



STAFF REPORT

To: Snyderville Basin Planning Commission
From: Ray Milliner, County Planner
Date of Meeting: August 28, 2018
Type of Item: Code Amendment – Work Session
Process: Legislative

RECOMMENDATION: Staff recommends that the Planning Commission review the proposed language to amend Chapter 10-4-21: Lighting Regulations in the Snyderville Basin and provide direction.

Proposal

The purpose of the amendments is to bring the lighting regulations in Chapter 10-4-21 of the Development Code up to date with current best practices.

Background

Recently, staff has been directed by both the Summit County Council and the Snyderville Basin Planning Commission to draft an extensive rewrite of the Snyderville Basin Development Code Lighting Regulations. Because of changes in lighting technology, many of the base requirements in the current lighting ordinance are out of date. For example, the ordinance requires that all outdoor lighting be high pressure sodium fixtures because of their efficiency. However, recent advances in technology have created other light sources, such as LED lighting, that are just as efficient as or more efficient than the high pressure sodium fixtures mandated by the Code.

To create the language, staff consulted with representatives from the University of Utah Consortium for Dark Sky Studies, Springdale City, Torrey City and Ketchum City. Each of these resources provided guidance for the creation of the ordinance.

Staff has attached a draft lighting ordinance to this staff report for Commission review. Staff is requesting that the Commission review the document and provide direction. Prior to any recommendation to the County Council, staff will prepare definitions and refine/format the language.

Items for Discussion

Staff is requesting that the Planning Commission review the attached language and provide direction on the following issues.

1. Staff has included a list of appropriate types of lighting fixtures. Due to the changing nature of technology should this language be eliminated or modified?
2. Staff has proposed replacing “foot candle” requirements with color temperature and lumen requirements. Requirements are based on recommendations from other jurisdictions and night sky advocates. Are the requirements too restrictive? Not restrictive enough?
3. Requirements proposed for parking lot lighting limit the height of poles to 16 feet. Recommendations from other regulators state that fewer poles at a higher height (max 25 feet) are environmentally appropriate because it allows fewer poles using less electricity.

Recommendation

Staff recommends that the Planning Commission review the proposed language to amend Chapter 10-4-21: Lighting Regulations in the Snyderville Basin and provide direction.

Exhibits

- | | |
|------------|-------------------|
| Exhibit A. | Proposed Language |
| Exhibit B. | Photos, Examples |

10-4 -21: LIGHTING REGULATIONS:

A. Purpose

The purpose of this Section is to:

1. Balance the environmental and sustainability goals set forth in the Snyderville Basin General Plan with the need to provide safe lighting practices.
2. To minimize light pollution for the enjoyment of Summit County's citizens and visitors.
3. To prevent the degradation of the nighttime visual environment by production of unsightly and dangerous glare;
4. To create lighting practices that promote the health and safety of Summit County's citizens and visitors;
5. To prevent unnecessary waste of energy and resources in the production of excessive light or wasted light;
6. To prevent interference in the use or enjoyment of property which is not intended to be illuminated at night and the loss of the scenic view of the night sky due to increased urban sky-glow.

B. Applicability

All exterior outdoor lighting installed after the effective date of this chapter in all zones in Summit County shall conform to the requirements established by this chapter.

1. This chapter does not apply to indoor lighting.
2. All existing outdoor lighting that does not meet the requirements of this chapter and is not exempted by this chapter shall be considered a nonconforming use and as such shall be regulated as outlined in section 10-8-1 of this chapter.
3. Should this chapter be found to be in conflict with other sections of this code, the more restrictive shall apply.

C. Application and Review Procedures

1. Lighting Plans Required: All development permit applications or submittals that propose street lighting or other outdoor lights shall include a lighting plan that shows evidence that the proposed lighting fixtures and light sources shall comply with this Code and shall include the following:
 - a. Plans or drawings indicating the proposed location of lighting fixtures, height of lighting fixtures on the premises, and type of illumination devices, lamps, supports, shielding and reflectors used and installation and electrical details.
 - b. Illustrations, including but not limited to a manufacturer's catalog cuts, of all proposed lighting fixtures. For commercial, resort and industrial uses, photometric diagrams of

proposed lighting fixtures are also required. In the event photometric diagrams are not available, the applicant must provide sufficient information regarding the light fixture, bulb wattage, and shielding mechanisms for the Planning Commission or Community Development Director to be able to determine compliance with the provisions of this chapter.

