

DESCRIPTION

The Cruze LED Retrofit Kit is Eaton's newest LED lighting solution for customers looking to upgrade their fluorescent luminaires with a high-performing and an aesthetically-pleasing LED system without the need to install a complete luminaire. This innovative, high quality retrofit kit is dedicated to the latest solid state lighting and driver technology for optimal performance and energy efficiency. The Cruze LED Kit is engineered to quickly and simply install into existing 2' x 2' fluorescent troffers.

The Cruze LED Retrofit Kit combines efficiency, quality, and performance and is an excellent choice for upgrading the lighting in commercial office spaces, schools, hospitals, or retail merchandising areas.

SPECIFICATION FEATURES

Construction

Rigid housing is die formed of code gauge prime cold rolled steel and features full length die-formed stiffeners and unibody endplate for added strength. Innovative design allows for quick and simple retrofit of fluorescent recessed troffers and parabolic luminaires resulting in an upgraded look with superior lens brightness uniformity and visual comfort.

Controls

Metalux LED luminaires come standard with 0-10V dimming drivers (1% standard).

Options compatible with Eaton's Connected Lighting Systems:

- WaveLinx sensor
- LumaWatt Pro sensor
- SVPD sensor
- Fifth Light DALI driver

Other options include step-dimming and 3rd party drivers. Refer to the Connected Lighting options page and ordering information for more details.

Electrical

Long-Life LED system coupled with electrical driver to deliver optimal performance. LED's available in 3500K or 4000K with a CRI ≥ 85 . Standard projected efficacy is > 110 lm/W. High performance projected efficacy is > 125 lm/W. Projected life is 60,000 hours at 75% lumen output. cULus listed. Electronic drivers are available for 120-277V applications and 347V including 0-10V dimming.

Emergency Battery Pack Option

Optional 120v-277v integral emergency battery pack is available in 7-watts or 14-watts to meet critical life-safety lighting requirements. The 90-minute batteries provide constant power to the LED system, ensuring code-compliance. A test switch/indicator button can be tested safely from the ground using a laser pointer, while the patented EZ Key prevents accidental discharge of the battery during construction. See ordering information for details.

Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition. Housing finished with 90% reflective white enamel for superior performance.

Shielding

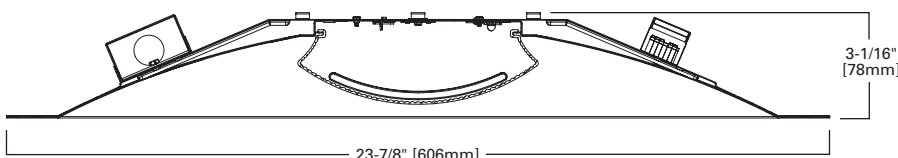
Positive light seals. Acrylic frosted lens.

Compliance

Modules are UL recognized components and indoor luminaires are cULus listed for 25°C ambient environments, RoHS compliant, and LED modules comply with IESNA LM-79 and LM-80 standards. DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.

Warranty

Five year warranty.



CZRK
LED

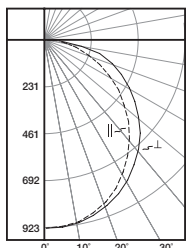
2' x 2' Specification Grade
LED Retrofit Kit



CERTIFICATION DATA

cULus - 1598C
Damp Location Listed
IC Rated
LM79/LM80 Compliant
ROHS Compliant
DesignLights Consortium® Qualified

PHOTOMETRICS

**22CZRK-LD4-24-UNV-L835-CD1-U**

Electronic Driver

Linear LED 3500K

Spacing criterion:
(H) 1.22 x mounting
height, (L) 1.28 x
mounting height

Lumens: 2646

Input Watts: 22.8W

Efficacy: 116 lm/W

Test Report:

22CZRK-LD4-
24-UNV-L835-CD1-
U.IES

Candlepower

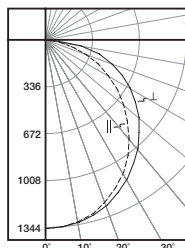
Angle	Along H	Across L
0	923	923
5	919	920
10	904	910
15	878	891
20	844	865
25	802	833
30	751	794
35	693	748
40	631	699
45	567	647
50	497	589
55	429	531
60	357	469
65	288	405
70	219	342
75	150	267
80	88	175
85	33	66
90	3	1

Coefficients of Utilization

	Effective floor cavity reflectance								20%												
rc	80%				70%				50%				30%				10%				0%
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69			
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	69	64	60	57			
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42			
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39	50	44	39	37			
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29			
9	56	42	34	28	55	42	34	28	41	33	28	40	33	28	39	32	28	26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24			

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	710	26.8	26.8
0-40	1156	43.7	43.7
0-60	2037	77.0	77.0
0-90	2646	100.0	100.0
0-180	2646	100.0	100.0

**22CZRK-LD4-34-UNV-L835-CD1-U**

Electronic Driver

Linear LED 3500K

Spacing criterion:
(H) 1.22 x mounting
height, (L) 1.28 x
mounting height

Lumens: 3853

Input Watts: 31.8W

Efficacy: 121 lm/W

Test Report:

22CZRK-LD4-
34-UNV-L835-CD1-
U.IES

Candlepower

Angle	Along H	Across L
0	1344	1342
5	1336	1335
10	1314	1317
15	1277	1288
20	1226	1248
25	1161	1197
30	1086	1139
35	1003	1074
40	913	1005
45	813	930
50	713	854
55	612	768
60	505	679
65	403	588
70	301	490
75	199	382
80	110	244
85	35	84
90	2	2

Coefficients of Utilization

	Effective floor cavity reflectance												20%								
rc	80%				70%				50%				30%				10%				0%
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57			
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42			
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39	50	44	39	37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	33			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29			
9	56	42	34	28	55	42	34	28	41	33	28	40	33	28	38	32	28	26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24			

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	1032	26.8	26.8
0-40	1681	43.6	43.6
0-60	2966	77.0	77.0
0-90	3853	100.0	100.0
0-180	3853	100.0	100.0

ENERGY AND PERFORMANCE DATA BY CATALOG NUMBER

Stock or MTO	Catalog Logic (Ribbed Lens)	Performance Type*	Delivered Lumens	Watts	Efficacy (lm/W)
Stock	22CZRK-LD4-24-UNV-L835-CD1-U	Standard	2631	22.9	115
Stock	22CZRK-LD4-24-UNV-L840-CD1-U	Standard	2639	22.97	115
Stock	22CZRK-LD4-34-UNV-L835-CD1-U	Standard	3845	31.89	121
Stock	22CZRK-LD4-34-UNV-L840-CD1-U	Standard	3768	31.45	120
Stock	22CZRK-LD4-34HP-UNV-L835-CD1-U	High Performance	3662	27.76	132
Stock	22CZRK-LD4-34HP-UNV-L840-CD1-U	High Performance	3533	27.8	127

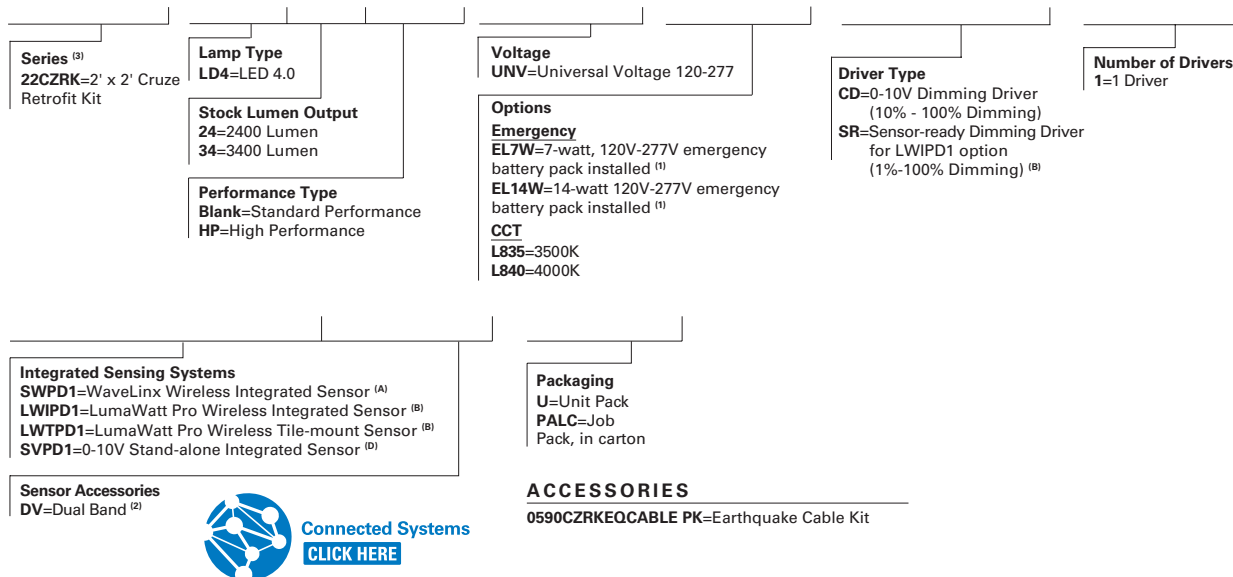
*Standard performance is >110 lm/W. High performance is >125 lm/W.

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (Hours)
25°C	> 75%	> 76,000

ORDERING INFORMATION

SAMPLE NUMBER: 22CZRK-LD4-24HP-UNV-L835-CD1-U



NOTES: ⁽¹⁾With integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. ⁽²⁾Provides blank band on opposite side from sensor band to provide symmetric appearance. ⁽³⁾DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.

Integrated Sensing and Control System Options

NOTES: Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: ^(A)Consult WaveLinX system pages for additional details and compatibility. ^(B)Consult LumaWatt Pro system pages for additional details and compatibility. ^(D)Consult SVPD series system pages for additional details and compatibility.

Specifications & dimensions subject to change without notice. Consult your Eaton Representative for availability and ordering information.

SHIPPING DATA

Catalog No.	Wt.
22CZRK	12.5 lbs.