

# PLATINUM COVE™

## LED

Low profile LED PCB modules are attached to continuous through wires to minimize voltage drop and feature stainless steel contacts.

CAT:	FEET:
TYPE:	PROJECT:

### FEATURES

- US Patent # 6,017,241
- Smallest profile and most economical cove solution with reduced output (40% less than Covelum LED). Compact niche applications for budget conscience projects - darker relief, accent glow of light
- 90° Flexible serpentine curves
- Low profile LED PCB modules are attached to continuous through wires to minimize voltage drop and feature stainless steel contacts
- Field cuttable flexible wire strand between modules allows for 90° corner bends without additional connectors

### SPECIFICATIONS

PLATINUM COVE LED	EFFICACY LM/WT	LM/FT	LM/MODULE	MODULES PER FOOT	WT/FT	WT/MODULE
Warm White Triple Chip at ¾" O.C.	<b>59.96</b>	160.09	29.88	5.34	2.67	0.50
White Triple Chip at ¾" O.C.	<b>62.58</b>	167.09	31.29	5.34	2.67	0.50
Warm White Piranha at ¾" O.C.	14.38	23.87	4.74	5.34	1.66	0.31
White Piranha at ¾" O.C.	21.43	35.57	6.66	5.34	1.66	0.31

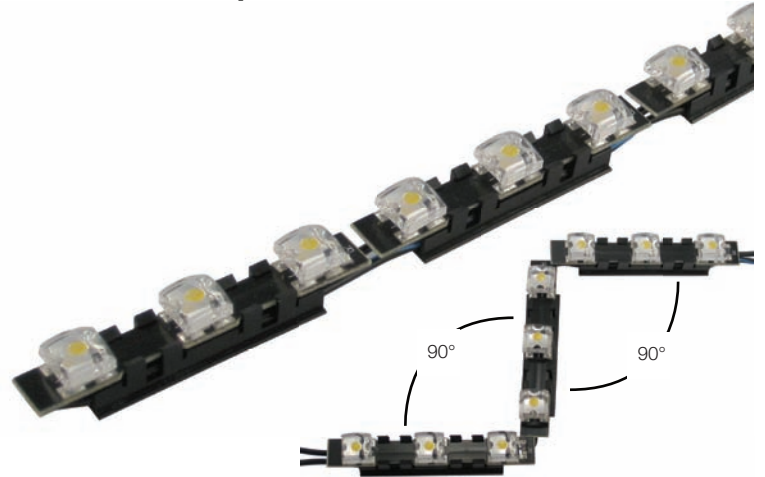
Items in bold denote Title 24 High efficacy rating. Measurements are based on 12V DC power design calculations will vary based on power supply and run lengths. Efficacy data for all spacings available on Page 4.

LED DATA RATED TO LM79 STANDARDS	WATTAGE	LED LIFE* / COLOR TEMP	VIEWING ANGLE
Piranha Superflux LED	0.31W per Module (Single, Double or Triple LED)	<b>35,000 hrs.</b> White (5500°k +/-300°k)	90°
Ultra Bright Triple Chip	0.50W per Module (Single, Double or Triple LED)	<b>25,000 hrs.</b> White (5500°k +/-300°k) Neutral White (3200°k +/-200°k) Warm White (2800°k +/-100°k)	180°

\* Piranha and Ultra Bright Triple Chip LEDs are manufactured on PCB modules in up to 3 LED series orientation and operate at 52% of LED manufacturers maximum current spec rating. LED data for all available colors available on Page 3.

