

C7303 7 1/4" Conoid Aperture
C7304 **DISCONTINUED**
 See C7303

PAR Lamps to 250W
R Lamps to 300W

Optics and Applications

Distribution patterns and spacing to mounting height ratios change with the lamps accommodated by these units. Variations from narrow to broad patterns are available. See back of page for specific performance information.

Design Features

The parabolic cones gather and redirect spill light to the workplace. Performance is efficient with very low brightness from normal viewing angles. Sturdy steel housings protect and position lamps and reflectors. Maximum ceiling thickness 2 1/4". Top or bottom service.

Finish

Specular clear Alzak cones are standard. Optional colors and Softglow® finishes are available. Housings and structural parts are painted optical matte black to suppress stray light leaks. Steel parts are phosphate conditioned for corrosion resistance before painting.

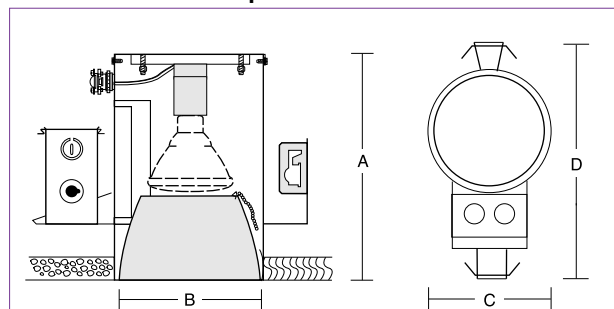
General

Fixtures are pre-wired and thermally protected, UL and C-UL listed for eight wire 75°C branch circuit wiring. Union made IBEW. Luminaire Efficiency Ratings (LER) do not apply to fixtures using reflector type lamps.

Accessories

- R2 26" support rails. WT White trim flange.
- R5 52" support rails. WHT White complete trim.
- B Black cone. T Titanium cone.
- G Gold cone. W Wheat cone.
- H Mocha cone. Y Pewter cone.
- P Graphite cone. Z Bronze cone.
- S Softglow® finishes: add S before color letters. e.g. SW for Softglow® wheat cone, SC for Softglow® clear cone.
- LS Lamp shield, clear glass.
- PR Pole relamp modification.
- WRL Wattage restriction label, specify wattage.

Dimensions and Lamps



Number	A Depth	B Aperture	C Width	D Length	Lamps
C7303	12 1/4" 311mm	7 1/4" 184mm	8 3/4" 222mm	15 3/4" 400mm	45-250W PAR-38
C7304	15" 381mm	8" 203mm	11 1/2" 292mm	13" 330mm	75-300W R-40

Matching Units

- Directional downlights Pages C22, C24, C25
- Medium beam A lamp downlights Page C10
- Wide beam A lamp downlight Page C11
- Wall washers Pages E9, E10
- Sloped ceiling downlights Page C24
- Low voltage Page K7
- Surface cylinders Pages L1, L2, L3, L5

Brightness

Number	Lamps	85°	75°	65°	55°	45°
C7303	90W PAR-38 Flood	1	3	4	7	467
	250W PAR-38 Flood	3	10	13	20	685
C7304	150W R-40 Flood	3	6	11	18	331
	300W R-40 Flood	7	13	23	38	694

Data in footlamberts. Photometer readings, Maximum Brightness Method.

C12 C7303 C7304

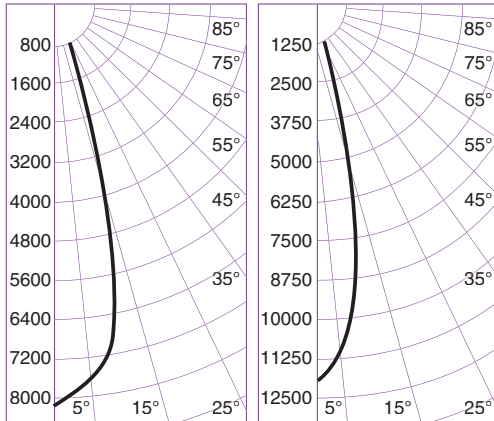
Performance Datachart

Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor		Multiple Units Initial Footcandles, 30" Work Plane			
C7303 150W PAR-38/CAP/FL Read Top Data								Ceiling 80% Walls 50% Floor 20%			
C7303 Q250W PAR-38 Flood Read Bottom Data								Spacing is Maximum Over Work Plane			
Nadir	10°		15°		20°		Spacing	RCR 1	RCR 3	RCR 8	
FC	FC	Diam	FC	Diam	FC	Diam					
144 214	119 133	3' 3'	64 99	4' 4'	16 44	5' 5'	10'	4' 4'	152 273	140 251	120 213
90 133	74 83	3' 3'	40 62	5' 5'	10 27	7' 7'	12'	5' 5'	95 170	87 157	75 133
52 77	43 48	4' 4'	23 36	7' 7'	6 16	9' 9'	15'	6' 6'	55 98	50 90	43 77
26 39	22 24	6' 6'	12 18	9' 9'	3 8	13' 13'	20'	9' 8'	28 50	26 46	22 39
16 24	13 15	8' 8'	7 11	12' 12'	2 5	16' 16'	25'	12' 11'	17 30	16 28	13 24

Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor		Multiple Units Initial Footcandles, 30" Work Plane			
C7304 150W R-40 Flood Read Top Data								Ceiling 80% Walls 50% Floor 20%			
C7304 300W R-40 Flood Read Bottom Data								Spacing is Maximum Over Work Plane			
Nadir	5°		10°		15°		Spacing	RCR 1	RCR 3	RCR 8	
FC	FC	Diam	FC	Diam	FC	Diam					
64 144	59 134	1' 1'	46 97	3' 3'	34 65	4' 4'	10'	4' 4'	82 243	75 219	60 176
40 90	37 84	2' 2'	29 61	3' 3'	21 40	5' 5'	12'	5' 5'	51 152	47 136	38 109
23 52	21 48	2' 2'	17 35	4' 4'	12 23	7' 7'	15'	7' 6'	30 88	27 79	22 63
12 26	11 25	3' 3'	9 18	6' 6'	6 12	9' 9'	20'	10' 9'	15 45	14 40	11 32
7 16	7 15	4' 4'	5 11	8' 8'	4 7	12' 12'	25'	13' 11'	9 27	8 24	7 20

Specular cone multipliers: Clear x 1.0, Gold x .97, Wheat x .96, Mocha x .93, Pewter x .92, Graphite x .90, Titanium x .90, Bronze x .85, Black x .70.

Candlepower Distribution



C7303 150W PAR-38/CAP/FL Eff. 77% S/M .51
C7303 Q250W PAR-38 Flood Eff. 84% S/M .48

Candelas

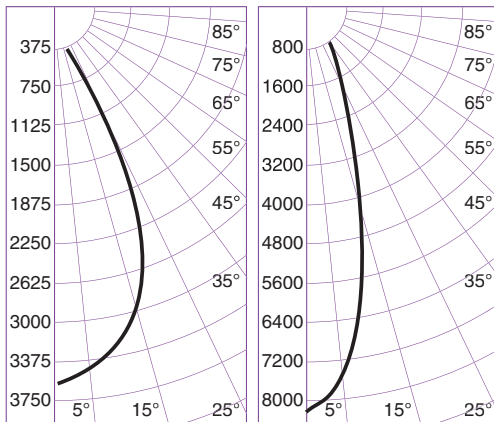
°	150W	Q250W
	2500*	3500*
0	8104	12031
5	7455	10719
10	7023	7805
15	3998	6169
20	1081	2958
25	270	788
30	108	18
35	0	0
40	0	0
45	0	0
50	0	0
55	0	0
60	0	0
65	0	0
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

° Vertical Angles
* Initial Lamp Lumens

Coefficients of Utilization

Ceiling	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	0
Wall %	Zonal Cavity Method - Floor Reflectance 20%										
RCR	Zonal Cavity Method - Floor Reflectance 20%										
1	.90	.89	.87	.86	.87	.85	.84	.82	.81	.80	.76
2	.88	.85	.83	.81	.84	.80	.81	.78	.79	.77	.74
3	.85	.82	.79	.77	.81	.77	.79	.75	.77	.74	.72
4	.83	.79	.76	.74	.78	.74	.77	.73	.75	.72	.70
5	.81	.77	.74	.71	.76	.71	.75	.71	.73	.70	.69
6	.79	.74	.71	.69	.74	.69	.73	.68	.72	.68	.67
7	.77	.72	.69	.67	.72	.67	.71	.67	.70	.66	.65
8	.75	.70	.67	.65	.70	.65	.69	.65	.69	.65	.64
9	.73	.68	.66	.64	.68	.63	.68	.63	.67	.63	.62
10	.72	.67	.64	.62	.67	.62	.66	.62	.66	.62	.61

C7303 150W PAR-38/CAP/FL
C7303 Q250W PAR-38/CAP Flood x 1.11



C7304 150W R-40 Flood Eff. 69% S/M .57
C7304 300W R-40 Flood Eff. 78% S/M .49

°	150W	300W
	1900*	3650*
0	3594	8090
5	3359	7637
10	2732	5728
15	2138	4040
20	1544	2620
25	907	1723
30	242	1043
35	0	408
40	0	0
45	0	0
50	0	0
55	0	0
60	0	0
65	0	0
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

° Vertical Angles
* Initial Lamp Lumens

Ceiling	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	0
Wall %	Zonal Cavity Method - Floor Reflectance 20%										
RCR	Zonal Cavity Method - Floor Reflectance 20%										
1	.81	.79	.78	.77	.78	.75	.75	.73	.72	.71	.68
2	.78	.75	.73	.71	.74	.70	.72	.69	.70	.67	.65
3	.75	.72	.69	.67	.71	.66	.69	.65	.67	.64	.62
4	.73	.69	.66	.63	.68	.63	.66	.62	.65	.62	.60
5	.70	.66	.63	.60	.65	.60	.64	.59	.63	.59	.58
6	.68	.63	.60	.58	.63	.57	.62	.57	.61	.57	.55
7	.66	.61	.57	.55	.60	.55	.59	.54	.59	.54	.53
8	.63	.58	.55	.53	.58	.53	.57	.52	.57	.52	.52
9	.61	.56	.53	.51	.56	.51	.55	.51	.55	.51	.50
10	.59	.54	.51	.49	.54	.49	.54	.49	.53	.49	.48

C7304 150W R-40 Flood
C7304 300W R-40 Flood x 1.15