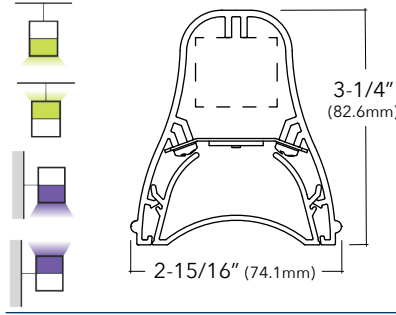




# MOFFAT M

Indoor Linear Luminaire

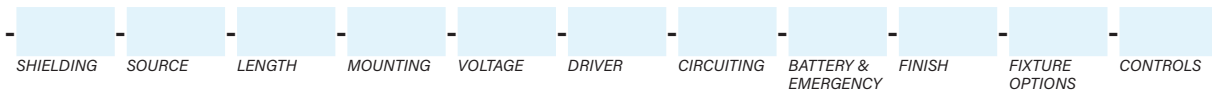
## Key Features

- 6063-T6 Extruded aluminum housing
- Highly reflective die-formed white painted steel reflector
- Die-cast aluminum end caps
- MOFFAT offered with a 5-year limited warranty that covers LED, driver and fixture
- ETL listed conforming to UL 1598 in US and CSA 250 in Canada
- Approved for dry/damp location
- Maximum fixture weight is 20 lbs per standard 4' fixture
- Rotatable fixture head for asymmetric or general illumination
- Buy American Act compliant



Example Part #: M-A-835HO-26'-AC48G1-U-OL2-1-0-W

M



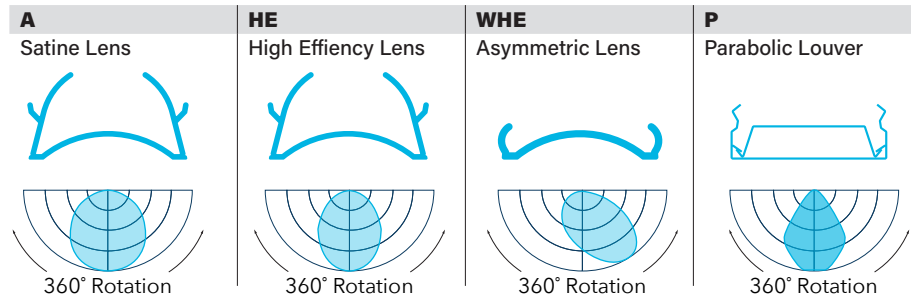
| SHIELDING                                                                                                                                                                     | SOURCE <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                   | LENGTH <sup>2</sup>                                                                                                                                                                      | MOUNTING <sup>3</sup>                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> - Satine Lens<br><b>HE</b> - High Efficiency Lens<br><b>WHE</b> - Asymmetric Lens<br><b>P</b> - Parabolic Louver<br><i>Shielding pg. 2</i>                           | <b>_27_</b> - 2700K<br><b>_30_</b> - 3000K<br><b>_35_</b> - 3500K ( <i>available as BIOS</i> )<br><b>_40_</b> - 4000K ( <i>available as BIOS</i> )<br><b>TW3</b> - Tunable White ( <i>Blanco 3</i> )<br><b>CL</b> _____ - Custom Lumens<br><b>CW</b> _____ - Custom Watts<br><i>Output pg. 2-3</i>                                                                    | __ - Individual Fixture<br>__ - Continuous Row<br><i>Length pg. 3</i>                                                                                                                    | <b>AC__G_</b> - AC to Grid<br><b>AC__JB</b> - AC to J Box<br><b>AC__ST</b> - AC to Structure<br><b>FL</b> - Flush Mount<br><b>PH__</b> - Pendant Hub ( <i>specify 12", 18", 24"</i> )<br><b>PHS__</b> - Pendant Swivel ( <i>specify 12", 18", 24"</i> )<br><b>WH__</b> - Wall Hub ( <i>specify 6", 12", 18", 24"</i> )<br><i>Mounting pg. 4</i> |
| VOLTAGE                                                                                                                                                                       | DRIVER                                                                                                                                                                                                                                                                                                                                                                | CIRCUITING                                                                                                                                                                               | BATTERY & EMERGENCY <sup>4</sup>                                                                                                                                                                                                                                                                                                                |
| <b>U</b> - Universal<br><i>(120 thru 277V)</i><br><b>1</b> - 120V<br><b>2</b> - 277V<br><b>3</b> - 347V<br><i>Voltage pg. 4</i>                                               | <b>PL2</b> - Advance Xitanium ( <i>1%, 0-10v</i> )<br><b>OL4</b> - Osram 347v ( <i>1%, 0-10v</i> )<br><b>EE1</b> - eldoLED ECODErive ( <i>1%, 0-10v</i> )<br><b>ES1</b> - eldoLED SOLOdrive ( <i>0%, 0-10v</i> )<br><b>LH1</b> - Lutron Hi-lume ( <i>1%, EcoSystem</i> )<br><b>OL2</b> - Osram ( <i>1%, 0-10v</i> )<br><b>ND</b> - Non-Dimming<br><i>Driver pg. 4</i> | <b>1</b> - Single Circuit<br><b>M</b> - Multi Circuit<br><b>E</b> - Emergency<br><i>(entire fixture)</i><br><b>N</b> - Night Light<br><i>(entire fixture)</i><br><i>Circuiting pg. 4</i> | <b>0</b> - None<br><b>_PLL</b> - Bodine 10W ( <i>low profile</i> )<br><b>_ILL</b> - Iota 10W integral<br><b>_E</b> - Emergency circuit section<br><b>_N</b> - Night Light circuit section<br><b>_L</b> - Life Safety circuit section<br><b>_G</b> - Bodine GTD<br><i>Battery and Emergency pg. 4-5</i>                                          |
| FINISH                                                                                                                                                                        | FIXTURE OPTIONS <sup>5</sup>                                                                                                                                                                                                                                                                                                                                          | CONTROLS <sup>6</sup>                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                 |
| <b>W</b> - White<br><b>S</b> - Metallic Silver<br><b>BL</b> - Textured Black<br><b>BR</b> - Bronze<br><b>GR</b> - Graphite<br><b>CC</b> - Custom Color<br><i>Finish pg. 5</i> | <b>CE</b> - Chrome Endcaps<br><b>CM</b> - Chrome Mounting ( <i>includes hub</i> )<br><b>V</b> - Visor<br><i>Fixture Options pg. 5</i>                                                                                                                                                                                                                                 | <b>DLMFC</b> - Wattstopper DLM ( <i>wired</i> )<br><b>CLME</b> - Encelium CLM ( <i>wireless</i> )<br><b>VRF</b> - Lutron Vive Connected ( <i>wireless</i> )<br><i>Controls pg. 5</i>     |                                                                                                                                                                                                                                                                                                                                                 |

