



# Amglo Kemplite Laboratories

SPECIALTY LAMPS MANUFACTURER

**GENERAL CATALOGUE**

VOLUME 3



[www.amglo.com](http://www.amglo.com)



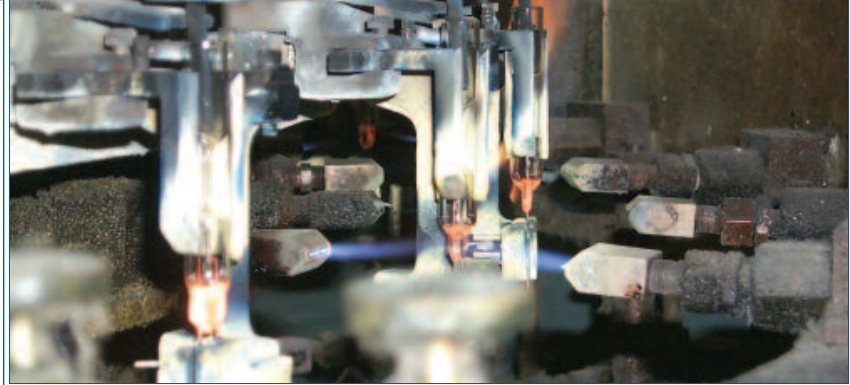
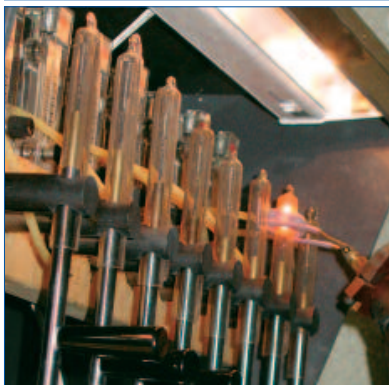
## AMGLO HISTORY & INTRODUCTION

**Amglo** was established in 1935 as a manufacturer of xenon flashlamps for photographic applications. Today the company has established itself as a global leader in **specialty** lamps manufacturing about 10 million lamps annually with its core competencies in xenon lamps, halogen lamps, metal halide lamps and PAR sealing. Amglo's product diversity and flexible manufacturing process encourages full **customization of** product to overcome many special challenges faced by our customers in the aviation, airfield, warning, medical, Nd: Yag laser, aesthetic and architectural lighting industries.

The company has four primary lamp manufacturing facilities located in the United States, China and Mexico. The xenon flashlamp division located in **Bensenville, Illinois** manufactures high powered quartz and borosilicate lamps while commodity xenon lamps and related assemblies are manufactured by this division's sister plant **Amglo Bravo in Juarez, Mexico**.

In 2003 Amglo acquired the assets of Shenzhen Sonlite Lighting Co. (established in 1992), and was renamed **Firstech Lighting**, which operates at a 70,000 square feet factory in Shenzhen, China. Firstech's foundation was built on manufacturing high quality halogen PAR lamps for use in general lighting applications exported to customers around the world. Since Firstech was acquired by Amglo, a considerable emphasis has been placed on technology and process transfer, which improved Firstech's existing technology and transferred new product lines that are no longer considered as specialty items due to large production volumes or low cost requirements.

**Amglo's Largo, Florida**, facility manufactures specialty low voltage hard glass halogen, quartz halogen and metal halide discharge lamps. It is also the primary design center for all Corporate Engineering and Lamp Research activity. The facility is fully equipped with a light laboratory capable of all photometric and spectral measurements. All vibration and environmental tests are monitored daily by a project engineer and intended to replicate actual field conditions experienced by our product. Within this facility, Amglo's engineering staff designs, builds and validates all new production line equipment for its four facilities.



## XENON FLASHLAMPS

Amglo's Xenon lamp division (Bensenville, IL) is the largest North American manufacturer of xenon flashlamps. This facility has over 1,600 different lamp designs ranging from 1 – 2 Watts to 1800 Watts. This facility employs a dedicated workforce of 140 people with an average employment tenure of more than ten years.

The stability and skill of Amglo's workforce and daily process controls produce a very consistent product. Batch to batch variations are slight as all electrodes are manufactured "in house" and processed in lamps on the same day they are pressed and sintered. This "in house" capability also allows Amglo's design team the flexibility to optimize each design based upon actual lamp operating conditions. In recent years this division has introduced new cathode matrixes for laser lamp applications incorporating innovative backfill emission strategies and new materials that are challenging historical lamp lifetimes.

In recent years, Amglo's commodity xenon flashlamps used in warning and stroboscopic applications are manufactured at its sister factory, **Amglo Bravo**, located in Juarez, Mexico. This facility currently employs over 60 people and offers its customers a value-added service of assembling bare flashlamps into an RTV base assembly, PC circuit board, or aluminum-coated molded reflectors. On - site monthly quality audits are performed at Amglo Bravo by Bensenville personnel, while much of the finished product is tested and warehoused at the Bensenville factory insuring that Amglo customers only receive the highest quality product.



# LINEAR FLASHLAMPS

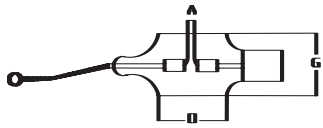


Figure 1

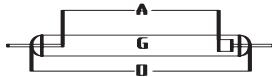


Figure 2

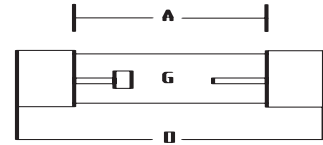


Figure 3

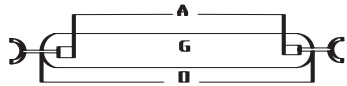


Figure 4



Figure 5

ITEM	FIG	ELECTRICAL					TRIGGERING		DIMENSIONAL (MM)			ENVELOPE MATERIAL	LIFE (FLASHES)	TYPICAL APPLICATION	
		Anode Voltage			Joules (WS)	Flashes (Sec.)	Watts	Primary Trigger Voltage	Anglo Trigger (Coil P/N)	G	A				O
		Nom	Min	Max											
A	2	300	200	400	.045	16	.72	200	C-3A	3.5	12	21	B	10,000,000	S
B	3	400	250	600	1	20	20	200	VE-11	6	38	76	B	100,000,000	S
C	2	325	225	450	4	1	4	200	C-3A	4	19	34	B	5,000,000	W
D	3	425	325	475	15	1	15	200	VE-11	7	63	100	B	5,400,000	W
E	1	400	200	600	1.5	20	30	200	VE-11	25	3.5	32	B	100,000,000	S
F	3	450	350	500	32	1	32	200	VE-11	7	90	135	B	8,000,000	W
G	3	300	270	370	.1	100	10	200	VE-11	6	3	36	Q	150,000,000	S
H	3	470	400	650	36	1	36	225	VE-11	7	64	100	Q	6,480,000	W
I	2	300	275	325	300	.16	48	225	VE-11	8	10	50	Q	100,000	W
J	3	500	450	550	95	.80	76	200	VE-11	7	99	128	Q	9,000,000	W
K	4	1800	1200	2000	350	.5	175	350	VE-20	5	200	280	Q	15,000,000	W
L	4	1800	1600	4500	135	2.3	310	400	VE-20	9	190	235	Q	6,000,000	R
M	4	2000	1500	2200	250	2	500	300	VE-20	6	390	485	Q	8,000,000	W
N	4	1100	900	1500	4.16	120	500	350	VE-20	9	190	238	Q	5,000,000	S
O	4	1900	1700	2100	400	2	800	350	VE-20	10	420	515	Q	5,000,000	S
P	4	550	500	600	150	12	1800	350	VE-20	10	150	187	Q	2,000,000	S
Q	5	1200	1000	1500	25	60	1500	600	SERIES	9	110	200	Q	3,500,000	S

Note:

- Applications marked as follows: **P** - Photographic, **R** - Reprographic, **S** - Stroboscopic, **W** - Warning.
- Lamp envelopes marked as follows: **B** - Borosilicate, **Q** - Quartz/Titanium doped quartz, Cerium Doped Quartz.

# CIRCULAR FLASHLAMPS

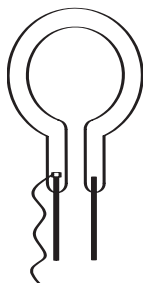


Figure 1

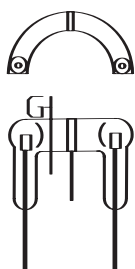


Figure 2

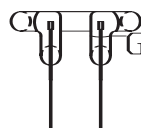


Figure 3

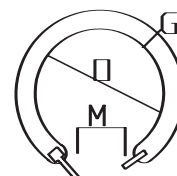


Figure 4

ITEM	FIG	ELECTRICAL						TRIGGERING		DIMENSIONAL (MM)				ENVELOPE MATERIAL	LIFE (FLASHES)	TYPICAL APPLICATION
		Anode Voltage			Joules (WS)	Flashes (Sec.)	Watts	Primary Trigger Voltage	Anglo Trigger (Coil P/N)	M	G	E	O			
		Nom	Min	Max												
A	3	360	325	400	19	.10	1.9	200	VE-II	20	6	22	57	B	6,000,000	W
B	3	350	200	600	20	1.3	26	150	VE-II	8	6	18	13	B	4,000,000	W
C	3	450	350	500	32	1.0	32	150	VE-II	27	7	40	29	B	5,000,000	W
D	3	320	250	400	250	.10	25	250	VE-II	17	10	21	27	B	10,000	P
E	2	325	220	400	350	.10	35	250	VE-II	62	12	28	-	B	10,000	P
F	3	400	300	500	450	.10	45	200	VE-II	21	9	24	58	B	10,000	P
G	3	900	550	1100	1000	.067	67	200	VE-II	22	12	25	49	B	10,000	P
H	3	450	300	500	50	1.0	50	225	VE-II	9	6	18	21	Q	3,000,000	W
I	3	500	350	650	100	1.1	110	200	VE-II	10	7	24	31	Q	5,000,000	W
J	3	450	270	700	600	.10	60	200	VE-II	19	12	32	29	Q	25,000	P
K	3	500	475	700	900	.83	750	200	VE-II	19	13	22	34	Q	50,000	P
L	3	500	300	700	1000	.50	500	250	VE-II	20	13	30	43	Q	25,000	P
M	2	350	300	400	1500	.25	375	200	VE-II	66	12	28	-	Q	50,000	P
N	3	500	350	700	2000	.10	200	250	VE-II	20	12	33	40	Q	25,000	P
O	3	900	700	1300	3200	.10	320	250	VE-II	20	11	41	33	Q	50,000	P

Note:

- Applications marked as follows: **P** - Photographic, **R** - Reprographic, **S** - Stroboscopic, **W** - Warning.
- Lamp envelopes marked as follows: **B** - Borosilicate, **Q** - Quartz/Titanium doped quartz, Cerium Doped Quartz.

