

# Roadway









# Roadway



Styles



Scale



Guide

Roadway lighting equipment and construction techniques have evolved greatly in the years following the Federal-Aid Highway Act of 1956 signed by President Dwight D. Eisenhower. Modern roadways and higher vehicular speeds demanded modern lighting so the roadway lighting fixture was born. From those early pieces of lighting equipment came lamp innovations from Mercury vapor on up to today's high tech LED systems. Updates also include refractor/reflector technologies and driver/ballast innovations. Even pole structures have been highly Engineered to withstand wind and vibration along high speed roadways.

Roadway lighting is highly specialized and with good reason. Human safety is not negotiable. There are many safety factors in Roadway construction. Lighting is one of them. Important organizations like the Illuminating Engineers Society, Federal, state and local Departments of Transportation have worked hard together with manufacturers to ensure that roadways and ultimately people are safe whether they are driving or walking.

Sternberg has created several pieces of decorative lighting equipment meant to be used on high mounting height roadway applications. Performance lighting, structural elements like poles and arms as well as options and attachments have been carefully Engineered to meet all industry guidelines for safety and longevity.

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SPEED  
LIMIT  
**30**

**2** HR  
PARKING  
8AM-6PM  
MON-SAT

Clarence Ave

CENTER  
LANE  
ONLY

NO PARKING  
SEE SIGN ABOVE  
TOW ZONE



# Styles

We offer numerous base, shaft and arm styles including Sternberg proprietary designs. All signal structures meet traffic control requirements for intersections. Special requirements and designs are a Sternberg specialty.

## CONTINUITY OF DESIGN

Sternberg has built our wide product line around the development of families of products. We offer a variety of luminaire styles for Roadway lighting.

Luminaires are available in multiple sizes which allow you to carry the design theme throughout your project, from lower pedestrian scale products to high mounting height roadway assemblies.





# Scaling & Style Mixing

Scaling is about balance, esthetics and perception. Lighting fixtures perform an essential function but the decorative nature of lighting needs to be appreciated during the day as well. Building a well-balanced luminaire assembly that scales properly is not as difficult as it seems. The following pages will show you how it can be done and show you how others have achieved design success using Sternberg fixtures, arms and poles.

The first consideration is the project and the application of lighting equipment. The size and scale of lighting fixture is dictated by how much illumination is needed and how that light is to be delivered to the surface being lit. Luminaire scale drives the scale of everything else in the assembly.

Secondly, consider style. Does the project need traditional styling? Is the lighting equipment in front of a contemporary building? Or is the styling of the site, buildings or desire of the project owner more transitional, having some flavor of both styles? All these things need to be explored if one is to design an excellent lighting assembly.

Lastly, consider the following statements when creating a lighting fixture arm and pole configuration.

- Dimensional balance between luminaire and pole base makes the entire assembly look balanced.
- Esthetic value is best appreciated with mounting heights between 10' and 25' and is highly dependant on scale.
- Pair traditionally styled lighting products like acorns and lanterns with traditional arms and pole bases. Contemporary arms and poles go with similarly styled luminaires.
- Luminaire dimensions and pole base dimensions should be nearly equal in size.
- When using a long arm consider scrolls and other decorative elements that add mass to the pole and arm transition. This will project strength.
- Adding a mid-light on a short arm adds balance to a tall assembly with a long upper arm.
- Avoid large scale luminaires at low mounting heights and small scale lighting fixtures at high mounting heights. Similarly, arms that are much longer or shorter than 20-25% of the pole height will look out of scale and miss-matched.

These are high level considerations for luminaire and pole designs. There are many more nuances that can be incorporated in the design process. If guidance is needed, please contact one of the many lighting professionals at Sternberg.

## SCALE

Poor

Luminaire too big for pole.

Excellent

Luminaire and pole base balance the assembly.

Poor

Pole base is much too big for assembly.



650-10'

5212 BARRINGTON

5412 HAMILTON



# Post Top Luminaires and Base Combinations

## SIZE

Small 8'-12'

Medium 10'-15'

Large 14'-25'

Post top luminaires and bases should be roughly equal in size and volume.

Decorative lighting equipment loses its aesthetic value after 25'.

## STYLE

Traditional

Contemporary

Transitional

Traditional luminaires match well with fluted and smooth poles and decorative bases.

Contemporary luminaires match well with smooth shaft poles and simple bases.

Transitional designs can be mated to virtually any pole and arm design and are flavored by what they are mounted to.

