

# COOPER LIGHTING - METALUX®

## DESCRIPTION

The New *Cruze* Retrofit Kit is an effective "Energy Savings Alternative" for today's environmentally conscious marketplace. This retrofit kit system provides customers the opportunity to upgrade their dated louver or lens to a more contemporary center basket lens shielding that is highly efficient, quick to install and fully NEC compliant. The architectural retrofit kit is designed for installation into a 2' x 4' parabolic or troffer.

In a marketplace where aesthetics are still critical elements used to convey style, appearance and performance, the *Cruze* Retrofit Kit is the smart solution for any office, government, educational and retail retrofit kit application whose goal involves energy awareness and conservation without the added renovation and disposal costs.

## SPECIFICATION FEATURES

### Construction

The retrofit kit assembly consists of four components and fits into most parabolics and troffers. Universal brackets are made from code gauge steel and come pre-wired to ballast and sockets. Kits are pre-assembled and ready for quick, easy install right out of the box. A one-piece high reflectance white reflector installs without any hardware, while a die formed doorframe and architectural lens shielding provides the last component of this retrofit system.

**Minimum housing depth = 3-1/2"**

### Ready-Set

Pre-installed self-tapping screws easily penetrates existing fixture body and ends. Leveling flange aligns, supports, and holds hardware in place, letting you hold the

brackets with one hand while driving in screws. No parts bag or extra hardware needed.

### Electrical

Standard Class "P" electronic ballast with captive hardware for ease of install. Push-in lampholders. UL/cUL Listed. Suitable for damp locations. No junction box required.

### Door Finish

Cold rolled steel w/multistage iron phosphate pre-treatment for maximum bonding. Highly reflective matte white finish on all reflective surfaces for increased efficiency.

### Hinge/Latch

Positive spring loaded, self locking, steel latching allows for easy opening and closing of louver or other shielding media. Hinging and latching can be done from either side of the retrofit kit for increased installation flexibility and ease of maintenance.

### Optics

Die formed doorframe and architectural center position lens shielding provides a modern architectural appearance similar to the Metalux Ovation. Overall optical efficiency is above 84%. Optional 97% reflective White Optics material is available to help further maximize kit efficiency, distribution, energy savings and payback.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		



## Cruze Retrofit 2x4 232, 228T5 254T5

2 LAMP TROFFER AND PARABOLIC  
ARCHITECTURAL RETROFIT KIT

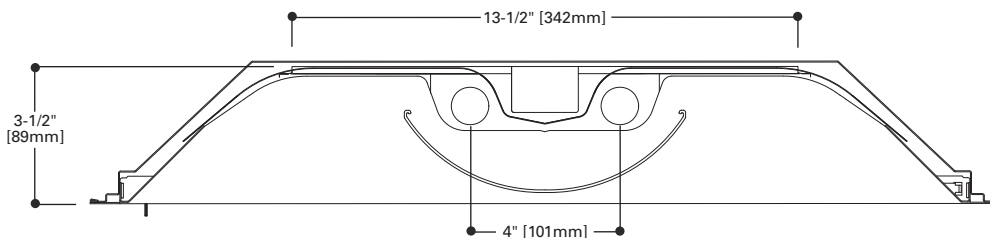
Patent Pending



Advanced Retrofit Technologies

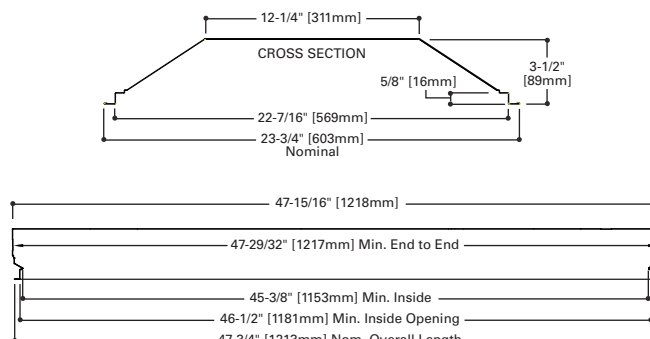


IMPROVING LIGHTING EFFICIENCY AND DESIGN



## RETROFIT COMPATIBILITY

The *Cruze* retrofit kit was designed to upgrade troffer or parabolic fixtures from all major manufacturers that have the following minimum dimensions:



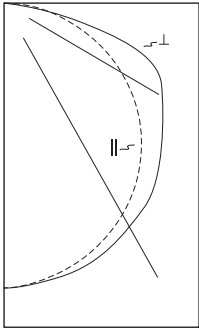
Before ordering refer to these dimensions as a reference or contact your local representative for a trial install prior to ordering large job quantities.

