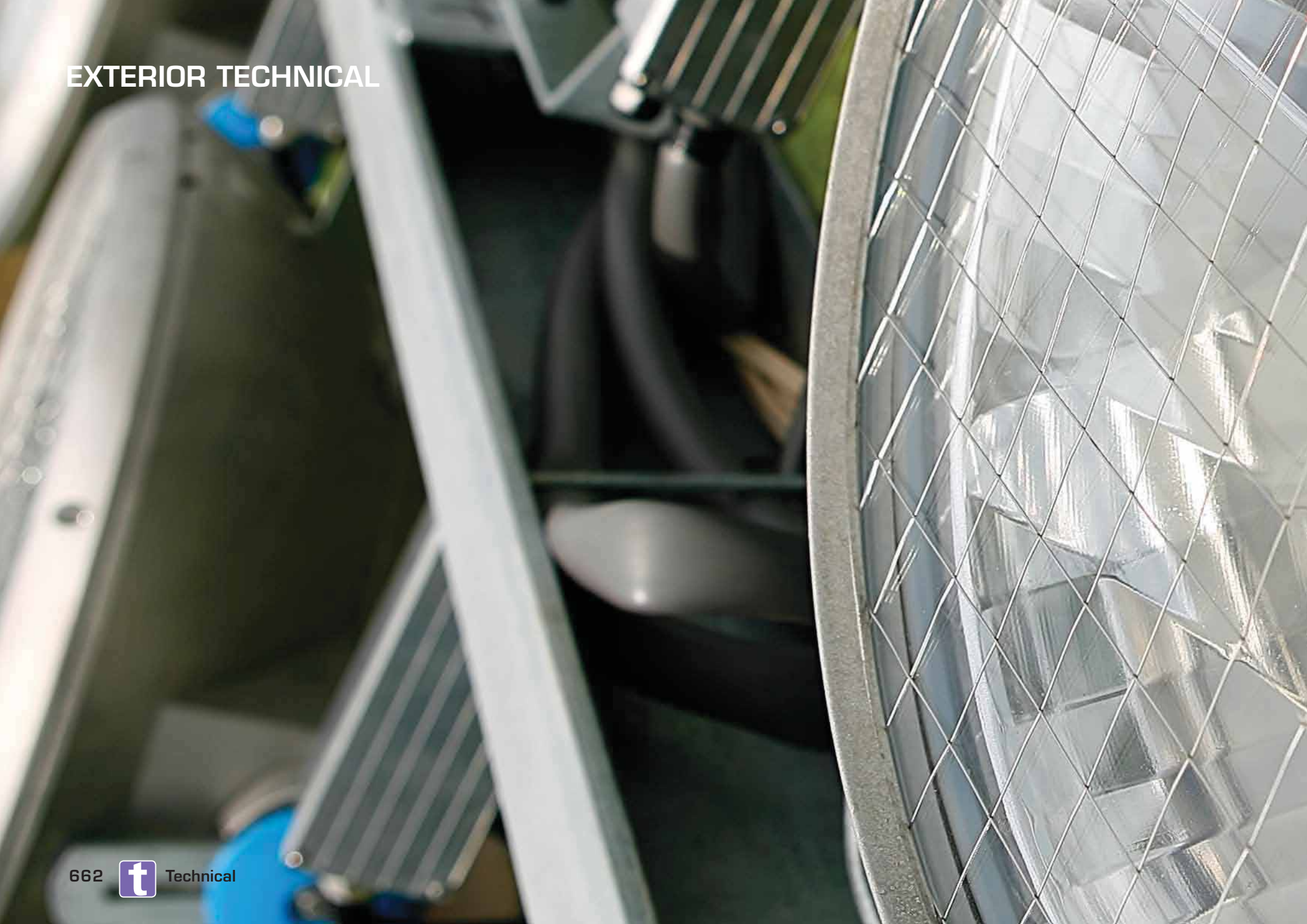
EXTERIOR TECHNICAL



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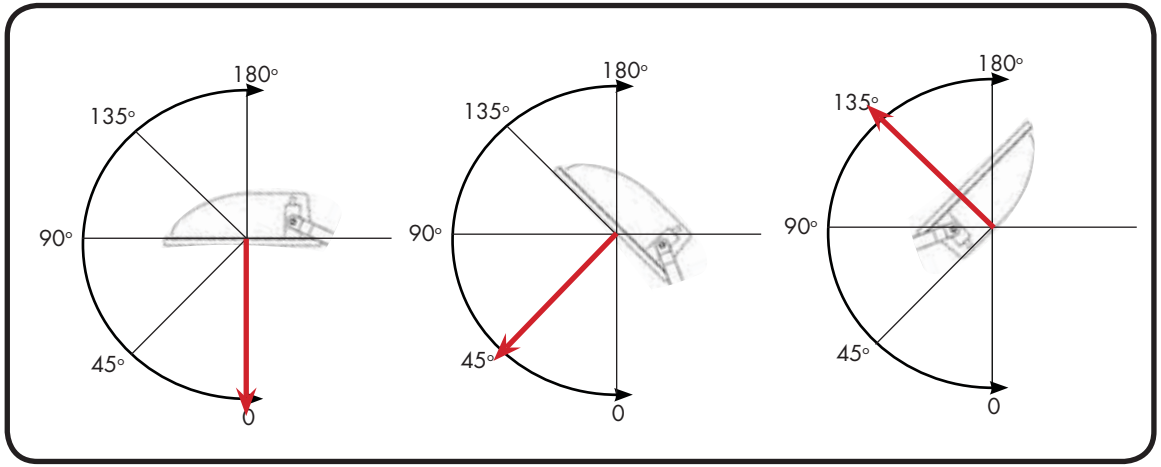
PRODUCT	VERTICAL AIMING LIMITS
Force	45 / 135
Foca 70	45 / 135
Foca 250	45 / 135
Giga	45 / 135
Mini Marine	45 / 135
Mini Master	45 / 135
Maxi Master	45 / 135
Contour	45 / 135
Tarmac	0
Area Master	0
Olympic	90 / 10
Stainless HID	45 / 135
Stainless TH	45 / 135
Domain 1000	0
Domain M	0



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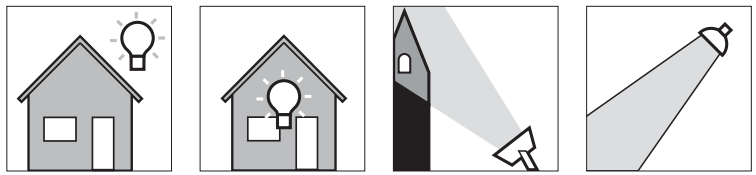
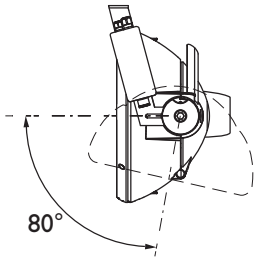
ARENAVISION

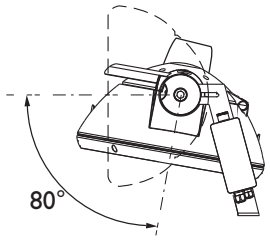
MVF 404 / MVF 404 HRE
MVF 404 UP / MVF 404 UP HRE

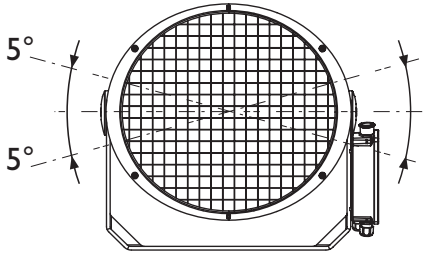


MVF 404	15	65	I	0,2/70°
MVF 404 HRE*	19,2	65	I	0,2/70°

MHN-SE 2000W-400V	5	25°C	35°C
MHN-SE 2000W-400V	5	-	25°C



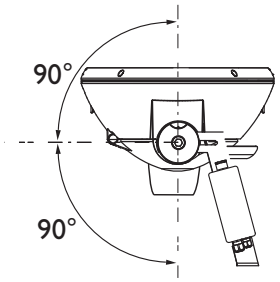


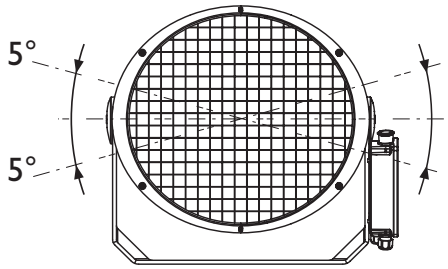


** Limited to 1000 m /3300 Ft*

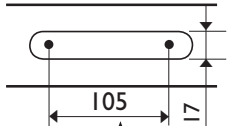
	kg	IP..		S.Cx m²	complies with IEC 598
MVF 404 UP	15,5	65	I	0,2/70°	
MVF 404 UP HRE*	19,7	65	I	0,2/70°	

		max Ta	max Ta
MHN-SE 2000W-400V	5	25°C	35°C
MHN-SE 2000W-400V	5	-	25°C

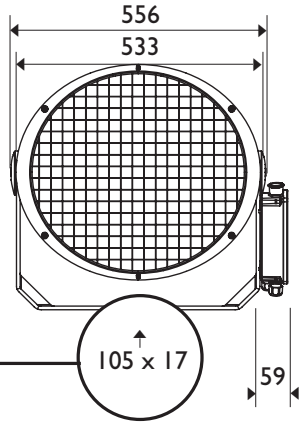




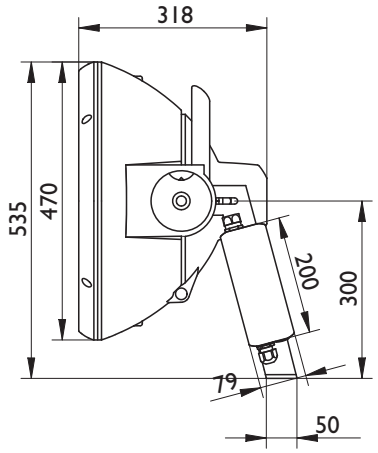
** Limited to 1000 m /3300 Ft*



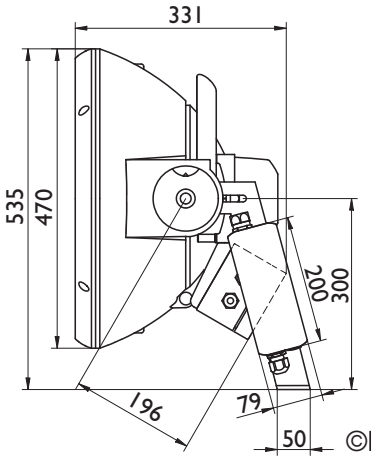
MVF 404
MVF 404 UP
MVF 404 UP HRE



MVF 404
MVF 404 UP



MVF 404 UP HRE



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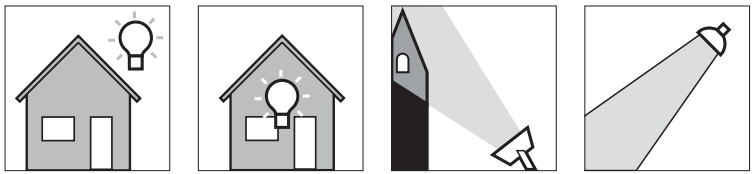
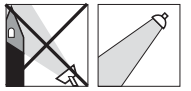
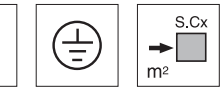
ARENAVISION

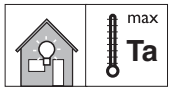
MVF 403 / MVF 403 HRE
MVF 403 UP / MVF 403 UP HRE

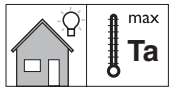




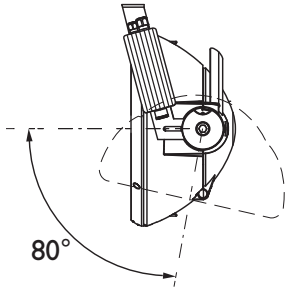


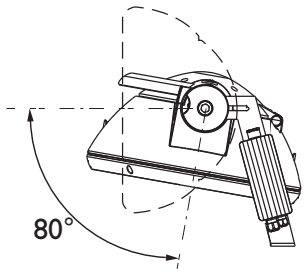
MVF 403	13,7	65	I	0,19/70°
MVF 403 HR	18,5	65	I	0,19/70°

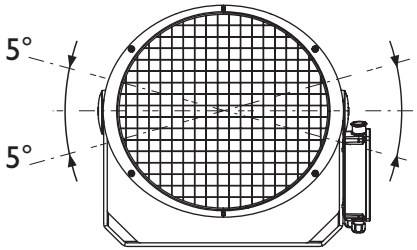





MHN-LA 1000W-230V	I	45°C	45°C
MHN-SA 1800W-230V	3,5	25°C	35°C

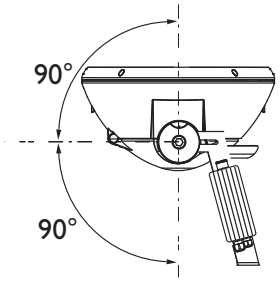


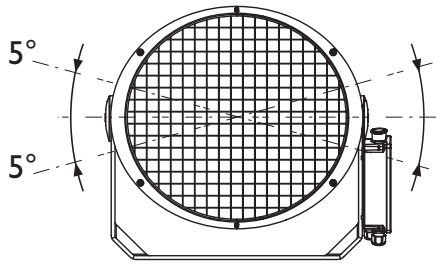


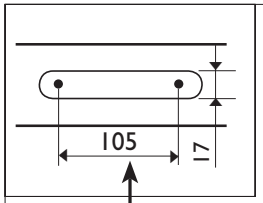


	kg	IP..		S.Cx m²	complies with IEC 598
MVF 403 UP	13,7	65	I	0,19/70°	
MVF 403 UP HR	18,5	65	I	0,19/70°	

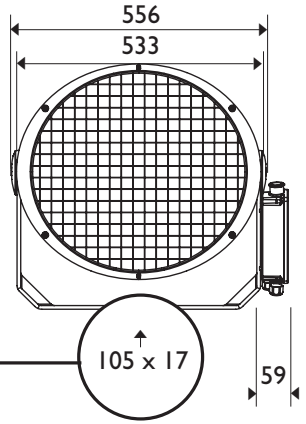
		max Ta	max Ta
MHN-LA 1000W-230V	I	45°C	45°C
MHN-SA 1800W-230V	3,5	25°C	35°C



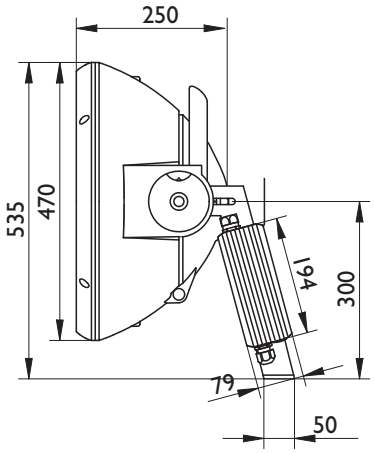




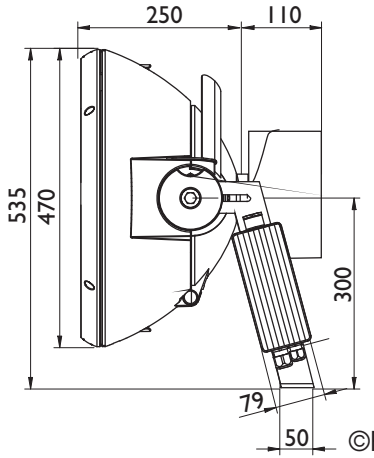
MVF 403
MVF 403 UP
MVF 403 UP HR



MVF 403
MVF 403 UP



MVF 403 UP HR



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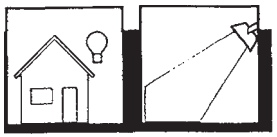
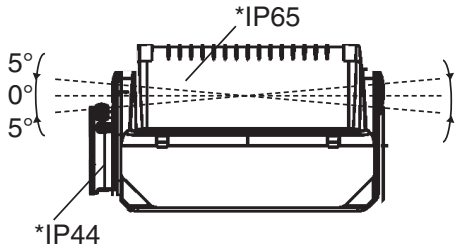
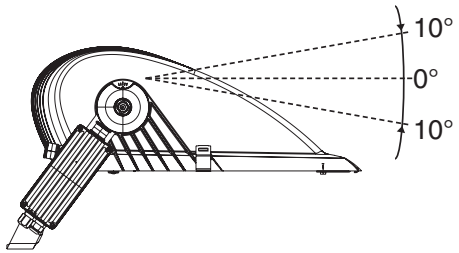
OPTIVISION

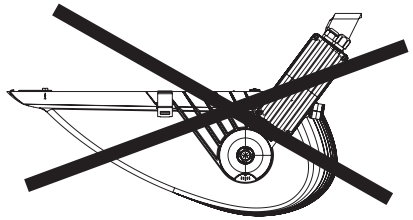


MVP 507	17.2	*65/44	I	0.16	IEC 598

SON-T 600W	1	35°c
SON-T 1000W	1	35°c
HPI-T 1000W	1	35°c
MHN-LA 1000W 230V	3.5	35°c
MHN-LA 2000W 400V	3.5	35°c







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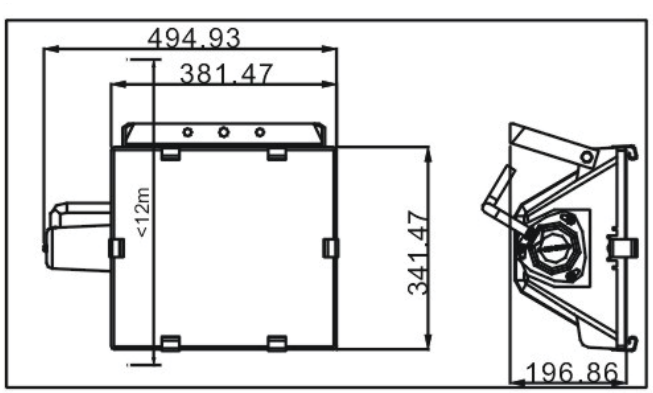
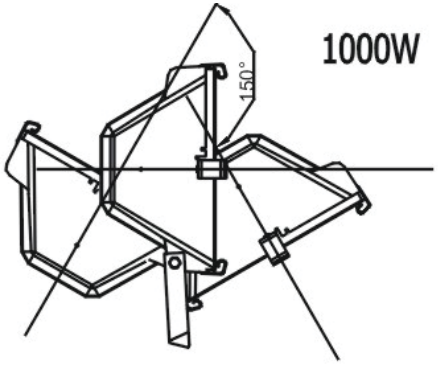
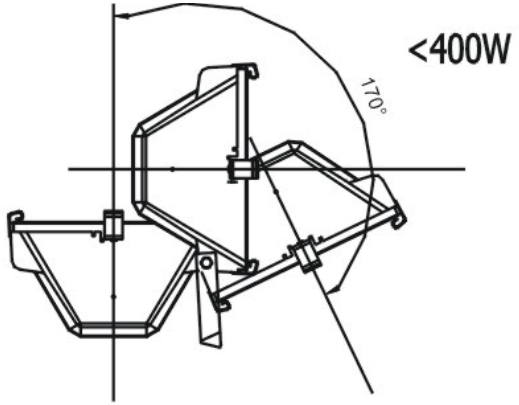
PUMA







	kg		m^2	M	Class&IP
HNF901Narrow	8	250, 400 & 1000w Metal Halide or High Pressure Sodium	0.131m²	2M	Class I / IP 55
HNF901Wide	8	250, 400 & 1000w Metal Halide or High Pressure Sodium	0.131m²	2M	Class I / IP 55
HNF901Narrow BKT	9	250, 400 & 1000w Metal Halide or High Pressure Sodium	0.131m²	2M	Class I / IP 55

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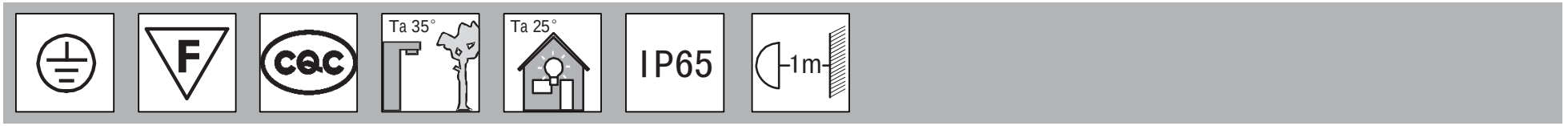
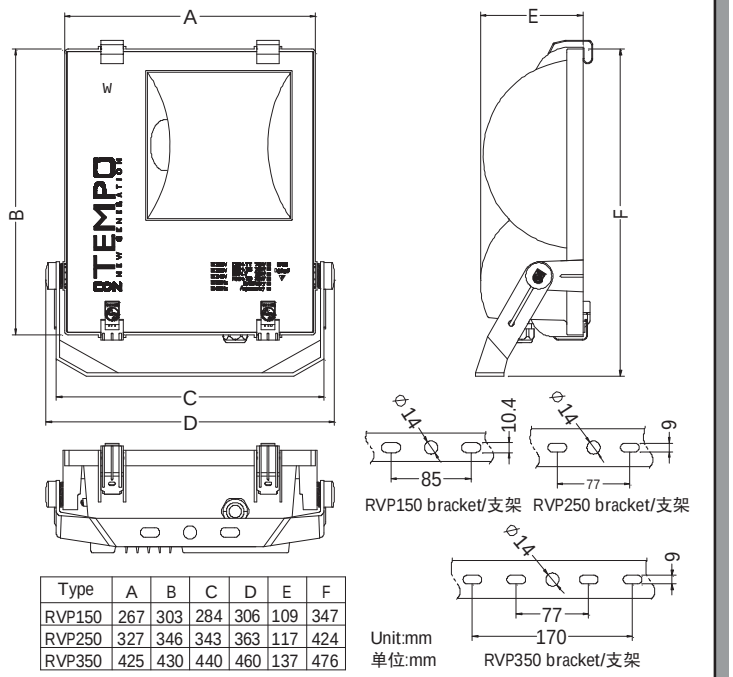
CONTEMPO