S440  
11-1/8" x 19"

S540  
13-1/2" x 29-1/2"

S640  
17-3/4" x 35-3/8"

A880SRLED  
17-3/4" x 39"

ML760  
19-5/8" x 36-1/2"

E450LED  
22" x 32-3/4"

E450LED  
22" x 32-3/4"

4510 DECATUR  
10-1/2" X 29"

6114 DOVER  
15" X 21"

5216 BARRINGTON  
20" X 24"

6214 OXFORD  
18" X 27"

SQ 5'-16'  
ML900

3316  
18" X 48"

3415-FP5  
18" X 30"



# Pole Scaling

## SCALE: Base / Shaft / Height

The following are guidelines to aide in pole selection.

- To scale properly pole shafts should be 4" square or round on pole heights between 10' and 13'.
- Poles with diameters and square dimensions of 5" should be used on heights of 14' to 16'.
- 6" Square and round shafts should be used on poles that are 17' and taller.
- Traditional pole base heights should be no less than 10% of the total pole height and should be similar in width and volume to the luminaire.
- Contemporary pole base heights can range from the very shallow to the tall and slender but do take their design cues from similarly styled luminaires.
- Fluted pole shafts work very well with fluted bases or those with traditional styling.
- Smooth shaft poles work with smooth bases and contemporary luminaire assemblies.
- Scaling is all about balancing dimensions of pole bases and luminaires. They should be roughly equal.
- Luminaire professionals at Sternberg can help create renderings of your luminaire concepts to verify proper fit, scaling and to make suggestions that help create the best product possible for your project.



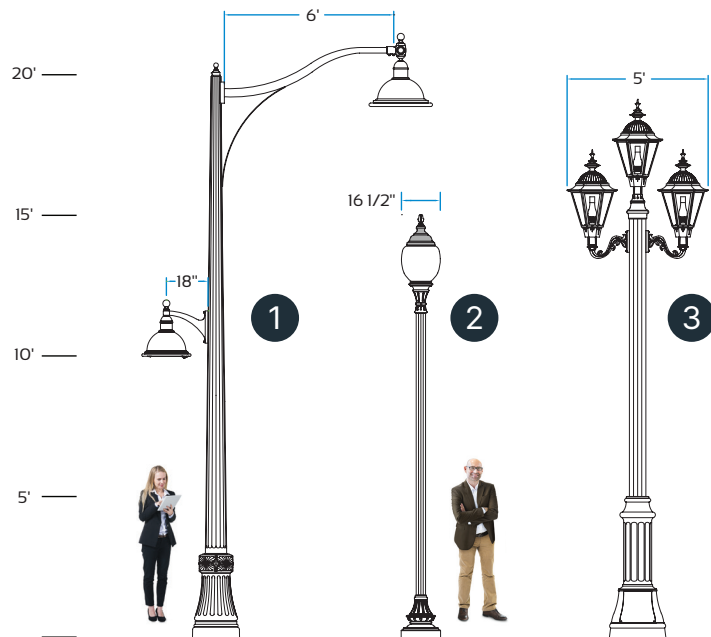
Belleville, IL



Peoria, AZ



City of Port St. Lucie, FL





## STYLE: Base / Shaft

- Decorative base height should equal no less than 10% of pole height and no greater than 25% for proper scaling.
- Base width dictates shaft width - 4" and 5" are most common.
- Pole heights 16' and above scale best with 5" or 6" shafts.
- Volume of luminaire and base should be similar in size to give symmetry to the assembly.

Augusta  
4200



Solana  
SL760

Solana  
SL900

- The Solana round form is duplicated in the round pole base cover.
- 4" and 5" round poles fit with the SL900 base cover.

- Shallow bases go with shallow fixtures.
- Millenia family is offered with a matching pole base cover.
- 4" and 5" square poles fit with the ML900 base cover.



Millenia  
ML760

Millenia  
ML900





1



2



3



4



5

1. City of South Bend  
1910LED/RLM18FL  
2600-RFP5-16'AG  
Double Banner Arms  
20"@9' & 12'
2. City of Silvis, IL  
1527EZ/CAS63400-  
25'AG  
with 480PM/A850SRLED
3. City of Sisters, OR  
1230 Prairie/Pronghorn  
Pole
4. Harvest, Argyle, TX  
1760 Chateau/Custom  
CAS4' Arm/550P-18 Pole
5. City of Port St. Lucie, FL  
(2) 6130A/55LPM Arms/  
7700 FP-16' Pole



# Arm Scaling



## Decorative Fabricated Arms

- Most arms add mass to a pole top mounted assembly.
- Hooked and small tubular arms "lighten" the look of the pole top.



## Wood Arms

- Timber arms add mass to a pole top.
- Chunky arms and poles work well together with large scale luminaires.



## Roadway Arms

- Arms should be no longer than 20-25% of the pole height.
- Long arms look best with the scrolls or decorative elements that add balance and strength.
- Multiple and mid-mount arms add symmetry to tall poles.



