

Customer Name	Date
Project Name	
Catalog Number	

Aquas Series

2, 3, 4, 6 Rec

The Aquas series by FORUM is a line of extruded aluminum rectilinear luminaires approved for wet location, allowing for design consistency throughout wet and dry locations. Aquas features standard aperture sizes of 2, 3, 4, and 6". Multiple mounting configurations are available including rigid stem, surface as well as wall mounted. Aquas is available in Black, White, Silver, and custom colors and features a premium design, fit and finish. Current's patented TriGain® phosphor delivers 90 CRI color quality at 80 CRI efficacy.

Ordering

AQR - F		LED		X							
DISTRIBUTION	PROFILE	Im/ft	CCT	SHIELDING	LENGTH	VOLTAGE	FINISH	OPTION 1	OPTION 2	OPTION 3	
AQR-F Overlap Flange	32 2 3/8" width 3 3/4" height	65 650 Im/ft 6.5 input watts/ft*	27 2700k temp 93.5% Special order option	SAT Satin Lens	2 2'	120V	WH White	T90² TriGain® 90 CRI	SW Separate Switch	EC Emergency Circuit	90 CRI^{3,4} 90 CRI
	42 2 3/8" width 4 3/4" height										
	33 2 15/16" width 3 3/4" height	* Assumes 4000k w/ satin lens	35 3500k temp 96.8%	4 4'	347V	BK Black	DIMMING OPTIONS (CHOOSE 1)				
	43 2 15/16" width 4 3/4" height							Lumen Multiplier = % of 4000K	40 4000k temp 100%	5 5'	UNV Universal
	34 4 1/2" width 3 3/4" height	Consult factory for limitations	50 5000k temp 103%	6 6'	7 7'	8 8'	DLEH5 Lutron Hi-Lume 1%-H EcoSystem LED driver with soft-On, Fade-to-Black				
	44 4 1/2" width 4 3/4" height						*Consult factory for other CCT ranges	TW* 27K-65K	Spec. run length:	Standard run length in even foot increments.	Individual units cannot be joined in field to create runs.
	36¹ 6" width 3 3/4" height	Custom Output	LED Im/ft CCT	Controls Options (Choose 1)	ODL Wattstopper occupancy and dimming, 8-15AFF	ODM Wattstopper occupancy and dimming, 15-30AFF					
	46¹ 6" width 4 3/4" height				OR Replace LED Output With RGBW LED	32, 42, 62 : 430-1350 Im/ft 33, 43, 63 : 430-1510 Im/ft 34, 44, 64 : 460-1610 Im/ft 36, 46, 66 : 490-1710 Im/ft	LLIL Luton-Limelight wireless, internal, 8-15ft AFF	LLIM Luton-Limelight wireless, internal, >15-30ft AFF			
				LLIH Luton-Limelight wireless, internal, >30-40ft AFF			LLXL Luton-Limelight wireless, external, 8-15ft AFF				
				LLXM Luton-Limelight wireless, external, >15-30ft AFF	LLXH Luton-Limelight wireless, external, >30-40ft AFF						

- 1 Available in WOL shielding only
- 2 TriGain available in 3000K, 3500K, and 4000K
- 3 Select for 2700K or 5000K CCT, or any lumen output over 950lm/LFT

4 Select when using RGBW or TW options

Note: Modifications and Customization is available, contact the manufacturer for more info.



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CONTROLS & SENSORS

Ordering Code	Description
ODL	Wattstopper occupancy and dimming, 8-15' AFF
ODM	Wattstopper occupancy and dimming, 15-30' AFF
LLIL	Luton-Limelight wireless, internal. 8-15ft AFF
LLIM	Luton-Limelight wireless, internal. >15-30ft AFF
LLIH	Luton-Limelight wireless, internal. >30-40ft AFF
LLXL	Luton-Limelight wireless, external. 8-15ft AFF
LLXM	Luton-Limelight wireless, external. >15-30ft AFF
LLXH	Luton-Limelight wireless, external. >30-40ft AFF

