

VDT control with balanced illumination for visual comfort.

VRA2G16LV2FT
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: **VRA2G16LV2FT120SB**

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		V	2	FT					
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	V = One Ballast Cover Reflector Installed	2 = 2 Lamps	FT = TT5 (Nominal 24")	UNV = 120/277V 120 = 120V 277 = 277V 347 = 347V	<20THD SB* BO** PB	<10THD IB** BF** —	1 or 2 Lamp Elec. 40W TT5 1 or 2 Lamp Elec. 55W TT5 TT5 Dimming *Instant Start Standard **Rapid Start Standard	Add Appropriate Suffix to Catalog Number

Features

- Meets IES RP-1 luminance criteria, for lighting VDT areas with normal use.
- Efficiency 52.2%.
- 1.8 spacing mounting ratio.
- Candelas at Nadir (0°) do not exceed 1224.
- Only 6" deep body.
- One-piece housing.
- Semi-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 40W 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 1.8 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 92 either crosswise or lengthwise and the maximum average brightness at 65°, 75° and 85° shall not exceed 267, 121 and 72 candelas per square meter respectively in the 0°, 45° and 90° horizontal planes. Candelas at Nadir (0°) not to exceed 1224.

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**.

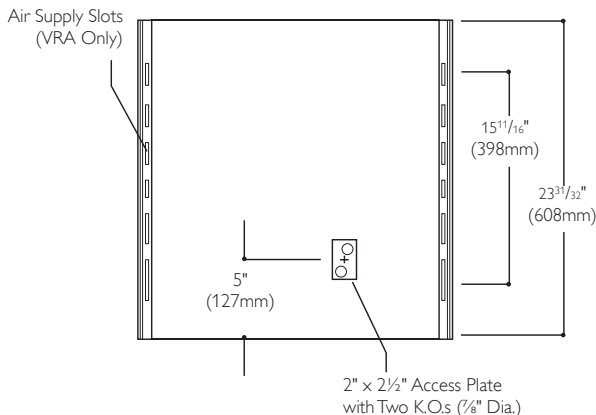
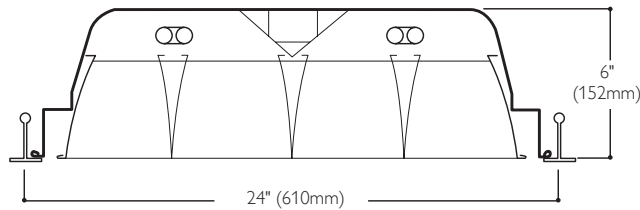
Emergency Lighting System: Emergency battery pack with charger. (90 minutes at 20% of lumens for 1 lamp.) Suffix: **O**.

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

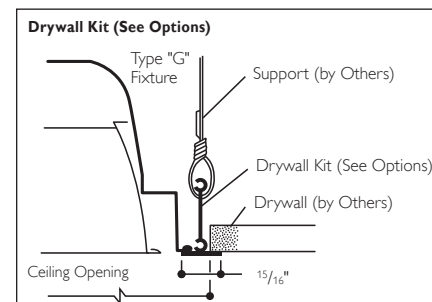
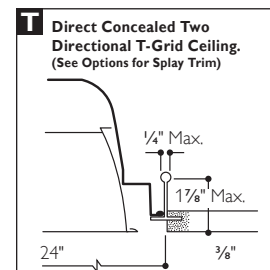
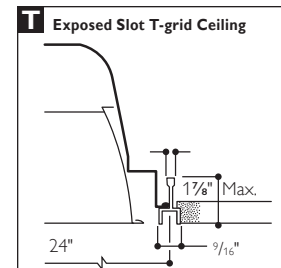
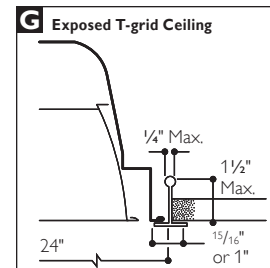
Air Pattern Control and Air Slot Closure: For horizontal and vertical air supply and to balance return. Suffix: **S**.

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

Dimensions



Mounting Methods



VRA2G16LV2FT

VISION SMART

Model No. VRA2G16LV2FT120SB

Report Number: G94053

Catalog Number: VRA2G16LV2FT120SB

Lamp: (2) F40BX/SP35/RS

Lumens per Lamp: 3150

Luminaire: 2 x 2VDT troffer with 16 cell semi-specular louver

Ballast: B2321120RH

CIE Type: Direct

Total Efficiency: 52.2%

Plane: 0-Deg 90-Deg

Spacing Criteria: 1.2 1.8

Shielding Angles: 65 65

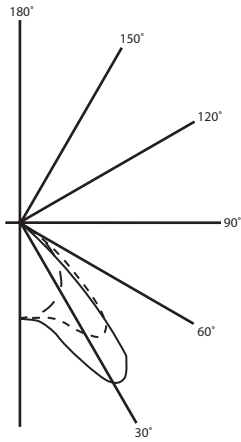
Luminous Length: 22.250 22.250

Candela Distribution

Angle	0.0	22.5	45.0	67.5	90.0	Flux
0	1224	1224	1224	1224	1224	
5	1220	1222	1226	1232	1230	117
15	1161	1184	1253	1336	1366	360
25	1068	1148	1430	1827	1994	692
35	939	1150	1774	2236	2376	1054
45	711	1037	1351	1209	913	832
55	191	324	207	97	87	194
65	36	41	26	24	22	32
75	10	10	7	6	5	9
85	2	2	2	1	2	1
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	59	57	56	54	53	52	52	51
	2	55	52	50	50	48	46	48	46
	3	52	48	45	45	43	41	44	42
	4	48	43	40	42	39	37	41	38
	5	45	39	36	38	35	32	37	34
	6	42	36	32	35	31	29	34	31
	7	39	32	29	31	28	26	31	28
	8	35	29	25	28	25	22	28	24
	9	32	26	22	25	22	19	25	21
	10	30	23	20	23	19	17	22	19



Luminance Data in Candela/Sq. Meter

Average in Deg.	Average 0 Deg.	Average 45 Deg.	Average 90 Deg.
0	3831.	3831.	3831.
45	3417.	5980.	4041.
55	1042.	1130.	475.
65	267.	193.	163.
75	121.	85.	60.
85	72.	72.	72.

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	1169	18.6	35.5
0-40	2223	35.3	67.6
0-60	3249	51.6	98.7
0-90	3291	52.2	100.0
90-180	0	0.0	0.0
0-180	3291	52.2	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	90	88	84	74	95	90	87	75
20	30	91	89	86	77	95	92	90	79
20	40	91	90	88	80	95	91	90	82
20	60	91	91	89	82	96	91	90	82
30	20	90	88	87	78	95	91	90	78
30	30	91	90	88	80	96	92	92	82
30	40	91	91	90	82	96	92	92	84
30	60	92	91	91	84	96	92	92	84
30	80	92	91	91	84	96	92	92	84
40	20	90	88	87	80	95	91	90	81
40	30	91	90	89	82	96	92	92	84
40	40	92	91	90	84	96	92	92	86
40	60	92	91	91	85	96	92	92	86
40	80	92	91	91	86	96	92	92	86
40	100	92	91	91	86	96	92	92	86
60	30	92	90	89	82	96	92	92	84
60	40	92	91	90	84	96	92	92	86
60	60	92	91	91	86	96	92	92	86
60	80	92	91	91	86	96	92	92	86
60	100	92	91	91	86	96	92	92	86
100	40	92	91	90	84	96	92	92	86
100	60	92	91	91	86	96	92	92	86
100	80	92	91	91	86	96	92	92	86
100	100	92	91	91	86	96	92	92	86



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