



TEST REPORT

| | |
|-----------------------------------|--|
| Test Report No. | BSR2511170401-9 |
| Applicant | Hudson Valley Lighting, Inc |
| Applicant Address | 151 Airport Drive Wappingers Falls NY 12590 USA |
| Description of Sample(s) | Fixture Lamp |
| Brand Name | TROY LIGHTING, CORBETT LIGHTING, MITZI LIGHTING, HUDSON VALLEY LIGHTING |
| Model | B5720-TBK/PBR |
| Investigation Requested | IDA: Fixture Seal of Approval Criteria as of Version 3.0, updated March 2025 |
| Test Method | IESNA TM-15-11 Luminaire Classification System for Outdoor Luminaires |
| Conclusion(s) | See test data in the following pages |
| Test Laboratory | BELL-SOUTHCN TESTING LABORATORY |
| Address | FIRST FLOOR, HUAXIA BUILDING, NO. 116, JIANGMU ROAD, JIANGHAI DISTRICT, JIANGMEN CITY, GUANDONG PROVINCE 529000, PEOPLE' S REPUBLIC OF CHINA Email:Marketing@bell-southcn.com |
| Accreditation Body | International Accreditation Service, Testing Laboratory TL-525 |
| Date Sample(s) Received | 2025-11-17 |
| Date of Report | 2025-12-09 |
| Date of Tests | 2025-11-17 ~ 2025-12-04 |
| Test Engineer Signature | Neil  |
| Witness/Approval Signature | Peter Tao  |

Note: This test report is prepared for the applicant shown above and for the device described herein. It may not be duplicated or use in part without prior written consent from Bell-Southcn Testing laboratory. This report must not be used by the customer to claim product certification, approval, or endorsement By IAS, NIST, or any agency of the Federal Government. The test data was only obtained from samples submitted by the applicant.

Measurement Result :

| | |
|--|---|
| Model No: | B5720-TBK/PBR |
| Voltage(V) | 120.00 |
| Current(A) | 0.095 |
| Power(W) | 8.789 |
| PF | 0.771 |
| Lumens(lm) | 253.56 |
| Luminous Efficacy(lm/W) | 28.85 |
| Angle of maximum intensity(cd) | C=22.5 γ=13.0 |
| Beam Angle(50%Imax) | [C0/180] Total=118.0, [C90/270] Total=101.5 |
| Test Used Lamp Type | 10W A15 LED Lamp |
| Used Lamp Lumen flux(lm) and Efficiency(%): | 706lm, 35.92% |
| Cut-off/ Non-Cutoff type | Cutoff |
| Correlated Color Temperature (K) | 2620 |
| Luminaire Type | DarkSky Residential Luminaire |

Measurement Result : **Cut-off type <3000K ; Uplight flux less than 50lm**
Have fixed mount and Source is not visible from the horizontal plane
Comply with FSA (Fixture Seal of Approval) for Residential Luminaires

Remark:

| | |
|---------------|---|
| Full Cut-off: | no luminous flux above 90°, no more than 10% of the luminous flux of the light source in the lamp at any position from 80° to 90°. |
| Cut-off: | Any position above 90° does not exceed 2.5% of the luminous flux of the light source in the luminaire, and any position between 80° -90° does not exceed 10% of the luminous flux of the light source inside the luminaire. |
| Semi-Cut-off: | Any position above 90° does not exceed 5% of the luminous flux of the light source in the luminaire, and any position between 80° and 90° does not exceed 20% of the luminous flux of the light source in the luminaire. |
| Non-Cut-off: | Unlimited. |

Fixture Seal of Approval Criteria as of Version 3.0, updated March 2025

To receive the FSA, all of the following criteria shall be met.

2.0 Lighting criteria

2.1 DarkSky Residential Luminaire criteria

A. Output: Luminaire total light output shall not exceed 1,000 lumens.

B. Uplight: No more than 50 lumens are allowed between 90 and 180 degrees above nadir (i.e., LCS zones UL and UH combined). The light source shall not be visible from the horizontal plane that passes through the lowest light-emitting part of the luminaire.

