

Product # _____ Type _____ Date _____

Project Name _____

Project Location _____ Prepared By _____

Capella™ 1

Construction

- Housing and lens frame are constructed from heavy-duty low copper die-cast aluminum. Material is structurally rigid and uniformly dissipates heat for longer lumen maintenance life-hours. Standard finish is a mini texture charcoal gray using polyester powder coat paint. Other finishes are available upon request.
- Glass Lens is Minimum 1/8" thick thermal and impact resistant clear tempered glass. Lens frame and housing are sealed using an extruded, memory retentive gasket. All external hardware is stainless steel.
- Mounting Yoke is made from Stainless steel and finished with polyester powder coat to match luminaire

Optical System

- Largest selection of optical choices shall be available to fit your applications. Please specify your selection from the ordering guide. Photometric Application Data table is provided as an additional tool for selecting an appropriate optic system suitable to the application.
- Glare Control: Choice of external glare control accessories are available. Please select them from the catalog ordering guide.

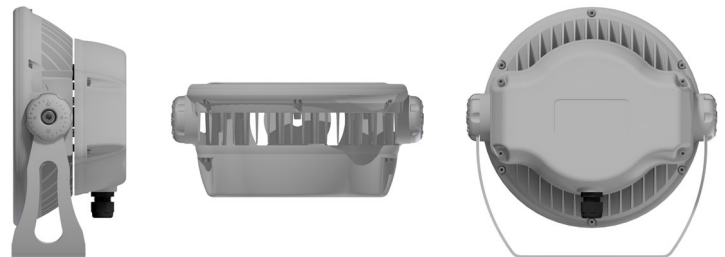
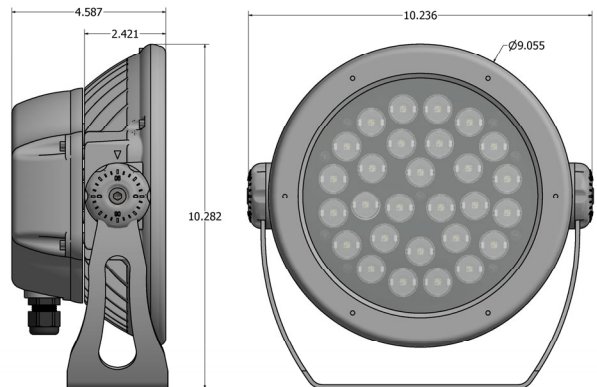
Product Applications

- | | |
|------------------------------|-----------------------------|
| ● Flood Lighting | ● Landscape Lighting |
| ● Very Narrow Flood Lighting | ● Sign Lighting |
| ● Stay Cable Bridge Lighting | ● Art Display Spot Lighting |
| ● Building Wall Washer | ● Flag Spot Lighting |

Fixture EPA: 0.66 sq. ft.

Weight: 9 lbs.

LED configuration shown for illustration purposes only.
Actual LED configuration may be different.



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Electrical Components

- **North Star AlphaLED™ Engine:** Designed and configured with Cree high power, high lumen, consistent CCT LEDs. AlphaLED™ modules enable North Star to deliver high quality standards and ensure warranty replacement. LED modules mounted directly on the highly conductive aluminum die-cast housing. These LEDs are operating below 85°C case temperature and deliver superior maintained illumination per LM80 L80 standards. Please refer to the LED Performance Data table for the targeted LED illumination life at 25°C to 40° C luminaire outside ambient temperature. The choice of color temperatures (3000K, 4000K and 5000K) are available to match your intended application.
- **LED Drivers:** UL/CSA recognized component to meet UL8750 & EN61347 (USR/CNR -E328335). Suitable for input power at 120-277VAC 50/60Hz. See Rated input power table for input voltage and current ratings.
- **Power connection:** A 6-foot long outdoor rated water and oil resistant cable shall be provided for electrical power and dimming data connections. Wiring is to be connected to the nearest outdoor rated IP66 junction box (By Others).

Mounting

- Adjustable aim and lock type yoke is provided with a 0.563 diameter center hole, two 60-degree slots, and two horizontal slots to mount on horizontal or vertical surface depending on application. The yoke is made of Stainless steel and finished powder coat to match luminaire finish.