# HELICAL FLASHLAMPS

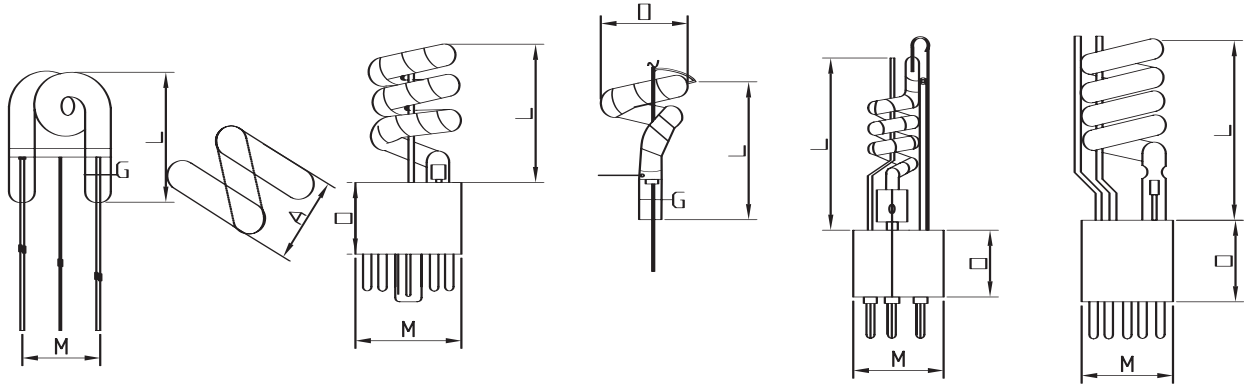


Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

ITEM	FIG	ELECTRICAL						TRIGGERING		DIMENSIONAL (MM)					ENVELOPE MATERIAL	LIFE (FLASHES)	TYPICAL APPLICATION
		Anode Voltage			Joules (WS)	Flashes (Sec.)	Watts	Primary Trigger Voltage	Anglo Trigger (Coil P/N)	L	G	A	M	O			
		Nom	Min	Max													
A	3	400	200	600	20	1.5	30	150	VE-11	38	7	-	-	11	B	7,500,000	W
B	1	450	200	600	35	1	35	150	VE-11	32	6	13	16	-	B	5,000,000	W
C	2	400	350	500	50	1	60	175	VE-11	36	8	-	32	36	B	5,000,000	W
D	1	450	250	550	250	.10	25	250	VE-11	35	6	13	17	-	B	10,000	P
E	2	900	550	1100	400	.067	27	200	VE-11	56	7	-	34	24	B	10,000	P
F	1	500	280	350	400	.17	68	200	VE-11	45	8	15	20	-	B	50,000	P
G	1	475	280	750	200	.38	75	200	VE-11	45	9	21	19	-	B	50,000	S
H	5	2000	1800	2200	60	2	120	250	VE-11	20	8	-	55	44	B	3,600,000	W
I	4	2000	1700	2300	40	2	80	250	VE-20	80	8	-	34	39	Q	5,000,000	W
J	4	2000	1900	2300	59	2	118	350	VE-20	85	8	-	34	42	Q	18,000,000	W
K	4	1100	800	1300	5	30	200	300	VE-11	78	6	-	34	39	Q	100,000,000	S
L	4	1450	1200	2400	210	.67	140	400	VE-20	93	6	-	60	39	Q	15,000,000	W
M	1	400	300	600	25	15	300	200	VE-11	45	8	17	21	-	Q	500,000	S
N	5	900	700	1100	3200	.10	320	200	VE-11	20	11	-	55	44	Q	25,000	P
O	1	900	700	1100	4800	.10	480	200	VE-11	75	12	27	24	-	Q	25,000	P

Note:

- Applications marked as follows: **P** - Photographic, **R** - Reprographic, **S** - Stroboscopic, **W** - Warning.
- Lamp envelopes marked as follows: **B** - Borosilicate, **Q** - Quartz/Titanium doped quartz, Cerium Doped Quartz.

# U-BEND FLASHLAMPS

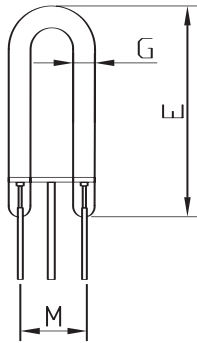


Figure 1

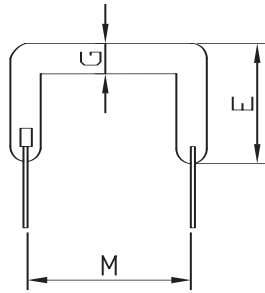


Figure 2

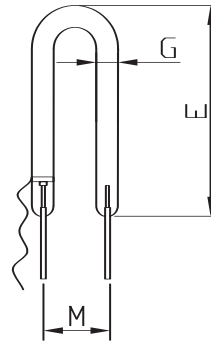


Figure 3

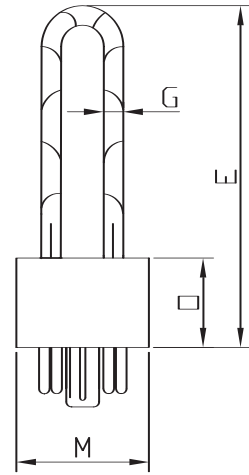


Figure 4

ITEM	FIG	ELECTRICAL						TRIGGERING		DIMENSIONAL (MM)				ENVELOPE MATERIAL	LIFE (FLASHES)	TYPICAL APPLICATION
		Anode Voltage			Joules (WS)	Flashes (Sec.)	Watts	Primary Trigger Voltage	Anglo Trigger (Coil P/N)	M	G	E	O			
		Nom	Min	Max												
A	4	325	250	400	.055	100	5.5	175	VE-II	29	6	50	21	B	3,000,000	S
B	1	350	250	400	6	1	6	175	VE-II	10	6	33	-	B	5,000,000	W
C	3	350	250	400	10	1	10	175	VE-II	10	6	33	-	B	5,000,000	W
D	1	400	250	600	20	1.33	26	200	VE-II	15	6	35	-	B	5,000,000	W
E	2	300	250	500	15	2	30	250	VE-II	54	6	25	-	B	5,000,000	W
F	3	650	400	1000	2.5	10	25	200	VE-II	11	7	35	-	Q	20,000,000	S
G	2	400	300	500	30	1	30	275	VE-II	73	7	16	-	Q	10,000,000	W
H	3	500	300	600	60	1	60	275	VE-II	40	7	44	-	Q	10,000,000	W
I	4	600	400	800	60	2	120	300	VE-II HT	32	8	98	21	B	8,000,000	W
J	2	550	500	650	70	.80	56	275	VE-II	115	7	20	-	Q	10,000,000	W
K	3	2500	2000	3000	200	1	200	200	VE-II	17	7	89	-	Q	2,500,000	S
L	3	1000	400	1500	500	.075	38	200	VE-II	13	10	45	-	Q	10,000	P
M	3	350	300	450	700	.10	70	250	VE-II	70	11	17	-	Q	10,000	P
N	3	950	600	1200	2400	.067	161	200	VE-II	15	11	105	-	Q	10,000	P

Note:

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# AIRPORT RUNWAY FLASHLAMPS

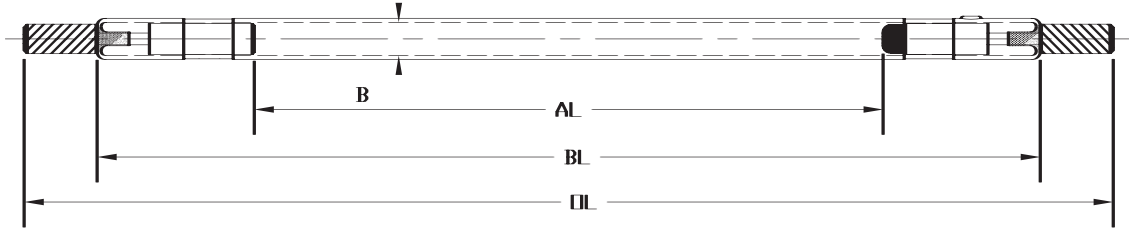
## FOR ALSE - 2/SSALR, MALS/MALSR, ODALS AND REIL SYSTEMS

<b>R-4336</b>	<b>R-4337</b>	<b>R-4338</b>	<b>R-4339</b>																																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>2200 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>1800 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>2000 V</td></tr> <tr><td>JOULES</td><td>60 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>3,600,000</td></tr> <tr><td>WATTS</td><td>120 W</td></tr> <tr><td>MIN. TRIGGER</td><td>9.0 KV</td></tr> <tr><td>TYPE</td><td>REIL: FA-8767 SYLVANIACD2001-A</td></tr> </table>	MAX. VOLTAGE	2200 V	MIN. VOLTAGE	1800 V	NOM. VOLTAGE	2000 V	JOULES	60 W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	3,600,000	WATTS	120 W	MIN. TRIGGER	9.0 KV	TYPE	REIL: FA-8767 SYLVANIACD2001-A	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>1500 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>850 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>1200 V</td></tr> <tr><td>JOULES</td><td>60 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>3,600,000</td></tr> <tr><td>WATTS</td><td>120 W</td></tr> <tr><td>MIN. TRIGGER</td><td>8.0 KV</td></tr> <tr><td>TYPE</td><td>SYLVANIA FA-1250</td></tr> </table>	MAX. VOLTAGE	1500 V	MIN. VOLTAGE	850 V	NOM. VOLTAGE	1200 V	JOULES	60 W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	3,600,000	WATTS	120 W	MIN. TRIGGER	8.0 KV	TYPE	SYLVANIA FA-1250	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>2300 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>1700 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>2000 V</td></tr> <tr><td>JOULES</td><td>10 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>3,600,000</td></tr> <tr><td>WATTS</td><td>20 W</td></tr> <tr><td>MIN. TRIGGER</td><td>5.0 KV</td></tr> <tr><td>TYPE</td><td>SYLVANIA CD 2098-A</td></tr> </table>	MAX. VOLTAGE	2300 V	MIN. VOLTAGE	1700 V	NOM. VOLTAGE	2000 V	JOULES	10 W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	3,600,000	WATTS	20 W	MIN. TRIGGER	5.0 KV	TYPE	SYLVANIA CD 2098-A	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>2300 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>1700 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>2000 V</td></tr> <tr><td>JOULES</td><td>20 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>7,200,000</td></tr> <tr><td>WATTS</td><td>40 W</td></tr> <tr><td>MIN. TRIGGER</td><td>5.0 KV</td></tr> <tr><td>TYPE</td><td>SYLVANIA</td></tr> </table>	MAX. VOLTAGE	2300 V	MIN. VOLTAGE	1700 V	NOM. VOLTAGE	2000 V	JOULES	20 W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	7,200,000	WATTS	40 W	MIN. TRIGGER	5.0 KV	TYPE	SYLVANIA
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<b>H5-801Q</b>	<b>S464-B</b>	<b>R-4429</b>	<b>HV1-734Q PAR56</b>																																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>2300 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>1900 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>2000 V</td></tr> <tr><td>JOULES</td><td>59W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>18,000,000</td></tr> <tr><td>WATTS</td><td>118 W</td></tr> <tr><td>MIN. TRIGGER</td><td>10.0 KV</td></tr> <tr><td>TYPE</td><td>MALS/MALSR FA-9994, FA9877 FA9425,26</td></tr> </table>	MAX. VOLTAGE	2300 V	MIN. VOLTAGE	1900 V	NOM. VOLTAGE	2000 V	JOULES	59W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	18,000,000	WATTS	118 W	MIN. TRIGGER	10.0 KV	TYPE	MALS/MALSR FA-9994, FA9877 FA9425,26	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>1400 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>600 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>880 V</td></tr> <tr><td>JOULES</td><td>70 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>60/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>1,800,000</td></tr> <tr><td>WATTS</td><td>70 W</td></tr> <tr><td>MIN. TRIGGER</td><td>8.0 KV</td></tr> <tr><td>TYPE</td><td>ODALS: FA-9955</td></tr> </table>	MAX. VOLTAGE	1400 V	MIN. VOLTAGE	600 V	NOM. VOLTAGE	880 V	JOULES	70 W-S	FLASHES (SEC.)	60/MINUTE	LIFE (FLASHES)	1,800,000	WATTS	70 W	MIN. TRIGGER	8.0 KV	TYPE	ODALS: FA-9955	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>2300 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>1700 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>2000 V</td></tr> <tr><td>JOULES</td><td>40 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>5,040,000</td></tr> <tr><td>WATTS</td><td>80 W</td></tr> <tr><td>MIN. TRIGGER</td><td>9.5 KV</td></tr> <tr><td>TYPE</td><td>MALS/MALSR: RA8981 REIL, FA-9437</td></tr> </table>	MAX. VOLTAGE	2300 V	MIN. VOLTAGE	1700 V	NOM. VOLTAGE	2000 V	JOULES	40 W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	5,040,000	WATTS	80 W	MIN. TRIGGER	9.5 KV	TYPE	MALS/MALSR: RA8981 REIL, FA-9437	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>MAX. VOLTAGE</td><td>2250 V</td></tr> <tr><td>MIN. VOLTAGE</td><td>1800 V</td></tr> <tr><td>NOM. VOLTAGE</td><td>2000 V</td></tr> <tr><td>JOULES</td><td>60 W-S</td></tr> <tr><td>FLASHES (SEC.)</td><td>120/MINUTE</td></tr> <tr><td>LIFE (FLASHES)</td><td>7,200,000</td></tr> <tr><td>WATTS</td><td>120 W</td></tr> <tr><td>MIN. TRIGGER</td><td>10.0 KV</td></tr> <tr><td>TYPE</td><td>ALSE2/SSALR, FA-10048, MALS/ MALSR, FA-10097, 98, FA9629, 30: REIL: FA10229, FA-10096, 124, 125, FA-9628</td></tr> </table>	MAX. VOLTAGE	2250 V	MIN. VOLTAGE	1800 V	NOM. VOLTAGE	2000 V	JOULES	60 W-S	FLASHES (SEC.)	120/MINUTE	LIFE (FLASHES)	7,200,000	WATTS	120 W	MIN. TRIGGER	10.0 KV	TYPE	ALSE2/SSALR, FA-10048, MALS/ MALSR, FA-10097, 98, FA9629, 30: REIL: FA10229, FA-10096, 124, 125, FA-9628
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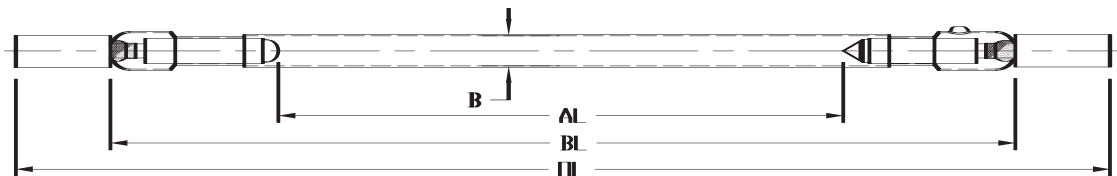
# LASER LAMPS

