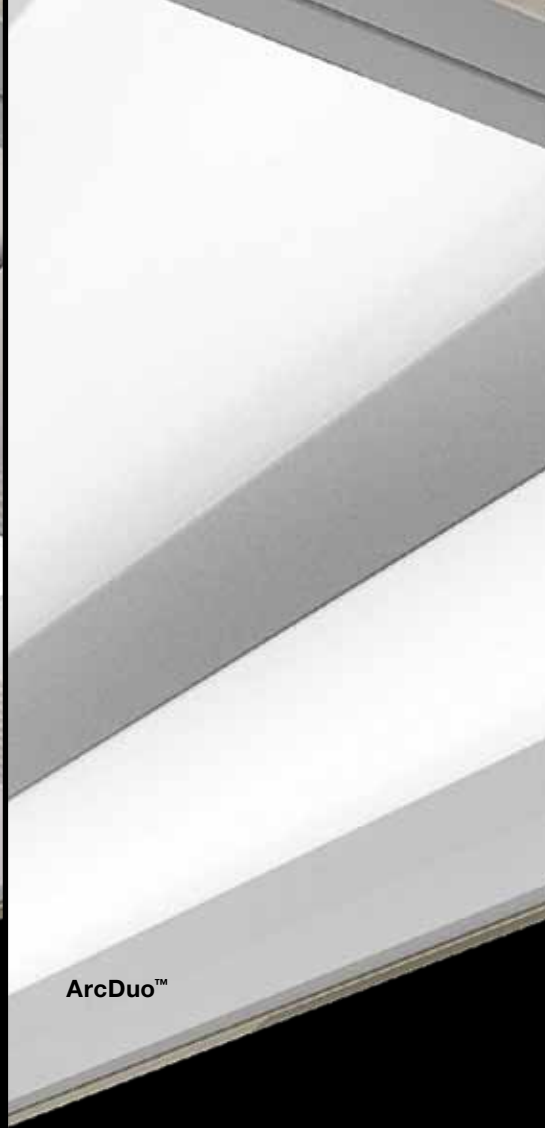






OpticaHP



ArcDuo™



Cruze™

Multiple Looks, One Platform

Cooper Lighting's Commercial, OpticaHP, ArcDuo™ and Cruze™ retrofit kits offer exciting alternatives to your existing installed luminaires. You can choose among architecturally inspired designs to update your building's look and value while keeping the existing housings. All designs are focused around one platform with similar components and features that combine the latest energy-saving lamp-ballast technology with the newest in retrofit kit design.

Many competitors' retrofit products consist of a low-cost kit designed to achieve energy savings by simply reducing the number of lamps within a luminaire. Although the energy savings realized might pay for the kit within a few years, nothing has been done to improve upon the lighting quality or the aesthetics within the workspace.

Cooper Lighting's retrofit kits save energy and reduce your carbon footprint. They are also incredibly quick and easy to install. You don't have to sacrifice the aesthetic quality of the space. The end result is a more inviting, productive and stylish work environment.

