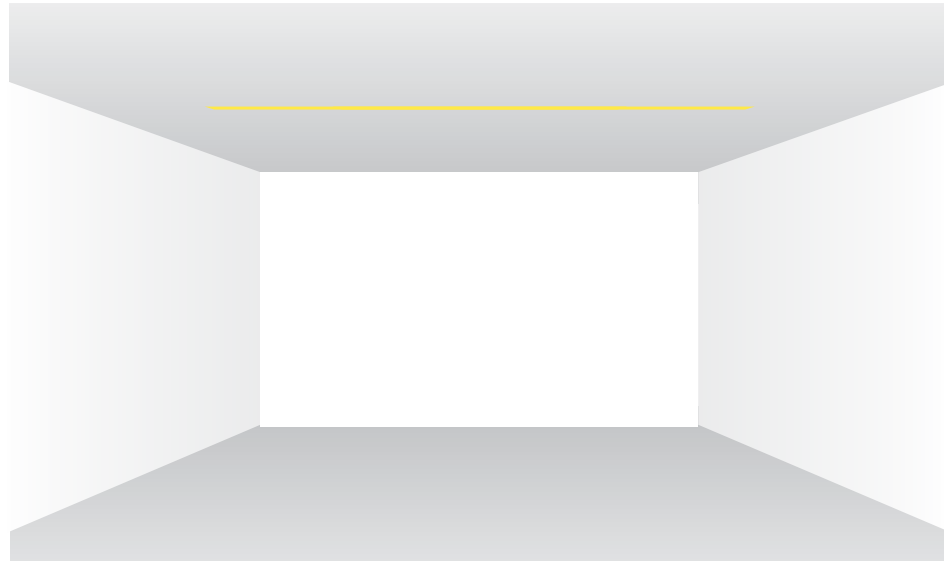


# 20 Linear Optical Accessory - Performance

WG 20LDL-...-S...-LL45-W, WG 20LDL-...-S...-NL16-W



The 20 Linear range of luminaires is one of Whitegoods' most popular. Maybe because of its uber minimal design, compact form factor and almost limitless versatility. Nonetheless, we are compelled to innovate and improve so we have added two Optical Accessories so that the 20 Linear can be utilized in even more applications.

The Linear Narrow Lens delivers a defined narrow beam of light in a continuous run. Although well defined, the beam has soft edges and is smooth across the focus area.

The Linear Louver has been designed to provide excellent shielding of the light source, with a 45° cut off in all angles of view. Even if you happen to look into the luminaire, you will not see LEDs directly; we have included a specifically developed diffuser to cover them and create an even spread of light across the beam.

Refer to the diagram on the left, select your luminaire and read off the light level achieved in the table below.

Calculated on the following basis:

### Reflectances

Ceiling 70%

Walls 50%

Floor 20%

### Maintenance factor

1.0

### LED

579lm/ft\*

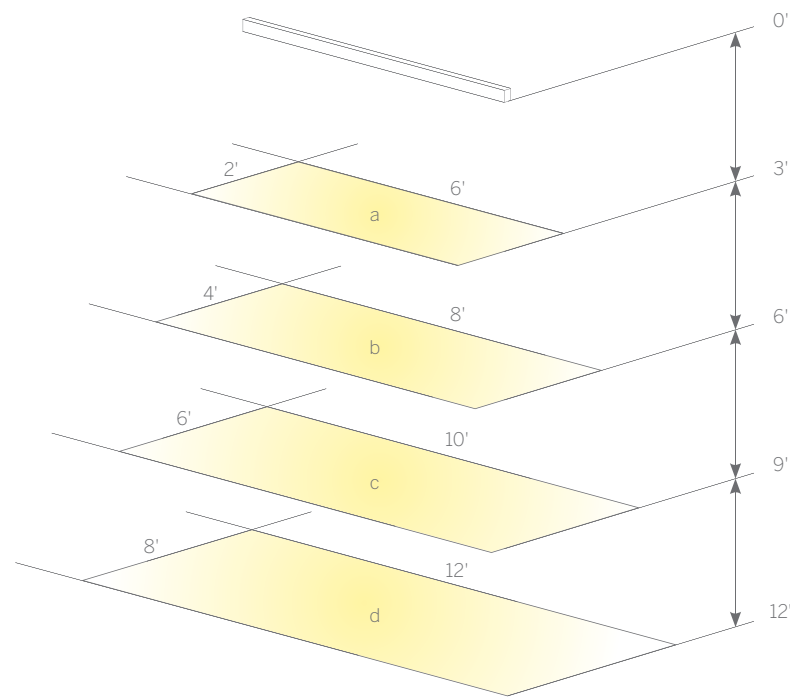
3000 Kelvin

90 CRI

## Light levels at set distances

The diagram shows the light level achieved across an area of the size shown, at the given distance from the luminaire.