## DC PULSED LAMPS



ITEM	BORE (B) DIAMETER (mm)	ARC (AL) LENGTH (mm)	BODY (BL) LENGTH (mm)	OVERALL LENGTH (OL) (mm)	RECOMMENDED TRIGGER PULSE (KV)	OPERATING VOLTS (MIN)	OPERATING VOLTS (MAX)	AVERAGE MAX POWER WATTS	IMPEDANCE (KΩ) (OHMS-AMPS)
A	5	75	137	175	16	500	2000	2300	19
B	5	150	212	250	18	800	3000	4500	38
C	6	75	137	175	16	500	2000	2700	16
D	6	150	212	250	18	800	3000	4900	32
E	7	125	187	225	18	700	2700	5200	22
F	7	205	300	350	18	1100	4500	10000	45
G	8	150	212	250	20	1000	3000	7500	24
H	8	300	350	400	20	1600	5000	15000	48
I	10	200	255	305	20	1200	4000	12500	25
J	10	300	355	405	20	1500	5000	18000	38

## KRYPTON / CW ARC LAMPS



ITEM	BORE (B) DIAMETER (mm)	ARC (AL) LENGTH (mm)	BODY (BL) LENGTH (mm)	OVERALL LENGTH (OL) (mm)	DESIGN CURRENT (AMPS)	CORRESPONDING DESIGN VOLTAGE (MAX)	POWER WATTS	STATIC IMPEDANCE OHMS
A	4	51	191	191	20	110	2200	5.5
B	4	76	140	160	20	190	3800	9.5
C	4	99	167	167	20	200	4000	10
D	4	148	223	223	20	290	5800	14.5
E	5	50	154	154	30	86	2600	2.87
F	5	84	145	175	30	155	4650	5.17
G	5	102	160	194	30	180	5400	6.00
H	5	121	223	223	30	240	7200	8.00
I	6	101	165	200	35	175	6125	5.00
J	6	170	255	377	40	255	10200	6.38
K	4	110	177	321	20	A.C,	4500	N/A
L	5	160	225	400	30	A.C,	6500	N/A
M	6	280	347	502	45	A.C,	10000	N/A

## LAMPS FOR IPL™ AESTHETIC / MEDICAL APPLICATIONS



Figure 1

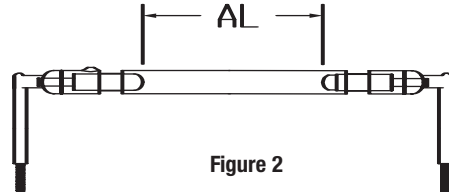


Figure 2

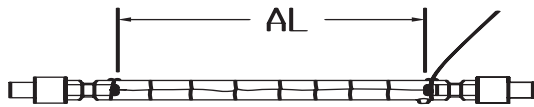


Figure 3

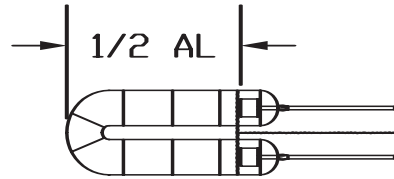


Figure 4

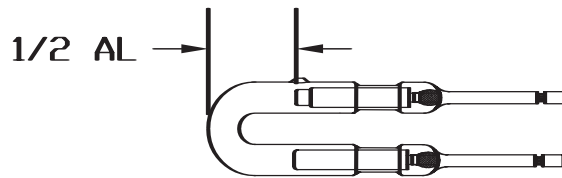
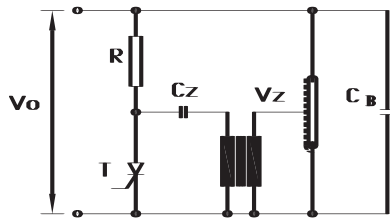


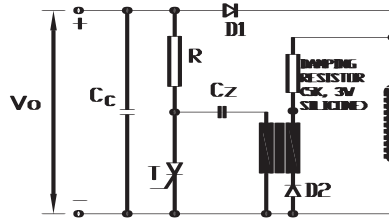
Figure 5

ITEM	FIGURE	ARC (AL) LENGTH (mm)	I.D./O.D. (mm)	PULSE ENERGY FLASH	LIFETIME	PRIMARY TRIGGER VOLTAGE	RECOMMENDED TRIGGER COIL	COOLING	ENVELOPE MATERIAL
A	1	25	3/4	25	5K	200	VE11	CDNV.	HARD
B	1	30	4/5	14	200K	200	VE11	CDNV.	CDQ
C	1	58	4/6	80	10K	225	VE11	AIR	HARD
D	2	90	8/10	1000	10K	225	VE11	AIR	CDQ
E	3	50	4/5	400	100K	250	VE20	WATER	CDQ
F	3	78	5/7	500	100K	250	VE20	WATER	CDQ
G	3	84	8/9	750	100K	225	VE20	WATER	CDQ
H	3	96	5/6	1000	100K	300	VE20	WATER	CDQ
I	4	100	6/8	1250	150K	300	VE20	WATER	SYN, QUARTZ
J	5	25	5/7	175	250K	220	VE20	WATER	CDQ
K	5	56	6/8	230	250K	225	VE20	WATER	CDQ

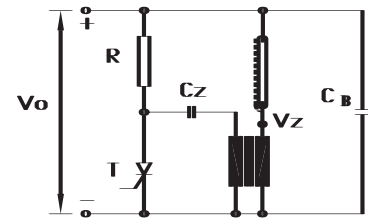
## TRIGGERING METHODS:



1-EXTERNAL



2-PSEUDO-SERIES



3-SERIES

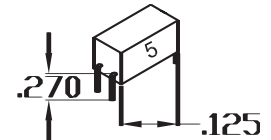
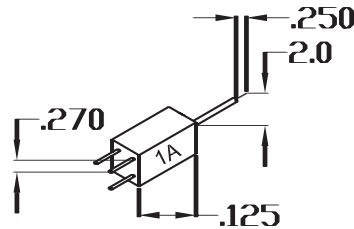
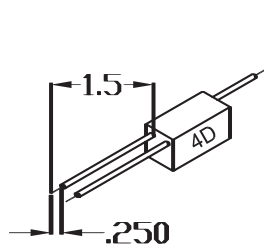
## TRIGGER TRANSFORMERS

### VE11

MAX. INPUT VOLTAGE 300 V  
 MAX. INPUT ENERGY 10 MJ  
 OUTPUT VOLTAGE 11 KV  
 OPERATING TEMP. -65 TO 150 C  
 DIMENSIONS: .625" X .305" X .305"

URNS RATIO 47:1  
 PRIMARY INDUCTANCE 25.0 +/- 10 UH  
 MAX. INPUT ENERGY 10 MJ  
 WEIGHT 0.10 oz.

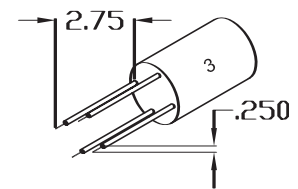
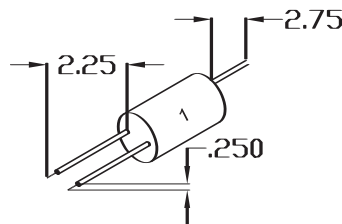
THE HIGH TEMPERATURE VERSION OF THIS COIL HAS A RATED OPERATING TEMPERATURE OF 250C



### VE20

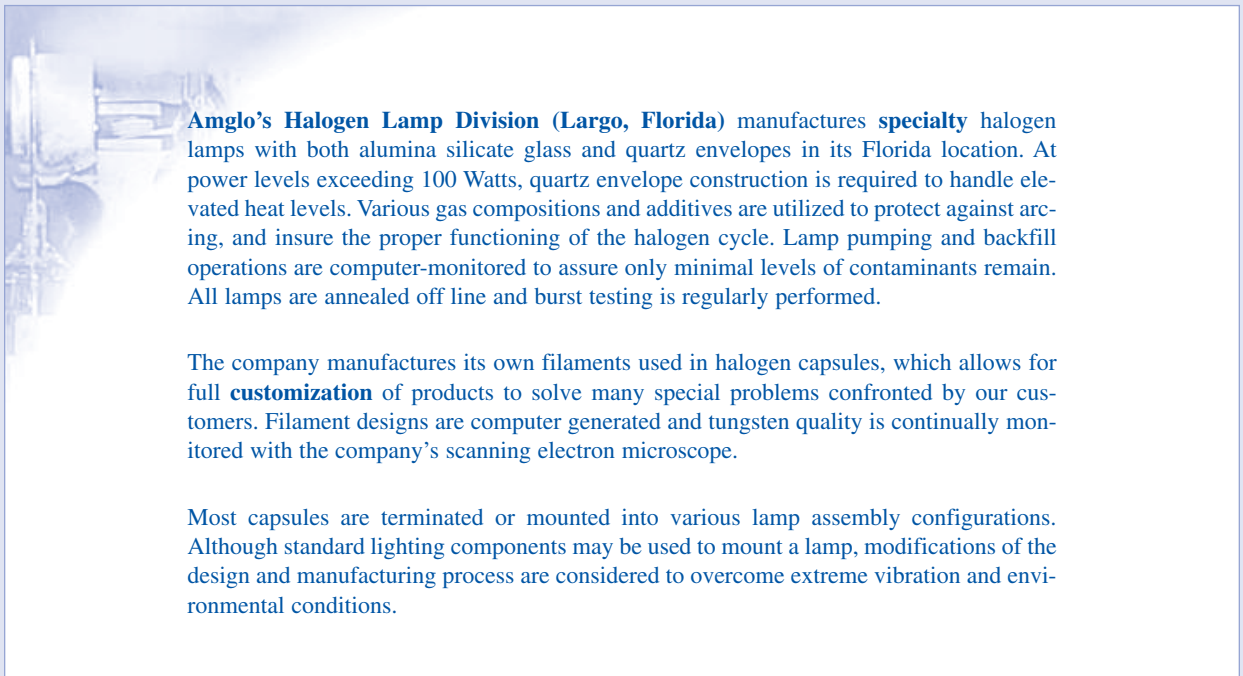
MAX. INPUT VOLTAGE 400 V  
 MAX. INPUT ENERGY 20 MJ  
 OUTPUT VOLTAGE 20 KV  
 OPERATING TEMP. -65 TO 150 C  
 DIMENSIONS: .860" X .50" (DIAM.) VE20-1  
 1.00" X .62" (DIAM.) VE20-3

URNS RATIO 50:1  
 PRIMARY INDUCTANCE 55.0 +/- 10 UH  
 MAX. INPUT ENERGY 20 MJ  
 WEIGHT 0.28 oz.