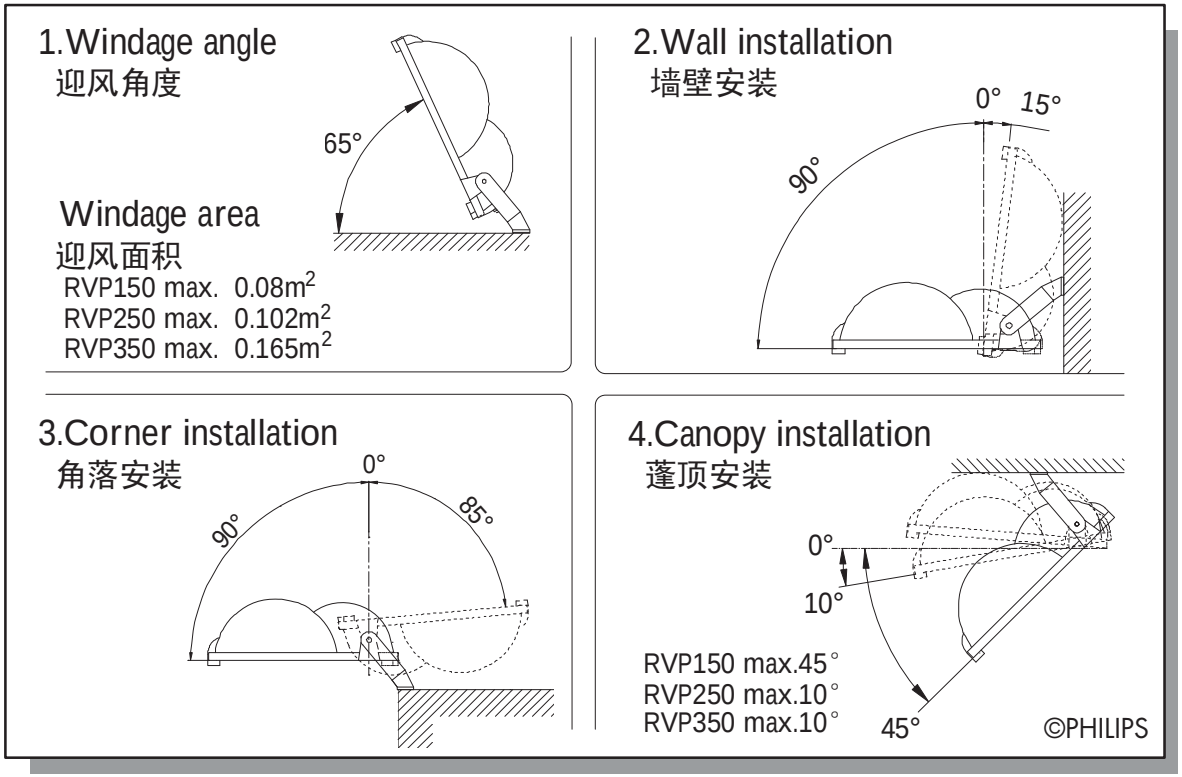


Dimensions尺寸



Type	A	B	C	D	E	F
RVP150	267	303	284	306	109	347
RVP250	327	346	343	363	117	424
RVP350	425	430	440	460	137	476

Installation安装应用



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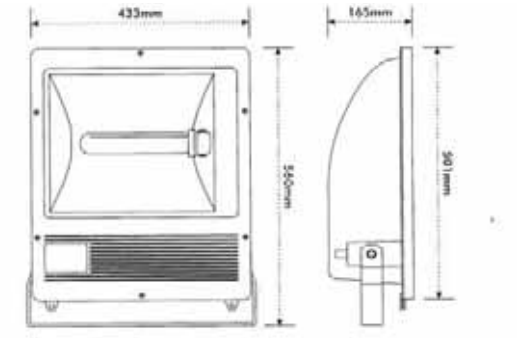
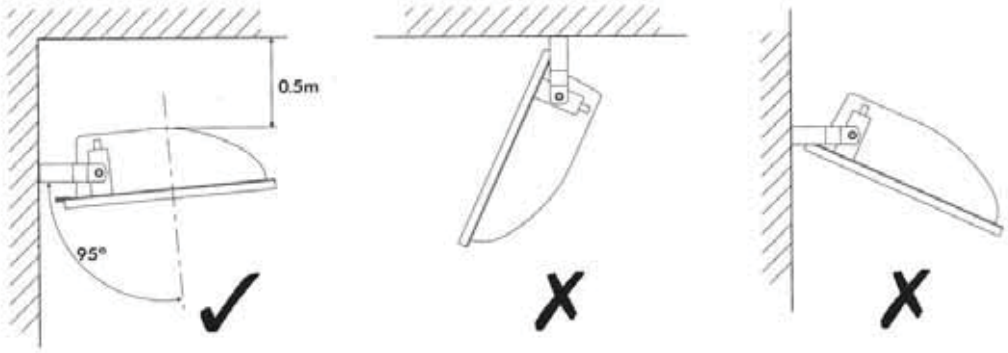
MAXI MASTER





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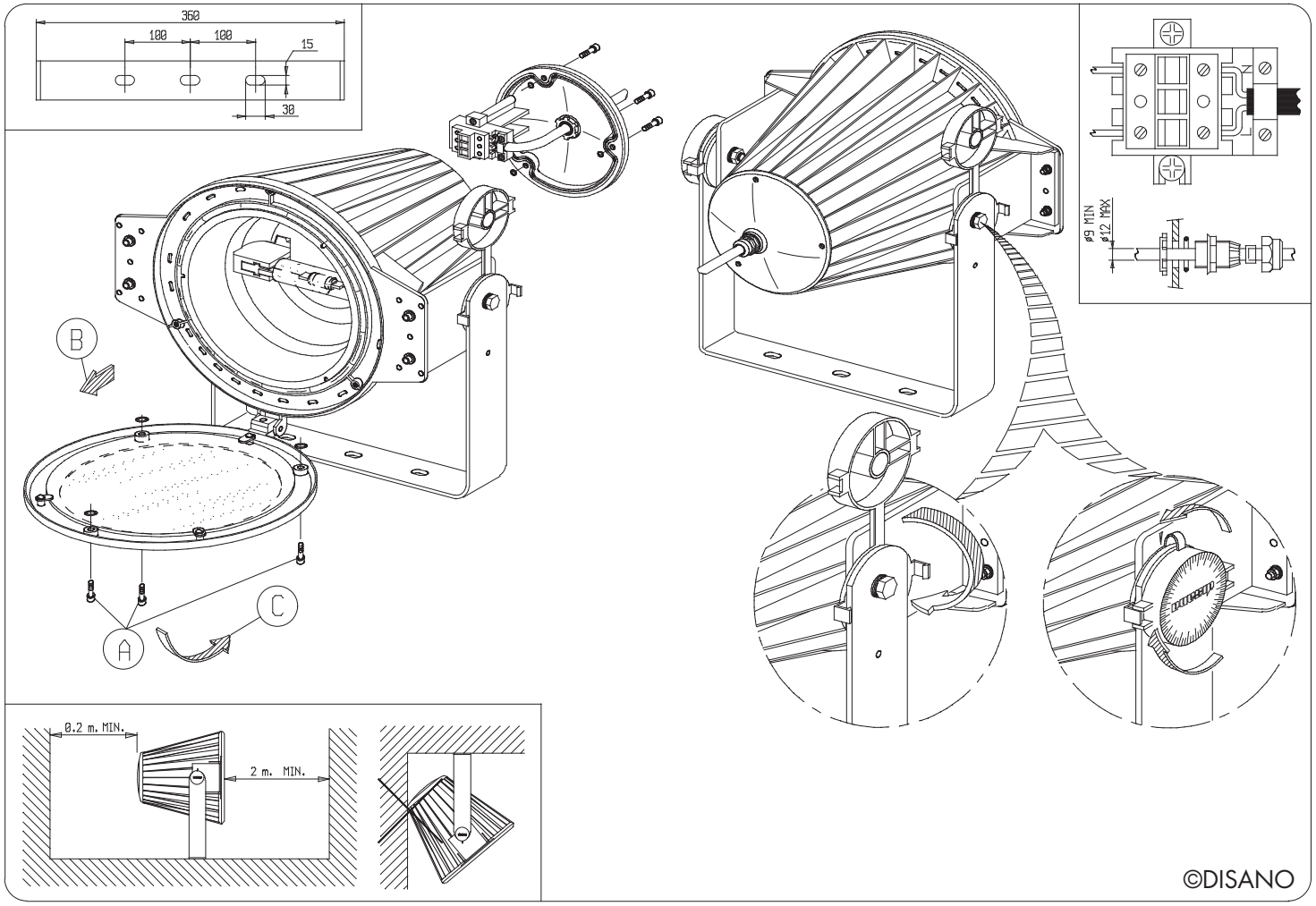
STAR



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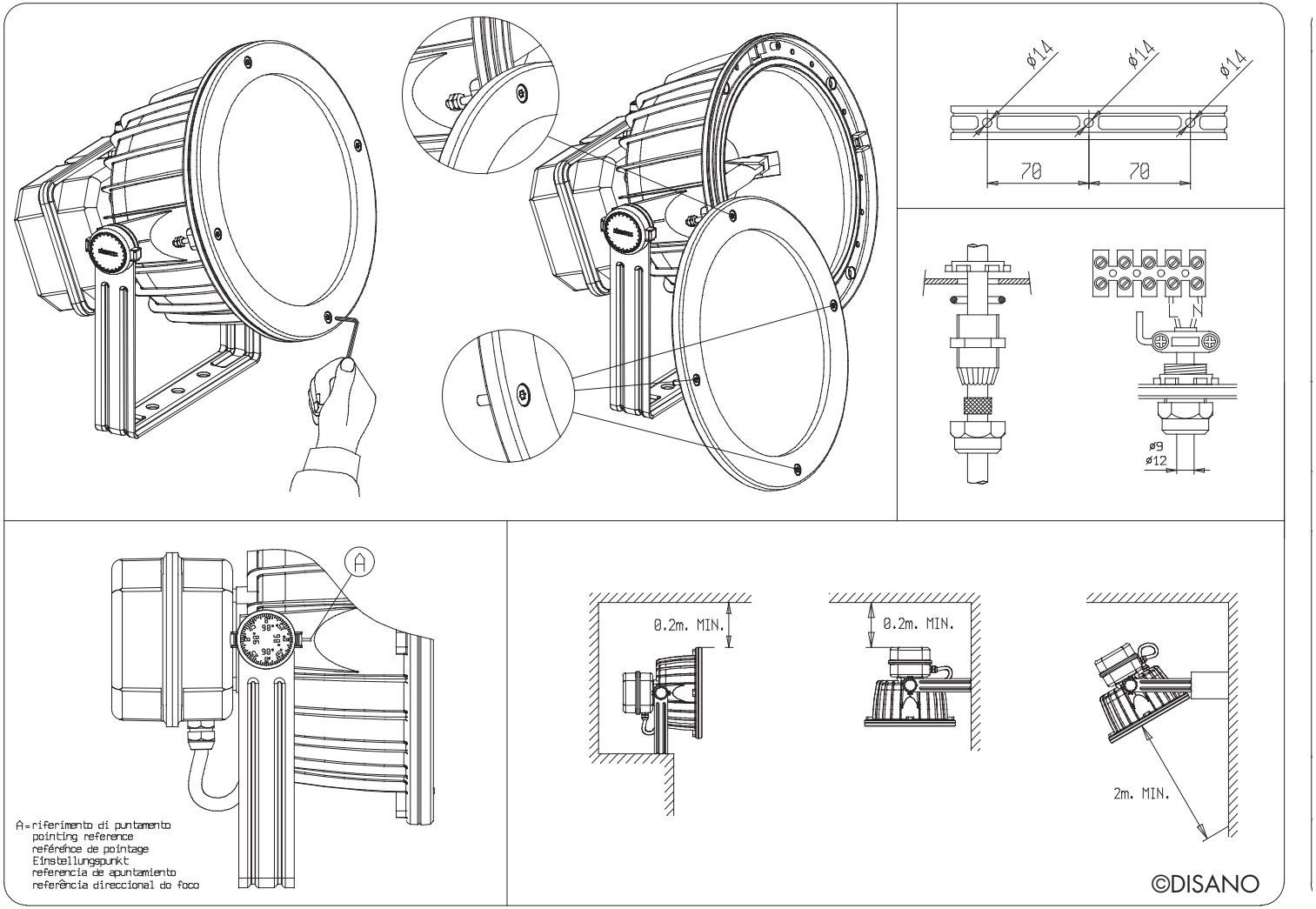
BARIO



Technical - HID lamp/ballast fault finding data:

A: END OF LAMP LIFE At the end of a lamp's life, the voltage requirements exceed the output ability of the ballast. The usual failure mode for Mercury lamps is low light output, followed by failure to start. For Metal Halide and Sodium, imminent failure causes low or varying light levels, colour shifts, and lamp instability (cycling on and off). It should be understood that in the early stages of failure, the lamp may operate for many hours before cycling "off" - the "on" period steadily decreases until the lamp fails completely. Cycling lamps should be replaced immediately to prevent ballast or ignitor damage.

