

National Grid Small Business Program Rebate Manual



nationalgrid

Rebate Manual

Munro Distributing has prepared this manual to aid you and your clients in taking advantage of available rebate programs offered by National Grid.

The enclosed product guide includes fixtures that apply to local prescriptive utility rebate programs. Use of products indicated does not guarantee a rebate. Please contact your local utility and/or Munro Distributing for any questions or concerns pertaining to your project. In addition to those listed, other products may be eligible for rebates. Please contact your Munro Distributing representative for assistance.

Please visit our website for updated Energy Services information regarding new products, links to informative sites and beneficial analysis tools. Please visit us at www.munroelectric.com.

Munro Distributing – 800.777.0172

6/27/10

Fluorescent Fixtures



Fluorescent Fixtures

Description	Manufacturer	Model	Warranty (years)	Page Number
FL T8 FIXTURE, 1L 4FT, INDUSTRIAL .88BF	Crescent	RN132BL1Q	1/5	8- 9
FL T8 FIXTURE, 1L 4FT, STRIP .88BF	Crescent	C132BL1Q	1/5	10- 11
FL T8 FIXTURE, 1L 4FT, WRAP .88BF	Crescent	DLT132BL1Q	1/5	12- 13
FL T8 FIXTURE, 1L 4FT LP, INDUSTRIAL .78BF	Crescent	RN132BT1Q	1/5	14- 15
FL T8 FIXTURE, 1L 4FT LP, STRIP .78BF	Crescent	C132BT1Q	1/5	10- 11
FL T8 FIXTURE, 1L 4FT LP, WRAP .78BF	Crescent	DLT132BT1Q	1/5	12- 13
FL T8 FIXTURE, 1L 2FT LP, INDUSTRIAL .78BF	Crescent	RN117BT1Q	1/5	14- 15
FL T8 FIXTURE, 1L 2FT LP, STRIP .78BF	Crescent	C117BT1Q	1/5	10- 11
FL T8 FIXTURE, 1L 2FT LP, WRAP .78BF	Crescent	DLT117BT2Q	1/5	12- 13
FL T8 FIXTURE, 2L 4FT, INDUSTRIAL .88BF	Crescent	RN232BL2Q	1/5	14- 15
FL T8 FIXTURE, 2L 4FT, STRIP .88BF	Crescent	SCF232BL2Q	1/5	16- 17
FL T8 FIXTURE, 2L 4FT, WRAP .88BF	Crescent	NLT232BL2QZ4Z10	1/5	18- 19
FL T8 FIXTURE, 2L 4FT PRISMATIC 2X4 .88BF	Crescent	24GP232FSA1BL2Q	1/5	20- 21
FL T8 FIXTURE, 2L 4FT PARABOLIC 2X4 .88BF	Crescent	24D3GS23212LDBL2Q	1/5	22- 23
FL T8 FIXT, 2L 4FT LP, INDUSTRIAL .78BF	Crescent	RN232BT2Q	1/5	8- 9
FL T8 FIXT, 2L 4FT LP, STRIP .78BF	Crescent	SCF232BT2Q	1/5	16- 17
FL T8 FIXT, 2L 4FT LP, WRAP .78BF	Crescent	NLT232BT2QZ4Z17	1/5	18- 19
FL T8 FIXT, 2L 4FT LP PRISMATIC 2X4 .78BF	Crescent	24GP232FSA1BT2Q	1/5	20- 21
FL T8 FIXT, 2L 4FT LP PARABOLIC 2X4 .78BF	Crescent	24D3GS23212LDBT2Q	1/5	22- 23
FL T8 FIXT, 2L 4FT HL, INDUSTRIAL 1.20BF	Crescent	RN232BW2Q	1/5	8- 9
FL T8 FIXT, 2L 4FT HL, STRIP 1.20BF	Crescent	SCF232BW2Q	1/5	16- 17
FL T8 FIXT, 2L 4FT HL, VAPORTIGHT 1.20BF	TCP	WL4-WA-232-UNIH-SP	1/5	24- 25
FL T8 FIXT, 2L 2FT LP, INDUSTRIAL .78BF	Crescent	RN217BT2Q	1/5	8- 9
FL T8 FIXT, 2L 2FT LP, STRIP .78BF	Crescent	SCF217BT2Q	1/5	16- 17
FL T8 FIXT, 2L 2FT LP, WRAP .78BF	Crescent	NLT217BT2Q	1/5	18- 19
FL T8 FIXT, 2L 2FT LP PRISMATIC 2X2 .78BF	Crescent	22GP217FSA1BT2Q	1/5	26- 27
FL T8 FIXT, 2L 2FT LP PARABOLIC 2X2 .78BF	Crescent	22D3GS21709DBT2Q	1/5	28- 29
FL T8 FIXTURE, 3L 4FT, WRAP .88BF	Crescent	NLT332BL3QZ4Z17	1/5	18- 19
FL T8 FIXT, 3L 4FT PRISMATIC 2X4 .88BF	Crescent	24GP332FSA1BL3Q	1/5	20- 21
FL T8 FIXT, 3L 4FT PARABOLIC 2X4 .88BF	Crescent	24D3GS33218LDBL3Q	1/5	22- 23
FL T8 FIXT, 3L 4FT LP, WRAP .78BF	Crescent	NLT332BT3QZ4Z17	1/5	18- 19
FL T8 FIXT, 3L 4FT LP PRISMATIC 2X4 .78BF	Crescent	24GP332FSA1BT3Q	1/5	20- 21
FL T8 FIXT, 3L 4FT LP PARABOLIC 2X4 .78BF	Crescent	24D3GS33218LDBT3Q	1/5	22- 23
FL T8 FIXT, 3L 2FT LP PRISMATIC 2X2 .78BF	Crescent	22GP317FSA1BT3Q	1/5	26- 27
FL T8 FIXT, 3L 2FT LP PARABOLIC 2X2 .78BF	Crescent	22D3GS31709LDBT3Q	1/5	28- 29

Fluorescent Fixtures

Description	Manufacturer	Model	Warranty (years)	Page Number
*FL T8 FIXT, 2L 4FT, 8FT INDUSTRIAL .88BF	Crescent	RNT132BL2Q	1/5	8-9
*FL T8 FIXT, 2L 4FT, 8FT STRIP .88BF	Crescent	CT132BL2Q	1/5	10- 11
*FL T8 FIXT, 2L 4FT, 8FT WRAP .88BF	Crescent	DLTT132BL2Q	1/5	12-13
*FL T8 FIXT, 2L 4FT, 8FTLP INDUSTRIAL .78BF	Crescent	RNT132BT2Q	1/5	8- 9
*FL T8 FIXT, 2L 4FT, 8FTLP STRIP .78BF	Crescent	CT132BT2Q	1/5	10- 11
*FL T8 FIXT, 2L 4FT, 8FTLP WRAP .78BF	Crescent	DLTT132BT2Q	1/5	12- 13
*FL T8 FIXT, 2L 4FT, 8FTHL INDUSTRIAL 1.20BF	Crescent	RNT132BW2Q	1/5	8- 9
*FL T8 FIXT, 2L 4FT, 8FTHL STRIP 1.20BF	Crescent	CT132BW2Q	1/5	10- 11
*FL T8 FIXT, 2L 4FT, 8FTHL VAPORTIGHT 1.20BF	TCP	WL8- WA- 232- UNIH- SP	1/5	24- 25
*FL T8 FIXT, 4L 4FT, 8FT INDUSTRIAL .88BF	Crescent	RNT232BL4Q	1/5	8- 9
*FL T8 FIXT, 4L 4FT, 8FT STRIP .88BF	Crescent	SCFT232BL4Q	1/5	16- 17
*FL T8 FIXT, 4L 4FT, 8FT WRAP .88BF	Crescent	NLTT232BL4Q	1/5	18- 19
*FL T8 FIXT, 4L 4FT, 8FTLP INDUSTRIAL .78BF	Crescent	RNT232BT2Q	1/5	8- 9
*FL T8 FIXT, 4L 4FT, 8FTLP STRIP .78BF	Crescent	SCFT232BT4Q	1/5	16- 17
*FL T8 FIXT, 4L 4FT, 8FTLP WRAP .78BF	Crescent	NLTT232BT4QZ4Z17	1/5	18- 19
*FL T8 FIXT, 4L 4FT, 8FTHL INDUSTRIAL 1.15BF	Crescent	RNT232BW8Q	1/5	8- 9
*FL T8 FIXT, 4L 4FT, 8FTHL STRIP 1.15BF	Crescent	SCFT232BW8S	1/5	16- 17
*FL T8 FIXT, 4L 4FT, 8FTHL VAPORTIGHT 1.15BF	TCP	WL8- WA- 232- UNIH- SP	1/5	24- 25
*** FL T8 FIXT, 3L 4FTHL HIF 1.20 BF (FIXT. EFF > 80%)	Renova	ECS-ECO4-WN-332-UNV-13H-00W	1/5	30- 31
*** FL T8 FIXT, 4L 4FTHL HIF 1.15 BF (FIXT. EFF . 80%)	Renova	ECS-ECO4-WN-432-UNV-14H-00W	1/5	30- 31
*** FL T8 FIXT, 6L 4FTHL HIF 1.15 BF (FIXT. EFF > 80%)	Renova	ECS-ECO4-WN-632-UNV-23H-00W	1/5	30- 31
FLT8 FIXT, 6L 4FT 8FT HIF .88BF (FIXT)	Renova	ECS-SG18-WN-632-UNV-23N	1/5	32- 33
*** FL T5HO FIXT, 2L 4FT HIF (FIXT. EFF > 80%)	Stonco	TBN254EBU-1	1/5	34- 35
*** FL T5HO FIXT, 3L 4FT HIF (FIXT. EFF > 80%)	Stonco	TBN354EBU-1	1/5	34- 35
*** FL T5HO FIXT, 4L 4FT HIF (FIXT. EFF > 80%)	Stonco	TBN454EBU-1	1/5	34- 35
*** FL T5HO FIXT, 5L 4FT HIF (FIXT EFF. > 80%)	Renova	ECS-ECO4-MN-554-UNV-(3)-2QTP-H	1/5	30- 31
*** FL T5HO FIXT, 6L 4FT HIF (FIXT. EFF > 80%)	Stonco	TBW654EB4-8	1/5	36- 37
*** FL T8 FIXT, 3L 4FTHL HIF 1.20 BF (FIXT. EFF > 90%)	Renova	ECS-ECO4-MN-332-UNV-13H-00W	1/5	30- 31
*** FL T8 FIXT, 4L 4FTHL HIF 1.15 BF (FIXT. EFF . 90%)	Renova	ECS-ECO4-MN-432-UNV-14H-00W	1/5	30- 31
*** FL T8 FIXT, 6L 4FTHL HIF 1.15 BF (FIXT. EFF > 90%)	Renova	ECS-ECO4-MN-632-UNV-23H-00W	1/5	30- 31

Fluorescent Fixtures

Description	Manufacturer	Model	Warranty (years)	Page Number
*** FL T5HO FIXT, 2L 4FT HIF (FIXT. EFF > 90%)	Stonco	TBN254EBU-1	1/5	34- 35
*** FL T5HO FIXT, 3L 4FT HIF (FIXT. EFF > 90%)	Stonco	TBN354EBU-1	1/5	34- 35
*** FL T5HO FIXT, 4L 4FT HIF (FIXT. EFF > 90%)	Stonco	TBN454EBU-1	1/5	30- 31
*** FL T5HO FIXT, 5L 4FT HIF (FIXT EFF. > 90%)	Renova	ECS-ECO4-MN-554-UNV-(3)-2QTP-H	1/5	36- 37
*** FL T5HO FIXT, 6L 4FT HIF (FIXT. EFF > 90%)	Stonco	TBW654EB4-8	1/5	38- 39
**FL T8 4FT REFLECTOR KIT, 1L 4FT WHITE	EPA	RST1401T832WNCCL SLST	25/10	38- 39
**FL T8 4FT REFLECTOR KIT, 1L 4FT MIRO	EPA	RST1401T832ENCCLS LST	25/10	40- 41
**FL T8 4FT STRIP KIT, 1L 4FT WHITE	EPA	RBC1401T832WACCL SLST	25/10	38- 39
**FL T8 4FT REFLECTOR KIT, 2L 4FT WHITE	EPA	RST1402T832WNCCL SLST	25/10	38- 39
**FL T8 4FT REFLECTOR KIT, 2L 4FT MIRO	EPA	RST1402T832ENCCLS LST	25/10	40- 41
**FL T8 4FT STRIP KIT, 2L 4FT WHITE	EPA	RBC1402T832WACCL SLST	25/10	38- 39
**FL T8 8FT REFLECTOR KIT, 2L 4FT WHITE	EPA	RST1802T832WNCCL SLST	25/10	38- 39
**FL T8 8FT REFLECTOR KIT, 2L 4FT MIRO	EPA	RST1802T832ENCCLS LST	25/10	40- 41
**FL T8 8FT STRIP KIT, 2L 4FT WHITE	EPA	RBC1802T832WACCL SLST	25/10	38- 39
**FL T8 8FT REFLECTOR KIT, 4L 4FT WHITE	EPA	RST1804T832WNCCL SLST	25/10	38- 39
**FL T8 8FT REFLECTOR KIT, 4L 4FT MIRO	EPA	RST1804T832ENCCLS LST	25/10	40- 41
**FL T8 8FT STRIP KIT, 4L 4FT WHITE	EPA	RBC1804T832WACCL SLST	25/10	42- 43
**FL T8 2X2 TROFFER KIT, 2L 2FT WHITE	EPA	RTR2202T817WNLSS	25/10	42- 43
**FL T8 2X2 TROFFER KIT, 3L 2FT WHITE	EPA	RTR2203T817WNLSS	25/10	42- 43
**FL T8 2X4 TROFFER KIT, 2L 4FT WHITE	EPA	RTR2402T832WNLSS	25/10	42- 43
**FL T8 2X4 TROFFER KIT, 3L 4FT WHITE	EPA	RTR2403T832WNLSS	25/10	42- 43

Fluorescent Fixtures

Description	Manufacturer	Model	Warranty (years)	Page Number
WIRE GUARD FOR T5/T8HL HIF FIXTURES	Stonco	TBN GUARD		34- 35
ACRYLIC LENS FOR T5/T8HL HIF FIXTURES	Stonco	TBNLENS		34- 35
LENS & WIREGUARD FOR T5/T8HL HIF FIXTURES	Stonco	TBNGYM		34- 35
POLYCARB LENS FOR T5/T8 HIF FIXTURES	Stonco	TBNLENS		34- 35

Note: Prices should not include the cost of the lamps

*These are for (2) 4' Lamps or (4) 4' Lamps in an 8 ft body

**This price should not include price of ballast

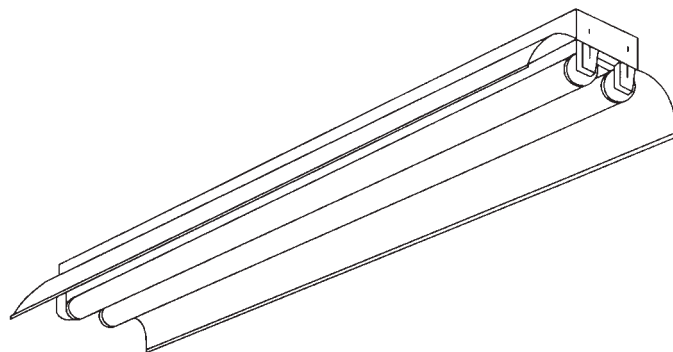
*** Highbay Fluorescent fixtures

CATALOG NO.

TYPE NO.

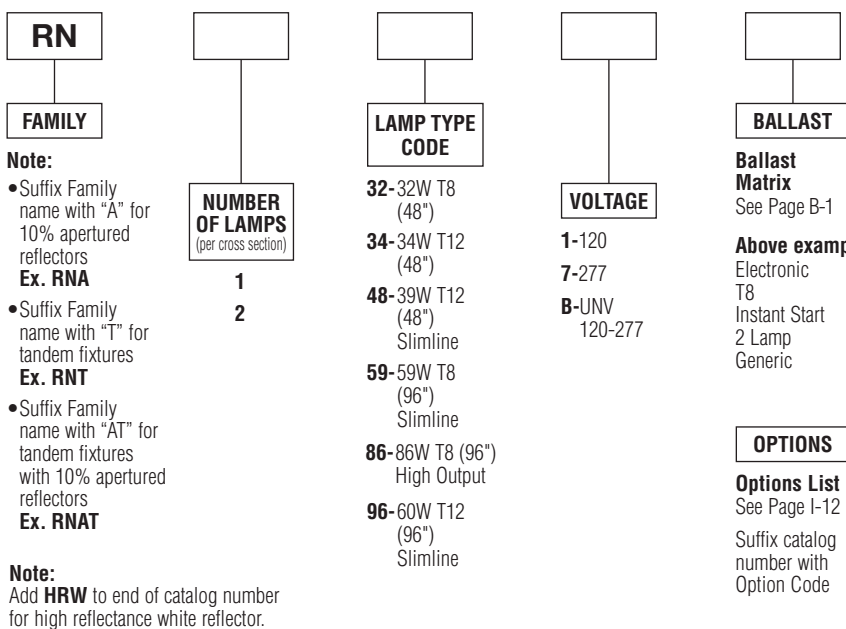
JOB NAME

General Purpose Industrial (RN)



ORDERING INFORMATION

Catalog Number: Example: RN2321K2Y



Note:

- Suffix Family name with "A" for 10% apertured reflectors
Ex. RNA
- Suffix Family name with "T" for tandem fixtures
Ex. RNT
- Suffix Family name with "AT" for tandem fixtures with 10% apertured reflectors
Ex. RNAT

Note:
Add **HRW** to end of catalog number for high reflectance white reflector.

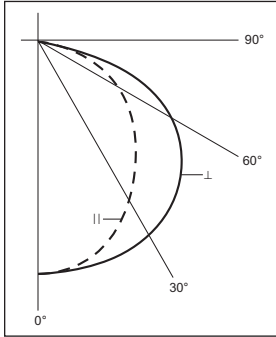
PRODUCT FEATURES

- Die-formed 4 ft. reflector with transverse ribbing for structural stability.
- Quick-release quarter-turn fasteners provide ease of installation and maintenance.
- Cord, plug and chain sets available for reduced installation cost.
- Combination end plate/coupler assures integrity of row alignment. (Heavy-duty 10" coupler available).
- UL Damp Location labels are standard with this series.

PRODUCT AVAILABILITY

FAMILY	NOMINAL SIZE	NUMBER OF LAMPS (per cross section)	NUMBER OF LAMPS (per fixture)	LAMP TYPE CODE	LENGTH	WIDTH	HEIGHT
RN	4'	2	2	32, 34	48"	10"	3 15/16"
		2	2	48			
RN	8'	1	1	59, 96	96"	10"	3 15/16"
		2	2	59, 96			
RNA	4'	2	2	32, 34	48"	10"	3 15/16"
		2	2	48			
RNA	8'	1	1	59, 96	96"	10"	3 15/16"
		2	2	59, 96			
RNT	8'	1	2	32, 34	96"	10"	3 15/16"
		2	4	32, 34			
RNT	16'	1	2	59, 96	192"	10"	3 15/16"
RNAT	8'	1	2	32, 34	96"	10"	3 15/16"
		2	4	32, 34			
RNAT	16'	1	2	59, 96	192"	10"	3 15/16"

Two-Lamp Photometric Data



Coefficients of Utilization

Floor Cavity Reflectance 0.20

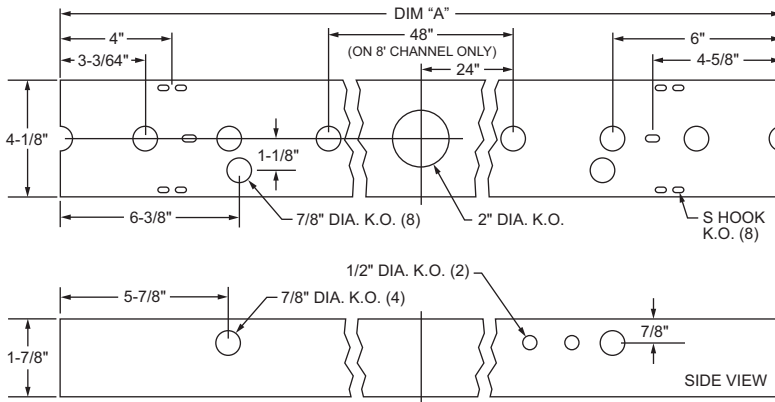
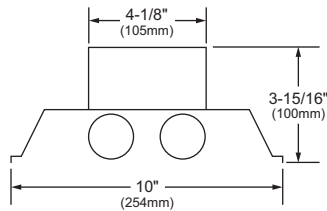
Room Cavity Ratio	RC	80%			50%			10%		
		RW	50	30	10	50	30	10	50	30
1		91	88	84	86	83	81	78	76	75
2		80	74	69	75	70	66	68	65	62
3		70	63	57	66	60	56	60	56	53
4		62	54	48	58	51	46	54	49	45
5		54	45	39	50	44	39	48	43	39
6		47	39	34	45	38	33	42	37	33
7		42	34	29	40	34	29	38	32	28
8		38	30	25	36	29	25	34	28	24
9		34	26	21	33	26	21	31	25	21
10		31	23	19	30	23	18	28	23	19

SPECIFICATIONS

Housing is die-formed of cold-rolled steel for uniformity and rigidity. Four foot reflectors are formed with transverse ribbing for structural stability. Quick-release quarter-turn fasteners secure all reflectors. All metal components are phosphate coated and finished in baked white enamel providing a minimum reflectance factor of 85%. Units are equipped with high power factor Class "P" ETL-CBM ballasts. Standard voltage is 120 volt 60 Hz. Fixtures are UL-listed and bear union and UL labels.

