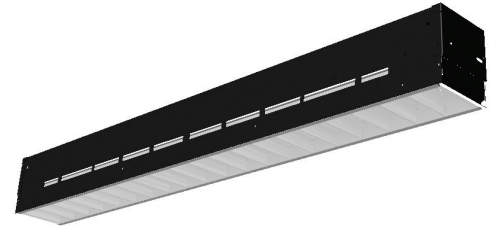


# Narrow aperture with balanced illumination and versatility.

LIS6G20LW228  
LYTECEL 6



Air Return Shown

6" X 48" 20 CELL (1 ROW) PARABOLIC LOUVER FLUORESCENT  
FOR INDIVIDUAL 4' MOUNTING  
AIR RETURN/STATIC  
2 LAMP T5, IES RP1 FOR VDT AREAS

Lytecel 6 individual 6" x 48" features a low brightness 20 cell parabolic louver that has an opening that is only 4 1/4" wide. The precise contours provide photometrics that meet the IES requirements for lighting VDT areas. It fits most standard 6" x 48" lay-in ceiling systems plus Armstrong TECHZONE® ceiling systems.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Catalog No: \_\_\_\_\_  
 Fixture Type: \_\_\_\_\_  
 Mfg: \_\_\_\_\_ Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

## Ordering Guide

Explanation of Catalog Number Example: LIS6G20LW228

| Family     | Body Style                   | Fixture Width | Ceiling Type   | Number of Cells   | Louver Finish   | Reflector | Lamp Qty                  | Lamp/ Fixture Length               | Voltage  | Ballast Type   | Options  |
|------------|------------------------------|---------------|--|-------------------|---|-----------|---------------------------|------------------------------------|--|--|--|
| LI         |                              | 6             |  | 20                |   | W         | 2                         |                                    |  |  |  |
| Lytecel 6" | A = Air Return<br>S = Static | 6 = 6"        | G = 9/16" or 15/16" Grid<br>T = Slot Grid<br>A = 9/16" Tegular Grid<br>D = 15/16" Tegular Grid | 1 Row of 20 Cells | L = Low Iridescence Semi-specular<br>P = Low Iridescence Specular | W = White | (By Others)<br>2 = 2 Lamp | 28 = T5<br>54 = T5HO (Nominal 48") | UNV = 120/277V<br>120 = 120V<br>277 = 277V<br>347 = 347V | PG = 2 Lamp Elect. P.R.S., <10% THD (UNV Only)<br>DA = DALI Digital Addressable Dimming (347V N/A).<br>For 347V Dimming, Consult Your Philips Lighting Representative. | Add Appropriate Suffix to Catalog No., i.e., F |

### Features

- 52.0% efficient (2 lamp) semi-specular louver.
- 55.3% efficient (2 lamp) specular louver.
- 1.3 spacing mounting ratio, semi-specular louver.
- 1.5 spacing mounting ratio specular louver.
- Semi-specular or specular, low iridescence, pre-anodized aluminum louver.
- Vertical grain on cross blades eliminates reflected lamp image.
- Spring loaded latches (self centering).
- Louver has protective dust guard.
- Only 5½" deep body.
- Air return models meet UL 1598, Paragraph 9.2.2.5 requirements.
- Black housing exterior for cooler ballast operating temperature.
- cULus Listed twin knockout access plate.
- Can be mounted in rows with Cross Tees every 4'.
- 2 hold-down clips standard.
- Compatible with **Armstrong TECHZONE™** ceiling systems.
- Optional DALI ballast accepts digital dimming commands from computers, scene controllers and automatic control devices.

### Specifications

**Performance:** In an installation of 2 lamp 28W semi-specular luminaires in a room cavity ratio of 1, reflectance 80% ceiling, 50% wall, 20% floor, the C.U. shall not be less than .56 with a spacing to mounting ratio of 1.3 perpendicular to the lamps. To meet IES RP-1 for VDT areas the VCP (visual comfort probability) shall not be less than 87 either crosswise or lengthwise and the candela value between 55° and 90° in the 0° to 90° planes shall not exceed 2858. Candelas at Nadir (0°) not to exceed 1373.

**Materials:** Chassis parts are die-formed cold rolled steel.

**Air Handling:** (LIA only) Side air passages for air return without black reveal.

**Louvers:** Pre-anodized aluminum.

**Finish:** Louver—specular or semi-specular low iridescence pre-anodized reflector sheet.

**Reflector:** White baked polyester enamel.

**Chassis Exterior:** Black baked polyester enamel.

**Electrical:** Thermally protected class "P" ballast C.B.M. approved, non PCB. If K.O. is within 3" of ballast, use wire suitable for at least 90°.

**Labels:** cULus Listed.

This product may have a mercury containing lamp. Manage in accord with Disposal Laws. See: [www.lamprecycle.org](http://www.lamprecycle.org)

### Options/Accessories

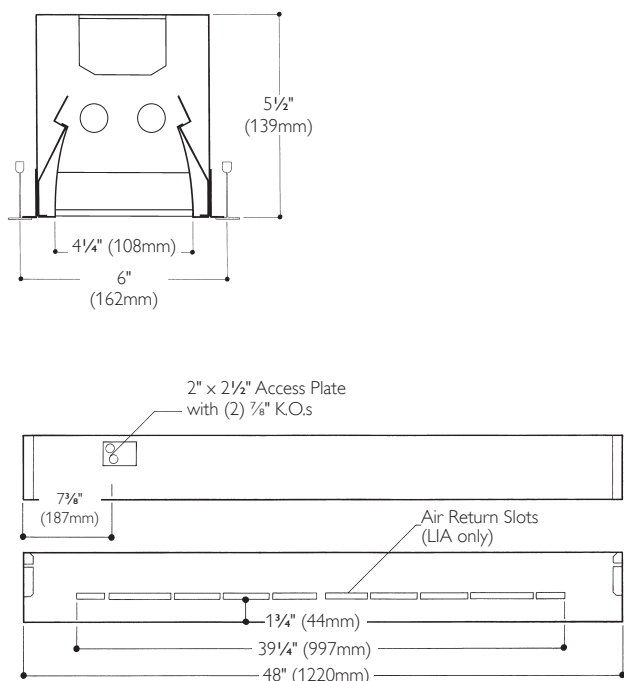
**Electrical/Wiring Options:** Consult your Philips Lighting representative.

**EM Pack or Dimming Ballast:** Consult your Philips Lighting representative.

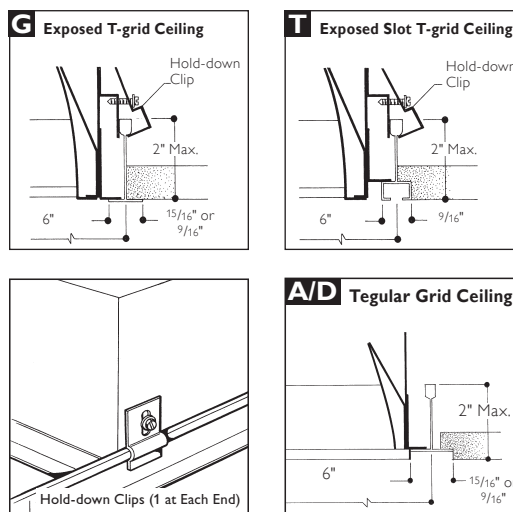
**Fusing:** Internal fast-blow fusing. Suffix: **F**.

**Drywall Kit:** For plaster frames, order catalog number: **FK906X4**.

### Dimensions



### Mounting Methods



### Performance

#### Model No. LIS6G20LW228120PG

LER = FP-43.3 IW-66.0 BF-1.0  
Comparative yearly lighting energy cost per 1000 lumens = \$5.54

Report Number: G1206007

Catalog Number: LIS6G20LW228120PG

Lamp: F28 T5

Luminaire: 6" wide troffer with semi-specular louver and white reflector.

Ballast: Advance ICN-2S28

Report is based on 2750 lumens per lamp.

Efficiency: 52.0%

CIE Type: Direct-Indirect

Plane: 0 Deg. 90 Deg.

Spacing Criteria: 1.2 1.3

Shielding Angles: 90 90

Plane: 0 Deg. 90 Deg.