<sup>1</sup>When specifying SOURCE the first \_ is for specifying either **8** - 80CRI, **9** - 90CRI or **B** - BIOS. The ending \_ are for specifying output, example **HO** - High Output. When specifying BIOS use **B** and then specify color temperature, either 3500K or 4000K, and output, example **B35HO** - BIOS 3500K High Output. See output charts for more information. BIOS dynamic available, please contact factory for more information. <sup>2</sup>Individual fixtures come in **2'**, **3'**, **4'**, **6'** & **8'** lengths. Continuous rows available in 1' increments, starting at 2'. <sup>3</sup>Specify AC Cable length, standard AC are 48" & 120"; Specify grid: G1=15/16", G9=9/16", GS=Screw Slot. <sup>4</sup>Enter quantity for Battery and Emergency, Example 2PL. <sup>5</sup>Both **CE** and **CM** options may require longer lead times. <sup>6</sup>Controls can only be used with Single Circuit (1) or Emergency Circuit (E). See Controls chart on page 5 for driver options and more information.



## Shielding

- The distributions for each shielding option below are shown in a direct orientation. See Mounting for all rotating head options.



## CRI, CCT & Output

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory
- 80 CRI = R9≥19 and 90 CRI = R9≥61

## Custom Output- Lumens OR Wattage

|                 |                                                      |                                                                                            |
|-----------------|------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>CL</b> _____ | Specify CRI, CCT and desired lumens (i.e. CL835950)  | Specify lumens between standard offering listed below. Lumens are specified per color temp |
| <b>CW</b> _____ | Specify CRI, CCT and desired wattage (i.e. CW9409.5) | Specify watts between standard offering listed below                                       |