- c. A table showing the total amount of proposed exterior lights, by fixture type, wattage, lumens, and lamp type.

C. Full Cutoff Fixture Requirements:

1. Unless specifically exempted by this chapter, all outdoor lighting shall use full cutoff fixtures and shall be installed so light is directed downward with no light emitted above the horizontal plane of the fixture.
2. Lighting must not be placed at a location, angle, or height that directs illumination or horizontal trespass outside the property boundaries where the light fixtures are located.
3. In order to qualify as a "full cutoff" fixture, a light fixture must have the top and sides made of completely opaque material so that light only escapes through the bottom of the fixture. Fixtures with translucent or transparent sides, or sides with perforations or slits, do not qualify as full cutoff. Any glass or diffuser on the bottom of the fixture must be flush with the fixture (no drop lenses). Merely placing a light fixture under an eave, canopy, patio cover, or other similar cover does not qualify as full cutoff.

D. General Conditions and Standards

1. Outdoor lighting should be the minimum necessary to provide for safety and functionality. The lowest wattage light source necessary for a lighting application should be used.
2. Due to their high energy efficiency, long life and spectral characteristics, compact florescent, high-pressure sodium and PC-amber LED, or low-pressure sodium and AlInGaP "narrow-band" amber LED lamps are the sources that are allowed throughout the Snyderville Basin for all Roadway, pathway, area and building facade illumination.
3. Timers and motion sensor devices shall be used wherever practical to minimize light pollution within the Snyderville Basin unless expressly permitted by the Planning Commission based on a demonstrated public safety need.
4. Metal halide lamps may be used only in Sport facility lighting provided it meets the limitations herein.

E. Alternative Sources and Fixtures:

In certain cases, due to technological advancements or other circumstances, alternative lighting sources or fixtures may be proposed that are not expressly allowed in this Section. Alternatives will

be considered by the Community Development Director if the alternative lighting source or material:

- a. Is consistent with and complies with the purposes outlined in this Section.
- b. Complies with all other applicable requirements in this Section.

F. Exemptions.

The following types of lighting installations shall be exempt from the provisions, requirements and review standards of this Section, including those requirements pertaining to Zoning Officer review.

1. Holiday lighting. Winter holiday lighting which is temporary in nature and which is illuminated only between and including November 15 and March 1 shall be exempt from the provisions of this Section, provided that such lighting does not create dangerous glare on adjacent streets or properties, is maintained in an attractive condition and does not constitute a fire hazard.
2. Traffic control signals and devices.
3. Temporary emergency lighting in use by law enforcement or government agencies or at their direction.
4. The lighting of federal or state flags, provided that the light is a narrow beam aimed and shielded to illuminate only the flag. Flag lighting should use appropriate illumination levels to light flag, while at the same time fulfilling the purposes of this chapter.
5. Low voltage LED lights and solar lights used to illuminate pathways in residential areas, provided the lights are installed no more than eighteen inches (18") above the adjacent ground level.

G. Prohibited Lighting

The following are prohibited:

1. Floodlights or spotlights affixed to buildings for the purpose of lighting parking lots or sales display lot areas.
2. Architectural/landscape lighting intended to accent or draw attention to architectural features of a building or landscape elements on the property.
3. Search lights, laser source lights or any similar high intensity lighting is prohibited except in emergencies by police and fire personnel or at their direction.
4. Uplighting to illuminate buildings and other structures.
5. Flashing, blinking, intermittent or other lights that move or give the impression of movement.
6. Neon or luminous tube lighting except as permitted in Section 10-8-2 of this Code.

