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## **SS Credit**

Light Pollution Reduction



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Light Pollution Reduction

# 1

## **POINT**

Demonstrate uplight and light trespass meet requirements

Increase night sky  
access, improve  
nighttime visibility,  
and reduce the  
consequences of  
development

WHAT

WHY

WHEN

WHO

HOW

**1**

Meet uplight requirements

**2**

Meet light trespass requirements

**3**

Meet internally illuminated  
exterior signage requirements



## **SS Credit**

Light Pollution Reduction

Uplight and light trespass

**OPTION**

**1**

BUG rating  
method

**or**

**OPTION**

**2**

Calculation  
method

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# BUG

backlight-uplight  
glare

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# REFERENCED STANDARD

Illuminating Engineering Society  
(IES) Lighting Handbook

[www.ies.org](http://www.ies.org)

LIGHTING ZONE	
Zone 0	No ambient lighting
Zone 1	Low ambient lighting
Zone 2	Moderate ambient lighting
Zone 3	Moderately high ambient lighting
Zone 4	High ambient lighting

See IES User Guide for definitions  
and recommended uses

WHAT

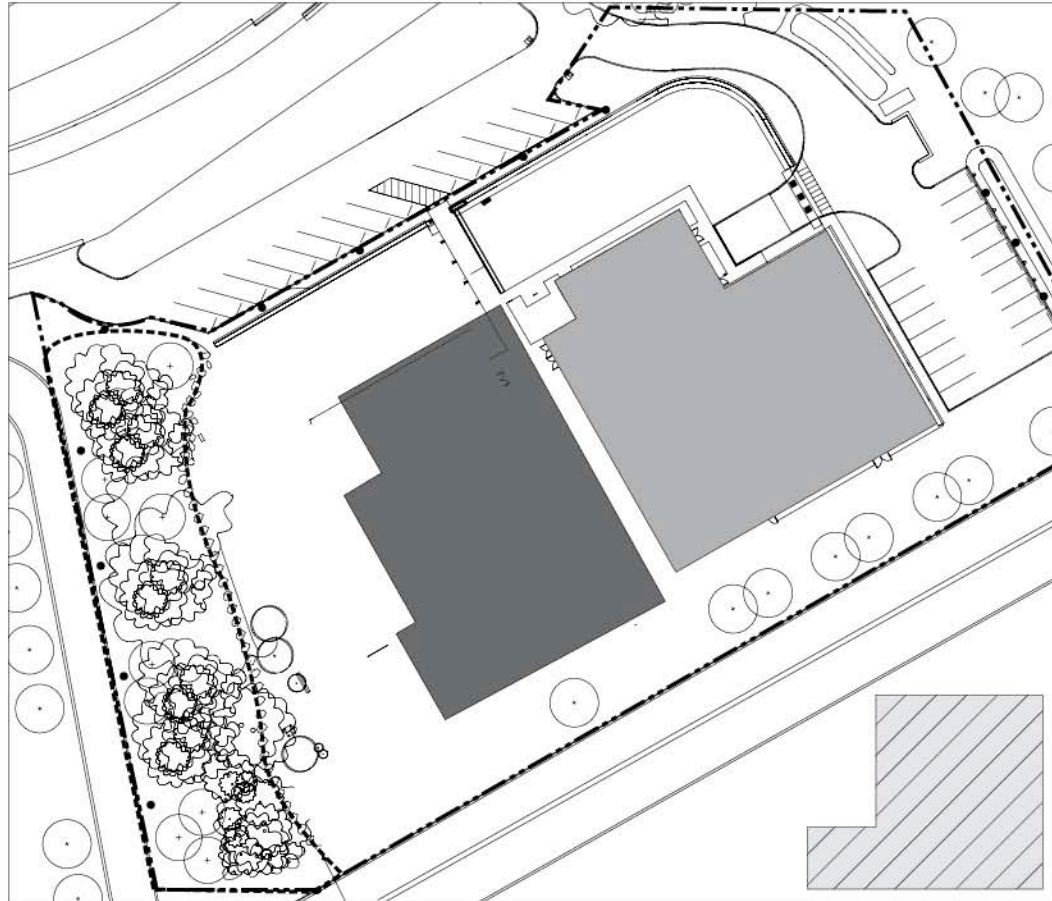
WHY

WHEN

WHO

HOW

# IDENTIFY LIGHTING BOUNDARY



LIGHTING BOUNDARY

WHAT

WHY

WHEN

WHO

HOW

**1**

Develop luminaire schedule

**2**

Designate exterior luminaires

**3**

Indicate boundaries and site conditions

**4**

Include luminaires information

