

VDT control with balanced illumination for visual comfort.

VRA2G16LS26U
VISION SMART



2' X 2' RECESSED FLUORESCENT
4" DEEP, 16 CELL (4 X 4) PARABOLIC LOUVER
STATIC OR AIR SUPPLY/RETURN
IES RP-1 FOR NORMAL VDT USE

Vision Smart Parabolics meet the Preferred and Basic Criteria of IES RP-1 and RP-24. This luminaire delivers low to medium light levels with the best performance in terms of efficiency, wide spacing and excellent glare control.

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

Ordering Guide

Explanation of Catalog Number Example: **VRA2G16LS26U120SO**

Family	Body Style	Fixture Width	Ceiling Type	Number of Cells	Louver Finish*	Single "V" Reflector	Lamp Quantity	Lamp Length	Voltage	Ballast Type	Options
VR		2		16		S	2	6U			
4" Deep Pre-Anodized Aluminum Louver for Normal VDT Use	A = Air Handling S = Static	2 = 24"	G = Grid (Lay-in T-Bar) T = Slot Grid or Two-Directional Concealed T (See Options)	16 = 4 Rows of 4 Cells	L = Low Iridescence Semi-Specular (Standard) P = Low Iridescence Specular *See Options and Consult Your Philips Lighting Representative	S = One Ballast Cover Reflector Installed	2 = 2 Lamps	6U = U Lamp T8 (Nominal 24")	UNV = 120/277V 120 = 120V 277 = 277V 347 = 347V	<20THD SO* <10THD RO** 1 or 2 Lamp Elec. 31W T8 T8 Dimming *Instant Start Standard **Rapid Start Standard	Add Appropriate Suffix to Catalog Number

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Features

- Meets IES RP-1 luminance criteria, for lighting VDT areas with normal use.
- Efficiency 51.7% .
- 1.2 spacing mounting ratio.
- Only 6" deep body.
- One-piece housing.
- Specular low iridescence pre-anodized louver.
- Spring-loaded latches.
- Concealed "T" hinges.
- Louver frame with integral positive light stop.
- Built in hold-down clip
- Louver has protective film dust guard.
- Air closure strips (optional).
- Air flow pattern dampers (optional).
- Twin knockout access plate.

Specifications

Performance: In an installation of 2 lamp 31W luminaires in a room cavity ratio of 1, with reflectance of 80% ceiling, 50% wall, 20% floor; the C.U. shall not be less than .57 with a spacing to mounting ratio of 1.2 perpendicular to the lamps. To meet IES RP-1 recommended (basic) requirements for VDT areas the VCP (visual comfort probability) shall not be less than 96 either crosswise or lengthwise and the maximum average brightness at 65°, 75° and 85° shall not exceed 293, 104 and 77 candelas per square meter respectively in the 0°, 45° and 90° horizontal planes. Candelas at Nadir (0°) not to exceed 1737.

Air Handling: (VRA only) Side air passages for air supply or air return. Optional side closure strips. Air return is also provided through the lamp compartment through fixture body ends.

Materials: Chassis parts are die-formed code gauge cold rolled steel. Housing side rails hemmed over and housing ends turned in for safe handling. Louver is pre-anodized aluminum.

Finish: Chassis exterior—black baked polyester enamel. Cavity—white baked polyester enamel minimum 86% reflectance. Phosphate undercoating. Louver—low iridescence, semi-specular pre-anodized vertical grain aluminum reflector sheet is standard.

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

Drywall Kit: For plaster frames, order catalog number: **FK92X2**.

Internal Interference Filter: Consult your Philips Lighting representative.

Radio Interference Filter: 120, 277 or 347 volt, 50 or 60 Hz. Suffix: **R**.

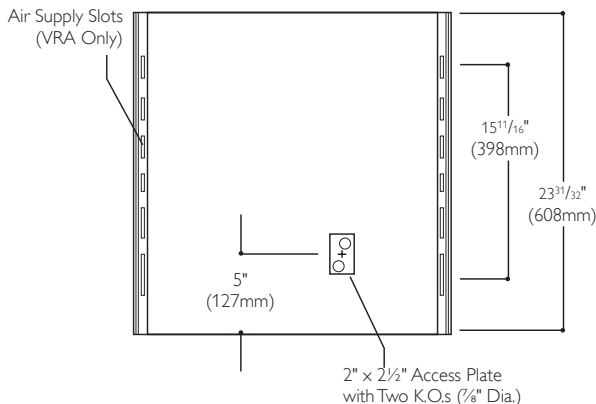
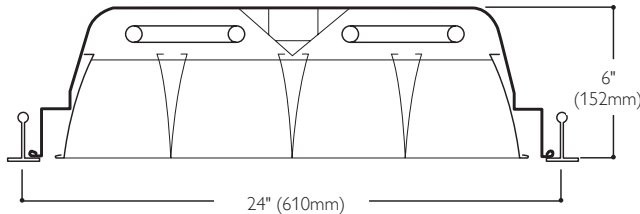
Emergency Lighting System: Emergency battery pack with charger. (90 minutes at 20% of lumens for 1 lamp.) Suffix: **O**.

Louver Finish: Low iridescence semi-specular (standard). For other finishes, consult your Philips Lighting representative.

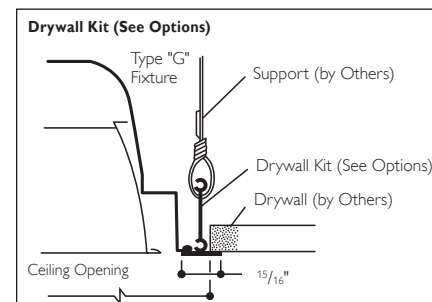
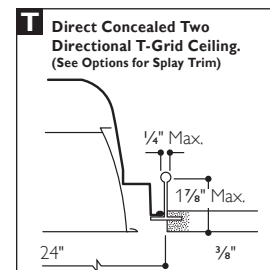
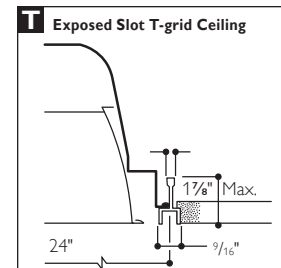
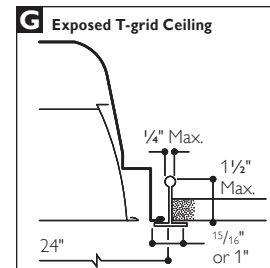
Air Pattern Control and Air Slot Closure: For horizontal and vertical air supply and to balance return. Suffix: **S**.

Ballast Options: For other ballast options, consult your Philips Lighting representative.

Dimensions



Mounting Methods



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Model No. VRA2G16LS26U120SO

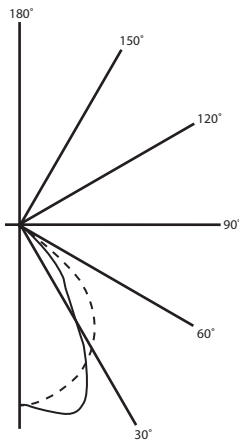
Report Number: ITL41669
Catalog Number: VRA2G16LS26U120SO
Lamp: (2) FB31T8/TL741/6
Lumens per Lamp: 2650
Luminaire: 2 X 2 VDT troffer with 16 cell semi-specular louver
Ballast: Magnetek Triad B2321120RH
CIE Type: Direct
Total Efficiency: 51.7%
Plane: 0-Deg 90-Deg
 Spacing Criteria: 1.2 1.1
 Shielding Angles: 42 38
 Luminous Length: 21.500 21.500

Candela Distribution

Angle	0.0	45.0	90.0	135.0	180.0	Flux
0	1737	1737	1737	1737	1737	
5	1720	1746	1773	1758	1729	168
15	1625	1780	1882	1803	1642	502
25	1676	1669	1567	1672	1490	731
35	1286	1183	831	1154	1257	696
45	956	545	408	525	878	480
55	277	114	46	102	234	132
65	37	18	15	16	35	23
75	8	6	5	6	8	7
85	0	2	2	2	0	2
90	0	0	0	0	0	

Coefficients of Utilization

Ceiling	80%			50%			30%		
Wall	70	50	30	50	30	10	50	30	10
RCR	Zonal Cavity Method— Effective Floor Cavity Reflectance = 0.20								
Room Cavity Ratio	1	58	57	55	53	52	51	51	50
	2	55	52	49	49	47	46	48	45
	3	51	47	44	45	43	41	44	40
	4	48	44	40	42	39	37	41	38
	5	45	40	37	39	36	33	38	35
	6	42	37	33	36	33	30	35	32
	7	40	34	31	33	30	28	32	30
	8	37	32	28	31	28	25	30	27
	9	35	29	26	29	26	23	28	25
	10	33	27	24	27	24	22	26	24



Luminance Data in Candela/Sq. Meter

Average in Deg.	Average 0 Deg.	Average 45 Deg.	Average 90 Deg.
45	4532.	1934.	4162.
55	1619.	269.	1367.
65	293.	119.	278.
75	104.	65.	104.
85	0.	77.	0.

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	1401	26.4	51.1
0-40	2097	33.6	76.5
0-60	2710	51.1	98.9
0-90	2741	51.7	100.0
90-180	0	0.0	0.0
0-180	2741	51.7	100.0

Visual Comfort Probability (VCP average 100fc; reflectances 80/50/20)

Room Size		Ceiling Height				Ceiling Height			
W	L	8.5	10.0	13.0	16.0	8.5	10.0	13.0	16.0
		Luminaires Lengthwise				Luminaires Crosswise			
20	20	95	93	90	82	99	98	98	95
20	30	96	94	91	85	99	99	98	96
20	40	96	94	93	87	99	99	98	96
20	60	96	94	93	88	99	99	98	96
30	20	95	93	92	86	99	98	98	95
30	30	96	95	93	87	99	99	98	96
30	40	96	95	94	89	99	99	98	96
30	60	96	95	94	90	99	99	98	96
30	80	96	94	94	90	99	99	98	96
40	20	95	94	92	86	99	99	98	96
40	30	96	95	93	88	99	99	98	96
40	40	96	95	94	90	99	99	98	96
40	60	96	94	94	91	99	99	98	96
40	80	96	94	94	91	99	99	98	96
40	100	96	94	94	91	99	99	98	97
60	30	96	95	93	88	99	99	98	96
60	40	96	94	94	90	99	99	98	96
60	60	96	95	94	91	99	99	98	97
60	80	96	95	94	91	99	99	98	97
60	100	96	95	94	91	99	99	98	97
100	40	96	94	94	90	99	99	98	97
100	60	96	95	94	91	99	99	98	97
100	80	96	95	94	91	99	99	98	97
100	100	96	95	94	91	99	99	98	97



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