1. **Spacing** - Lamp spacing: ¾", 1½", 3" O.C.
2. **LED PCB** - Replaceable LED PCBs make maintenance easy
3. **Colors**

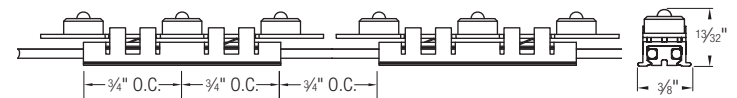
Warm White (2800° +/-100°K)	Neutral White (3200° +/-200°K)
White (5500° +/-300°K)	Blue (470nm +/-1nm)
Green (525nm +/-1nm)	Yellow (590nm +/-1nm)
Red (630nm 1+/-nm)	
4. **Lens** - Clear or frosted channel and cover available
5. **Mounting** - Multiple mounting variations including;
  - Vertical wall mount channel illuminates ceiling cavities or walls
  - Cove horizontal mount for recessed coves or walls
  - Platinum channel with protective lens cover mounts 45° for downward illumination (closets, bedrails, tow kick, etc)
6. **Max run length** - 0.31W Piranha
  - Continuous 01 Series: 25'
  - Continuous 02 & 03 Series 35'
  - 0.50W Ultra Bright Triple Chip
  - Continuous 01 Series: 13'
  - Continuous 02 & 03 Series 18'



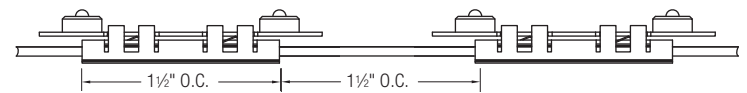
### PROFILES

Products can be manufactured to specific lengths - consult factory

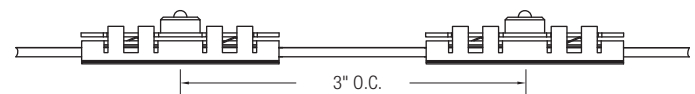
#### SERIES 01 TRIPLE LED MODULES FOR ¾" O.C. SPACING



#### SERIES 02 DOUBLE LED MODULES FOR 1½" O.C. SPACING



#### SERIES 03 SINGLE LED MODULES FOR 3" AND 4" O.C. SPACING



7. **Power Supply** - Listed Class I or II 12V DC power supply required
8. **Listing** - ETL dry listed for outdoor Class I or II applications  
Damp listed when using Infinity Channel
9. **Warranty** - 3 Year Warranty



### PLATINUM COVE ORDER SPECIFICATION GUIDE

Example: PTCL-02-P-YL-12

PRODUCT CODE	LED SPACING	LED TYPE	LED COLOR	VOLTAGE	REQUIRED POWER SUPPLY
PTCL	-	-	-	12	PSU
PLATINUM COVE™ LED	Series 01 = ¾" Series 02 = 1½" Series 03 = 3"	P = Piranha U = Ultra Bright Triple Chip	BL=Blue GR=Green RD=Red YL=Yellow WH=White NW=Neutral White WW=Warm White	12 = 12VDC	See power supply specsheets

### REQUIRED POWER SUPPLY OPTIONS

- ADUL-300-5-5-12-D
- ADUL-200-3-5-12-D
- ADUL-75-1-5-12-D
- JT-240-4-5-12-D
- JTH-240-4-5-12-D
- JT-60-1-5-12-D
- JTH-60-1-5-12-D
- MT-60-1-5-12-D

See power supply specifications for more information

### OPTIONAL DIMMERS

- N-600
- N-1000
- N-1500
- NH-600
- NH-1000
- DIM-12V-8A
- DIM-OT-1-5-D

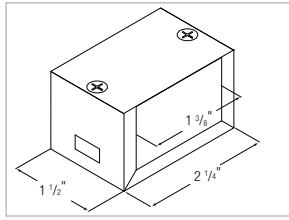
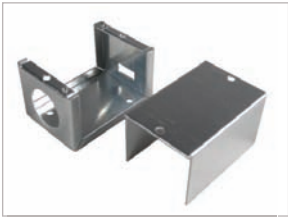


# PLATINUM COVE™

## LED

### ACCESSORIES

#### WIRING ACCESSORIES



**PTCL-JBOX** Junction Box

Use to cover terminal block connections. One end of the terminal block screws directly into the Platinum Cove™ LED lead wires, the other end accepts AWG # 10, 12, 14 wire from power supply. 1 each terminal block included.

