

## DESCRIPTION

Recessed medium beam downlight luminaire with 4 inch square aperture utilizing horizontal 26W DTT or 26/32/42W TTT compact fluorescent lamp. Modular platform can be reconfigured from below the ceiling to accept a broad range of lamp modules and optical elements. Platform is suitable for shallow plenum commercial construction. Insulation must be kept 3" from top and sides of housing. Platform + module + element combination produces square distribution with excellent light control and low aperture brightness.

## SPECIFICATION FEATURES

### Frame

Galvanized steel plaster frame with integral bar hanger receivers. Setscrews provide positive horizontal locking.

### Collar

Matte black steel collar adjusts vertically for 1/2" - 1" thick ceilings and can be rotated +/- 7.5° thru the aperture. Integral gun sights facilitate the use of guide strings or laser lines. Shipped with a paint overspray protector.

### Lamp Module

Installed or removed thru the aperture or from the top and allows lamp orientation at 0°, 90°, 180° and 270° positions (except for 26W DTT and 42W TTT lamps).

### Housing

Steel housing painted matte black for a visually dark interior. Removable hinged top allows for top access. All fasteners are captive.

### Gaskets

Closed cell gaskets achieve restrictive airflow requirements without additional caulking.

### Optical Element

Mousetrap type springs pull flange tight to ceiling. Light trap eliminates spill light at edge of flange and reflector. Available in self-flanged or metal trim ring versions. May also be installed rimless using optional plastering lathing ring.

### Bar Hangers

Captive preinstalled bar hangers adjusts from 8-1/2" to 24" wide; pass thru feature allows shortening without removal. Captive nail penetrates standard and engineered lumber. Mounting flange levels platform with ceiling. Integral clip attaches directly to t-bar.

### Butterfly Bracket

Provides 3" of vertical adjustment and accept 1/2" EMT, C channel or bar hangers.

### Primary Reflector

Miro® Erotok segmented upper reflector yields a smooth square beam with medium distribution. Accepts 26W DTT, 26/32/42W TTT compact fluorescent lamps.

### Lower Reflector

Aluminum parabolic shielding prismatoid provides for 55° cutoff and is available in a wide range of semi specular Alzak® finishes. Corrugated Baffle: An optional embossed pattern that extends through the flange adding a subtle design element and reduces aperture brightness.

### Junction Box

(7) 1/2" trade size pry outs, (3) integral clamps for non-metallic cable. Rated for (8) #12 thru branch circuits. Wago® type push wire connectors for field connections.

### Thermal Protector

Self-resetting thermal protector protects against improper lamping and direct contact with insulation.

### Ballast

Universal input electronic ballast features multi-watt capability operating 26W DTT and 26/32/42W TTT lamps. Programmed rapid start allows use with occupancy sensors and building control systems.

### Lamp Socket

4 pin Gx24q3/4 base with rotary lock socket ensures positive lamp retention. Lamp socket locks into one of two positions accommodating different lamp lengths.

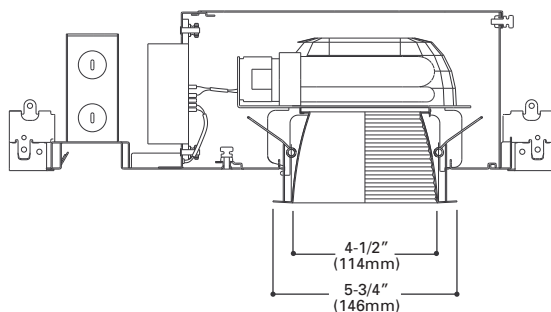
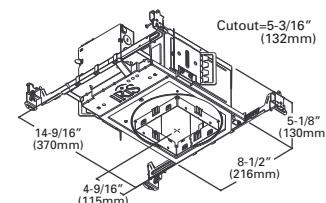
### Code Compliance

Thermally protected, IP labeled and cULus listed for damp locations and ASTM-E283 AIRTITE(tm).



