RECESSED DIRECT/INDIRECT

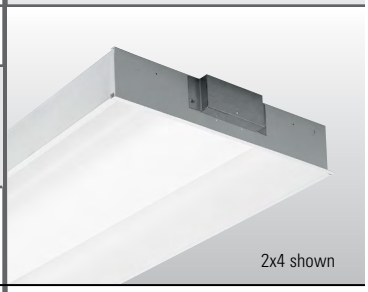
DI

T5 | T8

CATALOG #:	TYPE:
PROJECT:	NOTES:

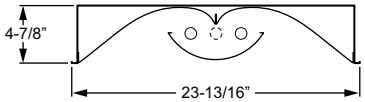
EXAMPLE **DI G - S 2 4 - 2 32 - AD - OPTIONS - EB2 - UNV**

SERIES	CEILING TYPE	FIX. STYLE	NOM. W.	NOM. L.	TOTAL LAMPS	WATTAGE/ TYPE	SHIELDING	OPTIONS	BALLAST TYPE	VOLTAGE

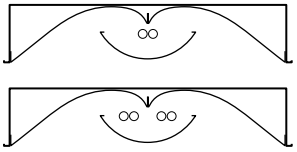


2x4 shown

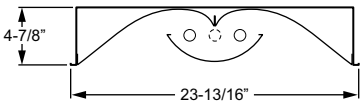
CROSS SECTIONS



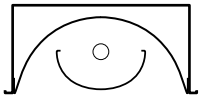
2x4 Shown with WPR



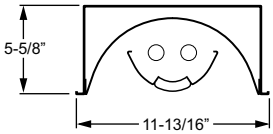
Twin Tube Lamps



T5 or T8 Lamps
2x2 Shown with WPR



Shown with WPR



1x4 Shown with WPASL

ORDERING INFORMATION

SERIES

DI	Recessed Direct/Indirect

CEILING TYPE

G	NEMA Type "G"
SG	Screw slot NEMA Type "SS" (earthquake clips included)

For flange installations use the Drywall Kit (DFK), ordered separately, see Technical Info.

FIXTURE STYLE

S	Static, no air capability

NOMINAL WIDTH

1	1'
2	2'

NOMINAL LENGTH

2	2' (2' width only)
4	4'

TOTAL LAMPS

1 or 2	(1x4)
1, 2, or 3	(2x2 and 2x4; 2x2: 3 lamps in T5 or T8 only)

LAMP WATTAGE/TYPE

2x2 LAMP OPTIONS

14T5S	2', 14-watt T5
17	2', 17-watt T8
24T5H	2', 24-watt T5HO
40TT	2', 40-watt long twin tube (1- or 2-lamp only)
50TT	2', 50-watt long twin tube (1- or 2-lamp only)
55TT	2', 55-watt long twin tube (1- or 2-lamp only)

1x4 or 2x4 LAMP OPTIONS

28T5S	4', 28-watt T5
32	4', 32-watt T8
54T5H	4', 54-watt T5HO

SHIELDING

See page 4 for shielding details.

WPR	White perforated round
WP	White perforated flat (2x2 and 2x4 only)
AD	Acrylic (2x2 and 2x4 only)
WPRL	White perforated with round louver 2x2 and 2x4 only)
WPASL	White perforated with aluminum solid louver
WPR/SLT/LW	White slot-perforated lengthwise round (2x2 and 2x4 only)
WPR/SPLIT	White perforated round with split (2x2 and 2x4 only)
WPR/ACRY/CTR/CLR	White perforated round with center clear acrylic (2x2 and 2x4; consult factory for additional colors)
WPR/DUSTCOVER	White perforated round with dust and debris cover

OPTIONS

For generic EM ballast options (must specify voltage), see Technical Info.

EQCLIPS	Earthquake clips (4 per fixture)
CP	Chicago Plenum (CCEA)

BALLAST TYPE

Additional ballast options available, see Technical Info.

