

|             |  |           |  |      |  |
|-------------|--|-----------|--|------|--|
| Project     |  | Catalog # |  | Type |  |
| Prepared by |  | Notes     |  | Date |  |



## Fail-Safe

### FCZ2 Fail-Safe Cruze ST 2x4 LED

2' x 4' LED Specification Grade Troffer

#### Typical Applications

- Healthcare • Medical • Exam Room • Procedure Room • Surgery
- Patient Room • Cleanroom • Behavior Health • Education • Laboratory

#### Interactive Menu

- Order Information page 2
- Photometric Data page 3
- VividTune Tunable White page 5
- Product Warranty

#### Product Certification



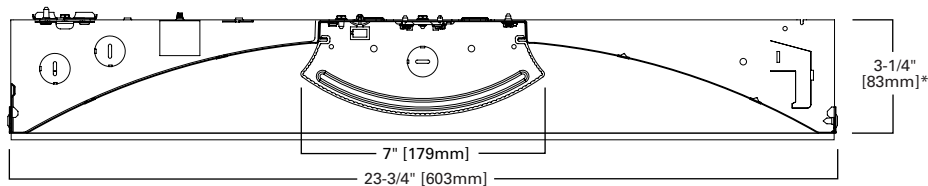
#### Product Features



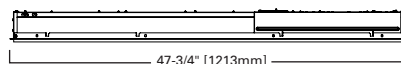
#### Top Product Features

- Visually pleasing center basket design
- IP65 rated – added protection from elements (dust, water)
- High performance efficacy up to 151 lm/W
- Integrated Wavelinx and tile-mount
- LumaWatt Pro connected lighting options available
- VividTune tunable white (3000K-5000K and 2700K-6500K) available in 80CRI or 90CRI

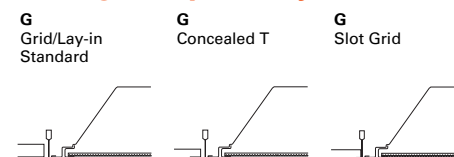
#### Dimensional and Mounting Details



\*When combined with emergency total height is increased by 1 inch.



#### Ceiling Compatibility



| Ceiling Type | Trim Type  |
|--------------|------------|
| Exposed Grid | Standard   |
| Concealed T  | Standard   |
| Slot Grid    | Standard   |
| Flange       | Standard * |

