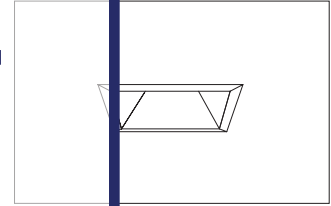


CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

4" T4.5 CERAMIC METAL HALIDE 70 WATT MAXIMUM HRS-04310

Ellipsoidal T4.5 Square Downlight: 3 Spacings
70, 39 or 20 Watt

THIS PRODUCT IS NO LONGER AVAILABLE



4" Dual Reflector Design (Optional T4)

Specifications

Lamp

- Designed for vertical T4.5 bi-pin or T4 twist-and-lock (see Option -T4) ceramic metal halide lamp.
- Up to 95 CRI, 12,000-15,000 hour life.
- For lower wattages, see Option -43.

Socket (5kV rated)

- G8.5 base. GU24.5 base for T4 (Option -T4).
- Porcelain body. Silicone leads.

Reflectors

- Upper: Ellipsoidal specular Alzak® aluminum. With Option -NFL or -MFL: Parabolic instead.
- Lower: Low brightness square specular Alzak® aluminum, self-flanged.
- Optional reflector finishes / colors available.

Lens: UV Absorbing

- Tempered prismatic glass mounted to reflector. Standard WFL distribution (1.1 SC).
- See Options for -NFL (0.4 SC) and -MFL (0.7 SC) distributions.

Electronic Ballast

- Full electronic circuitry provides constant

power and constant wattage, ensuring consistent performance and long life. Output voltage: 20V, 77V, 50, 60, 120, or other voltages, see Options.

- 70 watt standard. Add Option -43 and specify for 35, 15, 10, 5, or 20 watt.
- Option -T4: 30 watt T4.5 ceramic metal halide lamp for T4.5 (2 watt minimum wattage per lamp).
- Lamp Current Crest Factor less than 1.5.
- Thermally protected. Provides automatic shut-off if rated temperature is exceeded.
- Internally fused.
- Power factor greater than 90%.
- Maximum 50°C operation, Sound Rated A.
- Includes lamp end-of-life detection and alarm.
- Aluminum housing.
- Corrosion resistant. Exceeds 1000 hour ASTM 5% salt spray test.
- Lighting. Minimizes glare.
- Cool operation. Extends component life. Minimizes HVAC load.

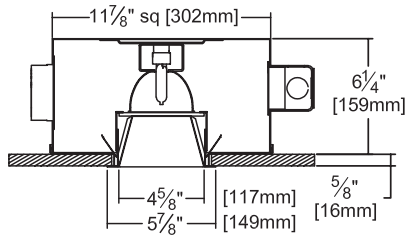
Please consult

QUOTATIONS

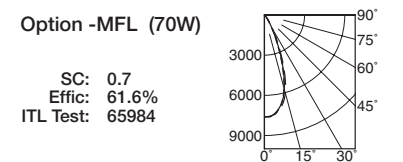
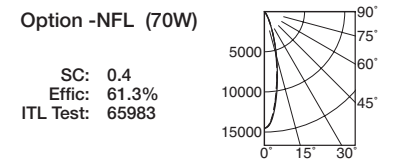
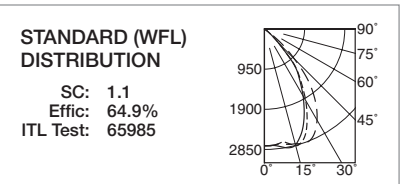
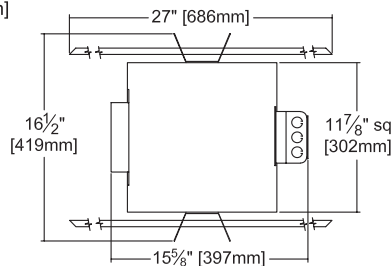
for the best alternative.

- Entire luminaire serviced from below through removable trim.
- Built-in plaster frame.
- Outlet Box**
- Prewired 14 GA (NEC) galvanized steel, UL listed; with removable insulated cover.
- 1/2" and 3/4" knockouts.
- Installation**
- 27" galvanized hanger bars with adjustable mounting brackets (2) supplied.
- Recesses indoor or outdoor in covered locations.
- UL, C-UL (Canada) Listings**
- Wet, damp or dry locations, covered ceilings.
- Through-branch circuit conductors (6 #12).
- *Typical for 70 watt and 20 watt only.
- Three Year Limited Warranty**
- Complete standard fixture, including ballast.

Performance at a Glance



Ceiling Cut-out
5 1/4" Sq.



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

COMPACT PULSE START
METAL HALIDE LIGHTING

MAXIMUM WATTAGE

70

CATALOG NUMBER

HRS-04310

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

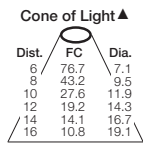
Alzak® is a registered trademark of ALCOA.

Detailed Photometry - Installed Fixture

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

STANDARD WATTAGE 70 WATT

STANDARD (WFL) (70W)

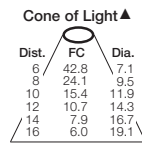


SC: 1.1
Effic: 64.9%
ITL Test: 65985

	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	2762	2762	2762	2762	2762
5	2766	2751	2750	2759	2767
15	2856	2878	2810	2911	2838
25	2387	2665	2763	2545	2225
35	1500	1870	2108	1846	1443
45	496	633	1001	676	474
55	52	75	82	80	57
65	3	3	2	3	3
75	1	1	0	1	1
85	0	0	0	0	0
90	0	0	0	0	0

OPTION -43: LOWER WATTAGE 39 WATT

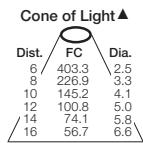
Option -43(39W) (WFL)



SC: 1.1
Effic: 65.8%
ITL Test: 65988

	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	1541	1541	1541	1541	1541
5	1539	1535	1528	1530	1533
15	1611	1602	1552	1623	1573
25	1337	1488	1530	1416	1238
35	843	1051	1169	1029	799
45	259	347	562	364	247
55	29	41	41	44	31
65	2	2	1	2	2
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

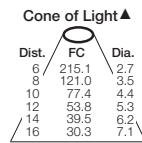
Option -NFL (70W)



SC: 0.4
Effic: 61.3%
ITL Test: 65983

	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	14519	14519	14519	14519	14519
5	12567	12591	12668	12787	12852
15	5651	5597	5554	5689	5804
25	1691	1724	1850	1699	1671
35	326	355	520	339	306
45	67	77	84	71	63
55	12	14	10	12	12
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

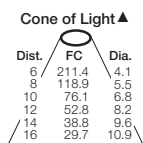
Options -43(39W)-NFL



SC: 0.4
Effic: 61.8%
ITL Test: 65986

	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	7745	7745	7745	7745	7745
5	7034	7081	7153	7168	7168
15	3127	3121	3164	3242	3308
25	846	868	964	921	927
35	138	158	267	180	174
45	32	36	43	43	41
55	5	5	7	8	10
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

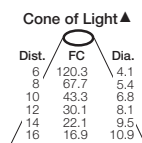
Option -MFL (70W)



SC: 0.7
Effic: 61.6%
ITL Test: 65984

	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	7610	7610	7610	7610	7610
5	7540	7530	7507	7488	7480
15	5830	5778	6004	5880	5719
25	2075	2250	2471	2360	2193
35	436	515	674	563	480
45	65	77	101	83	66
55	8	9	8	11	12
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Options -43(39W)-MFL



SC: 0.7
Effic: 62.4%
ITL Test: 65987

	CANDLEPOWER DISTRIBUTION				
	0.0	22.5	45.0	67.5	90.0
0	4330	4330	4330	4330	4330
5	4297	4298	4286	4277	4287
15	3219	3255	3285	3295	3234
25	1164	1280	1412	1364	1256
35	193	238	329	255	209
45	36	41	40	43	36
55	5	5	4	5	7
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Photometry based on: 6200 lumens - 70W
3400 lumens - 39W

--- 0°
- - - 45°
_ _ _ 90°
▲ Cone of Light Key
(Dia. (in ft.) shown is where FC value is half the FC at nadir.)
Ft. Distance from fixture
FC Footcandles at nadir (0°)
Dia. Circle of light at 50% of FC

Options

Distributions

- NFL Narrow flood distribution. (0.4 SC)
- MFL Medium flood distribution. (0.7 SC)

Lower Reflector (Self-Flanged)

- 30 All White. (CP x 1.1)
- 31 White flange (only).
- 32 White trim extender to cover larger ceiling opening. Specify outer square dimension.
- 45 Gasket above flange. Stops dust streaks on ceiling.
- 70 Clear SoffTex. (CP x .92)
- 94 Custom color. Consult factory.

Relays, Standbys, Lamps

- 49 Extra circuit DCB socket (up to 75W). Do not energize simultaneously with main source. Also see Option -LS.
- 65 Electronic standby system and DCB socket (up to 75W). Provides immediate light until CMH restrikes. Also see Options -66 and -LS.
- 66 Electronic time delay standby system and DCB socket (up to 75W). Provides light until CMH reaches 70% output. Also see Option -LS.
- LP With lamp. Specify source, wattage, color temperature / brand. 3000°K standard; consult factory for others.
- LS With T4 DCB tungsten halogen standby lamp (75W). Use only with Options -49, -65 or -66.

Wattage and Voltage

- 43 Lower wattage Type IC:
T4.5: specify 39W or 20W
With Option -T4: 20W only
- 347 347 volt.
- 97 Other input voltage instead. Consult factory.
- T4 Converted to GU6.5 base for twist-and-lock T4 lamp. 39W Type IC standard. Add Option -43 for 20 watt Type IC.

Other

- 79 Extension collar for up to 2" thick ceilings.
- 99 Special modification. Consult factory.

SUBMITTAL DATA

JOB NAME

TYPE

WATTAGE

VOLTAGE

CATALOG NUMBER

APPROVAL STAMP

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. (NORMAN USE). Manufacturer of the fixture will neither repair nor replace the fixture or guarantee the performance of the fixture. This warranty is void if the fixture is not installed in accordance with the instructions provided. The manufacturer will not be responsible for any damage, direct or indirect, sustained or suffered by the purchaser or any person. This warranty is subject to the fixture 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. Abandon of the fixture, improper installation, or repair or modification of the fixture without prior written authorization from the manufacturer will render the warranty void.