LIGHT-STREETS PILOT STUDY

NUMO

INTERNATIONAL
NIGHTTIME
DESIGN
INITIATIVE

LIGHT QUALITIES AND CHARACTERISTICS

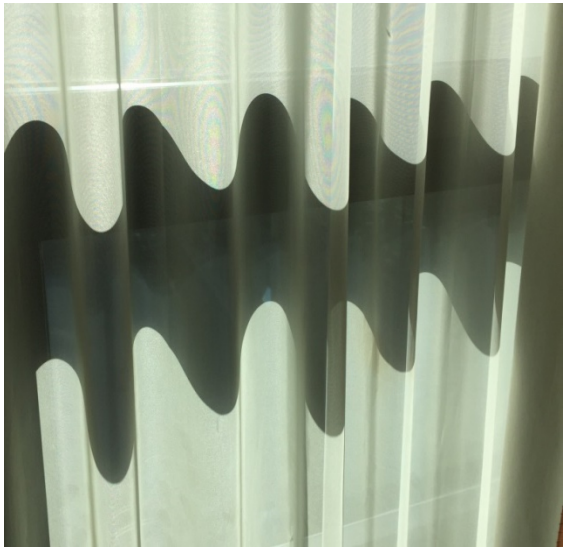
…. defines **boundaries**: Beam shaping creates simple shapes and paths acting like a painted bike lane or separation line

LIGHT QUALITIES AND CHARACTERISTICS

…**focus and controlled intensity** can be used to highlight and create visual hierarchy to point out amenities or barriers.

LIGHT QUALITIES AND CHARACTERISTICS

… **light and shadow** define our perception of space
to create dynamic and dramatic environment.



LIGHT QUALITIES AND CHARACTERISTICS

…interaction with materials: to slow down traffic with varied pavement materials and to accentuate visual separation between vehicular and pedestrian/bike zones.

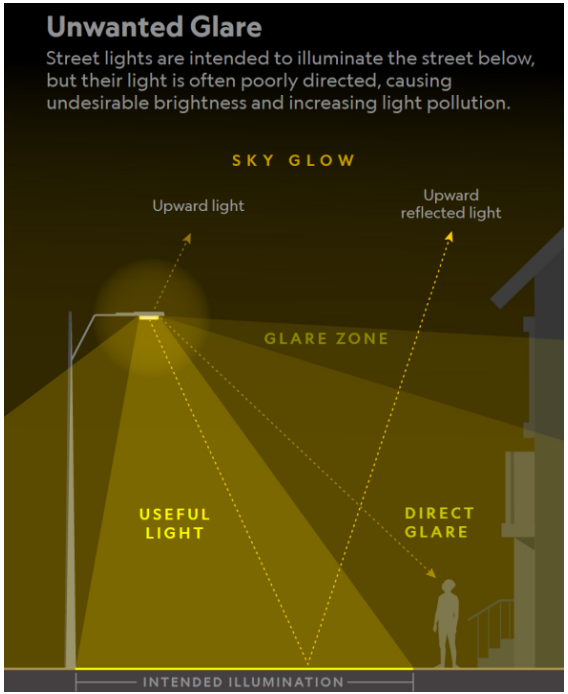
Light reveals three-dimensionality

Light interacts differently with reflective surfaces

LIGHT QUALITIES AND CHARACTERISTICS

…can have unintended **consequences**: glare, trespass, overlighting, sky glow

Unless designed with quality and consideration



https://www.nationalgeographic.com/science/2019/04/nights-are-getting-brighter-earth-paying-the-price-light-pollution-dark-skies/

