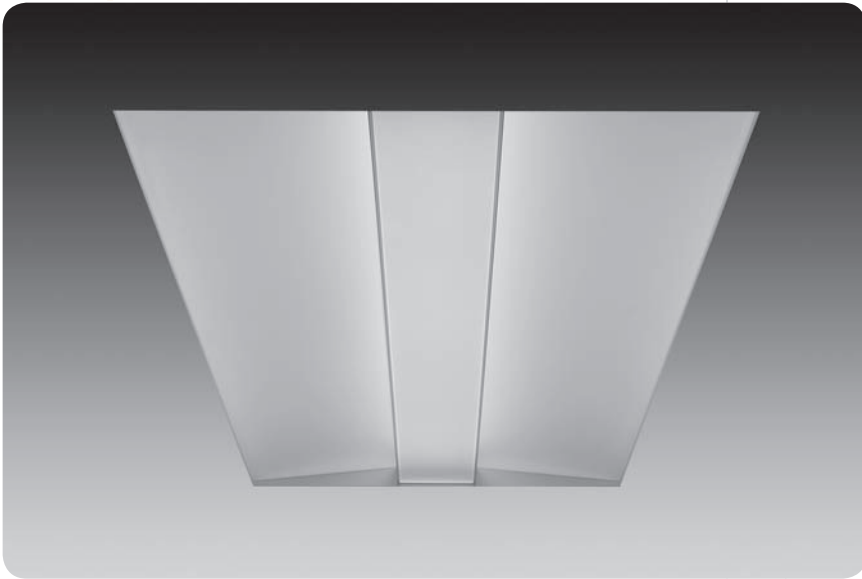


# equation™ 2x4



Patent Pending

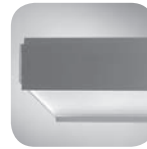
## features

Equation blends sleek aesthetics and uniform diffuse illumination while delivering high fixture efficiencies.

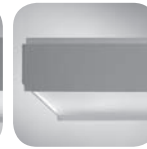
Center diffuser features MicroGlow™ prismatic lens technology. Precision molded conical prisms deliver 92% light transmission while controlling high angle brightness.

Patent pending QuickLatch™ hinged diffuser system makes relamping easy.

## shielding options



natural anodized side rails

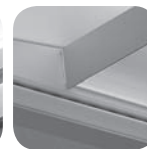


high performance white side rails

## details & options



QuickLatch™



air return

## companion luminaire

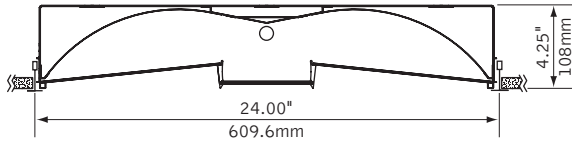


twelve with MicroGlow™



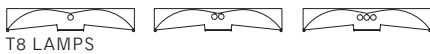
avenue b with MicroGlow™

## dimensional data



Overall height for luminaire with Air Return is 4.90"

## lampping options



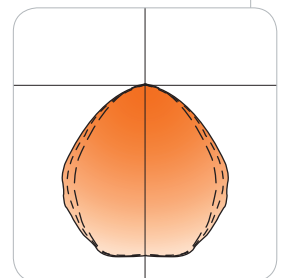
T8 LAMPS



T5/T5H0 LAMPS

## performance

High Performance White Side Rails  
 1-Lamp T5H0  
 83% Efficiency  
 1703 cd @ 10°



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

July 2008

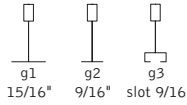
fixture:

project:

### mounting information

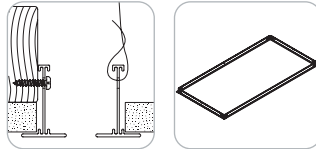
#### grid

for lay-in grid, specify G1, G2 or G3.



