Catalog # :	Project :
Prepared By :	Date :

Constitution - XCN4
LED Decorative Pedestrian & Area Light

This latest iteration of the LED Constitution decorative and pedestrian area light features LSI's innovative and high-performance silicone optics, as also featured in LSI's ground-breaking, patent-pending Mirada Series fixtures. The Constitution is designed to illuminate pathways, walkway areas and campus sites. Its contemporary, sleek design complements architectural design elements well.

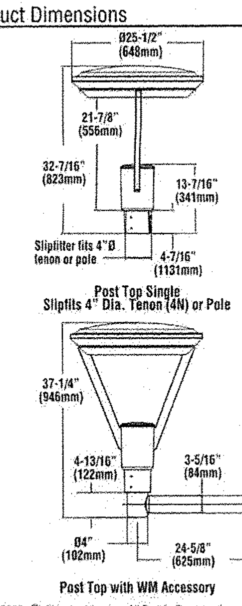
Features & Specifications

Optical System
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W and FT.
- Silicone optical material does not yellow or crack with age and provides a minimum light transmittance of 93%.
- Optical distributions are field rotatable (in 90° increments).
- Available in 5000K, 4000K, and 3000K (+/- 275K) color temperatures.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance. See page 4 for more details.

Electrical
- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L70 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: - -40°C to +50°C (-40°F to +122°F)
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire, however the luminaire is supplied with a 32' 3 conductor wire harness.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Title 24 Dimmable · cULus LISTED · RoHS COMPLIANT · ARRA Funding Compliant

Product Dimensions



Constitution - XCN4
LED Decorative Pedestrian & Area Light

Features & Specifications (Cont.)

Construction
- Rugged die-cast aluminum housing.
- Cast aluminum wiring access door located in lower hub/fitter.
- Rigid die-cast aluminum arms for consistency and strength.
- Precision die cast aluminum heatsink and optical frame.
- Removable spun aluminum cap/driver enclosure is retained by captive stainless steel fasteners and safety cables. Housing and top cap interface is sealed with a one-piece extruded silicone gasket. Tool-less entry option is available.
- All exposed fasteners are black oxide coated stainless steel. Internal fasteners are stainless steel or zinc electroplated steel.
- Luminaire is proudly made in the U.S.
- IP65 rated luminaire protects integral components from harsh environments.
- 1.5G rated for ANSI C136.31 high vibration applications
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 45 lbs in carton.

Controls
- Optional integral passive infrared motion and daylight sensor activates switching of luminaire light levels (see page 5 for more details).
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules.
- LSI's Gold and Platinum wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 5 for more details)

Installation
- Mounts to 4" O.D. pole or tenon.
- Secures to pole with 6 stainless steel set screws.
- 32' wire leads are provided bundled in the slip fitter hub for ease of wiring.

Warranty
- LSI LED Fixtures carry a 5-year warranty.

Listings
- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- State of California Title 24.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- American Recovery and Reinvestment Act Funding Compliant.
- Lighting Facts Approved.
- Suitable For wet Locations.
- IP65 rated Luminaire. IP66 rated optical chamber.
- 1.5G rated for ANSI C136.31 high vibration applications

Performance

ELECTRICAL DATA*

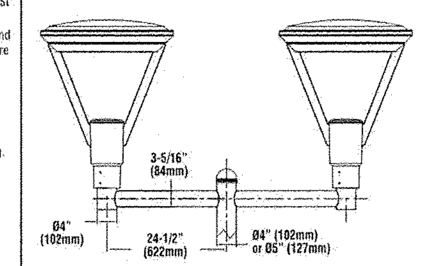
Lumens	120V	208V	240V	277V	347V	480V	Watts
10L	0.63	0.36A	0.31A	0.27A	0.22A	0.16A	75
18L	1.29A	0.75A	0.65A	0.56A	0.45A	0.32A	155
25L	1.98A	1.14A	.99A	.86A	0.68A	0.49A	237

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

RECOMMENDED LUMEN MAINTENANCE[1]

Ambient	Initial[2]	25 hr[2]	50 hr[2]	75 hr[3]	100 hr[3]
0 C	1.06	1.05	1.05	1.05	1.04
10 C	1.04	1.02	1.02	1.02	1.01
20 C	1.01	1.00	0.99	0.99	0.99
25 C	1.00	0.98	0.97	0.97	0.96
30 C	0.99	0.97	0.96	0.96	0.95
40 C	0.97	0.92	0.89	0.86	0.83

1 - Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.
2 - In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
3 - In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.



