

# A downlight with modular design for optimized installation

## PHILIPS LIGHTOLIER MODULAR DOWNLIGHT CM6-VCFL 6"



### PHILIPS LIGHTOLIER MODULAR DOWNLIGHT C1

The Philips Lightolier 6" Vertical Compact Fluorescent Downlight offers a modular design that allows contractors to complete the ceiling with the frame before a lamp source or wattage has been determined.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Catalog No: \_\_\_\_\_  
 Fixture Type: \_\_\_\_\_  
 Mfg: \_\_\_\_\_ Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

#### Ordering guide - UNIVERSAL

example: CM6-FV26/32/42U-V65

Plaster Frame	Electrical System	Ballast Options	Options	Trims (choose one)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>CM6</b> 6" metal plaster frame <b>CM6R</b> 6" metal remodel frame	<b>FV18</b> (1)CFQ18W/G24q <b>FV26/32/42</b> (1)CFQ26W/G24q (1)CFM26W/GX24q (1)CFM32W/GX24q (1)CFM42W/GX24q	<b>U</b> 120-277V	<b>E<sup>1</sup></b> Integral Emergency	<b>V65</b> Clear Reflector <b>V65E</b> Clear Reflector, Emergency <b>V65SL</b> Clear Reflector, Self Flanged <b>V65F</b> Clear Cone, Fresnel Lens Insert <sup>2</sup> <b>V65P</b> Clear Cone, C73 Prismatic Lens <sup>2</sup> <b>VW65</b> Clear Reflector, Single Wall Wash <b>V65B</b> Black Baffle <b>V65BE</b> Black Baffle, Emergency <b>V65BP</b> Black Baffle, C73 Prismatic Lens <sup>2</sup> <b>V65BF</b> Black Baffle, Fresnel Lens <sup>2</sup> <b>V65WB</b> White Baffle <b>V65WBE</b> White Baffle, Emergency <b>V66</b> White Reflector <b>V66E</b> White Reflector, Emergency <b>V66F</b> White Splay, Fresnel Lens Insert <sup>2</sup> <b>V66P</b> White Splay, C73 Prismatic Lens <sup>2</sup>
Ordering guide - DIMMING				
<b>CM6</b> 6" metal plaster frame <b>CM6R</b> 6" metal remodel frame	<b>FV18</b> (1)CFQ18W/G24q <b>FV26</b> (1)CFQ26W/G24q (1)CFM26W/GX24q <b>FV32</b> (1)CFM32W/GX24q <b>FV42</b> (1)CFM42W/GX24q	<b>DX1</b> 120V dimming <b>DX2</b> 277V dimming		

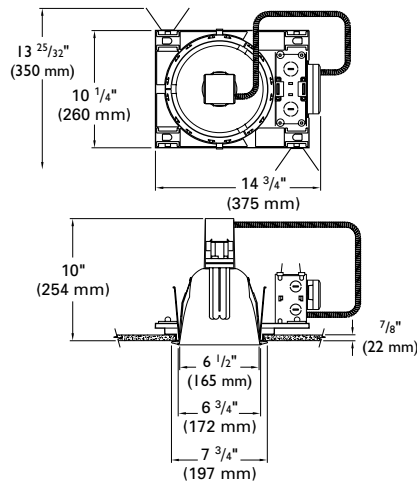
1. Integral Emergency option available with Emergency trims only.  
 2. cULus Listed Wet Location.

Available lamps are listed under applicable electricals.  
 DX1 and DX2 are standard Advance Mark X dimming.

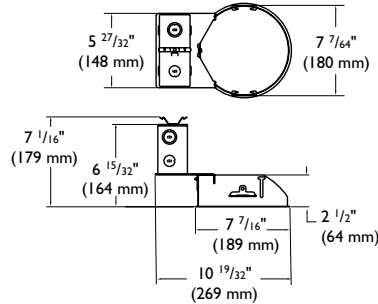
# PHILIPS LIGHTOLIER MODULAR DOWNLIGHT CM6-VCFL 6"

