

## 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.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## 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 controls

### Compliance

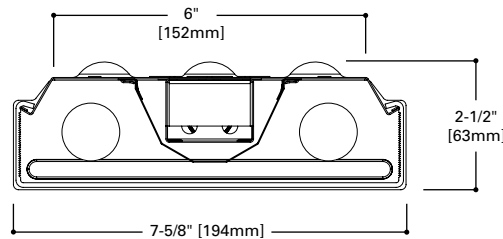
Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements.



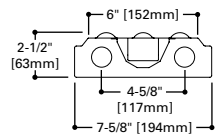
**WN**  
214T5  
224T5  
228T5  
254T5

2', 4' OR 8' SURFACE  
2 T5 LAMPS

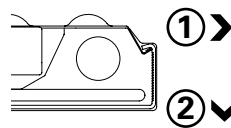
Commercial Wrap



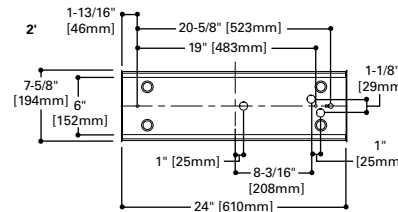
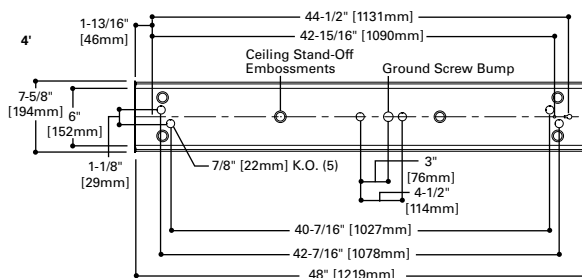
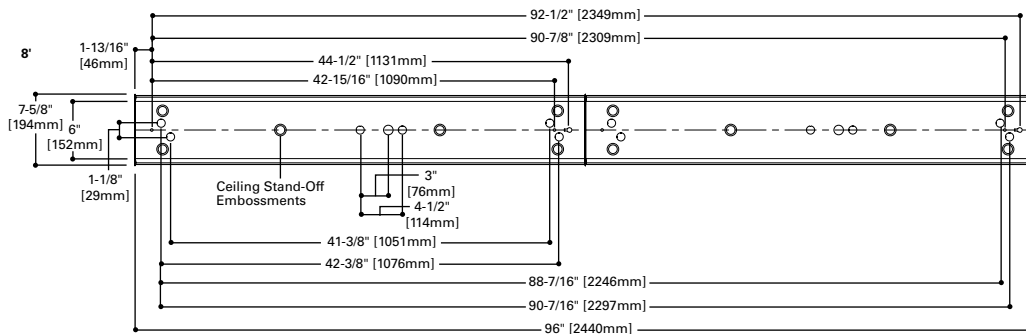
## LAMP CONFIGURATIONS



## LENS REMOVAL



## MOUNTING DATA



## ENERGY DATA

Input Watts:  
**EB Ballast & STD Lamps @ 277V**  
214T5 (34)  
224T5 (52)  
228T5 (65)  
254T5 (115)

Luminaire Efficacy Rating  
**LER = FW-70**  
Catalog Number: WN-228T5A  
Yearly Cost of 1000 lumens,  
3000 hrs at .08 KWH = \$3.43

\*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

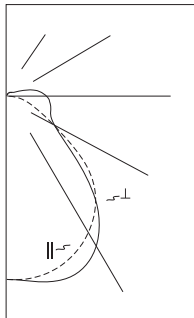
**LINEAR DISCONNECT**

Safe and convenient means of disconnecting power.



