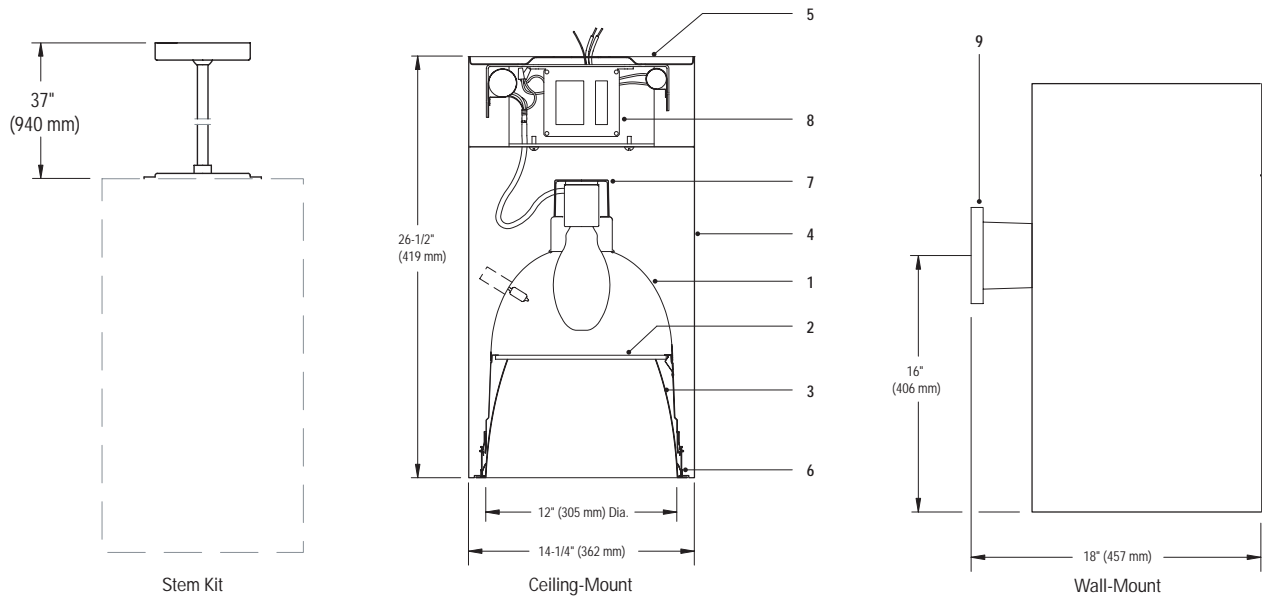


# Calculite® HID Surface Cylinder C12CS-E28VN-VW



Reflector Trim	Cylinder Housing	Lamp (Coated, MH)
<b>C12E28VN</b> <input type="checkbox"/> Narrow Beam <b>C12E28VW</b> <input type="checkbox"/> Wide Beam  <b>CLW</b> Specular Clear, White Painted Flange. <b>CCDW</b> Comfort Clear Diffuse, White Painted Flange. <b>CCZW</b> Champagne Bronze, White Painted Flange.	<b>Ceiling-Mount</b> <b>Wall-Mount</b> <b>C12CS17MHU</b> <b>C12CW17MHU</b> Magnetic 120V/277V <b>C12CS25MHU</b> <b>C12CW25MHU</b> Magnetic 120V/277V <b>C12CS40MHU</b> <b>C12CW40MHU</b> Magnetic 120V/277V <b>C12CS32MHPU</b> <b>C12CW32MHPU</b> Magnetic Pulse Start 120V/277V	175W BT28/ED28 (Enclosed) 250W BT28/ED28 (Enclosed) 400W BT28/ED28 (Enclosed) 320W BT28/ED28 (Enclosed)

