

Alumina Series

158

The Alumina series by Forum is a line of extruded aluminum rectilinear luminaires. ALUMINA 158 is a 1- 1/2" x 8" housing with 2 1/8" direct & 5" indirect apertures. Multiple mounting configurations are available including various suspension types as well as wall and edge mounting.

Ordering

— 158 — SAU / LED / LED — Indirect / Direct — X — — — —

DISTRIBUTION	PROFILE	OUTPUT		SHIELDING	MOUNTING	LENGTH		VOLTAGE	FINISH	OPTION 1	OPTION 2	OPTION 3			
SAD Direct	158 1 1/2" width 8" height	lm/ft	CCT	SAT Satin Lens	H Stem Mount *	2 2'	3 3'	120V	WH White	T90² TriGain® 90 CRI	EMLED LED battery pk	MR COB down light module			
SAU Indirect		65 650 lm/ft 6.5 input watts/ft*	27 2700k temp 93.5% Special order option	WOL White Opal Lens	C Cable Mount *	4 4'	5 5'	277V	SV Silver	SW Separate Switch	90 CRI^{3,4} 90 CRI	EC Emergency Circuit			
SAUD* Direct/Indirect		95 950 lm/ft 9.5 input watts/ft*	30 3000k temp 95.2%	CFA Clear Frosted Acrylic*	W Wall Bracket Mount	6 6'	7 7'	347V	BK Black	DL Damp Location					
* Not available on 32 profile.				* Available in SAU only	* Spec. cable / stem length:	8 8'	9 9'	UNV Universal	CC Custom Color	DIMMING OPTIONS (CHOOSE 1)					
						10 10'	11 11'			D10V 0-10V dimming 1% power class	DMX DMX DMX512 / RDM	DLE55 Lutron 5-Series EcoSystem LED driver			
						12 12'				DLEH5 Lutron Hi-lume 1%-H EcoSystem LED driver with soft-On, Fade-to-Black	DALI Digitally Addressable Lighting Interface	DLA2 Lutron Hi-lume 1% 2-wire LED driver (120V forward phase only)			
						Spec. run length:				DIM Dimming: Please specify dimming manufacturer/model (if required)					
						Standard run length in even foot increments.				DAINTREE® OPTIONS					
						Individual units cannot be joined in field to create runs.				TQ Daintree® Networked Wireless Enabled for zonal control with WGZ100 (use with WOS3 ceiling sensor)	TS Daintree® Networked Wireless Enabled with WFA100 adaptor for zonal control (use with WOS3 ceiling sensor)	T1 Daintree® One with integrated WIZ20 sensor with factory programmed preset*			
						Patterns available, inquire with manufacturer.				TT Daintree® EZ Connect Wireless with integrated WIZ20 sensor	TZ Daintree® Networked Wireless with integrated WIZ20 sensor				
										CONTROLS OPTIONS (CHOOSE 1)					
										OCC Wattstopper occupancy sensor	DPS Wattstopper daylight photo sensor	CRGBW Casambi (RGBW)			
						C210 Casambi (2x 010v)	ELM Enlightened micro sensor			OES Osram SensiLUM					
						OEC Osram Encellium CLM	OED Osram CLM DEXAL			C110 Casambi (1x 010v)					
						LVR Lutron Vive integrated fixture sensor (radio only)	LVS Lutron Vive integrated fixture sensor (occ+daylight)			COX COX Control Options Please specify control manufacturer/model (if required)					
		Custom Output						Setup fees apply.							
		LED													
		OR Replace LED Output With													
		RGBW													
		LED													

