

Cove Mount Lighting

Phantom™ Elite CM Series LED light strips are designed for any linear cove lighting application and represent a breakthrough in strip lighting technology. These low profile indirect lights are easily concealed above beams, trusses, cabinets, furniture, or coves regardless of the design, giving new definition to the phrase, "See the Light, Not the Fixture."

Custom mounting trims establish the optimum aiming angle which allows the contents of any cove to be illuminated to a precise degree at the highest level of aesthetics yet to be seen. Strips are dimmable using a magnetic low voltage dimmer and produce a quality of consistent color and lumen output unmatched by competing products.

PHANTOM ELITE CM SERIES FEATURES

- Low profile, concealed linear LED lighting source designed for any cove or indirect lighting application
- Exclusive current carrying design using existing metal tracks and custom mounting hardware
- Dimmable high-performance compact magnetic low-voltage 24VDC drivers (available in both 120V and 277V)



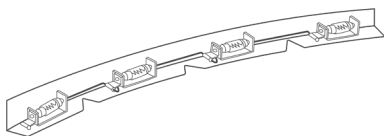
Elite CM Series Exploded View

LED LIGHTING STRIP

Each LED lighting strip is concealed by either a trim or a lensed enclosure. For best results, use a matte finish on the back of the cabinet to minimize reflections and/or glare.

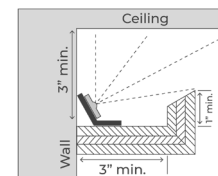
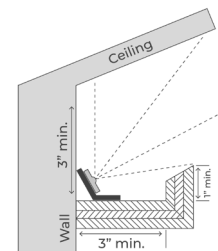
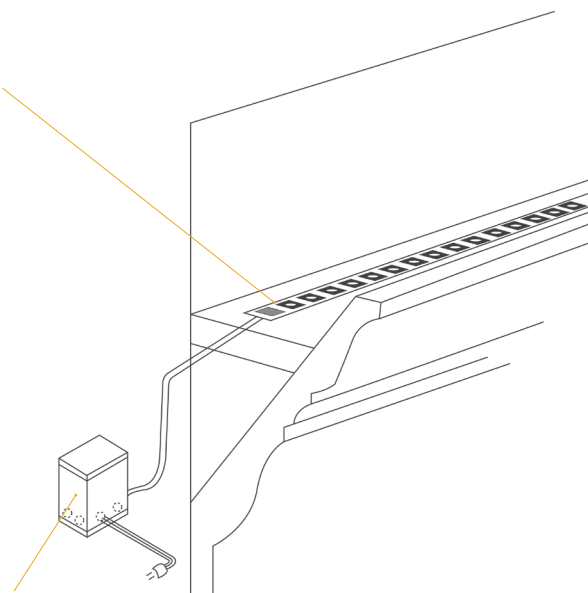
RADIUS INSTALLATION

Select Phantom trims may be field cut or notched to achieve a radius or irregular shape. Consult factory for details.



DRIVER

Magnetic drivers are sized to match the total wattage of your lighting load and come equipped with one or more secondary circuit breakers. (See driver sheet for more sizing information and amperage calculations).



SPACE REQUIREMENT

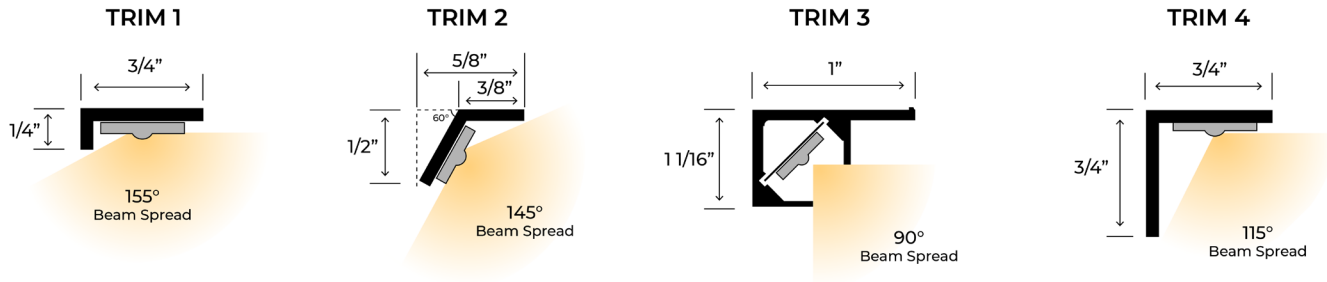
On a cabinet with adjustable shelves, 1" of clearance is required between the back surface of the stile and the front of the shelf. This will provide the space to move shelves without modifying the Phantom fixture.

