LAMPS ELECTRIC

THORN ELECTRICAL INDUSTRIES LIMITED

### **Foreword**

THE almost prodigious growth in the production of ATLAS Lamps over the past years is the result of a policy under which we can offer a desirable combination of saving on price without sacrifice to quality.

The standards by which most types of Electric Lamps are judged are regulated by the latest British Standards Institution Specifications, such as No. 161, No. 867 and No. 555, and the object of these Specifications is to lay down rigid limits covering all factors essential to the quality of a high grade lamp, such as Life, Watt Consumption, Initial Efficiency, Efficiency Maintenance Throughout Life, etc.

ATLAS Lamps, Manufactured at our Works at Edmonton, London, are guaranteed to comply with the corresponding B.S.I. Specifications.

### Contents

Purchase Tax on Single Atlas & Lotus Lamps up to and including 250 Watts.

General Purpose. List Price Purchase Tax

Architectural Lamps. List Price P. Tax (cont)

s. d. 10 6

d. 3

5½ 8½ 2 5½ 6 8 0

3½ 4 6 8½ 9½ 10

112  $0\frac{1}{2}$ 

91/2

3½ 4 7½ 0

1 2½ 8  $9\frac{1}{2}$ 

3 1/2  $5\frac{1}{2}$ 

... 8

ARCHITECTURAL LAMPS		, .			, ,		1 9 1 10 2 0		 	4½ 4½ 5	16 3 17 0 18 6
A.R.P. LAMPS	,		,	,	, ,		2 1 2 <b>2</b>		•••	5½ 5½	20 0
A.R.P. LAMPS				,	, ,		2 3			6	21 0
					, ,		2 8 2 9			7	21 9 22 0
BUS LAMPS				,	, ,		3 0		•••	71/2	22 3
				,	, ,		3 2 3 3		•••	8 8 <del>1</del>	22 6 23 <b>0</b>
CAPS			,		, ,		3 6	,	***	9	23 6
CONDITIONS OF SALE			_	,	, ,		3 7		***	9 10‡	23 <b>9</b> 24 <b>6</b>
DECORATION LAMPS	ĺ		,	,	, .		4	3	•••	11	24.9
DECORATION LAMPS DECORATIVE LIGHTING	TAMP	s (Co	lour	(nset)	, .	,		5		111/2	25 <b>6</b> 27 <b>0</b>
DIMENSIONS AND RATI		. (00	,000	,	,		5 2	2	j	11/2	27 <b>6</b> 28 <b>0</b>
FOREWORD	1100	,			,		_	9	***	3   3 <del>1</del>   0	28 <b>0</b> 29 <b>3</b>
GENERAL PURPOSE LAM	PG .			,			6	9	i	$5\frac{1}{2}$	29 6
INSTALLATION PHOTOG		3		,	,	.	7	3	1	6 <del>1</del> /2	32 <b>6</b>
	71(2 11 11						Augl	nitect	ural	Lamps.	33 0
TAND CADC		,	-	,	-		Arci				
LAMP CAPS	FS					<u> </u>	List P	rice	Purch	ase Tax	35 <b>9</b>
LIFE-PHOTOMETER TABI		,			,	<u> </u>	List P	rice d. 0	Purch s 1	ase Tax . d. 81/2	36 2
LIFE-PHOTOMETER TABI	mension	s and	Ratir	rgs)	,	. 1	s. 8 9	rice d. 0 0	Purch s l	ase Tax . d. 8½ 	55.
LIFE-PHOTOMETER TABI LUMEN RATINGS (See Di METHODS OF PRODUCT	mension ION	s and	Ratir	ngs)		. 1	List P	rice d. 0	Purch s 	ase Tax . d. 8½	36 <b>2</b> 38 <b>6</b> 39 <b>3</b>
LIFE-PHOTOMETER TABI LUMEN RATINGS (See Di METHODS OF PRODUCT NATIONAL PHYSICAL L.	mension ION ABORA	s and	Ratir Y RF	ngs)		. 1	s. 8 9	rice d. 0 0	Purch s I	ase Tax . d. . 8½      1   0½	36 <b>2</b> 38 <b>6</b> 39 <b>3</b>
LIFE-PHOTOMETER TABI LUMEN RATINGS (See Di METHODS OF PRODUCT NATIONAL PHYSICAL L ROUGH SERVICE ("ND"	mension ION ABORA TYPE)	s and TOR	Ratir Y RF	ngs)		. 1	s. 8 9	rice d. 0 0	Purch s 1	ase Tax . d 8½ ! !! 2 0½ - 20 6	36 2 38 6 39 3
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LIFE-PHOTOMETER TABIL LUMEN RATINGS (See Di METHODS OF PRODUCT NATIONAL PHYSICAL L. ROUGH SERVICE ("ND" SALES AIDS SERIES BURNING (TRAC SIGN LAMPS STANDARD ABBREVIAT STANDARD BOX QUAN STANDARD VOLTAGES TRACTION LAMPS TRAFFIC SIGNAL LAMPS	mension TION ABORA TYPE) CTION) TIONS TITIES	s and TOR LAM	Ratir Y RF	ngs)		. 1	s. 8 9	rice d. 0 0 6	Purch	ase Tax . d. 8½ !!! 2 0½ - 20 &	36 2 38 6 39 3 221 7 223 10 11 24 over 16 10
LIFE-PHOTOMETER TABIL LUMEN RATINGS (See Di METHODS OF PRODUCT NATIONAL PHYSICAL L. ROUGH SERVICE ("ND" SALES AIDS SERIES BURNING (TRAC SIGN LAMPS STANDARD ABBREVIAT STANDARD BOX QUAN STANDARD VOLTAGES TRACTION LAMPS TRAFFIC SIGNAL LAMPS TRAIN LIGHTING LAMPS	mension TION ABORA TYPE) CTION) TIONS TITIES	s and TOR LAM	Ratir Y RE PS IPS	ngs)		. 1	s. 8 9	rice d. 0 0 6	Purch	ase Tax . d. 8½ !!! 2 0½ - 20 &	36 2 38 6 39 3 221 7 223 10 11 24 over 16 10
LIFE-PHOTOMETER TABIL LUMEN RATINGS (See Di METHODS OF PRODUCT NATIONAL PHYSICAL L. ROUGH SERVICE ("ND" SALES AIDS SERIES BURNING (TRAC SIGN LAMPS STANDARD ABBREVIAT STANDARD BOX QUAN STANDARD VOLTAGES TRACTION LAMPS TRAFFIC SIGNAL LAMPS	mension TION ABORA TYPE) CTIONS TITIES	s and TOR LAM	Ratir Y RE PS IPS	ngs)		. 1	s. 8 9	rice d. 0 0 6	Purch	ase Tax d. 8½ 11 2 0½ - 20 &	36 2 38 6 39 3 221 7 223 10 11 24 over 16 10 10

