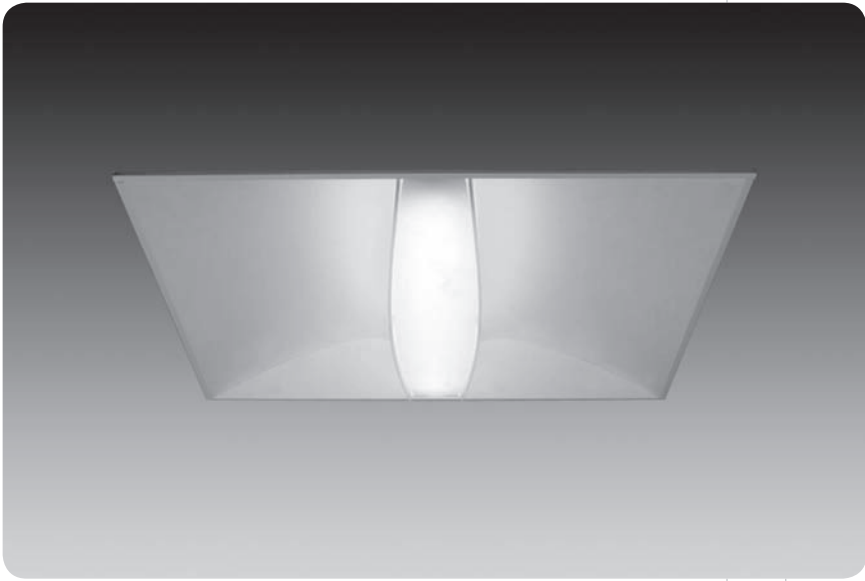


# birdie™



Design: Hartmut S. Engel  
Covered by U.S. Patent No. 6,523,974.

## features

2'x2' recessed indirect with frosted white acrylic diffuser.

Birdie's™ 92% efficiency provides energy savings.

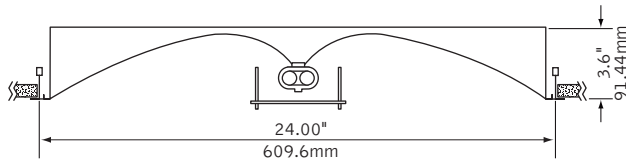
High reflectance, low gloss Matte White finish controls glare and provides high efficiency.

Shallow 3.6" deep housing is an excellent solution for low plenum applications.

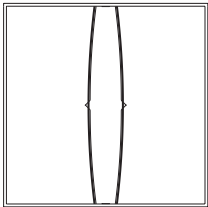
Luminaire may be continuously row mounted.

Great solution for corridors, small offices and other specialty applications.

## dimensional data



## lens configuration



## lamping options



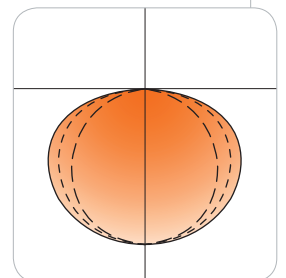
BIAx LAMP



T5/T5HO LAMPS

## performance

1-Lamp 40W Biax  
92% Efficiency  
817 cd @ 5°



Visit [focalpointlights.com](http://focalpointlights.com) for complete photometric data.

august 2008 A

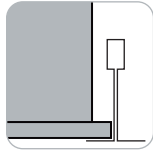
fixture:

project:

### mounting information

#### grid

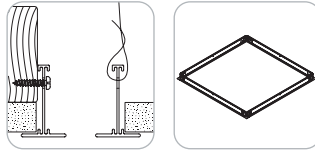
specify "G" for flat 9/16" and 15/16" tee.



"G" flat tee

#### drywall frame kit

specify "DF" Drywall Frame Kit for drywall ceiling conditions.



Use tie-wire or screws to secure frame kit.

cut out dimensions:  
2': Min: 24.125"  
Max: 24.563"

### specifications

#### construction

One piece 20 Ga. steel housing.  
Lamps are shielded by three piece, .118" thick frosted acrylic diffuser.  
Shields lock together and have a positive, snap-fit connection to housing end cap.  
Top access 20 Ga. steel ballast compartment.

weight: 28 lbs

#### optic

One-piece 20 Ga. steel reflectors finished in Matte Satin White powder coat.

