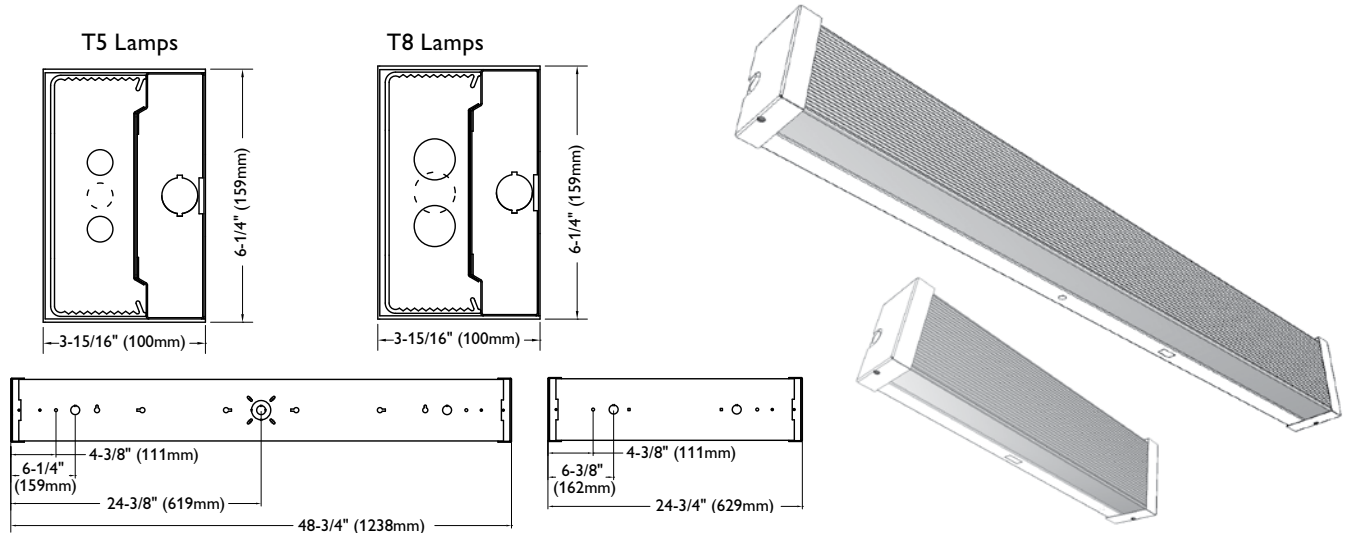


Guardsman Vandal Resistant

Ceiling/Wall Fluorescent, T5 or T8, GSW Series

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Ordering Information

Guardsman	Fixture Length	Lens Type	Lamp Qty.	Lamps (by others)	Voltage	Ballast Type	Options
GS Surface/Wall Vandal Resistant Fluorescent	2 = 24" 4 = 48" (Nominal Size)	V = High impact 50% DR acrylic linear prismatic lens	1 = 1 Lamp 2 = 2 Lamps	14 = T5 2' Length 17 = T8 2' Length 28 = T5 4' Length 32 = T8 4' Length 54 = T5HO 4' Length	120 = 120v 277 = 277v UNV = 120-277v	<20THD <10THD 1 or 2 Lamp Elec. T8 1 or 2 Lamp Elec. T8 1 or 2 Lamp Elec. T5 LOL Dimming T5 LOL Dimming T8 HI* P2‡ PG‡ PF PS	Add appropriate suffix to catalog no., i.e.: (C)

*Instant Start Standard

‡Program Rapid Start (UNV only)

NOTE: For T8 UNV, you must use HI Ballast Code.

