



ARRLED

Model P (POLESTAR Series)
Flood Light 2020 V2



Model P

LED Flood Light



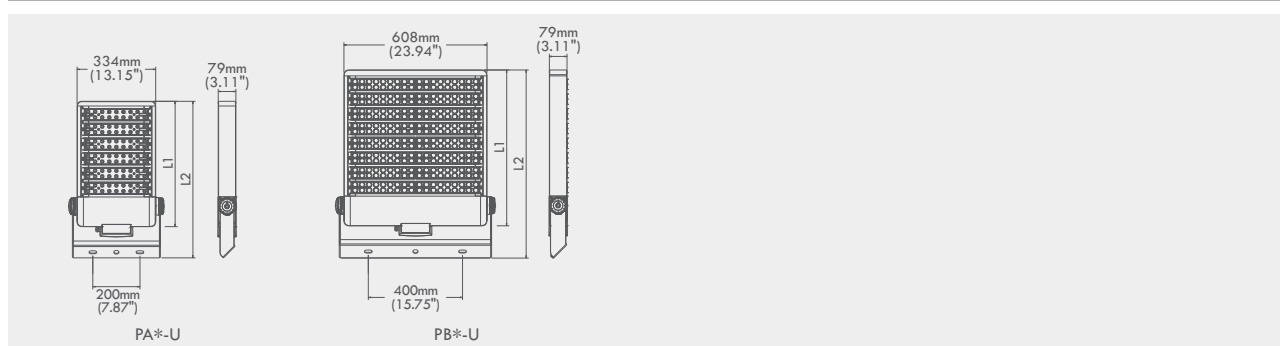
Product Introduction

The Model P Flood Light has been specifically designed to provide the most powerful & reliable high-power lighting for high-mast applications such as sports venues, airports, ports and other large areas. The design makes it possible to re-use the existing infra-structure as in masts, cabling and power supply, so no additional investment is needed.

With superior spill light control design, high light output and low weight, these fixtures are designed to provide a superior quality anti-glare light, that can be used for both airports and recreational & professional sports venues.

The modern, yet rugged fixture housing is constructed of high grade aluminum with exceptional heat sink design, insure that these flood light fixtures will last for more than 20 years or 100,000 hours of operation, making them virtually maintenance free for a lifetime.

Dimension



Performance Summary

Input Voltage	100-277VAC or 277-480VAC, 50/60Hz
Nominal Power	40W~960W
Efficacy	Up to 160 LPW
CRI	Minimum 70 CRI
Power Factor	>0.9 at full load
Total Harmonic Distortion	<20% at full load
Surge Protection Device	Imax 10KA
L70/L90	>200,000H/>60,000H
Optic(IESNA)	Type II, Type III, Type IV, Type V
Operating Temperature	-40°C~+50°C
Accessories & Options	1-10V Dimming, DALI, PWM, DMX, Back Light Shield, Bird Spike, Photocell, Motion Sensor
Color Options	Black
Limited Warranty	10 years limited warranty



Not all products are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org

Ordering Information

Example:PAC80L-T-T3S-30K-BK-DIM

MODEL	MOUNTING	OPTIC	CCT	COLOR	OPTIONS
100-277VAC	U	Standard	30K	BK	DIM
PAC40L		T2M	3000K	Black-RAL9011	1-10V dimming
PAC80L		T3S	40K		DALI
PAC120L		T3M	4000K		DALI control
PAC160L		T4VS	50K		PWM
PAC200L		T4S	5000K		10V PWM control
PAC240L		T4M	57K		DMX
PAC320L		T5M	5700K		DMX control
PAD60L		T5W			BLS
PAD120L		T10D			Back light shield
PAD180L		T25D			BSP
PAD240L		T40D			Bird spike
PAD300L		T60D			MMS
PBD480L		T90D			Motion sensor
PBD720L					PTC
PBD960L					Photocell
277-480VAC					
PAC80H					
PAC120H					
PAC160H					
PAC200H					
PAC240H					
PAC320H					
PAD120H					
PAD180H					
PAD240H					
PAD300H					
PBD480H					
PBD720H					
PBD960H					










With the exception of the DIM, all options require prior confirmation with the engineer.