https://blog.cityelectricsupply.com/bright-skies-solution-light-pollution/

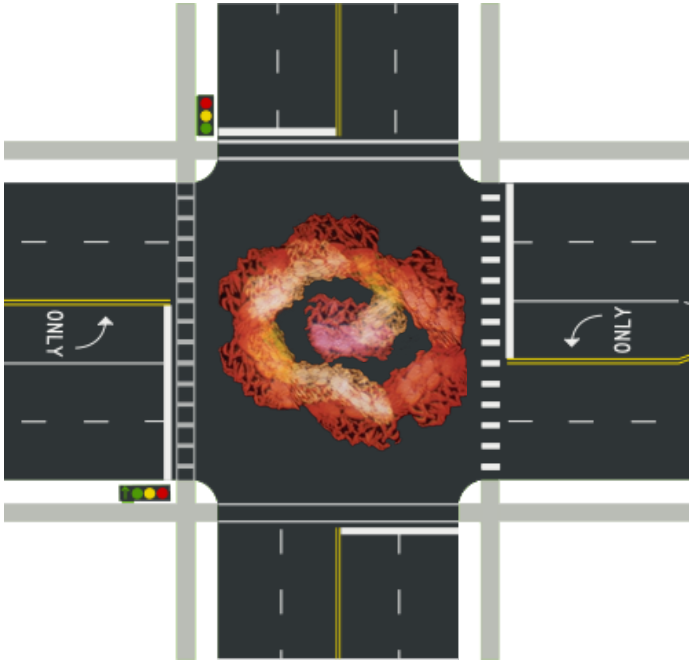
PILOT CONCEPT #1: VISUAL CHIME

Imagine:
A street use will be reallocated this evening for functional reasons such as deliveries or sanitation, or for nighttime culture/economy reasons such as a festival, market, or other playful programming.

The Visual Chime announces the change.

VISUAL CHIME SWITCH ON
TRAFFIC STOPS
PEDESTRIANS GO (PLAY)

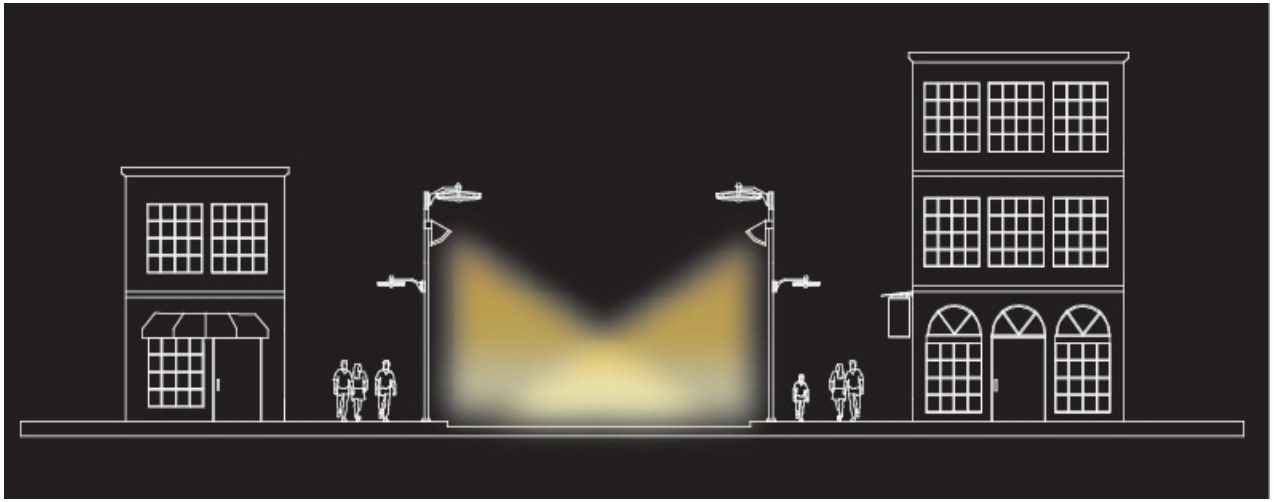
PILOT CONCEPT #1: VISUAL CHIME



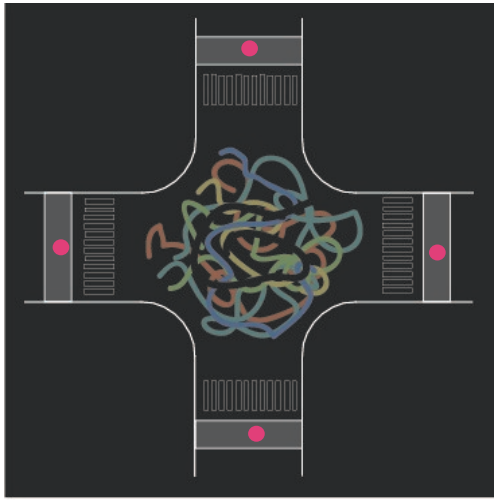
Projection located in an intersection visually announces lane reallocation or other street-use change ahead