# ATLAS British Made Lamps

### Methods of Production

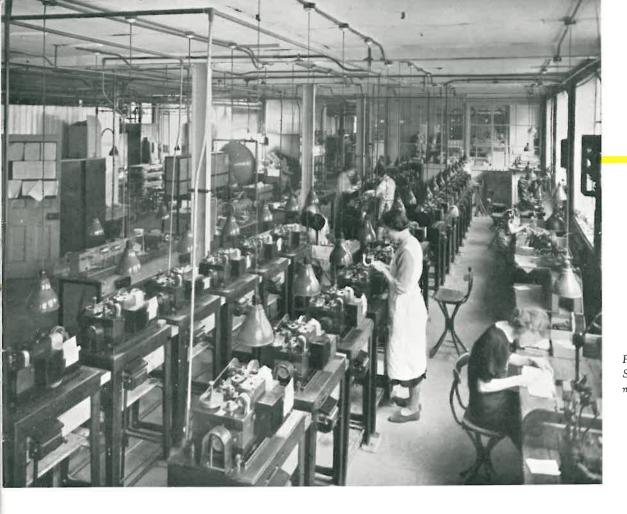
ATLAS technicians are ever striving to improve the quality and performance of ATLAS Lamps. Research, carried out in well-equipped laboratories by highly-skilled scientists, ensures that continual advances are being made.

The latest machines, of almost superhuman intelligence, together with the most up-to-date production methods, in a well-planned factory that provides ideal working conditions, ensure an unsurpassable degree of uniformity of the product.

Supervision at every stage of manufacture, and rigid testing methods applied to every batch of lamps made, under which substantial lamp quantities are yearly submitted to full life tests, achieve the same end.

All these factors make the ATLAS quality supreme and will continue to ensure that there is no better lamp marketed whatever its price.

# ATLAS British Made Lamps



Part of the Spiralizing Section where the Filaments are made and coiled.



Special Assembly and Filament Examining Department.

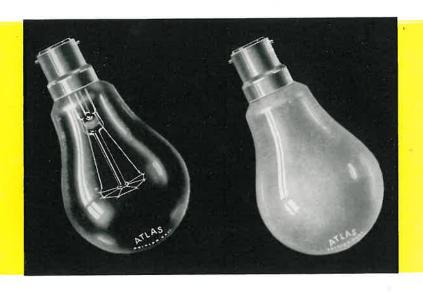


Stem Making and Inserting Machines.



A Row of Capping Machines.

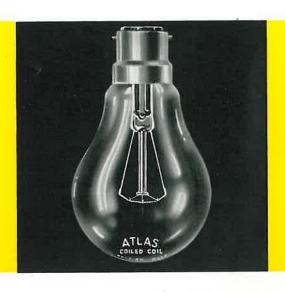
# ATLAS General Purpose Lamps

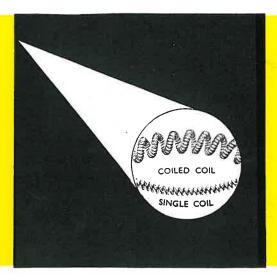


<b>M</b> -44-	177)		Volts	s 100 to 130, 200 to	o 260		
Watts	Description	Pearl	Pearl Clear		Opal	Daylight	
5-8	Night Light	s. d. I 6	s. d. I 6	s. d. —	s. d. —	s. d. —	
15	Vacuum	1 6	I 6	1 9	I 7	2 0	
25	*	I 6	I 6	l 9	1 7	2 0	
40	Gasfilled	I 6	1 6	I 9	I 8	2 0	
60	,,,	I 6	1 6	1 9	1 8	2 0	
75	11	1 9	1 9	2 2	2 2	3 0	
100	11	2 0	2 0	2 2	2 2	3 6	
150	,,	3 2	3 2	3 7	3 6	4 3	
200	,,	5 0	5 0	5 9	5 9	7 3	
300	,,	_	8 0	9 3	9 3	10 3	
500	,1		10 3	11 9	11 9	_	
750	,,	_	13 6	16 0	_	_	
1000	,,	_	14 6	_		_	
1500	111	_	20 0	_			

For Dimensions and Ratings see Page 16.

# ATLAS Coiled Coil Lamps





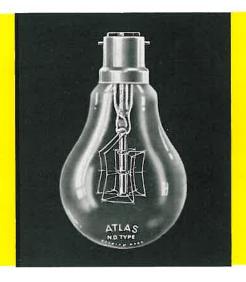
ATLAS Coiled Coil Lamps embody a filament which, after being coiled once (single coil), is coiled again upon itself (coiled coil), as can be seen from the enlargements shown. This reduction of the total filament surface results in an increase of efficiency which in some types amounts to as much as 20 per cent.

ATLAS Coiled Coil Lamps were only released after exhaustive scientific research, and represent the latest developments in the manufacture of coiled coil lamps.

ATLAS	ATLAS COILED COIL LAMPS							
Watts	Volts 100 to 130, 200 to 260							
	Pearl and Clear							
	s. d.							
40	1 6							
60	1 6							
100	2 0							

For Dimensions and Ratings see Page 16.

# ATLAS Type "ND" Lamps (Rough Service)



ATLAS TYPE "ND" Rough Service Lamps are supplied in all standard voltages, standard cap B.C.

	"ND" TYPE LAMPS (Rough Service)											
Watts	Type	Dimensions  Price										
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,42		Diameter	Overall Length								
			mm.	mm.								
20	Vacuum	I 6	60	100								
30	,,	1 6	60	110								
40	21	I 6	60	110								
60	,,	1 6	65	117								
100	Gasfilled	2 0	75	137								

ATLAS "ND" TYPE Rough Service Lamps owe their outstanding properties to their following constructional details:

- I SPECIALLY TEMPERED TUNGS-TEN (Providing strong and non-sagging crystal structure filaments).
- 2 SHOCKPROOF FILAMENT SUSPENSION (Against shocks and incessant vibration).
- 3 STRESS TESTED GLASS SEALS (Minimising glass failure from shock or sudden temperature changes).
- MOISTURE RESISTANT CAPPING (Avoiding "loose caps" caused by steam, chemical fumes and vapours).

# ATLAS Lamps for Economy and Long Life

# ATLAS A.R.P. Lamps

ATLAS "O.D." Types A.R.P. Lamps are designed to act as indicator lamps for outdoor lighting to mark the line of the road, obstructions, danger points, etc., without causing any appreciable illumination visible from the air, particularly if the lower wattages be used.



ATLAS "O.D." Types also serve for emergency lighting of corridors and the lighting of interior doorways without the necessity of elaborate preparations such as double doors, heavy curtains, etc.

TYPE "O.D."

The War Time Lighting Regulations provide for general darkening as a permanent condition from the outbreak of the war by prohibiting all street lighting, and specifying that no light inside any premises may be visible from the outside. The Makers of ATLAS Lamps, who have been leading in the introduction of A.R.P. Lamps, have now issued a complete range allowing for compliance with these new Regulations in the least cumbersome way.

DANGER OF USING ORDINARY LAMPS Ordinary Electric Lamps, however dimmed they may be, are totally unsuitable for War Time lighting. They emit too many yellow and red light rays which penetrate far into the atmosphere should there be any accidental escape of light.

ATLAS SCIENTIFICALLY DESIGNED A.R.P. LAMPS. It was with this knowledge behind them that ATLAS technicians evolved their first A.R.P. lamps, the fundamental principles of which they have now maintained in their "S" Range. All types are made according to use with darker or lighter specially-prepared blue glass which is treated in such a way that it first eliminates the filament glow and in the case of the "O.D." type, absorbs all red and yellow rays. In the case of the "S.L." and "S.M." types these rays are absorbed in conjunction with ordinary curtaining.

ATLAS "S.L." and "S.M." Types (forming the new Shielded "S" Range of ATLAS A.R.P. Lamps) are protected by British Patent No. 495,533. They are made from special blue

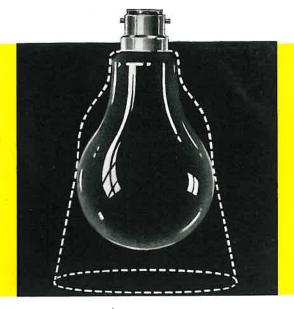
# A necessity for Blackout conditions

# ATLAS A.R.P. Lamps

SHIELDED "S" RANGE.

