



# ALTO™

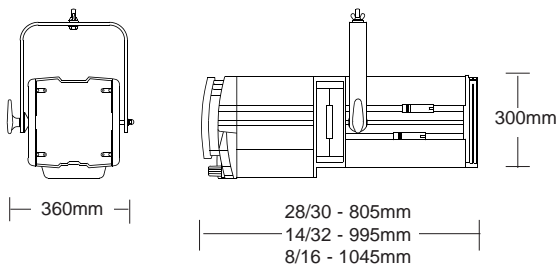
## Fresnel, PC and profile spotlights

### 2000 & 2500W

#### Features

Each model in the Alto range has been designed to provide a winning combination of performance and controllability to establish Alto as the obvious lighting solution for the larger venue

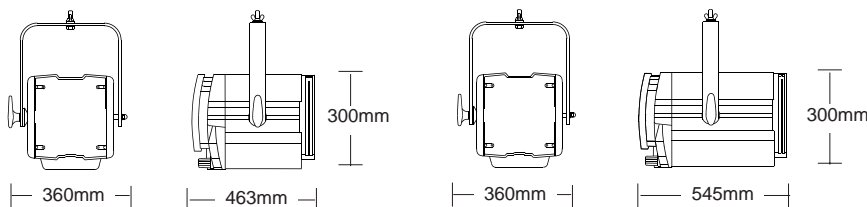
- ❑ Designed around 2500W CP91 lamp for increased performance
- ❑ Range comprises fresnel and PC spot and three variable beam angle profile spots
- ❑ Profile spots incorporate articulated yoke and rotating gate for enhanced controllability
- ❑ All models feature microswitch isolated lamp change system for improved safety
- ❑ Easy to use lamp adjustment on profiles
- ❑ Durable yet lightweight construction of pressure die cast and formed sheet aluminium covers



Alto 20/38  
Alto 14/32  
Alto 8/16

Alto F

Alto PC



#### Weights and dimensions

	Alto F	Alto PC	Alto 8/16	Alto 14/32	Alto 20/38
Weight	10.0kg	12.2kg	19.0kg	19.0kg	17.0kg
Packed Weight	12.0kg	13.0kg	18.5kg	18.5kg	17.5kg
Packed Volume	0.10m <sup>3</sup>	0.11m <sup>3</sup>	0.20m <sup>3</sup>	0.20m <sup>3</sup>	0.17m <sup>3</sup>

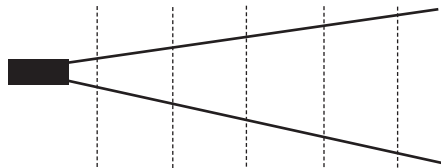


## Photometric data

Typical performance based on laboratory readings using CP91 2500W lamp

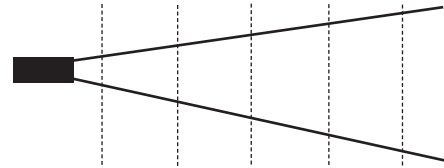
### Alto F: Spot

Distance (m)	7.5	10	12.5	15	20
Beam Ø (m)	-	1.3	1.6	1.9	2.6
Illum (lux)	-	3625	2320	1610	900



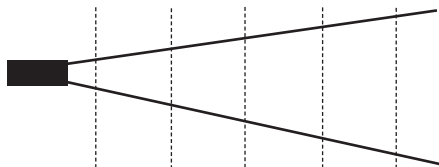
### Alto F: Flood

Distance (m)	7.5	10	12.5	15	20
Beam Ø (m)	8.1	10.8	13.6	18.7	-
Illum (lux)	600	340	220	150	-



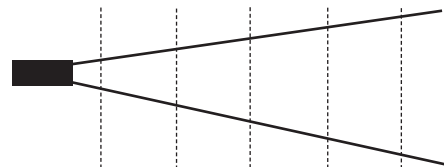
### Alto PC: Spot

Distance (m)	7.5	10	12.5	15	20
Beam Ø (m)	-	0.8	1.0	1.2	1.6
Illum (lux)	-	5620	3600	2500	1400



### Alto PC: Flood

Distance (m)	7.5	10	12.5	15	20
Beam Ø (m)	8.5	11.4	14.2	17.1	-
Illum (lux)	510	290	185	-	-



To calculate lux levels at any throw distance divide the following factors by the distance squared:

	Alto F	Alto PC	Alto 20/38	Alto 14/32	Alto 8/16
Spot/Narrow	362670	561900	236210	394450	621550
Flood/Wide	34240	28860	90145	135700	292290

e.g. Alto PC at full flood over 12m throw

$$28860/144 = 200\text{Lux}$$

To calculate beam diameters at any throw distance multiply the throw in metres by the following factors:

	Alto F	Alto PC	Alto 20/38	Alto 14/32	Alto 8/16
Spot/Narrow	0.13	0.08	0.35	0.25	0.14
Flood/Wide	1.25	1.14	0.69	0.57	0.28

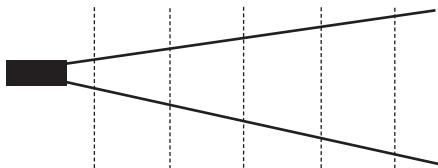
e.g. Alto PC at full flood over 12m throw

$$1.14 \times 12 = 13.68\text{m}$$



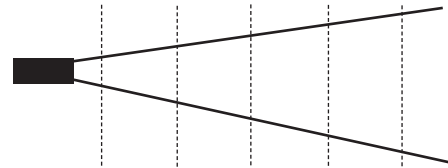
**Alto 20/38: Narrow (20°)**

Distance (m)	7.5	10	12.5	15	20
Beam Ø (m)	-	3.5	4.4	5.3	7.1
Illum (lux)	-	2365	1510	1050	600



