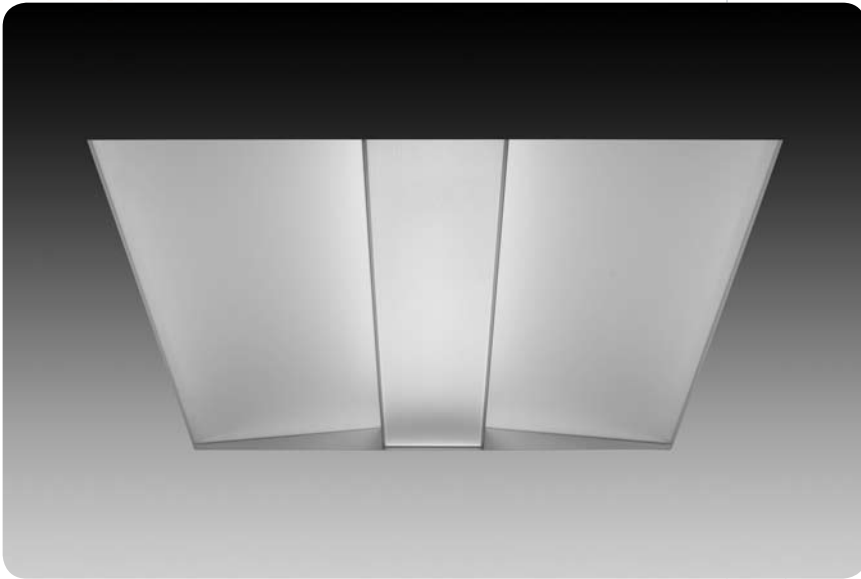


# equation™ 2x2



Patent Pending

## features

Equation blends sleek aesthetics and uniform diffuse illumination while delivering high fixture efficiencies.

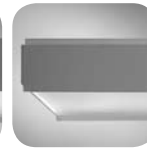
Center diffuser features MicroGlow™ prismatic lens technology. Precision molded conical prisms deliver 92% light transmission while controlling high angle brightness.

Patent pending QuickLatch™ hinged diffuser system makes relamping easy.

## shielding options



natural anodized side rails



high performance white side rails



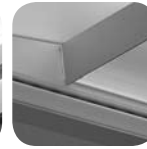
daylight/occupancy sensor

## sensor options

## details & options



QuickLatch™



air return

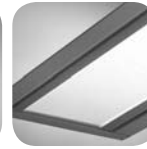


suspended

## companion luminaire

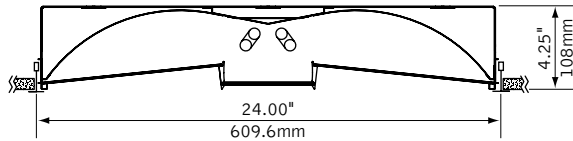


twelve with MicroGlow™



avenue b with MicroGlow™

## dimensional data

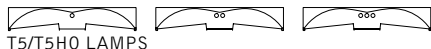


Overall height for luminaire with Air Return is 4.90"

## lampping options



BIAX LAMPS



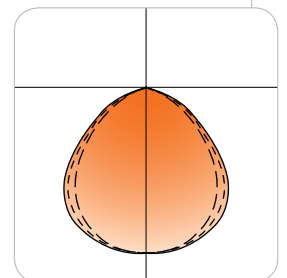
T5/T5HO LAMPS



T8 LAMPS

## performance

High Performance White Side Rails  
 2-Lamp 40W BiAx  
 74% Efficiency  
 1899 cd @ 5°



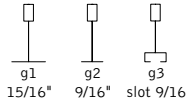
Visit [focalpointlights.com](http://focalpointlights.com) for complete photometric data.

fixture:  
project:

## mounting information

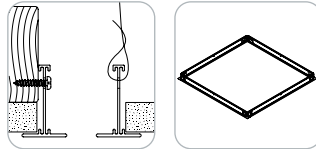
### grid

for lay-in grid, specify G1, G2 or G3.



### drywall frame kit

specify "DF" Drywall Frame Kit for drywall ceiling conditions.



Use tie-wire or screws to secure frame kit.  
cut out dimensions:  
2': Min: 24.25"  
Max: 24.563"

## specifications

### construction

One piece 20 Ga. Steel reflector and housing.  
20 Ga. Steel ends form finishing housing.  
Bottom access 20 Ga. Steel ballast compartment.  
Earthquake brackets supplied as standard.

Weight: 17 lbs

### optic

20 Ga. Steel reflectors finished in matte satin white powder coat.  
.080" thick frosted white acrylic diffusers.  
.125" thick MicroGlow™ miniature prism acrylic lens and .120" thick linear spread lens retained with side rails available in natural anodized aluminum or Matte Satin White.

