

# WTH / WTV

Wide Throw Luminaires  
Horizontal or Vertical Lamp

150 - 250 Watt



**KIM LIGHTING**

## Application Flexibility

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### The WTH/WTV Series:

A pedestrian scale luminaire requires a specific design approach that distinguishes it from larger street and area lighting fixtures. The optical system must provide a wider distribution to produce uniformity from lower mounting heights. At lower mounting heights, luminaire designs must produce a unified look with the pole so the viewer perceives them as a single component.

The WTH/WTV series provides unity between pole and fixture with exceptional performance and versatility. The cylindrical fixture head has a visual softness that blends with its surroundings. Horizontal reveals provide architectural character and mechanical strength to the housing. High performance optics and a choice of horizontal or vertical lamp configurations give the WTH/WTV product line unprecedented application flexibility.



ISO 9001:2000



**SITE / AREA**  
**PARKING STRUCTURE**  
**ROADWAY**  
**ARCHITECTURAL FLOOD**  
**ACCENT**  
**LANDSCAPE**

MAILING ADDRESS:  
P.O. BOX 60080  
CITY OF INDUSTRY, CA  
91716-0080

BUSINESS ADDRESS:  
16555 EAST GALE AVENUE  
CITY OF INDUSTRY, CA 91745  
U.S.A.

PHONE 626 / 968 -5666  
FAX 626 / 369 -2695

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[www.kimlighting.com](http://www.kimlighting.com)



**Hubbell**  
**Lighting, Inc.**

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# Kim Lighting's Theory of Relativity

## The Relationship of Outdoor Lighting to Site and Architecture



**CC/CS** Curvilinear Cutoff  
**VL** Vertical Lamp



**WTH** Wide Throw Horizontal  
**WTV** Wide Throw Vertical



**VRB3** Vandal Resistant Bollard



**LTV** Lightvault®



**AFL** Architectural Floodlight



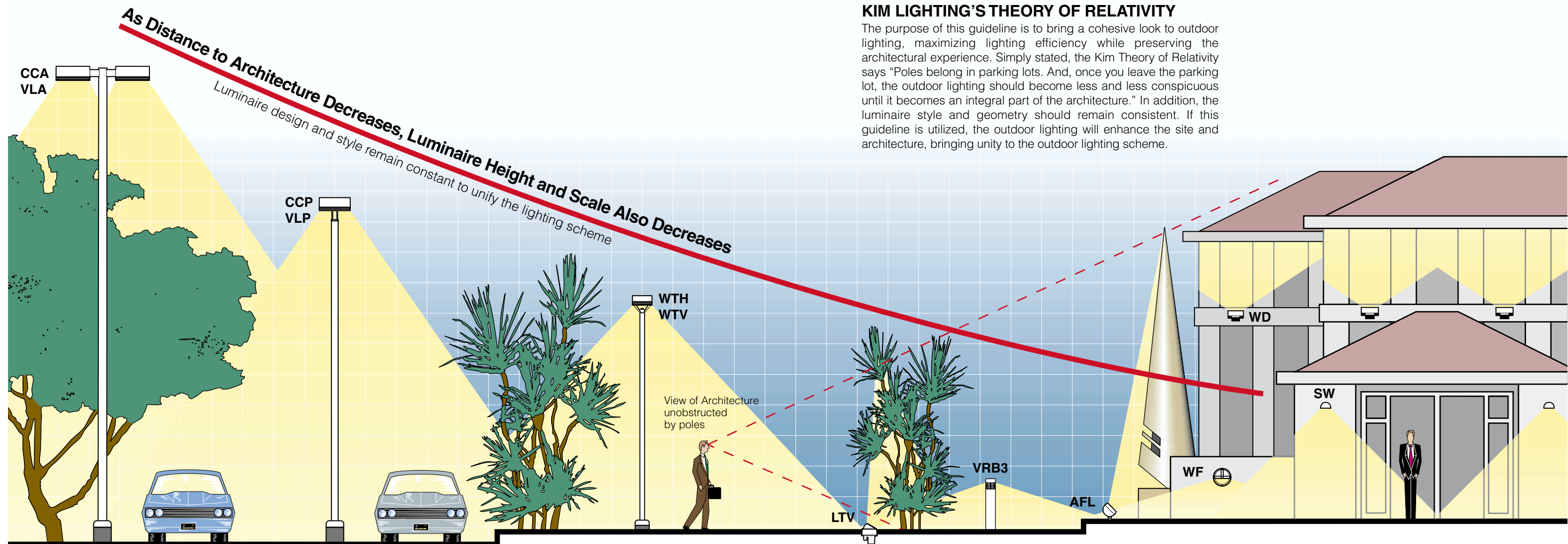
**WF** Wall Forms®



**SW** Site Wallform



**WD** Wall Director®



### KIM LIGHTING'S THEORY OF RELATIVITY

The purpose of this guideline is to bring a cohesive look to outdoor lighting, maximizing lighting efficiency while preserving the architectural experience. Simply stated, the Kim Theory of Relativity says "Poles belong in parking lots. And, once you leave the parking lot, the outdoor lighting should become less and less conspicuous until it becomes an integral part of the architecture." In addition, the luminaire style and geometry should remain consistent. If this guideline is utilized, the outdoor lighting will enhance the site and architecture, bringing unity to the outdoor lighting scheme.