Features

- Excellent for locations where vandal resistance is required, areas such as hallways stairwells, locker rooms, parking garages and psychiatric hospitals.
- For ceiling or wall mounted applications.
- Can be vertically or horizontally mounted on wall.
- 20 gauge cold rolled steel, post painted, baked white enamel housing.
- 20 gauge cold rolled steel post painted baked white enamel, primary, end caps.
- Vandal proof, secondary, 18 gauge cold rolled steel post painted baked white enamel, factory installed, end caps secured to end of housing with spanner head tamper proof screws.
- Linear prismatic lens 50% DR (impact resistant) and 50% standard acrylic with nominal thickness of 1/8", withstands 70 ft. lbs impact without breaking.
- Nominal 2' and 4' lengths.
- 73.9% efficient (T8 lamps).

Job Information	Type:
Job Name:	
Cat. No.:	
Notes:	

PHILIPS
LIGHTOLIER

Guardzman Vandal Resistant

Ceiling/Wall Fluorescent, T5 or T8, GSW Series

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Specifications

Materials: Chassis Parts—Die-formed code gauge cold rolled steel. **End Caps**—(Primary) 20 gauge cold rolled steel, (Secondary) Vandal proof 18 gauge cold rolled steel.

Finish: Chassis exterior—Post painted white baked acrylic enamel. **End Caps**—Post painted baked white enamel. Rust preventative undercoating.

Refractor: Low brightness linear prismatic lens, 50% DR (impact resistant) and 50% standard acrylic, 1/8" thickness, withstands 70 ft. lbs impact.

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./UL and ULc listed. UL listed for damp locations

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

Options & Accessories

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

Radio Interference Filter: 120 or 277 volt, 50 or 60 Hz. One per fixture standard. Suffix: **R**. One per ballast. Suffix: **B**.

Emergency Power Pack: Factory installed emergency power pack includes charger and inverter concealed in fixture channel. Upon loss of AC power, operates one lamp at reduced light. T8 Suffix: **E1**. (consult factory for T5 option)

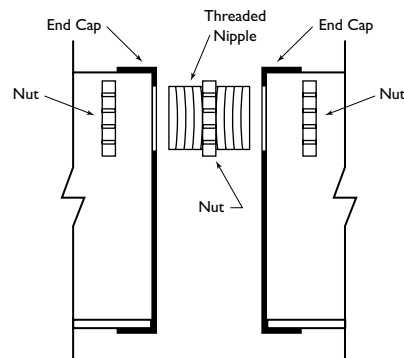
Stem and Canopy Sets: Suspends fixture 6", 12", 18" or 24" from surface. Catalog Number: **ASC6 CSP (6")**

ASC12 CSP (12")

ASC18 CSP (18")

ASC24 CSP (24")

Mounting Methods



For continuous row mounting. Required to space fixtures evenly, allowing ends to be removed and installed.

Job Information	Type:
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PHILIPS
LIGHTOLIER

Guardzman Vandal Resistant Ceiling/Wall Fluorescent, T5 or T8, GSW Series

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Photometry

Model No. GS4V232UNVHI

LER = 66.9 IW = 55.4 BF = 0.88
Comparative yearly lighting energy cost per
1000 lumens = \$3.59

Report Number: G2010301

Catalog Number: GS4V232UNVHI

Lamps: (2) F032T8

Luminaire: GSW Series 4' luminaire

Ballast: RIC2S40TP

Report is based on 2850 lumens per lamp.

Efficiency: 73.9%

CIE Type: Direct/Indirect

Plane: 0-Deg. 90-Deg.

Spacing Criteria: 1.1 1.2

Shielding Angles: 90 90

Plane: 0-Deg. 90-Deg.

Luminous Length: 6.000 48.000

Candela Distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	1176	1176	1176	
5	1162	1175	1188	112
15	1116	1155	1184	326
25	1028	1093	1134	502
35	899	973	993	598
45	724	696	665	542
55	483	485	526	443
65	235	367	508	377
75	110	309	468	319
85	20	229	404	243
90	6	202	364	
95	6	203	351	208
105	5	185	300	180
115	5	155	253	143
125	5	124	201	103
135	5	88	142	63
145	6	58	94	34
155	6	34	56	15
165	6	14	24	4
175	5	2	3	
180	2	2	2	

Coefficients of Utilization

Ceiling	80%			50%			30%		
	70	50	30	50	30	10	50	30	10
Wall									
RC	Zonal Cavity Method								
RW	Effective Floor Reflectance = 20%								
1	76	72	69	64	61	59	58	56	55
2	69	63	57	55	51	48	51	48	45
3	63	55	49	49	44	40	45	41	38
4	58	49	42	43	38	34	40	36	32
5	53	44	37	39	34	30	36	32	28
6	49	39	33	35	30	26	33	28	25
7	45	36	29	32	27	23	30	25	22
8	42	33	26	29	24	21	27	23	20
9	40	30	24	27	22	19	25	21	18
10	37	28	22	25	20	17	24	19	16

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0- 30	940	16.5	22.3
0- 40	1538	27.0	36.5
0- 60	2523	44.3	59.9
0- 90	3463	60.8	82.2
90-120	531	9.3	12.6
90-130	634	11.1	15.1
90-150	732	12.8	17.4
90-180	751	13.2	17.8
0-180	4214	73.9	100.0

Average Luminance data in candela / sq. meter

Angle	0°	45°	90°
45	3992.	4363.	4830.
55	2937.	3485.	4620.
65	1648.	3204.	5869.
75	946.	3573.	8263.
85	231.	4105.	16163.

Model No. GS2V217UNVHI

LER = 66.9 IW = 29.8 BF = 0.93
Comparative yearly lighting energy cost per
1000 lumens = \$3.59

Report Number: G2010304

Catalog Number: GS2V217UNVHI

Lamps: (2) F17 T8

Luminaire: GSW Series 2' luminaire

Ballast: ICN-2P32-SC

Report is based on 1400 lumens per lamp.

Efficiency: 76.6%

CIE Type: Direct/Indirect

Plane: 0-Deg. 90-Deg.

Spacing Criteria: 1.1 1.2

Shielding Angles: 90 90

Plane: 0-Deg. 90-Deg.

Luminous Length: 6.000 48.000

Candela Distribution

Vertical Angle	Horizontal Angle			Zonal Lumens
	0	45	90	
0	553	553	553	
5	549	553	557	53
15	526	541	554	153
25	482	509	529	234
35	418	454	481	283
45	337	381	417	293
55	234	300	341	264
65	140	217	268	212
75	66	154	216	158
85	13	99	164	105
90	3	79	151	
95	3	82	158	91
105	2	94	150	90
115	2	83	131	76
125	3	72	112	59
135	3	53	85	38
145	3	36	57	21
155	5	23	36	10
165	9	17	23	5
175	9	10	11	1
180	8	8	8	

Coefficients of Utilization

Ceiling	80%			50%			30%		
	70	50	30	50	30	10	50	30	10
Wall									
RC	Zonal Cavity Method								
RW	Effective Floor Reflectance = 20%								
1	88	88	88	77	77	77	71	71	71
2	79	75	71	66	63	61	61	59	57
3	72	65	59	57	53	50	53	49	46
4	65	57	50	50	45	41	46	42	39
5	59	50	43	44	39	35	41	37	33
6	55	45	38	40	34	30	37	32	29
7	50	40	33	36	30	26	33	29	25
8	47	36	30	33	27	23	30	26	22
9	43	33	27	30	24	21	28	23	20
10	40	30	24	27	22	19	26	21	18

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0- 30	439	15.7	20.5
0- 40	722	25.8	33.7
0- 60	1279	45.7	59.6
0- 90	1755	62.7	81.8
90-120	257	9.2	12.0
90-130	316	11.3	14.7
90-150	375	13.4	17.5
90-180	391	13.9	18.2
0-180	2145	76.6	100.0

Average Luminance data in candela / sq. meter

Angle	0°	45°	90°
45	4845.	4785.	4649.
55	3982.	4259.	4153.
65	3031.	3671.	3721.
75	2048.	3349.	3615.
85	753.	3147.	3592.



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GSW Series July 28, 2011

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Job Information Type: