

Parking Areas
Building Entrances
Pedestrian Walkways
Shopping Malls
Large Areas



Specifications



RATED SYSTEM LIFE (LED LIFE PER L70)	Driver and LED life are rated up to 80,000 hrs @ 40°C (104°F).
PREDICTED LED LIFE	See page 8 for predicted LED life.
CONSTRUCTION	Die-cast aluminum housing with corrosion resistant hardware. QLA-128G1 and 160G1 have 32" optical opening. Optic chamber and separate driver housing constructed to IP66. Die-cast aluminum heatsink allows for long life of LEDs up to 40°C ambient.
THERMAL MANAGEMENT	IP66 rated thermal Pod frame management system creates a vortex of airflow with passthrough convective cooling system and heat extraction.
LED BOARD AND ARRAY	QLA series large housing: 128 or 160 Rebel ES LEDs. Color temperature: Neutral White 4000 K +/- 250 K; CRI ≥ 60. Metal core printed circuit board. RoHS compliant.
DRIVER	High efficiency multi-volt driver (50 or 60 Hz), maintains constant current flow to LEDs to accommodate LED variations. High power factor (>90% standard). Constant current: 350, 530 or 700 mA. Voltage: 120-480. Temperature range: -40°C (-40°F) to 40°C (104°F). Exception: 700 mA unit: -40°C (-40°F) to 35°C (95°F). Open / short circuit protection. RoHS compliant. Surge protector standard. The surge protector is in accordance with IEEE / ANSI C62.41.2 guidelines, with a surge current rating of 10,000 amps.
LED OPTICAL SYSTEM	Factory set and field rotatable LED Pod optical assemblies. Type II, III, IV or V distribution. Meets IES Full Cutoff criteria. Fully gasketed Dust-Tite construction. Employs Philips LEDGINE technology & Rebel ES LEDs.
MOUNTING	Field installed die-cast aluminum straight arm mount for mounting to 4" to 5" O.D. round poles. Square pole adapters included. Round pole adapter accessories required for mounting to 3.0-3.9" round poles. Wall mount also available.
FINISH	Standard textured finishes available. Polyester powder coat, electrostatically applied, which is preceded by a five step pre-treatment process including an iron phosphate priming stage for superior coating adhesion. This process meets or exceeds all ASTM testing requirements, including those for 1,000 hour salt spray endurance testing.
LISTINGS	ETL/cETL Listed luminaire, to the UL 1598 standard, suitable for Wet Locations. Suitable for use in ambients from -40° to 40°C (-40° to 104°F). QLA is a DesignLights Consortium qualified product.
WARRANTY	Mechanical, finish and LED engine & components shall be covered by a limited 5-year warranty. See terms and conditions for details.

PROJECT
FIXTURE TYPE
CATALOG#

ORDERING EXAMPLE QLA-128G1-700-NW-3L0-120-SAM-F1-TPG

ORDERING INFORMATION

1611 Clovis R. Barker Road
San Marcos, Texas 78666
Toll Free Phone: (800) 545-1326
Fax: (512) 753-1122
www.qualitylighting.com
e-mail: WQE.Info@philips.com

QLA 128G1 & 160G1

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SERIES	# OF LEDS	DRIVER	LED COLOR	DISTRIBUTION	VOLTAGE	MOUNTING	OPTIONS ⁹	FINISH	ACCESSORIES
QLA	128G1	700	NW	2L0	120	SAM	F1 ² DS25 ⁷	TSA	F1-KIT ² DYN-KIT1
				2L90	208		F2 ² DS50 ⁷	TDB	F2-KIT ² DYN-KIT2
	160G1	350		2L270	240		F3 ² DS75 ⁷	TBK	F3-KIT ² HSS ⁵
		530		3L0	277		PCB ^{2,3} DM25 ⁷	TWHT	WM-QLA SG-QLA2
				3L90	347		TLR DM50 ⁷	TGR	RPTA-190-DT13 SPTA-190-DT13
				3L270	480		TLRPC ^{2,4} DM75 ⁷	TPG	RPTA-290-DT13 SPTA-290-DT13
				4L0	UNV ¹		HSS ⁵ DE25 ⁷	TGN	RPTA-2180-DT13 SPTA-2180-DT13
				4L90			DD ⁶ DE50 ⁷	RAL(*)	RPTA-390-DT13 SPTA-390-DT13
				4L270			DE75 ⁷		RPTA-3120-DT13 SPTA-490-DT13
				5L			DCP ⁷		RPTA-490-DT13
									RPA339-QLA ¹⁰

