

## DESCRIPTION

The WN Series is a specification wraparound luminaire featuring energy efficient performance. The luminaire's clean, low profile design is both appealing and functional. The WN Series utilizes a clear, low brightness, extruded acrylic refractor for high performance and aesthetics.

The efficient and stylish WN Series is the perfect wraparound for schools, offices and other commercial and retail spaces.

| Catalog #   | Type |
|-------------|------|
| Project     |      |
| Comments    | Date |
| Prepared by |      |

## SPECIFICATION FEATURES

### Construction

Housing consists of die formed cold rolled steel. Ends formed with the housing for strength and provisions for continuous row aligners. Steel end plates with 7/8" KO and light-seal embossment. Ballast cover easily removed without tools.

### Electrical\*

Ballasts are CBM/ETL Class "P" and are positively secured by mounting bolt. Rotor lock lampholders. UL/CUL listed. Suitable for damp locations.

### Finish

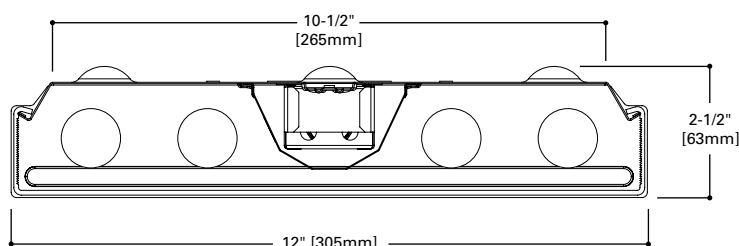
Multistage, prepaint ensures maximum bonding and rust prevention.

### Lens

100% clear acrylic prismatic lens. Sides have inside linear prisms and bottom has pyramidal prisms for low brightness control.

### Compliance

Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements.

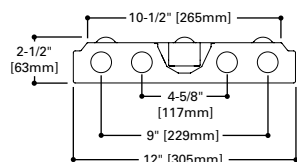


**WN**  
**428T5**  
**454T5**

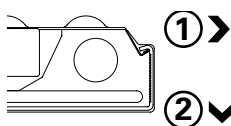
**4' SURFACE**  
**4 T5 LAMPS**

Commercial Wrap

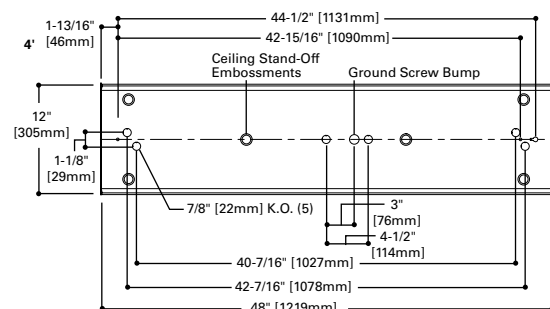
## LAMP CONFIGURATIONS



## LENS REMOVAL



## MOUNTING DATA



## ENERGY DATA

Input Watts:

**EB Ballast & STD Lamps**

428T5 (131)

454T5 (226)

Luminaire Efficacy Rating

**LER = FW-68**

**Catalog Number: WN-428T5**

**Yearly Cost of 1000 lumens,**  
**3000 hrs at .08 KWH = \$3.53**

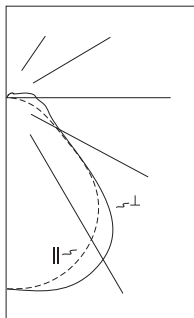
\*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

**LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS**

**LINEAR DISCONNECT**

Safe and convenient means of disconnecting power.