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



DIM "A"	
4' FIXTURE	(1219mm) 48"
8' FIXTURE	(2438mm) 96"

NOTE: Do not flush mount HO units. HO units should be suspended minimum 1-1/2" from surface.

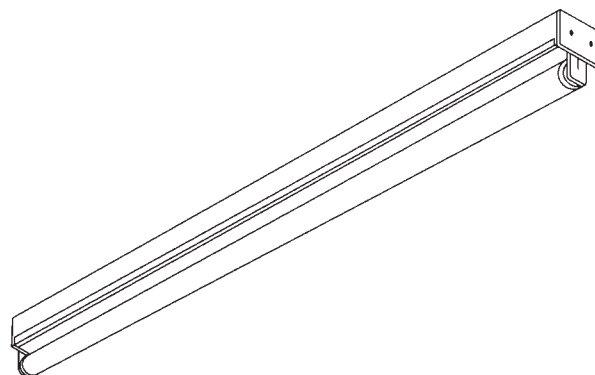
Dimensions and specifications subject to change without notice.

CATALOG NO.

TYPE NO.

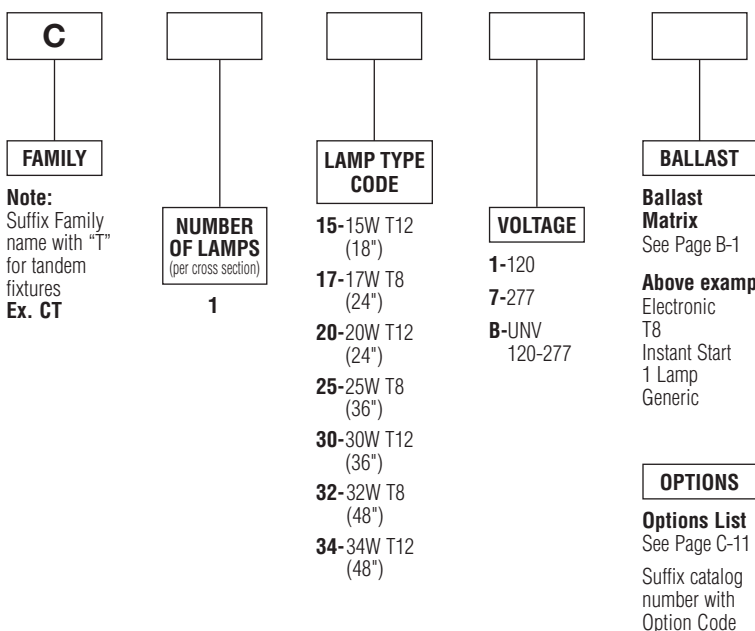
JOB NAME

Narrow Channel (C)



ORDERING INFORMATION

Catalog Number: Example: C1321K1Y



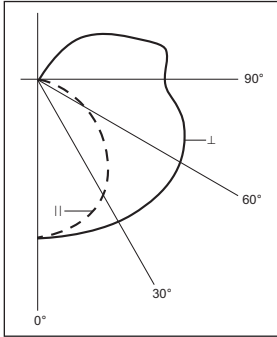
PRODUCT FEATURES

- Combination end plate/coupler can be used for individual mounting or slides into position between two fixtures, assuring integrity of row alignment.
- Symmetric and asymmetric reflectors are available for additional downlight and directional control.
- UL Damp Location labels are standard with this series.
- All 20 watt through 40 watt fixtures are suitable for mounting on low-density cellulose fiberboard surfaces.
- 1/4 turn fastener to lock ballast cover on housing.

PRODUCT AVAILABILITY

FAMILY	NOMINAL SIZE	NUMBER OF LAMPS (per cross section)	NUMBER OF LAMPS (per fixture)	LAMP TYPE CODE	LENGTH	WIDTH	HEIGHT
C	1 1/2'	1	1	15	18"	2 1/2"	3 11/16"
C	2'	1	1	17, 20	24"	2 1/2"	3 11/16"
C	3'	1	1	25, 30	36"	2 1/2"	3 11/16"
C	4'	1	1	32, 34	48"	2 1/2"	3 11/16"
CT	8'	1	2	32, 34	96"	2 1/2"	3 11/16"

One-Lamp Photometric Data



Coefficients of Utilization
Floor Cavity Reflectance 0.20

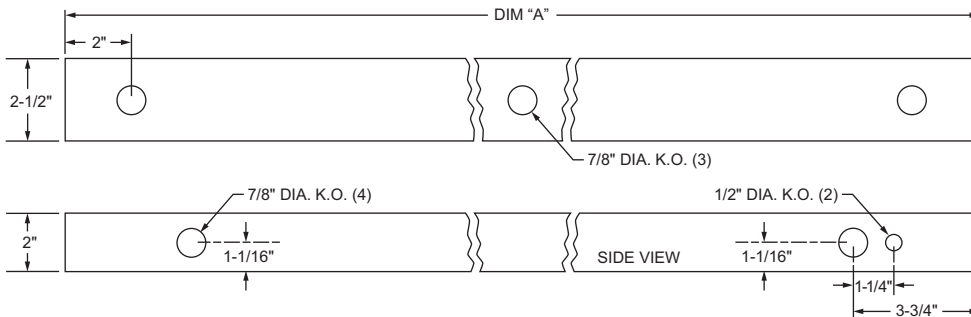
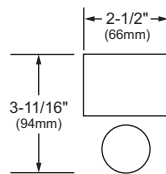
Room Cavity Ratio	RC	80%			50%			10%		
	RW	50	30	10	50	30	10	50	30	10
1		88	84	81	79	77	74	69	68	66
2		77	71	66	70	65	62	61	59	56
3		68	61	56	61	56	52	54	51	48
4		60	52	47	54	49	44	48	44	41
5		52	45	39	48	42	37	43	38	35
6		47	39	34	43	37	32	38	34	30
7		42	34	29	38	32	28	34	30	26
8		37	30	25	34	28	24	31	26	22
9		33	26	21	31	25	21	28	23	19
10		30	23	19	28	22	18	25	20	17

SPECIFICATIONS

Housing is die-formed of cold-rolled steel for uniformity and stability. All metal components are phosphate coated and finished in baked white enamel providing a minimum reflectance factor of 85%. Quarter turn type channel covers can be removed without the use of tools. All units include combination end plate/couplers. Fixtures are UL-listed and bear union and UL labels. Standard voltage is 120 volt 60 Hz.

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



DIM "A"	
18" FIXTURE	(457mm) 18"
2' FIXTURE	(610mm) 24"
3' FIXTURE	(914mm) 36"
4' FIXTURE	(1219mm) 48"
8' FIXTURE	(2438mm) 96"

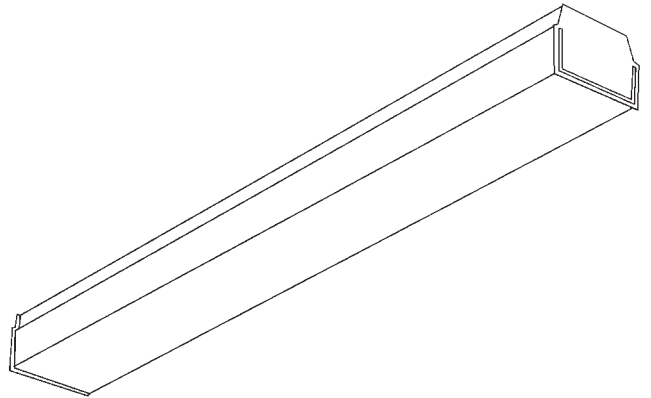
Dimensions and specifications subject to change without notice.

CATALOG NO.

TYPE NO.

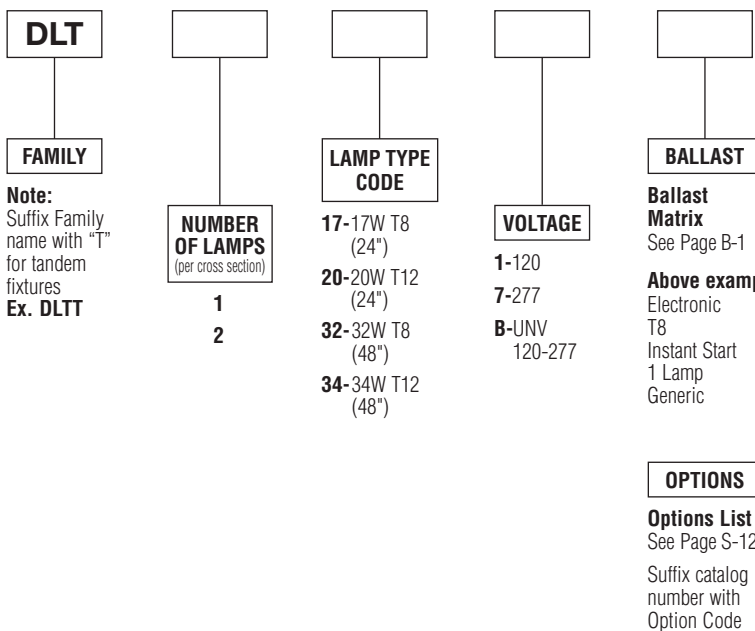
JOB NAME

Corridor Wraparound (DLT)



ORDERING INFORMATION

Catalog Number: Example: DLT1321K1Y



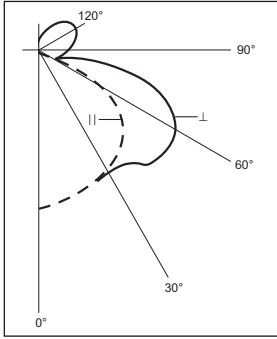
PRODUCT FEATURES

- Complete family of one and two light units in 2', 4', and 8' tandem lengths.
- Shielding hinges along entire length for safety and ease of maintenance.
- Optional low-density mounting is available.
- Linear prismatic sides provide sufficient upright to reduce ceiling contrast.

PRODUCT AVAILABILITY

FAMILY	NOMINAL SIZE	NUMBER OF LAMPS <small>(per cross section)</small>	NUMBER OF LAMPS <small>(per fixture)</small>	LAMP TYPE CODE	LENGTH	WIDTH	HEIGHT
DLT	2'	1	1	17, 20	24"	5 1/2"	4 1/4"
		2	2	17, 20			
DLT	4'	1	1	32, 34	48"	5 1/2"	4 1/4"
		2	2	32, 34			
DLTT	8'	1	2	32, 34	96"	5 1/2"	4 1/4"
		2	4	32, 34			

One-Lamp Photometric Data

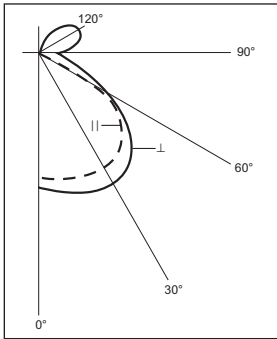


Coefficients of Utilization

Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC RW	80%			50%			10%		
		50	30	10	50	30	10	50	30	10
1	78	74	71	69	66	64	60	59	57	
2	68	62	57	60	57	53	52	50	47	
3	60	53	48	52	48	44	46	42	38	
4	53	45	41	46	41	37	40	36	33	
5	46	38	34	41	36	31	35	32	28	
6	41	33	28	36	30	26	31	28	24	
7	37	29	23	33	27	22	28	25	21	
8	34	26	20	30	23	19	26	22	18	
9	31	23	18	27	21	17	24	20	16	
10	28	21	16	25	19	15	22	18	15	

Two-Lamp Photometric Data



Coefficients of Utilization

Floor Cavity Reflectance 0.20

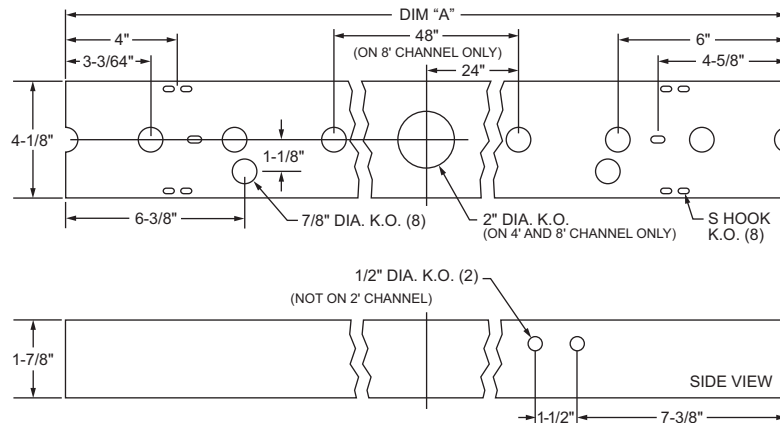
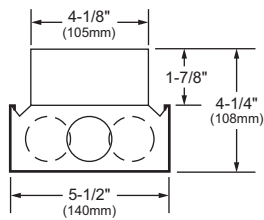
Room Cavity Ratio	RC RW	80%			50%			10%		
		50	30	10	50	30	10	50	30	10
1	74	71	67	66	63	61	56	55	53	
2	64	58	57	57	53	49	48	46	43	
3	55	49	43	49	44	40	42	38	36	
4	47	40	36	43	38	33	36	32	31	
5	41	34	30	38	32	27	32	27	26	
6	36	30	25	33	27	23	28	23	22	
7	32	26	21	29	23	19	25	20	19	
8	29	23	18	27	20	16	22	17	16	
9	26	20	15	24	18	14	20	15	14	
10	24	18	13	21	16	12	18	13	12	

SPECIFICATIONS

Housing is die-formed of cold-rolled steel for uniformity and stability. Metal components are phosphate coated and finished in baked white enamel providing a minimum reflectance factor of 85%. Lens is virgin acrylic with prismatic bottom and linear refractive sides which hinge along the entire length on either side of fixture. All 40 watt units are equipped with high power factor "P" ETL-CBM ballasts (120 volt Hz is standard). Trigger start 20 watt units are UL-LPF. Fixtures are UL-listed and bear union UL labels.

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



DIM "A"	
2' FIXTURE	(610mm) 24"
4' FIXTURE	(1219mm) 48"
8' FIXTURE	(2438mm) 96"

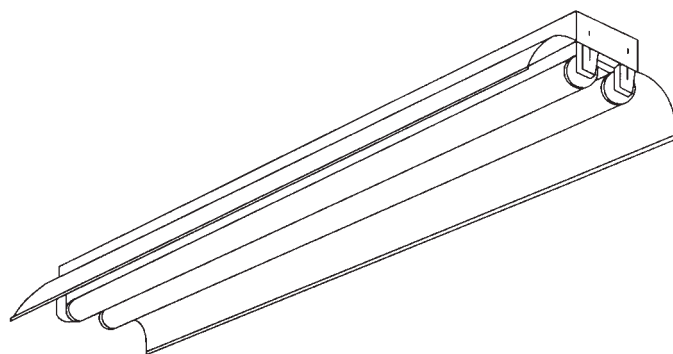
Dimensions and specifications subject to change without notice.

CATALOG NO.

TYPE NO.

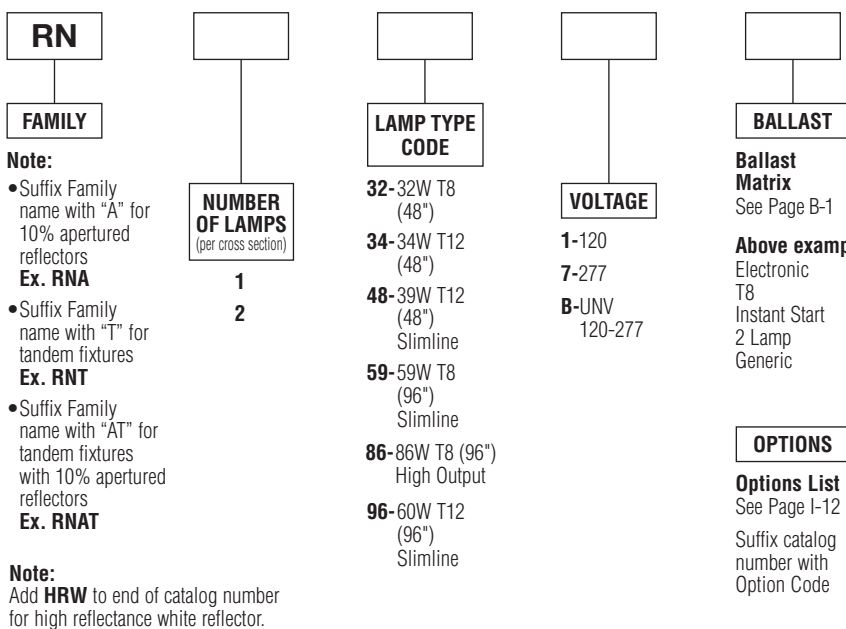
JOB NAME

General Purpose Industrial (RN)



ORDERING INFORMATION

Catalog Number: Example: RN2321K2Y



Note:

- Suffix Family name with "A" for 10% apertured reflectors
Ex. RNA
- Suffix Family name with "T" for tandem fixtures
Ex. RNT
- Suffix Family name with "AT" for tandem fixtures with 10% apertured reflectors
Ex. RNAT

Note:
Add **HRW** to end of catalog number for high reflectance white reflector.

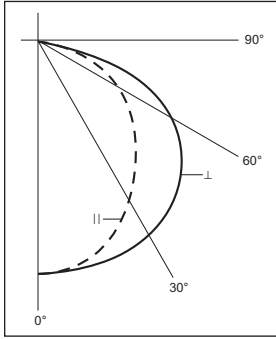
PRODUCT FEATURES

- Die-formed 4 ft. reflector with transverse ribbing for structural stability.
- Quick-release quarter-turn fasteners provide ease of installation and maintenance.
- Cord, plug and chain sets available for reduced installation cost.
- Combination end plate/coupler assures integrity of row alignment. (Heavy-duty 10" coupler available).
- UL Damp Location labels are standard with this series.

PRODUCT AVAILABILITY

FAMILY	NOMINAL SIZE	NUMBER OF LAMPS (per cross section)	NUMBER OF LAMPS (per fixture)	LAMP TYPE CODE	LENGTH	WIDTH	HEIGHT
RN	4'	2	2	32, 34	48"	10"	3 15/16"
		2	2	48			
RN	8'	1	1	59, 96	96"	10"	3 15/16"
		2	2	59, 96			
RNA	4'	2	2	32, 34	48"	10"	3 15/16"
		2	2	48			
RNA	8'	1	1	59, 96	96"	10"	3 15/16"
		2	2	59, 96			
RNT	8'	1	2	32, 34	96"	10"	3 15/16"
		2	4	32, 34			
RNT	16'	1	2	59, 96	192"	10"	3 15/16"
RNAT	8'	1	2	32, 34	96"	10"	3 15/16"
		2	4	32, 34			
RNAT	16'	1	2	59, 96	192"	10"	3 15/16"

Two-Lamp Photometric Data



Coefficients of Utilization

Floor Cavity Reflectance 0.20

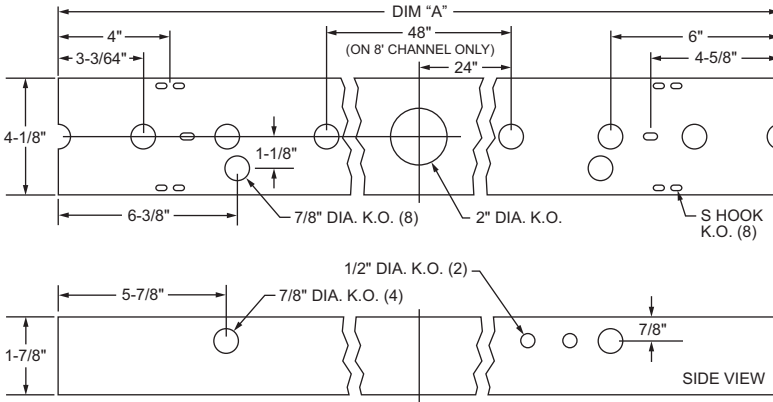
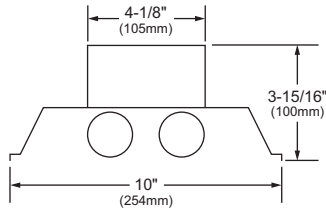
Room Cavity Ratio	RC RW	80%			50%			10%		
		50	30	10	50	30	10	50	30	10
1		91	88	84	86	83	81	78	76	75
2		80	74	69	75	70	66	68	65	62
3		70	63	57	66	60	56	60	56	53
4		62	54	48	58	51	46	54	49	45
5		54	45	39	50	44	39	48	43	39
6		47	39	34	45	38	33	42	37	33
7		42	34	29	40	34	29	38	32	28
8		38	30	25	36	29	25	34	28	24
9		34	26	21	33	26	21	31	25	21
10		31	23	19	30	23	18	28	23	19

SPECIFICATIONS

Housing is die-formed of cold-rolled steel for uniformity and rigidity. Four foot reflectors are formed with transverse ribbing for structural stability. Quick-release quarter-turn fasteners secure all reflectors. All metal components are phosphate coated and finished in baked white enamel providing a minimum reflectance factor of 85%. Units are equipped with high power factor Class "P" ETL-CBM ballasts. Standard voltage is 120 volt 60 Hz. Fixtures are UL-listed and bear union and UL labels.

DIMENSIONS

All KO's are 7/8" dia. unless otherwise specified.



