

Maximum versatility, directed illumination and simple to use.

SUS SERIES 432 OR 632 SURGICAL PERIMETER LUMINAIRE



2' X 4' RECESSED FLUORESCENT, ASYMMETRIC/SYMMETRIC
ACRYLIC LENS RFI SHIELDED, 4 OR 6 LAMP, T8

The SUS Series 2' x 4' recessed surgical perimeter luminaire provides asymmetric/symmetric lighting distribution for supplemental illumination to the operating table. This luminaire minimizes contrast between surgical and surrounding areas. The SUS luminaire meets government specification for radio frequency interference (RFI), MIL-STD 461-A, MIL-STD 462 and MIL-STD 463.

Project: _____
Location: _____
Catalog No: _____
Fixture Type: _____
Mfg: _____ Lamps: _____ Qty: _____
Notes: _____

Ordering Guide

Explanation of Catalog Number Example: **SUS2GFSMA432120O4**

Surgical Perimeter Luminaire	Body Style	Fixture Width	Ceiling Type	Lens Frame	Lens/Shielding Type	Lamp Quantity	Lamp Fixture/Length	Voltage	Ballast	Options
SU	S	2		FS	MA		32			
Asymmetric/Symmetric Distribution Lens Recessed Fluorescent Troffer	S = Static	2 = 2'	G = Grid (Lay-in) T-bar F = Flanged (Overlap) Z Spline and Plaster Frame	FS = Flat Full-size Steel Frame (Fully Gasketed)	MA = Virgin Acrylic Asymmetric/Symmetric Distribution (Standard)	(By Others) 4 = 4 Lamp 6 = 6 Lamp	32 = T8 (Nominal 48")	U = 120/277V 120 = 120V 277 = 277V 347 = 347V	<20THD <10THD SO* HI* Two 2 Lamp Elec. (T8) SO* HI* Three 2 Lamp Elec. (T8) O4* H4* One 4 Lamp Elec. (T8) O6* H6* Two 3 Lamp Elec. (T8) PS — LOL Dimming T8 *Instant Start Standard Other Dimming Options. Consult Your Philips Lighting Representative.	Add Appropriate Suffix to Catalog No.

SUS SERIES 432 OR 632 SURGICAL PERIMETER LUMINAIRE

Features

- Asymmetric/symmetric distribution provides: supplemental illumination to operating table.
- Minimizes contrast between surgical and surrounding areas.
- Meets government specification for Radio Frequency Interference (RFI), MIL-STD 461-A, MIL-STD 462 and MIL-STD 463.
- One radio suppressor per fixture (standard).
- High efficiency 60.9% (6 light) 61.2% (4 light).
- One-piece housing.
- Hemmed over side rails for maximum safety.
- Built-in earthquake clips.
- Flat full-size steel lens frame is gasketed.
- 2 1/4" lamp to integral light stop for easy lamp removal.
- Black housing exterior for cooler ballast operating temperature.

Specifications

Materials: Chassis parts are die-formed code gauge cold rolled steel.

Housing is embossed for rigidity with all edges turned up for safe handling.

Lens frame—(FS) flat full-size steel frame fully gasketed (standard) to eliminate any light leaks which may be a potential radio wave leak.

Finish: Chassis exterior—black baked polyester enamel. Cavity—white baked polyester enamel minimum 86% reflectance. Phosphate undercoating.

Lens: Extruded virgin acrylic asymmetric/symmetric distribution with Radio Frequency Filter (RF) to meet **MIL-STD 461-A, MIL-STD 462 and MIL-STD 463.**

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 C-UL.

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

Options/Accessories

CONTINUOUS ROW INSTALLATION: For F type fixtures, half-width flanges are required between fixtures. Order Catalog Number **S2FCTRIM** trim (each joint).