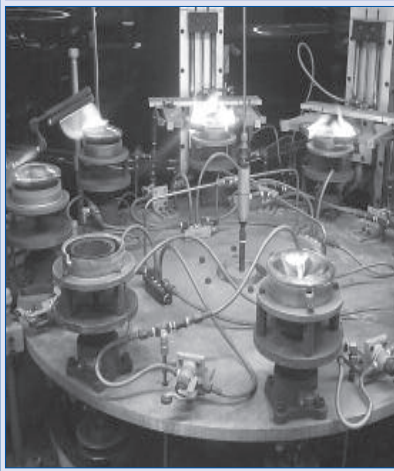
## HALOGEN LAMPS



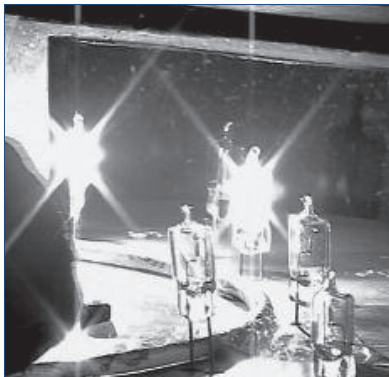
**Amglo's Halogen Lamp Division (Largo, Florida)** manufactures **specialty** halogen lamps with both alumina silicate glass and quartz envelopes in its Florida location. At power levels exceeding 100 Watts, quartz envelope construction is required to handle elevated heat levels. Various gas compositions and additives are utilized to protect against arcing, and insure the proper functioning of the halogen cycle. Lamp pumping and backfill operations are computer-monitored to assure only minimal levels of contaminants remain. All lamps are annealed off line and burst testing is regularly performed.

The company manufactures its own filaments used in halogen capsules, which allows for full **customization** of products to solve many special problems confronted by our customers. Filament designs are computer generated and tungsten quality is continually monitored with the company's scanning electron microscope.

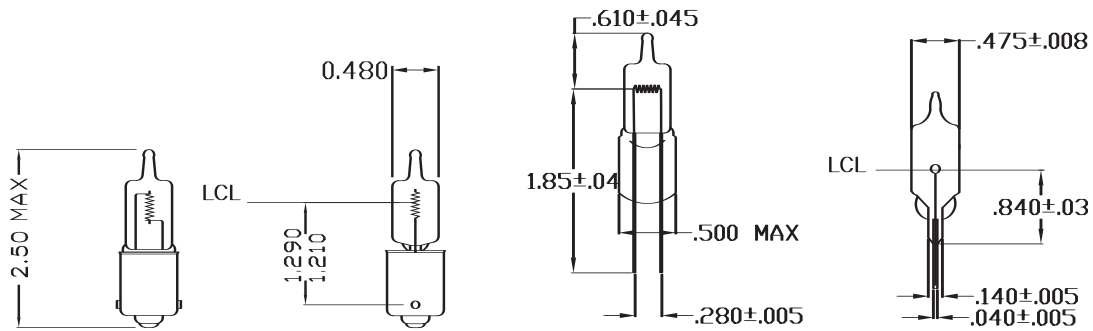
Most capsules are terminated or mounted into various lamp assembly configurations. Although standard lighting components may be used to mount a lamp, modifications of the design and manufacturing process are considered to overcome extreme vibration and environmental conditions.



Although **Firstech Lighting's (Shenzhen, China)** primary focus is building the highest quality halogen PAR lamp for use in **general lighting** applications, Firstech has expanded its product lines to include certain specialty halogen lamps. Firstech **guarantees its** customers the highest quality product as it purchases critical raw materials from Western suppliers while its manufacturing and pumping equipment is designed and built at Amglo's Engineering and Development Center. Firstech has been manufacturing line voltage halogen capsules in epoxy – sealed PAR reflectors since 1993 and **now** manufactures quartz halogen capsules and flame – sealed PAR reflectors capable to withstand higher operating temperatures.



# LOW VOLTAGE T4 HARD GLASS HALOGEN LAMPS



PART NUMBER	VOLTS	WATTS	AVERAGE LIFE	LUMENS
AH*-12V-20WN-**	12.8	20	300	440
AH*-12V-27WN-**	12.8	27	300	594
AH*-12V-32WK-**	12.8	32	1000	608
AH*-12V-35WN-**	12.8	35	300	770
AH*-12V-35WQ-**	12.8	35	250	840
AH*-12V-37.5WN-**	12.8	37.5	300	825
AH*-12V-39WK-**	12.8	39	1000	741
AH*-12V-50WR-**	12.8	50	300	1250
AH*-12V-50WJ-**	12.8	50	2000	900
AH*-12V-55WJ-**	12.8	55	800	1100
AH*-12V-58.5WK-**	12.8	58.5	1000	1112
AH*-12V-65WM-**	12.8	65	500	1365
AH*-12V-65WR-**	12.8	65	300	1625
AH*-28V-9WJ-**	28	9	2000	162
AH*-28V-35WM-**	28	35	300	770
AH*-28V-35WJ-**	28	35	2000	630
AH*-28V-50WK-**	28	50	1000	950
AH*-28V-75WJ-**	28	75	2000	1350

## \* Filament Designations

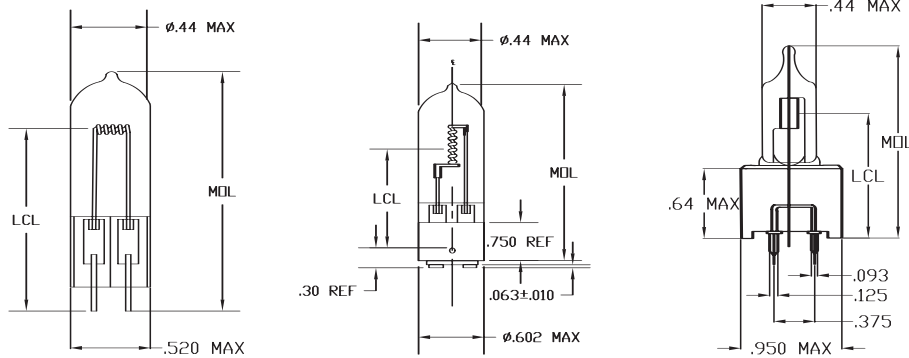
* V		* A		* H	
C-8/ CC-8		C-2V/ CC-2V		C-6/ CC-6	

## \*\* Base Types

**00	**10	**11	**12	**20	**31	**32
Bi Pin	SC Bay	SC Bay Indexed	SC Bay Prefocused	DC Bay	Screw In	Screw In

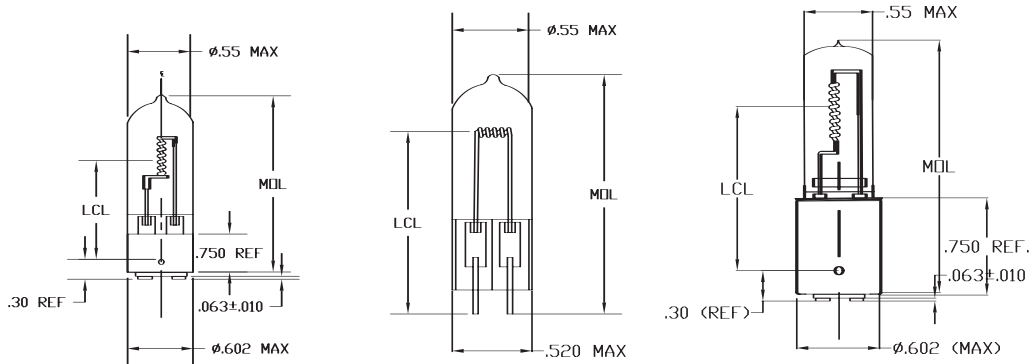


# LOW VOLTAGE T4 QUARTZ HALOGEN LAMPS



PART NUMBER	VOLTAGE [AMPS]	WATTAGE	AVG. LIFE (HOURS)	LUMENS	DESCRIPTION [ANSI]
AHQ3*-66A-30WD-**	[6.6]	30	1000	375	Q30T3/CL
AHQ3*-6V-10WD-**	6	10	2000	130	Q10T3/CL
AHQ3*-6V-20WE-**	6	20	2000	280	Q20T3/CL
AHQ3*-66A-45WG-**	[6.6]	45	1000	750	Q45T3/CL
AHQ3*-10V-100WG-**	10	100	2000	1630	Q100T3/CL [1978X]
AHQ3*-12V-10WC-**	12	10	2000	120	Q10T3/CL
AHQ3*-12V-20WJ-**	12	20	2000	350	Q20T3/CL
AHQ3*-12V-35WK-**	12	35	2000	650	Q35T3/CL
AHQ3*-24V-20WE-**	24	20	2000	280	Q20T3/CL
AHQ3*-28V-75WJ-**	28	75	1000	1380	Q75T3/CL[1982]

\* Refer to filament designation page 13. \*\* Refer to base type page 13



PART NUMBER	VOLTAGE [AMPS]	WATTAGE	AVG. LIFE (HOURS)	LUMENS	DESCRIPTION [ANSI]
AHQ4*-10V-100WG-**	10	100	2000	1630	Q100T4/CL [1988]
AHQ4*-12V-20WE-**	12	20	2000	280	Q20T4/CL
AHQ4*-12V-35WK-**	12	35	2000	650	Q35T4/CL
AHQ4*-12V-50WL-**	12	50	2000	1000	Q50T4/CL
AHQ4*-12V-75WM-**	12	75	2000	1600	Q75T4/CL
AHQ4*-12V-100WP-**	12	100	2000	2300	Q100T4/CL
AHQ4*-28V-21WC-**	28	21	2000	250	Q21T4/CL
AHQ4*-28V-26WE-**	28	26	500	375	Q26T4/CL
AHQ4*-28V-150WL-**	28	150	1000	3000	Q150T4/CL[1987]
AHQ4*-28V-250WW-**	28	250	100	7540	Q250T4/CL[1986]

\* Refer to filament designation page 13. \*\* Refer to base type page 13

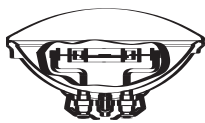
# AIRCRAFT LANDING LAMPS

## QUALITY – “FAA-PMA APPROVED”

Amglo's growing list of airport lamps are manufactured to withstand the extreme weather conditions faced on airport runways and navigation systems. Amglo has been manufacturing specialty lamps since 1935 and remains committed to designing and manufacturing products for industries with special requirements. In the United States, Amglo is a direct contractor of lamps to the Federal Aviation Administration (FAA). Many of Amglo's products are utilized in numerous airport installations around the world.