Dimming Controls

- Standard: Interface for 0 – 10V Dimming (Dim-to-Off)
- Optional: Interface for DMX or DALI protocol
DMX deep dimming to less than 1%

Refer to ordering guide for dimming selection

Safety Compliance

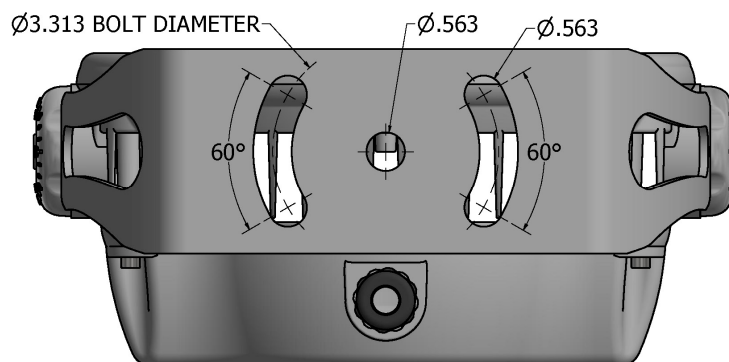
- UL 1598 and CSA C22.2 NO. 250.0 standards.
- Suitable for indoor/outdoor wet (IP66) or damp location use.
- Suitable for 3G ANSI C136.31 Bridge and Tunnel applications.
- IK07 impact resistant
- Operating Temperature Range: -40 C° to 40 C°

Warranty

- Limited 5 years
- LED: L80 60,500 hours at 40 C° ambient
- LED Driver: limited 5 years

Mounting Options

Yoke Mounting Dimensions



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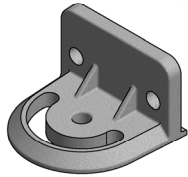


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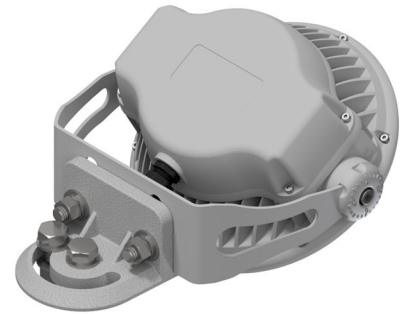
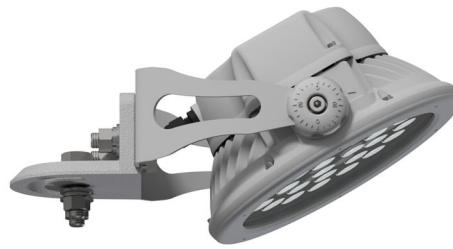
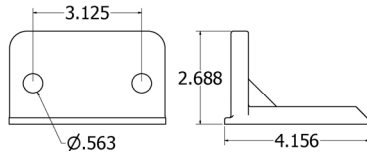
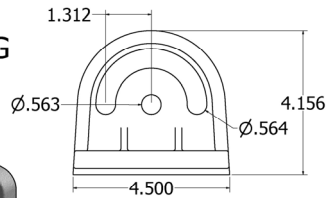
Capella™ 1