PLASTER FRAMES: Catalog Number: **PF24.**

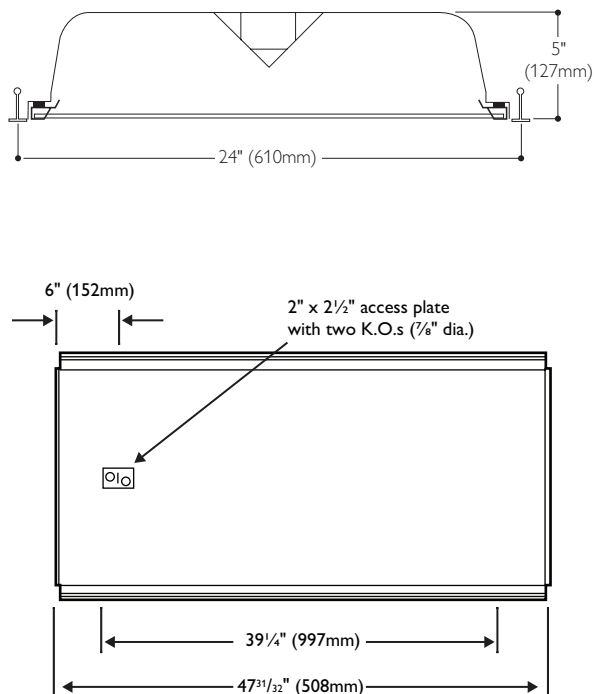
Electrical/Wiring Options: Consult your Philips Lighting representative.

Fusing: Internal fast-blow fusing. SUFFIX: **F.**

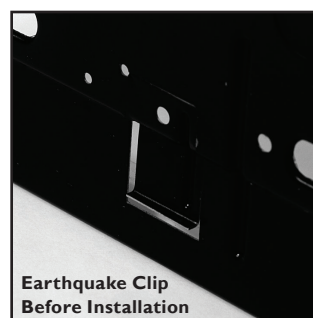
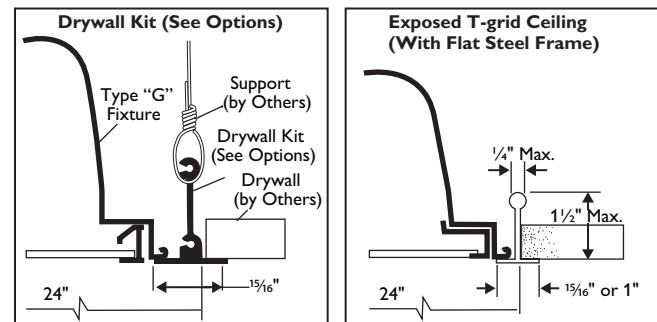
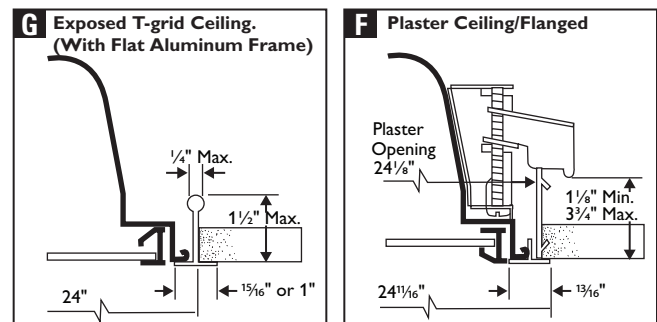
Radio Interference Filter: (If one per ballast is required) 120 or 277 volt, 50 or 60 Hz. SUFFIX: **RF.** Not available on SUS632 (6 lamp) with (3) 2 lamp ballasts. (Fixture comes standard with one RFI filter).

Drywall Kit: Order Catalog Number: **FK92X4.**

Dimensions



Mounting Methods



SUS SERIES 432 OR 632 SURGICAL PERIMETER LUMINAIRE

Performance

Model No. SUS2GFSMA432120O4

Report Number: G92056

Catalog No: SUS2GFSMA432120O4

Lamp Type: 4 F32 T8

Luminaire: 2 x 4 Troffer 4 lamp with Asymmetric/
Symmetric RFI Lens 0 degree plane is perpendicular
to the lamps

Volts: 120

Lumens per Lamp: 2850

Lumen Input Watts: 167

Total Efficiency: 61.2%

Total Reflectance of Paint: 90.0%

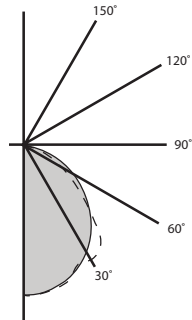
CIE Type: Direct

Plane: 0 Deg. 90 Deg. 180 Deg.

Spacing Criteria: 1.4 1.2 1.3

Shielding Angles: 90 90

Luminous Length: 21.750 45.750



Candela Distribution

Angle	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	Flux
0	3025	3025	3025	3025	3025	3025	3025	3025	3025	
5	3006	3001	2983	2995	3006	3018	3035	3053	3070	287
15	3076	3030	2954	2884	2884	2931	2954	2948	2942	834
25	3169	3111	2954	2739	2657	2657	2594	2564	2594	1281
35	2751	2785	2756	2541	2312	2236	2273	2518	2594	1567
45	1851	1785	1982	2138	1895	1743	2001	1947	1928	1488
55	1244	1262	1254	1353	1400	1223	1187	1133	1132	1121
65	668	658	650	677	772	667	645	671	679	676
75	365	351	339	282	237	290	356	365	370	345
85	121	118	108	72	28	72	113	141	138	106
90	5	4	3	3	2	3	4	4	5	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	2402	19.1	31.2
0-40	3969	31.5	51.5
0-60	6578	52.2	85.4
0-90	7705	61.2	100.0
90-180	0	0.0	0.0
0-180	7705	61.2	100.0

Luminance Data in Footlamberts

Angle in Degrees	Average 0°	Average 90°	Average 180°
0	1375.	1375.	1375.
45	1190.	1218.	1240.
55	986.	1110.	897.
65	719.	830.	730.
75	641.	416.	650.
85	631.	146.	720.

Model No. SUS2GFSMA632120O6

Report Number: ITL38369

Catalog No: SUS2GFSMA632120O6

Lamp Type: 6 F32 T8

Ballasts: Three Advance R-2S40-1-TP

Mounting: Recessed

Lumen to Candela Ratio Used: 9.17

Luminaire: 2 x 4 Troffer 6 lamp with Asymmetric/
Symmetric RFI Lens 0 degree plane is perpendicular
to the lamps

Volts: 120

Lumens per Lamp: 2850

Lumen Input Watts: 231

Total Efficiency: 60.9%

Total Reflectance of Paint: 91.7%

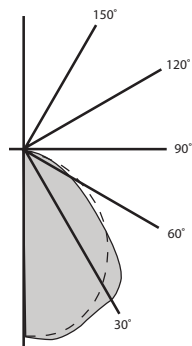
CIE Type: Direct

Plane: 0 Deg. 90 Deg. 180 Deg.

Spacing Criteria: 1.3 1.4 1.3

Shielding Angles: 90 90

Luminous Length: 45.750 21.750



Candela Distribution

Angle	0.0	45.0	90.0	135.0	180.0	225.0	270.0	315.0
0	4252	4252	4252	4252	4252	4252	4252	4252
5	4265	4327	4327	4312	4281	4234	4218	4218
15	4125	4265	4281	4281	4140	4140	4156	4125
25	3814	3985	4016	3985	3829	3923	3969	3907
35	3331	3658	3798	3658	3362	3409	3222	3393
45	2693	3066	2802	3051	2740	2553	2615	2506
55	1946	1837	1681	1852	1992	1697	1712	1650
65	1121	950	1012	965	1183	996	981	965
75	420	514	560	514	420	545	514	545
85	47	156	171	171	47	171	202	171
90	0	0	0	0	0	0	0	0

Zonal Lumen Summary

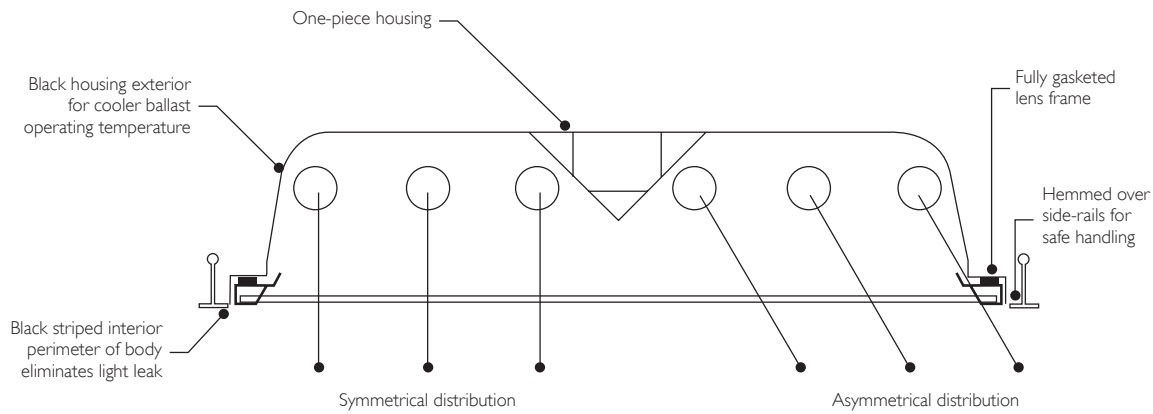
Zone	Lumens	% Lamp	% Luminaire
0-30	3412	18.6	30.6
0-40	5594	30.6	50.2
0-60	9404	51.4	84.4
0-90	11,138	60.9	100.0
90-180	0	0.0	0.0
0-180	11,138	60.9	100.0

Luminance Data in Footlamberts

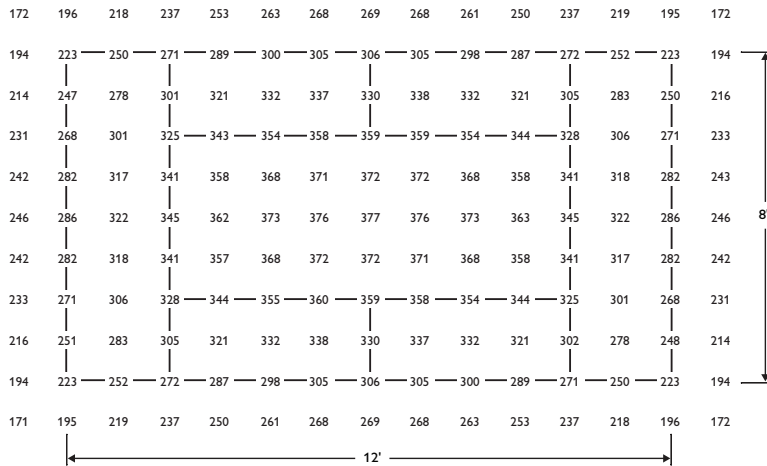
Angle in Degrees	Average 0°	Average 90°	Average 180°
45	1731.	1802.	1681.
55	1542.	1332.	1357.
65	1206.	1089.	1055.
75	738.	984.	903.
85	245.	892.	1054.

SUS SERIES 432 OR 632 SURGICAL PERIMETER LUMINAIRE

Model No. **SUS2GFSMA632120O6**



G Type Only



The footcandle readings of a typical 8' x 12' pattern layout of 8, 6 lamp units, illustrates that the asymmetric distribution adds 35% more light to the operating area (room size 12' x 16' x 9' ceiling).

A silver grid printed on the back of the asymmetric lens, grounded to the fixture, prevents RFI interference with other equipment.

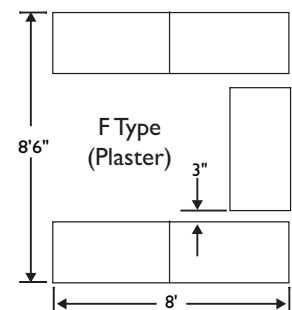
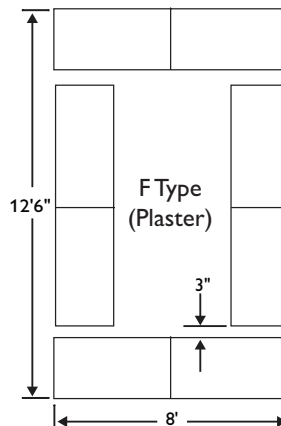
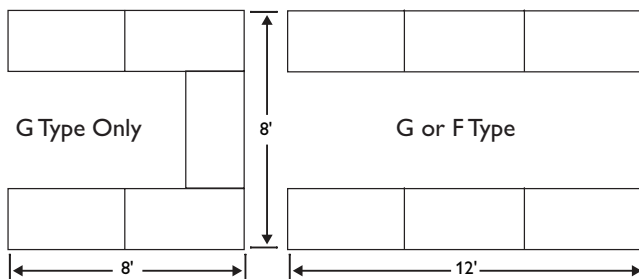
To prevent any EMI leakage, the housing is sealed and the lens frame is fully gasketed.

F Type fixtures cannot butt together end to side. A space is required between fixtures. (See diagrams below).

Coefficients of Utilization

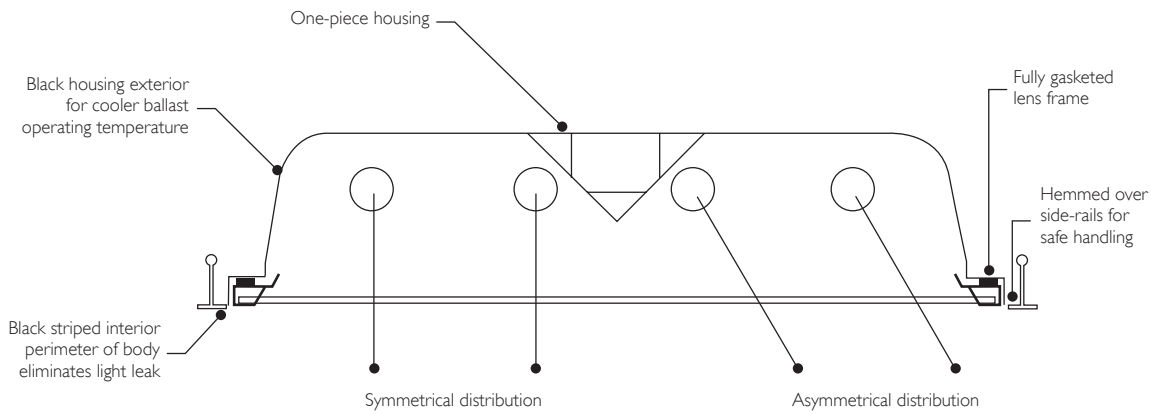
RC	80%			50%			30%			
RW	70	50	30	50	30	10	50	30	10	
RCR	Zonal Cavity Method Effective Floor Cavity Reflectance = .20									
Room Cavity Ratio	1	67	64	62	60	58	57	58	56	55
	2	61	56	53	53	50	48	51	49	46
	3	56	50	45	47	43	40	46	42	40
	4	51	45	39	42	38	35	41	37	34
	5	47	40	35	38	34	30	37	33	30
	6	44	36	31	34	30	27	33	30	27
	7	41	33	28	31	27	24	31	27	24
	8	38	30	25	29	24	21	28	24	21
	9	36	28	23	27	22	19	26	22	19
	10	33	25	21	25	20	17	24	20	17

Recommended Mounting Patterns for Ceiling Types "G" (Lay-in), "F" (Plaster)

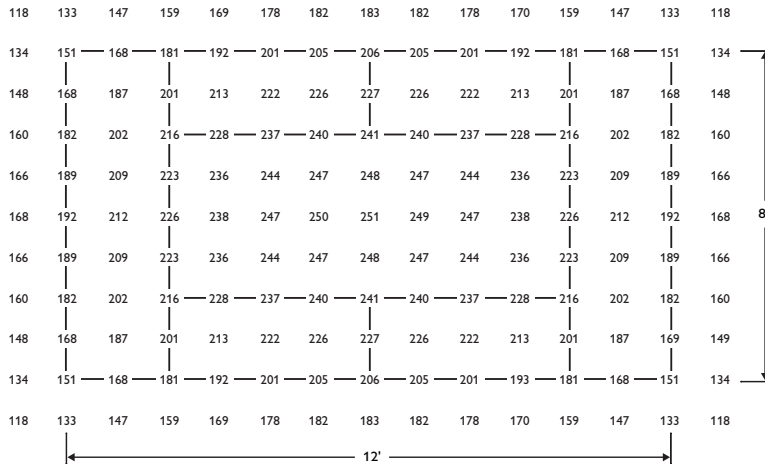


SUS SERIES 432 OR 632 SURGICAL PERIMETER LUMINAIRE

Model No. **SUS2GFSMA432120O4**



G Type Only



The footcandle readings of a typical 8' x 12' pattern layout of 8, 4 lamp units, illustrates that the asymmetric distribution adds 35% more light to the operating area (room size 12' x 16' x 9' ceiling).

A silver grid printed on the back of the asymmetric lens, grounded to the fixture, prevents RFI interference with other equipment.

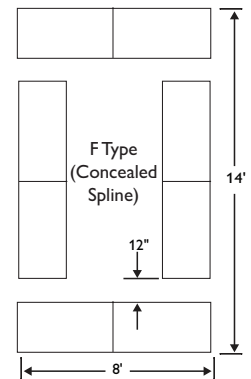
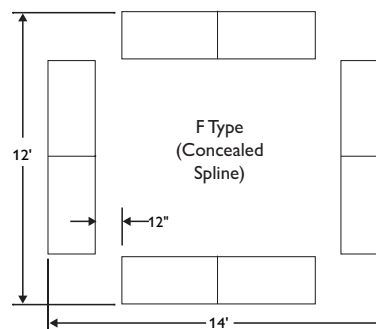
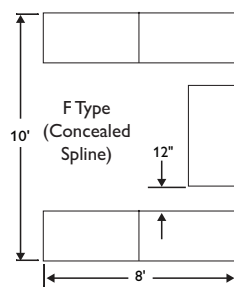
To prevent any EMI leakage, the housing is sealed and the lens frame is fully gasketed.

F Type fixtures cannot butt together end to side. A space is required between fixtures. (See diagrams below).

Coefficients of Utilization

RC	80%			50%			30%			
RW	70	50	30	50	30	10	50	30	10	
RCR	Zonal Cavity Method Effective Floor Cavity Reflectance = .20									
Room Cavity Ratio	1	68	65	63	61	59	58	59	57	56
	2	62	58	54	55	52	50	53	51	49
	3	58	52	48	49	46	43	48	45	42
	4	53	47	42	44	40	37	43	40	37
	5	49	42	36	40	35	32	38	35	32
	6	45	37	32	36	31	28	35	31	28
	7	42	34	29	32	28	25	31	28	25
	8	38	30	25	29	25	22	28	24	21
	9	35	27	22	26	22	19	25	21	19
	10	33	25	20	24	19	17	23	19	16

Recommended Mounting Patterns for "F" (Plaster) Ceiling Types



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