DIMMING OPTIONS

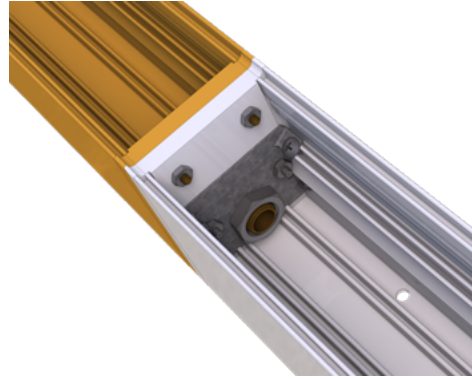
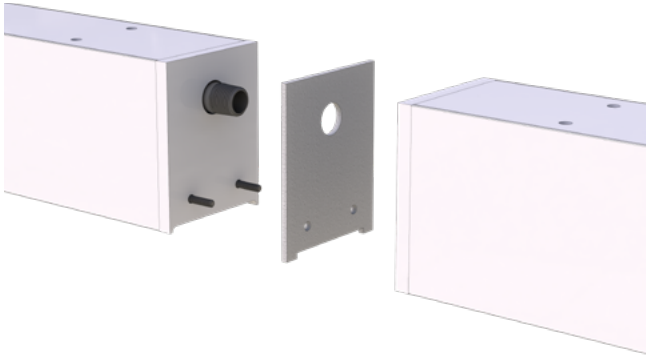
Ordering Code	Description
D10V	0-10V Dimming, 1% power class
DLA2	Lutron Hi-lume 1% 2-1ire LED driver (120V forward phase only)
DLEH5	Lutron Hi-lume 1% H EcoSystem LED driver with soft-On, Fade-to-Black
DALI	Digitally Addressable Lighting Interface
DIM	Custom Dimming. Please specify dimming manufacturer/model
TQ	Daintree® Networked Wireless Enabled for zonal control with WGZ100 (use with WOS3 ceiling sensor)
TS	Daintree® Networked Wireless Enabled with WFA100 adapter for zonal control (use with WOS3 ceiling sensor)
TZ	Daintree® Networked Wireless with integrated WIZ20 sensor
TT	Daintree® EZ Connect Wireless with integrated WIZ20 sensor
T1	Daintree® One with integrated WIZ20 sensor with factory programmed preset*



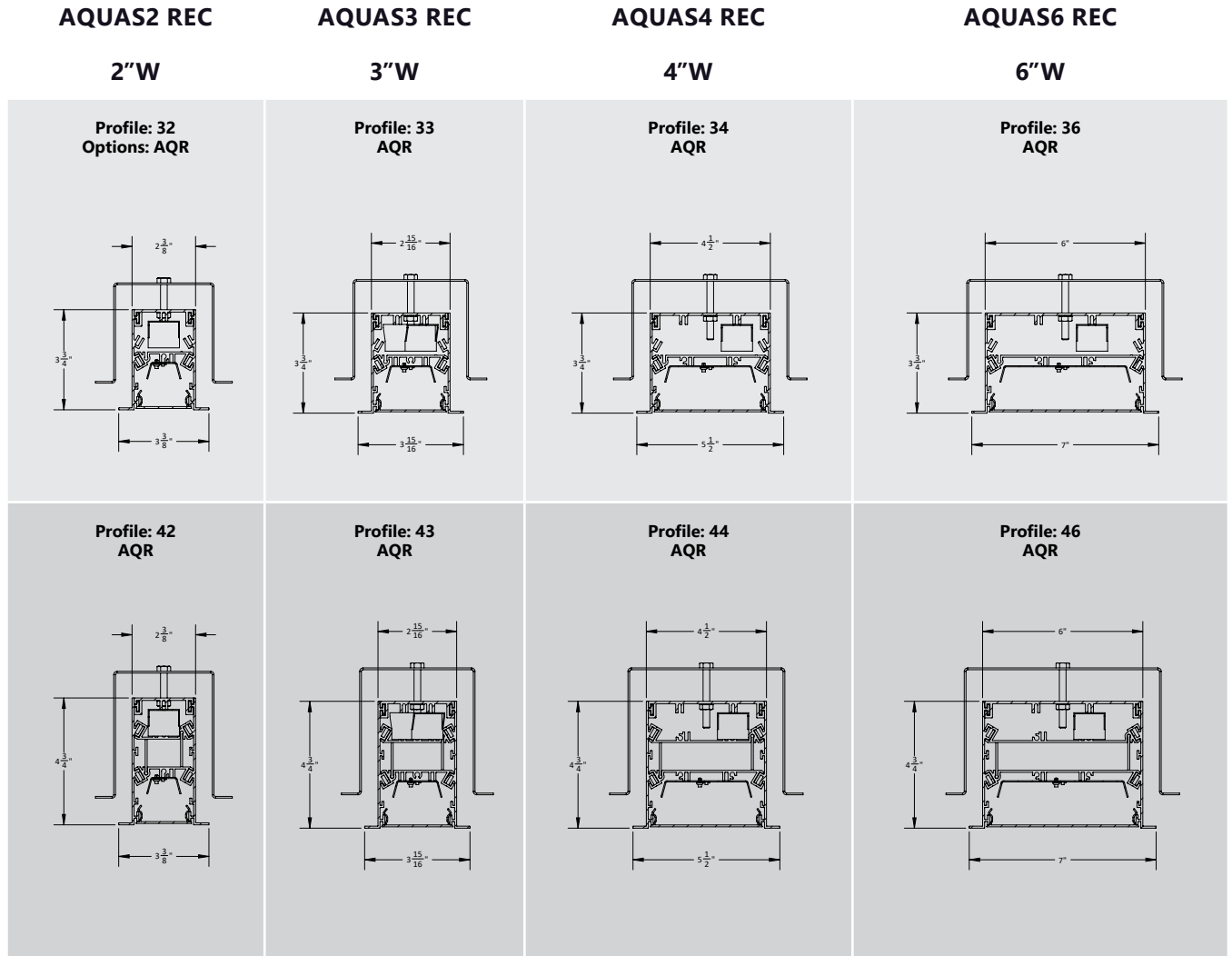
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Components and Assembly

