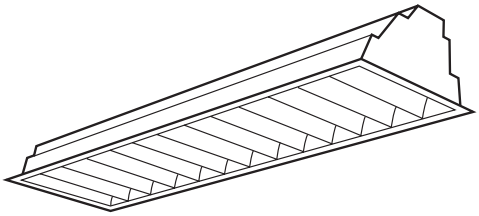
Columbia LIGHTING

VHC94/PVHC94 DOUBLE WALL WASH

9" × 4' VDT Parabolic / 1 or 2-Lamp T5, T5HO, T8



PROJECT INFORMATION

Project Name

Type

Catalog No.

Date

FEATURES

- Ideal corridor or public area companion to VHC general illumination fixtures
- Wide light distribution provides uniform illumination
- Unique optical system eliminates glare
- Low iridescent anodized aluminum louver and reflector
- White powder coat finish painted after fabrication
- Surface and pendant mount available
- Asymmetric wall wash distribution also available

CONSTRUCTION
Luminaire housing and end caps are die formed code gauge cold rolled steel. Louver and upper reflector surfaces are formed from low brightness iridescent suppressive specular anodized aluminum. Aluminum louver is secured in open or closed position by four torsion spring latches.

FINISH
White painted parts are treated with a five stage phosphate bonding process and finished after fabrication with a minimum 90% reflective gloss baked enamel.

AIR HANDLING
Standard luminaire is static. Air extract option available to remove room air and cool lamps.

INSTALLATION
An access plate is furnished with each luminaire for fast wiring access from the plenum. No need to open fixture. Product ships standard with mylar dust cover to eliminate job site contamination.

ELECTRICAL
Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

CEILING COMPATIBILITY
Luminaire is available to fit most standard ceiling types. NEC-compliant T-bar clips supplied with all grid trim fixtures. See ceiling details on reverse. For continuous row mounting in hard ceilings use F trim and either EOR (end of row) or INT (intermediate mount) options. Contact your Columbia representative for compatibility information for specific ceiling types.

SURFACE OR PENDANT MOUNT
Companion surface or pendant mount version (SM ceiling type) matches performance and aesthetics of recessed versions.

CERTIFICATION
All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE VHC94-132GT-LS113-S-EU-2WW

VHC 94 – – LS 1 – – – 2WW –

MODEL
- **VHC** VDT Parabolic

SIZE
- **94** 9" × 4'

NO. OF LAMPS
- **1** One
- **2** Two

LAMP TYPE
- **28** 4', T5: 28 Watt
- **32** 4', T8: 32, 30, 28 or 25 Watt
- **54** 4', T5HO: 54 or 51 Watt

T8 only uses over/ under lamp position

CEILING TYPE
- **GT** Integral Cross Tee (Grid ends lay into standard T-bar, sides act as integral cross tee to support tile)
- **F** Overlap Flange
- **G** Lay-in (GT is typically recommended)
- **SM** Surface Mount (Static only)

LOUVER FINISH
- **LS** Low Iridescent Specular

NO. CELLS CROSSWISE
- **1** One

NO. CELLS LENGTHWISE
- **13** Thirteen
- **15** Fifteen

AIR FUNCTIONS
- **S** Static
- **H** Heat Extract Only (No dampers)

BALLAST
- **E** Electronic T8, Instant Start (Std.)
- **EP** Electronic T5, Programmed Start (std. T5/T5HO, optional T8)
- **ED** Electronic Dimming

For dimming and other specific ballast vendor show as option.