## P406TAT MH4CFL42E E4DL E4DLCB 26W DTT 26/32/42W TTT Compact Fluorescent

### 4 Inch Square Downlight



## ORDERING INFORMATION: Complete unit consists of platform, lamp module and optical element.

| Platform                                                                                                                                                                              | Lamp Module                                                                                                                                                                                                | Ballast Option                                                                                                                                      | Optical Element                                                                                                                                                                                                                                                                                                                     | Finish | Flange                                                                                                                                                                  | Accessories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                       | <b>MH4CFL</b>                                                                                                                                                                                              |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>P406TAT</b> = 4" Square Aperture Non-IC Housing<br><b>P406TCP</b> = 4" Square Aperture Non-IC Chicago Plenum Housing<br><b>MH4CFL</b> = Horizontal Compact Fluorescent Lamp Module | <b>42E</b> = 26W DTT 26/32/42W TTT 120-277V UNV<br><b>423E</b> = 26W DTT 26/32/42W TTT 347V<br><b>1D26</b> = 26W DTT/TTT<br>Lutron TuWire Dimming 120V<br><b>1D32</b> = 32W TTT Lutron Tuwire Dimming 120V | <b>E4DL</b> = 4" Square Aperture Lower Shielding Prismatoid, Open<br><b>E4DLCB</b> = 4" Square Aperture Corrugated Lower Shielding Prismatoid, Open | <b>Alzak® Finishes</b><br><b>H</b> = Clear Haze<br><b>WMH</b> = Warm Haze<br><b>WHH</b> = Wheat Haze<br><b>KH</b> = Cognac Haze<br><b>GPH</b> = Graphite Haze<br><b>CTH</b> = Cobalt Haze<br><b>CCH</b> = Chocolate Haze<br><b>BH</b> = Black Haze<br><b>Painted Finishes</b><br><b>MW</b> = Matte White<br><b>MB</b> = Matte Black |        | <b>[Blank]</b> = Metal Trim Ring, Matte White<br><b>SF</b> = Self Flanged<br><b>SFWF</b> = Self Flanged, Matte White Flange (SFWF not available with corrugated baffle) | <b>Accessories</b><br><b>PLR4x4</b> = Plaster lathing ring for rimless<br><b>RLA4x4</b> = Rimless adapter for solid ceiling surfaces<br><b>EDC4x41</b> = Extended depth collar for 1" - 1-1/2" thick ceilings<br><b>EDC4x42</b> = Extended depth collar for 1-1/2" - 2" thick ceilings<br><b>L4X4HEX</b> = Matte black hex cell louver<br><b>MTR4MW</b> = Metal trim ring, matte white<br><b>MTR4MB</b> = Metal trim ring, matte black<br><b>MTR4SN</b> = Metal trim ring, satin nickel<br><b>MTR4AC</b> = Metal trim ring, antique copper<br><b>MTR4TBZ</b> = Metal trim ring, tuscan bronze |

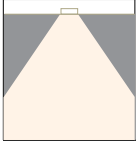
| ENERGY DATA                                   |                          |       |  |
|-----------------------------------------------|--------------------------|-------|--|
| Min. Starting Temp -18°C                      | Sound Rating Class A     |       |  |
| EMI/RFI Emissions FCC Part 18                 | Input Frequency 50/60 Hz |       |  |
| Power Factor > 0.98                           | THD < 10%                |       |  |
| Input Voltage                                 | 120V - 277V              | 347V  |  |
| 26W                                           | Input Power 29W          | 31W   |  |
|                                               | Input Current 0.24A      | 0.09A |  |
| 32W                                           | Input Power 36W          | 36W   |  |
|                                               | Input Current 0.31A      | 0.11A |  |
| 42W                                           | Input Power 46W          | 50W   |  |
|                                               | Input Current 0.38A      | 0.15A |  |
| ENERGY DATA - DIMMING                         |                          |       |  |
| Min. Starting Temp 10°C                       |                          |       |  |
| Sound Rating Inaudible in a 27dBA Ambient     |                          |       |  |
| EMI/RFI Emissions FCC Part 18 Consumer Limits |                          |       |  |
| Input Frequency 60 Hz                         | Power Factor > 0.95      |       |  |
| Input Voltage 120V                            | THD < 20%                |       |  |
| 26W Input Current                             | 0.27A                    |       |  |
| 32W Input Current                             | 0.33A                    |       |  |