Mounting Accessories

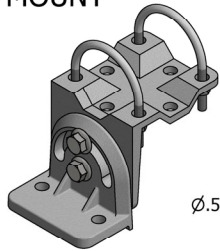
SB-2 MOUNTING BRACKET



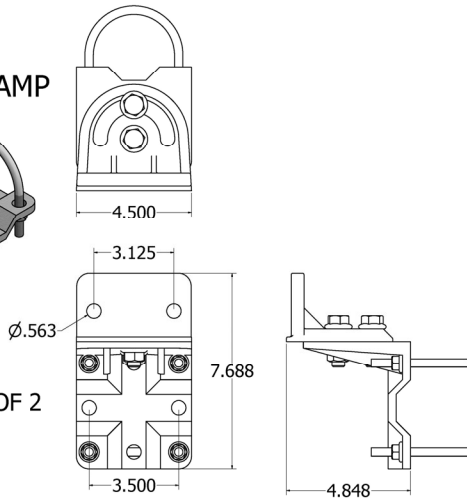
FOR HORIZONTAL YOKE MOUNTING



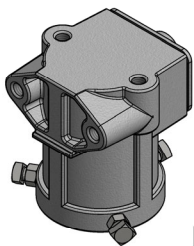
SB-3 PIPE CLAMP MOUNT



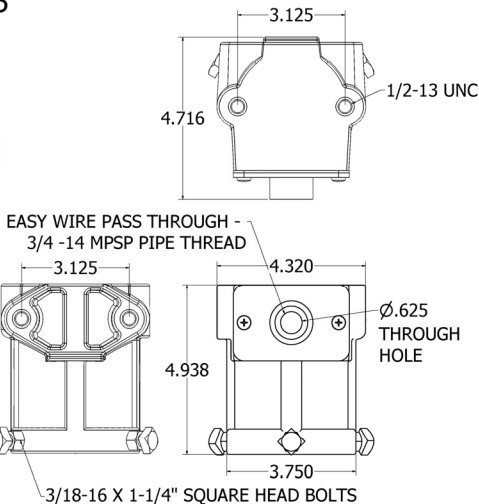
FOR PIPE SIZES OF 2 TO 3 INCHES



SB-5 POLE TOP SLIP-FITTER



FITS 2" TO 2-1/2" PIPE (2 3/8" TO 2 7/8" OD)



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Glare Control Accessories



SV – Standard Visor



V – Visor



H – Hood

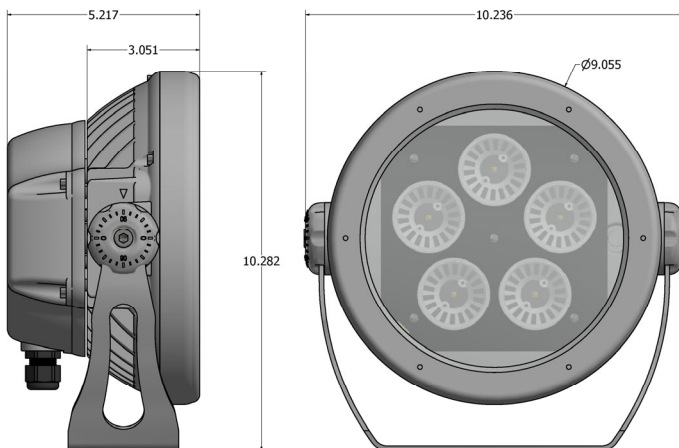


CL – Cross
Louder Hood



CR – Concentric
Ring Louver Hood

Ultra-Narrow Beam Construction



For Ultra-narrow applications, surpassing 1/4 million Center Candela. D06 (48W) beam option only.

LED configuration shown is for illustration purposes. Actual LED configuration may differ.



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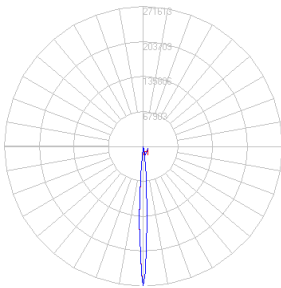
Beam Information

Targeted LED Performance

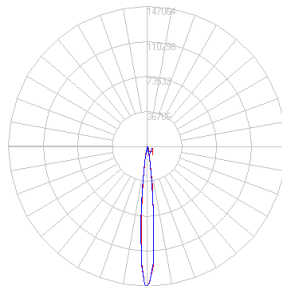
LUMINAIRE DATA @ 85 DEGREE C. Tj

Cree LM80 Projected Life Hours per IESNA TM21.

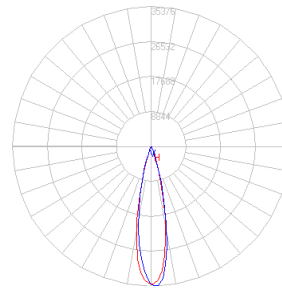
BASIC MODEL NO	Number of LEDs	LED Color Temp.	LED Watts	Output Lumens	At 25-degree C, Luminaire Ambient		At 40-degree C, Luminaire Ambient	
					L90(8.5K) Life Hours	Ts-Degree C	L90(8.5K) Life Hours	Ts-Degree C
CAP-1	28	5000		6949				
	28	4000	48	6618	Greater than 51,400	Under 85	Greater than 51,400	Under 85
	28	3000		6287				
D06 optic, 1/4 million center candela	5	5000		5033				
	5	4000	48	4793	Greater than 60,500	Under 85	Greater than 60,500	Under 85
	5	3000		4553				



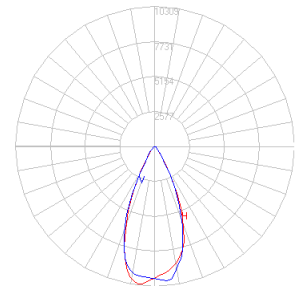
Very-Narrow 6° – D06



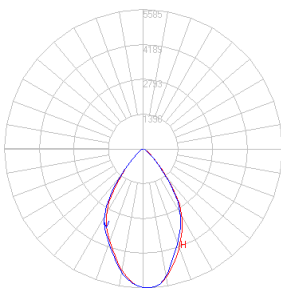
Narrow 10° – D10



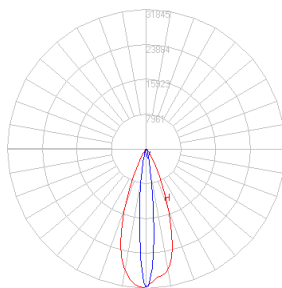
Medium 23° – D23



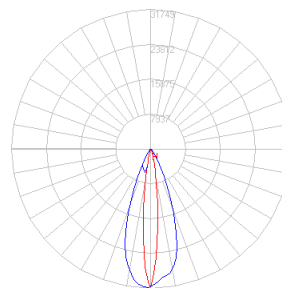
Wide 45° – D45



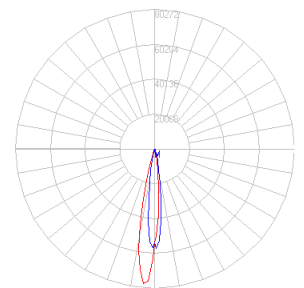
Very-Wide 63° – D63



Elliptical Horizontal
38° x 12° – ELH



Elliptical vertical
12° x 38° – ELV



Asymmetric – ASY

NOTE: SEE PHOTOMETRIC APPLICATION DATA FOR SPECIFIC BEAM INFORMATION

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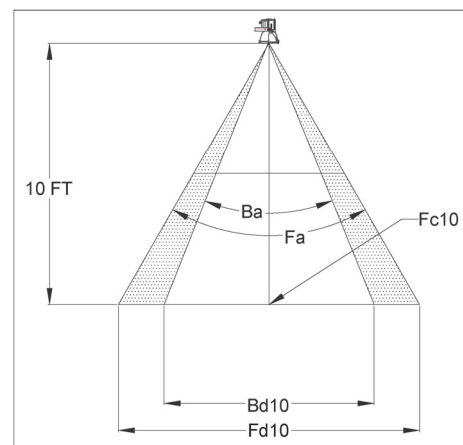
Photometric Application Data

Performance Values	Optic D06	Optic D10	Optic D23	Optic D45	Optic D63	Optic ELH	Optic ELV
NEMA Classification	1HX1V	2HX2V	3HX3V	4HX4V	5HX5V	4HX2V	2HX4V
Maximum Center Candela Cd-max	271613	147164	35376	10309	5585	31749	31749
Maximum Center Fc @10 ft - Fc10	2716	1472	354	103	56	317	317
Beam Angle @ 50% of Max. Fc - Ba degrees	6	10.2	23	45	63	38 x 12	12 x 38
Field Angle @ 10% of Max Fc - Fa degrees	13	19.6	39	69	96	61 x 26	26 x 61
Beam Diameter in feet @10 ft - Bd10	1.05	1.78	4.07	8.28	12.26	6.89 x 2.10	2.10 x 6.89
Field Diameter in feet @10 ft - Fd10	2.28	3.45	7.08	13.74	22.21	11.78 x 4.62	4.62 x 11.78

Photometric Conversion Table

This table is used to convert candela and footcandle values listed in the photometric files for this

MODEL NO	Number of LEDs	LED Color Temp.	LED Watts	Output Lumens	Conversion Multiplier - 4k to 3k or 5k for candela and foot candle values
CAP1	28	5000		6949	1.050
	28	4000	48	6618	1.000
	28	3000		6287	0.950
CAP1 - D06 beam	5	5000		5033	1.050
	5	4000	48	4793	1.000
	5	3000		4553	0.950



Distance Multipliers for Photometric Application Table (Adjusted from 10 ft values)

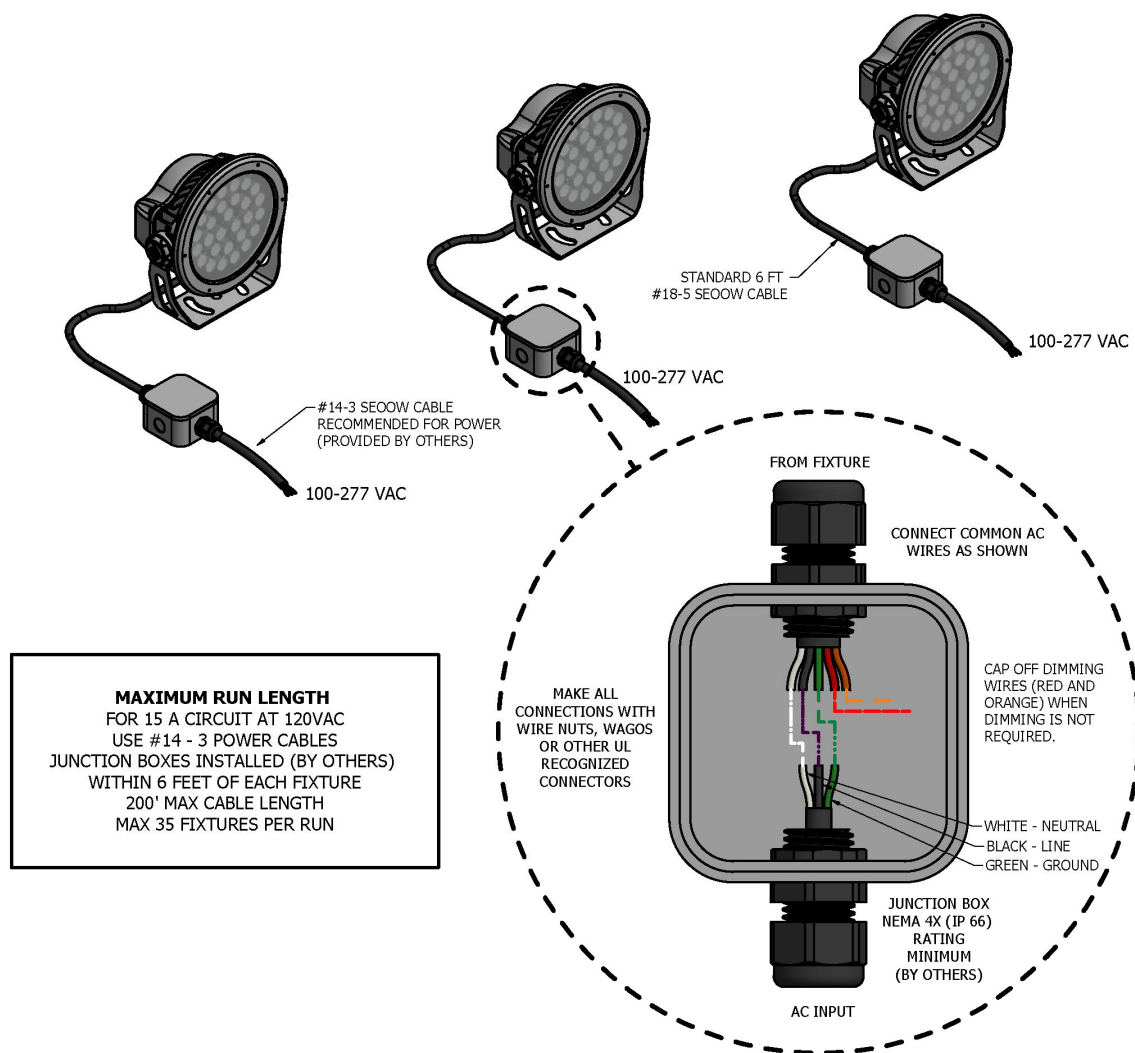
Distance in feet	Multiplier For Beam (Bd) or Field (Fd) Diameter	Multiplier For Footcandle (FC) values
10	1.00	1.0000
15	1.50	0.4444
20	2.00	0.2500
25	2.50	0.1600
50	5.00	0.0400
75	7.50	0.0178
100	10.00	0.0100
150	15.00	0.0044

Rated Input Power Table

CAP1 LED Power	Luminaire Rated input Power (AC 50/60 Hz)	Input Current at rated voltage			
Watts	Watts	120	208	240	277
48	55	0.5	0.3	0.2	0.2

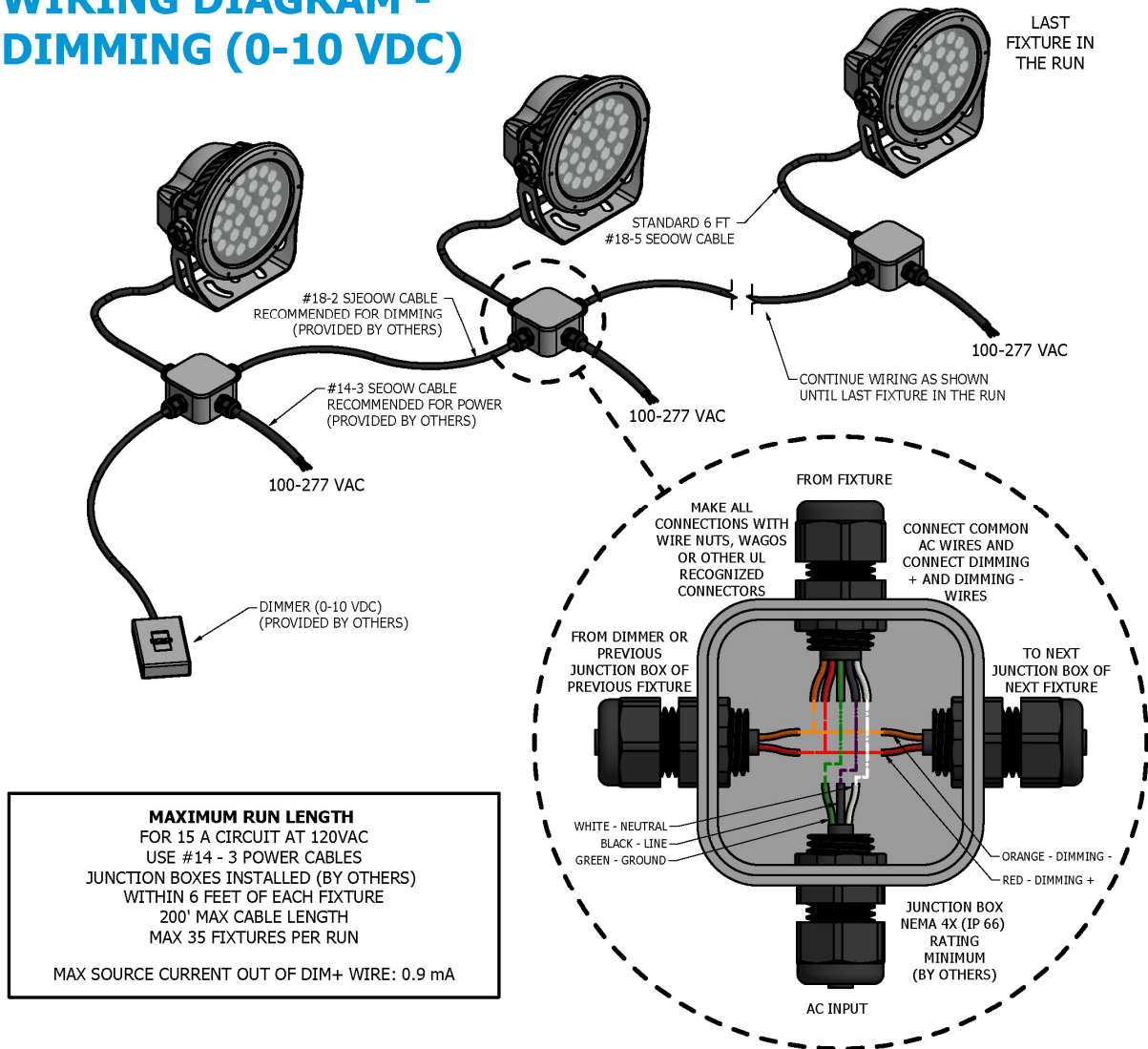
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WIRING DIAGRAM - NON-DIMMING



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WIRING DIAGRAM - DIMMING (0-10 VDC)



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Capella™ 1

Ordering Guide

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Model Number	LED Power (Watts)	CCT Color Temperature	Light Beam Distribution (FWHM)	Input voltage (VAC)	Lighting Controls	Glare Control
CAP1	48 W	3K - 3000 K	D06 - 6° Beam*	U - 120V-277V	ND - Non-Dimming	SV - Standard Visor
		4K - 4000 K	D10 - 10° Narrow Beam	V1 - 347V**	DM - 0-10 VDC (Dim to Off) Interface Only	V - Visor
		5k - 5000 K	D23 - 23° Medium Beam	V2 - 480V**	DMX - DMX Dimming Interface Only**	H - Hood
		XK - Specify CCT or single Color*	D45 - 45° Wide Beam		DXD - DMX Deep Dimming - Less than 1%**	CL - Cross Louver
			D63 - 63° Beam			CR - Concentric Ring Louver
			ELH - 38° x 12° Elliptical Horizontal Beam			
			ELV - 12° x 38° Elliptical Vertical Beam			
			ASY - Asymmetric Beam			

*Requires minimum 50 quantity and will have a minimum 10-week lead-time.

**Contact North Star Lighting for Availability and lead-times.

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