Maximize Energy Savings

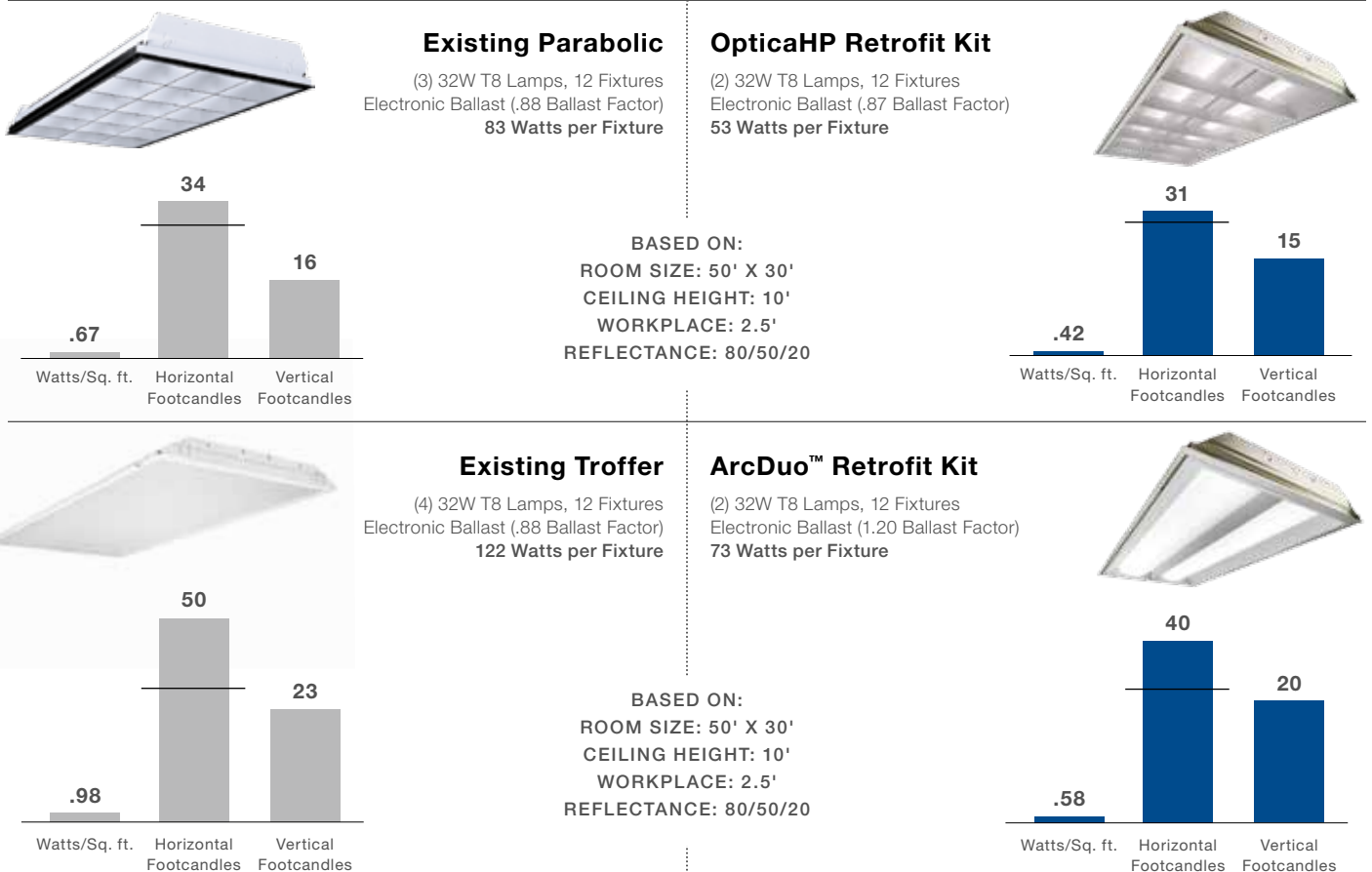
Cooper Lighting's innovative retrofit kits enable architects, engineers, contractors and facility managers to meet today's growing energy guidelines and realize energy savings without added renovation and disposal costs. There is minimal loss of lighting, and the aesthetic appeal of the space is enhanced.



| BEFORE | AFTER |
|-----------------------------|-----------------------------|
| EFFICIENCY: 69% | EFFICIENCY: 91% |
| INPUT WATTS: 86 | INPUT WATTS: 53 |
| LUMENS / WATTS: 59.4 | LUMENS / WATTS: 98.5 |
| VERT. ILLUMINATION: 1 : 2.5 | VERT. ILLUMINATION: 1 : 1.9 |
| LAMP LIFE: 20,000 hrs | LAMP LIFE: 24,000+ hours |
| CRI: >75 | CRI: >83 |

Application Comparison

The chart below compares the performance of standard luminaires (left) and Cooper Lighting's retrofit kits (right). The horizontal black line represents the IES-recommended minimum of 30 footcandles in open office environments. Our retrofit kits provide substantial savings in watts per fixture with no loss of effective lighting.



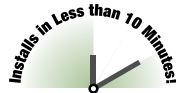
Cooper Lighting Advantages

Cooper Lighting's Advanced Retrofit Technology™ products offer a wide range of features and benefits that save energy, time, labor and money when compared to similar offerings.



Quick & Easy Installation

Created with contractors for contractors, our innovative design makes our retrofit kits among the industry's easiest products to install.



Ready-Set™

Our patented captive and stable screw design allows for fast and easy installation right out of the box.



Eco-Friendly

You can keep the existing luminaire housing in the ceiling, limiting the amount of metal removed, recycled and discarded.

The Kit Fits

Uniquely designed to seamlessly fit into most competitors' luminaires with little or no gap, light leak or need for added trim accessories.

