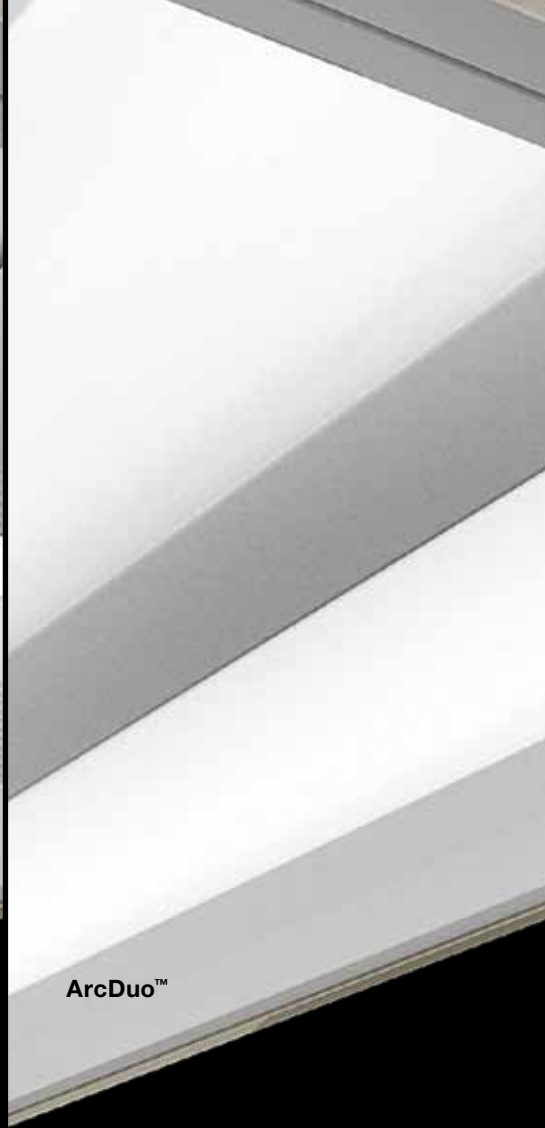






OpticaHP



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

EFFICIENCY: 69%
 INPUT WATTS: 86
 LUMENS / WATTS: 59.4

VERT. ILLUMINATION: 1 : 2.5
 LAMP LIFE: 20,000 hrs
 CRI: >75



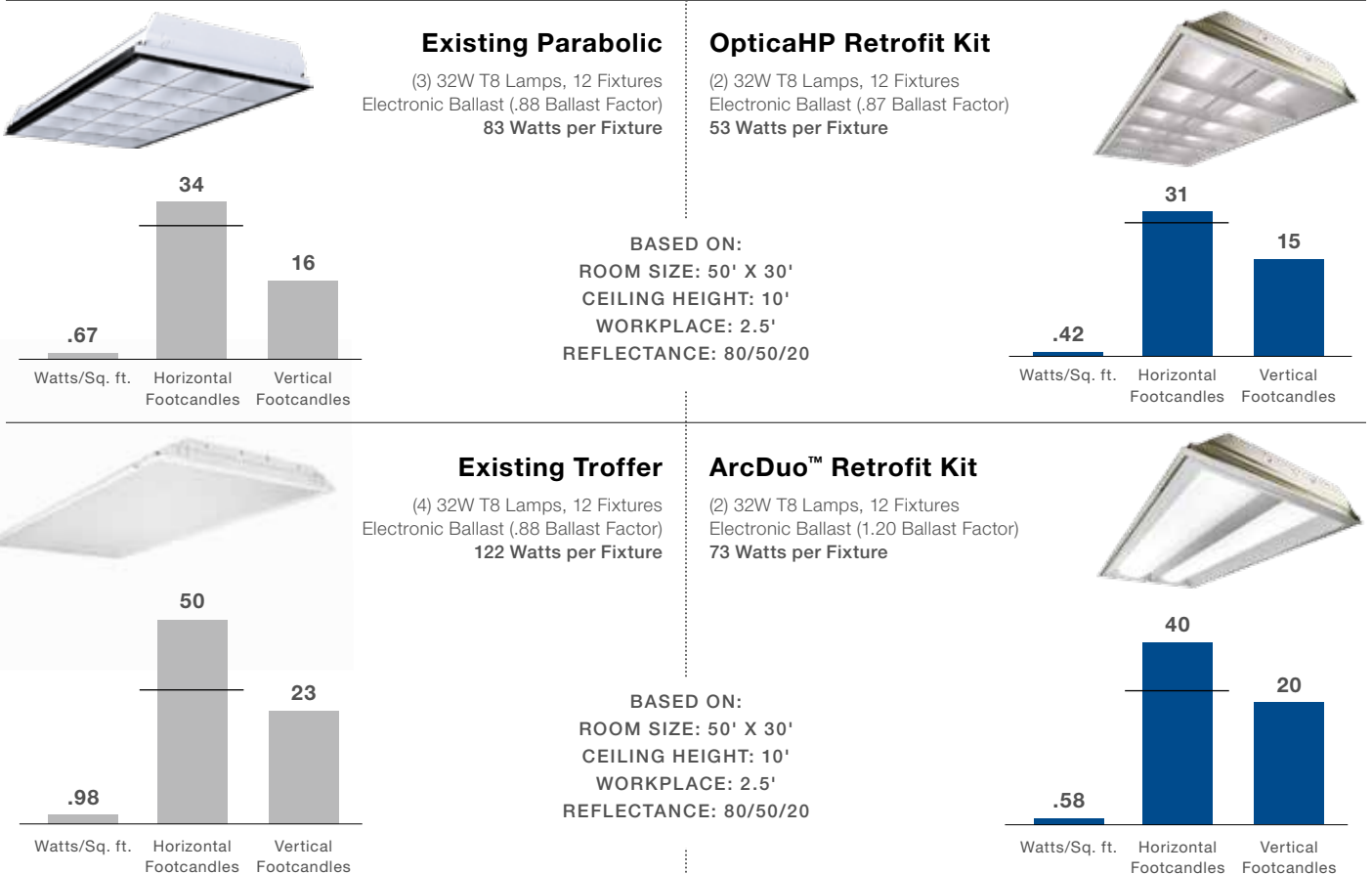
AFTER

EFFICIENCY: 91%
 INPUT WATTS: 53
 LUMENS / WATTS: 98.5

VERT. ILLUMINATION: 1 : 1.9
 LAMP LIFE: 24,000+ hours
 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.



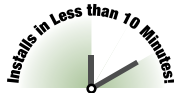
Cooper Lighting Advantages

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.

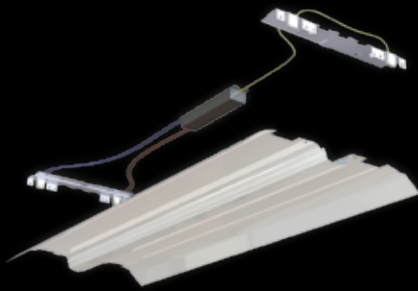
LOUVER

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.

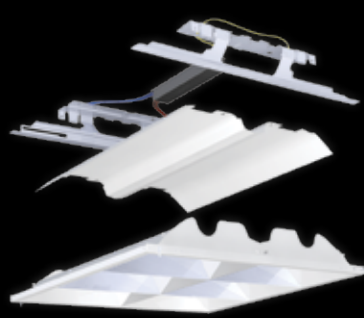
ARCHITECTURAL

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.

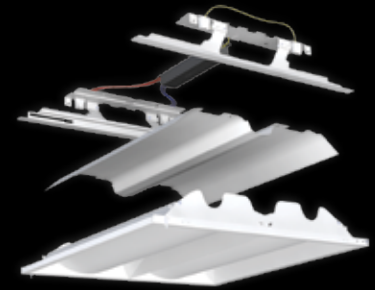
Commercial



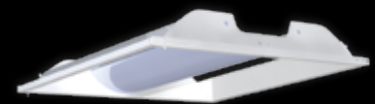
OpticaHP



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

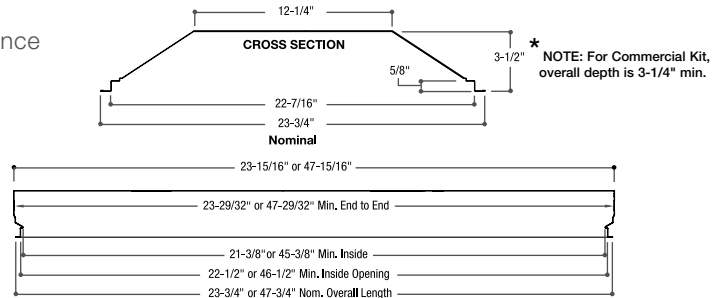
SIZE	2' x 2' & 2' x 4'
# OF LAMPS	2
LAMP TYPE	T8, T5/T5HO
