



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Georgia Division**

April 21, 2014

61 Forsyth Street S.W.  
Suite 17T100  
Atlanta, Georgia 30303  
Phone 404-562-3630  
Fax 404-562-3703  
Georgia.fhwa@fhwa.dot.gov

In Reply Refer To:  
HPE-GA

Keith Golden, P.E. Commissioner  
Georgia Department of Transportation  
One Georgia Center  
600 West Peachtree Street, NW  
Atlanta, GA 30308

Dear Commissioner Golden:

We have reviewed the request to use proprietary items on the Transportation Enhancement Project STP-0002-00(310), PI# 0002310, Roswell Road Transit - Oriented Streetscape located in the City of Sandy Springs, Fulton County.

FHWA accepts the City of Sandy Spring's Certification that the following items are necessary for aesthetic synchronization:

- Intersection Pedestrian Light Fixture and Pole (Shepard's Hook, 15 foot)
- Midblock Pedestrian Light Fixture and Pole – Post Top
- Contoured Bench with Intermediate Armrest
- Trash Receptacle
- Planters

This approval is only applicable to be used on PI# 0002310, in Fulton County.

If you have any questions, please contact Julio A. Nuñez at (404) 562-3638.

Sincerely,

 Rodney N. Barry, P.E.  
Division Administrator

Cc: Brent Story, State Design Policy Engineer

Keith Golden, P.E., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW  
Atlanta, Georgia 30308  
Telephone: (404) 631-1000

April 10, 2014

Mr. Rodney Barry – Division Administration  
Federal Highway Administration  
61 Forsyth Street, Suite 17T100  
Atlanta, GA 30277  
**Attention: Melinda Roberson**

Subject: Proprietary Items Usage  
PI # 0002310; Project STP-0002-00(310)  
Roswell Road Transit-Oriented Streetscape Project  
City of Sandy Springs, Fulton County

Mr. Barry:

Please review the attached request from the City of Sandy Springs for the use of the following proprietary products along Roswell Road: intersection pedestrian light fixtures and poles, midblock pedestrian light fixtures and poles, contoured benches, trash receptacles, and planters.

The City of Sandy Springs has adopted Overlay District Guidelines to ensure continuity within its downtown area. The items requested were previously approved for use by the City of Sandy Springs on Roswell Road under PI# 0006728.

The Department considers the use of the proposed proprietary items to be in compliance with 23 CFR 635.411 for aesthetic synchronization.

Should you have any questions or concerns, please contact Dave Peters at 404-631-1738 or Jeanne Kerney at 404-631-1982.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brent Story".

Brent Story, P.E.  
State Design Policy Engineer

BAS:drp



April 4, 2014

Ms. Jeanne Kerney  
TE Program Manager/Moreland-Altobelli  
Attn: Georgia Department of Transportation  
Office of Program Delivery (25<sup>th</sup> Floor)  
600 West Peachtree Street, NW  
Atlanta, GA 30308

Subject: Use of Proprietary Items for  
Roswell Road Transit - Oriented Streetscape, Fulton County  
GDOT PI#0002310, Project Number STP-0002-00(310)

Dear Ms. Kerney,

As per Federal Highway Administration regulation in 23 CFR 635.411(a) 2, proprietary materials, specifications, and processes can be used if their use is essential for synchronization with existing highway facilities. For the City of Sandy Springs Transportation Enhancement Project, PI# 0002310, STP-0002-00(310), Roswell Road Transit - Oriented Streetscape, I request to use the following proprietary items documented in this letter based on Federal Guidance in the category of ~~Public Interest Finding (PIF)~~: *Synchronization.* 

**Intersection Pedestrian Light Fixture and Pole (Shepherd's Hook, 15 foot)**

Manufacturer: Phillips Lumec  
Luminaire: DMS50-70W64LED4K-R-LE3S-VOLT-GN8TX  
Cross Arm: LM-1A-GN8TX  
Post: LUMEC Catalog # AM8F-15-GN8TX  
Hapco Drawing Reference #SKTB013008A  
Accessories: N/A  
Quantity in Project: 1  
Total Estimated Cost for Light Poles and Luminaires: \$6,600

**Midblock Pedestrian Light Fixture and Pole – Post Top**

Manufacturer: Phillips Lumec  
Luminaire: DMS60-55W48LED4K-R-ACDR-LE3A-240-GN8TX  
Post: LUMEC Catalog # APR4U-13-LBC1-GN8TX  
Hapco Drawing Reference # SKTB051408B  
Cross Arm: N/A  
Accessories: Breakaway couplings cover # [BACWS-007]-GN8TX  
Quantity in Project: 18  
Total Estimated Cost for Light Poles and Luminaires: \$106,500



Proprietary Items Request  
PI# 0002310, Fulton County  
April 4, 2014

**Contoured Bench with Intermediate Armrest**

Manufacturer: Landscape Forms, Inc      Model: SC3005-BS-96 Scarborough Backed  
Bench, 96", with center arm, Horizontal Strap, Surface Mount  
Quantity in Project: 2      Finish: Powder Coat  
Total Estimated Cost for Benches: \$4400      Color: Ral 6012 Custom Color

**Trash Receptacle**

Manufacturer: Landscape Forms, Inc.      Model: SC3005-BS-96 Scarborough 30 Gallon  
Receptacle, Side-opening, Surface Mount  
Quantity in Project: 1      Finish: Powder Coat  
Total Estimated Cost for Receptacles: \$1400      Color: Ral 6012 Custom Color

**Planters**

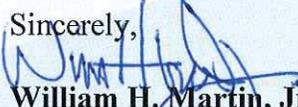
Manufacturer: Dura Art Stone, Inc.      Model: S-4-D-17-S18-LSB-(3)@ 1" centered  
saucers Radius, Round, Reinforced cast stone planters with matching saucers  
Quantity in Project: 1      Finish: Integral non-fading color  
Total Estimated Cost for (item): \$2500      Color: Stone Gray

The total estimated costs for materials listed above are based on recent construction bids on similar projects. These costs include materials, labor, tax, and freight.