DIM "A"	
4' FIXTURE	(1219mm) 48"
8' FIXTURE	(2438mm) 96"

NOTE: Do not flush mount HO units. HO units should be suspended minimum 1-1/2" from surface.

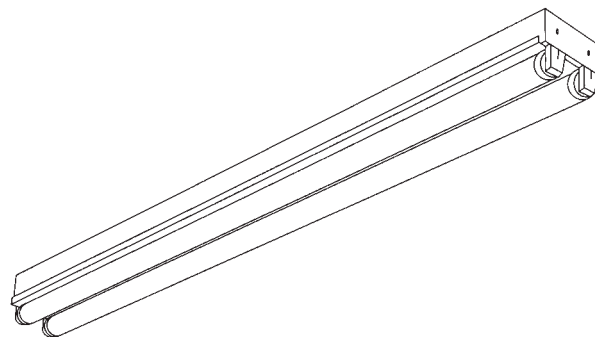
Dimensions and specifications subject to change without notice.

CATALOG NO.

TYPE NO.

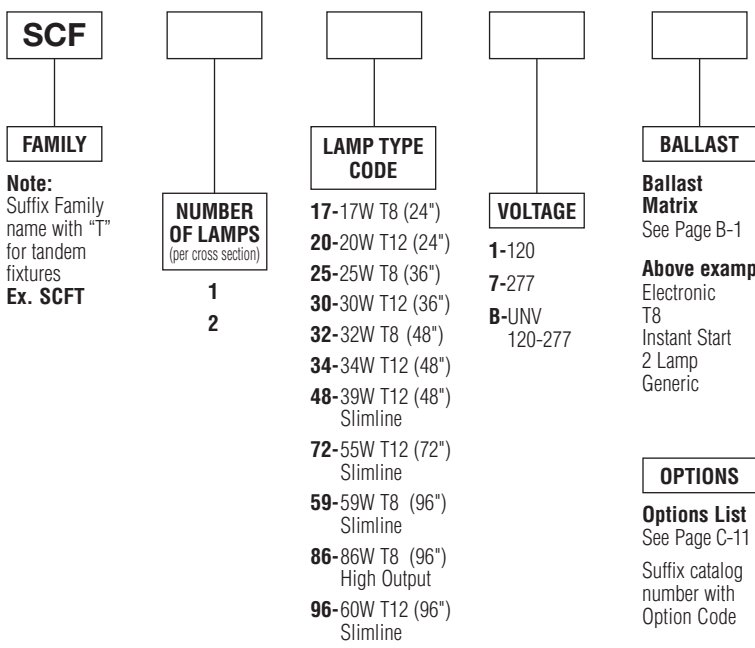
JOB NAME

General Purpose Channel (SCF)



ORDERING INFORMATION

Catalog Number: Example: SCF2321K2Y



PRODUCT FEATURES

- Combination end plate/coupler can be used for individual mounting or slides into position between two fixtures, assuring integrity of row alignment.
- Optional heavy-duty 10" sleeve couplers can provide additional bracing at fixture junctures.
- Symmetric and asymmetric reflectors are available for additional downlight and directional control.
- UL Damp Location labels are standard with this series.
- All 20 watt through 40 watt fixtures are suitable for mounting on low-density cellulose fiberboard surfaces.
- 1/4 turn fastener to lock ballast cover on housing.

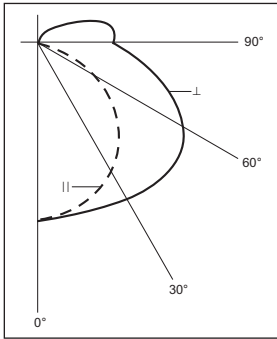
PRODUCT AVAILABILITY

FAMILY	NOMINAL SIZE	NUMBER OF LAMPS (per cross section)	NUMBER OF LAMPS (per fixture)	LAMP TYPE CODE	LENGTH	WIDTH	HEIGHT
SCF	2'	2	2	17, 20	24"	4 1/8"	3 7/8"
SCF	3'	2	2	25, 30	36"	4 1/8"	3 7/8"
SCF	4'	1	1	48	48"	4 1/8"	3 7/8"
		2	2	48			
		2	2	32, 34			
SCF	6'	1	1	72	72"	4 1/8"	3 7/8"
		2	2	72			
SCF	8'	1	1	59, 86, 96	96"	4 1/8"	3 7/8"
		2	2	59, 86, 96			
SCFT	8'	1	2	32, 34	96"	4 1/8"	3 7/8"
		2	4	32, 34			
SCFT	16'	1	2	59, 86, 96	192"	4 1/8"	3 7/8"

C-5

General Purpose Channel (SCF)

Two-Lamp Photometric Data



Coefficients of Utilization
Floor Cavity Reflectance 0.20

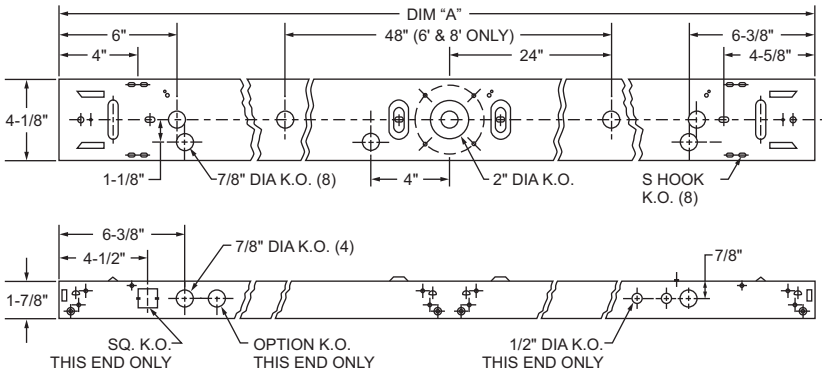
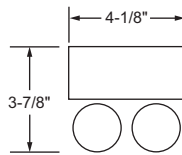
Room Cavity Ratio	RC RW	80%			50%			10%		
		50	30	10	50	30	10	50	30	10
1	87	84	80	78	75	72	65	63	62	
2	76	69	63	67	62	58	57	54	51	
3	66	59	52	58	52	48	49	45	42	
4	58	50	44	52	46	40	44	39	35	
5	50	43	37	45	38	34	39	34	30	
6	45	37	31	40	33	29	35	30	26	
7	40	32	26	36	29	24	31	26	22	
8	36	28	22	33	26	22	27	22	19	
9	32	24	19	29	22	18	25	20	16	
10	29	22	17	26	20	15	22	18	14	

SPECIFICATIONS

Housing is die-formed of cold-rolled steel for uniformity and stability. All metal components are phosphate coated and finished in baked white enamel providing a minimum reflectance factor of 85%. Quarter turn channel covers can be removed without the use of tools. All units include combination end plate/couplers. Rapid start and slimline fixtures are equipped with high power factor Class "P" ETL-CBM ballasts (120 volt 60 Hz is standard). Trigger start 20 watt units are UL-LPF. Fixtures are UL-listed and bear union and UL labels.

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



DIM "A"	
2' FIXTURE	(610mm) 24"
3' FIXTURE	(914mm) 36"
4' FIXTURE	(1219mm) 48"
6' FIXTURE	(1829mm) 72"
8' FIXTURE	(2438mm) 96"
16' FIXTURE	(4877mm) 192"

NOTE: Do not flush mount T8 HO units. Suspend minimum 1-1/2" from surface.

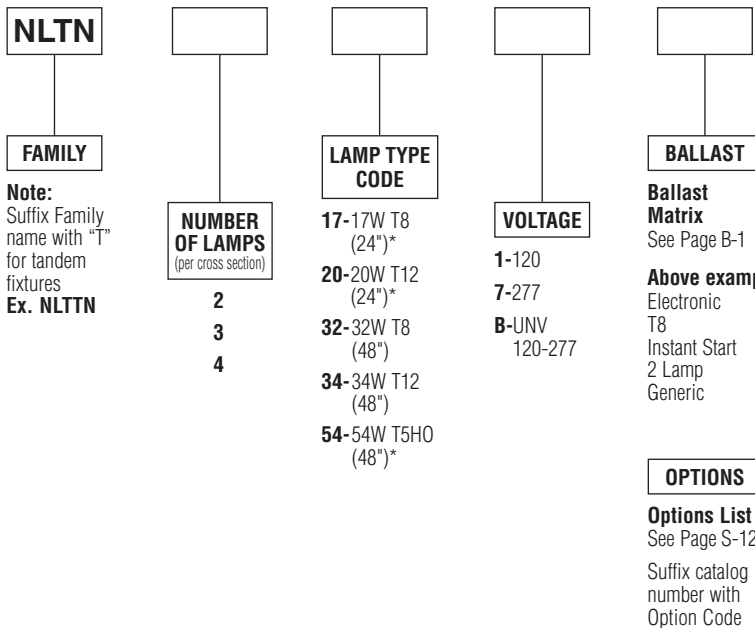
Dimensions and specifications subject to change without notice.

General Purpose Wraparound (NLTN)



ORDERING INFORMATION

Catalog Number: Example: NLTN2321K2Y



PRODUCT FEATURES

- Shallow profile and linear prismatic sides combine to reduce ceiling contrast.
- Acrylic shielding hinges along the unit's entire length for safety and ease of maintenance.
- Snap-on components provide simple, time-saving installation.
- Optional low-density mounting is available.
- Housing has 7/8" K.O. on each end for row mounting.

*2 light fixtures only. Not available in 3 or 4 light fixtures.

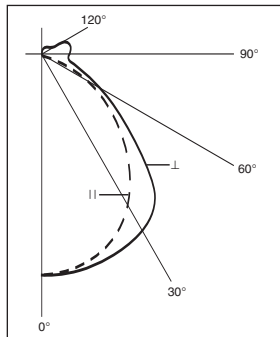
PRODUCT AVAILABILITY

FAMILY	NOMINAL SIZE	NUMBER OF LAMPS (per cross section)	NUMBER OF LAMPS (per fixture)	LAMP TYPE CODE	LENGTH	WIDTH	HEIGHT
NLTN	2'	2	2	17, 20	24"	8-5/8"	2-3/4"
NLTN	4'	2	2	32, 34, 54	48"	8-5/8"	2-3/4"
		3	3	32, 34	48"	13-7/8"	2-3/4"
		4	4	32, 34	48"	13-7/8"	2-3/4"
NLTTN	8'	2	4	32, 34, 54	96"	8-5/8"	2-3/4"
NLTTN	8'	3	6	32, 34	96"	13-7/8"	2-3/4"
NLTTN	8'	4	8	32, 34	96"	13-7/8"	2-3/4"

S-1

General Purpose Wraparound (NLTN)

Two-Lamp Photometric Data

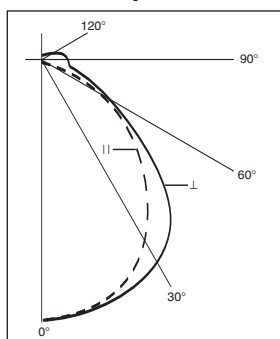


Coefficients of Utilization

Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC RW	80%			50%			10%		
		50	30	10	50	30	10	50	30	10
1	1	71	68	66	65	63	61	57	56	55
2	2	63	59	55	58	54	52	51	49	47
3	3	56	50	47	52	48	45	46	44	42
4	4	50	44	40	46	43	39	41	39	37
5	5	44	39	35	41	37	34	37	34	32
6	6	40	34	30	37	33	30	33	30	28
7	7	36	30	26	34	30	26	30	27	25
8	8	32	27	23	31	26	23	27	24	22
9	9	29	24	20	28	23	20	25	22	20
10	10	26	22	18	26	21	18	23	20	18

Four-Lamp Photometric Data



Coefficients of Utilization

Floor Cavity Reflectance 0.20

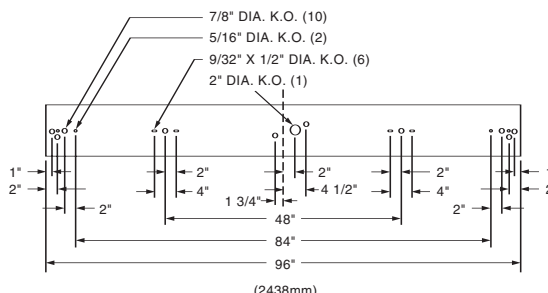
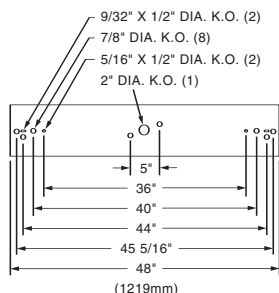
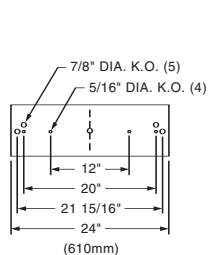
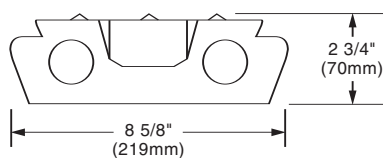
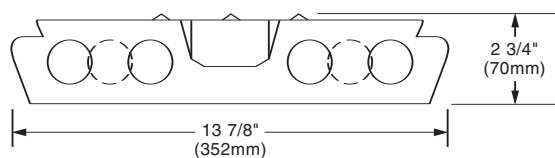
Room Cavity Ratio	RC RW	80%			50%			10%		
		50	30	10	50	30	10	50	30	10
1	1	67	64	61	62	59	57	54	53	52
2	2	59	55	52	54	52	49	49	47	45
3	3	52	48	44	48	46	42	44	42	40
4	4	47	43	38	43	40	36	40	37	35
5	5	42	37	33	39	35	31	36	33	30
6	6	38	32	29	35	31	28	32	29	27
7	7	34	29	25	32	27	24	29	26	23
8	8	30	25	22	29	24	21	27	23	20
9	9	27	22	19	26	21	18	24	20	18
10	10	25	20	17	23	19	16	22	18	16

SPECIFICATIONS

Housing is die-formed of cold-rolled steel for uniformity and stability. Snap-on type wiring channel cover can be removed without the use of tools. Metal components are phosphate coated and finished in baked white enamel providing a minimum reflectance factor of 85%. Lens is virgin acrylic with prismatic bottom and linear refractive sides which hinge along the entire length on either side of fixture. All units (except 20 watt) are equipped with high power factor Class "P" ETL-CBM ballasts (120 volt 60 Hz is standard). Fixtures are UL-listed and bear union and UL labels.

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



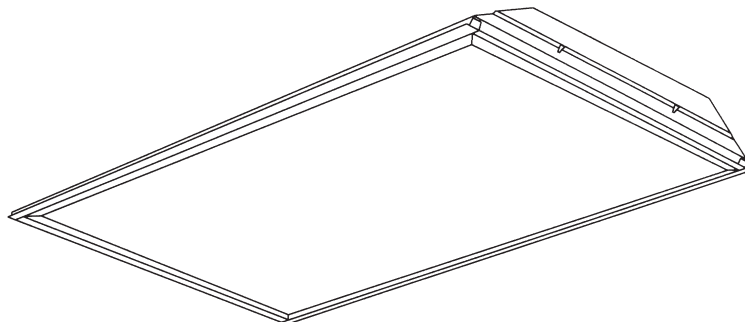
Dimensions and specifications subject to change without notice.

CATALOG NO.

TYPE NO.

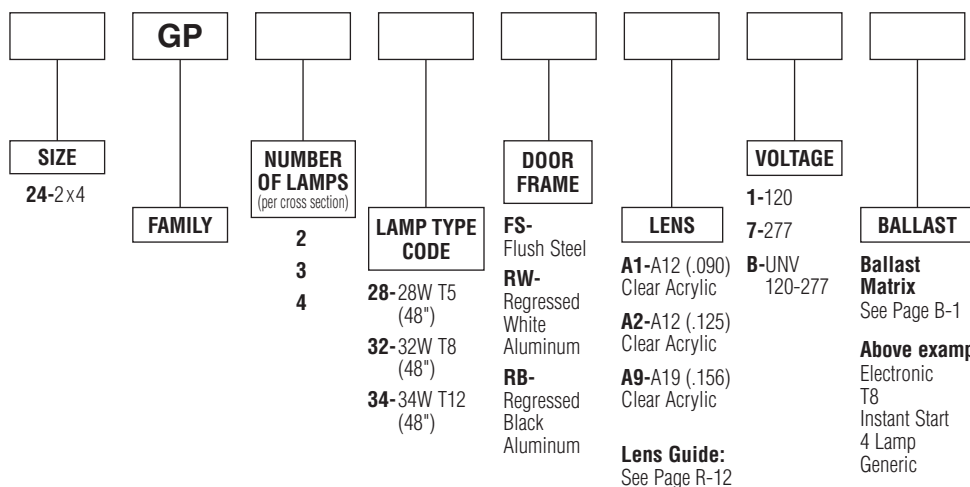
JOB NAME

Premium Grid 2 x 4 Troffer (GP)



ORDERING INFORMATION

Catalog Number: Example: 24GP432FSA11K4Y



JP Note:
JP at end of catalog number signifies Job Pack, however, if other options are included on fixtures, such as Flex, ELS, etc., consult factory for correct logic

Note: To include Generic Installed Lamps See Page B-2
Consult factory for Vendor Specific Lamps

PRODUCT FEATURES

- Mitered door frame includes unique light-blocking construction which eliminates any need for gasketing or baffles.
- One-piece ribbed unitized housing with interlocking corners maintains structural integrity.
- Spring loaded cam latches firmly secure frame on either side.
- Easy lamping.
- All lamps can be individually installed or removed in any order.
- All sides are turned in and hemmed for safe handling and installation.
- Built-in seismic tabs. No need to purchase separate clips.
- UL-listed twin knockout access plates.
- Captive-bolt ballast mounting.
- Four corner tie points for safety wire support when required.
- Ultra high efficiency with a 83% minimum.
- 3" shallow design.
- Hemmed door frame provides extra rigidity and no sharp edges.
- Integral "T" hinges.
- Flange Kit – FK92X4R-DB.

OPTIONS
Options List
See Page R-13
Suffix catalog number with Option Code

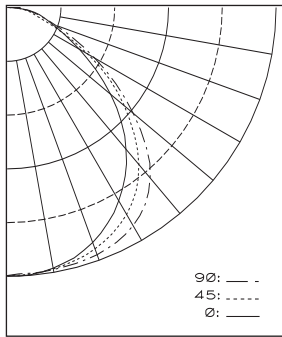
PRODUCT AVAILABILITY

NOMINAL SIZE	FAMILY	NUMBER OF LAMPS (per cross section)	LAMP TYPE CODE	HEIGHT
2 x 4	GP	2	28, 32, 34	3"
		3	28, 32, 34	
		4	28, 32, 34	

R-1

Premium Grid 2 x 4 Troffer (GP)

Three-Lamp 2 x 4 Photometric Data



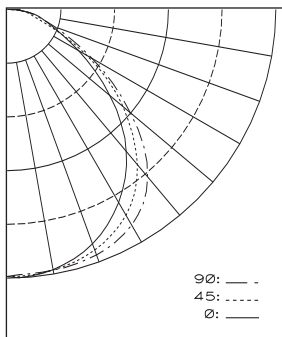
Coefficients of Utilization

Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC RW	80%			50%			10%		
		70	50	30	10	50	30	10	50	30
1	93	89	85	82	83	81	78	80	78	76
2	85	78	73	68	74	69	66	71	67	64
3	78	69	63	57	65	60	56	63	59	55
4	71	62	54	49	58	53	48	56	51	47
5	66	55	48	42	53	46	42	51	45	41
6	61	50	42	37	48	41	37	46	41	36
7	56	45	38	33	43	37	33	42	37	32
8	53	41	34	29	40	34	29	39	33	29
9	49	38	31	27	37	31	26	36	30	26
10	46	35	28	24	34	28	24	33	28	24

Fixture Efficiency = 85%

Four-Lamp 2 x 4 Photometric Data



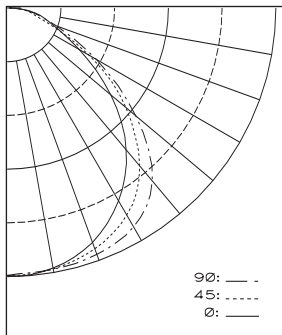
Coefficients of Utilization

Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC RW	80%			50%			10%		
		70	50	30	10	50	30	10	50	30
1	91	87	83	80	81	79	77	78	76	74
2	83	76	71	67	72	68	64	69	66	63
3	76	68	61	56	64	59	55	62	57	54
4	70	60	53	48	57	51	47	55	50	46
5	64	54	47	42	51	45	41	50	45	40
6	60	49	42	36	47	40	36	45	40	36
7	55	44	37	32	42	36	32	41	36	32
8	51	41	34	29	39	33	29	38	32	28
9	48	37	31	26	36	30	26	35	30	26
10	45	34	28	24	33	27	23	32	27	23

Fixture Efficiency = 83%

Two-Lamp 2 x 4 Photometric Data



Coefficients of Utilization

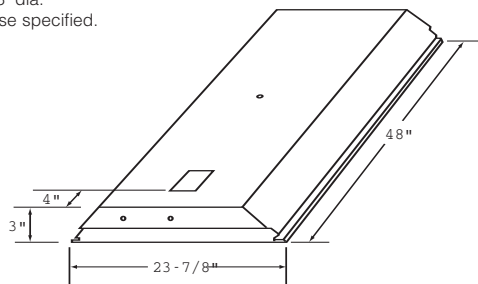
Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC RW	80%			50%			10%		
		70	50	30	10	50	30	10	50	30
1	95	91	88	84	86	83	80	82	80	78
2	87	80	75	70	76	71	67	73	69	66
3	80	71	64	59	67	62	57	65	60	56
4	73	63	56	50	60	54	49	58	53	48
5	67	57	49	43	54	48	43	52	47	42
6	62	51	44	38	49	42	38	47	42	37
7	58	46	39	34	44	38	33	43	37	33
8	54	42	35	30	41	34	30	40	34	30
9	50	39	32	27	37	31	27	36	31	27
10	47	36	29	25	35	29	24	34	28	24

Fixture Efficiency = 87%

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



Dimensions and specifications subject to change without notice.