#### SITE / ROADWAY ZONE

Parking lots and roadways require luminaires on 20' - 40' poles to efficiently light these large areas. Therefore, this lighting becomes dominant and sets the design and style for all other lighting as you progress towards the building.

#### PEDESTRIAN ZONE

As you leave the parking lot and transition to pedestrian areas, poles should decrease in height to 10' - 16'. In addition, luminaires should decrease in scale, and can have more decorative features to be appreciated at the pedestrian level.

#### LANDSCAPE / PATH ZONE

Near the building, luminaires should begin to disappear, blending into the landscape and hardscape elements.

#### BUILDING / PERIMETER ZONE

No pole mounted luminaires should ever be used near the building, as they will dominate the architecture. The only exception would be the use of decorative luminaires to delineate entrances to the structure. Building mounted, architecturally compatible fixtures should be almost invisible.

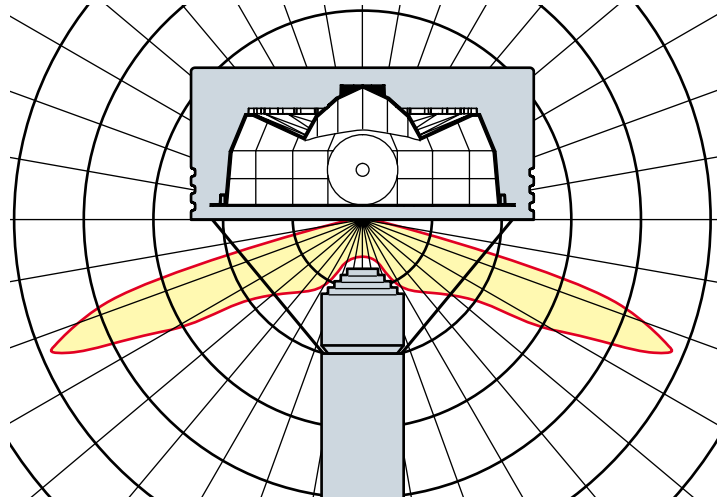
# Horizontal or Vertical Lamp

See the **Kim Site / Roadway Optical Systems Catalog** for complete details and explanation of optical system features.

## WTH Reflector Horizontal Lamp

The **Wide Throw Horizontal (WTH)** luminaire should be selected for sensitive areas where light trespass is an issue. The horizontal lamp configuration will provide the highest degree cutoff, the greatest flexibility with four available light distributions, and the most effective use of Kim's optional louvered houseside shield. Maximum cutoff, visual comfort and application flexibility are the hallmarks of this model.

A hydroformed shell, sealed optics, and high performance reflector technology allow this horizontal WTH reflector to optimize lamp output. Offering **Types II, III, IV, and V** (square) distributions, the WTH reflectors are both versatile and powerful. An optional houseside shield is available for Types II, III, and IV distributions.



Type II



Type III



Type IV

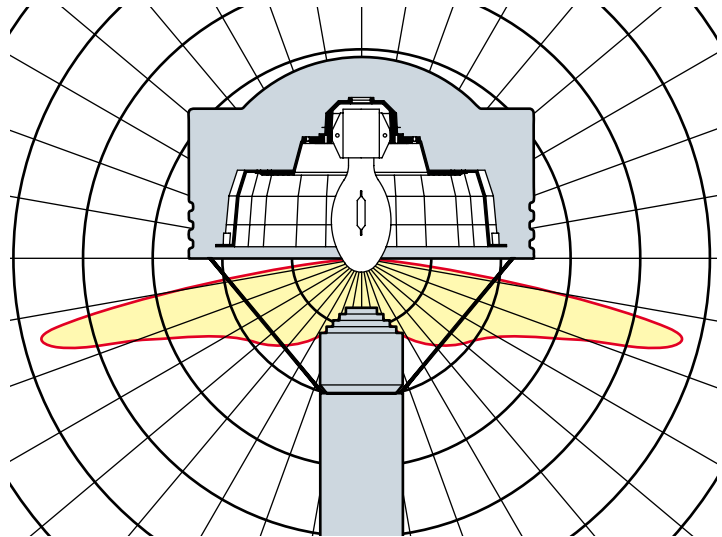


Type V Square

## WTV Reflector Vertical Lamp

The **Wide Throw Vertical (WTV)** luminaire is engineered to produce maximum pole spacing through the use of Kim's high performance split-beam vertical lamp optical system. This reflector system generates a very wide throw, creating greater fixture brightness which is desirable in many commercial applications. This sends important visual messages such as: "This facility is open" and "this facility is a safe place."

