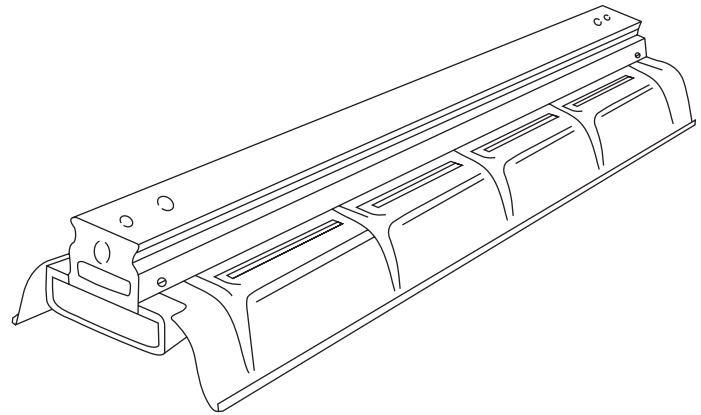
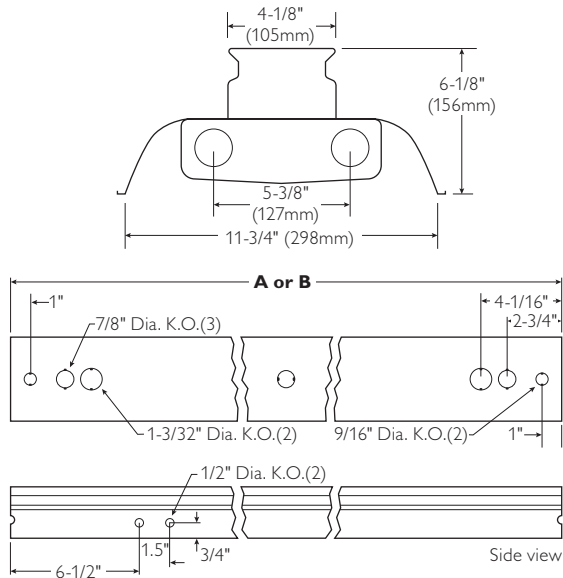


Turret (TU) Series

Industrial Fluorescent, T8 or T12

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A T8 (overall length)		B T8 or T12 HO/SL (overall length)	
4' Channel	50-5/32" (1274mm)	4' Channel	48-5/16" (1227mm)
8' Channel	100-5/16" (2548mm)	8' Channel	95-5/16" (2446mm)

Ordering Information

**Turret
Industrial**
TU

Flat reflector
deep channel
housing

**Fixture
Length**

4 = 4'
8 = 8'

Reflector

A = 12% Up-Light
S = Solid top

**Lamp
Quantity**

2 = 2 Lamps
3 = 3 Lamps
4 = 4 Lamps
(by others)

**Lamp Type /
Wattage**

Voltage

120 = 120v
277 = 277v
UNV = 120-277v

**Ballast
Type**

Options

Add appropriate
suffix to catalog
no., ie: (A)

Features

- Rugged telescoping turret lamp holders.
- Optimum 5-3/8" lamp spacing (2 lamp units).
- Reflector is embossed for rigidity.
- Reflector sides are turned up for rigidity and safe handling.
- 12% Up-Light reflector, standard.
- Solid top reflector, optional.
- Reflector secured to housing with easy to use thumb screws.
- 4-1/8" wide clevis type housing channel.
- Fully enclosed wiring.
- Optional slide grip hangers.
- Optional heavy duty coupling, wire guards and reflector aligners.
- HO fixtures must be suspended with a minimum 1-1/2" clearance to ceiling.

32 = T8 32w (48") 44HO = T8 44w 380mA (48") 48HO = T12 60w 800mA (48") 86HO = T8 86w 380mA (96") 96HO = T12 110w 800mA (96") 48SL = T12 38w Slimline (48") 59SL = T8 59w Slimline (96") 96SL = T12 75w Slimline (96") (Nominal size)	1-2 Lamp Elec. T12 HO or SL 1-2 Lamp Elec. T8 1 & 2 Lamp Elec. T8 1-3 Lamp Elec. T8 1-4 Lamp Elec. T8 *Instant Start Standard **Program Start For T8 UNV you must use H1, H3 or H4 ballast	SS <10THD H1* / P2** H1* / P2** H3* / P3** H4* / P4**
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Job Information Type:

Job Name:

Cat. No.:

Notes:

PHILIPS
LIGHTOLIER

Turret (TU) Series

Industrial Fluorescent, T8 or T12

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Options & Accessories

Fusing: Internal fast blow fusing: Suffix: **A**.
Internal slow blow fusing: Suffix: **C**.

