

# HETH LUMINAIRE

## FEATURES

|                                |                                     |
|--------------------------------|-------------------------------------|
| Lumen Output                   | 17000 to 51000 lumens               |
| Efficacy                       | 170 lm/W                            |
| Input Voltage                  | 120-277V or 277-480V                |
| Dimmable                       | 0-10V Continuous                    |
| CCT                            | 4000K or 5000K                      |
| IP Rating                      | IP67 Wet Location                   |
| Impact Protection              | IK10 /20J                           |
| Neutral Salt Spray /Fog Rating | Grade 9                             |
| Surge Protection               | 3kV-6.6kV: LN, 5kV-10kV: LN-PE/N-PE |
| Vibration Rating               | 3g                                  |
| Warranty                       | 5 Years                             |

## APPLICATIONS

Premium outdoor luminaire suitable for parking areas, auto dealerships, industrial yards, building exteriors, roadways, alleys, and pedestrian walkways.

## CONSTRUCTION

Manufactured for weather-proof durability using solid heavy duty die cast aluminum housing with anti-UV polyester coating to resist water, salt, corrosion, discoloration, and scratching. IP67 Wet Location rated for dust-tight, temporary immersion: IEC 60529. Impact Protection IK10, 20 joules: IEC 62262:2002. NSS, Neutral Salt Spray Rating Grade 9, 0<A≤1%: ASTM B117-2018/ASTM D1654-05. Vibration Acceleration Rating 3g: IEC 6008-2-6:1995.

## ELECTRICAL

Input voltages 120-277V or 277-480V models with 0-10V Continuous Dimming. Operating temperatures -4°F to 122°F (-20°C to 50°C). Surge Protection Rating 3kV-6.6kV: L-N, 5kV-10kV: L-PE/N-PE: IEC 61000-4-5.

## MOUNTING

Adjustable options include Slip-Fit, Round /Square Pole, and Trunnion Mounts.

## OPTICS

Anti-UV Clear Polycarbonate IES /NEMA Type III Lens standard. Type II, Type IV, Type V Lens, and Glare Shield available.

## CONTROLS

PIR Photocell, Bi-Level Dimming, and Motion Detection programmable twist-lock cap with Remote Control. Shorting Cap for manual switch or timer control.

## LISTINGS

DLC Premium listed. UL certified to meet US and Canadian standards. FCC, and RoHS compliant.

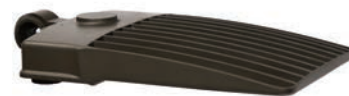
## WARRANTY

5 year exclusive limited warranty.

### 100W Models



### 150W, 200W Models



### 240W, 300W Models



### Slip-Fit Mount



### Trunnion Mount



### Square /Round Pole Mount



### Smart Sensor Cap



## CORRELATED COLOR TEMPERATURES (CCT)

4000K

5000K





Job Name:

Type:

Part #:

Notes:

## SPECIFICATIONS

### ENERGY DATA

Input Voltage: 120-277V, 277-480V

Input Frequency: 50/60 Hz

Wattage: 100W, 150W, 200W, 240W, 300W

Power Factor: >0.9

Total Harmonic Distortion (THD): <15%

Operating Temperature: -4°F to 122°F (-20°C to 50°C)

### LIGHTING DATA

Lumens: 17000 (100W), 25500 (150W), 34000 (200W), 40800 (240W), 51000 (300W)

Lumens Per Watt: 170 lm/W

Color Correlated Temperature (CCT): 4000K, 5000K

Dimmable: 0-10V

Color Rendering Index (CRI): >70

L70: 75000 hours

## ORDERING INFORMATION

| Model                     | Wattage | Voltage  | Current                | Lumens | Efficacy | CCT   | Dimming | Color              | Dimensions                 | Weight    |
|---------------------------|---------|----------|------------------------|--------|----------|-------|---------|--------------------|----------------------------|-----------|
| HETH-A02-100W-HY-4000K    | 100W    | 120-277V | 0.83A@120V, 0.36A@277V | 17000  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 13.14"L x 12.40"W x 2.55"H | 10.40 lbs |
| HETH-A02-100W-HY-5000K    | 100W    | 120-277V | 0.83A@120V, 0.36A@277V | 17000  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 13.14"L x 12.40"W x 2.55"H | 10.40 lbs |
| HETH-A01-100W-HY-HV-4000K | 100W    | 277-480V | 0.36A@277V, 0.21A@480V | 17000  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 13.14"L x 12.40"W x 2.55"H | 10.40 lbs |
| HETH-A01-100W-HY-HV-5000K | 100W    | 277-480V | 0.36A@277V, 0.21A@480V | 17000  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 13.14"L x 12.40"W x 2.55"H | 10.40 lbs |
| HETH-A04-150W-HY-4000K    | 150W    | 120-277V | 1.25A@120V, 0.54A@277V | 25500  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 17.91"L x 12.40"W x 2.55"H | 11.00 lbs |
| HETH-A04-150W-HY-5000K    | 150W    | 120-277V | 1.25A@120V, 0.54A@277V | 25500  | 170 lm/W | 5000K | 0-10V   | Dark Bronze, White | 17.91"L x 12.40"W x 2.55"H | 11.00 lbs |
| HETH-A03-150W-HY-HV-4000K | 150W    | 277-480V | 0.54A@277V, 0.31A@480V | 25500  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 17.91"L x 12.40"W x 2.55"H | 11.00 lbs |
| HETH-A03-150W-HY-HV-5000K | 150W    | 277-480V | 0.54A@277V, 0.31A@480V | 25500  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 17.91"L x 12.40"W x 2.55"H | 11.00 lbs |
| HETH-A05-200W-HY-4000K    | 200W    | 120-277V | 1.67A@120V, 0.72A@277V | 34000  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 17.91"L x 12.40"W x 2.55"H | 14.30 lbs |
| HETH-A05-200W-HY-5000K    | 200W    | 120-277V | 1.67A@120V, 0.72A@277V | 34000  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 17.91"L x 12.40"W x 2.55"H | 14.30 lbs |
| HETH-A07-240W-HY-4000K    | 240W    | 120-277V | 2.00A@120V, 0.87A@277V | 40800  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 14.60 lbs |
| HETH-A07-240W-HY-5000K    | 240W    | 120-277V | 2.00A@120V, 0.87A@277V | 40800  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 14.60 lbs |
| HETH-A06-240W-HY-HV-4000K | 240W    | 277-480V | 0.87A@277V, 0.50A@480V | 40800  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 14.60 lbs |
| HETH-A06-240W-HY-HV-5000K | 240W    | 277-480V | 0.87A@277V, 0.50A@480V | 40800  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 14.60 lbs |
| HETH-A09-300W-HY-H-4000K  | 300W    | 120-277V | 2.50A@120V, 1.08A@277V | 51000  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 19.40 lbs |
| HETH-A09-300W-HY-H-5000K  | 300W    | 120-277V | 2.50A@120V, 1.08A@277V | 51000  | 170 lm/W | 5000K | 0-10V   | Dark Bronze, White | 22.79"L x 12.40"W x 2.55"H | 19.40 lbs |
| HETH-A08-300W-HY-HV-4000K | 300W    | 277-480V | 1.08A@277V, 0.63A@480V | 51000  | 170 lm/W | 4000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 19.40 lbs |
| HETH-A08-300W-HY-HV-5000K | 300W    | 277-480V | 1.08A@277V, 0.63A@480V | 51000  | 170 lm/W | 5000K | 0-10V   | Dark Bronze        | 22.79"L x 12.40"W x 2.55"H | 19.40 lbs |

| Optics |               | Mount |                                   | Sensor    |                                            | Accessory |              |
|--------|---------------|-------|-----------------------------------|-----------|--------------------------------------------|-----------|--------------|
| T2     | Type II Lens  | A     | Slip-Fit (Adjustable)             | ALPCSG2   | Photocell Cap Sensor                       | AGLS      | Glare Shield |
| T3     | Type III Lens | B     | Square or Round Pole (Adjustable) | ALMSPCSG2 | Photocell + Bi-Level Motion Dimming Sensor | (Blank)   | None         |
| T4     | Type IV Lens  | C     | Square Pole (Adjustable)          | SC        | Shorting Cap                               |           |              |
| T5     | Type V Lens   | D     | Trunnion Mount (Adjustable)       |           |                                            |           |              |
|        |               | E     | None                              |           |                                            |           |              |

## ORDERING GUIDE

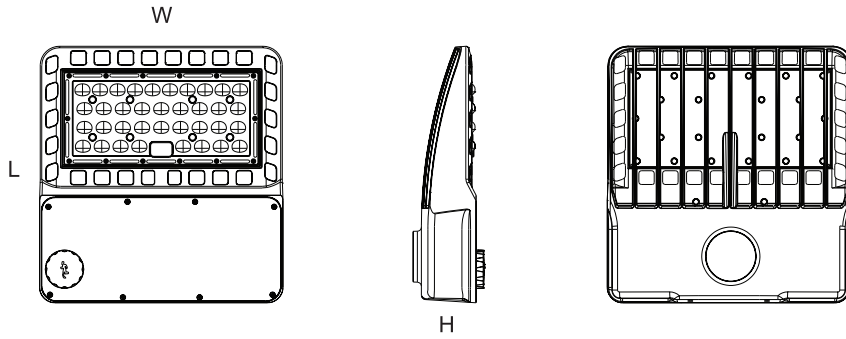
|      |       |         |         |       |      |       |         |           |
|------|-------|---------|---------|-------|------|-------|---------|-----------|
| HETH | A02   | 100W    | HY      | 4000K | T3   | A     | ALPCSG2 | AGLS      |
| HETH | Group | Wattage | Voltage | CCT   | Lens | Mount | Sensor  | Accessory |



