

CATALOG #	TYPE
JOB NAME	WATTAGE VOLTAGE

12" x 12" 3 Triple 32 WATT MAXIMUM

FRS-12110

3-Lamp High Wattage Lensed Downlight
Two Circuit Wiring Optional

Features

Lamp

- Designed for three 4-pin triple tube amalgam or quad compact fluorescent lamps: 32/26W triple or 26W quad.

Ballast: Multi-Wattage/Voltage

- Installed electronic high power factor, thermally protected. For lower wattages: Option -43.
- 120-277 multi-volt; 50/60 Hz. THD < 10%.
- Single circuit wiring or see Option -84.
- Cold weather -22°F (-30°C).
- End of lamp life protection circuit. For use with internally fused. Also see Options -5, -60.

Reflector

- GlasSurface™ multi-faceted specular aluminum.

Trim Assembly

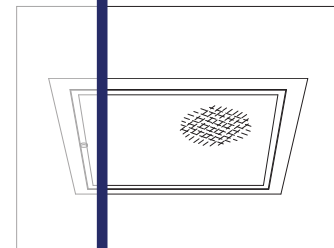
- Shock-resistant, UV absorbing prismatic tempered spread lens. See Options for others.
- Rustfree polished stainless steel (304-L) and captive mounting screws. Concealed wiring for fast relamping.

**THIS PRODUCT
IS NO LONGER
AVAILABLE**

Please consult

QUOTATIONS

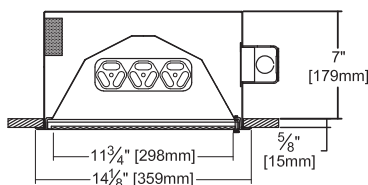
for the best alternative.



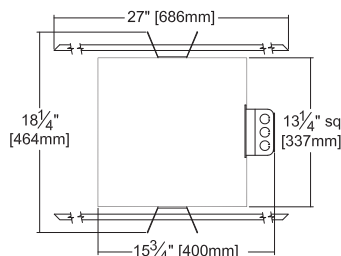
Recessed Square Lens

Performance at a Glance

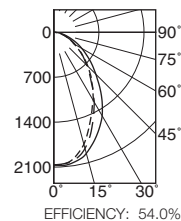
FRS-12110



Ceiling Cut-out
12 1/4" Sq.



FRS-12110 (3 Triple 32W)



Cone of Light*

Dist.	FC	Dia.
6	57.4	6.4
8	32.3	8.5
10	20.6	10.7
12	14.3	12.8
14	10.5	15.0
16	8.1	17.1

--- 0° SC 0.9
--- 90° SC 1.1
--- 180° SC 1.0

Cone of Light Key

- Ft. Distance from fixture
- FC Footcandles (average)
- Dia. Circle of light at 50% of FC
- * Dia. (in ft.) shown is where FC value is half the FC at nadir.

THE KIRLIN COMPANY

3401 EAST JEFFERSON AVENUE • DETROIT, MICHIGAN 48207-4232
(313) 259-6400 • Fax: (313) 259-9409 OR (313) 259-3121 • www.kirlinlighting.com

RENAISSANCE SERIES COMPACT FLUORESCENT LIGHTING

MAXIMUM WATTAGE

3 Triple 32

CATALOG NUMBER

FRS-12110

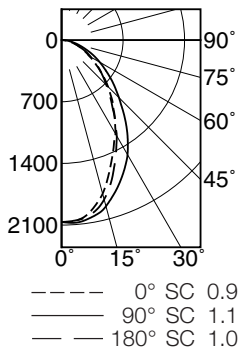
DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Alzak® is a registered trademark of ALCOA.