British Patent No. 495,533





TYPES "S.L." and "S.M."

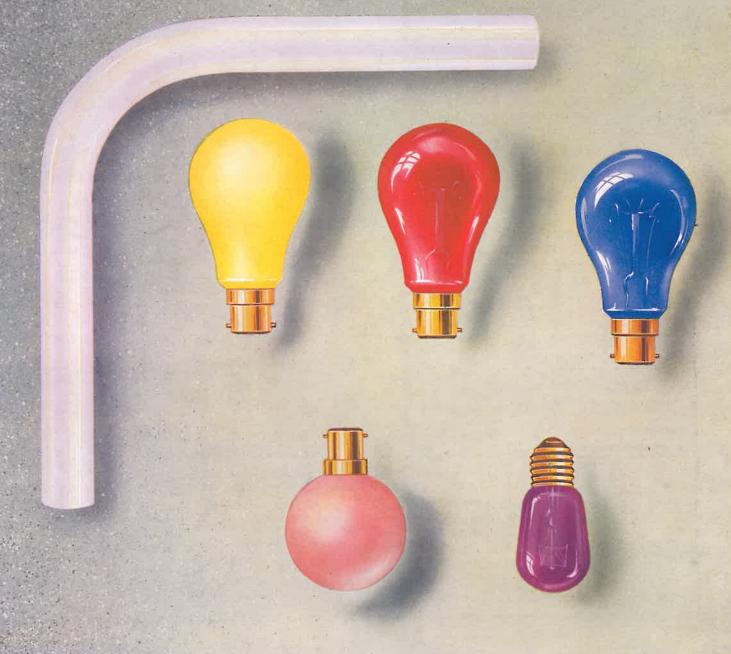
glass with a metal shield to provide for that part of the new regulations which states that no direct light be cast on windows. Any reflected light, which, owing to the special glass used is poor in yellow and red rays, will be absorbed by ordinary curtains. According to the work to be carried out and the density of existing screens or curtains, a wide selection is offered within the various wattages in the range of "S.L." and "S.M." Types ("L" denoting glass of light blue, and "M" denoting glass of medium blue).

A particularly important feature about the "S" Range is that in accordance with the new Regulations, these lamps provide an additional safeguard against the escape of light visible from far above, should blinds or screened glass or other parts of the premises be damaged.

ATL	AS A.R.P. LAI	MPS								
Volts, 2	Volts, 24, 50, 100 to 130, 200 to 260									
	Watts, 40 and 60									
Dark Blue Indicator Type	Medium Blue Shielded	Light <b>Bl</b> ue Shielded								
Туре О.Д.	Type S.M.	Type S.L.								
s. d.	s. d.	s. d.								
2 3	3 0	3 0								

# ATLAS Lamps are a British Triumph

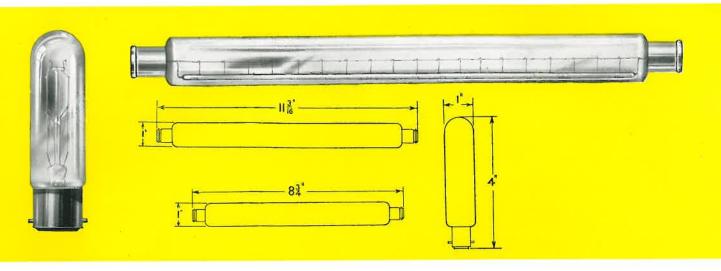
# ATLAS For Beaut



ATI

# ATLAS FOR DECORATIVE LIGHTING AS For Brilliance!

# ATLAS Tubular, Striplite & Candle Lamps



	TUBULAR (Single Ended	_	
	Volts 100-130, 200-2	60	
ts	Length	Clear	Colour Sprayed†
	4" (102 mm.)	s. d. 2 8	s. d. 3 2
	6" (155 mm.)	3 6	4 0
	B" (204 mm.)	4 0	4 6
60 1	I 7 (302 mm.)	4 6	5 0
60	` ,		

	TUBULAR (Double Ended) STRIPLITE										
	Volts 100-130, 200-2	60									
Watts	Watts Length Clear Colour Sprayed										
30	8 <sup>3</sup> / <sub>4</sub> " &    <sup>3</sup> / <sub>16</sub> " (221 mm.) (284 mm.)		d. 6		d. 3						
60	8 <sup>3</sup> / <sub>4</sub> " & [  <sup>3</sup> / <sub>16</sub> " (221 mm.) (284 mm.)	4	3	5	2						
100		6	0	6	9						