## PHYSICAL DIMENSIONS

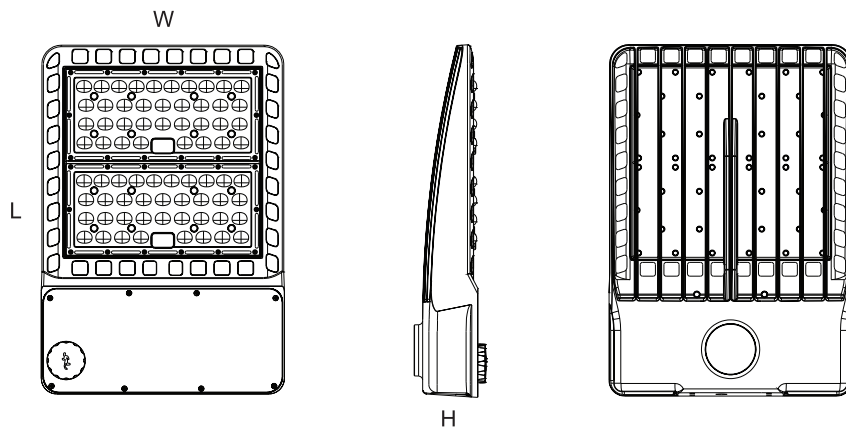
### 100W Models

13.14"L x 12.40"W x 2.55"H



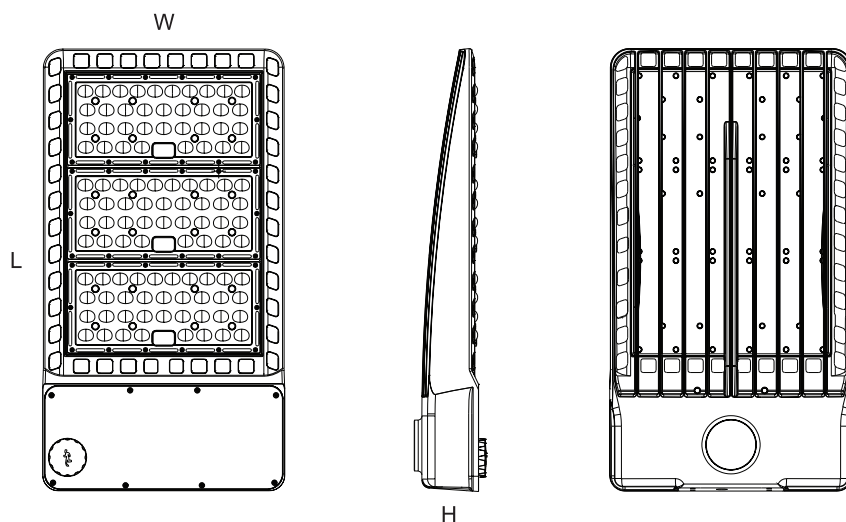
### 150W and 200W Models

17.91"L x 12.40"W x 2.55"H

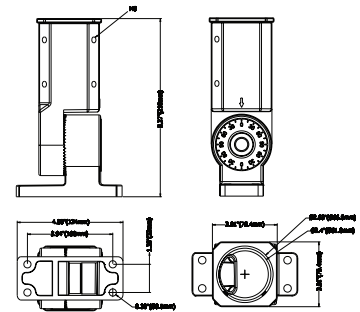


### 240W and 300W Models

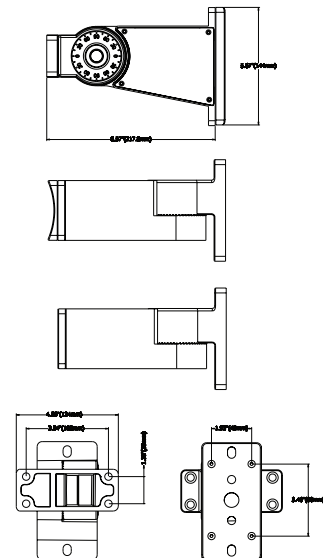
22.79"L x 12.40"W x 2.55"H



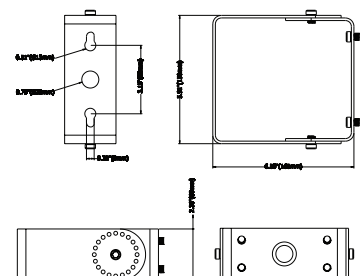
### Slip-Fit Mount



### Round /Square Pole Mount



### Trunnion Mount





Job Name:

Type:

Part #:

Notes:

## SHIPPING INFORMATION

| Model Wattage | Mount Type               | Unit Weight | Shipping Dimensions      | Shipping Weight | Quantity /Box |
|---------------|--------------------------|-------------|--------------------------|-----------------|---------------|
| 100W          | A - Slip Fit             | 11.2 lbs    | 24.6"L x 15.75"W x 5.3"D | 13.2 lbs        | 1             |
|               | B - Square or Round Pole | 12.3 lbs    | 24.6"L x 15.75"W x 5.3"D | 14.3 lbs        | 1             |
|               | C - Square Pole          | 10.8 lbs    | 24.6"L x 15.75"W x 5.3"D | 12.8 lbs        | 1             |
|               | D - Trunnion             | 11.2 lbs    | 24.6"L x 15.75"W x 5.3"D | 13.2 lbs        | 1             |
|               | E - None                 | 10.4 lbs    | 24.6"L x 15.75"W x 5.3"D | 12.3 lbs        | 1             |
| 150W          | A - Slip Fit             | 11.9 lbs    | 24.6"L x 15.75"W x 5.3"D | 13.9 lbs        | 1             |
|               | B - Square or Round Pole | 13.0 lbs    | 24.6"L x 15.75"W x 5.3"D | 15.0 lbs        | 1             |
|               | C - Square Pole          | 11.5 lbs    | 24.6"L x 15.75"W x 5.3"D | 13.4 lbs        | 1             |
|               | D - Trunnion             | 11.9 lbs    | 24.6"L x 15.75"W x 5.3"D | 15.0 lbs        | 1             |
|               | E - None                 | 11.0 lbs    | 24.6"L x 15.75"W x 5.3"D | 13.0 lbs        | 1             |
| 200W          | A - Slip Fit             | 15.2 lbs    | 27.1"L x 15.9"W x 5.3"D  | 17.4 lbs        | 1             |
|               | B - Square or Round Pole | 16.3 lbs    | 27.1"L x 15.9"W x 5.3"D  | 18.5 lbs        | 1             |
|               | C - Square Pole          | 14.8 lbs    | 27.1"L x 15.9"W x 5.3"D  | 17.0 lbs        | 1             |
|               | D - Trunnion             | 15.2 lbs    | 27.1"L x 15.9"W x 5.3"D  | 17.4 lbs        | 1             |
|               | E - None                 | 14.3 lbs    | 27.1"L x 15.9"W x 5.3"D  | 16.5 lbs        | 1             |
| 240W          | A - Slip Fit             | 15.4 lbs    | 27.1"L x 15.9"W x 5.3"D  | 17.4 lbs        | 1             |
|               | B - Square or Round Pole | 16.5 lbs    | 27.1"L x 15.9"W x 5.3"D  | 18.7 lbs        | 1             |
|               | C - Square Pole          | 15.0 lbs    | 27.1"L x 15.9"W x 5.3"D  | 17.2 lbs        | 1             |
|               | D - Trunnion             | 15.4 lbs    | 27.1"L x 15.9"W x 5.3"D  | 17.6 lbs        | 1             |
|               | E - None                 | 14.6 lbs    | 27.1"L x 15.9"W x 5.3"D  | 16.8 lbs        | 1             |
| 300W          | A - Slip Fit             | 20.3 lbs    | 32.0"L x 15.7"W x 5.3"D  | 22.9 lbs        | 1             |
|               | B - Square or Round Pole | 21.2 lbs    | 32.0"L x 15.7"W x 5.3"D  | 24.0 lbs        | 1             |
|               | C - Square Pole          | 19.8 lbs    | 32.0"L x 15.7"W x 5.3"D  | 22.5 lbs        | 1             |
|               | D - Trunnion             | 20.3 lbs    | 32.0"L x 15.7"W x 5.3"D  | 22.9 lbs        | 1             |
|               | E - None                 | 19.4 lbs    | 32.0"L x 15.7"W x 5.3"D  | 22.0 lbs        | 1             |

## HETH-A02-100W-HY-5000K (277V)

**Distribution:** Nema Type III, Short, Cutoff

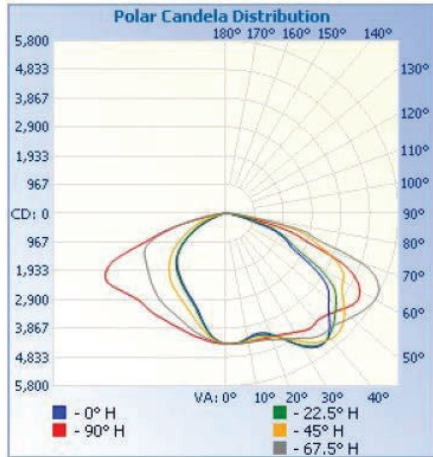
**Lamp Output:** 17383.9 lumens

**Max Candela:** 5798.0 at Horizontal: 67.5°, Vertical: 61°

**Input Wattage:** 100.52

**Nema Type:** 7 X 7

**BUG:** B3 U3 G3



**Distribution:** Nema Type IV, Very Short, Semi-Cutoff

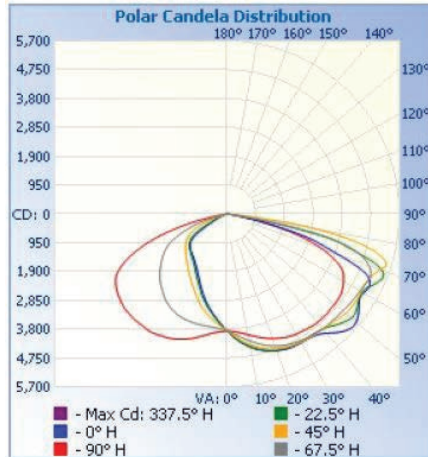
**Lamp Output:** 17358.8 lumens

**Max Candela:** 5616.1 at Horizontal: 337.5°, Vertical: 69°

**Input Wattage:** 101.07

**Nema Type:** 7 X 7

**BUG:** B3 U2 G2



**Distribution:** Nema Type V, Very Short, Semi-Cutoff

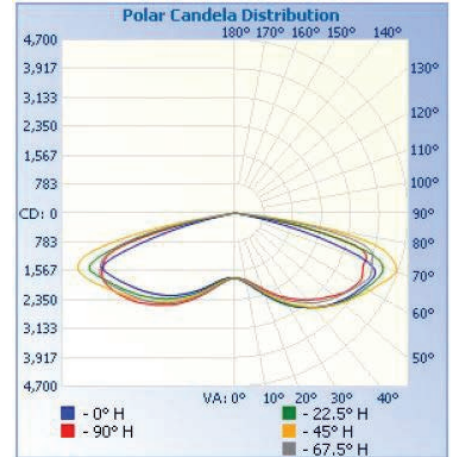
**Lamp Output:** 17356.7 lumens

**Max Candela:** 4658.9 at Horizontal: 45°, Vertical: 70°

**Input Wattage:** 99.86

**Nema Type:** 7 X 7

**BUG:** B4 U2 G2



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 19.4

**Max Cd, 80 to <90°:** 2780.7

|                       | Lumens         | % Lamp     |
|-----------------------|----------------|------------|
| Downward Street Side  | 10565.3        | 60.8%      |
| Downward House Side   | 6648.8         | 38.2%      |
| <b>Downward Total</b> | <b>17214.1</b> | <b>99%</b> |
| Upward Street Side    | 88.6           | 0.5%       |
| Upward House Side     | 81.3           | 0.5%       |
| <b>Upward Total</b>   | <b>169.8</b>   | <b>1%</b>  |
| Total Lumens:         | 17383.9        | 100%       |

**Max Cd, 90° Vertical:** 18.9

**Max Cd, 80 to <90°:** 3287.3

|                       | Lumens         | % Lamp       |
|-----------------------|----------------|--------------|
| Downward Street Side  | 12195.6        | 70.3%        |
| Downward House Side   | 5115.9         | 29.5%        |
| <b>Downward Total</b> | <b>17311.4</b> | <b>99.7%</b> |
| Upward Street Side    | 21.3           | 0.1%         |
| Upward House Side     | 26.1           | 0.2%         |
| <b>Upward Total</b>   | <b>47.4</b>    | <b>0.3%</b>  |
| Total Lumens:         | 17358.8        | 100%         |

**Max Cd, 90° Vertical:** 19.4

**Max Cd, 80 to <90°:** 2780.7

|                       | Lumens         | % Lamp       |
|-----------------------|----------------|--------------|
| Downward Street Side  | 8982.4         | 51.8%        |
| Downward House Side   | 8318.2         | 47.9%        |
| <b>Downward Total</b> | <b>17300.6</b> | <b>99.7%</b> |
| Upward Street Side    | 30.5           | 0.2%         |
| Upward House Side     | 25.6           | 0.1%         |
| <b>Upward Total</b>   | <b>56.1</b>    | <b>0.3%</b>  |
| Total Lumens:         | 17356.7        | 100%         |