#### 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: 24.25"  
 Max: 24.563"  
 4': Min: 48.25"  
 Max: 48.563"

### specifications

#### construction

One piece 20 Ga. Steel reflector and housing.  
 20 Ga. Steel ends form finishing housing.  
 Bottom access 20 Ga. Steel ballast compartment.  
 Earthquake brackets supplied as standard.

Weight: 29 lbs

#### optic

20 Ga. Steel reflectors finished in matte satin white powder coat.  
 .080" thick frosted white acrylic diffusers.  
 .125" thick MicroGlow™ miniature prism acrylic lens and .120" thick linear spread lens retained with side rails available in natural anodized aluminum or Matte Satin White.

#### electrical

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

#### finish

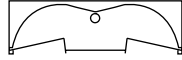
Polyester powder coat applied over a 5-stage pre-treatment.

### ordering

|  |            |            |
|--|------------|------------|
| <b>luminaire series</b>  | <b>FEQ</b> | <u>FEQ</u> |
| Equation   | FEQ        |            |
| <b>nominal size</b>  | <b>24</b>  | <u>24</u>  |
| 2' x 4'  | 24         |            |
| <b>distribution</b>  | <b>B</b>   | <u>B</u>   |
| Bi-Directional   | B          |            |
| <b>lamp quantity</b>   |            | <u>  </u>  |
| One Lamp   | 1          |            |
| Two Lamp   | 2          |            |
| Three Lamp   | 3          |            |
| <b>lamp type</b>   |            | <u>  </u>  |
| T5   | T5         |            |
| T5H0   | T5H0       |            |
| T8   | T8         |            |
| <b>ballast</b>   |            | <u>  </u>  |
| Electronic Instant Start <20% THD (T8 only)  | E          |            |
| Electronic Program Start <10% THD  | S          |            |
| Electronic Dimming Ballast*  | D          |            |
| Electronic Step Dimming  | DA         |            |
| <b>voltage</b>   |            | <u>  </u>  |
| 120 Volt   | 120        |            |
| 277 Volt   | 277        |            |
| 347 Volt   | 347        |            |
| <b>mounting</b>  |            | <u>  </u>  |
| 15/16" Grid  | G1         |            |
| 9/16" Grid   | G2         |            |
| 9/16" Slot Tee   | G3         |            |
| <b>shielding</b>   |            | <u>  </u>  |
| Natural Anodized Side Rails  | AL         |            |
| High Performance White Side Rails  | WP         |            |
| <b>factory options</b>   |            | <u>  </u>  |
| Air Return (Overall height for luminaire with Air Return is 4.90")                       | AR         |            |
| Chicago Plenum   | CP         |            |
| Drywall Frame Kit (Cut out dimensions: Min: 24.25"/Max: 24.563" Min: 48.25"/Max 48.563") | DF         |            |
| Emergency Battery Pack*  | EM         |            |
| HLR/GLR Fuse   | FU         |            |
| Flex Whip*   | FW         |            |
| Include 3000K Lamp   | L830       |            |
| Include 3500K Lamp   | L835       |            |
| Include 4100K Lamp   | L841       |            |
| Separate Circuit*  | SC         |            |
| Master Satellite*  | MS         |            |
| Tandem Wiring*   | TW         |            |
| Lutron™ Sensor Feed* (EcoSystem ballast required)  | SF         |            |
| <b>finish</b>  |            | <u>WH</u>  |
| Matte Satin White  | WH         |            |

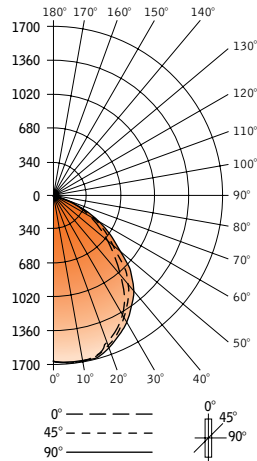
\* for more information see Reference section.

high performance white side rails  
equation™ 2x4



Filename: FEQ241T5HWP.IES  
Catalog #: FEQ-24-B-1T5H0-S-120-G1-WP-WH  
Efficiency: 83%  
Test #: 13287.0