**LINEAR DISCONNECT**

Safe and convenient means of  
disconnecting power.



PHOTOMETRICS



**ART-2CRZ-232L**  
 Electronic Ballast  
 (2) 32WT8lamps  
 3100 lumens.

Spacing criterion:  
 (II) 1.3 x mounting height, (L) 1.3 x mounting height.

Efficiency = 85.6%.

Test Report:  
 ART-2CRZ-232L.IES

LER = FP-82

Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$2.93

**Coefficients of Utilization**

rc	Effective floor cavity reflectance																							
	80%				70%				50%				30%				10%				0%			
	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
<b>RCR</b>																								
<b>0</b>	102	102	102	102	100	100	100	100	95	95	95	91	91	91	87	87	87	86						
<b>1</b>	92	88	84	80	90	86	82	79	82	79	76	79	76	74	76	74	72	70						
<b>2</b>	83	76	69	64	81	74	68	63	71	66	62	68	64	60	65	62	59	57						
<b>3</b>	75	66	58	52	73	64	57	52	62	56	51	59	54	50	57	53	49	47						
<b>4</b>	69	58	50	44	67	57	49	43	54	48	43	52	47	42	50	46	42	40						
<b>5</b>	63	51	43	37	61	50	43	37	49	42	37	47	41	36	45	40	36	34						
<b>6</b>	58	46	38	32	56	45	38	32	44	37	32	42	36	31	41	35	31	29						
<b>7</b>	54	42	34	28	52	41	33	28	40	33	28	38	32	28	37	32	28	26						
<b>8</b>	50	38	30	25	48	37	30	25	36	30	25	35	29	25	34	29	25	23						
<b>9</b>	47	35	27	22	45	34	27	22	33	27	22	32	26	22	31	26	22	20						
<b>10</b>	44	32	25	20	42	31	25	20	31	24	20	30	24	20	29	24	20	18						

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
<b>0-30</b>	1267	20.4	23.9
<b>0-40</b>	2105	33.9	39.7
<b>0-60</b>	3896	62.8	73.4
<b>0-90</b>	5305	85.6	100.0
<b>0-180</b>	5305	85.6	100.0

