

CM1616, FL1616 Series

Area/Parking/Industrial

HID, LED, INDUCTION

Ceiling Pole Or Wall Mount

Symmetrical/Asymmetrical Distribution

We reserve the right to revise the design or components of any product without notice.

CATALOG #		TYPE
PROJECT/LOCATION		
APPROVED BY		



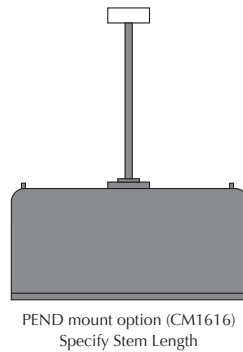
CM1616



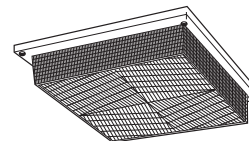
CM1616 shown with Backbox option (BB)



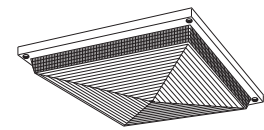
FL1616



PEND mount option (CM1616)
Specify Stem Length



Drop Square Lens (DS)



Drop Pyramidal Lens (DP)



Adjustable Direct Mount Pole Arm (FL-BR)



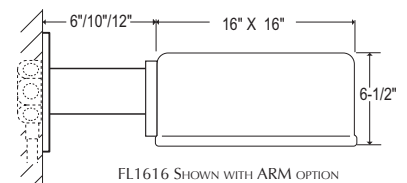
Adjustable swivel mount two-piece mounting bracket (FL-SW)



Slip Fitter (SF)



Extruded Mounting Arm 10" Shown (ARM-10)



FL1616 SHOWN WITH ARM OPTION

LAMP TYPE/QTY/WATTAGE ¹			
Fixture		CM1616	FL1616
Dimensions - W x H x D		16" x 16" x 6 1/2"	16" x 16" x 6 1/2"
Metal Halide	MH	70/100/150w	70/100/150w
Ceramic Metal Halide <i>Philips - CosmoPolis™</i>	CMHC	90/140w (277V Standard) ¹	90/140w (277V Standard) ¹
QL Induction ⁴ Up to 100,000 HR Lamp Life	QL	85/165w ²	85w
ICE Induction ⁴ Up to 100,000 HR Lamp Life	ICE	70/100/150w ²	70/100w
Light Emitting Diode	LED	60/90w	60/90w

ORDERING GUIDE:

SERIES	LAMP TYPE/WATT	COLOR TEMP	VOLTAGE/POWER	FINISH	OPTIONS

NOTES:

- Consult Factory with requests regarding lamp sources, including LED, color temp., wattages or voltages not shown.
- Backbox (BB) Required
Backbox req'd where text bold and note#2 shown
- Lamping system is warranted by Osram and Philips for 40,000 HOURS.
- QRS: 120v Only—Lamp by Others
- Available with Step Dimming Option (CMHL) *Philips-Lumistep™*
Specify: "6" for 6hrs; "8" for 8hrs; "X" for 10hrs

SERIES

CM1616 = CM1616 SERIES Symmetrical
CM1617 = CM1616 SERIES Asymmetrical
FL1616 = FL1616 SERIES Symmetrical

LAMP TYPE/QUANTITY/WATTAGE

Refer to Above Chart

COLOR TEMP (LED, Induction)

3K = ±3000K range Induction Only
4K = ±4000K range Induction Only
5K = ±5000K range LED or Induction

VOLTAGE

120 = 120 Volts HPF
277 = 277 Volts HPF
347 = 347 Volts HPF
EBU = Universal Voltage (120 thru 277v)
QV = 120/208/240/277 Volts HPF
12VDC = 12VDC — LED
24VDC = 24VDC — LED

POWER FACTOR

EB = High Power Factor Electronic Ballast
EBMH = Electronic Ballast for Metal Halide
IND = HF Generator - INDUCTION

FINISH

BZ = Bronze Finish

LED OPTIONS

BL = Dual Circuit Bi-Level Lighting Switched High/Low
EC1 = (1) Three Watt LED for Emergency Circuits
EC2 = (2) Three Watt LED for Emergency Circuits
LDIM = 0-10V low-voltage dimming (100-30% Standard, Consult Factory for Other)
SG = 10KA Surge Protection for LED (meets ANSI spec C62.41.2)