Luminous Length: 47.943 5.816

#### Candela Distribution

| Angle | 0.0  | 45.0 | 90.0 | FLUX |
|-------|------|------|------|------|
| 0     | 1373 | 1373 | 1373 |      |
| 5     | 1300 | 1383 | 1363 | 133  |
| 15    | 1278 | 1420 | 1516 | 393  |
| 25    | 1188 | 1382 | 1403 | 614  |
| 35    | 1023 | 1139 | 1216 | 711  |
| 45    | 829  | 868  | 861  | 668  |
| 55    | 488  | 348  | 137  | 288  |
| 65    | 26   | 36   | 31   | 37   |
| 75    | 3    | 5    | 9    | 6    |
| 85    | 1    | 2    | 3    | 2    |
| 90    | 1    | 2    | 1    |      |

#### Coefficients of Utilization

| Ceiling           | 80%   |    |    | 50% |    |    | 30% |    |    |    |
|-------------------|---|----|----|-----|----|----|-----|----|----|----|
|                   | 70  | 50 | 30 | 50  | 30 | 10 | 50  | 30 | 10 |    |
| RCR               | Zonal Cavity Method—<br>Effective Floor Cavity Reflectance = 0.20 |    |    |     |    |    |     |    |    |    |
| Room Cavity Ratio | 1   | 58 | 56 | 55  | 53 | 52 | 51  | 51 | 50 | 49 |
|                   | 2   | 54 | 51 | 48  | 48 | 46 | 45  | 47 | 45 | 44 |
|                   | 3   | 50 | 46 | 43  | 44 | 41 | 39  | 43 | 41 | 39 |
|                   | 4   | 47 | 42 | 38  | 40 | 37 | 35  | 39 | 36 | 34 |
|                   | 5   | 44 | 38 | 34  | 37 | 33 | 31  | 36 | 33 | 31 |
|                   | 6   | 41 | 35 | 31  | 33 | 30 | 28  | 33 | 30 | 27 |
|                   | 7   | 38 | 32 | 28  | 31 | 27 | 25  | 30 | 27 | 25 |
|                   | 8   | 35 | 29 | 25  | 28 | 25 | 23  | 28 | 25 | 22 |
|                   | 9   | 33 | 27 | 23  | 26 | 23 | 20  | 26 | 23 | 20 |
|                   | 10  | 31 | 25 | 21  | 24 | 21 | 19  | 24 | 21 | 19 |

#### Luminance Data in Candela/Sq. Meter

| Average in Deg. | Average 0 Deg. | Average 45 Deg. | Average 90 Deg. |
|-----------------|----------------|-----------------|-----------------|
| 45              | 6515.          | 6821.           | 6766.           |
| 55              | 4728.          | 3371.           | 1327.           |
| 65              | 342.           | 473.            | 408.            |
| 75              | 64.            | 107.            | 193.            |
| 85              | 64.            | 128.            | 191.            |

#### Zonal Lumen Summary

| Zone   | Lumens | % Lamp | % Fixt |
|--------|--------|--------|--------|
| 0-30   | 1144   | 20.8   | 40.0   |
| 0-40   | 1856   | 33.7   | 64.9   |
| 0-60   | 2812   | 51.1   | 98.4   |
| 0-90   | 2858   | 52.0   | 100.0  |
| 90-180 | 0      | 0.0    | 0.0    |
| 0-180  | 2858   | 52.0   | 100.0  |

#### Typical V.C.P.'s

| Room Size | Mounting Height<br>Lengthwise Crosswise |    |     |    |                             |    |     |    |
|-----------|---|----|-----|----|-----------------------------|----|-----|----|
|           | Luminaires<br>0 Deg. Plane              |    |     |    | Luminaires<br>90 Deg. Plane |    |     |    |
|           | 8.5                                     | 10 | 8.5 | 10 | 8.5                         | 10 | 8.5 | 10 |
| 30x30     | 87                                      | 84 | 80  | 71 | 93                          | 89 | 85  | 76 |
| 40x40     | 87                                      | 84 | 81  | 78 | 94                          | 91 | 89  | 80 |
| 60x30     | 87                                      | 84 | 81  | 77 | 93                          | 89 | 87  | 78 |
| 60x60     | 87                                      | 83 | 81  | 79 | 94                          | 91 | 90  | 83 |
| 100x100   | 88                                      | 83 | 81  | 79 | 94                          | 92 | 91  | 86 |

### Performance

#### Model No. LIS6G20PW228120PG

LER = FP-45.8 IW-66.0 BF-1.0  
Comparative yearly lighting energy cost per 1000 lumens = \$5.24

Report Number: G1206008

Catalog Number: LIS6G20PW228120PG

Lamp: F28 T5

Luminaire: 6" wide troffer with specular louver and specular reflector.

Ballast: Advance ICN-2S28

Report is based on 2750 lumens per lamp.

Efficiency: 55.3%

CIE Type: Direct-Indirect

Plane: 0 Deg. 90 Deg.

Spacing Criteria: 1.3 1.5

Shielding Angles: 90 90

Plane: 0 Deg. 90 Deg.