Length of fixture: 4 ft



See tables on right for values taken at 1' x 1' spacings

### 20 Linear Louver All Mounting Options

Product Details 126-127

### 20 Linear Narrow Lens All Trim Options

Product Details 126-127

## 20 Linear Louver - Calculation Results

### a

15	37	47	47	37	15
15	37	47	47	37	15

### b

5	9	13	15	15	13	9	5
6	11	15	18	18	15	11	6
6	11	15	18	18	15	11	6
5	9	13	15	15	13	9	5

### c

3	4	5	6	7	7	6	5	4	3
3	5	6	7	8	8	7	6	5	3
4	5	7	8	9	9	8	7	5	4
4	5	7	8	9	9	8	7	5	4
3	5	6	7	8	8	7	6	5	3
3	4	5	6	7	7	6	5	4	3

### d

2	2	3	3	4	4	4	4	3	3	2	2
2	3	3	4	4	5	5	4	4	3	3	2
2	3	4	4	5	5	5	5	4	4	3	2
2	3	4	4	5	5	5	5	4	4	3	2
2	3	4	4	5	5	5	5	4	4	3	2
2	3	3	4	4	5	5	4	4	3	3	2
2	2	3	3	4	4	4	4	3	3	2	2

Values in Foot Candles

## 20 Linear Narrow Lens - Calculation Results

### a

47	78	94	94	78	47
47	78	94	94	78	47

### b

10	11	13	13	13	13	11	10
26	36	44	49	49	44	36	26
26	36	44	49	49	44	36	26
10	11	13	13	13	13	11	10

### c

5	5	5	5	6	6	5	5	5	5
9	10	12	13	14	14	13	12	10	9
15	18	22	25	26	26	25	22	18	15
15	18	22	25	26	26	25	22	18	15
9	10	12	13	14	14	13	12	10	9
5	5	5	5	6	6	5	5	5	5

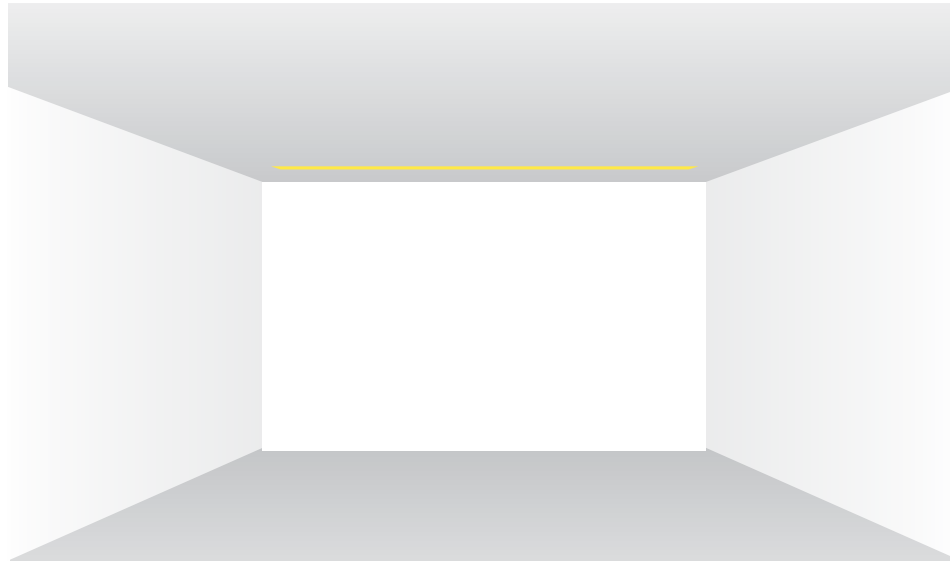
### d

3	3	3	4	4	4	4	4	3	3	3	
4	5	5	5	6	6	6	6	5	5	5	4
7	8	9	10	11	11	11	11	10	9	8	7
11	12	13	15	16	16	16	16	15	13	12	11
11	12	13	15	16	16	16	16	15	13	12	11
7	8	9	10	11	11	11	11	10	9	8	7
4	5	5	5	6	6	6	6	5	5	5	4
3	3	3	4	4	4	4	4	3	3	3	

