

VDT control with balanced illumination for visual comfort.

VRA2G9LP3FT
VISION SMART



2' X 2' RECESSED FLUORESCENT
4" DEEP, 9 CELL (3 X 3) 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: **VRA2G9LP3FT120SB**

Family	Body Style	Fixture Width	Ceiling Type	Number of Cells	Louver Finish*	Dual "V" Reflector	Lamp Quantity	Lamp Length	Voltage	Ballast Type	Options
VR		2		9		P	3	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)	9 = 3 Rows of 3 Cells	L = Low Iridescence Semi-Specular (Standard) P = Low Iridescence Specular *See Options and Consult Your Philips Lighting Representative	P = Two Ballast Cover Reflectors Installed	3 = 3 Lamps	FT = TT5 (Nominal 24")	UNV = 120/277V 120 = 120V 277 = 277V 347 = 347V	<20THD SB* <10THD BH** BO** BF** X3* I3* PB — †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 68.7% .
- 1.3 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).
- Twin knockout access plate.

Specifications

Performance: In an installation of 3 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 .75 with a spacing to mounting ratio of 1.3 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 90 either crosswise or lengthwise and the maximum average brightness at 65°, 75° and 85° shall not exceed 635, 246 and 115 candelas per square meter respectively in the 0°, 45° and 90° horizontal planes.

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**.

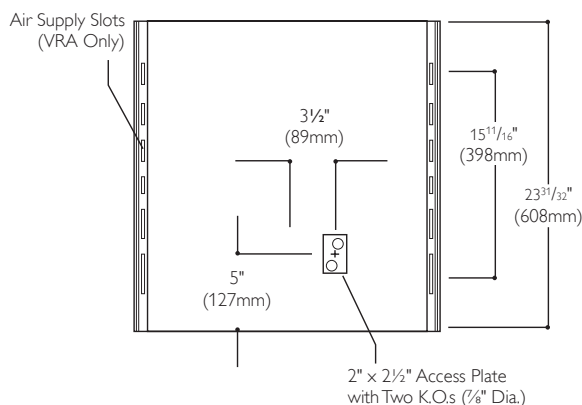
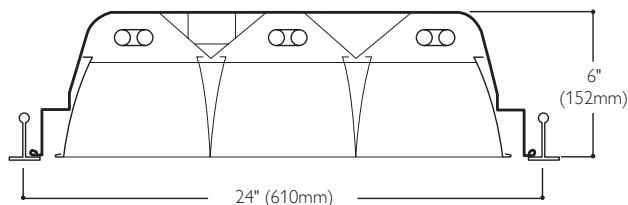
Emergency Lighting System: Emergency battery pack with charger. (90 minutes at 20% of lumens for 1 lamp.) Suffix: **O**.

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

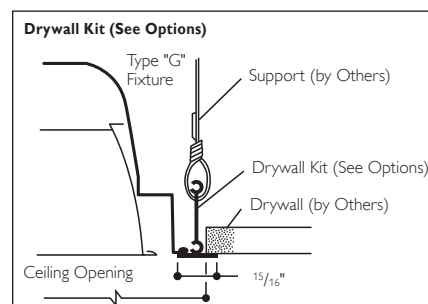
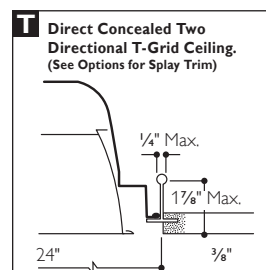
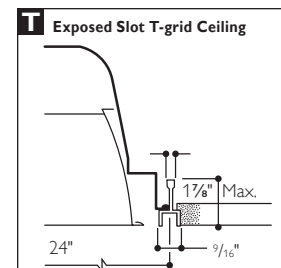
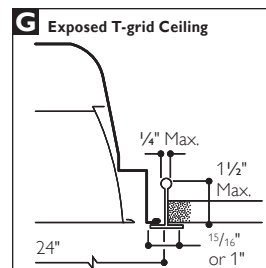
Air Pattern Control and Air Slot Closure: For horizontal and vertical air supply and to balance return. Suffix: **S**.