Note: Angle the cove reveal to allow a more uniform distribution without shadows

SHIELDED

Trim Profiles

Shielded options are best for shaping the light in precise patterns and for minimizing hot spots on surrounding surfaces and spill light that may stray outside the display.



Our most popular trims for cove lighting are trims 1, 2 and 4. These metal trims are great for cove lighting applications as they provide the best mounting platform to ensure uniform light distribution. In addition, metal trims allow the installer the ability to shim the light up or down to adjust shadows and fine tune the distribution. For lensed trims, we recommend trim 6, 7 and 9 for the ultimate in light distribution providing maximum diffusion to hide the LED diodes and minimize reflected glare from gold leaf, silver leaf, gloss paint or any other reflective ceiling surface. See page 3 for lensed trim options.

ELITE TAPE SPECIFICATIONS FOR SHIELDED TRIM PROFILES

| 24VDC LED Tape | Wattage | Kelvin Color | Lumens per Foot | Efficacy (LM/W) | CRI | Diodes per Foot | Cut Mark | Max Run Length |
|----------------|--------------|--------------|-----------------|-----------------|-----|-----------------|-------------|----------------|
| | 1.8 Economy | 1800K | 102 | 57 | 94+ | 12 | 6.00 inches | 50 feet |
| | | 2100K | 131 | 73 | | | | |
| | | 2700K | 144 | 80 | | | | |
| | | 3000K | 148 | 82 | | | | |
| | | 3500K | 158 | 88 | | | | |
| | | 4000K | 160 | 89 | | | | |
| | 2.2 Standard | 1800K | 142 | 64 | 94+ | 18 | 4.00 inches | 45 feet |
| | | 2100K | 161 | 73 | | | | |
| | | 2700K | 178 | 81 | | | | |
| | | 3000K | 187 | 85 | | | | |
| | | 3500K | 194 | 88 | | | | |
| | | 4000K | 196 | 89 | | | | |

Phantom Elite Lighting Strips - Ordering Matrix
Sample Order Number: **CM-ES-1-18-2.2-DL-12-FW-XX**



US ETL LISTED, MISCELLANEOUS FIXTURES, CONFORMS TO UL STD., 1598

| MODEL | SERIES TYPE | TRIM PROFILE | KELVIN COLOR | WATTS/FT | LEAD WIRES* | LEAD LENGTH | TRIM PAINT COLOR | TRIM LENGTH |
|-------|---------------------|------------------|--|--------------------------|---|-------------------|--|--|
| CM | ES | 1 | 18 | 2.2 | DL | 12 | FW | XX |
| CM | ES - Elite Shielded | 1 2 3 4 | 18 - 1800K 21 - 2100K 27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K | 1.8 - 1.8W 2.2 - 2.2W | DL - Double Leads LR - Leads Left LL - Leads Left | 12" 24" 36" | FW - Flat White GW - Gloss White FB - Flat Black GB - Gloss Black LB - Light Beige MB - Medium Brown LA - Light Almond UF - Unfinished CC - Custom Color** | Inches Specify Your Trim Length In Inches |