### electrical

Electronic ballasts are thermally protected and have a Class "P" rating.  
Optional dimming ballasts available.  
Consult factory for dimming specifications and availability.  
UL and cUL listed.

### sensors

Philips Luxsense daylight sensor measures reflected light from the surface below and dims lamp output when the light level exceeds required level. Output may be adjusted by turning the dial. A 0-10V dimming ballast is required (T5/T8 - DS standard).

Wattstopper daylight sensor is a closed loop system that measures total light level from daylight and electric light. A 0-10V dimming ballast is required (T5/T8 - DS standard).

Wattstopper occupancy sensor is a passive infrared sensor designed for cubicles and small offices. It has built-in daylight sensing that will hold lights off when adequate ambient light exists. One sensor controls multiple fixtures.

### finish

Polyester powder coat applied over a 5-stage pre-treatment.

## ordering

<b>luminaire series</b>		<u>FEQ</u>
Equation	FEQ	
<b>nominal size</b>		<u>22</u>
2' x 2'	22	
<b>distribution</b>		<u>B</u>
Bi-Directional	B	
<b>lamp quantity</b>		
One Lamp	1	
Two Lamp	2	
Three Lamp	3	
(T5/T5H0 or T8 only)		
<b>lamp type</b>		
40 Watt Biax	BX40	
50 Watt Biax	BX50	
55 Watt Biax	BX55	
T5	T5	
T5H0	T5H0	
T8	T8	
<b>ballast</b>		
Electronic Instant Start <20% THD (BX40 only)	E	
Electronic Program Start <10% THD	S	
Electronic Dimming Ballast* (Biax, T8 & 2T5 only)	D	
Electronic Step Dimming (T5 & T8 only)	DA	
<b>voltage</b>		
120 Volt	120	
277 Volt	277	
347 Volt	347	
<b>mounting</b>		
(leave blank for suspended fixture)		
15/16" Grid	G1	
9/16" Grid	G2	
9/16" Slot Tee	G3	
<b>suspension</b>		
(leave blank for non-suspended fixture)		
24" Aircraft Cable	C24	
48" Aircraft Cable	C48	
96" Aircraft Cable	C96	
<b>shielding</b>		
Natural Anodized Side Rails	AL	
High Performance White Side Rails	WP	
<b>factory options</b>		
Air Return (Overall height for luminaire with Air Return is 4.90")	AR	
Chicago Plenum	CP	
Drywall Frame Kit (Cut out dimensions: Min: 24.25"/Max: 24.563")	DF	
Emergency Battery Pack*	EM	
HLR/GLR Fuse	FU	
Flex Whip*	FW	
Include 3000K Lamp	L830	
Include 3500K Lamp	L835	
Include 4100K Lamp	L841	
Separate Circuit*	SC	
Master Satellite*	MS	
Tandem Wiring*	TW	
Lutron™ Sensor Feed* (EcoSystem ballast required)	SF	
Philips® Daylight Sensor* (0-10V dimming ballast required)	PY1	
WattStopper™ Daylight Sensor* (0-10V dimming ballast required)	WY1	
WattStopper™ Occupancy Sensor*	W01	
<b>finish</b>		<u>WH</u>
Matte Satin White	WH	

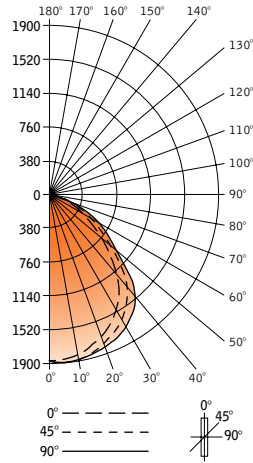
\* for more information see Reference section.

high performance white side rails  
equation™ 2x2



Filename: FEQ222BX40WP.IES  
Catalog #: FEQ-22-B-2-BX40-S-120-G1-WP-WH  
Efficiency: 74%  
Test #: 13301.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				Zonal Lumens	
	0°	22.5°	45°	67.5°		90°
0°	1873	1873	1873	1873	1873	
5°	1852	1858	1899	1880	1891	179
15°	1776	1793	1840	1851	1859	517
25°	1622	1645	1729	1770	1796	793
35°	1384	1420	1531	1626	1644	957
45°	1006	1071	1184	1293	1308	911
55°	608	629	733	806	822	647
65°	363	374	422	464	489	418
75°	174	170	185	204	204	198
85°	34	33	31	29	30	34
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

Spacing 1.2  
Criterion: 1.3

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt
0°-30°	1490	23.6	32.0
0°-40°	2446	38.8	52.6
0°-60°	4004	63.5	86.0
0°-90°	4654	73.9	100.0
<b>Total Luminaire</b>	<b>0°-180° 4654</b>	<b>73.9</b>	<b>100.0</b>

LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
45°	4204	4947	5466
55°	3131	3775	4238
65°	2539	2953	3421
75°	1985	2116	2334
85°	1166	1037	1004

CO-EFFICIENTS OF UTILIZATION

Floor	80		70		20		30		10		00			
Ceiling	70	50	30	10	70	50	10	50	10	50	10	00		
Wall	70	50	30	10	86	86	86	82	82	79	79	75	75	74
<b>RCR 0</b>	88	88	88	88	86	86	86	82	82	79	79	75	75	74
1	82	79	76	74	80	77	73	74	70	71	68	69	66	65
2	76	71	66	63	74	69	62	67	60	64	59	62	58	56
3	70	63	58	54	68	62	53	60	52	58	52	56	51	49
4	64	57	51	47	63	56	46	54	46	52	45	51	44	43
5	59	51	45	40	58	50	40	48	39	47	39	46	39	37
6	55	46	40	35	53	45	35	44	35	42	34	41	34	33
7	51	41	35	31	49	41	31	39	30	38	30	37	30	29
8	47	37	31	27	45	36	27	35	27	33	26	34	26	25
9	43	33	27	23	42	33	23	32	23	31	23	30	23	22
10	40	30	24	21	39	30	21	29	20	28	20	28	20	19

Numbers indicate percentage values of reflectivity.

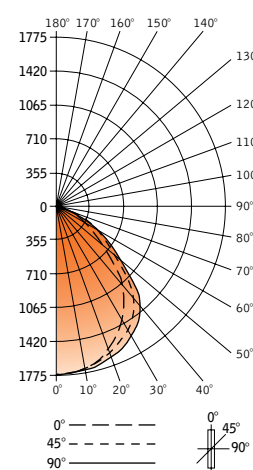
Go to www.focalpointlights.com for additional photometric data.

natural anodized side rails  
equation™ 2x2



Filename: FEQ222BX40AL.IES  
Catalog #: FEQ-22-B-2-BX40-S-120-G1-AL-WH  
Efficiency: 67%  
Test #: 13302.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				Zonal Lumens	
	0°	22.5°	45°	67.5°		90°
0°	1757	1757	1757	1757	1757	
5°	1738	1762	1734	1775	1746	167
15°	1660	1696	1683	1719	1712	481
25°	1484	1545	1571	1638	1638	731
35°	1256	1325	1403	1470	1488	875
45°	899	983	1076	1143	1178	821
55°	535	579	648	707	727	575
65°	321	331	375	409	431	370
75°	156	147	163	175	176	172
85°	32	26	22	18	17	25
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

Spacing 1.2  
Criterion: 1.3

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt
0°-30°	1379	21.9	32.7
0°-40°	2254	35.8	53.4
0°-60°	3650	57.9	86.6
0°-90°	4217	66.9	100.0
<b>Total Luminaire</b>	<b>0°-180° 4217</b>	<b>66.9</b>	<b>100.0</b>

LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
45°	3757	4496	4923
55°	2757	3337	3746
65°	2245	2626	3013
75°	1778	1865	2007
85°	1101	745	583

CO-EFFICIENTS OF UTILIZATION

Floor	80		70		20		30		10		00			
Ceiling	70	50	30	10	70	50	10	50	10	50	10	00		
Wall	80	80	80	80	78	78	78	74	74	71	71	68	68	67
<b>RCR 0</b>	80	80	80	80	78	78	78	74	74	71	71	68	68	67
1	74	72	69	67	72	70	66	67	64	65	62	62	60	59
2	69	64	60	57	67	63	56	61	55	58	54	57	53	51
3	64	57	53	49	62	56	49	55	48	53	47	51	46	45
4	59	52	46	42	57	51	42	49	42	48	41	46	41	39
5	54	46	41	37	53	45	36	44	36	43	36	42	35	34
6	50	42	36	32	49	41	32	40	32	39	32	38	31	30
7	46	38	32	28	45	37	28	36	28	35	28	34	28	26
8	42	34	28	25	41	33	25	32	24	32	24	31	24	23
9	39	30	25	21	38	30	21	29	21	28	21	28	21	20
10	36	28	22	19	35	27	19	27	19	26	19	25	19	18

Numbers indicate percentage values of reflectivity.

