



Compact Fluorescent
Trims

**6" Alzak® Open
2-Lamp Horizontal**

Recessed

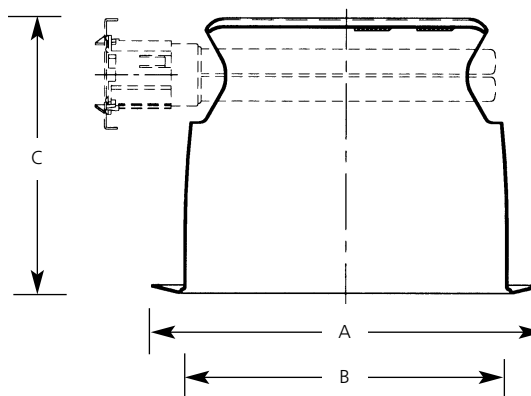
Type _____

	-17A	-21	-21A	-22	-22A	-23*	-28*	-52*	-53*	-61*	-64*	-65*	-66*	-67*
P8030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Catalog No.	Finish							
	Pewter Alzak®	Clear Anodized	Clear Alzak®	Gold Anodized	Gold Alzak®	Black Alzak®	White	Champagne Gold Alzak®
P8030	-17A	-21	-21A	-22	-22A	-23	-28	-52

Catalog No.	Finish						Dimensions (Inches)		
	Copper Alzak®	Straw Alzak®	Wheat Alzak®	Umber Alzak®	Bronze Alzak®	Haze Alzak®	A	B	C
P8030	-53	-61	-64	-65	-66	-67	7-3/4	6-3/8	5-5/16

Maximum Ceiling Thickness: 1-1/8"



*Lamps shown are 13w twin tube compact fluorescent

Lamp Wattage

Housing	IC	Non-IC
P69	N/A	2 9w Twin
P63	N/A	2 13w Twin or Quad
P63-EBIC	2 13w Quad	2 13w Quad
P68	N/A	2 18w Quad
P66	N/A	2 26w Quad
P28	N/A	2 28w Quad

Specifications:

Flange

- Bright white enamel painted metal flange
- P8030-28 is painted entirely with powder coat bright white

Labeling

- UL 1570 and CUL listed for damp locations

Trim

- All aluminum construction
- One-piece construction with integral flange
- No light leaks around trim flange
- Socket box mounts to trim for optimum performance and consistent lamp position
- Trim retention accomplished by 3 spring clips located in aperture of housing

* Note: All special Alzak® finishes are build to order only

Progress Lighting
Post Office Box 5704
Spartanburg, South Carolina
29304-5704

www.progresslighting.com
Patent# 6,254,257

P63

P63 WITH P8030-17A

Report No. 98224

No. Lamps: 2 Type Lamp: 13W CF TWIN-GE Total Lumens: 1800

Fixture Efficiency: 41.6%

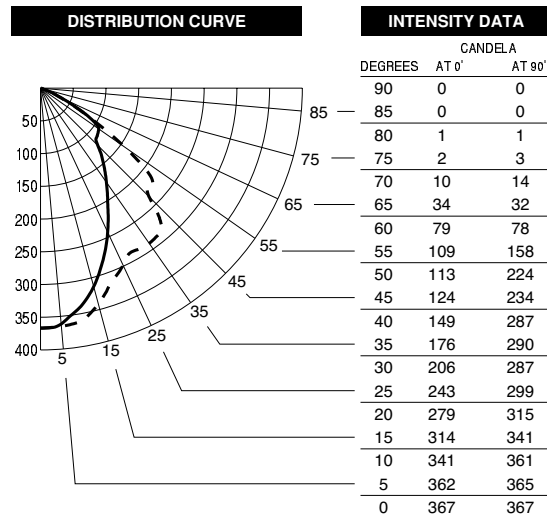
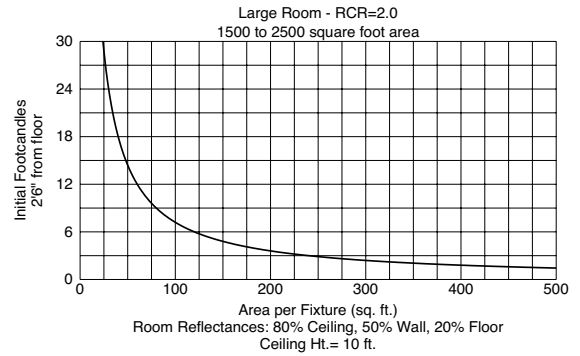
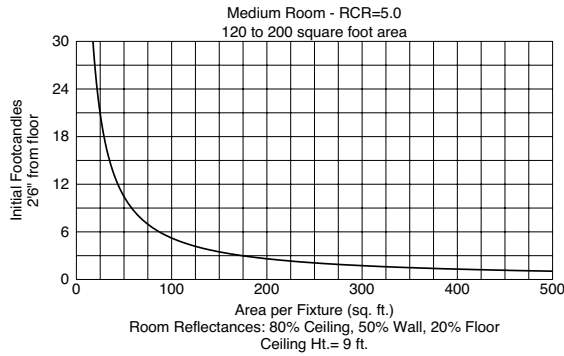
S/MH Ratio: 0.9 (0) 1.2 (90)