JOINING HARDWARE (INCLUDED)



Cross Sectionals



¹ Consult factory for asymmetric configuration

RGBW Data

PRODUCT NAME	COLOR TEMPERATURE	CRI
SAX-xx-RGBWLED27	27K	90
SAX-xx-RGBWLED30	30K*	90*
SAX-xx-RGBWLED35	35K*	90*
SAX-xx-RGBWLED40	40K	90
SAX-xx-RGBWLED50	50K	90
SAX-xx-RGBWLED65	65K	90

*CCT Normally Stocked. Example: SAX-22-RGBWLED27

PRODUCT DESCRIPTION

Forum RGBW combines architectural grade white LEDs with RGB LEDs, poke in connectors, and a cut length of 2 inches for easy installation in any application. Color uniformity is matched across each order and for any run length.

TECHNICAL SPECIFICATIONS

RGBW LED MECHANICAL INFORMATION:

- Flexible reeled form factor
- Cuttable every 2 in
- Specification-Grade 3M 300LSE Adhesive Backing
- LED Pitch: 0.5 in
- Width: 0.787 in (20mm)
- Reel length 44'

PHOTOMETRIC PERFORMANCE:

- Nominal White Output: 588 lum/ft (3500K, 90CRI, 240 mA/ft, 4' Run Length)
- Reel to Reel Color Uniformity
- Beam Angle: 120°
- CCT Range: 2700K - 6500K
- 90+ CRI Standard
- 3-Step MacAdam Ellipse Color Binning

ELECTRICAL INFORMATION:

- Poke-In Connectors
- 24V Constant Voltage Input, Common Anode
- DMX Controllable in 4 channels
- On Board ESD Protection
- Power Draw: 14.3 W/ft
- Max Recommended Run Length per driver: 4'
- Wire Size: 18-24 AWG, solid or stranded

LIFETIME INFORMATION:

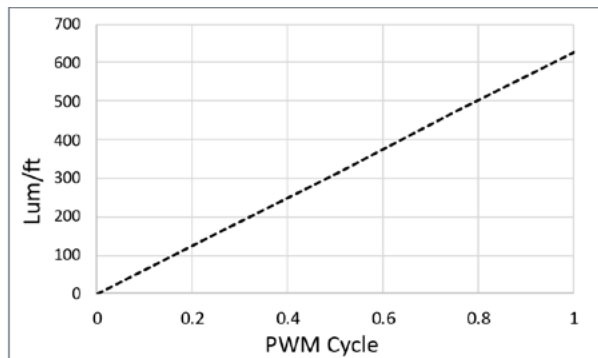
- LM-80 Tested LEDs by CREE
- L80 > 72,000 Hrs for Ts = 55°C, 42mA Per Section
- L80 = 60,500 Hrs for Ts = 105°C, 42mA Per Section
- 5-Year Warranty

ELECTRICAL CHARACTERISTICS

Assuming 35K, 90 CRI, 45°C

WHITE	
Current (mA/ft)	240
Voltage (V)	24.0
Flux (lm/ft)	588
RED	
Current (mA/ft)	117
Voltage (V)	24.0
Flux (lm/ft)	9,600
GREEN	
Current (mA/ft)	109
Voltage (V)	24.0
Flux (lm/ft)	19,200
BLUE	
Current (mA/ft)	109
Voltage (V)	24.0
Flux (lm/ft)	4,800

WHITE OUTPUT VS. PWM CYCLE



*Forum maintains a tolerance of 7% on flux measurements.