Lighting Quality

Our kits use a white or WhiteOptics™ reflector to meet or exceed utility and government requirements, improving light output, quality and distribution over existing luminaires.

whiteoptics™



IMPROVING LIGHTING EFFICIENCY AND DESIGN

| FEATURES | COMPETITION'S BASE KIT | COOPER LIGHTING BASE KIT | COMPETITION'S LOUVER/ARCHITECTURAL KIT | COOPER LIGHTING LOUVER/ARCHITECTURAL KIT |
|--------------------|---------------------------|-----------------------------|---|---|
| MULTIPLE LOOKS | | | | ● |
| COMMON PLATFORM | | ● | | ● |
| READY-SET™ | | ● | | ● |
| PRE-ASSEMBLED | | ● | ● | ● |
| LIGHTING QUALITY | | ● | ● | ● |
| FITS PARABOLICS | ● | ● | DEPENDS* | ● |
| FITS 3.5" TROFFERS | ● | ● | DEPENDS* | ● |

*Competitors kits come in more than one sku, limited to one lamp type and may require a trim or accessory to fit into a parabolic or troffer.

Advanced Retrofit Kit Family

BASE

The Commercial Retrofit Kit is a pre-wired assembly that decreases install time without compromising quality of light, making this kit the fastest and most cost-effective solution for saving time, money or both.

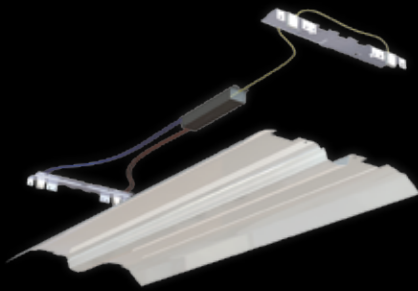
LOUVER

The New OpticaHP Retrofit Kit has been developed to produce comfortable, optimum lighting levels that maximize efficiency while providing over 30% energy savings when compared to existing 3-lamp Parabolics.

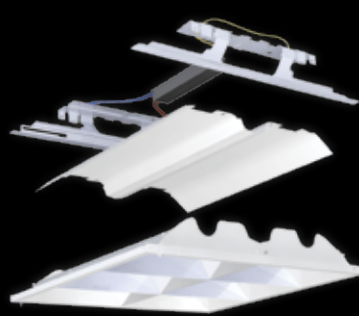
ARCHITECTURAL

The ArcDuo™ and Cruze™ Retrofit Kits provide customers with the opportunity to upgrade their dated louver or lens door with a more contemporary lens shielding that is highly efficient and fits into existing parabolics and troffers as low as 3.5" deep.

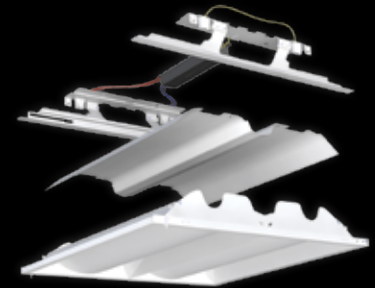
Commercial



OpticaHP



ArcDuo™



Cruze™



Uniform Distribution

| | |
|---------------|-----------------------|
| SIZE | 2' x 2' & 2' x 4' |
| # OF LAMPS | 2 OR 3 |
| LAMP TYPE | T8, T5/T5HO |
| U-1-5/8 T8 | 2' x 2' Two-Lamp ONLY |
| EFFICIENCY | >84% |
| INSTALL DEPTH | 3-1/4" |
| WHITE OPTICS | YES |

Maximize Delivered Lumens

| | |
|---------------|-------------------|
| SIZE | 2' x 2' & 2' x 4' |
| # OF LAMPS | 2 |
| LAMP TYPE | T8, T5/T5HO |
| U-1-5/8 T8 | 2' x 2' ONLY |
| EFFICIENCY | >91% |
| INSTALL DEPTH | 3-1/2" |
| WHITE OPTICS | YES |

Improved Aesthetic and Quality of Light

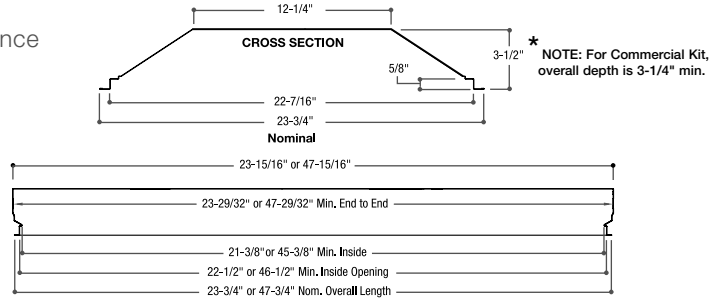
| | |
|---------------|-------------------|
| SIZE | 2' x 2' & 2' x 4' |
| # OF LAMPS | 2 |
| LAMP TYPE | T8, T5/T5HO |
| U-1-5/8 T8 | N/A |
| EFFICIENCY | >84% |
| INSTALL DEPTH | 3-1/2" |
| WHITE OPTICS | YES |