Kim's split beam reflector technology allows this vertical WTV reflector to optimize lamp output and visual uniformity. Offering **Asymmetric** and **Symmetric Square** distributions, the WTV reflectors are both versatile and powerful. An optional houseside shield is available for the Asymmetric distribution to further control spill light.



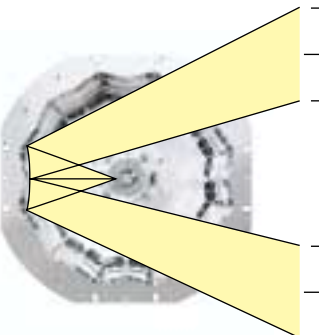
Asymmetric



Symmetric Square

## Split Beam Reflector Geometry

Wide-beam vertical lamp reflectors will simply redirect light back into the lamp unless designed properly. Kim WTV reflectors are precision engineered to avoid this redirected energy by using split-beam reflector geometry.



Reflected light does not pass through the lamp envelope, which otherwise would reduce lamp life and efficiency.

Split beams of reflected light pass freely and efficiently out of the luminaire. Proper lamp life is also maintained.

## Installation and Maintenance



Fast installation and easy maintenance are achieved by modular construction and ergonomic engineering. The hinged fixture housing swings up and out of the way and locks in place for easy relamping. Mounting fixture to pole is achieved by tightening a single bolt hidden by the pole cap design feature.



The reflector module easily hooks in and out of the housing by no-tool release hinges, and is secured to the housing flange by a self-retained quarter turn fastener.



The ballast module is factory-wired with quick-disconnect plugs, and mounts inside the housing with keyhole slots.

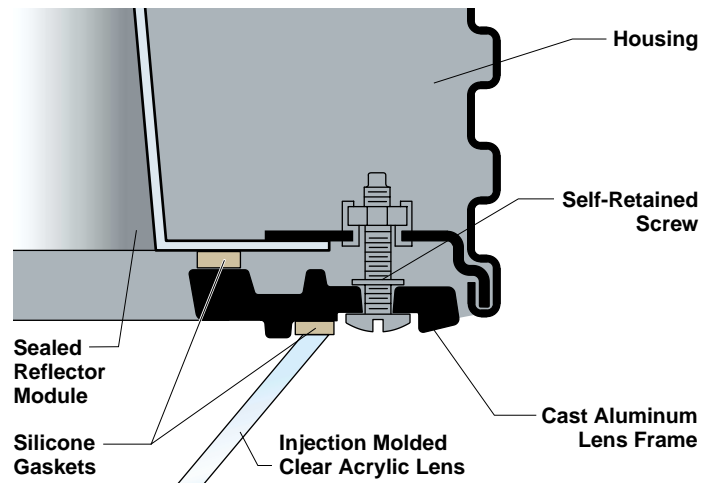


Both the WTH and WTV reflectors are constructed of Specular Alzak® optical segments, mounted within a sealed one-piece die-cast shell.



## Sealed Optical System

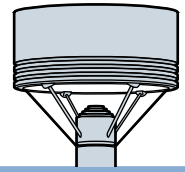
Most optical systems ultimately degrade from outside air, moisture and insects. These contaminants find their way into the optical chamber through poles and wireways, greatly reducing efficiency. The WTH/WTV optical compartment is completely sealed from outside and inside including wire entries to the socket and mounting transition to the pole. The injection molded, clear acrylic lens is sealed by silicone gaskets at both the top and bottom of the optical compartment. This assures maximum light output between standard maintenance intervals.

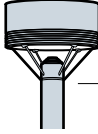
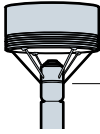
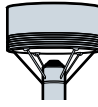

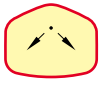
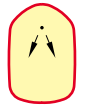

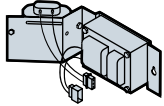
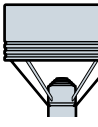

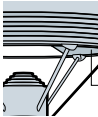
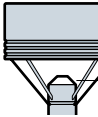
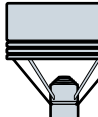