\*See Drywall Frame Kit Accessory in Ordering Information Section

## Order Information

SAMPLE ORDER NUMBER: **24FCZ2-40HE-UNV-L840-CP125-CD1**

| Series                                   | Lumen Output  |                                  | Shielding   | Voltage  | Options<br>CRI/CCT   | Flex   |  |
|--|---|----------------------------------|---|--|--|--|--|
| Series                                   | Lumen Level   |                                  | Efficacy  | Shielding  | Voltage <sup>(2)</sup>   | CRI/CCT  | Flex   |
| 24FCZ2=24<br>inch width,<br>4 ft. length | 30=3000 Lumens  | 80=8000 Lumens <sup>(11)</sup>   | <b>[Blank]</b> =Standard<br>Efficacy <sup>(13)</sup><br><b>HE</b> =High Efficacy <sup>(14)</sup><br><b>VHE</b> =Very High<br>Efficacy <sup>(11), (15)</sup> | <b>[Blank]</b> =Ribbed<br>Frosted Acrylic<br>Lens (standard)<br><b>S</b> =Smooth<br>Frosted Acrylic<br>Lens<br><b>RDP</b> =Smooth<br>Lens with<br>Round Pattern<br>Insert<br><b>HRP</b> =High-<br>Efficiency<br>Round Perf<br>Inlay<br><b>SQR</b> =Square<br>Lens    | <b>UNV</b> =Universal<br>Voltage 120-277<br><b>347V</b> =347 Volt <sup>(5)</sup>   | <b>L830</b> =80CRI, 3000K<br><b>L835</b> =80CRI, 3500K<br><b>L840</b> =80CRI, 4000K<br><b>L850</b> =80CRI, 5000K<br><b>L83050</b> =80CRI 3000K-5000K<br>White Tuning <sup>(7)</sup><br><b>L82765</b> =80CRI 2700K-6500K<br>White Tuning <sup>(7)</sup><br><b>L930</b> =90CRI, 3000K<br><b>L935</b> =90CRI, 3500K<br><b>L940</b> =90CRI, 4000K<br><b>L950</b> =90CRI, 5000K<br><b>L93050</b> =90CRI 3000K-5000K<br>White Tuning <sup>(7)</sup><br><b>L92765</b> =90CRI 2700K-6500K<br>White Tuning <sup>(7)</sup>   | <b>[Blank]</b> =No Flex<br><b>A3/8-4/18GDIM</b> =3/8" Flex with 0-10V Dimming Leads<br><b>A3/8-2/18G</b> =3/8" Flex with line and common<br><b>A3/8-5/18GDIM</b> =Flex with 0-10V Dimming leads and<br>Blue for alternate wiring. See below for details. |
|  | 35=3500 Lumens  | 85=8500 Lumens <sup>(11)</sup>   |   |  |  |  |  |
|  | 40=4000 Lumens  | 90=9000 Lumens <sup>(11)</sup>   |   |  |  |  |  |
|  | 45=4500 Lumens  | 95=9500 Lumens <sup>(11)</sup>   |   |  |  |  |  |
|  | 50=5000 Lumens  | 100=10000 Lumens <sup>(11)</sup> |   |  |  |  |  |
|  | 55=5500 Lumens <sup>(10)</sup>  | 110=11000 Lumens <sup>(11)</sup> |   |  |  |  |  |
|  | 60=6000 Lumens <sup>(10)</sup>  | 120=12000 Lumens <sup>(11)</sup> |   |  |  |  |  |
|  | 65=6500 Lumens <sup>(10), (11), (12)</sup>  | 130=13000 Lumens <sup>(11)</sup> |   |  |  |  |  |
|  | 70=7000 Lumens  | 150=15000 Lumens <sup>(11)</sup> |   |  |  |  |  |
|  | 75=7500 Lumens <sup>(11), (12)</sup>  | 170=17000 Lumens <sup>(11)</sup> |   |  |  |  |  |
|  | <b>Notes</b><br><br>(10) Not available with white tuning and Standard Efficacy. (11) Currently only available with CD driver option. (12) 6500 lumens standard efficacy and 7500 lumens and higher are not available with WN driver. (13) Available up to 6500 lumens. (14) Available up to 7500 lumens. (15) Requires 2 CD-1 drivers above 100VHE. |                                  |   | <b>Notes</b><br><br>(2) Products also available in non-US voltages and frequencies for international markets. (5) 347 versions 6000 lumens and below are available with emergency options, 347 versions with emergency SLTHD, step-dim or sensors are not available. | <b>Notes</b><br><br>(7) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. Not compatible with other control or sensor options. Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. Not compatible with other control or sensor options | <b>Flexible Metal Conduit Options</b><br><br>Flex options available for 0-10V dimming control, DALI dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to driver, fitted to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type. A3/8-4/18GDIM series notes: Factory installed dimming option 3/8" flexible metal conduit with 2-#18 power and ground wires and 2-#18 UL-listed jacketed 0-10V +/- control wires. Meets UL 66, 83, 1479, 1569, 1581, 2556. NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 72; Federal Specification A-A-59544 (formerly J-C-30B); all applicable OSHA and HUD Requirements. UL Classified 1-, 2-, and 3-hour through penetration with applicable fire stop product (not included). May be surface mounted, fished and/or embedded in plaster. Cable tray and approved raceway rated, install per NEC®; Environmental Air-Handling Space Installation per NEC® 300.22(C). |  |