Example illustrates ground experience and scale

VISUAL CHIME: SKETCHES



Light fixture mounted on streetlight poles or independant truss



Colorful light or projected image. Add Alt: street art

Textured vehicle warning bump or rumble strip to reinforce stop

VISUAL CHIME: LUMINAIRE TYPOLOGY SELECTION

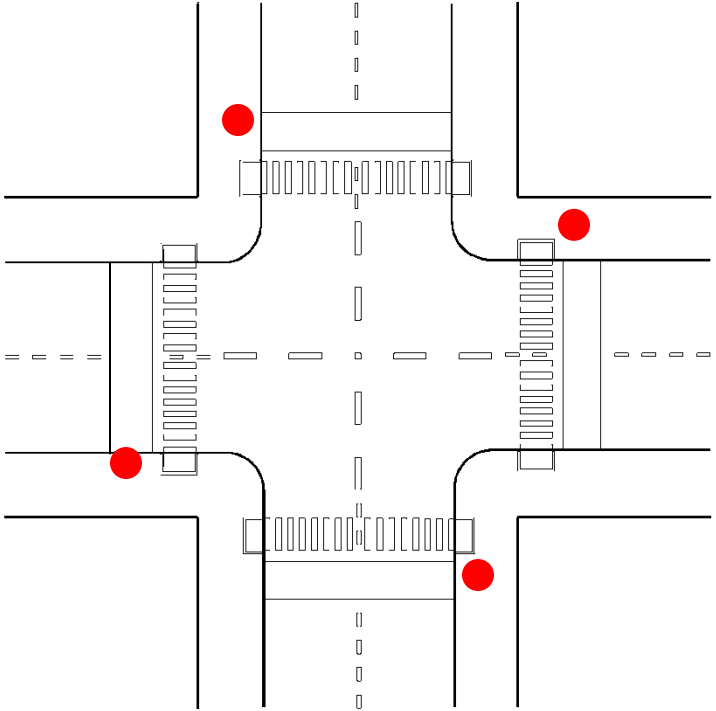
Both A and B lighting fixtures project dynamically changing color and/or image

A. COLOR-ONLY FIXTURE
-- casts colored light to be used in tandem with street art

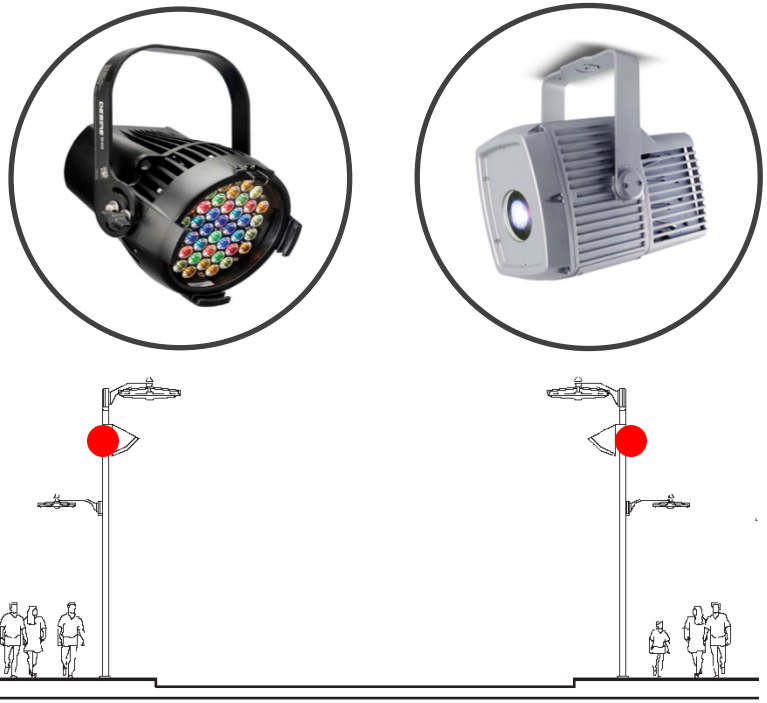
B. IMAGE PROJECTOR
-- projects patterns or images, street art unneeded

