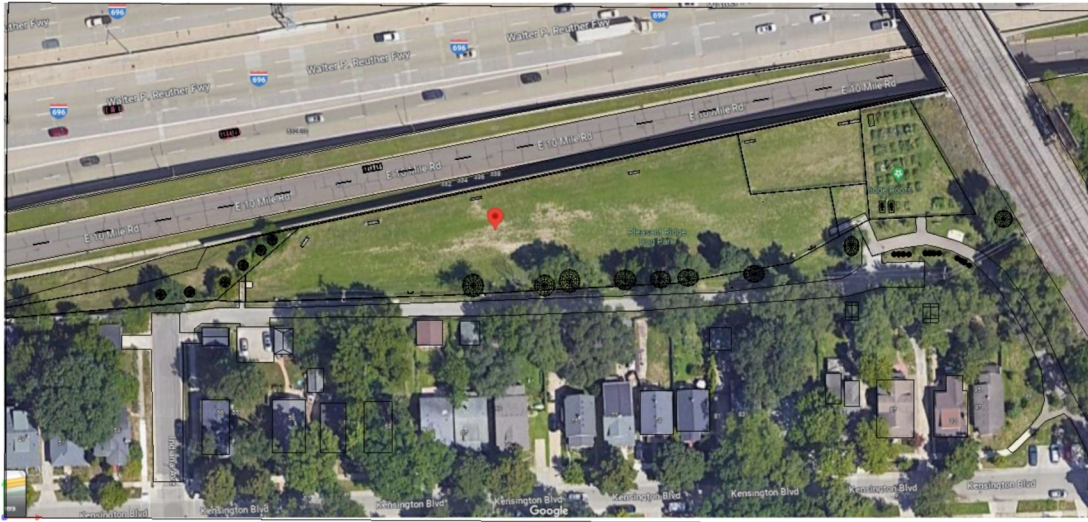


## Pleasant Ridge Dog Park

Lighting Design for Jim Breukman by Commercial LED Lights



## Description

### Lighting Design:

#### West End

One 20ft 4x4, 20ft pole with two 300W Area Lights  
30 Degree Tilt  
Full Glare Shields

#### East End

One 20ft 4x4, 20ft pole with three 300W Area Lights  
30 Degree Tilt  
Full Glare Shields

## Luminaire list

$\Phi_{total}$ 210000 lm	$P_{total}$ 1500.0 W	Luminous efficacy 140.0 lm/W
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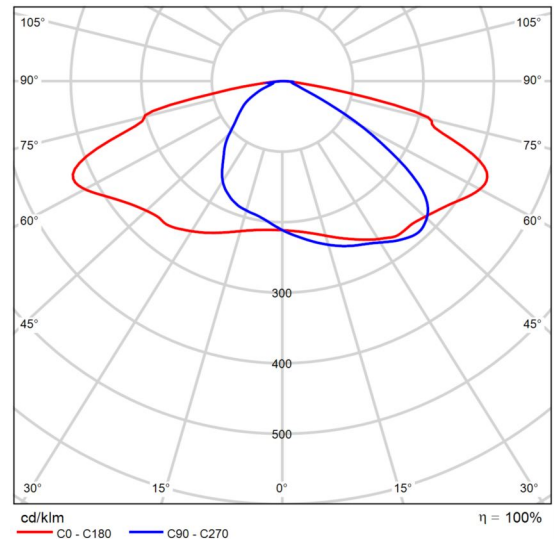
pcs.	Manufacturer	SKU	Article name	P	$\Phi$	Luminous efficacy
5	Mester	MAL08300W27V50KDT3	AREA LIGHT	300.0 W	42000 lm	140.0 lm/W

## Product data sheet

Commercial LED Parking Lot Flood Light | 300W, 42,000 Lumens, CCT | Type III Lens | 120-277V | MAL08



P	300.0 W
$\Phi_{Lamp}$	42000 lm
$\Phi_{Luminaire}$	42000 lm
$\eta$	100.00 %
Luminous efficacy	140.0 lm/W
CCT	5470 K
CRI	86



Polar LDC

## Specifications

### Construction:

- The rugged, one-piece die-cast aluminum housing features a complete heat sink hat optimizes heat dissipation through convection cooling management.
- Low profile, 3G vibration rated compact design minimizes wind load requirements.
- Housing is completely sealed against moisture and environmental contaminants.

### Optics:

- Available in IES Type III, IV, V distributions
- Light engines are available in adjustable color temperature (3000K&4000K&5000K) configurations.
- Scalable Lumen Packages from 6,600 to 45,000 Lumens replaces up to 1000W Metal Halide.
- Optics is precisely designed to shape the distribution, maximizing efficiency and application spacing.
- The optics can conform to dark sky requirement.

### Electrical:

- Universal 120-277 VAC or 347-480 VAC input voltage
- 10KA(@120-277V) or 20KA(@347-480V) surge protection
- Standard with 0-10V dimming driver
- Power adjustable: 100%, 80%, 60%, 40%.
- THD:  $\leq 20\%$
- Power Factor:  $\geq 90\%$

### Controls:

- Optional occupancy sensor
- Optional Photocell

### Ambient Temperature:

- Ambient operating temperature  $-40^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $104^{\circ}\text{F}$ ).

### Installation:

- Suitable for mounting heights ranging from 26-50' in area lighting applications
- Round pole, Square pole, slipfitter, wall mount and yoke are available.
- The design can be operated by one person to install the whole lamp

### Lifespan:

- Estimated 100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Medium Size: 100W/140W/180W



Large Size: 250W/300W



### Certifications:

- UL wet location listed

### Note:

Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 C ( $\pm 5^{\circ}\text{C}$ ) specifications subject to change without notice.

Site 1

Calculation objects



Site 1 (Light scene 1)

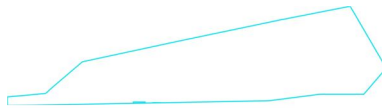
### Calculation objects

Calculation surfaces

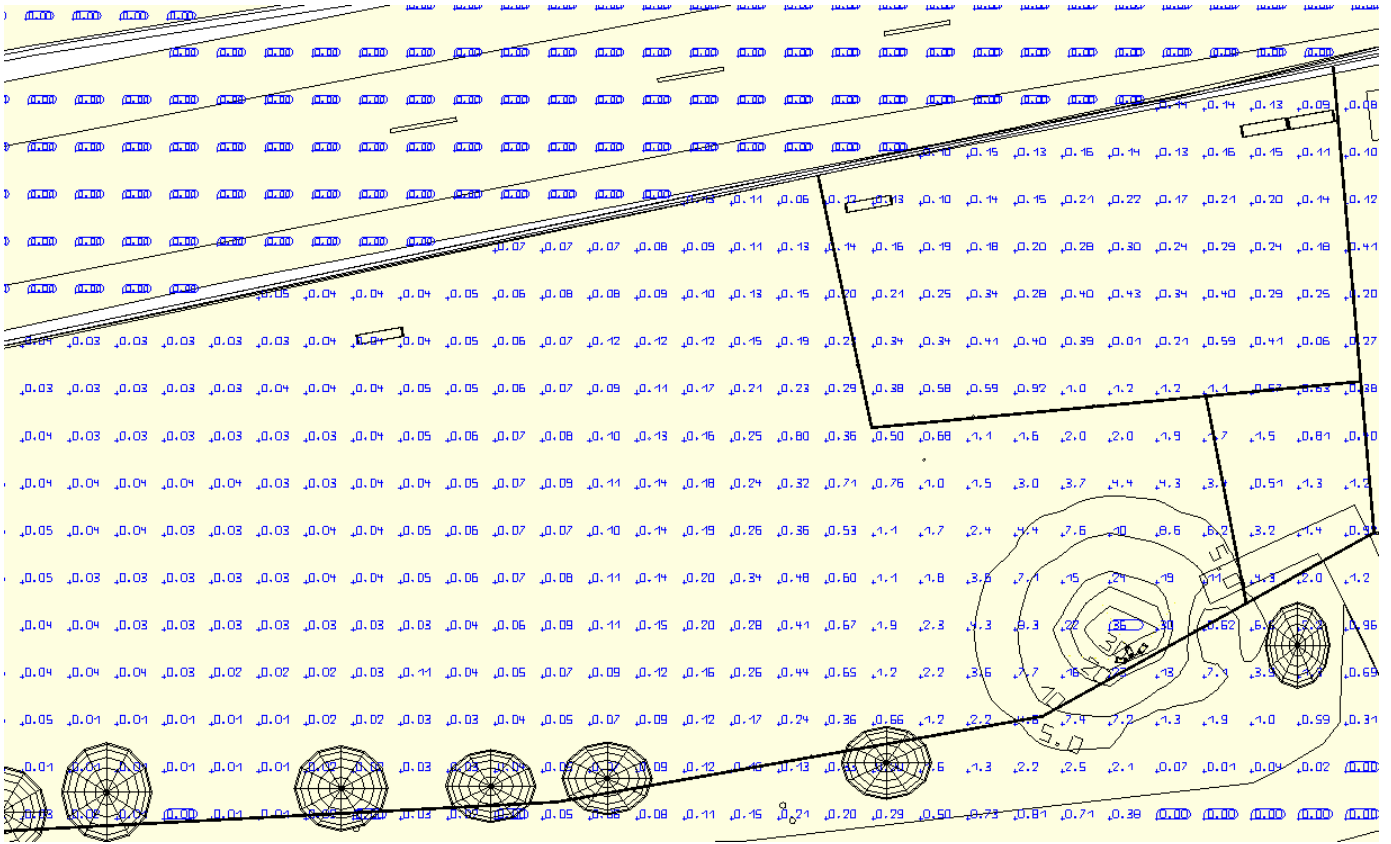
Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
Dog Park Perpendicular illuminance Height: 17.500 ft	0.90 fc	0.00 fc	36.0 fc	-	-	CG1
10 Mile Road Perpendicular illuminance Height: 7.500 ft	0.001 fc	0.00 fc	0.100 fc	-	-	CG2
West Side Residential Perpendicular illuminance Height: 17.500 ft	0.002 fc	0.00 fc	0.56 fc	-	-	CG3
East Side Residential Perpendicular illuminance Height: 17.500 ft	0.003 fc	0.00 fc	0.18 fc	-	-	CG4
Expressway Perpendicular illuminance Height: 2.500 ft	0.010 fc	0.00 fc	0.064 fc	-	-	CG5
Mid West Side Perpendicular illuminance Height: 12.500 ft	0.001 fc	0.00 fc	0.017 fc	-	-	CG6
Far West Side Perpendicular illuminance Height: 10.500 ft	0.000 fc	0.000 fc	0.001 fc	-	-	CG7