| Shielding   | Bottom Lens   | Driver Type  | Number of Drivers   | Options   |
|---|---|--|---|---|
| Shielding   | Bottom Lens   | Driver Type  | Number of Drivers   | Options   |
| <b>[Blank]</b> =Frosted Ribbed<br><b>RDP</b> =Round Perf Insert<br><b>S</b> =Frosted Smooth<br><b>HRP</b> =High Efficiency Round Perf<br><b>CURV</b> =Curve Pattern<br><b>SWRL</b> =Swirl Pattern<br><b>PRSM</b> =Prism Pattern<br><b>MCRO</b> =Micro Prism Pattern | <b>CA08</b> =0.080" Clear Acrylic<br><b>CA125</b> =0.125" Clear Acrylic<br><b>CP125</b> =Clear Polycarbonate 0.125"<br><b>CP187</b> =Clear Polycarbonate 0.187"<br><b>CP250</b> =Clear Polycarbonate 0.250" | <b>CD</b> =0-10V driver (1%-100% dimming)<br><b>SR</b> =Sensor-ready Dimming Driver for LWIPD1 option (1%-100% Dimming) <sup>(8)</sup><br><b>5LTD</b> =Fifth Light DALI Driver (5%-100% Dimming) <sup>(6)</sup><br><b>5LTHD</b> =Fifth Light Dimming Driver (1%-100% Dimming) <sup>(6)</sup><br><b>LV</b> =DLVP Dimming Driver (0%-100% Dimming) <sup>(6)</sup><br><b>SD</b> =Step Dimming Driver (50% or 100% Dimming)<br><b>LH</b> =Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming <sup>(7)</sup><br><b>L5</b> =Lutron 5 Series (LDE5-Series) 5%-100% EcoSystem Driver <sup>(6)</sup><br><b>W2A</b> =White Tuning, 2 ch, Analog 0-10V Intensity and CCT Control <sup>(7)</sup><br><b>WN</b> =Wavelinx Wireless Fixture, No Sensor <sup>(A), (G), (H)</sup>  | <b>1</b> =1 Driver<br><b>2</b> =2 Drivers <sup>(9)</sup>  | <b>[Blank]</b> =No Element Fuse<br><b>GL</b> =Single Element Fuse<br><b>GM</b> =Double Element Fuse |
|   |   | <b>Notes</b>   | <b>Notes</b>  |   |
|   |   | (7) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. Not compatible with other control or sensor options. Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. Not compatible with other control or sensor options.<br><br>Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult Wavelinx system pages for additional details and compatibility. (B) Consult Enlighted system pages for additional details and compatibility. (C) Consult DLVP system pages for additional details and compatibility. (E) Consult Fifth Light system pages for additional details and compatibility. (F) Consult Marketplace Options - Lutron system pages for additional details and compatibility. Compatible only with driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at www.lutron.com. (G) Not compatible with emergency or integrated sensor options. (H) Available with UNV voltage only. | (9) Two drivers are required for the following packages:<br>65 347V CD, 75HE 347V CD. When combined with emergency total height is increased by 1 inch. |   |