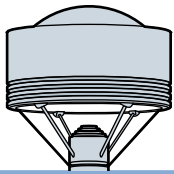
# Ordering Information

## Wide Throw Horizontal Lamp

**WTH**  
Horizontal Lamp  
150 to 250 Watt



	Mounting	Fixture	Electrical Module	Finish	Options	Optional Accent Reveals	Pole	
<b>Ordering Example:</b> For Standard Fixture and Pole	<b>FM / WTH3 / 250MH277 / BL-P / A-33 / LG-REV / PRA20-5188FM / BL-P</b>							
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5-8</b>	<b>9</b>	<b>10</b>	
	See separate Kim Pole Catalog.							
<b>1 Mounting:</b>	 Cat. No.: <b>FM</b> Flush Mount 5" O.D. Poles only	 Cat. No.: <b>PT</b> Tenon Mount For Poles with 2" Pipe-size Tenon						
<b>2 Fixture:</b> Cat. No. designates <b>WTH</b> fixture and light distribution. See the Kim Site/Roadway Optical Systems Catalog for detailed information on reflector design and application.	 Light Distribution: Cat. No.: <b>WTH2</b>	 Type II Cat. No.: <b>WTH3</b>	 Type III Cat. No.: <b>WTH4</b>	 Type IV Forward Throw Cat. No.: <b>WTH5</b>	 Type V Square Cat. No.: <b>WTH5</b>			
<b>3 Electrical Module:</b> <b>PMH</b> = Pulse Start Metal Halide <b>MH</b> = Metal Halide <b>HPS</b> = High Pressure Sodium See lamp and electrical data on page 12 for ballast types and characteristics.		Pulse Start Metal Halide		Metal Halide		High Pressure Sodium		
	Lamp Watts <b>250</b>	Lamp Type <b>MH</b>	Line Volts <b>277</b>	<b>250PMH120</b> <b>250PMH208</b> <b>250PMH240</b> <b>250PMH277</b> <b>250PMH347</b> <b>250PMH480</b>	<b>175MH120</b> <b>175MH208</b> <b>175MH240</b> <b>175MH277</b> <b>175MH347</b> <b>175MH480</b>	<b>250MH120</b> <b>250MH208</b> <b>250MH240</b> <b>250MH277</b> <b>250MH347</b> <b>250MH480</b>	<b>150HPS120</b> <b>150HPS208</b> <b>150HPS240</b> <b>150HPS277</b> <b>150HPS347</b> <b>150HPS480</b>	<b>250HPS120</b> <b>250HPS208</b> <b>250HPS240</b> <b>250HPS277</b> <b>250HPS347</b> <b>250HPS480</b>
<b>4 Finish:</b> Super TGIC powder coat paint over titanated zirconium conversion coating.	Color: Black Cat. No.: <b>BL-P</b>	Dark Bronze <b>DB-P</b>	Light Gray <b>LG-P</b>	Platinum Silver <b>PS-P</b>	White <b>WH-P</b>	Custom Colors <b>CC-P</b> Consult representative for custom colors.		
<b>5 Optional Photocell:</b>	 Photocell	Line Volts: 120V Cat. No.: <b>A-30</b>	208V <b>A-31</b>	240V <b>A-32</b>	277V <b>A-33</b>	480V <b>A-34</b>	347V <b>A-35</b>	
<b>6 Optional Polycarbonate Lens:</b>		Cat. No.: <b>LS</b>	Polycarbonate Lens replaces standard acrylic lens. See "CAUTION" on page 9.					
<b>7 Optional Houseside Shield:</b>	 Houseside Shield	Cat. No.: <b>HS</b>	Available for Type II, III, and IV reflectors only.					
<b>8 Optional Glow Cap:</b>	 Glow Cap	Cat. No.: <b>GC</b>	Center cone cap in bright dip finish.					
<b>9 Optional Accent Reveals:</b>	 Reveals	Color: Black Cat. No.: <b>BL-REV</b>	Dark Bronze <b>DB-REV</b>	Light Gray <b>LG-REV</b>	Platinum Silver <b>PS-REV</b>	White <b>WH-REV</b>	Custom Colors <b>CC-REV</b> Consult representative for custom colors.	
<b>10 Poles:</b>	See Kim Pole Catalog for a complete selection of round poles in aluminum or steel.							



**WTV**  
Vertical Lamp  
150 to 250 Watt

# Ordering Information



## Wide Throw Vertical Lamp

### Ordering Example:

For Standard Fixture and Pole

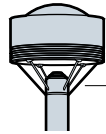
Mounting    Fixture    Electrical Module    Finish    Options    Optional Accent Reveals    Pole

**FM / WTV3 / 250MH277 / BL-P / A-33 / LG-REV / PRA20-5188FM / BL-P**

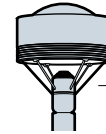
**1      2      3      4      5-8      9      10**

See separate Kim Pole Catalog.

### 1 Mounting:



Cat. No.: **FM**  
Flush Mount  
5" O.D. Poles only



Cat. No.: **PT**  
Tenon Mount  
For Poles with 2" Pipe-size Tenon

### 2 Fixture:

Cat. No. designates **WTV** fixture and light distribution.  
See the Kim Site/Roadway Optical Systems Catalog for detailed information on reflector design and application.



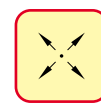
Light Distribution:

Cat. No.:



Asymmetric

**WTV3**



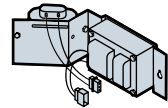
Symmetric Square

**WTV5**

### 3 Electrical Module:

**PMH** = Pulse Start Metal Halide  
**MH** = Metal Halide  
**HPS** = High Pressure Sodium

See lamp and electrical data on page 12 for ballast types and characteristics.