## FLOOD SUMMARY

|              | Efficacy     | Lumens         | Horiz. Spread | Vert. Spread |
|--------------|--------------|----------------|---------------|--------------|
| Field (10%)  | 97.4%        | 16929.9        | 159.2         | 152.5        |
| Beam (50%)   | 77.9%        | 13548.1        | 139.9         | 112.7        |
| <b>Total</b> | <b>99.9%</b> | <b>17375.6</b> |               |              |

|              | Efficacy     | Lumens         | Horiz. Spread | Vert. Spread |
|--------------|--------------|----------------|---------------|--------------|
| Field (10%)  | 98.7%        | 17127.7        | 130.7         | 143.2        |
| Beam (50%)   | 82.3%        | 14278.9        | 114.6         | 95.9         |
| <b>Total</b> | <b>99.9%</b> | <b>17347.4</b> |               |              |

|              | Efficacy     | Lumens         | Horiz. Spread | Vert. Spread |
|--------------|--------------|----------------|---------------|--------------|
| Field (10%)  | 99.2%        | 17219.1        | 143.6         | 162.8        |
| Beam (50%)   | 90.4%        | 15692.2        | 130.1         | 153.3        |
| <b>Total</b> | <b>99.9%</b> | <b>17341.9</b> |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 15.2 fc        | 51.1 ft       | 93.2 ft  |
| 34.0 ft  | 3.79 fc        | 102.1 ft      | 186.4 ft |
| 51.0 ft  | 1.68 fc        | 153.2 ft      | 279.6 ft |
| 68.0 ft  | 0.95 fc        | 204.2 ft      | 372.8 ft |
| 85.0 ft  | 0.61 fc        | 255.3 ft      | 466.0 ft |
| 102.0 ft | 0.42 fc        | 306.3 ft      | 559.2 ft |
|          | Vert. 112.7°   | Horiz. 139.9° |          |

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 13.3 fc        | 37.7 ft       | 53.0 ft  |
| 34.0 ft  | 3.34 fc        | 75.4 ft       | 105.9 ft |
| 51.0 ft  | 1.48 fc        | 113.1 ft      | 158.9 ft |
| 68.0 ft  | 0.83 fc        | 150.8 ft      | 211.8 ft |
| 85.0 ft  | 0.53 fc        | 188.5 ft      | 264.8 ft |
| 102.0 ft | 0.37 fc        | 226.2 ft      | 317.7 ft |
|          | Vert. 95.9°    | Horiz. 114.6° |          |

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 6.10 fc        | 143.3 ft      | 73.1 ft  |
| 34.0 ft  | 1.53 fc        | 286.7 ft      | 146.3 ft |
| 51.0 ft  | 0.68 fc        | 430.0 ft      | 219.4 ft |
| 68.0 ft  | 0.38 fc        | 573.3 ft      | 292.5 ft |
| 85.0 ft  | 0.24 fc        | 716.6 ft      | 365.6 ft |
| 102.0 ft | 0.17 fc        | 860.0 ft      | 438.8 ft |
|          | Vert. 153.3°   | Horiz. 130.1° |          |

## HETH-A01-100W-HY-HV-5000K (480V)

Distribution: Nema Type III, Short, Cutoff

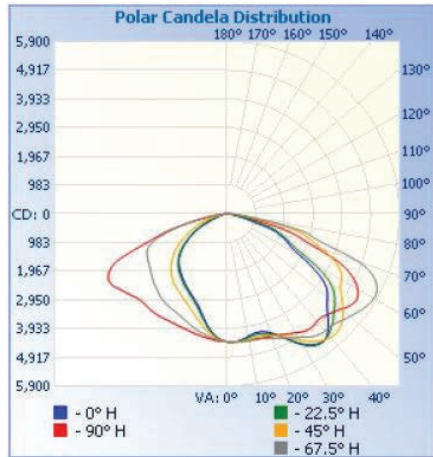
Lamp Output: 17341.9 lumens

Max Candela: 5807.0 at Horizontal: 67.5°, Vertical: 61°

Input Wattage: 99.78

Nema Type: 7 X 7

BUG: B3 U3 G3



Distribution: Nema Type IV, Very Short, Semi-Cutoff

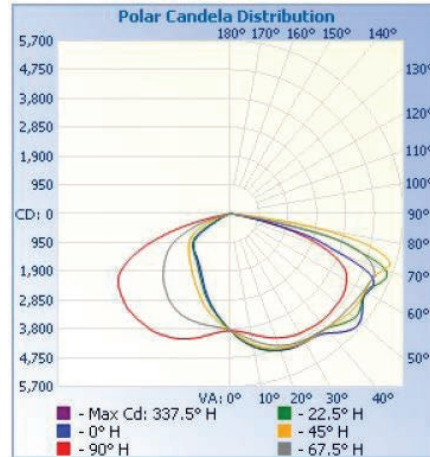
Lamp Output: 17337.5 lumens

Max Candela: 5609.9 at Horizontal: 337.5°, Vertical: 69°

Input Wattage: 100.57

Nema Type: 7 X 7

BUG: B3 U2 G2



Distribution: Nema Type V, Very Short, Semi-Cutoff

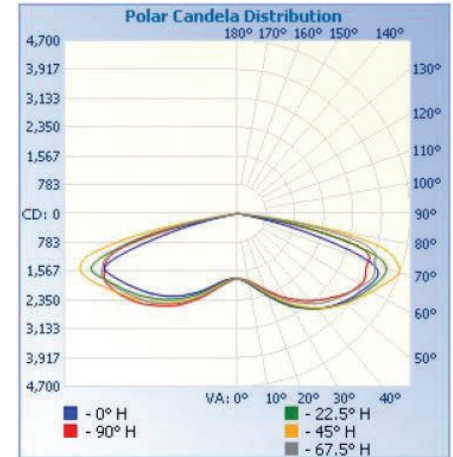
Lamp Output: 17368 lumens

Max Candela: 4681.8 at Horizontal: 45°, Vertical: 70°

Input Wattage: 99.33

Nema Type: 7 X 7

BUG: B4 U2 G2



## ROADWAY SUMMARY

Max Cd, 90° Vertical: 173.9

Max Cd, 80 to <90°: 1300.5

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 10538.6 | 60.8%  |
| Downward House Side  | 6633.3  | 38.3%  |
| Downward Total       | 17171.9 | 99%    |
| Upward Street Side   | 88.8    | 0.5%   |
| Upward House Side    | 81.2    | 0.5%   |
| Upward Total         | 170.0   | 1%     |
| Total Lumens:        | 17342.0 | 100%   |

Max Cd, 90° Vertical: 18.0

Max Cd, 80 to <90°: 3277.4

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 12118.1 | 70.3%  |
| Downward House Side  | 5102.9  | 29.4%  |
| Downward Total       | 17291.0 | 99.7%  |
| Upward Street Side   | 20.9    | 0.1%   |
| Upward House Side    | 25.6    | 0.1%   |
| Upward Total         | 46.5    | 0.3%   |
| Total Lumens:        | 17337.5 | 100%   |

Max Cd, 90° Vertical: 18.7

Max Cd, 80 to <90°: 2754.8

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 8964.8  | 51.6%  |
| Downward House Side  | 8347.9  | 48.1%  |
| Downward Total       | 17312.7 | 99.7%  |
| Upward Street Side   | 30.1    | 0.2%   |
| Upward House Side    | 25.1    | 0.1%   |
| Upward Total         | 55.2    | 0.3%   |
| Total Lumens:        | 17368.0 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 97.4%    | 16882.5 | 159.0         | 152.5        |
| Beam (50%)  | 77.8%    | 13485.5 | 139.5         | 112          |
| Total       | 99.9%    | 17332.8 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.7%    | 17108.2 | 130.7         | 143.2        |
| Beam (50%)  | 82.3%    | 14270.7 | 114.6         | 95.9         |
| Total       | 99.9%    | 17326.3 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.2%    | 17228.4 | 140.4         | 162.8        |
| Beam (50%)  | 90.4%    | 15695.9 | 126.7         | 153.2        |
| Total       | 99.9%    | 17353.0 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 15.2 fc        | 50.4 ft    | 112.0°       | 139.5°        |
| 34.0 ft  | 3.79 fc        | 100.9 ft   |              |               |
| 51.0 ft  | 1.68 fc        | 151.3 ft   |              |               |
| 68.0 ft  | 0.95 fc        | 201.7 ft   |              |               |
| 85.0 ft  | 0.61 fc        | 252.1 ft   |              |               |
| 102.0 ft | 0.42 fc        | 302.6 ft   |              |               |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 13.3 fc        | 37.7 ft    | 95.9°        | 114.6°        |
| 34.0 ft  | 3.33 fc        | 75.4 ft    |              |               |
| 51.0 ft  | 1.48 fc        | 113.1 ft   |              |               |
| 68.0 ft  | 0.83 fc        | 150.8 ft   |              |               |
| 85.0 ft  | 0.53 fc        | 188.5 ft   |              |               |
| 102.0 ft | 0.37 fc        | 226.2 ft   |              |               |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 6.13 fc        | 142.7 ft   | 153.2°       | 126.7°        |
| 34.0 ft  | 1.53 fc        | 285.4 ft   |              |               |
| 51.0 ft  | 0.68 fc        | 428.1 ft   |              |               |
| 68.0 ft  | 0.38 fc        | 570.8 ft   |              |               |
| 85.0 ft  | 0.25 fc        | 713.5 ft   |              |               |
| 102.0 ft | 0.17 fc        | 856.2 ft   |              |               |

## HETH-A04-150W-HY-5000K (277V)

**Distribution:** Nema Type III, Short, Cutoff

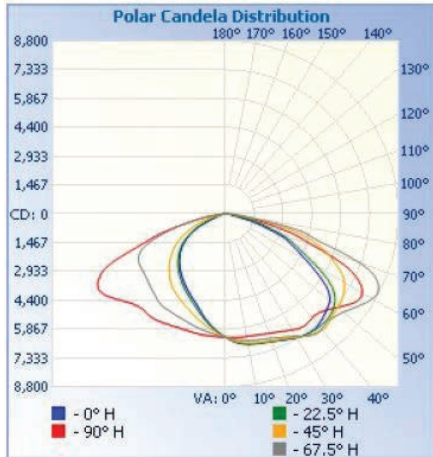
**Lamp Output:** 25911.5 lumens

**Max Candela:** 8729.6 at Horizontal: 67.5°, Vertical: 62°

**Input Wattage:** 149.38

**Nema Type:** 7 X 7

**BUG:** B4 U3 G3



**Distribution:** Nema Type IV, Very Short, Non-Cutoff

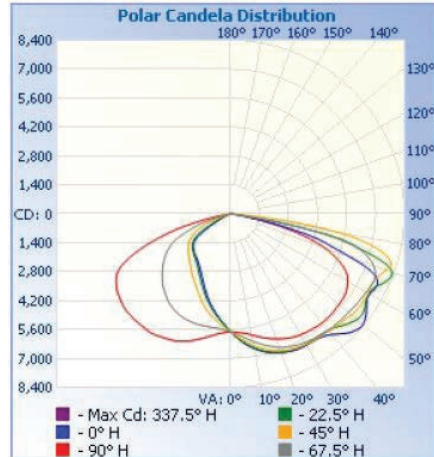
**Lamp Output:** 25957.6 lumens

**Max Candela:** 8372.0 at Horizontal: 337.5°, Vertical: 69°

**Input Wattage:** 150.14

**Nema Type:** 7 X 7

**BUG:** B3 U3 G3



**Distribution:** Nema Type V, Very Short, Semi-Cutoff

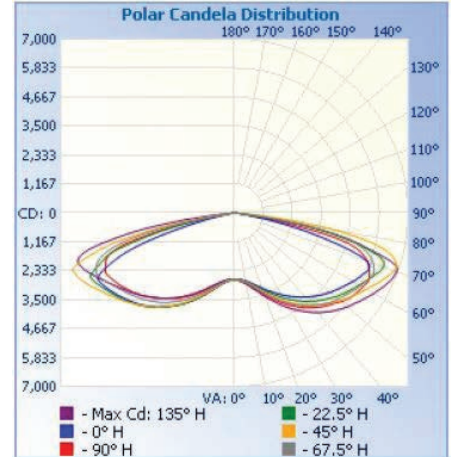
**Lamp Output:** 26090.8 lumens

**Max Candela:** 6953.0 at Horizontal: 135°, Vertical: 70°

**Input Wattage:** 149.93

**Nema Type:** 7 X 7

**BUG:** B5 U3 G3



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 276.7

**Max Cd, 80 to <90°:** 1871.9

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 15829.3 | 61.1%  |
| Downward House Side  | 9876.3  | 38.1%  |
| Downward Total       | 25705.6 | 99.2%  |
| Upward Street Side   | 104.2   | 0.4%   |
| Upward House Side    | 101.7   | 0.4%   |
| Upward Total         | 206.0   | 0.8%   |
| Total Lumens:        | 25911.5 | 100%   |