C. CCT: The light source CCT shall not exceed nominal 3000 K.

D. Dimming: The luminaire shall be dimmable to 10% or less of its full light output rating. (see exclusion 1.2.D)

2.2 DarkSky Commercial Luminaire criteria

A. Uplight: The following are maximum percentages of total luminaire lumens, or maximum lumen amounts, allowed between 90 and 180 degrees above nadir, inclusive (i.e., LCS zones UL and UH combined):

1, Luminaires emitting 1,000 lumens or less: A maximum of 5 lumens total is allowed.

2, Luminaires emitting more than 1,000 lumens: No more than 0.5% of the total luminaire lumen output is allowed, up to a maximum of 50 lumens.

B. High angle light: For luminaires whose lowest light emitting surface is more than 1.2 meters (4 feet) above the ground the following maximum percentages of total luminaire lumens are allowed between 80 degrees and 90 degrees from nadir (i.e., LCS zones FVH and BVH combined):

1, Luminaires with a Type V or Type VS light distribution (see Sections 1.3.F and 1.3.G, respectively): No more than 5% of the total luminaire lumen output is allowed.

2, Luminaires with all other distribution types: No more than 3% of the luminaire's total lumen output is allowed.

C. Shielding option: For pole mounted street, area, roadway, and parking lot luminaires a pre- or post-installation shielding option must be available and included in the product data sheet (See Section 1.3.D).

D. CCT: The light source CCT shall not exceed nominal 3000 K.

E. Dimming: The luminaire shall be dimmable to 10% or less of its full light output rating. (see exclusion 1.2.D)

2.3 DarkSky Pedestrian Comfort Luminaire criteria

A. Output: The luminaire total light output shall not exceed 10,000 lumens.

B. Uplight: The following are maximum percentages of total luminaire lumens, or maximum lumen amounts, allowed between 90 and 180 degrees above nadir, inclusive (i.e., LCS zones UL and UH combined):

- 1, Luminaires emitting 1,000 lumens or less: A maximum of 5 lumens total is allowed.
- 2, Luminaires emitting more than 1,000 lumens: No more than 0.5% of the total luminaire lumen output is allowed, up to a maximum of 50 lumens.

C. High angle light: For luminaires whose lowest light emitting surface is more than 1.2 meters (4 feet) above the ground, the following are maximum percentages or values allowed in the specified LCS zones or angles above nadir:

- 1, No more than 2% of the luminaire's total output shall be emitted between 80 and 90 degrees above nadir (i.e., LCS zones FVH and BVH combined).
- 2, No more than 35% of the luminaire's total output shall be emitted between 60 and 80 degrees above nadir (i.e., LCS zones FH and BH combined).
- 3, The vertical angle of maximum luminous intensity (candelas) shall be no higher than 68 degrees above nadir.

D. CCT: The light source CCT shall not exceed nominal 3000 K.

E. Dimming: The luminaire shall be dimmable to 10% or less of its full light output rating. (see exclusion 1.2.D)

2.4 DarkSky Wildlife Tuned Luminaire criteria

A. Criteria for Sea Turtle Sensitive Luminaires

- 1, **Output:** The luminaire total light output shall not exceed 4,000 lumens.
- 2, **Uplight:** No light output shall be emitted between 90 and 180 degrees above nadir, inclusive (i.e., LCS zones UL and UH combined).
- 3, **High angle light**, for luminaires of all heights:
 - a. No more than 2% of the luminaire's total output shall be emitted between 80 and 90 degrees above nadir (LCS zones FVH and BVH combined).
 - b. No more than 35% of the luminaire's total output shall be emitted between 60 and 80 degrees above nadir (i.e., LCS zones FH and BH combined).
 - c. The vertical angle of maximum luminous intensity (candelas) shall be no higher than 68 degrees above nadir.
 - d. Luminaires must have enhanced shielding that is included in the product data sheet. This option is required for shielding the light source on the beach side of the luminaire.
- 4, **Spectral content:** The luminaire's emitted spectral power shall be at wavelengths of 560 nm or longer. The graph on the left displays an acceptable wavelength reading for a long-wavelength light source (i.e. amber lamp), with wavelength readings above 560 nm or higher. The graph on the right displayed an unacceptable wavelength reading, with wavelength readings below the 560 nm cutoff.
- 5, **Dimming:** The luminaire shall be dimmable to 10% or less of its full light output rating. (see exclusion 1.2.D)