SPECIFICATIONS

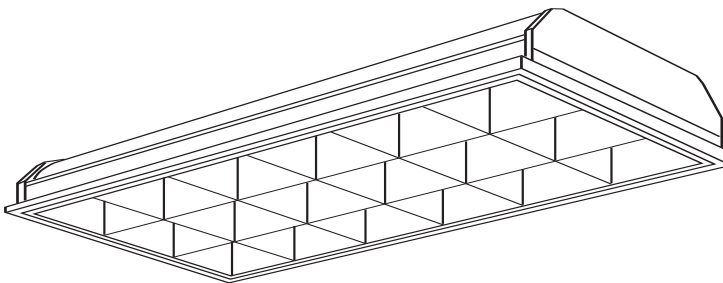
Embossed housing/end combination is die-formed of cold rolled steel and includes interlocking corners to maintain structural integrity. Baked white enamel finish provides a minimum reflectance factor of 85%. Lens is prismatic pattern 12 virgin acrylic. Mitered door frame which hinges from either side is held in place with spring loaded cam latches. Sides are hemmed for additional strength and safety in installation and handling. All units are equipped with high power factor Class "P" ETL-CBM ballasts (120 volt 60 Hz is standard). Fixtures are UL-listed and bear union and UL labels.

CATALOG NO.

TYPE NO.

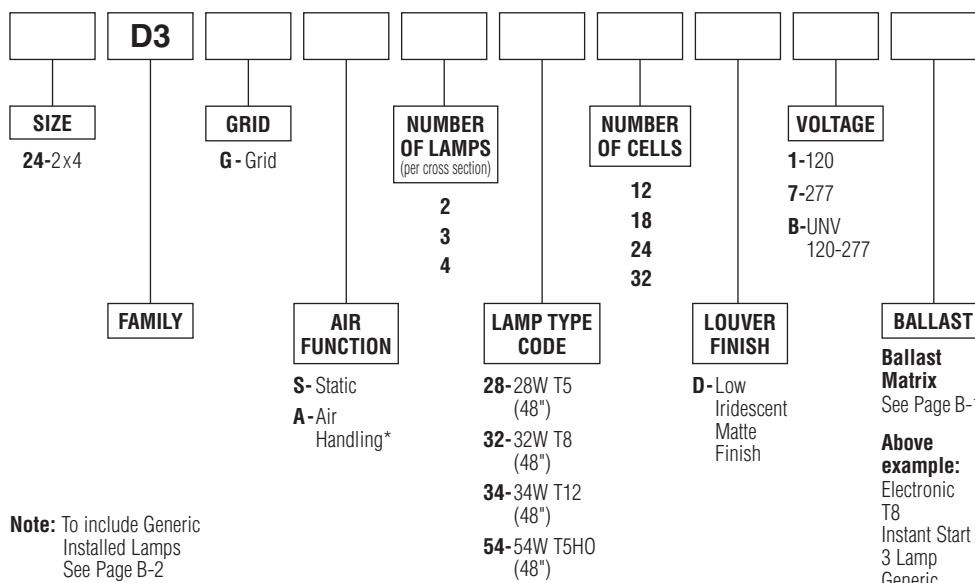
JOB NAME

3" Deep Cell 2 x 4 Parabolic Troffer (D3)



ORDERING INFORMATION

Catalog Number: Example: 24D3GA33218D1K3Y



Note: To include Generic Installed Lamps See Page B-2

* Combination air supply and heat transfer. Air slot covers are included.

PRODUCT FEATURES

- Anodized aluminum parabolic louvers closely controlled for uniform low-brightness appearance and interlocked to avoid vibration.
- Housing is constructed for added strength and maximum corrosion resistance.
- Black-inside perimeter reveal for "floating door" appearance.
- Can be hinged and latched from either side.
- Shipped with plastic film to keep out construction dirt.

OPTIONS

Options List
See Page P-4
Suffix catalog number with Option Code

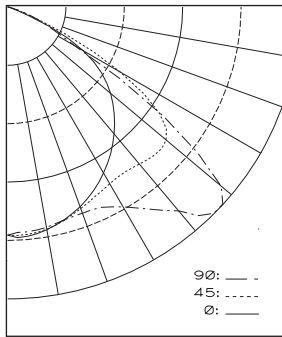
PRODUCT AVAILABILITY

NOMINAL SIZE	FAMILY	NUMBER OF LAMPS (per cross section)	LAMP TYPE CODE	NUMBER OF CELLS	HEIGHT
2 x 4	D3	2	28, 32, 34	12 (2x6)	4 3/8" (32W HSG)
		3	28, 32, 34	18 (3x6)	5 3/4" (34W HSG)
		4	28, 32, 34	24 (3x8)	
				32 (4x8)	

P-1

3" Deep Cell 2 x 4 Parabolic Troffer (D3)

Two-Lamp 2 x 4 12 Cell Photometric Data



Coefficients of Utilization

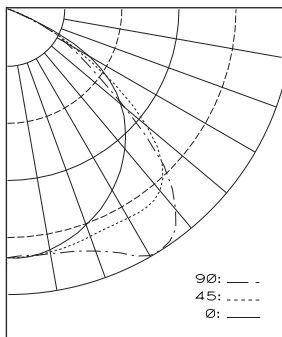
Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC	80%				50%				10%			
	RW	70	50	30	10	50	30	10	50	30	10	50	30
1	89	86	83	80	81	79	77	78	76	74			
2	82	76	71	67	72	68	65	69	66	63			
3	75	67	61	56	63	59	55	61	57	54			
4	68	59	53	48	56	51	47	54	50	46			
5	63	53	46	41	50	45	40	49	44	40			
6	58	47	40	35	45	39	35	44	39	35			
7	53	43	36	31	41	35	31	40	34	30			
8	50	39	32	27	37	31	27	36	31	27			
9	46	35	29	24	34	28	24	33	28	24			
10	43	33	26	22	31	26	22	31	25	22			

SPECIFICATIONS

Troffer body is die-formed of cold-rolled steel and embossed for extra strength and rigidity. Air handling units include air flow louvers in back of housing allowing heat removal through fixture chamber into plenum. Air slot covers are included. Inner surfaces are finished in baked white enamel with a minimum reflectance factor of 85%. Parabolic shaped louvers have a matte finish and are low iridescence anodized aluminum. Louver assembly includes concealed hinges and positive action spring-loaded latches. All units are equipped with high power factor Class "P" ETL-CBM ballasts (120 volt 60 Hz is standard). Fixtures are UL-listed and bear union and UL labels.

Three-Lamp 2 x 4 18 Cell Photometric Data

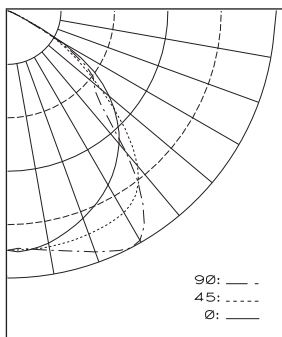


Coefficients of Utilization

Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC	80%				50%				10%			
	RW	70	50	30	10	50	30	10	50	30	10	50	30
1	80	77	75	73	73	71	69	70	69	67			
2	74	69	65	61	65	62	59	63	60	58			
3	68	61	56	52	58	54	51	56	53	50			
4	63	55	49	45	52	47	44	50	46	43			
5	58	49	43	39	47	42	38	46	41	38			
6	53	44	38	34	42	37	34	41	37	33			
7	49	40	34	30	39	33	30	38	33	30			
8	46	37	31	27	35	30	27	34	30	26			
9	43	34	28	24	32	27	24	32	27	24			
10	40	31	25	22	30	25	22	29	25	21			

Four-Lamp 2 x 4 32 Cell Photometric Data

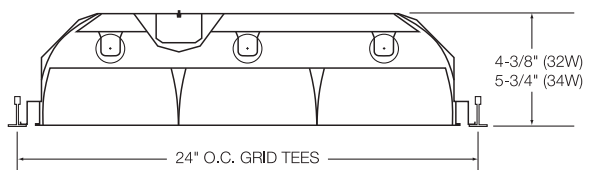
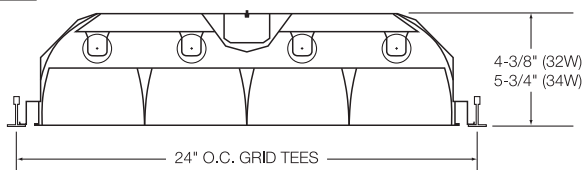


Coefficients of Utilization

Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC	80%				50%				10%			
	RW	70	50	30	10	50	30	10	50	30	10	50	30
1	76	73	71	69	69	67	66	66	65	64			
2	70	66	62	59	62	59	57	60	58	55			
3	65	59	54	51	56	52	49	54	51	48			
4	60	53	48	44	50	46	43	49	45	42			
5	55	48	42	38	46	41	38	44	41	37			
6	51	43	38	34	42	37	34	40	36	33			
7	48	39	34	30	38	33	30	37	33	30			
8	45	36	31	27	35	30	27	34	30	27			
9	42	33	28	25	32	28	24	31	27	24			
10	39	31	26	22	30	25	22	29	25	22			

DIMENSIONS



Dimensions and specifications subject to change without notice.

Application

The Wet Location fixture is IP65 rated, dust and moisture-resistant, making it ideal for harsh environments where humidity or moisture is present. Primary applications include:

- Food processing facilities
- Kitchens
- Publis Areas
- Subways
- Schools
- Parking garages
- Gas Stations
- Government facilities
- Industrial facilities

Description

The full body assembly accommodates either T8 or T5 lamps. The gasketed enclosure is constructed of a fiberglass upper body and acrylic diffuser, with a continuous poured gasket. The diffuser and upper components are locked by retaining latches, which ensures a tight seal. Sockets include secure positioning rotating collars.

Reflector Optics

An optional 95% specular reflector is available and has a 25 year warranty.

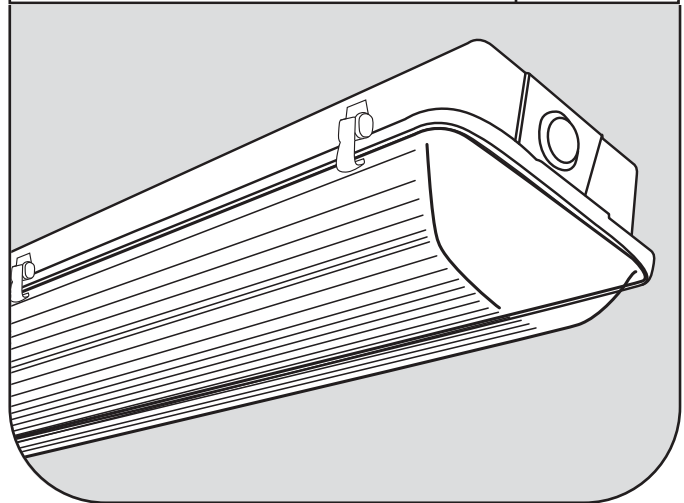
Electrical

All ballasts are class P rated and UL/CUL listed. Our ballasts are also thermally protected, sound rated and tightly secured by mounting bolts.

Catalog Number

Notes

Type



Wet Location T5 and T8 Series

Maintenance

No tools required for lamp and ballast access.

Warranty

One year warranty against defect in manufacturing

Installation

Fixture comes with external brass studs and stainless steel hanging bracket.

Listing

- UL/CUL Listed
- NSF International
- U.S.D.A

Catalog Ordering Matrix

WL4	SA	2	32	UNI	H	
Series	Reflector Distribution	Lamp Quantity	Lamp Type	Voltage	Ballast Factor	Options
WL4 - 4 Foot WL8 - 8 Foot	SA - Specular Aluminum (Optional Reflector)	1 (4' Fixture Only) 2 (4' or 8' Fixture) 3 (4' Fixture Only) 4 (8' Fixture Only) 6 (8' Fixture Only)	28 - (T8 28W) 32 - (T8 32W) 54 - (T5H0 54W) OPTIONS	UNI - (120-277) 120 277 347 480	H - (T8 High) N - (T8 Normal) L - (T8 Low) V - (T5H0)	(See Below)

Power Cords

- 2P - 120V, 15A, 8' Power cord w/ straight blade plug
- 3P - 120V, 15A, 8' Power cord w/ twist lock plug
- 4T - 120V, 20A, 10' Power cord w/ twist lock plug
- 11P - 208V, 15A, 8' Power cord w/ straight blade plug
- 9T - 208V, 20A, 8' Power cord w/ twist lock plug
- 8P - 277V, 20A, 8' Power cord w/ straight blade plug
- 10P - 277V, 20A, 15' Power cord w/ straight blade plug
- 10T - 277V, 15A, 10' Power cord w/ twist lock plug
- 10T2 - 277V, 20A, 10' Power cord w/ twist lock plug
- 6C - 600V rated 6' Power cord only. No plug
- 10C - 600V rated 10' Power cord only. No plug
- 20C - 600V rated 20' Power cord only. No plug
- 6W - 600V rated 6' flexible metal conduit fixture whip
- 6C4 - 120V-300V 6' Power cord only, 4 wire. No plug
- 20C4 - 120V-600V 20' Power cord only, 4 wire. No plug
- 8T - 480V, 20A, 8' Power cord w/ L8-20 twist lock plug

* Use a program rapid start ballast with occupancy sensor. TCP is not responsible for lamps failing prematurely due to an occupancy sensor being used with an instant start ballast.

Emergency Ballasts

- B1 - 400 LMS 90 min
- B7 - 550 LMS 120 min
- B9 - 550 LMS 90 min
- B6 - 650 LMS 90 min
- B5 - 1350 LMS 90 min
- B3 - 3000 LMS 90 min
- BL5 - 700 LMS 90 min.
(For use with T5)
- BL6 - 1250 LMS 90 min.
(For use with T5)

Lamps Installed in Job Pack

- 730 - T8 Lamps Only
- 735 - T8 Lamps Only
- 741 - T8 Lamps Only
- 830 - T5 and T8 Lamps
- 835 - T5 and T8 Lamps
- 841 - T5 and T8 Lamps
- 850 - T5 and T8 Lamps
- 865 - T5 and T8 Lamps
- 830HL - T8 Lamps Only
- 835HL - T8 Lamps Only
- 841HL - T8 Lamps Only
- 850HL - T8 Lamps Only
- 865HL - T8 Lamps Only
- 830XHL - T8 Lamps Only
- 835XHL - T8 Lamps Only
- 841XHL - T8 Lamps Only
- 850XHL - T8 Lamps Only
- 865XHL - T8 Lamps Only

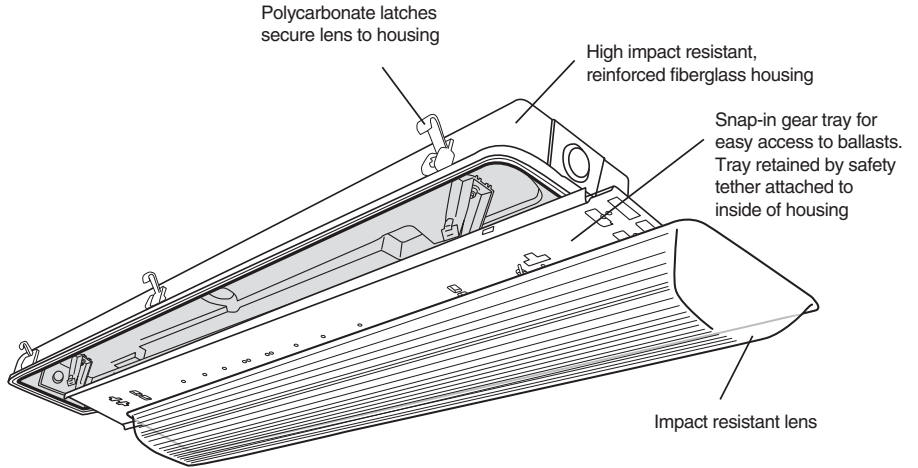
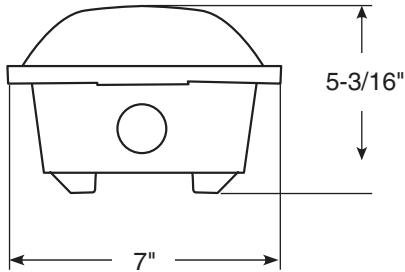
Special Mounting

- EZHANGER - 15' adjustable aircraft cable hanging kit
- 12Pendantkit - Mounting kit for 1/2" pendants
- 34Pendantkit - Mounting kit for 3/4" pendants
- LHKIT - Single Point Hook Mounting Kit complete

* FBO - TCP will install supplied modular wire cords

Dimensions & Construction

side view



Photometric Report 48" Wet Location Fixture, 2 32 watt

TCP Gasketed Luminaire with 2 32w lamp, lumen rating 2950 LMS, and one ADVANCE REL - 2P32-RH-TP electronic ballast operating AT 120 VAC and 56 watts

Photometric Report

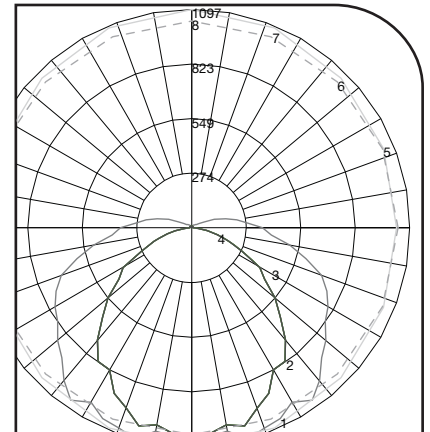
Efficiency (total) 60.2
 Spacing Criterion (0-Deg) 1.3
 Spacing Criterion (90-Deg) 1.4

Average Luminance (Candelas / Square Meter)

Angle	0	45.0	90
45	4119	4404	4800
55	3544	4100	4787
65	2922	4140	5140
75	2228	4346	5152
85	1358	3961	4906

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0-30	847.58	14.9	20.1
0-40	1428.75	25.1	33.8
0-60	2637.42	46.3	62.4
0-90	3874.79	68	91.7
90-180	349.35	6.1	8.3
0-180	4224.14	74.1	100



Quadrilaterally Symmetric 0 Degree (dash line) 90 Degree

Coefficient of Utilization Table Effective Floor Cavity Reflectance = 20%

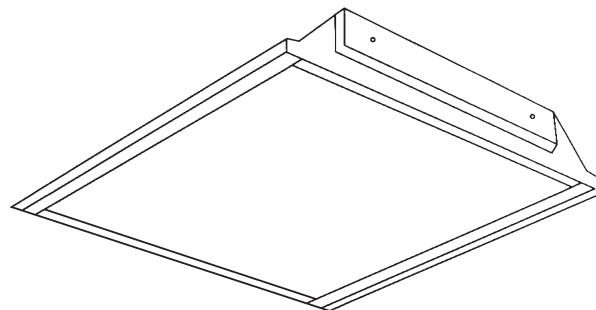
Pcc... Pw... RCR	80				70				50				30				0	
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30		10
0	0.87	0.87	0.87	0.87	0.84	0.84	0.84	0.84	0.79	0.79	0.79	0.74	0.74	0.74	0.70	0.70	0.70	0.68
1	0.77	0.73	0.69	0.65	0.74	0.71	0.67	0.64	0.66	0.63	0.61	0.62	0.60	0.58	0.58	0.57	0.55	0.53
2	0.69	0.62	0.57	0.52	0.67	0.60	0.55	0.51	0.57	0.52	0.48	0.53	0.50	0.46	0.50	0.47	0.44	0.42
3	0.63	0.54	0.47	0.42	0.60	0.52	0.46	0.41	0.49	0.44	0.40	0.46	0.42	0.38	0.44	0.40	0.37	0.35
4	0.57	0.48	0.41	0.35	0.55	0.46	0.40	0.35	0.43	0.38	0.33	0.41	0.36	0.32	0.39	0.35	0.31	0.29
5	0.52	0.42	0.35	0.30	0.50	0.41	0.34	0.29	0.39	0.33	0.29	0.37	0.32	0.28	0.35	0.30	0.27	0.25
6	0.48	0.38	0.31	0.26	0.46	0.37	0.30	0.25	0.35	0.29	0.25	0.33	0.28	0.24	0.31	0.27	0.23	0.22
7	0.45	0.34	0.27	0.23	0.43	0.33	0.27	0.22	0.32	0.26	0.22	0.30	0.25	0.21	0.28	0.24	0.21	0.19
8	0.42	0.31	0.25	0.20	0.40	0.30	0.24	0.20	0.29	0.23	0.19	0.27	0.22	0.19	0.26	0.22	0.18	0.17
9	0.39	0.28	0.22	0.18	0.37	0.28	0.22	0.18	0.26	0.21	0.17	0.25	0.20	0.17	0.24	0.20	0.16	0.15
10	0.36	0.26	0.20	0.16	0.35	0.26	0.20	0.16	0.24	0.19	0.16	0.23	0.19	0.15	0.22	0.18	0.15	0.13

CATALOG NO.