RGBW Data - (Continued)

ABSOLUTE MAXIMUM RATINGS

Assuming 35K, 90 CRI, 45°C

WHITE	
Current (mA/ft)	314
Voltage (V)	26
Flux (lm/ft)	804
Temperature (° C)	95

RED	
Current (mA/ft)	129
Voltage (V)	26
Temperature (° C)	85

GREEN	
Current (mA/ft)	120
Voltage (V)	26
Temperature (° C)	85

BLUE	
Current (mA/ft)	120
Voltage (V)	26
Temperature (° C)	85

COMPONENTS	
Max Connector Current (Common Anode)	9
Max Connector Current (4x Cathode)	3
Max Recommended Run Length (ft)	4

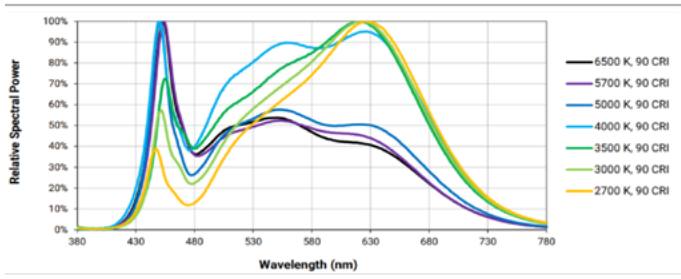
DERATING

COLOR TEMPERATURE (90CRI)	LIGHT OUTPUT
2700K	93%
3000K	98%
3500K	100%
4000K	103%
5000K	103%
6500K	103%

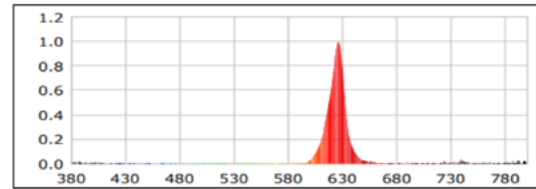
OPTICAL SPECIFICATIONS

Spectral Power Distribution

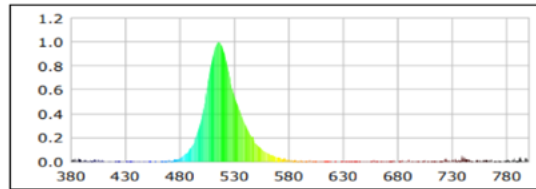
WHITE 90 CRI



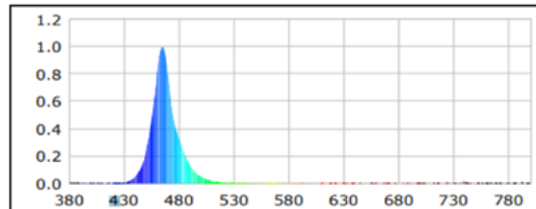
