

Recessed Open End Lamp
"Pulse Start" Downlights
50 to 150 Watt

**THIS PRODUCT
IS NO LONGER
AVAILABLE**

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

**HRR-04013
HRR-06014
HRR-07015**

Features

Lamp

- Designed for open rated metal halide E-lamps. See chart below for standard and optional wattages.
- See Option -43 and chart below for lower wattage for HPS availability.

Socket

- Vertical. Pulse and open rated.
- Glazed porcelain.
- Nickel-plated brass screw shell with leads.

Reflector

- Self-flanged clear specular Alzak aluminum. Optional reflector finishes available.
- Eleven optional finishes available.

Ballast Assembly

- Whisper quiet full power capsule or 100-watt pulse start ballast.

Please consult

QUOTATIONS

for the best alternative.

- High voltage for 277 volt. reactor for 277 volt.
- Capacitor and ignitor supplied.
- Dimming (-39) and electronic (-96) ballasts available. See Options.
- Cool, quiet, long-life. Silicone leads.
- Visible and easily serviced in all ceilings.
- Includes driver.
- Fused primary. Renewable. Not for 480 volt.
- Rustproof. Exceeds 1000-hour ASTM 5% salt test.
- Includes main air can be removed 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).
- **Three Year Limited Warranty**
- Includes standard fixture, including ballast.
- 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	-24 (HPS)	Pulse MH	-24 (HPS)	
HRR-04013	ED-17/Med	100	100	50-70	35-70	5.0"
HRR-06014	ED-17/Med	150	150	50-125	35-100	6.5"
HRR-07015	ED-17/Med	150	150	50-125	35-100	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.

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.

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

- 90 SoFTex Champagne Gold softly etched reflector. Resists smudges. (CP x .84)
- 91 SoFTex Wheat softly etched reflector. Resists smudges. (CP x .80)
- 93 Pewter specular Alzak reflector. (CP x .85)
- 94 Custom color reflector. Consult factory.
- OG OptiGroove; black seamless tapered aluminum reflector. White trim. (CP x .80) Not available for HRR-04013.

Mounting Options

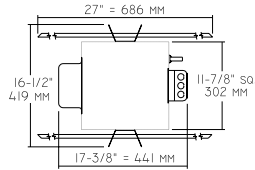
- 79 Extension collar for up to 2" thick ceilings.
- 82 Sloped ceiling adapter, with mounting hardware. Specify 5° increments up to 30°. Not available for HRR-04013.
- 85 Ceiling Panel; with recessed fixture hole. Lays-in 2' x 2' grid. White

Other Options

- 99 Special modification. Consult factory.

HRR-04013
HRR-06014
HRR-07015

Plan View



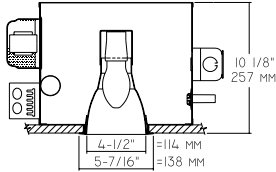
Cone of Light Key

- 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.

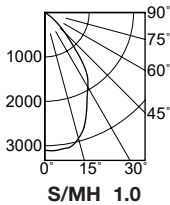
C.U. (Coefficients of Utilization) Tables are available on request. Please contact your Kirlin representative.

LIMITED WARRANTY: CATALOGED KIRLIN FIXTURES ARE WARRANTED FREE OF DEFECTS IN WORKMANSHIP OR MATERIAL FOR THREE YEARS FROM DATE OF PURCHASE. INSTALLED TO N.E.C. IN NORMAL USE. Manufacturer at its 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 used for any purpose other than that intended, or if it is altered, modified, or repaired, or if it is used in an environment where it is not designed to operate. This warranty is void if the fixture is used in an environment where it is not designed to operate. This warranty is void if the fixture is used in an environment where it is not designed to operate. This warranty is void if the fixture is used in an environment where it is not designed to operate.

HRR-04013 100W



(Coated Lamp)



Cone of Light*

Ft.	FC	Dia.
6	86.1	6.0
8	48.5	7.9
10	31.0	9.9
12	21.5	11.9
14	15.8	13.9
16	12.1	15.9

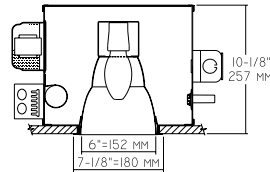
EFFIC: 44.9%

ITL TEST #52132

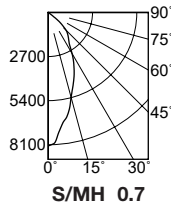
*LER = 28.1 •AEC = \$8.54

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	3101	3101	3101	3101	3101
5	3114	3114	3114	3114	3114
15	2935	2935	2935	2935	2935
25	2250	2250	2250	2250	2250
35	1629	1629	1629	1629	1629
45	636	636	636	636	636
55	175	175	175	175	175
65	4	4	4	4	4
75	1	1	1	1	1
85	0	0	0	0	0
90	0	0	0	0	0

HRR-06014 150W



(Coated Lamp)



Cone of Light*

Ft.	FC	Dia.
6	227.1	4.0
8	127.7	5.3
10	81.7	6.6
12	56.8	7.9
14	41.7	9.3
16	31.9	10.6

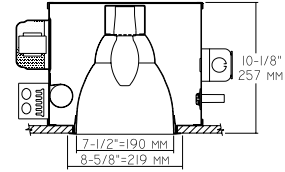
EFFIC: 52.2%

ITL TEST #51680

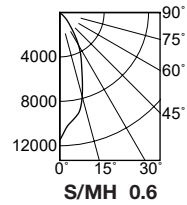
*LER = 33.8 •AEC = \$7.11

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	8174	8174	8174	8174	8174
5	7364	7364	7364	7364	7364
15	5378	5378	5378	5378	5378
25	3713	3713	3713	3713	3713
35	2203	2203	2203	2203	2203
45	1523	1523	1523	1523	1523
55	19	19	19	19	19
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

HRR-07015 150W



(Coated Lamp)



Cone of Light*

Ft.	FC	Dia.
6	319.5	3.7
8	179.7	5.0
10	115.0	6.2
12	79.9	7.5
14	58.7	8.7
16	44.9	10.0

EFFIC: 60.1%

ITL TEST #46069

*LER = 37.0 •AEC = \$6.48

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	11503	11503	11503	11503	11503
5	10052	10052	10052	10052	10052
15	7827	7827	7827	7827	7827
25	4568	4568	4568	4568	4568
35	2168	2168	2168	2168	2168
45	797	797	797	797	797
55	30	30	30	30	30
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

* 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