#### electrical

Electronic ballasts are thermally protected and have a Class "P" rating.  
Optional dimming ballasts available.  
Consult factory for dimming specifications and availability.  
UL and cUL listed.

#### finish

Polyester powder coat applied over a 5-stage pre-treatment.

### ordering

|                  |   |      |            |
|------------------|---|------|------------|
| luminaire series | Birdie  | FBD  | <u>FBD</u> |
| nominal size     | 2'x2'   | 22   | <u>22</u>  |
| distribution     | Bi-Directional  | B    | <u>B</u>   |
| lamp quantity    | One Lamp (Biax only)  | 1    |            |
|                  | Two Lamps (T5 & T5H0 only)                                      | 2    |            |
| lamp type        | 40 Watt Biax  | BX40 |            |
|                  | 50 Watt Biax  | BX50 |            |
|                  | 55 Watt Biax  | BX55 |            |
|                  | T5  | T5   |            |
|                  | T5H0  | T5H0 |            |
| ballast          | Electronic Instant Start <20% THD (40 W Biax only)              | E    |            |
|                  | Electronic Program Start <10% THD                               | S    |            |
|                  | Electronic Dimming Ballast*                                     | D    |            |
| voltage          | 120 Volt  | 120  |            |
|                  | 277 Volt  | 277  |            |
|                  | 347 Volt  | 347  |            |
| mounting         | Grid  | G    | <u>G</u>   |
| shielding        | Pearl White   | PW   | <u>PW</u>  |
| factory options  | Chicago Plenum  | CP   |            |
|                  | Drywall Frame Kit (Cut out dimensions: Min:24.25"/Max: 24.563") | DF   |            |
|                  | Emergency Battery Pack*   | EM   |            |
|                  | Earthquake Clip   | EQ   |            |
|                  | HLR/GLR Fuse  | FU   |            |
|                  | Flex Whip*  | FW   |            |
|                  | Include 3000K Lamp  | L830 |            |
|                  | Include 3500K Lamp  | L835 |            |
|                  | Include 4100K Lamp  | L841 |            |
|                  | Lutron™ Sensor Feed* (EcoSystem ballast required)               | SF   |            |
| finish           | Matte Satin White   | WH   | <u>WH</u>  |

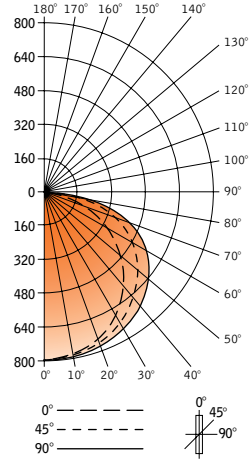
\* for more information see Reference section.

birdie™



Filename: FBD221BX40PW.IES  
 Catalog #: FBD-22-B-1-BX40-E-120-G-PW-WH  
 Efficiency: 92%  
 Test #: 11596.0

CANDLEPOWER DISTRIBUTION



Spacing 1.3  
 Criterion: 1.4

| Vertical Angle | Horizontal Angle |       |     |       | Zonal Lumens |
|----------------|------------------|-------|-----|-------|--------------|
|                | 0°               | 22.5° | 45° | 67.5° |              |
| 0°             | 813              | 813   | 813 | 813   | 813          |
| 5°             | 809              | 817   | 813 | 814   | 815          |
| 15°            | 785              | 793   | 795 | 802   | 803          |
| 25°            | 728              | 745   | 761 | 778   | 787          |
| 35°            | 648              | 674   | 705 | 739   | 751          |
| 45°            | 544              | 581   | 636 | 683   | 697          |
| 55°            | 424              | 480   | 549 | 607   | 629          |
| 65°            | 291              | 360   | 447 | 507   | 529          |
| 75°            | 152              | 218   | 302 | 350   | 365          |
| 85°            | 36               | 68    | 94  | 115   | 116          |
| 90°            | 0                | 0     | 0   | 0     | 0            |
| 95°            | 0                | 0     | 0   | 0     | 0            |
| 105°           | 0                | 0     | 0   | 0     | 0            |
| 115°           | 0                | 0     | 0   | 0     | 0            |
| 125°           | 0                | 0     | 0   | 0     | 0            |
| 135°           | 0                | 0     | 0   | 0     | 0            |
| 145°           | 0                | 0     | 0   | 0     | 0            |
| 155°           | 0                | 0     | 0   | 0     | 0            |
| 165°           | 0                | 0     | 0   | 0     | 0            |
| 175°           | 0                | 0     | 0   | 0     | 0            |
| 180°           | 0                | 0     | 0   | 0     | 0            |

