

Recessed Open End Lamp
 "Pulse Start" Metal Halide
 50 to 150 Watt

Conventional Probe Start Option
 * 175 watt with Option -PR (Probe Start)

THIS PRODUCT IS NO LONGER AVAILABLE

PLEASE CONSULT QUOTATIONS FOR THE BEST ALTERNATIVE.

Features

Lamp

- Designed for medium base open rated metal halide lamps. See chart below for standard and optional wattages.
- See Option -43 and chart below for lower wattage, probe start or HPS availability.

Socket

- Vertical, medium base. Glazed porcelain.
- Pulse and open rated.
- Nickel-plated brass screw shell. Silicone leads.

Reflectors

- Inner: Self-flanged clear specular Alzak aluminum. Adjusts 360° for precise position.
- Eleven optional reflector finishes available.
- Optional double wall wash - see chart below for availability.
- Outer: etched and anodized 100% aluminum for uniform wall washing.

- Whisper-quiet, fully encapsulated 100°C rated HPF pulse start ballast.
- 50-150 watt: Class H, high reactance for 120 volt, linear reactor for 277 volt.
- See Option -PR for conventional probe start CWA metal halide.
- Dimming (-35) and electronic (-36) ballasts available. See Options.
- UL, C-UL (Canada) Listings
- Wet, damp or dry locations, covered ceilings.
- Through-branch circuit conductors (6 #12).
- Standard fixture, including ballast.
- Per current NEC

4" 100W
 6" 150W
 7" 150W

HRR-04019
HRR-06020
HRR-07021

- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.
 - Entire luminaire serviced from below through removable reflector.
 - 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 supplied (2).
 - Fully adjustable universal mounting brackets supplied (2).
 - 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).
- #### Limited Warranty
- Standard fixture, including ballast.
- #### Thermal Protection
- Per current NEC

Wattage Availability and Cut-Out Dimensions

Catalog No.	Lamp/Base	Standard Wattage		Option -43: Lower Wattage		Ceiling Cut-Out Diameter
		Pulse MH-PR (Probe)-24 (HPS)	24 (HPS)	Pulse MH -PR (Probe) -24 (HPS)	24 (HPS)	
HRR-04019	ED-17/Med	100	—	50-70	—	5.0"
HRR-06020	ED-17/Med	150	—	50-125	—	6.5"
HRR-07021	ED-17/Med	150	175*	50-125	—	8.0"

Options

Sources and Ballasts

- 24 HPS ballast instead. See wattage chart above for available wattages. Specify voltage.
- 39 Electronic dimming ballast instead, for pulse start metal halide. Consult factory for wattage and voltage availability.
- 96 Regulating electronic MH ballast instead.
- PR Conventional probe start CWA metal halide ballast instead. Specify wattage and voltage. See chart above for wattage availability.

Wattage and Voltage

- 43 Lower wattage: See Option -43 chart above for available lower wattages. Specify voltage.
- 120 120 volt, 60 Hz. ballast.
- 277 277 volt, 60 Hz. ballast.
- 347 347 volt, 60 Hz. ballast. Consult factory for dimming or electronic.
- 97 Other voltage ballast instead. Consult factory.

Lamps (See Chart)

- LP With lamp. Specify source, wattage, color temperature, and clear or coated. (3700°K standard for metal halide) Consult factory for other color temperatures.

Reflectors and Trims (Self-Flanged)

- 16 Champagne Gold specular Alzak inner reflector. (CP x .93)
- 31 White flange (only) on self-flanged inner reflector.
- 32 Trim extender. Broadens trim flange O.D. by 1" to cover larger ceiling opening.
- 45 Gasket above inner reflector flange. Stops dust streaks on ceiling.
- 63 Dune specular Alzak inner reflector. (CP x .90)
- 69 Wheat specular Alzak inner reflector. (CP x .88)
- 70 SofTex Clear softly etched inner reflector. Resists smudges. (CP x .90)
- 71 SofTex Dune softly etched inner reflector. Resists smudges. (CP x .81)
- 77 SofTex Pewter softly etched inner reflector. Resists smudges. (CP x .78)

- 90 SofTex Champagne Gold softly etched inner reflector. Resists smudges. (CP x .84)
- 91 SofTex Wheat softly etched inner reflector. Resists smudges. (CP x .80)
- 93 Pewter specular Alzak inner reflector. (CP x .85)
- 94 Custom color inner reflector. Consult factory
- DW Double wall wash. 180° opposite. Not available for HRR-04019.
- OG OptiGroove; black seamless tapered aluminum. White trim. Not available for HRR-04019. (CP x .80)

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.

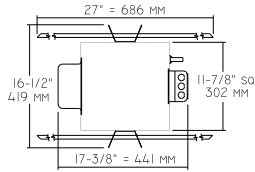
KIRLIN

THE KIRLIN COMPANY

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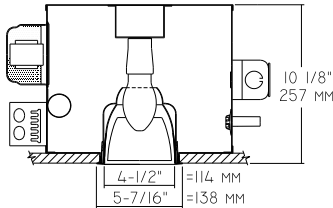
HRR-04019
HRR-06020
HRR-07021

Plan View

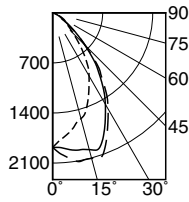


C.U. (Coefficients of Utilization) Tables are available on request. Please contact your Kirlin representative.

HRR-04019 100W



(Coated Lamp)

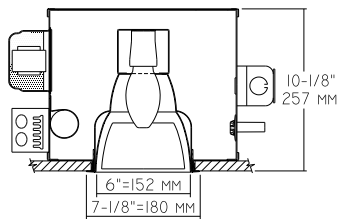


WALL > --- 0°
 ——— 90°
 - - - 180°

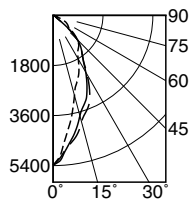
DISTANCE FROM CEILING IN FEET	SINGLE FIXTURE				MULTIPLE FIXTURES						
	1'	2'	3'	4'	3' CENTERS	4' CENTERS					
	FIXTURE INSTALLED 3' FROM WALL Footcandle Distribution on Wall Surface										
1	5.5	4.3	3.0	1.8	1.2	10.7	10.6	10.7	9.6	9.3	9.6
2	10.3	8.3	5.2	3.1	2.0	19.9	19.8	19.9	16.0	15.7	16.0
3	14.5	12.4	8.7	5.0	3.0	28.6	28.8	28.6	22.6	22.5	22.6
4	16.7	14.9	11.3	7.1	4.2	35.0	35.4	35.0	26.3	26.4	26.3
5	16.4	15.4	12.6	8.8	5.5	38.2	38.6	38.2	28.8	29.1	28.8
6	13.3	12.8	11.4	8.8	6.1	36.6	37.1	36.6	27.9	28.3	27.9
7	10.8	10.4	9.5	8.1	6.1	33.3	33.8	33.3	26.2	26.6	26.2
8	8.8	8.6	7.8	7.0	5.8	30.1	30.4	30.1	23.8	24.0	23.8
9	7.3	7.4	6.8	6.0	5.1	27.4	27.3	27.4	21.8	21.8	21.8

EFFIC: 36.6%
ITL TEST #51197
***LER = 21.8 •AEC = \$10.99**

HRR-06020 150W



(Coated Lamp)

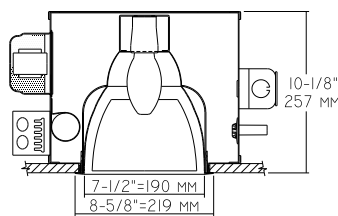


WALL > --- 0°
 ——— 90°
 - - - 180°

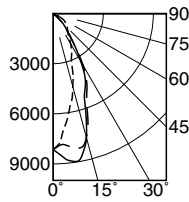
DISTANCE FROM CEILING IN FEET	SINGLE FIXTURE				MULTIPLE FIXTURES						
	1'	2'	3'	4'	3' CENTERS	4' CENTERS					
	FIXTURE INSTALLED 3' FROM WALL Footcandle Distribution on Wall Surface										
1	13.6	10.1	6.4	3.5	2.0	23.3	22.8	23.3	21.4	20.4	21.4
2	29.1	22.5	12.3	6.7	4.0	49.8	49.0	49.8	37.7	36.5	37.7
3	38.9	33.0	22.4	11.7	6.4	69.3	69.1	69.3	54.1	53.5	54.1
4	38.8	34.9	26.6	16.5	8.9	77.0	77.2	77.0	56.6	56.4	56.6
5	30.9	29.1	24.3	17.7	11.4	74.3	74.9	74.0	57.1	57.3	57.1
6	24.3	23.1	20.2	16.0	11.6	66.3	67.4	66.3	52.1	52.5	52.1
7	19.8	18.8	16.8	14.0	10.8	59.9	61.0	59.9	47.2	47.8	47.2
8	16.4	15.9	14.2	12.2	9.9	54.2	54.8	54.2	42.6	43.1	42.8
9	13.7	13.7	12.6	10.7	8.9	49.4	49.1	49.4	39.3	39.3	39.3

EFFIC: 44.3%
ITL TEST #51198
***LER = 27.3 •AEC = \$8.79**

HRR-07021 150W



(Coated Lamp)



WALL > --- 0°
 ——— 90°
 - - - 180°

DISTANCE FROM CEILING IN FEET	SINGLE FIXTURE				MULTIPLE FIXTURES						
	1'	2'	3'	4'	3' CENTERS	4' CENTERS					
	FIXTURE INSTALLED 3' FROM WALL Footcandle Distribution on Wall Surface										
1	13.6	9.8	6.0	3.1	2.0	23.2	22.7	23.2	23.1	22.1	23.1
2	31.9	25.0	13.6	6.9	4.0	54.5	54.3	54.5	40.3	39.2	40.3
3	42.1	36.0	25.1	13.4	6.8	74.3	74.8	74.3	57.8	57.0	57.8
4	40.2	36.0	27.3	17.3	9.3	79.8	80.5	79.8	58.7	58.4	58.7
5	33.4	30.8	24.6	16.9	10.4	75.5	76.2	75.5	58.8	59.0	58.8
6	28.7	27.3	23.1	17.0	11.3	72.2	73.3	72.2	56.5	57.1	56.5
7	24.8	23.7	21.3	16.8	12.0	69.8	70.5	69.8	54.0	54.8	54.0
8	21.8	21.1	18.9	16.1	12.3	66.9	67.1	66.9	51.9	52.1	51.9
9	19.3	19.2	17.4	14.7	11.9	63.7	63.1	63.7	49.3	48.9	49.3

EFFIC: 56.8%
ITL TEST #51199
***LER = 35.0 •AEC = \$6.86**

* LER (Luminaire Efficacy Rating) = 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).

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. INSTALLLED TO N.E.C. (NORMAL USE). Manufacturer at his option will replace or repair, at no charge, any fixture found to be defective in workmanship or material. This warranty is void if the fixture is not purchased and installed in accordance with the instructions provided by Kirlin. 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.