Values in Foot Candles

# 20 Linear - High Angle Illumination

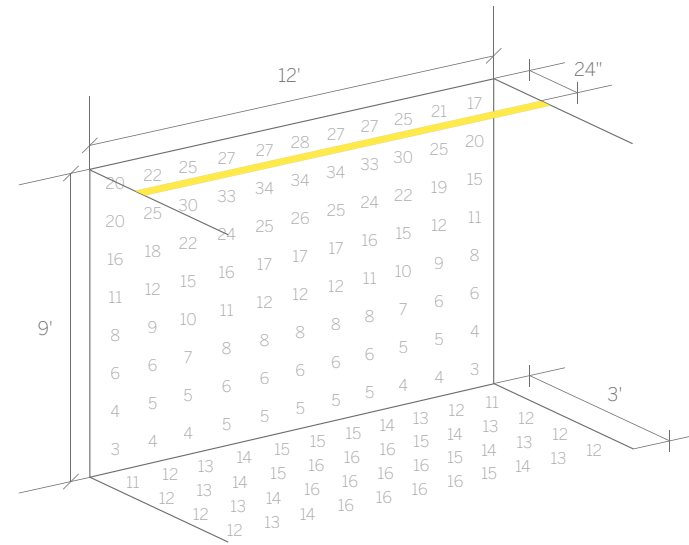
WG 20LDL-RPT, WG 20LDL-RBT, WG 20LDL-SM, WG 20LUC-SM



The 20 Linear is a versatile product. In its simplest form it is a recessed or surface mounted continuous linear strip of light.

It can be used for general illumination, or lighting within architectural details, or to illuminate specific surfaces. Below you can see the effect on a wall when a 20LDL-RPT, RBT or SM is mounted at relatively close offset to a wall.

9' Ceiling, 24" Optimum Offset



These diagrams indicate light levels to be expected on the wall and floor when using these luminaire types at various distances from the wall.

This page shows what we feel are the optimum offsets for the ceiling heights as shown.

The following page shows results at different offsets.

## Angle of Illumination / High Angle Lighting Performance

WG 20LDL-SM, WG 20LUC-SM



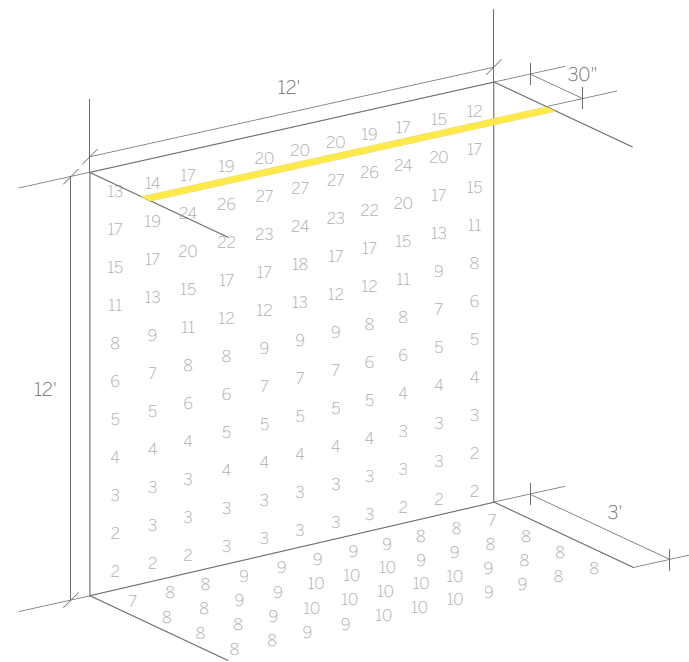
The diagrams show the point at which the contrast between the lit and the unlit perpendicular surface occurs as a soft transition line, at various distances from the luminaire.