## PHOTOMETRICS



### WN-428T5-EB82-U

Energy Saving Ballast

F28T5 Lamps  
2600 Lumens

Spacing criterion:  
(H) 1.3 x mounting  
height, (L) 1.4 x  
mounting height

Efficiency 87.9%

Test Report:  
134P134

LER = FW-68

Yearly Cost of 1000  
lumens, 3000 hrs at  
.08 KWH = \$3.53

## Coefficients of Utilization

| Effective floor cavity reflectance |     |     |     |     |     |     |     |     |     | 20% |    |    |     |    |    |    |     |    |    |    |    |  |  |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|----|----|----|-----|----|----|----|----|--|--|
| rc                                 | 80% |     |     |     | 70% |     |     |     | 50% |     |    |    | 30% |    |    |    | 10% |    |    |    | 0% |  |  |
| rw                                 | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10 | 50 | 30  | 10 | 50 | 30 | 10  | 50 | 30 | 10 | 0  |  |  |
| RCR                                |     |     |     |     |     |     |     |     |     |     |    |    |     |    |    |    |     |    |    |    |    |  |  |
| 0                                  | 103 | 103 | 103 | 103 | 100 | 100 | 100 | 100 | 94  | 94  | 94 | 89 | 89  | 89 | 84 | 84 | 84  | 81 |    |    |    |  |  |
| 1                                  | 94  | 90  | 86  | 83  | 91  | 87  | 84  | 81  | 82  | 79  | 77 | 78 | 75  | 73 | 73 | 72 | 70  | 68 |    |    |    |  |  |
| 2                                  | 86  | 79  | 73  | 68  | 83  | 77  | 71  | 67  | 72  | 68  | 64 | 69 | 65  | 62 | 65 | 62 | 60  | 57 |    |    |    |  |  |
| 3                                  | 79  | 70  | 63  | 57  | 76  | 68  | 62  | 56  | 64  | 59  | 55 | 61 | 57  | 53 | 58 | 54 | 51  | 49 |    |    |    |  |  |
| 4                                  | 72  | 62  | 55  | 49  | 70  | 61  | 54  | 48  | 58  | 52  | 47 | 55 | 50  | 46 | 52 | 48 | 44  | 42 |    |    |    |  |  |
| 5                                  | 67  | 56  | 48  | 43  | 64  | 54  | 47  | 42  | 52  | 46  | 41 | 49 | 44  | 40 | 47 | 43 | 39  | 37 |    |    |    |  |  |
| 6                                  | 62  | 50  | 43  | 37  | 60  | 49  | 42  | 37  | 47  | 41  | 36 | 45 | 39  | 35 | 43 | 38 | 35  | 33 |    |    |    |  |  |
| 7                                  | 57  | 46  | 38  | 33  | 55  | 45  | 38  | 33  | 43  | 37  | 32 | 41 | 36  | 31 | 39 | 34 | 31  | 29 |    |    |    |  |  |
| 8                                  | 53  | 42  | 35  | 30  | 52  | 41  | 34  | 29  | 39  | 33  | 29 | 38 | 32  | 28 | 36 | 31 | 28  | 26 |    |    |    |  |  |
| 9                                  | 50  | 38  | 31  | 27  | 48  | 38  | 31  | 26  | 36  | 30  | 26 | 35 | 29  | 25 | 33 | 29 | 25  | 23 |    |    |    |  |  |
| 10                                 | 47  | 35  | 29  | 24  | 45  | 35  | 28  | 24  | 33  | 28  | 24 | 32 | 27  | 23 | 31 | 26 | 23  | 21 |    |    |    |  |  |

## Zonal Lumen Summary

| Zone   | Lumens | %Lamp | %Fixture |
|--------|--------|-------|----------|
| 0-30   | 2506   | 24.1  | 27.4     |
| 0-40   | 4186   | 40.3  | 45.8     |
| 0-60   | 6906   | 66.4  | 75.5     |
| 0-90   | 8442   | 81.2  | 92.3     |
| 90-180 | 701    | 6.7   | 7.7      |
| 0-180  | 9143   | 87.9  | 100.0    |

## Typical VCP Percentages

| Room Size (Ft.) | Height Along |       | Height Across |       |
|-----------------|--------------|-------|---------------|-------|
|                 | 8.5'         | 10.0' | 8.5'          | 10.0' |
| 20 x 20         | 46           | 52    | 41            | 49    |
| 30 x 30         | 39           | 43    | 29            | 37    |
| 30 x 60         | 33           | 36    | 15            | 20    |
| 60 x 30         | 38           | 43    | 33            | 40    |
| 60 x 60         | 30           | 34    | 17            | 22    |

