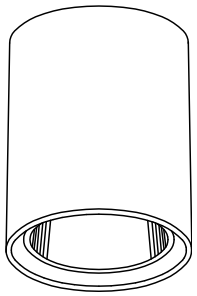
Surface Lensed E-Lamp Ellipsoidal and Parabolic "Pulse Start" Flare Downlights: 150 to 400 Watt



14" 400W HSR-14116
14" 400W HSR-14117

Features

Lamp
- Designed for mogul base metal halide E-lamps. See chart below for standard and optional wattages.
- See Option -43 and chart below for lower wattage or HPS availability.

Socket
- Vertical. Pulse rated.
- Glazed porcelain. Silicone leads.
- Nickel-plated brass screw shell.

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

Lens
- UV absorbing clear tempered glass for HSR-14116; tempered Microlux glass for HSR-14117. Mounted to upper reflector. Also see Options.

Ballast Assembly
- WhisperPack™ fully encapsulated 180ºC rated HPF pulse start ballast.
- 150 watt: Class H, high reactance for 120V and Options -65, -66; linear reactor for 277V.
- 175-400 watt: Super CWA for 120V and Options -65, -66, -HL; Class H, linear reactor for 277V.
- Capacitor and ignitor supplied.
- Dimming (-39) and electronic (-96) ballasts available. See Options.
- Cool, quiet, long-life. Silicone leads.

Fuse
- Fused primary. Renewable. Aids servicing.

Housing
- Seamless white acrylic enameled aluminum with interlocking flare trim ring. Deep drawn.
- No visible cylinder hardware.
- Cool: Dissipates heat across entire surface.
- Rustproof: Exceeds 1000 hour ASTM 5% salt spray test.

Installation
- Center point mounting for snug fit to ceiling. Mounting hardware furnished.
- QuickConnect mounting system available (Option -QM).
- Surface J-box mount available. (Option -80)
- Pendant or wall bracket mount available. (See Options -PM, -WB)
- Indoor or outdoor for covered ceiling use. (See Options -QM, -89)

UL, C-UL (Canada) Listings
- Wet, damp or dry locations, covered ceilings. (See Options -QM, -89)

Three Year Limited Warranty
- Complete standard fixture, including ballast.

Wattage Availability

Catalog No.	Lamp/Base	Standard Wattage Pulse MH	Standard Wattage -24 (HPS)	Option -43: Lower Wattage Pulse MH	Option -43: Lower Wattage -24 (HPS)	Max. Standby Wattage (-49-65-66-LS)	Optical Style
HSR-14116	ED-37/Mog	400	400	150-350	150-250	150	Ellipsoidal
HSR-14117	ED-28/Mog	400	250	150-350	150-250	150	Parabolic

Options

Sources and Ballasts
- -24 HPS ballast instead. See wattage chart above for available wattages. Specify voltage.
- -39 Remote (10' max.) electronic dimming ballast instead, for pulse start metal halide. Consult factory for wattage and voltage availability.
- -96 Remote (15' max.) electronic MH ballast. Consult factory for availability in 175W or above, or for internal mounting.

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. Consult factory.

Relays, Standbys, Lamps (See Chart)
- -49 Extra circuit DCB socket. Do not energize simultaneously with main source. Also see -LS.
- -65 Electronic standby system and DCB socket. Following HID outage, provides immediate light until HID restrikes. Also see -66 and -LS.
- -66 Electronic time delay standby system and DCB socket. Following outage, provides light until HID reaches 70% output. Also see Option -LS.
- -HL Hi-Lo wiring modification for use with external relay systems. 175 watt or above. CWA ballast only. Specify system.
- -LP With lamp. Specify source, wattage, color temperature, and clear or coated. (3700ºK standard for metal halide)
- -LS With T-4 DCB tungsten halogen standby lamp. Use only with Options -49, -65 or -66.

