGS331U1-FA01-1/3-EB LAMPS = FBO 31 INPUT WATTS = 77
TEST #22816 S/MH = 1.3 BALLAST = ELECTRONIC BALLAST FACTOR = .88

LER = FL-69

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = **\$3.48** BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY= 72.0%

CANDLEPOWER				
Angle	End	45	Cross	
0	2599	2599	2599	
5	2585	2588	2599	
10	2542	2556	2574	
15	2469	2502	2535	
20	2369	2418	2476	
25	2227	2304	2380	
30	2055	2155	2249	
35	1858	1962	2071	
40	1630	1723	1836	
45	1374	1453	1548	
50	1112	1179	1237	
55	853	912	960	
60	633	645	720	
65	468	434	518	
70	369	291	374	
75	303	224	274	
80	231	183	205	
85	125	103	105	

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	69	48
3 Lamp	2	-	114	68	49	34
	1	-	85	51	36	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	7167	7579	8074
55	5485	5864	6173
65	4084	3788	4521
75	4318	3192	3905
85	5290	4359	4443

TYPICAL V.C.P.'s

Room Size	Mounting Height			
	Lengthwise		Crosswise	
	8.5	10	8.5	10
30x30	37	43	37	42
40x40	33	37	34	38
60x30	40	45	40	44
60x60	30	33	31	33
100x100	28	29	30	31

COEFFICIENT OF UTILIZATION

pfc pcc pw RCR	20		70		50	
	70	50	30	70	50	30
0	85	85	85	83	83	80
1	79	76	72	77	73	71
2	71	67	63	70	66	61
3	67	59	54	65	58	54
4	60	53	47	59	52	46
5	56	47	41	55	46	41
6	53	44	38	51	42	36
7	48	40	34	47	39	34
8	46	35	30	45	35	29
9	42	34	28	41	33	28
10	40	30	26	39	30	25

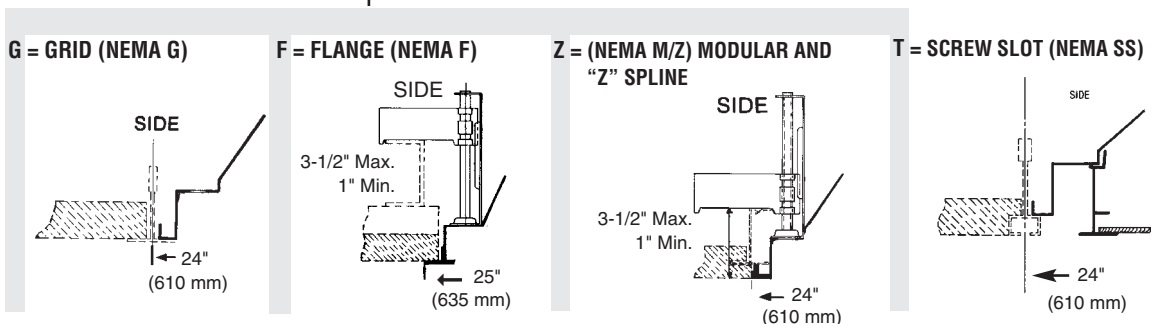
LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	2012	24.0	33.3
0-40	3235	38.5	53.5
0-60	5164	61.5	85.4
0-90	6044	72.0	100.0

LLF = .76 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.92 @ 40% RATED LAMP LIFE BF = 0.88 ELECTRONIC BALLAST & FBO31U1 LAMP (RELAMP AT 70% LAMP LIFE)

2 DP G S 2 31U6

CEILING TYPE



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

(NEMA Type F)
Flange for acoustical ceilings using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 3-1/2" max. and 1" min. Refer to sheet 801-CL for cut-out information.

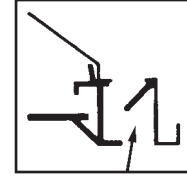
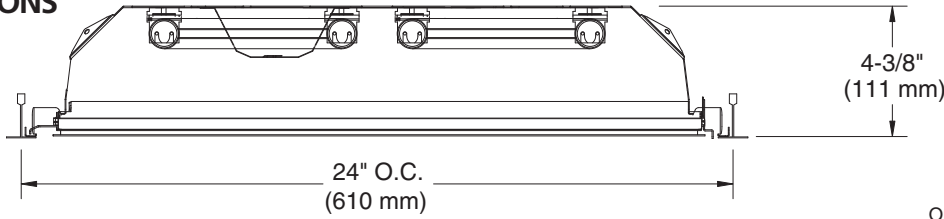
(NEMA M/Z)
Modular and "Z" Spline using concealed mechanical suspension. Swing-jack mounting brackets: adjustment 3-1/2" max. and 1" min.