## Features

- Reflector:** Semi-Specular anodized aluminum, 16 ga. Removable from inside fixture for access to splices and ballast.
- Lamp Shield:** High-temperature glass as required by code, captive during re-lamping.
- Aperture Cone:** Clear anodized aluminum, 0.040" (16 ga.). Provides 40° cut-off to lamp. Consult factory for other finishes.
- Cylinder Housing:** One-piece, heavy gage seamless aluminum. White baked enamel finish. Attaches to Ballast/Support for easy installation.
- Ceiling Mounting Pan:** 0.084" (18 ga. steel), galvanized steel.
- Trim Retention Springs:** Rust resistance springs secure aperture cone for quick, Tool-less installation.
- Socket Cup:** Heat dissipating, die-cast aluminum. Pre-wired with mogul base porcelain socket with nickel plated screw shell.
- Ballast/support assembly:** Heavy gage, die-formed steel. Ballast is accessible from below.
- Wall Mount Bracket:** Die-cast aluminum, suitable for mounting over 4" octagon outlet box.

## Electrical

**Magnetic Ballast:** Dual voltage (120V/277V), 60 Hz, core and coil, CWA circuit type, high power factor, -20° F minimum starting temperature, Type 1 Outdoor rating.

Ballast	ANSI Code	Voltage	Max. Amps	Input Watts
175W MH	M57	120/277	2.00/0.90	205
250W MH	M58	120/277	2.60/1.10	290
320W PS MH	M132/M154	120/277	3.40/1.50	370
400W MH	M59	120/277	3.90/1.70	460

## Options and Accessories

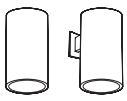
**C4CSW:** Stem Kit – White (45° Swivel, 37" long). Provide with 5/8" dia. Stem and 5 1/2" dia. Canopy. Self-aligning swivel provides max. 45° vertical tilting. Installs over 4" octagonal outlet box. Stem can be cut to length on site.

**Auxiliary Lighting:** Add suffix **A** to Cylinder Housing and Reflector Trim.

## Labels

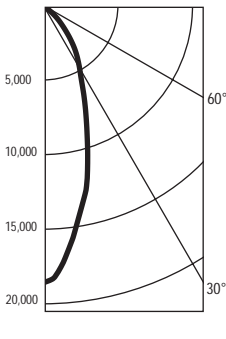
UL (Suitable For Damp Locations), CSA, I.B.E.W.

Job Information	Type:
Job Name:	
Cat. No.:	
Lamp(s):	
Notes:	



# Calculite® HID Surface Cylinder C12CS-E28VN-VW

### 250W ED28, NARROW BEAM PHILIPS MH COATED LAMP, LUMEN RATING = 19475 LMS, UNIVERSAL MAGNETIC BALLAST, CL FINISH TRIM



ANGLE	MEAN CP	LUMENS	LUMINANCE SUMMARY - CD. / SQ. M.
			ANGLE MEAN CD/SQ M
0	18579		
5	16967	1591	45 54956
10	14138		
15	11451	3226	55 2036
20	8486		
25	6337	3011	65 0
30	4864		
35	3775	2358	75 0
40	2602		
45	1589	1239	85 0
50	619		
55	48	160	
60	0	0	
65	0	0	
70	0	0	
75	0	0	
80	0	0	
85	0	0	
90	0	0	

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	7828	40.2	67.57
0-40	10186	52.3	87.92
0-60	11585	59.49	100
0-90	11585	59.49	100
40-90	1398	7.18	12.08
60-90	0	0	0
90-180	0	0	0
0-180	11585	59.49	100

#### Coefficients of Utilization

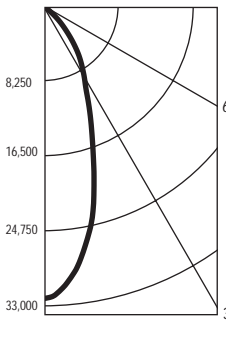
CEILING	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	
WALL	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	.71	.71	.71	.71	.69	.69	.66	.66	.63	.63	.59
1	.68	.67	.65	.64	.65	.63	.63	.61	.61	.59	.57
2	.65	.63	.61	.59	.62	.58	.60	.57	.58	.56	.54
3	.62	.59	.57	.55	.58	.54	.57	.54	.56	.53	.51
4	.60	.56	.53	.51	.56	.51	.54	.50	.53	.50	.48
5	.57	.53	.50	.48	.53	.48	.52	.47	.51	.47	.46
6	.55	.51	.47	.45	.50	.45	.49	.45	.48	.44	.43
7	.52	.48	.45	.42	.47	.42	.47	.42	.46	.42	.41
8	.50	.45	.42	.40	.45	.40	.44	.40	.44	.39	.39
9	.48	.43	.40	.37	.42	.37	.42	.37	.41	.37	.36
10	.46	.40	.37	.35	.40	.35	.40	.35	.39	.35	.34