Note: all equipment shown is typological. They are examples not specifications

VISUAL CHIME: DRAWINGS, OPTION 1 – Streetlight Pole Mounting

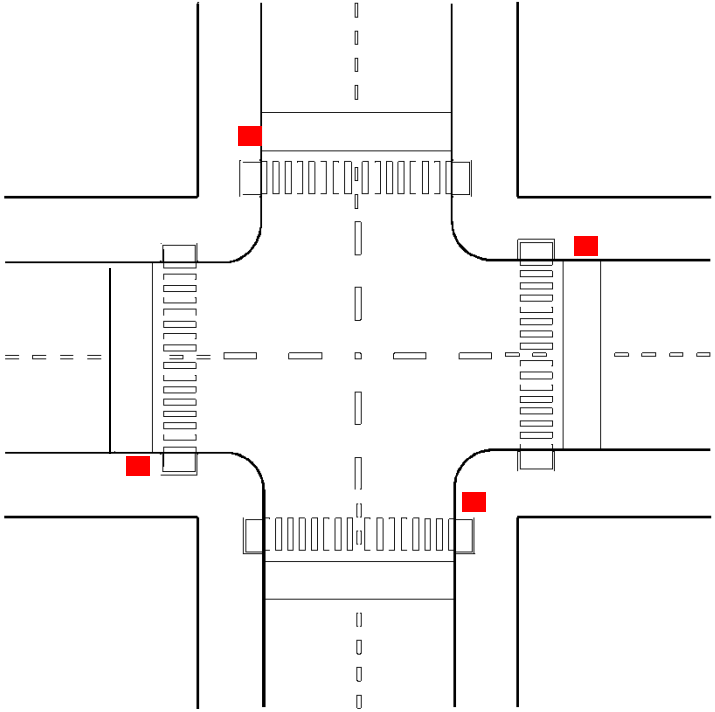


Streetlight placement indicative only, to show 4 projection locations

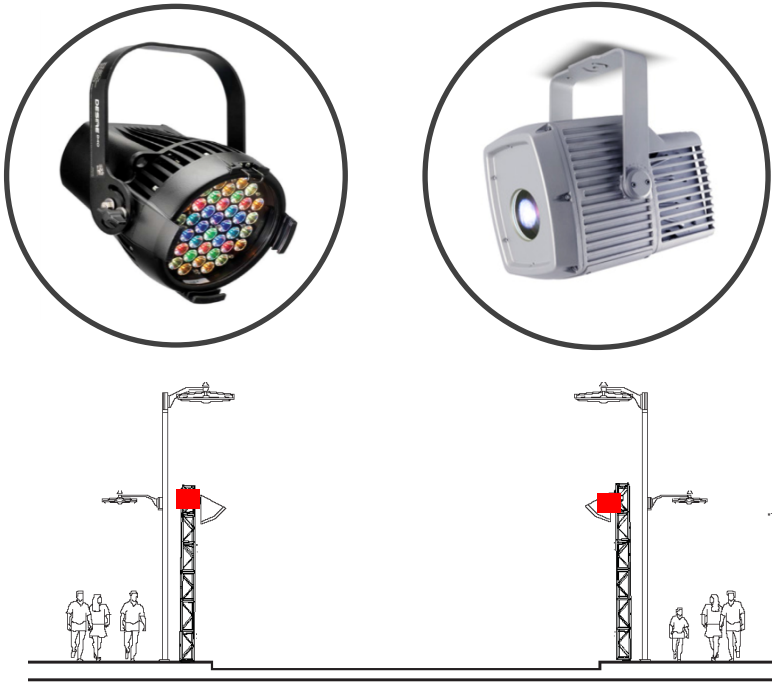


Projector placements as high as possible given streetlight pole's existing height