Lamp Watts	Lamp Type	Line Volts
250	MH	277

Pulse Start Metal Halide		Metal Halide		High Pressure Sodium	
175PMH120	250PMH120	175MH120	250MH120	150HPS120	250HPS120
175PMH208	250PMH208	175MH208	250MH208	150HPS208	250HPS208
175PMH240	250PMH240	175MH240	250MH240	150HPS240	250HPS240
175PMH277	250PMH277	175MH277	250MH277	150HPS277	250HPS277
175PMH347	250PMH347	175MH347	250MH347	150HPS347	250HPS347
175PMH480	250PMH480	175MH480	250MH480	150HPS480	250HPS480

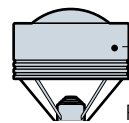
### 4 Finish:

Super TGIC powder coat paint over titanated zirconium conversion coating.

Color:	Black	Dark Bronze	Light Gray	Platinum Silver	White	Custom Colors
Cat. No.:	<b>BL-P</b>	<b>DB-P</b>	<b>LG-P</b>	<b>PS-P</b>	<b>WH-P</b>	<b>CC-P</b>

Consult representative for custom colors.

### 5 Optional Photocell:



Photocell

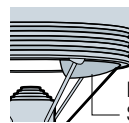
Line Volts:	120V	208V	240V	277V	480V	347V
Cat. No.:	<b>A-30</b>	<b>A-31</b>	<b>A-32</b>	<b>A-33</b>	<b>A-34</b>	<b>A-35</b>

### 6 Optional Polycarbonate Lens:



Cat. No.: **LS**    Polycarbonate Lens replaces standard acrylic lens.  
See "**CAUTION**" on page 9.

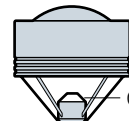
### 7 Optional Houseside Shield:



Houseside Shield

Cat. No.: **HS**    Available for Asymmetric reflector only.

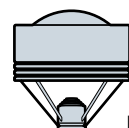
### 8 Optional Glow Cap:



Glow Cap

Cat. No.: **GC**    Center cone cap in bright dip finish.

### 9 Optional Accent Reveals:



Reveals

Color:	Black	Dark Bronze	Light Gray	Platinum Silver	White	Custom Colors
Cat. No.:	<b>BL-REV</b>	<b>DB-REV</b>	<b>LG-REV</b>	<b>PS-REV</b>	<b>WH-REV</b>	<b>CC-REV</b>

Consult representative for custom colors.

### 10 Poles:

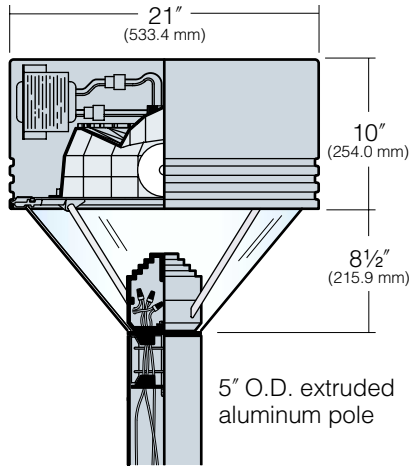
See Kim Pole Catalog for a complete selection of round poles in aluminum or steel.

# Luminaire Specifications

## WTH/WTV Models

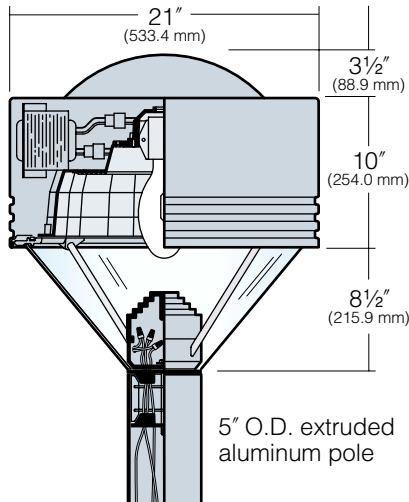
### Dimensions

**WTH**  
**Horizontal Lamp**  
 150 to 250 Watt  
 EPA: 1.4  
 Max. Weight: 38 lb



Fixture shown with **Flush Mount (FM)**

**WTV**  
**Vertical Lamp**  
 150 to 250 Watt  
 EPA: 1.4  
 Max. Weight: 40 lb



Fixture shown with **Flush Mount (FM)**

**Housing:** Spun aluminum with three equally spaced 1/2" ribs separated by 1/2" valleys rolled into the housing to a minimum depth of 1/4". Sidewalls have a maximum 1° of taper, and are free of welds or fasteners. A rollformed aluminum flange is hemmed into the bottom providing support for the reflector module. An internal aluminum casting provides for mounting of the electrical module and support for the housing hinge.