Luminous Length: 47.943 5.816

#### Candela Distribution

| Angle | 0.0  | 45.0 | 90.0 | FLUX |
|-------|------|------|------|------|
| 0     | 1348 | 1347 | 1348 |      |
| 5     | 1337 | 1348 | 1377 | 134  |
| 15    | 1278 | 1470 | 1522 | 414  |
| 25    | 1184 | 1483 | 1448 | 649  |
| 35    | 1079 | 1221 | 1262 | 756  |
| 45    | 893  | 963  | 980  | 737  |
| 55    | 586  | 377  | 113  | 314  |
| 65    | 1    | 35   | 29   | 27   |
| 75    | 1    | 4    | 9    | 5    |
| 85    | 1    | 2    | 4    | 2    |
| 90    | 0    | 1    | 1    |      |

#### Coefficients of Utilization

| Ceiling           | 80%   |    |    | 50% |    |    | 30% |    |    |    |
|-------------------|---|----|----|-----|----|----|-----|----|----|----|
| Wall              | 70  | 50 | 30 | 50  | 30 | 10 | 50  | 30 | 10 |    |
| RCR               | Zonal Cavity Method—<br>Effective Floor Cavity Reflectance = 0.20 |    |    |     |    |    |     |    |    |    |
| Room Cavity Ratio | 1   | 62 | 60 | 58  | 56 | 55 | 54  | 54 | 53 | 52 |
|                   | 2   | 58 | 54 | 51  | 51 | 49 | 47  | 50 | 48 | 46 |
|                   | 3   | 54 | 49 | 46  | 47 | 44 | 42  | 45 | 43 | 41 |
|                   | 4   | 50 | 45 | 41  | 43 | 39 | 37  | 41 | 39 | 36 |
|                   | 5   | 46 | 40 | 36  | 39 | 35 | 33  | 38 | 35 | 32 |
|                   | 6   | 43 | 37 | 33  | 35 | 32 | 29  | 35 | 31 | 29 |
|                   | 7   | 40 | 34 | 30  | 33 | 29 | 26  | 32 | 29 | 26 |
|                   | 8   | 38 | 31 | 27  | 30 | 26 | 24  | 29 | 26 | 24 |
|                   | 9   | 35 | 29 | 24  | 28 | 24 | 22  | 27 | 24 | 21 |
|                   | 10  | 33 | 26 | 22  | 26 | 22 | 20  | 25 | 22 | 20 |

#### Luminance Data in Candela/Sq. Meter

| Average in Deg. | Average 0 Deg. | Average 45 Deg. | Average 90 Deg. |
|-----------------|----------------|-----------------|-----------------|
| 45              | 7018.          | 7568.           | 7701.           |
| 55              | 5677.          | 3652.           | 1095.           |
| 65              | 13.            | 460.            | 381.            |
| 75              | 21.            | 86.             | 193.            |
| 85              | 64.            | 128.            | 255.            |

#### Zonal Lumen Summary

| Zone   | Lumens | % Lamp | % Fixt |
|--------|--------|--------|--------|
| 0-30   | 1198   | 21.8   | 39.4   |
| 0-40   | 1954   | 35.5   | 64.3   |
| 0-60   | 3004   | 54.6   | 98.8   |
| 0-90   | 3039   | 55.3   | 100.0  |
| 90-180 | 0      | 0.0    | 0.0    |
| 0-180  | 3039   | 55.3   | 100.0  |

#### Typical V.C.P.'s

| Room Size | Mounting Height<br>Lengthwise Crosswise |    |     |    |                             |    |     |    |
|-----------|---|----|-----|----|-----------------------------|----|-----|----|
|           | Luminaires<br>0 Deg. Plane              |    |     |    | Luminaires<br>90 Deg. Plane |    |     |    |
|           | 8.5                                     | 10 | 8.5 | 10 | 8.5                         | 10 | 8.5 | 10 |
| 30x30     | 86                                      | 76 | 73  | 71 | 93                          | 88 | 85  | 70 |
| 40x40     | 86                                      | 76 | 75  | 74 | 94                          | 90 | 87  | 79 |
| 60x30     | 86                                      | 76 | 75  | 76 | 93                          | 88 | 85  | 77 |
| 60x60     | 86                                      | 77 | 76  | 76 | 94                          | 91 | 89  | 82 |
| 100x100   | 86                                      | 77 | 76  | 76 | 93                          | 92 | 91  | 85 |



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