**Max Cd, 90° Vertical:** 29.4

**Max Cd, 80 to <90°:** 5466.6

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 18369.8 | 70.8%  |
| Downward House Side  | 7515.7  | 29%    |
| Downward Total       | 25885.5 | 99.7%  |
| Upward Street Side   | 32.4    | 0.1%   |
| Upward House Side    | 39.8    | 0.2%   |
| Upward Total         | 72.2    | 0.3%   |
| Total Lumens:        | 25957.6 | 100%   |

**Max Cd, 90° Vertical:** 38.4

**Max Cd, 80 to <90°:** 4363.9

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 12954.9 | 49.7%  |
| Downward House Side  | 13000.9 | 49.8%  |
| Downward Total       | 25955.8 | 99.5%  |
| Upward Street Side   | 72.2    | 0.3%   |
| Upward House Side    | 62.9    | 0.2%   |
| Upward Total         | 135.0   | 0.5%   |
| Total Lumens:        | 26090.8 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 97.6%    | 25285.8 | 159.2         | 149.6        |
| Beam (50%)  | 78.4%    | 20325.4 | 138.9         | 111.5        |
| Total       | 100%     | 25900.1 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.7%    | 25614.9 | 149.9         | 140.8        |
| Beam (50%)  | 82.3%    | 21371.6 | 137.0         | 89.8         |
| Total       | 99.9%    | 25940.9 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.9%    | 25814.1 | 141.8         | 162.7        |
| Beam (50%)  | 90.4%    | 23575.3 | 127.2         | 152.4        |
| Total       | 99.9%    | 26069.1 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 21.7 fc        | 49.9 ft       | 90.8 ft  |
| 34.0 ft  | 5.43 fc        | 99.8 ft       | 181.5 ft |
| 51.0 ft  | 2.41 fc        | 149.7 ft      | 272.3 ft |
| 68.0 ft  | 1.36 fc        | 199.6 ft      | 363.1 ft |
| 85.0 ft  | 0.87 fc        | 249.5 ft      | 453.8 ft |
| 102.0 ft | 0.60 fc        | 299.5 ft      | 544.6 ft |
|          | Vert. 111.5°   | Horiz. 138.9° |          |

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 19.7 fc        | 33.9 ft       | 86.4 ft  |
| 34.0 ft  | 4.93 fc        | 67.7 ft       | 172.7 ft |
| 51.0 ft  | 2.19 fc        | 101.6 ft      | 259.1 ft |
| 68.0 ft  | 1.23 fc        | 135.5 ft      | 345.5 ft |
| 85.0 ft  | 0.79 fc        | 169.3 ft      | 431.9 ft |
| 102.0 ft | 0.55 fc        | 203.2 ft      | 518.2 ft |
|          | Vert. 89.8°    | Horiz. 137.0° |          |

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 9.29 fc        | 138.6 ft      | 68.4 ft  |
| 34.0 ft  | 2.32 fc        | 277.3 ft      | 136.9 ft |
| 51.0 ft  | 1.03 fc        | 415.9 ft      | 205.3 ft |
| 68.0 ft  | 0.58 fc        | 554.5 ft      | 273.8 ft |
| 85.0 ft  | 0.37 fc        | 693.2 ft      | 342.2 ft |
| 102.0 ft | 0.26 fc        | 831.8 ft      | 410.7 ft |
|          | Vert. 152.4°   | Horiz. 127.2° |          |

## HETH-A03-150W-HY-HV-5000K (480V)

**Distribution:** Nema Type III, Short, Cutoff

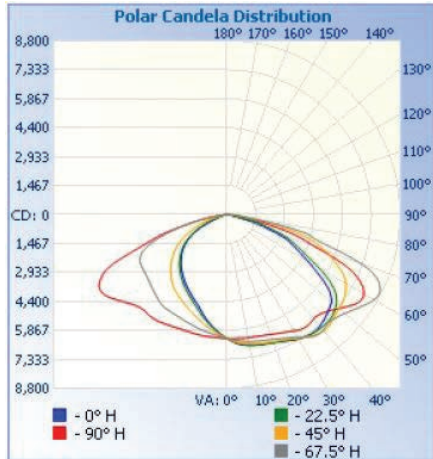
**Lamp Output:** 25848.9 lumens

**Max Candela:** 8703.0 at Horizontal: 67.5°, Vertical: 62°

**Input Wattage:** 148.27

**Nema Type:** 7 X 7

**BUG:** B4 U3 G3



**Distribution:** Nema Type IV, Very Short, Non-Cutoff

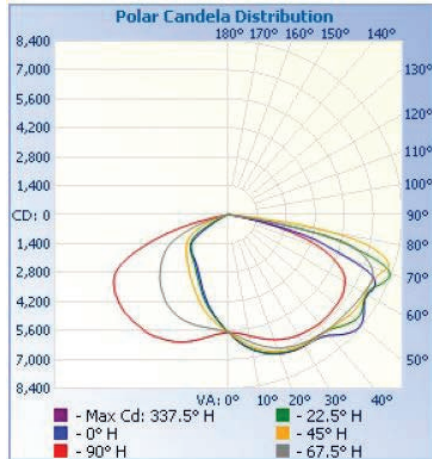
**Lamp Output:** 25925.8 lumens

**Max Candela:** 8354.8 at Horizontal: 337.5°, Vertical: 69°

**Input Wattage:** 149.4

**Nema Type:** 7 X 7

**BUG:** B3 U3 G3



**Distribution:** Nema Type V, Very Short, Semi-Cutoff

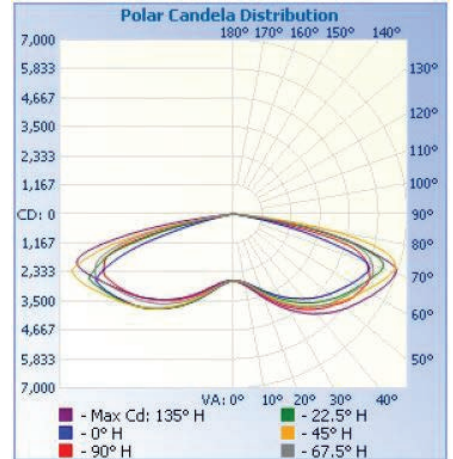
**Lamp Output:** 26107.7 lumens

**Max Candela:** 6949.7 at Horizontal: 135°, Vertical: 70°

**Input Wattage:** 149.14

**Nema Type:** 7 X 7

**BUG:** B5 U3 G3



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 273.6

**Max Cd, 80 to <90°:** 1883.0

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 15801.0 | 61.1%  |
| Downward House Side  | 9856.2  | 38.1%  |
| Downward Total       | 25657.1 | 99.3%  |
| Upward Street Side   | 97.4    | 0.4%   |
| Upward House Side    | 94.4    | 0.4%   |
| Upward Total         | 191.8   | 0.7%   |
| Total Lumens:        | 25848.9 | 100%   |

**Max Cd, 90° Vertical:** 29.8

**Max Cd, 80 to <90°:** 5421.0

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 18349.8 | 70.8%  |
| Downward House Side  | 7503.5  | 28.9%  |
| Downward Total       | 25853.3 | 99.7%  |
| Upward Street Side   | 32.8    | 0.1%   |
| Upward House Side    | 39.8    | 0.2%   |
| Upward Total         | 72.5    | 0.3%   |
| Total Lumens:        | 25925.9 | 100%   |

**Max Cd, 90° Vertical:** 37.0

**Max Cd, 80 to <90°:** 4371.5

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 12927.2 | 49.7%  |
| Downward House Side  | 13017.3 | 49.9%  |
| Downward Total       | 25989.4 | 99.5%  |
| Upward Street Side   | 62.8    | 0.2%   |
| Upward House Side    | 55.4    | 0.2%   |
| Upward Total         | 118.3   | 0.5%   |
| Total Lumens:        | 26107.7 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 97.6%    | 25240.1 | 159.2         | 149.6        |
| Beam (50%)  | 78.6%    | 20313.2 | 139.0         | 111.6        |
| Total       | 100%     | 25837.9 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.7%    | 25580.4 | 149.9         | 140.8        |
| Beam (50%)  | 82.3%    | 21341.5 | 136.9         | 89.7         |
| Total       | 99.9%    | 25907.9 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.0%    | 25847.1 | 141.5         | 162.6        |
| Beam (50%)  | 90.5%    | 23627.8 | 126.9         | 152.3        |
| Total       | 99.9%    | 26085.3 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 21.7 fc        | 50.0 ft       | 90.9 ft  |
| 34.0 ft  | 5.42 fc        | 100.0 ft      | 181.7 ft |
| 51.0 ft  | 2.41 fc        | 150.0 ft      | 272.6 ft |
| 68.0 ft  | 1.36 fc        | 200.0 ft      | 363.4 ft |
| 85.0 ft  | 0.87 fc        | 250.0 ft      | 454.3 ft |
| 102.0 ft | 0.60 fc        | 299.9 ft      | 545.2 ft |
|          | Vert. 111.6°   | Horiz. 139.0° |          |

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 19.7 fc        | 33.8 ft       | 86.2 ft  |
| 34.0 ft  | 4.93 fc        | 67.6 ft       | 172.3 ft |
| 51.0 ft  | 2.19 fc        | 101.5 ft      | 258.5 ft |
| 68.0 ft  | 1.23 fc        | 135.3 ft      | 344.7 ft |
| 85.0 ft  | 0.79 fc        | 169.1 ft      | 430.8 ft |
| 102.0 ft | 0.55 fc        | 202.9 ft      | 517.0 ft |
|          | Vert. 89.7°    | Horiz. 136.9° |          |

| Height   | Center Beam fc | Beam Width    |          |
|----------|----------------|---------------|----------|
| 17.0 ft  | 9.30 fc        | 137.9 ft      | 68.1 ft  |
| 34.0 ft  | 2.32 fc        | 275.8 ft      | 136.1 ft |
| 51.0 ft  | 1.03 fc        | 413.7 ft      | 204.2 ft |
| 68.0 ft  | 0.58 fc        | 551.6 ft      | 272.2 ft |
| 85.0 ft  | 0.37 fc        | 689.5 ft      | 340.3 ft |
| 102.0 ft | 0.26 fc        | 827.4 ft      | 408.3 ft |
|          | Vert. 152.3°   | Horiz. 126.9° |          |