## Dimensions

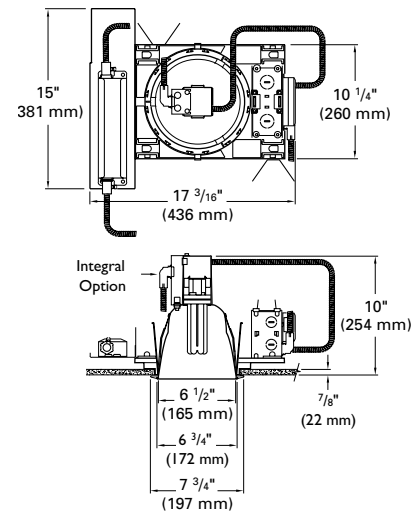
### CM6



### CM6R



### Integral Emergency



## Descriptions

Six inch modular downlight rated for use with a wide variety of lamp wattages and trims. Optional integral emergency provides a self contained emergency battery which operates one lamp for a minimum of 90 minutes following power failure.

## Features

- 1 Frame:** 22 gauge die stamped metal frame with flanged edges to provide a smooth handling surface. Frames can be installed before the lamp source or wattage has been determined. Suitable for installation in environmental air handling ceilings.
- 2 Mounting:** Adjustable spring steel butterfly brackets accommodate CH24 channel bar hangers, BH3 flat bar hangers or 1/2" EMT conduit. L-brackets slide into place on any of the four corners to secure emergency option to the frame. Emergency tray rests on bar hangers or EMT for support. Frame can be supported with aircraft cable where required.
- 3 Ballast:** All ballasts are electronic high power factor and are attached directly to the junction box door at the factory. Available with optional dimming ballast for energy efficiency. Pre-installed quick connectors.
- 4 Socket cup:** The socket cup attaches directly to the trim without need for tools. All socket cups orient the lamp at the optical focal plane of the reflector for precise optics and optimum performance. Socket is adjustable.
- 5 Junction Box:** Plaster frame integrated 47 cubic inch junction box with four 1/2" and two 1" knockouts. Electrical connections are made through a single junction box door, which allows all electrical systems to snap into place on the frame
- 6 Integral emergency:** A special high temperature nickel cadmium battery charger and electronic circuitry contained in a compact case. Test switch and charging indicator are mounted inside the reflector. For use with Emergency trims only. Emergency illumination exceeds NEC, NFPA-LSC and UL 90 minute requirement.
- 7 Installation:** Trims attach directly to the frame via expandable torsion springs. When used in conjunction with the molded spring tabs on the plaster frame, the torsion springs allow for full rotation and adjustment from below fixture.
- 8 Reflector:** Reflector is precision spun .050 aluminum with Alzak finish. Separate injection molded, white polycarbonate ring.
- 9 Baffle:** Baffle is precision spun .040 aluminum with deep grooves to reduce aperture glare. Non-reflective matte black or white painted finishes.

## Labels

cULus Listed Approved for damp locations and through branch wiring with up to 8 #12 AWG conductors. All emergency units are cULus Listed for dry locations only.

## Options

Dimming ballasts dependent on lamp configuration.

Emergency option available. Note: Integral must be used with emergency trim.

## Accessories

- 27" Flat Bar Hangers . . . . .BH3
  - 26" C-Channel Bar Hangers . . . . .CH24
  - Emergency Remote Field Installable Kit . . .ERFK
- Accessories ordered separately.

# PHILIPS LIGHTOLIER MODULAR DOWNLIGHT CM6-VCFL 6"

## Trims



**V65** Clear Reflector  
**V65E** Clear Reflector, Emergency  
**V65SL** Clear Reflector, Self-flanged\*\*



**VW65** Clear Single Wall Wash



**V66** White Reflector  
**V66E** White Reflector, Emergency



**V66P** White Splay, C73 Prismatic Lens\*  
**V66F** White Splay, Fresnel Lens\*



**V65B** Clear Reflector,  
Black Baffle  
**V65BE** Clear Reflector,  
Black Baffle, Emergency



**V65WB** Clear Reflector,  
White Baffle  
**V65WBE** Clear Reflector,  
White Baffle, Emergency



**V65F** Fresnel Lens\*  
**V65P** C73 Prismatic Lens\*



**V65BF** Clear Reflector,  
Black Baffle, Fresnel Lens\*  
**V65BP** Clear Reflector,  
Black Baffle, C73 Prismatic Lens\*

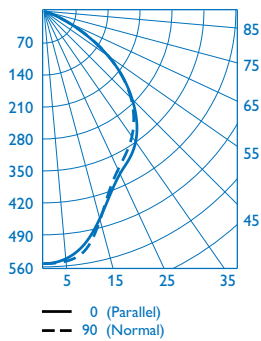
\*cULUS Listed Wet Location.  
\*\* Self-flanged has same finish as reflector.