**PTCL-TERM-BLK** Terminal block available separately

#### Lighting Effects Accessories.

Mounting clamps are recommended as a standard mounting accessory. This method is effective for curved or straight applications. Mounting clamps should be placed at every PCB module.

Mounting channel is recommended for uneven mounting surfaces or when applications require a cover. Clear lens covers are used to protect the Platinum Cove LED modules from the environment without diminishing light output.

Frosted lens covers are used to not only protect the Platinum Cove LED module but to soften light for an even glow.

#### MOUNTING ACCESSORIES

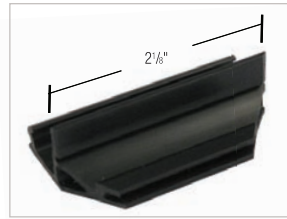


**PTCL-CHAN-8** Platinum Cove Channel

**PTCL-EC-LEFT/RIGHT** Platinum Cove channel endcaps (Left and Right) required for mounting.

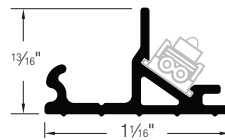
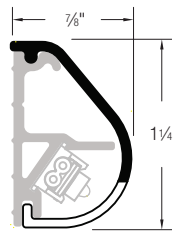
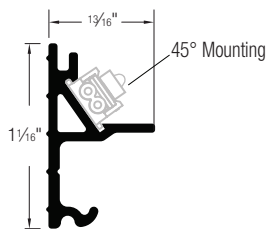


**PTCL-LENS-8** Platinum lens cover - For protected downward illumination.



**PTCL-MC-ANGLE** Angled Mounting Clamp

For radius installations with angled illumination. One clamp per module required.



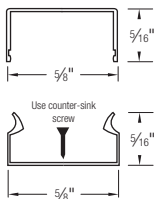
**PTCL-INF-C-CHAN-8** Infinity Mounting Channel/Frosted Lens - 8' length.

**PTCL-INF-EC** Infinity channel endcap required.



**PTCL-MC-VERT** Vertical Mounting Clamp

For radius installations with vertical illumination.



# PLATINUM COVE™ LED

## ACCESSORIES & REPLACEMENTS



### REPLACEMENT PCB MODULES

01 Series Triple Piranha LED PCB  
**PTCL-T090-P-BL** Blue  
**PTCL-T090-P-GR** Green  
**PTCL-T090-P-RD** Red  
**PTCL-T090-P-YL** Yellow  
**PTCL-T090-P-WH** White  
**PTCL-T090-P-NW** Neutral White  
**PTCL-T090-P-WW** Warm White  
 01 Series Triple Triple Chip LED PCB  
**PTCL-T180-U-BL** Blue  
**PTCL-T180-U-GR** Green  
**PTCL-T180-U-RD** Red  
**PTCL-T180-U-YL** Yellow  
**PTCL-T180-U-WH** White  
**PTCL-T180-U-NW** Neutral White  
**PTCL-T180-U-WW** Warm White



### REPLACEMENT PCB MODULES

02 Series Double Piranha LED PCB  
**PTCL-D090-P-BL** Blue  
**PTCL-D090-P-GR** Green  
**PTCL-D090-P-RD** Red  
**PTCL-D090-P-YL** Yellow  
**PTCL-D090-P-WH** White  
**PTCL-D090-P-NW** Neutral White  
**PTCL-D090-P-WW** Warm White  
 02 Series Double Triple Chip LED PCB  
**PTCL-D180-U-BL** Blue  
**PTCL-D180-U-GR** Green  
**PTCL-D180-U-RD** Red  
**PTCL-D180-U-YL** Yellow  
**PTCL-D180-U-WH** White  
**PTCL-D180-U-NW** Neutral White  
**PTCL-D180-U-WW** Warm White