### 80 CRI

|               | Color | Output    | Lumens<br>per foot | Shielding          |          | HE<br>High Efficiency |          | WHE<br>Asymmetric Lens |          | P<br>Parabolic Louver |          |
|---------------|-------|-----------|--------------------|--------------------|----------|-----------------------|----------|------------------------|----------|-----------------------|----------|
|               |       |           |                    | A<br>Satine<br>LPW | Watts/ft | LPW                   | Watts/ft | LPW                    | Watts/ft | LPW                   | Watts/ft |
| <b>830LO</b>  | 3000K | Low       | 350                | 100.0              | 3.5      | 110.9                 | 3.2      | 104.6                  | 3.3      | 84.6                  | 4.1      |
| <b>830</b>    | 3000K | Standard  | 750                | 105.1              | 7.1      | 116.0                 | 6.5      | 110.1                  | 6.8      | 85.5                  | 8.8      |
| <b>830HO</b>  | 3000K | High      | 1000               | 107.3              | 9.3      | 115.3                 | 8.7      | 108.9                  | 9.2      | 86.4                  | 11.6     |
| <b>830VHO</b> | 3000K | Very High | 1250               | 105.5              | 11.9     | 118.0                 | 10.6     | 110.7                  | 11.3     | N/A                   |          |
| <b>835LO</b>  | 3500K | Low       | 350                | 102.8              | 3.4      | 114.0                 | 3.1      | 107.5                  | 3.3      | 87.0                  | 4.0      |
| <b>835</b>    | 3500K | Standard  | 750                | 108.1              | 6.9      | 118.2                 | 6.3      | 112.3                  | 6.7      | 87.6                  | 8.6      |
| <b>835HO</b>  | 3500K | High      | 1000               | 110.4              | 9.1      | 118.6                 | 8.4      | 112.0                  | 8.9      | 88.9                  | 11.2     |
| <b>835VHO</b> | 3500K | Very High | 1250               | 108.6              | 11.5     | 121.4                 | 10.3     | 113.9                  | 11.0     | N/A                   |          |
| <b>840LO</b>  | 4000K | Low       | 350                | 104.0              | 3.4      | 115.4                 | 3.0      | 108.8                  | 3.2      | 86.0                  | 4.1      |
| <b>840</b>    | 4000K | Standard  | 750                | 109.4              | 6.9      | 119.6                 | 6.3      | 113.7                  | 6.6      | 88.7                  | 8.5      |
| <b>840HO</b>  | 4000K | High      | 1000               | 111.8              | 8.9      | 120.1                 | 8.3      | 113.4                  | 8.8      | 90.0                  | 11.1     |
| <b>840VHO</b> | 4000K | Very High | 1250               | 109.9              | 11.4     | 122.9                 | 10.2     | 115.4                  | 10.8     | N/A                   |          |

### 90 CRI

|              |       |          |      |      |      |       |      |      |      |      |      |
|--------------|-------|----------|------|------|------|-------|------|------|------|------|------|
| <b>927LO</b> | 2700K | Low      | 350  | 86.7 | 4.0  | 94.1  | 3.7  | 88.7 | 3.9  | 71.5 | 4.9  |
| <b>927</b>   | 2700K | Standard | 750  | 87.6 | 8.6  | 97.4  | 7.7  | 91.5 | 8.2  | 73.5 | 10.2 |
| <b>927HO</b> | 2700K | High     | 1000 | 89.1 | 11.2 | 99.5  | 10.0 | 93.5 | 10.7 | N/A  |      |
| <b>930LO</b> | 3000K | Low      | 350  | 87.7 | 4.0  | 97.3  | 3.6  | 91.7 | 3.8  | 73.4 | 4.8  |
| <b>930</b>   | 3000K | Standard | 750  | 90.7 | 8.3  | 100.9 | 7.4  | 94.7 | 7.9  | 75.4 | 9.9  |
| <b>930HO</b> | 3000K | High     | 1000 | 92.4 | 10.8 | 102.2 | 9.8  | 96.9 | 10.3 | 73.9 | 13.5 |
| <b>935LO</b> | 3500K | Low      | 350  | 89.6 | 3.9  | 97.5  | 3.6  | 93.7 | 3.7  | 75.4 | 4.6  |
| <b>935</b>   | 3500K | Standard | 750  | 92.4 | 8.1  | 103.1 | 7.3  | 97.0 | 7.7  | 77.1 | 9.7  |
| <b>935HO</b> | 3500K | High     | 1000 | 94.5 | 10.6 | 104.5 | 9.6  | 99.1 | 10.1 | 76.5 | 13.1 |
| <b>940LO</b> | 4000K | Low      | 350  | 89.0 | 3.9  | 96.8  | 3.6  | 93.0 | 3.8  | 74.5 | 4.7  |
| <b>940</b>   | 4000K | Standard | 750  | 91.7 | 8.2  | 102.3 | 7.3  | 96.1 | 7.8  | 76.5 | 9.8  |
| <b>940HO</b> | 4000K | High     | 1000 | 93.7 | 10.7 | 103.7 | 9.6  | 98.3 | 10.2 | 75.9 | 13.2 |

<sup>1</sup>LPW and watts/ft based off 48" fixture size.

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## Source: BIOS<sup>1</sup>

- CRI >84, R9 >90
- Spectrum focused lighting for circadian stimulus
- High EML or M/P ratio: .8 for 3500K, .9 for 4000K
- COI: >3.0
- Available for use with most Driver or Control options

## Custom Output - Lumens OR Wattage

**CLB** \_\_\_\_\_ Specify CRI, CCT and desired lumens (i.e. CL835500)

Specify lumens between standard offering listed below. Lumens are specified per color temp

**CWB** \_\_\_\_\_ Specify CRI, CCT and desired wattage (i.e. CW9407)

Specify watts between standard offering listed below

## BIOS

|              | Color | Lumens<br>per foot | Shielding <sup>1</sup> |          | HE              |          |
|--------------|-------|--------------------|------------------------|----------|-----------------|----------|
|              |       |                    | A                      |          | High Efficiency |          |
|              |       |                    | Satine<br>LPW          | Watts/ft | LPW             | Watts/ft |
| <b>B35LO</b> | 3500K | 350                | 64.3                   | 5.4      | 71.7            | 4.9      |
| <b>B35</b>   | 3500K | 750                | 62.4                   | 12.0     | 70.3            | 10.7     |
| <b>B35HO</b> | 3500K | 1000               | N/A                    |          | 66.1            | 15.1     |
| <b>B40LO</b> | 4000K | 350                | 65.8                   | 5.3      | 72.6            | 4.8      |
| <b>B40</b>   | 4000K | 750                | 63.2                   | 11.9     | 71.2            | 10.5     |
| <b>B40HO</b> | 4000K | 1000               | N/A                    |          | 67.0            | 14.9     |

## Source: Blanco<sup>3</sup>

- CRI >90, R9 >92
- 3 Channel tunable white for precise black body curve CCT
- Allows for high color consistency between fixtures
- Self-commissioning with Wattstopper DLM integrated controls
- Requires Control Ordering Code **B3LM** (pg. 6)
- Requires Driver Ordering Code **EC2** (pg. 4)

## Blanco 3 Tunable White (TW3)

|            | Range          | Shielding <sup>1</sup> |     |          | HE              |     |          |
|------------|----------------|------------------------|-----|----------|-----------------|-----|----------|
|            |                | A                      |     |          | High Efficiency |     |          |
|            |                | Satine<br>Lumens/ft    | LPW | Watts/ft | Lumens/ft       | LPW | Watts/ft |
| <b>TW3</b> | 2700-<br>6500K | 665                    | 79  | 8.5      | 736             | 87  | 8.5      |

<sup>1</sup>LPW and watts/ft based off 48" fixture size.

## Length

- All individual units cannot be joined
- The AC, PH and WH mounting options have a 1-3/8" hub on each side of the fixture, the FL mounting option had 1/2" hub at each end of the fixture, see installation instructions for more details and chart.

| 2                 | 3                 | 4                  | 6                  | 8                  | —                                                             |
|-------------------|-------------------|--------------------|--------------------|--------------------|---------------------------------------------------------------|
| Indiv. Fixture    | Indiv. Fixture    | Indiv. Fixture     | Indiv. Fixture     | Indiv. Fixture     | Cont. Run<br>Specify nominal<br>overall row length to the 1'. |
| 24-5/8" (610.2mm) |                   |                    |                    |                    |                                                               |
|                   | 36-5/8" (930.3mm) |                    |                    |                    |                                                               |
|                   |                   | 48-5/8" (1235.1mm) |                    |                    |                                                               |
|                   |                   |                    | 72-5/8" (1844.7mm) |                    |                                                               |
|                   |                   |                    |                    | 96-5/8" (2454.3mm) |                                                               |

Specify to the 1' >>>

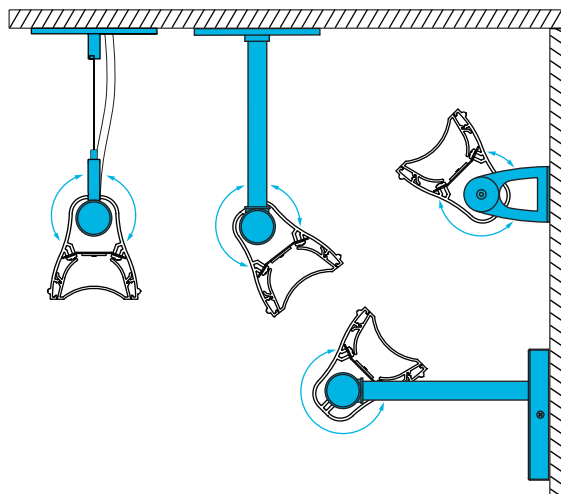


## Mounting

- Specify cable length in ordering code (AC48G1)
- Standard 48" adjustable cable. Specify up to 350"
- Pendant lengths are 12", 18", and 24"
- Wall Hub lengths are 6", 12", 18", and 24"
- End caps and standard white power cord attached at factory
- Aircraft Cable supplied with 5" (127mm) power and 2" (51mm) non-power canopies
- Canopies, hubs, and pendants match fixture finish, power cords are white, grey, or black depending on fixture finish. See Finish section for additional details
- Approved for dry/damp location unless otherwise noted