VISUAL CHIME: DRAWINGS, OPTION 2 – Truss Mounting

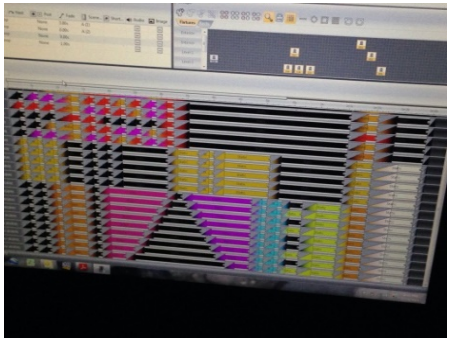


Plan: Vertical truss placement indicative only, to show 4 projection locations

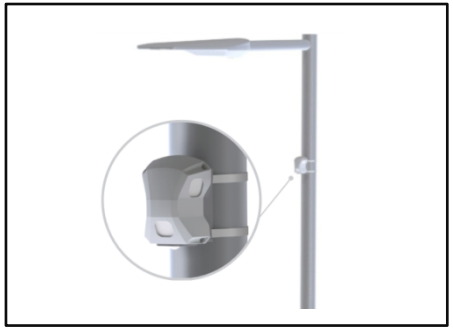


Projector placements approximately 25-ft high on truss

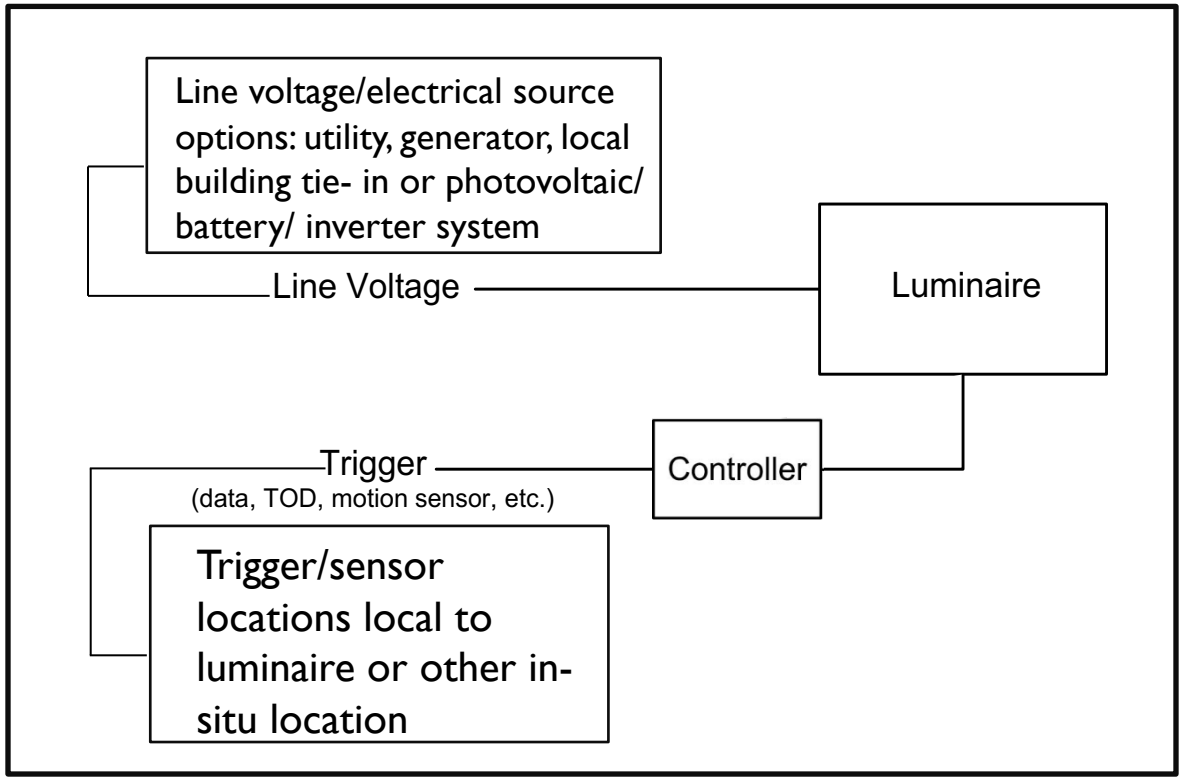
VISUAL CHIME: ELECTRICAL AND ELECTRONIC INFORMATION



Control dashboard



Example motion or position sensor



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PILOT CONCEPT #2: SPATIAL BEACON

Imagine

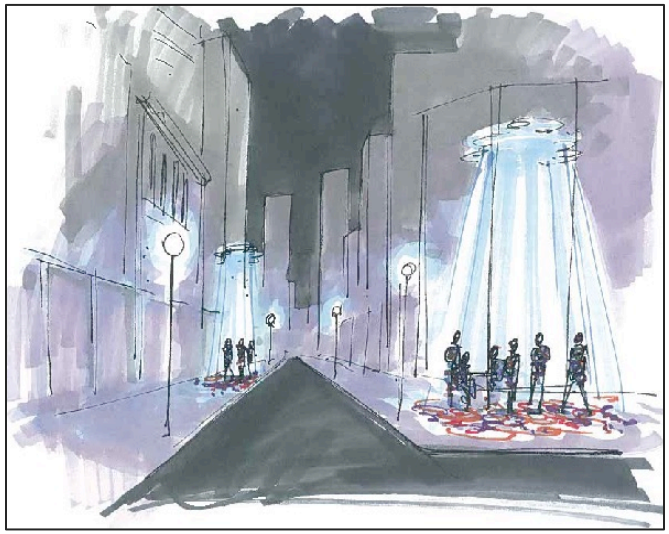
Experience from afar: A walker, cycler or micro-mobile traveler looks out into the distance to locate a intersection or crosswalk. The next intersection is clearly marked by a vertical line of light on each of the corner buildings.

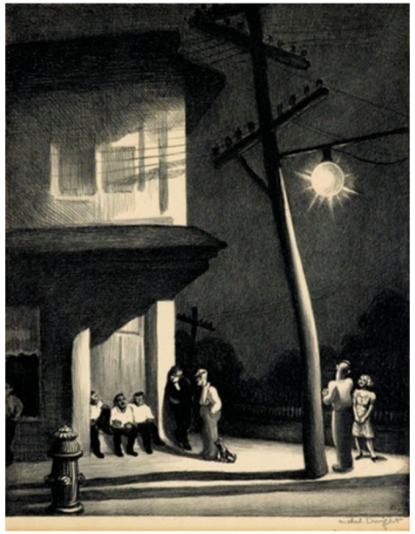
Experience close-up: Pedestrians and local residents enjoy a festive or softly, cheerful immersive luminous environment at the quintessential neighborhood corner.

