

# TEST REPORT

<b>Test Report No.</b>	BSR2412190101-9
<b>Applicant</b>	Hudson Valley Lighting, Inc
<b>Applicant Address</b>	151 Airport Drive Wappingers Falls NY 12590 USA
<b>Description of Sample(s)</b>	Fixture Lamp
<b>Brand Name</b>	TROY LIGHTING, CORBETT LIGHTING, MITZI LIGHTING, HUDSON VALLEY LIGHTING
<b>Model</b>	B7912-XXXXXXX ( "XXXXXXX" indicates the shell color)
<b>Investigation Requested</b>	IDA: Approval Criteria Version 2.25 updated May 11, 2022
<b>Test Method</b>	IESNA TM-15-11 Luminaire Classification System for Outdoor Luminaires
<b>Conclusion(s)</b>	See test data in the following pages
<b>Test Laboratory</b>	Bell-Southcn Testing Laboratory
<b>Address</b>	First floor, Huaxia Building, No.116, Jiangmu Road, Jianghai District, Jiangmen City, Guangdong, China. Email:Marketing@bell-southcn.com
<b>Accreditation Body</b>	International Accreditation Service, Testing Laboratory TL-525
<b>Date Sample(s) Received</b>	2024-12-13
<b>Date of Report</b>	2024-12-23
<b>Date of Tests</b>	2024-12-13 ~ 2024-12-19
<b>Test Engineer Signature</b>	Neil 
<b>Witness/Approval Signature</b>	Peter Tao 

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**Measurement Result :**

<b>Model No:</b>	B7912-XXXXXXX ( "XXXXXXX" indicates the shell color)
<b>Test Model No:</b>	B7912-PBR/BRZ
<b>Luminaire Type:</b>	Residential Luminaires; Indirect lighting
<b>Test Used Light Sources Type</b>	10W GU10 LED Lamp, 834lm
<b>Voltage(V)</b>	120.10
<b>Current(A)</b>	0.090
<b>Power(W)</b>	10.072
<b>PF</b>	0.928
<b>Lumens(lm)</b>	36.95
<b>Luminous Efficacy(lm/W)</b>	3.67
<b>Luminaire Efficacy</b>	4.43% (Use 834lm Lamp)
<b>Angle of maximum intensity(cd)</b>	C=157.5 γ=17.0
<b>Beam Angle(50%Imax)</b>	[C0/180] Total=94.0, [C90/270] Total=146.5
<b>IES Classification</b>	TypeIV
<b>Longitudinal Classification</b>	VeryShort
<b>Cut-off/ Non-Cutoff type</b>	Cutoff
<b>Correlated Color Temperature (K)</b>	2360

**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 May 11, 2022

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

Approved fixtures shall employ warm-toned (3000K and lower) white light sources or may employ amber light sources or filtered LED light sources. If other CCTs or mounting options are available for the luminaire, a notation needs to be made on the web page, spec sheets, and order forms that 3000k or warmer, and fixed mounts must be ordered for IDA certification compliance.

### For Commercial Luminaires:

- Photometric files are needed to validate performance characteristics.
- There is an uplight allowance of 0.5% of total output or 50 lumens; whichever is lower, with no more than 10 lumens in 90-100 degree UL zone. Allowable uplight as a byproduct of the structure and not the source.
- Street and area lights must have a pre or post-installation shielding option.
- Luminaires are required to have fixed mounts to ensure they are mounted as photometered. There can be up to + or- 10-degree adjustment for leveling if needed.
- Luminaires must have dimming capability to 10% of full rating.
- Light sources shall have a maximum correlated color temperature of 3000K.
- Luminaires must have Safety Certification by an independent laboratory.

### For Residential Luminaires:

- Uplight allowance: Not to exceed 50 lumens from source reflection or support structures. Source is not visible from the horizontal plane, i.e. the fixture is fully shielded.
- Require fixed mounts to ensure luminaire is mounted as photometered.
- Light sources shall have a maximum correlated color temperature of 3000K.
- Safety Lab Certification

**Innovation:** This is to encourage a Best in Class lighting development that significantly reduces light pollution and nocturnal habitat disruption.