Retrofit Compatibility Matrix

The new Cooper retrofit kit was designed to upgrade troffers and parabolics from all major manufacturers, including, but not limited to, those shown below:

| MANUFACTURER | Lithonia | Lithonia | Crescent | Day-Brite | Columbia | Cooper | Cooper |
|---------------------------|---------------|-----------|----------|-----------|----------|----------|---------|
| PRODUCTS | SP8/GT | Parabolic | SG4 | GC | 5PA24 | G/GC/GR8 | PARALUX |
| DEPTH | 3.50" - 3.75" | 4.75" | 3.75" | 4.38" | 5.00" | 3.75" | 4.75"+ |
| NEW METALUX RETROFIT KITS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

You can also refer to the following dimensions as a reference or contact your local Cooper representative for a trial installation prior to ordering large project quantities.



Photometry

OpticaHP

| | CANDELA | | | | ZONAL LUMEN SUMMARY | | | | LUMINANCE DATA | | | |
|---|---------|----------|------|----------|---------------------|--------|-------|----------|----------------|---------|----------|----------|
| | Angle | Along II | 45° | Across ⊥ | Zone | Lumens | %Lamp | %Fixture | Angle | Avg. 0° | Avg. 45° | Avg. 90° |
| <p>(2) 32W T8 lamps 2850 lumens</p> <p>Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.5 x mounting height</p> <p>Efficiency = 91.7%</p> <p>Test Report: ART-20P-232.IES</p> <p>LER = FL-86</p> <p>Yearly Cost of 1000 lumens, 3000hrs at .08 KWH = \$2.79</p> | 0 | 1687 | 1687 | 1687 | 0-30 | 1347 | 23.6 | 25.8 | 45 | 2488 | 3021 | 3564 |
| | 5 | 1665 | 1679 | 1692 | 0-40 | 2260 | 39.6 | 43.3 | 55 | 2370 | 3102 | 3762 |
| | 10 | 1631 | 1662 | 1693 | 0-60 | 4230 | 74.2 | 81.0 | 65 | 2145 | 2859 | 2502 |
| | 15 | 1582 | 1638 | 1695 | 0-90 | 5224 | 91.7 | 100.0 | 75 | 1666 | 1527 | 1343 |
| | 20 | 1523 | 1606 | 1693 | 0-180 | 5224 | 91.7 | 100.0 | 85 | 1336 | 1166 | 903 |
| | 25 | 1452 | 1566 | 1684 | | | | | | | | |
| | 30 | 1371 | 1516 | 1666 | | | | | | | | |
| | 35 | 1280 | 1458 | 1635 | | | | | | | | |
| | 40 | 1181 | 1387 | 1593 | | | | | | | | |
| | 45 | 1073 | 1303 | 1537 | | | | | | | | |
| | 50 | 956 | 1204 | 1458 | | | | | | | | |
| | 55 | 829 | 1085 | 1316 | | | | | | | | |
| | 60 | 694 | 938 | 1048 | | | | | | | | |
| 65 | 553 | 737 | 645 | | | | | | | | | |
| 70 | 408 | 473 | 302 | | | | | | | | | |
| 75 | 263 | 241 | 212 | | | | | | | | | |
| 80 | 156 | 141 | 121 | | | | | | | | | |
| 85 | 71 | 62 | 48 | | | | | | | | | |
| 90 | 1 | 1 | 1 | | | | | | | | | |