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

3 Select when using RGBW or TW options

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



Customer Name	Date
Project Name	
Catalog Number	

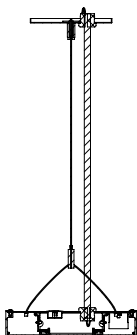
CONTROLS & SENSORS

Ordering Code	Description
OCC	Wattstopper occupancy sensor
DPS	Wattstopper daylight photo sensor
LVS	Lutron Vive integrated fixture sensor (occ+daylight)
LVR	Lutron Vive integrated fixture sensor (radio only)
ELM	Enlighted micro sensor
OES	Osram SensiLUM
OEC	Osram Encelium CLM
OED	Osram CLM DEXAL
C110	Casambi (1x 010v)
C210	Casambi (2x 010v)
CRGBW	Casambi (RGBW)

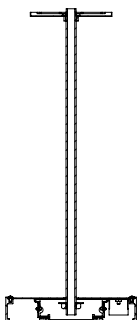
DIMMING OPTIONS

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*

MOUNTING



C
Cable Mount



H
Stem Mount



W
Wall Bracket Mount



Components and Assembly

CORNER OPTIONS



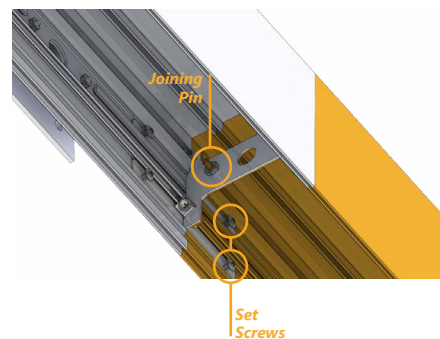
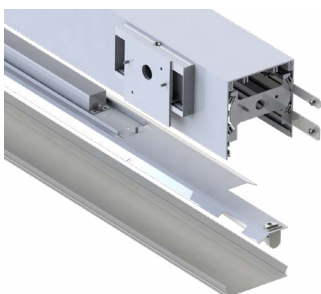
90°* CORNER



MR CORNER

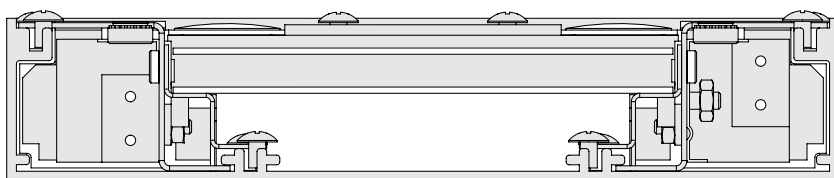
Standard illuminated corners
Custom angles available, up to 90°.
Greater than 90°, consult factory.

JOINING HARDWARE (INCLUDED)



Shielding Options

LENS DETAIL



Satin frosted, white opal, and clear acrylic lenses are snap in. An open configuration without shielding is the default.

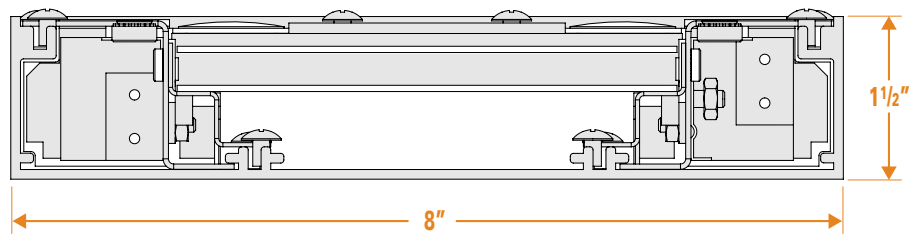


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Cross Sectionals

SINGLE PIECE EXTRUSION

ALUMINA158
Options: SAD, SAU, SAUD



KEY	
SAD - DIRECT LIGHT	SAUD - DIRECT/INDIRECT LIGHT
SAU - INDIRECT LIGHT	

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

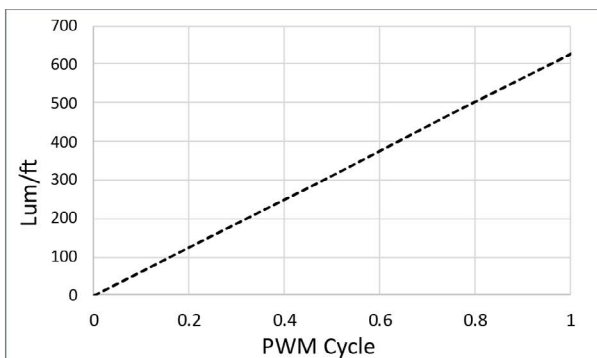
WHITE	
Current (mA/ft)	240
Voltage (V)	24.0
Flux (lm/ft)	588