U-1-5/8 T8	N/A
EFFICIENCY	>84%
INSTALL DEPTH	3-1/2"
WHITE OPTICS	YES

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

Angle	CANDELA		
	Along II	45°	Across ⊥
0	1687	1687	1687
5	1665	1679	1692
10	1631	1662	1693
15	1582	1638	1695
20	1523	1606	1693
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

(2) 32W T8 lamps 2850 lumens

Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.5 x mounting height
Efficiency = 91.7%

Test Report: ART-20P-232.IES
LER = FL-86
Yearly Cost of 1000 lumens, 3000hrs at .08 KWH = \$2.79

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixture
0-30	1347	23.6	25.8
0-40	2260	39.6	43.3
0-60	4230	74.2	81.0
0-90	5224	91.7	100.0
0-180	5224	91.7	100.0

LUMINANCE DATA			
Angle	Avg. 0°	Avg. 45°	Avg. 90°
45	2488	3021	3564
55	2370	3102	3762
65	2145	2859	2502
75	1666	1527	1343
85	1336	1166	903

IN CANDELA / SQ METER

ArcDuo™

Angle	CANDELA		
	Along II	45°	Across ⊥
0	1643	1643	1643
5	1626	1634	1638
10	1601	1613	1621
15	1563	1580	1593
20	1514	1535	1553
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