TYPE NO.

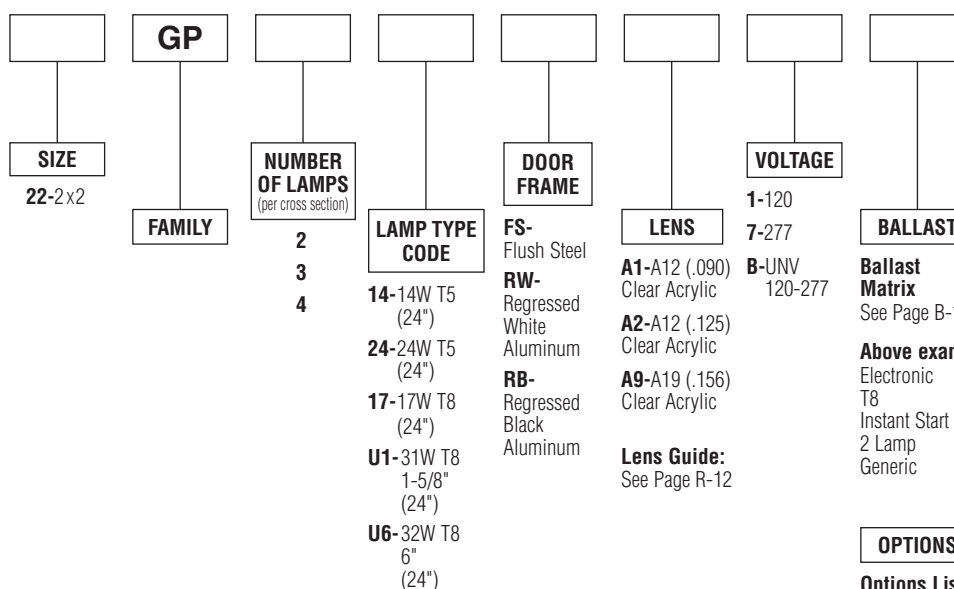
JOB NAME

Premium Grid 2 x 2 Troffer (GP)



ORDERING INFORMATION

Catalog Number: Example: 22GP2U6FSA11K2Y



Note: To include Generic Installed Lamps
See Page B-2
Consult factory for Vendor Specific Lamps

PRODUCT FEATURES

- Door frame can be hinged and latched from either side.
- 1-piece housing with corner-tab construction for additional rigidity.
- Spring steel locking latch mechanism.
- Shallow 3" depth.
- High-reflectance pre-coated steel housing
- Reversible T-hinge on doorframe
- Interlocking corners maintain structural integrity.
- Spring loaded cam latches firmly secure frame on either side.
- Easy lamping.
- Built-in seismic tabs. No need to purchase separate clips.
- Four corner tie points for safety wire support when required.
- Mitered door frame with integral baffle to prevent light leak.
- Hemmed body for safe handling.
- Flange Kit – FK92X2R-DB.

OPTIONS
Options List
See Page R-13
Suffix catalog number with Option Code

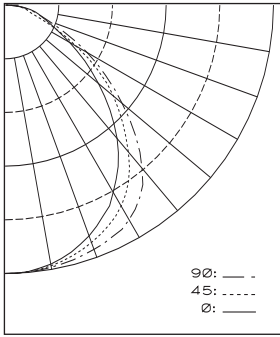
PRODUCT AVAILABILITY

NOMINAL SIZE	FAMILY	NUMBER OF LAMPS (per cross section)	LAMP TYPE CODE	HEIGHT
2 x 2	GP	2	14, 17, 24, U1 U6	3"
		3	14, 17, 24, U1	
		4	14, 17, 24	

R-2

Premium Grid 2 x 2 Troffer (GP)

Two-Lamp 2 x 2 Photometric Data



Coefficients of Utilization
Floor Cavity Reflectance 0.20

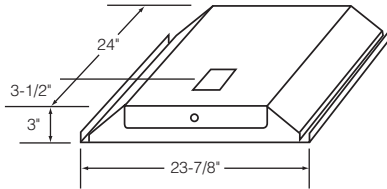
Room Cavity Ratio	RC	80%			50%			10%		
	RW	70	50	30	10	50	30	10	50	30
1	88	85	81	79	79	77	75	76	74	73
2	81	75	70	65	70	66	63	68	64	62
3	74	66	60	55	63	58	54	60	56	53
4	68	59	52	47	56	51	46	54	50	46
5	63	53	46	41	51	45	40	49	44	40
6	58	48	41	36	46	40	36	45	39	35
7	54	44	37	32	42	36	32	41	35	32
8	51	40	33	29	38	33	29	37	32	28
9	47	37	30	26	35	30	26	34	29	26
10	44	34	28	24	33	27	23	32	27	23

SPECIFICATIONS

Troffer body is formed of cold rolled steel with ends that include a double over/under-lapping flange for extra strength and rigidity. Baked white enamel finish provides a minimum reflectance factor of 85%. Lens is prismatic pattern 12 virgin acrylic. Die formed hinged door frame is firmly held in place with inconspicuous spring loaded cam action latches. All units are equipped with high power factor Class "P" ETL-CBM ballasts (120 volt 60 Hz is standard). Fixtures are UL-listed and bear union and UL labels.

DIMENSIONS

All KOs are 7/8" dia. unless otherwise specified.



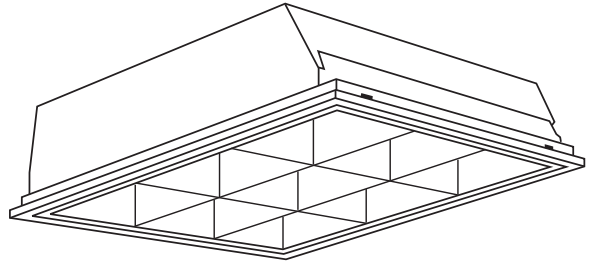
Dimensions and specifications subject to change without notice.

CATALOG NO.

TYPE NO.

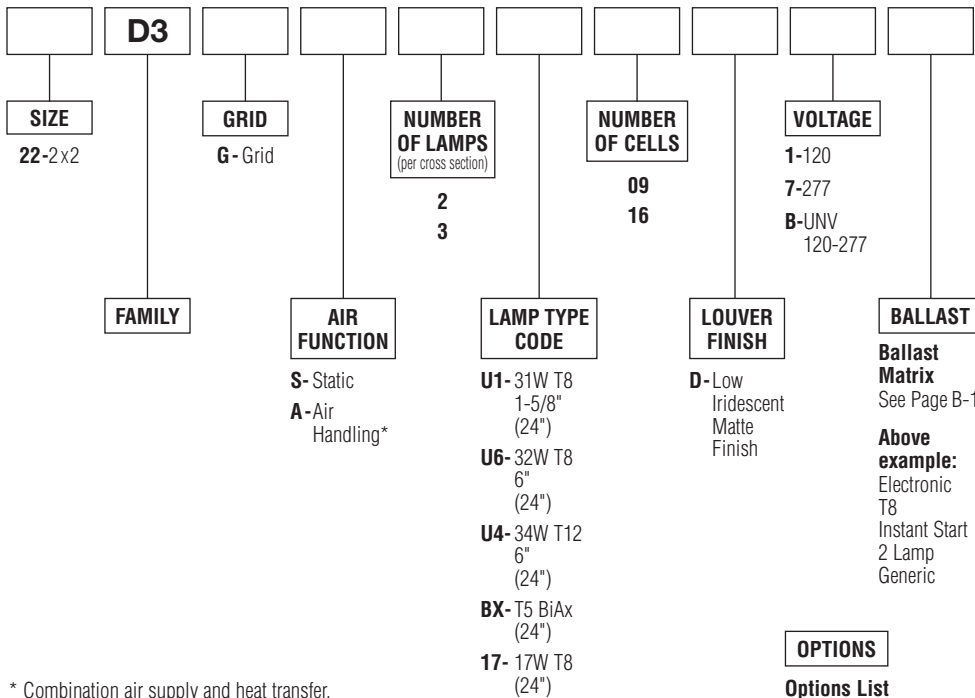
JOB NAME

3" Deep Cell 2 x 2 Parabolic Troffer (D3)



ORDERING INFORMATION

Catalog Number: Example: 22D3GA2U609D1K2Y



* Combination air supply and heat transfer.
Air slot covers are included.

Note: To include Generic
Installed Lamps
See Page B-2

OPTIONS

Options List
See Page P-4
Suffix catalog
number with
Option Code

PRODUCT FEATURES

- Anodized aluminum parabolic louvers closely controlled for uniform low-brightness appearance and interlocked to avoid vibration.
- Housing is constructed for added strength and maximum corrosion resistance.
- Black-inside perimeter reveal for "floating door" appearance.
- Can be hinged and latched from either side.
- Shipped with plastic film to keep out construction dirt.

Ballast Matrix
See Page B-1
Above example:
Electronic
T8
Instant Start
2 Lamp
Generic

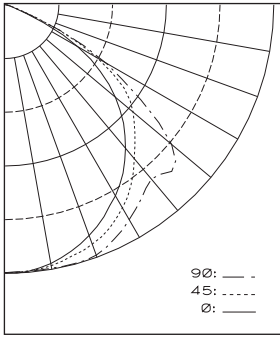
PRODUCT AVAILABILITY

NOMINAL SIZE	FAMILY	NUMBER OF LAMPS (per cross section)	LAMP TYPE CODE	NUMBER OF CELLS	HEIGHT
2 x 2	D3	2	U1, U6, U4, BX, 17	9 (3x3)	6" (T12)
				16 (4x4)	4 3/8" (T8)
		3	U1, BX, 17	9 (3x3)	
				16 (4x4)	
		4	17	16 (4x4)	

P-2

3" Deep Cell 2 x 2 Parabolic Troffer (D3)

Two-Lamp 2 x 2 9 Cell Photometric Data



Coefficients of Utilization

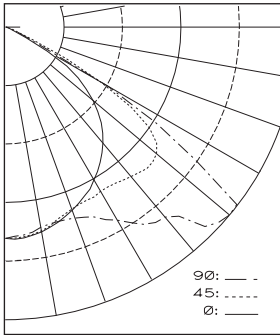
Floor Cavity Reflectance 0.20

Room Cavity Ratio	RC	80%				50%				10%			
	RW	70	50	30	10	50	30	10	50	30	10		
1	78	75	73	71	71	69	67	68	67	65			
2	72	67	63	59	63	60	57	61	58	56			
3	66	59	54	50	56	52	49	54	51	48			
4	61	53	47	43	50	46	42	49	45	42			
5	56	48	42	37	45	40	37	44	40	36			
6	52	43	37	33	41	36	32	40	35	32			
7	48	39	33	29	37	32	29	36	32	28			
8	45	35	30	26	34	29	26	33	29	25			
9	42	33	27	23	31	26	23	31	26	23			
10	39	30	25	21	29	24	21	28	24	21			

SPECIFICATIONS

Troffer body is die-formed of cold-rolled steel and embossed for extra strength and rigidity. Air handling units include air flow louvers in back of housing allowing heat removal through fixture chamber into plenum. Air slot covers are included. Inner surfaces are finished in baked white enamel with a minimum reflectance factor of 85%. Parabolic shaped louvers have a matte finish and are low iridescence anodized aluminum. Louver assembly includes concealed hinges and positive action spring-loaded latches. All units are equipped with high power factor Class "P" ETL-CBM ballasts (120 volt 60 Hz is standard). Fixtures are UL-listed and bear union and UL labels.

Two-Lamp 2 x 2 16 Cell Photometric Data



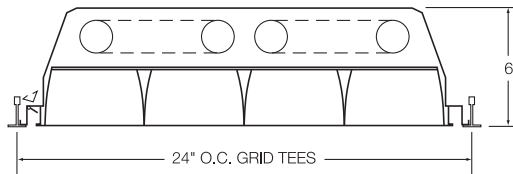
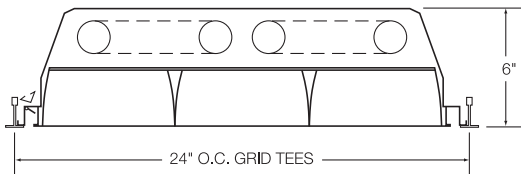
Coefficients of Utilization

Floor Cavity Reflectance 0.20

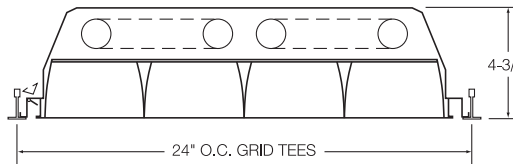
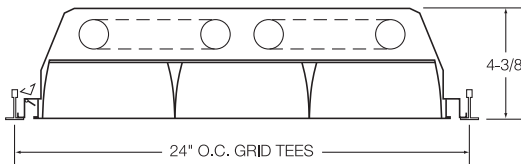
Room Cavity Ratio	RC	80%				50%				10%			
	RW	70	50	30	10	50	30	10	50	30	10		
1	72	69	67	65	65	63	62	62	61	60			
2	66	61	57	54	58	55	52	56	53	51			
3	60	54	49	46	51	47	44	50	46	44			
4	55	48	43	39	46	41	38	44	40	37			
5	51	43	37	33	41	36	33	39	35	32			
6	47	38	33	29	37	32	28	36	31	28			
7	43	35	29	25	33	28	25	32	28	25			
8	40	31	26	22	30	25	22	29	25	22			
9	37	29	23	20	28	23	20	27	23	20			
10	35	26	21	18	25	21	18	25	21	18			

DIMENSIONS

T12 Lamps



T8 Lamps



Dimensions and specifications subject to change without notice.

Category: ECS
Energy
Conservation
Series

Prefix:
ECO

Fixture Series (Name):
EcoLyte



Innovative Lighting Ideas
Energy Efficient Solutions



EcoLyte Series high performance fluorescent high/low bay luminaire

GENERAL DESCRIPTION

The EcoLyte (ECO) Series has been developed as an energy efficient alternative to HID lighting systems. This series utilizes "High Intensity Fluorescent" technology to dramatically reduce energy consumption, improve quality of light and provide instant-on operation. It also offers many switching and sensor options.

Typical applications for this type of product are interior spaces with high mounting heights where high lumen output is required.

Applications include:

- Retail – "Big Box" – Distribution Centers and Warehouses
- Industrial, Commercial and Manufacturing Areas
- School Gymnasiums, Auditoriums and Convention Centers
- Ice Rinks, Indoor Courts and Sports Arenas

DESIGN FEATURES / SPECIFICATIONS

CONSTRUCTION

- Precision die formed from 22 ga. cold rolled steel.
- Mechanically fastened or resistance welded depending on model.
- Heavy gauge steel (CRS) or aluminum alloy may be custom ordered.
- Finish to be pre-painted gloss white polyester powder coat.
- Post-painted polyester powder coat finishes are available. Consult factory for all special colors and finishes.
- Heavy gauge steel (NYC) and heavy gauge aluminum are available as alternate materials.

REFLECTOR

- Precision die formed optics which has been designed for maximum efficiency and photometric properties using the latest CAD software.
- Choice of optics includes focused, normal and spread beam distribution. Consult factory for custom optics design and spacing criteria options.
- Choice of materials include:
 - Alanod Miro4® Enhanced Specular Aluminum, 95% total reflectance, 25 year warranty.
 - Enhanced Specular Aluminum, 92% total (min.) reflectance, 25 year warranty.
 - High Reflectance White Powder Coated Aluminum, 91% total reflectance, 10 year warranty.
 - Polished Aluminum, 87% total (min.) reflectance, 25 year warranty.
- Consult factory for availability of all other material choices.

LAMP HOLDERS

- Vossloh-Schwabe® premium type featuring:
 - Anti-vibration internal lamp locking design
 - High temperature resistant ("T" marking).
 - Heat and UV blocking shield to prevent degradation of material.
 - Multi-point contact design for optimum lamp pin contact.
 - Produced in accordance with DIN ISO 9001 and IEC standards.

BALLASTS

- All standard ballasts are electronic, energy saving, thermally protected, Class-P, non-PCB, Sound Rated "A", 0 degree (Type 1 Outdoor). Verify with factory for latest information regarding High Temperature (HT) or Extreme Low Temperature (XLT) rated ballast options.
- UL/CSA certified, where applicable. Compliant with Federal Ballast Law (Public Law 100-357, 1988).
- Choice of ballast factors. L=Low, N=Normal, H=High.
- Choice of dedicated, universal or special voltage - Consult factory for available options.
- Warranted by ballast manufacturer. Typical ballast warranty is for 5 years (120-277v) and 3-years (347-480v). Consult factory for latest warranty information.

LAMPS

- Supplied by others unless otherwise specified.
- Factory installed if required - Consult factory.
- Lamp type, CRI ratings, temperature colors, lamp life ratings are all viable options which can be supplied - Consult factory for information.



LAMP SHIELDING

- Lamp shielding options include:
 - Heavy duty painted or zinc-plated wire guards.
 - Flat or drop dish lenses, clear acrylic, clear polycarbonate, high light transmission white, prismatic and linear prism lenses.
 - Louvers and cross-blade baffles - Consult factory.

MOUNTING

- The luminaire may be surface mounted or may be suspended by pendant, threaded rod, hook, chain or cable. (Mounting hardware supplied by others unless otherwise specified).
- Custom mounting options / accessories.

ELECTRICAL

- Luminaire is bi-national listed and labeled (UL 1598 and CSA C22.2 No. 250.0-00) and is suitable for damp locations.
- Product includes luminaire disconnect as specified in NEC 410.73(G), 2005 Edition, and CEC part I, rule 30-308(4), 2006 Edition.

QUALITY CONTROL

- All fixtures and retrofit kits are designed, fabricated, assembled and tested at RENOVA's manufacturing facility. All fixtures are 100% lamp tested, inspected and labeled prior to shipment.

GUARANTEE

- RENOVA warrants all fixtures to be free of defects in manufacturing and workmanship for a period of (1) year from date of purchase. This warranty excludes damage of any kind resulting from improper installation, misuse, abuse, accidents, mis-application, or natural disasters. Please refer to the "Terms and Conditions" section of the RENOVA website for additional information.

Note: RENOVA products are constantly being improved; therefore, the information shown is subject to change without notice. Always consult your lighting representative or RENOVA Lighting Systems, Inc. for the latest information.

RENOVA Lighting Systems, Inc. 300 Highpoint Avenue Portsmouth, RI 02871 (800) 635-6682 www.renova.com

Category: ECS
Energy Conservation Series

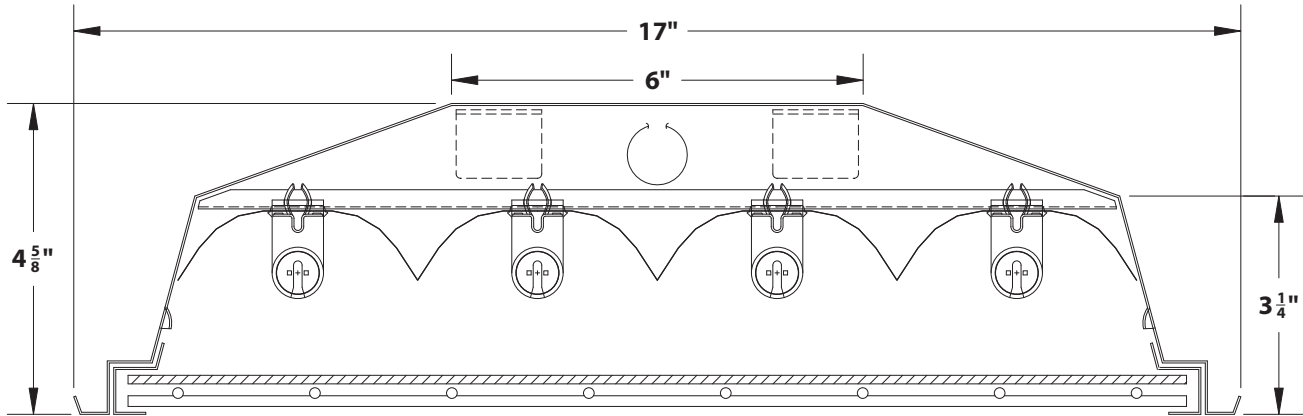
Prefix:
ECO

Fixture Series (Name):
EcoLyte



Innovative Lighting Ideas
Energy Efficient Solutions

4-Lamp T5 HO EcoLyte Cross Section Shown



ORDERING GUIDE

CATEGORY	SERIES	SIZE	REFLECTOR MATERIAL	REFLECTOR PHOTOMETRY	NUMBER OF LAMPS	LAMP TYPE (WATTAGE)	BALLAST VOLTAGE	NUMBER OF BALLASTS	LAMPS PER BALLAST	BALLAST FACTOR	OPTIONS
ECS	ECO	4	M	N	4	54	UNV	2	2	H	AWW
Energy Conservation Series	ECO - ECOLYTE	4 - 48" 8 - 96"	M - MIRO4 (95% TR) E - ENHANCED ALUMINUM (92% TR min.) W - WHITE (91% TR) A - ALUMINUM (87% TR min.) R - MIRO4 MICRO-MATT (95% TR)	F - FOCUSED N - NORMAL S - SPREAD C - CUSTOM OPTICS *N - NORMAL IS STANDARD *(BLANK)=N *C - CUSTOM OPTICS ARE DESCRIBED IN OPTIONS BOX	2 - 2L 3 - 3L 4 - 4L 5 - 5L 6 - 6L 4 - 4L 6 - 6L 8 - 8L 10 - 10L 12 - 12L	32 32w T8 54 54w T5HO	120 - 120v, 60 Hz 277 - 277v, 60 Hz 347 - 347v, 60 Hz UNV - 120v - 277v, 60 Hz 480 - 480v, 60 Hz xxx - Less Ballast	(BLANK) - 1 2 - 2 3 - 3 4 - 4	1 - 1 2 - 2 3 - 3 4 - 4	L - Low N - Normal H - High	<p>00W - Open Style 01W - White Wire-Guard A0W - Clear Acrylic Lens AWW - White Wire-Guard & Clear Acrylic Lens</p> <p>*ADDITIONAL OPTIONS (See "Options" sheet for all available options)</p>



Photometric data, IES files and all other information is available upon request.



