

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.

Ordering

AQR — F		LED		X													
		lm/ft	CCT														
DISTRIBUTION	PROFILE	OUTPUT		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 lm/ft 6.5 input watts/ft*	27 2700k temp 93.5%	SAT Satin Lens	2 2'	120V	WH White	T90 ² TriGain® 90 CRI	SW Separate Switch								
	42 2 3/8" width 4 3/4" height	* Assumes 4000k w/ satin lens Lumen Multiplier = % of 4000K Consult factory for limitations	30 3000k temp 95.2%	WOL White Opal Lens	3 3'	277V	SV Silver	EC Emergency Circuit	90 CRI ^{3,4} 90 CRI								
	33 2 15/16" width 3 3/4" height		35 3500k temp 96.8%		4 4'	347V	BK Black	EMLED Integral LED battery pk									
	43 2 15/16" width 4 3/4" height		40 4000k temp 100%		UNV Universal	CC Custom Color Provide custom color RAL#:	DIMMING OPTIONS (CHOOSE 1)										
	34 4 1/2" width 3 3/4" height		50 5000k temp 103%				D10V 0-10V dimming 1% power class	DLA2 Lutron Hi-lume 1% 2-wire LED driver (120V forward phase only)									
	44 4 1/2" width 4 3/4" height		TW* 27K-65K				DLEH5 Lutron Hi-lume 1%-H EcoSystem LED driver with soft-On, Fade-to-Black	DLE55 Lutron 5-Series EcoSystem LED driver									
	36' 6" width 3 3/4" height		*Consult factory for other CCT ranges				DALI Digitally Addressable Lighting Interface	DIM Dimming	Please specify dimming manufacturer/model (if required)								
	46' 6" width 4 3/4" height						Spec. run length:				CONTROLS OPTIONS (CHOOSE 1)						
	Custom Output						Standard run length in even foot increments.		ODL Wattstopper occupancy and dimming, 8-15' AFF	ODM Wattstopper occupancy and dimming, 15-30' AFF							
	LED lm/ft CCT						Individual units cannot be joined in field to create runs.		LLIL Luton-Limelight wireless, internal. 8-15ft AFF	LLIM Luton-Limelight wireless, internal. >15-30ft AFF							
	32, 42, 62 : 430-1350 lm/ft 33, 43, 63 : 430-1510 lm/ft 34, 44, 64 : 460-1610 lm/ft 36, 46, 66 : 490-1710 lm/ft OR Replace LED Output With								LLIH Luton-Limelight wireless, internal. >30-40ft AFF	LLXL Luton-Limelight wireless, external. 8-15ft AFF							
	RGBW								LLXM Luton-Limelight wireless, external. >15-30ft AFF	LLXH Luton-Limelight wireless, external. >30-40ft AFF							
LED																	

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-lire LED driver (120V forward phase only)
DLEH5	Lutron Hi-lume 1% H EcoSystem LED driver with soft-On, Fade-to-Black
DLE55	Lutron 5-Series EcoSystem LED driver
DALI	Digitally Addressable Lighting Interface
DIM	Custom Dimming. Please specify dimming manufacturer/model
TQ	Daintree® Networked Wireless Enabled for zonal control with WGS100 (use with WOS3 ceiling sensor)
TS	Daintree® Networked Wireless Enabled with WFA100 adaptor 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)



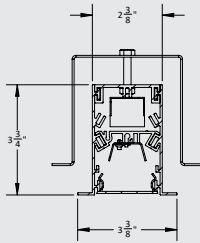


Cross Sectionals

AQUAS2 REC

2"W

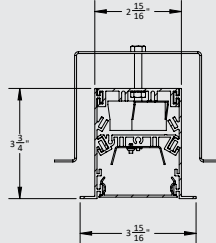
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Options: AQR



AQUAS3 REC

3"W

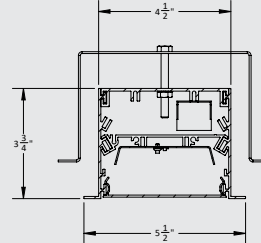
Profile: 33
AQR



AQUAS4 REC

4"W

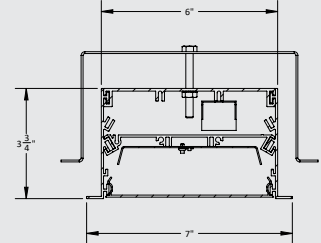
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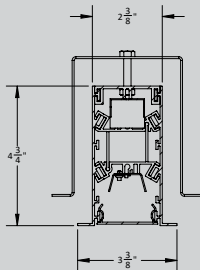
AQUAS6 REC

6"W

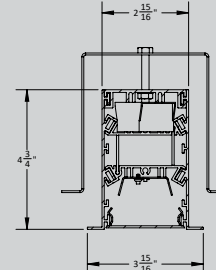
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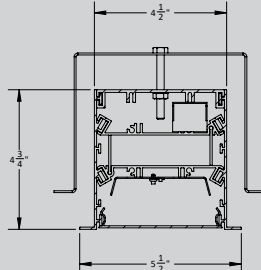
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AQR