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

Dimensions



Mounting Methods



VRA2G9LP3FT VISION SMART

Model No. VRA2G9LP3FT120X3

Report Number: G94043

Catalog Number: VRA2G9LP3FT120X3

Lamp: (3) F40BX/SPX35RS

Lumens per Lamp: 3150

Luminaire: 2' x 2' VDT troffer with 9 cell semi-specular louver

Ballast: B3321120RH

CIE Type: Direct

Total Efficiency: 68.7%

Plane: 0-Deg 90-Deg

Spacing Criteria: 1.2 1.3

Shielding Angles: 65 65

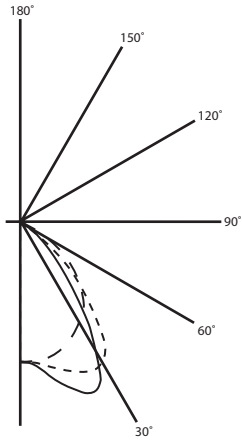
Luminous Length: 21.500 21.500

Candela Distribution

Angle	0.0	22.5	45.0	67.5	Across	Flux
0	3228	3228	3228	3228	3228	
5	3217	3220	3256	3301	3317	314
15	3078	3201	3523	3801	3898	996
25	2814	3159	3778	4159	4207	1669
35	2425	2956	3285	2785	2501	1774
45	1884	2305	1598	914	845	1191
55	1009	979	398	192	130	480
65	80	66	37	27	25	55
75	19	14	9	7	7	12
85	3	3	2	2	2	3
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	77	75	73	71	70	68	67	66
	2	73	69	66	66	64	61	64	62
	3	69	64	60	61	58	55	59	57
	4	64	58	54	56	52	50	55	52
	5	60	53	49	51	48	45	50	47
	6	56	49	44	47	43	40	46	43
	7	52	45	40	43	39	36	43	39
	8	49	41	36	39	35	32	39	35
	9	45	37	32	36	31	28	35	31
	10	42	34	29	33	28	25	32	28



Luminance Data in Candela/Sq. Meter

Average in Deg.	Average 0 Deg.	Average 45 Deg.	Average 90 Deg.
0	10820.	10820.	10820.
45	8836.	7575.	4006.
55	5897.	2326.	760.
65	635.	293.	198.
75	246.	117.	91.
85	115.	77.	77.

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	2978	31.5	45.9
0-40	4752	50.3	73.2
0-60	6423	68.0	98.9
0-90	6493	68.7	100.0
90-180	0	0.0	0.0
0-180	6493	68.7	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	85	75	66	59	96	93	93	83
20	30	87	78	71	62	97	94	94	86
20	40	88	81	75	66	97	94	94	88
20	60	89	82	77	70	97	94	94	88
30	20	85	75	72	64	96	94	93	83
30	30	88	80	76	67	97	94	94	86
30	40	90	83	79	70	97	95	94	88
30	60	90	84	81	73	97	95	94	88
30	80	90	85	83	76	97	95	94	88
40	20	85	75	72	69	97	94	93	84
40	30	88	80	78	71	97	95	94	87
40	40	90	83	81	74	97	95	94	88
40	60	90	85	83	77	97	95	94	88
40	80	90	85	84	79	97	95	94	88
40	100	90	85	84	80	97	95	94	88
60	30	88	80	78	71	97	95	94	87
60	40	90	83	80	75	97	95	94	88
60	60	90	86	83	78	97	95	94	89
60	80	90	86	85	80	97	95	94	89
60	100	90	86	85	82	97	95	94	89
100	40	90	83	81	75	97	95	94	89
100	60	90	86	83	78	97	95	94	89
100	80	90	86	85	80	97	95	94	89
100	100	90	86	85	81	97	95	94	89



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