Zonal flux distribution table

ZONAL LUMEN SUMMARY

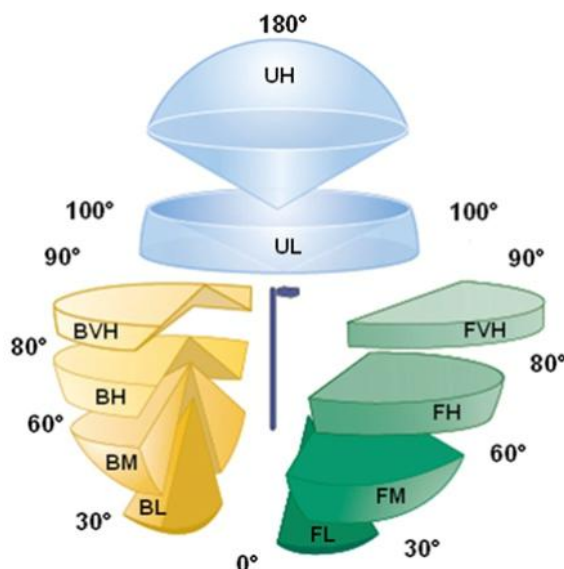
| Zone | Lumens | %Fixt |
|---------|--------|---------|
| 0-30 | 60.07 | 23.69% |
| 0-40 | 108.90 | 42.95% |
| 0-60 | 215.05 | 84.81% |
| 0-90 | 248.43 | 97.98% |
| 0-120 | 252.89 | 99.73% |
| 0-180 | 253.56 | 100.00% |
| 60-90 | 33.39 | 13.17% |
| 90-120 | 4.46 | 1.76% |
| 90-130 | 4.89 | 1.93% |
| 90-150 | 5.13 | 2.02% |
| 90-180 | 5.13 | 2.02% |
| 0-57.06 | 202.85 | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|-------|
| 0-10 | 9.68 |
| 10-20 | 18.81 |
| 20-30 | 31.57 |
| 30-40 | 48.84 |
| 40-50 | 56.86 |
| 50-60 | 49.29 |
| 60-70 | 22.23 |
| 70-80 | 7.20 |
| 80-90 | 3.96 |
| 90-100 | 2.29 |
| 100-110 | 1.40 |
| 110-120 | 0.76 |
| 120-130 | 0.44 |
| 130-140 | 0.19 |
| 140-150 | 0.05 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