Single Fixture Data

Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 104			Beam Angle - 54	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	1.2	14	12.1	6.1	6
10	0.7	19	6.5	3.3	8
12	0.4	24	4.1	2.0	10
14	0.3	30	2.8	1.4	12
16	0.2	35	2.0	1.0	14

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																						
	80				70				50				30				10				0		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	50	50	50	50	48	48	48	48	46	46	46	44	44	44	42	42	42	42	42	42	42		
1	46	45	43	42	45	44	43	41	42	41	40	40	40	39	39	38	38	37	37	37	37		
2	43	40	38	36	42	39	37	35	38	36	34	36	35	34	35	34	33	32	32	32	32		
3	39	36	33	30	38	35	32	30	34	32	30	33	31	29	32	30	29	28	28	28	28		
4	36	32	29	26	36	31	29	26	30	28	26	30	27	26	29	27	25	24	24	24	24		
5	34	29	26	23	33	28	25	23	28	25	23	27	24	22	26	24	22	21	21	21	21		
6	31	26	23	20	30	26	23	20	25	22	20	24	22	20	24	22	20	19	19	19	19		
7	29	24	20	18	28	24	20	18	23	20	18	22	20	18	22	19	18	17	17	17	17		
8	27	22	19	16	26	22	18	16	21	18	16	21	18	16	20	18	16	15	15	15	15		
9	25	20	17	15	25	20	17	15	19	17	15	19	16	15	19	16	15	14	14	14	14		
10	24	19	16	13	23	18	15	13	18	15	13	18	15	13	17	15	13	13	13	13	13		

P66-EB

P66-EB WITH P8030-17A

Report No. 98232

No. Lamps: 2 Type Lamp: 26W CF QUAD-GE Total Lumens: 3400

Fixture Efficiency: 40.3%

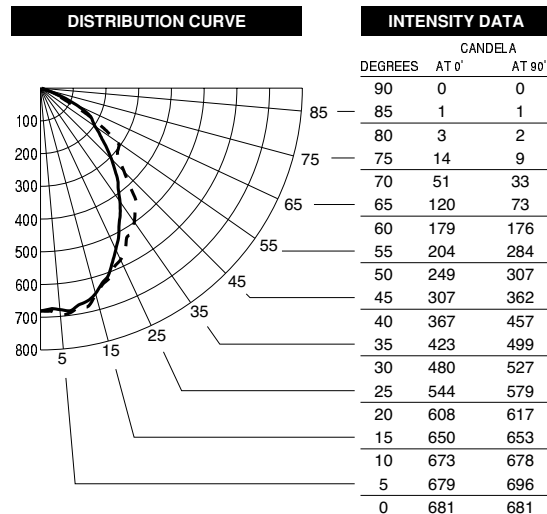
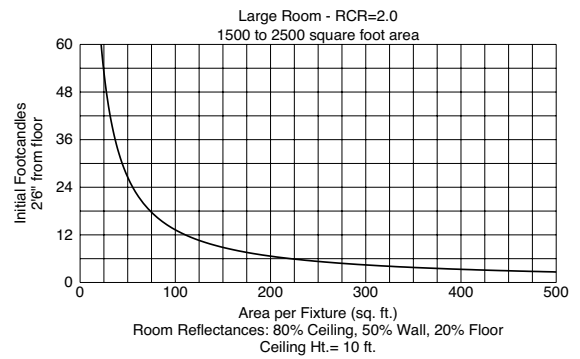
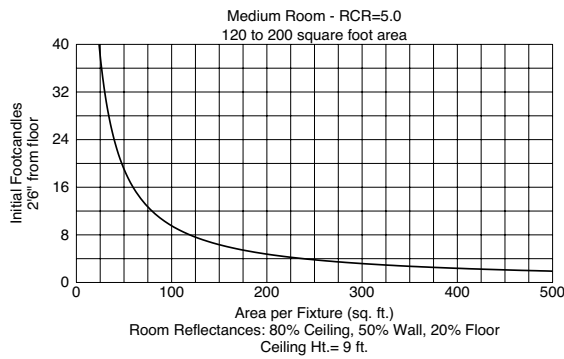
S/MH Ratio: 1.1 (0) 1.2 (90)