CANDLEPOWER DISTRIBUTION



| Vertical Angle | 0°   | 22.5° | 45°  | 67.5° | 90°  | Zonal Lumens |
|----------------|------|-------|------|-------|------|--------------|
| 0°             | 1681 | 1681  | 1681 | 1681  | 1681 |              |
| 5°             | 1691 | 1689  | 1689 | 1691  | 1689 | 161          |
| 15°            | 1672 | 1677  | 1682 | 1688  | 1692 | 477          |
| 25°            | 1498 | 1511  | 1534 | 1555  | 1567 | 710          |
| 35°            | 1243 | 1259  | 1318 | 1364  | 1372 | 824          |
| 45°            | 932  | 967   | 1040 | 1100  | 1127 | 801          |
| 55°            | 549  | 569   | 632  | 691   | 705  | 565          |
| 65°            | 333  | 336   | 377  | 415   | 423  | 374          |
| 75°            | 171  | 165   | 180  | 187   | 189  | 188          |
| 85°            | 42   | 42    | 37   | 35    | 35   | 42           |
| 90°            | 0    | 0     | 0    | 0     | 0    | 0            |
| 95°            | 0    | 0     | 0    | 0     | 0    | 0            |
| 105°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 115°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 125°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 135°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 145°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 155°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 165°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 175°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 180°           | 0    | 0     | 0    | 0     | 0    | 0            |

Spacing 1.2  
Criterion: 1.3

LUMEN SUMMARY

| Zone                   | Lumens      | % Lamp      | % Fixt       |
|------------------------|-------------|-------------|--------------|
| 0°-30°                 | 1348        | 27.0        | 32.5         |
| 0°-40°                 | 2172        | 43.4        | 52.4         |
| 0°-60°                 | 3538        | 70.8        | 85.4         |
| 0°-90°                 | 4142        | 82.8        | 100.0        |
| <b>Total Luminaire</b> | <b>4142</b> | <b>82.8</b> | <b>100.0</b> |

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

| Vertical Angle | 0°   | 45°  | 90°  |
|----------------|------|------|------|
| 45°            | 1898 | 2118 | 2296 |
| 55°            | 1379 | 1587 | 1770 |
| 65°            | 1135 | 1285 | 1442 |
| 75°            | 952  | 1002 | 1052 |
| 85°            | 694  | 611  | 578  |

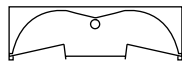
CO-EFFICIENTS OF UTILIZATION

| Floor   | 80 | 70 | 50 | 30 | 10 | 00 |    |
|---------|----|----|----|----|----|----|----|
| Ceiling | 70 | 50 | 30 | 10 | 50 | 10 | 00 |
| Wall    | 99 | 99 | 99 | 99 | 96 | 96 | 83 |
| RCR 0   | 92 | 88 | 85 | 83 | 89 | 86 | 81 |
| 1       | 85 | 79 | 74 | 70 | 83 | 77 | 69 |
| 2       | 78 | 71 | 65 | 60 | 76 | 69 | 60 |
| 3       | 72 | 63 | 57 | 52 | 70 | 62 | 52 |
| 4       | 66 | 57 | 50 | 45 | 65 | 56 | 45 |
| 5       | 61 | 51 | 44 | 39 | 60 | 50 | 39 |
| 6       | 57 | 46 | 39 | 35 | 55 | 46 | 34 |
| 7       | 52 | 41 | 35 | 30 | 51 | 41 | 30 |
| 8       | 48 | 37 |    |    |    |    |    |
| 9       |    |    |    |    |    |    |    |
| 10      |    |    |    |    |    |    |    |

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

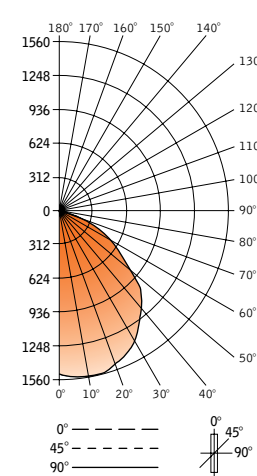
Numbers indicate percentage values of reflectivity.