EB1	1-lamp electronic ballast
EB2	2-lamp electronic ballast
EB3	3-lamp electronic ballast

VOLTAGE

120	120V
277	277V
UNV	120-277V
347	347V

FEATURES

- Acrylic diffuser option provides up to 88% (2x4) and 81% (2x2) fixture efficiency.
- Matte white overlay and highly reflective non-glare white powder coated reflectors and end plates provide soft, uniform illumination and increased efficiency.
- Lamps shielded from direct view by diffuser.
- Shallow housing depth (2x2 and 2x4).
- Ballast accessible from room side of fixture.
- Aesthetically pleasing slot grid option available.
- Ballast secured by two captive bolts and nuts to ensure a tight, reliable fit for maximum heat dissipation.
- This fixture is proudly made in the USA.

SPECIFICATIONS

Housing – 20-gauge die-formed C.R.S.
Reflector – Precision die-formed C.R.S. with highly reflective non-glare matte white polyester powder coated finish.
Shielding – Die-formed C.R.S., 50% open perforation, white polyester powder coated diffuser with matte white acrylic overlay.
Finish – Highly reflective non-glare matte white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
Electrical – Electronic ballast standard, instant start T8 (1x4 and 2x4), program start T5 (1x4 and 2x4), rated Class P.

2x2 only		
Lamp	**Instant Start**	**Program Start**
T5		•
T8	•	
40TT	•	
50TT		•
55TT		•

Mounting – NEMA Type "G" standard. NEMA Type "SS" available (earthquake clips included). For flange installations use the Drywall Kit (DFK), ordered separately, see Technical Info.
Labels –

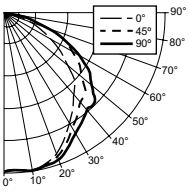
- UL/CUL listed as recessed fluorescent luminaire suitable for dry or damp locations.
- City of Chicago Environmental Air approved when specified with CP option.

PHOTOMETRY – 2x4 WPR

Catalog #: **DIG-S24-232-WPR**

TEST REPORT INFORMATION

- Test Report #: 13833.0
- Date: 12/10/07
- Lamp Type: F32T8
- Lamp Quantity: 2



CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle 0°	45°	90°	Zonal Lumens
0°	1432.	1432.	1432.	
5°	1433.	1433.	1433.	136.8
15°	1412.	1425.	1439.	403.8
25°	1270.	1308.	1348.	605.5
35°	1068.	1140.	1213.	715.9
45°	895.	1036.	1153.	797.9
55°	620.	822.	933.	717.4
65°	378.	601.	610.	545.2
75°	177.	256.	248.	257.5
85°	36.	42.	44.	43.1
90°	4.	3.	3.	

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0 - 30	1146.	19.4	27.1
0 - 40	1862.	31.6	44.1
0 - 60	3377.	57.2	80.0
0 - 90	4223.	71.6	100.0
Total Luminaire:			
0 - 180	4223.	71.6	100.0

Total Luminaire Optical Efficiency: **71.6%**
IES Spacing Criteria: End = 1.2
Diagonal = 1.3
Across = 1.3

ZONAL CAVITY COEFFICIENTS

	Ceiling	.80			.70			.50		
	Wall	.70	.50	.30	.70	.50	.30	.50	.30	.10
Room Cavity Ratio	0	.85	.85	.85	.83	.83	.83	.80	.80	.80
	1	.79	.76	.73	.77	.74	.71	.71	.69	.67
	2	.72	.67	.62	.70	.65	.61	.63	.59	.56
	3	.66	.59	.53	.64	.58	.53	.56	.51	.48
	4	.61	.52	.46	.59	.51	.46	.50	.45	.41
	5	.55	.46	.40	.54	.45	.39	.44	.39	.35
	6	.51	.41	.35	.49	.41	.35	.39	.34	.30
	7	.47	.37	.31	.45	.36	.30	.35	.30	.26
	8	.43	.33	.27	.42	.33	.27	.32	.26	.22
	9	.39	.30	.24	.38	.29	.23	.28	.23	.19
	10	.37	.27	.21	.36	.26	.21	.26	.21	.17

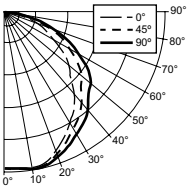
Effective Floor Cavity Reflectance = .20