RED



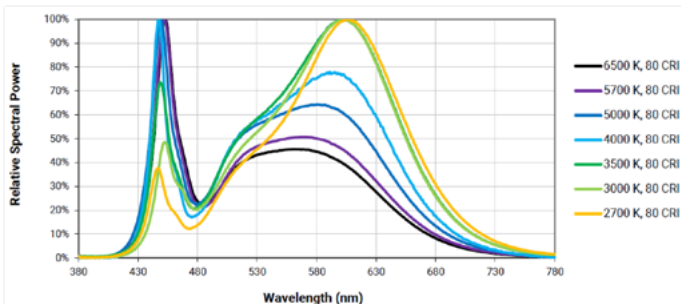
GREEN



BLUE



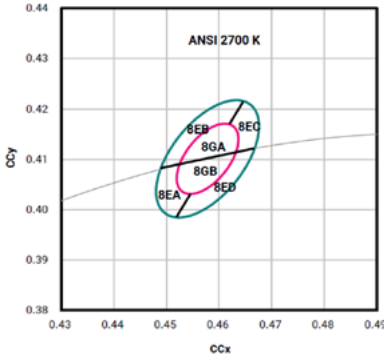
WHITE 80 CRI



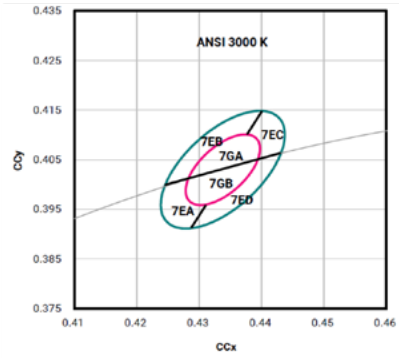
RGBW Data - (Continued)

COLOR BINNING INFORMATION

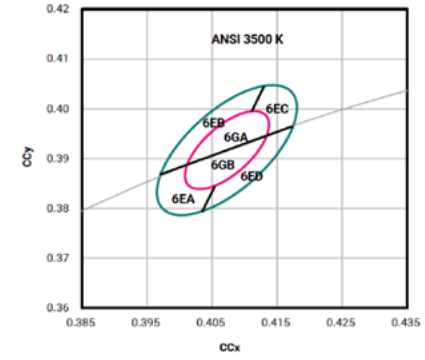
2700K 3-STEP (8GA, 8GB)



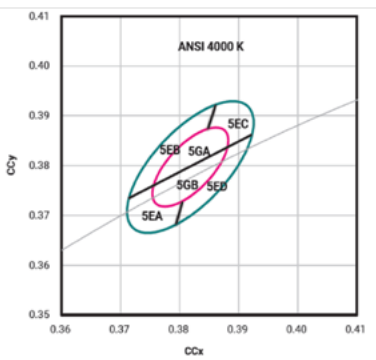
3000K 3-STEP (7GA, 7GB)



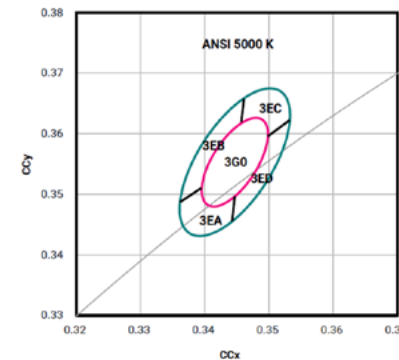
3500K 3-STEP (6GA, 6GB)



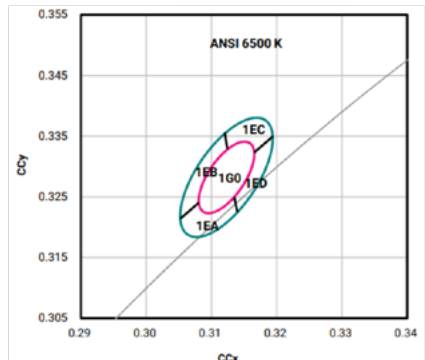
4000K 3-STEP (5GA, 5GB)



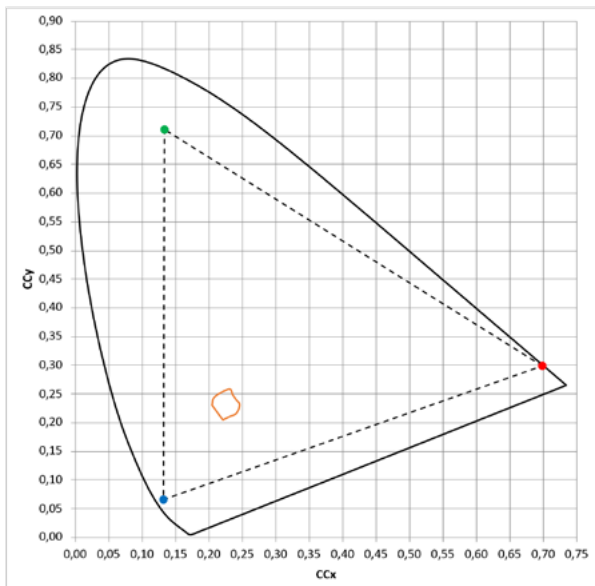
5000K 3-STEP (3G0)



6500K 3-STEP (1G0)



RGB SINGLE BIN (WHITE-BINNED)



TW Data

ELECTRICAL CHARACTERISTICS

Instructions: Multiply the length of your run of LUXroll in inches by the desired flux and current to find the total values needed for your fixture.