The estimated total construction cost for the project is \$550,000. The cost of \$121,400 for proprietary items represents 22.07% of the estimated construction costs.

I, William H. Martin, Jr., C.I. P. Unit Manager, of the City of Sandy Springs do hereby certify that in accordance with the requirements of 23 CFR 635.411(a)(2), that these patented or proprietary item are essential for synchronization with existing highway facilities. The use of these products is essential for aesthetic synchronization to match the visual appearance of existing facilities previously installed in the City of Sandy Springs, Georgia and for compatibility with the City of Sandy Springs Zoning Ordinance, Article XII, Overlay Districts Guidelines.

The City of Sandy Springs requests that the use of these proprietary products be approved. As an added note, the items are identical to those approved for project PI #0006728 in 2013. This project is not a continuation of an earlier project.

Sincerely,  
  
**William H. Martin, Jr.**  
C.I.P. Unit Manager  
City of Sandy Springs

Attachments: A: Color Photographs of Existing Items  
B. Manufacturer details lighting and posts  
C. City Guidelines for planter, bench, and litter receptacle



Proprietary Items Request  
PI# 0002310, Fulton County  
April 4, 2014

Attachment A:  
Color Photographs of Items



# PI # 0002310, Fulton County

1



Installed under  
PI# 0005910, Fulton County

# PI # 0002310, Fulton County



Installed under  
PI# 0005910, Fulton County

# PI # 0002310, Fulton County

3



Installed under  
PI# 0005910, Fulton County

# PI # 0002310, Fulton County



Installed under  
PI# 0005910, Fulton County

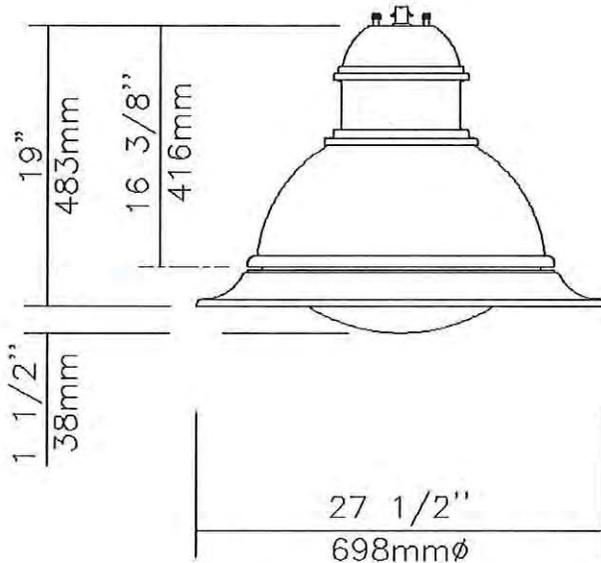


Proprietary Items Request  
PI# 0002310, Fulton County  
April 3, 2014

Attachment B:  
Manufacturer details for lighting and posts

Specification

FULTON COUNTY



EPA: 1.42 sq ft / weight: 42 lb (19.1 kg)  
 Note: 3D image may not represent color or option selected.  
 Logos above include link, click to access.

Qty	1	Luminaire	DMS50-70W64LED4K-R-LE3S-VOLT-GN8TX
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Description of Components:

**Hood:** A die cast A360.1 aluminum dome complete with a cast-in technical ring with latch and hinge. The mechanism shall offer toolfree access to the inside of the luminaire. An embedded memory-retentive gasket shall ensure weatherproofing.

**Housing:** In a round shape, this housing is made of cast 356 aluminum, c/w a watertight grommet, mechanically assembled to the bracket with four bolts 3/8-16 UNC. This suspension system permits for a full rotation of the luminaire in 90 degree increments.

**Light Engine: LEDgine** composed of 5 main components: **Lens / LED lamp / Optical System / Heat Sink / Driver**  
 Electrical components are RoHS compliant.

**Lens:** Made of soda-lime clear tempered glass curved lens, mechanically assembled and sealed onto the lower part of the heat sink.

**Lamp: (Included),** Lamp type Philips Lumileds Luxeon R. Composed of 64 high-performance white LEDs, 70w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan based on TM21 extrapolation to get results after which 50% of LEDs still emits over 70% (L70) of its original lumen output. Use of metal core board insures greater heat transfer and longer lifespan of the light engine. The LED circuit board is included with a connector, (no connection wire required for ease of replacement).

**Optical System:** (LE3S), IES type III (asymmetrical). Composed of high-performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumen and a perfect lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM63 and LM79 and TM15 (IESNA) certifying its photometric performance. Street side indicated.