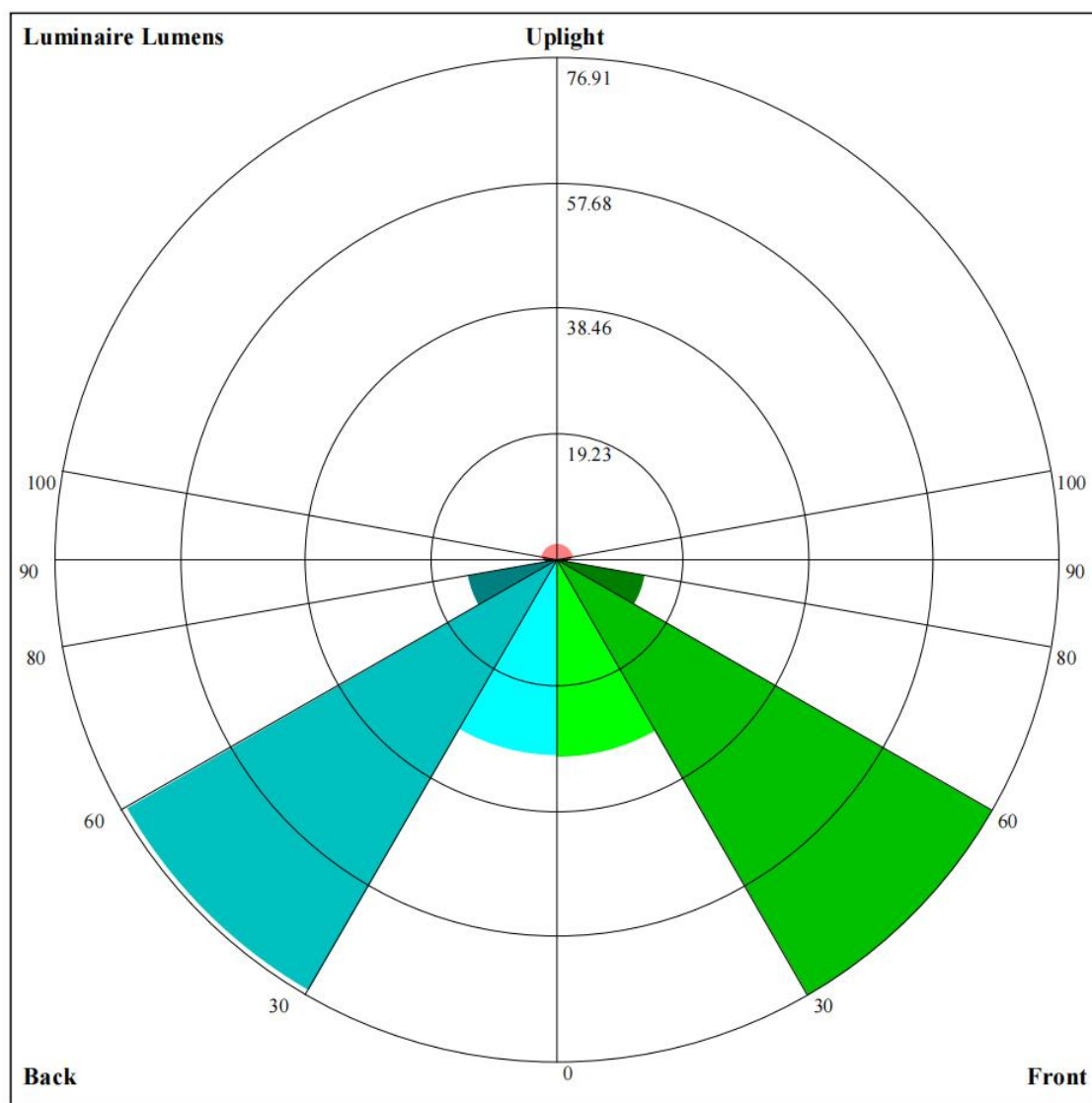
LUMINAIRE CLASSIFICATION SYSTEM (LCS)

| | Lumens | %Lamp | %Luminaire |
|-----------------------------|--------|----------|------------|
| FL-Front-Low (0-30) | 30.33 | - | 11.96% |
| FM-Front-Medium (30-60) | 76.91 | - | 30.33% |
| FH-Front-High (60-80) | 13.85 | - | 5.46% |
| FVH-Front-Very High (80-90) | 1.88 | - | 0.74% |
| BL-Back-Low (0-30) | 30.09 | - | 11.87% |
| BM-Back-Medium (30-60) | 76.11 | - | 30.02% |
| BH-Back-High (60-80) | 14.13 | - | 5.57% |
| BVH-Back-Very High (80-90) | 1.97 | - | 0.78% |
| UL-Uplight-Low (90-100) | 2.3 | - | 0.91% |
| UH-Uplight-High (100-180) | 2.59 | - | 1.02% |
| Total | 253.56 | - | 100.00% |
| BUG Rating | | B0-U1-G0 | |



Remark: The Luminaire Classification System (LCS) defines the distribution of light from a luminaire within three primary solid angles. These are further divided into 10 secondary solid angles. LCS can be described as either percent bare lamp lumens or luminaire lumens for each primary and secondary solid angle. It is based in part on IES-funded research. The LCS quantifies light distribution in front of the luminaire (Forward Light), behind the luminaire (Back Light), and above the luminaire (Uplight).