OPTIONS

ARM = Extended Arm—Specify Length: 6", 10" or 12"
BB = 2" Deep, 12" x 12" Backbox (CM1616 - Req'd with Induction Lamp)
CMHL = Ceramic Metal Halide *CosmoPolis™* with Step Dimming: *Lumistep™* (Philips)²
DP = Drop Pyramid Diffuser
DS = Drop Square Diffuser
FL-BR = Adjustable Direct Mount Pole Arm
FL-SW = Adjustable Swivel Mounting Bracket
FUS = Single Fusing
MSE = Motion Sensor External for LED, IND Specify Finish: White (WH) or Bronze (BZ)
PEND = Pendant Mounting Kit, 1/2" conduit entrance. Specify Stem Length.
QRS = Quartz Restrike Relay³
SF = Slip Fitter
TRB = Trunion Mount Bracket

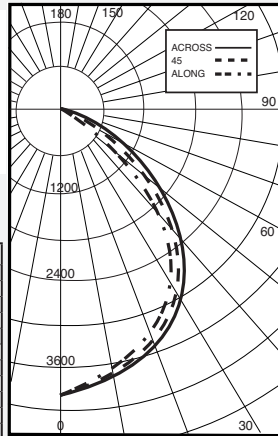
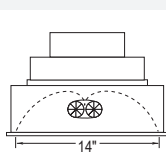


PHOTOMETRIC DATA:

CM1616 / FL1616 Series

LSI test # 16041 CM1616-IND-ICE-150W-277-B2
specular reflector and laminated lens of .25 clear and .125 k12 prismatic
Test Date: 11/20/2001

Zunal Lumen Summary			
Zone	Lumens	%Lamp	%Luminaire
0-30	2824	23.24	35.02
0-40	4371	36.43	54.20
0-60	6912	57.61	85.71
0-90	8064	67.21	100.00
40-90	3693	30.78	45.80
60-90	1152	9.60	14.29
90-180	0	0.00	0.00
0-180	8064	67.21	100.00



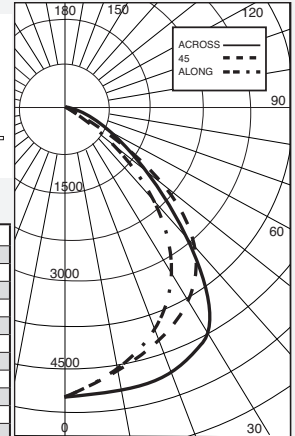
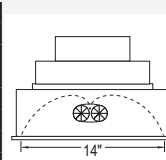
Efficiency: 67.3%

Coefficients of Utilization									
PCC>	PW>	80%			70%			50%	
		70%	50%	30%	70%	50%	30%	50%	30%
0	80	80	80	78	78	78	75	75	75
1	75	72	70	73	71	68	68	66	66
2	69	65	61	68	63	60	61	58	58
3	64	58	54	62	57	53	55	52	52
4	60	53	48	58	52	47	50	46	46
5	55	48	42	50	47	42	46	41	41
6	51	43	38	54	43	38	42	37	37
7	47	39	34	46	39	34	38	33	33
8	44	36	31	43	36	30	35	30	30
9	41	33	28	40	32	28	32	27	27
10	38	30	25	38	30	25	29	25	25

Rm. Percentage = 20%; PCC = Ceiling Reflectance; PW = Wall Reflectance

LSI test # 16042 CM1616-IND-ICE-150W-277-B2
specular reflector and c73 prismatic glass lens
Test Date: 11/20/2001

Zunal Lumen Summary			
Zone	Lumens	%Lamp	%Luminaire
0-30	3864	30.54	37.24
0-40	5803	48.36	58.98
0-60	8874	73.96	90.18
0-90	9840	82.01	100.00
40-90	4037	33.64	41.02
60-90	966	8.05	9.82
90-180	0	0.00	0.00
0-180	9840	82.01	100.00



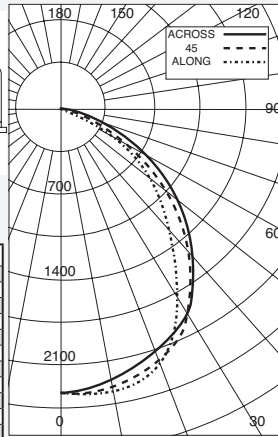
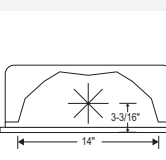
Efficiency: 82.1%

