

CATALOG #	TYPE	
JOB NAME	WATTAGE	VOLTAGE

4" T4.5 METAL HALIDE 70 WATT MAXIMUM HRR-04224

Ellipsoidal Open Appearance
Downlight

Features

Lamp

- Designed for vertical T4.5 metal halide lamps. See Option -43 for lower wattage.

Socket

- Vertical. G8.5 bi-pin. Pulse rated.
- Porcelain body. Silicone leads.

Reflectors

- Upper: Ellipsoidal specular Alzak® aluminum.
- Lower: Low brightness parabolic specular Alzak aluminum, self-flanged.
- Fourteen optional reflector finishes available.

Lens

- UV absorbing tempered MicroLux glass mounted to upper reflector. Also see Option -44.

Ballast Assembly: Specify Voltage

- WhisperPad™ fully encapsulated 180°C rated HPF pulse start ballast.
- Class H, high reactance for 120 volt; self-reactor for 277 volt.
- Capacitor and ignitor supplied.
- Electronic ballast available. See options. (Standard for 2013 and later)
- Cool, quiet, long life. Silicone leads.
- Visible and easily serviced in all ceilings including drop wall.

THIS PRODUCT IS NO LONGER AVAILABLE

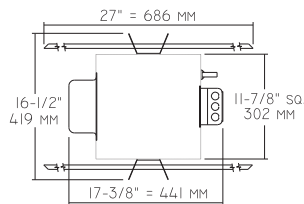
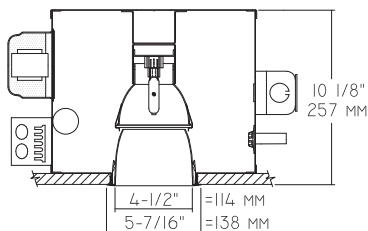
Please consult QUOTATIONS for the best alternative.



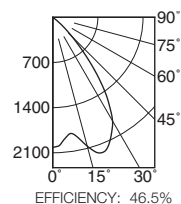
Recessed Round
Open
Appearance
Dual Reflector

Performance at a Glance

HRR-04224



Ceiling Cut-out
5"



Cone of Light*		
Dist.	FC	Dia.
6	56.0	7.6
8	31.5	10.1
10	20.2	12.6
12	14.0	15.2
14	10.3	17.7
16	7.9	20.2

SC 1.1

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

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**PULSE START
METAL HALIDE LIGHTING**

MAXIMUM WATTAGE

70

CATALOG NUMBER

HRR-04224

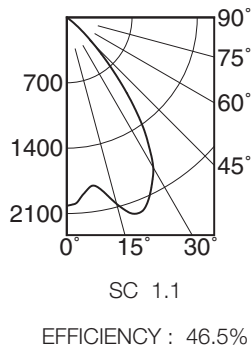
DUE TO OUR CONTINUING EFFORT TO IMPROVE PRODUCTS, TECHNICAL INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

Alzak® is a registered trademark of ALCOA.

Detailed Photometry - Installed Fixture

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

HRR-04224 (T4.5 70 Watt)



CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	2017	2017	2017	2017	2017
5	1913	1913	1913	1913	1913
15	2067	2067	2067	2067	2067
25	2105	2105	2105	2105	2105
35	1419	1419	1419	1419	1419
45	423	423	423	423	423
55	18	18	18	18	18
65	2	2	2	2	2
75	1	1	1	1	1
85	0	0	0	0	0
90	0	0	0	0	0

COEFFICIENTS OF UTILIZATION							
RF	20						
RC	80			50			
RW	70	50	30	10	50	30	10
1	53	51	50	49	48	47	47
2	50	47	45	44	45	43	42
3	47	44	41	39	42	40	38
4	44	40	38	35	39	37	35
5	42	37	34	32	36	34	32
6	39	35	32	29	34	31	29
7	37	32	29	27	31	29	27
8	35	30	27	25	29	27	25
9	33	28	25	23	27	25	23
10	31	26	23	21	26	23	21

PRORATED FROM I.T.L. TEST #52127
 HRR-04224: *LER=30.1 •AEC=\$7.98
 HRR-04224-96: *LER=36.3 •AEC=\$6.61

* LER = Luminaire Efficiency Rating

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

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

Options

Ballasts

-96 Regulating electronic MH ballast instead.

Wattage and Voltage

- 43 Lower wattage. For 39 watt standard bi-pin. Specify voltage. For 20 watt (electronic only) system, consult factory.
- 120 120 volt, 60 Hz. ballast.
- 277 277 volt, 60 Hz. ballast.
- 347 347 volt, 60 Hz. ballast. Consult factory for electronic.
- 97 Other voltage ballast instead. Consult factory.

Relays, Standbys, Lamps

-LP With lamp. Specify wattage and color temperature. (3000°K standard for MH)

Reflectors and Trims (Self-Flanged)

- 16 Champagne Gold specular Alzak lower cone. (CP x .95)
- 30 All White lower cone or cross baffle.
- 31 White flange (only) on lower cone or cross baffle. (CP x .95)
- 32 White oversize trim ring. Specify O.D.
- 45 Gasket above reflector flange. Stops dust streaks on ceiling.
- 63 Dune specular Alzak lower cone. (CP x .93)
- 69 Wheat specular Alzak lower cone. (CP x .92)
- 70 SofTex Clear etched lower cone. (CP x .92)
- 71 SofTex Dune etched lower cone. (CP x .89)
- 72 Black specular Alzak lower cone. (CP x .77)
- 77 SofTex Pewter etched lower cone. (CP x .85)
- 90 SofTex Champagne Gold etched lower cone. (CP x .90)
- 91 SofTex Wheat etched lower cone. (CP x .88)

- 92 Umber specular Alzak lower cone. (CP x .83)
- 93 Pewter specular Alzak lower cone. (CP x .88)
- 94 Custom color reflector. Consult factory.
- OG OptiGroove black tapered aluminum lower cone. White trim. (CP x .75)

Lenses

- 15 Prismatic C#73 flat glass lens instead.
- 28 UV absorbing clear tempered glass instead.

Mounting Options

- 79 Extension collar for up to 2" thick ceilings.
- 85 Ceiling Panel; with recessed fixture hole. Lays-in 2' x 2' grid. White.

Other Options

- 99 Special modification. Consult factory.
- TA Top access; for servicing from above ceiling.

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.