|               |                                                          |
|---------------|----------------------------------------------------------|
| <b>AC_G1</b>  | Adjustable AC to 1" (15/16") T-Bar (15° rotating head)   |
| <b>AC_G9</b>  | Adjustable AC to 9/16" T-Bar (15° rotating head)         |
| <b>AC_GS</b>  | Adjustable AC to Screw Slot T-Bar (15° rotating head)    |
| <b>AC_JB</b>  | Adjustable AC to Junction Box (15° rotating head)        |
| <b>AC_ST</b>  | Adjustable AC to Structure (15° rotating head)           |
| <b>FL</b>     | Flush Mount (360° rotating head)                         |
| <b>PH</b>     | Pendant Hub (360° rotating head)                         |
| <b>PHS</b>    | Pendant Hub Swivel (Hub swivels 23°, 360° rotating head) |
| <b>WH</b>     | Wall Hub (360° rotating head)                            |
| <b>AC5_G</b>  | 5" (127mm) Non-Power Canopy                              |
| <b>AC5_JB</b> | 5" (127mm) Non-Power Canopy                              |
| <b>SQ_G</b>   | 5" (127mm) Square Canopy                                 |
| <b>SQ_JB</b>  | 5" (127mm) Square Canopy                                 |

- Refer to installation instructions during installation at the job site
- Maximum fixture weight is 20 lbs. per 4' fixture
- Fixture head rotation provides asymmetric output,
- The AC, PH and WH mounting options have a 1-3/8" hub on each side of the fixture, the FL mounting option has 1/2" hub at each end of the fixture, see installation instructions for more details and chart.
- When using AC mount fixture head should not be rotated more than 15°, anything past that will cause fixture to not hang straight



## Voltage

- Some MOFFAT configurations will not accommodate all voltage options; consult with factory

|          |           |
|----------|-----------|
| <b>U</b> | Universal |
| <b>1</b> | 120 volt  |
| <b>2</b> | 277 volt  |
| <b>3</b> | 347 volt  |

## Driver

- For more driver options see Pinnacle Resource Guide
- Standard Driver Option = PL2
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- Some MOFFAT configurations will not accommodate all driver options; consult with factory

|            |                                                           |
|------------|-----------------------------------------------------------|
| <b>PL2</b> | Advance Xitanium 1% , 0-10v                               |
| <b>OL4</b> | Osram Optotronic 347v, 1%, 0-10v (requires 347v)          |
| <b>OL5</b> | Osram Optronic 1%, 0-10v, AUX                             |
| <b>EE1</b> | eldoLED ECOdrive 1%, 0-10v Logarithmic                    |
| <b>EE6</b> | eldoLED ECOdrive 1%, for nLight Air Wireless              |
| <b>ES1</b> | eldoLED SOLOdrive 0%, 0-10v Logarithmic                   |
| <b>ES6</b> | eldoLED SOLOdrive 0%, for nLight Air Wireless             |
| <b>EC2</b> | Constant Voltage LED driver, 120v or 277v required        |
| <b>LH1</b> | Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1 |
| <b>PR1</b> | Advance Xitanium SR, 5%                                   |
| <b>OL2</b> | Osram Optotronic 1%, 0-10v                                |
| <b>ND</b>  | Non-Dimming                                               |

## How to specify Circuiting, Battery and Emergency

- Select fixture circuiting from options below
  - Some MOFFAT configurations will not accommodate all circuiting options, consult with factory

### Circuiting

|          |                          |
|----------|--------------------------|
| <b>1</b> | Single Circuit           |
| <b>M</b> | Multi Circuit            |
| <b>E</b> | Emergency Circuit only   |
| <b>N</b> | Night Light Circuit only |

- Battery and emergency section options are available in addition to fixture circuit
  - Select battery and emergency section options below; factory shop drawing required
  - Some MOFFAT configurations will not accommodate all circuiting options, consult with factory