Specification Features

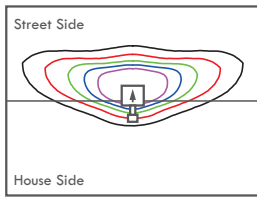
- Construction** Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die cast aluminum end caps enclose housing and die cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. IP66 water-proof and dust-proof rated.
- Optics** Patented, high-efficiency spill light control technology. With a wide-range of optic lenses and flux options for the luminaire, it can send light exactly in the right direction and illuminate only the area of interest as efficient as possible. This will let you avoid any light waste and shine light only where is needed. With multiple spill light control options, it diminishes the light that shines towards the sky and windows of houses around the field of play to protect night preservation and biodiversity and minimize light nuisance issues.
- Electrical** LED drivers can be mounted to removable tray assembly, which is separated drivers pack, for ease of maintenance. 100-277V 50/60Hz, 277-480V 50/60Hz Operation. The Model P is suitable for operation in -40°C to 50°C ambient environment. Available in standard 700mA and 1050mA driver current .
- Mounting** U-type mounting allow for mounting flexibility. Each type of mounting method can be shifted by only change the mounting bracket for ease of installation and stock. Extruded aluminum arm includes internal bolt builders allowing for easy positioning of fixture during mounting.
- Finish** Housing finished in super durable powder coat paint, corrosion resistant polyester powder painted 100µm thickness. Meets 1000-hour salt spray certification per ASTM Standard B117. Standard housing colors of Black, Bronze, Grey, White and other housing colors can be customized.
- Certification**
- cULus Listed
 - CE-LVD/CE-EMC/CB
 - SAA
 - DLC Premium qualified versions available.
 - IP66 /IK08
 - RoHS compliant.
 - Endurance tested to withstand 1,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B117
 - 10KA surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
 - Certified to ANSI C136.31-2010, 3G bridge and overpass vibration standards

Luminaire EPA

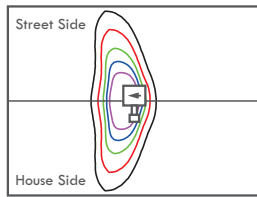
U Type Adjustable Arm Mount

	0°Tilt	10°Tilt	20°Tilt	30°Tilt	45°Tilt	60°Tilt	70°Tilt	80°Tilt	90°Tilt
									
PAC40 PAD60	0.36	0.44	0.50	0.58	0.66	0.73	0.81	0.87	0.95
PAC80 PAD120	0.42	0.51	0.60	0.68	0.77	0.86	0.95	1.03	1.12
PAC120 PAD180	0.46	0.57	0.68	0.79	0.91	1.02	1.13	1.24	1.35
PAC160 PAD240	0.50	0.63	0.77	0.90	1.04	1.17	1.30	1.44	1.57
PAC200 PAD300	0.55	0.71	0.86	1.02	1.18	1.33	1.49	1.64	1.80
PAC240	0.59	0.77	0.95	1.13	1.31	1.48	1.66	1.84	2.02
PAC320	0.68	0.90	1.13	1.35	1.58	1.80	2.02	2.25	2.47
PBD480	0.66	0.94	1.22	1.50	1.78	2.05	2.33	2.61	2.89
PBD720	0.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70
PBD960	0.82	1.28	1.75	2.21	2.67	3.13	3.60	4.06	4.52