**Lens Frame Assembly:** One-piece cast aluminum lens frame is attached to the housing by a zinc plated cold rolled steel hinge with a stainless steel pin. Closure is by three self-retained stainless steel screws. A stainless steel self-locking stop-arm is provided to hold the housing in the open position while servicing. The lens enclosure assembly consists of a one-piece 3/16" thick injection molded clear acrylic lens held in a lightly compressed condition by four internal steel fixture support tubes that are chrome plated. Lens is sealed top and bottom with closed-cell silicone sponge gaskets. The cast aluminum mounting hub contains a field-splice compartment, a cast aluminum cover, and one of the following pole attachment means: **FM** - Flush Mounting or **PT** - Pole Tenon mounting (See page 9 for complete descriptions).

**WTH - Horizontal Lamp Reflector Module:** Specular Alzak® optical segments are mounted within a one-piece die-cast aluminum shell. Optical chamber is totally sealed by a combination of silicone gaskets at the lens frame / reflector interface and wire entrances to the socket. Reflector module hooks in and out of the housing by no-tool release hinges and secures to the housing flange by a quick-disconnect plug. The MH lamp reflectors are equipped with pin-oriented mogul base socket with a molded silicone lamp stabilizer. All HPS and PMH lamp reflectors are equipped with a mogul base socket rated 4KV.

**WTV - Vertical Lamp Reflector Module:** Specular Alzak® optical segments are mounted within a one-piece die-cast aluminum shell. Optical chamber is totally sealed by a combination of silicone gaskets at the lens frame / reflector interface and wire entrances to the socket. The reflector modules hook in and out of the housing by a self-retained quarter turn fastener. Reflectors are factory pre-wired with a quick-disconnect plug. Mogul base sockets are rated 4KV and are supported around their perimeter by a silicone sleeve press-fit between the socket and heat-sink extrusion.

**Electrical Module:** All electrical components are UL and CSA recognized, mounted on a single plate and factory pre-wired with quick-disconnect plugs. Module attaches inside housing using keyhole slots. All ballasts are high power factor with starting temperatures of -40°F. for HPS and -20°F. for MH lamp modes. See lamp and electrical data on page 12 for ballast types and characteristics.

**Finish/Color:** Finish is Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; 5000 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Platinum Silver, or White. Custom colors are available.

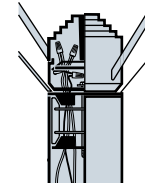
**CAUTION:** Fixtures must be grounded in accordance with national, state and/or local Electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings		
UL cUL 1598	-	25C Ambient
IP66 Rated	CE	ISO 9001:2000
Cutoff with horizontal lamp - Semi-Cutoff with vertical lamp		

See pages 6-7 for complete ordering information

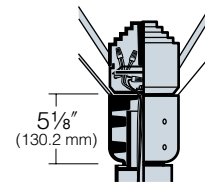
## Pole Mounting

**FM** - Flush Mounting by means of an expansion device activated by a single bolt within the splice compartment. Pole must have a plain-cut top. Standard pole size is 5" O.D. (Other pole adapter sizes available; contact Kim representative.)



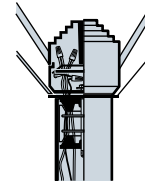
5" O.D. extruded aluminum pole

**PT** - Pole Tenon mounting by means of a cast aluminum adapter containing four recessed 3/8" stainless steel allen head set screws. Pole must have a 2" pipe-size tenon (2 3/8" O.D. x 4 1/2" minimum length). Pole tenon must be field drilled at one set screw location to secure against fixture rotation.

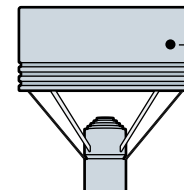


Pole with 2" pipe-size tenon (2 3/8" O.D. x 4 1/2" min. length.)

**Optional Retrofit Adapter:** Adapter casting with expansion mount for 3 3/8" O.D. or 4" O.D. pole (by others). To specify, consult Kim representative.



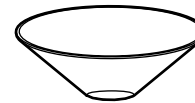
**Photocell:** Factory installed photocell inside housing with a fully gasketed sensor on the side wall.



Photocell

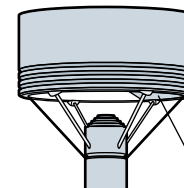
**Polycarbonate Lens (LS):** Clear, injection molded, UV stabilized polycarbonate replaces standard acrylic lens.

**CAUTION:** Use only when vandalism is anticipated to be high. Useful life of lens is limited by UV discoloration from sunlight and metal halide lamps.



**Houseside Shield (HS):** Clear anodized, stamped aluminum, bypass louvers on streetside; black anodized panel on houseside. Attaches to reflector.

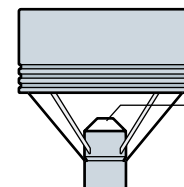
**NOTE:** Use with clear lamps only.



Houseside Shield

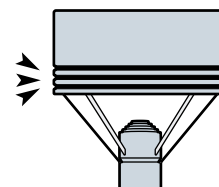
**Glow Cap (GC):** Center cone cap in bright dip finish. Provides visual bright accent at pole cap, inside lens enclosure.