Single Fixture Data

Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 102			Beam Angle - 59	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	2.3	14	22.5	11.3	6
10	1.2	19	12.1	6.1	8
12	0.8	23	7.5	3.8	11
14	0.5	28	5.2	2.6	13
16	0.4	33	3.7	1.9	15

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																						
	80				70				50				30				10				0		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	48	48	48	48	47	47	47	47	45	45	45	43	43	43	41	41	41	41	41	41	40		
1	45	43	42	41	44	42	41	40	41	40	39	39	38	38	38	37	36	36	36	36	36		
2	41	39	36	34	40	38	36	34	37	35	33	35	34	33	34	33	32	31	31	31	31		
3	38	35	32	30	37	34	31	29	33	31	29	32	30	28	31	29	28	27	27	27	27		
4	35	31	28	26	34	31	28	25	30	27	25	29	27	25	28	26	24	24	24	24	24		
5	33	28	25	22	32	28	25	22	27	24	22	26	24	22	25	23	22	21	21	21	21		
6	30	25	22	20	30	25	22	20	24	22	20	24	21	19	23	21	19	19	19	19	19		
7	28	23	20	18	28	23	20	18	22	20	18	22	19	17	21	19	17	17	17	17	17		
8	26	21	18	16	26	21	18	16	21	18	16	20	18	16	20	17	16	15	15	15	15		
9	25	20	17	14	24	19	16	14	19	16	14	19	16	14	18	16	14	14	14	14	14		
10	23	18	15	13	23	18	15	13	18	15	13	17	15	13	17	15	13	12	12	12	12		

P63

P63 WITH P8030-21A

Report No. 98116

No. Lamps: 2 Type Lamp: 13W CF GE Total Lumens: 1800

Fixture Efficiency: 59.3%

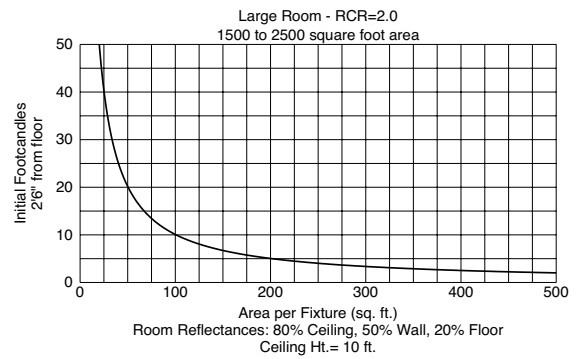
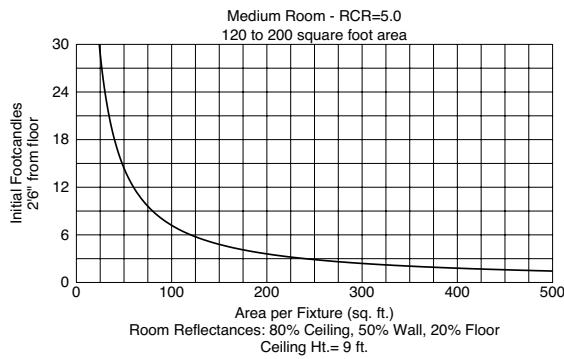
S/MH Ratio: 1.2 (0) 1.2 (90)

Single Fixture Data

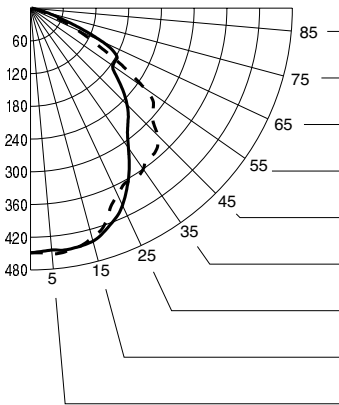
Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 109			Beam Angle - 62	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	1.5	15	14.8	7.4	7
10	0.8	21	8.0	4.0	9
12	0.5	26	5.0	2.5	11
14	0.3	32	3.4	1.7	14
16	0.2	38	2.5	1.2	16

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



DISTRIBUTION CURVE



INTENSITY DATA

DEGREES	CANDELA	
	AT 0°	AT 90°
90	0	0
85	3	1
80	9	4
75	30	17
70	71	47
65	145	94
60	183	160
55	184	253
50	214	293
45	250	329
40	278	350
35	313	360
30	359	365
25	399	378
20	424	411
15	442	436
10	447	448
5	445	452
0	448	448

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																						
	80				70				50				30				10				0		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	71	71	71	71	69	69	69	69	66	66	66	63	63	63	61	61	61	59	59	59	59		
1	66	63	61	59	64	62	60	58	59	58	56	57	56	55	55	54	53	52	52	52	52		
2	60	56	52	49	59	55	51	49	53	50	48	51	49	47	49	47	45	44	44	44	44		
3	55	50	45	42	54	49	44	41	47	43	40	45	42	40	44	41	39	38	38	38	38		
4	51	44	39	36	49	43	39	35	42	38	35	41	37	34	39	36	34	33	33	33	33		
5	47	40	34	31	46	39	34	31	38	33	30	36	33	30	35	32	30	28	28	28	28		
6	43	36	31	27	42	35	30	27	34	30	27	33	29	26	32	29	26	25	25	25	25		
7	40	32	27	24	39	32	27	24	31	27	24	30	26	23	29	26	23	22	22	22	22		
8	37	30	25	21	36	29	25	21	28	24	21	28	24	21	27	23	21	20	20	20	20		
9	35	27	22	19	34	27	22	19	26	22	19	26	22	19	25	21	19	18	18	18	18		
10	33	25	21	17	32	25	20	17	24	20	17	24	20	17	23	20	17	16	16	16	16		

P68-EB

P68-EB WITH P8030-21A

Report No. 98217

No. Lamps: 2 Type Lamp: 18W CF QUAD-GE Total Lumens: 2500

Fixture Efficiency: 60.4%

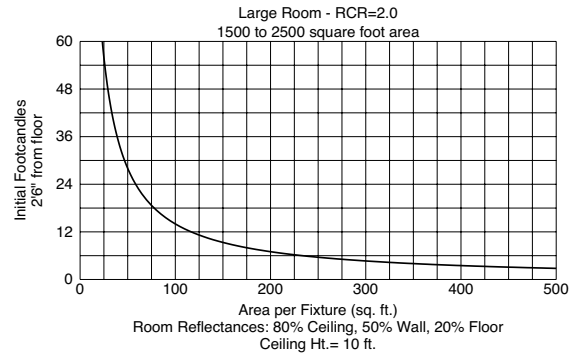
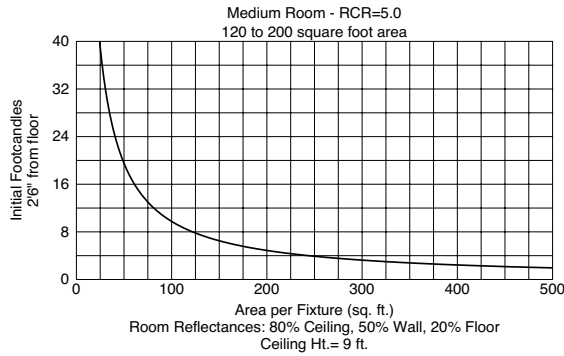
S/MH Ratio: 1.1 (0) 1.2 (90)

Single Fixture Data

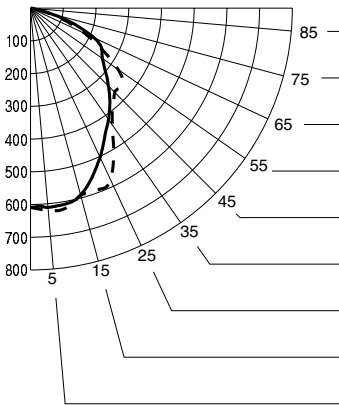
Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 108			Beam Angle - 61	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	2.0	15	20.1	10.1	6
10	1.1	21	10.8	5.4	9
12	0.7	26	6.7	3.4	11
14	0.5	32	4.6	2.3	14
16	0.3	37	3.3	1.7	16

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



DISTRIBUTION CURVE



INTENSITY DATA

DEGREES	CANDELA	
	AT 0°	AT 90°
90	0	0
85	3	2
80	17	11
75	63	46
70	142	116
65	214	183
60	252	252
55	268	327
50	298	364
45	337	364
40	377	390
35	415	437
30	454	508
25	503	577
20	550	591
15	591	592
10	608	620
5	612	621
0	609	609