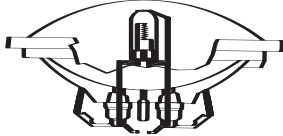
Amglo is the original PMA holder for the “Q” series sealed beam landing lamps. Lamps are sold with certificates of conformance and/ or manufacturers 8130-3 TAG. Amglo's facility is registered with the FAA and in compliance with FAR21.303(h)

**PAR 36**



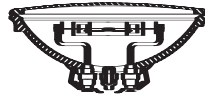
**Figure 1**

**PAR 36**



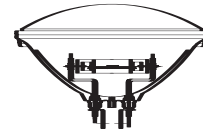
**Figure 2**

**PAR 46**



**Figure 3**

**PAR 64**



**Figure 4**

**PAR 64**



**Figure 5**

## TERMINATIONS



**TWO SCREW TERMINAL**



**TWO SLIP ON TERMINAL**



**TWO CONTACT LUGS**

(ANSI) INDUSTRY P/N	MANUFACTURERS CROSS	DESIGN VOLTS	WATTS	INITIAL BEAM CANDLEPOWER	RATED LAB LIFE (HOURS)	FIGURE
*Q4509	4509	13	100	140,000	100	1
Q4631	Q4631	13	250	85,000	500	1
Q4632	Q4632	13	250	75,000	500	1
*Q5587	4587	28	250	40,000	250	2
*Q5596	4596	28	250	150,000	250	2
*Q4591	4591	28	100	90,000	250	2
*Q4551	4551	28	250	75,000	250	3
*Q4635	4635	16.5	450	325,000	100	3
Q4554	Q4554	28	450	65,000	100	3
Q4566	Q4566	28	450	150,000	1000	3
Q4597	Q4597	28	450	16,000	1000	3
Q4681	Q4681	28	450	310,000	50	3
Q4629	Q4629	28	600	20,000	1000	4
Q4713	4713	28	150	4,200	800	1
Q4559X	Q4559X	28	600	600,00	100	5
*Q4559XX	Q4559X	28	600	765,000	100	(SEE NEXT PAGE)

\* Amglo quartz halogen designs with improved lifetimes over standard incandescent lamps.

# AIRCRAFT LANDING LAMPS

Increase actual flight hours with Amglo's Q4559XX Ruggedized Landing Lamp!  
Same fit, form, and function to industry standard Q4559X.

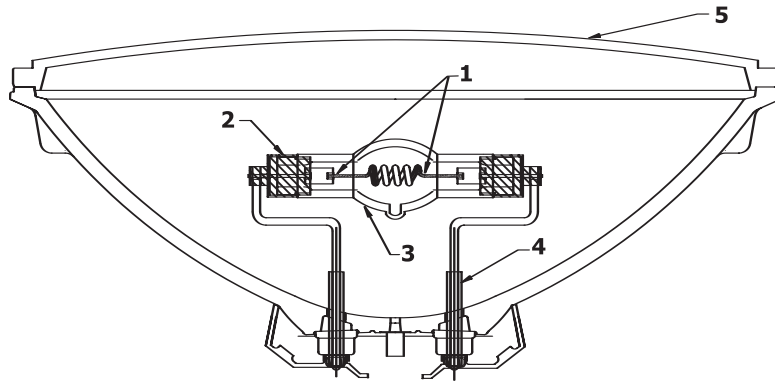


Figure 1. Q4559XX (Par 64)

**REDUCE YOUR  
MAINTENANCE  
COSTS!**

**PATENTED  
TECHNOLOGY!**

THE ABOVE DRAWING ILLUSTRATES THE IMPORTANT CHANGES THAT HAVE BEEN INCORPORATED

1. Shortening of the filament leg has reduced displacement from harmonics or cyclic vibrations thus extending filament life.
2. The endcap and lamp support connection eliminates torque or force on the lamp electrical connection ensuring continuity.
3. Greater bulb wall thickness allows higher gas fill pressure which extends filament life.
4. The tapered lamp support posts with heavier diameter footings control displacement eliminating the need for stay supports thus increasing light output and reducing beam distortion.
5. Dedicated Par 64 annealing processes have been instituted to eliminate glass fracturing.

FLIGHT DATA AVAILABLE ON REQUEST

# AIRCRAFT EXTERIOR / NAVIGATION LAMPS

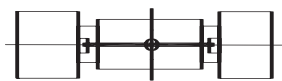


Figure 1

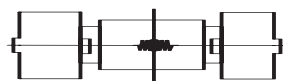


Figure 2

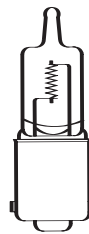


Figure 3

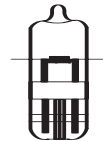


Figure 4



Figure 5

(ANSI) P/N INDUSTRY	VOLTS	WATTS	MSCP LUMENS	RATED LAB LIFE	FILAMENT TYPE	TERMINATION	FIGURE
1978X	10	100	130	2000	C-8	END CAP	1
1970X	28	100	140	1000	CC-8	END CAP	2
9203	28	35	630 L	2000		SC BAY	3
1924X	28	150	3000 L	1000		DC BAY	3
ERF/1994	14	50	95	150	CC-6	WEDGE	4
ERD/1992	14	35	64	150	CC-6	WEDGE	4
ESG/1999	28	25	40	125	CC-6	WEDGE	4
ERC/1991	14	25	40	200	CC-6	WEDGE	4
55-2526-1	12	3.5	40	1000	C-6	G-4	5



# AIRPORT TAXIWAY / INSET LIGHTING

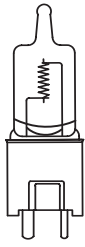


Figure 1

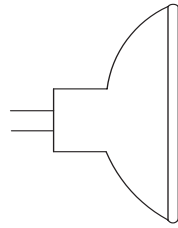


Figure 2

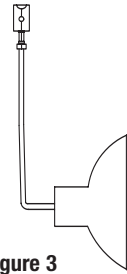


Figure 3

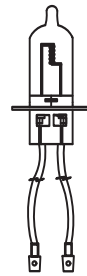


Figure 4

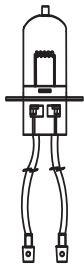


Figure 5



Figure 6

FIG#	AMGLO PART#	(ANSI) INDUSTRY PART #	GE PART#	PHILIPS PART#	OSRAM PART#	DESIGN VOLTS/AMPS	WATTS	AVERAGE LAB LIFE (H)
1	AHV6.6A30WD40CM	EXL	11478	-	19395	6.6A	30	1,000
1	AHV6.6A45WH40CM	EXM	11482	6134	19396	6.6A	45	1,000
1	AHQHC6.6A120S40CM	EVV	10099	6128	-	6.6A	120	1,200
1	AHQHC6.6A150WT40CM	EWR	11427	6292	-	6.6A	150	1,500
1	AHQHC6.6A200R40CM	EZL	15243	6372	-	6.6A	200	1,000
2	AHQ16-6.6A-30W	EZA	23522	-	-	6.6A	30	1,000
2	AHQ16-6.6A-45W	EZC	-	-	-	6.6A	45	1,000
2	AHQ16-6.6A-50W	EZP	23523	-	-	6.6A	50	1,000
2	AHQ16-6.6A-62W	MR16-62W	-	-	-	6.6A	62	1,500
3	AHQ16-6.6A-48W	MR16-48W	-	6101	-	6.6A	48	1,500
3	AHQ16-6.6A-65W	MR16-65W	-	-	-	6.6A	65	1,500
3	AHQ16-6.6A-105W	MR16-105W	-	6103	-	6.6A	105	1,000
4	AHH6.6A30W*90MM	6.6A30WPK30d	-	-	-	6.6A	30	1,000
4	AHV6.6A45WH90MM	6.6A45WPK30d	-	6303	64317	6.6A	45	1,000
5	AHQC6.6A65W*90MM	6.6A65WPK30d	-	-	HLX 64382	6.6A	65	1,000
5	AHQC6.6A100WT90MM	6.6A100WPK30d	-	6122	HLX 64317	6.6A	100	1,000
5	AHQC6.6A150WQ90MM	6.6A150WPK30d	-	6118	HLX 64361	6.6A	150	1,000
5	AHQ4H6.6A200WP90MM	6.6A200WPK30d	-	6304	HLX 64382	6.6A	200	1,000
6	AH4H6.6A45W*22MM	Q6.6A/T4/DCR	-	-	-	6.6A	45	500
6	AHQ4H6.6A200WP22MM	Q6.6A/T4/DCR	-	-	56746	6.6A	200	500

# AIRPORT PAR APPROACH LIGHTING

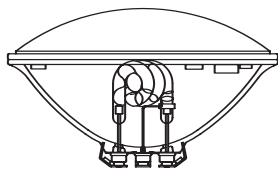


Figure 1

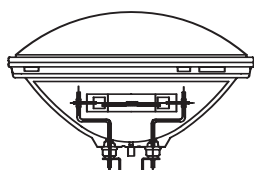


Figure 2

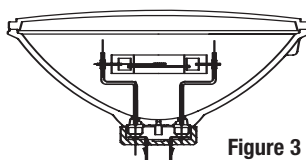


Figure 3

FIG#	AMGLO PART#	(ANSI) INDUSTRY PART #	DESIGN VOLTS/AMPS	WATTS	AVERAGE LAB LIFE (H)
1	HV1734QF/PAR56	FT34/HP	2000	120	7,200,000*
2	AHQH5620A300WCS	Q20A/PAR56/2	20A	300	500
2	AHQH5620A500WCS	Q20A/PAR56/3	20A	500	500
2	AHQH566.6A200WPM	Q6.6A/PAR56/2	6.6A	200	1000
2	AHQH5620A300WPM	Q20A/PAR56/C	20A	300	500
2	AHQH5620A500WPM	Q20A/PAR56/1/C	20A	500	500
3	AHQH64120V1000WFM	Q1000PAR64NSP	120	1000	4000
3	AHQH646.6A200WFM	Q6.6APAR64/2P (VASI)	6.6A	200	2000

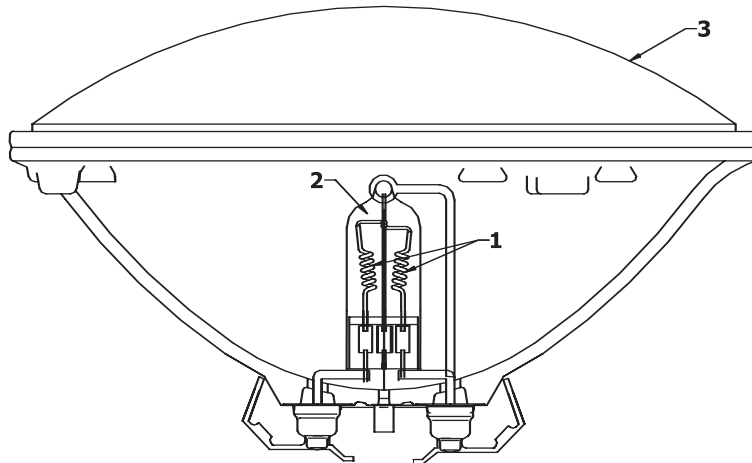
\* Flashes



# RAILROAD PAR LAMPS

Amglo Quartz Halogen 75V350W/PAR56 locomotive Ditch lamp provides greater efficiency, longer service life and improved beam quality over the current industry standards.