VOLTAGE
- **U** 120V-277V
- **347** 347V

DISTRIBUTION OPTIONS
- **2WW** Double Wall Wash

OPTIONS
- **F0735** 35K 75 CRI T8 Lamps Installed
- **F0835** 35K 80 CRI T8 Lamps Installed
- **F5835** 35K 80 CRI T5 Lamps Installed
- **GLR** Fast Blow Fuse
- **GMF** Slow Blow Fuse
- **EL** Emergency Battery Pack
- **MSEE** Master/Satellite End-to-End

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PHOTOMETRIC DATA

Test **10536** Test Date **6/10/03**

LUMINAIRE DATA

Luminaire	**VHC94-132G-LS113-EB8-2WW** **VHC Parabolic** **9" × 48" 1-Lamp with 1 × 13 Cell Specular Louver**
Ballast	**B232I120**
Ballast Factor	**1.15**
Lamp	**FO32/741**
Lumens per Lamp	**2850**
Total Input Watts	**35**
Shielding Angle	**N/A**

I.E.S.N.A. VISUAL COMFORT PROBABILITY

ILLUMINATION = 100 FC
REFLECTANCES = 80/50/20
WORK PLANE HEIGHT = 2.5 FEET

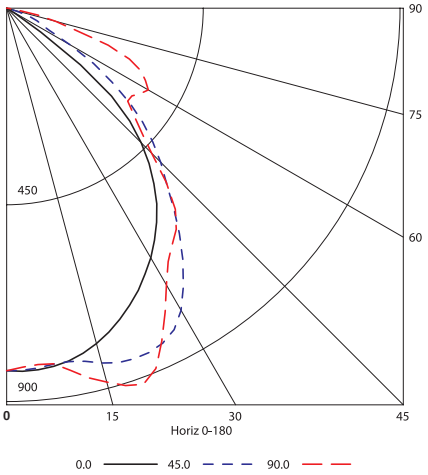
Height Room Size		Luminaires							
		Lengthwise				Crosswise			
W	L	8.5	10.0	13.0	16.0	8.5	10.0	13.0	16.0
20	20	89	87	86	82	55	58	68	79
20	30	91	89	90	86	54	51	52	62
20	40	91	91	92	89	57	52	47	50
20	60	92	92	94	91	59	54	48	47
30	20	86	83	84	80	63	64	71	78
30	30	89	87	87	83	62	57	54	62
30	40	90	89	90	86	63	57	50	50
30	60	90	89	92	89	66	59	50	47
30	80	90	89	92	89	68	62	52	49
40	20	87	83	83	79	69	70	75	80
40	30	89	86	85	82	68	63	59	65
40	40	90	88	88	85	69	62	53	53
40	60	91	89	90	87	70	64	53	49
40	80	91	89	90	87	73	66	55	51
40	100	91	89	90	87	74	69	57	52
60	30	90	86	84	79	70	67	64	69
60	40	91	88	87	82	71	67	58	56
60	60	92	89	89	85	73	68	57	52
60	80	92	89	89	85	75	70	59	53
60	100	92	89	89	85	77	72	61	55
100	40	93	90	87	82	75	70	65	63
100	60	94	91	89	84	76	71	64	59
100	80	94	91	90	85	78	74	65	60
100	100	94	92	90	86	80	75	67	61

BASED ON IES PROCEDURE RQQ-2 (1972) WITH Mr > 0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	687	24.1	35.8
0-40	1109	38.9	57.8
0-60	1741	61.1	90.8
0-90	1918	67.3	100.0
0-180	1918	67.3	100.0

INDOOR CANDELA PLOT



COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50			0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
	1	75	72	70	68	73	71	69	67	68	66	65	59
	2	69	64	61	57	67	63	60	57	61	58	55	52
	3	64	58	53	49	62	57	52	49	55	51	48	45
	4	59	52	47	43	57	51	46	42	49	45	42	39
	5	54	47	41	37	53	46	41	37	45	40	37	35
	6	51	42	37	33	49	42	37	33	41	36	33	31
	7	47	39	33	30	46	38	33	29	37	33	29	28
	8	44	35	30	27	43	35	30	26	34	30	26	25
	9	41	33	28	24	40	32	27	24	32	27	24	22
	10	39	30	25	22	38	30	25	22	29	25	22	20