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																						
	80				70				50				30				10				0		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	72	72	72	72	70	70	70	70	67	67	67	64	64	64	62	62	62	60					
1	66	64	62	59	65	63	60	59	60	58	57	58	56	55	55	54	53	52					
2	61	56	52	49	59	55	52	49	53	50	47	51	49	46	49	47	45	44					
3	56	50	45	41	54	49	44	41	47	43	40	45	42	39	44	41	39	37					
4	51	44	39	35	50	43	39	35	42	38	34	40	37	34	39	36	33	32					
5	47	39	34	30	46	39	34	30	38	33	30	36	33	30	35	32	29	28					
6	43	36	30	27	42	35	30	26	34	30	26	33	29	26	32	29	26	25					
7	40	32	27	24	39	32	27	23	31	27	23	30	26	23	29	26	23	22					
8	38	30	25	21	37	29	24	21	28	24	21	28	24	21	27	23	21	20					
9	35	27	22	19	34	27	22	19	26	22	19	25	22	19	25	21	19	18					
10	33	25	20	17	32	25	20	17	24	20	17	24	20	17	23	20	17	16					

P69

P69 WITH P8030-21A

Report No. 98229

No. Lamps: 2 Type Lamp: 9W CF TWIN-GE Total Lumens: 1200

Fixture Efficiency: 51.5%

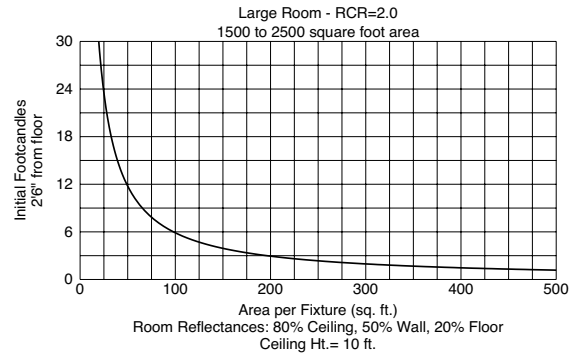
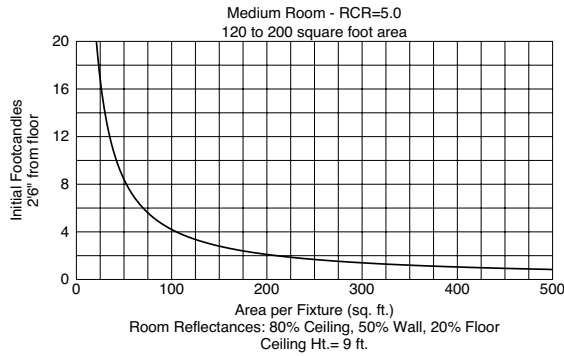
S/MH Ratio: 0.8 (0) 1.2 (90)

Single Fixture Data

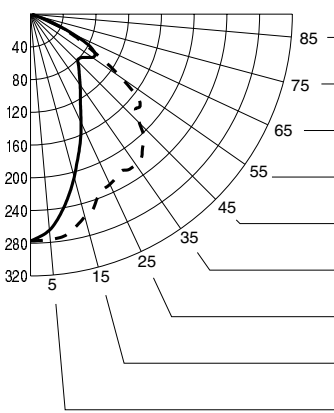
Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 105			Beam Angle - 50	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	0.9	14	9.2	4.6	5
10	0.5	20	4.9	2.5	7
12	0.3	25	3.1	1.5	9
14	0.2	30	2.1	1.0	11
16	0.2	35	1.5	0.8	13

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



DISTRIBUTION CURVE



INTENSITY DATA

DEGREES	CANDELA	
	AT 0°	AT 90°
90	0	0
85	0	0
80	2	2
75	5	5
70	23	20
65	57	50
60	89	84
55	92	135
50	82	175
45	82	188
40	93	213
35	106	224
30	122	222
25	146	230
20	175	239
15	206	256
10	238	271
5	265	276
0	277	277

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	70												50				30				10				0			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0				
0	61	61	61	61	60	60	60	60	57	57	57	55	55	55	52	52	52	51	51	51	51	51	51	51				
1	57	55	53	52	56	54	52	51	52	50	49	50	49	48	48	47	46	45	45	45	45	45	45	45				
2	53	49	46	43	51	48	45	43	46	44	42	45	43	41	43	41	40	39	39	39	39	39	39	39				
3	48	44	40	37	47	43	39	37	41	38	36	40	37	35	39	37	35	34	34	34	34	34	34	34				
4	44	39	35	32	43	38	34	31	37	34	31	36	33	31	35	32	30	29	29	29	29	29	29	29				
5	41	35	31	28	40	34	30	27	33	30	27	32	29	27	31	29	27	26	26	26	26	26	26	26				
6	38	32	27	24	37	31	27	24	30	27	24	29	26	24	29	26	24	23	23	23	23	23	23	23				
7	35	29	24	22	34	28	24	21	28	24	21	27	24	21	26	23	21	20	20	20	20	20	20	20				
8	33	26	22	19	32	26	22	19	25	22	19	25	21	19	24	21	19	18	18	18	18	18	18	18				
9	31	24	20	17	30	24	20	17	23	20	17	23	19	17	22	19	17	16	16	16	16	16	16	16				
10	29	22	18	16	28	22	18	16	22	18	16	21	18	16	21	18	16	15	15	15	15	15	15	15				