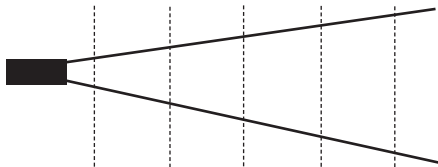
**Alto 20/38: Wide (38°)**

Distance (m)	7.5	10	12.5	15	20
Beam Ø (m)	5.2	6.9	8.6	10.3	-
Illum (lux)	1600	900	575	400	-



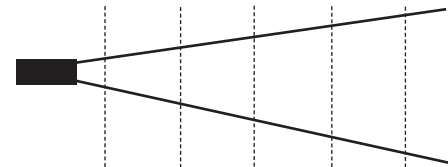
**Alto 8/16: Narrow (8°)**

Distance (m)	15	20	25	30	35
Beam Ø (m)	-	2.8	3.5	4.2	4.9
Illum (lux)	-	1560	1000	700	500



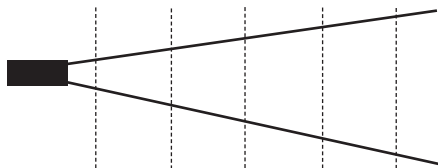
**Alto 8/16: Wide (16°)**

Distance (m)	15	20	25	30	35
Beam Ø (m)	4.2	5.6	7.0	8.4	-
Illum (lux)	1300	730	470	325	-



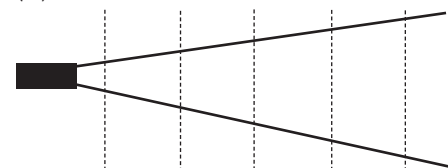
**Alto14/32: Narrow (14°)**

Distance (m)	10	12.5	15	20	25
Beam Ø (m)	1.8	2.5	3.1	3.7	4.9
Illum (lux)	3945	2525	1750	1000	630



**Alto14/32: Wide (32°)**

Distance (m)	10	12.5	15	20	25
Beam Ø (m)	-	5.7	7.2	8.6	11.5
Illum (lux)	-	870	600	340	-





## Operational features

### Lamp Access

Rear catch releases drop down lower covers to give access to slide down lampholder assembly. Power is disconnected when lower covers open.

### Focus Adjustment

#### F & PC:

By rotary control on front and rear of lamphouse

#### Profiles:

By locking screw handles on side of lens tubes with focus setting indication provided

### Lamp Adjustment

Beam distribution on profiles adjusted by rotary control on rear of lamphouse. Lamp alignment adjusted by screwdriver on rear panel.

### Suspension

Alto profiles are fitted with articulated fork to allow steep angles when hung from pipe. Alto F & PC are fitted with conventional forks.

### Accessories

Alto Mk2 F & PC accept a new four leaf rotating barndoor which will also fit Mk1 models. Alto profiles incorporate runners to accept a gobo holder for 'A' size gobos or an 18-leaf iris. All Alto spotlights have colour runners to take DIN standard 245 x 245 mm colour frames.

## Mechanical/Electrical Data

### Construction

Pressure die cast front and rear panels with extruded aluminium tie bars and formed aluminium cover panels all finished in two tone grey and black epoxy powder coating.

### Gate/Lenstube

Pressure die cast gate assembly is rotatable through 220 and houses four removable beam shaping shutters and runners for gobo holder or iris.

### Lenses

Heat resistant borosilicate lenses. F & PC lenses mounted in die cast front panel behind 25mm wire guard. Profile lenses housed in die cast carriers sliding on bearing rods.

### Lampholder

G22 to take lamps of 90 mm LCL and maximum of 2500W

### Supply Voltage

230V +/- 10% 50/60 Hz

### Standards compliance

Designed to conform to EN 60 598 2-17

## Ordering information

Alto F & PC are supplied complete with 1.5m and Alto profiles with 3m of 2.5mm<sup>2</sup> cable terminated with fitted plug. All Alto spotlights are also supplied with metal colour frame and CP92 2000W lamp. 240V models come with 15A plug and 240V lamp. 230V models come with Schuko connector and 230V lamp.

Cat No	Description	Optional accessories & replacement lamps
12204	Alto F Mk2, 240V	19112 Barndoor, 4 leaf rotatable
12203	Alto F Mk2, 230V	18202 Gobo Holder for 'A' size gobos
12214	Alto PC Mk2, 240V	
12213	Alto PC Mk2, 230V	18201 Iris, 18 leaf
12124	Alto 8/16, 240V CP92	82011 Hook Clamp, heavy duty
12123	Alto 8/16, 230V CP92	82001 Safety cable, heavy duty
12134	Alto 14/32, 240V CP92	55001 Colour Call Scroller CC1
12133	Alto 14/32, 230V CP92	18203 Additional colour frame, metal
12144	Alto 20/38, 240V CP92	43924 CP91 Lamp 2500W, 3200K, 400Hr - 240V
12143	Alto 20/38, 230V CP92	43923 CP91 Lamp 2500W, 3200K, 400Hr - 230V
		43924 Additional CP92 Lamp 2000W, 3200K, 400Hr - 240V
		43923 Additional CP92 Lamp 2000W, 3200K, 400Hr - 230V

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