WAYFINDING FROM A DISTANCE
ULTRA-LOCAL, A WELCOMING,
MINI-PEDESTRIAN SPACE INVITES ALL

PILOT CONCEPT #2: SPATIAL BEACON

Background: The secret history of street corners…





Left: The Social Life of Small Urban Spaces - The Street Corner, William H. Whyte (1969-1980)

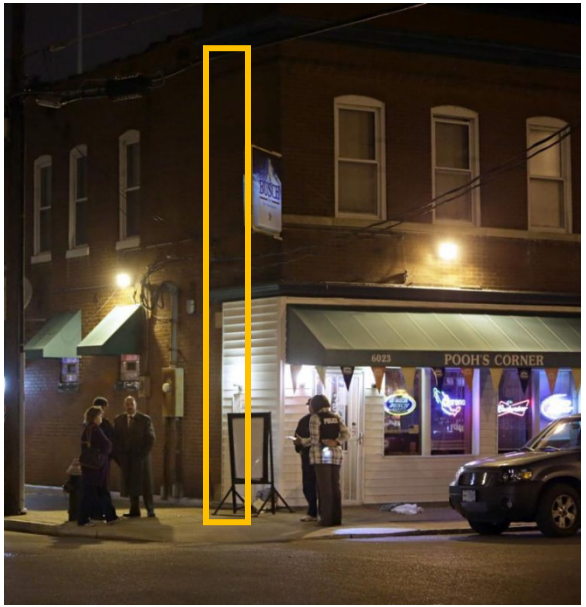
Center: Street corner dramas, Leni Schwendinger (Illustration: City People Light/Philips 2006)

Right: Summer Evening (Street Corner At Night), MABEL DWIGHT (1928 – 1945)

Implied: Street Corner Society, William Foote Whyte (1943)