| Options Emergency   | Integrated Sensing Systems  | Accessories   |
|---|---|---|
| Options Emergency   | Integrated Sensing Systems  | Accessories (order separately)  |
| <b>[Blank]</b> =No Emergency Pack<br><b>EL7W</b> =7-watt, 120V-277V emergency battery pack installed <sup>(3)</sup><br><b>EL7W</b> =7-watt, DLVP-compatible low voltage emergency battery pack installed <sup>(2)</sup><br><b>EL14W</b> =14-watt 120V-277V emergency battery pack installed <sup>(3)</sup><br><b>EL14W</b> =14-watt, DLVP-compatible low voltage emergency battery pack installed <sup>(2)</sup><br><b>GTR2</b> =Generator Transfer Relay <sup>(6)</sup><br><b>ETRD</b> =Emergency Transfer Relay with dimming control <sup>(6)</sup>   | <b>[Blank]</b> =No Sensor<br><b>LWTPD1</b> =Enlighted Wireless Tile-mount Sensor <sup>(8)</sup>   | <b>[Blank]</b> =No Accessory<br><b>FCZ2-EQCLIP-U-PK</b> =Pack of four Fail-Safe Cruze grid security clips <sup>(1)</sup><br><b>DFCL-2448W-U</b> =2' x 4' gasketed drywall framing kit. ships with gasket to be applied in field. Cutout Dimensions 24.25" x 48.25" <sup>(12)</sup><br><b>DFVR/FCZ-2448W-U</b> =2' x 4' secured tamper resistant drywall kit. Cutout dimensions 24.25" x 48.25"<br><b>ISHH-01</b> =Programming Remote for Integrated Sensor <sup>(9)</sup><br><b>ISHH-02</b> =Personal Control Remote for Integrated Sensor <sup>(9)</sup> |
| <b>Notes</b>  | <b>Integrated Sensing and Control System Options</b>  | <b>Notes</b>  |
| (3) With integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. (6) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 option includes 2 relays on fixtures with dimming drivers. ETRD option only requires one relay when used on a dimming fixture. Must specify voltage as 120V or 277V when ordering these devices. 347 not available.<br><br>Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (C) Consult DLVP system pages for additional details and compatibility. | <b>NOTES:</b> Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following:<br>(B) Consult Enlighted system pages for additional details and compatibility. | (1) An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture.<br><br>Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following:<br>(D) Consult SVPD series system pages for additional details and compatibility.   |

## Product Specifications

### Construction

- Formed steel housing with integral Grid-lock feature and optional grid security clips

### Integrated Controls

- Standard with 0-10V dimming. Optionally available with Lutron and Dali

### LED and Light Engine

- Available in 3000, 3500, 4000, and 5000K fixed color temperatures, or with VividTune white tuning technology
- Drivers available in 120-277V and 347V
- TM21 life at 60,000 hours up to L85 and L70 exceeds 132,000 hours

### Emergency Battery Options

- Optional 120-277V emergency battery available in 7W or 14W
- 90-minute backup period for code compliance
- Test switch with laser pointer and testing from floor feature for ease of use
- Generator transfer options available

### Finish

- High Gloss white finish standard

### Shielding

- Standard ribbed frosted acrylic diffuser
- Optional clear diffuser with perf or decorative pattern inserts
- Optional smooth acrylic frosted lens (S)
- Optional metal perforated acrylic lens (RDP)
- Optional High-Efficiency Round Perf Inlay (HRP)

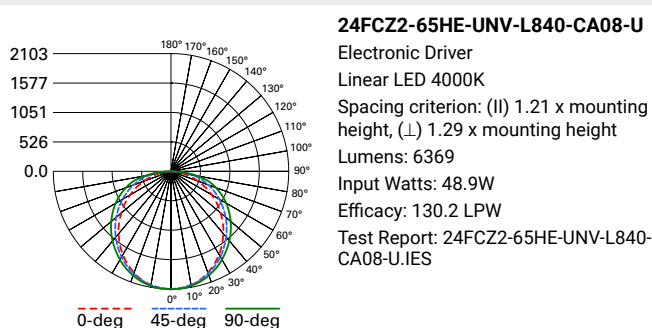
### Compliance

- IC rated, cULus Wet Location
- RoHS compliant
- NSF, ISO5 Cleanroom with bottom lens, IP65

### Warranty

- Five year warranty standard

## Photometric Data

[View IES files](#)


## Energy and Performance Data

### Shielding

| Lumen Adjustment Factors |      |      |      |
|--------------------------|------|------|------|
| S                        | RDP  | HRP  | SQR  |
| 1.05                     | 0.67 | 0.85 | 0.96 |

### Lumen Calculator

| CCT Multiplier | 80 CRI | 90 CRI |
|----------------|--------|--------|
| 3000K          | 0.994  | 0.830  |
| 3500K          | 1.00   | 0.845  |
| 4000K          | 1.00   | 0.854  |
| 5000K          | 1.065  | 0.852  |

### Lumen Maintenance

| Version              | TM-21 Lumen Maintenance (60,000 hours) <sup>(1)</sup> | Theoretical L70 (Hours) <sup>(2)</sup> |
|----------------------|---|--|
| Standard             | > 87%   | > 162,000                              |
| High Efficiency      | > 94%   | > 290,000                              |
| Very High Efficiency | > 94%   | > 290,000                              |