H. Color Temperature

The maximum correlated color temperature for Outdoor Light Fixtures is as follows (Color temperature is a way to describe the light appearance provided by a light fixture. It is measured in degrees of kelvin on a scale from 1,000 to 10,000):

- a) All lighting shall make use of lamps whose correlated color temperature does not exceed 3,000 Kelvins.
- b) The correlated color temperature of lighting may exceed 3,000 Kelvins in situations where the Community Development Director determines that accurate color rendition is crucial to public safety or the activities of law enforcement. In no case shall the correlated color temperature of such critical lighting exceed 5,000 Kelvins

I. Lumens per Fixture

The maximum lumens allowed for Outdoor Light Fixtures are as follows (The acceptability of a particular light is decided by its Lumen output, not wattage; check manufacturer's specifications):

- a) For single-family residential Uses, fixtures up to 2,000 Lumens output per lamp.
- b) For Commercial, Industrial, Resort and Multi-Family Uses, fixtures up to 2,500 lumens output per lamp.

Total Outdoor Light Output: Total Outdoor Light Output, excluding streetlights used to illuminate public Rights-of-Way, shall not exceed the following limits averaged over the entire project (values listed are total initial lamp Lumens per Acre and per residence):

- a) For single-family dwellings and duplexes the maximum outdoor light output shall not exceed 20,000 lumens per residence.
- b) For Commercial, industrial and multi-family Uses the maximum outdoor light output shall not exceed 100,000 lumens per acre.

Mounting Height: Total Outdoor Light Output shall not exceed the following limits when mounted at the heights prescribed below:

Mounting Height (Feet)	Maximum Lumens Allowed
6	1,000
8	1,600
10	2,000
12 or above	2,500

J. Specific Requirements for Lighting Applications and Fixtures:

These fixtures shall be located an appropriate distance from property boundary in order to ensure light does not trespass onto adjacent properties. The Applicant shall demonstrate appropriate placement on the required lighting plan,

1. Wall Mounted Area Lighting:

- a. All wall mounted or building mounted fixtures shall not exceed twelve feet (12') above Finished Grade, measured directly below the light fixture. In cases where there is second Story access directly from the outdoors, a single fixture may be placed above or adjacent to the access.

2. Parking Lot Lighting:

- a. Pole top mounted fixtures shall not be mounted more than sixteen feet (16') above Finished Grade, as measured to the top of the fixture or a horizontal plane being lit by the fixture. **More fixtures mounted at lower Heights are preferred to fewer fixtures mounted high in the air.**
- b. All pole top mounted parking lot lights shall be set back from property lines a distance equal to two and one-half (2 1/2) times the height of the pole.
- c. Pole mounted fixtures shall be limited to two light sources per pole.

3. Walkway/Pathway Lighting:

- a. All pathway pole top symmetric distribution fixtures shall not be mounted more than ten feet (10') above Finished Grade directly below the fixture, as measured to the top of the fixture.
- b. The fixture shall be a type III distribution pattern.

4. Roadway Lighting:

- a. Streetlights are prohibited unless required by the Summit County Public Works Director or required by UDOT to ensure the safety of the public. All streetlights shall utilize lamp types that are energy efficient and minimize sky glow and other unintended impacts of artificial lighting and feature the lowest illumination design that meets the minimum illumination requirements set by UDOT shall be used.