PILOT CONCEPT #2: SPATIAL BEACON

Background: Corners graphically denoted as spatial (vertical) marker

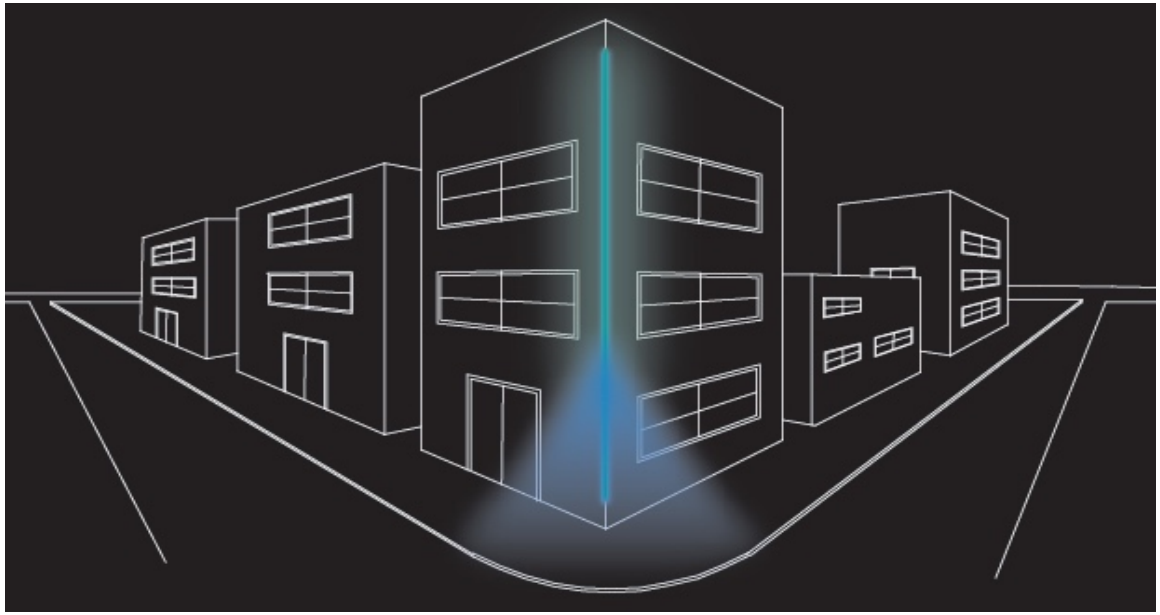


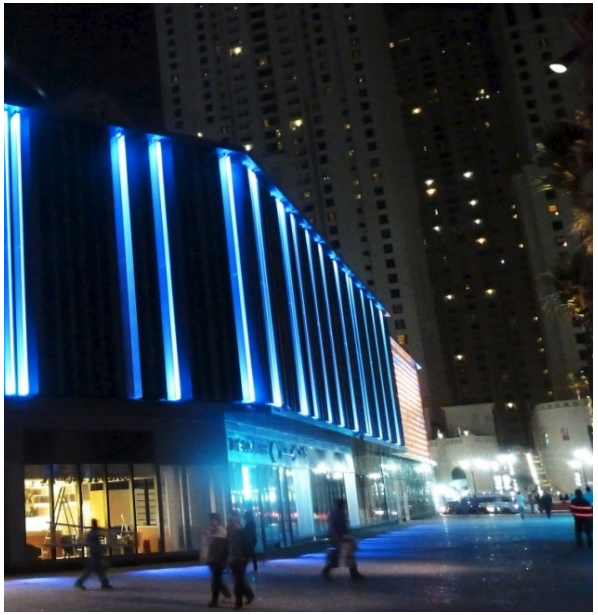
Left: Tokyo lights bring corner to the foreground
Middle: The simplest light highlights recognition of the corner
Right: Windows to right and left imply a corner

PILOT CONCEPT #2: SPATIAL BEACON

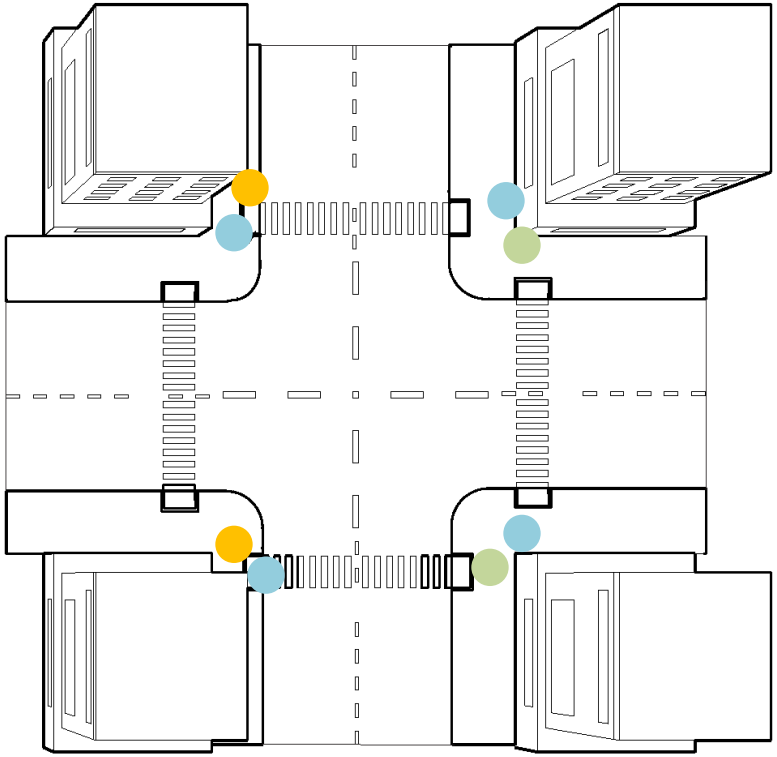
There are two strategies to achieve this concept, each with two luminaire types.

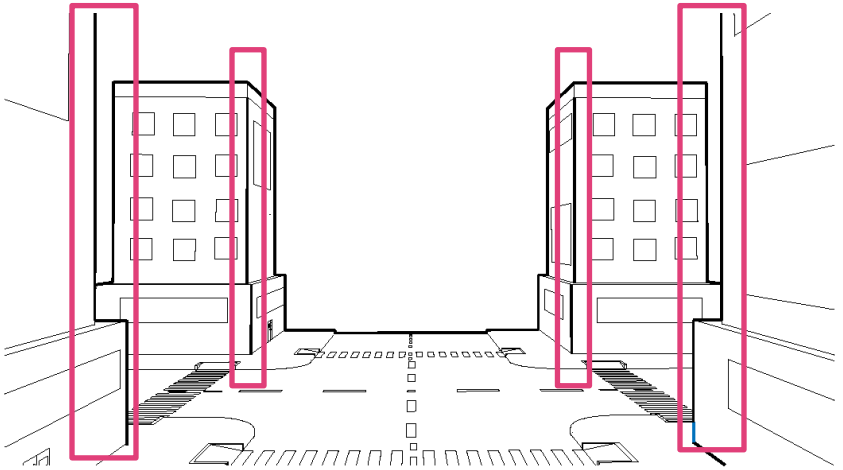
Option A has two fixtures for cast light – for the building corner and for the sidewalk experience. Option B has two fixtures, one a solid line of light, which would be seen during partial day, and the other a duplication of A for the sidewalk.





