

PGA-1 LED Specifications

Ceiling - Garage - Canopy - Area



The PGA LED luminaire from Visionaire, simplifies the task of selecting the best solution for LED parking garage lighting. The design of the luminaire, compliments the design of the pre-cast concrete coffers; creating an integrated lighting effect; and maximizes the perceived lighting coverage. It is an ideal replacement for the high-maintenance fluorescent or HID fixtures of yesterday.

The housing is formed aluminum with internal heat sink for maximum heat dissipation; with either 16, 32 or 48 LEDs. The formed aluminum driver compartment allows the driver to operate cooler for long life. Available with a Low Profile Mount Bracket, and a Ceiling Mount Bracket for surface conduit mounting, or Pendant Mounting.

Fourteen optical distribution pattern are available. Select from 2700K, 3000K, 3500K, 4000K, or 5000K color temperatures and 70, 80, or 90 CRI options to achieve the perfect balance of visual comfort and design intent.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The PGA LED series is an exceptional choice for parking garage lighting and other ceiling mount applications.

Project Name:

Catalog Number:

Type:

Date:

Location:

Visionaire Lighting products are engineered with field serviceability and environmental responsibility at the core, giving customers a smarter, longer-lasting lighting solution. Designed for efficient maintenance and simplified access to key components, our fixtures help reduce downtime, extend product life, and make in-field updates or repairs faster and more cost-effective.



MODEL	OPTICS	LEDs	CURRENT	CCT	
PGA-1	T1 Type 1 T2 Type 2 T3 Type 3 T3R Type 3 Round T3W Type 3 Wide T3LG Type 3 Low Glare T4 Type 4 T4A Type 4 Automotive T4FT Type 4 Forward Throw T4LG Type 4 Low Glare	T5 Type 5 T5W Type 5 Wide T5WW Type 5 Extra Wide T5LG Type 5 Low Glare FN Flood Narrow FM Flood Medium FW Flood Wide	16LD 32LD 48LD	3 350mA 5 530mA 7 700mA	27K7 27K8 27K9 2700K 70, 80, & 90 CRI 30K7 30K8 30K9 3000K 70, 80, & 90 CRI 35K7 35K8 35K9 3500K 70, 80, & 90 CRI 40K7 40K8 40K9 4000K 70, 80, & 90 CRI 50K7 50K8 50K9 5000K 70, 80, & 90 CRI

VOLTAGE	MOUNTING	FINISH	CONTROL OPTIONS	SHIELD OPTIONS	OPTIONS
UNV 120-277V 8 347V 5 480V	LPM Low Profile Mount Ceiling Mount No conduit feed. PM12 Pendant Mount 12" 30" Leads PM24 Pendant Mount 24" 42" Leads PM36 Pendant Mount 36" 54" Leads CM Ceiling Mount 1/2" & 3/4" Knockouts	BZ Bronze BK Black SBK Smooth Black WH White SWH Smooth White GP Graphite GY Grey SL Silver Metallic GN Tennis Green FG Forest Green ZFP Zinc-Free Primer Coat CC Custom Color	DIM 0-10v Dimming Driver DTO Dim to Off Driver D4i D4i DALI Driver WSP6-L2 WSP6-L3 WSP6-L7 8' Mounting Height 9-20' Mounting Height 21-40' Mounting Height WSC-8 WSC-20 WSC-40 8' Mounting Height 9-20' Mounting Height 21-40' Mounting Height *The WSC option will require (1) FSIR 100 remote for programming Z10 or Z18 Zhaga 4 Pin Receptacle VWC Visionaire Wireless Control	CLS Backside Cut-Off shield	EBPL Emergency Battery Pack 120V-277V Only 10KV Surge Protector LDL Lightly Diffused Lens 350mA and 530mA Only BAA Buy America(n) Act Compliant BABA Build America Buy American

Housing

Heavy duty formed aluminum housing with internal heat sink for maximum heat dissipation. Silicone gasket is used for weather tight operation.

Mounting

A Low Profile, hinged, ceiling mount bracket, can be secured directly to a 4" or 5" recessed junction box, or to the ceiling. A Ceiling Mount bracket with 1/2" and 3/4" knockouts is also available for surface conduit mounting. The ceiling hangar bracket on both versions allows the fixture to be suspended while making the wiring connections. The housing bracket then attaches to the ceiling bracket via a tamper-proof screw. 3/8" NPT stem and canopy supplied for pendant mount applications.

Thermal Management

The PGA-1 series provides excellent thermal management by mounting the LEDs to the substantial heat sink within the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.

Optical System

- The highest lumen output LEDs are utilized. High-performance acrylic optics feature industry leading optical distributions. Acrylic optics are impact-resistant and rated to 94 percent translucence.
- L70 life of our LEDs is rated over 100,000 hours (for 350 mA), The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution for neighborhood-friendly lighting.
- CRI values are 70, 80 or 90.
- CCT values are 2700K, 3000K, 3500K, 4000K, 5000K

Quali-Guard® Finish

- The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400° F to promote maximum adherence and finish hardness.
- All finishes are available in standard and custom colors.
 - Optional Zinc-Free Primer - Recommended within three miles of the ocean
 - Finish is guaranteed for five (5) years.