LCS Graph



Luminaire Lumens:

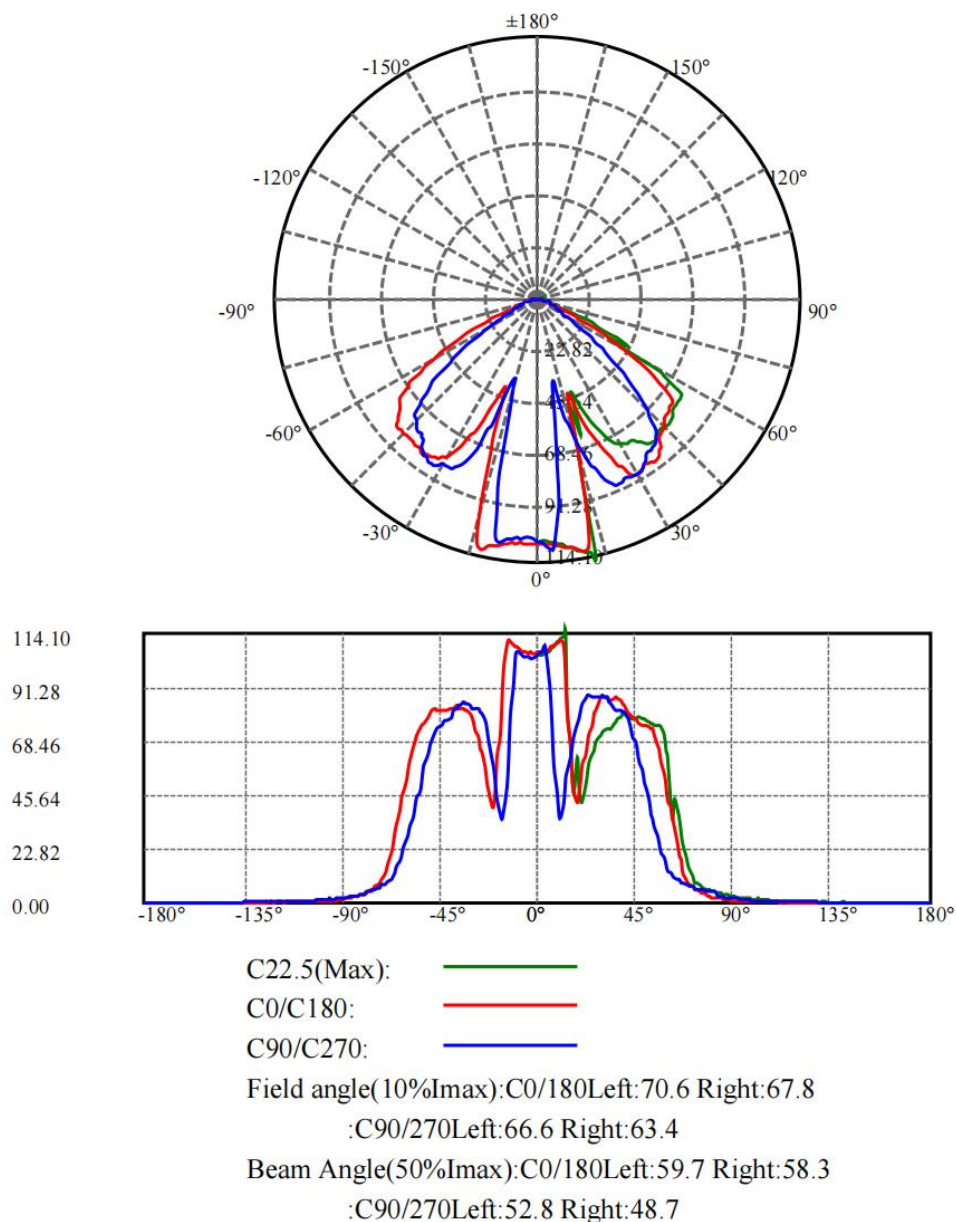
FL=30.33,FM=76.91,FH=13.85,FVH=1.88

BL=30.09,BM=76.11,BH=14.13,BVH=1.97

UL=2.3,UH=2.59

BUG Rating:B0-U1-G0