Reflectors and Trims (Self-Flanged)
- -16 Champagne Gold Alzak lower reflector. (CP x .95)
- -30 All White lower reflector. (CP x .95)
- -31 White flange on lower reflector.
- -63 Dune specular Alzak lower reflector. (CP x .93)
- -69 Wheat specular Alzak lower reflector. (CP x .92)
- -70 SofTex Clear etched lower reflector. (CP x .92)
- -71 SofTex Dune etched lower reflector. (CP x .89)
- -72 Black specular Alzak lower reflector. (CP x .77)
- -77 SofTex Pewter etched lower reflector. (CP x .92)
- -90 SofTex Champagne Gold etched lower reflector. (CP x .90)
- -91 SofTex Wheat etched lower reflector. (CP x .88)
- -92 Umber specular Alzak lower reflector. (CP x .83)
- -93 Pewter specular Alzak lower reflector. (CP x .88)
- -94 Custom color lower reflector. Consult factory.
- -OG OptiGroove black seamless tapered aluminum lower reflector. White trim. (CP x .75)

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

Luminaire (Housing) Finishes
- -35 Natural Aluminum enameled luminaire finish instead.
- -36 Gold enameled luminaire finish instead.
- -37 Dark Bronze enameled luminaire finish instead.
- -38 Black enameled luminaire finish instead.
- -94 Custom color luminaire finish. Consult factory.

Mounting Options
- -54 Safety cable through pendant stem. 12" longer than specified stem length. Anchored to fixture. Use with Option -PM.
- -80 2" concealment collar for mounting luminaire beneath surface outlet box. 1/2" T.S. KO's. Also see Option -89.
- -87 Custom -PM length. Specify up to 4 feet or consult factory for longer lengths with couplers.
- -88 Swivel canopy for sloped ceilings up to 45º. Earthquake rated. Use with Option -PM.
- -89 Sealed top feature prevents moisture and insect intrusion from above in outdoor or high humidity areas. Must add to -80, -PM or -WB for Wet Label.
- -PM Pendant mount instead. 3/8" T.S. x 18" standard. Also see Options -54, -87, -88, -89.
- -QM QuickConnect mount, for indoor (damp or dry) use only. Housing swings aside for easy wiring, then pivots and locks to matte black collar.
- -WB Wall bracket mount instead. Also see Option -89.

Other Options
- -99 Special modification. Consult factory.

KIRLIN

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

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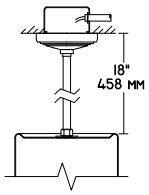
KIRLIN *lighting since 1895*

Performance at a Glance

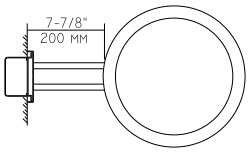
HSR-14116
HSR-14117



Representative Views:

(Right) With optional wall bracket (Option -WB)

(Left) With optional pendant mount (Option -PM)



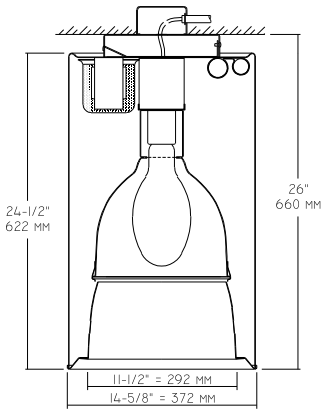
Cone of Light Key

Ft. Distance from fixture
FC Footcandles (average)
Dia. Circle of light at 50% of FC

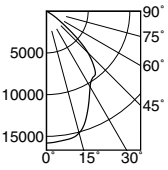
***** Dia. (in ft.) shown is where FC value is half the FC at nadir.

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

HSR-14116 400W



HSR-14116 (Coated Lamp)



Cone of Light*

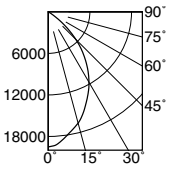
Ft.	FC	Dia.
10	158.1	10.3
15	70.3	15.5
20	39.5	20.6
25	25.3	25.8
30	17.6	30.9
35	12.9	36.1

S/MH 1.0 **EFFIC: 58.1%**

ITL TEST #51789
LER = 50.6 AEC = $4.74

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	15807	15807	15807	15807	15807
5	15683	15683	15683	15683	15683
15	15111	15111	15111	15111	15111
25	12030	12030	12030	12030	12030
35	9699	9699	9699	9699	9699
45	7035	7035	7035	7035	7035
55	1648	1648	1648	1648	1648
65	70	70	70	70	70
75	28	28	28	28	28
85	0	0	0	0	0
90	0	0	0	0	0