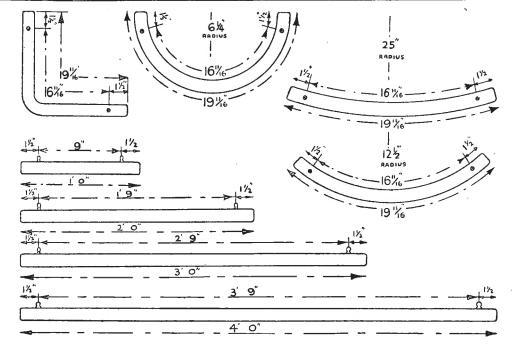
		CANDL	E LAMF	PS	
Watts	Descr.	Descr. Finish Volts 100-130 200-260		Volts 50	Volts 60-80
25	Plain	CLEAR COLOUR†	s. d. 2 9 3 0	s. d. 3 7 4 0	
25	Twist.	CLEAR COLOUR†	3 3 3 7	<u> </u>	
40	Plain	CLEAR COLOUR†	3 2 3 7	<del>-</del>	
40	Twist.	CLEAR COLOUR†	3 7 4 0	_	_



† STANDARD COLOURS: RED, ORANGE, GREEN, FLAME TINT, BLUE, YELLOW, IVORY, PINK

# Architectural Lamps, Prices and Dimensions

				ST	RAI	GHT	LE	NG	ГНЅ							
	Nom.	Nom.	1	θ, 25,	30 m	m. Dia	mete	_		40 mm. Diameter						= 0
Volts.	Length ins.	Length mm.	Nom. Watts	Wh Op		Colo Op		Col- Spra		Nom. Watts	Wh Op		Colo Op			our yed†
100	12	305	35	s. 8	d. 0	s. 9	d. 6	s. 9	d. 0	60	s. 14	d. 9	s. 16	d. 3	s. 16	d. 0
to 260	20	500	60	10	6	12	6	П	6	100	20	3	22	3	21	9
200	24	610	75	16	0	18	6	17	0	120	22	6	24	9	23	9
200	36	915	110	21	0	24	6	23	0	180	29	6	33	6	32	6
to 260	48	1220	150	25	6	29	3	27	6	240	35	9	39	3	38	6
		•	C	URV	ES-	$-\frac{1}{8}, \frac{1}{4}$	or	½ CI	RCL	.ES						
100 to 260	20	500	40 & 60	20	0	23	0	22	0	100	28	0	30	9	30	9
			RIG	HT A	AN	GLE-	–CE	NT	RE B	END						
100 to 260	20	500	40 & 60	23	6	27	0	25	6	100	33	0	36	3	35	9



### STANDARD COLOURS:

<sup>\*</sup> COLOURED OPAL: RED, ORANGE, GREEN, FLAME TINT, YELLOW, PINK † COLOUR SPRAYED: RED, ORANGE, GREEN, FLAME TINT, BLUE, YELLOW, IVORY, PINK

# Standard Voltages, Dimensions and Ratings

### STANDARD VOLTAGES

<b>VOLTAGE</b>	RANGE	•				STANDARD VOLTAGES					
100—130	•••	•••		•••		•••	{	100 120	105 125	110 130	115
200—260	•••	•••	•••	• • •			{	200 240	210 250	220 260	230

NOTE—Unless shown otherwise against each type, prices of lamps NOT shown as standard voltages as above are subject to an extra 25%.

### DIMENSIONS AND RATINGS FOR ALL GENERAL SERVICE TYPES

				Dimensions in mm		Ratings	at 230V*
Type Watts	Description	Standard Cap.	Diameter	Overall Length	Light Centre Length	Lumens	Lumens per Watt throughout Life
							5
15	Single Coil	B.C.	55	92.5	65	118	7.14
25	"	,,	60	100-0	70	215	7.79
40	,, ,,	,,	60	110.0	80	345	7.79
40	Coiled Coil	,,	60	110-0	80	415	9.17
60	Single Coil	**	65	117.5	85	610	9-18
60	Coiled Coil	11	65	117.5	85	700	10.45
75	Single Coil	17	70	125.0	90	820	9.87
75	Coiled Coil	"	70	125-0	90	930	11-11
100	Single Coil	**	75	137-5	100	1210	10.94
100	Coiled Coil	,,	75	137.5	100	1340	11.97
150	Single Coil	"	80	160-0	120	2030	12.00
200	,, ,,	E.S.	90	178.0	133	2900	12.86
300	,, ,,,	G.E.S.	110	233-0	178	<del>4</del> 720	13.92
500	,, ,,	,,	130	267-0	202	8470	14.97
750	1, 1,	,,	150	300-0	225	13610	16.03
1000	,, ,,	***	150	300-0	225	19100	16.80
1500	"	,,	170	335-0	250	30300	17-85

<sup>\*</sup> Ratings are given for Pearl and Clear Lamps up to 200w., and for Clear from 300w. upwards.