Vossloh Locking Lampholders (Standard)



Custom V-Cables (Optional) (Installed or Separate)



White Cross-Blade Louver (Optional)



10%-20% Uplight (Optional)



Center Mounting Detail (Standard) (Accepts Optional J-Box)



Sensor & Guard (Optional)



Center-Mount J-Box & Heavy-Duty Hanging Hook (Optional)



Dual Vented Housing (To Control Lamp/Ballast Temp.)



Quick Wire Access Plate (Standard)



Frame Door (Optional) (Cam Latch Provides Quick Access)

Note: RENOVA products are constantly being improved; therefore, the information shown is subject to change without notice. Always consult your lighting representative or RENOVA Lighting Systems, Inc. for the latest information.

RENOVA Lighting Systems, Inc. 300 Highpoint Avenue Portsmouth, RI 02871 (800) 635-6682 www.renova.com

Category: ECS
Energy
Conservation
Series

Prefix:
SGI

Fixture Series (Name):
Std. Grade Industrial



Innovative Lighting Ideas
Energy Efficient Solutions



Standard Grade Industrial Series general purpose fluorescent luminaire

GENERAL DESCRIPTION

The Standard Grade Industrial (SGI) Series has been developed for general illumination for surface or pendant mounted applications. This series utilizes computer designed reflector technology for optimal fixture efficiency, reduction of energy consumption and improved quality of light. It also provides instant-on operation and offers many other energy saving options.

Typical applications for this type of product are interior spaces where appearance and performance are important. Applications include:

- Industrial, Commercial and Manufacturing Areas
- Warehouse Spaces – Isle and Open Areas
- Storage Facilities and Specialized Retail Applications
- Schools, Colleges and Universities

DESIGN FEATURES / SPECIFICATIONS

CONSTRUCTION

- Precision die formed from 22 ga. cold rolled steel.
- Mechanically fastened or resistance welded depending on model.
- Heavy gauge steel (CRS) or aluminum alloy may be custom ordered.
- Finish to be pre-painted gloss white polyester powder coat.
- Post-painted polyester powder coat finishes are available. Consult factory for all special colors and finishes.
- Heavy gauge steel (NYC) and heavy gauge aluminum are available as alternate materials.

REFLECTOR

- Precision die formed optics which has been designed for maximum efficiency and photometric properties using the latest CAD software.
- Choice of optics includes focused, normal and spread beam distribution. Consult factory for custom optics design and spacing criteria options.
- Choice of materials include:
 - Alanod Miro4® Enhanced Specular Aluminum, 95% total reflectance, 25 year warranty.
 - Enhanced Specular Aluminum, 92% total (min.) reflectance, 25 year warranty.
 - High Reflectance White Powder Coated Aluminum, 91% total reflectance, 10 year warranty.
 - Polished Aluminum, 87% total (min.) reflectance, 25 year warranty.
- Consult factory for availability of all other material choices.

LAMP HOLDERS

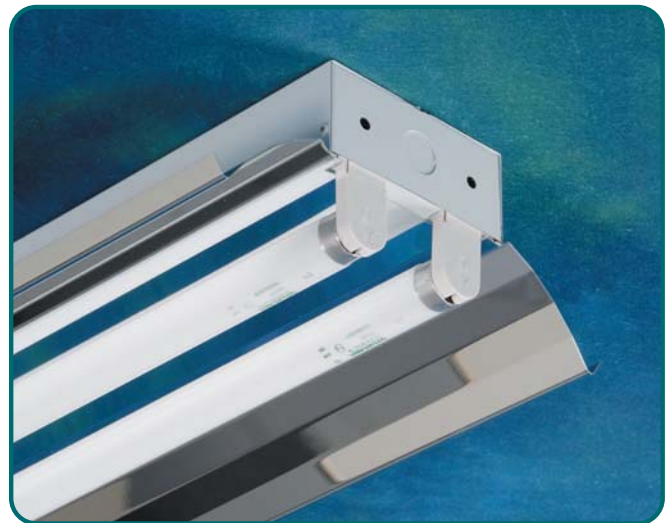
- Vossloh-Schwabe® premium type featuring:
 - Anti-vibration internal lamp locking design
 - High temperature resistant ("T" marking).
 - Heat and UV blocking shield to prevent degradation of material.
 - Multi-point contact design for optimum lamp pin contact.
 - Produced in accordance with DIN ISO 9001 and IEC standards.

BALLASTS

- All standard ballasts are electronic, energy saving, thermally protected, Class-P, non-PCB, Sound Rated "A", 0 degree (Type 1 Outdoor). Verify with factory for latest information regarding High Temperature (HT) or Extreme Low Temperature (XLT) rated ballast options.
- UL/CSA certified, where applicable. Compliant with Federal Ballast Law (Public Law 100-357, 1988).
- Choice of ballast factors. L=Low, N=Normal, H=High.
- Choice of dedicated, universal or special voltage - Consult factory for available options.
- Warranted by ballast manufacturer. Typical ballast warranty is for 5 years (120-277v) and 3-years (347-480v). Consult factory for latest warranty information.

LAMPS

- Supplied by others unless otherwise specified.
- Factory installed if required - Consult factory.
- Lamp type, CRI ratings, temperature colors, lamp life ratings are all viable options which can be supplied - Consult factory for information.



MOUNTING

- The luminaire may be surface mounted or may be suspended by pendant, threaded rod, hook, chain or cable. (Mounting hardware supplied by others unless otherwise specified).
- Custom mounting options / accessories are available - Consult factory.

ELECTRICAL

- Luminaire is bi-national listed and labeled (UL 1598 and CSA C22.2 No. 250.0-00) and is suitable for damp locations.
- Product includes luminaire disconnect as specified in NEC 410.73(G), 2005 Edition, and CEC part I, rule 30-308(4), 2006 Edition.

QUALITY CONTROL

- All fixtures and retrofit kits are designed, fabricated, assembled and tested at RENOVA's manufacturing facility. All fixtures are 100% lamp tested, inspected and labeled prior to shipment.

GUARANTEE

- RENOVA warrants all fixtures to be free of defects in manufacturing and workmanship for a period of (1) year from date of purchase. This warranty excludes damage of any kind resulting from improper installation, misuse, abuse, accidents, mis-application, or natural disasters. Please refer to the "Terms and Conditions" section of the RENOVA website for additional information.

Note: RENOVA products are constantly being improved; therefore, the information shown is subject to change without notice. Always consult your lighting representative or RENOVA Lighting Systems, Inc. for the latest information.

RENOVA Lighting Systems, Inc. • 15 Wellstown Road • Ashaway, RI 02804 • (800) 635-6682 • www.renova.com

Category: ECS
Energy Conservation Series

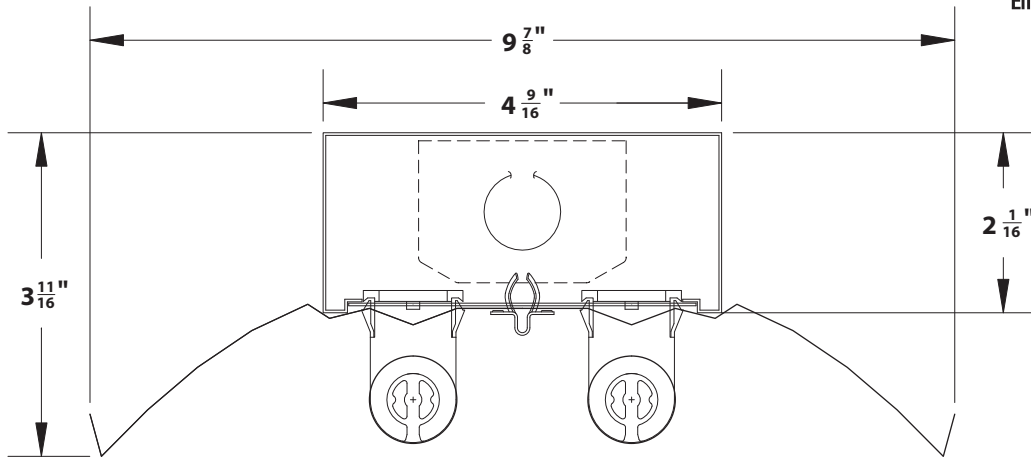
Prefix:
SGI

Fixture Series (Name):
Std. Grade Industrial



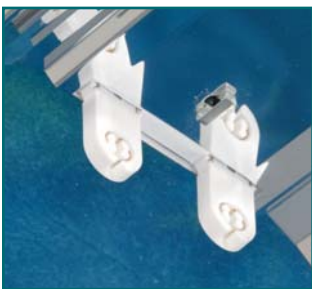
Innovative Lighting Ideas
Energy Efficient Solutions

2-Lamp T8 Std. Grade Industrial Cross Section Shown

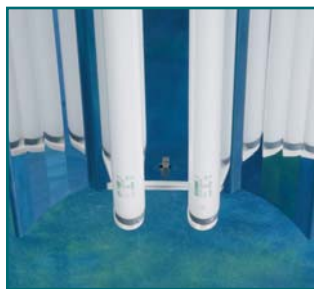


ORDERING GUIDE

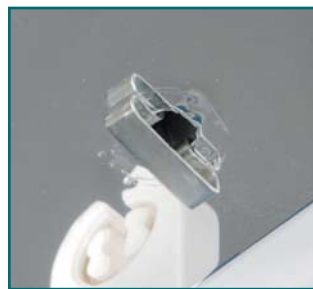
CATEGORY	SERIES	SIZE	REFLECTOR MATERIAL	REFLECTOR PHOTOMETRY	NUMBER OF LAMPS	LAMP TYPE (WATTAGE)	BALLAST VOLTAGE	NUMBER OF BALLASTS	LAMPS PER BALLAST	BALLAST FACTOR	OPTIONS
ECS	SGI	4	M	N	2	32	UNV	1	2	N	
Energy Conservation Series	SGI - STANDARD GRADE INDUSTRIAL	2 - 24" 3 - 36" 4 - 48" 6 - 72" 8 - 96"	M - MIRO4 (95% TR) E - ENHANCED ALUMINUM (92% TR min.) W - WHITE (91% TR) A - ALUMINUM (87% TR min.) R - MIRO4 MICRO-MATT (95% TR)	F - FOCUSED N - NORMAL S - SPREAD C - CUSTOM OPTICS *N - NORMAL IS STANDARD *(BLANK)=N *C - CUSTOM OPTICS ARE DESCRIBED IN OPTIONS BOX	1 - 1L HSG 2 - 2L 3 - 3L 4 - 4L 2 - 2L HSG 4 - 4L 6 - 6L 8 - 8L * T5 LAMP ONLY	17 17w T8 25 25w T8 32 32w T8 14 14w T5 21 21w T5 28 28w T5 24 24w T5HO 39 39w T5HO 54 54w T5HO	120 - 120v, 60 Hz 277 - 277v, 60 Hz 347 - 347v, 60 Hz UNV - 120v - 277v, 60 Hz 480 - 480v, 60 Hz xxx - Less Ballast	S - SLAVE (BLANK) - 1 2 - 2 3 - 3 4 - 4	(BLANK) - 0 1 - 1 2 - 2 3 - 3 4 - 4	L - Low N - Normal H - High	
<p>Photometric data, IES files and all other information is available upon request.</p> <p>*ADDITIONAL OPTIONS (See "Options" sheet for all available options)</p>											



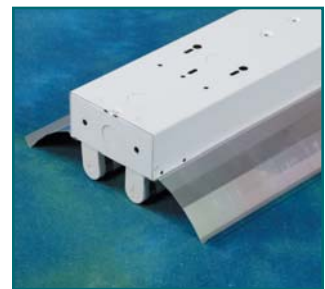
Vossloh Locking Lampholders (Standard)



Multi-Faceted Reflector (Designed for Maximum Efficiency)



Captive Quarter-Turn Fastener (Allows Toolless Access to Ballast Compartment)



Mounting Details (Included in all Housings)

Note: RENOVA products are constantly being improved; therefore, the information shown is subject to change without notice. Always consult your lighting representative or RENOVA Lighting Systems, Inc. for the latest information.

RENOVA Lighting Systems, Inc. • 15 Wellstown Road • Ashaway, RI 02804 • (800) 635-6682 • www.renova.com

CATALOG NO.

TYPE NO.

JOB NAME

T-Bay II 4-Light T5HO/T8



ORDERING INFORMATION

Catalog Number: Example: TBN454EB1-5JP

TB	N	4		EB	1		JP
FIXTURE	BODY WIDTH	LAMPS	WATTAGE	BALLAST SOURCE	CIRCUIT	VOLTAGE	OPTIONS
TB-T-Bay II Series Industrials	N-Narrow (4 Light)	2 (T5HO only) 3 (T5HO only) 4	32-32W T8 54-54W T5HO	EB-Electronic ballast	1-(1) ballast 2-(2) ballasts	5-480V 8-120-277V (voltage sensing)	JP-Job pack

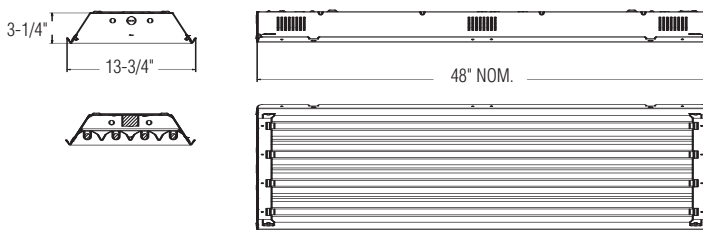
PRODUCT SPECIFICATIONS

- Precision die-formed 22GA steel housing.
- Architectural post painted finish eliminates exposed edges for safe handling.
- Beveled Miro 4 reflector surrounds each lamp for optimum efficiency.
- Hinged reflector panel/access door.
- Accepts stem, pendant, chain or cable mounting.
- Instant-on.
- Low profile.
- Top access plate located at each end.
- T8 units provided with 1.18 ballast factor instant start electronic ballast.
- T5HO units provided with 1.0 ballast factor programmed rapid start electronic ballast.

OPTIONS

- 3C-** 3-foot SO cord only
- 6C-** 6-foot SO cord only
- 3F-** 3-foot SO cord and 15-amp NEMA plug (specify voltage)
- 6F-** 6-foot SO cord and 15-amp NEMA plug (specify voltage)
- 3T-** 3-foot SO cord and 20-amp NEMA plug (specify voltage)
- 6T-** 6-foot SO cord and 20-amp NEMA plug (specify voltage)
- JP-** Job Pack - environmentally friendly packaging, eliminates individual cartons
- CP-** Center mount for 3/4" pipe (includes hardware and box)
- CH-** Center mount with hook (includes hardware, hook and box with fixture balanced)
- 835-** Includes 35k lamps (installed)
- 841-** Includes 41k lamps (installed)
- MD-** Installed motion sensor. Consult factory when used in combination with CH or CP center mount option
- E1-** 1-lamp emergency powerpack (450 lumen T8 / 700 lumen T5HO) (cannot be center-mounted) (specify voltage)
- E2-** 1-lamp emergency powerpack (1,100 lumen T8 / 1,250 lumen T5HO) (cannot be center-mounted) (specify voltage)

TECHNICAL INFORMATION



UL Damp Location Listed.

PHOTOMETRICS

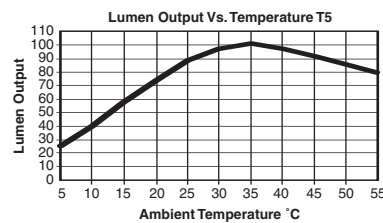
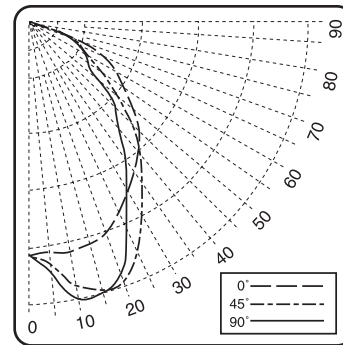
Lamp Type: **FP54T5HO/835**

Initial Lumens: **5000**

of Lamps: **4**

Candlepower Distribution

Vertical Angle	Horizontal Angle					Zonal Lumens
	0	22.5	45	67.5	90	
0	7411.	7411.	7411.	7411.	7411.	
5	7358.	7473.	7740.	7950.	8013.	736.2
10	7427.	7868.	8513.	8855.	8931.	
15	7286.	8072.	8759.	8905.	8891.	2397.0
20	7137.	8309.	8796.	8648.	8520.	
25	6704.	7934.	8006.	7516.	7269.	3522.6
30	6246.	7460.	7085.	6358.	6158.	
35	5789.	6943.	6191.	5549.	5262.	3802.0
40	5332.	6382.	5371.	4545.	4361.	
45	5016.	5904.	4614.	3970.	3829.	3661.4
50	4266.	4723.	3555.	3112.	2868.	
55	3727.	3805.	2897.	2296.	2243.	2687.8
60	2987.	2842.	2022.	2022.	2128.	
65	2394.	2053.	1601.	1828.	1815.	1882.7
70	1717.	1391.	1401.	1351.	1315.	
75	1072.	799.	930.	717.	615.	870.1
80	535.	526.	368.	325.	296.	
85	145.	145.	147.	174.	178.	170.9
90	0.	0.	0.	0.	0.	



These tests were performed according to standard IESNA procedures. A specific ballast and lamp combination was used. Other lamp and ballast combinations may yield different results. This test was conducted in a controlled laboratory environment where the ambient temperature was held at 25°C.

Field performance may differ in regards to change in luminous output as a result of differences in ambient temperature and mounting method.

The above chart is a temperature profile of T5 lamps. It graphs light output versus ambient temperature. It may be helpful in determining the feasibility of using a T5 lighting system.

Lumen Summary

Zone	Lumens	%Lamp	%Fixture	Zone	Lumens	%Lamp	%Fixture
0-30	6656.	33.3	33.7	90-120	0.	0.	0.
0-40	10458.	52.3	53.0	90-130	0.	0.	0.
0-60	16807.	84.0	85.2	90-150	0.	0.	0.
0-90	19731.	98.7	100.0	90-180	0.	0.	0.
Total Luminaire =				0-180	19731.	98.7	100.0

IES Spacing Criteria: End = 1.3 Diagonal = 1.3 Cross = 1.2

ACCESSORIES

GRIP5- 5-foot aircraft cable with hanger (2 per)

GRIP10- 10-foot aircraft cable with hanger (2 per)

GRIP20- 20-foot aircraft cable with hanger (2 per)

TSCHAIN- Heavy-duty chain and hanger (2 per)

TSMTG- Universal mounting plate with chain

MD360- Motion sensor for 120 or 277 volt

MD360-5- Motion sensor for 480 volt

TBNLENS- Single gasketed clear prismatic acrylic lens/hinged door frame

TBNGUARD- Wire guard for narrow housing with clips for mounting to door or housing and hinged door frame

TBNLENS-CL- Single gasketed clear acrylic lens/door frame and hinged door frame

TBNLENS-DG- Double gasketed clear prismatic acrylic lens/hinged door frame

TBNLENS-DG-CL- Double gasketed clear acrylic lens/door frame

TSNLENS- Wrap-style lens for narrow housing

CATALOG NO.

TYPE NO.

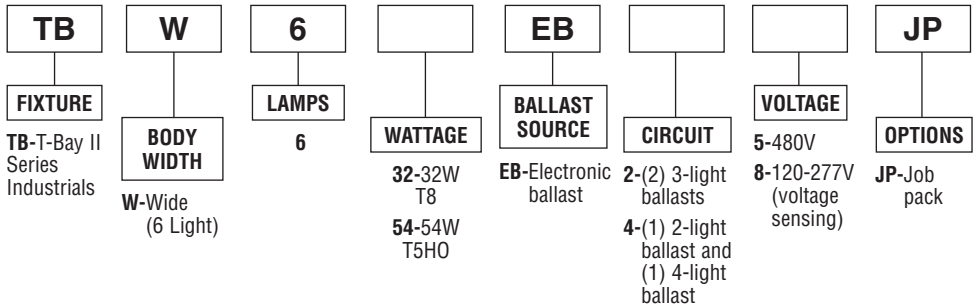
JOB NAME

T-Bay II 6-Light T5HO/T8



ORDERING INFORMATION

Catalog Number: Example: TBW632EB2-5JP



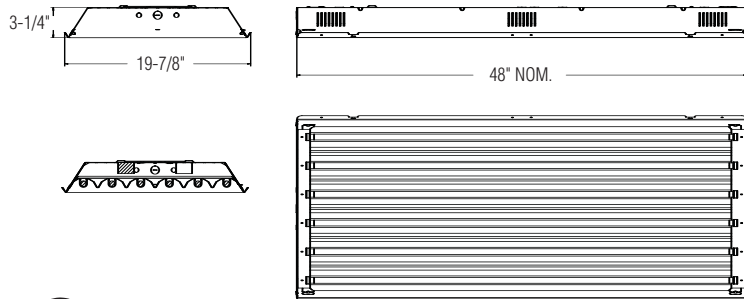
PRODUCT SPECIFICATIONS

- Precision die-formed 22GA steel housing.
- Architectural post painted finish eliminates exposed edges for safe handling.
- Beveled Miro 4 reflector surrounds each lamp for optimum efficiency.
- Hinged reflector panel/access door.
- Accepts stem, pendant, chain or cable mounting.
- Instant-on.
- Low profile.
- Top access plate located at each end.
- T8 units provided with 1.18 ballast factor instant start electronic ballast.
- T5HO units provided with 1.0 ballast factor programmed rapid start electronic ballast.