### REPLACEMENT PCB MODULES

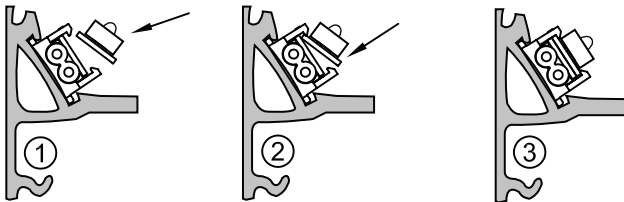
03/04 Series Single Piranha LED PCB  
**PTCL-S090-P-BL** Blue  
**PTCL-S090-P-GR** Green  
**PTCL-S090-P-RD** Red  
**PTCL-S090-P-YL** Yellow  
**PTCL-S090-P-WH** White  
**PTCL-S090-P-NW** Neutral White  
**PTCL-S090-P-WW** Warm White  
 03/04 Series Single Triple Chip LED PCB  
**PTCL-S180-U-BL** Blue  
**PTCL-S180-U-GR** Green  
**PTCL-S180-U-RD** Red  
**PTCL-S180-U-YL** Yellow  
**PTCL-S180-U-WH** White  
**PTCL-S180-U-NW** Neutral White  
**PTCL-S180-U-WW** Warm White



### REPLACEMENT STRAND\*

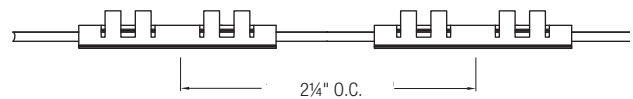
**PTCL-01-STRAND** Replacement Strand  
 2.5" O.C. - (25 foot roll)  
**PTCL-02-STRAND** Replacement Strand  
 3.0" O.C. - (35 foot roll)  
**PTCL-03-STRAND** Replacement Strand  
 3.0" O.C. - (35 foot roll)  
 \* Not including LED PCB modules

## LED PCB REPLACEMENT

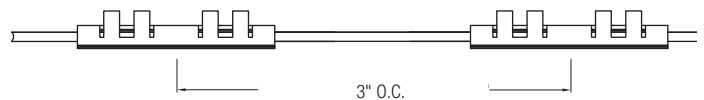


## STRAND PROFILES

### SERIES 01 WIRE STRAND 2 1/4" O.C. SPACING



### SERIES 02 AND 03 WIRE STRAND 3" O.C. SPACING



LED DATA	WATTAGE	LED LIFE* / COLOR TEMP	VIEWING ANGLE
Piranha Superflux LED	0.31W per Module	<b>35,000 hrs.</b> White (5500°k +/-300°k)  <b>40,000 hrs.</b> Neutral White (3200°k +/-200°k) Warm White (2800°k +/-100°k)  <b>50,000 hrs.</b> Blue (470nm +/-1nm) Green (525nm +/-1nm)  <b>100,000 hrs.</b> Yellow (590 +/-1nm) Red (630 +/-1nm)	90°
Ultra Bright Triple Chip	0.50W per Module	<b>25,000 hrs.</b> White (5500°k +/-300°k) Neutral White (3200°k +/-200°k) Warm White (2800°k +/-100°k)  <b>40,000 hrs.</b> Blue (470nm +/-1nm) Green (525nm +/-1nm)  <b>80,000 hrs.</b> Yellow (590nm +/-1nm) Red (630nm +/-1nm)	180°



# PLATINUM COVE™ LED

## FIXTURE SELECTION

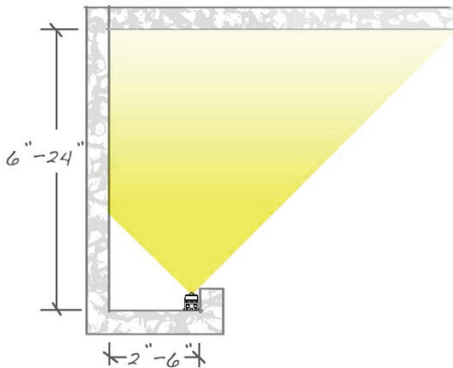
### Lamp Type

Ultra Bright Triple Chip LED modules offer a high intensity wide area (180°) of light for use in bright ambient light conditions. Piranha LED modules offer a 90° viewing angle.