IN CANDELA / SQ METER

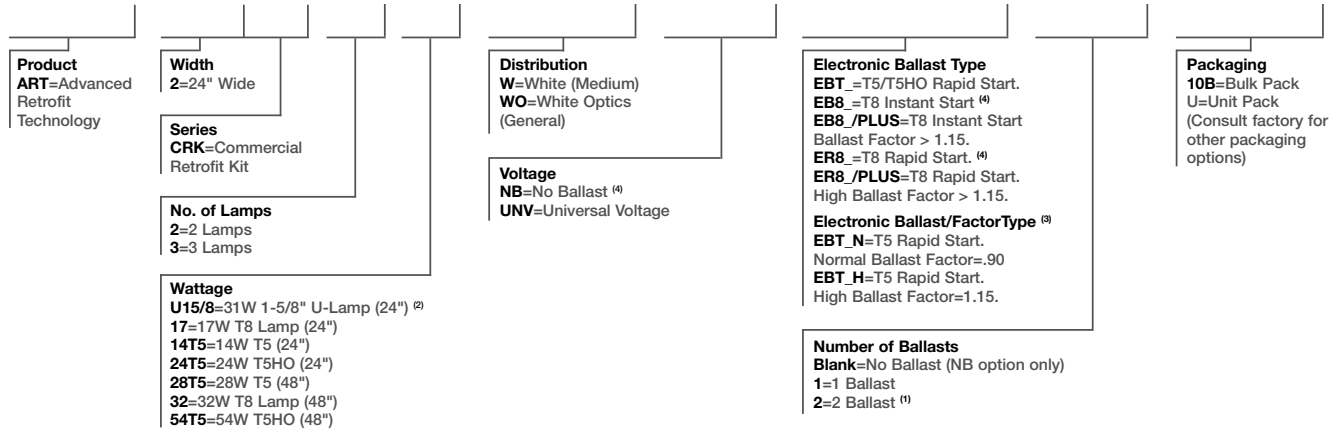
ArcDuo™

| | CANDELA | | | | ZONAL LUMEN SUMMARY | | | | LUMINANCE DATA | | | |
|---|---------|----------|------|----------|---------------------|--------|-------|----------|----------------|---------|----------|----------|
| | Angle | Along II | 45° | Across ⊥ | Zone | Lumens | %Lamp | %Fixture | Angle | Avg. 0° | Avg. 45° | Avg. 90° |
| <p>(2) 32W T8 lamps 2850 lumens</p> <p>Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.3 x mounting height</p> <p>Efficiency = 83.8%</p> <p>Test Report: ART-2ARC-232L.IES</p> <p>LER = FL-79</p> <p>Yearly Cost of 1000 lumens, 3000hrs at .08 KWH = \$3.04</p> | 0 | 1643 | 1643 | 1643 | 0-30 | 1282 | 22.5 | 26.8 | 45 | 2567 | 2625 | 2681 |
| | 5 | 1626 | 1634 | 1638 | 0-40 | 2111 | 37.0 | 44.2 | 55 | 2524 | 2561 | 2550 |
| | 10 | 1601 | 1613 | 1621 | 0-60 | 3781 | 66.3 | 79.1 | 65 | 2409 | 2351 | 2250 |
| | 15 | 1563 | 1580 | 1593 | 0-90 | 4779 | 83.8 | 100.0 | 75 | 2173 | 1939 | 1793 |
| | 20 | 1514 | 1535 | 1553 | 0-180 | 4779 | 83.8 | 100.0 | 85 | 1656 | 1054 | 753 |
| | 25 | 1451 | 1476 | 1496 | | | | | | | | |
| | 30 | 1378 | 1406 | 1429 | | | | | | | | |
| | 35 | 1297 | 1325 | 1352 | | | | | | | | |
| | 40 | 1206 | 1234 | 1261 | | | | | | | | |
| | 45 | 1107 | 1132 | 1156 | | | | | | | | |
| | 50 | 998 | 1018 | 1035 | | | | | | | | |
| | 55 | 883 | 896 | 892 | | | | | | | | |
| | 60 | 757 | 758 | 737 | | | | | | | | |
| 65 | 621 | 606 | 580 | | | | | | | | | |
| 70 | 482 | 454 | 425 | | | | | | | | | |
| 75 | 343 | 306 | 283 | | | | | | | | | |
| 80 | 208 | 171 | 149 | | | | | | | | | |
| 85 | 88 | 56 | 40 | | | | | | | | | |
| 90 | 0 | 0 | 0 | | | | | | | | | |