(2) 32W T8 lamps 2850 lumens

Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.3 x mounting height
Efficiency = 83.8%

Test Report: ART-2ARC-232L.IES
LER = FL-79
Yearly Cost of 1000 lumens, 3000hrs at .08 KWH = \$3.04

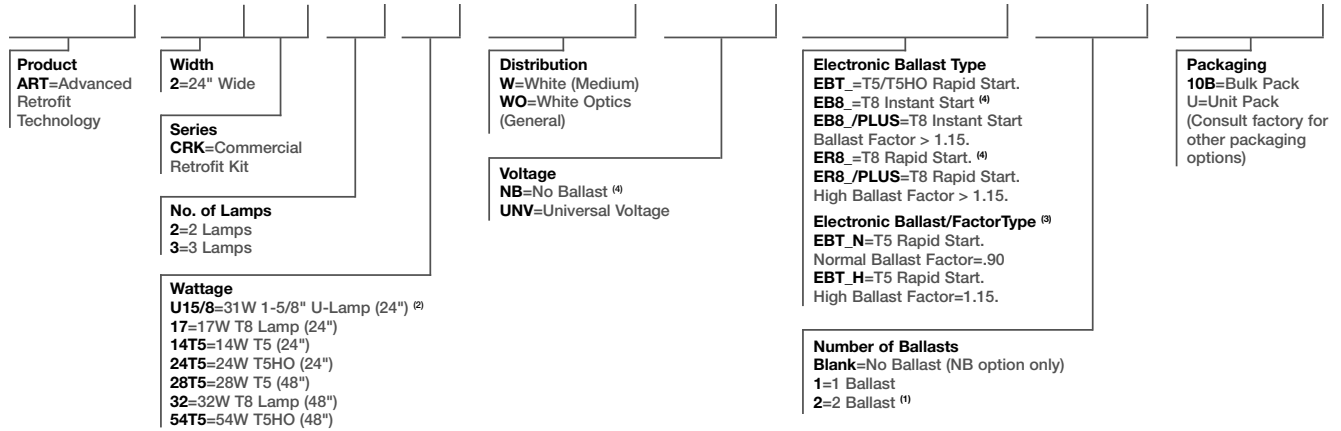
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixture
0-30	1282	22.5	26.8
0-40	2111	37.0	44.2
0-60	3781	66.3	79.1
0-90	4779	83.8	100.0
0-180	4779	83.8	100.0

LUMINANCE DATA			
Angle	Avg. 0°	Avg. 45°	Avg. 90°
45	2567	2625	2681
55	2524	2561	2550
65	2409	2351	2250
75	2173	1939	1793
85	1656	1054	753

IN CANDELA / SQ METER

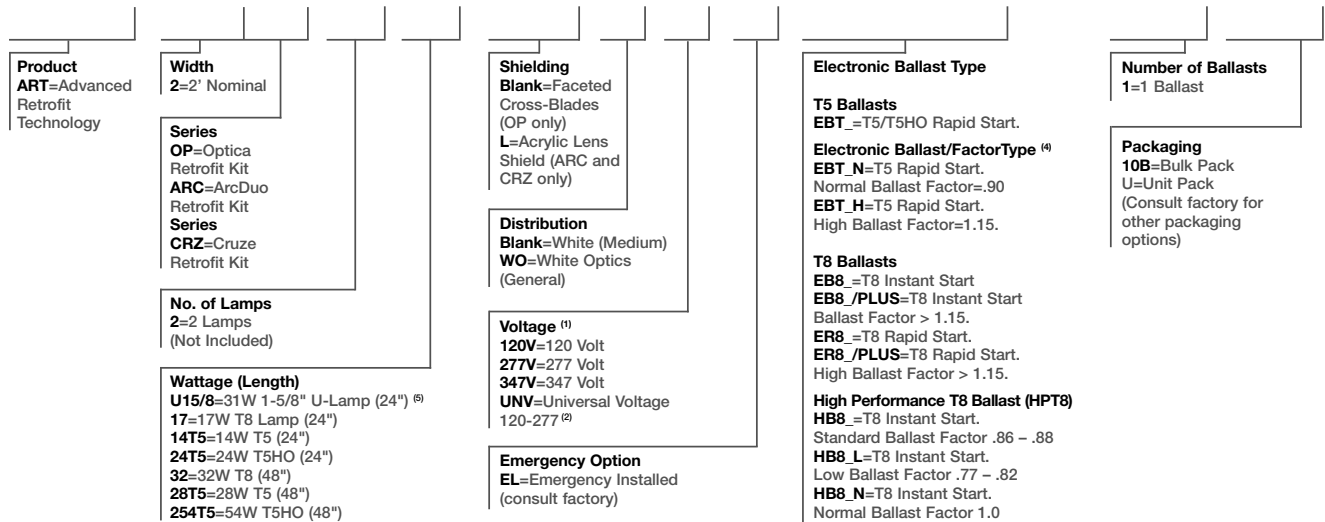
Ordering Information

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.

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 F: 770-486-4801

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 F: 770-486-4801

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The Cooper Lighting Family

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