## HETH-A05-200W-HY-5000K (277V)

**Distribution:** Nema Type III, Short, Cutoff

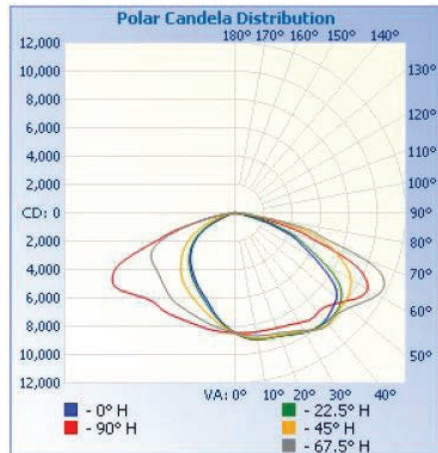
**Lamp Output:** 34755.6 lumens

**Max Candela:** 11704.5 at Horizontal: 67.5°, Vertical: 63°

**Input Wattage:** 202.15

**Nema Type:** 7 X 7

**BUG:** B4 U3 G4



**Distribution:** Nema Type IV, Very Short, Non-Cutoff

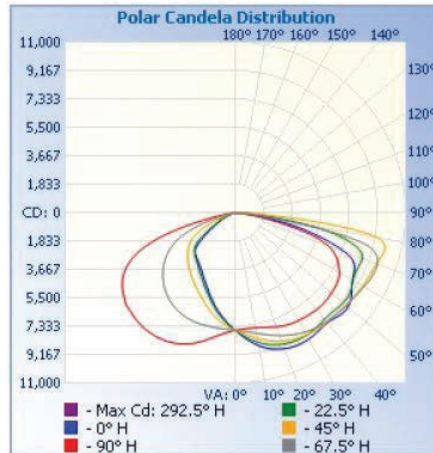
**Lamp Output:** 34458.9 lumens

**Max Candela:** 10647.6 at Horizontal: 292.5°, Vertical: 57°

**Input Wattage:** 201.88

**Nema Type:** 7 X 7

**BUG:** B4 U3 G5



**Distribution:** Nema Type V, Very Short, Non-Cutoff

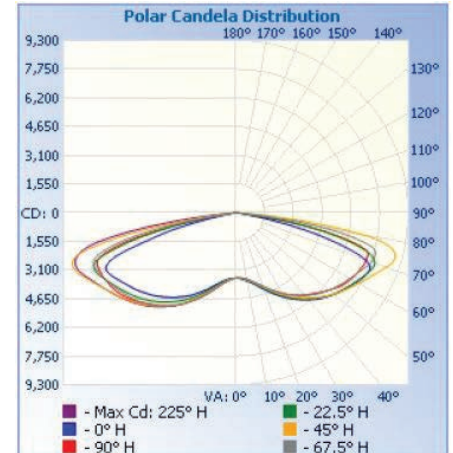
**Lamp Output:** 34715.6 lumens

**Max Candela:** 9267.4 at Horizontal: 225°, Vertical: 72°

**Input Wattage:** 200.97

**Nema Type:** 7 X 7

**BUG:** B5 U3 G4



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 369.1

**Max Cd, 80 to <90°:** 2613.5

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 21278.7 | 61.2%  |
| Downward House Side  | 13252.0 | 38.1%  |
| Downward Total       | 34530.7 | 99.4%  |
| Upward Street Side   | 115.7   | 0.3%   |
| Upward House Side    | 109.2   | 0.3%   |
| Upward Total         | 224.9   | 0.6%   |
| Total Lumens:        | 34755.6 | 100%   |

**Max Cd, 90° Vertical:** 122.7

**Max Cd, 80 to <90°:** 9361.1

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 24177.8 | 70.2%  |
| Downward House Side  | 10151.4 | 29.5%  |
| Downward Total       | 34329.2 | 99.6%  |
| Upward Street Side   | 61.4    | 0.2%   |
| Upward House Side    | 68.3    | 0.2%   |
| Upward Total         | 129.6   | 0.4%   |
| Total Lumens:        | 34458.9 | 100%   |

**Max Cd, 90° Vertical:** 43.7

**Max Cd, 80 to <90°:** 7114.5

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 17596.1 | 50.7%  |
| Downward House Side  | 16978.3 | 48.9%  |
| Downward Total       | 34574.5 | 99.6%  |
| Upward Street Side   | 74.8    | 0.2%   |
| Upward House Side    | 66.3    | 0.2%   |
| Upward Total         | 141.1   | 0.4%   |
| Total Lumens:        | 34715.6 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 97.8%    | 33990.5 | 159.5         | 150.1        |
| Beam (50%)  | 78.6%    | 27334.9 | 139.4         | 112.4        |
| Total       | 100%     | 34739.8 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.5%    | 33934.2 | 158.7         | 144.2        |
| Beam (50%)  | 82.7%    | 28499.6 | 146.3         | 107.2        |
| Total       | 99.9%    | 34433.5 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.1%    | 34398.1 | 142.2         | 162.7        |
| Beam (50%)  | 90.0%    | 31248.6 | 126.6         | 153.3        |
| Total       | 99.9%    | 34682.9 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 29.3 fc        | 50.8 ft    | 91.9 ft      |               |
| 34.0 ft  | 7.32 fc        | 101.5 ft   | 183.8 ft     |               |
| 51.0 ft  | 3.25 fc        | 152.3 ft   | 275.7 ft     |               |
| 68.0 ft  | 1.83 fc        | 203.0 ft   | 367.6 ft     |               |
| 85.0 ft  | 1.17 fc        | 253.8 ft   | 459.5 ft     |               |
| 102.0 ft | 0.81 fc        | 304.5 ft   | 551.3 ft     |               |
|          |                |            | Vert. 112.4° | Horiz. 139.4° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 26.3 fc        | 46.1 ft    | 112.3 ft     |               |
| 34.0 ft  | 6.58 fc        | 92.1 ft    | 224.5 ft     |               |
| 51.0 ft  | 2.92 fc        | 138.2 ft   | 336.8 ft     |               |
| 68.0 ft  | 1.64 fc        | 184.3 ft   | 449.0 ft     |               |
| 85.0 ft  | 1.05 fc        | 230.4 ft   | 561.3 ft     |               |
| 102.0 ft | 0.73 fc        | 276.4 ft   | 673.5 ft     |               |
|          |                |            | Vert. 107.2° | Horiz. 146.3° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 12.2 fc        | 143.0 ft   | 67.7 ft      |               |
| 34.0 ft  | 3.05 fc        | 286.1 ft   | 135.3 ft     |               |
| 51.0 ft  | 1.36 fc        | 429.1 ft   | 203.0 ft     |               |
| 68.0 ft  | 0.76 fc        | 572.1 ft   | 270.6 ft     |               |
| 85.0 ft  | 0.49 fc        | 715.2 ft   | 338.3 ft     |               |
| 102.0 ft | 0.34 fc        | 858.2 ft   | 405.9 ft     |               |
|          |                |            | Vert. 153.3° | Horiz. 126.6° |

## HETH-A07-240W-HY-5000K (277V)

**Distribution:** Nema Type III, Short, Cutoff

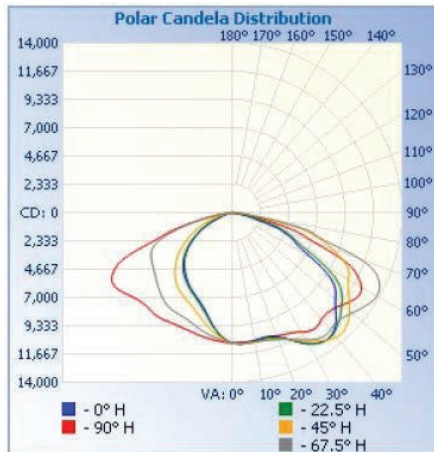
**Lamp Output:** 42165.7 lumens

**Max Candela:** 13777.7 at Horizontal: 67.5°, Vertical: 61°

**Input Wattage:** 243.38

**Nema Type:** 7 X 7

**BUG:** B4 U3 G4



**Distribution:** Nema Type IV, Very Short, Non-Cutoff

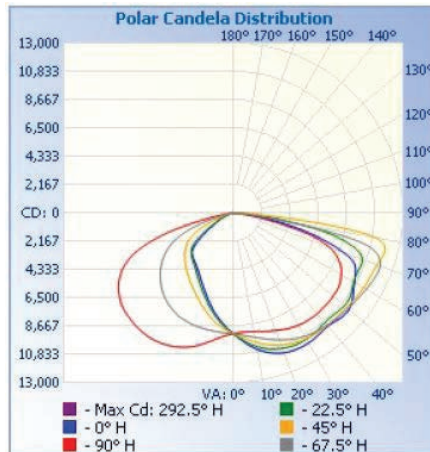
**Lamp Output:** 41840.4 lumens

**Max Candela:** 12947.8 at Horizontal: 292.5°, Vertical: 55°

**Input Wattage:** 242.75

**Nema Type:** 7 X 7

**BUG:** B4 U3 G5



**Distribution:** Nema Type V, Very Short, Non-Cutoff

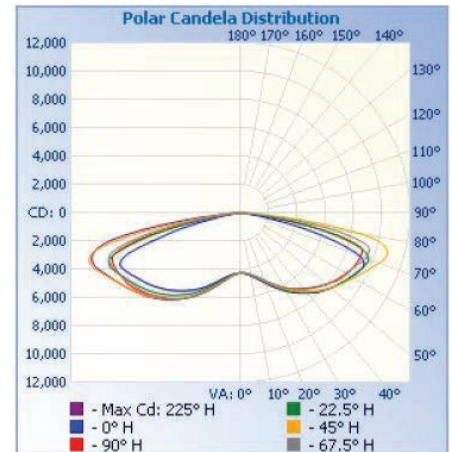
**Lamp Output:** 42111 lumens

**Max Candela:** 11241.6 at Horizontal: 225°, Vertical: 72°

**Input Wattage:** 241.92

**Nema Type:** 7 X 7

**BUG:** B5 U3 G4



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 343.3

**Max Cd, 80 to <90°:** 3389.2

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 26017.6 | 61.7%  |
| Downward House Side  | 15966.0 | 37.9%  |
| Downward Total       | 41983.6 | 99.6%  |
| Upward Street Side   | 94.1    | 0.2%   |
| Upward House Side    | 88.0    | 0.2%   |
| Upward Total         | 182.1   | 0.4%   |
| Total Lumens:        | 42165.6 | 100%   |

**Max Cd, 90° Vertical:** 94.9

**Max Cd, 80 to <90°:** 11146.8

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 29323.2 | 70.1%  |
| Downward House Side  | 12374.8 | 29.6%  |
| Downward Total       | 41698.1 | 99.7%  |
| Upward Street Side   | 66.3    | 0.2%   |
| Upward House Side    | 76.0    | 0.2%   |
| Upward Total         | 142.4   | 0.3%   |
| Total Lumens:        | 41840.5 | 100%   |

**Max Cd, 90° Vertical:** 53.0

**Max Cd, 80 to <90°:** 8630.1

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 21344.6 | 50.7%  |
| Downward House Side  | 20595.2 | 48.9%  |
| Downward Total       | 41939.8 | 99.6%  |
| Upward Street Side   | 90.8    | 0.2%   |
| Upward House Side    | 80.4    | 0.2%   |
| Upward Total         | 171.2   | 0.4%   |
| Total Lumens:        | 42111.0 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.0%    | 41328.4 | 159.1         | 152.1        |
| Beam (50%)  | 80.5%    | 33938.0 | 139.6         | 112.0        |
| Total       | 100%     | 42146.0 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.5%    | 41216.6 | 158.4         | 143.7        |
| Beam (50%)  | 82.7%    | 34617.1 | 146.2         | 105.9        |
| Total       | 99.9%    | 41810.2 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.1%    | 41725.7 | 142.2         | 162.7        |
| Beam (50%)  | 90.0%    | 37905.4 | 126.6         | 153.3        |
| Total       | 99.9%    | 42071.2 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width |
|----------|----------------|------------|
| 17.0 ft  | 37.1 fc        | 50.4 ft    |
| 34.0 ft  | 9.28 fc        | 100.8 ft   |
| 51.0 ft  | 4.12 fc        | 151.2 ft   |
| 68.0 ft  | 2.32 fc        | 201.6 ft   |
| 85.0 ft  | 1.48 fc        | 252.1 ft   |
| 102.0 ft | 1.03 fc        | 302.5 ft   |

| Height   | Center Beam fc | Beam Width |
|----------|----------------|------------|
| 17.0 ft  | 32.1 fc        | 45.0 ft    |
| 34.0 ft  | 8.03 fc        | 90.1 ft    |
| 51.0 ft  | 3.57 fc        | 135.1 ft   |
| 68.0 ft  | 2.01 fc        | 180.2 ft   |
| 85.0 ft  | 1.28 fc        | 225.2 ft   |
| 102.0 ft | 0.89 fc        | 270.2 ft   |

| Height   | Center Beam fc | Beam Width |
|----------|----------------|------------|
| 17.0 ft  | 14.8 fc        | 143.0 ft   |
| 34.0 ft  | 3.70 fc        | 286.1 ft   |
| 51.0 ft  | 1.65 fc        | 429.1 ft   |
| 68.0 ft  | 0.93 fc        | 572.1 ft   |
| 85.0 ft  | 0.59 fc        | 715.2 ft   |
| 102.0 ft | 0.41 fc        | 858.2 ft   |