LUMINAIRE INPUT WATTS = 290

\*\* EFFICIENCY = 59.5% \*\*  
SC = .6

CERTIFIED TEST REPORT NO. 2507FR, DATE: MAR 14, 2004  
COMPUTED BY LSI PROGRAM \*\*TEST-LITE\*\*

### 400W ED28, NARROW BEAM GE MH COATED LAMP, LUMEN RATING = 35000 LMS, ADVANCE MAGNETIC BALLAST, CL FINISH TRIM



ANGLE	MEAN CP	LUMENS	LUMINANCE SUMMARY - CD. / SQ. M.
			ANGLE MEAN CD/SQ M
0	32201		
5	30567	2866	45 100565
10	26772		
15	21592	6084	55 982
20	15893		
25	11829	5625	65 0
30	9060		
35	7031	4394	75 0
40	4857		
45	2908	2264	85 0
50	1021		
55	23	239	
60	0	0	
65	0	0	
70	0	0	
75	0	0	
80	0	0	
85	0	0	
90	0	0	

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	14575	41.64	67.88
0-40	18969	54.2	88.34
0-60	21472	61.35	100
0-90	21472	61.35	100
40-90	2503	7.15	11.66
60-90	0	0	0
90-180	0	0	0
0-180	21472	61.35	100

#### Coefficients of Utilization

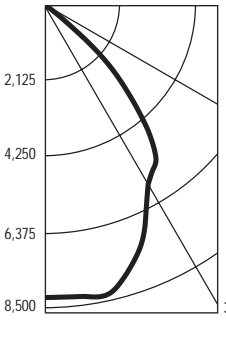
CEILING	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	
WALL	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	.73	.73	.73	.73	.71	.71	.68	.68	.65	.65	.61
1	.70	.69	.67	.66	.67	.65	.65	.63	.63	.61	.58
2	.67	.65	.63	.61	.64	.60	.62	.59	.60	.58	.56
3	.64	.61	.59	.57	.60	.56	.59	.55	.57	.54	.53
4	.62	.58	.55	.53	.57	.53	.56	.52	.55	.52	.50
5	.59	.55	.52	.50	.54	.49	.53	.49	.52	.48	.47
6	.57	.52	.49	.47	.52	.47	.51	.46	.50	.46	.45
7	.54	.49	.46	.44	.49	.44	.48	.44	.47	.43	.42
8	.52	.47	.43	.41	.46	.41	.46	.41	.45	.41	.40
9	.49	.44	.41	.39	.44	.39	.43	.38	.43	.38	.37
10	.47	.42	.39	.36	.42	.36	.41	.36	.41	.36	.35

LUMINAIRE INPUT WATTS = 460

\*\* EFFICIENCY = 61.4% \*\*  
SC = .6

CERTIFIED TEST REPORT NO. 2522FR, DATE: MAR 14, 2004  
COMPUTED BY LSI PROGRAM \*\*TEST-LITE\*\*

### 250W ED28, WIDE BEAM PHILIPS MH COATED LAMP, LUMEN RATING = 19475 LMS, UNIVERSAL MAGNETIC BALLAST, CL FINISH TRIM



ANGLE	MEAN CP	LUMENS	LUMINANCE SUMMARY - CD. / SQ. M.
			ANGLE MEAN CD/SQ M
0	8217		
5	8229	788	45 105132
10	8325		
15	8132	2277	55 5546
20	7546		
25	6737	3109	65 0
30	5850		
35	5457	3333	75 0
40	4459		
45	3040	2289	85 0
50	1286		
55	130	348	
60	4	1	
65	0	0	
70	0	0	
75	0	0	
80	0	0	
85	0	0	
90	0	0	