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Specification

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FULTON COUNTY

**Heat Sink:** Heat Sink: Made of die cast A360 aluminum optimising the LEDs efficiency and life, complete with a cast in skirt and technical ring. Product does not use any cooling device with moving parts (only passive cooling device)

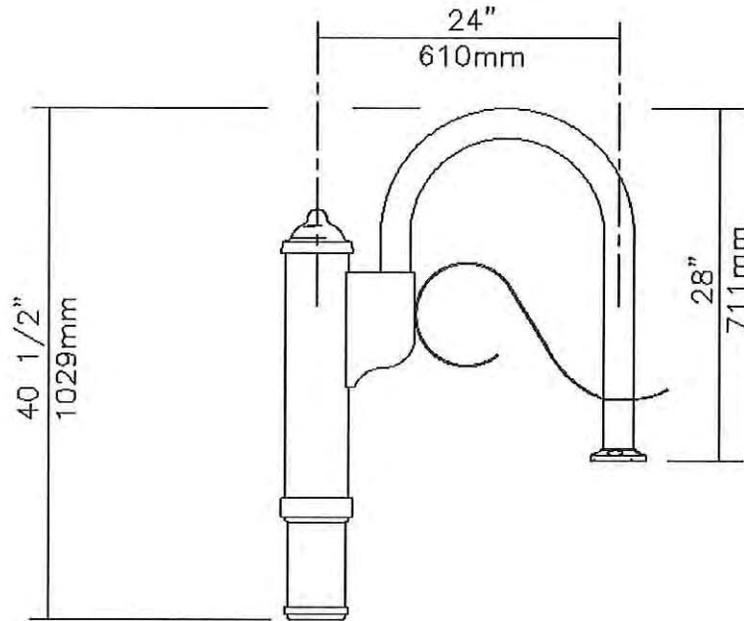
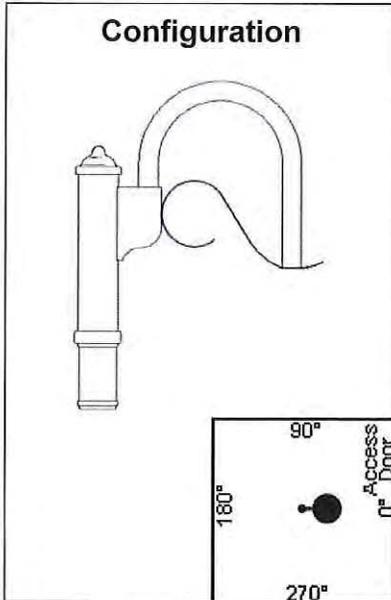
**Driver:** High power factor of 95%. Electronic driver, operating range 50/60 Hz. **Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max.** Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

**Surge Protector:** LED Driver 3 poles 10KV surge Protectors that protect Line-Ground, Line-Neutral, and Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines.

Specification

FULTON COUNTY



Qty	1	Bracket	LM-1A-GN8TX
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Description of Components:

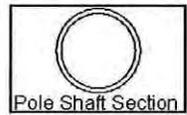
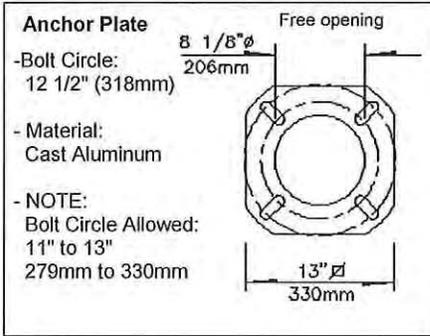
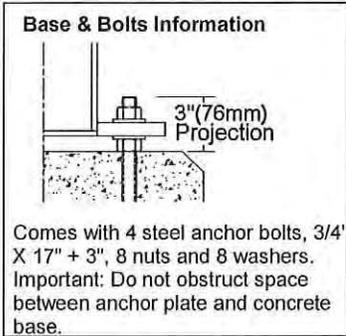
**Arm:** Shall be made from bent 6061-T6 aluminum tubing, 2 3/8" (60mm) outside diameter, welded.

**Decorative Element:** Scroll made of bent aluminium, welded to the arm.

**Central Adaptor:** Made of aluminum 6061-T6, 5" (127mm) outside diameter. Complete with a cast 356 aluminum fitter that slip-fits 9" (229mm) over a 4" (102mm) outside diameter pole tenon. Mechanically assembled using two sets of four set screws at 90 degrees around the bracket.

**Bracket Weight:** 17 lbs (7.7 kg)

Specification



Qty	1	Pole	AM8F-15-GN8TX
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**Description of Components:**

**Pole Shaft:** Shall be made from a 4" (102mm) round extruded 6061-T6 aluminum tubing, having a 0.125" (3.2mm) wall thickness, welded to the pole base.

**Joint Cover:** Two-piece round joint cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

**Pole Base:** Shall be made from a 8 5/8" (219mm) round extruded 6061-T6 aluminum tubing base having a 0.148" (4.8mm) wall thickness, welded to both the bottom and top of the anchor plate.

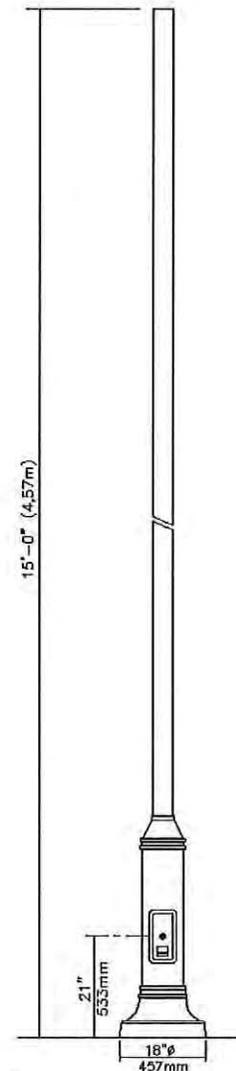
**Maintenance Opening:** The pole shall have a 4 1/2" x 10" (114mm x 254mm) maintenance opening centered 25 1/4" (641mm) from the bottom of the anchor plate, complete with a weatherproof embossed aluminum cover and a copper ground lug.