SERIES	# OF LEDS	DRIVER	LED COLOR	DISTRIBUTION	VOLTAGE	MOUNTING	OPTIONS ⁹	FINISH
☒ QLA	☐ 128G1 → ☐ 700 ☐ 160G1 → ☐ 350 ↓ ☐ 530	☒ NW Neutral White	☐ 2L0 Type II optics @ 0° (standard) ☐ 2L90 Type II optics rotated @ 90° ☐ 2L270 Type II optics rotated @ 270° ☐ 3L0 Type III optics @ 0° (standard) ☐ 3L90 Type III optics rotated @ 90° ☐ 3L270 Type III optics rotated @ 270° ☐ 4L0 Type IV optics @ 0° (standard) ☐ 4L90 Type IV optics rotated @ 90° ☐ 4L270 Type IV optics rotated @ 270° ☐ 5L Type V	☐ 120 ☐ 208 ☐ 240 ☐ 277 ☐ 347 ☐ 480 ☐ UNV ¹	☒ SAM Straight Arm Mount	☐ F1 ² Single Fusing 120, 277, 347 V ☐ F2 ² Double Fusing 208, 240, 480 V ☐ F3 ² Double Fusing 208, 240, 480 V Canadian Double Pull ☐ PCB ^{2,3} Photocell Button ☐ TLR Twist Lock Photocell Receptacle ☐ TLRPC ^{2,4} Twist Lock Receptacle with Photocontrol ☐ HSS ⁵ House Side Shield ☐ DD ⁶ Dimming Driver	☐ DS25 ⁷ Dynadimmer Safety Profile (25% Low) ☐ DS50 ⁷ Dynadimmer Safety Profile (50% Low) ☐ DS75 ⁷ Dynadimmer Safety Profile (75% Low) ☐ DM25 ⁷ Dynadimmer Median Profile (25% Low) ☐ DM50 ⁷ Dynadimmer Median Profile (50% Low) ☐ DM75 ⁷ Dynadimmer Median Profile (75% Low) ☐ DE25 ⁷ Dynadimmer Economy Profile (25% Low) ☐ DE50 ⁷ Dynadimmer Economy Profile (50% Low) ☐ DE75 ⁷ Dynadimmer Economy Profile (75% Low) ☐ DCP ⁷ Dynadimmer Custom Programming	☐ TSA Textured Satin Aluminum ☐ TDB Textured Dark Bronze ☐ TBK Textured Black ☐ TWHT Textured White ☐ TGR Textured Gray ☐ TPG Textured Phillips Gray ☐ TGN Textured Green ☐ RAL(*) Custom Color (*=Specify RAL #)
NOTES: 1) 'UNV' universal voltage, 120-277 V. 2) Specify voltage. Fusing not available with 'UNV' voltage option. 3) 'PCB' option not available in 480 V. 4) 'TLRPC' option not available in 347 or 480 V. 5) 'HSS' House Side Shield option and accessory are available for Type-II, Type-III, and Type-IV only. 6) 0-10V leads exiting luminaire arm supplied for connection to external secondary controls (by others). 7) Dynadimmer options and accessories are only available in 120-277 V. Dimming Driver option ('DD') included. 8) QLA is compatible with a wide range of non-programmable and programmable occupancy sensors, wireless controls and asset management systems (by others). Contact factory. 9) RPA339-QLA is not available in 2@90, 3@90, or 4@90 mounting configurations.								

NOTES:

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- 9) RPA339-QLA is not available in 2@90, 3@90, or 4@90 mounting configurations.

ACCESSORIES

- ☐ F1-KIT² Single Fusing Field Installed Kit (120, 277, 347 V)
- ☐ F2-KIT² Double Fusing Field Installed Kit (208, 240, 480 V)
- ☐ F3-KIT² Double Fusing Field Installed Kit (208, 240, 480 V) Canadian Double Pull
- ☐ WM-QLA Wall Mount
- ☐ DYN-KIT1⁷ Dynadimmer USB Cable Kit (for field programming)
- ☐ DYN-KIT2⁷ Dynadimmer Handheld Programmer Kit (for field programming)
- ☐ 2LHSS-128 2L House Side Shield for 128G1 units
- ☐ 2LHSS-160 2L House Side Shield for 160G1 units
- ☐ 3LHSS-128 3L House Side Shield for 128G1 units
- ☐ 3LHSS-160 3L House Side Shield for 160G1 units
- ☐ 4LHSS-128 4L House Side Shield for 128G1 units
- ☐ 4LHSS-160 4L House Side Shield for 160G1 units
- ☐ SG-QLA2 Stone Guard

Round Pole Tenon Adapters

- ☐ RPTA-190-DT13 1@90
- ☐ RPTA-290-DT13 2@90
- ☐ RPTA-2180-DT13 2@180
- ☐ RPTA-390-DT13 3@90
- ☐ RPTA-3120-DT13 3@120
- ☐ RPTA-490-DT13 4@90