LUMEN SUMMARY

| Zone                   | Lumens      | % Lamp    | % Fixt     |
|------------------------|-------------|-----------|------------|
| 0°-30°                 | 655         | 20.8      | 22.6       |
| 0°-40°                 | 1098        | 34.9      | 37.9       |
| 0°-60°                 | 2071        | 65.7      | 71.5       |
| 0°-90°                 | 2893        | 91.9      | 99.9       |
| <b>Total Luminaire</b> | <b>2895</b> | <b>92</b> | <b>100</b> |

LUMINANCE DATA (CD/M<sup>2</sup>)

| Vertical Angle | 0°   | 45°  | 90°  |
|----------------|------|------|------|
| 45°            | 2237 | 2506 | 2747 |
| 55°            | 2149 | 2620 | 3002 |
| 65°            | 2003 | 2813 | 3329 |
| 75°            | 1708 | 2919 | 3528 |
| 85°            | 1201 | 2095 | 2585 |

CO-EFFICIENTS OF UTILIZATION

| Floor   | 80 |    |    |    | 70 |    |    |    | 50 |    |    |    | 20 |    |    |    |
|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Ceiling | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 00 | 50 | 30 | 10 | 00 |
| Wall    | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 98 | 98 | 94 | 94 | 92 | 92 |
| RCR 0   | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 98 | 98 | 94 | 94 | 92 | 92 |
| 1       | 99 | 95 | 91 | 87 | 97 | 93 | 85 | 85 | 89 | 83 | 85 | 80 | 82 | 78 | 76 | 76 |
| 2       | 90 | 82 | 75 | 70 | 87 | 80 | 69 | 69 | 77 | 67 | 67 | 66 | 74 | 66 | 64 | 62 |
| 3       | 82 | 72 | 64 | 58 | 80 | 70 | 57 | 57 | 68 | 56 | 56 | 55 | 65 | 55 | 54 | 52 |
| 4       | 75 | 63 | 55 | 48 | 72 | 62 | 48 | 48 | 60 | 47 | 47 | 47 | 57 | 47 | 46 | 44 |
| 5       | 68 | 55 | 47 | 40 | 66 | 54 | 40 | 40 | 52 | 40 | 40 | 39 | 50 | 39 | 39 | 37 |
| 6       | 62 | 49 | 41 | 34 | 60 | 48 | 34 | 34 | 47 | 34 | 34 | 34 | 45 | 34 | 33 | 31 |
| 7       | 57 | 44 | 36 | 30 | 55 | 43 | 29 | 29 | 42 | 29 | 29 | 29 | 40 | 29 | 29 | 27 |
| 8       | 52 | 39 | 31 | 25 | 51 | 39 | 25 | 25 | 37 | 25 | 25 | 25 | 36 | 25 | 25 | 23 |
| 9       | 48 | 35 | 27 | 22 | 47 | 35 | 22 | 22 | 33 | 22 | 22 | 22 | 32 | 21 | 21 | 19 |
| 10      | 45 | 32 | 24 | 19 | 43 | 31 | 19 | 19 | 30 | 19 | 19 | 19 | 29 | 19 | 19 | 17 |

Numbers indicate percentage values of

Go to [www.focalpointlights.com](http://www.focalpointlights.com) for additional photometric data.