**Base Cover:** Two piece round base cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

**Note:** A tenon will be provided when the luminaire or bracket does not fit directly on pole shaft. Tenon not shown on the drawing.

**IMPORTANT:** Philips Lumec strongly recommends the installation of the complete lighting assembly with all of its accessories upon the anchoring of the pole. This will ensure that the structural integrity of the product is maintained throughout its lifetime.

**Pole Weight:** 34 lbs (15.5 kg)



PI # 003 2310

FULTON COUNTY

Specification

Miscellaneous

Description of Components:

**Wiring:** Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding top of the bracket.

**Hardware:** All exposed screws shall be stainless steel with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone.

**Finish:** Color to be **dark forest green textured (GN8TX)** and in accordance with the AAMA 2603 standard. Application of a polyester powdercoat paint (4 mils/100 microns) with ± 1.mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D 2244 standard, as well as luster retention in keeping with the ASTM D 523 standard and humidity proof in accordance with the ASTM-D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM-B117 standard.

**Note: IMPORTANT: All missing details must be clearly specified on the return of these approval drawings. Thank you for your cooperation.**

VOLTAGE: \_\_\_\_\_

**LED products manufacturing standard:** The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

**Quality Control:** The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

**Vibration Resistance:** The DMS50 meets the **ANSI C136.31**, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

**Mechanical resistance:** In order to ensure the mechanical resistance of the poles, the reflected area should be calculated according to AASHTO standards and resists to a wind of 140 km/hr.

**Web site information details:** Click on any specific information details you need:

[Paint finish](#) / [Warranties](#) / [Installation pictures](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [CSA Pole Certification](#)