5. Gas Station Canopies:

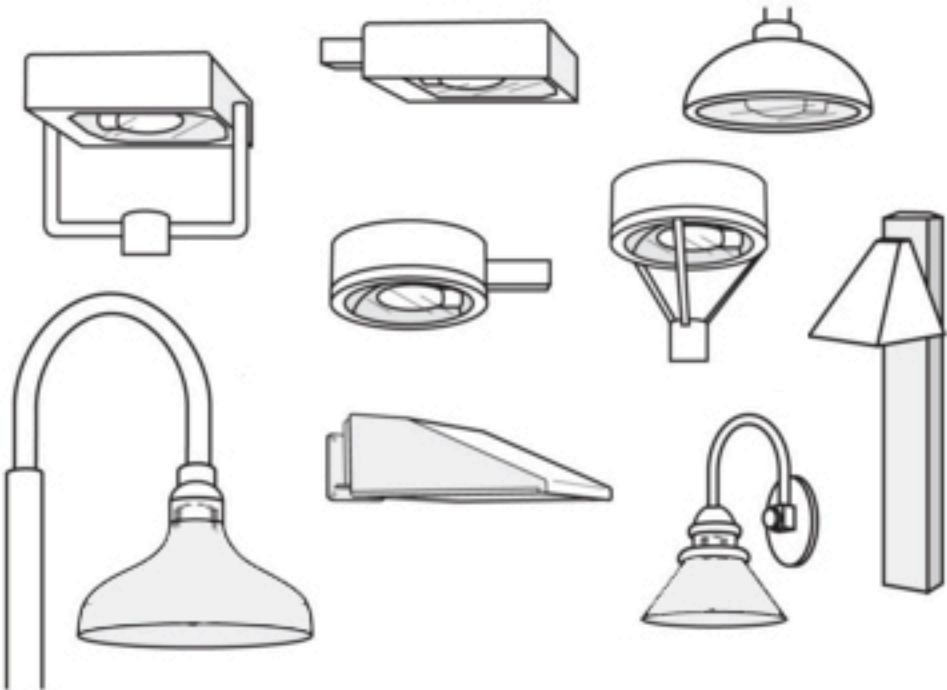
- a. Lighting levels on gasoline station canopies shall be adequate to facilitate the activities taking place in such locations, but shall not be used to attract attention to the business.
- b. Gas station canopies may be illuminated provided all light fixtures are mounted on the undersurface of the canopy and all light fixtures are full cutoff. Light fixtures mounted on canopies shall be recessed so that the lens cover is recessed or flush with the bottom surface of the canopy and/or shielded by the fixture or the edge of the canopy.

6. Soffit Lighting:

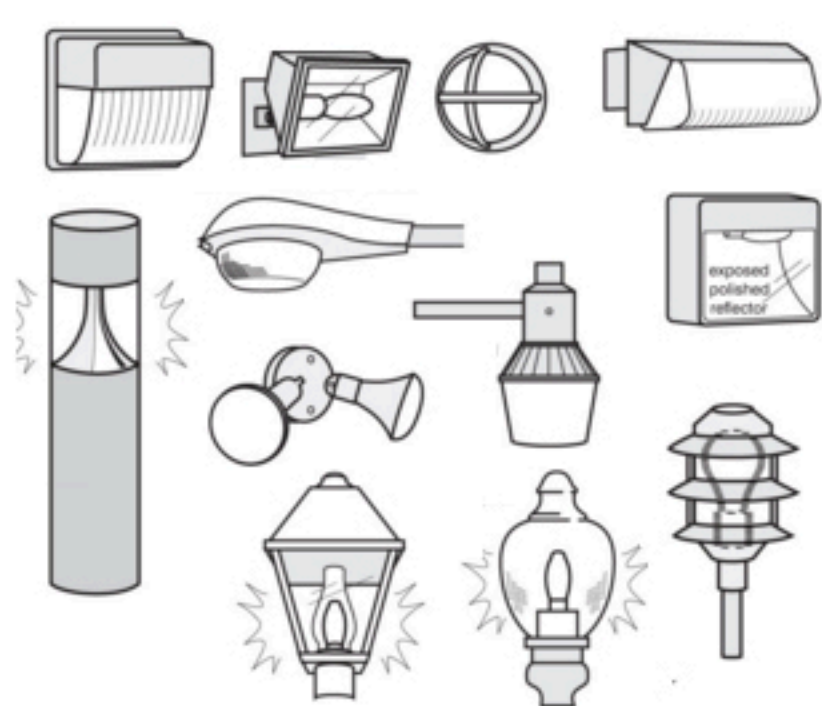
- a. For single-family dwellings and duplexes if lighting an area with fixtures mounted in the soffit of a building, the fixture cannot be mounted above twelve feet (12'), as measured from the fixture to Finished Grade.
- b. For Commercial, industrial and multi-family Uses If lighting an area with fixtures mounted in the soffit of a building, the fixture cannot be mounted above twenty feet (20'), as measured from the fixture to Finished Grade.