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	6174	31.7	50.84
0-40	9507	48.82	78.28
0-60	12143	62.36	99.99
0-90	12144	62.36	100
40-90	2637	13.54	21.72
60-90	0	0	0.01
90-180	0	0	0
0-180	12144	62.36	100

#### Coefficients of Utilization

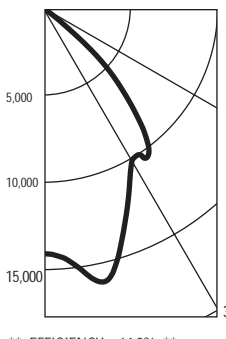
CEILING	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	
WALL	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	.74	.74	.74	.74	.73	.73	.69	.69	.66	.66	.62
1	.71	.69	.67	.66	.68	.65	.65	.63	.63	.61	.58
2	.67	.64	.62	.60	.63	.59	.61	.58	.59	.57	.54
3	.64	.60	.57	.54	.59	.54	.57	.53	.56	.52	.50
4	.61	.56	.52	.50	.55	.49	.54	.49	.53	.48	.47
5	.57	.52	.48	.45	.51	.45	.50	.45	.49	.44	.43
6	.54	.48	.44	.42	.48	.42	.47	.41	.46	.41	.40
7	.51	.45	.41	.38	.44	.38	.43	.38	.43	.37	.36
8	.48	.41	.37	.35	.41	.34	.40	.34	.40	.34	.33
9	.45	.38	.34	.31	.38	.31	.37	.31	.37	.31	.30
10	.42	.35	.31	.28	.35	.28	.34	.28	.34	.28	.27

LUMINAIRE INPUT WATTS = 290

\*\* EFFICIENCY = 62.4% \*\*  
SC = 1.1

CERTIFIED TEST REPORT NO. 2508FR, DATE: MAR 14, 2004  
COMPUTED BY LSI PROGRAM \*\*TEST-LITE\*\*

### 400W ED28, WIDE BEAM GE MH COATED LAMP, LUMEN RATING = 35000 LMS, ADVANCE MAGNETIC BALLAST, CL FINISH TRIM



ANGLE	MEAN CP	LUMENS	LUMINANCE SUMMARY - CD. / SQ. M.
			ANGLE MEAN CD/SQ M
0	14097		
5	14418	1399	45 207807
10	15675		
15	15612	4282	55 5858
20	13529		
25	11653	5440	65 0
30	10175		
35	10432	6250	75 0
40	8760		
45	6008	4499	85 0
50	2461		
55	137	614	
60	0	0	
65	0	0	
70	0	0	
75	0	0	
80	0	0	
85	0	0	
90	0	0	

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	11120	31.77	49.46
0-40	17370	49.63	77.26
0-60	22483	64.24	100
0-90	22483	64.24	100
40-90	5112	14.61	22.74
60-90	0	0	0
90-180	0	0	0
0-180	22483	64.24	100

#### Coefficients of Utilization

CEILING	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	
WALL	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%										
0	.76	.76	.76	.76	.75	.75	.71	.71	.68	.68	.64
1	.73	.71	.69	.68	.70	.67	.67	.65	.65	.63	.60
2	.69	.66	.64	.61	.65	.61	.63	.59	.61	.58	.56
3	.66	.61	.58	.56	.61	.55	.59	.54	.57	.54	.52
4	.62	.57	.54	.51	.57	.51	.55	.50	.54	.50	.48
5	.59	.53	.49	.46	.53	.46	.51	.46	.50	.45	.44
6	.55	.49	.45	.43	.49	.42	.48	.42	.47	.42	.41
7	.52	.46	.42	.39	.45	.38	.44	.38	.43	.38	.37
8	.49	.42	.38	.35	.42	.35	.41	.35	.40	.35	.34
9	.46	.39	.35	.32	.38	.32	.38	.32	.37	.31	.30
10	.43	.36	.32	.29	.35	.29	.35	.29	.34	.28	.27

LUMINAIRE INPUT WATTS = 460

\*\* EFFICIENCY = 64.2% \*\*  
SC = 1.1

CERTIFIED TEST REPORT NO. 2521FR, DATE: MAR 14, 2004  
COMPUTED BY LSI PROGRAM \*\*TEST-LITE\*\*

Job Information Type:

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