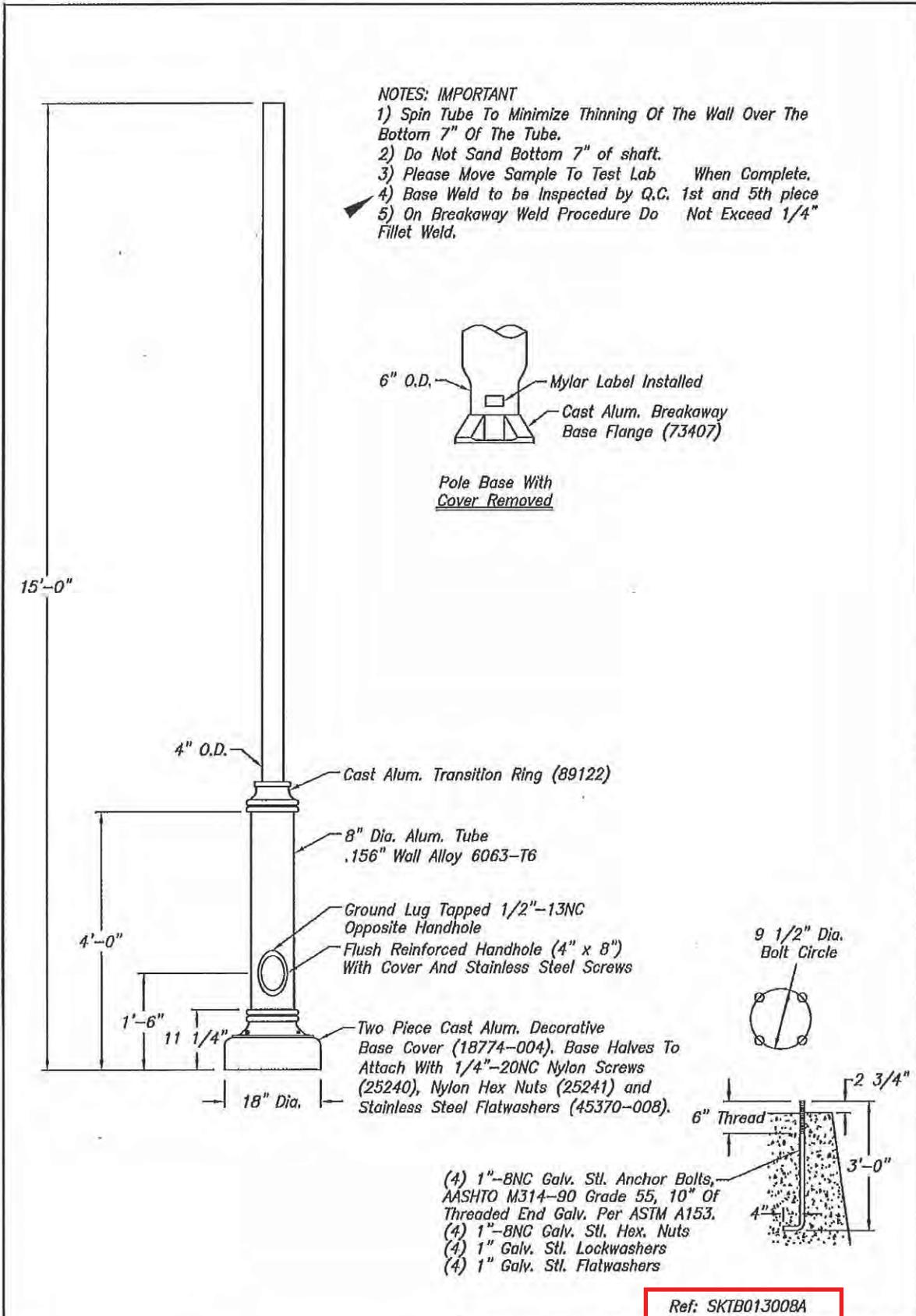
Specification

LED light engine technical information for DMS50 DMS55 RN20 RN30 TR20 AT50 with sag lens										
LED = Philips Lumileds Luxeon R, CRI = 70, CCT = 4000K (+/- 350K)										
System (LED + driver) rated life = 100,000 hrs <sup>1</sup>										
Lamp	Typical delivered lumens	Typical system wattage <sup>2</sup> (W)	Typical current @ 120 V(A)	Typical current @ 208 V(A)	Typical current @ 240 V(A)	Typical current @ 277 V(A)	LED current (mA)	HID equivalent <sup>3</sup>	Luminaire Efficacy Rating (lm/W)	BUG rating
35W32LED4K-R-LE2S	2867	35	0.29	0.17	0.16	0.15	350	70-100	81.9	B1-U1-G1
35W32LED4K-R-LE3S	3972	35	0.29	0.17	0.16	0.15	350	70-100	113.5	B1-U1-G1
35W32LED4K-R-LE4S	3691	35	0.29	0.17	0.16	0.15	350	70-100	105.5	B1-U1-G1
35W32LED4K-R-LE5S	3649	35	0.29	0.17	0.16	0.15	350	70-100	104.2	B2-U1-G1
55W32LED4K-R-LE2S	5232	52	0.40	0.23	0.21	0.19	530	100-150	100.6	B1-U1-G1
55W32LED4K-R-LE3S	5553	52	0.40	0.23	0.21	0.19	530	100-150	106.8	B2-U1-G1
55W32LED4K-R-LE4S	5160	52	0.40	0.23	0.21	0.19	530	100-150	99.2	B1-U1-G1
55W32LED4K-R-LE5S	5101	52	0.40	0.23	0.21	0.19	530	100-150	98.1	B3-U1-G1
55W48LED4K-R-LE2S	5395	55	0.38	0.22	0.23	0.21	350	100-150	98.1	B1-U1-G1
55W48LED4K-R-LE3S	5726	55	0.38	0.22	0.23	0.21	350	100-150	104.1	B2-U1-G1
55W48LED4K-R-LE4S	5320	55	0.38	0.22	0.23	0.21	350	100-150	96.7	B1-U1-G2
55W48LED4K-R-LE5S	5259	55	0.38	0.22	0.23	0.21	350	100-150	95.6	B3-U1-G1
80W48LED4K-R-LE2S	5259	79	0.63	0.36	0.34	0.31	530	150-175	66.6	B3-U1-G2
80W48LED4K-R-LE3S	8051	79	0.63	0.36	0.34	0.31	530	150-175	101.9	B2-U1-G2
80W48LED4K-R-LE4S	7481	79	0.63	0.36	0.34	0.31	530	150-175	94.7	B2-U1-G2
80W48LED4K-R-LE5S	7395	79	0.63	0.36	0.34	0.31	530	150-175	93.6	B3-U1-G2
70W64LED4K-R-LE2S	7611	71	0.58	0.34	0.32	0.3	350	100-150	107.2	B2-U1-G1
70W64LED4K-R-LE3S	8077	71	0.58	0.34	0.32	0.3	350	100-150	113.8	B2-U1-G2
70W64LED4K-R-LE4S	7505	71	0.58	0.34	0.32	0.3	350	100-150	105.7	B2-U1-G2
70W64LED4K-R-LE5S	7419	71	0.58	0.34	0.32	0.3	350	100-150	104.5	B3-U1-G2
110W64LED4K-R-LE2S	7419	103	0.8	0.46	0.42	0.38	530	175-200	72.0	B2-U1-G2
110W64LED4K-R-LE3S	11412	103	0.8	0.46	0.42	0.38	530	175-200	110.8	B3-U1-G2
110W64LED4K-R-LE4S	10604	103	0.8	0.46	0.42	0.38	530	175-200	103.0	B2-U1-G2
110W64LED4K-R-LE5S	10482	103	0.8	0.46	0.42	0.38	530	175-200	101.8	B4-U1-G2
90W80LED4K-R-LE2S	9325	87	0.78	0.43	0.40	0.34	350	150-175	107.2	B2-U1-G2
90W80LED4K-R-LE3S	9897	87	0.78	0.43	0.40	0.34	350	150-175	113.8	B3-U1-G2
90W80LED4K-R-LE4S	9197	87	0.78	0.43	0.40	0.34	350	150-175	105.7	B2-U1-G2
90W80LED4K-R-LE5S	9091	87	0.78	0.43	0.40	0.34	350	150-175	104.5	B3-U1-G2
135W80LED4K-R-LE2S	13122	129	1.15	0.61	0.58	0.5	530	250-320	101.7	B3-U1-G2
135W80LED4K-R-LE3S	13927	129	1.15	0.61	0.58	0.5	530	250-320	108.0	B3-U1-G3
135W80LED4K-R-LE4S	12941	129	1.15	0.61	0.58	0.5	530	250-320	100.3	B3-U2-G2
135W80LED4K-R-LE5S	12792	129	1.15	0.61	0.58	0.5	530	250-320	99.2	B4-U2-G2

<sup>1</sup> L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)  
<sup>2</sup> System wattage includes the lamp and the LED driver.  
<sup>3</sup> Equivalence should always be confirmed by a photometric layout

Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.