## Photometrics

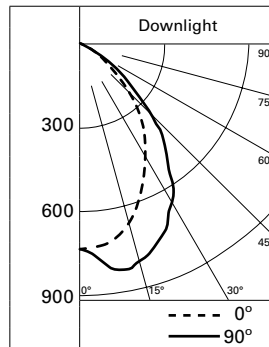
## Photometric Results

Spacing Criterion = 1, 1.3  
Efficiency = 50.6%

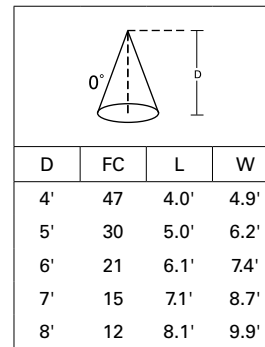
Test No. 254P232  
Platform = P4  
Element = E4DLH  
Lumens = 2400  
Lamp = CF32TTT/E/841



## Candlepower Distribution



## Cone of Light



## Candelas

| Vertical Angle | CD  |
|----------------|-----|
| 90             | 0   |
| 85             | 2   |
| 75             | 15  |
| 65             | 44  |
| 55             | 113 |
| 45             | 248 |
| 35             | 396 |
| 25             | 525 |
| 15             | 650 |
| 5              | 704 |
| 0              | 711 |

## Zonal Lumens Summary

| Zone   | Lumens | % Lamp | % Luminaire |
|--------|--------|--------|-------------|
| 0- 30  | 568    | 23.7   | 46.8        |
| 0- 40  | 856    | 35.7   | 70.5        |
| 0- 60  | 1162   | 48.4   | 95.7        |
| 0- 90  | 1214   | 50.6   | 100         |
| 90-180 | 0      | 0      | 0           |
| 0-180  | 1214   | 50.6   | 100         |

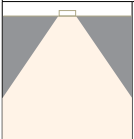
## Coefficients of Utilization

| Ceiling Wall % RCR                             | 70 50 30 10 | 70 50 30 10 | 50 30 10 | 50 30 10 | 50 30 10 | 0  |
|------------------------------------------------|-------------|-------------|----------|----------|----------|----|
| Zonal cavity method -- floor reflectance = 20% |             |             |          |          |          |    |
| 0                                              | 60 60 60 60 | 59 59 59 59 | 56 56 56 | 54 54 54 | 52 52 52 | 51 |
| 1                                              | 57 55 53 52 | 55 54 52 51 | 52 51 50 | 50 49 48 | 48 47 47 | 46 |
| 2                                              | 53 50 47 45 | 52 49 47 45 | 47 45 44 | 46 44 43 | 44 43 42 | 41 |
| 3                                              | 49 45 42 40 | 48 45 42 39 | 43 41 39 | 42 40 38 | 41 39 37 | 37 |
| 4                                              | 46 41 38 35 | 45 41 37 35 | 40 37 35 | 38 36 34 | 37 35 34 | 33 |
| 5                                              | 43 38 34 31 | 42 37 34 31 | 36 33 31 | 35 33 31 | 35 32 30 | 30 |
| 6                                              | 40 35 31 28 | 39 34 31 28 | 33 30 28 | 33 30 28 | 32 30 28 | 27 |
| 7                                              | 38 32 28 26 | 37 32 28 26 | 31 28 26 | 30 27 25 | 30 27 25 | 24 |
| 8                                              | 35 30 26 24 | 35 29 26 23 | 29 26 23 | 28 25 23 | 28 25 23 | 22 |
| 9                                              | 33 28 24 22 | 33 27 24 22 | 27 24 21 | 26 23 21 | 26 23 21 | 20 |
| 10                                             | 31 26 22 20 | 31 25 22 20 | 25 22 20 | 25 22 20 | 24 22 20 | 19 |