Round Pole Adapter for 3.0-3.9" pole

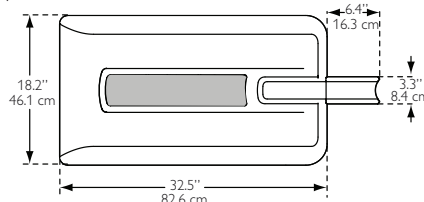
- ☐ RPA339-QLA⁹ (one required per luminaire)

Square Pole Tenon Adapters

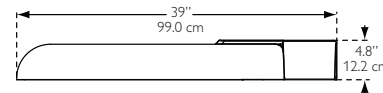
- ☐ SPTA-190-DT13 1@90
- ☐ SPTA-290-DT13 2@90
- ☐ SPTA-2180-DT13 2@180
- ☐ SPTA-390-DT13 3@90
- ☐ SPTA-490-DT13 4@90

DIMENSIONS

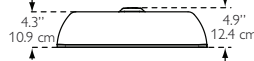
Top View



Side View



End View



Weight: 46 Lbs 20.8 Kg

EPA: 0.76 sq ft

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QLA 128G1 & 160G1

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MOUNTING CONFIGURATIONS

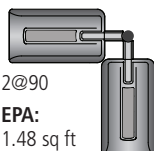
Single



1@90

EPA:
0.76 sq ft

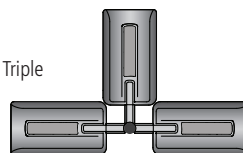
Double



2@90

EPA:
1.48 sq ft

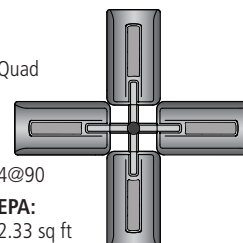
Triple



3@90

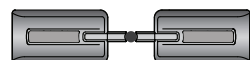
EPA: 2.17 sq ft

Quad



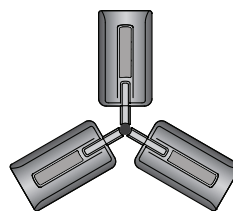
4@90

EPA:
2.33 sq ft



2@180

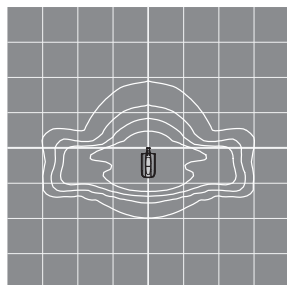
EPA: 1.52 sq ft



3@120

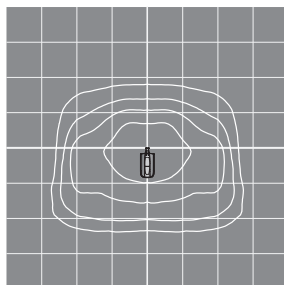
EPA: 1.96 sq ft

DISTRIBUTION PATTERNS



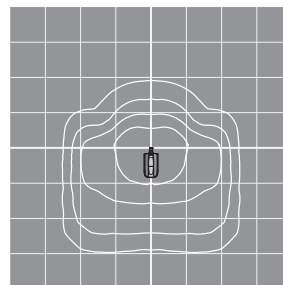
2L0

2L0 is designed to IES Type II.



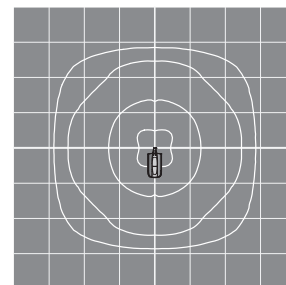
3L0

3L0 is designed to IES Type III.



4L0

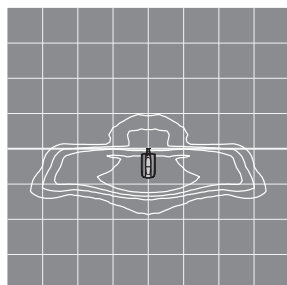
4L0 is designed to IES Type IV.



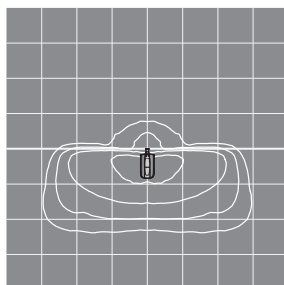
5L

5L is designed to IES Type V.

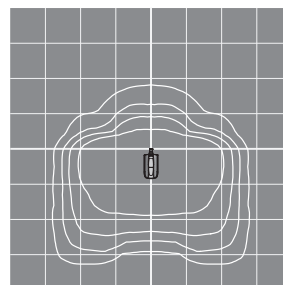
House side shield¹



Type II (2L0) - HSS



Type III (3L0) - HSS



Type IV (4L0) - HSS

NOTES:

- 1) 'HSS' factory installed options and field installed accessories will produce the same distribution results.

PROJECT
FIXTURE TYPE
CATALOG#

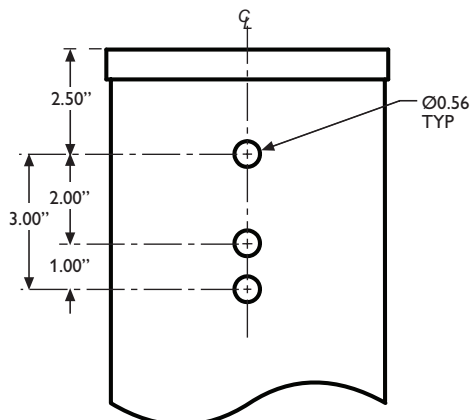
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ARM MOUNT DETAILS

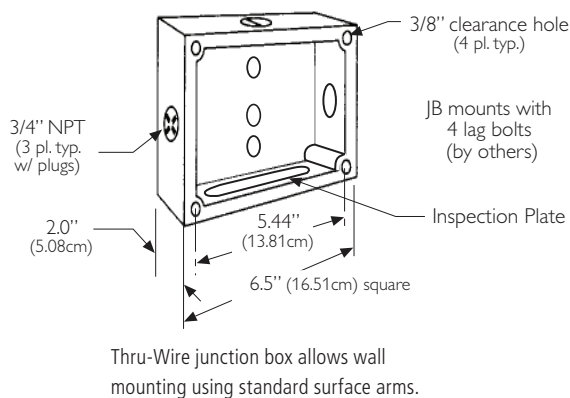
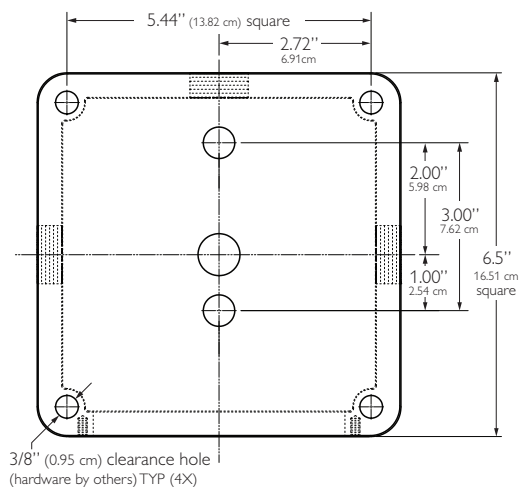
Straight Arm Mount Drill Template (NTS)



DRILL TEMPLATE NO. 13

Arm Mount to 4" - 5" Round or Square Pole

WALL MOUNT DETAILS



MOUNTING ACCESSORY DETAILS

Round Pole Tenon Adapters

Round Pole Tenon adapter allows mounting of QLA with straight arm to round pole with 2-3/8" O.D. X 4" tall pole top tenon.

RPTA-190-DT13	1 @ 90°
RPTA-290-DT13	2 @ 90°
RPTA-2180-DT13	2 @ 180°
RPTA-390-DT13	3 @ 90°
RPTA-3120-DT13	3 @ 120°
RPTA-490-DT13	4 @ 90°



Square Pole Tenon Adapters

Square Pole Tenon adapter allows mounting of QLA with straight arm to square pole with 2-3/8" O.D. X 4" tall pole top tenon.

SPTA-190-DT13	1 @ 90°
SPTA-290-DT13	2 @ 90°
SPTA-2180-DT13	2 @ 180°
SPTA-390-DT13	3 @ 90°
SPTA-490-DT13	4 @ 90°

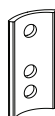


Round Pole Adapter for 3.0-3.9" pole

(one required for each luminaire)

Not available in 2@90, 3@90, or 4@90 mounting configurations

RPA339-QLA



PROJECT
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QLA 128G1 & 160G1

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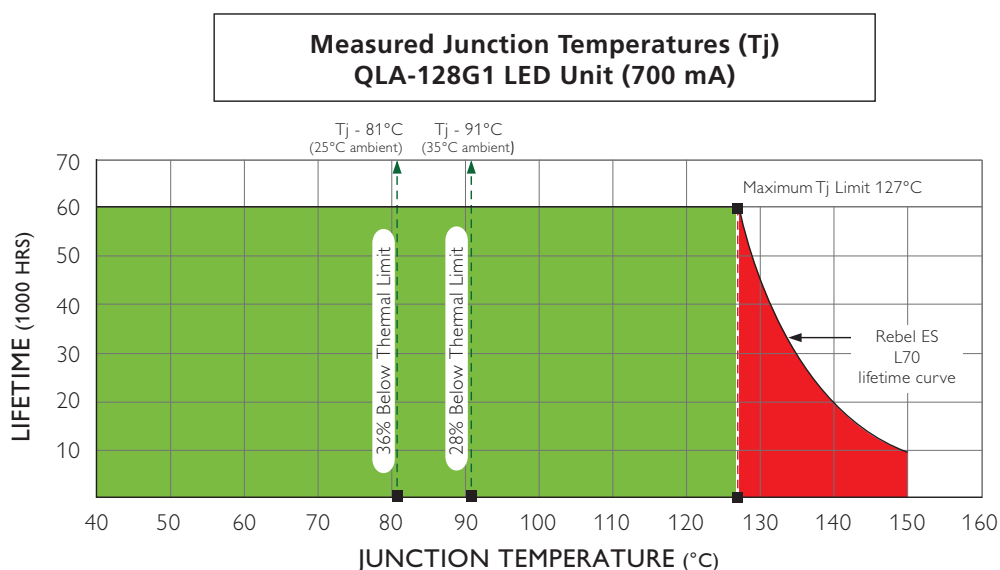
TECHNICAL DATA - QLA-128G1 @ 700 mA

QLA 128G1 @ 700 mA¹ (Type III '3LO' distribution, 4000 K +/- 250K CCT standard)

Input Watts	278
Initial Lumens @ 25°C Ambient	21,237
Lumens per Watt @ 25°C Ambient	76
Initial Lumens @ 35°C Ambient	20,536
Lumens per Watt @ 35°C Ambient	74

Notes: 1. Technical data and performance are subject to change.
2. Due to LED forward voltage variations and driver efficiency, total system watts could vary +/-4%.

JUNCTION TEMPERATURES



Green shaded portion represents junction temperatures below LED manufacturer's recommended limit to ensure a minimum of 60,000 hours of rated life.

LIFE EXPECTANCY

Predicted Life Expectancy Table Above the minimum 60,000 Rated LED Life at Multiple Ambient Temperatures QLA-128G1 LED Unit (700mA, L70)

Note: LED rated life per the L70 curve above is 60,000 hrs. The tables below showing predicted LED life expectancy are based on QLA's superior thermal management, actual junction temperature (T_j) and projected L70 curves. The projected life in years may be extended even further if used with dimming options.

QLA-128G1 LED (700mA)

Average Outdoor Ambient Temp	Fixture Junction Temp (T _j)	Predicted LED Life Expectancy L70 (Hrs)	Fixture Efficacy (Lumens/Watt)	Predicted LED Life Expectancy @ 10 Hrs/Day (Yrs)
-20°C / -4°F	36	165,939	83	45
-10°C / 14°F	46	154,593	81	42
0°C / 32°F	56	143,557	80	39
10°C / 50°F	66	132,831	79	36
25°C / 77°F	81	117,324	76	32
30°C / 86°F	86	112,310	75	31
35°C / 95°F	91	104,800	74	29
40°C / 104°F	-	-	-	-

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QLA 128G1 & 160G1

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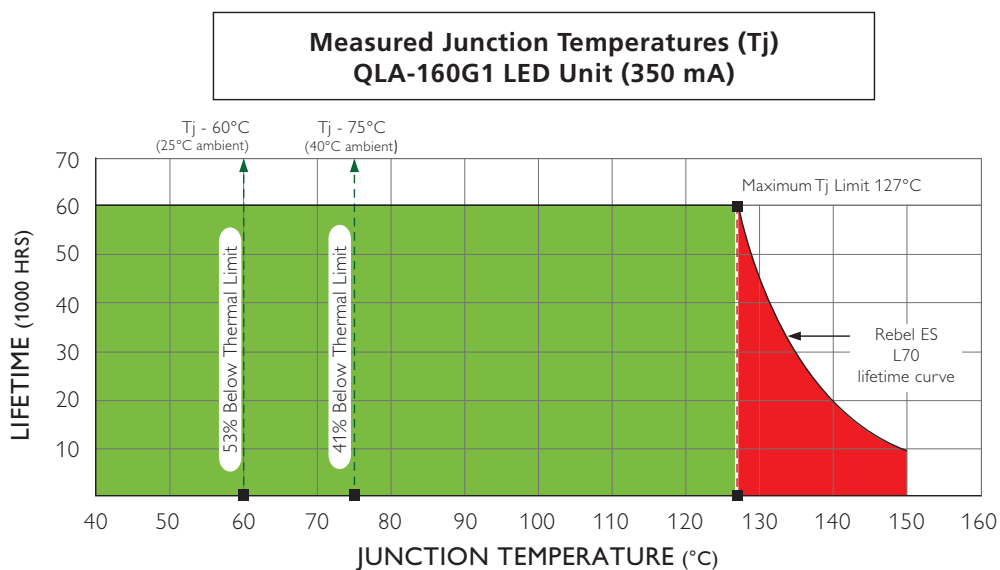
TECHNICAL DATA - QLA-160G1 @ 350 mA

QLA 160G1 @ 350 mA¹ (Type III '3LO' distribution, 4000 K +/- 250K CCT standard)

Input Watts	181
Initial Lumens @ 25°C Ambient	15,486
Lumens per Watt @ 25°C Ambient	86
Initial Lumens @ 40°C Ambient	14,997
Lumens per Watt @ 40°C Ambient	83

Notes: 1. Technical data and performance are subject to change.
2. Due to LED forward voltage variations and driver efficiency, total system watts could vary +/-4%.