B16859

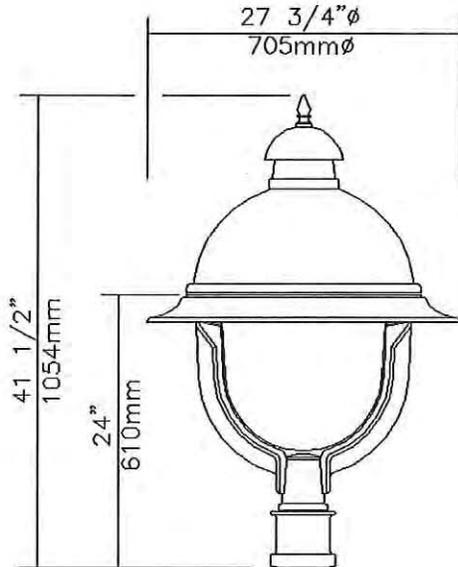
Ref: SKTB013008A

WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES

NO.	REVISIONS	DATE
1	Was 8" Dia. At Base (TNB)	5/09
2	Was .188" Wall & Added Note (TNB)	9/09
3	Notes Block from Sample 482 added (GDM)	2/10
4	Was 88849-004 Cover & 3/8" Tap Gnd (PRS)	10/10
5	Base Hardware Was SS (TNB)	1/11

**hapco**  
Abingdon, Va.

TITLE 15' DECORATIVE LIGHTING POLE	
CUSTOMER Roswell Road	
SCALE 16	DATE 05/20/2009
BY TNB	DWG. NO.
CHK'D	B16859



EPA: 2.6 sq ft / weight: 40 lb (18.2 kg)  
 Note: 3D image may not represent color or option selected.  
 Logos above include link, click to access.

Qty	70	Type	A
		Luminaire	DMS60-55W48LED4K-R-ACDR-LE3A-240-GN8TX

**Description of Components:**

**Finial:** Decorative cast 356 aluminum, mechanically assembled.

**Cupola:** Decorative spun aluminum 1100-0, mechanically mounted on hood.

**Hood:** Spun aluminum 1100-0 dome, mechanically assembled on the luminaire.

**Guard:** With 2 cast aluminum 356 arms, this guard is welded to the fitter and to the access-mechanism.

**Skirt:** Spun 1100-0 aluminum, mechanically assembled on the luminaire.

**Access-Mechanism:** A die cast A360 aluminum technical ring with latch and hinge. The mechanism shall offer tool-free access to the inside of the luminaire. An embedded memory-retentive gasket shall ensure weatherproofing.

**Light Engine:** LEDgine composed of 5 main components: **Globe / LED lamp / Optical System / Heat Sink / Driver**  
 Electrical components are RoHS compliant.

**Globe:** (ACDR), Made of one-piece seamless injected-moulded impact-resistant (DR) acrylic having an inner prismatic surface. The globe is mechanically assembled and sealed onto the lower part of the heat sink.

**Lamp: LED Module (Included),** LED type Philips Lumileds LUXEON R. Composed of 48 high-performance white LEDs, 55w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan based on TM-21 extrapolation to get results after which 50% of LEDs still emits over 70% (L70) of its original lumen output. Use of metal core board insures greater heat transfer and longer lifespan of the light engine. The LED circuit board is included with a quick disconnect wiring

connection for ease of replacement.

**Optical System:** (LE3A), IES type III (asymmetrical). Composed of high-performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Street side indicated.

**Heat Sink:** Made of cast aluminum optimising the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device)

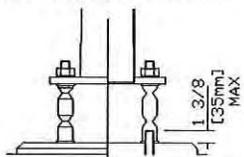
**Driver:** High power factor of 95%. Electronic driver, operating range 50/60 Hz. **Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I**, THD of 20% max. Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

**Surge Protector:** Surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA.

**Fitter:** Cast 356 aluminum c/w 4 set screws 3/8-16 UNC. This fitter holds 2 arms made of cast aluminum 356 mechanically assembled. Slip-fits on a 4"(102mm) outside diameter x 4" (102mm) long tenon.

**Base & Bolts Information**



Comes with 4 steel anchor bolts, 3/4" X 17" + 3", 8 nuts and 8 washers.  
**Breakaway coupling not supplied.**  
 Important: Do not obstruct space between anchor plate and concrete

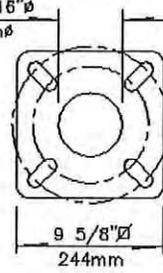
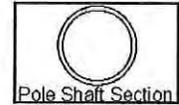
**Anchor Plate**

Free opening

- Bolt Circle: 8 1/2" (216mm)

- Material: Cast Aluminum

- NOTE: Bolt Circle Allowed: 6 3/4" to 10" 171mm to 254mm

Qty	70	Type	A
		Pole	APR4U-13-LBC1-GN8TX

**Description of Components:**

**Pole Shaft:** Shall be made from a 4" (102mm) round extruded 6061-T6 aluminum tubing, having a 0.226" (5.7mm) wall thickness, welded to both the bottom and top of the anchor plate.