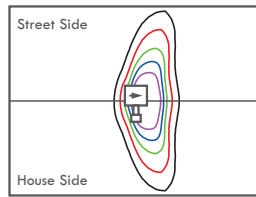
Optic Orientation



Standard

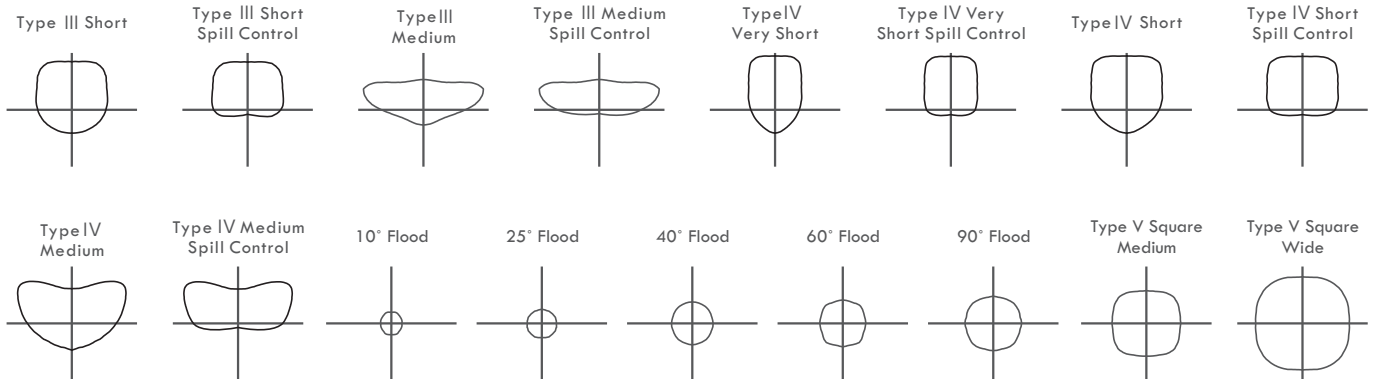


Optics Rotated Left @ 90°

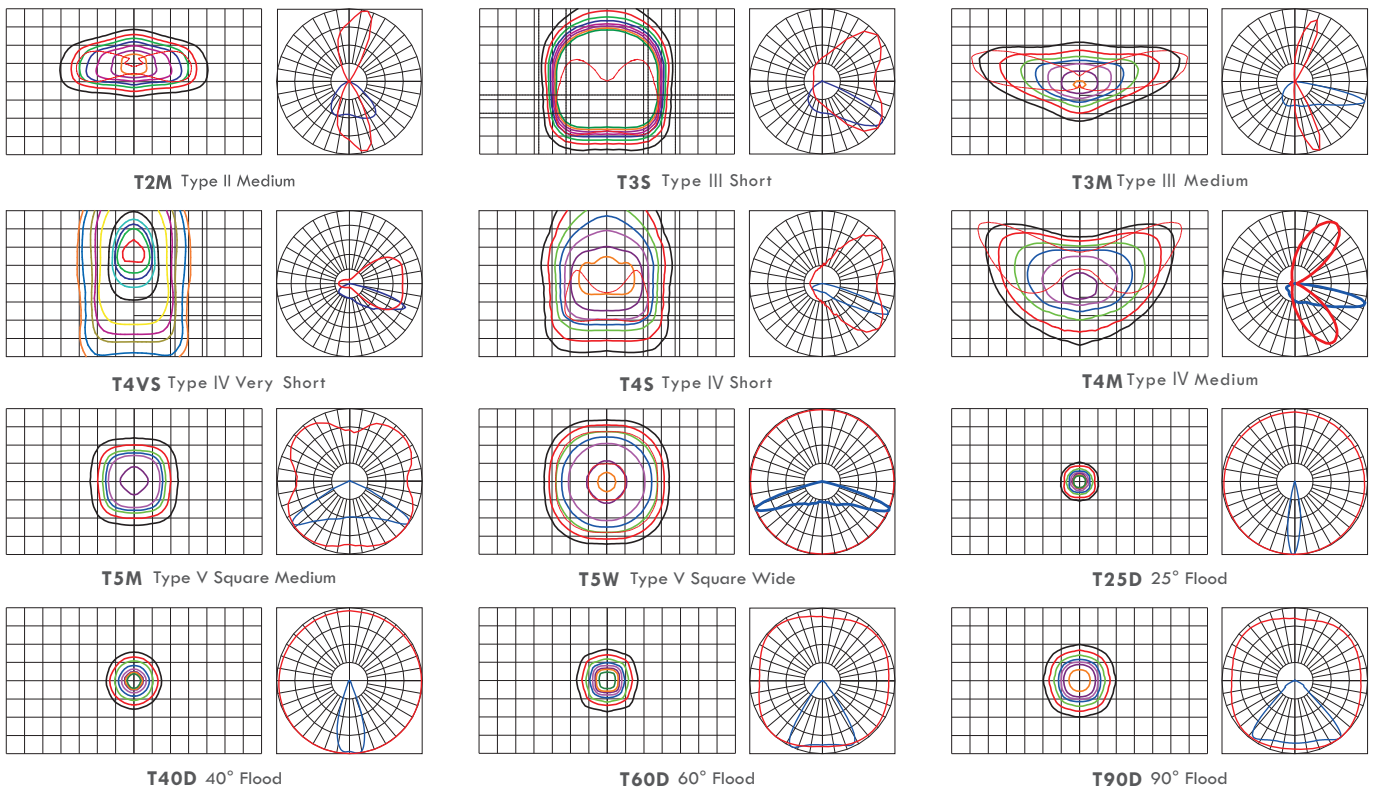


Optics Rotated Right @ 90°

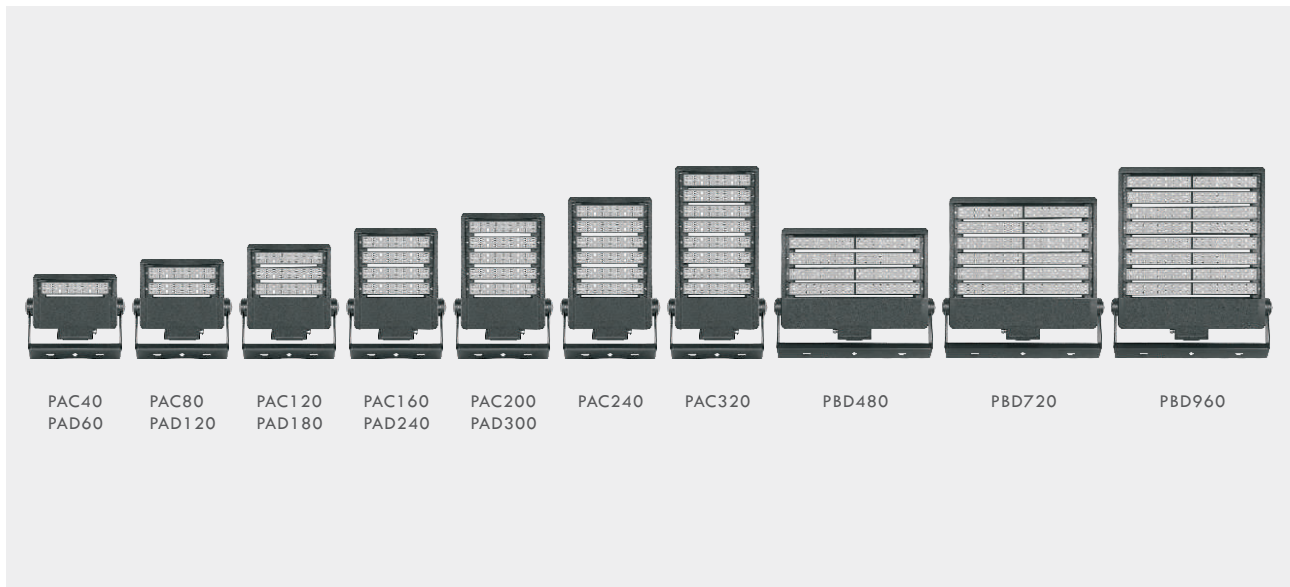
Optical Distributions



Photometry



Product Image



Brief Specifications

Model	Nominal power	LED current	Module number	Module power	Product size L*W*H (mm/in)	Packing size L*W*H (mm/in)	Net weight	Gross weight	Typical luminous flux(lm)	Typical efficiency (lm/W)
100-277VAC										
PAC40L	40W	700mA	1	40W	348(13.70)*407(16.02)*79(3.11)	475(18.70)*425(16.73)*160(6.30)	4.9KG	5.9KG	6080	152
PAC80L	80W	700mA	2	40W	414(16.30)*407(16.02)*79(3.11)	535(21.06)*425(16.73)*160(6.30)	6.0KG	7.1KG	12320	154
PAC120L	120W	700mA	3	40W	477(18.78)*407(16.02)*79(3.11)	600(23.62)*425(16.73)*160(6.30)	6.7KG	8.0KG	18600	155
PAC160L	160W	700mA	4	40W	539(21.22)*407(16.02)*79(3.11)	660(25.98)*425(16.73)*160(6.30)	7.4KG	8.6KG	24800	155
PAC200L	200W	700mA	5	40W	599(23.58)*407(16.02)*79(3.11)	725(28.54)*425(16.73)*160(6.30)	8.2KG	9.4KG	31000	155
PAC240L	240W	700mA	6	40W	664(26.14)*407(16.02)*79(3.11)	785(30.91)*425(16.73)*160(6.30)	8.9KG	10.2KG	37200	155
PAC320L	320W	700mA	8	40W	789(31.06)*407(16.02)*79(3.11)	910(35.83)*425(16.73)*160(6.30)	10.9KG	12.3KG	49600	155
PAD60L	60W	1050mA	1	60W	348(13.70)*407(16.02)*79(3.11)	475(18.70)*425(16.73)*160(6.30)	4.9KG	5.9KG	8280	138
PAD120L	120W	1050mA	2	60W	414(16.30)*407(16.02)*79(3.11)	535(21.06)*425(16.73)*160(6.30)	6.1KG	7.2KG	16800	140
PAD180L	180W	1050mA	3	60W	477(18.78)*407(16.02)*79(3.11)	600(23.62)*425(16.73)*160(6.30)	6.6KG	7.9KG	25200	140
PAD240L	240W	1050mA	4	60W	539(21.22)*407(16.02)*79(3.11)	660(25.98)*425(16.73)*160(6.30)	7.6KG	8.8KG	33600	140
PAD300L	300W	1050mA	5	60W	599(23.58)*407(16.02)*79(3.11)	725(28.54)*425(16.73)*160(6.30)	8.9KG	10.1KG	42000	140
PBD480L	480W	1050mA	4	120W	549(21.61)*680(26.77)*79(3.11)	665(26.18)*700(27.56)*160(6.30)	14.5KG	16.8KG	67200	140
PBD720L	720W	1050mA	6	120W	674(26.54)*680(26.77)*79(3.11)	790(31.10)*700(27.56)*160(6.30)	18.3KG	20.8KG	100800	140
PBD960L	960W	1050mA	8	120W	799(31.46)*680(26.77)*79(3.11)	915(36.02)*700(27.56)*160(6.30)	22.1KG	24.8KG	134400	140
277-480VAC										
PAC80H	80W	700mA	2	40W	414(16.30)*334(13.15)*79(3.11)	535(21.06)*425(16.73)*160(6.30)	6.0KG	7.1KG	12320	154
PAC120H	120W	700mA	3	40W	477(18.78)*334(13.15)*79(3.11)	600(23.62)*425(16.73)*160(6.30)	6.7KG	8.0KG	18600	155
PAC160H	160W	700mA	4	40W	539(21.22)*334(13.15)*79(3.11)	660(25.98)*425(16.73)*160(6.30)	7.4KG	8.6KG	24800	155
PAC200H	200W	700mA	5	40W	599(23.58)*334(13.15)*79(3.11)	725(28.54)*425(16.73)*160(6.30)	8.2KG	9.4KG	31000	155
PAC240H	240W	700mA	6	40W	664(26.14)*334(13.15)*79(3.11)	785(30.91)*425(16.73)*160(6.30)	8.9KG	10.2KG	37200	155
PAC320H	320W	700mA	8	40W	789(31.06)*334(13.15)*79(3.11)	910(35.83)*425(16.73)*160(6.30)	10.9KG	12.3KG	49600	155
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PBD720H	720W	1050mA	6	120W	674(26.54)*680(26.77)*79(3.11)	790(31.10)*700(27.56)*160(6.30)	18.3KG	20.8KG	100800	140
PBD960H	960W	1050mA	8	120W	799(31.46)*680(26.77)*79(3.11)	915(36.02)*700(27.56)*160(6.30)	22.1KG	24.8KG	134400	140

CERTIFICATION & STANDARDS

Certification	Standards	Remark
CE-LVD Low Voltage Directive (2014/35/EC)	EN 60598-2-3/A1:2011	Applicable for Street Light
	EN 60598-2-5:2015	Applicable for Flood Light
	EN 60598-1:2015/A11:2018	
	EN 62471:2008	
	EN 62493:2015	
CE-EMC Electromagnetic Compatibility Directive (2014/30/EU)	EN 55015:2013/A1:2015	
	EN 61547:2009	
	EN 61000-3-2:2014	
	EN 61000-3-3:2013	
CE-ErP Energy-Related Products Directive (2009/125/EU)	EU 1194/2012:2012-12-12	
	EC 244/2009:2009-03-18	
	EU 859/2009:2009-09-18	
CE-RoHS Directive (2011/65/EU)	EN 62321:2009	
CB	IEC 60598-2-3/A1:2011	Applicable for Street Light
	IEC 60598-2-5:2015	Applicable for Flood Light
	IEC 60598-1:2014	
	IEC 62471:2006	
	IEC 62471-2:2009	
ENEC	EN 60598-2-3/A1:2011	Applicable for Street Light
	EN 60598-2-5:2015	Applicable for Flood Light
	EN 60598-1: 2015/A1: 2018	
	EN 62471:2008	
SAA	EN 62493:2010	
	AS/NZS 60598.2.3:2015	
ATEX ATEX 95 Equipment Directive(94/9/EC)	AS/NZS 60598.1:2017	
	EN 60079-0:12	
	EN 60079-11:12	
UL	EN 60529:1989+A1:1999	
	UL1598	
	UL8750	
	CSA C22.2 No. 250.0-08	
FCC	CSA C22.2 No. 250.13-14	
	Title 47 CFR Part 15	
PSE	日本電気用品安全法省令別表第八(Safety)	
	日本電気用品安全法省令別表第十(EMC)	
Photobiological Safety	EN 62471:2008	
	IEC 62471:2006	
Vibration test	ANSI C136.31-2010	Applicable for Street Light
	IEC/EN 60598-2-5 clause 5.6.7	Applicable for Flood Light
Salt spray test	ISO 9227:2012	
	ASTM B117	
IK08 Impact resistance test	IEC 62262:2002	
IP65 or IP67 test	IEC/EN 60598-1:2015 clause 9.2.2 and clause 9.2.6 or clause 9.2.8	
Photometric and Integrating Sphere test	IES LM-79-2008	
	ANSI C82.77-2002	
	ANSI C78.377-2011	
	CIE 13.3-1995	
	CIE 15-2004	
	IES TM-15-11	
	IES LM-63-2002	
LED Module	IEC/EN 62031:2008+A1:2013	
	IES LM-80-2008	
LED Lamps	ANSI C78.377-2011	
	JESD22 A108	
	JESD22 A101C	
	JESD22 A105	
	JESD22 B104	
	JESD22 A114	
LED Driver	EN 61347-1:2008	
	EN 61347-2-13:2006	
	EN 62384:2006+A1:2009	
	EN 55015:2006+A1:2007+A2:2009	
	EN 61000-3-2:2006+A1:2009+A2:2009	
	EN 61000-3-3:2008	
	EN 61547:2009	
	IEC 62386 Part 102 and Part 207	Applicable for DALI
	UL1012 UL879 UL935	
	FCC Title 47 CFR Part 15 Class A	
Surge Protection Device	ANSI/IEEE C62.41.2-2002	
	UL1449	
Receptacle	ANSI C136.10-2010	
Dimming Receptacle	ANSI C136.41-2013	

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