P68-EB

P68-EB WITH P8030-22A

Report No. 98221

No. Lamps: 2 Type Lamp: 18W CF QUAD-GE Total Lumens: 2500

Fixture Efficiency: 57.4%

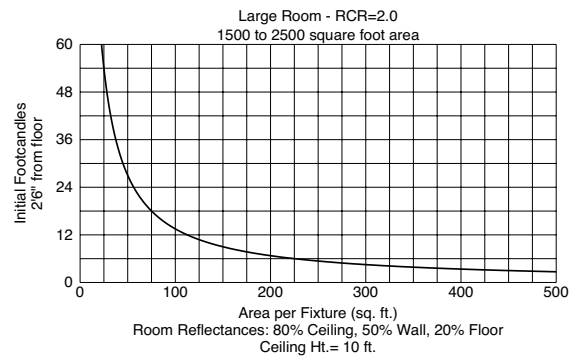
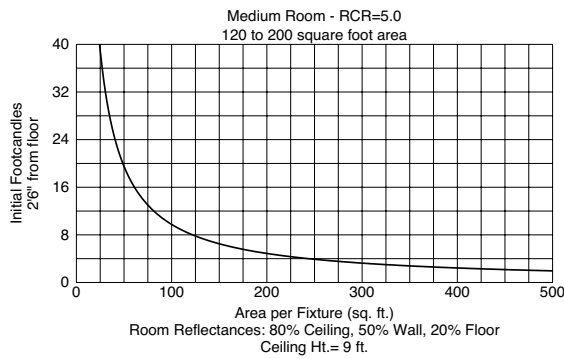
S/MH Ratio: 1.0 (0) 1.3 (90)

Single Fixture Data

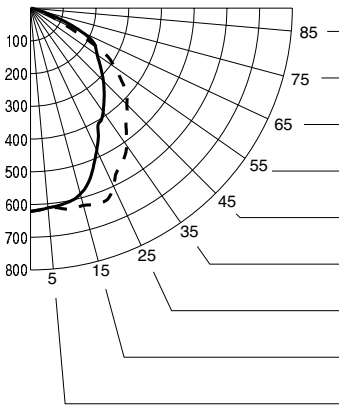
Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 107			Beam Angle - 60	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	2.1	15	20.5	10.3	6
10	1.1	20	11.0	5.5	9
12	0.7	26	6.9	3.4	11
14	0.5	31	4.7	2.3	13
16	0.3	37	3.4	1.7	16

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



DISTRIBUTION CURVE



INTENSITY DATA

DEGREES	CANDELA	
	AT 0'	AT 90'
90	0	0
85	1	1
80	8	4
75	35	16
70	87	58
65	176	106
60	228	225
55	249	314
50	279	374
45	315	416
40	350	454
35	387	512
30	412	553
25	479	600
20	543	632
15	588	624
10	606	623
5	613	614
0	621	621

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																						
	80				70				50				30				10				0		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
0	68	68	68	68	67	67	67	67	64	64	64	61	61	61	59	59	59	57	57	57	57		
1	64	61	59	57	62	60	58	56	58	56	55	55	54	53	53	52	51	50	50	50	50		
2	58	54	51	48	57	53	50	47	51	49	46	49	47	45	48	46	44	43	43	43	43		
3	54	48	44	41	52	47	43	40	46	42	39	44	41	39	43	40	38	37	37	37	37		
4	49	43	38	35	48	42	38	35	41	37	34	40	36	34	38	35	33	32	32	32	32		
5	45	39	34	30	44	38	33	30	37	33	30	36	32	29	35	32	29	28	28	28	28		
6	42	35	30	27	41	34	30	26	33	29	26	32	29	26	32	28	26	25	25	25	25		
7	39	32	27	24	38	31	27	24	30	26	23	30	26	23	29	26	23	22	22	22	22		
8	36	29	24	21	36	29	24	21	28	24	21	27	24	21	27	23	21	20	20	20	20		
9	34	27	22	19	33	26	22	19	26	22	19	25	21	19	25	21	19	18	18	18	18		
10	32	25	20	17	31	24	20	17	24	20	17	23	20	17	23	20	17	16	16	16	16		