Lamps are fit and form to the current Incandescent industry standard.

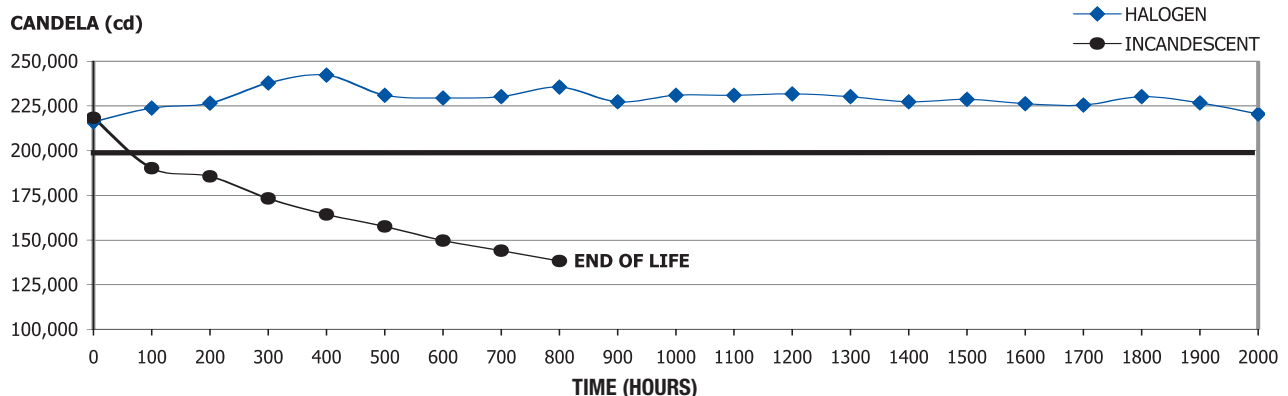


- Reduce your maintenance cost!
- Maintains minimum 200,000 candelas over life ensuring your train is in compliance with the Federal Railroad Administration's specification contained in 49 CFR 229.125 (a) and (b)!
- Never have your train restricted under "Movement of non-complying locomotives" and place it in trail service.

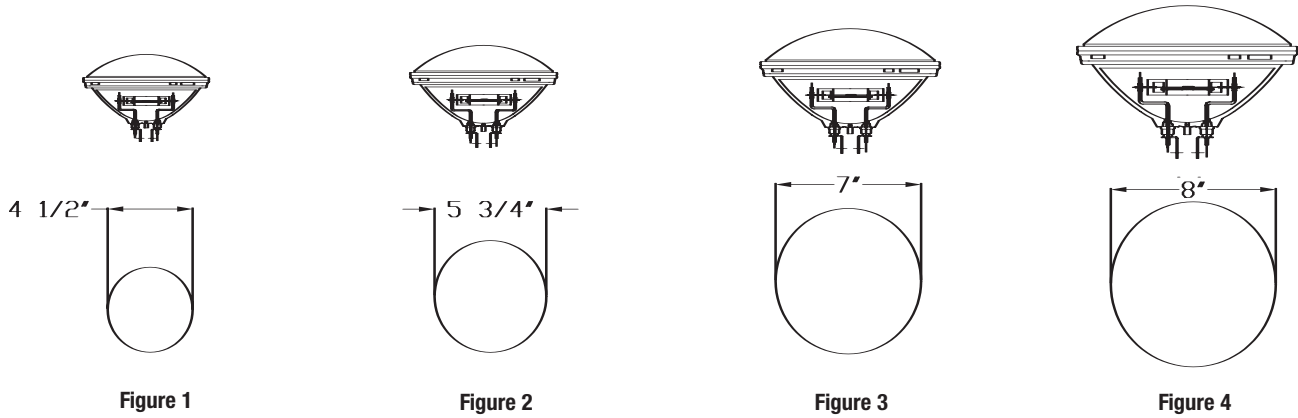
1. Shortening of the filament reduces displacement from cyclic vibrations, thus extending filament life. This design eliminates filament sagging ensuring photometric stability.
2. Halogen technology extends filament life and prevents bulb blackening ensuring FRA minimum luminous intensity of 200,000 candelas over life. In the event that one of the two lamps fail, the locomotive may continue in lead service until the next quarterly inspection.
3. Dedicated PAR56 annealing processes have been instituted to reduce glass fracturing.

(ANSI) P/N INDUSTRY	AMGLO CROSS	DESIGN VOLTAGE	DESIGN WATTS	MINIMUM CANDELLA	FILAMENT DESIGNATION	BASE	LAB LIFE (HOURS)
350PAR56/SP	75V350W PAR56	75	350	200,000	20C-8	Screw. Term	2,000
200PAR	30V200W PAR56	30	200	200,000	CC-8	Screw. Term	1,500

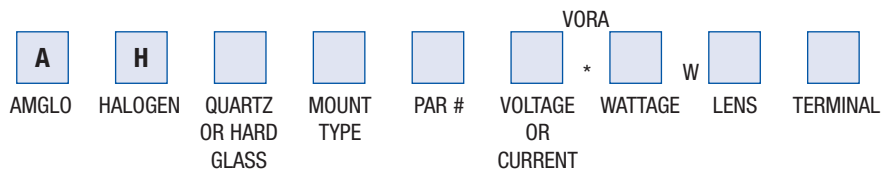
## 350 W INCANDESCENT VS. HALOGEN LAMP MAINTENANCE CURVE



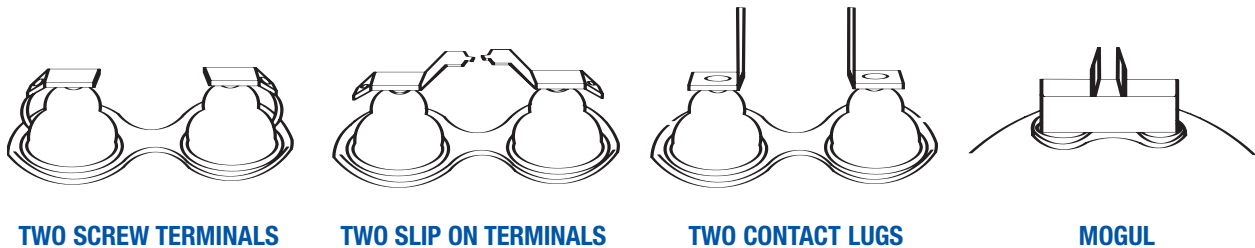
# AMGLO STAGE & STUDIO PARS



AMGLO PART NUMBER	VOLTS (AMPS)	WATTS	AVG. LIFE (HOURS)	APPROX. INITIAL MAX. BEAM C.P.	DESCRIPTION	COLOR TEMP	ANSI OR INDUSTRY #
AHQH56120V500WNML	120	500	4000	96,000	PAR 56	29500	Q500PAR56NSP
AHQH56120V500WMML	120	500	4000	43,000	PAR 56	29500	Q500PAR56MFL
AHQH56120V500WWML	120	500	4000	19,000	PAR 56	29500	Q500PAR56TYWFL
AHQH64120V1000WNML	120	1000	4000	200,000	PAR 64	30000	Q1000PAR64NSP
AHQH64120V1000WMML	120	1000	4000	80,000	PAR 64	30000	Q1000PAR64MFL
AHQH64120V1000WWML	120	1000	4000	33,000	PAR 64	30000	Q1000PAR64WFL
AHQH64120V1000WVM	120	1000	800	400,000	PAR 64	32000	FFN
AHQH64120V1000WNM	120	1000	800	330,000	PAR 64	32000	FFP
AHQH64120V1000WMM	120	1000	800	125,000	PAR 64	32000	FFR
AHQH64120V1000WWM	120	1000	800	40,000	PAR 64	32000	FFS

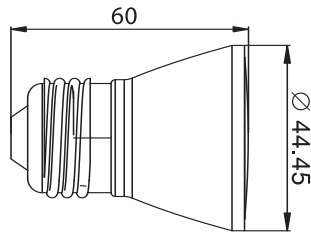


- |             |                   |                    |                 |
|-------------|-------------------|--------------------|-----------------|
| <b>PAR#</b> | <b>MOUNT TYPE</b> | <b>LENS TYPE</b>   | <b>TERMINAL</b> |
| 36          | V=VERTICAL        | V=VERY NARROW SPOT | M=MOGUL         |
| 46          | H=HORIZONTAL      | N=NARROW SPOT      | S=SCREW         |
| 56          |                   | M=MEDIUM FLOOD     | L=LUG           |
| 64          |                   | W=WIDE FLOOD       | SL=SLIP         |
|             |                   | F=FLAT             |                 |



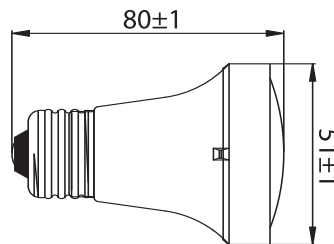


# FIRSTECH LINE VOLTAGE LAMPS



## CERAMIC HALOGEN PAR14

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
35	110-130	FLOOD/SPOT	280	2000	2900	45	60	E26	EACH LAMP PER WHITE CARD BOX	485*435*305MM NW: 3.6KG GW: 4.32KG
50	110-130	FLOOD/SPOT	400	2000	2900	45	60	E26	48 BOXES PER CTN	
60	110-130	FLOOD/SPOT	600	2000	2900	45	60	E26		
75	110-130	FLOOD/SPOT	800	2000	2900	45	60	E26		



## CERAMIC HALOGEN PAR16

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
50	110-130	FLOOD/SPOT	500	2000	2900	52	80	E26	EACH LAMP PER WHITE CARD BOX	395*205*110MM NW: 2.02KG GW: 3.08KG
60	110-130	FLOOD/SPOT	650	2000	2900	52	80	E26	18 BOXES PER CTN	
75	110-130	FLOOD/SPOT	800	2000	2900	52	80	E26		

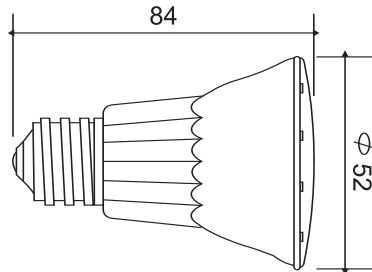


## PAR38 SIDE PRONG

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
90	110-130	FLOOD/SPOT	1300	2000	2900	123	98	Side Prong	EACH LAMP PER WHITE CARD BOX	355*240*300MM NW: 3.7KG GW: 4.9KG
100	110-130	FLOOD/SPOT	1600	2000	2900	123	98	Side Prong	12 BOXES PER CTN	
120	110-130	FLOOD/SPOT	2100	2000	2900	123	98	Side Prong		
150	110-130	FLOOD/SPOT	2600	2000	2900	123	98	Side Prong		

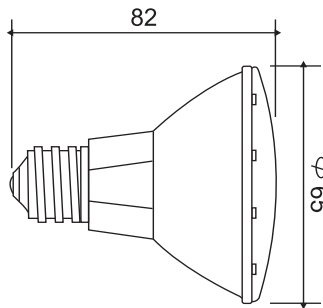


# FIRSTECH LINE VOLTAGE LAMPS



## HALOGEN PAR16

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
35	110-130	FLOOD/SPOT	360	2500	2900	52	84	E17/E26	EACH LAMP	280*225*108MM
50	110-130	FLOOD/SPOT	560	2500	2900	52	84	E17/E26	PER WHITE	NW: 1.8KG
50	220-240	FLOOD/SPOT	450	2000	2900	52	84	E17/E26	CARD BOX	GW: 3.8KG
60	110-130	FLOOD/SPOT	680	2500	2900	52	84	E17/E26	20 BOXES	
60	220-240	FLOOD/SPOT	510	2000	2900	52	84	E17/E26	PER CTN	
75	110-130	FLOOD/SPOT	1200	2000	2900	52	80	E17/E26		