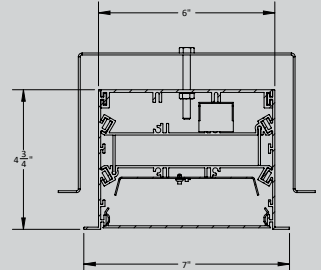
Profile: 43
AQR



Profile: 44
AQR



Profile: 46
AQR



* 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

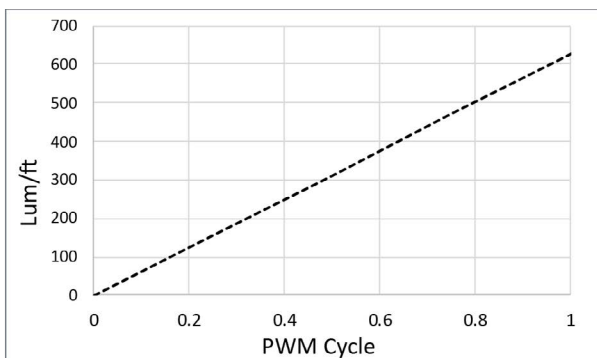
WHITE	
Current (mA/ft)	240
Voltage (V)	24.0
Flux (lm/ft)	588

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

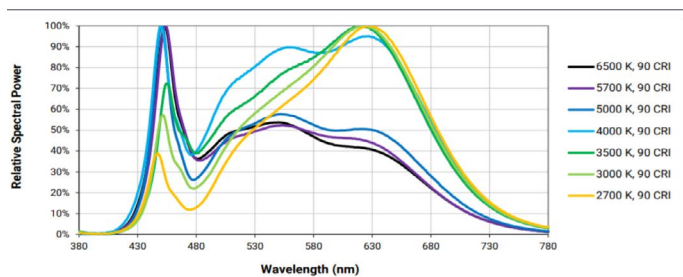
DERATING

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

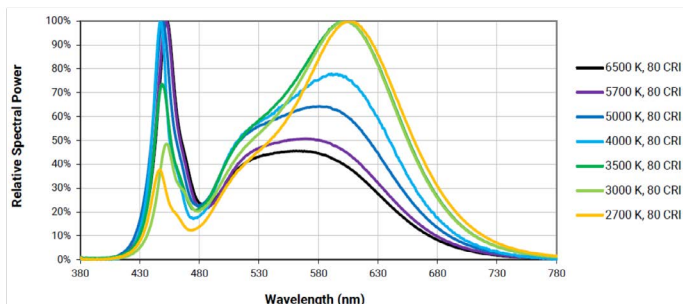
OPTICAL SPECIFICATIONS

Spectral Power Distribution

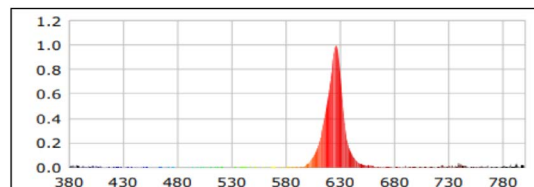
WHITE 90 CRI



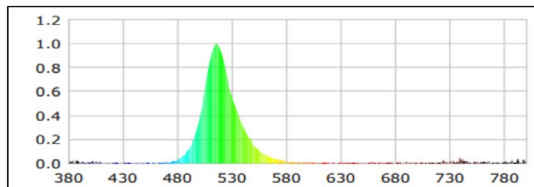
WHITE 80 CRI



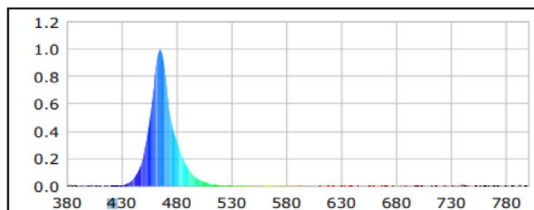
RED

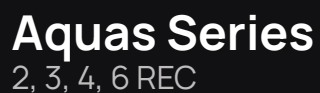


GREEN



BLUE







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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

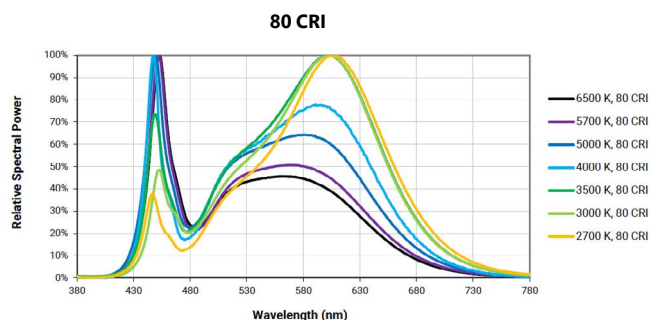
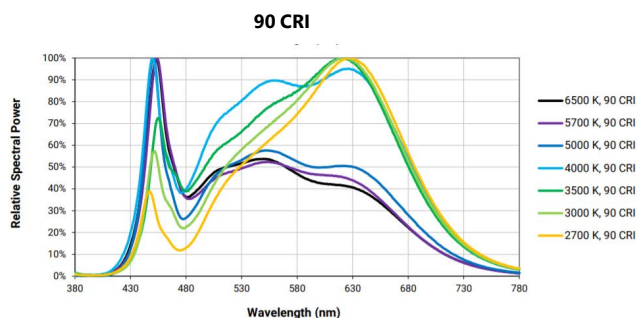
- Approximated from nominal current of 250mA per foot.
- Flux derating relative to 6500K EDs

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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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): 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

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 Tegalur 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:

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T: +1 412 781 5970