P66-EB

P66-EB WITH P8030-28

Report No. 98177

No. Lamps: 2 Type Lamp: 26W CF QUAD-GE Total Lumens: 3400

Fixture Efficiency: 43.3%

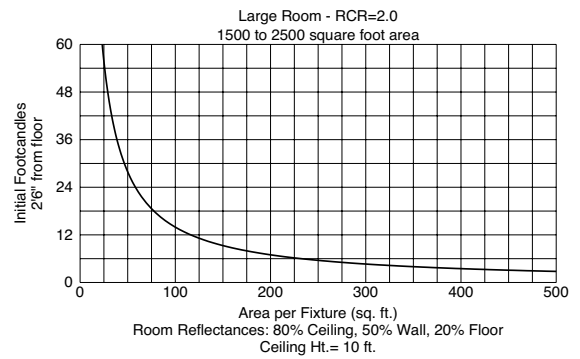
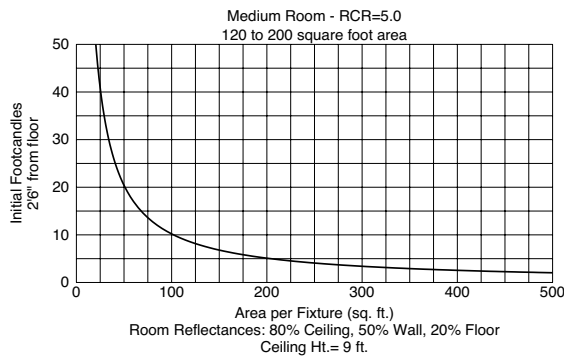
S/MH Ratio: 0.8 (0) 1.0 (90)

Single Fixture Data

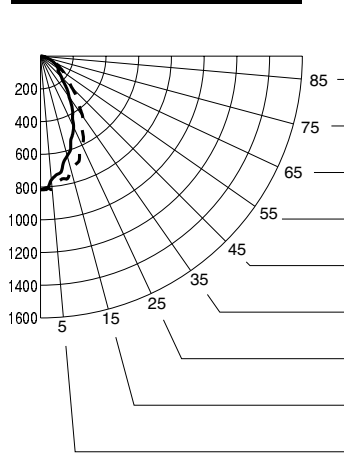
Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 90			Beam Angle - 49	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	2.7	11	27.0	13.5	5
10	1.5	15	14.5	7.3	7
12	0.9	19	9.0	4.5	9
14	0.6	23	6.2	3.1	11
16	0.4	27	4.5	2.2	12

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



DISTRIBUTION CURVE



INTENSITY DATA

DEGREES	CANDELA	
	AT 0°	AT 90°
90	0	0
85	4	10
80	21	28
75	42	49
70	64	77
65	87	104
60	116	133
55	133	174
50	142	213
45	182	269
40	240	360
35	304	448
30	394	509
25	478	603
20	542	685
15	631	716
10	720	762
5	759	817
0	816	816

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																							
	80				70				50				30				10				0			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	52	52	52	52	50	50	50	50	48	48	48	46	46	46	44	44	44	44	44	44	44	44	43	
1	48	46	45	43	47	45	44	42	43	42	41	42	41	40	40	39	39	38	38	38	38	38	38	
2	44	41	39	36	43	40	38	36	39	37	35	38	36	34	36	35	34	33	33	33	33	33	33	
3	41	37	34	31	40	36	33	31	35	33	31	34	32	30	33	31	30	29	29	29	29	29	29	
4	38	33	30	27	37	33	30	27	32	29	27	31	28	27	30	28	26	25	25	25	25	25	25	
5	35	30	27	24	34	30	27	24	29	26	24	28	26	24	27	25	23	23	23	23	23	23	23	
6	33	28	24	22	32	27	24	22	26	24	21	26	23	21	25	23	21	20	20	20	20	20	20	
7	31	25	22	19	30	25	22	19	24	21	19	24	21	19	23	21	19	18	18	18	18	18	18	
8	29	23	20	18	28	23	20	18	22	20	18	22	19	17	21	19	17	17	17	17	17	17	17	
9	27	22	18	16	26	21	18	16	21	18	16	20	18	16	20	18	16	15	15	15	15	15	15	
10	25	20	17	15	25	20	17	15	19	17	15	19	16	15	19	16	15	14	14	14	14	14	14	

P69

P69 WITH P8030-28

Report No. 98228

No. Lamps: 2 Type Lamp: 9W CF TWIN-GE Total Lumens: 1200

Fixture Efficiency: 34.5%

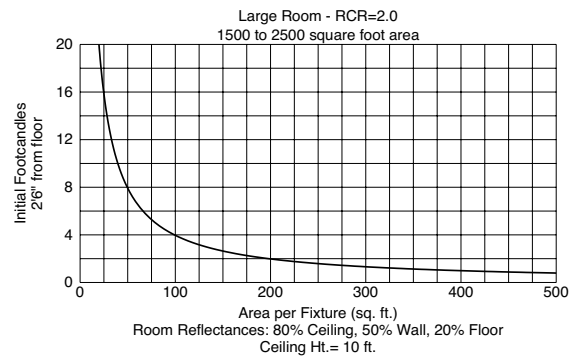
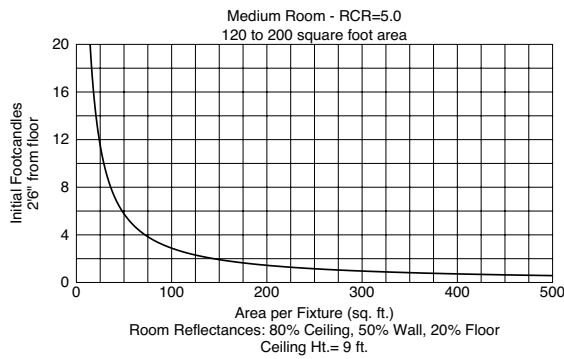
S/MH Ratio: 0.9 (0) 1.1 (90)

Single Fixture Data

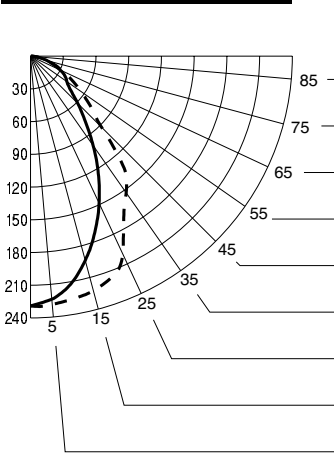
Ceiling Ht.(Ft.)	10% Values		Zero Degrees Ft.-C	50% Values	
	Beam Angle - 93			Beam Angle - 54	
	Ft.-C	Beam Dia.		Ft.-C	Beam Dia.
8	0.8	12	7.6	3.8	6
10	0.4	16	4.1	2.0	8
12	0.3	20	2.5	1.3	10
14	0.2	24	1.7	0.9	12
16	0.1	29	1.3	0.6	14

Ft.-C (Footcandles) are initial and measured 2'-6" from floor

Quick Calculator Charts



DISTRIBUTION CURVE



INTENSITY DATA

DEGREES	CANDELA	
	AT 0°	AT 90°
90	0	0
85	4	4
80	10	9
75	16	16
70	22	24
65	30	33
60	37	44
55	41	57
50	48	72
45	61	92
40	78	133
35	100	153
30	124	171
25	149	200
20	172	216
15	194	223
10	212	226
5	224	228
0	229	229

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

Effective Floor Cavity Reflectance 0.20

RC	Effective Floor Cavity Reflectance 0.20																															
	80				70				50				30				10				0											
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
0	41	41	41	41	40	40	40	40	38	38	38	37	37	37	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	
1	38	37	36	34	37	36	35	34	35	34	33	33	33	32	32	31	31	31	30	30	30	29	29	29	28	28	28	27	27	27		
2	35	33	31	29	34	32	30	29	31	30	28	30	29	28	29	28	27	26	26	25	25	24	26	25	24	23	23	23	22	22		
3	33	30	27	25	32	29	27	25	28	26	25	27	25	24	26	25	24	23	23	22	22	21	24	22	21	20	20	20	19	19		
4	30	27	24	22	30	26	24	22	25	23	22	25	23	21	24	22	21	20	20	19	19	18	22	20	19	18	18	18	17	17		
5	28	24	21	19	27	24	21	19	23	21	19	23	21	19	22	20	19	18	18	17	17	16	20	18	17	16	16	16	15	15		
6	26	22	19	17	26	22	19	17	21	19	17	21	19	17	20	18	17	16	16	15	15	14	19	17	16	15	15	15	14	14		
7	25	20	18	16	24	20	17	16	20	17	16	19	17	15	19	17	15	14	14	13	13	12	18	16	15	14	14	13	13	12		
8	23	19	16	14	23	19	16	14	18	16	14	18	16	14	17	15	14	13	13	12	12	11	17	15	14	13	13	12	12	11		
9	22	17	15	13	21	17	15	13	17	15	13	16	14	13	16	14	13	12	12	11	11	10	16	14	13	12	12	11	11	10		
10	20	16	14	12	20	16	14	12	16	13	12	15	13	12	15	13	12	11	11	10	10	9	15	13	12	11	11	10	10	9		