JUNCTION TEMPERATURES



Green shaded portion represents junction temperatures below LED manufacturer's recommended limit to ensure a minimum of 60,000 hours of rated life.

LIFE EXPECTANCY

Predicted Life Expectancy Table Above the minimum 60,000 Rated LED Life at Multiple Ambient Temperatures QLA-160G1 LED Unit (350mA, L70)

Note: LED rated life per the L70 curve above is 60,000 hrs. The tables below showing predicted LED life expectancy are based on QLA's superior thermal management, actual junction temperature (T_j) and projected L70 curves. The projected life in years may be extended even further if used with dimming options.

QLA-160G1 LED (350mA)

Average Outdoor Ambient Temp	Fixture Junction Temp (T _j)	Predicted LED Life Expectancy L70 (Hrs)	Fixture Efficacy (Lumens/Watt)	Predicted LED Life Expectancy @ 10 Hrs/Day (Yrs)
-20°C / -4°F	15	216,833	92	59
-10°C / 14°F	25	203,058	91	56
0°C / 32°F	35	189,650	90	52
10°C / 50°F	45	176,608	87	48
25°C / 77°F	60	157,731	86	43
30°C / 86°F	65	151,622	85	42
40°C / 104°F	75	136,400	83	37

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QLA 128G1 & 160G1

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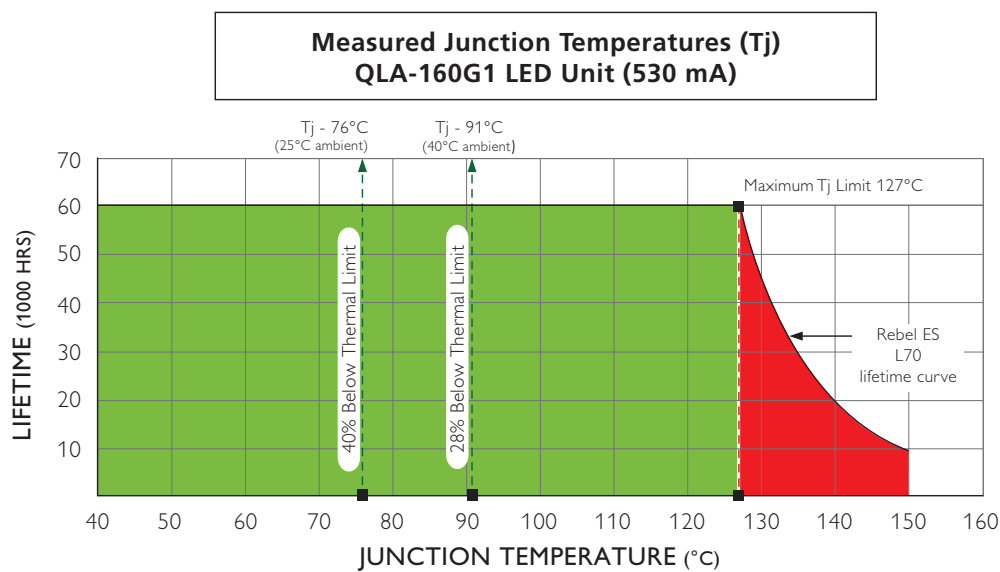
TECHNICAL DATA - QLA-160G1 @ 530 mA

QLA 160G1 @ 530 mA¹ (Type III '3L0' distribution, 4000 K +/- 250K CCT standard)

Input Watts	254
Initial Lumens @ 25°C Ambient	21,458
Lumens per Watt @ 25°C Ambient	85
Initial Lumens @ 40°C Ambient	20,992
Lumens per Watt @ 40°C Ambient	83

Notes: 1. Technical data and performance are subject to change.
2. Due to LED forward voltage variations and driver efficiency, total system watts could vary +/-4%.

JUNCTION TEMPERATURES



LIFE EXPECTANCY

**Predicted Life Expectancy Table Above the minimum 60,000 Rated LED Life at Multiple Ambient Temperatures
QLA-160G1 LED Unit (530mA, L70)**

Note: LED rated life per the L70 curve above is 60,000 hrs. The tables below showing predicted LED life expectancy are based on QLA's superior thermal management, actual junction temperature (T_j) and projected L70 curves. The projected life in years may be extended even further if used with dimming options.

QLA-160G1 LED (530mA)

Average Outdoor Ambient Temp	Fixture Junction Temp (T _j)	Predicted LED Life Expectancy L70 (Hrs)	Fixture Efficacy (Lumens/Watt)	Predicted LED Life Expectancy @ 10 Hrs/Day (Yrs)
-20°C / -4°F	31	185,085	92	51
-10°C / 14°F	41	172,640	90	47
0°C / 32°F	51	160,534	89	44
10°C / 50°F	61	148,765	87	41
25°C / 77°F	76	131,747	85	36
30°C / 86°F	81	126,243	84.	35
40°C / 104°F	91	112,800	83	31

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PHOTOMETRIC DATA

Cat No.	Optic (distribution)	System Wattage	Fixture Lumens	Efficacy	B (backlight)	U (uplight)	G (glare)	CCT	IES File #
QLA-128G1-700	Type II (2L)*	279	21,979	79	3	0	3	4000 K +/- 250K	QLA-128G1-700-2L.IES
	Type III (3L)	278	21,237	77	3	0	3	4000 K +/- 250K	QLA-128G1-700-3L.IES
	Type IV (4L)	278	20,597	74	3	0	3	4000 K +/- 250K	QLA-128G1-700-4L.IES
	Type V (5L)	278	20,449	74	4	0	2	4000 K +/- 250K	QLA-128G1-700-5L.IES
QLA-160G1-350	Type II (2L)*	173	15,541	90	3	0	3	4000 K +/- 250K	QLA-160G1-350-2L.IES
	Type III (3L)	181	15,486	86	3	0	3	4000 K +/- 250K	QLA-160G1-350-3L.IES
	Type IV (4L)	181	15,724	87	3	0	3	4000 K +/- 250K	QLA-160G1-350-4L.IES
	Type V (5L)	181	15,488	86	4	0	2	4000 K +/- 250K	QLA-160G1-350-5L.IES
QLA-160G1-530	Type II (2L)	254	20,908	82	3	0	3	4000 K +/- 250K	QLA-160G1-530-2L.IES
	Type III (3L)	254	21,458	85	3	0	3	4000 K +/- 250K	QLA-160G1-530-3L.IES
	Type IV (4L)	254	21,202	84	3	0	3	4000 K +/- 250K	QLA-160G1-530-4L.IES
	Type V (5L)	254	20,870	82	4	0	2	4000 K +/- 250K	QLA-160G1-530-5L.IES

* LM-79 test report data was generated by a 3rd party independent lab - Luminaire Testing Laboratory (LTL).

Backlight - refers to light directed opposite the target area, which may create light trespass. Backlight is commonly behind the luminaire.

Uplight - is illumination directed above the horizontal plane of the luminaire (90°) which causes artificial sky glow.

Glare - is the amount of light from the luminaire emitted in directions or at angles that cause glare, which can be annoying or visually disabling.

PROJECT
FIXTURE TYPE
CATALOG#

1611 Clovis R. Barker Road
San Marcos, Texas 78666
Toll Free Phone: (800) 545-1326
Fax: (512) 753-1122
www.qualitylighting.com
e-mail: WQE.Info@philips.com

QLA

128G1 & 160G1

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LED LUMEN MAINTENANCE DATA

		QLA-128G1 @ 700 mA								QLA-160G1 @ 350 mA								QLA-160G1 @ 530 mA							
Outdoor Ambient Temp (°C) ¹		5	10	15	20	25	30	35	40	5	10	15	20	25	30	35	40	5	10	15	20	25	30	35	40
Junction Temperature ²		60.7	65.7	70.7	75.7	80.7	85.7	90.7	-	39.6	44.6	49.6	54.6	59.6	64.6	69.6	74.6	56.1	61.1	66.1	71.1	76.1	81.1	86.1	91.1
Thermal Factor ³		1.04	1.03	1.02	1.01	1.00	0.99	0.98	-	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97
Predicted Life Hours of operation / Years based on 10 hrs/day burn cycle	0	1.04	1.03	1.02	1.01	1.00	0.99	0.98	-	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97	1.04	1.03	1.02	1.01	1.00	0.99	0.98	0.97
	8,000 / 2.2	1.03	1.02	1.01	1.00	0.99	0.98	0.97	-	1.04	1.03	1.02	1.01	0.99	0.98	0.97	0.96	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.96
	16,000 / 4.4	1.02	1.01	1.00	0.99	0.97	0.96	0.95	-	1.03	1.02	1.01	1.00	0.99	0.97	0.96	0.95	1.02	1.01	1.00	0.99	0.98	0.97	0.95	0.94
	24,000 / 6.6	1.01	1.00	0.98	0.97	0.96	0.94	0.93	-	1.02	1.01	1.00	0.99	0.98	0.96	0.95	0.94	1.01	1.00	0.99	0.98	0.96	0.95	0.94	0.92
	32,000 / 8.8	1.00	0.98	0.97	0.96	0.94	0.93	0.91	-	1.01	1.00	0.99	0.98	0.97	0.95	0.94	0.93	1.00	0.99	0.98	0.97	0.95	0.94	0.92	0.90
	40,000 / 11.0	0.99	0.97	0.96	0.94	0.93	0.91	0.89	-	1.01	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.99	0.98	0.97	0.95	0.94	0.92	0.91	0.89
	48,000 / 13.2	0.97	0.96	0.94	0.93	0.91	0.89	0.87	-	1.00	0.99	0.97	0.96	0.95	0.93	0.92	0.91	0.98	0.97	0.96	0.94	0.93	0.91	0.89	0.87
	56,000 / 15.3	0.96	0.95	0.93	0.91	0.89	0.87	0.84	-	0.99	0.98	0.97	0.95	0.94	0.92	0.91	0.89	0.97	0.96	0.94	0.93	0.91	0.89	0.87	0.85
	64,000 / 17.5	0.95	0.94	0.92	0.89	0.87	0.84	0.82	-	0.98	0.97	0.96	0.94	0.93	0.91	0.90	0.88	0.96	0.95	0.93	0.92	0.90	0.87	0.85	0.82
	72,000 / 19.7	0.94	0.92	0.90	0.87	0.85	0.82	0.79	-	0.98	0.96	0.95	0.93	0.92	0.90	0.89	0.87	0.95	0.94	0.92	0.90	0.88	0.85	0.83	0.80
	80,000 / 21.9	0.92	0.90	0.87	0.85	0.82	0.80	0.77	-	0.97	0.95	0.94	0.93	0.91	0.89	0.87	0.85	0.94	0.93	0.91	0.88	0.86	0.83	0.81	0.78
	88,000 / 24.1	0.90	0.87	0.85	0.82	0.80	0.77	0.75	-	0.96	0.95	0.93	0.92	0.90	0.88	0.86	0.83	0.93	0.91	0.89	0.86	0.84	0.81	0.79	0.76
	96,000 / 26.3	0.88	0.85	0.83	0.80	0.77	0.75	0.73	-	0.95	0.94	0.92	0.91	0.88	0.86	0.84	0.81	0.91	0.89	0.86	0.84	0.82	0.79	0.76	0.74
	104,000 / 28.5	0.85	0.83	0.80	0.77	0.75	0.72	0.70	-	0.95	0.93	0.91	0.89	0.87	0.84	0.82	0.80	0.89	0.87	0.84	0.82	0.79	0.76	0.74	0.72
	112,000 / 30.7	0.83	0.80	0.77	0.74	0.72	0.70	-	-	0.94	0.92	0.90	0.87	0.85	0.83	0.80	0.78	0.87	0.85	0.82	0.80	0.77	0.74	0.72	0.70
	120,000 / 32.9	0.79	0.76	0.73	0.71	0.69	-	-	-	0.92	0.90	0.88	0.85	0.83	0.81	0.78	0.75	0.85	0.83	0.80	0.77	0.74	0.72	0.70	-
	128,000 / 35.1	0.75	0.73	0.70	0.68	-	-	-	-	0.91	0.88	0.86	0.84	0.81	0.79	0.76	0.73	0.83	0.80	0.76	0.74	0.71	0.69	-	-
	136,000 / 35.1	0.71	0.69	-	-	-	-	-	-	0.89	0.87	0.84	0.82	0.79	0.76	0.73	0.70	0.79	0.76	0.73	0.71	0.69	-	-	-
	144,000 / 39.5	0.67	-	-	-	-	-	-	-	0.87	0.85	0.83	0.80	0.76	0.73	0.70	-	0.75	0.72	0.70	0.68	-	-	-	-
	152,000 / 41.6	-	-	-	-	-	-	-	-	0.86	0.83	0.80	0.76	0.72	0.70	-	-	0.71	0.69	-	-	-	-	-	-
	160,000 / 43.8	-	-	-	-	-	-	-	-	0.84	0.80	0.75	0.72	0.69	-	-	-	0.67	-	-	-	-	-	-	-
	168,000 / 46.0	-	-	-	-	-	-	-	-	0.79	0.74	0.71	0.68	-	-	-	-	-	-	-	-	-	-	-	-
	176,000 / 48.2	-	-	-	-	-	-	-	-	0.73	0.69	0.66	-	-	-	-	-	-	-	-	-	-	-	-	-
	184,000 / 50.4	-	-	-	-	-	-	-	-	0.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. **Outdoor ambient temperature** is based on annual average operating air temperature as seen by the fixture within its environmental conditions.
2. **Junction temperature** is calculated from in-situ, solder point measurement per LED manufacturers recommendation, and will vary based on drive current and nominal forward voltage of the LED.
3. **Thermal factor** is a prorate or derate value based on the in-situ solder point measurement and the relative luminous flux provided by the LED manufacturer.
4. **LED Lumen Maintenance Data chart** is actual lumen adjustment per the operating ambient. No additional prorate or derate required.