ADF081674  
October 16, 2019

PHOTOMETRICS



**WN-228T5-EB81-U**  
Energy Saving Ballast

F28T5 Lamps  
2600 Lumens

Spacing criterion:  
(II) 1.3 x mounting height, (I) 1.4 x mounting height

Efficiency 89.6%

Test Report:  
134P138

LER = FW-70

Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$3.43

**Coefficients of Utilization**

rc	Effective floor cavity reflectance																						
	80%					70%					20%												
	70	50	30	10	0	70	50	30	10	0	50	30	10	50	30	10	50	30	10	50	30	10	0
<b>RCR</b>	<b>0</b>	104	104	104	104	101	101	101	101	101	95	95	95	89	89	89	83	83	83	83	83	83	81
	<b>1</b>	95	90	86	83	92	88	84	81	77	82	79	77	77	75	73	73	71	69	67	67	67	67
	<b>2</b>	87	79	73	68	83	77	71	67	63	72	68	64	68	64	61	64	61	58	56	56	56	56
	<b>3</b>	79	70	63	57	76	68	62	56	52	64	59	54	61	56	52	57	53	50	48	48	48	48
	<b>4</b>	73	63	55	49	70	61	54	48	44	57	52	47	54	49	45	52	47	44	42	42	42	42
	<b>5</b>	67	56	48	43	65	55	47	42	38	52	46	41	49	44	40	47	42	38	36	36	36	36
	<b>6</b>	62	51	43	38	60	50	42	37	33	47	41	36	45	39	35	43	38	34	32	32	32	32
	<b>7</b>	58	46	39	33	56	45	38	33	29	43	37	32	41	35	31	39	34	30	29	29	29	29
	<b>8</b>	54	42	35	30	52	41	34	29	25	39	33	29	38	32	28	36	31	27	26	26	26	26
	<b>9</b>	50	39	32	27	49	38	31	27	23	36	30	26	35	29	25	33	28	25	23	23	23	23
	<b>10</b>	47	36	29	24	46	35	29	24	20	34	28	24	32	27	23	31	26	23	21	21	21	21

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
0-30	1263	24.3	27.1
0-40	2083	40.1	44.7
0-60	3355	64.5	72.0
0-90	4200	80.8	90.2
90-180	457	8.8	9.8
0-180	4657	89.6	100.0

**Typical VCP Percentages**

Room Size (Ft.)	Height Along		Height Across	
	8.5'	10.0'	8.5'	10.0'
20 x 20	54	60	46	56
30 x 30	44	50	32	41
30 x 60	37	41	15	21
60 x 30	41	48	35	44
60 x 60	33	38	17	22

**Candela**

Angle	Along II	45°	Across I
0	1508	1508	1508
5	1513	1523	1521
10	1505	1535	1551
15	1482	1539	1574
20	1443	1531	1575
25	1389	1500	1536
30	1320	1438	1454
35	1237	1341	1324
40	1136	1207	1146
45	1006	1009	907
50	820	763	674
55	577	579	522
60	407	462	442
65	296	375	401
70	221	310	383
75	166	257	375
80	115	214	362
85	59	179	350
90	4	150	323

ORDERING INFORMATION

SAMPLE NUMBER: WN-214T5-UNV-EBT1N-U

<p><b>Length</b> Blank=2 or 4' Length 8T=8' (Tandem)</p>	<p><b>Series<sup>(1)</sup></b> WN=Commercial Surface Wrap</p>	<p><b>Number of Lamps<sup>(2)</sup></b> 2=2 Lamps (Not Included)</p>	<p><b>Wattage</b> 28T5=28WT5 (48") 54T5=54WT5HO (48") 14T5=14W T5 (24") 24T5=24WT5HO (24")</p>	<p><b>Options</b> GL=Single Element Fuse GM=Double Element Fuse EL=Emergency Installed<sup>(6), (7)</sup></p>	<p><b>Voltage<sup>(3)</sup></b> 120V=120 Volt 277V=277 Volt 347V=347 Volt UNV=Universal Voltage 120-277<sup>(4)</sup></p>	<p><b>Ballast Type<sup>(4)</sup></b> EBT =T5HO Linear Electronic Program Rapid Start Total Harmonic Distortion &lt; 10%</p> <p><b>Ballast Factor/Type</b> (For 14WT5 and 28WT5 Lamp Only) Blank=Standard T5HO Ballast N=Normal Light Output .95 BF H=High Light Output 1.15 BF NDIM=Normal .95-1.0 BF Step Dimming<sup>(6)</sup> HDIM=High 1.15 BF Step Dimming<sup>(6)</sup></p>	<p><b>Options</b> DEC=Decorative End Cap CRA=Continuous Row Aligner</p>
<p><b>Lens</b> A=Acrylic Refractor/Lens</p>							<p><b>Packaging</b> U=Unit Pack</p>

**ACCESSORIES**

SCF=Fixed Stem Set (Specify Length)  
SCS=Swivel Stem Set (Specify Length)  
SCA=Adjustable 48" Stem Set  
WN-2LT-DEC-ENDS=Decorative End Caps - 2 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>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-214T5	6 lbs.
WN-224T5	6 lbs.
WN-228T5	8 lbs.
8TWN-214T5A	12 lbs.