HSR-14116-15 (Clear Lamp)



Cone of Light*

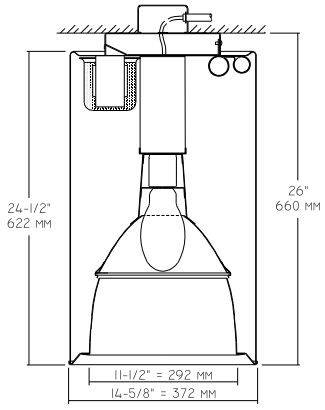
Ft.	FC	Dia.
10	195.1	9.5
15	86.7	14.3
20	48.8	19.1
25	31.2	23.9
30	21.7	28.7
35	15.9	33.5

S/MH 1.0 **EFFIC: 55.6%**

ITL TEST #51790
LER = 50.7 AEC = $4.73

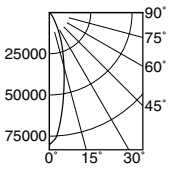
CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	19510	19510	19510	19510	19510
5	18922	18922	18922	18922	18922
15	16636	16636	16636	16636	16636
25	13435	13435	13435	13435	13435
35	9839	9839	9839	9839	9839
45	5617	5617	5617	5617	5617
55	1248	1248	1248	1248	1248
65	55	55	55	55	55
75	19	19	19	19	19
85	0	0	0	0	0
90	0	0	0	0	0

HSR-14117 400W



ALL FIXTURE DRAWINGS SHOWN WITH OPTION -QM

HSR-14117 (Clear Lamp)



Cone of Light*

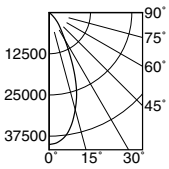
Ft.	FC	Dia.
10	802.4	4.3
15	356.6	6.4
20	200.6	8.5
25	128.4	10.6
30	89.2	12.8
35	65.5	14.9

S/MH 0.4 **EFFIC: 59.3%**

ITL TEST #51653
LER = 54.1 AEC = $4.43

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	90.0	67.5	90.0
0	80241	80241	80241	80241	80241
5	69256	69256	69256	69256	69256
15	34114	34114	34114	34114	34114
25	14200	14200	14200	14200	14200
35	4245	4245	4245	4245	4245
45	1249	1249	1249	1249	1249
55	233	233	233	233	233
65	1	1	1	1	1
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

HSR-14117-15 (Clear Lamp)



Cone of Light*

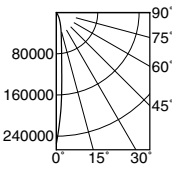
Ft.	FC	Dia.
10	400.4	7.3
15	178.0	10.9
20	100.1	14.5
25	64.1	18.1
30	44.5	21.8
35	32.7	25.4

S/MH 0.7 **EFFIC: 57.9%**

IITL TEST #51655
LER = 52.8 AEC = $4.54

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	40038	40038	40038	40038	40038
5	38999	38999	38999	38999	38999
15	30472	30472	30472	30472	30472
25	15927	15927	15927	15927	15927
35	6126	6126	6126	6126	6126
45	2267	2267	2267	2267	2267
55	286	286	286	286	286
65	2	2	2	2	2
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

HSR-14117-28 (Clear Lamp)



Cone of Light*

Ft.	FC	Dia.
10	2546.2	1.6
15	1131.6	2.4
20	636.6	3.3
25	407.4	4.1
30	282.9	4.9
35	207.9	5.7

S/MH 0.2 **EFFIC: 62.6%**

ITL TEST #51657
LER = 57.1 AEC = $4.20

CANDLEPOWER DISTRIBUTION					
	0.0	22.5	45.0	67.5	90.0
0	25462	25462	25462	25462	25462
5	11921	11921	11921	11921	11921
15	3421	3421	3421	3421	3421
25	1300	1300	1300	1300	1300
35	192	192	192	192	192
45	48	48	48	48	48
55	17	17	17	17	17
65	0	0	0	0	0
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

MULTIPLY CANDELA BY 10.0

*** 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

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, INSTALLED TO N. E. C., IN NORMAL USE. Manufacturer at his option will replace 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.