Electrical Assembly

- The PGA-1 LED series is supplied with a choice of 350, 530 or 700mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input.
- Power factor of 90%.
 - Rated for -40°C operations.

Warranty

- Five (5) year Limited Warranty on electrical components.
 - Five (5) year on finish.
- For full warranty information, please visit visionairelighting.com.

Options

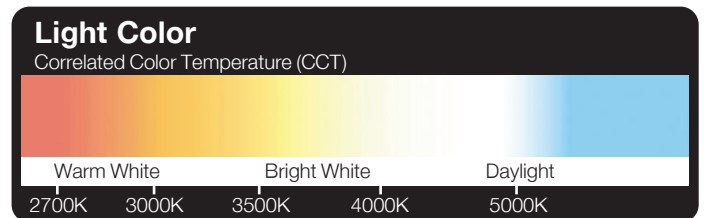
- Wattstopper Plus
- Wattstopper FSP-211 Motion Sensor/Control
- Dimming Driver
- Dim To Off Driver
- D4i DALI Driver
- Zhaga 4 Pin Receptacle
- Emergency Battery Pack
- Diffused Lens
- Cutoff Louver Shield
- 10 kV Surge Protector
- Visionaire Wireless Control
 - Enables high end trim
 - Based on Zigbee wireless communication protocol

Listings

- PGA-1 is UL listed, suitable for wet locations.
- IP65 Rated
- Powder Coated Tough™
- IDA Certification



3000K or lower must be selected for IDA certification.

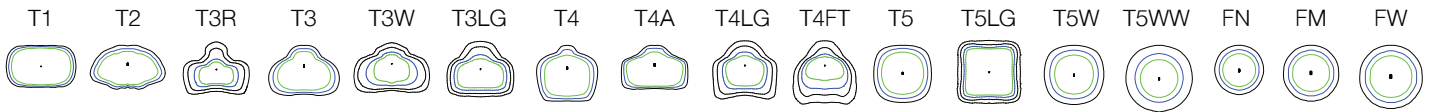


Motion Sensor Default Settings									
FSP - 211	High Mode	Low Mode	Time Delay	Cut Off Delay	Sensitivity	Hold Off Setpoint	Photocell On/Off	Ramp Up Time	Fade Down Time
WSC - Default	10V	1V	5 Minutes	1 Hour	Maximum	4ft	Disabled	Disabled	Disabled
WSC Range	0-10V	0-9.8V	5-30 Minutes	1-5	Low, Med, Max	1-250FC	1-250FC	1-60 Dec	1-60Dec

*Settings can be field modified with the FSIR-100 Programming remote

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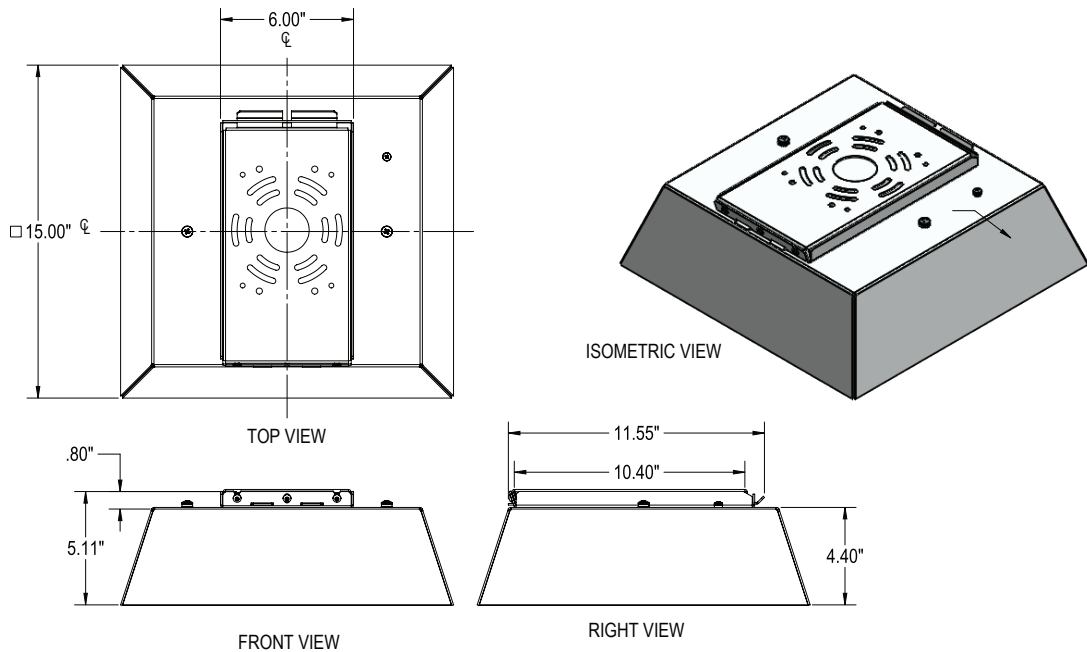
Photometric Optical Summary



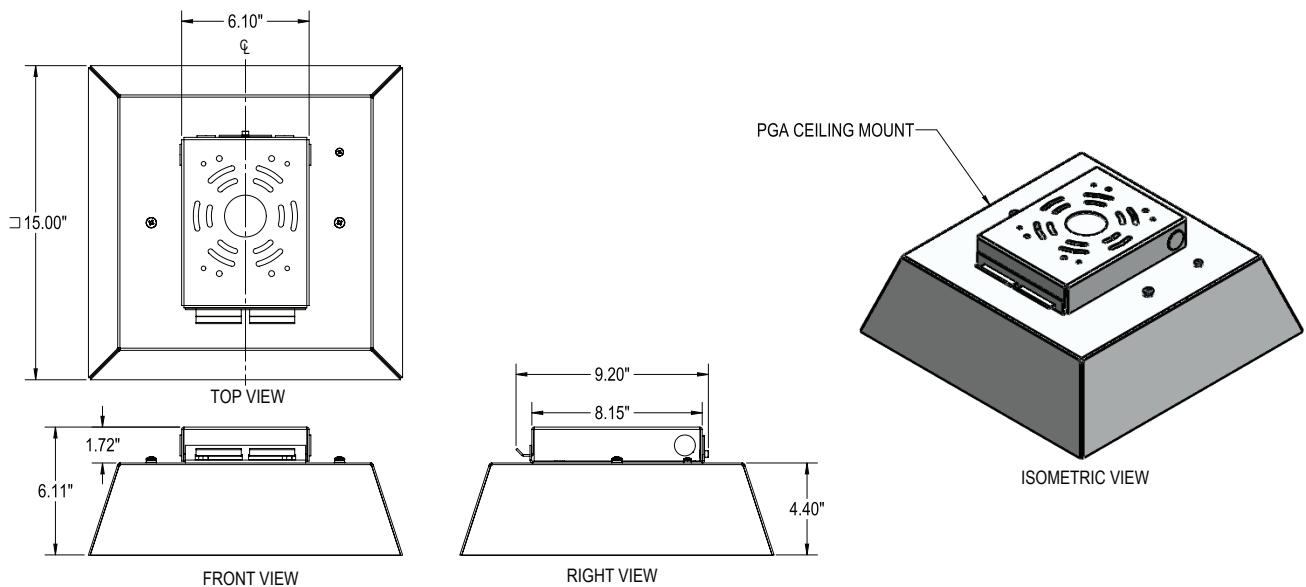
Dimensions

Width:	PGA-1 15"
Height:	PGA-1 5.0"
Weight:	18 LBS

PGA Low Profile Mount



PGA Ceiling Mount



WATTSTOPPER PLUS

FSP-600 Series

The FSP-600 series by Wattstopper PLUS is an integrated luminaire level lighting controller and sensor for indoor/outdoor lighting applications that require networked wireless control. The FSP-600 is designed to integrate directly into exterior, high bay, parking garage, and general site lighting solutions. It is a passive infrared (PIR) sensor and closed loop photosensor.

The FSP-600 series design intends to reduce installer labor time and make on-site start up easy for technicians.

Once commissioned and paired to a Wattstopper PLUS network, the devices can measure both motion and daylight contribution in order to automatically switch or dim lighting. It also provides the ability to communicate to other fixtures in the space without any front-end devices.

The Wattstopper PLUS FSP-600 series is available in a few different options including: internal, external straight nipple, and external drop nipple. Sensor lens options sold separately and should be ordered based on designed mounting height and desired finish.

FSP-621



FSP-200 Series

The FSP-200 series sensors provide multi-level control based on motion and/or daylight contribution. They control 0-10 VDC LED drivers or dimming ballasts, as well as non-dimming ballasts and, with an FSP-Lx Lens, are rated for wet and cold locations. All control parameters are adjustable via a wireless configuration tool capable of storing and transmitting sensor profiles. The FSP-200 series is available in two different voltage configurations adding flexibility to your fixture design or project.

Typically, the sensor ramps lighting On to the selected High mode level when motion is detected and the ambient light level is below the hold off setpoint. After the sensor stops detecting movement and the time delay elapses, lights fade to the Low mode level. If there is no motion during the subsequent cut off time delay, the lights will turn Off. For dusk to dawn control, the integral photocell can switch the lights On and Off based on the ambient light level so that lighting remains on overnight even without motion detection.

Initial setup and subsequent sensor adjustments are made using a Wireless Handheld Configuration Tool (FSIR-100). This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cut off and more. The FSIR-100 is also used to initiate automatic calibration of the FSP-2x1B ambient light level setpoint. The setpoint is used to hold the controlled lighting off or at a low level when there is sufficient daylight. The wireless tool stores up to six sensor parameter profiles to speed configuration of multiple sensors.

FSP-211



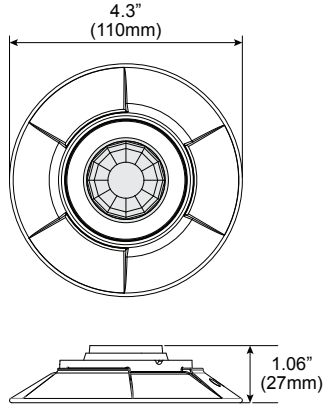
FSP-221



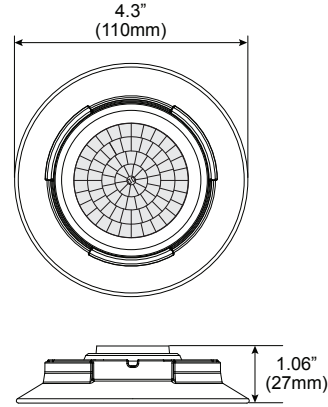
Lens with Shroud Dimensions

The FSP-Lx-S models include a shroud, which blocks high-angle light coming from the fixture, to improve photocell performance. With the shroud attached, the dimensions for all three lenses are identical

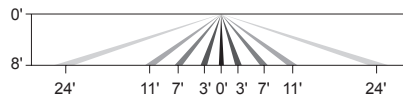
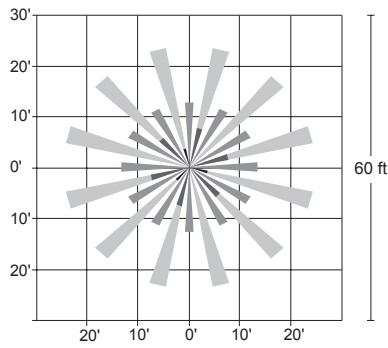
FSP-L2-S and FSP-L3-S



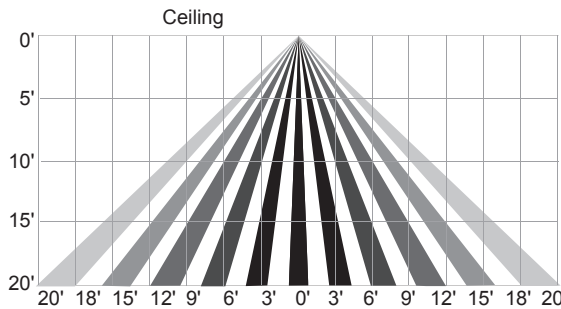
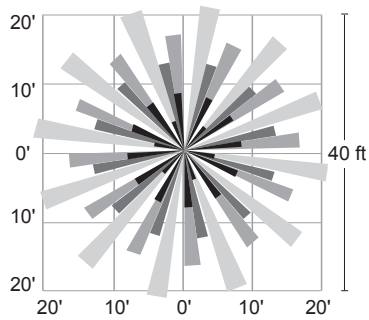
FSP-L7-S



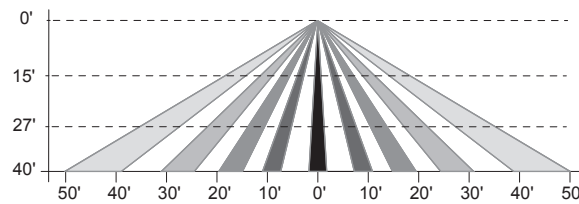
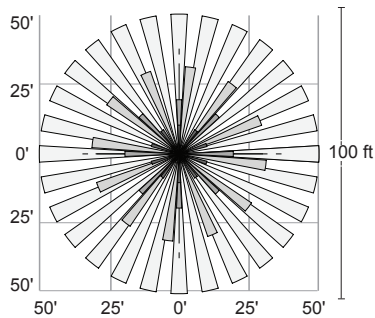
COVERAGE



FSP-L2 top and side coverage patterns



FSP-L3 top and side coverage patterns



FSP-L7 top and side coverage patterns

PGA-1 LED SPECIFICATIONS / Forward Optics																											
Led Count	Current & Watts	Distribution Type	70CRI																								
			27K					30K					35K					40K					50K				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
16LD	350 mA (16.4W)	T1	2303	2	0	2	140	2403	2	0	2	146	2403	2	0	2	146	2378	2	0	2	145	2503	2	0	2	152
		T2	2256	1	0	1	137	2354	1	0	1	143	2354	1	0	1	143	2330	1	0	1	142	2452	1	0	1	149
		T3R	2282	1	0	1	139	2381	1	0	1	145	2381	1	0	1	145	2356	1	0	1	143	2480	1	0	1	151
		T3	2265	1	0	1	138	2363	1	0	1	144	2363	1	0	1	144	2338	1	0	1	142	2462	1	0	1	150
		T3W	2327	1	0	1	142	2428	1	0	1	148	2428	1	0	1	148	2403	1	0	1	146	2529	1	0	1	154
		T3LG	2204	1	0	1	134	2300	1	0	1	140	2300	1	0	1	140	2276	1	0	1	139	2396	1	0	1	146
		T4	2272	1	0	1	138	2370	1	0	1	144	2370	1	0	1	144	2346	1	0	1	143	2469	1	0	1	150
		T4A	2419	1	0	1	147	2524	1	0	1	154	2524	1	0	1	154	2498	1	0	1	152	2629	1	0	1	160
		T4LG	2221	1	0	1	135	2318	1	0	1	141	2318	1	0	1	141	2293	1	0	1	140	2414	1	0	1	147
		T5	2389	1	0	1	145	2492	1	0	1	152	2492	1	0	1	152	2466	1	0	1	150	2596	1	0	1	158
		T5LG	2238	1	0	0	136	2336	1	0	0	142	2336	1	0	0	142	2311	1	0	0	141	2433	1	0	0	148
		T5W	2319	2	0	1	141	2420	2	0	1	147	2420	2	0	1	147	2395	2	0	1	146	2521	2	0	1	153
		T5WW	2195	2	0	1	134	2290	2	0	1	139	2290	2	0	1	139	2266	2	0	1	138	2386	2	0	1	145
		FW	2424	1	0	0	148	2529	1	0	0	154	2529	1	0	0	154	2503	1	0	0	152	2635	1	0	0	160
16LD	530 mA (25.3W)	T1	3498	2	0	2	138	3650	2	0	2	144	3650	2	0	2	144	3612	2	0	2	143	3802	2	0	2	150
		T2	3427	1	0	1	135	3576	1	0	1	141	3576	1	0	1	141	3539	1	0	1	140	3725	1	0	1	147
		T3R	3466	1	0	1	137	3617	1	0	1	143	3617	1	0	1	143	3579	1	0	1	141	3768	1	0	1	149
		T3	3440	1	0	1	136	3590	1	0	1	142	3590	1	0	1	142	3552	1	0	1	140	3739	1	0	1	148
		T3W	3534	1	0	1	139	3688	1	0	1	146	3688	1	0	1	146	3650	1	0	1	144	3842	1	0	1	152
		T3LG	3349	1	0	1	132	3494	1	0	1	138	3494	1	0	1	138	3458	1	0	1	136	3640	1	0	1	144
		T4	3451	1	0	1	136	3601	1	0	1	142	3601	1	0	1	142	3563	1	0	1	141	3751	1	0	1	148
		T4A	3674	1	0	1	145	3834	1	0	1	151	3834	1	0	1	151	3794	1	0	1	150	3994	1	0	1	158
		T4LG	3374	1	0	1	133	3520	1	0	1	139	3520	1	0	1	139	3484	1	0	1	137	3667	1	0	1	145
		T5	3628	2	0	1	143	3786	2	0	1	149	3786	2	0	1	149	3747	2	0	1	148	3944	2	0	1	156
		T5LG	3400	2	0	0	134	3548	2	0	0	140	3548	2	0	0	140	3511	2	0	0	139	3696	2	0	0	146
		T5W	3523	2	0	1	139	3676	2	0	1	145	3676	2	0	1	145	3638	2	0	1	144	3830	2	0	1	151
		T5WW	3334	2	0	1	132	3479	2	0	1	137	3479	2	0	1	137	3443	2	0	1	136	3624	2	0	1	143
		FW	3682	2	0	1	145	3842	2	0	1	152	3842	2	0	1	152	3802	2	0	1	150	4002	2	0	1	158
16LD	700 mA (34.0W)	T1	4534	3	0	3	133	4731	3	0	3	139	4731	3	0	3	139	4682	3	0	3	138	4928	3	0	3	145
		T2	4442	1	0	2	131	4635	1	0	2	136	4635	1	0	2	136	4587	1	0	2	135	4829	1	0	2	142
		T3R	4493	1	0	2	132	4688	1	0	2	138	4688	1	0	2	138	4640	1	0	2	137	4884	1	0	2	144
		T3	4459	1	0	1	131	4653	1	0	1	137	4653	1	0	1	137	4604	1	0	1	136	4847	1	0	1	143
		T3W	4581	1	0	1	135	4781	1	0	1	141	4781	1	0	1	141	4731	1	0	1	139	4980	1	0	1	147
		T3LG	4340	1	0	1	128	4529	1	0	1	133	4529	1	0	1	133	4482	1	0	1	132	4718	1	0	1	139
		T4	4473	1	0	1	132	4667	1	0	1	137	4667	1	0	1	137	4619	1	0	1	136	4862	1	0	1	143
		T4A	4762	1	0	1	140	4969	1	0	1	146	4969	1	0	1	146	4918	1	0	1	145	5176	1	0	1	152
		T4LG	4373	1	0	1	129	4563	1	0	1	134	4563	1	0	1	134	4516	1	0	1	133	4753	1	0	1	140
		T5	4703	2	0	1	138	4907	2	0	1	144	4907	2	0	1	144	4856	2	0	1	143	5112	2	0	1	150
		T5LG	4407	2	0	0	130	4599	2	0	0	135	4599	2	0	0	135	4551	2	0	0	134	4790	2	0	0	141
		T5W	4567	3	0	1	134	4765	3	0	1	140	4765	3	0	1	140	4716	3	0	1	139	4964	3	0	1	146
		T5WW	4321	3	0	1	127	4509	3	0	1	133	4509	3	0	1	133	4462	3	0	1	131	4697	3	0	1	138
		FW	4773	2	0	1	140	4980	2	0	1	147	4980	2	0	1	147	4928	2	0	1	145	5188	2	0	1	153

CRI Multiplier		
70 to 80 CRI	2700K, 3000K, 3500K, 4000K	5000K
70 to 90 CRI	0.91	0.88
	0.7	0.77

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			27K					30K					35K					40K					50K				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
32LD	350 mA (32.9W)	T1	4517	3	0	3	137	4713	3	0	3	143	4713	3	0	3	143	4664	3	0	3	142	4910	3	0	3	149
		T2	4426	1	0	2	135	4618	1	0	2	141	4618	1	0	2	141	4570	1	0	2	139	4811	1	0	2	146
		T3R	4476	1	0	2	136	4671	1	0	2	142	4671	1	0	2	142	4622	1	0	2	141	4866	1	0	2	148
		T3	4442	1	0	1	135	4635	1	0	1	141	4635	1	0	1	141	4587	1	0	1	140	4828	1	0	1	147
		T3W	4564	1	0	1	139	4763	1	0	1	145	4763	1	0	1	145	4713	1	0	1	143	4961	1	0	1	151
		T3LG	4324	1	0	1	132	4512	1	0	1	137	4512	1	0	1	137	4465	1	0	1	136	4700	1	0	1	143
		T4	4456	1	0	1	136	4650	1	0	1	141	4650	1	0	1	141	4601	1	0	1	140	4843	1	0	1	147
		T4A	4745	1	0	1	144	4951	1	0	1	151	4951	1	0	1	151	4899	1	0	1	149	5157	1	0	1	157
		T4LG	4357	1	0	1	133	4546	1	0	1	138	4546	1	0	1	138	4499	1	0	1	137	4735	1	0	1	144
		T5	4685	2	0	1	143	4889	2	0	1	149	4889	2	0	1	149	4838	2	0	1	147	5093	2	0	1	155
		T5LG	4390	2	0	0	134	4581	2	0	0	139	4581	2	0	0	139	4534	2	0	0	138	4772	2	0	0	145
		T5W	4550	3	0	1	138	4748	3	0	1	144	4748	3	0	1	144	4698	3	0	1	143	4945	3	0	1	150
		T5WW	4305	3	0	1	131	4492	3	0	1	137	4492	3	0	1	137	4446	3	0	1	135	4679	3	0	1	142
		FW	4755	2	0	1	145	4962	2	0	1	151	4962	2	0	1	151	4910	2	0	1	149	5168	2	0	1	157
32LD	530 mA (50.7W)	T1	6861	3	0	3	135	7159	3	0	3	141	7159	3	0	3	141	7085	3	0	3	140	7458	3	0	3	147
		T2	6723	2	0	2	133	7015	2	0	2	138	7015	2	0	2	138	6942	2	0	2	137	7307	2	0	2	144
		T3R	6799	2	0	2	134	7095	2	0	2	140	7095	2	0	2	140	7021	2	0	2	139	7391	2	0	2	146
		T3	6748	1	0	1	133	7041	1	0	2	139	7041	1	0	2	139	6968	1	0	2	137	7334	1	0	2	145
		T3W	6933	1	0	2	137	7234	1	0	2	143	7234	1	0	2	143	7159	1	0	2	141	7536	1	0	2	149
		T3LG	6568	2	0	1	130	6854	2	0	1	135	6854	2	0	1	135	6782	2	0	1	134	7139	2	0	1	141
		T4	6769	2	0	2	134	7063	2	0	2	139	7063	2	0	2	139	6989	2	0	2	138	7357	2	0	2	145
		T4A	7207	2	0	1	142	7520	2	0	1	148	7520	2	0	1	148	7442	2	0	1	147	7834	2	0	1	155
		T4LG	6618	2	0	1	131	6905	2	0	1	136	6905	2	0	1	136	6833	2	0	1	135	7193	2	0	1	142
		T5	7117	3	0	1	140	7426	3	0	1	147	7426	3	0	1	147	7349	3	0	1	145	7736	3	0	1	153
		T5LG	6669	2	0	1	132	6959	2	0	1	137	6959	2	0	1	137	6887	2	0	1	136	7249	2	0	1	143
		T5W	6911	3	0	1	136	7212	3	0	1	142	7212	3	0	1	142	7136	3	0	1	141	7512	3	0	1	148
		T5WW	6539	3	0	1	129	6824	3	0	1	135	6824	3	0	1	135	6753	3	0	1	133	7108	3	0	2	140
		FW	7223	2	0	1	142	7537	3	0	1	149	7537	3	0	1	149	7458	3	0	1	147	7851	3	0	1	155
32LD	700 mA (67.9W)	T1	8893	3	0	3	131	9280	3	0	3	137	9280	3	0	3	137	9183	3	0	3	135	9667	3	0	3	142
		T2	8714	2	0	3	128	9093	2	0	3	134	9093	2	0	3	134	8998	2	0	3	132	9471	2	0	3	139
		T3R	8813	2	0	2	130	9197	2	0	3	135	9197	2	0	3	135	9101	2	0	3	134	9580	2	0	3	141
		T3	8746	2	0	2	129	9126	2	0	2	134	9126	2	0	2	134	9031	2	0	2	133	9507	2	0	2	140
		T3W	8986	2	0	2	132	9377	2	0	2	138	9377	2	0	2	138	9279	2	0	2	137	9768	2	0	2	144
		T3LG	8514	2	0	2	125	8884	2	0	2	131	8884	2	0	2	131	8791	2	0	2	129	9254	2	0	2	136
		T4	8773	2	0	2	129	9155	2	0	2	135	9155	2	0	2	135	9059	2	0	2	133	9536	2	0	2	140
		T4A	9342	2	0	1	137	9748	2	0	1	143	9748	2	0	1	143	9646	2	0	1	142	10154	2	0	1	149
		T4LG	8578	2	0	1	126	8951	2	0	1	132	8951	2	0	1	132	8857	2	0	1	130	9324	2	0	2	137
		T5	9225	3	0	1	136	9626	3	0	1	142	9626	3	0	1	142	9526	3	0	1	140	10027	3	0	2	148
		T5LG	8644	3	0	1	127	9020	3	0	1	133	9020	3	0	1	133	8926	3	0	1	131	9396	3	0	1	138
		T5W	8958	3	0	2	132	9347	3	0	2	138	9347	3	0	2	138	9250	3	0	2	136	9737	3	0	2	143
		T5WW	8476	3	0	2	125	8845	3	0	2	130	8845	3	0	2	130	8753	3	0	2	129	9213	3	0	2	136
		FW	9362	3	0	1	138	9769	3	0	1	144	9769	3	0	1	144	9667	3	0	1	142	10176	3	0	1	150