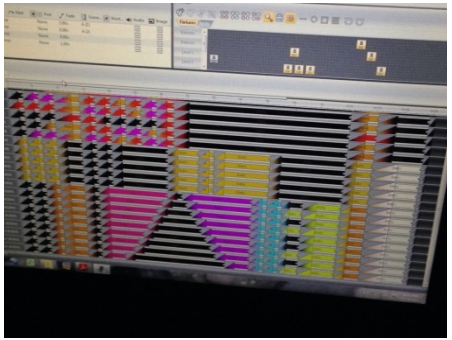
SPATIAL BEACON – PLAN OPTION A AND B





Two luminaires each, mounted onto buildings. This diagram shows both Options A and B

SPATIAL BEACON: ELECTRICAL AND ELECTRONIC INFORMATION



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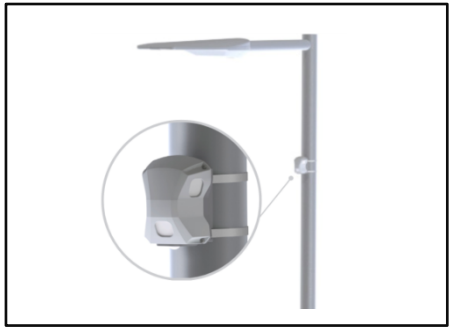

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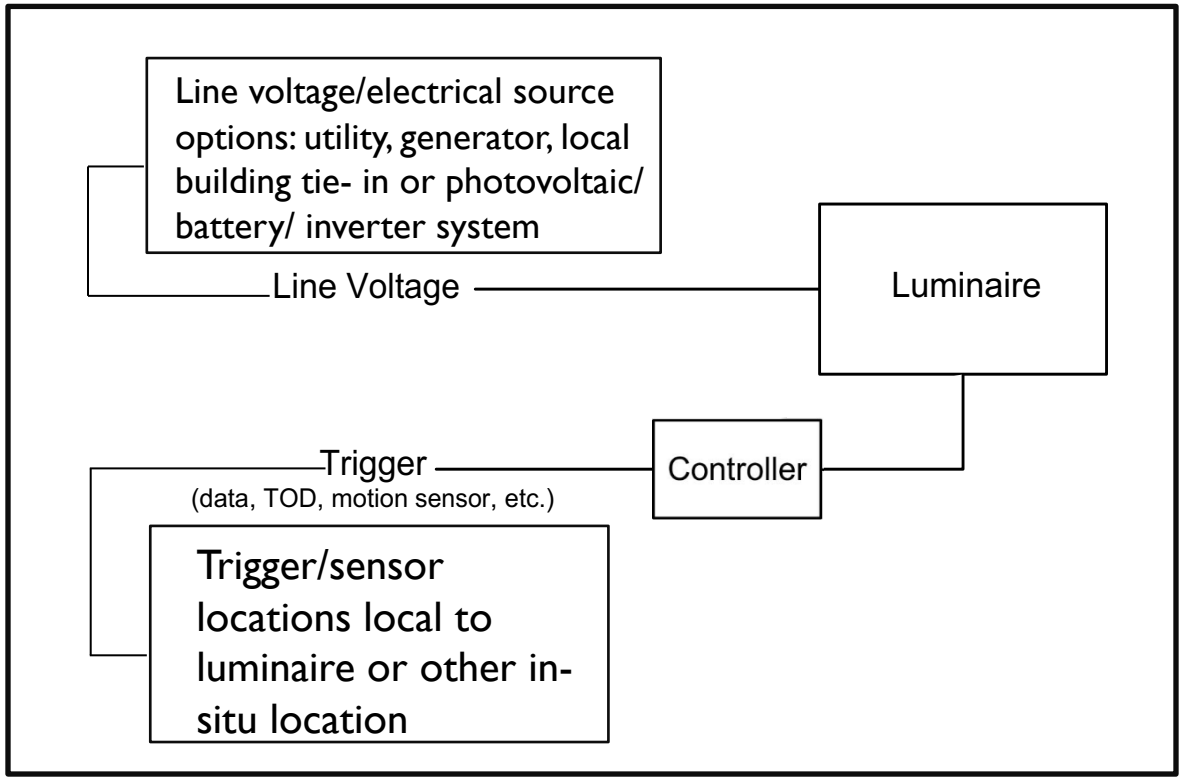

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