# Standard Lamp Caps

Approximate Actual Sizes



SHORT E.S. Code E 27/25



E.S. Code E 27/30



LARGE SKIRT E.S. Code E 27/35



STRIPLIGHT Code 240/S



LARGE SKIRT B.C. Code B 22/31



STRAIGHT B.C. Code B 22/21



B.C. Code B 22/25



M.E.S. Code E 10/20



G.E.S. Code E 40/45



S.E.S. Code E 14/23



S.B.C. Code B 15D/17

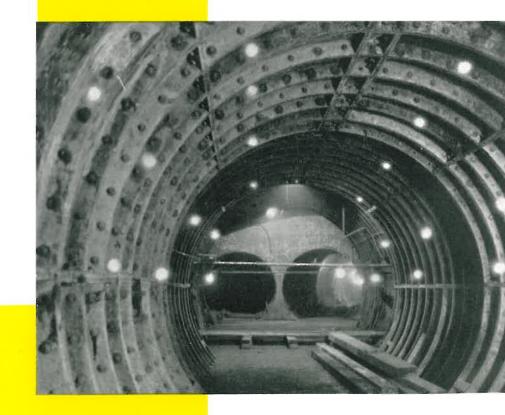


S.C.C. Code B 15S/17



ATLAS LAMPS, being recognised as the most efficient and economic, are the brand selected for use in many of the largest Works and Factories throughout the country. Among the satisfied users of ATLAS Lamps are Government Departments, Municipalities, Corporations, Railways, Hospitals, Public Assistance Institutions, Large Hotels, etc.

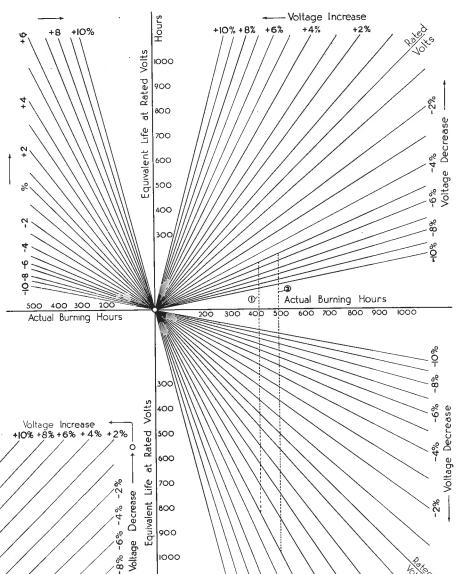
HERE are views of the building of the Purfleet-Dartford Tunnel beneath the Thames. In this difficult and dangerous operation ATLAS "ND" TYPE (Rough Service) LAMPS were used throughout and proved their utmost reliability under the most trying circumstances. It is unnecessary to emphasize the importance of the highest standard of efficiency being maintained in such an undertaking as this.



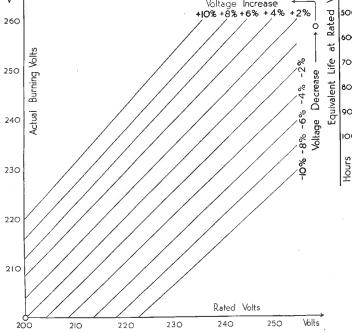
# Life-Photometer Tables for Standard Gasfilled Lamps

HE actual supply voltage usually differs from the voltage at which lamps are rated and to facilitate the calculation of the life that can be expected at different voltages, or the rated life required to obtain a definite number of burning hours at a certain voltage, we have prepared these graphs.

The small diagram below shows at a glance the voltage increase or decrease in percentage for any given rated voltage (horizontal line) and actual supply voltage (vertical line). The main graph, apart from showing the connection between the actual burning hours and equivalent life at rated voltage for varying voltages, illustrates some more interesting facts. For instance, the dotted line marked 1 shows that if a lamp is used on a fluctuating voltage so that the mean value of the voltage is actually equal to the rated voltage, but the actual value fluctuates between 5% increase and 5% decrease. so that the lamp burns half its



+10% +8%

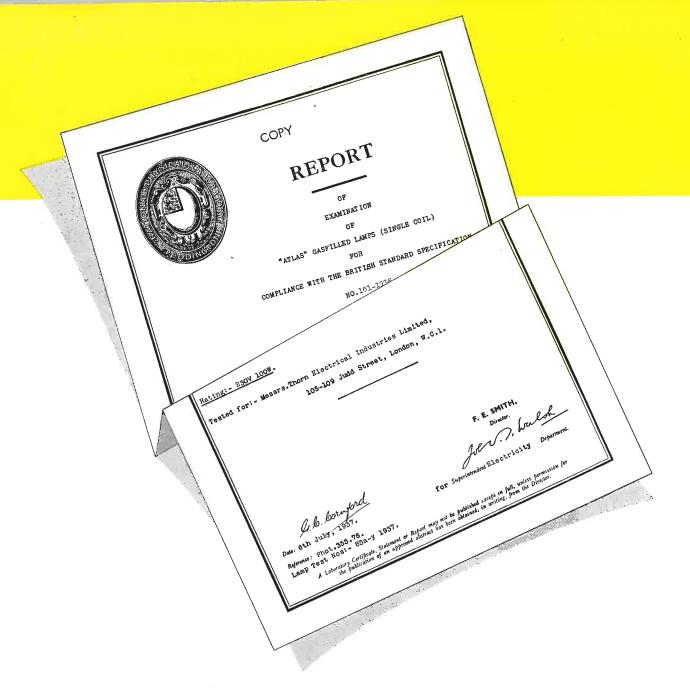


life on the higher voltage and half on the lower voltage (which is somewhere near usual working conditions), the actual burning hours will be reduced to 835 hours. If it is required that the lamp should last its average 1,000 hours under these conditions, it has to be made to a rated life of about 1,200 hours as shown by the dotted line marked 2.