- No Uplight allowance, BUG rating, U-0
- Dimmable to 1% of full rating
- Smart controls that meet program purposes
- No more than 7% of visible emissions in 380-520nm

### Wildlife Tuned:

- Presently to recognize need of Florida turtle lighting approval program
- If research proceeds as expected and spectral sensitivities are known, this feature will be in place for future species-specific needs.
- No uplight, BUG U-0
- Sea turtle specific spectrum: 0% less than 565nm

## Zonal flux distribution table

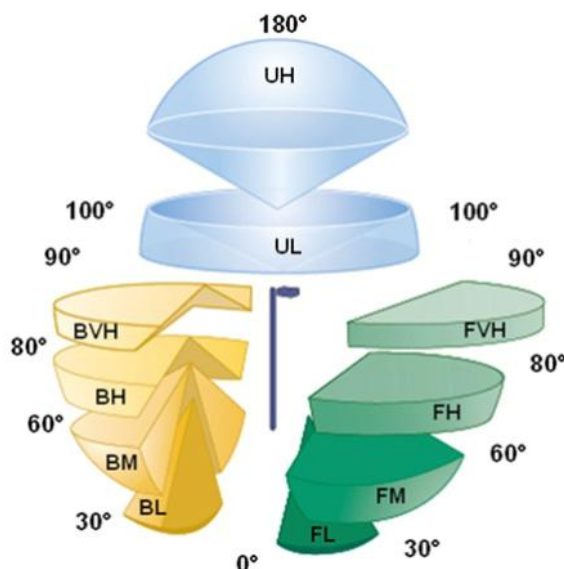
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	10.36	1.24%	28.04%
0-40	17.15	2.06%	46.41%
0-60	27.88	3.34%	75.45%
0-90	31.98	3.84%	86.57%
0-120	36.95	4.43%	100.00%
0-180	36.95	4.43%	100.00%
60-90	4.11	0.49%	11.12%
90-120	4.96	0.59%	13.43%
90-130	4.96	0.59%	13.43%
90-150	4.96	0.59%	13.43%
90-180	4.96	0.59%	13.43%
0-64.72	29.56	3.54%	80.00%

### ZONAL LUMEN SUMMARY

0-10	0.66
10-20	3.52
20-30	6.17
30-40	6.79
40-50	5.96
50-60	4.77
60-70	3.10
70-80	1.00
80-90	0.01
90-100	2.13
100-110	2.83
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