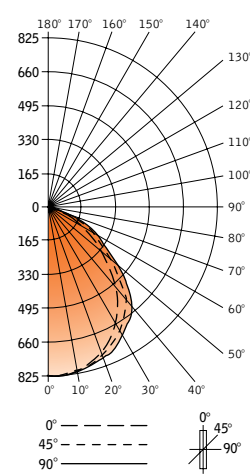
Go to www.focalpointlights.com for additional photometric data.

high performance white side rails  
equation™ 2x2



Filename: FEQ222T5WP.IES  
Catalog #: FEQ-22-B-2-T5-S-120-G1-WP-WH  
Efficiency: 73%  
Test #: 13307.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	
0°	825	825	825	825	825
5°	827	825	826	824	821
15°	790	792	795	800	800
25°	716	724	739	755	760
35°	598	610	655	678	685
45°	424	448	490	524	551
55°	252	265	306	341	346
65°	150	153	178	199	204
75°	73	71	79	81	81
85°	11	10	9	8	9
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

Spacing 1.2  
Criterion: 1.3

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt
0°-30°	646	23.9	32.8
0°-40°	1052	39.0	53.5
0°-60°	1701	63.0	86.4
0°-90°	1968	72.9	100.0
<b>Total Luminaire</b>	<b>1968</b>	<b>72.9</b>	<b>100.0</b>

LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
45°	1772	2048	2303
55°	1299	1577	1783
65°	1049	1245	1427
75°	834	902	925
85°	373	305	305

CO-EFFICIENTS OF UTILIZATION

Floor	80			70			20					
Ceiling	50			30			10					
Wall	70	50	30	10	70	50	10	50	30	10	50	10
RCR 0	87	87	87	87	85	85	85	81	81	78	78	74
1	81	78	75	73	79	76	72	73	70	71	68	68
2	75	70	66	62	73	68	61	66	60	64	59	62
3	69	63	57	53	67	61	53	59	52	58	51	56
4	64	56	51	46	62	55	46	54	45	52	45	50
5	59	50	44	40	57	49	40	48	39	47	39	45
6	54	45	39	35	53	45	35	43	35	42	34	41
7	50	41	35	31	49	40	31	39	30	38	30	37
8	46	37	31	27	45	36	27	35	27	34	26	34
9	43	33	27	23	42	33	23	32	23	31	23	30
10	40	30	24	21	39	30	24	29	21	28	20	28

Numbers indicate percentage values of reflectivity.

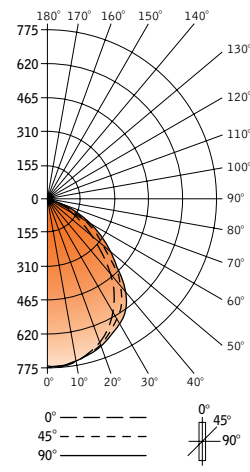
Go to www.focalpointlights.com for additional photometric data.

natural anodized side rails  
equation™ 2x2



Filename: FEQ222T5AL.IES  
Catalog #: FEQ-22-B-2-T5-S-120-G1-AL-WH  
Efficiency: 67%  
Test #: 13308.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle				Zonal Lumens
	0°	22.5°	45°	67.5°	
0°	776	776	776	776	776
5°	776	776	776	775	772
15°	741	746	747	748	749
25°	664	673	688	700	705
35°	553	567	607	630	632
45°	385	410	459	487	496
55°	224	236	280	311	317
65°	134	136	161	180	185
75°	66	61	68	71	72
85°	12	10	9	7	6
90°	0	0	0	0	0
95°	0	0	0	0	0
105°	0	0	0	0	0
115°	0	0	0	0	0
125°	0	0	0	0	0
135°	0	0	0	0	0
145°	0	0	0	0	0
155°	0	0	0	0	0
165°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

Spacing 1.3  
Criterion: 1.2

LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt
0°-30°	603	22.3	33.3
0°-40°	980	36.3	54.1
0°-60°	1574	58.3	86.8
0°-90°	1812	67.1	100.0
<b>Total Luminaire</b>	<b>1812</b>	<b>67.1</b>	<b>100.0</b>

LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	0°	45°	90°
45°	1609	1919	2073
55°	1154	1443	1633
65°	937	1126	1294
75°	754	777	822
85°	407	305	203

CO-EFFICIENTS OF UTILIZATION

Floor	80			70			20					
Ceiling	50			30			10					
Wall	70	50	30	10	70	50	10	50	30	10	50	10
RCR 0	80	80	80	80	78	78	78	75	75	71	71	68
1	74	72	70	67	73	70	66	68	64	65	62	63
2	69	64	61	57	67	63	57	61	55	59	54	57
3	64	58	53	49	62	57	49	55	48	53	47	51
4	59	52	47	43	57	51	43	49	42	48	41	47
5	54	46	41	37	53	46	37	44	36	43	36	42
6	50	42	36	33	49	41	32	40	32	39	32	38
7	46	38	32	29	45	37	28	36	28	35	28	35
8	43	34	29	25	42	34	25	33	25	32	25	31
9	39	31	25	22	38	30	22	29	22	29	21	28
10	37	28	23	19	36	28	19	27	19	26	19	26

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.