PHOTOMETRY – 2x4 AD

Catalog #: **DIG-S24-232-AD**

TEST REPORT INFORMATION

- Test Report #: 14225.0
- Date: 07/25/08
- Lamp Type: F32T8
- Lamp Quantity: 2



CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle 0°	45°	90°	Zonal Lumens
0°	1759.	1759.	1759.	
5°	1771.	1766.	1763.	168.6
15°	1752.	1769.	1784.	501.2
25°	1565.	1614.	1666.	747.8
35°	1339.	1439.	1527.	901.6
45°	1028.	1188.	1309.	912.4
55°	792.	986.	1124.	873.2
65°	510.	697.	787.	670.6
75°	257.	364.	404.	374.1
85°	62.	84.	82.	85.9
90°	0.	0.	0.	

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0 - 30	1418.	24.0	27.1
0 - 40	2319.	39.3	44.3
0 - 60	4105.	69.6	78.4
0 - 90	5235.	88.7	100.0
Total Luminaire:			
0 - 180	5235.	88.7	100.0

Total Luminaire Optical Efficiency: **88.7%**
IES Spacing Criteria: End = 1.2
Diagonal = 1.3
Across = 1.3

ZONAL CAVITY COEFFICIENTS

	Ceiling	.80			.70			.50		
	Wall	.70	.50	.30	.70	.50	.30	.50	.30	.10
Room Cavity Ratio	0	1.06	1.06	1.06	1.03	1.03	1.03	.99	.99	.99
	1	.97	.93	.90	.95	.91	.88	.87	.85	.82
	2	.89	.82	.76	.87	.80	.75	.77	.73	.69
	3	.81	.72	.66	.79	.71	.65	.68	.63	.58
	4	.75	.64	.57	.73	.63	.56	.61	.55	.50
	5	.68	.57	.49	.66	.56	.48	.54	.47	.42
	6	.62	.51	.43	.61	.50	.42	.48	.42	.37
	7	.58	.46	.38	.56	.45	.37	.43	.37	.32
	8	.53	.41	.33	.52	.40	.33	.39	.32	.28
	9	.49	.37	.29	.47	.36	.29	.35	.28	.24
	10	.45	.33	.26	.44	.33	.26	.32	.25	.21

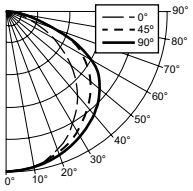
Effective Floor Cavity Reflectance = .20

PHOTOMETRY – 2x2 WPR

Catalog #: **DIG-S22-240TT-WPR**

TEST REPORT INFORMATION

- Test Report #: 13831.0
- Date: 12/12/07
- Lamp Type: F40TT/2G11
- Lamp Quantity: 2



CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle 0°	45°	90°	Zonal Lumens
0°	1344.	1344.	1344.	
5°	1344.	1337.	1338.	127.7
15°	1287.	1298.	1312.	367.9
25°	1175.	1224.	1258.	564.2
35°	1012.	1118.	1181.	696.0
45°	808.	987.	1085.	749.8
55°	574.	826.	936.	712.8
65°	334.	613.	636.	548.7
75°	141.	235.	253.	236.4
85°	24.	29.	37.	31.8
90°	0	0	0	

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0 - 30	1060.	16.8	26.3
0 - 40	1756.	27.9	43.5
0 - 60	3218.	51.1	79.8
0 - 90	4035.	64.1	100.0
Total Luminaire:			
0 - 180	4035.	64.1	100.0

Total Luminaire Optical Efficiency: **64.1%**

IES Spacing Criteria: End = 1.2
Diagonal = 1.3
Across = 1.4

ZONAL CAVITY COEFFICIENTS

Room Cavity Ratio	Ceiling	.80			.70			.50		
	Wall	.70	.50	.30	.70	.50	.30	.50	.30	.10
	0	.76	.76	.76	.74	.74	.74	.71	.71	.71
	1	.70	.68	.65	.69	.66	.64	.64	.62	.60
	2	.64	.60	.55	.63	.58	.55	.56	.53	.50
	3	.59	.53	.48	.58	.52	.47	.50	.46	.43
	4	.54	.47	.41	.53	.46	.41	.44	.40	.36
	5	.49	.41	.35	.48	.40	.35	.39	.34	.31
	6	.45	.37	.31	.44	.36	.31	.35	.30	.26
	7	.41	.33	.27	.40	.32	.27	.31	.26	.23
	8	.38	.29	.24	.37	.29	.24	.28	.23	.20
	9	.35	.26	.21	.34	.26	.21	.25	.20	.17
	10	.32	.24	.19	.32	.23	.18	.23	.18	.15