CRI Multiplier		
70 to 80 CRI	2700K, 3000K, 3500K, 4000K	5000K
70 to 90 CRI	0.91	0.88
	0.7	0.77

PGA-1 LED SPECIFICATIONS / Forward Optics																											
Led Count	Current & Watts	Distribution Type	70CRI																								
			27K					30K					35K					40K					50K				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
48LD	350 mA (49.3W)	T1	6642	3	0	3	135	6931	3	0	3	141	6931	3	0	3	141	6859	3	0	3	139	7220	3	0	3	146
		T2	6508	2	0	2	132	6791	2	0	2	138	6791	2	0	2	138	6721	2	0	2	136	7074	2	0	2	144
		T3R	6583	2	0	2	134	6869	2	0	2	139	6869	2	0	2	139	6797	2	0	2	138	7155	2	0	2	145
		T3	6533	1	0	1	133	6817	1	0	1	138	6817	1	0	1	138	6746	1	0	1	137	7101	1	0	2	144
		T3W	6712	1	0	2	136	7004	1	0	2	142	7004	1	0	2	142	6931	1	0	2	141	7296	1	0	2	148
		T3LG	6359	2	0	1	129	6635	2	0	1	135	6635	2	0	1	135	6566	2	0	1	133	6912	2	0	1	140
		T4	6553	2	0	2	133	6838	2	0	2	139	6838	2	0	2	139	6767	2	0	2	137	7123	2	0	2	144
		T4A	6977	2	0	1	142	7281	2	0	1	148	7281	2	0	1	148	7205	2	0	1	146	7584	2	0	1	154
		T4LG	6407	1	0	1	130	6685	2	0	1	136	6685	2	0	1	136	6616	2	0	1	134	6964	2	0	1	141
		T5	6890	3	0	1	140	7190	3	0	1	146	7190	3	0	1	146	7115	3	0	1	144	7489	3	0	1	152
		T5LG	6457	2	0	1	131	6737	2	0	1	137	6737	2	0	1	137	6667	2	0	1	135	7018	2	0	1	142
		T5W	6691	3	0	1	136	6982	3	0	1	142	6982	3	0	1	142	6909	3	0	1	140	7273	3	0	1	148
		T5WW	6331	3	0	1	128	6606	3	0	1	134	6606	3	0	1	134	6538	3	0	1	133	6882	3	0	2	140
		FW	6993	2	0	1	142	7297	2	0	1	148	7297	2	0	1	148	7221	2	0	1	146	7601	3	0	1	154
		48LD	530 mA (76.0W)	T1	10090	3	0	3	133	10529	3	0	3	138	10529	3	0	3	138	10419	3	0	3	137	10967	4	0
T2	9886			2	0	3	130	10316	2	0	3	136	10316	2	0	3	136	10209	2	0	3	134	10746	3	0	3	141
T3R	9999			2	0	3	132	10434	2	0	3	137	10434	2	0	3	137	10325	2	0	3	136	10869	3	0	3	143
T3	9923			2	0	2	131	10354	2	0	2	136	10354	2	0	2	136	10247	2	0	2	135	10786	2	0	2	142
T3W	10196			2	0	2	134	10639	2	0	2	140	10639	2	0	2	140	10528	2	0	2	138	11082	2	0	2	146
T3LG	9659			2	0	2	127	10079	2	0	2	133	10079	2	0	2	133	9974	2	0	2	131	10499	2	0	2	138
T4	9954			2	0	2	131	10387	2	0	2	137	10387	2	0	2	137	10278	2	0	2	135	10819	3	0	3	142
T4A	10599			2	0	1	139	11059	2	0	2	145	11059	2	0	2	145	10944	2	0	2	144	11520	2	0	2	152
T4LG	9732			2	0	2	128	10155	2	0	2	134	10155	2	0	2	134	10049	2	0	2	132	10578	2	0	2	139
T5	10466			3	0	2	138	10921	3	0	2	144	10921	3	0	2	144	10807	3	0	2	142	11376	3	0	2	150
T5LG	9808			3	0	1	129	10234	3	0	1	135	10234	3	0	1	135	10127	3	0	1	133	10680	3	0	1	140
T5W	10163			3	0	2	134	10605	3	0	2	139	10605	3	0	2	139	10495	3	0	2	138	11047	4	0	2	145
T5WW	9617			3	0	2	126	10035	4	0	2	132	10035	4	0	2	132	9930	4	0	2	131	10453	4	0	2	137
FW	10622			3	0	1	140	11083	3	0	1	146	11083	3	0	1	146	10968	3	0	1	144	11545	3	0	1	152
48LD	700 mA (101.9W)			T1	13078	4	0	4	128	13647	4	0	4	134	13647	4	0	4	134	13505	4	0	4	133	14216	4	0
		T2	12814	3	0	3	126	13371	3	0	3	131	13371	3	0	3	131	13232	3	0	3	130	13929	3	0	3	137
		T3R	12961	3	0	3	127	13524	3	0	3	133	13524	3	0	3	133	13383	3	0	3	131	14088	3	0	3	138
		T3	12862	2	0	2	126	13421	2	0	2	132	13421	2	0	2	132	13281	2	0	2	130	13980	2	0	2	137
		T3W	13215	2	0	3	130	13790	2	0	3	135	13790	2	0	3	135	13646	2	0	3	134	14365	2	0	3	141
		T3LG	12520	2	0	2	123	13064	3	0	2	128	13064	3	0	2	128	12928	3	0	2	127	13609	3	0	2	134
		T4	12902	3	0	3	127	13463	3	0	3	132	13463	3	0	3	132	13323	3	0	3	131	14024	3	0	3	138
		T4A	13738	2	0	2	135	14335	3	0	2	141	14335	3	0	2	141	14186	3	0	2	139	14932	3	0	2	147
		T4LG	12614	2	0	2	124	13163	2	0	2	129	13163	2	0	2	129	13026	2	0	2	128	13711	3	0	2	135
		T5	13566	4	0	2	133	14156	4	0	2	139	14156	4	0	2	139	14008	4	0	2	137	14746	4	0	2	145
		T5LG	12712	3	0	1	125	13265	3	0	1	130	13265	3	0	1	130	13127	3	0	1	129	13818	3	0	1	136
		T5W	13173	4	0	2	129	13746	4	0	2	135	13746	4	0	2	135	13603	4	0	2	133	14319	4	0	2	141
		T5WW	12465	4	0	2	122	13007	4	0	2	128	13007	4	0	2	128	12872	4	0	2	126	13549	4	0	2	133
		FW	13768	3	0	1	135	14366	3	0	1	141	14366	3	0	1	141	14217	3	0	1	139	14965	3	0	1	147

CRI Multiplier		
70 to 80 CRI	2700K, 3000K, 3500K, 4000K	5000K
70 to 90 CRI	0.91	0.88
	0.7	0.77