**Notes:** (1) Supported by IES TM-21 standards. (2) Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

### Load Data (Stock Product)

|                 |       |
|-----------------|-------|
| Thd             | 6%    |
| Power Factor    | 0.99  |
| Weight (lbs.)   | 16    |
| Low Temp. Start | -20°C |

### Shipping Data

| Catalog No. | Wt.       | Pallet 49" L x 52" W x 46" H |
|-------------|-----------|------------------------------|
| 2' x 4'     | 20.4 lbs. | 28                           |

## Energy and Performance Data Catalog Number

## Standard Efficacy Versions – Single Row of LEDs

| Catalog Number            | Watts | CA08 | LPW | CA125 | LPW   | CP125 | LPW   | CP187 | LPW   | CP250 | LPW   |
|---------------------------|-------|------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 24FCZ2-30-XXXX-UNV-35-CD1 | 24.2  | 2930 | 121 | 2920  | 120.6 | 2863  | 118.3 | 2742  | 113.3 | 2719  | 112.4 |
| 24FCZ2-35-XXXX-UNV-35-CD1 | 30.1  | 3516 | 117 | 3504  | 116.4 | 3435  | 114.1 | 3290  | 109.3 | 3263  | 108.4 |
| 24FCZ2-40-XXXX-UNV-35-CD1 | 36.2  | 4056 | 112 | 4041  | 111.6 | 3963  | 109.5 | 3795  | 104.8 | 3764  | 104.0 |
| 24FCZ2-45-XXXX-UNV-35-CD1 | 42.9  | 4463 | 104 | 4447  | 104   | 4361  | 102   | 4176  | 97    | 4142  | 97    |
| 24FCZ2-50-XXXX-UNV-35-CD1 | 48.6  | 4847 | 100 | 4830  | 99    | 4736  | 97    | 4535  | 93    | 4498  | 93    |
| 24FCZ2-55-XXXX-UNV-35-CD1 | 50.5  | 5385 | 107 | 5365  | 106   | 5261  | 104   | 5039  | 100   | 4997  | 99    |
| 24FCZ2-60-XXXX-UNV-35-CD1 | 55.6  | 5840 | 105 | 5819  | 105   | 5706  | 103   | 5464  | 98    | 5420  | 97    |
| 24FCZ2-65-XXXX-UNV-35-CD1 | 62.8  | 6352 | 101 | 6329  | 101   | 6206  | 99    | 5944  | 95    | 5895  | 94    |

## High Efficacy Versions – Two Rows of LEDs

| Catalog Number              | Watts | CA08 | LPW | CA125 | LPW | CP125 | LPW | CP187 | LPW | CP250 | LPW |
|-----------------------------|-------|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| 24FCZ2-30HE-XXXX-UNV-35-CD1 | 22.4  | 2913 | 130 | 2902  | 130 | 2846  | 127 | 2725  | 122 | 2703  | 121 |
| 24FCZ2-35HE-XXXX-UNV-35-CD1 | 26.9  | 3463 | 129 | 3450  | 128 | 3383  | 126 | 3240  | 120 | 3214  | 119 |
| 24FCZ2-40HE-XXXX-UNV-35-CD1 | 30.6  | 3894 | 127 | 3880  | 127 | 3805  | 124 | 3644  | 119 | 3614  | 118 |
| 24FCZ2-45HE-XXXX-UNV-35-CD1 | 35.3  | 4428 | 125 | 4412  | 125 | 4326  | 123 | 4143  | 117 | 4110  | 116 |
| 24FCZ2-50HE-XXXX-UNV-35-CD1 | 38.6  | 4853 | 126 | 4836  | 125 | 4741  | 123 | 4541  | 118 | 4504  | 117 |
| 24FCZ2-55HE-XXXX-UNV-35-CD1 | 43.5  | 5378 | 124 | 5359  | 123 | 5254  | 121 | 5032  | 116 | 4991  | 115 |
| 24FCZ2-60HE-XXXX-UNV-35-CD1 | 44.1  | 5809 | 132 | 5789  | 131 | 5676  | 129 | 5436  | 123 | 5392  | 122 |
| 24FCZ2-65HE-XXXX-UNV-35-CD1 | 48.9  | 6369 | 130 | 6347  | 130 | 6223  | 127 | 5960  | 122 | 5911  | 121 |
| 24FCZ2-70HE-XXXX-UNV-35-CD1 | 51.0  | 6783 | 133 | 6758  | 133 | 6627  | 130 | 6347  | 124 | 6295  | 123 |
| 24FCZ2-75HE-XXXX-UNV-35-CD1 | 55.4  | 7318 | 132 | 7292  | 132 | 7150  | 129 | 6848  | 124 | 6792  | 123 |