Lensed fixture with door frame at the ceiling plane.

(NEMA Type SS)
Typical Screw Slot Ceiling System.

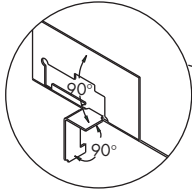
2' X 2'

DIMENSIONS

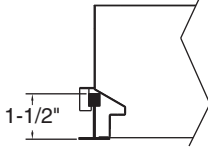


Optional Air Pattern Control (APC)
(on Air and Combination Units)

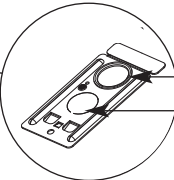
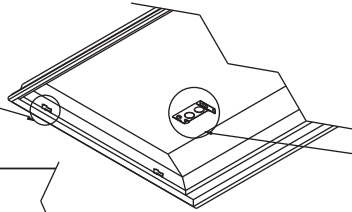
- Fully adjustable
 - Closed= Static
 - 45°= Horizontal Air Supply
 - 90°= (fully open) – Vertical Air Supply
- Side Slots may also be used for Return Air to Plenum
- Snap-in air slot covers (ASC) also available.



Grid Clip
Open With
Screwdriver
And Bend Out
To 90° and
Then Over 90°



Grid Tees
(By Others)



Access Plate

One 7/8" dia. hole
One 7/8" dia. K.O.

PHOTOMETRIC DATA

CATALOG # 2DPGS231U6-FA01-1/2-EB
TEST #22786 S/MH = 1.3

LAMPS = FBO 32T8/6
BALLAST = ELECTRONIC

INPUT WATTS = 56
BALLAST FACTOR = .88

LER = FL-64

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$3.75 BASED ON 3000 HRS. AND \$.08 PER KWH.

FIXTURE EFFICIENCY = 72.8%

CANDLEPOWER				
Angle	End	45	Cross	
0	1703	1703	1703	
5	1686	1698	1703	
10	1658	1678	1691	
15	1611	1644	1670	
20	1543	1595	1635	
25	1458	1526	1580	
30	1350	1429	1497	
35	1225	1311	1383	
40	1085	1162	1241	
45	922	985	1073	
50	751	805	870	
55	581	632	692	
60	430	453	510	
65	320	305	368	
70	253	204	265	
75	204	156	194	
80	152	127	145	
85	81	72	78	

MAINTAINED ILLUMINATION TABLE- Square Feet/Fixture*

- 80-50-20 Reflectances (Ceiling-Wall-Floor)
- LLF = 0.74 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 31U6	5	-	106	64	46
	2	-	75	45	32
	1	-	56	33	-

*Observe Fixture S/MH Requirements for Specific Applications

AVERAGE LUMINANCE CD/SQ.M WITH 2800 LUMEN LAMPS

ANGLE	END	45°	CROSS
45	4809	5138	5597
55	3736	4064	4450
65	2793	2662	3212
75	2907	2223	2765
85	3428	3047	3301

TYPICAL V.C.P.'s Mounting Height

Room Size	Mounting Height			
	Lengthwise		Crosswise	
	8.5	10	8.5	10
30x30	47	52	46	51
40x40	43	47	42	46
60x30	49	54	49	53
60x60	39	42	39	42
100x100	36	38	37	38

COEFFICIENT OF UTILIZATION

pfc pcc pw RCR	20			70			50		
	70	50	30	70	50	30	50	30	50
0	86	86	86	84	84	84	81	81	81
1	80	77	73	78	75	71	71	69	69
2	72	68	63	70	66	61	64	59	59
3	67	59	55	65	58	54	56	52	52
4	61	54	47	59	53	46	51	46	46
5	56	47	41	56	47	41	46	40	40
6	53	44	38	52	42	36	41	36	36
7	48	40	34	47	39	34	38	33	33
8	46	36	30	45	35	29	34	29	29
9	42	34	28	41	33	28	32	27	27
10	40	30	26	40	30	25	29	25	25

LIGHT DISTRIBUTION

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1326	23.7	32.5
0-40	2141	38.2	52.5
0-60	3464	61.9	85.0
0-90	4075	72.8	100.0

LLF = .74 LLF = LIGHT LOSS FACTOR LLF = LDD X LLD X BF LDD = VERY CLEAN 0.94 CLEAN 0.90
LLD = 0.90 @ 40% RATED LAMP LIFE BF = 0.88 ELECTRONIC BALLAST & T8 LAMP (RELAMP AT 70% LAMP LIFE)