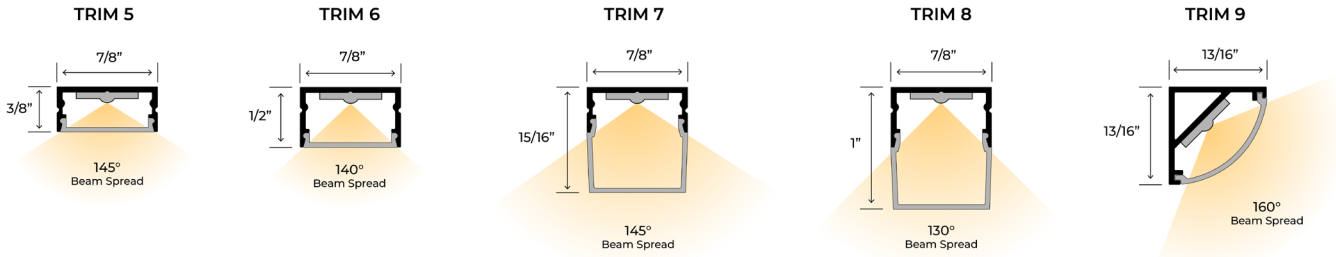
*When facing application
**Contact factory for details

LENSED

Trim Profiles

Lensed options are the best for applications where the light fixture may be visible, by hiding the individual LED diodes and preventing object or surface reflections by homogenizing the light pattern.

NOTE: Lensed options are not suitable for radius cove applications and have some limitations for overall run lengths, depending on the wattage selected.



ELITE TAPE SPECIFICATIONS FOR LENSED TRIM PROFILES

| 24VDC LED Tape | Wattage | Kelvin Color | Lumens per Foot | Efficacy (LM/W) | CRI | Diodes per Foot | Cut Mark | Max Run Length |
|----------------|------------------|--------------|-----------------|-----------------|-----|-----------------|-------------|----------------|
| 1.5 W/FT | 1.5 High Density | 1800K | 129 | 86 | 94+ | 56 | 1.75 inches | 60 feet |
| | | 2100K | 154 | 102 | | | | |
| | | 2700K | 179 | 119 | | | | |
| | | 3000K | 191 | 127 | | | | |
| | | 3500K | 195 | 130 | | | | |
| | | 4000K | 197 | 131 | | | | |
| 2.8 W/FT | 2.8 High Density | 1800K | 235 | 83 | 94+ | 56 | 1.75 inches | 35 feet |
| | | 2100K | 246 | 87 | | | | |
| | | 2700K | 273 | 97 | | | | |
| | | 3000K | 298 | 106 | | | | |
| | | 3500K | 319 | 113 | | | | |
| | | 4000K | 303 | 108 | | | | |

Phantom Elite Lighting Strips - Ordering Matrix
Sample Order Number: **CM-EL-5-18-2.8-DL-12-SA-XX**



US ETL LISTED, MISCELLANEOUS FIXTURES, CONFORMS TO UL STD, 1598

| MODEL | SERIES TYPE | TRIM PROFILE | KELVIN COLOR | WATTS/FT | LEAD WIRES* | LEAD LENGTH | TRIM PAINT COLOR | TRIM LENGTH |
|-----------|-------------------|-----------------------|--|--------------------------|---|-------------------|--|--|
| CM | EL | 5 | 18 | 2.8 | DL | 12 | SA | XX |
| CM | EL - Elite Lensed | 5 6 7 8 9 | 18 - 1800K 21 - 2100K 27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K | 1.5 - 1.5W 2.8 - 2.8W | DL - Double Leads LR - Leads Left LL - Leads Left | 12" 24" 36" | SA - Satin Aluminum CC - Custom Color** | Inches Specify Your Trim Length In Inches |

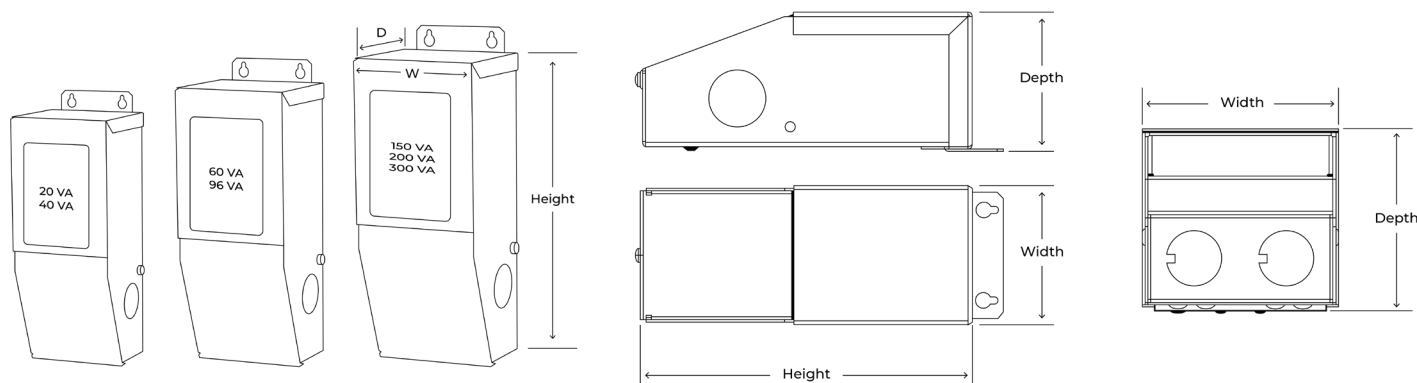
*When facing application
**Contact factory for details