**NOTE:** Not recommended for use with Houseside Shield.



Glow Cap

**Accent Reveals:** Three aluminum bands riveted inside the housing reveals. Available in five standard Kim powder coat finishes. Custom colors available.



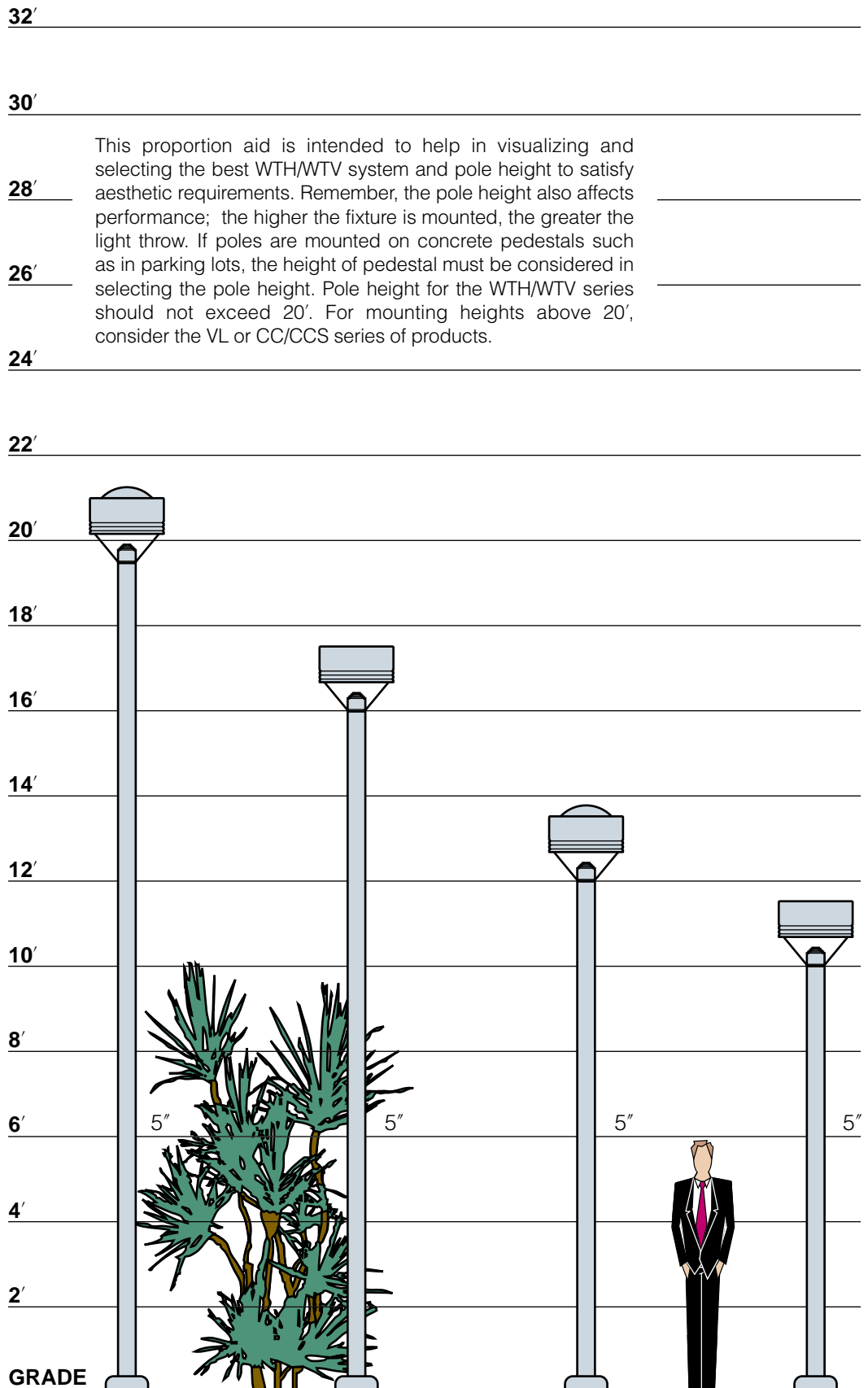


## The role of a Pedestrian Scale Luminaire

A true pedestrian scale luminaire like the WTH/WTV can satisfy many diverse requirements. Where pole mounting heights are restricted by local code and aesthetics, the WTH/WTV series is ideal. It is specifically designed for broad illumination at low mounting heights. In parks or along small streets, where mature trees would block the light if taller poles were used, the WTH/WTV will provide the ideal solution. The smaller scale of one or two story structures may dictate the use of a pedestrian scale luminaire so lighting equipment does not overpower the architecture. These are just a few instances where the WTH/WTV provides an exceptional solution.

## Mounting Height

As a pedestrian scale luminaire, the WTH/WTV is most commonly mounted on 8' to 20' poles. Within this height range, the 21" fixture diameter coupled with the standard 5" pole diameter provides pleasing proportions. Wide throw light distributions also provide outstanding uniformity of illumination. This translates to maximum pole spacing, and the economy this brings in terms of initial cost and long term energy conservation.



