

Study Session: Dark Sky Policies and Standards

October 28, 2019



CUPERTINO



Background

- Part of FY2019-20 Work Program
- Light Pollution
- Dark Sky Movement



Dark Sky Regulations Intent

- Reasonable lighting
- Prevent light pollution and intrusion
- Reverse degradation of night sky
- Help protect natural environment



Current Lighting Regulations

- Color
- Fixture Orientation
- Glare
- Uniform intensity
- Critical Areas

Current Regulations (Contd.)

- Residential Hillside Zone
 - Outdoor Lighting
 - Motion-Activated Lighting
 - Recreational Courts

Analysis

- Applicability
 - New Development
 - Existing Development Options:
 - Do not need to conform or
 - Conform upon permit issuance or
 - Comply by a set date

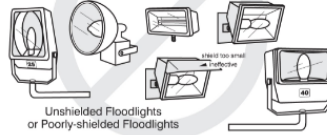
Analysis (contd.)

- Fixture Type
 - Lighting standards by use
 - Outdoor illumination shielded and directional

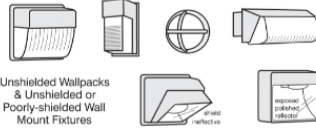
Examples of Acceptable / Unacceptable Lighting Fixtures

Unacceptable / Discouraged

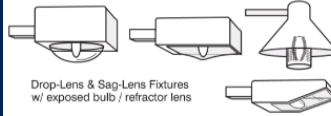
Fixtures that produce glare and light trespass



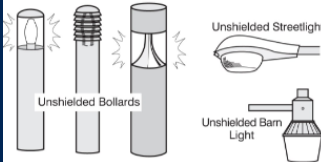
Unshielded Floodlights or Poorly-shielded Floodlights



Unshielded Wallpacks & Unshielded or Poorly-shielded Wall Mount Fixtures



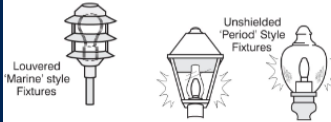
Drop-Lens & Sag-Lens Fixtures w/ exposed bulb / refractor lens



Unshielded Streetlight

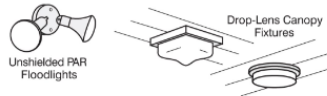
Unshielded Bollards

Unshielded Barn Light



Louvered 'Marine' style Fixtures

Unshielded 'Period' Style Fixtures

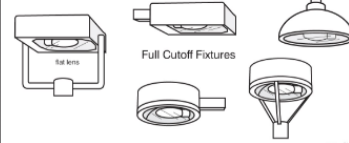


Unshielded PAR Floodlights

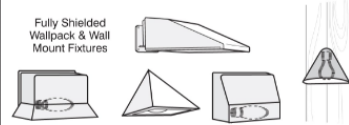
Drop-Lens Fixtures

Acceptable

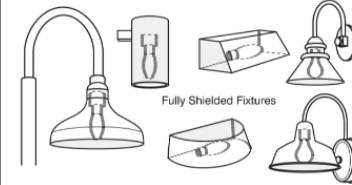
Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



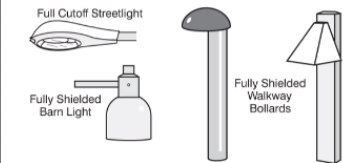
Full Cutoff Fixtures



Fully Shielded Wallpack & Wall Mount Fixtures



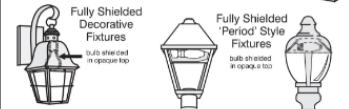
Fully Shielded Fixtures



Full Cutoff Streetlight

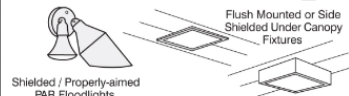
Fully Shielded Barn Light

Fully Shielded Walkway Bollards



Fully Shielded Decorative Fixtures bulb shielded in cap over top

Fully Shielded 'Period' Style Fixtures bulb shielded in cap over top



Shielded / Properly-aimed PAR Floodlights

Flush Mounted or Side Shielded Under Canopy Fixtures

Analysis (contd.)

- Lighting Controls
 - Motion sensor, photo-cells, and timers
- Prohibited Lights
 - Up-lighting, flood lights, search lights, exposed bulbs, etc.
 - Potential for greater light and glare

Analysis Continued

- Exceptions
 - Holiday Lights, lighting for signs, accent lighting, lighting in public rights-of-way
- Lighting Requiring a Hearing
 - Lighting that is considered unnecessary
 - Exception process for different uses

Next Steps

- Receive direction
- Develop draft regulatory program
- Outreach
- Draft Ordinance back to PC



Direction



Direction to Staff

- Applicability
- Fixture Type



Direction to Staff

- Lighting Controls
- Prohibited Lights



Direction to Staff

- Exceptions
- Lighting requiring a hearing