Post Top with BK MPT BO (x2)
Mounts to 4" or 5" Dia. D180 Bolt-on Pole
(select 3" reduced drilling pattern)

LUMINAIRE EPA CHART - Constitution

	MOUNTING STYLE	EPA
PT Single	PT	1.0
PT D180° with BK MPT BO (2)	PT	2.0

Constitution - XCN4
LED Decorative Pedestrian & Area Light

Ordering Guide

TYPICAL ORDER EXAMPLE: **XCN4 PT LED 18L 50 UE BRZ GCM**

Luminaire Prefix	Distribution	Light Source	Lumens	Color Temp	Line Voltage	Finish	Optional Controls	Options
XCN4 - Constitution	2 - Type II 3 - Type III 5W - Type 5 Wide FT - Forward Throw (Type IV)	LED	10L - 10,000 Lumens 18L - 18,000 Lumens 25L - 25,000 Lumens	50 - 5000K 40 - 4000K 30 - 3000K	UE - Universal Voltage (120-277v) HV - High Voltage (347-480v)	BRZ - Bronze BLK - Black GPT - Graphite MSV - Metallic Silver WHT - White PLP - Platinum Plus SVG - Satin Verde Green	**Wireless Controls System [1]** PCM - Platinum Control System PCMH - Host/Satellite Platinum Control System GCM - Gold Control System (Blank) - None **Stand-Alone Control** (Blank) - None IMS - Integral Motion Sensor	PCR 7P - Photoelectric Control Receptacle[2] IL - Integral Louver Shield TE - Toolless Access

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

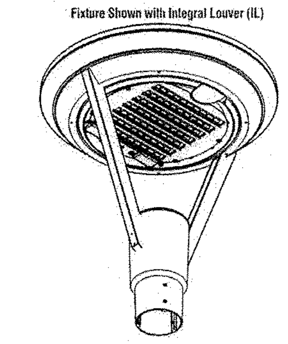
Description	Order Number	Description	Order Number
BK MPT BO4 - Bolt on Bracket (for PT 180) For 4" O.D. Round Poles	490025CLR[8]	WM - Wall Mount Bracket (PT Only)	C/F
BK MPT BO5 - Bolt on Bracket (for PT 180) For 5" O.D. Round Poles	490035CLR[8]	DFK208,240 Double Fusing (208V, 240V)	DFK208, 240[4]
IL - Integral Louver Shield (Black only)	854939	DFK480 Double Fusing (480V)	DFK480[4]
PC120 Photocell for use with PCR option (120V)	122514[3,7]	FK347 Single Fusing (347V)	FK347[4]
PC208-277 Photocell for use with PCR option (208V, 240V, 277V)	122515[3,7]	PMOS120 - 120V Pole-Mount Occupancy Sensor	518030CLR[5]
PC347 Photocell for use with PCR option (347V)	122516[3,7]	PMOS208/240 - 208, 240V Pole-Mount Occupancy Sensor	534239CLR[5]
PC480 Photocell for use with PCR option (480V)	1225180[3,7]	PMOS277 - 277V Pole-Mount Occupancy Sensor	518029CLR[5]
FK120 Single Fusing (120V)	FK120[4]		
FK277 Single Fusing (277V)	FK277[4]		

FOOTNOTES:
1 - Requires a SiteManager and override switch.
2 - Photocell must be ordered separately. See Accessories.
3 - Factory installed PCR option required. See Options.
4 - Fusing must be located in hand hole of pole.
5 - To be used in conjunction with PCM/GCM control modules in fixture. Consult factory.
6 - Consists of a daylight & motion dual sensor. Light levels are field adjustable, via a handheld remote configurator tool.
7 - These photocells provide Dusk/Dawn, on-off control only. Consult factory for alternate photocells providing additional functionality.
8 - Order poles with 3" reduced drilling pattern. For PT mounting configurations other than D180, consult factory. Order one bracket per fixture.