| DRIVER SPECIFICATIONS | | | | | | | |
|-----------------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| | 20 VA | 40 VA | 60 VA | 96 VA | 150 VA | 200 VA | 300 VA |
| 120VAC/24VDC | MD20-24 | MD40-24 | MD60-24 | MD96-24 | MD150-24 | MD200-24 | MD300-24 |
| 277VAC/24VDC | MD20-24-277 | MD40-24-277 | MD60-24-277 | MD96-24-277 | MD150-24-277 | MD200-24-277 | MD300-24-277 |
| Maximum Load* | 16 | 32 | 48 | 77 | 120 | 160 | 240 |
| Minimum Load | 10 | 16 | 24 | 38 | 60 | 80 | 120 |
| Circuit Breaker | Auto | Auto | Auto | Auto | Auto | Manual | Manual |
| Height (H) | 5.50" | 5.50" | 6.50" | 6.50" | 9.50" | 9.80" | 9.80" |
| Width (W) | 2.25" | 2.25" | 2.75" | 2.75" | 3.25" | 3.25" | 4.25" |
| Depth (D) | 2.00" | 2.00" | 2.25" | 2.25" | 4.00" | 3.00" | 3.50" |
| Weight (lbs) | 1.80 | 1.80 | 2.00 | 2.00 | 5.00 | 5.50 | 8.75 |

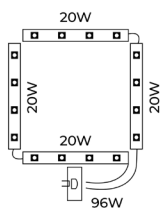
*These numbers reflect the 20% safety factor that is recommended to avoid overload or nuisance tripping when selecting a transformer. (Wattage x 1.20)

To calculate amperage, divide total wattage by secondary voltage (Wattage/Voltage = Amperage).
To calculate wattage, divide amperage by secondary voltage (Amperage/Voltage = Wattage)

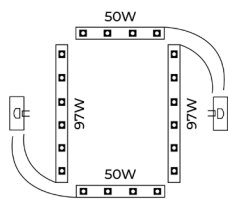
Driver Dimensions



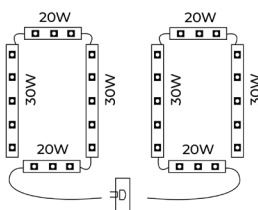
Elite CM Series Load Examples



20W x 4 = 80W
80W x 1.20 = 96W
(1) 96W Required



97W x 2 = 194W
50W x 2 = 100W
244W x 1.20 = 352W
(2) 200W Required



30W x 4 = 120W
20W x 4 = 80W
200W x 1.20 = 240W
(1) 300W Required

TERMS AND CONDITIONS

To comply with Phantom™ Lighting System warranty policies and ETL standards, all lighting strips must be used in conjunction with Phantom™ Lighting drivers. All Phantom lighting transformers are ETL Approved for Class 2 applications and are strongly recommended for proper orientation of lighting strips. Phantom™ drivers should **not** be located in areas without ventilation or be subjected to high ambient temperatures. If ambient temperatures exceed 115°F (46°C) around the driver, the circuit breakers may nuisance-trip due to excessive heat and void any warranty.

CAUTION: Failure to correctly size primary and secondary conductors and/or overload protection may result in bodily injury or serious property damage.

If you have any questions or concerns regarding your application, please contact the factory at (713) 863-1184 or consult a licensed electrician or the National Electric Code.