## Candela

| Angle | Along H | 45°  | Across L |
|-------|---------|------|----------|
| 0     | 3004    | 3004 | 3004     |
| 5     | 3008    | 3030 | 3037     |
| 10    | 2992    | 3045 | 3082     |
| 15    | 2943    | 3046 | 3115     |
| 20    | 2864    | 3022 | 3113     |
| 25    | 2754    | 2966 | 3064     |
| 30    | 2617    | 2870 | 2972     |
| 35    | 2447    | 2732 | 2830     |
| 40    | 2237    | 2533 | 2578     |
| 45    | 1953    | 2188 | 2129     |
| 50    | 1538    | 1688 | 1564     |
| 55    | 1099    | 1274 | 1152     |
| 60    | 845     | 981  | 915      |
| 65    | 665     | 745  | 779      |
| 70    | 520     | 568  | 702      |
| 75    | 375     | 438  | 649      |
| 80    | 237     | 356  | 587      |
| 85    | 113     | 289  | 509      |
| 90    | 3       | 204  | 445      |

## ORDERING INFORMATION

SAMPLE NUMBER: WN-428T5-UNV-EBT1N-U

|                                                                      |                                                                                                                                     |                                                                                                                                                                                                                                                                    |                                                                                         |                                                                        |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Length</b><br>Blank=4' Length                                     | <b>Voltage</b> <sup>(3)</sup><br>120V=120 Volt<br>277V=277 Volt<br>347V=347 Volt<br>UNV=Universal Voltage<br>120-277 <sup>(4)</sup> | <b>Ballast Type</b> <sup>(7)</sup><br>EBT<br>No. of Ballast<br>1 or 2                                                                                                                                                                                              | =T5/T5HO Linear Electronic<br>Program Rapid Start<br>Total Harmonic<br>Distortion < 10% | <b>Options</b><br>DEC=Decorative End Cap<br>CRA=Continuous Row Aligner |
| <b>Series</b> <sup>(1)</sup><br>WN=Commercial<br>Surface Wrap        | <b>Options</b><br>GL=Single Element Fuse<br>GM=Double Element Fuse<br>EL=Emergency Installed <sup>(5), (8)</sup>                    | <b>Ballast Factor/Type</b><br>(For 14WT5 and 28WT5 Lamp Only)<br>Blank=Standard T5HO Ballast<br>N=Normal Light Output .95 BF<br>H=High Light Output 1.15 BF<br>NDIM=Normal .95-1.0 BF Step Dimming <sup>(6)</sup><br>HDIM=High 1.15 BF Step Dimming <sup>(6)</sup> |                                                                                         | <b>Packaging</b><br>U=Unit Pack                                        |
| <b>Number of Lamps</b> <sup>(2)</sup><br>4=4 Lamps<br>(Not Included) |                                                                                                                                     |                                                                                                                                                                                                                                                                    |                                                                                         |                                                                        |
| <b>Wattage</b><br>28T5=28WT5 (48")<br>54T5=54WT5HO (48")             |                                                                                                                                     |                                                                                                                                                                                                                                                                    |                                                                                         |                                                                        |
| <b>Lens</b><br>A=Acrylic Refractor/Lens                              |                                                                                                                                     |                                                                                                                                                                                                                                                                    |                                                                                         |                                                                        |

## ACCESSORIES

SCF=Fixed Stem Set (Specify Length)  
 SCS=Swivel Stem Set (Specify Length)  
 SCA=Adjustable 48" Stem Set  
 WN-4LT-DEC-ENDS=Decorative End  
 Caps - 3 or 4 Lamps (2 pieces)  
 WN-CRA=Continuous Row Aligner  
 (1 only)

NOTES: <sup>(1)</sup>Steel endplates with 7/8" KO standard for continuous row mounting. <sup>(2)</sup>2 point suspension recommended for 2 and 4 lamp models. 3 point suspension recommended for 8 foot tandems. <sup>(3)</sup>Products also available in non-US voltage and frequencies for international markets. <sup>(4)</sup>Not Available when specifying emergencies, voltage must be specified. <sup>(5)</sup>A low profile battery pack is required for installation with standard ballast cover (consult Cooper Lighting Solutions). <sup>(6)</sup>Step dimming ballasts available for 28WT5 lamps only. <sup>(7)</sup>2 ballasts are required when specifying 4 lamps and 28T5 wattages. <sup>(8)</sup>Please specify required voltage, 120V or 277V.

For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Solutions Representative for availability and ordering information

## SHIPPING DATA

| Catalog No. | Wt.    |
|-------------|--------|
| WN-428T5    | 8 lbs. |
| WN-454T5A   | 8 lbs. |