## HETH-A06-240W-HY-HV-5000K (480V)

Distribution: Nema Type III, Short, Cutoff

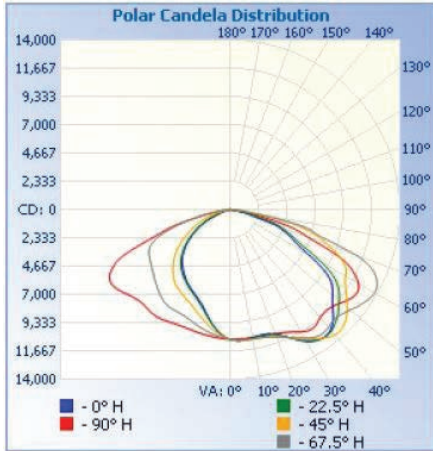
Lamp Output: 42063.6 lumens

Max Candela: 13766.3 at Horizontal: 67.5°, Vertical: 61°

Input Wattage: 241.58

Nema Type: 7 X 7

BUG: B4 U3 G4



Distribution: Nema Type IV, Very Short, Non-Cutoff

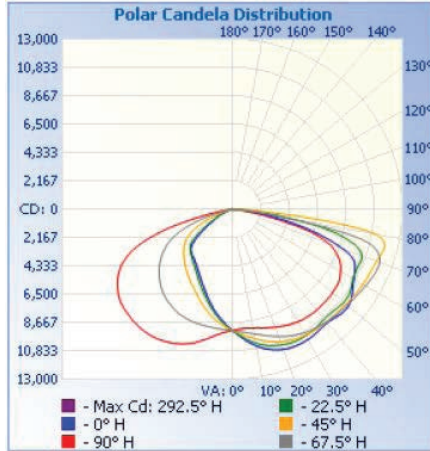
Lamp Output: 41789.1 lumens

Max Candela: 12932.0 at Horizontal: 292.5°, Vertical: 55°

Input Wattage: 241.55

Nema Type: 7 X 7

BUG: B4 U3 G5



Distribution: Nema Type V, Very Short, Non-Cutoff

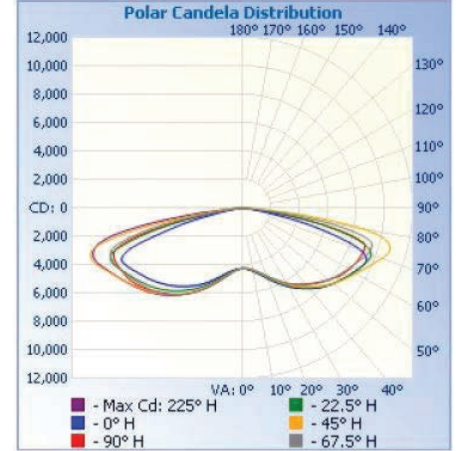
Lamp Output: 42138.2 lumens

Max Candela: 11234.6 at Horizontal: 225°, Vertical: 72°

Input Wattage: 240.64

Nema Type: 7 X 7

BUG: B5 U3 G4



## ROADWAY SUMMARY

Max Cd, 90° Vertical: 340.1

Max Cd, 80 to <90°: 3259.8

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 25932.8 | 61.7%  |
| Downward House Side  | 15919.0 | 37.8%  |
| Downward Total       | 41851.8 | 99.5%  |
| Upward Street Side   | 110.2   | 0.3%   |
| Upward House Side    | 101.5   | 0.2%   |
| Upward Total         | 211.8   | 0.5%   |
| Total Lumens:        | 42063.6 | 100%   |

Max Cd, 90° Vertical: 101.6

Max Cd, 80 to <90°: 1112.8

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 29299.3 | 70.1%  |
| Downward House Side  | 12361.0 | 29.6%  |
| Downward Total       | 41660.3 | 99.7%  |
| Upward Street Side   | 59.8    | 0.1%   |
| Upward House Side    | 68.9    | 0.2%   |
| Upward Total         | 128.7   | 0.3%   |
| Total Lumens:        | 41789.1 | 100%   |

Max Cd, 90° Vertical: 55.5

Max Cd, 80 to <90°: 8698.9

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 21359.8 | 50.7%  |
| Downward House Side  | 20602.8 | 48.9%  |
| Downward Total       | 41962.6 | 99.6%  |
| Upward Street Side   | 93.8    | 0.2%   |
| Upward House Side    | 81.9    | 0.2%   |
| Upward Total         | 175.7   | 0.4%   |
| Total Lumens:        | 42138.2 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 97.9%    | 41185.6 | 158.8         | 151.7        |
| Beam (50%)  | 80.4%    | 33810.9 | 139.1         | 111.2        |
| Total       | 100%     | 42044.3 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.5%    | 41180.3 | 158.3         | 143.6        |
| Beam (50%)  | 82.7%    | 34573.9 | 146.1         | 105.9        |
| Total       | 99.9%    | 41757.4 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.1%    | 41748.5 | 142.1         | 162.7        |
| Beam (50%)  | 90.0%    | 37943.1 | 126.7         | 153.4        |
| Total       | 99.9%    | 42099.8 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 37.0 fc        | 49.7 ft    | 91.2 ft      |               |
| 34.0 ft  | 9.26 fc        | 99.4 ft    | 182.5 ft     |               |
| 51.0 ft  | 4.12 fc        | 149.1 ft   | 273.7 ft     |               |
| 68.0 ft  | 2.32 fc        | 198.8 ft   | 365.0 ft     |               |
| 85.0 ft  | 1.48 fc        | 248.5 ft   | 456.2 ft     |               |
| 102.0 ft | 1.03 fc        | 298.1 ft   | 547.5 ft     |               |
|          |                |            | Vert. 111.2° | Horiz. 139.1° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 32.1 fc        | 45.0 ft    | 111.7 ft     |               |
| 34.0 ft  | 8.02 fc        | 90.0 ft    | 223.3 ft     |               |
| 51.0 ft  | 3.56 fc        | 135.0 ft   | 335.0 ft     |               |
| 68.0 ft  | 2.00 fc        | 180.0 ft   | 446.7 ft     |               |
| 85.0 ft  | 1.28 fc        | 225.0 ft   | 558.4 ft     |               |
| 102.0 ft | 0.89 fc        | 270.0 ft   | 670.0 ft     |               |
|          |                |            | Vert. 105.9° | Horiz. 146.1° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 14.8 fc        | 143.7 ft   | 67.8 ft      |               |
| 34.0 ft  | 3.71 fc        | 287.3 ft   | 135.6 ft     |               |
| 51.0 ft  | 1.65 fc        | 431.0 ft   | 203.4 ft     |               |
| 68.0 ft  | 0.93 fc        | 574.6 ft   | 271.2 ft     |               |
| 85.0 ft  | 0.59 fc        | 718.3 ft   | 339.0 ft     |               |
| 102.0 ft | 0.41 fc        | 861.9 ft   | 406.8 ft     |               |
|          |                |            | Vert. 153.4° | Horiz. 126.7° |

## HETH-A09-300W-HY-5000K (277V)

**Distribution:** Nema Type III, Short, Cutoff

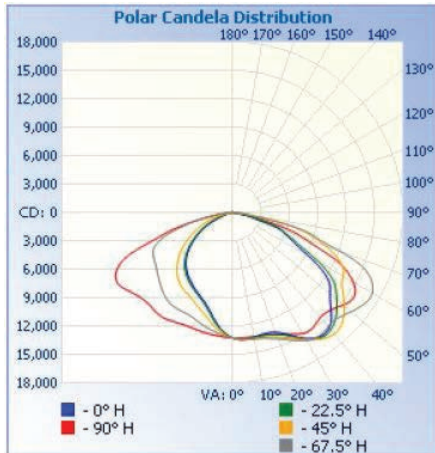
**Lamp Output:** 51924.3 lumens

**Max Candela:** 17128.4 at Horizontal: 67.5°, Vertical: 58°

**Input Wattage:** 299.76

**Nema Type:** 7 X 7

**BUG:** B5 U3 G4



**Distribution:** Nema Type IV, Very Short, Non-Cutoff

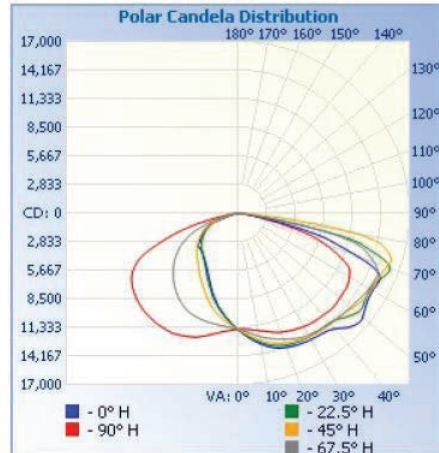
**Lamp Output:** 51735.7 lumens

**Max Candela:** 16236.7 at Horizontal: 0°, Vertical: 49°

**Input Wattage:** 300.42

**Nema Type:** 7 X 7

**BUG:** B4 U3 G5



**Distribution:** Nema Type V, Very Short, Non-Cutoff

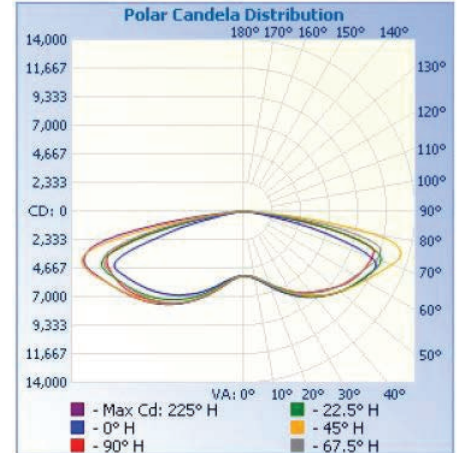
**Lamp Output:** 52017.6 lumens

**Max Candela:** 13815.3 at Horizontal: 225°, Vertical: 72°

**Input Wattage:** 298.53

**Nema Type:** 7 X 7

**BUG:** B5 U3 G5



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 507.9

**Max Cd, 80 to <90°:** 4499.6

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 32085.2 | 61.8%  |
| Downward House Side  | 19612.6 | 37.8%  |
| Downward Total       | 51697.7 | 99.6%  |
| Upward Street Side   | 121.3   | 0.2%   |
| Upward House Side    | 105.2   | 0.2%   |
| Upward Total         | 226.6   | 0.4%   |
| Total Lumens:        | 51924.3 | 100%   |

**Max Cd, 90° Vertical:** 59.3

**Max Cd, 80 to <90°:** 12167.9

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 36040.8 | 69.7%  |
| Downward House Side  | 15535.9 | 30.0%  |
| Downward Total       | 51576.7 | 99.7%  |
| Upward Street Side   | 72.8    | 0.1%   |
| Upward House Side    | 86.3    | 0.2%   |
| Upward Total         | 159.1   | 0.3%   |
| Total Lumens:        | 51735.8 | 100%   |