Coefficients of Utilization									
PCC>	PW>	80%			70%			50%	
		70%	50%	30%	70%	50%	30%	50%	30%
0	98	98	98	95	95	95	91	91	91
1	92	89	86	90	87	85	83	82	82
2	85	81	76	84	79	75	76	73	73
3	79	73	68	78	72	67	69	65	65
4	74	66	61	73	65	60	64	59	59
5	69	60	54	67	59	54	58	53	53
6	64	55	49	63	54	48	53	48	48
7	59	50	44	58	49	43	48	43	43
8	55	46	39	54	45	39	44	39	39
9	52	42	36	50	41	35	40	35	35
10	48	38	32	47	38	32	37	32	32

Rm. Percentage = 20%; PCC = Ceiling Reflectance; PW = Wall Reflectance

LSI test # 18394 FL1616-IND-QL-I65W-277V-BZ
semi-specular reflector and clear flat glass lens
Test Date: 12/12/03

Zunal Lumen Summary			
Zone	Lumens	%Lamp	%Luminaire
0-30	1809	15.08	34.40
0-40	2866	23.89	54.49
0-60	4625	38.54	87.92
0-90	5260	43.84	100.00
40-90	2394	19.95	45.51
60-90	635	5.29	12.08
90-180	0	0.00	0.00
0-180	5260	43.84	100.00



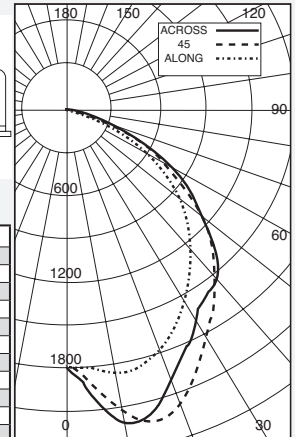
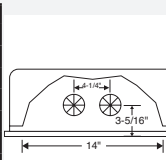
Efficiency: 44.2%

Coefficients of Utilization									
PCC>	PW>	80%			70%			50%	
		70%	50%	30%	70%	50%	30%	50%	30%
0	52	52	52	51	51	51	49	49	49
1	49	47	46	48	46	45	44	43	43
2	45	43	40	44	42	40	40	38	38
3	42	38	35	41	38	35	36	34	34
4	39	35	31	38	34	31	33	30	30
5	36	31	28	35	31	28	30	27	27
6	34	28	25	33	28	25	27	24	24
7	31	26	22	30	25	22	25	22	22
8	29	23	20	28	23	20	22	20	20
9	27	21	18	26	21	18	21	18	18
10	25	20	16	24	19	16	19	16	16

Rm. Percentage = 20%; PCC = Ceiling Reflectance; PW = Wall Reflectance

LSI test # 18500 FL1616-TTT-(2)70W-EB-EL-CFL
semi-specular reflector and clear flat glass lens
Test Date: 02/02/04

Zunal Lumen Summary			
Zone	Lumens	%Lamp	%Luminaire
0-30	1674	16.11	31.86
0-40	2700	25.96	51.37
0-60	4571	43.96	86.96
0-90	5256	50.54	100.00
40-90	2556	24.58	48.63
60-90	685	6.59	13.04
90-180	0	0.00	0.00
0-180	5256	50.54	100.00



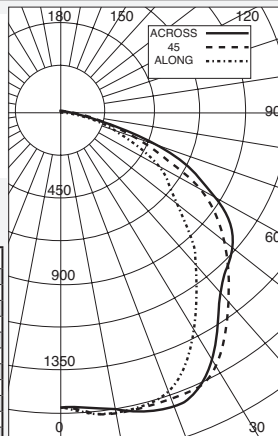
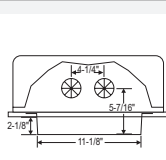
Efficiency: 50.6%

Coefficients of Utilization									
PCC>	PW>	80%			70%			50%	
		70%	50%	30%	70%	50%	30%	50%	30%
0	60	60	60	59	59	59	56	56	56
1	56	54	53	55	53	52	51	50	50
2	52	49	46	51	48	45	46	44	44
3	48	44	40	47	43	40	41	39	39
4	45	39	36	44	39	35	38	34	34
5	41	35	31	40	35	31	34	31	31
6	38	32	28	37	31	28	31	27	27
7	35	29	25	34	28	24	28	24	24
8	33	26	22	32	26	22	25	22	22
9	30	24	20	29	23	20	23	19	19
10	28	22	18	27	21	18	21	17	17

Rm. Percentage = 20%; PCC = Ceiling Reflectance; PW = Wall Reflectance

LSI test # 18501 CM1616-TTT-(2)70W-EB-DS
semi-specular reflector and prismatic plastic drop lens
Test Date: 02/02/04