**Luminance Data**

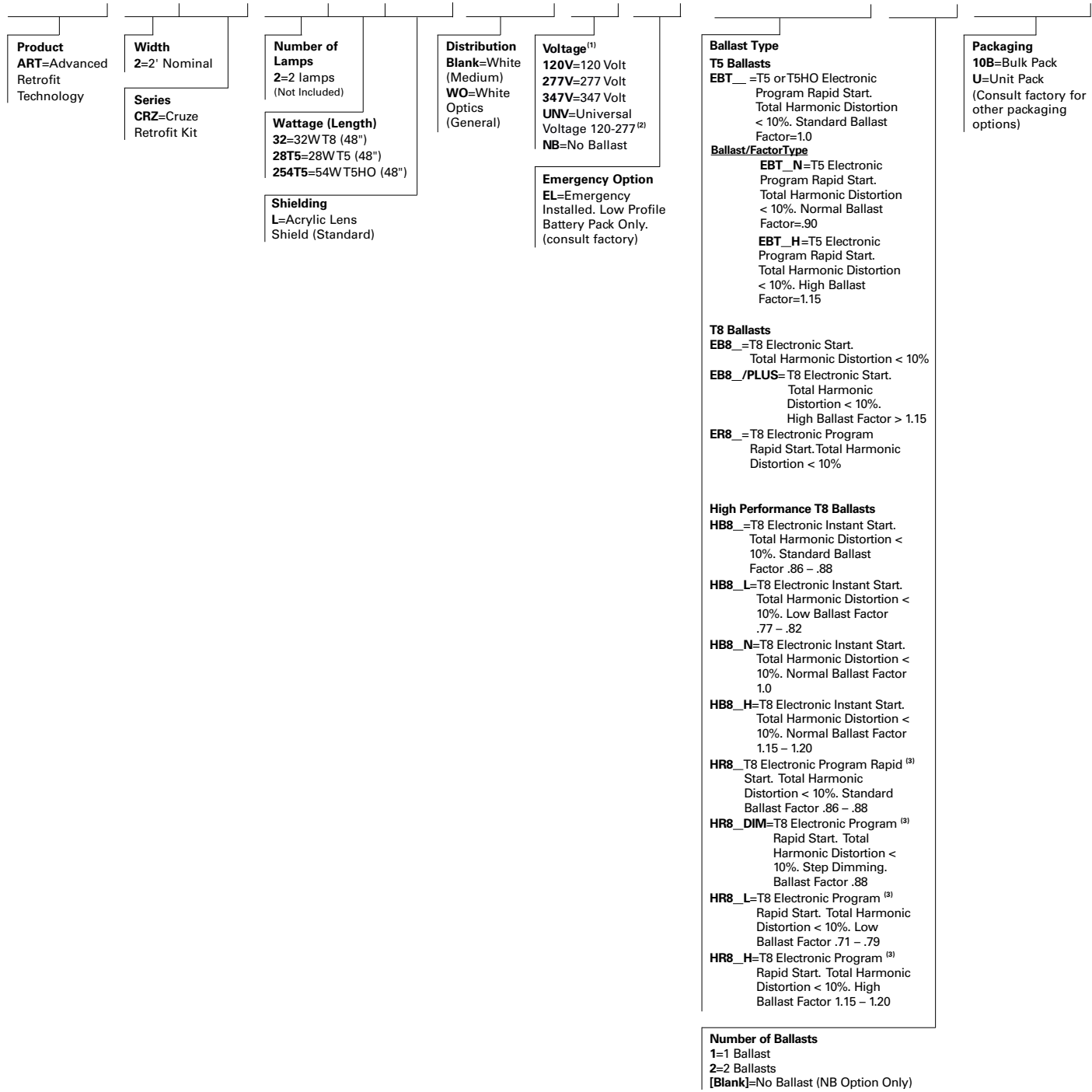
Angle In Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
<b>45</b>	2484	2681	2815
<b>55</b>	2458	2757	3102
<b>65</b>	2387	2968	3640
<b>75</b>	2169	3452	2826
<b>85</b>	1822	1969	1914

**Candela**

Angle	Along II	45°	Across L
<b>0</b>	1607	1607	1607
<b>5</b>	1593	1599	1602
<b>10</b>	1569	1582	1590
<b>15</b>	1533	1552	1569
<b>20</b>	1485	1513	1539
<b>25</b>	1425	1465	1499
<b>30</b>	1357	1407	1450
<b>35</b>	1277	1342	1389
<b>40</b>	1191	1266	1318
<b>45</b>	1095	1182	1241
<b>50</b>	992	1088	1159
<b>55</b>	879	986	1077
<b>60</b>	759	882	1024
<b>65</b>	629	782	959
<b>70</b>	490	698	813
<b>75</b>	350	557	456
<b>80</b>	216	265	265
<b>85</b>	99	107	104
<b>90</b>	1	1	1

ORDERING INFORMATION

SAMPLE NUMBER: ART-2CRZ-232L-UNV-EB81-10B



NOTES: <sup>(1)</sup> Products also available in non-US voltages and frequencies for international markets. <sup>(2)</sup> Not available when specifying emergencies, voltage must be specific. <sup>(3)</sup> Recommended when using retrofits together with motion sensor, daylight harvesting or similar controls.  
 For complete product data, go to [www.metalux-lighting.com](http://www.metalux-lighting.com). Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.