OPTIONS

- 3C-** 3-foot SO cord only
- 6C-** 6-foot SO cord only
- 3F-** 3-foot SO cord and 15-amp NEMA plug (specify voltage)
- 6F-** 6-foot SO cord and 15-amp NEMA plug (specify voltage)
- 3T-** 3-foot SO cord and 20-amp NEMA plug (specify voltage)
- 6T-** 6-foot SO cord and 20-amp NEMA plug (specify voltage)
- JP-** Job Pack - environmentally friendly packaging, eliminates individual cartons
- CP-** Center mount for 3/4" pipe (includes hardware and box)
- CH-** Center mount with hook (includes hardware, hook and box with fixture balanced)
- 835-** Includes 35k lamps (installed)
- 841-** Includes 41k lamps (installed)
- MD-** Installed motion sensor. Cannot be used with CH or CP center mount option
- E1-** 1-lamp emergency powerpack (450 lumen T8 / 700 lumen T5HO) (cannot be center-mounted) (specify voltage)
- E2-** 1-lamp emergency powerpack (1,100 lumen T8 / 1,250 lumen T5HO) (cannot be center-mounted) (specify voltage)

TECHNICAL INFORMATION



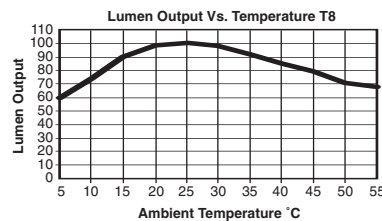
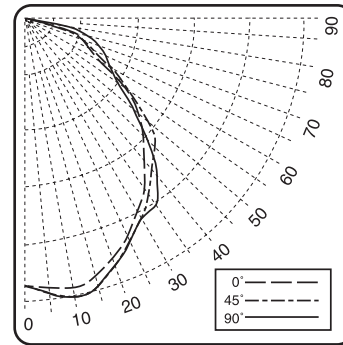
UL Damp Location Listed.

PHOTOMETRICS

Lamp Type: **F32T8/835**
 Initial Lumens: **2950**
 # of Lamps: **6**

Candlepower Distribution

Vertical Angle	Horizontal Angle					Zonal Lumens
	0	22.5	45	67.5	90	
0	5973.	5973.	5973.	5973.	5973.	
5	6018.	6032.	6047.	6077.	6107.	578.0
10	6122.	6137.	6287.	6347.	6362.	
15	6074.	6167.	6302.	6272.	6257.	1764.1
20	5733.	5913.	5913.	5928.	5958.	
25	5478.	5688.	5658.	5643.	5658.	2610.2
30	5074.	5269.	5254.	5239.	5269.	
35	4775.	4940.	4940.	5089.	5149.	3130.1
40	4266.	4401.	4475.	4655.	4670.	
45	3846.	4012.	4207.	4176.	4101.	3169.2
50	3413.	3487.	3742.	3413.	3308.	
55	2919.	2979.	3053.	2664.	2634.	2573.1
60	2365.	2530.	2230.	2170.	2230.	
65	1825.	2006.	1676.	1961.	2035.	1879.3
70	1362.	1392.	1496.	1706.	1766.	
75	883.	868.	1198.	1377.	1421.	1215.1
80	433.	584.	838.	883.	868.	
85	119.	284.	284.	284.	284.	287.3
90	14.	14.	14.	14.	14.	



These tests were performed according to standard IESNA procedures. A specific ballast and lamp combination was used. Other lamp and ballast combinations may yield different results. This test was conducted in a controlled laboratory environment where the ambient temperature was held at 25°C.

Field performance may differ in regards to change in luminous output as a result of differences in ambient temperature and mounting method.

The above chart is a temperature profile of T5 lamps. It graphs light output versus ambient temperature. It may be helpful in determining the feasibility of using a T5 lighting system.

Lumen Summary

Zone	Lumens	%Lamp	%Fixture	Zone	Lumens	%Lamp	%Fixture
0-30	4952.	28.0	28.8	90-120	0.	0.	0.
0-40	8082.	45.7	47.0	90-130	0.	0.	0.
0-60	13825.	78.1	80.3	90-150	0.	0.	0.
0-90	17206.	97.2	100.0	90-180	0.	0.	0.
Total Luminaire =				0-180	17206.	97.2	100.0

IES Spacing Criteria: End = 1.3 Diagonal = 1.3 Cross = 1.2

ACCESSORIES

- GRIP5-** 5-foot aircraft cable with hanger (2 per)
- GRIP10-** 10-foot aircraft cable with hanger (2 per)
- GRIP20-** 20-foot aircraft cable with hanger (2 per)
- TSCHAIN-** Heavy-duty chain and hanger (2per)
- TSMTG-** Universal mounting plate with chain
- MD360-** Motion sensor for 120 or 277 volt
- MD360-5-** Motion sensor for 480 volt

- TBWLENS-DG-CL-** Double gasketed clear acrylic lens/door frame
- TSWLENS-** Wrap-style lens for wide housing

- TBWLENS-** Single gasketed clear prismatic acrylic lens/hinged door frame
- TBWGUARD-** Wire guard for wide housing with clips for mounting to door or housing and hinged door frame
- TBWLENS-CL-** Single gasketed clear acrylic lens/door frame and hinged door frame
- TBWLENS-DG-** Double gasketed clear prismatic acrylic lens/hinged door frame

envirobrite

ENERGY PLANNING ASSOCIATES

envirobrite
greenSEAL

RST INDUSTRIAL STRIP KIT

4' & 8' Kits

Description

Envirobrite's® RST Industrial Reflector Strip Kits are used to re-lamp or de-lamp 4' and 8' T12 and older T8 industrial strip fixtures. The result is substantial energy savings, improved lighting with excellent returns on investments. All Envirobrite® strip kits have four different specialized material options and two up-light material options. Utilizing our Cost-A-Mized program will provide an endless variety of widths to fit any application. These kits, in conjunction with numerous ballast and lamp configurations, can easily produce ideal IES recommended light levels with minimized energy consumption. Envirobrite kits will continue to provide consistent fixture performance and repeat annual energy savings for up to 25 years.

Application

Since 1994, millions of reflector and industrial strips have been successfully de-lamped or re-lamped with Envirobrite® kits. These kits are recognized worldwide as the industry leading retrofit kit for the majority of all commercial 1x4 and 1x8 fixtures. Its ideal optics, universal fit configuration and flexible patented clip strip bracketing system allows proper fit in many commercial and industrial locations.

Design

Envirobrite® kits are designed by our expert in house lighting engineers for ideal photometry and trouble-free installation. Every Envirobrite® kit is designed to meet UL 1570 specifications for safety. Integral to ideal kit functionality is the combination of our "Clip Strip" bracketing system which was designed to handle unknown, or numerous channel sizes between 4.0"-5.25". Envirobrite® reflectors are fabricated with Energy Planning Associates custom-made multi-stage progressive roll forming machinery. Our unique high speed equipment consistently produces multi-faceted linear fluorescent reflectors within precise quality tolerance. Our process enables us to add additional facets for superior reflector performance significantly reducing production cost and improving lead times. Our rigid, light weight bracketing systems are produced with custom designed stamping dies and are very easy to install. As with all Envirobrite® products Cost-A-Mized solutions are available to meet every customer's needs.



Primary Features & Benefits

- Proudly Designed, Made and Manufactured in the USA
- Utility rebate friendly throughout the U.S.
- Significant reduction in maintenance costs
- Superior lighting directly to the work plane
- Unique and patented "Clip Strip" bracket is reversible for one, two or three lamp configurations
- Considerable reduction in energy costs
- Reflectors meet UL classified ballast covers
- 1, 2, or 3 lamp options available
- Aluminum components generate a rust-free approach to less maintenance and lasting appeal

"Clip Strip" Bracket

- Adjusts to any channel size between 4.0" to 5.25"
- Tek screw slots for easy 48" lamp centering
- Rounded edges for installer safety
- Reversible for one, two or three lamp configurations
- Locking lampholder notches

Quick, Safe and Labor Efficient Installation

- Two 4' kits can be used to retrofit 8' sections
- Streamlined packaging for easy job site material management
- With 1/3 the weight of steel aluminum components permit reduced shipping cost and simpler installation
- Snap-in lamp holders won't fall out during overhead installation
- Toolless ballast access for simple maintenance
- Rounded edge "Clip Strip" bracket adjust to any channel between 4.0" and 5.25"

For added efficiency include high quality T5 or T8 lamps with either instant or programmed start ballasts. Adding an Envirobrite® approved motion sensor system to your retrofit project will further enhance energy savings and create an even faster payback.



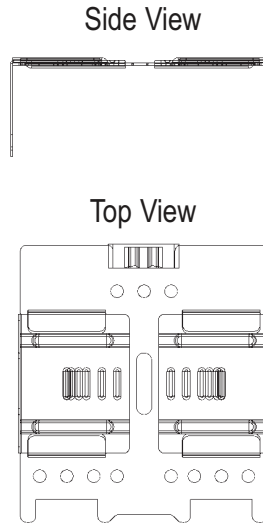
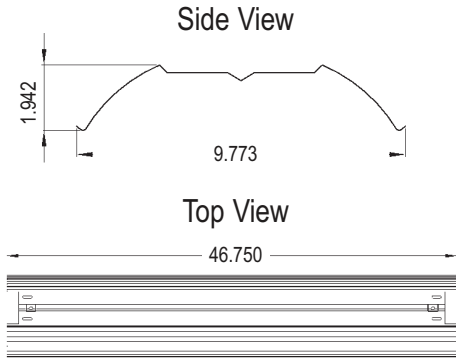
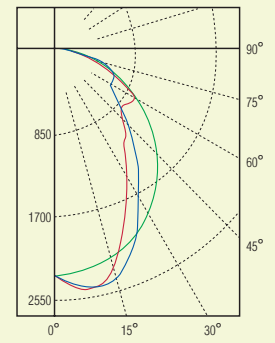
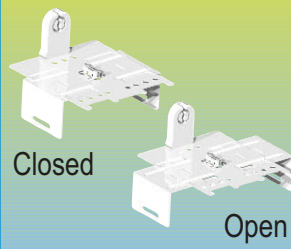
riteFIT



1000 Series Reflector



Clip Strip Bracket



0° — Candela Plot
45° — 2 Lamp T8
90° —

Zonal Lumen Summary

Zone	Lumens	% Lamp	Fixture
0-30	1810	30.7	31.5
0-40	2797	47.4	48.6
0-60	4527	76.7	78.7
0-90	5747	97.4	99.9

Standard RST 1400 4' Series Kit includes

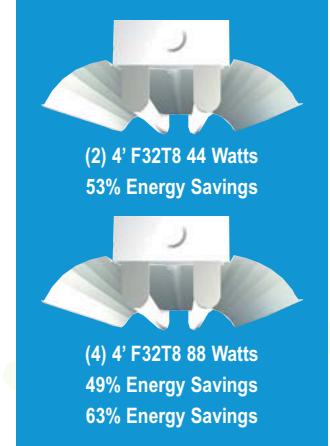
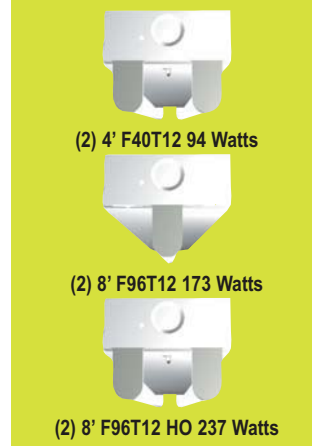
- (1) 1400 series aluminum reflector made from your choice of specified material (95% Enhanced Miro4, 93% Micro Matte, 91% White-painted or 87% Anodized Aluminum with two up-light options as well)
- (2 or 4) specified shunted or unshunted high quality chemical resistant thermoplastic body UL approved lamp holders
- (2) quarter turns when ordered with a reflector
- (5) tek screws

Standard RST 1800 8' Series Kit includes

- (2) 1400 series reflector made from your choice of specified material (95% Enhanced Miro4, 93% Micro Matte, 91% White-painted or 87% Anodized Aluminum with two up-light options as well)
- (4, 6, or 8) specified shunted or unshunted high quality chemical resistant thermoplastic body UL approved lamp holders
- (4) quarter turns when ordered with a reflector
- (10) tek screws

RST1402T832ENCCLSLST used for test
Total Luminaire Optical Efficiency = **97.5%**

Luminaire Spacing Criterion
0 deg - **1.3** 90 deg - **1.0**
Call factory for full photometric report



Ordering Information

Sample number: **RST1402T832ENCCLSLST**

TYPE	DIMENSION	LAMPS	LAMP TYPE	REFLECTOR
○ RST=Strip Reflector Kit (1000 series)	○ 14=1x4	○ 01=1 Lamp ○ 04=4 Lamp	○ T832=32W	○ EN=95% MIRO 4 Enhanced ○ WU=91% White Uplight
	○ 18=1x8	○ 02=2 Lamp ○ 06=6 Lamp	○ T554=54W	○ EU=95% Enhanced MIRO 4 Uplight ○ MN=93% Micro Matte
		○ 03=3 Lamp		○ WN=91% White ○ AN=87% Anodized Aluminum

*REQUIRED FOR STRIP FIXTURE PRODUCTS	LAMPHOLDER TYPE	INSERTION METHOD	KIT PACK
○ CCLS=Clip Strip	○ LS= Shunted	○ T=T8 Tall Twist Lock (Standard)	○ PK10=Bundled Pack of 10 Kits
○ C043=4.3	○ LU= Unshunted	○ N=T8 Short Snap In Twist Lock	○ PK30=Bundled Pack of 30 Kits
○ C050=5.0		○ P=T5 Plunger Socket	

envirobrite

ENERGY PLANNING ASSOCIATES

envirobrite
greenSEAL

RBC BALLAST COVER KIT

4' & 8' Ballast Cover Kits

Description

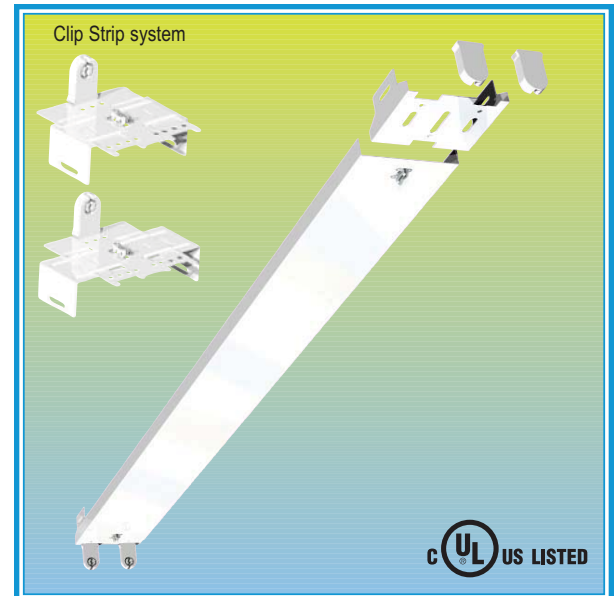
Envirobrite's® RBC Ballast Cover kits are used to convert 4' and 8' T12 and older T8 lamp fixtures resulting in substantial energy savings, improved lighting with excellent returns on investments. These kits, in conjunction with several ballast and lamp configurations, can easily produce ideal IES recommended light levels with minimized energy consumption. Envirobrite® kits will continue to provide consistent fixture performance and repeat annual energy savings for many years to come.

Application

Since 1994, Envirobrite® has converted thousands of 1x4 and 1x8 channel strips. These kits are recognized worldwide as the industry leading retrofit kit for the majority of all industrial, commercial and retail facilities. Add the flexibility of our patented Clip Strip bracketing system or utilizing our Cost-A-Mized program and the 300 series strip channel kit will allow proper fit in almost any application.

Design

Envirobrite® ballast cover kits are designed by our expert in house lighting engineers for trouble-free installation. Every Envirobrite® kit is designed to meet UL 1570 specifications for safety. Integral to ideal kit functionality is the combination of our optional clip strip bracketing system which allows multiple lamp options. Envirobrite® channel covers are fabricated with Energy Planning Associates custom-made multi-stage progressive roll forming machinery. Our unique high speed equipment consistently produces channel widths to your specified dimensions within precise quality tolerance. Our rigid, light weight bracketing systems are produced with custom designed stamping dies and are very easy to install. As with all Envirobrite® products our Cost-A-Mized program is an ideal solution for modification from our standard line and ensures an ideal fit.



Primary Features & Benefits

- Proudly Designed, Made and Assembled in the USA
- Utility rebate friendly throughout the U.S.
- Significant reduction in maintenance costs
- Aluminum components generate a rust-free approach to less maintenance and lasting appeal
- Considerable reduction in energy costs
- UL classified toolless ballast covers – quarter turn
- Flexibility for tandem wiring applications
- Unique and patented “Clip Strip” bracket is reversible for one, two or three lamp configurations

Quick, Safe and Labor Efficient Installation

- Two 4' kits can be used to retrofit 8' sections
- Snap-in lamp holders won't fall out during overhead installation
- Streamlined packaging for easy job site material management
- Three piece construction
- Toolless ballast access for simple maintenance
- With 1/3 the weight of steel aluminum components permit reduced shipping cost and simpler installation

“Clip Strip” Bracket – 1000 Series

- Adjusts to any channel size between 4.0” to 5.25”
- Reversible for one, two or three lamp configurations
- Tek screw slots for easy 48” lamp centering
- Locking lampholder notches
- Rounded edges for installer safety

For added efficiency include high quality T5 or T8 lamps with either instant or programmed start ballasts. Adding an Envirobrite® approved motion sensor system to your retrofit project will further enhance energy savings and create an even faster payback.



riteFIT

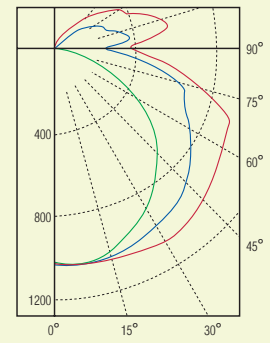
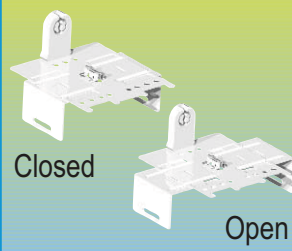
40



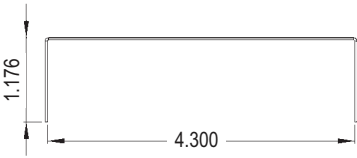
300 Series Ballast Cover



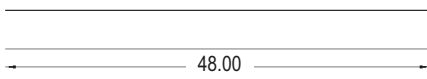
Clip Strip Bracket



Ballast Cover Side View



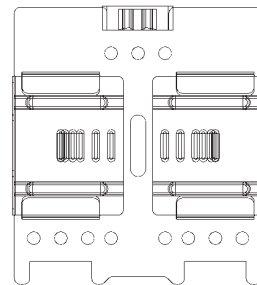
Top View



Bracket Side View



Top View



0° — Candela Plot
45° — 1 Lamp T8
90° —

Zonal Lumen Summary

Zone	Lumens	% Lamp	Fixture
0-30	852	14.4	15.6
0-40	1450	24.6	26.6
0-60	2838	48.1	52.1
0-90	4407	74.7	80.9

RBC1402T832WACCLSLST used for test
Total Luminaire Optical Efficiency = **92.4%**

Luminaire Spacing Criterion
0 deg - 1.3 90 deg - 1.6
Call factory for full photometric report

Standard 1x4 Kit includes

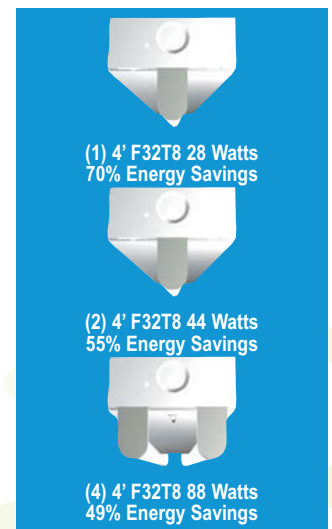
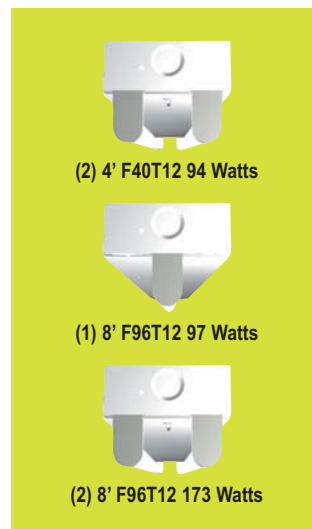
- (1) 300 series white painted aluminum ballast cover
- (2) "Clip Strip" reversible white-painted aluminum bracket adjustable to any channel size between 4.0" to 5.25"
- (2 or 4) specified shunted or unshunted high quality chemical resistant thermoplastic body UL approved lamp holders
- (2) Quarter turns
- (5) tek screws

Standard 1x8 Kit includes

- (2) 300 series white painted aluminum
- (4) "Clip Strip" reversible white-painted aluminum bracket adjustable to any channel size between 4.0" to 5.25"
- (4 or 8) specified shunted or unshunted high quality chemical resistant thermoplastic body UL approved lamp holders
- (4) Quarter turns
- (10) tek screws

Ordering Information

Sample number: **RBC1402T832WACCLSLST**



TYPE	DIMENSION	LAMPS	LAMP TYPE	REFLECTOR
○ RBC=Strip Ballast Cover Kit (300 series)	○ 14=1x4	○ 01=1 Lamp ○ 04=4 Lamp	○ T832=32W	○ WA=White Painted Aluminum
	○ 18=1x8	○ 02=2 Lamp ○ 06=6 Lamp	○ T554=54W	
		○ 03=3 Lamp		

*REQUIRED FOR STRIP FIXTURE PRODUCTS	LAMPHOLDER TYPE	INSERTION METHOD	KIT PACK
○ CCLS=Clip Strip	○ LS= Shunted	○ T=T8 Tall Twist Lock (Standard)	○ PK10=Bundled Pack of 10 Kits
○ C043=4.3	○ LU= Unshunted	○ N=T8 Short Snap In Twist Lock	○ PK30=Bundled Pack of 30 Kits
○ C050=5.0		○ P=T5 Plunger Socket	

envirobrite

ENERGY PLANNING ASSOCIATES

RTR TROFFER REFLECTOR KIT

2x2 Troffer Fixture Retrofit Kit

envirobrite
greenSEAL

Description

Envirobrite's® RTR Troffer Reflector kits dramatically enhance existing fixture efficiencies creating substantial energy savings with excellent return on investment. All Envirobrite® kits have four different specialized material options which offer various light distributions with minimal up-front investments. These kits, in conjunction with numerous ballast and lamp configurations, can easily produce ideal IES recommended light levels with minimized energy consumption. Envirobrite® kits will continue to provide consistent fixture performance and repeat annual energy savings for up to 25 years.