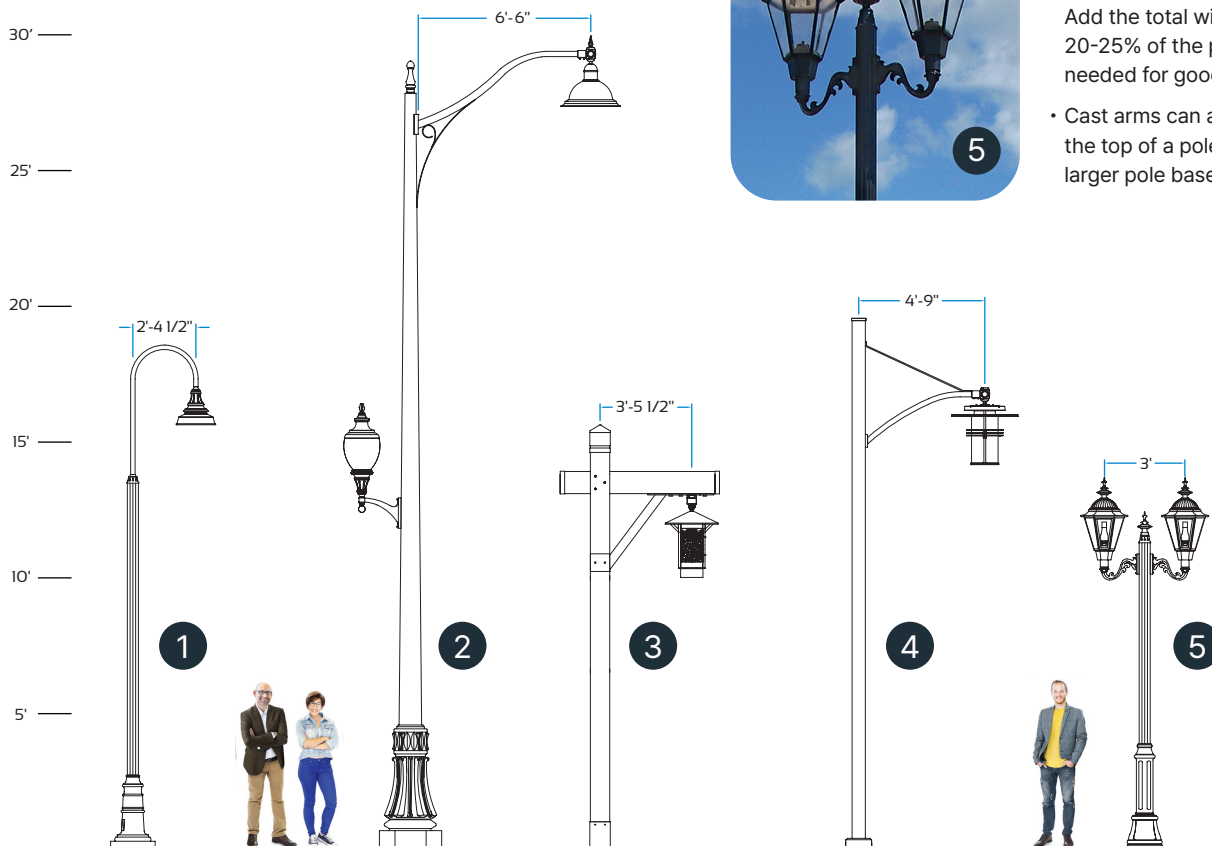
## Contemporary Arms

- Slight contemporary arms can be balanced with cables or rod supports.



## Cast Historical Arms

- Short arms in multiple assemblies act visually as one arm. Add the total width to get the 20-25% of the pole height needed for good symmetry.
- Cast arms can add mass to the top of a pole allowing for a larger pole base.









# Design Guide

## Type of pole

- Roadway Pole Series
- Traffic Pole Series
- Combination of Both
- Steel or Aluminum (S or A)
- Arm Style
- Fixture Style

## Equipment mounted to pole

- Weight
- Projected Area (Width x Length)
- Location (Height & Orientation)

## Other considerations

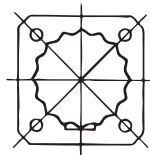
- Local Structure Code
- Local WindCondition\_\_MPH
- Street & Intersection Diagrams

## Finish

- Galvanized (G)
- Powdercoat
- Liquid Coat
- Powdercoat Over Galvanized

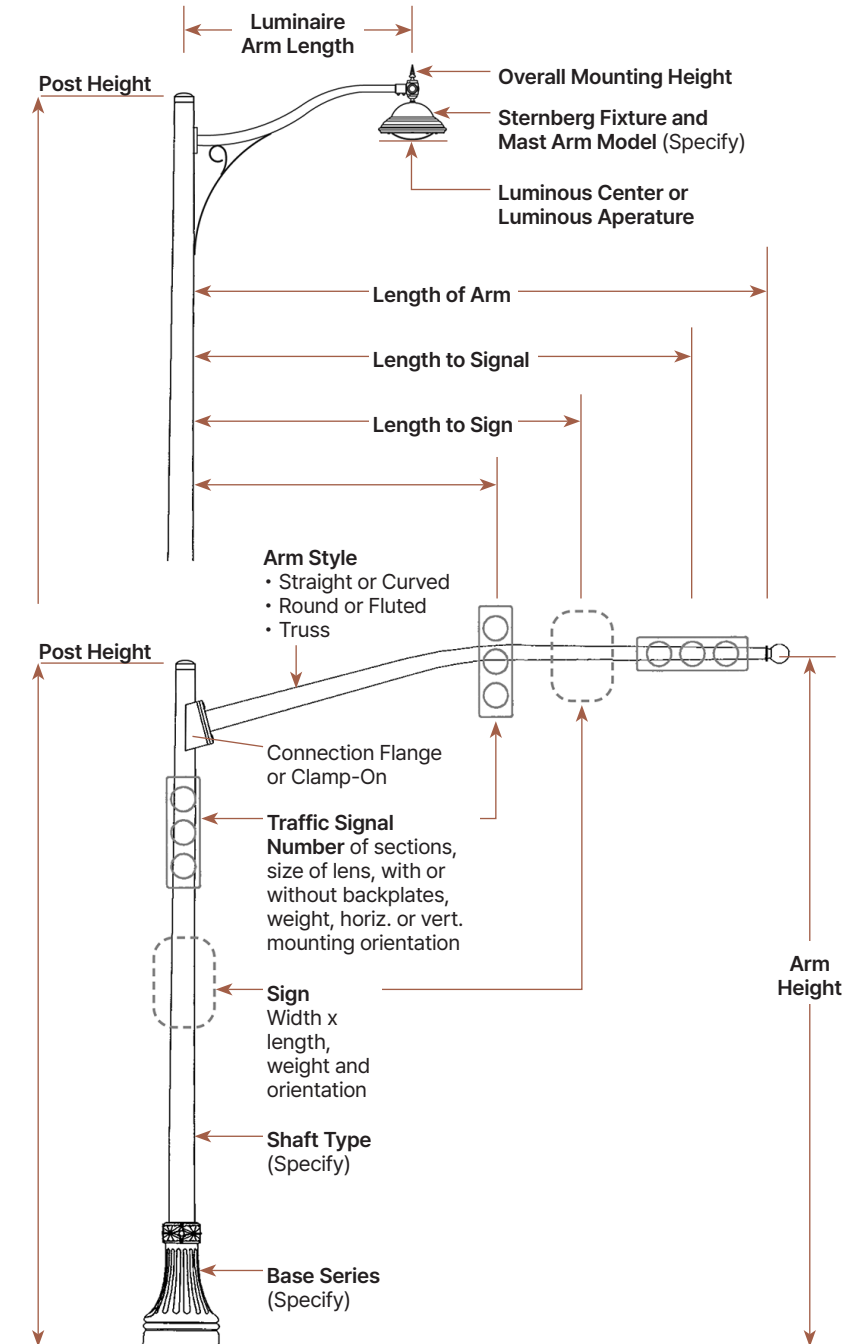
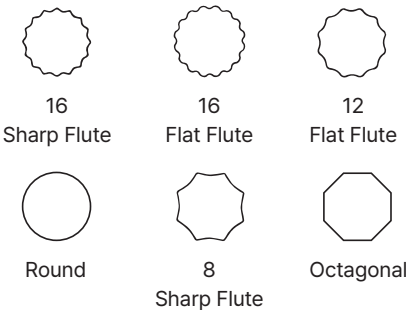
## Orientation Guide

Use this guide to determine equipment orientation on the post.



## Shaft Type (Pole Profiles)

All Tapered Shafts have a taper of 0.14 inch per foot of length. Most shafts are available in steel and / or aluminum.







**Located in Roselle, Illinois  
Engineered, Tested and Assembled in the USA!**

Sternberg has created a legacy of old world craftsmanship that dates back to the company's inception in 1923. The work ethic and product innovations that made the early Sternberg company successful are still being practiced by our employees today. Our dedicated staff, attention to detail, and quality production processes are what make Sternberg a world class company.

Sternberg serves the municipal, landscape, higher education and commercial markets providing efficient and cost effective lighting solutions to the outdoor market.

See our complete catalog online at:  
[www.sternberglighting.com](http://www.sternberglighting.com)



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