### Battery and/or Emergency If Required

|          |                                                   |
|----------|---------------------------------------------------|
| <b>0</b> | No battery or specific emergency section required |
|----------|---------------------------------------------------|

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## Battery

- Select battery section type if required, indicate total QTY. *Example 2PL*
- 90 minute battery runtime; test button can be integral or remote to fixture
- For more battery options available, see Pinnacle Resource Guide

|             |                                                                 |
|-------------|-----------------------------------------------------------------|
| <b>0</b>    | No battery                                                      |
| <b>_ILL</b> | Iota 10w Integral (self testing)                                |
| <b>_PLL</b> | Bodine 10w Integral Lithium Self Testing ( <i>low profile</i> ) |

## Emergency

- Select emergency section type if required, indicate total QTY. *Example 1E*
- Combine battery and emergency section ordering codes if both options are selected

|           |                                               |
|-----------|-----------------------------------------------|
| <b>_E</b> | Emergency circuit section                     |
| <b>_N</b> | Night Light circuit section                   |
| <b>_L</b> | Life Safety circuit section NO THROUGH WIRE   |
| <b>_G</b> | Bodine GTD, Generator Transfer Device section |

### Battery OR Emergency Ordering Examples

- Single circuit, 10w Integral Battery      Ordering Code: 1-1PL
- Emergency only, 10w Integral Battery      Ordering Code: E-1PL
- Single circuit, GTD required      Ordering Code: 1-G

### For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 92.3 (LPW) x 10 (watts) = 923 battery lumen output

### Combination Section Ordering Examples

- Single circuit, (1) 10w battery, (1) emergency section  
Ordering Code: 1-1PL1E
- Multi circuit, (2) 10w battery, (2) emergency sections  
Ordering Code: M-2PL2E
- Single circuit, (1) night light section  
Ordering Code: 1-1N

## Finish

- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

|           |                                                       |
|-----------|-------------------------------------------------------|
| <b>W</b>  | White ( <i>white cord/white canopy</i> )              |
| <b>S</b>  | Metallic Silver ( <i>grey cord/silver canopy</i> )    |
| <b>BL</b> | Textured Black ( <i>black cord/black canopy</i> )     |
| <b>BR</b> | Bronze ( <i>white cord/bronze canopy</i> )            |
| <b>GR</b> | Graphite ( <i>white cord/graphite canopy</i> )        |
| <b>CC</b> | Custom Color ( <i>white cord/color match canopy</i> ) |

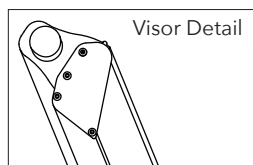
- Specify finish options for mounting hardware (endcaps, hubs, and pendants) in fixture options section

## Fixture Options

- Additional options to enhance the fixture and finish of the product
- CM option includes both Hub and Pendant (*NOT ENDCAP*). May require longer lead time.

|           |                                         |
|-----------|-----------------------------------------|
| <b>CE</b> | Chrome Endcaps                          |
| <b>CM</b> | Chrome Mounting ( <i>includes hub</i> ) |
| <b>V</b>  | Visor                                   |

- Cannot combine Visor with DLMFC or CLME control options



## Controls

- Pinnacle Lighting offers easy to specify network control solutions that connect to an intelligent centralized system to maximize lighting energy efficiencies or integral sensors for individual fixture control
- Pinnacle Lighting fixtures ship technology ready; commissioning by others

- Controls can only be used with Single Circuit (1) or Emergency Circuit (E)
- Contact factory for any non-standard configurations for layout, placement, or EM options
- One drop per sensor typical, consult factory for more information

|              | Solution                | Components   | Network/Sensor                 | Connection           | Required Drivers | Limitations                 |
|--------------|-------------------------|--------------|--------------------------------|----------------------|------------------|-----------------------------|
| <b>DLMFC</b> | Legrand Wattstopper DLM | LMFC-011     | Digital Light Management (DLM) | Wired, one RJ45 port | OL2, OL4         | None                        |
| <b>CLME</b>  | Encelium CLM            | ZBHA-CLM-DIM | Encelium                       | Wireless             | OL5              | None                        |
| <b>VRF</b>   | Lutron Vive Connected   | DFCSJ-OEM-RF | Vive                           | Wireless             | OD1, PR1         | Not available with 347 volt |

## Controls: Tunable White

- Pinnacle Lighting offers easy to specify tunable white solutions for integrated building control or standalone controls
- Pinnacle Lighting fixtures ship technology ready; commissioning by others

- Controls can only be used with Single Circuit (1) or Emergency Circuit (E),
- Contact factory for any non-standard configurations for layout or placement

|             | Solution                     | Components | Network/Sensor                    | Connection           | RQD Drivers | RQD LED | RQD Controls | Limitations                 |
|-------------|------------------------------|------------|-----------------------------------|----------------------|-------------|---------|--------------|-----------------------------|
| <b>B3LM</b> | Legrand Wattstopper Blanco 3 | BLM3-DLM   | Digital Lighting Management (DLM) | Wired, one RJ45 port | EC2         | TW3     | B3LM         | Not available with 347 volt |

Specifications and dimensions subject to change without notice. Specification sheets that appear on [pinnacle-ltg.com](http://pinnacle-ltg.com) are the most recent version and supersede all other previously printed or electronic versions.