2700K, 90 CRI, 45°C

EACH 1" SEGMENT					
Current (mA/1")	10	20	30	45	60
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/1")	42	83	120	172	217

1 FOOT					
Current (mA/ft)	120	240	360	540	720
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/ft)	510	992	1445	2064	2602

8 FEET					
Current (mA/ft)	960	1920	2880	4320	5760
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/ft)	4079	7939	11562	16510	20817

6500K, 90 CRI, 45°C

EACH 1" SEGMENT					
Current (mA/1")	10	20	30	45	60
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/1")	47	91	133	190	239

1 FOOT					
Current (mA/ft)	120	240	360	540	720
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/ft)	563	1095	1595	2277	2871

8 FEET					
Current (mA/ft)	960	1920	2880	4320	5760
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/ft)	4501	8760	12757	18216	22968

COLOR MIXING

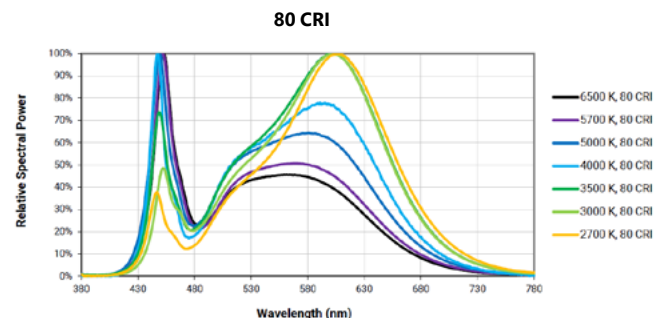
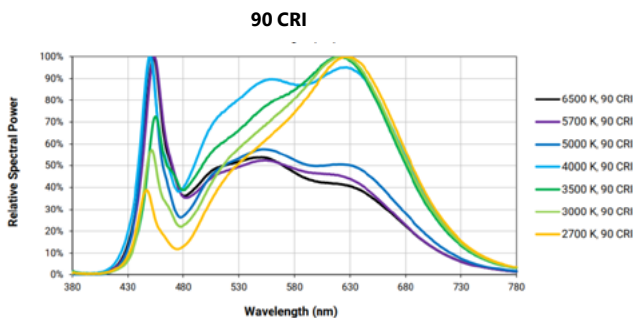
- Approximated from nominal current of 250mA per foot.
- Flux derating relative to 6500K EDs

CCT (K)						
Current, 27K (%)	100%	83%	67%	52%	30%	0%
Current, 65K (%)	0%	17%	33%	48%	70%	100%
Flux (%)	88%	90%	92%	94%	96%	100%
SDCM	3	6.5	8.5	8.5	6.5	3

*Performances will vary based on installation and thermal conditions.

OPTICAL SPECIFICATIONS

Spectral Power Distribution





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Performance Data Tables

The tables below shows the delivered lumens for the various lumen outputs. Use this chart in connection with the output multiplier capability to deliver any output required

AQR-X2: 2in RECESSED (DIRECT ONLY) (3500K, SAT)

32	42	Distribution/Output	Lumens/Ft	W/Ft	Efficacy
		D035	350	4.1	86
		D040	400	4.6	87
		D045	450	5.1	88
		D050	500	5.6	90
		D055	550	6.1	91
		D060	600	6.5	92
		D065	650	7.2	91
		D070	700	7.8	90
		D075	750	8.3	90
		D080	800	8.9	90
		D085	850	9.6	89
		D090	900	10.3	87
		D095	950	11.0	87
		D100	1000	11.6	86
		D105	1050	12.4	85
		D110	1100	13.2	84
		D115 (Max)	1150	14.0	82

AQR-X3: 3in RECESSED (DIRECT ONLY) (3500K, SAT)

33	43	Distribution/Output	Lumens/Ft	W/Ft	Efficacy
		D035	350	3.5	89
		D040	400	3.9	90
		D045	450	4.3	92
		D050	500	4.6	92
		D055	550	5.2	93
		D060	600	5.6	94
		D065	650	6.1	92
		D070	700	6.6	91
		D075	750	7.0	91
		D080	800	7.5	90
		D085	850	8.1	89
		D090	900	8.7	88
		D095	950	9.2	87
		D100	1000	9.7	86
		D105	1050	10.4	85
		D110	1100	11.0	83
		D115	1150	11.6	82
		D120	1200	12.3	81