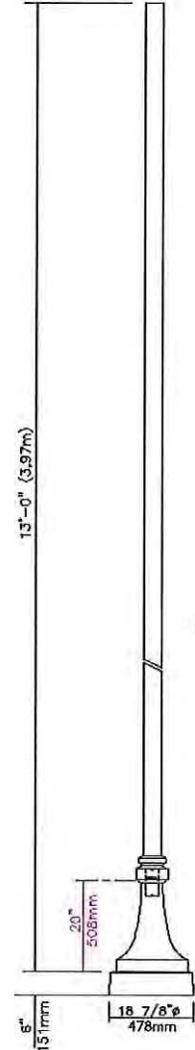
**Maintenance Opening:** The pole shall have a 2" x 4 1/2" (51mm x 114mm) maintenance opening centered 20" (508mm) from the bottom of the anchor plate, complete with a weatherproof aluminum cover and a copper ground lug.

**Base Cover:** Two piece round base cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

**Note:** A tenon will be provided when the luminaire or bracket does not fit directly on pole shaft. Tenon not shown on the drawing.

**IMPORTANT:** Philips Lumec strongly recommends the installation of the complete lighting assembly with all of its accessories upon the anchoring of the pole. This will ensure that the structural integrity of the product is maintained throughout its lifetime.

**Pole Weight:** 39 lbs (17.7 kg)



Qty	70	Type	A
		Miscellaneous	[BACWS-007]-GN8TX

**Description of Components:**

**Breakaway couplings cover:** (BACWS-007) Two piece spun aluminum cover, mechanically fastened with stainless steel screws. **Used not to hide breakaway couplings, but to hide the transition plate and bolts.**

**Wiring:** Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding from luminaire.

**Hardware:** All exposed screws shall be stainless steel with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

**Finish:** Color to be **dark forest green textured (GN8TX)** and in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

**LED products manufacturing standard:** The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

**Quality Control:** The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

**Mechanical resistance:** In order to ensure the mechanical resistance of the poles, the reflected area should be calculated according to AASHTO standards and resists to a wind of 140 km/hr.

**Web site information details:** Click on any specific information details you need:

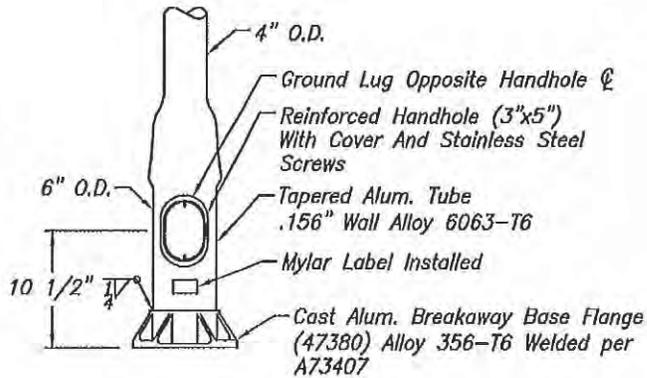
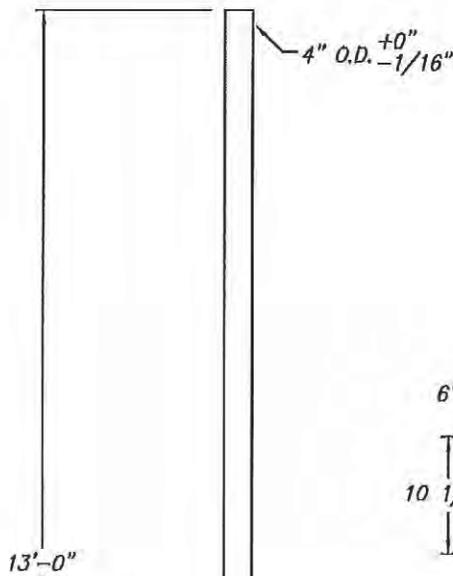
[Paint finish](#) / [Warranties](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [CSA Pole Certification](#)

LED light engine technical information for AT10 AT20 AT30 AT40 OT10 OT20 XL10 TR10 DMS60 with prismatic globe										
LED = Phillips Lumileds Luxeon R, CRI = 70, CCT = 4000K (+/- 350K)										
System (LED + driver) rated life = 100,000 hrs <sup>1</sup>										
Lamp	Typical delivered lumens	Typical system wattage <sup>2</sup> (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	LED current (mA)	HID equivalent <sup>3</sup>	Luminaire Efficacy Rating (lm/W)	BUG rating
35W32LED4K-R-LE2A	3299	35	0.29	0.17	0.16	0.15	350	70 - 100	94.3	B1-U3-G1
35W32LED4K-R-LE3A	3280	35	0.29	0.17	0.16	0.15	350	70 - 100	93.7	B1-U2-G1
35W32LED4K-R-LE4A	2983	35	0.29	0.17	0.16	0.15	350	70 - 100	85.2	B1-U3-G1
55W32LED4K-R-LE2A	4627	52	0.40	0.23	0.21	0.19	530	100 - 150	89.0	B1-U3-G1
55W32LED4K-R-LE3A	4605	52	0.40	0.23	0.21	0.19	530	100 - 150	88.6	B1-U3-G1
55W32LED4K-R-LE4A	4676	52	0.40	0.23	0.21	0.19	530	100 - 150	89.9	B1-U3-G1
55W48LED4K-R-LE2A	4673	55	0.38	0.22	0.23	0.21	350	100 - 150	85.0	B1-U3-G1
55W48LED4K-R-LE3A	4648	55	0.38	0.22	0.23	0.21	350	100 - 150	84.5	B1-U3-G1
55W48LED4K-R-LE4A	4722	55	0.38	0.22	0.23	0.21	350	100 - 150	85.9	B1-U3-G1
80W48LED4K-R-LE2A	6890	79	0.63	0.36	0.34	0.31	530	150 - 175	87.2	B2-U3-G2
80W48LED4K-R-LE3A	6853	79	0.63	0.36	0.34	0.31	530	150 - 175	86.7	B2-U3-G2
80W48LED4K-R-LE4A	6642	79	0.63	0.36	0.34	0.31	530	150 - 175	84.1	B1-U3-G2