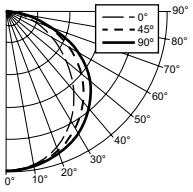
Effective Floor Cavity Reflectance = .20

PHOTOMETRY – 2x2 AD

Catalog #: **DIG-22-240TT-AD**

TEST REPORT INFORMATION

- Test Report #: 14229.0
- Date: 08/05/08
- Lamp Type: F40TT/2G11
- Lamp Quantity: 2



CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle 0°	45°	90°	Zonal Lumens
0°	1813.	1813.	1813.	
5°	1809.	1804.	1803.	172.3
15°	1727.	1746.	1761.	494.9
25°	1567.	1635.	1682.	754.5
35°	1333.	1463.	1548.	911.8
45°	1040.	1237.	1355.	944.1
55°	733.	968.	1102.	850.2
65°	466.	660.	757.	634.7
75°	218.	327.	360.	327.4
85°	35.	52.	55.	52.9
90°	0.	0.	0.	

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0 - 30	1422.	22.6	27.6
0 - 40	2333.	37.0	45.4
0 - 60	4128.	65.5	80.3
0 - 90	5143.	81.6	100.0
Total Luminaire:			
0 - 180	5143.	81.6	100.0

Total Luminaire Optical Efficiency: **81.6%**

IES Spacing Criteria: End = 1.2
Diagonal = 1.3
Across = 1.3

ZONAL CAVITY COEFFICIENTS

Room Cavity Ratio	Ceiling	.80			.70			.50		
	Wall	.70	.50	.30	.70	.50	.30	.50	.30	.10
	0	.97	.97	.97	.95	.95	.95	.91	.91	.91
	1	.90	.86	.83	.88	.84	.81	.81	.79	.76
	2	.82	.76	.71	.80	.74	.70	.72	.68	.64
	3	.75	.67	.61	.73	.66	.60	.64	.59	.55
	4	.69	.60	.53	.67	.59	.52	.57	.51	.47
	5	.63	.53	.46	.61	.52	.45	.50	.44	.40
	6	.58	.47	.40	.56	.47	.40	.45	.39	.35
	7	.53	.42	.35	.52	.42	.35	.41	.34	.30
	8	.49	.38	.31	.48	.37	.31	.36	.30	.26
	9	.45	.34	.27	.44	.34	.27	.33	.27	.22
	10	.42	.31	.24	.41	.30	.24	.30	.24	.20

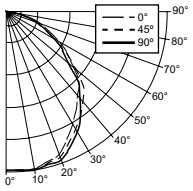
Effective Floor Cavity Reflectance = .20

PHOTOMETRY – 1x4

Catalog #: **DIG-S14-232-WPR**

TEST REPORT INFORMATION

- Test Report #: 13829.0
- Date: 12/07/07
- Lamp Type: F32T8
- Lamp Quantity: 2



CANDLEPOWER DISTRIBUTION

Vertical Angle	Horizontal Angle 0°	45°	90°	Zonal Lumens
0°	1473.	1473.	1473.	
5°	1476.	1479.	1481.	141.2
15°	1441.	1455.	1470.	412.5
25°	1312.	1352.	1386.	625.1
35°	1118.	1186.	1191.	734.6
45°	952.	1009.	937.	755.6
55°	686.	662.	625.	596.1
65°	445.	381.	395.	405.2
75°	227.	178.	180.	191.9
85°	37.	37.	37.	40.4
90°	0.	0.	0.	