Accessories/Options

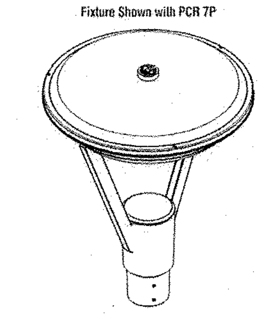
Integral Louver (IL)
Optional Integral Louver available for improved back-light control without sacrificing street side performance.

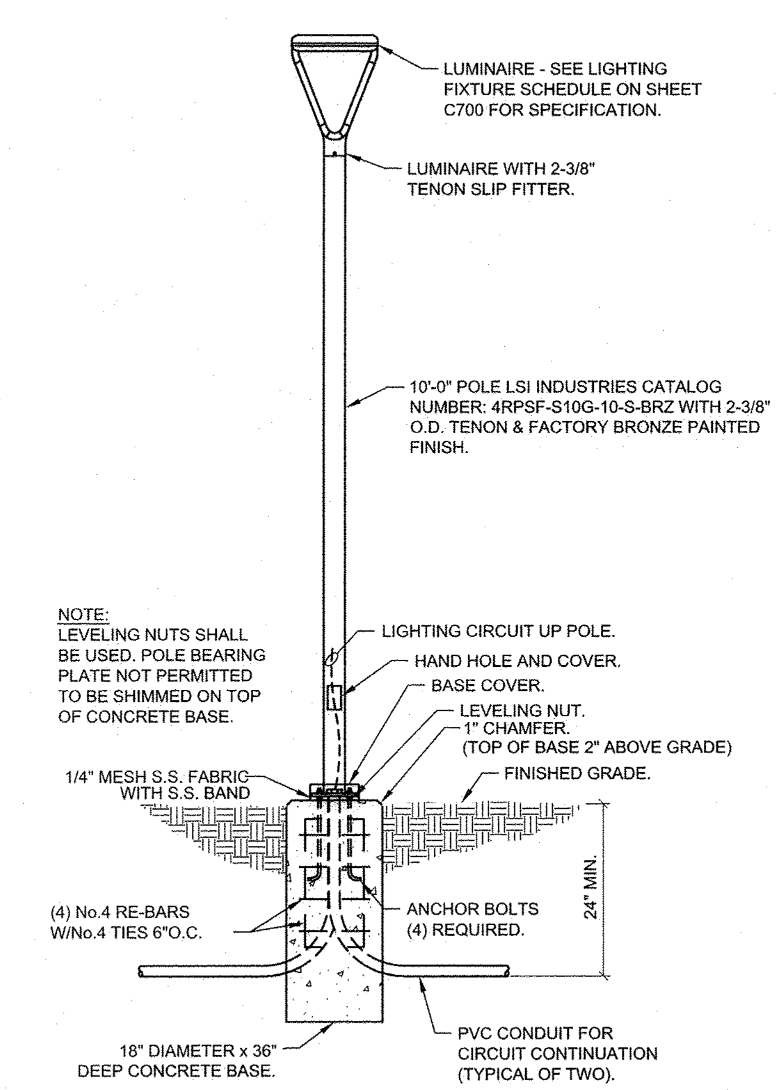
Fixture Shown with Integral Louver (IL)



7 Pin Photoelectric Control
7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

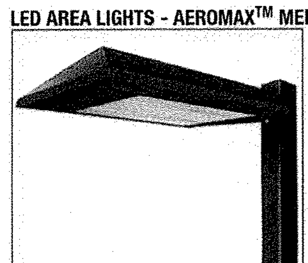
Fixture Shown with PCR 7P





1/C701 **10' LIGHTING POLE DETAIL**

LED AREA LIGHTS - AEROMAX[TM] MEDIUM (XAMU)



DOE LIGHTING FACTS
Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

US patent 7828456, 7952293, 8002428 and CAN 2693131 & 2701653 and US & Int'l. patents pending

SMARTTEC™ - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature.

ENERGY SAVING CONTROL OPTIONS – DIM – 0-10 volt dimming enabled with controls by others. BLS – Bi-level switching responds a 120-277V signal from separate controller or sensor (by others). Low light level decreased to 30% maximum drive current.

OCCUPANCY SENSOR (IMS) - Optional internal passive infrared motion sensor activates switching of luminaire light levels. High level light activated and increased to full bright in 1-2 seconds upon detection of motion. Low light level (30% maximum drive current) activated when target zone is absent of motion activity for ~ 2 minutes and ramps down (10-15 sec.) to low level. Sensor located on the front of optical assembly. Sensor optic has a detection cone of approximately 45°. Examples of detection - occurs 30' out from a 30' mounting height pole.

LEDS - Select high-brightness LEDs in Cool White (5000K) or Neutral White (4000K) color temperature. 70 CRI.

DISTRIBUTION/PERFORMANCE - Types 3, FT and 5. Exceptional uniformity creates bright environment at lower light levels. Improved backlight cutoff minimizes light trespass.

HOUSING - One-piece, die-formed aluminum, weather-tight housing contains factory prewired driver and field connections. Extruded one-piece EPDM gasketed wiring access door (with safety lanyard) located underneath and utilizes tool-less thumbscrew fastener. Fixture is IP65 rated.

OPTICAL UNIT - Clear tempered flat glass lens sealed to aluminum optics housing creates a sealed optical unit (includes pressure-stabilizing breather). Optical unit is recessed into housing cavity and sealed to the housing with extruded one-piece EPDM gasket. Optical unit lanyard serves dual purposes of safety and provides positive ground between unit and housing.

MOUNTING - Tapered rear design allows fixtures to be mounted in a quad pattern without the need for extension arms. Use with 3" reduced drilling pattern on round and square poles. A round pole plate (X4RPP, X5RPP) is required for mounting to round poles. Wall mount available by ordering wall mounting bracket (BKS-XBO-WM-*-CLR). See Accessory Ordering Information chart for all brackets.

ELECTRICAL - A terminal block for attachment of incoming primary wiring is supplied. Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (50/60Hz input), and 347-480 VAC. Optional twistlock photocell receptacle is available. Photocell must be ordered separately.

DRIVER - Available in SS (Super Saver) and HO (High Output) drive currents (Drive currents are factory programmed). Components are fully encased in potting material for moisture resistance. Driver complies with IEC and FCC standards. Driver and key electronic components can easily be accessed.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F).

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT (in carton) - 39 lbs. / 17.7 Kg

LISTING - ETL listed to U.S. and International safety standards. Suitable for wet locations. For a list of the specific products in this series that are DLC listed, please consult the LED Lighting section of our website or the Design Lights website at www.designlights.org.

LIGHT OUTPUT - XAMU

		# of LEDS	Lumens (Nominal) Type 3	Type FT	Type 5	Watts (Nominal)
Cool White	SS	128	13500	14100	12100	139
Cool White	HO	128	16500	17300	14800	176
Neutral White	SS	128	12400	13200	11200	139
Neutral White	HO	128	15000	15800	12500	176

LED Chips are frequently updated therefore values may increase.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

ARRA · ETL wet location · RoHS COMPLIANT · FC · CE · IP65

Fixtures comply with ANSI C136-31-2010 American National Standard for Roadway Lighting Equipment - Luminaire Vibration 3G requirements.

LED AREA LIGHTS - AEROMAX[TM] MEDIUM (XAMU)
LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XAMU FT LED 128 HO CW UE WHT PCR**

Prefix	Distribution	Light Source	# of LEDs	Drive Current	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XAMU	3 - Type III 5 - Type V FT - Forward Throw	LED	128	SS - Super Saver HO - High Output	CW - Cool White (5000K) NW - Neutral White (4000K)	UE - Universal Voltage (120-277) 347-480 - Universal Voltage (347-480V)	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	**Wireless Control System[1,2]** (blank) - None PCM - Platinum Control System PCMH - Host/Satellite Platinum Control System GCM - Gold Control System GCMH - Host/Satellite Gold Control System DIM - 0-10 volt dimming (required for satellite fixtures) **Stand-Alone Control** (blank) - None DIM - 0-10 volt dimming[3] (from external signal) BLS - Bi-level Switching[4] (from external signal - required 120-277V controls system voltage)	**Sensor** IMS - Integral Motion Sensor[5] **Options** PCR - Photoelectric Control Receptacle[6]

LUMINAIRE EPA CHART - XAMU

Single	1.4
D180°	2.8
D90°	2.4
T90°	4.0
TN120°	4.0
Q90°	4.7

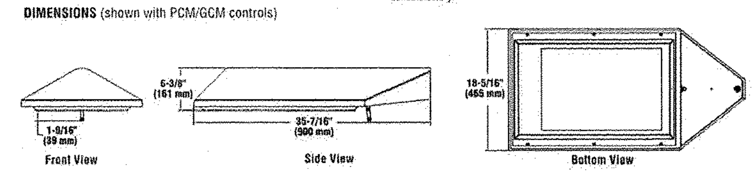
Note: House Side Shield adds to fixture EPA. Consult Factory.

ACCESSORY ORDERING INFORMATION[1] (Accessories are field installed)

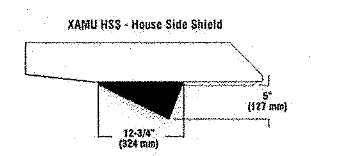
Description	Order Number	Description	Order Number
BKA-XBO-EC-6-CLR 6' Extension Arm	382136CLR	FK120 Single Fusing (120V)	FK120[9]
BKS-XBO-WM-*-CLR Wall Mounting Bracket	382132CLR	FK277 Single Fusing (277V)	FK277[9]
XAMU-HSS House Side Shield (Black only)	524670BLK[7]	DFK208, 240 Double Fusing (208V, 240V)	DFK208,240[9]
X4RPP Round Pole Plate for 4" Poles	379967CLR	DFK480 Double Fusing (480V)	DFK480[9]
X5RPP Round Pole Plate for 5" Poles	379968CLR	FK347 Single Fusing (347V)	FK347[9]
PC120 Photocell for use with PCR option (120V)	122514[8]	PMOS120 120V Pole-Mount Occupancy Sensor	518030CLR[10]
PC208-277 Photocell for use with PCR option (208V, 240V, 277V)	122515[8]	PMOS208/240 208V, 240V Pole-Mount Occupancy Sensor	534239CLR[10]
PC347 Photocell for use with PCR option (347V)	159516[8]	PMOS277 277V Pole-Mount Occupancy Sensor	518029CLR[10]
PC480 Photocell for use with PCR option (480V)	1225180[8]	PMOS480 480V Pole-Mount Occupancy Sensor	534240CLR[10]

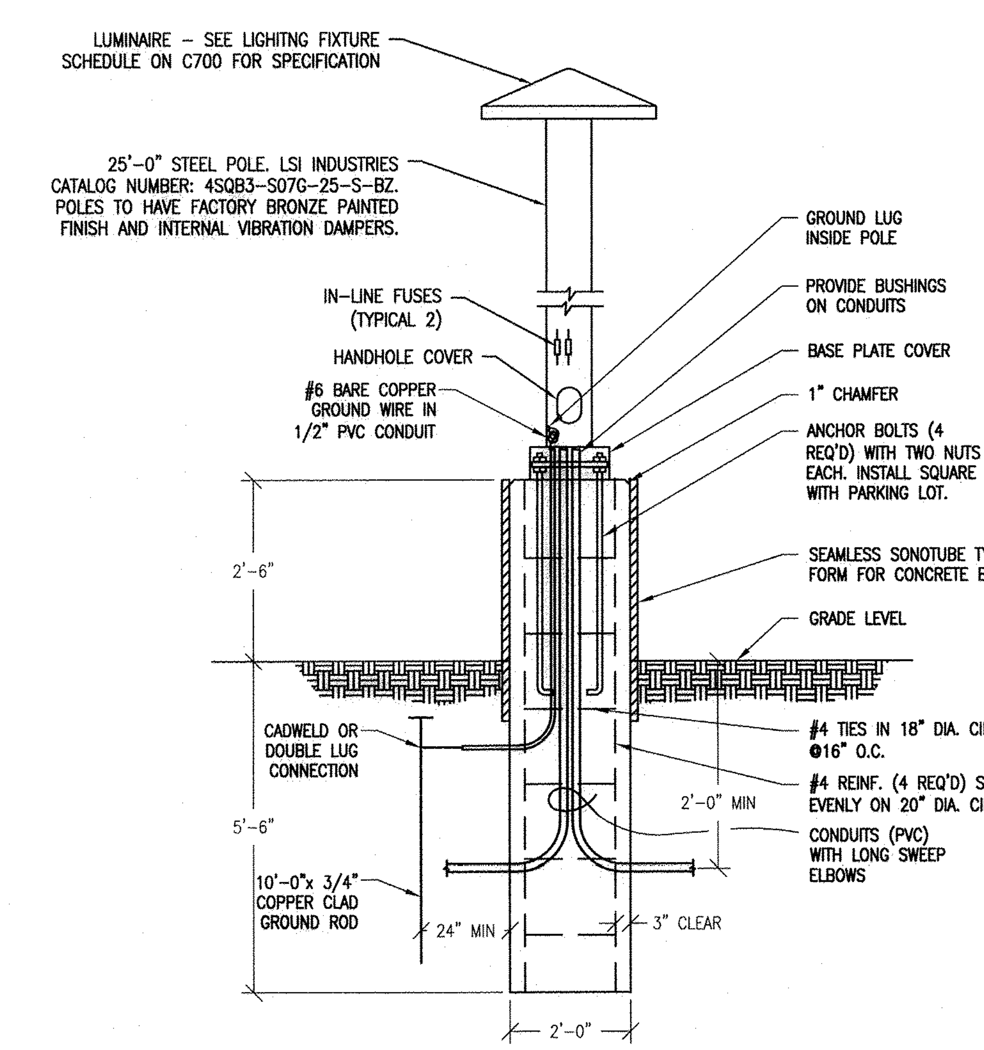
FOOTNOTES:
1- For wireless controls information and accessories, see Controls section.
2- Requires a SiteManager and override switch. Not compatible with BLS or IMS option.
3- Not compatible with IMS or BLS option.
4- Not compatible with wireless controls system, DIM or IMS option.
5- Not compatible with wireless controls system, DIM or BLS option.
6- Photocell must be ordered separately. See Accessories.
7- House Side Shields add to fixture EPA. Consult factory.
8- Factory installed PCR option required. See Options.
9- Fusing must be located in the hand hole of pole.
10- To be used in conjunction with any of the PCM/GCM wireless controls systems in fixture. Consult factory.

DIMENSIONS (shown with PCM/GCM controls)



XAMU HSS - House Side Shield





2/C701 **25' LIGHT POLE DETAIL**

BENCHMARK:

THE BASIS OF ELEVATIONS HEREON IS NAVD 88.
IRON ROD SET – SEE THE VICINITY MAP FOR LOCATION

ELEVATION = 370.68' (371.51' NGVD29)

North Carolina 811 www.nc811.org

MORRISVILLE PROJECT # : 17-11000001 **FILE # : 17-0001-S/C**

Town of Morrisville
APPROVED FOR CONSTRUCTION

Signature: [signature] Date: 5/31/18
Town of Morrisville, Town Engineer

Date/Initials
Engineering: 5/31/18 RLP
Planning: MJS 2/16/18
Other (specify): 5/31/18 JBB (SW)

Signature: [signature] Date: 5/23/18
Town of Cary Utilities, Water and Sewer

Engineering Inspection Services must be contacted (919) 463-6907 at a minimum 24 hours prior to the commencement of any construction activities.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023864 ANDREW ... MEYER 1/18/18

SEAL

No.	DATE	REVISION
	01/18/18	REVISED FOR FINAL APPROVAL

PROJECT No: 075356
DATE 01/24/17
DES. JG
DR. JL
CKD. TR

WOOLPERT
ARCHITECTURE | ENGINEERING | GEOSPATIAL
11301 Carmel Commons Blvd.
Suite 300
Charlotte, NC 28226
704.525.6284
FAX: 704.525.8529

SITE IMPROVEMENT PLANS WATERWALK MORRISVILLE
1012 & 1016 LOWER SHILOH WAY
MORRISVILLE, NORTH CAROLINA

LIGHTING PLAN DETAILS

SHEET NO.
C701

Layout Tab Name: C701 LIGHTING PLAN DETAILS, Xrefs: 075356-TBLK.dwg; 075356-P.dwg; 075356-X.dwg; 075356-X-DIGITIZED.dwg; Buildings.dwg
Last Saved By:ladzinski, 2/1/2018 2:06:31 PM Plotted By:Ladzinski, Jake Plotted:February 1, 2018, 2:06:52 PM
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