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

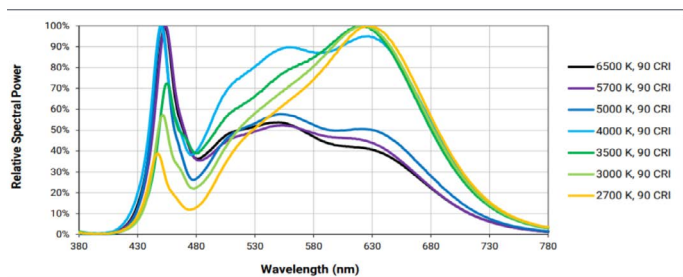
DERATING

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

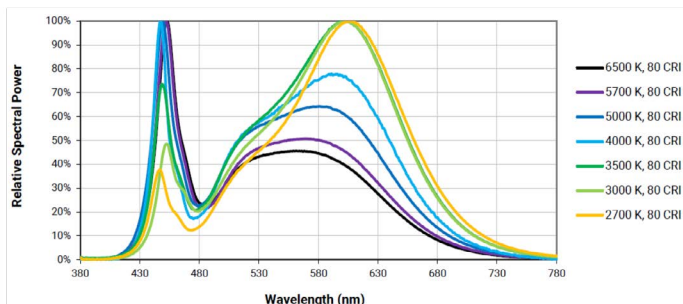
OPTICAL SPECIFICATIONS

Spectral Power Distribution

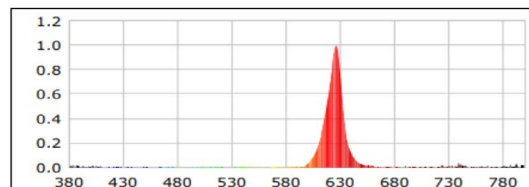
WHITE 90 CRI



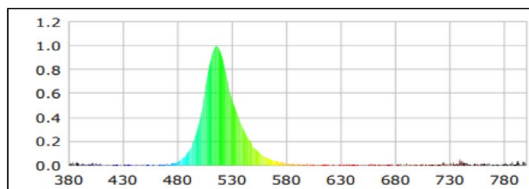
WHITE 80 CRI



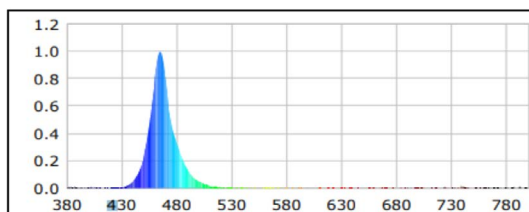
RED



GREEN



BLUE







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

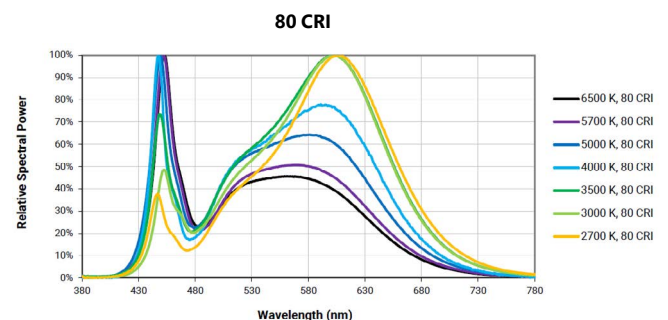
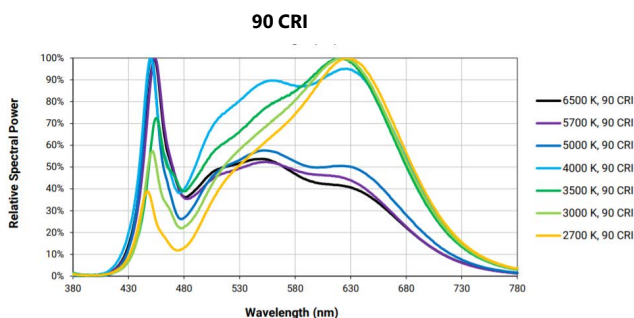
- Approximated from nominal current of 250mA per foot.
- Flux derating relative to 6500K EDs

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



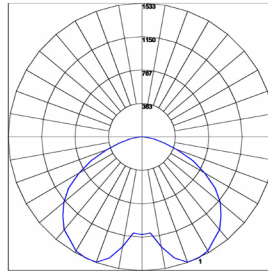


Customer Name	Date
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Photometrics

Direct Batwing 4000K

4,125 Lumens
SAD-x4-95LED40-BW-C X 4'-WH



— Vertical plane at max Cd horiz. angle
— Horizontal cone at max Cd vert. angle

ZONE	LUMENS
0-10	106.60
10-20	345.53
20-30	579.87
30-40	728.97
40-50	779.42
50-60	708.85
60-70	520.08
70-80	275.73
80-90	79.56
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

ZONE	LUMENS	% OF FIXTURE
0-20	452.13	11.00
0-30	1032.00	25.00
0-40	1760.97	42.70
0-60	3249.24	78.80
0-80	4045.04	98.10
0-90	4124.61	100.00
10-90	4018.01	97.40
20-40	1308.85	31.70
20-50	2088.26	50.60
40-70	2008.34	48.70
60-80	795.81	19.30
70-80	275.73	6.70
80-90	79.56	1.90
90-110	0.00	0.00
90-120	0.00	0.00
90-130	0.00	0.00
90-150	0.00	0.00
90-180	0.00	0.00
110-180	0.00	0.00
0-180	4124.61	100.00



Alumina Series

158

Customer Name

Date

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CONSTRUCTION

Housing: Extruded aluminum, machined endcaps

Lens: Satin frosted, white opal, and clear acrylic lenses. Aluminum parabolic baffles in a variety of finishes.

Optical Assembly: 18 GA cold rolled steel in a pre-paint white finish. Fully wired unit remains completely accessible from below via ballast panel.

Paint: Black, White, Silver, Custom Color

OPTICAL SYSTEM

Lumens: 650 - 950 lm/ft

Distribution: Direct (SAD), Indirect (SAU), and Direct/Indirect (SAUD),
up = Lamb. BW, ASY
dn = Lamb. BW ASY

Efficacy: Up to 112 LPW

Wattage: 6.5 - 9.5 watts/ft

CCT: 2700K, 3000K, 3500K, 4000K, 5000K

CRI (Min): 90CRI, 90+CRI with Trigain Technology, 80CRI

R9 (Min): 65

Color Consistency: 2SDCM

ELECTRICAL

Input Voltage: 120V, 277V, 347V, Universal Voltage

Input Frequency: 50/60Hz

Power Factor (PF): >0.9

Total Harmonic Distortion (THD): <16% - 120V
<20% - 277V

Temperature / Humidity: Suitable for Damp Locations

Transient Protection: All Non-Lutron = 2.5KV
Lutron = 4KV

CONTROLS

Dimming: 0-10V 1% power class; 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

- C - Cable Mount
- H - Stem Mount
- W - Wall Bracket Mount

DESIGN LIFE & WARRANTY

Warranty:

- LED boards - 5 years
- LED drivers (standard) - 5 years
- LED drivers (Lutron) - 3 years



TriGain
technology

For Product or Technical Questions:

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