## Photometric Data

### CM6 - FV26-H65

6" Compact Fluorescent  
Vertical Downlight, Clear Reflector

Lamp: (1) CFQ26W/G24q  
IES Spacing Criteria: Nor - 1.0, Par - 1.0  
Beam Angle: 102°  
Efficiency: 55.5%



**Conversion Factors**  
For average footcandle calculations  
multiply by the conversion factor:  
**TRIM**      **FACTOR**  
H66            .88

### CANDLEPOWER SUMMARY

Zone Degree	0° Candelas	90° Candelas
90	0	0
85	0	0
80	0	0
75	0	0
70	1	1
65	5	6
60	21	24
55	32	57
50	93	97
45	139	143
40	174	174
35	199	198
30	223	229
25	246	262
20	271	293
15	312	317
10	332	331
5	345	328
0	337	337

### COEFFICIENTS OF UTILIZATION

Ceiling Cavity Reflectance		80		50		10		
Wall Reflectance		50		30		10		
Room Cavity Ratio		50		30		10		
CU for Floor Cavity Reflectance = 20%								
0	66	66	66	61	61	61	56	56
1	60	58	56	56	55	54	52	51
2	54	51	49	51	49	47	48	46
3	49	45	42	46	44	41	44	42
4	44	40	37	42	39	36	40	37
5	39	35	32	38	34	32	36	33
6	36	31	28	34	31	28	33	30
7	32	28	25	31	27	25	29	26
8	29	25	22	28	24	21	27	24
9	26	22	19	25	21	19	24	21
10	24	19	17	23	19	17	22	19

These coefficients were computed by the zonal-cavity method, I.E.S. recommended practice, and prepared from the candlepower distribution data in photometric test no. 2249

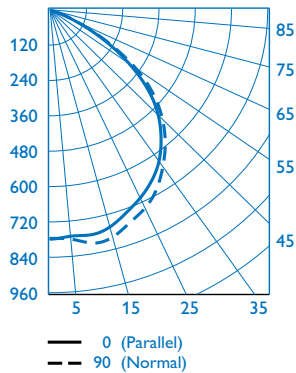
# PHILIPS LIGHTOLIER MODULAR DOWNLIGHT CM6-VCFL 6"

## Photometric Data

### CM6 - FV42-H65

6" Compact Fluorescent  
Vertical Downlight, Clear Reflector

Lamp: (1) CFM42W/GX24q  
IES Spacing Criteria: Nor - 1.3, Par - 1.3  
Beam Angle: 108°  
Efficiency: 58.6%



#### Conversion Factors

For average footcandle calculations  
multiply by the conversion factor.

TRIM	FACTOR
V66	.88

#### CANDLEPOWER SUMMARY

Zone Degree	0° Candelas	90° Candelas
90	0	0
85	0	0
80	1	1
75	10	10
70	46	55
65	121	128
60	223	238
55	329	358
50	430	451
45	508	527
40	570	593
35	629	648
30	670	705
25	704	744
20	731	765
15	765	802
10	780	812
5	766	776
0	776	776

#### COEFFICIENTS OF UTILIZATION

Ceiling Cavity Reflectance		80		50		10			
Wall Reflectance		50		30		10			
Room Cavity Ratio		50		30		10			
CU for Floor Cavity Reflectance = 20%									
0	69	69	69	65	65	65	59	59	
1	63	61	59	59	58	56	55	54	53
2	57	54	51	54	51	49	50	49	47
3	51	47	44	49	46	43	46	44	42
4	46	42	38	44	40	38	41	39	37
5	41	37	33	39	36	33	37	34	32
6	37	32	29	35	32	29	34	31	28
7	33	29	25	32	28	25	30	27	25
8	30	25	22	29	25	22	27	24	21
9	27	22	19	26	22	19	24	21	19
10	24	20	17	23	19	17	22	19	16

These coefficients were computed by the zonal-cavity method, I.E.S. recommended practice, and prepared from the candlepower distribution data in photometric test no. 2096