natural anodized side rails  
equation™ 2x4



Filename: FEQ241T5HAL.IES  
Catalog #: FEQ-24-B-1T5H0-S-120-G1-AL-WH  
Efficiency: 75%  
Test #: 13286.0

CANDLEPOWER DISTRIBUTION



| Vertical Angle | 0°   | 22.5° | 45°  | 67.5° | 90°  | Zonal Lumens |
|----------------|------|-------|------|-------|------|--------------|
| 0°             | 1530 | 1530  | 1530 | 1530  | 1530 |              |
| 5°             | 1541 | 1541  | 1541 | 1541  | 1539 | 147          |
| 15°            | 1535 | 1539  | 1545 | 1549  | 1555 | 438          |
| 25°            | 1368 | 1379  | 1402 | 1423  | 1440 | 649          |
| 35°            | 1131 | 1142  | 1204 | 1250  | 1257 | 752          |
| 45°            | 839  | 873   | 945  | 1009  | 1040 | 729          |
| 55°            | 490  | 507   | 569  | 619   | 639  | 507          |
| 65°            | 297  | 298   | 336  | 367   | 379  | 332          |
| 75°            | 151  | 143   | 152  | 159   | 162  | 162          |
| 85°            | 91   | 33    | 28   | 25    | 25   | 32           |
| 90°            | 0    | 0     | 0    | 0     | 0    | 0            |
| 95°            | 0    | 0     | 0    | 0     | 0    | 0            |
| 105°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 115°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 125°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 135°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 145°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 155°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 165°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 175°           | 0    | 0     | 0    | 0     | 0    | 0            |
| 180°           | 0    | 0     | 0    | 0     | 0    | 0            |

Spacing 1.2  
Criterion: 1.3

LUMEN SUMMARY

| Zone                   | Lumens      | % Lamp      | % Fixt       |
|------------------------|-------------|-------------|--------------|
| 0°-30°                 | 1234        | 24.7        | 32.9         |
| 0°-40°                 | 1986        | 39.7        | 53.0         |
| 0°-60°                 | 3222        | 64.4        | 86.0         |
| 0°-90°                 | 3748        | 75.0        | 100.0        |
| <b>Total Luminaire</b> | <b>3748</b> | <b>75.0</b> | <b>100.0</b> |

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

| Vertical Angle | 0°   | 45°  | 90°  |
|----------------|------|------|------|
| 45°            | 1709 | 1925 | 2118 |
| 55°            | 1230 | 1429 | 1605 |
| 65°            | 1012 | 1145 | 1292 |
| 75°            | 840  | 846  | 902  |
| 85°            | 611  | 463  | 413  |

CO-EFFICIENTS OF UTILIZATION

| Floor   | 80 | 70 | 50 | 30 | 10 | 00 |    |
|---------|----|----|----|----|----|----|----|
| Ceiling | 70 | 50 | 30 | 10 | 50 | 10 | 00 |
| Wall    | 89 | 89 | 89 | 89 | 87 | 87 | 75 |
| RCR 0   | 83 | 80 | 77 | 75 | 81 | 78 | 74 |
| 1       | 77 | 72 | 67 | 64 | 75 | 70 | 63 |
| 2       | 71 | 64 | 59 | 55 | 69 | 63 | 54 |
| 3       | 66 | 58 | 52 | 47 | 64 | 57 | 47 |
| 4       | 60 | 51 | 45 | 41 | 59 | 51 | 41 |
| 5       | 56 | 46 | 40 | 36 | 54 | 46 | 36 |
| 6       | 51 | 42 | 36 | 32 | 50 | 41 | 31 |
| 7       | 47 | 38 | 32 | 28 | 46 | 37 | 27 |
| 8       | 44 | 34 | 28 | 24 | 43 | 33 | 24 |
| 9       | 41 | 31 | 25 | 21 | 40 | 30 | 21 |
| 10      |    |    |    |    |    |    |    |

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

Numbers indicate percentage values of reflectivity.