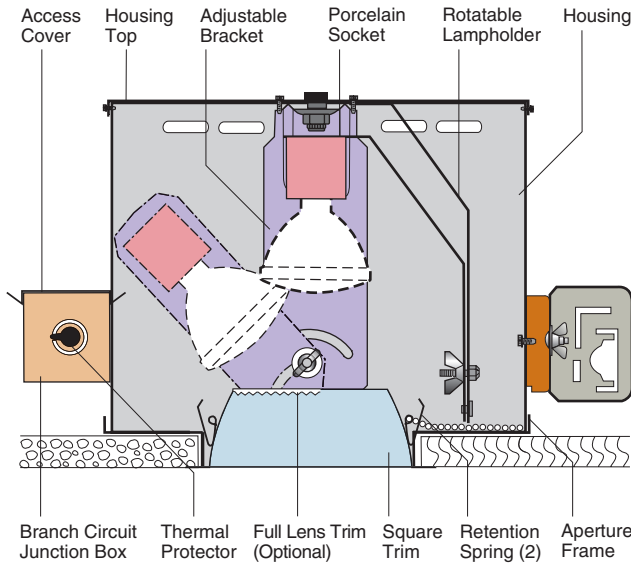


H8420

Directional Downlight
PAR-16, PAR-20 or PAR-30 Lamps
4 1/2" Square Parabolic Trim



Optics and Applications

For PAR spot or flood lamps. See back of page for performance characteristics. The parabolic trim contour controls brightness, even at maximum lamp angulation. Suitable for damp locations.

Design Features

The lamp assembly rotates 360°. Angulation is 40° for PAR-16 and PAR-20. PAR-30 tilts to 35° maximum. All lock in any selected position. A sturdy steel housing protects all internal components and is vented for air flow cooling. The trim is stabilized to prevent racking. It is held to the ceiling by constant tension stainless steel springs. Maximum ceiling thickness 7/8". Top or bottom service.

Finish

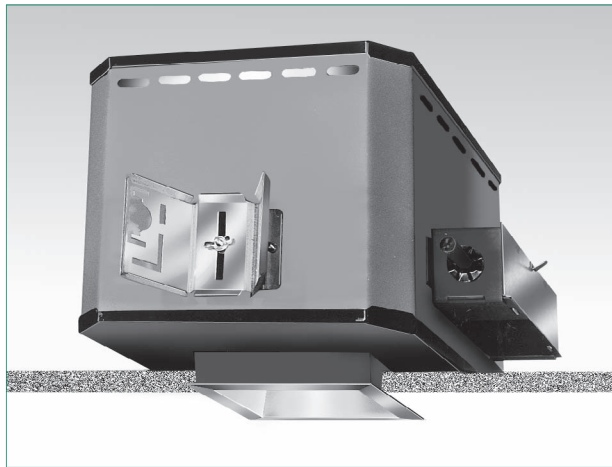
Housing and structural parts are painted matte black to suppress stray light leaks. Standard trim is anodized Softglow® clear. Special finishes, textures and colors are available, see below under Accessories.

Trim Textures

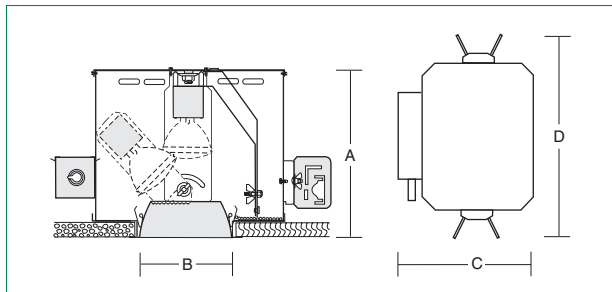
Textured trims create a subtle new aperture appearance. Select among different embossed patterns to match the ambiance of the space being illuminated. Refer to Squares brochure for descriptive photos.

General

Fixtures are pre-wired, 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 directional fixtures.



Dimensions and Lamps



Number	A Depth	B Aperture	C Width	D Length	Lamps
H8420	9" 229mm	4 1/2" sq. 114mm	12 1/2" 318mm	19" 483mm	40-75W PAR-16 35-50W PAR-20 50-75W PAR-30*

*Short neck version only.

Accessories

- R2 26" support rails.
 - R5 52" support rails.
 - SB Softglow black.
 - SG Softglow gold.
 - SH Softglow mocha.
 - SP Softglow graphite.
 - ST Softglow titanium.
 - SW Softglow wheat.
 - SY Softglow pewter.
 - SZ Softglow bronze.
 - BR Bright trim finish.
 - DP Fixed downlight position.
 - FR Frosted lens, specify lens type.
 - FF20-2 Accessory holder for PAR-16 and PAR-20 lamps. Holds two accessories.
 - FF30-2 Accessory holder for PAR-30. Holds two accessories.
 - FLT4 Full lens trim, specify lens type, e.g. H8420-FLT4LL.
 - WRL Wattage restriction label, specify wattage.
 - WT White trim flange.
 - WHT White complete trim.
 - BP Ball Peen texture.
 - CG Corrugated texture.
 - DS Distressed texture.
 - WV Woven texture.
 - HL Hexcell louver.*
 - HD Hood. PAR-16, PAR-20.*
 - LL Linear spread lens.*
 - LP Large prism lens.*
 - MP Microprism lens.*
- For color filters, pattern control lenses, light block screens, UV filters and other accessories, contact the factory.
 *Requires accessory holder.