WHAT

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OPTION

**1**

BUG rating  
method

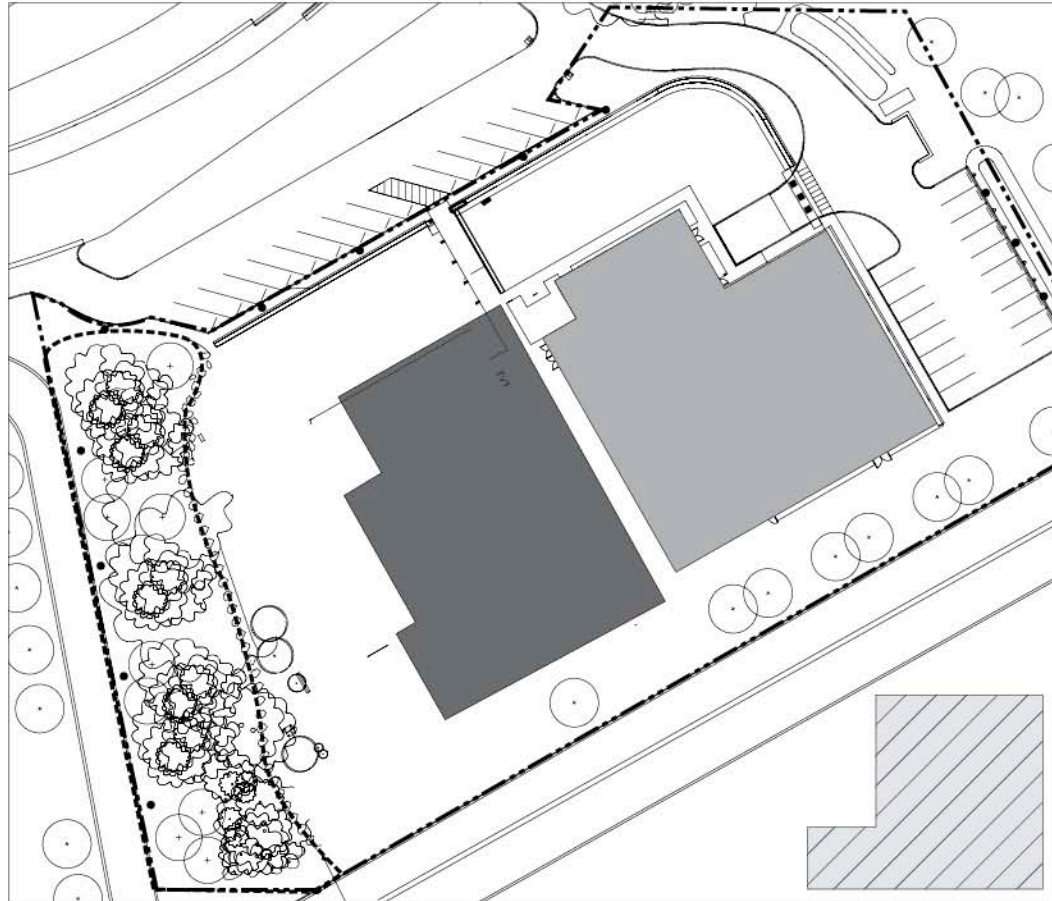
**or**

OPTION

**2**

Calculation  
method

# UPDATE DESIGN IF NEEDED



LIGHTING BOUNDARY

WHAT

WHY

WHEN

WHO

HOW





# DETERMINE EXEMPT LUMINAIRES

WHAT

WHY

WHEN

WHO

HOW



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Uplight and light trespass

OPTION

1

BUG rating  
method

or

OPTION

2

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# MAXIMUM UPLIGHT RATINGS FOR LUMINAIRES

MLO LIGHTING ZONE	LUMINAIRE UPLIGHT RATING
LZ0	U0
LZ1	U1
LZ2	U2
LZ3	U3
LZ4	U4

# MAXIMUM PERCENTAGE OF TOTAL LUMENS EMITTED ABOVE HORIZONTAL

MLO LIGHTING ZONE	MAXIMUM ALLOWED PERCENTAGE OF TOTAL LUMINAIRE LUMENS EMITTED ABOVE HORIZONTAL
LZ0	0%
LZ1	0%
LZ2	1.5%
LZ3	3%
LZ4	6%



# ASSESS LIGHT TRESPASS REQUIREMENTS

WHAT

WHY

WHEN

WHO

HOW

**calculate vertical illuminance**  
to at least



above tallest luminaire



# SELECT LUMINAIRES FOR INTERNALLY ILLUMINATED EXTERIOR SIGNAGE

WHAT

WHY

WHEN

WHO

HOW



**1**

Meet uplight requirements

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exterior signage requirements



## **SS Credit**

### Light Pollution Reduction

Demonstrate uplight and  
light trespass requirements

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# QUESTION and ANSWER

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# QUESTION

How was the Light  
Pollution Reduction  
credit improved  
in LEED v4?