### Lamp Spacing

To select the lamp spacing necessary for desired effect, choose a close spacing for an even unbroken glow when you have a close distance or a wider spacing for a softer light with a greater distance to the wall area to be lit. (see lamp spacing chart for details).

## LAMP SPACING GUIDE



Smallest profile, most economical interior cove solution with reduced output (40% less than Covelum) . Compact niche applications for budget conscience projects – darker relief, accent glow of light . Extremely flexible , accommodates serpentine curves. Set back 2"-6", cove height 6"-24".

PLATINUM COVE LED	EFFICACY LM/WT	LM/FT	LM/MODULE	MODULES PER FOOT	WT/FT	WT/MODULE
Warm White Triple Chip at ¾" O.C.	59.96	160.09	29.88	5.34	2.67	0.50
White Triple Chip at ¾" O.C.	62.58	167.09	31.29	5.34	2.67	0.50
Warm White Piranha at ¾" O.C.	14.38	23.87	4.74	5.34	1.66	0.31
White Piranha at ¾" O.C.	21.43	35.57	6.66	5.34	1.66	0.31
Warm White Triple Chip at 1½" O.C.	39.84	79.68	19.92	4	2.00	0.50
White Triple Chip at 1½" O.C.	41.72	83.44	20.86	4	2.00	0.50
Warm White Piranha at 1½" O.C.	10.19	12.64	3.16	4	1.24	0.31
White Piranha at 1½" O.C.	14.32	17.76	4.44	4	1.24	0.31
Warm White Triple Chip at 3" O.C.	19.92	39.84	9.96	4	2.00	0.50
White Triple Chip at 3" O.C.	20.86	41.72	10.43	4	2.00	0.50
Warm White Piranha at 3" O.C.	5.10	6.32	1.58	4	1.24	0.31
White Piranha at 3" O.C.	7.16	8.88	2.22	4	1.24	0.31

## MTBF

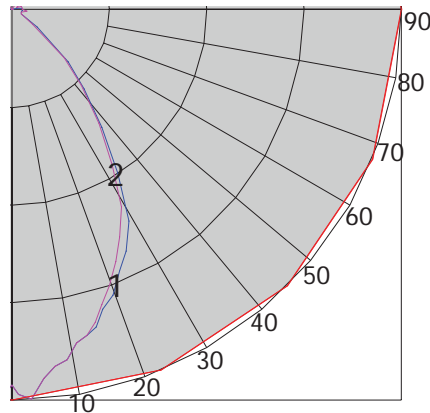
**Mean Time Between Failures (MTBF) for LEDs:** While Tivoli utilizes LEDs provided by industry leading vendors, these are electrical components with calculated manufacturers mean time between failures (MTBF). MTBF is rated as the average point at which 1/2 of color LEDs will lose 50% of their original brightness. MTBF for White LEDs is based on when 1/2 are reduced to 70% of their original brightness.

Typically, LED product failures occur within fixture construction, interdependent component failure, or operation under adverse conditions. Tivoli operates LEDs at a derated current to insure that LED MTBF values are based on product fixture construction and real application standards.

Still, conditions such as excessive voltage, vibration, heat, and other adverse conditions may negatively effect the life of LEDs.

## Lamp Color

Lamp color selections can accent the hidden color within a surface, bringing out details or patterns not seen in a broad spectrum of light. Tivoli™ uses a range of 2600K to 3200K for warm white and 5000K to 6000K for white. Color temperatures are created by manufacturer LED modules that blend different color bins together to achieve rich color temperatures. Individual orders will be bin-sorted to within plus or minus 100K and it is recommended to purchase 10% replacement stock within that bin lot to insure matched color for needed replacements. Individual modules will vary in color and application design needs to incorporate cross blending to create color uniformity. Tivoli's Covelum LED product is intended for use as an indirect cove lighting product. Use in direct view or backlit applications may not yield acceptable results.



Maximum Candela = 7.6 Located At Horizontal Angle = 0, Vertical Angle = 3  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.) : BLUE  
# 2 - Vertical Plane Through Horizontal Angles (90 - 270) : MAGENTA  
# 3 - Horizontal Cone Through Vertical Angle (3) (Through Max. Cd.) : RED

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
0	122	122	122	122	118	118	118	118	111	111	111	104	104	104	98	98	98	95	95	95
1	113	109	105	102	109	106	102	99	100	97	94	94	92	90	89	87	86	83	83	83
2	105	98	92	87	102	96	90	86	91	86	83	86	82	79	82	79	76	74	74	74
3	98	89	82	77	95	87	80	75	83	77	73	79	74	71	75	72	68	66	66	66
4	91	81	74	68	89	79	72	67	76	70	65	72	67	63	69	65	62	59	59	59
5	85	74	66	61	83	73	65	60	70	63	59	67	61	57	64	60	56	54	54	54
6	80	68	60	55	78	67	59	54	64	58	53	62	56	52	59	55	51	49	49	49
7	75	63	55	50	73	62	54	49	59	53	48	57	52	47	55	50	47	45	45	45
8	70	58	51	45	68	57	50	45	55	49	44	53	48	44	52	47	43	41	41	41
9	66	54	47	42	64	53	46	41	51	45	41	50	44	40	48	43	40	38	38	38
10	63	51	43	39	61	50	43	38	48	42	38	47	41	37	45	40	37	35	35	35

## LED BINNING

LED's are made in lots and sorted into bins based on wavelength ranges that achieve colors. Tivoli uses a range of 2600°k to 3200°k for warm white and 5000° to 6000°K for white. Individual orders are bin-sorted to within plus or minus 100°k and it is recommended to purchase 10% replacement stock within that bin lot to ensure matched color for needed replacements. White LEDs vary slightly in color temperature from bin to bin. Tivoli references each bin location number on the packing list and labels it on each LED product accordingly. During installation, it is very important that like bins are located in close proximity for color consistency. The overall color will visually appear consistent even with multiple bins located in surrounding areas. However, if different bins are located in close proximity there may be slight color variations visible.

For example:

Bin No. B-1C  
Bin No. B-1B

1C should be installed close to each other.

1B should be installed close to each other

1C and 1B should NOT be installed close to each other.



# PLATINUM COVE™ LED

PIRANHA 90° - WHITE (0.31 WATTS/MODULE)				LUMENS PER FOOT	WATTS PER FOOT
Distance from wall	@ 6"	@ 12"	@ 24"		
¾" LED Spacing	50.6fc	23.9fc	8.7fc	35.52	1.66
1.5" LED Spacing	24.0fc	11.3fc	4.1fc	17.80	1.24
3.0" LED Spacing	14.1fc	6.7fc	2.4fc	8.90	1.24

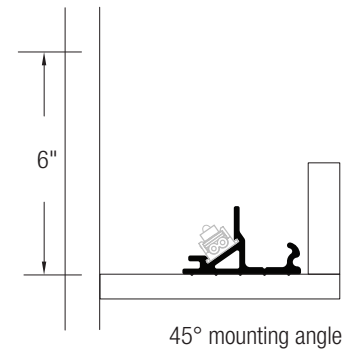
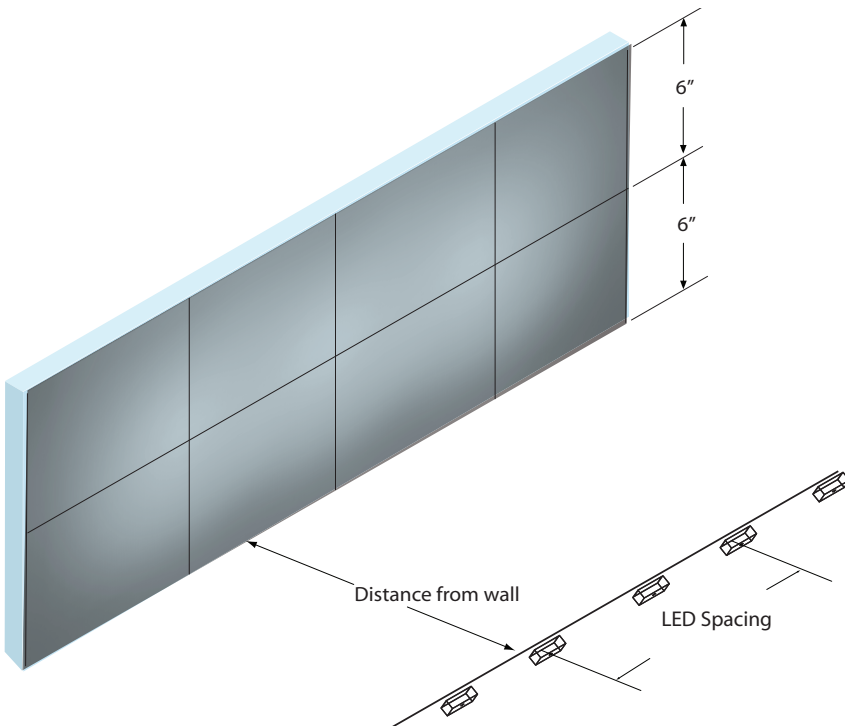
TRIPLE CHIP 180° - WHITE (0.50 WATTS/MODULE)				LUMENS PER FOOT	WATTS PER FOOT
Distance from wall	@ 6"	@ 12"	@ 24"		
¾" LED Spacing	130.0fc	62.5fc	22.4fc	166.90	2.67
1.5" LED Spacing	61.7fc	29.5fc	10.5fc	83.50	2.00
3.0" LED Spacing	36.2fc	17.4fc	6.2fc	41.70	2.00

PIRANHA 90° - WARM WHITE (0.31 WATTS/MODULE)				LUMENS PER FOOT	WATTS PER FOOT
Distance from wall	@ 6"	@ 12"	@ 24"		
¾" LED Spacing	41.3fc	19.5fc	7.1fc	25.30	1.66
1.5" LED Spacing	19.7fc	9.3fc	3.4fc	12.64	1.24
3.0" LED Spacing	12.1fc	5.3fc	2.1fc	6.32	1.24

TRIPLE CHIP 180° - WARM WHITE (0.50 WATTS/MODULE)				LUMENS PER FOOT	WATTS PER FOOT
Distance from wall	@ 6"	@ 12"	@ 24"		
¾" LED Spacing	116.7fc	56.1fc	19.1fc	159.40	2.67
1.5" LED Spacing	50.0fc	24.0fc	9.0fc	79.70	2.00
3.0" LED Spacing	28.4fc	14.2fc	5.3fc	39.84	2.00

## TITLE 24 COMPLIANCY

HIGH EFFICACY OPTIONS (MINIMUM 40 LUMENS/FOOT)	SPACING	LUMENS PER FOOT	WATTS PER FOOT
Triple Chip 180° - White	¾" LED Spacing	166.90	2.67
	1.5" LED Spacing	83.50	2.00
	3.0" LED Spacing	41.70	2.00
Triple Chip 180° - Warm White	¾" LED Spacing	159.40	2.67
	1.5" LED Spacing	79.70	2.00



# PLATINUM COVE™ LED

## RECOMMENDED POWER SUPPLIES

PART #	PRIMARY AND SECONDARY	TOTAL WATTAGE / AMPERAGE PER BREAKER	LISTING	DIMENSIONS	WEIGHT	ELECTRONIC OR AC MAGNETIC	DIMMABLE (Y OR N)
ADUL-75-1-5-12-D	85-264V AC / 12V DC	75 / 1X5A	UL/ETL	10"W X 10"L X 4"D		Electronic	Y: D & E
ADUL-200-1-15-12-D	85-264V AC / 12V DC	200 / 1X15A	UL/ETL	10"W X 10"L X 4"D		Electronic	Y: D & E
ADUL-300-5-5-12-D	85-264V AC / 12V DC	300 / 5X5A	UL/ETL	10"W X 10"L X 4"D		Electronic	Y: D & E
JT-60-1-5-12-D	120V AC / 12V DC	60 / 1X5A	ETL	4.25"W X 8.50"L X 3.25"D		Magnetic	Y: A, D & E
JTH-60-1-5-12-D	277V AC / 12V DC	60 / 1X5A	ETL	4.25"W X 8.50"L X 3.25"D		Magnetic	Y: D, E & F
JT-240-4-5-12-D	120V AC / 12V DC	240 / 4X5A	ETL	8.50"W X 16.00"L X 4.50"D		Magnetic	Y: A, D & E
JTH-240-4-5-12-D	277V AC / 12V DC	240 / 4X5A	ETL	8.50"W X 16.00"L X 4.50"D		Magnetic	Y: D, E & F
MT-60-1-5-12-D	100-240V AC / 12V DC	60 / 1X5A	UL	4.25"W X 12.32"L X 4.00"D		Electronic	N

## DIMMERS

SELECTOR	DIMMER	TYPE	CONTROL SIGNAL	INPUT VOLTAGE	OUTPUT VOLTAGE	MAX LOAD	BREAKER RATING	DIMENSIONS
<b>A</b>	N-600	AC Magnetic	N/A	120V AC	120V AC	450W Max.	N/A	Recessed Single gang box
<b>B</b>	N-1000	AC Magnetic	N/A	120V AC	120V AC	800W Max.	N/A	Recessed Dual gang box
<b>C</b>	N-1500	AC Magnetic	N/A	120V AC	120V AC	1200W Max.	N/A	Recessed Dual gang box
<b>D</b>	DIM-12V-8A	DC Digital	N/A	12V DC	12V DC	96W	8A*	Single gang box
<b>E</b>	DIM-OT-1-5-D	Control Interface	1-10VDC	12V DC	12/24V DC	60W	5A**	7"L X 1½"W X ¾"H
<b>F</b>	NH-600	AC Magnetic	N/A	277V AC	277V AC	450W	N/A	Recessed Single gang box
<b>G</b>	NH-1000	AC Magnetic	N/A	277V AC	277V AC	800W	N/A	Recessed Dual gang box

\* AD Series secondary outputs would be limited to 8 amps.

\*\*OTDIM applications require 1 each OTDIM per 5 amp circuit

## PRODUCT SPECIFICATION GUIDE

SERIES	MAX RUN PER 5A FEED
01 Series - Piranha	5A or 25ft
01 Series - Ultra Bright Triple Chip	5A or 13ft
02 & 03 Series - Piranha	5A or 35ft
02 & 03 Series - Ultra Bright Triple Chip	5A or 18ft

SERIES	MAX CONTINUOUS RUN LENGTH
01 Series - Piranha	100 LED or 18ft
01 Series - Ultra Bright Triple Chip	72 LED or 13ft
02 & 03 Series - Piranha	100 LED or 25ft
02 & 03 Series - Ultra Bright Triple Chip	72 LED or 18ft

