



twelve™



FOCAL POINT™

twelve™

inch suspension in low ceiling applications is unthinkable with traditional linear lighting systems.

twelve™ from Focal Point, with its breakthrough optical design, provides designers with the answer to achieving superior performance in low ceiling applications. Suspended merely 12" from the ceiling, with rows floating 12' apart, twelve™ achieves unparalleled ceiling uniformity. All this delivered in the clean, timeless aesthetic you expect from Focal Point.



twelve™ with parallel blade louver (FTWS-PB)

(Covered by the following U.S. Patents: 5,733,028; 5,914,487; 5,967,652;
6,043,873; 6,064,061; 6,088,091; 6,238,077; 6,266,136; 6,334,700.)



w h y

twelve works.

Low ceiling applications require suspended lighting to be mounted close to the ceiling. Forcing traditional systems close to the ceiling produces distracting streaks of light above the luminaire and darker areas between rows. Optimized for 12" suspension, **twelve™** minimizes ceiling contrast and provides smooth and natural illumination. And it gets even better with an 18" or 24" suspension.

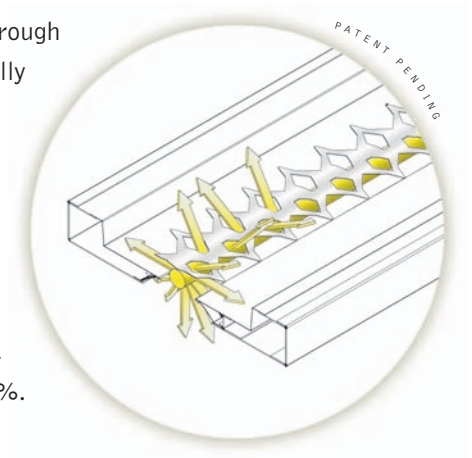


twelve™ with linear patterned acrylic (FTWS-PA)

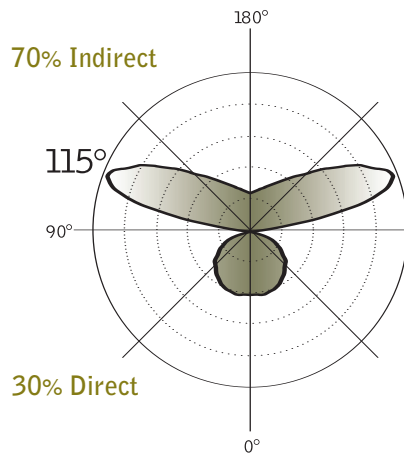
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12" suspension is obtainable through the use of Focal Point's specially designed Ceiling Uniformity Filter (CU Filter™) and low beam optic.

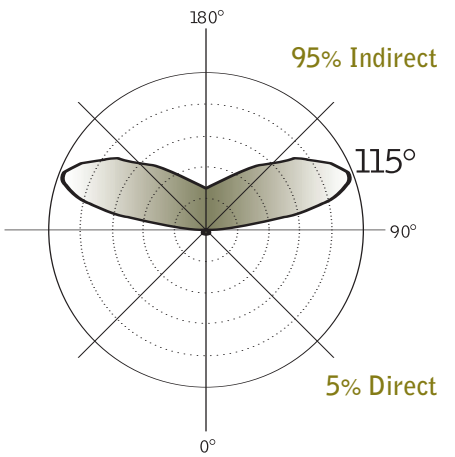
The CU Filter™ disperses and redirects a portion of the excessive candlepower directly above the luminaire. Redirecting, not reducing, the light results in efficiencies up to 90%.



twelve™ with parallel blade louver (FTWS-PB)



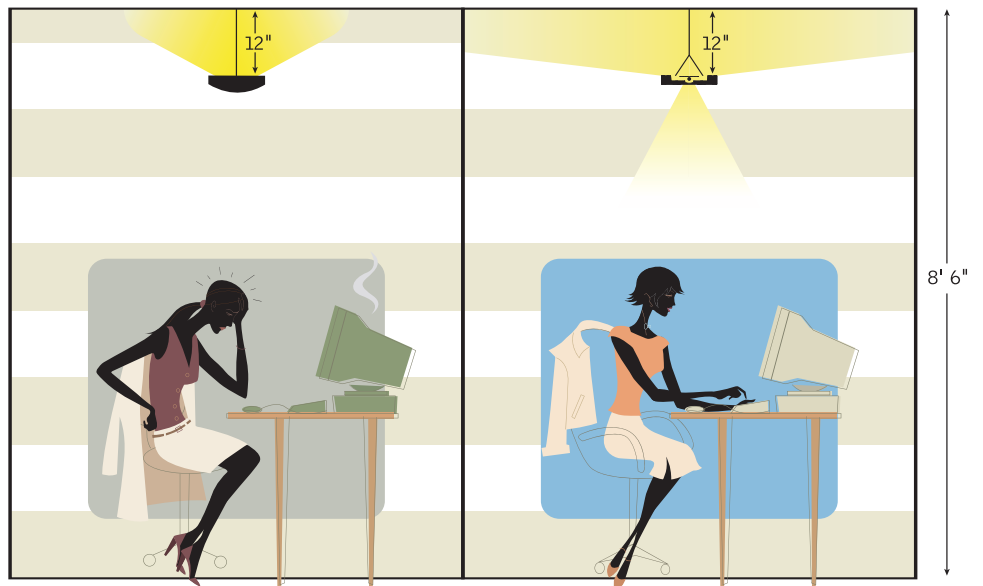
twelve™ with linear patterned acrylic (FTWS-PA)



The result is twelve's™ exceptionally flat curve and 115° main beam.

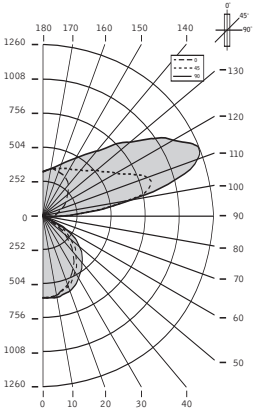
traditional luminaire

twelve™



Eliminating areas of intense brightness on the ceiling reduces eye strain and improves visual comfort. twelve's™ sophisticated optic produces balanced illumination on the ceiling and appropriate light levels at the workplane.

performance data



spacing 1.1 II
criterion: 1.3 I

candlepower distribution

vertical angle	0°	22.5°	45°	67.5°	90°	zonal lumens
0°	590	590	590	590	590	
5°	587	589	590	593	593	56.4
15°	551	553	562	575	582	159.9
25°	486	492	510	537	553	238.2
35°	394	404	429	464	486	272.8
45°	290	301	333	376	407	263.0
55°	178	193	226	269	301	208.0
65°	86	99	126	157	177	127.4
75°	29	41	52	60	59	52.1
85°	0	7	11	11	7	8.9
90°	0	0	1	1	1	
95°	17	171	105	74	69	107.2
105°	75	364	788	952	937	690.3
115°	136	315	772	1151	1264	729.1
125°	202	312	609	928	1051	555.2
135°	255	330	516	722	806	406.3
145°	321	355	449	550	602	285.1
155°	357	373	415	462	490	193.7
165°	373	377	385	399	410	110.0
175°	365	365	365	364	364	34.8
180°	352	352	352	352	352	

luminaire: one lamp T5HO fluorescent linear direct/indirect with white parallel blade lower, Ceiling Uniformity Filter and electronic ballast
 filename: FTW114PB.T5H
 catalog #: FTWS-PB-1T5HO-1C-120-S-C12-WH-4'
 efficiency: 90%
 test #: 12096.0

lumen summary

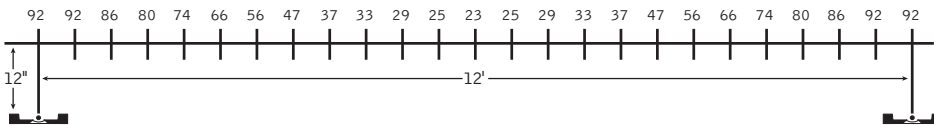
	zone	lumens	% lamp	% fixt
	0°-30°	454	9.1	10.1
	0°-90°	1387	27.7	30.8
	90°-130°	2082	41.6	46.3
	90°-180°	3112	62.2	69.2
total luminaire:	0°-180°	4498	90.0	100.0

luminance data CD/M²

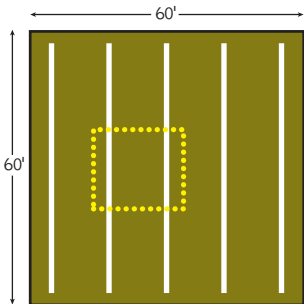
vertical angle	0	45	90
45	2147	2466	3014
55	1625	2063	2748
65	1066	1531	2193
75	587	1052	1194
85	0	661	421

60' x 60' open office — 12' o.c.

parallel blade louver (PB)



ceiling luminance (Footlamberts)



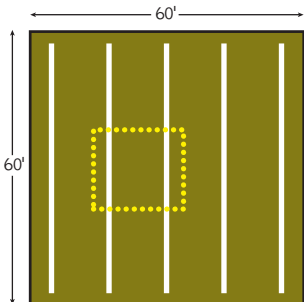
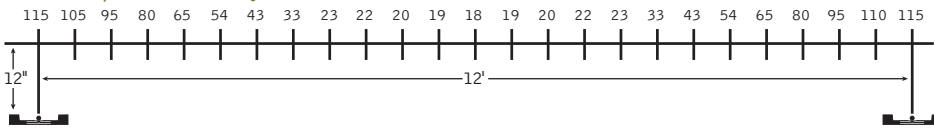
60' x 60' open office
5 rows @ 56'
reflectances: 80/50/20

	suspension 12"	18"	24"
ceiling height	8' 6"	9' 6"	9' 6"
ceiling uniformity	4:1	2:1	1.4:1
average F.C. @ 30"	75fc	73fc	74fc
power density (w/FT ²)	1.24	1.24	1.24
ballast factor	1.0	1.0	1.0
light loss factor	.85	.85	.85



twelve™ with parallel blade louver (FTWS-PB)

linear patterned acrylic (PA)



60' x 60' open office
5 rows @ 56'
reflectances: 80/50/20

	suspension 12"	18"	24"
ceiling height	8' 6"	9' 6"	9' 6"
ceiling uniformity	6.3:1	3:1	1.9:1
average F.C. @ 30"	47fc	47fc	47fc
power density (w/FT ²)	1.24	1.24	1.24
ballast factor	1.0	1.0	1.0
light loss factor	.85	.85	.85

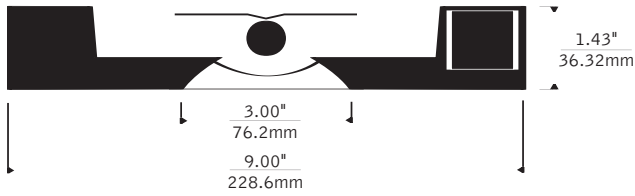


twelve™ with linear patterned acrylic (FTWS-PA)

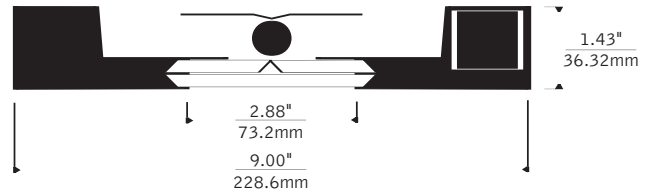
*Light levels reflect open office space without furniture. Furniture layout will alter final results.

product details

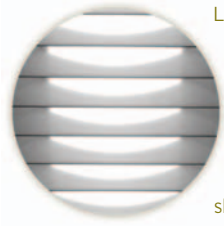
twelve™ with louver (FTWS-PB)



twelve™ with patterned acrylic (FTWS-PA)



Rectangular steel housing and endcaps maintain aesthetic form.



Lamp is shielded by the 1/2" deep parallel mini blade louver in the PB option. Louver blade is contoured to accept acrylic lens diffuser providing comfortable downlight shielding.



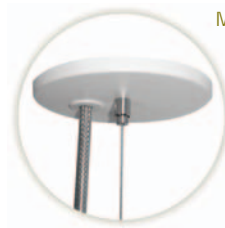
Lamp is shielded by the linear patterned acrylic diffuser in the PA option. The acrylic diffuser option delivers 95% indirect and 5% direct illumination.



Luminaires include integral "plug and play" branch circuit wiring harness. Electrical connections are made without accessing the interior of the luminaire.



Stem mount suspension option supplied with 5" canopies at feed and non-feed locations. Not for use in seismic conditions.



Metal braided power cord and 5" white canopy supplied at feed locations.

ordering information

fixture series	_____	ballast	_____	factory options	_____
twelve FTWS	_____	Electronic Program Start	S	Emergency Circuit	EC
shielding	_____	Electronic Dimming Ballast	D	Emergency Battery Pack	EM
Parallel Blade Louver with CU Filter	PB			HLR/GLR Fuse	FU
suspension	_____			Include 3000K Lamp	L830
Linear Patterned Acrylic Diffuser with CU Filter	PA	12" Cable Suspension	J12	Include 3500K Lamp	L835
lamping	_____	(5" canopy at feed locations and 2" canopy non-feed locations)		Include 4100K Lamp	L841
1 Lamp T5	1T5	(specify "C" in place of "J" for 5" dia. canopies both at power feed and non-feed locations)		(factory installed lamps recommended)	
1 Lamp T5H0	1T5H0			finish	_____
2 Lamp T5	2T5	(suspension may be adjusted up to 24". Consult factory for lengths longer than 24")		Matte Satin White	WH
2 Lamp T5H0	2T5H0			Titanium Silver	TS
circuit	_____	Stem Mount	S__	fixture run length	_____
Single Circuit	1C	(specify stem length in inches)		4'	4'
voltage	_____	(stem painted white unless otherwise specified)		8'	8'
120 Volt	120	(5" dia. canopies both at power feed and non-feed locations)		12' (8'+4')	12'
277 Volt	277			16' (8'+8')	16'
*347 Volt	347			20' (8'+4'+8')	20'
				24' (8'+8'+8')	24'

*Consult factory for availability

(individual units may not be field modified for continuous row mount)



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Photography: Hedrich Blessing (Craig Dugan)