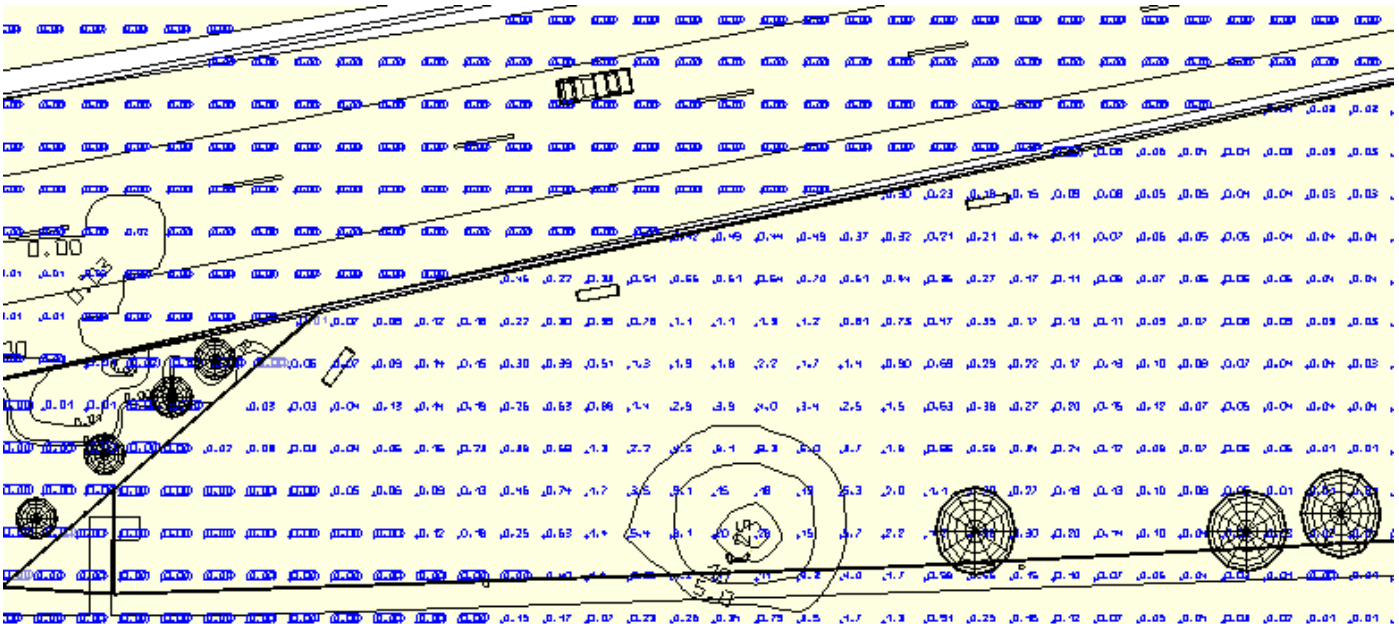
Site 1 (Light scene 1)  
Dog Park



East Side



West Side

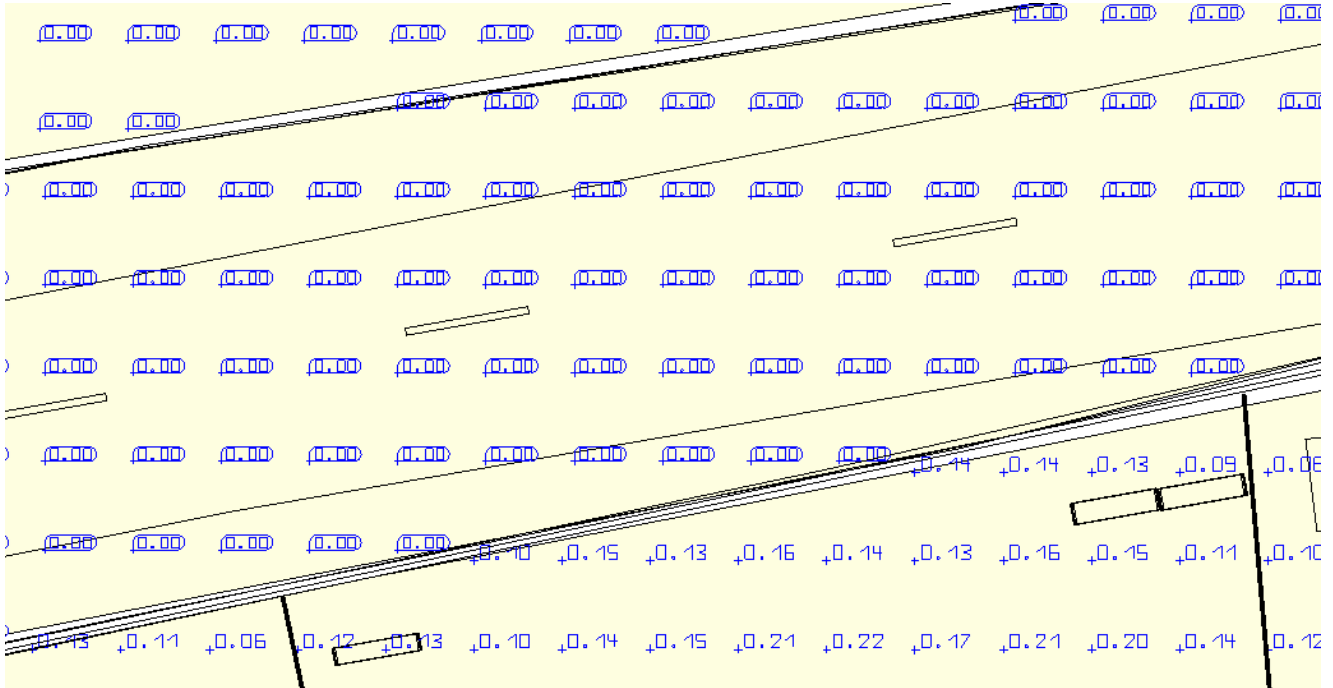


Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
Dog Park Perpendicular illuminance Height: 17.500 ft	0.90 fc	0.00 fc	36.0 fc	-	-	CG1

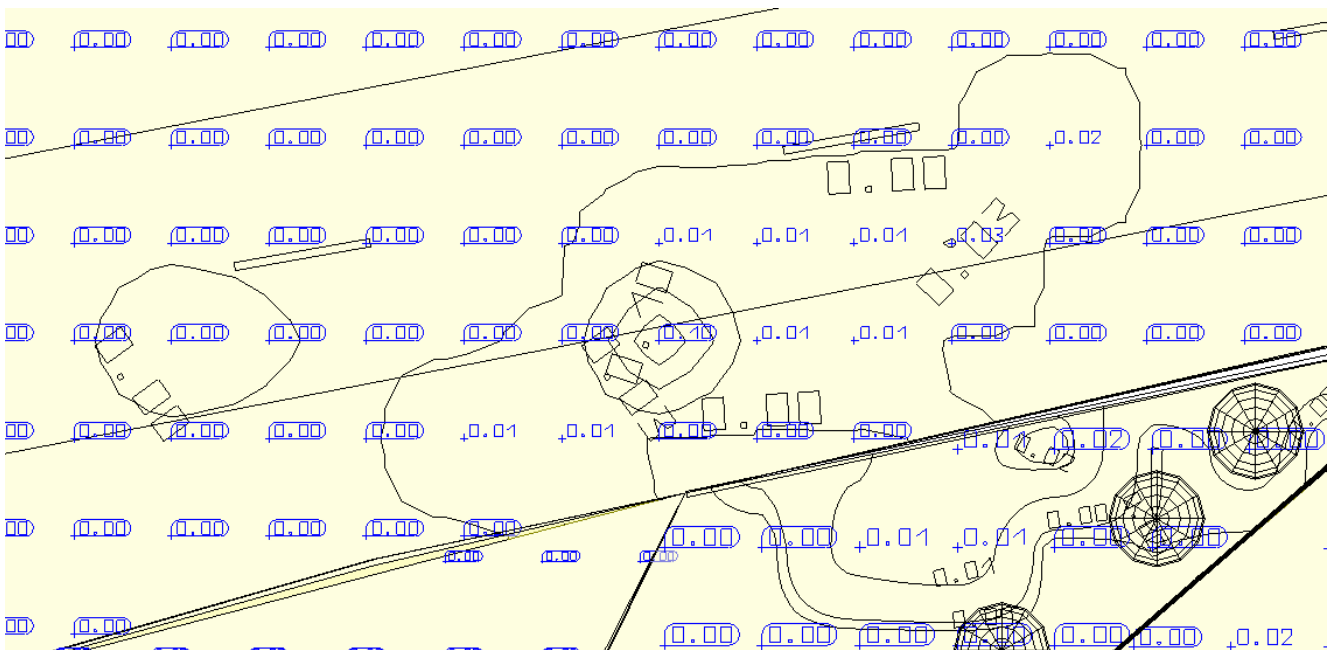
Site 1 (Light scene 1)

**10 Mile Road**

East Side

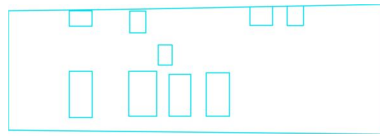


West Side



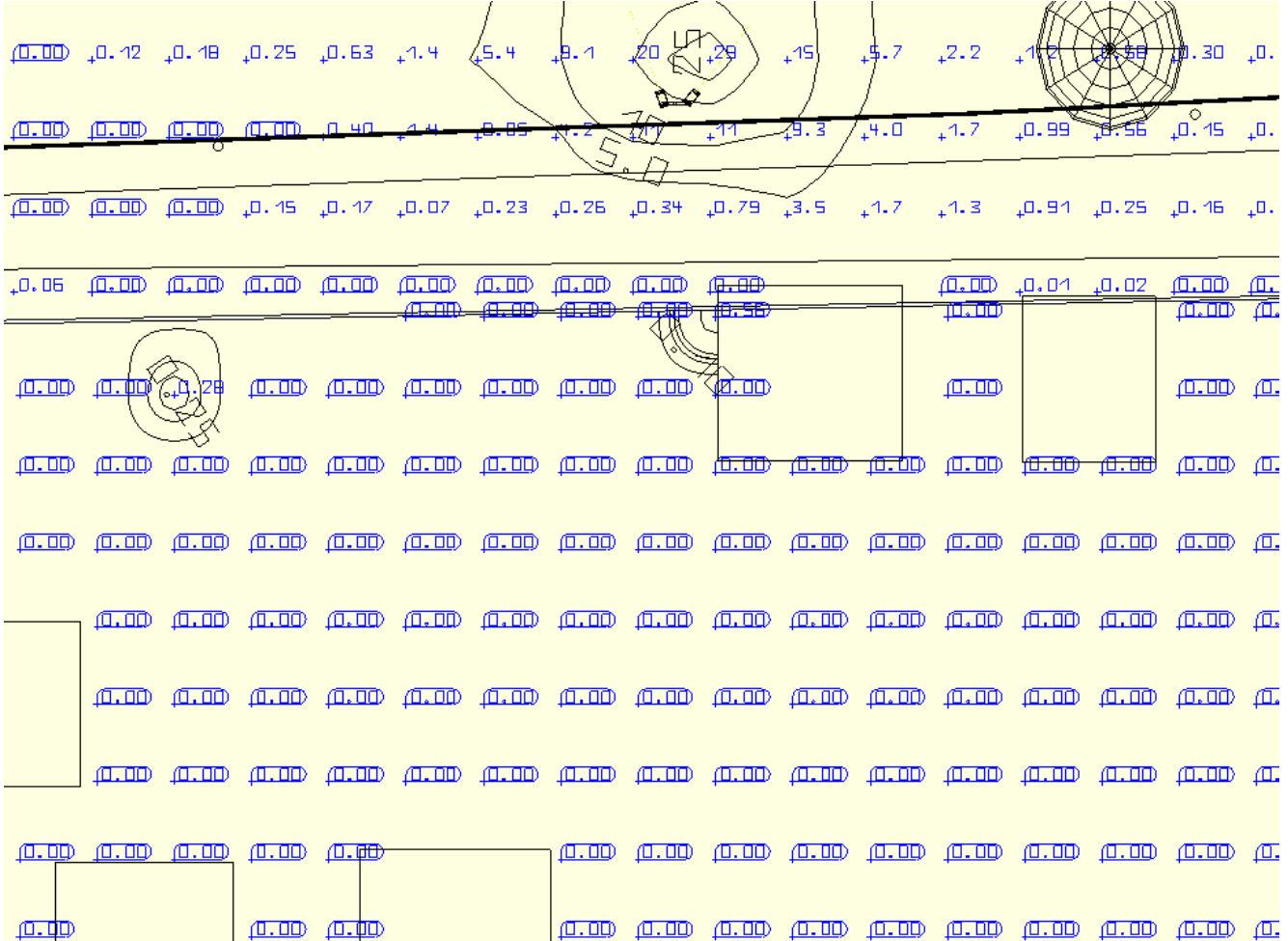
Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
10 Mile Road Perpendicular illuminance Height: 7.500 ft	0.001 fc	0.00 fc	0.100 fc	-	-	CG2