Detailed Photometry - Installed Fixture

Photometry from I.T.L., Boulder, CO

FRS-12110 (3 Triple 32)



EFFICIENCY : 54.0%

CANDLEPOWER DISTRIBUTION					
	0.0	45.0	90.0	135.0	180.0
0	2065	2065	2065	2065	2065
5	2052	2072	2078	2069	2051
15	1806	1961	1953	1969	1873
25	1390	1679	1663	1665	1459
35	1053	1218	1307	1178	1049
45	748	806	924	783	721
55	473	525	626	512	487
65	284	300	391	291	300
75	142	143	194	136	147
85	37	15	58	36	39
90	13	10	19	9	10

COEFFICIENTS OF UTILIZATION							
RF	20						
RC	80						
RW	70	50	30	10	50	30	10
1	59	57	55	53	54	52	51
2	55	51	48	45	48	46	43
3	51	45	42	38	43	40	37
4	47	41	37	33	39	36	33
5	43	37	33	29	35	32	29
6	40	34	29	26	32	29	26
7	38	31	27	24	30	26	23
8	35	29	24	21	28	24	21
9	33	26	22	20	26	22	19
10	31	25	21	18	24	20	18

ITL TEST #55424 *LER=35.3 •AEC=\$6.80

* LER = Luminaire Efficiency Rating

$$LER = \frac{\text{Luminaire Effic.} \times \text{Total Lamp Lumens} \times \text{Ballast Factor}}{\text{Input Watts}}$$

• AEC = Annual Energy Cost per 1000 lumens (based on 3000 hours use @ \$0.08 KWH).

Options

Ballast, Wattage and Voltage

- 43 Lower wattage: for either 4-pin electronic 3x18W triple/quad or 3x13W quad (only). Specify wattage.
- 84 Wired for two circuits. Also see -FD.
- 97 Specify other voltage. Consult factory.
- 98 347 volt, 50/60 Hz. input. Consult factory.

Emergency Ballast - Specify Voltage¹

- Internal (factory installed) ballast, test switch and indicator light. Suitable for damp locations from 0° to 50°C (32° to 122°F) or with Cold Weather version (see -CE) -20° to 55°C (-4° to 131°F).
- 73 Internal 1-lamp EM ballast. Specify voltage.
- CE Internal cold weather (-20° to 55°C) 1-lamp EM ballast. Specify voltage.
- HE¹ Internal higher lumen (up to 1250) 1-lamp EM ballast. 13-42W only. Specify voltage.

Lenses and Trims

- 13 Vandal resistant tempered prismatic spread lens above 1/8" flat polycarbonate.
- 18 Opal flat glass diffuser.
- 20 White aluminum 1/2" cube egg-crate louver.
- 26 Tamper-resistant button head recessed hex screw with center pin and 1 key / 10 fixtures.
- 32 White oversize trim extender. Specify size.
- 42 Drop bisymmetric prismatic polycarbonate lens.
- 45 Gasket between ceiling and trim flange.
- 46 Gasket between trim and lens.
- 94 Custom color/finish. Specify. Consult factory.
- DG Drop Guard with C#73 tempered lens.

Other

- 99 Special modification. Consult factory.
- FD Two additional in-line fuses. One per ballast. Use with Option -84. Not available with Option -98 (347V).
- FS Additional in-line fuse. Not available with Option -98 (347V).
- LE With 4-pin electronic lamp. 3500°K standard. 82 CRI and 12,000 hour life. Specify wattage, style and color temperature.

¹ Visit www.kirlinlighting.com for most current performance / specifications.

SUBMITTAL DATA

APPROVAL STAMP

JOB NAME

TYPE

WATTAGE

VOLTAGE

CATALOG NUMBER

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLATION TO N.E.C. IN NORMAL USE. Manufacturer at his option will replace or repair fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the office of manufacturer within three years of original shipment. Liability of manufacturer is limited to the foregoing, and manufacturer shall not be liable for any other damages, direct or indirect, sustained or suffered by purchaser or any person. This warranty is supplied to the buyer in place of all other warranties, expressed or implied. Seller does not warrant as to merchantability or fitness for a particular use, nor will any oral statement constitute a warranty or amend this specific warranty. Abuse of the fixture, improper installation, or repair, or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.