Application

Since 1994, millions of 2x2 lensed troffers and 9 cell parabolic louvers have been successfully de-lamped with Envirobrite® troffer kits. These kits are recognized worldwide as the industry leading retrofit kit for the majority of all commercial 2x2 fixtures. Its ideal optics, universal fit configuration and flexible stamped bracketing system allows proper fit in office spaces, classrooms, hospitals, and many other commercial locations.

Design

Envirobrite® kits are designed by our expert in house lighting engineers for ideal photometry and trouble-free installation. Every Envirobrite kit is designed to meet UL 1570 specifications for safety. Integral to ideal kit functionality is the combination of our bracketing system which centers the lamps specifically to the optics of the reflector design. Envirobrite® reflectors are fabricated with Energy Planning Associates custom-made multi-stage progressive roll forming machinery. Our unique high speed equipment consistently produces multi-faceted linear fluorescent reflectors within precise quality tolerance. Our process enables us to add additional facets for superior reflector performance significantly reducing production cost and improving lead times. Our rigid, light weight bracketing systems are produced with custom designed stamping dies and are very easy to install. As with all Envirobrite® products Cost-A-Mized solutions are available to meet every customer's needs.

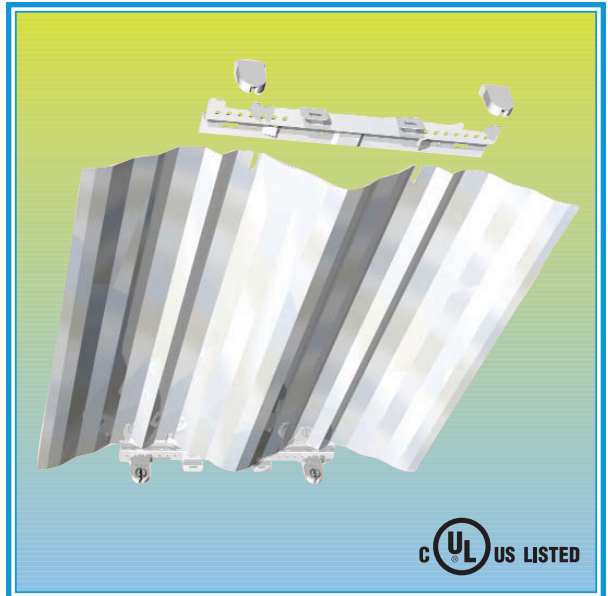
Primary Features & Benefits

- Proudly Designed, Made and Assembled in the USA
- Qualifies for maximum \$.60 square foot EPACK tax deduction
- Significant reduction in maintenance costs
- Reinforced multi function universal bracketing system
- Aluminum components generate a rust-free approach to less maintenance and lasting appeal
- Utility rebate friendly throughout the U.S.
- 25 facet optical design for maximum performance
- Superior lighting directly to the work plane
- Flexibility for tandem wiring applications

Quick, Safe and Labor Efficient Installation

- Variable tek screw slot locations for multiple mounting options
- Unique bracket design UL approved for no wire guard requirement
- Lance and form bracket design for easy pinch in reflector installation
- Snap-in lamp holders won't fall out during overhead installation
- Streamlined packaging for easy job site material management
- With 1/3 the weight of steel aluminum components permit reduced shipping cost and simpler installation
- 25 facet reflectors for added rigidity and a sturdy fit
- Less than 2" reflector depth to fit shallow fixtures
- Toolless ballast access for simple maintenance
- Rounded-edged brackets to avoid injury during installation
- Slots, instead of holes are provided for easy alignment and centering

For added efficiency include high quality T5 or T8 lamps with either instant or programmed start ballasts. Adding an Envirobrite® approved motion sensor system to your retrofit project will further enhance energy savings and create an even faster payback.

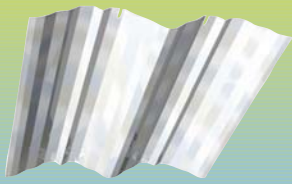


riteFIT

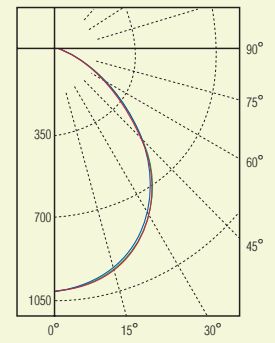
42



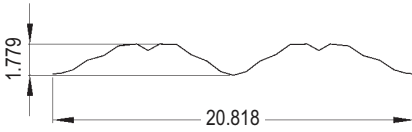
2200 Series Reflector



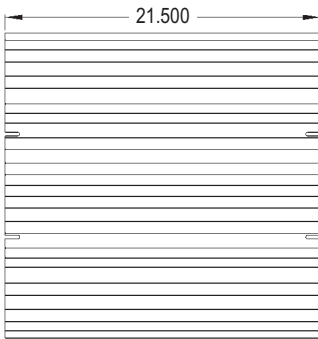
2000 Series Bracket



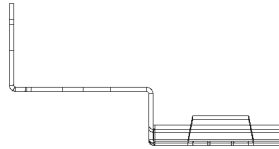
Side View



Top View



Side View



Top View



0° — Candela Plot
45° — 2 Lamp T8
90° —

Zonal Lumen Summary

Zone	Lumens	% Lamp	Fixture
0-30	759	27.1	35.7
0-40	1195	42.7	56.2
0-60	1850	66.1	87.1
0-90	2125	75.9	100.0

RTR2202T817ENLSS used for test
Total Luminaire Optical Efficiency = **75.9%**

Luminaire Spacing Criterion

0 deg - **1.2** 90 deg - **1.1**

Call factory for full photometric report

2x2 Kit includes

- (1 qty) 2200 series aluminum reflector made from your choice of specified material (95% Enhanced Miro4, 93% Micro Matte, 91% White-painted or 87% Anodized Aluminum)
- (2 qty) 2000 series white-painted stamped aluminum brackets
- (4, 6 or 8 qty) specified shunted or unshunted high quality chemical resistant thermoplastic body UL approved lamp holders
- (5 qty) tek screws



Ordering Information

Sample number: **RTR2202T817ENLSS**

TYPE	DIMENSION	LAMPS	LAMP TYPE	REFLECTOR
<input type="radio"/> RTR=Troffer Reflector Kit	<input type="radio"/> 22=2x2	<input type="radio"/> 02=2 Lamp	<input type="radio"/> T817=17W	<input type="radio"/> EN=95% MIRO 4 Enhanced
		<input type="radio"/> 03=3 Lamp		<input type="radio"/> MN=93% Micro Matte
		<input type="radio"/> 04=4 Lamp		<input type="radio"/> WN=91% White Aluminum
				<input type="radio"/> AN=87% Anodized Aluminum

LAMPHOLDER TYPE	INSERTION METHOD	KIT PACK
<input type="radio"/> LS= Shunted	<input type="radio"/> S=T8 Short Twist Lock (Standard)	<input type="radio"/> PK10=Bundled Pack of 10 Kits
<input type="radio"/> LU= Unshunted	<input type="radio"/> N=T8 Short Snap In Twist Lock	<input type="radio"/> PK40=Bundled Pack of 40 Kits
	<input type="radio"/> P=T5 Plunger Socket	

envirobrite

ENERGY PLANNING ASSOCIATES

RTR TROFFER REFLECTOR KIT

2x4 Troffer Fixture Retrofit Kit

envirobrite
greenSEAL

Description

Envirobrite's® RTR Troffer Reflector kits dramatically enhance existing fixture efficiencies creating substantial energy savings with excellent return on investment. All Envirobrite® kits have four different specialized material options which offer various light distributions with minimal up-front investments. These kits, in conjunction with numerous ballast and lamp configurations, can easily produce ideal IES recommended light levels with minimized energy consumption. Envirobrite® kits will continue to provide consistent fixture performance and repeat annual energy savings for up to 25 years.

Application

Since 1994, millions of 2x4 lensed troffers and 18 cell parabolic louvers have been successfully de-lamped with Envirobrite® troffer kits. These kits are recognized worldwide as the industry leading retrofit kit for the majority of all commercial 2x4 fixtures. It's ideal optics, universal fit configuration and flexible stamped bracketing system allows proper fit in office spaces, classrooms, hospitals, and many other commercial locations.

Design

Envirobrite® kits are designed by our expert in house lighting engineers for ideal photometry and trouble-free installation. Every Envirobrite® kit is designed to meet UL 1570 specifications for safety. Integral to ideal kit functionality is the combination of our bracketing system which centers the lamps specifically to the optics of the reflector design. Envirobrite® reflectors are fabricated with Energy Planning Associates custom-made multi-stage progressive roll forming machinery. Our unique high speed equipment consistently produces multi-faceted linear fluorescent reflectors within precise quality tolerance. Our process enables us to add additional facets for superior reflector performance significantly reducing production cost and improving lead times. Our rigid, light weight bracketing systems are produced with custom designed stamping dies and are very easy to install. As with all Envirobrite® products Cost-A-Mized solutions are available to meet every customer's needs.



Primary Features & Benefits

- Proudly Designed, Made and Assembled in the USA
- Qualifies for maximum \$.60 square foot EPACT tax deduction
- Significant reduction in maintenance costs
- Reinforced multi function universal bracketing system
- Aluminum components generate a rust-free approach to less maintenance and lasting appeal
- Utility rebate friendly throughout the U.S.
- 25 facet optical design for maximum performance
- Superior lighting directly to the work plane
- Flexibility for tandem wiring applications

Quick, Safe and Labor Efficient Installation

- Variable tek screw slot locations for multiple mounting options
- Unique bracket design UL approved for no wire guard requirement
- Lance and form bracket design for easy pinch in reflector installation
- Snap-in lamp holders won't fall out during overhead installation
- Streamlined packaging for easy job site material management
- Slots, instead of holes, provided for easy end to end bracket to bracket centering
- With 1/3 the weight of steel aluminum components permit reduced shipping cost and simpler installation
- 25 facet reflectors for added rigidity and a sturdy fit
- Less than 2" reflector depth to fit shallow fixtures
- Toolless ballast access for simple maintenance
- Rounded-edged brackets to avoid injury during installation
- 9-3/4" lamp spacing enhances appearance of 18-cell parabolic retrofits

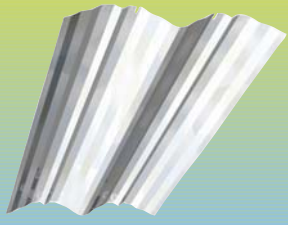
For added efficiency include high quality T5 or T8 lamps with either instant or programmed start ballasts. Adding an Envirobrite® approved motion sensor system to your retrofit project will further enhance energy savings and create an even faster payback.



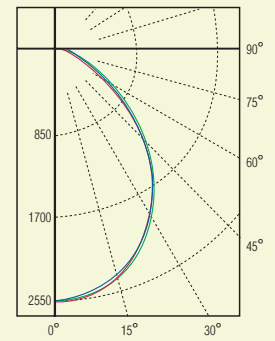
riteFIT



2400 Series Reflector

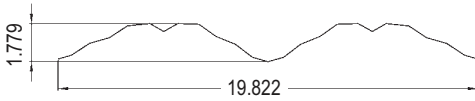


2000 Series Bracket

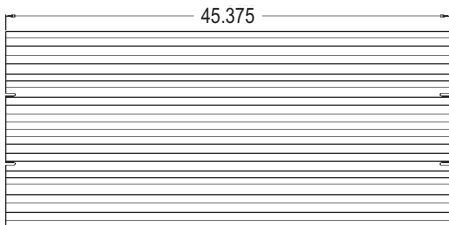


0° — Candela Plot
45° — 2 Lamp T8
90° —

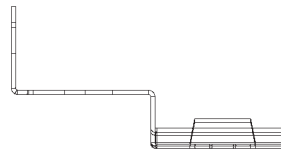
Side View



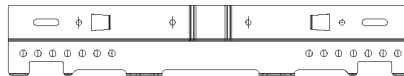
Top View



Side View



Top View



Zonal Lumen Summary

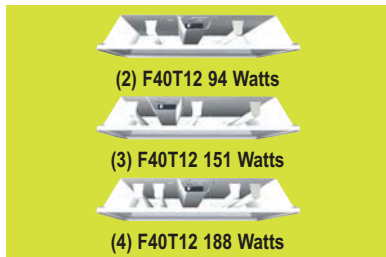
Zone	Lumens	% Lamp	Fixture
0-30	1895	31.1	35.3
0-40	2987	49.0	55.7
0-60	4630	75.9	86.3
0-90	5364	87.9	100.0

2x4 Kit includes

- (1 qty) 2400 series aluminum reflector made from your choice of specified material (95% Enhanced Miro4, 93% Micro Matte, 91% White-painted or 87% Anodized Aluminum)
- (2 qty) 2000 series white-painted stamped aluminum brackets
- (4, 6 or 8 qty) specified shunted or unshunted high quality chemical resistant thermoplastic body UL approved lamp holders
- (5 qty) tek screws

RTR2402T832ENLSS used for test
Total Luminaire Optical Efficiency = **87.9%**

Luminaire Spacing Criterion
0 deg - **1.2** 90 deg - **1.1**
Call factory for full photometric report



“SAVINGS”

- 53% Energy Savings
- 71% Energy Savings
- 77% Energy Savings

Ordering Information

Sample number: **RTR2402T832ENLSS**

TYPE	DIMENSION	LAMPS	LAMP TYPE	REFLECTOR
○ RTR=Troffer Reflector Kit	○ 24=2x4	○ 02=2 Lamp	○ T832=32W	○ EN=95% MIRO 4 Enhanced
		○ 03=3 Lamp	○ T554=54W	○ MN=93% Micro Matte
		○ 04=4 Lamp		○ WN=91% White Aluminum
				○ AN=87% Anodized Aluminum

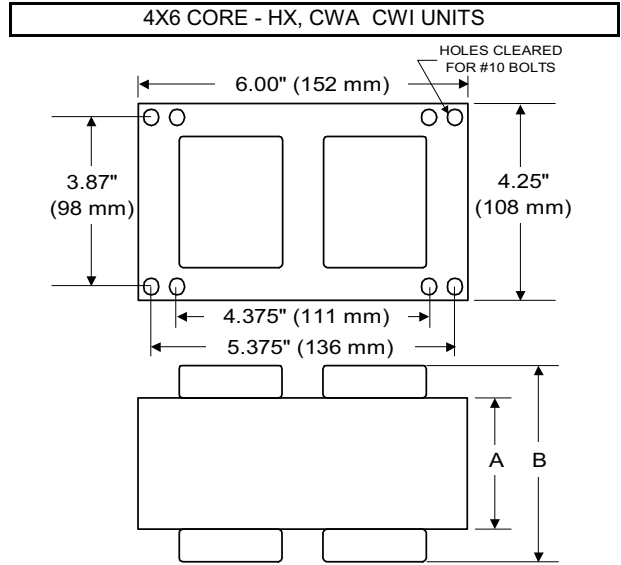
LAMPHOLDER TYPE	INSERTION METHOD	KIT PACK
○ LS= Shunted	○ S=T8 Short Twist Lock (Standard)	○ PK10=Bundled Pack of 10 Kits
○ LU= Unshunted	○ N=T8 Short Snap In Twist Lock	○ PK40=Bundled Pack of 40 Kits
	○ P=T5 Plunger Socket	



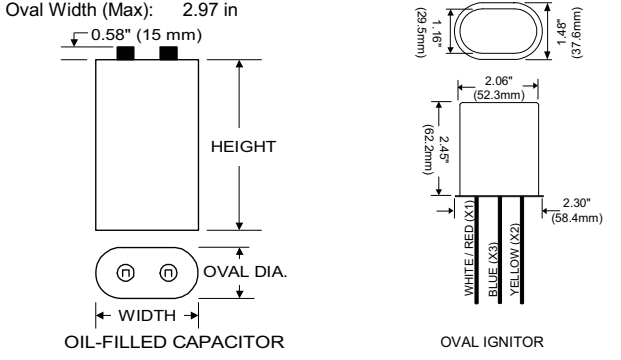
BALLAST SPECIFICATION

875W M166
Pulse Start Metal Halide
V90D8612
60 Hz CWA

Input Volts	120	208	240	277
Line Current (Amps)				
Operating	7.85	4.85	4.05	3.45
Open Circuit	5.60	4.10	3.05	2.60
Starting	5.20	2.85	2.65	2.30
Recommended Fuse (Amps)	20	12	10	9
Regulation				
Line Volts	±10%	±10%	±10%	±10%
Lamp Watts	±10%	±10%	±10%	±10%
Temperature Ratings				
Insulation Class	180 (H)	180 (H)	180 (H)	180 (H)
Coil Temperature Code	B	C	B	B
Benchtop Coil Rise	76.3	82.0	75.8	77.0
Power Factor (Min)	90%	90%	90%	90%
Input Watts	950 W	950 W	950 W	950 W
Efficiency	92%	92%	92%	92%
NOM. Open Circuit Voltage	420	420	420	420
Input Voltage At Lamp Dropout	70	115	135	155
Min Ambient Starting Temp	-20°F/-30°C*	-20°F/-30°C*	-20°F/-30°C*	-20°F/-30°C*
60 HZ TEST PROCEDURES				
High Potential Test (Volts)				
1 Minute	1,850 V	1,850 V	1,850 V	1,850 V
1 Second	2,200 V	2,200 V	2,200 V	2,200 V
Open Circuit Voltage Test (V)	375 - 465	375 - 465	375 - 465	375 - 465
Short Circuit Current Test (A)				
Secondary Current	Min 4.30	4.30	4.30	4.30
Max 5.30	5.30	5.30	5.30	5.30
Input Current	Min 3.90	2.15	2.00	1.85
Max 5.90	3.25	3.10	2.80	2.80
CORE and COIL Specifications				
Dimension (A)	2.80 in	2.80 in	2.80 in	2.80 in
Dimension (B)	4.95 in	4.95 in	4.95 in	4.95 in
Weight	18.5 lb's	18.5 lb's	18.5 lb's	18.5 lb's
Lead Lengths	12"	12"	12"	12"
Capacitor Requirement				
Microfarads	22.0 uf	22.0 uf	22.0 uf	22.0 uf
Volts (Min)	470 V	470 V	470 V	470 V



Capacitor:	ACB3270V	Ignitor:	BVS-020
Microfarads:	22.0 uf	Case Temp (Max):	105 °C
Volts (Max):	525 V	BTL Distance (Max):	10 ft
Case Temp (Max):	100 °C		
Height (Max):	3.94 in		
Dia (Max):	1.97 in		
Oval Width (Max):	2.97 in		



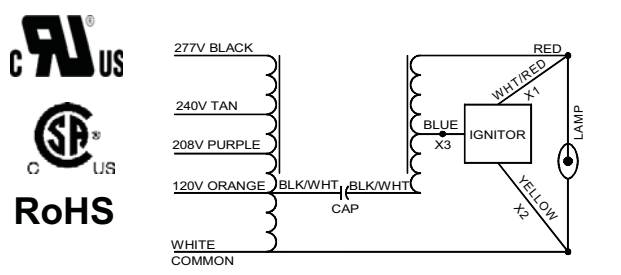
Ordering Information Add Suffix for options

C - With Capacitor
K - Prewired, with Capacitor and Bracket Kit
B - With Welded Bracket, no cap
CB - With Capacitor and Welded Bracket

* -40°F/-40°C Min Ambient Starting Temp with Venture Lamp
Coil material: primary Cu and secondary Al

RoHS compliant on all manufactured products after August 1, 2007

Data is based upon tests performed by Venture Lighting in a controlled environment and is representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice.



10/8/2008 Production