7. Sports Lighting Applications:

- a. Sports lighting fixtures should not be mounted above seventy feet (70'), as measured from the top of the fixture to the adjacent grade or the horizontal plane being lit by the fixture.
- b. The fixture should house a lamp that should not exceed one thousand five hundred (1,500) watts.
- c. Lighting for sports fields should be shut off no later than eleven o'clock (11:00) P.M.
- d. Specific Application of sport lighting may be modified by the Community Development Director.



Full Cut Off Fixtures



Non-Full Cut Off Fixtures



REV 07.31.18

ORIGINAL™/SKY CHIEF SERIES

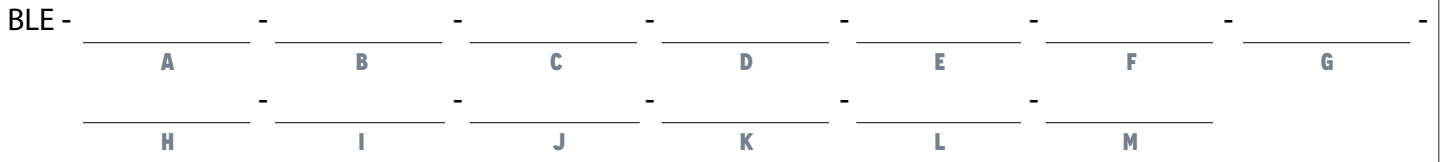
BARN LIGHT RLM FIXTURE FAMILY

Max Weight: 10.0 lbs

PROJECT NAME _____

PROJECT TYPE _____

SPS-0111



Order Example: BLE - G - WHS - 600 - G11 - 980 - NA - CGG - 975 - CCR - HDBP - E26 - NA - NA

A - MOUNTING STYLE

Table with 2 columns: Code (C, CN, F, G, S) and Description (Cord Hung, Chain Hung, Flush Mount, Gooseneck, Stem Mount)

B - SHADE SIZE

Table with 2 columns: Code (WHS12, WHS14, WHS16, WHS18') and Description (WHS20', WHS24', WHS28')

C - SHADE FINISH

Table with 2 columns: Code (100, 105, 200, 300, 307, 311, 370, 380, 390, 400, 420, 470, 480, 490, 500, 570, 600, 601, 605, 615, 700, 705, 710, 715, 800, 805, 810, 975) and Description (Black, Textured Black, White, Dark Green, Emerald Green, Jadite, Mint, Chartreuse, Teal, Barn Red, Orange, Watermelon, Blush Pink, Magenta, Buttery Yellow, Sunflower, Bronze, Chocolate, Rust, Oil-Rubbed Bronze, Royal Blue, Navy, Cobalt Blue, Delphite Blue, Industrial Grey, Charcoal Granite, Graphite, Galvanized)

Table with 2 columns: Code (150, 250, 350, 355, 455, 550, 650, 750) and Description (Black, White, Vintage Green, Jadite, Cherry Red, Yellow, Bronze, Cobalt Blue)

C - SHADE FINISH (CONTINUED)

Table with 2 columns: Code (765, 850, 950, 995, 996, 997, 998, 999) and Description (Delphite Blue, Graphite, Metallic Chrome, Raw Copper, Weathered Copper, Raw Brass, Weathered Brass, Oil-Rubbed Copper)

D - MOUNTING

Table with 2 columns: Code (SBK, SWH, CSB, CSW, CSR, CSBB, CSRW, CSGW, CSBG, CSBW, CSBP, CSUW) and Description (Standard Black, Standard White, Black Cloth, White Cloth, Red Cloth, Black & Brown Cloth, Red & White Cloth, Gold & White Cloth, Black & Gold Cloth, Black & White Cloth, Black & Pink Cloth, Blue & White Cloth)

Table with 2 columns: Code (CBK, CMG, CRZ, TBK, TWH, TBR, TRD, TPT, TBW, TRW, TBB) and Description (Black Cotton, Grey Cotton, Red Chevron, Black Cotton Twist5, White Cotton Twist5, Brown Cotton Twist5, Red Cotton Twist5, Putty Cotton Twist5, Black & White Twist5, Red & White Twist5, Brown & Beige Twist5)