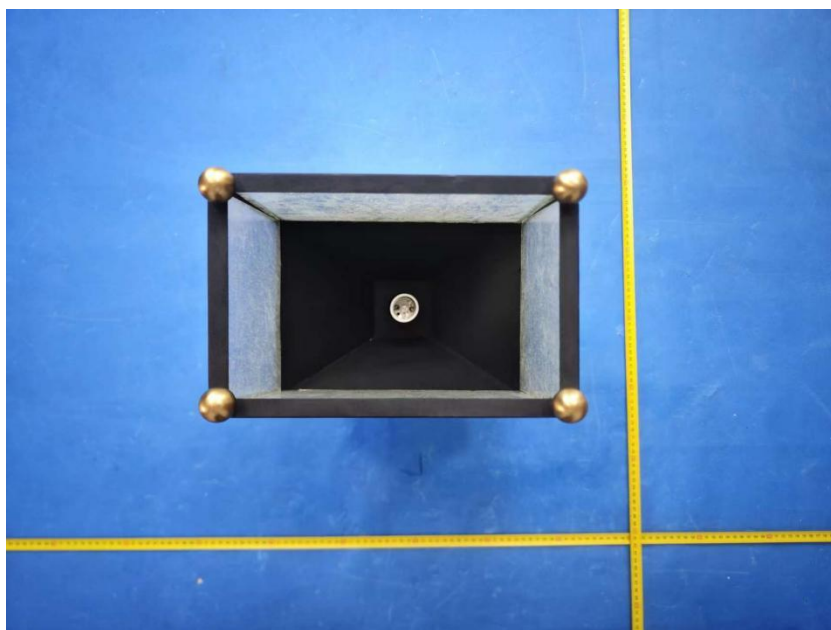
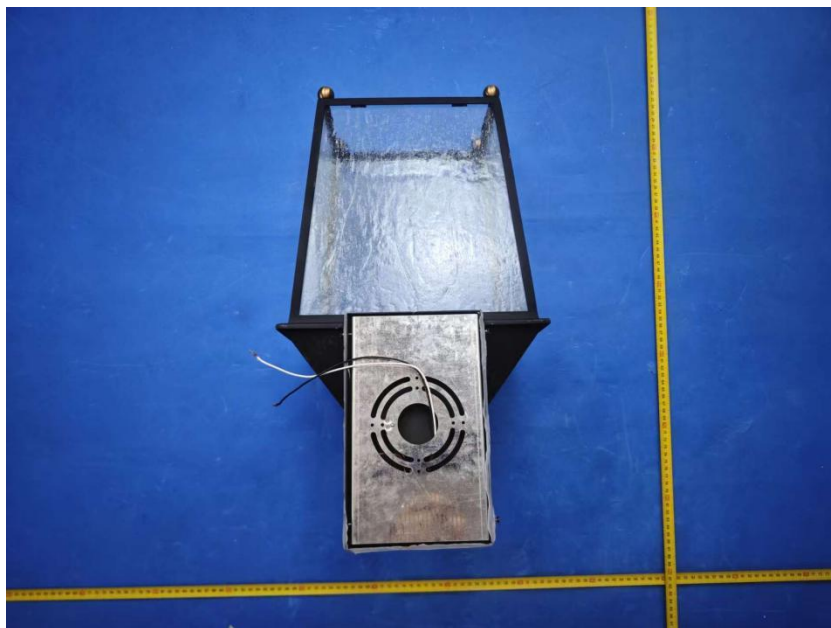
Light Distribution Curve



Product Photos:

(Luminaire Position Under Test: Lighting Downward)





B5720-TBK/PBR

--- End of the Report---