Zunal Lumen Summary			
Zone	Lumens	%Lamp	%Luminaire
0-30	1313	12.63	27.09
0-40	2144	20.62	44.21
0-60	3760	36.16	77.52
0-90	4719	45.38	97.28
40-90	2574	24.75	53.07
60-90	958	9.22	19.77
90-180	131	1.27	2.72
0-180	4850	46.64	100.00



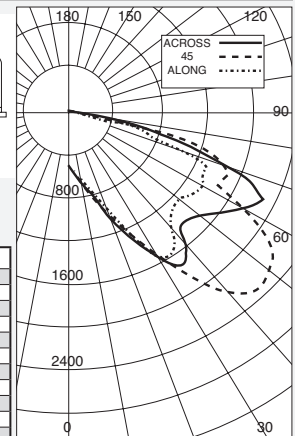
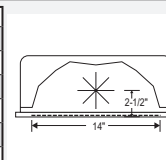
Efficiency: 46.7%

Coefficients of Utilization									
PCC>	PW>	80%			70%			50%	
		70%	50%	30%	70%	50%	30%	50%	30%
0	55	55	55	54	54	54	51	51	51
1	51	49	47	49	48	46	45	44	44
2	47	43	40	45	42	39	40	38	38
3	43	38	35	42	37	34	36	33	33
4	39	34	30	38	34	30	32	29	29
5	36	31	27	35	30	26	29	26	26
6	33	27	23	32	27	23	26	23	23
7	31	25	21	30	24	20	23	20	20
8	28	22	18	28	22	18	21	18	18
9	26	20	16	26	20	16	19	16	16
10	24	18	15	24	18	15	18	14	14

Rm. Percentage = 20%; PCC = Ceiling Reflectance; PW = Wall Reflectance

LSI test # 20049 CM1616-MH-175W-QV-HPF-BZ
semi-specular reflector and clear flat glass lens
Test Date: 04/22/05

Zunal Lumen Summary			
Zone	Lumens	%Lamp	%Luminaire
0-30	884	6.55	11.30
0-40	1989	14.74	25.41
0-60	5098	37.77	65.11
0-90	7831	58.01	100.00
40-90	5841	43.27	74.59
60-90	2732	20.24	34.89
90-180	0	0.00	0.00
0-180	7821	58.01	100.00



Efficiency: 58.1%

Coefficients of Utilization									
PCC>	PW>	80%			70%			50%	
		70%	50%	30%	70%	50%	30%	50%	30%
0	71	71	71	67	67	67	64	64	64
1	64	61	58	61	58	55	55	53	53
2	57	52	47	54	49	45	47	44	44
3	51	43	38	48	42	37	40	35	35
4	46	38	31	43	36	31	37	30	30
5	42	32	26	39	31	25	30	25	25
6	38	28	22	35	27	21	26	21	21
7	34	24	18	32	23	18	22	17	17
8	31	21	16	29	20	15	20	15	15
9	28	19	13	26	18	13	17	13	13
10	26	17	11	24	16	11	15	11	11

Rm. Percentage = 20%; PCC = Ceiling Reflectance; PW = Wall Reflectance

PHOTOMETRIC DATA:

CM1616 / FL1616 Series

LSI test # 20050 CM1617-MH-175W-QV-HPF-BZ
semi-specular reflector and clear flat glass lens

Test Date: 04/22/05

		Coefficients of Utilization								
PCC>		90%			70%			50%		
Room Cavity Ratio	PW>	70%	50%	30%	70%	50%	30%	50%	30%	
	0	73	73	73	69	69	69	66	66	66
	1	68	65	63	65	63	61	60	59	
	2	63	59	55	60	56	53	54	52	
	3	58	52	48	55	50	47	49	46	
	4	54	47	42	51	45	41	44	40	
	5	50	42	37	47	41	36	40	36	
	6	46	38	33	43	37	32	36	31	
	7	42	24	29	40	33	28	32	28	
	8	39	31	26	37	30	25	29	25	
	9	36	28	23	34	27	23	26	22	
10	33	25	20	32	25	20	24	20		

Rm. Percentage = 20%; PCC = Ceiling Reflectance;
PW = Wall Reflectance

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Luminaire
0-30	2487	18.43	30.87
0-40	3973	29.43	49.31
0-60	6974	51.66	86.56
0-90	8057	59.69	100.00
40-90	4084	30.26	50.69
60-90	1083	8.02	13.44
90-180	0	0.00	0.00
0-180	8057	59.69	100.00

Efficiency: 59.7%