Table with 2 columns: Code (CN36, CN48, CN60, CN72) and Description (3' of Chain1, 4' of Chain1, 5' of Chain1, 6' of Chain1)

Table with 2 columns: Code (FM1, G1', G2', G3', G4, G16', G17, G19', G22) and Description (Flush Mount Options, Gooseneck Options)

D - MOUNTING (CONTINUED)

Table with 2 columns: Code (G5', G6, G7, G8, G9, G10, G11', G12', G13, G14, G15) and Description (Gooseneck Options)

Table with 2 columns: Code (ST506, ST512, ST518, ST524, ST536, ST548, ST706, ST712, ST718, ST724, ST736, ST748) and Description (Stem Mount Options)

E - MOUNTING FINISH

Table with 2 columns: Code (980) and Description (Brushed Aluminum)

F - CORDS¹⁰

Table with 2 columns: Code (NA) and Description (Not Applicable)

G - SHADE ACCESSORIES

Table with 2 columns: Code (NA, WC, TGG, CGG, WGG) and Description (None, Wire Cage, Heavy Duty Guard, Cast Guard, Wire Guard)

H - SHADE ACCESSORY FINISH

Table with 2 columns: Code (NA) and Description (Not Applicable)

I - GLASS OPTION

Table with 2 columns: Code (NA, CLR, FST, RIB, CCR, SMK, HCR) and Description (None/Not Applicable, Clear Glass, Frosted Glass, Ribbed Glass, Clear Crackle Glass, Smoke Crackle Glass, Honey Crackle Glass)

J - MOUNTING ACCESSORY

Table with 2 columns: Code (NA, HSC, HDPMC, HDBP, DD, DBPC, LDBPC, DCHX, LDCHX) and Description (None/Not Applicable, Hang Straight Canopy, Heavy Duty Stem Mount Canopy, Heavy Duty Backing Plate, Dusk-to-Dawn Photocell, Decorative Backing Plate Cover, LED Decorative Backing Plate Cover, Decorative Backing Plate Cover & Hex Cover, LED Decorative Backing Plate Cover & Hex Cover)

K - LIGHT SOURCE

Table with 2 columns: Code (E26, GU24, LED11, LED16, LED16.8, LED27, LED38, LED43) and Description (200 Watt Max6, 24 Bi-Pin, 23W Max6, 850 Lumen, 11W LED7, 1250 Lumen, 16W LED7, 1600 Lumen, 16W LED6, 2000 Lumen, 27W LED7, 3000 Lumen, 38W LED7, 4000 Lumen, 43W LED7)

L - COLOR TEMPERATURE⁸

Table with 2 columns: Code (NA, 2700K, 3000K, 3500K, 4000K) and Description (None/Not Applicable, 2700K, Warm White, 3000K, Neutral White, 3500K, Bright White, 4000K, Cool White)

M - LED LENS^{8,14}

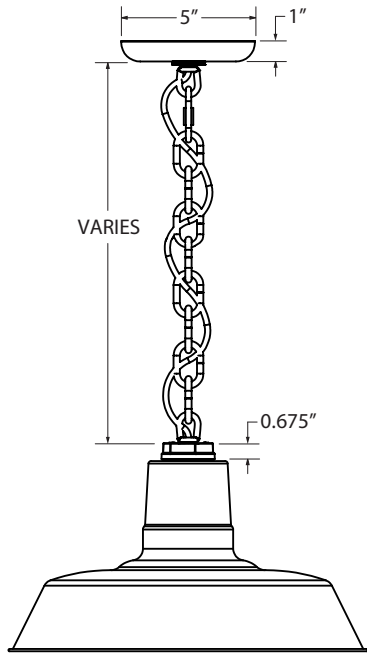
Table with 2 columns: Code (NA, DL, FL) and Description (None/Not Applicable, Domed Lens, Flat Lens)