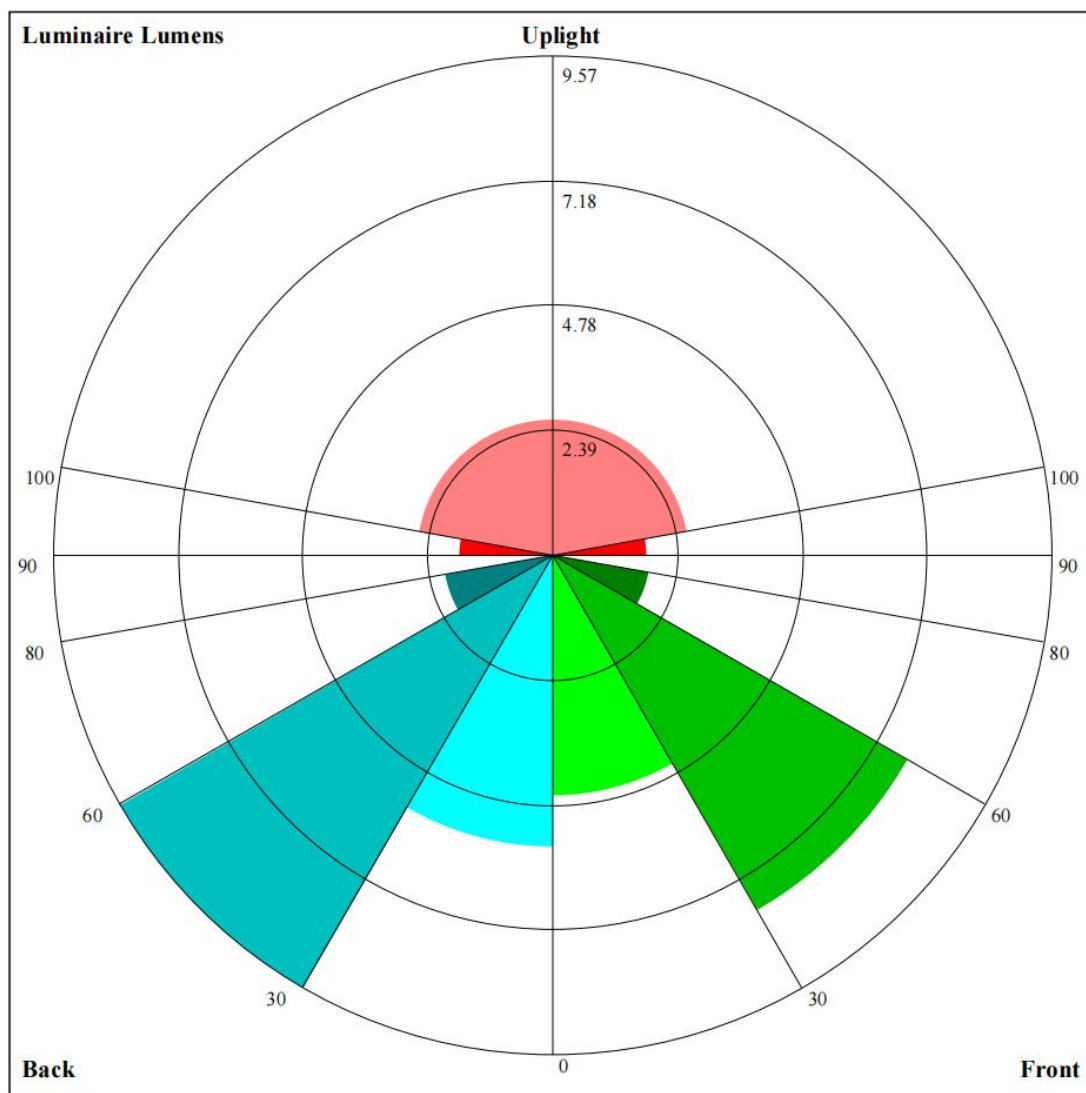
### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	%Lamp	%Luminaire
FL-Front-Low (0-30)	4.63	-	12.53%
FM-Front-Medium (30-60)	7.85	-	21.24%
FH-Front-High (60-80)	1.87	-	5.06%
FVH-Front-Very High (80-90)	0.00	-	0.00%
BL-Back-Low (0-30)	5.59	-	15.13%
BM-Back-Medium (30-60)	9.57	-	25.90%
BH-Back-High (60-80)	2.12	-	5.74%
BVH-Back-Very High (80-90)	0	-	0.00%
UL-Uplight-Low (90-100)	1.81	-	4.90%
UH-Uplight-High (100-180)	2.62	-	7.09%
Total	36.95	-	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:

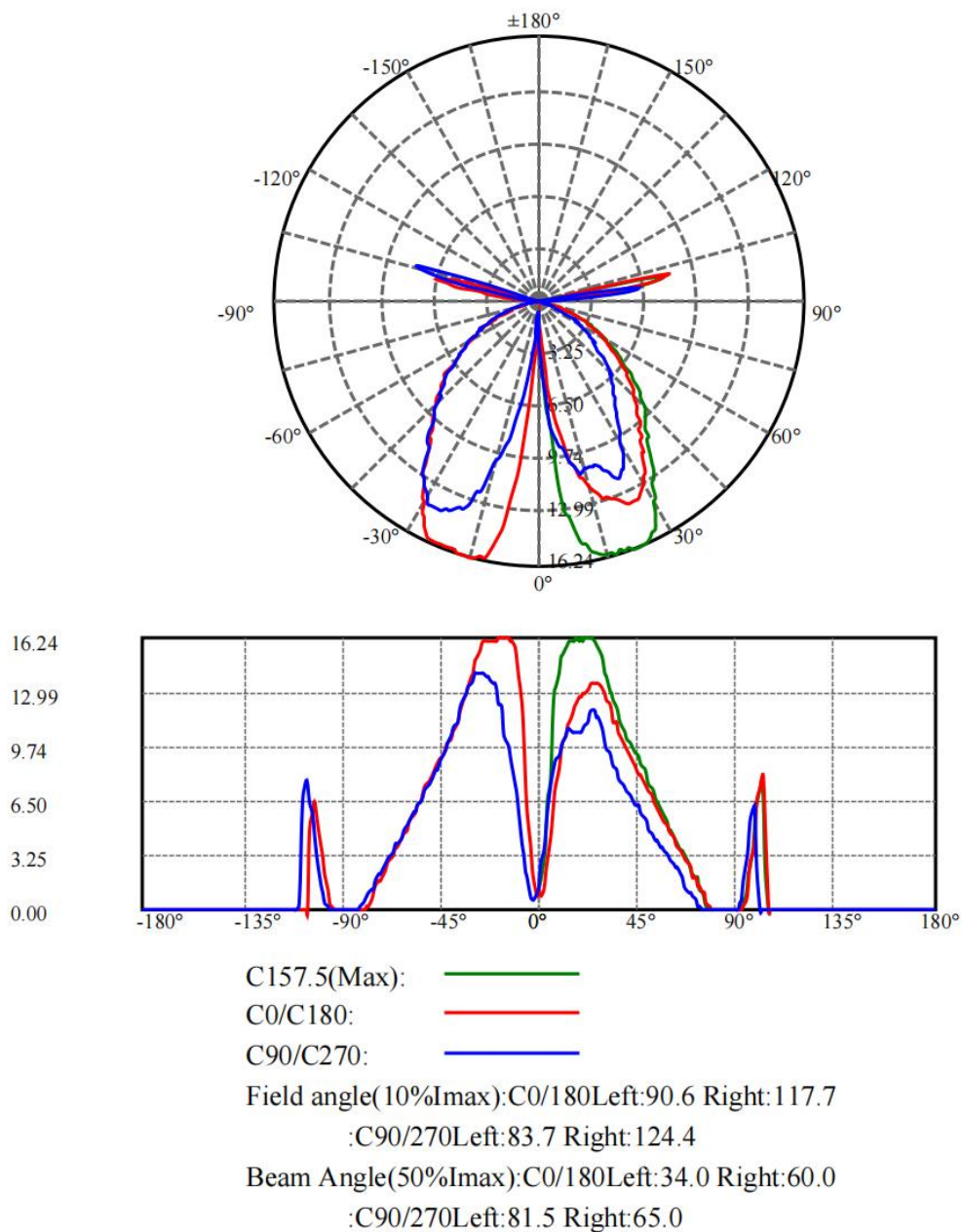
FL=4.63,FM=7.85,FH=1.87,FVH=0

BL=5.59,BM=9.57,BH=2.12,BVH=0

UL=1.81,UH=2.62

BUG Rating:B0-U1-G0

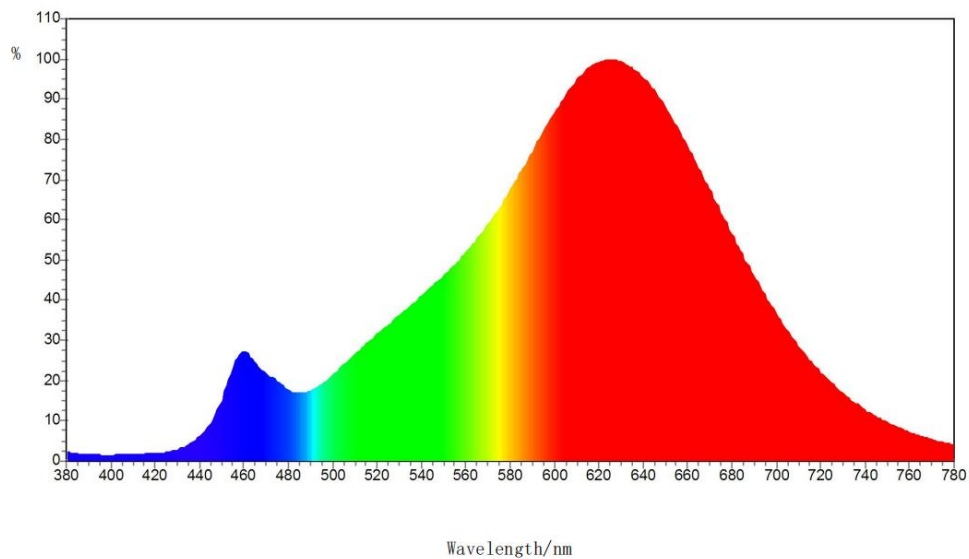
## Light Distribution Curve





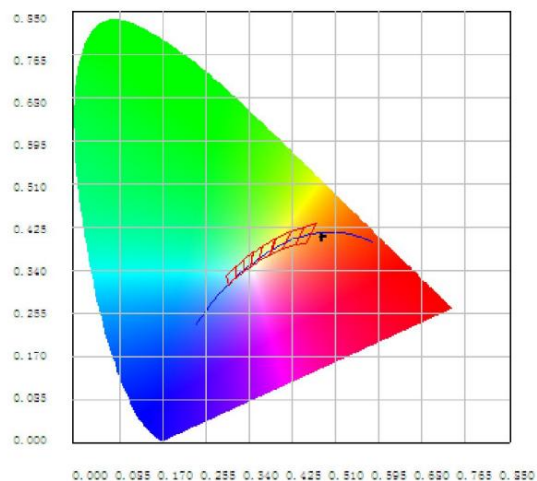
## Correlated Color Temperature and Spectral power distribution

### LED Photometric Colorimetric and Electric Test Report



#### Spectrum Parameters

x: 0.4841      y: 0.4083  
 u: 0.2793      v: 0.3534  
 WD: 586.7 nm    WP: 625.8 nm  
 HW: 130.4 nm    Purity: 0.679  
 CCT: 2360 K      Ra: 90.9  
 SDCM: 17.97      DUV: -0.0021  
 Ratio: R%: 59.9    G%: 31.7    B%: 8.4  
 Kred 26.80%    Kgreen 70.61%    Kblue 2.59%  