B: INCORRECT LAMP Lamp's wattage, lamp voltage and current, burning position and type must ALL be compatible with the control equipment used to run it. Problems with lamp starting can also be caused by using a lamp with internal ignitor in a circuit which also has an ignitor, or visa-versa. New (but incorrect) lamps often strike and run OK for many hours, then start to give problems like poor starting, lamp cycling and colour differences.

C: NEW LAMP NOT YET RUN-IN PROPERLY New lamps go through a burn-in period, which may extend for up to 100 hours or more. The usual result is noticeable colour variation between lamps. Metal Halide lamps are noted for this, but the colour will stabilise as the burn-in period ends. It is important to understand that variations to colour will always be noticed between lamps from different manufacturers, and between old and new lamps of the same type.

D: MAINS SUPPLY CURRENT CAPACITY The ability of the mains to supply sufficient current and the correct voltage is critical in HID lighting circuits. When Reactor control gear starts, the current drawn exceeds the normal running current. As CWA gear starts the current drawn slowly increases until the lamps are fully lit. In all cases the mains supply must be capable of meeting the maximum current draw of the particular circuit, whilst providing the correct rated voltage.

E: MAINS SUPPLY VOLTAGE DIPS The usual cause of voltage dips is overloaded circuits, and the starting of large motors and welders. Mild dips usually only cause a lamp colour shift, but severe dips will cause the lamps to extinguish. The voltage dip tolerance of Reactor ballasts is much lower than CWA control gear.

F: PHOTO-CONTROL SWITCHING INCORRECTLY Problems can occur from electrical failure, or from an incorrect amount of light reaching the photocell. First, cover the eye of the cell with electrical tape to verify fixture and cell operation. If the fixture fails to operate, electrically bypass the photocell to identify the problem source. Problems with light reaching the cell can be solved by re-positioning the cell or fixtures, or by using special cell caps to regulate the light.

G: BALLAST FAILED Ballasts are surprisingly rugged devices, and usually a visual check will confirm if the ballast is damaged or not. Repeated failures (often in conjunction with capacitor failures) are usually caused by high amplitude spikes on the mains supply, which can be traced with the use of a scope and the Power Company's assistance. Note: Ballast failure due to overheating, which is caused by not replacing failed lamps immediately, is not covered by the manufacturer's warranty.

H: CAPACITOR FAILED In Reactor circuits the capacitor is used as a power factor correction device, so open circuits will not cause operational faults. In CWA circuits the capacitor is fundamental to operation, and the lamp will not operate with a faulty capacitor. To test a capacitor, substitute a known good unit.

I: IGNITOR FAILED Ignitors are required in Reactor Metal Halide, Reactor Sodium and CWA Sodium circuits to generate the required lamp starting voltages. Ignitors are not required for most CWA Metal Halide circuits. To test an ignitor, substitute a known good unit. It should be noted that the ignitor and lamp must be EXACTLY matched. Ignition voltage varies from 800 to 5000 Volts, and the duration of and number of starting pulses is critical for correct starting. Many older ignitors and systems will not reliably strike the more modern high-tech HID lamps (especially from Europe) which are becoming more widely used, causing unexplained starting problems.

The information contained here is given in good faith, as a guide to assist in determining the most probable cause for problems with HID installations. In some cases there may be other factors involved, or more than one cause, so this guide may not be definitive in finding the actual cause.

First identify the type of problem, then test for the cause by following the numerical sequence shown. (ie: 1, then 2, etc).

			A	B	C	D	E	F	G	H	I
PROBLEM	LAMP TYPE	CIRCUIT TYPE	End of lamp life	Incorrect type of lamp	New lamp not yet run in properly	Mains supply current capacity	Mains supply voltage dips	Photo-control switching incorrectly	Ballast failed	Capacitor failed	Ignitor failed
Lamps won't start - single luminaire	MV	Reactor	1	5		2		3	4		
	MH	Reactor	1	4		2		3	6		5
		CWA	1	4		2		3	7	5	6
	HPS	Reactor	1	4		2		3	6		5
		CWA	1	4		2		3	6	7	5
Lamps won't start - groups of luminaires (or Brand New Installation)	MV	Reactor		1		2		3			
	MH	Reactor		1		2		3			
		CWA		1		3		2			
	HPS	Reactor		1		2		3			
		CWA		1		3		2			
Lamps cycling on and off - single luminaire	MV	Reactor	3				1	2			
	MH	Reactor	1	2			3	4			
		CWA	1	2		3		4			
	HPS	Reactor	1	2			3	4			
		CWA	1	2		3		4			
Lamps cycling on and off - groups of luminaire	MV	Reactor				1	2	3			
	MH	Reactor		1		4	2	3			
		CWA		1		2	3	4			
	HPS	Reactor		1		4	2	3			
		CWA		1		2	3	4			
Different lamp colours	MV			1							
	MH		2	1	3		4				
	HPS		2	1							

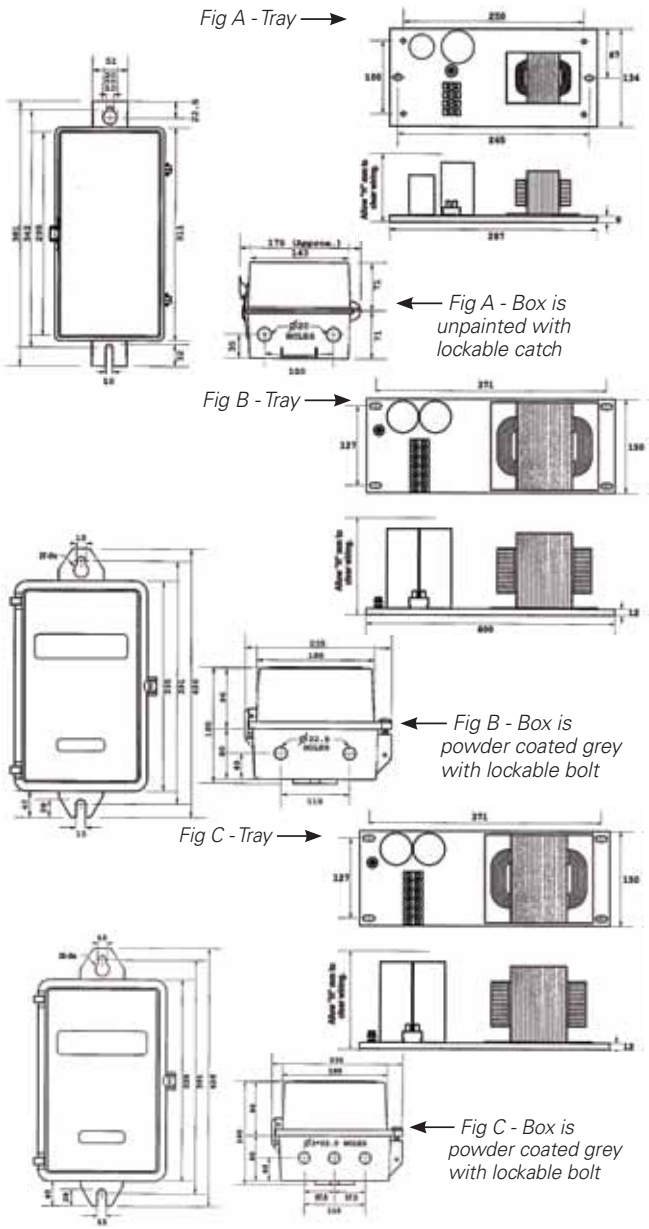
Gear Assemblies for HID Lamps

For use with medium/high wattage floodlights that require remote control gear.

Electromagnetic 50 Hz reactor-ignitor control gear for use with single-ended metal halide and high pressure sodium, and double-ended metal halide lamps. Assemblies are available in a fully weatherproof box or as a plate/ tray. Options include fuses, input tappings, and hot-restrike (certain lamp/luminaires only).