IMPORTANT: (1) Not available in Natural Finishes (2) Not available in Porcelain Enamel (3) All Powder Coat finished shades, Galvanized excluded, feature a white interior (4) All Porcelain Enamel finished shades feature a white interior and a black outer rim (5) Not available in LED (6) Guard and Glass accessory reduces incandescent wattage to 100W Max, GU24 Bi-Pin to 18W Max and LED Max to 1600 Lumens (7) Not available with the Guard & Glass Accessory (8) Only applicable if an LED Light Source is selected in Section K, select NA if another light source is selected (9) Wire Cage not available with select size (10) Only applicable if Chain Hung Mounting Style selected in Section A, select NA if another Mounting Style is selected (11) Natural Finishes have a longer estimated manufacturing time, please check the website for exact lead time. There are no returns accepted on Natural Finishes (12) Not recommended if LED Light Source is selected in Section K (13) Only available if Natural Finish is selected in Section C (14) Not applicable if LED16.8 Light Source selected in Section K (15) Only applicable if Stem Mounting Style is selected in Section A

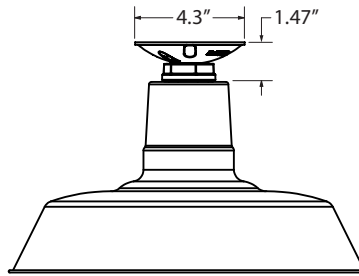
MOUNTING STYLE

Galvanized steel shades are crafted from 20 Ga Sheet metal while 1100-0 Aluminum—ranging from ranging from 0.050" to 0.125"—is used for all other shades. All shades have their edges rolled, and the result is highly durable and stylish lighting.

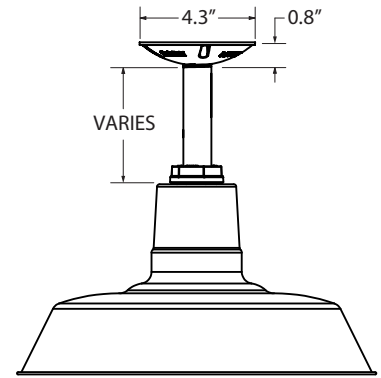
CHAIN HUNG PENDANT (CN)



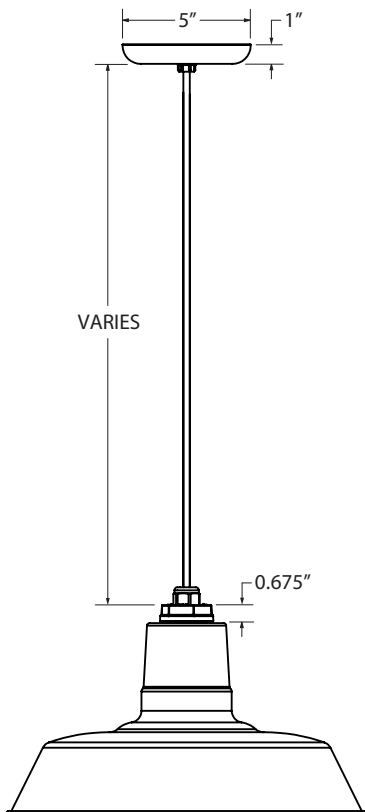
FLUSH MOUNT (F)



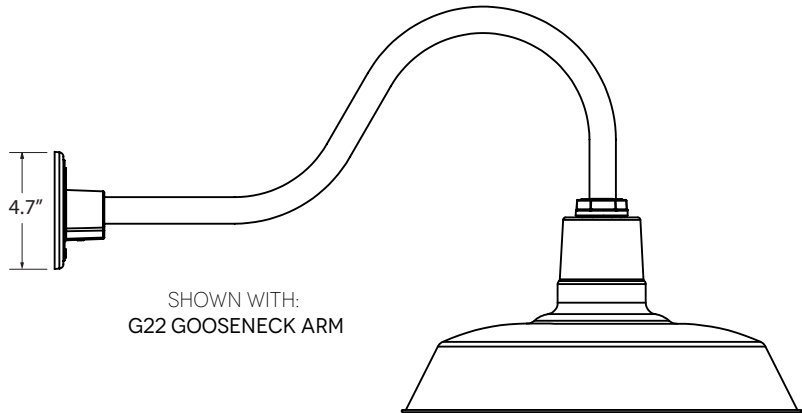
STEM MOUNT PENDANT (S)