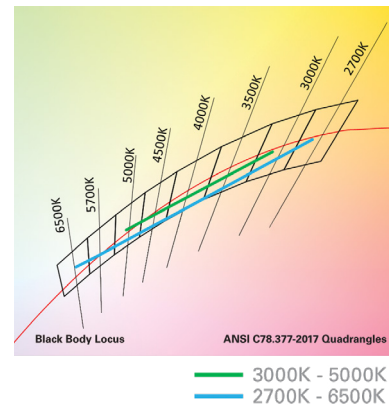
## Very High Efficacy Versions – Three Rows of LEDs

| Catalog Number                | Watts | CA08  | LPW | CA125 | LPW | CP125 | LPW | CP187 | LPW | CP250 | LPW |
|-------------------------------|-------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| 24FCZ2-30VHE-XXXX-UNV-35-CD1  | 20.4  | 2910  | 143 | 2900  | 142 | 2843  | 139 | 2843  | 139 | 2701  | 132 |
| 24FCZ2-35VHE-XXXX-UNV-35-CD1  | 22.8  | 3408  | 150 | 3396  | 149 | 3330  | 146 | 3330  | 146 | 3163  | 139 |
| 24FCZ2-40VHE-XXXX-UNV-35-CD1  | 26.2  | 3906  | 149 | 3893  | 149 | 3817  | 146 | 3817  | 146 | 3625  | 138 |
| 24FCZ2-45VHE-XXXX-UNV-35-CD1  | 29.6  | 4406  | 149 | 4390  | 148 | 4305  | 145 | 4305  | 145 | 4089  | 138 |
| 24FCZ2-50VHE-XXXX-UNV-35-CD1  | 32.7  | 4894  | 150 | 4877  | 149 | 4782  | 146 | 4782  | 146 | 4542  | 139 |
| 24FCZ2-55VHE-XXXX-UNV-35-CD1  | 36.1  | 5383  | 149 | 5364  | 149 | 5260  | 146 | 5260  | 146 | 4996  | 138 |
| 24FCZ2-60VHE-XXXX-UNV-35-CD1  | 38.7  | 5852  | 151 | 5831  | 151 | 5718  | 148 | 5718  | 148 | 5431  | 140 |
| 24FCZ2-65VHE-XXXX-UNV-35-CD1  | 42.2  | 6345  | 150 | 6322  | 150 | 6199  | 147 | 6199  | 147 | 5888  | 140 |
| 24FCZ2-70VHE-XXXX-UNV-35-CD1  | 45.7  | 6822  | 149 | 6798  | 149 | 6666  | 146 | 6666  | 146 | 6332  | 139 |
| 24FCZ2-75VHE-XXXX-UNV-35-CD1  | 49.9  | 7405  | 148 | 7379  | 148 | 7235  | 145 | 7235  | 145 | 6872  | 138 |
| 24FCZ2-80VHE-XXXX-UNV-35-CD1  | 53.8  | 7855  | 146 | 7827  | 146 | 7675  | 143 | 7675  | 143 | 7290  | 136 |
| 24FCZ2-85VHE-XXXX-UNV-35-CD1  | 57.9  | 8312  | 144 | 8282  | 143 | 8121  | 140 | 8121  | 140 | 7714  | 133 |
| 24FCZ2-90VHE-XXXX-UNV-35-CD1  | 61.8  | 8749  | 142 | 8718  | 141 | 8549  | 138 | 8549  | 138 | 8120  | 131 |
| 24FCZ2-95VHE-XXXX-UNV-35-CD1  | 65.6  | 9202  | 140 | 9169  | 140 | 8990  | 137 | 8990  | 137 | 8540  | 130 |
| 24FCZ2-100VHE-XXXX-UNV-35-CD1 | 69.6  | 9849  | 142 | 9814  | 141 | 9623  | 138 | 9623  | 138 | 9141  | 131 |
| 24FCZ2-110VHE-XXXX-UNV-35-CD1 | 77.4  | 10726 | 139 | 10688 | 138 | 10480 | 135 | 10480 | 135 | 9954  | 127 |
| 24FCZ2-120VHE-XXXX-UNV-35-CD1 | 83.6  | 11802 | 141 | 11759 | 141 | 11531 | 138 | 11531 | 138 | 10953 | 131 |
| 24FCZ2-130VHE-XXXX-UNV-35-CD1 | 90.7  | 12826 | 141 | 12780 | 141 | 12532 | 138 | 12532 | 138 | 11903 | 131 |
| 24FCZ2-150VHE-XXXX-UNV-35-CD1 | 104.2 | 14503 | 139 | 14451 | 139 | 14170 | 136 | 14170 | 136 | 13460 | 129 |
| 24FCZ2-170VHE-XXXX-UNV-35-CD1 | 123.4 | 16450 | 133 | 16392 | 133 | 16073 | 130 | 16073 | 130 | 15267 | 124 |