This proportion aid is intended to help in visualizing and selecting the best WTH/WTV system and pole height to satisfy aesthetic requirements. Remember, the pole height also affects performance; the higher the fixture is mounted, the greater the light throw. If poles are mounted on concrete pedestals such as in parking lots, the height of pedestal must be considered in selecting the pole height. Pole height for the WTH/WTV series should not exceed 20'. For mounting heights above 20', consider the VL or CC/CCS series of products.

# Lamp and Electrical Guide

Lamp	Lamp Watts	ANSI Ballast Type	Life (Hours)	Initial Lumens <sup>1</sup>	Voltage	Operating Amps.	Open Circuit	Starting Amps.	Max. Amps.
<b>HIGH PRESSURE SODIUM</b>									
<b>150HPS</b> <b>ED-23½ Clear</b> <b>Mogul Base</b>	150	S-55	24000+	16000	120	1.65	2.80	2.00	2.80
					208	0.95	1.60	1.15	1.60
					240	0.83	1.40	1.00	1.40
					277	0.72	1.25	0.85	1.25
					347	0.56	0.92	0.52	0.92
					480	0.42	0.70	0.50	0.70
<b>250HPS</b> <b>ED-18 or ET-18 Clear</b> <b>Mogul Base</b>	250	S-50	24000+	30000	120	2.50	1.70	1.65	2.50
					208	1.50	1.00	0.95	1.50
					240	1.30	0.85	0.80	1.30
					277	1.10	0.75	0.70	1.10
					347	0.93	0.70	0.60	0.93
					480	0.63	0.45	0.40	0.63
<b>METAL HALIDE</b>									
<b>175MH</b> <b>BT-28 or ED-28 Clear</b> <b>Mogul Base</b>	175	M-57	10000+V 7500+H	15000V 12000H	120	1.80	1.80	1.30	1.80
					208	1.04	1.04	0.75	1.04
					240	0.90	0.90	0.65	0.90
					277	0.80	0.80	0.55	0.80
					347	0.65	0.70	0.50	0.70
					480	0.45	0.45	0.35	0.45
<b>250MH</b> <b>BT-28 or ED-28 Clear</b> <b>Mogul Base</b>	250	M-58	10000+V 10000+H	23000V 20000H	120	2.60	2.60	1.00	2.60
					208	1.50	1.50	0.60	1.50
					240	1.30	1.30	0.50	1.30
					277	1.10	1.10	0.45	1.10
					347	0.90	0.75	0.80	0.90
					480	0.65	0.65	0.30	0.65
<b>PULSE START METAL HALIDE</b>									
<b>175PMH<sup>2</sup></b> <b>ED-28 Clear</b> <b>Mogul Base</b> <b>(Vertical Only)</b>	175	M-137 M-152	15000+V	17500V	120	1.80	1.80	0.95	1.80
					208	1.05	1.05	0.55	1.05
					240	0.90	0.90	0.45	0.90
					277	0.80	0.80	0.40	0.80
					347	0.65	0.65	0.30	0.65
					480	0.45	0.44	0.26	0.45
<b>250PMH</b> <b>BT-28 or ED-28 Clear</b> <b>Mogul Base</b>	250	M-138 M-153	15000+V 12000+H	25000V 22050H	120	2.50	1.40	1.90	2.50
					208	1.45	0.80	1.10	1.45
					240	1.25	0.70	0.96	1.25
					277	1.10	0.65	0.85	1.10
					347	0.90	0.50	0.62	0.90
					480	0.57	0.48	0.21	0.57

<sup>1</sup> All initial lumen values shown are approximate and may vary from one manufacturer to another. Consult lamp manufacturer's data for exact lumen and life data.

<sup>2</sup> 175W pulse rated lamps are for use in vertical lamp luminaires only.

**NOTE:** For lamp/ballast information outside of the U.S.A. and Canada, please consult your local Kim representative.

**WARNING:** Fixtures must be installed and grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Lamps by others.



## Applications Assistance

Kim Lighting utilizes the latest computer technology and software to provide specifiers with reliable evaluations of lighting system performance.

Kim can analyze a proposed luminaire layout or provide recommendations based on performance criteria.

Hard copies of plans can be sent directly to the Kim Applications Department via fax, express or regular mail. Any .dwg or .dxf file can be transmitted via email ([kim.apps@kimlighting.com](mailto:kim.apps@kimlighting.com)), or placed on CD and forwarded to Kim Lighting, c/o Applications Dept.



## Photometric Files

Kim photometric files are available free in both electronic and hard copy format.

Electronic photometric files include .pdf file format pages for printing and .ies files for use in lighting calculation software. The complete .ies / .pdf library is available on CD and on the internet at [www.kimlighting.com](http://www.kimlighting.com).