Matching Square Units **

- Compact fluorescent [Page H21](#)
- Tungsten halogen [Page H4](#)
- Metal halide [Pages H24, 25](#)
- Low voltage [Page H1](#)
- Wall washer [Page H33](#)

** Click for link to pages in blue.

H2 H8420

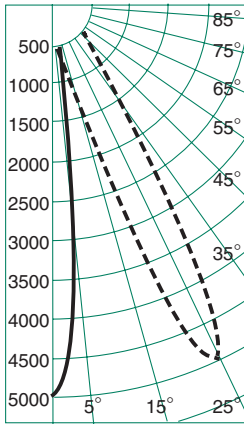
Footcandle Values at Nadir

Distance	5'			10'			15'			20'			
	Nadir	10°	15°	Nadir	10°	15°	Nadir	10°	15°	Nadir	10°	15°	
Lamps	FC	FC	Diam	FC	FC	Diam	FC	FC	Diam	FC	FC	Diam	
50W PAR-20 NFL/30°	51	30	2'	17	3'	13	8	4'	4	5'	6	3	5'
50W PAR-30 NFL/40°	57	46	2'	36	3'	14	12	4'	9	5'	6	5	5'
75W PAR-30 NFL/40°	76	61	2'	48	3'	19	15	4'	12	5'	8	7	5'
75W PAR-16 NFL/30°	75	62	2'	35	3'	19	15	4'	9	5'	8	7	5'

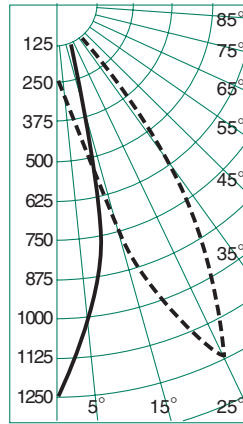
Distance	5'			10'			15'			20'			
	Nadir	10°	15°	Nadir	10°	15°	Nadir	10°	15°	Nadir	10°	15°	
Lamps	FC	FC	Diam	FC	FC	Diam	FC	FC	Diam	FC	FC	Diam	
50W PAR-20 NSP/10°	200	50	2'	20	3'	50	12	4'	5	5'	22	6	5'
50W PAR-30 NSP/9°	413	50	2'	23	3'	103	12	4'	6	5'	46	6	5'
75W PAR-30 NSP/9°	561	67	2'	31	3'	140	17	4'	8	5'	62	7	5'
75W PAR-16 NSP/10°	296	77	2'	36	3'	74	19	4'	9	5'	33	9	5'

See Note 3

Candlepower Distribution



H8420 50W PAR-20/CAP NSP/10° Eff. 77%



H8420 50W PAR-20/CAP NFL/30° Eff. 57%

Candelas at Nadir

°	50W NSP	50W NFL
	530*	530*
0	4997	1282
5	2575	1087
10	1298	794
15	561	461
20	159	262
25	65	151
30	18	44
35	4	12
40	0	2
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

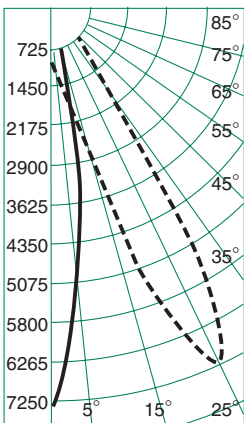
° Vertical Angles
* Initial Lamp Lumens

Brightness

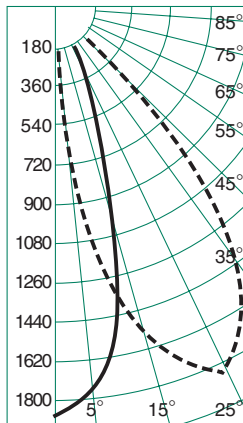
Number	Lamps	85°	75°	65°	55°	45°
H8420	50W PAR-20 NFL	9	58	97	153	315
	50W PAR-30 NFL	13	83	153	223	481
	75W PAR-30 NFL	18	113	206	301	650
	75W PAR-16 NFL	15	95	175	260	562

Number	Lamps	85°	75°	65°	55°	45°
H8420	50W PAR-20 NSP	3	14	24	39	89
	50W PAR-30 NSP	3	22	38	61	122
	75W PAR-30 NSP	4	29	51	81	163
	75W PAR-16 NSP	3	26	44	71	142

Data in footlamberts. Photometer readings, Maximum Brightness Method. See note 4. Data collected with lamps tilted at 25°.



H8420 75W PAR-16/CAP NSP/10° Eff. 84%



H8420 75W PAR-16/CAP NFL/30° Eff. 77%

°	75W NSP	75W NFL
	890*	890*
0	7401	1879
5	5069	1759
10	2025	1614
15	1001	981
20	541	601
25	89	357
30	23	241
35	0	98
40	0	21
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

Notes

- All data with standard trim, Softglow® clear.
- Candlepower distribution curves: solid lines show horizontal distribution at nadir, dotted lines show horizontal distribution at 25° lamp tilt.
- Pattern diameters are determined from each side of nadir with 0° lamp tilt. The diameter includes both sides, so a 10° diameter represents a total 20° pattern width at the floor. Footcandles are measured at the diameter edge. Tilting the lamp changes all data.
- Average Luminance Method brightness data are inaccurate for downlights. They are theoretical calculations for large surfaces such as troffer lenses. Our brightness data derives from direct photometer readings which approximate what the eye perceives when evaluating glare. For a complete discussion refer to Z section brochure Z1.