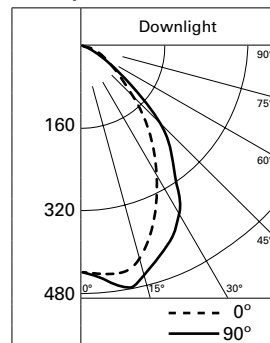
## Photometric Results

Spacing Criterion = 1, 1.2  
Efficiency = 39.5%

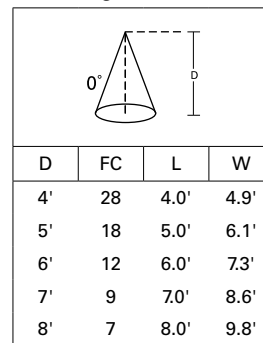
Test No. 254P229  
Platform = P4  
Element = E4DLH  
Lumens = 1800  
Lamp = CF26TTT/E/830



## Candlepower Distribution



## Cone of Light



## Candelas

| Vertical Angle | CD  |
|----------------|-----|
| 90             | 0   |
| 85             | 1   |
| 75             | 8   |
| 65             | 24  |
| 55             | 61  |
| 45             | 140 |
| 35             | 239 |
| 25             | 338 |
| 15             | 427 |
| 5              | 442 |
| 0              | 438 |

## Zonal Lumens Summary

| Zone   | Lumens | % Lamp | % Luminaire |
|--------|--------|--------|-------------|
| 0- 30  | 339    | 18.8   | 47.6        |
| 0- 40  | 507    | 28.2   | 71.3        |
| 0- 60  | 682    | 37.9   | 95.9        |
| 0- 90  | 711    | 39.5   | 100         |
| 90-180 | 0      | 0      | 0           |
| 0-180  | 711    | 39.5   | 100         |

## Coefficients of Utilization

| Ceiling Wall % RCR                             | 70 50 30 10 | 70 50 30 10 | 50 30 10 | 50 30 10 | 50 30 10 | 0  |
|------------------------------------------------|-------------|-------------|----------|----------|----------|----|
| Zonal cavity method -- floor reflectance = 20% |             |             |          |          |          |    |
| 0                                              | 47 47 47 47 | 46 46 46 46 | 44 44 44 | 42 42 42 | 40 40 40 | 40 |
| 1                                              | 44 43 42 41 | 43 42 41 40 | 40 40 39 | 39 38 38 | 38 37 37 | 36 |
| 2                                              | 41 39 37 35 | 41 38 37 35 | 37 36 34 | 36 35 33 | 35 34 33 | 32 |
| 3                                              | 39 36 33 31 | 38 35 33 31 | 34 32 30 | 33 31 30 | 32 31 29 | 29 |
| 4                                              | 36 32 30 28 | 35 32 29 28 | 31 29 27 | 30 28 27 | 29 28 26 | 26 |
| 5                                              | 34 30 27 25 | 33 29 27 25 | 29 26 24 | 28 26 24 | 27 25 24 | 23 |
| 6                                              | 32 27 24 22 | 31 27 24 22 | 26 24 22 | 26 24 22 | 25 23 22 | 21 |
| 7                                              | 30 25 22 20 | 29 25 22 20 | 24 22 20 | 24 22 20 | 23 21 20 | 19 |
| 8                                              | 28 23 21 19 | 27 23 20 19 | 23 20 18 | 22 20 18 | 22 20 18 | 18 |
| 9                                              | 26 22 19 17 | 26 21 19 17 | 21 19 17 | 21 18 17 | 20 18 17 | 16 |
| 10                                             | 25 20 18 16 | 24 20 17 16 | 20 17 16 | 19 17 16 | 19 17 16 | 15 |