 R1: 92.9    R2: 99.0    R3: 94.4  
 R4: 88.6    R5: 91.7    R6: 97.2  
 R7: 87.4    R8: 76.0    R9: 53.1  
 R10: 96.9    R11: 78.7    R12: 87.1  
 R13: 95.1    R14: 98.1    R15: 87.4



#### Electrical parameters

Flux: 36.796 lm      E: 3.667 lm/w      P: 90.89 mw  
 I: 90.1 mA      V: 120.00 V      P: 10.035 w      PF: 0.928

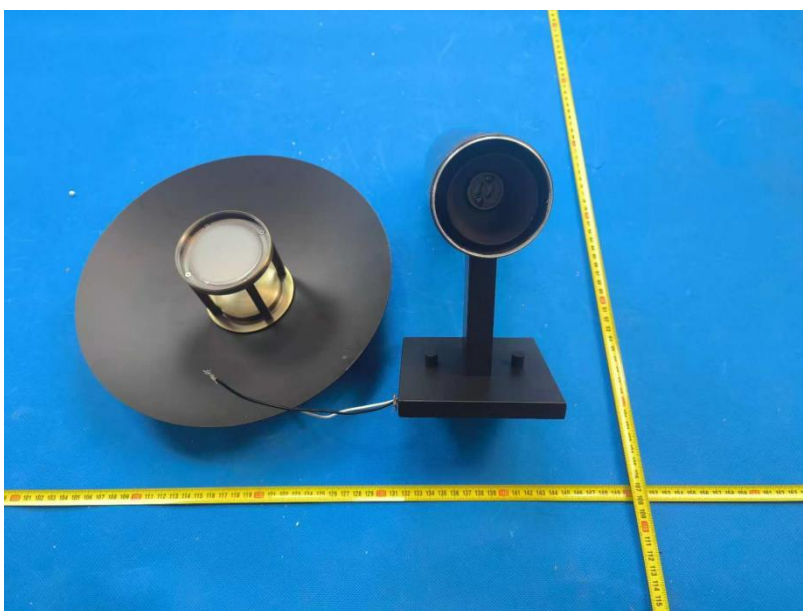


**Product Photos:**

(Luminaire Position Under Test: Lighting Downward )



(Light Source is not visible from the horizontal plane)



(The Luminaire uses GU10 Lamp, and is indirect illumination through diffuse reflection.)



**B7912-PBR/BRZ**

**--- End of the Report---**