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixture
0 - 30	1179.	20.0	30.2
0 - 40	1913.	32.4	49.0
0 - 60	3265.	55.3	83.7
0 - 90	3902.	66.1	100.0
Total Luminaire:			
0 - 180	3902.	66.1	100.0

Total Luminaire Optical Efficiency: **66.1%**

IES Spacing Criteria: End = 1.2
Diagonal = 1.3
Across = 1.3

ZONAL CAVITY COEFFICIENTS

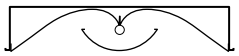
Room Cavity Ratio	Ceiling	.80			.70			.50		
	Wall	.70	.50	.30	.70	.50	.30	.50	.30	.10
	0	.79	.79	.79	.77	.77	.77	.73	.73	.73
	1	.73	.70	.68	.71	.69	.67	.66	.64	.63
	2	.67	.62	.58	.66	.61	.58	.59	.56	.53
	3	.62	.56	.51	.60	.55	.50	.53	.49	.46
	4	.57	.50	.44	.56	.49	.44	.47	.43	.40
	5	.52	.44	.39	.51	.44	.38	.42	.38	.34
	6	.48	.40	.34	.47	.39	.34	.38	.33	.30
	7	.44	.36	.30	.43	.35	.30	.34	.29	.26
	8	.41	.32	.27	.40	.32	.26	.31	.26	.23
	9	.38	.29	.23	.37	.28	.23	.28	.23	.20
	10	.35	.26	.21	.34	.26	.21	.25	.20	.17

Effective Floor Cavity Reflectance = .20

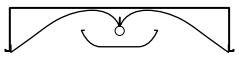
SHIELDING OPTIONS

Seven (7) shielding options available.
1x4 available with WPR and WPASL only.

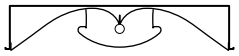
WPR or WRP/SLT/LW



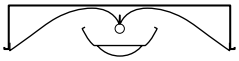
WP



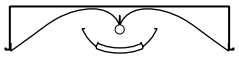
AD



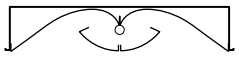
WPRL



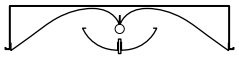
WPASL



WPR/SPLIT

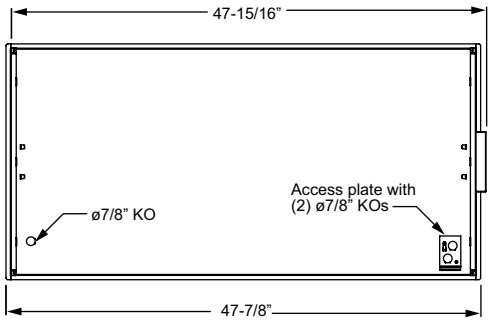


WPR/ACRY/CTR/CLR

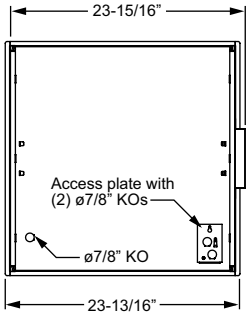


FIXTURE DETAILS

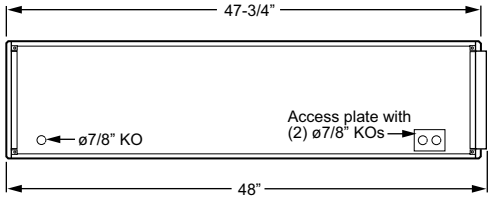
2x4 BACK VIEW



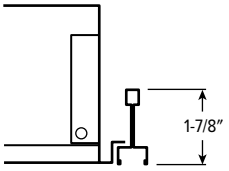
2x2 BACK VIEW



1x4 BACK VIEW

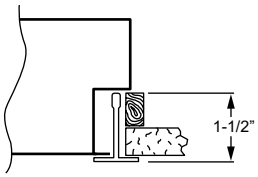


SLOT GRID (WILLIAMS' SG)



Screw Slot NEMA Type "SS"

DRYWALL KIT (DFK)



When using the DFK with Williams DI fixture, the structure surrounding the DFK at each end of fixture is to extend no more than 1-1/2" from the bottom of the "T" as shown.

DUSTCOVER OPTION