## 24 FCZ LED with VividTune Tunable White

VividTune tunable white luminaires from Cooper Lighting Solutions deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.



## Performance Data\*

| Tunable White - Lumen Adjustment Factors |             |        |             |        |
|--|-------------|--------|-------------|--------|
| CCT                                      | 3000K-5000K |        | 2700K-6500K |        |
|  | 80 CRI      | 90 CRI | 80 CRI      | 90 CRI |
| 2700K                                    | -           | -      | 0.878       | 0.750  |
| 3000K                                    | 0.904       | 0.744  | 0.903       | 0.779  |
| 3500K                                    | 0.956       | 0.813  | 0.934       | 0.819  |
| 4000K                                    | 1.004       | 0.878  | 0.954       | 0.844  |
| 4500K                                    | 1.014       | 0.893  | 0.972       | 0.866  |
| 5000K                                    | 1.014       | 0.893  | 0.985       | 0.884  |
| 6500K                                    | -           | -      | 0.999       | 0.908  |

| 2' x 4' FCZ LED - Example of Approximate Lumen Calculation |                            |                               |                               |
|--|----------------------------|-------------------------------|-------------------------------|
|  | Standard Catalog #         | VividTune 80 CRI Catalog #    | VividTune 90 CRI Catalog #    |
| CCT Setting  | 24FCZ2-40HE-UNV-L835-CD1-U | 24FCZ2-40HE-UNV-L83050-W2A1-U | 24FCZ2-40HE-UNV-L93050-W2A1-U |
| 3000K  | -                          | 3641                          | 2998                          |
| 3500K  | 4029                       | 3853                          | 3275                          |
| 4000K  | -                          | 4046                          | 3537                          |
| 4500K  | -                          | 4084                          | 3599                          |
| 5000K  | -                          | 4084                          | 3599                          |

## Controlling VividTune Tunable White

VividTune luminaires make tunable white more accessible by using simple and familiar controls. From wall dimmers to wireless controls, VividTune tunable white luminaires are compatible with industry standard 0-10V dimming controls. A single 0-10V dimming input is used to control intensity (brightness) while a second 0-10V dimming input is used to adjust CCT. For suggested control configurations, go to [www.cooperlighting.com](http://www.cooperlighting.com) for tunable white application guides.