**Max Cd, 90° Vertical:** 66.9

**Max Cd, 80 to <90°:** 10761.1

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 26365.5 | 50.7%  |
| Downward House Side  | 25456.2 | 48.9%  |
| Downward Total       | 51821.7 | 99.6%  |
| Upward Street Side   | 106.0   | 0.2%   |
| Upward House Side    | 89.9    | 0.2%   |
| Upward Total         | 195.9   | 0.4%   |
| Total Lumens:        | 52017.6 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.0%    | 50876.1 | 158.6         | 148.8        |
| Beam (50%)  | 80.1%    | 41581.8 | 139.1         | 108.8        |
| Total       | 100%     | 51900.8 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.8%    | 51114.2 | 150.8         | 149.4        |
| Beam (50%)  | 81.6%    | 42199.9 | 138.0         | 93.1         |
| Total       | 99.9%    | 51700.4 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.1%    | 51561.8 | 142.8         | 163.1        |
| Beam (50%)  | 90.1%    | 46854.3 | 127.1         | 153.5        |
| Total       | 99.9%    | 51967.9 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 45.8 fc        | 47.5 ft    | 91.2 ft      |               |
| 34.0 ft  | 11.4 fc        | 95.0 ft    | 182.4 ft     |               |
| 51.0 ft  | 5.09 fc        | 142.4 ft   | 273.7 ft     |               |
| 68.0 ft  | 2.86 fc        | 189.9 ft   | 364.9 ft     |               |
| 85.0 ft  | 1.83 fc        | 237.4 ft   | 456.1 ft     |               |
| 102.0 ft | 1.27 fc        | 284.9 ft   | 547.3 ft     |               |
|          |                |            | Vert. 108.8° | Horiz. 139.1° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 39.9 fc        | 35.9 ft    | 88.5 ft      |               |
| 34.0 ft  | 9.98 fc        | 71.8 ft    | 177.1 ft     |               |
| 51.0 ft  | 4.44 fc        | 107.7 ft   | 265.6 ft     |               |
| 68.0 ft  | 2.50 fc        | 143.6 ft   | 354.2 ft     |               |
| 85.0 ft  | 1.60 fc        | 179.4 ft   | 442.7 ft     |               |
| 102.0 ft | 1.11 fc        | 215.3 ft   | 531.3 ft     |               |
|          |                |            | Vert. 93.1°  | Horiz. 138.0° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 18.3 fc        | 144.3 ft   | 68.3 ft      |               |
| 34.0 ft  | 4.58 fc        | 288.6 ft   | 136.6 ft     |               |
| 51.0 ft  | 2.04 fc        | 433.0 ft   | 204.9 ft     |               |
| 68.0 ft  | 1.15 fc        | 577.3 ft   | 273.3 ft     |               |
| 85.0 ft  | 0.73 fc        | 721.6 ft   | 341.6 ft     |               |
| 102.0 ft | 0.51 fc        | 865.9 ft   | 409.9 ft     |               |
|          |                |            | Vert. 153.5° | Horiz. 127.1° |

## HETH-A08-300W-HY-HV-5000K (480V)

**Distribution:** Nema Type III, Short, Cutoff

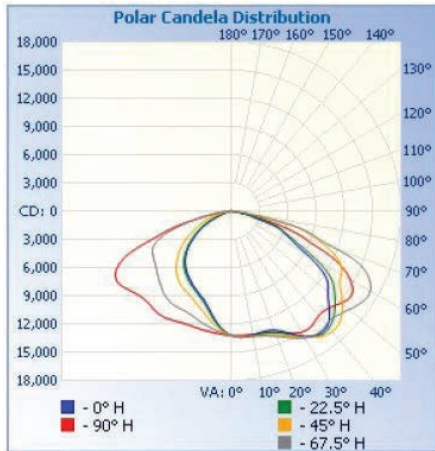
**Lamp Output:** 51798.7 lumens

**Max Candela:** 17100.6 at Horizontal: 67.5°, Vertical: 59°

**Input Wattage:** 297.54

**Nema Type:** 7 X 7

**BUG:** B5 U3 G4



**Distribution:** Nema Type IV, Very Short, Non-Cutoff

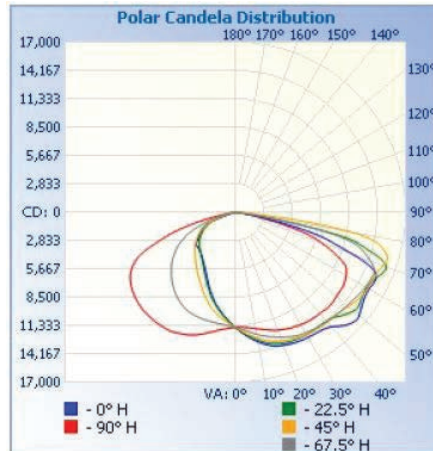
**Lamp Output:** 51672.5 lumens

**Max Candela:** 16216.9 at Horizontal: 0°, Vertical: 49°

**Input Wattage:** 298.93

**Nema Type:** 7 X 7

**BUG:** B4 U3 G5



**Distribution:** Nema Type V, Very Short, Non-Cutoff

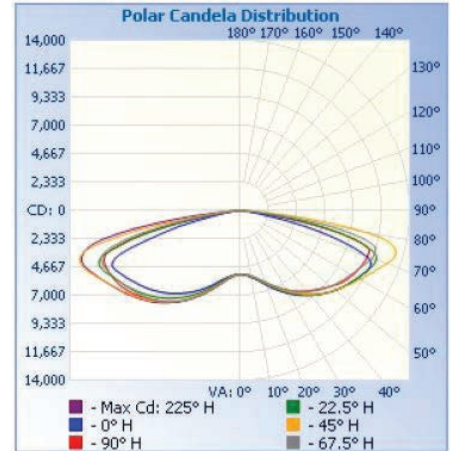
**Lamp Output:** 52051.2 lumens

**Max Candela:** 13831.3 at Horizontal: 225°, Vertical: 72°

**Input Wattage:** 296.95

**Nema Type:** 7 X 7

**BUG:** B5 U3 G5



## ROADWAY SUMMARY

**Max Cd, 90° Vertical:** 503.4

**Max Cd, 80 to <90°:** 4345.8

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 31992.7 | 61.8%  |
| Downward House Side  | 19557.9 | 37.8%  |
| Downward Total       | 51550.7 | 99.5%  |
| Upward Street Side   | 130.2   | 0.3%   |
| Upward House Side    | 117.8   | 0.2%   |
| Upward Total         | 248.0   | 0.5%   |
| Total Lumens:        | 51798.7 | 100%   |

**Max Cd, 90° Vertical:** 59.2

**Max Cd, 80 to <90°:** 12153.0

|                      | Lumens  | % Lamp |
|----------------------|---------|--------|
| Downward Street Side | 35996.7 | 69.7%  |
| Downward House Side  | 15516.9 | 30.0%  |
| Downward Total       | 51513.6 | 99.7%  |
| Upward Street Side   | 72.7    | 0.1%   |
| Upward House Side    | 86.2    | 0.2%   |
| Upward Total         | 158.9   | 0.3%   |
| Total Lumens:        | 51672.5 | 100%   |

**Max Cd, 90° Vertical:** 75.4

**Max Cd, 80 to <90°:** 10691.6

|                      | Lumens   | % Lamp |
|----------------------|----------|--------|
| Downward Street Side | 26391.5  | 50.7%  |
| Downward House Side  | 25472.1  | 48.9%  |
| Downward Total       | 51863.6  | 99.6%  |
| Upward Street Side   | 104.7    | 0.2%   |
| Upward House Side    | 93.0     | 0.2%   |
| Upward Total         | 197.7    | 0.4%   |
| Total Lumens:        | 52051.12 | 100%   |

## FLOOD SUMMARY

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 97.9%    | 50720.6 | 158.5         | 148.7        |
| Beam (50%)  | 80.0%    | 41454.7 | 138.9         | 108.4        |
| Total       | 100%     | 51776.3 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 98.8%    | 51051.6 | 150.8         | 149.4        |
| Beam (50%)  | 81.6%    | 42148.3 | 138.0         | 93.1         |
| Total       | 99.9%    | 51637.1 |               |              |

|             | Efficacy | Lumens  | Horiz. Spread | Vert. Spread |
|-------------|----------|---------|---------------|--------------|
| Field (10%) | 99.1%    | 51591.6 | 142.2         | 162.9        |
| Beam (50%)  | 90.1%    | 46891.6 | 126.8         | 153.5        |
| Total       | 99.9%    | 52002.8 |               |              |

## ILLUMINANCE

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 45.7 fc        | 47.2 ft    | 90.7 ft      |               |
| 34.0 ft  | 11.4 fc        | 94.4 ft    | 181.3 ft     |               |
| 51.0 ft  | 5.08 fc        | 141.5 ft   | 272.0 ft     |               |
| 68.0 ft  | 2.86 fc        | 188.7 ft   | 362.6 ft     |               |
| 85.0 ft  | 1.83 fc        | 235.9 ft   | 453.3 ft     |               |
| 102.0 ft | 1.27 fc        | 283.1 ft   | 544.0 ft     |               |
|          |                |            | Vert. 108.4° | Horiz. 138.9° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 39.9 fc        | 35.9 ft    | 88.5 ft      |               |
| 34.0 ft  | 9.97 fc        | 71.8 ft    | 177.1 ft     |               |
| 51.0 ft  | 4.43 fc        | 107.7 ft   | 265.6 ft     |               |
| 68.0 ft  | 2.49 fc        | 143.6 ft   | 354.2 ft     |               |
| 85.0 ft  | 1.60 fc        | 179.4 ft   | 442.7 ft     |               |
| 102.0 ft | 1.11 fc        | 215.3 ft   | 531.3 ft     |               |
|          |                |            | Vert. 93.1°  | Horiz. 138.0° |

| Height   | Center Beam fc | Beam Width | Vert. Spread | Horiz. Spread |
|----------|----------------|------------|--------------|---------------|
| 17.0 ft  | 18.3 fc        | 144.2 ft   | 68.0 ft      |               |
| 34.0 ft  | 4.58 fc        | 288.2 ft   | 135.9 ft     |               |
| 51.0 ft  | 2.03 fc        | 432.5 ft   | 203.9 ft     |               |
| 68.0 ft  | 1.14 fc        | 576.7 ft   | 271.9 ft     |               |
| 85.0 ft  | 0.73 fc        | 720.9 ft   | 339.8 ft     |               |
| 102.0 ft | 0.51 fc        | 865.1 ft   | 407.8 ft     |               |
|          |                |            | Vert. 153.5° | Horiz. 126.8° |

# FLICKER RATING

## HETH-A02-100W-HY-XXXXK (277V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.05%       | 0.09%      | 0.14%      | 0.19%      | 0.23%      | 0.29%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.08%       | 0.13%      | 0.18%      | 0.23%      | 0.28%      | 0.33%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.12%       | 0.16%      | 0.20%      | 0.27%      | 0.32%      | 0.37%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.17%       | 0.21%      | 0.26%      | 0.31%      | 0.39%      | 0.42%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.20%       | 0.25%      | 0.30%      | 0.37%      | 0.43%      | 0.51%      |

## HETH-A01-100W-HY-HV-XXXXK (480V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.07%       | 0.11%      | 0.15%      | 0.20%      | 0.24%      | 0.27%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.10%       | 0.15%      | 0.17%      | 0.22%      | 0.27%      | 0.31%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.14%       | 0.19%      | 0.23%      | 0.27%      | 0.33%      | 0.38%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.19%       | 0.23%      | 0.26%      | 0.30%      | 0.37%      | 0.40%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.22%       | 0.24%      | 0.29%      | 0.35%      | 0.41%      | 0.49%      |

## HETH-A04-150W-HY-XXXXK (277V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.18%       | 0.22%      | 0.29%      | 0.34%      | 0.41%      | 0.57%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.21%       | 0.28%      | 0.35%      | 0.46%      | 0.50%      | 0.61%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.29%       | 0.35%      | 0.41%      | 0.55%      | 0.61%      | 0.69%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.32%       | 0.43%      | 0.49%      | 0.59%      | 0.68%      | 0.76%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.41%       | 0.56%      | 0.63%      | 0.68%      | 0.76%      | 0.98%      |

## HETH-A03-150W-HY-HV-XXXXK (480V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.07%       | 0.13%      | 0.19%      | 0.24%      | 0.29%      | 0.34%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.13%       | 0.17%      | 0.21%      | 0.28%      | 0.35%      | 0.41%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.17%       | 0.22%      | 0.25%      | 0.31%      | 0.42%      | 0.48%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.23%       | 0.26%      | 0.29%      | 0.40%      | 0.49%      | 0.55%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.28%       | 0.34%      | 0.37%      | 0.47%      | 0.53%      | 0.60%      |

## HETH-A05-200W-HY-XXXXK (277V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.21%       | 0.25%      | 0.32%      | 0.39%      | 0.47%      | 0.62%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.26%       | 0.29%      | 0.38%      | 0.45%      | 0.53%      | 0.75%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.32%       | 0.37%      | 0.43%      | 0.52%      | 0.66%      | 0.89%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.39%       | 0.43%      | 0.51%      | 0.64%      | 0.72%      | 0.96%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.46%       | 0.52%      | 0.63%      | 0.71%      | 0.86%      | 1.52%      |

## HETH-A06-240W-HY-HV-XXXXK (480V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.11%       | 0.17%      | 0.25%      | 0.29%      | 0.39%      | 0.47%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.16%       | 0.22%      | 0.33%      | 0.36%      | 0.46%      | 0.53%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.23%       | 0.27%      | 0.38%      | 0.45%      | 0.55%      | 0.68%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.29%       | 0.35%      | 0.44%      | 0.51%      | 0.62%      | 0.74%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.34%       | 0.41%      | 0.52%      | 0.63%      | 0.74%      | 1.24%      |

## HETH-A07-240W-HY-XXXXK (277V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.09%       | 0.12%      | 0.16%      | 0.19%      | 0.23%      | 0.28%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.11%       | 0.15%      | 0.19%      | 0.24%      | 0.26%      | 0.31%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.15%       | 0.18%      | 0.23%      | 0.27%      | 0.34%      | 0.42%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.19%       | 0.22%      | 0.25%      | 0.30%      | 0.39%      | 0.57%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.24%       | 0.27%      | 0.32%      | 0.37%      | 0.43%      | 1.02%      |

## HETH-A09-300W-HY-XXXXK (277V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.14%       | 0.17%      | 0.21%      | 0.24%      | 0.28%      | 0.36%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.19%       | 0.22%      | 0.25%      | 0.29%      | 0.33%      | 0.41%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.27%       | 0.31%      | 0.38%      | 0.41%      | 0.45%      | 0.52%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.36%       | 0.39%      | 0.42%      | 0.46%      | 0.51%      | 0.62%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.65%       | 0.70%      | 0.74%      | 0.77%      | 0.82%      | 1.22%      |

## HETH-A08-300W-HY-HV-XXXXK (480V)

| Frequency | MOD<br>(no-effect) | MOD<br>(low-risk) | 100%<br>dim | 90%<br>dim | 75%<br>dim | 50%<br>dim | 20%<br>dim | 10%<br>dim |
|-----------|--------------------|-------------------|-------------|------------|------------|------------|------------|------------|
| 40 Hz     | 0.4%               | 1.0%              | 0.07%       | 0.09%      | 0.10%      | 0.13%      | 0.16%      | 0.21%      |
| 90 Hz     | 3.0%               | 7.2%              | 0.12%       | 0.15%      | 0.16%      | 0.17%      | 0.18%      | 0.26%      |
| 200 Hz    | 6.7%               | 16.0%             | 0.23%       | 0.24%      | 0.25%      | 0.30%      | 0.35%      | 0.47%      |
| 400 Hz    | 13.3%              | 32.0%             | 0.30%       | 0.33%      | 0.35%      | 0.42%      | 0.54%      | 0.61%      |
| 1000 Hz   | 33.3%              | 80.0%             | 0.54%       | 0.59%      | 0.61%      | 0.83%      | 1.02%      | 1.14%      |

Reference Standard IEEE 1789: 2015

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## SURGE PROTECTION

### HETH-A02-100W-HY-XXXXK (277V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A01-100W-HY-HV-XXXXK (480V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A04-150W-HY-XXXXK (277V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A03-150W-HY-HV-XXXXK (480V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-G        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-G        | ±12       | 60              | 5     | Normal             | B        | Pass   |
| N-G        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| N-G        | ±12       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A05-200W-HY-XXXXK (277V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A07-240W-HY-XXXXK (277V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A06-240W-HY-HV-XXXXK (480V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A09-300W-HY-XXXXK (277V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

### HETH-A08-300W-HY-HV-XXXXK (480V)

| Test Items | Surge /kv | Interval time/S | Times | Process phenomenon | Criteria | Result |
|------------|-----------|-----------------|-------|--------------------|----------|--------|
| L-N        | ±3        | 60              | 5     | Normal             | B        | Pass   |
| L-N        | ±6.6      | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±5        | 60              | 5     | Normal             | B        | Pass   |
| L-PE/N-PE  | ±10       | 60              | 5     | Normal             | B        | Pass   |

Reference Standard IEC 61000-4-5

- Testing Criteria B: Temporary loss of function or degradation of performance and recover its normal performance without operator intervention.

## Smart Sensors & Remotes

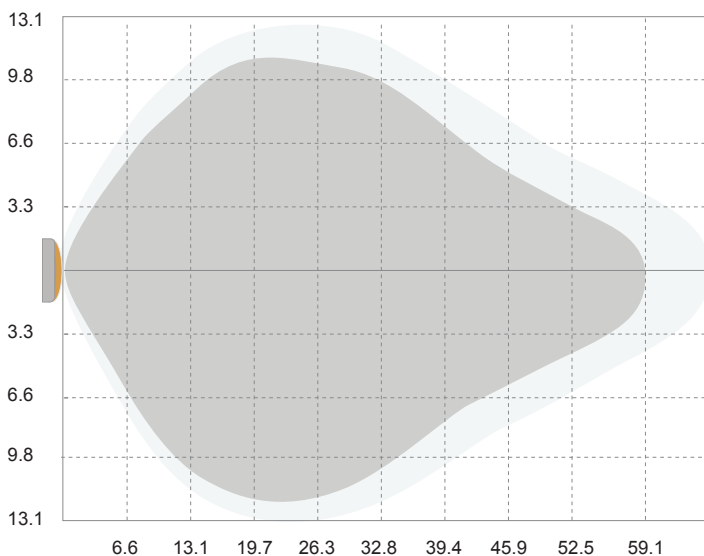
Remote Program Smart Sensor functions to automate and control sensitivity and brightness levels for photocell, daylight, standby dimming, and motion detection.

### TECHNICAL DATA

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Operating Voltage     | 10-15VDC                                                   |
| Operating Current     | 30mA±5%                                                    |
| Output                | 0-10V                                                      |
| Standby Power         | ≤0.5W                                                      |
| Detection Area        | 25%, 50%, 75%, 100%                                        |
| Hold Time             | 5 sec, 30 sec, 1 min, 3 min, 5 min, 10 min, 20 min, 30 min |
| Daylight Threshold    | 2Lux, 10Lux, 30Lux, 50Lux, 80Lux, 120Lux, Disable          |
| Standby Period        | 0 sec, 10 sec, 30 sec, 1 min, 5 min, 10 min, 30 min, + ∞   |
| Standby Dimming Level | 10%, 20%, 30%, 50%                                         |
| Microwave Frequency   | 5.8GHz±75MHz                                               |
| Microwave Power       | <0.3mW                                                     |
| Mounting Height       | 49.2 FT Max Height                                         |
| Detection Range       | Max, Ø 45.92 FT                                            |
| Operating Temperature | -4°F to 140°F (-20°C to 60°C)                              |
| Motion Detection      | 0.5~1.5 m/s                                                |
| IP Rating             | IP65 Wet Location                                          |
| Warranty              | 5 Years                                                    |

### DETECTION RANGE

Detection range shown in feet of ProGem LED Area Light installed at the maximum height of 49.2 FT.



■ Main Detection Area      □ Detection Area Maximum

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### ALPCSG2

#### Photocell Sensor

Translucent Black Cap With Round Chipset



### ALMSPCSG2

#### Photocell, Daylight, Standby Dimming, and Motion Sensor

Translucent Black Cap With Round and Rectangular Chipsets



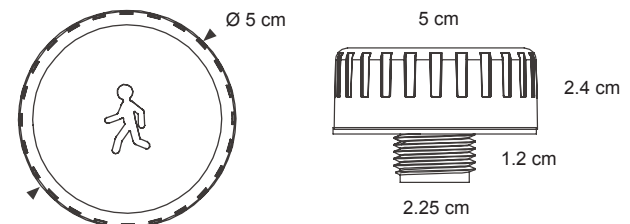
### SC

#### Shorting Cap, No Sensor

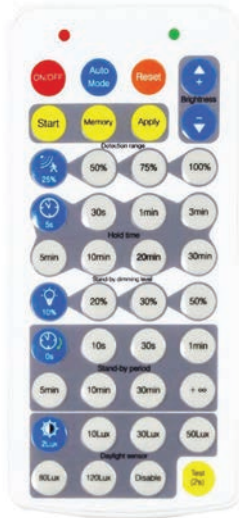
Translucent Black Cap Only With No Chipset



### PHYSICAL DIMENSIONS



## ALRM-HD03R REMOTE



\*Uses 2X AAA Batteries, Not Included

### USER GUIDE

1. Press the red ON/OFF button to turn on the luminaire.
2. Press the START button:
  - Press button values for: a) Detection Range, b) Hold Time, c) Standby Dimming Level, d) Standby Time, e) Daylight Sensor
  - Press and hold arrow buttons to adjust the luminaire's maximum Brightness Level.
  - \* Each selection will flash the red indicator light and momentarily dim the luminaire to communicate the setting.
3. Press the MEMORY button to store current settings in the remote.
4. Press the APPLY button, the green indicator light will flash and the luminaire will momentarily dim to save its new settings.

#### TO APPLY STORED SETTINGS TO ADDITIONAL LUMINAIRES:

1. Press the ON/OFF power button to turn on the next luminaire.
2. Press the APPLY button, the green indicator light will flash and the luminaire will momentarily dim to store the new settings.

### NOTES

- Securely twist-on the Smart Sensor Cap and install the luminaire with the lighting system's power OFF. Program settings to the luminaire with the lighting system's power ON.
- Point the Remote towards the Smart Sensor throughout setting program functions. Settings must be applied within 30 seconds of pressing the Start button.

## ALRM-HD05R REMOTE



\*Uses 2X AAA Batteries, Not Included

### USER GUIDE

1. Press the red ON/OFF power button to turn on the luminaire.
2. Press the SCENE button.
3. Press the START button:
  - Press MW/PIR to select between Microwave or Passive Infrared frequencies
  - Press an Icon button and use Arrow buttons to select a value. Repeat for a) Detection Range, b) Hold Time, c) Standby Dimming Level, d) Standby Time, e) Daylight Sensor
  - Press the Power % and use the Arrow buttons to adjust the luminaire's maximum Brightness Level.
  - \* Each selection will momentarily dim the luminaire to communicate the setting.
4. Press the MEMORY button to store current settings in the remote.
5. Press the APPLY button, the luminaire will momentarily dim to save its new settings.

#### TO APPLY STORED SETTINGS TO ADDITIONAL LUMINAIRES:

1. Press the ON/OFF power button to turn on the next luminaire.
2. Press the SCENE button.
3. Press the APPLY button, the green indicator light will flash and the luminaire will momentarily dim to store the new settings.

#### RECALL THE PREVIOUSLY STORED SETTINGS:

1. Press the ON/OFF power button to turn on the screen.
2. Press the SCENE button, Brightness will show less than 100%.
3. Press the APPLY button and the previously saved settings will appear.

### NOTES

- Securely twist-on the Smart Sensor Cap and install the luminaire with the lighting system's power OFF. Program settings to the luminaire with the lighting system's power ON.
- Point the Remote towards the Smart Sensor throughout setting program functions. Settings must be applied within 30 seconds of pressing the Start button.