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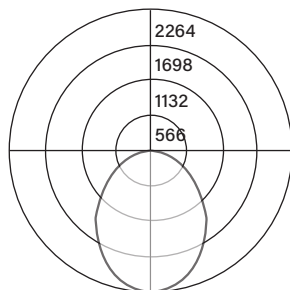
M\_LED\_SPEC\_AUG2021



## Photometrics

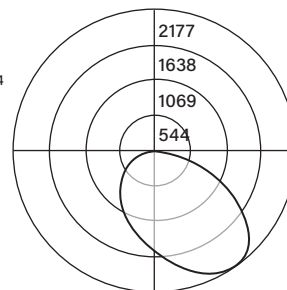
### Satine Lens

Test # ITL91825  
Catalog # M-HE-840VHO-4  
Lumens 5312 lm  
Watts 43.1 W  
Efficacy 123 LPW



### Asymmetric Lens

Test # ITL93165  
Catalog # MF-WHE-840VHO-4  
Lumens 4808 lm  
Watts 41.2 W  
Efficacy 117 LPW



### Candela Distribution

| Vert Angle | Horizontal Angle |      |      |      |      |
|------------|------------------|------|------|------|------|
|            | 0                | 22.5 | 45   | 67.5 | 90   |
| 0          | 2264             | 2264 | 2264 | 2264 | 2264 |
| 5          | 2249             | 2248 | 2244 | 2241 | 2239 |
| 10         | 2209             | 2198 | 2191 | 2183 | 2179 |
| 15         | 2138             | 2117 | 2106 | 2088 | 2075 |
| 20         | 2044             | 2010 | 1993 | 1965 | 1948 |
| 25         | 1922             | 1884 | 1856 | 1818 | 1796 |
| 30         | 1786             | 1742 | 1710 | 1659 | 1638 |
| 35         | 1636             | 1593 | 1548 | 1494 | 1465 |
| 40         | 1475             | 1434 | 1384 | 1323 | 1298 |
| 45         | 1306             | 1270 | 1218 | 1158 | 1130 |
| 50         | 1137             | 1105 | 1052 | 991  | 967  |
| 55         | 968              | 942  | 886  | 828  | 804  |
| 60         | 801              | 778  | 725  | 668  | 645  |
| 65         | 638              | 622  | 571  | 515  | 494  |
| 70         | 480              | 469  | 419  | 373  | 363  |
| 75         | 331              | 327  | 278  | 257  | 251  |
| 80         | 198              | 189  | 165  | 154  | 151  |
| 85         | 89               | 77   | 70   | 65   | 64   |
| 90         | 1                | 3    | 4    | 4    | 5    |

### Luminance Data (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 25653         | 22492          | 20410          |
| 55               | 23396         | 19631          | 17277          |
| 65               | 20862         | 16437          | 13612          |
| 75               | 17550         | 11936          | 10062          |
| 85               | 13557         | 6287           | 4984           |

### Candela Distribution

| Vert Angle | Horizontal Angle |      |      |      |      |
|------------|------------------|------|------|------|------|
|            | 0                | 22.5 | 45   | 67.5 | 90   |
| 0          | 1622             | 1622 | 1622 | 1622 | 1622 |
| 5          | 1755             | 1756 | 1750 | 1742 | 1727 |
| 10         | 1885             | 1881 | 1872 | 1856 | 1827 |
| 15         | 2005             | 2000 | 1988 | 1960 | 1916 |
| 20         | 2103             | 2093 | 2083 | 2044 | 1987 |
| 25         | 2161             | 2153 | 2138 | 2094 | 2029 |
| 30         | 2176             | 2165 | 2148 | 2102 | 2032 |
| 35         | 2128             | 2118 | 2103 | 2055 | 1985 |
| 40         | 2017             | 2009 | 1994 | 1951 | 1886 |
| 45         | 1842             | 1837 | 1825 | 1793 | 1739 |
| 50         | 1629             | 1620 | 1616 | 1590 | 1548 |
| 55         | 1378             | 1375 | 1369 | 1361 | 1328 |
| 60         | 1113             | 1116 | 1111 | 1115 | 1091 |
| 65         | 850              | 850  | 849  | 862  | 851  |
| 70         | 558              | 563  | 573  | 594  | 617  |
| 75         | 256              | 263  | 278  | 319  | 363  |
| 80         | 88               | 89   | 93   | 102  | 131  |
| 85         | 30               | 31   | 31   | 32   | 35   |
| 90         | 0                | 1    | 1    | 2    | 2    |