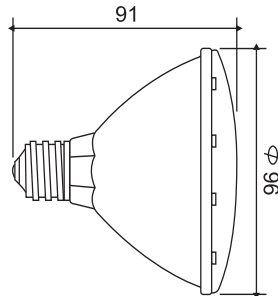


## HALOGEN PAR20

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
35	110-130	FLOOD/SPOT	350	2500	2900	65	82	E26	EACH LAMP	395*205*110MM
50	110-130	FLOOD/SPOT	560	2500	2900	65	82	E26	PER WHITE	NW: 1.44KG
75	110-130	FLOOD/SPOT	1200	2000	2900	65	82	E26	CARD BOX	GW: 2.2KG
50	220-240	FLOOD/SPOT	450	2000	2900	65	82	E27	18 BOXES	
60	220-240	FLOOD/SPOT	520	2000	2900	65	82	E27	PER CTN	

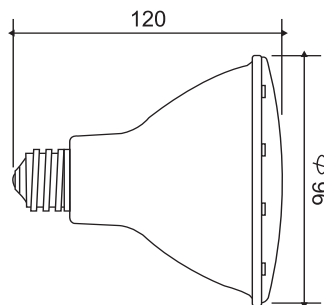
### UNITS PAR14, PAR16, PAR20, PAR30 AND PAR30L

These have long necks and are normally recommended for interior illumination applications. These lamps are very bright, have a whiter light, longer life and are energy efficient. They are replacement lamps for MR16, JDR, R20, R30, R40 and other types of reflector lamps.



## HALOGEN PAR30

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
50	110-130	FLOOD/SPOT	650	3000	2900	96	91	E26	EACH LAMP	540*280*115MM NW: 2.7KG GW: 3.83KG
50	220-240	FLOOD/SPOT	550	2000	2900	96	91	E27	PER WHITE	
75	110-130	FLOOD/SPOT	1100	3000	2900	96	91	E26	CARD BOX	
75	220-240	FLOOD/SPOT	920	2000	2900	96	91	E27	18 BOXES	
100	110-130	FLOOD/SPOT	1600	2000	2900	96	91	E26	PER CTN	
100	220-240	FLOOD/SPOT	1280	2000	2900	96	91	E27		



## HALOGEN PAR30L

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
50	110-130	FLOOD/SPOT	750	3000	2900	96	120	E26	EACH LAMP	470*285*145MM NW: 2.7KG GW: 3.83KG
75	110-130	FLOOD/SPOT	1200	2000	2900	96	120	E26	PER WHITE	
90	110-130	FLOOD/SPOT	1450	3000	2900	96	120	E26	CARD BOX	
75	220-240	FLOOD/SPOT	950	2000	2900	96	120	E27	15 BOXES	
100	110-130	FLOOD/SPOT	1600	2000	2900	96	120	E26	PER CTN	
100	220-240	FLOOD/SPOT	1380	2000	2900	96	120	E27		



# FIRSTECH LINE VOLTAGE LAMPS

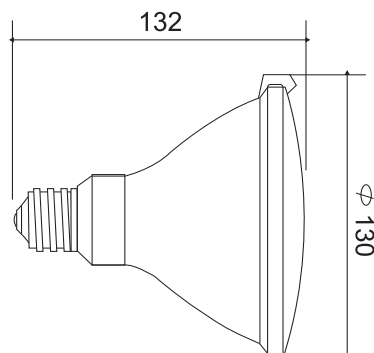
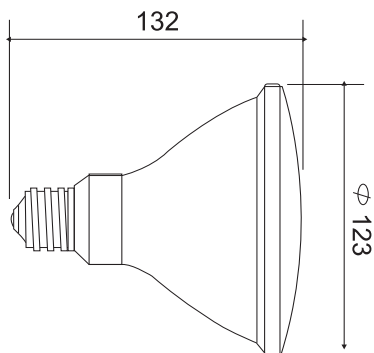


## HALOGEN PAR38 (The Lumens meet EPACKT)

WATTS (W)	VOLT (V)	BEAM SPREAD	LIGHT OUTPUT (LM)	AVERAGE LAMP LIFE (HOURS)	COLOR TEMP (K)	M.O.D. (MM)	M.O.L. (MM)	BASE TYPE	PACKAGE	CARTON MEASUREMENT NET & GROSS WEIGHT
45	110-130	FLOOD/SPOT	500	3000	2900	123	132	E26	EACH LAMP	355X240X300MM NW: 3.7KG GW: 4.9KG
75	110-130	FLOOD/SPOT	1100	3000	2900	123	132	E26	PER-WHITE	
90	110-130	FLOOD/SPOT	1380	3000	2900	123	132	E26	CARD BOX	
75	220-240	FLOOD/SPOT	940	2000	2900	123	132	E27	12 BOXES	
100	220-240	FLOOD/SPOT	1300	2000	2900	123	132	E27	PER CTN	
100	110-130	FLOOD/SPOT	1450	3000	2900	123	132	E26		
120	110-130	FLOOD/SPOT	2050	3000	2900	123	132	E26		
150	110-130	FLOOD/SPOT	2550	3000	2900	123	132	E26		

## COLOR HALOGEN PAR38

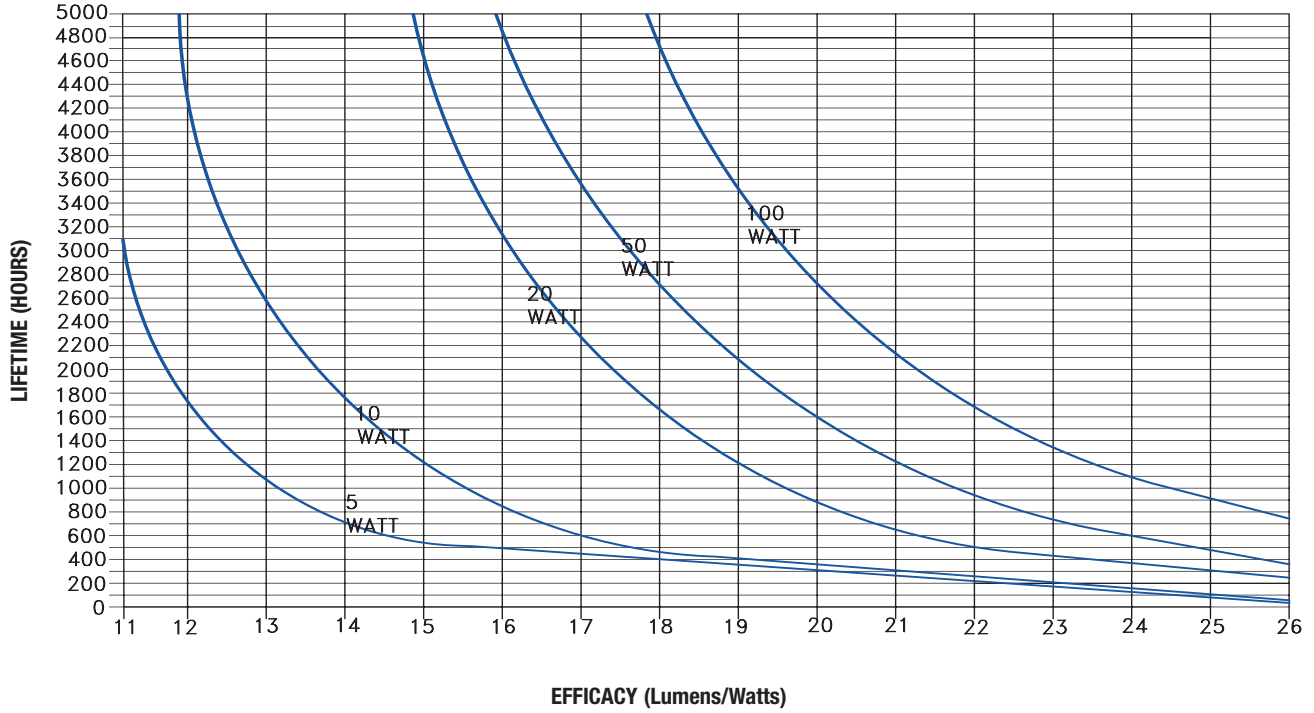
This lamp has excellent color saturation for garden, lawn, stage lighting or even underwater illumination applications. Colored Halogen PAR38 is available in red, blue, yellow, green and purple.