Electrical Wiring Options: Consult factory.

Fluorescent Emergency Lighting Systems: Factory-installed emergency power battery pack with charger and inverter.
Suffix: **EI**.

Wire Guard: 4' Wire guard available. Specify two for 96" fixtures. Catalog Number: **LFL-173**.

Chain Hanger Kits: Includes two 5' heavy duty link chains with "S" hooks for fixture suspension. Catalog Number: **LFL-123**

Reflector Row Aligners: Two aligners are included with all fixtures. For additional aligners order Catalog Number: **TU-SNA**.

Housing Row Couplers: Required to connect and stabilize continuous rows of chain or stem-mounted fixtures. Specify one coupler per joint. Catalog Number: **LFL-3**

Slide Grip Hanger: Accepts 1/2" threaded stems or rods. Slides into fixture channel grooves at any point along chassis. Catalog Number: **LFL-111**.

Canopy Spacer: Suspends fixture approximately 1-1/2" from surface and can be used in conjunction with slide-grip hanger. Catalog Number: **AC1 CSP**

Stem and Canopy Set: Suspends fixture 6", 12", 18" or 24" from surface. Catalog Number: **ASC6 CSP** (6"), **ASC12 CSP** (12"), **ASC18 CSP** (18"), **ASC24 CSP** (24").

Cord and Plug: Specify NEMA configuration and cord exit location when ordering. For 120 volt fixtures specify: Catalog Number **CPA* NEMA 5-15P**. For 277 volt fixtures specify: **CPB* NEMA**.

Specifications

Materials: Chassis parts are die-formed code gauge cold rolled steel, 2-5/8" deep X 4-1/8" wide channel, grooved along the entire length for strength and rigidity.

Reflector: Heavy duty die-formed with deep lateral embossments for additional stability and uniformity with positive securing thumb screws for attachment to housing.

Finish: **Chassis** – baked white polyester enamel. Phosphate undercoating. **Reflector** – baked white polyester enamel.

Electrical: Thermally protected class "P" ballast C.B.M. approved, non PCB. If K.O. is within 3" of ballast, use wire suitable for at least 90°.

Labels: I.B.E.W. cULus listed. Suitable for indoor dry and damp locations.

This product may have a mercury containing lamp. Manage in accord with Disposal. Laws. See: www.lamprecycle.org

Mounting Accessories



Canopy Spacer: **AC1 CSP**



Stem and Canopy set: **ASC6 CSP**



Slide grip hanger: **LFL-111**



Housing row coupler: **LFL-3**

Job Information	Type:
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PHILIPS
LIGHTOLIER

Turret (TU) Series

Industrial Fluorescent, T8 or T12

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Photometry

Model No. TU4A232UNVHI

LER = 80 IW = 61 BF = 0.92
Comparative yearly lighting energy cost
per 1000 lumens = \$3.00

Report Number: ITL42334

Catalog Number: TU4A232UNVHI

Lamps: (2) F32T8

Luminaire: Turret fabricated metal
ballast housing with
white polyester painted
finish.

Ballast: B2321120RH

Report is based on 2900 lumens per lamp.

Efficiency: 91.7%

CIE Type: Semi-Direct

Plane: 0-Deg. 90-Deg.

Spacing criteria: 1.3 1.4

Shielding angles: 90 09

Plane: 0-Deg. 90-Deg.

Luminous length: 50.000 12.500

Candela Distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	1452	1452	1452	
5	1452	1453	1447	138
15	1407	1426	1429	402
25	1312	1345	1360	620
35	1178	1230	1264	771
45	1001	1080	1198	847
55	792	952	884	792
65	555	626	644	618
75	304	405	268	370
85	77	81	65	97
95	8	19	20	21
105	59	23	69	37
115	127	17	21	39
125	197	43	18	64
135	265	112	57	101
145	322	188	136	129
155	369	252	220	131
165	399	389	318	103
175	413	410	409	39

Coefficients of Utilization

Ceiling	80%			50%			30%		
	70	50	30	50	30	10	50	30	10
RC	Zonal Cavity Method								
RW	Effective Floor Reflectance = 20%								
1	97	92	88	83	80	78	78	75	73
2	88	80	74	72	67	63	67	64	60
3	80	70	62	63	57	53	59	54	50
4	73	62	54	56	50	44	52	47	43
5	67	55	47	50	43	38	47	41	37
6	61	49	41	45	38	33	42	36	32
7	57	44	36	41	34	29	38	33	28
8	53	40	33	37	31	26	35	29	25
9	49	37	29	34	28	23	32	27	22
10	46	34	27	31	25	21	30	24	20

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0-30	1160	20.0	21.8
0-40	1931	33.3	36.3
0-60	3570	61.6	67.1
0-90	4656	80.3	87.5
90-180	664	11.4	12.5
0-180	5320	91.7	100.0

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	1452	1452	1452	
5	1452	1453	1447	138
15	1407	1426	1429	402
25	1312	1345	1360	620
35	1178	1230	1264	771
45	1001	1080	1198	847
55	792	952	884	792
65	555	626	644	618
75	304	405	268	370
85	77	81	65	97
95	8	19	20	21
105	59	23	69	37
115	127	17	21	39
125	197	43	18	64
135	265	112	57	101
145	322	188	136	129
155	369	252	220	131
165	399	389	318	103
175	413	410	409	39

Photometry

Model No. TU4A332UNVH3

LER = 81 IW = 89 BF = 0.93
Comparative yearly lighting energy cost
per 1000 lumens = \$2.96

Report Number: ITL42335

Catalog Number: TU4A332UNVH3

Lamps: (3) F32T8

Luminaire: Turret fabricated metal
ballast housing with
white polyester painted
finish.

Ballast: B3321120RH

Report is based on 2900 lumens per lamp.

Efficiency: 89.4%

CIE Type: Semi-Direct

Plane: 0-Deg. 90-Deg.

Spacing criteria: 1.3 1.4

Shielding angles: 90 09

Plane: 0-Deg. 90-Deg.

Luminous length: 50.000 12.500

Candela Distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	2242	2242	2242	
5	2242	2242	2235	213
15	2165	2198	2207	620
25	2012	2074	2108	955
35	1798	1898	1945	1184
45	1521	1651	1776	1281
55	1191	1391	1358	1187
65	819	959	970	928
75	430	462	263	455
85	87	87	72	107
95	10	27	23	29
105	68	84	77	72
115	141	65	151	101
125	218	57	60	85
135	289	133	73	117
145	350	215	158	146
155	389	283	280	146
165	429	419	353	113
175	442	439	437	42

Coefficients of Utilization

Ceiling	80%			50%			30%		
	70	50	30	50	30	10	50	30	10
RC	Zonal Cavity Method								
RW	Effective Floor Reflectance = 20%								
1	95	91	87	82	80	77	77	75	73
2	86	79	73	72	67	63	67	64	60
3	78	69	62	63	57	53	59	55	51
4	72	61	53	56	50	45	52	47	43
5	66	54	46	50	43	38	47	41	37
6	61	49	41	45	38	33	42	37	32
7	56	44	36	41	34	29	38	33	29
8	52	40	32	37	31	26	35	30	25
9	49	37	29	34	28	23	32	27	23
10	45	34	27	31	25	21	30	24	21

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0-30	1789	20.6	23.0
0-40	2972	34.2	38.2
0-60	5440	62.5	69.9
0-90	6931	79.7	89.1
90-180	850	9.8	10.9
0-180	7780	89.4	100.0

Job Information Type:

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Turret (TU) Series

Industrial Fluorescent, T8 or T12

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Photometry

Model No. TU8A259SL120SO

LER = 85 IW = 109 BF = 0.85
Comparative yearly lighting energy cost per
1000 lumens = \$2.82

Report Number: ITL42342

Catalog Number: TU8A259SL120SO

Lamps: (2) F96T8

Luminaire: Turret fabricated metal
ballast housing with
white polyester painted
finish.

Ballast: 22120-2T8-59

Report is based on 5800 lumens per lamp.

Efficiency: 93.6%

CIE Type: Semi-Direct

Plane: 0-Deg. 90-Deg.

Spacing criteria: 1.3 1.4

Shielding angles: 90 09

Plane: 0-Deg. 90-Deg.

Luminous length: 96.250 12.500

Candela Distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	3006	3006	3006	
5	3001	2991	3039	286
15	2910	2936	2985	830
25	2716	2770	2829	1279
35	2442	2535	2634	1593
45	2079	2238	2477	1755
55	1659	1968	1908	1666
65	1165	1336	1315	1298
75	626	820	586	775
85	155	137	124	181
95	17	35	38	40
105	124	49	116	72
115	262	30	38	72
125	400	46	34	112
135	524	167	53	169
145	662	313	196	225
155	707	441	370	238
165	769	723	575	195
175	796	783	795	75

Coefficients of Utilization

Ceiling	80%			50%			30%		
	70	50	30	50	30	10	50	30	10
RC	Zonal Cavity Method								
RW	Effective Floor Reflectance = 20%								
1	99	95	91	86	83	80	80	78	76
2	90	82	75	74	69	65	70	66	62
3	82	72	64	65	59	54	61	56	52
4	74	63	55	57	51	46	54	48	44
5	68	56	48	51	44	39	48	42	38
6	63	50	42	46	39	34	44	38	33
7	58	45	37	42	35	30	39	33	29
8	54	41	33	38	31	27	36	30	26
9	50	38	30	35	28	24	33	27	23
10	47	35	27	32	26	21	31	25	21

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0-30	2296	20.7	22.1
0-40	3988	34.4	36.7
0-60	7410	63.9	68.2
0-90	9664	83.3	89.0
90-180	1198	10.3	11.0
0-180	10862	93.6	100.0

Photometry

Model No. TU8A296HO120SS

LER = 68 IW = 178 BF = 0.84
Comparative yearly lighting energy cost per
1000 lumens = \$3.53

Report Number: ITL42348

Catalog Number: TU8A296HO120SS

Lamps: (2) F96T8 HO ES

Luminaire: Turret fabricated metal
ballast housing with
white polyester painted
finish.

Ballast: REL-2S110-RH-TP

Report is based on 8000 lumens per lamp.

Efficiency: 90.4%

CIE Type: Semi-Direct

Plane: 0-Deg. 90-Deg.

Spacing criteria: 1.3 1.4

Shielding angles: 90 09

Plane: 0-Deg. 90-Deg.

Luminous length: 96.25 12.500

Candela Distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	3896	3896	3896	
5	3893	3870	3924	370
15	3785	3773	3847	1072
25	3544	3595	3723	1666
35	3187	3350	3490	2092
45	2722	2970	3211	2295
55	2179	2548	2497	2177
65	1528	1772	1745	1718
75	838	1082	876	1045
85	225	202	194	264
95	26	61	70	66
105	165	83	148	112
115	343	73	68	130
125	524	183	101	206
135	691	321	225	279
145	829	452	374	323
155	940	574	515	307
165	1015	881	752	247
175	1049	1019	1020	97

Coefficients of Utilization

Ceiling	80%			50%			30%		
	70	50	30	50	30	10	50	30	10
RC	Zonal Cavity Method								
RW	Effective Floor Reflectance = 20%								
1	95	91	87	82	79	76	77	74	72
2	86	79	72	71	66	62	66	63	59
3	78	69	61	62	56	52	58	53	49
4	72	61	52	55	49	44	52	46	40
5	66	54	46	49	42	37	46	40	36
6	62	48	40	44	37	32	41	36	31
7	56	44	36	40	33	29	38	32	28
8	52	40	32	36	30	25	34	29	25
9	48	36	29	33	27	23	32	26	22
10	45	33	26	31	25	20	29	24	20

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0-30	3108	19.4	21.5
0-40	5200	32.5	35.9
0-60	9672	60.4	66.9
0-90	12699	79.4	87.8
90-180	1767	11.0	12.2
0-180	14466	90.4	100.0



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w: www.lightolier.com

TU Series May 11, 2012

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Job Information Type: