

**SA POLE BASE DETAIL**  
N.T.S.

**LIGHT FIXTURE SCHEDULE**

ICE	FIXT LTR	MANUFACTURER	CATALOG NUMBER	LAMPS		FIXT. VOLT.	FINISH	MOUNTING	REMARKS
				NO.	TYPE				
	SA	PEMCO	CORD-11-LG3-175PSMH-MT-BK PLA-181-MOD-BK ARM, 6320-RTS/11-BK-ZCPL-GFI/PLB9000 POLE	1	175W PSMH	UNV	BLACK	15' POLE	NO SUBSTITUTES

**LIGHT FIXTURE SCHEDULE NOTES**

GENERAL NOTES:

- GENERAL CONTRACTOR SHALL PROVIDE FIREPROOFING AROUND RECESSED FIXTURES INSTALLED IN FIRE RATED CEILING PER U.L. REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL COORDINATE.
- SEE SPECIFICATIONS FOR LAMP AND BALLAST TYPE. VERIFY LAMP COLOR WITH ARCHITECT PRIOR TO ORDERING.
- PROVIDE ARROWS AND FACES AS INDICATED BY THE DRAWINGS.
- MANUFACTURERS LISTED IN THIS SCHEDULE OR BY WRITTEN ADDENDUM WILL BE THE ONLY APPROVED MANUFACTURERS TO BID THE LIGHTING FIXTURES FOR THIS PROJECT. CONTRACTORS AND SUPPLIERS USING PRICING FROM MANUFACTURERS NOT LISTED ON SCHEDULE OR BY ADDENDUM DO SO AT THEIR OWN RISK.
- FIXTURES BY WILLIAMS EQUAL TO THOSE SPECIFIED AND APPROVED BY THE ENGINEER WILL BE ACCEPTABLE. FIXTURE EQUALS SHALL BE MANUFACTURED THE SAME AS SPECIFIED UNITS, I.E., ENCLOSED SPRING LOADED LATCHES, ALUMINUM DOORS, POST PAINTED FINISH.

LIGHT FIXTURE SCHEDULE NOTES:

XXXXXXXXXXXXXXXXXXXX

**SYMBOL LIST**

SYMBOL	DESCRIPTION	MOUNTING
(A)	FLUORESCENT FIXTURE & FIXTURE LETTER	CEILING
(A)	FLUORESCENT FIXTURE & FIXTURE LETTER	CEILING
(A)	INCAND. OR H.I.D. FIXTURE & FIXT. LETTER	SURF./RECESSED
(A)	INCAND. OR H.I.D. FIXTURE & FIXT. LETTER	WALLBRACKET
(A)	EXIT FIXT. - SHADING DENOTES FACE(S)	CEIL./WALL
(A)	GFCI DUPLEX GROUNDED RECEPTACLE	1'-3" AFF
(A)	DUPLEX GROUNDED RECEPTACLE	1'-3" AFF
(A)	EXTERIOR GFCI RECEPT. WEATHERPROOF	1'-3" AFF
(A)	SPECIAL OUTLET, SEE SCHEDULE OR AS NOTED	
(A)	OCCUPANCY SENSOR, SEE SCHEDULE OR AS NOTED	
(A)	TELEPHONE OUTLET (P=PAY, 44)(W= 44")	1'-3" AFF
(A)	SWITCHES (1-POLE,3-WAY,4-WAY,PILOT,KEY)	4'-0" TO TOP
(A)	JUNCTION BOX	
(A)	FUSTAT	
(A)	SPECIAL DEVICE AS NOTED ON PLAN	
(A)	BRANCH CIRCUIT PANEL & PANEL DESIG.	6'-6" TO TOP
(A)	H.D. SAFETY SWITCH (AMPS, POLE, VOLTAGE)	6'-6" TO TOP
(A)	STARTER (SIZE, POLE, VOLTAGE)	6'-6" TO TOP
(A)	PLAN NOTE	
(A)	MOTOR	
(A)	CONDUIT RUN 2#12 & 1#12 GRD.-1/2"C.	CEIL./WALL
(A)	CONDUIT RUN 2 CIRCUIT, #12 & 1#12 GRD.-1/2"C.	EARTH/FLOOR
(A)	PARTIAL HOMERUN (MULTIPLE LOAD LOCATIONS)	
(A)	SEE NOTE #7	
(A)	CIRCUIT SUPPLIED FROM EMERGENCY SYSTEM	
(A)	FEEEDER IDENTIFICATION, SEE SCHEDULE	
(A)	CT	SEE NOTE #8
(A)	WP	WEATHERPROOF
(A)	EM	ITEM SUPPLIED FROM EMERGENCY SYSTEM
(A)	a,b,c	INDICATES SWITCHING SCHEME
(A)	(A)	DOUBLE DUPLEX RECEPTACLE
(A)	(A)	PHONE/DATA OUTLET
(A)	(A)	DATA OUTLET
(A)	(A)	CATV OUTLET

**CU FEEDER SCHEDULE**

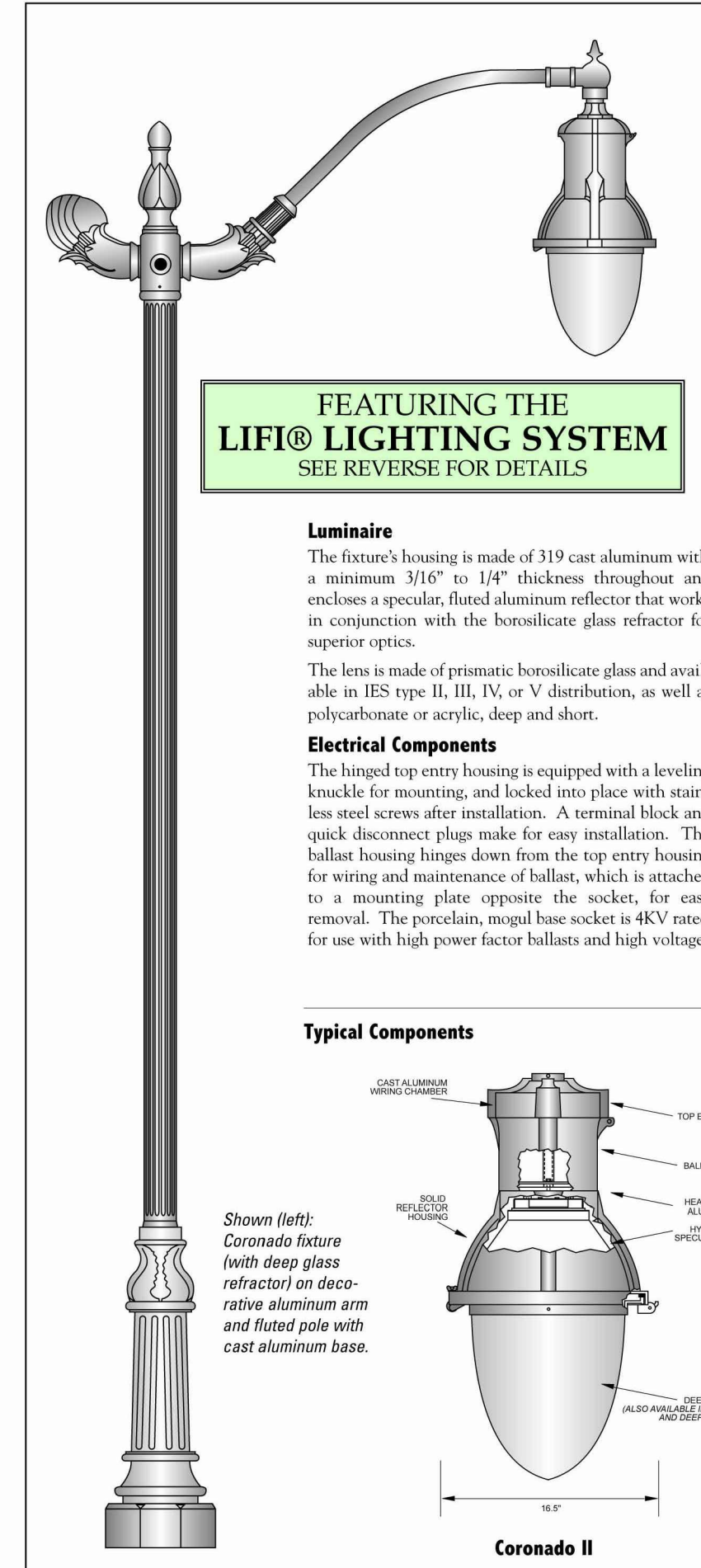
ICE	FEEDER IDENT.	CONDUCTORS			GROUND SIZE PER SET	ISOLATED GRD. SIZE PER SET	CONDUIT SIZE PER SET
		SETS	QUANT. PER SET	SIZE			
	20.X	1	SEE NOTE 'b'	#12	#12	---	1/2"
	30.X	1	SEE NOTE 'b'	#10	#10	---	1/2"
	40.X	1	SEE NOTE 'b'	#8	#10	---	3/4"
	50.X	1	SEE NOTE 'b'	#6	#10	---	1"
	60.X	1	SEE NOTE 'b'	#4	#8	---	1 1/4"
	70.X	1	SEE NOTE 'b'	#4	#8	---	1 1/4"
	80.X	1	SEE NOTE 'b'	#3	#8	---	1 1/4"
	90.X	1	SEE NOTE 'b'	#2	#6	---	1 1/4"
	100.X	1	SEE NOTE 'b'	#1	#6	---	1 1/2"
	150.X	1	SEE NOTE 'b'	#1/0	#6	---	2"
	200.X	1	SEE NOTE 'b'	#3/0	#6	---	2"
	225.X	1	SEE NOTE 'b'	#4/0	#4	---	2-1/2"
	250.X	1	SEE NOTE 'b'	#250 KCMIL	#4	---	2-1/2"
	300.X	1	SEE NOTE 'b'	#350 KCMIL	#4	---	3"
	400.X	1	SEE NOTE 'b'	#500 KCMIL	#3	---	3-1/2"
	450.X	2	SEE NOTE 'b'	#4/0	#2	---	2-1/2"
	500.X	2	SEE NOTE 'b'	#250 KCMIL	#2	---	2-1/2"
	600.X	2	SEE NOTE 'b'	#350 KCMIL	#1	---	3"
	800.X	2	SEE NOTE 'b'	#500 KCMIL	#1/0	---	3-1/2"
	1200.X	4	SEE NOTE 'b'	#350 KCMIL	#3/0	---	3"
	1600.X	5	SEE NOTE 'b'	#400 KCMIL	#4/0	---	3-1/2"

FEEDER SCHEDULE NOTES:

- THIS PROJECT MAY NOT REQUIRE ALL FEEDER TYPES LISTED IN THIS SCHEDULE.
- THE NUMBER OF CONDUCTORS WILL BE BASED ON THE FOLLOWING NOTATION AT THE END OF EACH FEEDER TAG.  
EXAMPLE: XXXX.S INDICATES THE SERVICE FEEDER SIZE, NO GROUND SHALL BE REQUIRED FOR SERVICE FEEDERS.  
XXXX.2 INDICATES (2) HOT CONDUCTORS (OR 1 HOT + 1 NEUTRAL) FOR SINGLE PHASE CONNECTIONS  
XXXX.3 INDICATES (3) HOT CONDUCTORS FOR THREE PHASE CONNECTIONS  
XXXX.4 INDICATES (3) HOT CONDUCTORS & (1) NEUTRAL CONDUCTOR, FOR THREE PHASE CONNECTIONS

**GENERAL NOTES**

- VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.
- REFER TO RELATED ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS FOR RELATED INFORMATION.
- REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
- COORDINATE OUTLET BOX LOCATIONS WITH MASONRY TO MINIMIZE CUTTING OF BRICK OR BLOCK.
- ALL MOUNTING HEIGHTS TO BOTTOM OF ITEM UNLESS OTHERWISE NOTED.
- E.C. SHALL REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTION OF INTERLOCKING AND CONTROLS OF MECHANICAL UNITS AND THERMOSTAT LOCATIONS.
- CONDUIT RUN W/CONDUCTORS AS INDICATED, CONDUIT SIZE AS REQUIRED. CONDUIT RUN TO PANEL DEVICE SIZE AS INDICATED (AMP/ POLE). CIRCUIT WITHOUT INDICATION IS ROUTED TO 20A, 1P, BREAKER.
- "CT" INDICATED ADJACENT TO DEVICE INDICATES DEVICE IS MOUNTED ABOVE BACKSPLASH OF COUNTER TOP. VERIFY EXACT HEIGHT WITH ARCHITECTURAL PLANS AND ELEVATIONS.
- A GROUND CONDUCTOR SIZED PER N. E. C. ARTICLE 250 IS REQUIRED IN ALL POWER, RECEPTACLE, AND LIGHTING CIRCUITS. GROUND CONDUCTORS ARE NOT SHOWN ON DRAWINGS.
- WHERE AREA SMOKE DETECTORS ARE SHOWN ON THE DRAWINGS ELECTRICAL CONTRACTOR SHALL NOT LOCATE SMOKE DETECTORS CLOSER THAN 4 FEET FROM ANY MECHANICAL AIR SUPPLY OR RETURN DIFFUSER, GRILLE, OR REGISTER PER NFPA. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR LOCATION OF DETECTOR.



**FEATURING THE LIFI® LIGHTING SYSTEM**  
SEE REVERSE FOR DETAILS

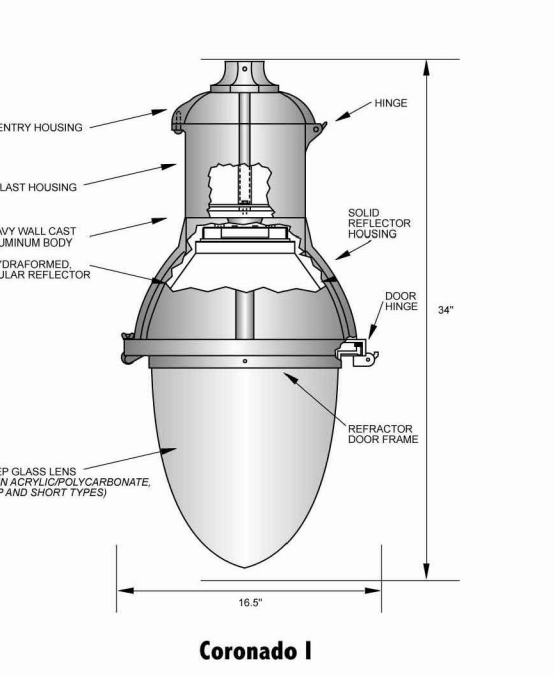
**Luminaire**  
The fixture's housing is made of 319 cast aluminum with a minimum 3/16" to 1/4" thickness throughout and encloses a specular, fluted aluminum reflector that works in conjunction with the borosilicate glass reflector for superior optics.  
The lens is made of prismatic borosilicate glass and available in IES type II, III, IV, or V distribution, as well as polycarbonate or acrylic, deep and short.

**Electrical Components**  
The hinged top entry housing is equipped with a leveling knuckle for mounting, and locked into place with stainless steel screws after installation. A terminal block and quick disconnect plugs make for easy installation. The ballast housing hangs down from the top entry housing for wiring and maintenance of ballast, which is attached to a mounting plate opposite the socket, for easy removal. The porcelain, mogul base socket is 4KV rated for use with high power factor ballasts and high voltage.

**Optical Assembly**  
The reflector housing encloses a fluted aluminum reflector that works in conjunction with the glass reflector for superior optical performance. The reflector is clamped and siliconed into the hinged door bezel that attaches to the reflector housing with a steel captive wing nut for simple and tool-less entry.

**Patent Pending**  
The use of the LIFI® system in conjunction with the reflector and glass reflectors have been optimized to yield IES type III and IV.

**Finish**  
The fixture is finished with an electro-statically applied polyester powder over a nine-stage pretreatment, cleaning, and sealing process. This is currently the best known pretreatment process for aluminum materials in terms of both corrosion resistance and paint adhesion.



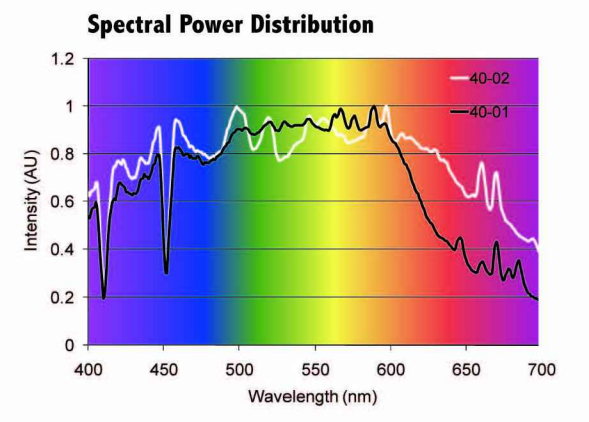
**Typical Components**

Shown (left): Coronado fixture with deep glass refractor on decorative aluminum arm and fluted pole with cast aluminum base.

**Vintage LIGHTING COLLECTION CORONADO TEAR DROP LUMINAIRE WITH LIFI® LIGHTING SYSTEM**

**How LIFI® Light Sources Work**  
LIFI® is a new class of high intensity light source of solid state design bringing clean lighting solutions to general and specialty lighting. With energy efficiency, long useful lifetime, full spectrum and dimming, LIFI® lighting applications work better compared to conventional approaches.

**LIFI® Construction**  
The LIFI® STA Product consists of the 2 primary sub-assemblies:  
• Lamp / Emitter Housing  
• RF Driver



- Key Benefits of LIFI® Lighting System**
- 21,000 total initial lumens
  - 5,100 CCT
  - Dimming range down to 65%
  - Input voltage > 28 volts DC
  - Inviting, comfortable nighttime environment - 95 color rendering
  - Easy maintenance - 30,000+ hours lifetime
  - Reduce energy costs - 120 lm/W+ directional source
  - Dimmable system compatible with smart lighting management systems
  - Reduce environmental costs - small source size, less material
  - Minimize glare and stray light
  - Digitally controlled and easy to use

The solid-state, micro-controlled RF Driver has a 28VDC input (< 10A) and converts that to RF to drive a very small quartz bulb. The sealed quartz bulb (which has no electrodes or connection wires) is contained in a "resonant cavity" (puck) that acts as a "focusing lens" for the RF energy to vaporize the contents within it. This forms a stable plasma in the center of the bulb. Both the Emitter Housing and RF Driver are enclosed in separate aluminum enclosures.

**Function of the Lamp Sub-Assembly**  
At the heart of LIFI® is the lamp-assembly where a sealed lamp is embedded in a dielectric material. This design is more reliable than conventional light sources that insert degradable electrodes into the lamp. The dielectric material serves two purposes; first as a waveguide for the RF energy transmitted by the driver and second as an electric field concentrator that focuses energy in the lamp. The energy from the electric field rapidly heats the material in the lamp to a plasma state that emits light of high intensity and full spectrum.

Light Source	Efficacy (lm/W)	CRI	Lifetime (hrs.)
LIFI®	120	95	30,000
Metal Halide	85	75	20,000
Ceramic Metal Halide	100	90	15,000
LED	70	75	50,000
High Pressure Sodium	125	20	24,000
Low Pressure Sodium	180	<20	16,000

The product shown is in the final stages of development and represents a beta sample to demonstrate the superior features of the system being developed. Working samples and saleable product will be available by mid-2009.

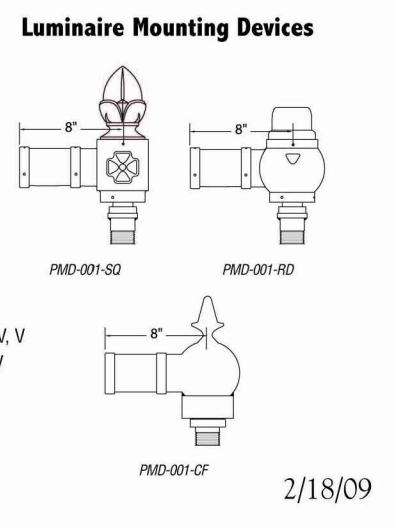
LIFI® is a registered trademark of LUXIM® Corporation.

**Ordering Chart**

MODEL NUMBER	LENS	LAMP	LAMP	LAMP	VOLTS
		High Pressure Sodium	Metal Halide	LIFI®-Plasma	
CORD	ACR=Acrylic POLY=Polycarbonate SG=Short Glass DG=Deep Glass	70S, 100S, 150S, 200S, 250S, 400S	70MH, 100MH, 150MH, 175MH, 250MH, 400MH	Equivalent to 400MH (requires AC/DC converter - sup- plied with product)	120, 208, 240, 277 MT 480 ST 347 ST

**Options**

Mounting	Electrical	Finish	Optical
NIP=Threaded Nipple Spin Aluminum Skirt	PC=Photo Control Button FS=Fuse, single FD=Fuse, double MT=Multi-Tap Ballast IND=Induction Lamp PLSM=LIFI® Plasma Lamp	BK=Black Powder Coat (Standard) GR=Green R2=Brass VP=Verde Patina PP=Peewter Patina SM=Silver Metallic WH=White AL=Almond CC=Custom Color	GLD=Deep Borosilicate Glass III, IV, V GLS=Short Borosilicate Glass III, V POLY=Polycarbonate Deep III, V Polycarbonate Short III, V ACR= Acrylic Deep III, V Acrylic Short III, V



**LIGHT FIXTURE SA**



**Integrated Consulting Engineers, Inc.**  
349 South Hydraulic • Wichita, KS 67211  
316.264.3588 • 316.264.3948 • www.icengr.com

Drawing File: M:\2011\11111.00-015 - Red Bud Bike Path Lighting\Electrical Files\Els.dwg  
Project No: 11-07-E650  
Design: DR  
Drawn: CMM  
Approved: DR  
Scale: NOTED  
REDBUD BIKE PATH  
ELECTRICAL SCHEDULES & DETAILS

**Baughman Company, P.A.**  
315 Ellis St. Wichita, KS 67211 P 316-263-7211 F 316-262-0149  
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE  
SHEET E-1 OF 78/84