+4%

-Voltage Increase

The graph has quite a number of further applications, which will no doubt present themselves without difficulty to the interested consumer.



### METHOD OF SELECTION OF LAMPS

A batch of 500 lamps, packed in 5 boxes of 100 lamps, was submitted to the National Physical Laboratory for inspection; from these lamps 5 from each box, making a total of 25, were selected in accordance with the specification for the test.

### TESTS FOR COMPLIANCE WITH CLAUSES 2-8 OF THE SPECIFICATION

The twenty-five lamps were examined and with the exception of Lamp No. 83k 1937, which failed to pass the torsion test, were found to comply with the requirements of clauses 2-8 of the specification. The "Insulation Resistance Test" (clause 8) was carried out at the National Physical Laboratory.

### PRELIMINARY AGEING PERIOD

The lamps were burnt for a period of one hour at rated voltage before measurement.

#### INITIAL RATING MEASUREMENTS

The lamps were measured initially for lumens, watts and lumens per watt at the rated voltage with the following results:—

Initial Rating Measurements on Twenty-five 230V. 100W. (Rating) Atlas Gasfilled Lamps (Single Coil)

Laboratory Mark on Lamp	Volts	Lumens	Watts	Lumens per Watt	Laboratory Mark on Lamp	Volts	Lumens	Watts	Lumens per Watt
83a 1937 83b 1937 83c 1937 83c 1937 83e 1937 83f 1937 83f 1937 83h 1937 83i 1937 83i 1937 83k 1937 83k 1937 83m 1937	230·0 230·0 230·0 230·0 230·0 230·0 230·0 230·0 230·0 230·0 230·0 230·0 230·0	1185 1220 1190 1175 1175 1170 1180 1170 1165 1155 1200 1155	101·1 101·3 100·4 101·5 100·0 100·5 101·4 100·8 100·7 100·5 100·3 100·6 100·9	11-70 12-05 11-85 11-60 11-75 11-70 11-55 11-70 11-60 11-60 11-50 11-95 11-45	830 1937 83p 1937 83q 1937 83r 1937 83s 1937 83t 1937 83v 1937 83v 1937 83w 1937 83w 1937 83y 1937 84 1937 85 1937		1185 1175 1195 1175 1175 1165 1195 1145 1195 1175 1200	101-7 100-4 100-8 101-2 100-8 101-2 100-9 100-4 101-3	1.65   1.70   1.85   1.60   1.65   1.50   1.85   1.40   1.80   1.60   1.85

Note—The values of lumens given above may be regarded as accurate to within ± 1.5 per cent.

The averages of the initial watts and of the initial efficiencies of the twenty-five lamps comply with the requirements of clause 9 of the specification.

The "Coefficient of Variation" of the initial efficiencies of the lamps was found to be 1.33.

#### SELECTION OF LIFE TEST QUANTITY

In accordance with the specification, twelve lamps from the "Rating Test Quality" were selected for life test in the manner specified in clause 14 (a) of the specification.

The following lamps formed the "Life Test Quantity", Nos.—83a, c, e, g, i, l, m, o, q, s, u and w 1937.

#### LIFE TEST

The lamps were set up for life test in the pendent position and operated at the rated voltage.

Throughout the life test the voltage was maintained constant.

The current supplied to the lamps was switched off for a period of not less than 15 minutes twice each day.

Measurements of lumens and watts at the rated voltage were made at the specified intervals during the life test.

Seven of the lamps burnt out after burning for the following number of hours: (see table on right.)

Laboratory Mark on Lamp	Hours of Burning				
83a 1937	805				
83c 1937	758				
83e 1937	775				
83i 1937	946				
831 1937	775				
83s 1937	922				
83w 1937	922				

### AVERAGE LUMENS, WATTS, AND LUMENS PER WATT RESULTS

Table No. 2 gives the average lumens, watts, and lumens per watt of the lamps at intervals during the life test when measured at the rated voltage.

TABLE No. 2

Average Results of Twelve 230V. 100W. (Rating) Atlas Gasfilled Lamps (Single Coil)
at intervals during the life test

Hours of or Burning	Average Lumens of Lamps Burning	Average Watts of Lamps Burning	Average Lumens per Watt of Lamps Burning	Number of Lamps Burning
0	1,182	100.9	· 11·72	12
100	1,169	100-5	11.63	12
260	1,156	100-3	11.53	12
496	1,121	99.75	11.24	12
752	1,091	99.20	11.00	12
963	1,062	99.10	10.72	5

#### SUMMARY OF RESULTS OF LIFE TEST

Average Life of twelve lamps to 963 hours = 893.2 hours.

Average Efficiency of twelve lamps to 963 hours = 11.30 lumens per watt.

Five of the twelve lamps were still burning at 963 hours when, in accordance with the specification, the test was discontinued.

The batch of 500 lamps, represented by those tested as described in this Report, complies with the requirements of the British Standard Specification for Tungsten Filament General Service Electric Lamps.

### A Few ATLAS Sales Aids



### Ensure Satisfied Users



## List of Standard Abbreviations

To facilitate the execution of orders, it is strongly recommended that the following standard abbreviations should be used:

### CAP

If not otherwise stated: -

BC up to 150 watts inclusive.

**ES** for 200 watts.

GES from 300 watts upwards.

BC Bayonet.

ES Edison Screw.

CC Centre Contact.

MES Miniature Edison Screw.

GES Goliath Edison Screw.

S prefixed denotes "small", for instance: SBC Small Bayonet Cap.

#### **TYPE**

ND "ND" type (rough service).

CoC Coiled Coil.

PS Pear shape.

RB Round bulb.

OS Onion shape.

NL Night Light.

Sign lamp.

Pam Pigmy.

Arc Architectural.

Ctw Candle twisted.

Cpl Candle plain.

Tde Tubular double-ended (Striplite).

Tse Tubular single ended.

### Tr Traction.

TSg Traffic signal.

Trn Train lighting.

SB Series burning.

**OD** Indicator type A.R.P. Lamp.

SM Medium Blue Shielded type

A.R.P. Lamp. Light Blue Shielded type

A.R.P. Lamp.

Cbn Carbon filament.

Proj Projector.

SL

Pho Photoflood.

Dec Decoration.

### **FINISH**

C Clear.

P Pearl (internally frosted).

Fr Externally frosted.

Op Opal.

Dlt Daylight blue.

Spr Sprayed.

Var Varnished.

Nat Natural coloured glass.

IS Inside silvered.

Pi Pink.

lv Ivory.

Fl Flame.

Am Amber.

Or Orange.

Ye Yellow.

Wh White.

Gr Green.

Bl Blue.

Re Red.

Wy Wholly finished as stated.

Py Partly finished as stated.

# Conditions of Sale and Standard Box Quantities

### CONDITIONS OF SALE

Resellers of ATLAS Lamps are bound by our conditions of sale as under and orders are executed on the understanding that these have been accepted.

(I) PRICES AND DISCOUNTS

as determined from time to time must be observed by all resellers, who shall not offer ATLAS Lamps for sale other than at these prices, less discounts where permitted, as set out in our table of discounts.

(2) TERMS OF PAYMENT

are 2½% cash or nett monthly for approved accounts.

(3) NEW ACCOUNTS.

Cash with order or against pro forma invoice is required from new customers. Where it is desired to open a credit account, Bankers' and two trade references must be given. Credit accounts are opened at our discretion and then only on orders of a nett amount of £2 and over.

(4) DISPATCH.

Free delivery is made in the London area and within a two-mile radius of our Provincial depots. In other areas carriage is paid on orders of £2 upwards. Orders under £2 are sent carriage forward, unless special arrangement is made otherwise, when carriage will be charged at cost. Customers desirous of receiving their goods by passenger train will be charged two-thirds of such carriage on orders of £2 or over, and the full carriage on orders of under £2 in value.

(5) PACKING

No charge is made for packing of orders to the value of £2 and upwards. Orders of smaller value are subject to a charge of 1/· for packing. No credit can be given for returned empties.

(6) SAFE DELIVERY.

Our system of packing practically abolishes risk of breakage, but any lamps which may be broken in transit will be credited or replaced if we are advised and the goods returned carriage paid within seven days of the date of invoice.

(7) GUARANTEE.

ATLAS Lamps conform in every way to the latest B.S.I. Specifications and are fully guaranteed against defects. Replacements of any lamps proving not up to standard will be made, or credit given subject to their being returned carriage paid and notification being sent to us.

(8) SPECIAL ORDERS.

Lamps for non-standard voltages or of types not included in our range are quoted for only on the understanding that 25% of the nett value of the order is deposited with us.

(9) GENERAL.

The prices in our Catalogue are those ruling on date of issue and are subject to alteration without notice.

(10) FORCE MAJEURE, ETC.

Every effort will be made to carry out any contract we accept, but the due performance of it is subject to variation or cancellation owing to an act of God, War, Strikes, Lockouts, Fire, Flood, Drought, or any other cause beyond control, or owing to inability to procure materials or articles except at increased prices due to any of the foregoing or other causes.

### STANDARD BOX QUANTITIES

All stock lines of ATLAS Lamps are already packed in the quantities shown below, so that they can be despatched with the least possible delay. The quantities specified are packed in strong boxes of convenient shape, size and material, to be stacked on top of each other to form storage bins.

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Dou	ble-end	ed and	$11\frac{7}{8}$ "	single	ended	Tub	ular l	Lamps	-	•	-	36	

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ELECTRIC LAMPS

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