RCR = Room Cavity Ratio
RC = Effective Ceiling Cavity Reflectance **RW** = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	**67.3%**
Luminaire Efficacy Rating (LER)	**63**
IESNA RP-1-1993 Compliance	**Non-Compliant**
Comparative Yearly Lighting Energy Cost per 1000 Lumens	**$3.81 based on 3000 hrs. and $0.08 per KWH**

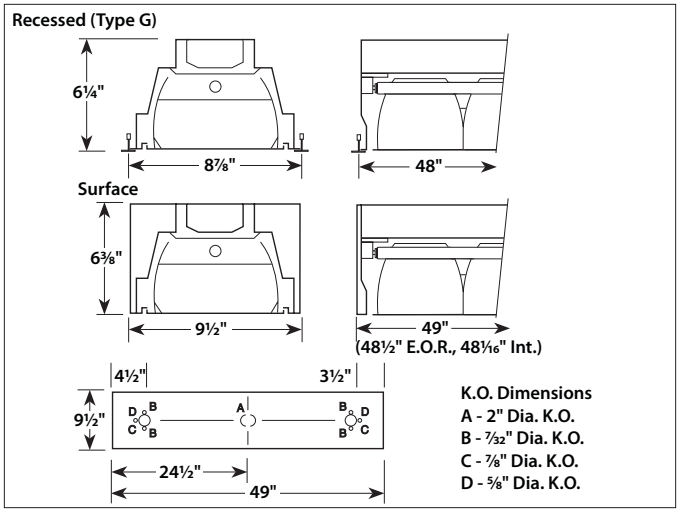
AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	4706	4706	4706	4706	4706
30	4319	4693	5230	5126	4791
40	3883	4498	4394	4794	4446
45	3492	4110	3998	4335	3765
50	2764	3462	3585	3771	3347
55	940	2167	2910	3513	3464
60	68	295	1885	3565	4246
65	27	67	1182	3506	4553
70	17	33	929	3021	4099
75	22	22	219	1776	2544
80	0	0	65	556	915
85	0	0	65	195	130

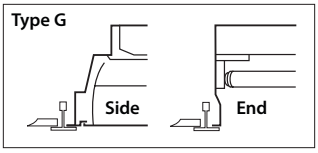
CANDELA VALUES (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	829	829	829	829	829
5	830	825	826	820	818
10	819	813	821	835	841
15	794	791	840	878	885
20	757	767	853	905	915*
25	712	748	845	868	840
30	659	716	798	782	731
35	598	666	703	701	660
40	524	607	593	647	600
45	435	512	498	540	469
50	313	392	406	427	379
55	95	219	294	355	350
60	6	26	166	314	374
65	2	5	88	261	339
70	1	2	56	182	247
75	1	1	10	81	116
80	0	0	2	17	28
85	0	0	1	3	2
90	0	0	0	0	0

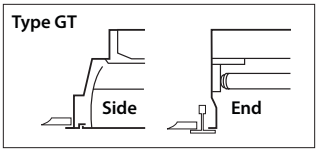
DIMENSIONAL DATA



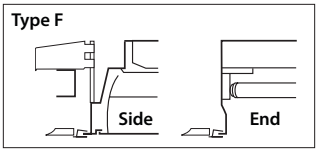
CEILING COMPATIBILITY



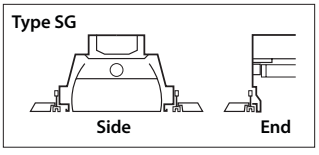
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 1½" allowed.



For lay-in installation in grid ceilings. Fixture mounts on exposed tees at ends of fixture. Self flange attached to side supports tile, eliminating need for intermediary tees. Designed for end tees of 1" width.



For tile, plaster or plasterboard type ceilings. Overlapping extruded aluminum trim conceals edges of ceiling opening. Wing hanger suspension system included. For row mounting, row information is required.



For ⅝" slot grid type ceilings. Louver will be level with the ceiling plane. Slot grid tees must be field installed all around the fixture. For availability of side flanges, contact the factory.

Flange kit rough in dimensions for single unit only: 9⅞" × 48⅛"

NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.