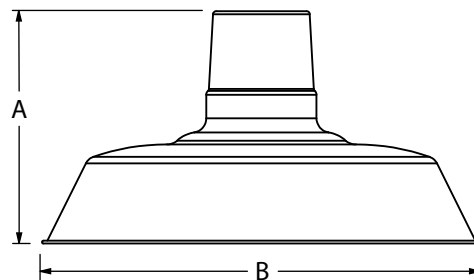
CORD HUNG PENDANT (C)



GOOSENECK (G)



AVAILABLE SHADE SIZES



SHADE CODE	HEIGHT (A)	DIAMETER (B)
WHS12	7"	12"
WHS14	7.5"	14"
WHS16	7.75"	16"
WHS18	8.5"	18"
WHS20	9.25"	20"
WHS24	10.75"	24"
WHS28	11"	28"

LIGHT SOURCE

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. To obtain an IES file specific to your project, please contact the factory.

OPTION	WATTAGE	LUMENS <small>*Avg. value, actual value dependent on bulb used</small>	CRI	VOLTAGE	DIMMING
LEDS					
LED11	11W	850	>90	120 VAC	TRIAC
LED16	16W	1250	>90	120 VAC	TRIAC
LED16.8	16W	1600	>90	120 VAC	TRIAC
LED27	27W	2000	>90	120-277 VAC	0-10V
LED38	38W	3000	>90	120-277 VAC	0-10V
LED43	43W	4000	>90	120-277 VAC	0-10V
INCANDESCENT (MED E26)					
E26	200W Max	*3000	*100	120 VAC	Bulb Dependant
COMPACT FLOURESCENT (GU24 CFL)					
GU24	23W Max	*1600	*75	120 VAC	Bulb Dependant

SPECIFICATIONS

MOUNTING

STEM
1/2" Nominal (0.84" Actual) or 3/4" Nominal (1.05" Actual) Sch 40, 6063 Aluminum Mounting Stem. Custom Lengths Available upon Request.

GOOSENECK
1/2" Nominal (0.84" Actual) or 3/4" Nominal (1.05" Actual) Sch 40, 6063 Aluminum Gooseneck

LED SPECIFICATIONS

LUMEN MAINTENANCE
L90(6K) > 36,300 Hours, LED16.8 Source is L90(11K) > 61,000 Hours.

COLOR TEMPERATURES
Standard color temperatures available include 2700K, 3000K, 3500K and 4000K. Custom temperatures available upon request.

CRI
Minimum 90 CRI. Consult factory for other CRI options.

EFFICACY
Up to 100 LPW based on wattage/lumens in the table.

DRIVER & DIMMING OPTION
850 and 1250 Lumen, reliant on Triac Dimming 12W / 120V mounted in canopy, up to 5% dimming.
2000, 3000 & 4000 Lumen reliant on 0-10V dimmer, generally up to 10% dimming.
Requires compatible dimming switch.

SHADE & FINISHES

ORIGINAL™ SHADE
Hand-Spun from High Purity 0.050" Thick 3003-O Temper Aluminum

SKY CHIEF PORCELAIN SHADE
Hand-Spun from 20 Guage Sheet Metal

POWDER COAT FINISHES
Polyester Powder Coat Finishes Are Electro-Statically Applied and Thermocured

PORCELAIN FINISHES
Applied by Hand and Fired in a High Temperature Oven

CERTIFICATIONS, LISTINGS & WARRANTY

MADE IN THE USA
Manufactured and Hand-Crafted in Our 60,000 Square Foot Facility Located in Titusville, FL

CSA LISTED FOR WET LOCATIONS
CSA Listed for Damp Locations Only If Plug-In Option Selected

LIMITED WARRANTY
For Additional Information on Our Limited Warranty, Please See Our Terms & Conditions