### Luminance Data (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 35248         | 34922          | 20226          |
| 55               | 32508         | 32295          | 18778          |
| 65               | 27214         | 27182          | 16841          |
| 75               | 13384         | 14534          | 13697          |
| 85               | 4657          | 4813           | 7762           |

Fixture tested in direct orientation. Fixture head is rotatable for asymmetric aiming as needed. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com). Photometry testing in accordance to IESNA-LM-79-08 at an NVLAP accredited testing laboratory. Testing conducted at 25°C ambient conditions

## Approvals & Certifications

**Construction:** 6063-T6 Extruded aluminum housing. Fixtures can be joined to create continuous runs. Standard high reflectance die-formed reflector.

**Shielding:** Coextruded snap-in acrylic lens with diffuse face and highly reflective sides.

**Mounting:** Adjustable aircraft cable, pendant mount, wall mount, and flush mounts available. Fixture head rotation provides asymmetric output. When using AC mount fixture head should not be rotated more than 15°, anything past that will cause fixture to not hang straight. Refer to installation instructions for appropriate ceiling detail. Maximum fixture weight is 20 lbs. per 4' fixture.

**White LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. All luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. Minimum lifetime greater than 60,000 hours. Lifetime Projection: L70 lifetime - 146,500 hours and L90 lifetime - 45,000 hours. MacAdam 3-Step Ellipses. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com). Four lumen packages available. Low (LO), Standard, High (HO), and Very High (VHO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K, and 4000K. 80 CRI = R9≥19 and 90 CRI = R9≥61. Fixture performance and photometric data based on 4' configuration. Published lumen or wattage data based on OL1 configuration.

**BIOS LED:** Spectrum focused lighting for circadian stimulus. EML or M/P ratio: .8 for 3500K, .9 for 4000K. COI >3.0. Not all lumen packages available. Three lumen packages available. Low (LO), Standard, and High (HO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page.

**Tunable White LED:** Blanco 3; 3 Channel tunable white for precise black body curve CCT. Self-commissioning with Wattstopper DLM integrated controls. Custom lumen output and color temperature configurations require use of controls.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must specify OL4 in Driver section when 347 volt (3) is selected. Some MOFFAT configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Advance Xitanium 0-10V, 1% = PL2. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient oper-

ating conditions. Ambient operating range: -4F/-20C to 122F/50C For more driver options, see Pinnacle Resource Guide. Some MOFFAT configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), Multi circuit (M), Emergency circuit (E), Night Light circuit (N) or Life Safety (L). For emergency circuiting situations that require no through wire or circuit separation, Life Safety Circuit should be selected. This will provide a separate power feed and only the Life Safety Circuit in that section. Some MOFFAT configurations will not accommodate all circuiting options; consult with factory.

**Battery & Emergency:** Select battery or emergency options if required. If battery or emergency option is not required, enter 0. Battery duration is 90 minutes as standard. Test button can be integral or remote to fixture. For more Battery options, see Pinnacle Resource Guide.

**Finish:** Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish, consult factory for chip of standard paint finishes. Canopies, hubs, and pendants painted white unless specified differently in the options section of the part number. Contact factory for additional custom color and finish options.

**Controls:** DLMFC: DLM utilizes wired network connections for digital control through switching and dimming with 0-10v LED drivers. NLTAIR: nLight Air rIO module provides wireless control using eidoLED LED drivers. CLME: ENCELIUM CLM provides wireless control using the Osram LED driver. VRF: Lutron Vive module provides wireless control using DEXAL or SR LED drivers. B3LM: DLM digital control of Intensity and CCT for tunable white.

**Labels:** ETL listed conforming to UL1598 abd CSA 250. Approved for dry/damp location unless otherwise noted.

Approved for dry/damp location unless otherwise noted.

**Fixture Weight:** Maximum fixture weight is 20 lbs (per 4' fixture).

### Buy American Act Compliant

**Warranty:** MOFFAT LED offered with a 5-year limited warranty. Covers LED, driver and fixture.