<sup>1</sup> L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)  
<sup>2</sup> System wattage includes the lamp and the LED driver.  
<sup>3</sup> Equivalence should always be confirmed by a photometric layout

Note: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.

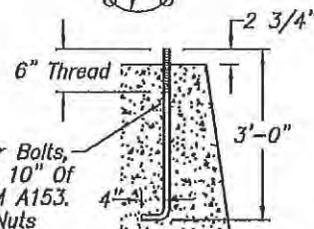
Note:  
Dimensional Location Of Spun Section  
Of Shaft Is Critical In Order For Pole  
To Meet Breakaway Requirement.



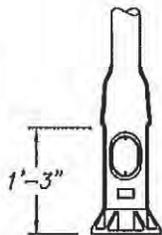
Pole With Base  
Cover Removed



9 1/2" Dia.  
Bolt Circle



- (4) 1"-BNC Galv. Stl. Anchor Bolts, AASHTO M314-90 Grade 55, 10" Of Threaded End Galv. Per ASTM A153.
- (4) 1"-BNC Galv. Stl. Hex. Nuts
- (4) 1" Galv. Stl. Lockwashers
- (4) 1" Galv. Stl. Flatwashers



This view is drawn to scale!!

Ref: SKTB051408B

WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES

NO.	REVISIONS	DATE
1	added Top diameter tolerance GM	5/09
2	Removed Tolerance & Added Tenon (TNB)	5/09
3	Removed Tenon & added Tolerance GM	5/09

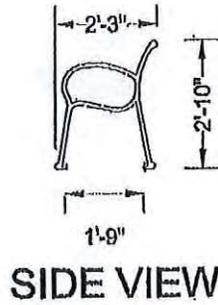
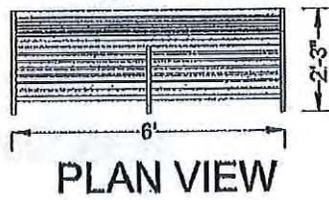
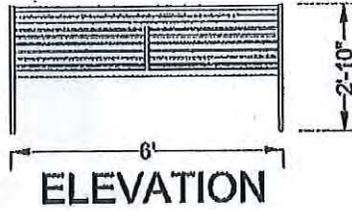
<h1>hapco</h1> <p>Abingdon, Va.</p>	TITLE 13' DECORATIVE LIGHTING POLE	
	CUSTOMER Roswell Road	
	SCALE 16	DATE 05/20/2009
	BY TNB	DWG. NO. B16858
CHK'D		

B16858



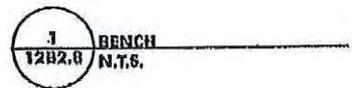
Attachment C:  
City Guidelines for planter, bench, and litter receptacle

**Street Furniture Details - Bench Elevation (Section 12B2.8)**



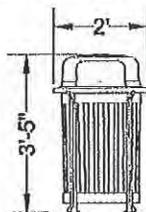
BENCH:

LANDSCAPE FORMS INC. (404)231-0185  
SC3005-BS-06 W/ CENTER ARM  
HORIZONTAL INSERT, SURFACE MOUNT, RAL 6012 CUSTOM COLOR

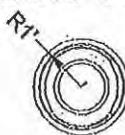


**STREETSCAPE MANUAL / URBAN DESIGN STANDARDS**

**Street Furniture Details (Section 12B2.8)**



**SIDE VIEW**



**PLAN VIEW**

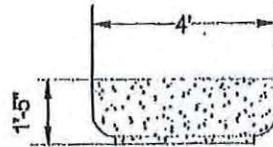


TRASH RECEPTACLE:

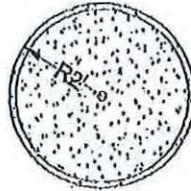
HORIZONTAL INSERT, SURFACE MOUNT, RAL 6012 CUSTOM COLOR  
LANDSCAPE FORMS INC. (404)231-0185  
SC3005-B5-98 W/CENTER ARM  
STRAP DETAIL, SURFACE MOUNT, RAL 6012 CUSTOM COLOR

**STREETSCAPE MANUAL / URBAN DESIGN STANDARDS**

**Landscape Details (Section 12B2.7)**



**SIDE VIEW**



**PLAN VIEW**



PLANTER

DURA ART STONE INC. (800)821-1120  
S-4-D-17-S18-LSB-(3)@1" CENTERED-SAUCERS  
ROUND, REINFORCED CAST STONE PLANTERS WITH MATCHING SAUCERS  
AND INTEGRAL NON-FADING COLOR

**STREETSCAPE MANUAL / URBAN DESIGN STANDARDS**