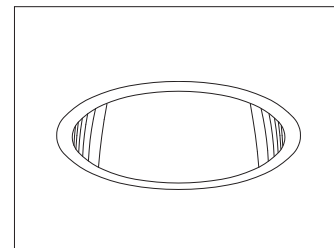


CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

11" 2 Triple 70 WATT MAXIMUM

FRR-11020

2 Lamp High Lumen Package in Dual Reflector Downlight



Features

Lamp

- Designed for two 4-pin triple/four tube amalgam compact fluorescent lamps. 70w triple/four tube.

Ballast: Multi Voltage

- Installed electronic high power factor, thermally protected. For lower wattages: Option -43.
- 120-277 multi-volt; 50/60 Hz, THD < 10%
- ClickQuick connectors for easy install.
- Single circuit wiring or see Option -8.
- Cold weather -22°F (-30°C)
- End of lamp life protection circuit. RFI filter.
- Internally fused. Also see Options -FS, -FD.

Reflector

- Upper: Specular Alzak® aluminum
- Lower: Low-iridescence (L) Alzak® aluminum, one piece, self-flanged.
- See Options for other finishes.

Aluminum Housing

- Acrylic enameled. Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
- Lightweight: Minimizes ceiling load.
- Cool operation: Extends component life.
- Entire luminaire serviced through aperture.
- Built-in plaster frame.

Outlet Box

- Prewired 14 GA (NEC) galvanized steel, UL listed, 1/2" and 3/4" knockout.
- 1/2" galvanized hardware, adjustable mounting tabs (2) supplied.
- Recesses indoor or outdoor in covered locations.

Options

- C-1 (Canada) listings
- Wet lamp for damp locations (see spec sheet)
- Through hole conductors (3/4")

Three Year Limited Warranty

- Complete standard fixture and ballast.

Recessed Round
Open
Dual Reflector

Selected Optional Trims:

- All White Option -30
- Softex Titanium Option -57
- Softex Dune Option -71
- Softex Pewter Option -77
- Softex Wheat Option -91

THIS PRODUCT IS NO LONGER AVAILABLE

Please consult

QUOTATIONS

for the best alternative.

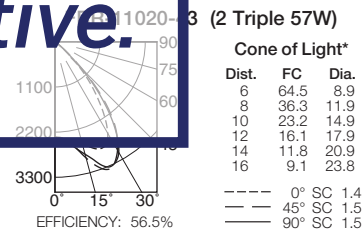
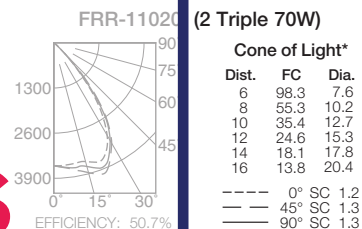
Performance at a Glance

FRR-11020



Cone of Light Key

- Ft. Distance from fixture
- FC Footcandles at nadir (0°)
- 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

2 Triple 70

CATALOG NUMBER

FRR-11020

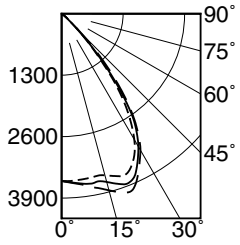
DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Alzak® is a registered trademark of ALCOA.

Detailed Photometry - Installed Fixture

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

FRR-11020 (2 Triple 70)



--- 0° SC 1.2
- - - 45° SC 1.3
— — — 90° SC 1.3

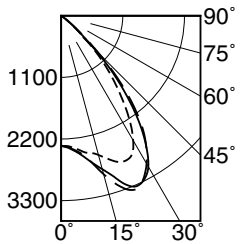
EFFICIENCY : 50.7%

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	3538	3538	3538	3538	3538
5	3536	3578	3608	3602	3595
15	3539	3816	3868	3741	3674
25	3519	3807	3801	3757	3709
35	2332	2530	2631	2643	2564
45	525	635	617	541	494
55	48	53	53	53	51
65	21	23	24	23	23
75	9	10	10	9	9
85	0	0	0	0	0
90	0	0	0	0	0

COEFFICIENTS OF UTILIZATION							
RF	20						
	80				50		
	RW	70	50	30	10	50	30
1	57	56	55	53	53	52	51
2	54	52	49	47	49	47	46
3	51	48	45	43	46	43	42
4	48	44	41	39	42	40	38
5	45	41	38	35	39	37	35
6	43	38	35	32	37	34	32
7	40	35	32	30	34	31	29
8	38	33	30	27	32	29	27
9	36	31	27	25	30	27	25
10	34	29	26	23	28	25	23

ITL TEST #54872 *LER=31.9 •AEC=\$7.53

FRR-11020-43 (2 Triple 57)



--- 0° SC 1.4
- - - 45° SC 1.5
— — — 90° SC 1.5

EFFICIENCY : 56.5%

CANDLEPOWER DISTRIBUTION					
	0.0	45.0	90.0	135.0	180.0
0	2321	2321	2321	2321	2321
5	2361	2369	2391	2404	2407
15	2572	2751	2928	2874	2835
25	2825	3172	3340	3327	3322
35	2009	2429	2583	2613	2532
45	741	893	960	940	864
55	62	65	64	72	67
65	21	21	22	25	24
75	8	8	9	10	8
85	3	3	2	3	3
90	0	0	0	0	0

COEFFICIENTS OF UTILIZATION							
RF	20						
	80				50		
	RW	70	50	30	10	50	30
1	64	62	60	59	58	57	56
2	60	57	54	52	54	52	50
3	56	51	49	46	50	47	45
4	51	48	44	42	46	43	41
5	50	44	40	38	43	39	37
6	47	41	37	34	39	36	34
7	44	38	34	31	36	33	31
8	41	35	31	28	34	30	28
9	39	32	29	26	31	28	26
10	36	30	26	24	29	26	24

ITL TEST #55300 *LER=34.4 •AEC=\$6.98

* LER = Luminaire Efficiency Rating
LER = Luminaire Effic. x Total Lamp Lumens x Ballast Factor
Input Watts

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

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLLED TO N.E.C. IN NORMAL USE. Manufacturer at his option will inspect or repair such fixture or refund the purchase price on presentation of proof of purchase and defective fixture at the offices 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. Abnormal use, 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.

Options

Ballast, Wattage and Voltage

- 39 Installed electronic dimming ballast. Indoor use. 10°C (50°F) minimum start. Specify wattage, voltage and brand.
- 43 Lower wattage: for 4-pin 2x57 triple/four tube or 2x42/32/26W triple or 2x26W quad (multi-wattage/voltage). 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.

Trims

- 30 All white lower cone. (CP x .95)
- 31 White acrylic enameled lower cone flange.
- 32 White oversize trim ring. Specify O.D.
- 45 Gasket between ceiling and reflector flange.
- 57 SofTex Titanium lower cone. (CP x .80)
- 70 SofTex Clear lower cone. (CP x .92)
- 71 SofTex Dune lower cone. (CP x .88)
- 77 SofTex Pewter lower cone. (CP x .85)
- 79 Extension collar for ceilings up to 2" thick.
- 90 SofTex Champagne Gold lower cone. (CP x .91)

- 91 SofTex Wheat lower cone. (CP x .87)
- 94 Custom color/finish. Specify. Consult factory.

Top Access

- TA Top access for servicing from above.

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

JOB NAME
TYPE
WATTAGE
CATALOG NUMBER

VOLTAGE

APPROVAL STAMP