Features

- Precision wound insulation class H ballast for reduced volume, weight, and watt losses
- Tw=155°C
- Encapsulated electronic ignitor
- Terminal blocks with wire protectors
- IP65 diecast aluminium box with thermo-isolated chamber for ignitors and capacitors
- Box max. ambient temperature 40°C
- Plate has separation of heat sensitive components
- PF>0.90 using aluminium cased capacitors
- Complies with Australian EMC regulations and carry the C-Tick mark.



Gear Assemblies for HID lamps

Ignitor included

Lamp Type	Lamp Current (A)	Input Voltage (V) 1)	Fuse	Tray Type Order Code	Weight (kg)	Box Type Order Code	Weight (kg)	Fig.	H (mm)	Ignitor included	Max. load cap. (pF) 2)	Input Power (W)	Input Current (A) Run	Start	o/c 9)	Cap. (µF)
HPI-T 250W	2.1	240	N	250HPIPLATEH	3.0	250HPIBOXH	4.7	A	95	UZP9005B	10000+	270	1.3	1.8	1.3	17
			Y	250HPIPLATEHF	3.2	250HPIBOXHF	4.9									
HPI-T 400W	3.4	240	N	400HPIPLATEH	3.9	400HPIBOXH	5.6	A	95	UZP9005B	10000+	425	2.1	3.1	1.9	25
			Y	400HPIPLATEHF	4.1	400HPIBOXHF	5.8									
2 x HPI-T 400W	3.4	240	N			2X400HPIBOXH	10.8	C	95	UZP9005B	10000+	850	4.2	6.1	3.8	50
HPI-T 1000W	8.25	250	N	1KWHPIPLATEH	8.4	1000HPIBOXH	11.4	B	115	UZP9005B	10000+	1019	4.5	5.1	5.9	75
			Y	1KWHPIPLATEHF	8.6	1000HPIBOXHF	11.6									
		380/400/(415)	Y	99024931	10.2	1KWHPIBOX415	14.0	B	155	UZP9005B	10000+	1099	2.9	3.2	4.3	75
HPI-T 2000W220V	16.5	220/230/(240)	N	2000HPIP240	13.6	2000HPIB240	16.7	B	155	UZP9005B	10000+	2042	9.5	12.3	10.2	135
			Y	2000HPIP240F	13.8	2000HPIB240F	16.9									
HPI-T 2000W380V HQI-T 2000/N/SN SUPER	9.1 9.4	380/400/(415)	N	2000HPIP415S	12.7	2000HPIB415S	15.8	B	155	UZP9003L	10000+	2072	5.6	7.4	5.2	40
			Y	2000HPIP415SF	12.9	2000HPIB415SF	16.0									
SON-T 250W NAV-T 250W SUPER 4Y	3.0	250	N	250SONPLATEH	4.0	250SONBOXH	5.7	A	115	UZT6005B	3000	278	1.3	1.3	2.4	30
			Y	250SONPLATEHF	4.2	250SONBOXHF	5.9									
NAV-T 400 SUPER 4Y	4.4	250	N	400SONPLATEH	4.7	400SONBOXH	6.4	A	115	UZT6005B	3000	434	2.1	2.4	3.5	45
			Y	400SONPLATEHF	4.9	400SONBOXHF	6.6									
2 x NAV-T 400 SUPER 4Y	4.4	250	N	2X400SPLATEH	9.6	2X400SONBOXH	12.4	C	130	UZT6005B	3000	864	4.2	4.8	7.0	90
			Y	2X400SPLATEHF	9.8											
		250	N			2X400SONBOXHSP1	12.4	C		UZPT8011B	7000					
		400/(415)/430/440	N	2X400SPLATEHF41	16.0			C	130	UZT6502B	3000	884	2.5	3.1	3.2	90
SON-T 1000W NAV-T 1000W	10.6 10.3	240	N	1KWSONPLATEH	10.3	1000SONBOXH	13.5	B	155	UZT6010B	3000	1065	5.0	5.1	7.5	100
			Y	1KWSONPLATEHF	10.5	1000SONBOXHF	13.7									
			N	1KWSONPLATELT	10.4			B	155	UZPT8011B	7000	1065	5.0	5.1	7.5	100
		380/400/(415)	Y	1KWSONPLATEHF41	17.2	1KWSONBOXHF415	19.0	B	155	UZT6502B	3000	1099	2.9	3.3	4.5	100

Ignitor not included

Lamp Type	Lamp Current (A)	Input Voltage (V) 1)	Fuse	Tray Type Order Code	Weight (kg)	Box Type Order Code	Weight (kg)	Fig.	H (mm)	Ignitor not included	Max. load cap. (pF) 2)	Input Power (W)	Input Current (A) Run	Start	o/c 9)	Cap. (µF)
MHN-LA 1000W230V/... HQI-TS1000/D/S HQI-TS1000/NDL/S	9.3 9.4 9.2	240	N	MVF2401KWP01	10.0	MVF2401KWB01	13.2	B	155	UZST7025BC	300	1056	4.9	5.5	6.8	90
			Y	MVF2401KWP02	10.2	MVF2401KWB02	13.4									
		380/400/(415)	Y	GT1K0ML41TRF	19.0	GB1K0ML41TRF	23.5	B	155	UZST7025BC	300	1072	2.9	3.6	3.8	90
MHN-SA 1800W230V/956	17.3	220/230/(240)	N	MVF240GEARP01	13.7	MVF240GEARB01	17.0	B	155	UZST7040BC1	50	1879	9.2	8.5	13.6	180
			Y	MVF240GEARP02	13.9	MVF240GEARB02	17.2									
MHN-SA 1800W400V/956	10.5	380/400/(415)	N	MVF415GEARP01	14.5	MVF415GEARB01	17.7	B	155	UZST7039BC2 5)	200	1927	5.2	6.2	7.8	60
			Y	MVF415GEARP02	14.7	MVF415GEARB02	17.9									
MHN-LA 2000W400V/...	9.6	380/400/(415)	N	MVF415GEARP01	15.5	MVF415GEARB01	18.6	B	155	UZST7039BC2 5)	200	2114	5.7	5.7	7.8	60
			Y	MVF415GEARP02	15.7	MVF415GEARB02	18.8									
		220/230/(240)/254	Y	GT2K0ML240CKIT1	20.1	WP2K0ML240CKIT1	23.3	B	225	UZST7085BC 4)	100	2160	10.0	7.2	6.7	62.5
MHN-SA 2000W400V/956 MHN-SB 2000W400V/956 MHN-SE 2000W/400V/956	11.3 11.6	380/400/(415)	N	MVF4152KWP01	15.7	MVF4152KWB01	18.8	B	155	UZST7039BC2 5)	200	2136	5.7	6.0	8.8	70
			Y	MVF4152KWP02	15.9	MVF4152KWB02	19.0									
			Y	MVF4152KWP02HRS	16.2	MVF4152KWB02HRS	19.3	C	165	Hot restrike	n/a					
HQI-TS2000/D/S	11.5 7)	380/400/(415)	Y	99005605 (GT2K0MD41TRF)	15.7	99005604 (GB2K0MD41TRF)	18.8	B	155	UZST7039BC2 5) Hot restrike 6)	200	2075 2100	5.5 5.6	5.7 5.7	8.5 8.5	65 65
HQI-TS2000/N/L	10.3	380/400/(415)		99005605 (GT2K0MD41TRF)	15.7	99005604 (GB2K0MD41TRF)	18.8	B	155	UZST7039BC2 5) Hot restrike 6)	200	2075 2100	5.5 5.6	5.7 5.7	8.5 8.5	65 65
		220/230/(240)/254	Y	GT2K0ML240CKIT1	20.1	WP2K0ML240CKIT1	23.3	B	225	UZST7085BC 4)	100	2160	10.0	7.2	6.7	62.5

1) Figure in brackets indicates factory setting

2) Typical cable capacitance is 100 pF/m (PVC insulated and sheathed), check cable data for actual value

3) For MVF406/MVF403 ArenaVision, MVP507 OptiVision, 1808/1809 Olympic, 1156/1186 Forum floodlights the ignitor is supplied with floodlight

4) The UZST7085BC ignitor is supplied loose, it must installed in the luminaire connection box replacing the standard ignitor

5) 99025281(UZST7035BCT) timed ignitor can supplied separately and used instead

6) For 1808/1809 Olympic and 1156 Forum Hot restrike standard control gear can be used

7) For 10.3 A ballast

8) Special hot-restrike control gear is required for MVF406/MVF403 ArenaVision only

9) Open circuit condition; circuit protection must be able to handle this current

Floodlighting Overview:

Floodlighting is often considered to be the most complex and difficult of all lighting designs.

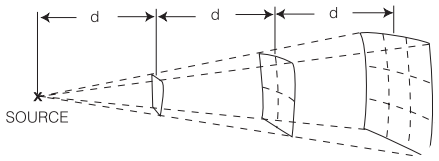
In this short technical overview of floodlighting, it is not possible to outline all the "how to's" of designing floodlighting schemes, therefore, our main aim is to address the issue of obtaining sufficient information to allow a floodlighting design to be done.

There are some simple design guides contained in this catalogue to assist in the initial selection of the right
floodlight/s, however, in this day and age, a final design should always be done using a computer floodlighting calculation program.
Pierlite offer a free suite of lighting programs on the "Alfred" CD-ROM, for simple designs and a free in-house service using AGI32.

Principles Of Floodlighting

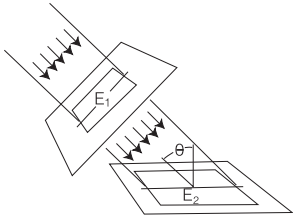
The quantity of light reaching an object or surface by a floodlight is effected by two laws:

1. The inverse square law, where the intensity (power) is reduced by the inverse of the square of the distance travelled.



The further away from the area or object to be lit, the narrower, more intense, the floodlight beam needs to be.

2. The Cosine Law, where the light reaching the surface is reduced based on the angle it strikes the surface.

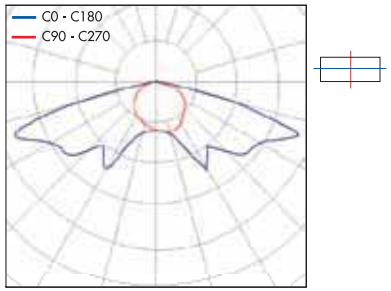


The lower the angle the greater the projected surface area the light falls onto. Hence a higher pole to increase the angle and reduce the projected surface area size.

Intensity Distribution Graphs

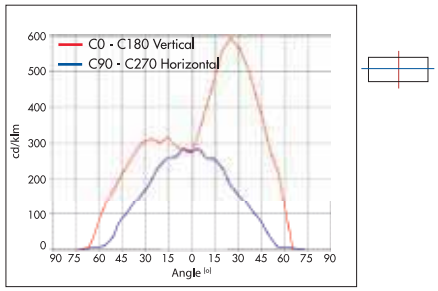
Two common Intensity (light) distribution graphs provide a guide to the performance of a floodlight.

1. Polar (for fixed floodlight)



The Polar is used for horizontally mounted "shoebox" or streetlights. It indicates the direction of light from side to side (C0-C180) and front to back(C90-C270).

2. Cartesian (for projector floodlights)

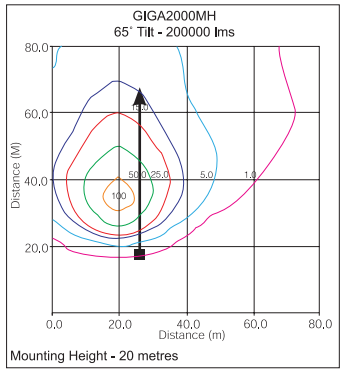


These indicate the light from the centre of the floodlight beam to its left and right (C90-C270) and above and below the beam centre (C0-C180).

In addition the intensity (power), is shown by the graph in cd/1000. Multiply the value at any given angle by the "per thousand" lamp lumens and this gives the actual intensity value. ie:-

Cd/1000 = 600 x 400w MH lamp lumens per thousand - 32 (32,000) = 19,200cd.

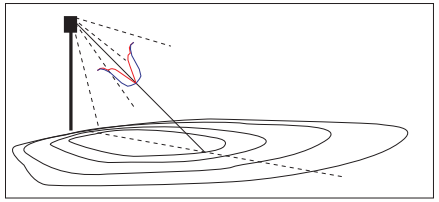
Isolux Plots



These are possibly the simplest initial design aid available.

From either the horizontal "shoebox" or projector type floodlights a series of averaged lux value lines are plotted based on a set floodlight mounting height.

The lux values and size of area over which they cover can be varied as needed.



Isolux plots are used to determine the spacing distance between floodlights by either a minimum lux value at the mid-point or an average lux value over a set area size.

Types Of Floodlighting Applications

- Monuments
- Building Facades
- Building Security
- Car Parks
- Sports Fields
- CTV Sports Venues

Each application requires a uniquely different approach.

The main considerations for all types of floodlighting designs are:

- Lux level
- Uniformity of light
- Modelling (Directional Light)
- Glare limits
- Obtrusive light
- Spill light limits
- Lamp colour appearance
- Object or area colour rendering
- Spectator requirements
- Council requirements or legal limitations such as near airports.

Information Required For General Floodlighting Designs

1. Actual size of object or area to be lit.
2. Surrounding area size for floodlight locations.
3. Horizontal (Eh) and/or Vertical (Ev) surface/s to be lit.
4. Lux level required, if known – Eh/Ev.
5. Possible floodlight or pole locations.
6. Location restrictions.
7. Glare or spill light restrictions to surrounding area or properties.
8. Lamp colour appearance and/or object colour rendering requirements.
9. Average operating hours for floodlighting. Hrs/Dys/Wks per year.
10. Any special effect requirements.
11. Instant on/off needs if any.
12. Floodlight appearance and size. Any specific needs.

Information Required For General Sports Floodlighting Designs

1. Actual size of sports field to be lit.
2. Surrounding area size for floodlight locations.
3. Possible floodlight or pole locations.
4. Pole location restrictions.
5. Horizontal (Eh) and/or Vertical (Ev) surface/s to be lit.
6. Lux levels required, if known – Eh/Ev. Training, competition levels.
7. Cleanliness of location: Clean, Fairly clean, Fairly dirty, Very dirty.
8. Glare or spill light restrictions to surrounding area or properties.
9. Maximum Glare Rating for players, if known and field reflectance value.
10. Lamp colour temperature and/or "Ra" Colour Rendering Index (CRI) requirements.
11. Average operating hours for floodlighting. Hrs/Dys/Wks per year.
12. Instant on/off needs re: spectators/players Emergency Lighting.
13. Floodlight appearance and size. Any specific needs.

Information Required For CTV Sports Floodlighting Designs

1. Actual size of sports field and stadium to be lit.
2. Field surrounding area size for flood light locations.
3. Possible floodlight or pole locations.
4. Pole location restrictions.
5. Stadium roofline height & length if it can be used for mounting floodlights.
6. Actual location and heights above playing field of Cameras – main and secondary.
7. Horizontal (Eh) and/or Vertical (Ev) surface/s to be lit including terraces.
8. Lux levels required, if known – Eh/Ev all areas.

Typical are:

Playing and CTV Level	Eh Ave	Uniformity Eh Emin/Emax	Ev Ave	Uniformity Ev Emin/Emax
Training	100 lux	0.5		
Competition	500 lux	0.7		
CTV		0.7	1400 lux	0.4

9. Cleanliness of location: Clean, Fairly clean, Fairly dirty, Very dirty.
10. Glare or spill light restrictions to surrounding area or properties.
11. Maximum Glare Rating for players, if known and field reflectance value.
12. Lamp colour temperature and/or "Ra" Colour Rendering Index (CRI) requirements.
13. Average operating hours for floodlighting. Hrs/Dys/Wks per year.
14. Instant on/off needs re spectators/players Emergency Lighting.
15. Floodlight appearance and size. Any specific needs.

Standard Sports Layout

The following table can be used to determine the quantity and layout of Pierlite floodlights required for common sports fields to various levels of play/activity.

All design recommendations are in accordance with the relevant Australian Standard, however, use them as a budget guide for estimation only. Please contact Pierlite for a site specific lighting design before proceeding with final specification, ordering, and installation.

Australian Sports Standards

2560.1-2002 Part 1: General principles

2560.2.1-2003 Lighting for outdoor tennis

2560.2.2-1986 Lighting of multipurpose indoor sports centres

2560.2.3-2007 Lighting for football (all codes)

2560.2.4-1986 Lighting for outdoor netball and basketball

2560.2.5-2007 Lighting for swimming pools

2560.2.6-1994 Lighting for baseball and softball

2560.2.7-1994 Lighting for outdoor hockey

2560.2.8-2007 Lighting for bowling greens

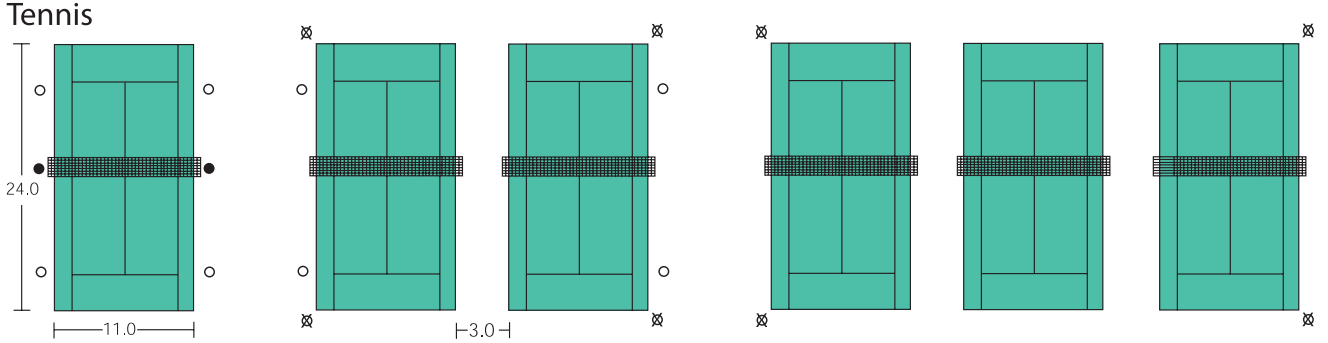
Sport	Size	Level of Play	Average Lux	No Poles	Pole Layout	Pole Height	Floodlight	Fittings per Pole	Total
Tennis	Single	Recreational	250	4	Side	6.7/8.0	GMRA400MH	2	8
				4	Side	8.0	EV1000MH	1	4
				4	Side	8.0	HNF901W1kW	1	4
		Competition	350	4	Side	6.7/8.0	GMRA400MH	3	12
				4	Side	8.0	EV1500MH	1	4
				4	Side	8.0	MVP5071kW	1	4
				6	Side	6.7/8.0	GMRA400MH	2	12
				6	Side	8.0	EV1000MH	1	6
	Twin	Competition	350	4	Corner	12	MVP5072kW	1	4
				4	Side	10/12	MVP5072kW	1	4
				4	Side	10/12	GIGA2000MH240V	1	4
				4	Side	10/12	GIGA2000MH415V	1	4
	Triple	Competition	350	4	Corner	15	MVP5072kW	2	8
Netball/Basketball	Single	Recreational	100	2	Centre	10	HNF901W1kW	2	4
				4	Side	8.0	GMRA400MH	2	8
				4	Side	10	HNF901W1kW	1	4
				4	Side	10	EV1000MH	1	4
		Competition	200	2	Centre	12	GIGA2000MH415V	2	4
				4	Side	8.0	GMRA400MH	3	12
				4	Side	10	MVP5071kW	1	4
				4	Side	10	EV1500MH	1	4
	Twin	Recreational	100	2	Centre	12	GIGA2000MH415V	2	4
				2	Centre	12	MVP5071kW	2	4
				4	Side	12	GMRA400MH	3	12
				4	Side	12	MVP5071kW	1	4
		Rec/Comp	100/200	4	Side	12	AREA1kWAS	1/2	4/8
		Competition	200	2	Centre	12	MVP5072kW	2	4
				4	Side	15	MVP5072kW	1	4
Hockey	FIH	Training	300	8	Side	18	MVP5072kW	4x2/4x3	20
		Club	500					4	32
		Natl/Intl	750					6	48
Bowls	38x38	Comp	100	4	Corner	10/12	MVP5071kW	1	4
					Corner	10/12	MVP5072kW	1	4
					Corner	12	GIGA2000MH240V	1	4
					Corner	12	GIGA2000MH415V	1	4
AFL oval	140x120	Rec/Comp/Semi-pro	50/100/200	4	Corner	22	MVP5072kW	2/4/8	8/16/32
	160x140			4	Corner	25	MVP5072kW	3/5/10	12/20/40
	160x140			4	Corner	25	GIGA2000MH	4/8/16	8/16/64
	180x150			4	Corner	27	MVP5072kW	3/6/12	12/24/48
Rugby	120x68	Rec/Comp/Semi-pro	50/100/200	4	Side	18	MVP5072kW	2/3/5	8/12/20
				4	Side	18	GIGA2000MH	2/4/8	8/16/32
				4	Corner	25	MVP5072kW	2/3/6	8/12/24
Soccer	100x68	Rec/Comp/Semi-pro	50/100/200	4	Side	18	MVP5072kW	2/3/5	8/12/20
				4	Side	18	GIGA2000MH	2/3/6	8/12/24
				4	Corner	20	MVP5072kW	2/3/5	8/12/20
Baseball	91.44	Comp/AAA	250/750	6	Side	25	MVP5072kW	Varies	24/64
Softball	83.82	Comp/(Natl/Intl)	250/650	6	Side	25	MVP5072kW	Varies	20/44

Sports fields

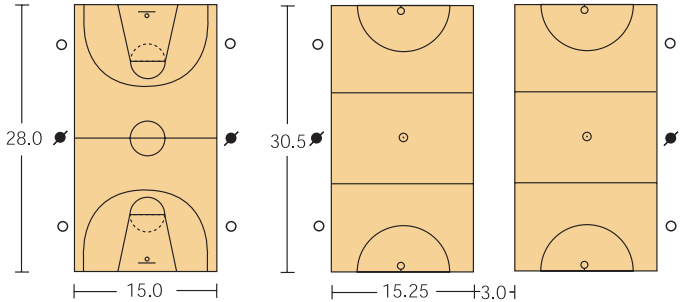
Pierlite have Sports Layout Recommendations for standard field sizes and pole positions.

The quantities of floodlights may vary from those recommended depending on actual field size and pole positions. Please contact Pierlite for details on these designs.

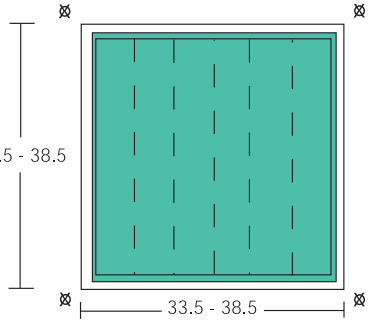
Tennis



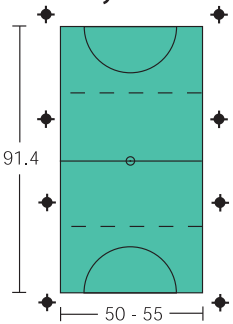
Basketball/Netball



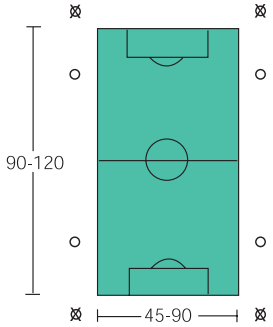
Lawn Bowls



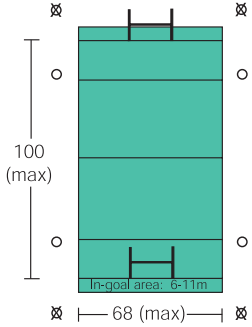
Hockey



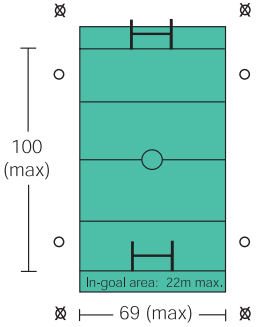
Soccer



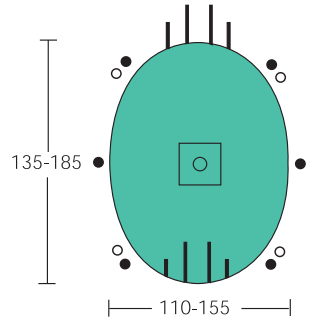
Rugby League



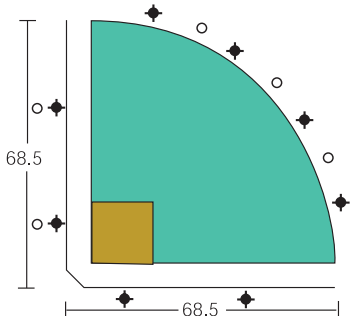
Rugby Union



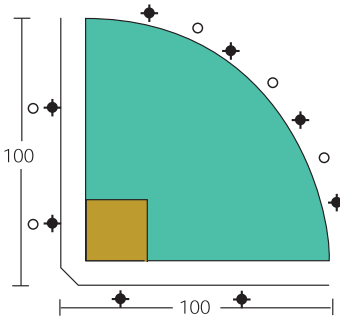
Aussie Rules



Softball



Baseball



Polar Legend

- Side - 4 pole
- Side - 6 pole
- Corner - 4 pole
- Centre - 2 pole
- Side - 8 pole
- Side - 6 pole