AQR-X4: 4in RECESSED (DIRECT ONLY) (3500K, SAT)

34	44	Distribution/Output	Lumens/Ft	W/Ft	Efficacy
		D035	350	3.3	106
		D040	400	3.7	108
		D045	450	4.1	110
		D050	500	4.5	111
		D055	550	4.9	112
		D060	600	5.3	113
		D065	650	5.8	112
		D070	700	6.3	111
		D075	750	6.7	112
		D080	800	7.2	111
		D085	850	7.7	110
		D090	900	8.3	108
		D095	950	8.8	108
		D100	1000	9.3	108
		D105	1050	9.9	106
		D110	1100	10.5	105
		D115	1150	11.1	104
		D120	1200	11.7	103
		D125	1250	12.3	102
		D130	1300	13.0	100
		D135	1350	13.6	99

AQR-X6: 6in RECESSED (DIRECT ONLY) (3500K, SAT)

33	43	Distribution/Output	Lumens/Ft	W/Ft	Efficacy
		D035	350	3.3	106
		D040	400	3.7	108
		D045	450	4.1	110
		D050	500	4.5	111
		D055	550	4.9	112
		D060	600	5.3	113
		D065	650	5.8	112
		D070	700	6.3	111
		D075	750	6.7	112
		D080	800	7.2	111
		D085	850	7.7	110
		D090	900	8.3	108
		D095	950	8.8	108
		D100	1000	9.3	108
		D105	1050	9.9	106
		D110	1100	10.5	105
		D115	1150	11.1	104
		D120	1200	11.7	103
		D125	1250	12.3	102

OUTPUT MULTIPLIER TABLE

Photometrics and outputs published on this spec sheet are based on nominal 3500K temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

CCT	80 CRI
3000K	0.98
3500K	1
4000K	1.03

Lens	Multiplier
SAT	1.00
WOL	0.84



Aquas Series

2, 3, 4, 6 REC

Customer Name	Date
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CONSTRUCTION

Housing:	Extruded aluminum, machined endcaps
Lens:	Satin, clear frosted, and white opal lenses.
Optical Assembly:	.040" aluminum in a pre-paint white finish. Fully wired unit remains completely accessible from below.
Paint:	Black, White, Silver, Custom Color

OPTICAL SYSTEM

Lumens:	430-1710 lm/ft
Distribution:	Direct (AQD), Indirect (AQU), and Direct/Indirect (AQUD) up = Lamb. BW, ASY dn = Lamb. BW ASY
Efficacy:	Up to 122 LPW
Wattage:	6.5 - 9.5 watts/ft
CCT:	2700k, 3000K, 3500K, 4000K, 5000K
CRI (Min):	TriGain® 90CRI
R9 (Min):	65
Color Consistency:	2SDCM

ELECTRICAL

Input Voltage:	120V, 277V, Universal Voltage
Input Frequency:	50/60Hz
Power Factor (PF):	>0.9
Total Harmonic Distortion (THD):	<16% - 120V <20% - 277V
Thermal Protection:	Type IC Inherently Protected
Temperature / Humidity:	Suitable for Wet Locations
Transient Protection:	All Non-Lutron = 2.5KV Lutron = 4KV

CONTROLS

Dimming:	0-10V 1% power class; Lutron Hi-lume 1% 2-wire LED driver; Lutron Hi-lume 1%-H EcoSystem LED driver with soft-On Fade-to-Black; Lutron 5-Series EcoSystem LED driver; Digitally Addressable Lighting Interface; Custom Dimming, Daintree® Wireless
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OPERATING TEMPERATURE

Product	Operating Temperature
STD (Non-EM) Options	-30-25°C (-22-77°F)
2in w/Battery	10-25°C (50-77°F)
3/4/6in w/Battery	0-25°C (32-77°F)

LUMEN MAINTENANCE

- L70 > 50K Hours

MOUNTING

- Recessed Hard Ceiling
- Recessed Tegular Ceiling

RATINGS

- Wet Rated
- ISO4 Classification

DESIGN LIFE & WARRANTY

- **Warranty:**
 - LED boards - 5 years
 - LED drivers (standard) - 5 years
 - LED drivers (Lutron) - 3 years



For Product or Technical Questions:

E: INFO@FORUMLIGHTING.COM
T: +1 412 781 5970