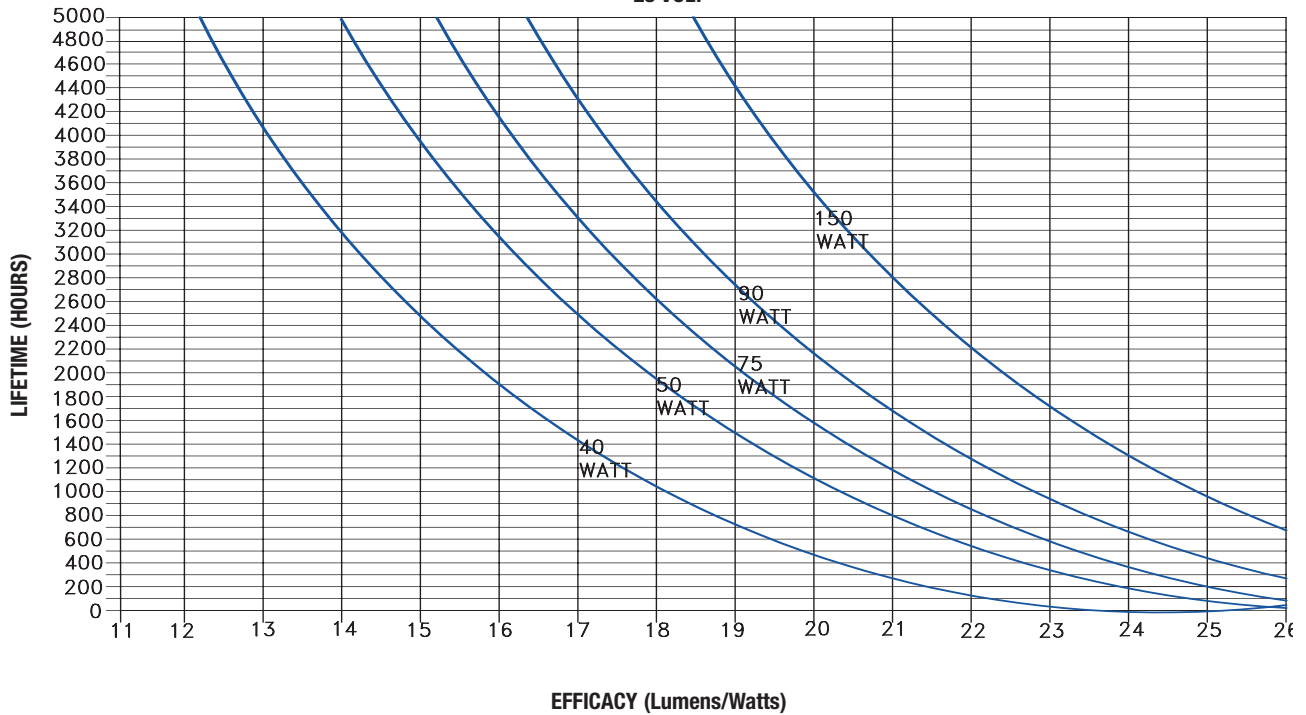


# LIFETIME VERSUS EFFICACY

12 VOLT



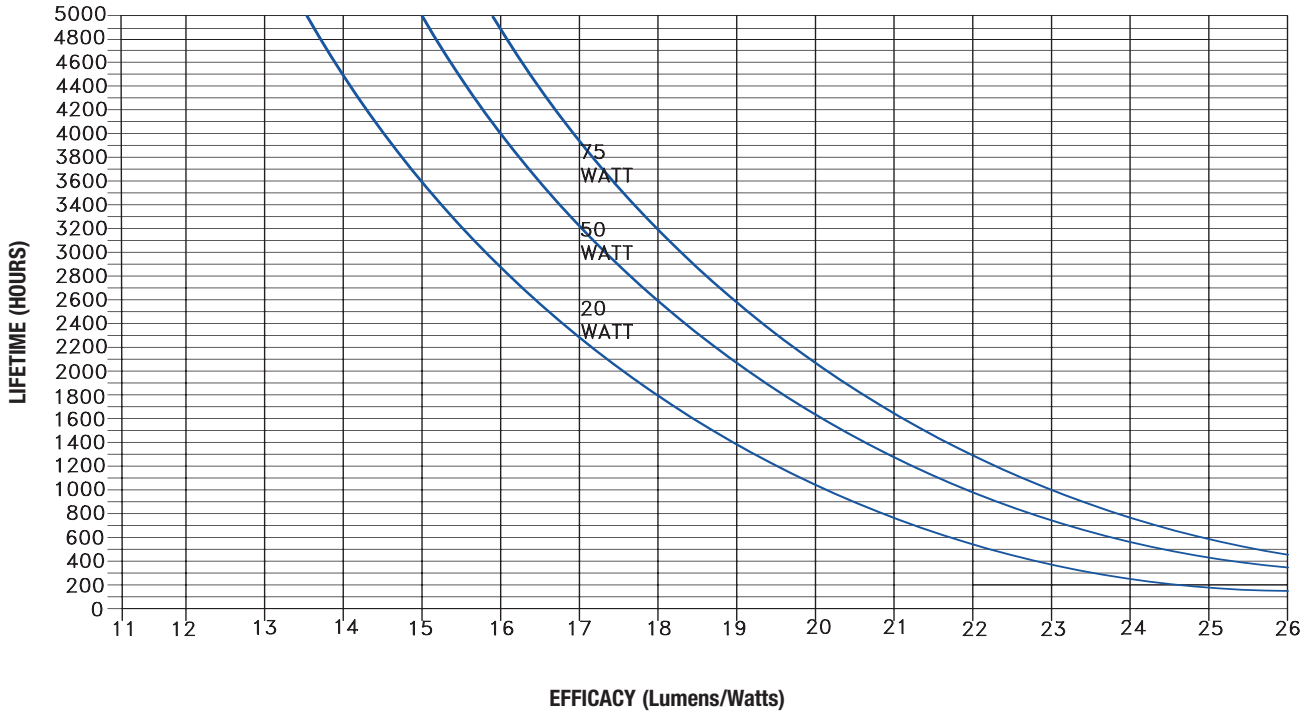
28 VOLT



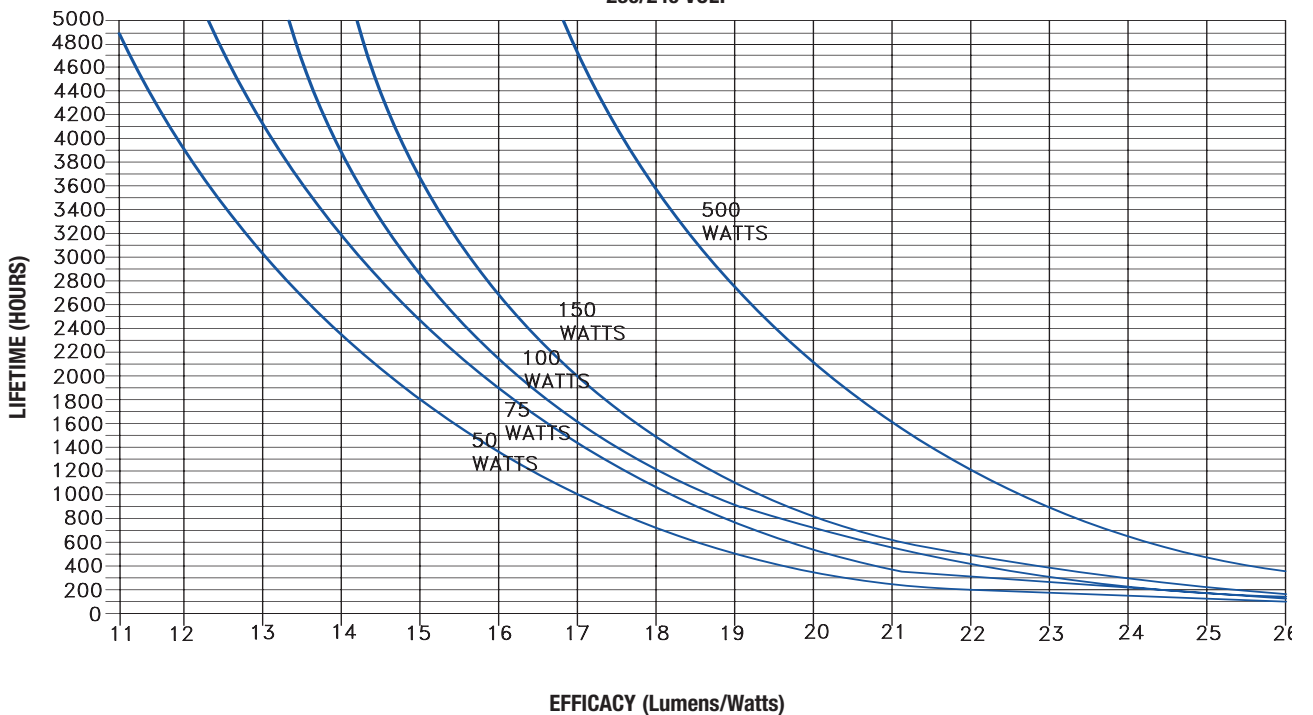


# LIFETIME VERSUS EFFICACY

120/130 VOLT



230/240 VOLT





## (H.I.D.) METAL HALIDE LAMPS

In keeping with Amglo's policy of providing our customers with the latest in lamp technology we have begun designing and manufacturing H.I.D./Metal Halide lamps in our Largo facility. While metal halide lamps offer far greater lumens per watt than tungsten halogen, lifetimes may often be shortened, as applications require rapid start up and hot re-strike characteristics in higher wattage lamps. These requirements often necessitate shortened arc gaps, however, Amglo's electrode fabrication experience gained through years of xenon flashtube manufacturing allows us to extend (normally expected) lifetimes for this family of lamps. Uniquely designed manufacturing equipment allows this division to fabricate lamp bodies with a high degree of consistency while pressing and tubulation equipment insures a high level of construction integrity. Our Largo facility is qualified under State and Federal regulatory agencies to handle radioactive additives when specific lamp designs require this performance enhancement technique. The lamps displayed on the adjacent page are in Production or have been designed and can be altered to achieve a varied range of color temperature and rendering measurements.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

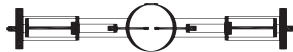


Figure 6

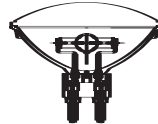


Figure 7

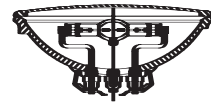


Figure 8

FIG #	AMGLO PART #	ANSI OR INDUSTRY #	AMPS	DESIGN VOLTS	WATTS	INITIAL LUMENS (LM)	AVG RATED LIFE (HOURS)	COLOR RENDERING INDEX	COLOR TEMP. (K)
1	AMHK-250	MSR 250	3.6A	70	250	17,000	2,000	77	6,800
1	AMHK-250/2	MSR 250/2	3.6A	70	250	17,000	2,000	70	8,300
2	AMHK-575/HR	MSR 575/HR	6.95A	95	575	49,000	750	95	6,000
3	AMHK-575/2	MSR 575/2	6.95A	95	575	49,000	750	95	7,500
3	AMHK-700/2	MSR 700/2	11A	72	700	49,000	1,000	80	7,000
3	AMHK-1200	MSR 1200	13.8A	100	1,200	110,000	800	95	5,600
3	AMHK-1200/2	MSR 1200/2	13.3A	90	1,200	105,000	800	85	7,000
4	AMHK-400SA	MSR 400SA	8.4A	54	400	30,000	750	75	5,500
4	AMHK-700SA	MSR 700SA	11A	72	700	50,000	500	80	5,600
4	AMHK-1200SA	MSR 1200SA	13.8A	100	1,200	96,000	750	80	5,400
5	AMHK-1200HR	MSR 1200HR	13.8A	100	1,200	110,000	800	95	5,600
5	AMHK-2500HR	MSR 2500HR	25.6A	115	2,500	240,000	500	95	5,600
5	AMHK-4000HR	MSR 4000HR	24A	200	4,000	380,000	500	95	6,000
6	AMHK-575/GS	575W/GS	7A	95	575	49,000	750		6,000
6	AMHK-1200/GS	1200W/GS	13.8A	100	1,200	100,000	750		6,000
7	AMHK-1200/PAR64	BB 1200/PAR 64	13.8A		1,200	100,000	1,000	90	5,600
8	AMHK-575/PAR46	BB 575/PAR 46	7A		575	45,000	750	90	5,600
8	AMHK-200/PAR36	BB 200/PAR 36	3.1A		200	14,000	500	90	5,600

# LAMP DESIGN CONSIDERATION FORM

## AMGLO KEMLITE LABORATORIES, INC

CUSTOMER _____	APPLICATION _____
CONTACT _____	ANNUAL VOLUME _____
ADDRESS _____	TARGET PRICE _____
PHONE _____	DATE _____
FAX _____	INDUSTRY P/N (ANSI) _____

XENON	HALOGEN	H.I.D./ METAL HALIDE
Anode Voltage Min _____	Halogen _____	Voltage Min. _____
Nom _____	Volts _____	Max. _____
Max _____	Watts _____	Nom. _____
Capacitance (pf) _____	Amps _____	Based Type _____
Joules (WS) $1/2 CV^2$ _____	Envelope Size _____	LCL _____
HZ (Flashes/Sec) _____	Material _____	PAR _____
Watts _____	(quartz, aluminosilicate)	(sealed beam)
Life (Flashes) _____	MSCP (total lumens) _____	Starting Voltage _____
Duty Cycle _____	LPW _____	Hot Restrike Capability _____
Trigger Type _____	Life _____	Instant-on Capability _____
(parallel, series, psuedoseris)	Mount type _____	Life _____
Trigger output (KV) _____	Base Type _____	Duty Cycle _____
Trigger input voltage _____	Burner MOL _____	Wattage _____
Capacitance in trigger circuit _____	Based MOL _____	L.P.W. _____
Trigger initiation method _____	Burner LCL _____	Color Temperature _____
(wire-wrap, conductive paint)	Based LCL _____	Arc Length _____
Material _____	Special Considerations _____	Bore O.D. _____
(borosilicate, quartz, cerium doped, etc)		O.A.L. _____
Flashtube shape _____		Cooling _____
(helical, u-tube, linear, etc )		(air convection, H <sub>2</sub> O)
Termination _____		Termination _____
(flying leads, endcaps )		(flying lead, end caps, par reflector)
Arc length _____		Special Consideration _____
Bore I.D. _____		
O.D. _____		
Optics _____		
(lens, reflector, etc)		
Cooling _____		
(forced air, convection, water)		



# Amglo Kemlite Laboratories

A WORLDWIDE LEADER IN ELECTRONIC GAS DYNAMICS SINCE 1935

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