Site 1 (Light scene 1)

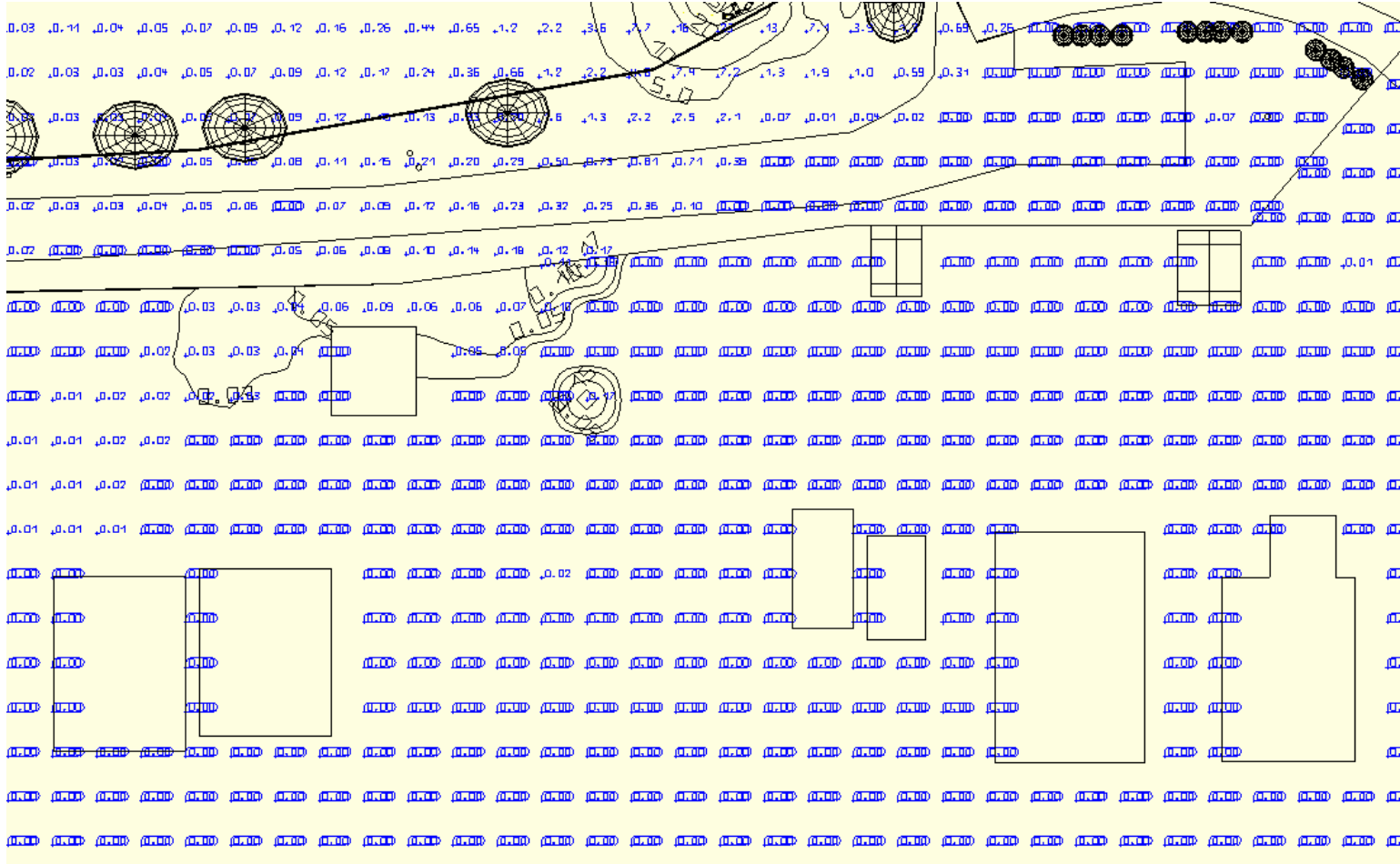
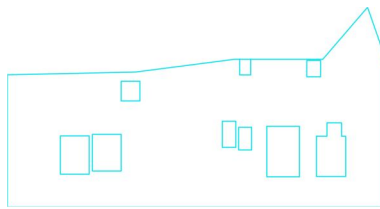
# West Side Residential



Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
West Side Residential Perpendicular illuminance Height: 17.500 ft	0.002 fc	0.00 fc	0.56 fc	-	-	<b>CG3</b>

Site 1 (Light scene 1)

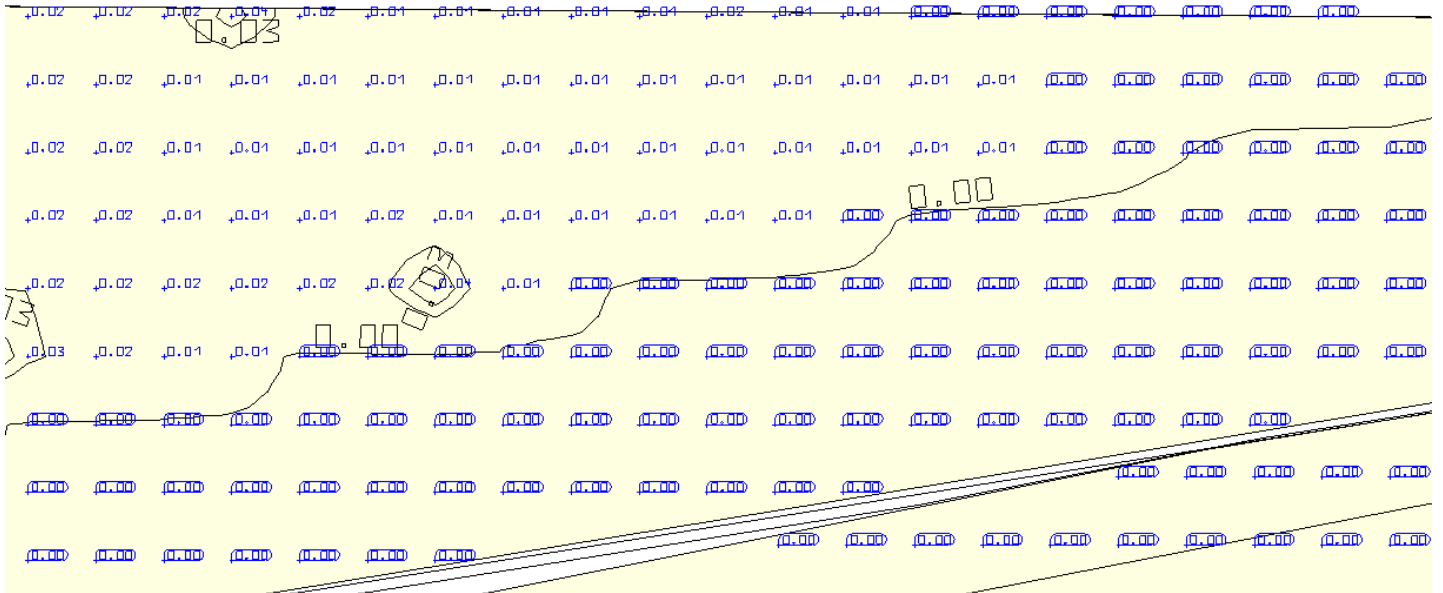
East Side Residential



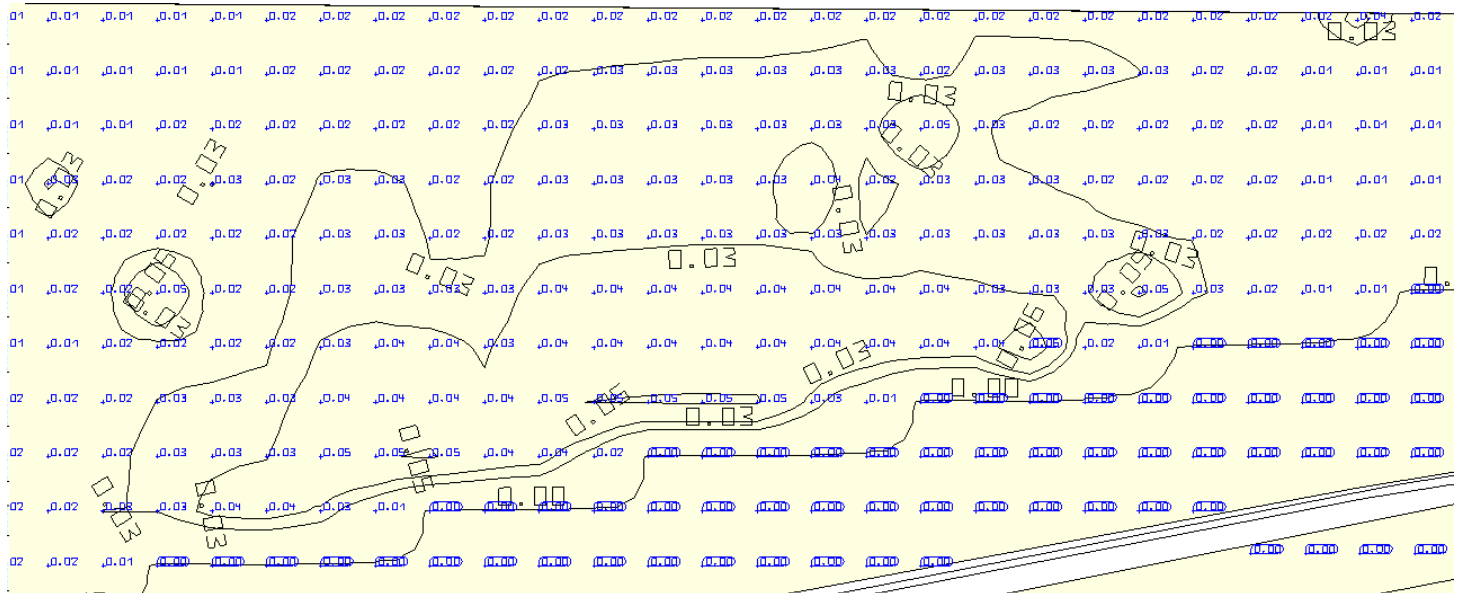
Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
East Side Residential Perpendicular illuminance Height: 17.500 ft	0.003 fc	0.00 fc	0.18 fc	-	-	CG4

Site 1 (Light scene 1)  
Expressway

East Side

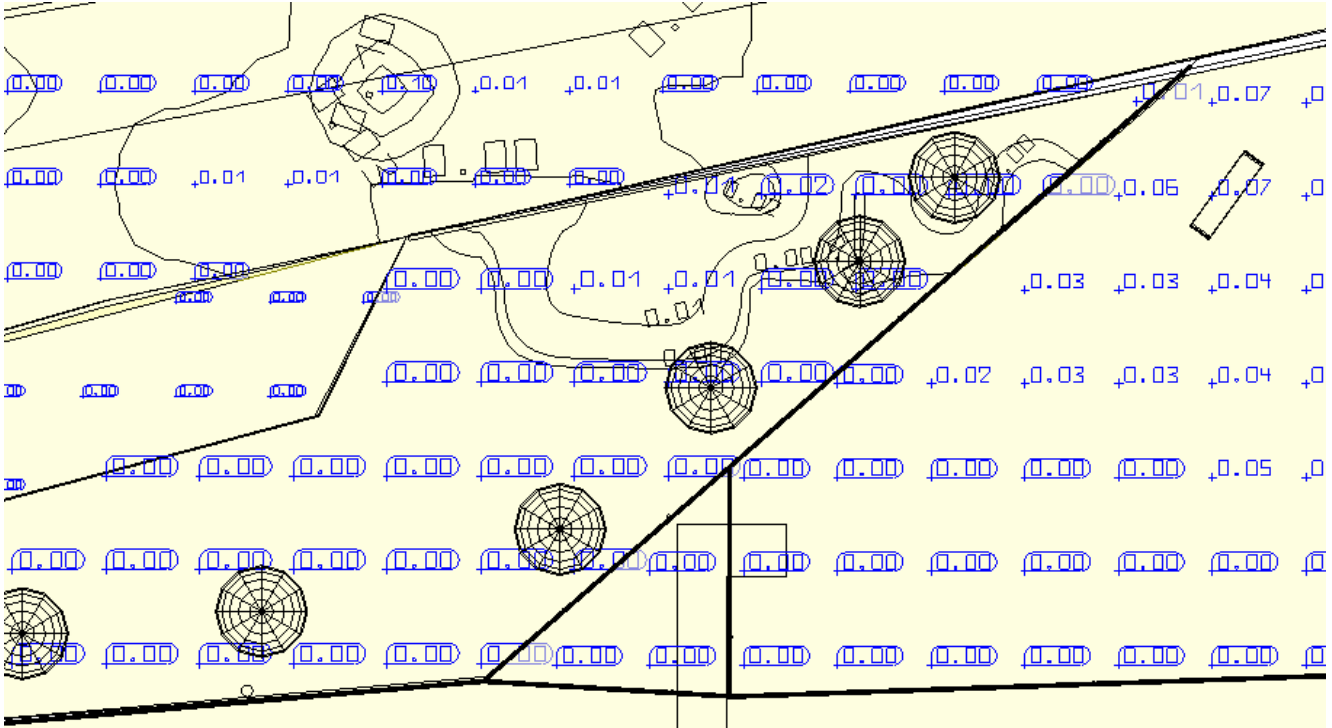


West Side



Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
Expressway Perpendicular illuminance Height: 2.500 ft	0.010 fc	0.00 fc	0.064 fc	-	-	CG5

Site 1 (Light scene 1)  
**Mid West Side**



Properties	$\bar{E}$	$E_{min}$	$E_{max}$	$\bar{E}/E_{min}$	$E_{max}/E_{min}$	Index
Mid West Side Perpendicular illuminance Height: 12.500 ft	0.001 fc	0.00 fc	0.017 fc	-	-	CG6