IN CANDELA / SQ METER

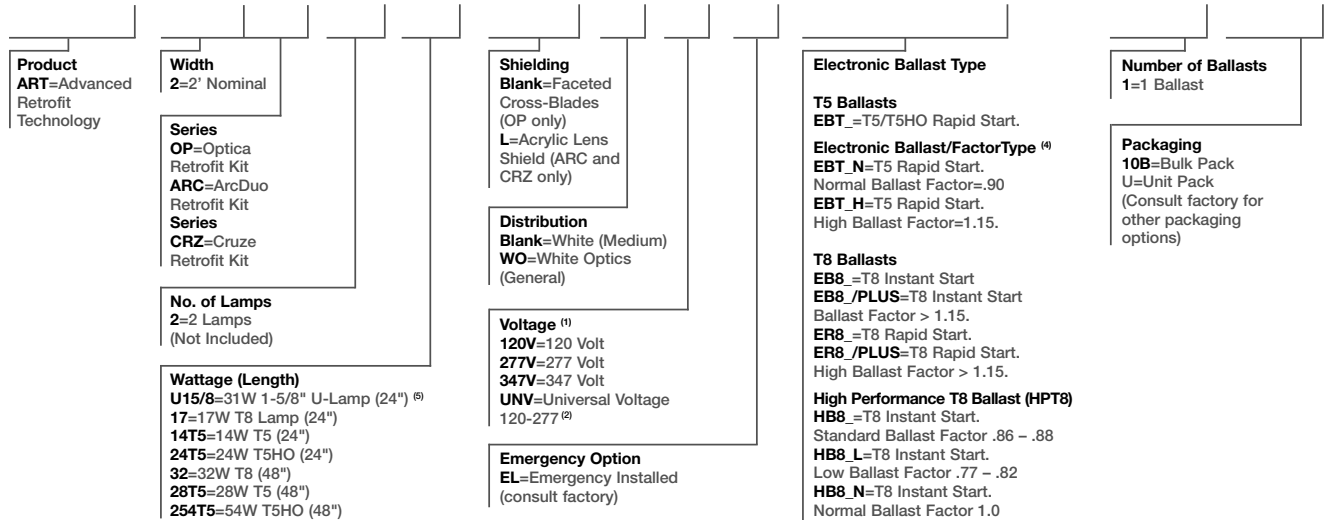
Ordering Information

Commercial T5/T8 Retrofit 2' X 2', 2' X 4'



NOTES: (1) 2 ballast option only available for 3 lamp T5 or T5HO lamp wattages. (2) 2 lamp 2' x 2' only. (3) .90 and 1.15 ballast factor available for 2 or 3 14W T5 or 28W T5 lamps only. (4) When using T8 Kits without ballasts, indicate ballast type and system to designate shunted or unshunted sockets. Ex: ART-2CRK-232-W-NB-ER8.

ArcDuo / Cruze / OpticaHP Retrofit 2' X 2', 2' X 4'



NOTES: (1) Products also available in non-US voltages and frequencies for international markets. (2) Not available when specifying emergencies, voltage must be specific. (3) Recommended when using retrofits together with motion sensor, daylight harvesting or similar controls. (4) .90 and 1.15 ballast factor available for 14W or 28W T5 lamps only. (5) 2-Lamp 2' x 2' only.

For complete product data, go to www.metalux-lighting.com. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

Cooper Lighting, LLC.

Customer First Center
 1121 Highway 74 South
 Peachtree City, GA 30269

P: 770-486-4800
 F: 770-486-4801

www.cooperlighting.com

International Sales, USA

Cooper Lighting, LLC.
 1121 Highway 74 South
 Peachtree City, GA 30269

P: 770-486-4800
 F: 770-486-4801

Canada

Cooper Lighting, LLC.
 5925 McLaughlin Road
 Mississauga, Ontario L5R 1B8

P: 905-507-4000
 F: 905-568-7049

The Cooper Lighting Family

Halo
 Metalux
 Lumark
 Sure-Lites
 Neo-Ray
 Corelite
 Portfolio
 Iris
 Shaper
 io
 Lumière
 Invue
 McGraw-Edison
 Streetworks
 Fail-Safe
 PDS
 MWS
 RSA
 Ametrix

Domestic Facilities

Bloomington, California
 Cranbury, New Jersey
 Elk Grove Village, Illinois
 Irving, Texas
 Peachtree City, Georgia

Canadian Facility

Calgary, Alberta T2E 7V9
 Mississauga, Ontario L5R 1B8



25% PCRf

Cooper Lighting, Metalux, Archos and Cruze are valuable trademarks of Cooper Industries in the United States and other countries. You are not permitted to use the Cooper Trademarks without the prior written consent of Cooper Industries. WhiteOptics is a valuable trademark of WhiteOptics, LLC. in the United States and other countries. You are not permitted to use the WhiteOptics Trademark without the prior written consent of WhiteOptics, LLC.

Cooper Industries plc
 600 Travis, Ste. 5600
 Houston, TX 77002-1001
 P: 713-209-8400
www.cooperindustries.com