Values in feet & inches

WG 20LDL-RPT-S, WG 20LDL-RBT



12' Ceiling, 30" Optimum Offset



Values in Foot Candles

Calculated on the following basis:

Reflectances	Maintenance Factor	LED	Diffuser
Ceiling 70%	1.0	579lm/ft*	Satin Opal
Walls 50%		3000 Kelvin	
Floor 20%		90 CRI	

### 20 Linear Plaster Trim

Product Details

120

### 20 Linear Surface Mount

Product Details

124-127

### 20 Linear Bezel Trim

Product Details

122

### 20 Linear Under Cabinet

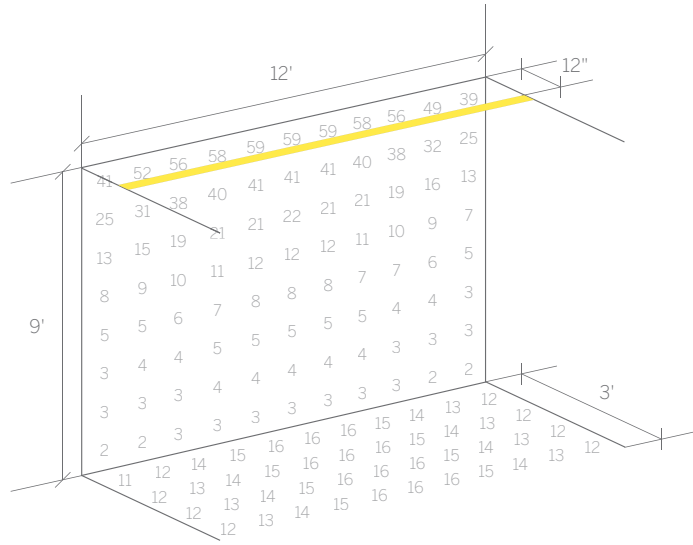
Product Details

144

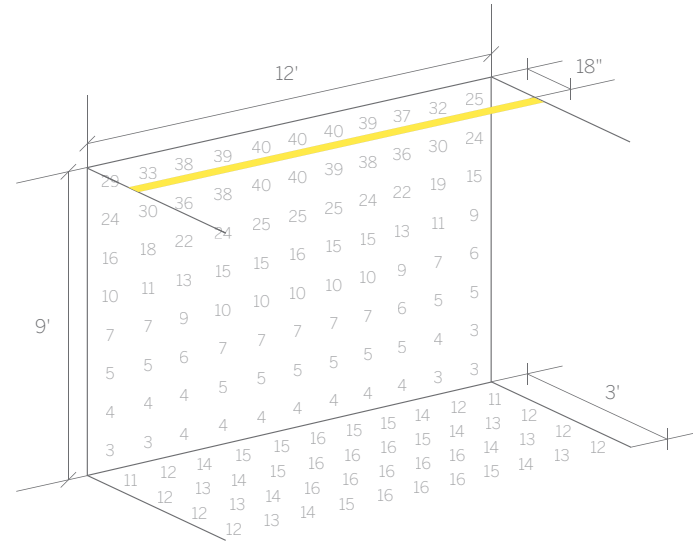
# 20 Linear - High Angle Illumination

WG 20LDL-RPT, WG 20LDL-RBT, WG 20LDL-SM, WG 20LUC-SM

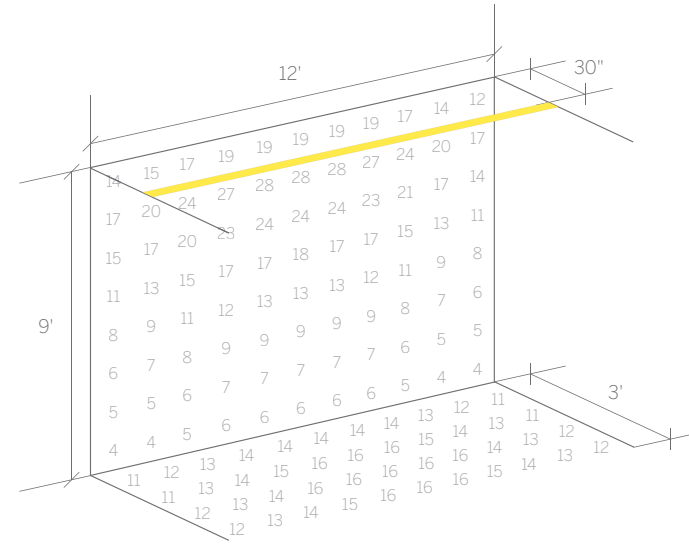
9' Ceiling, 12" Offset



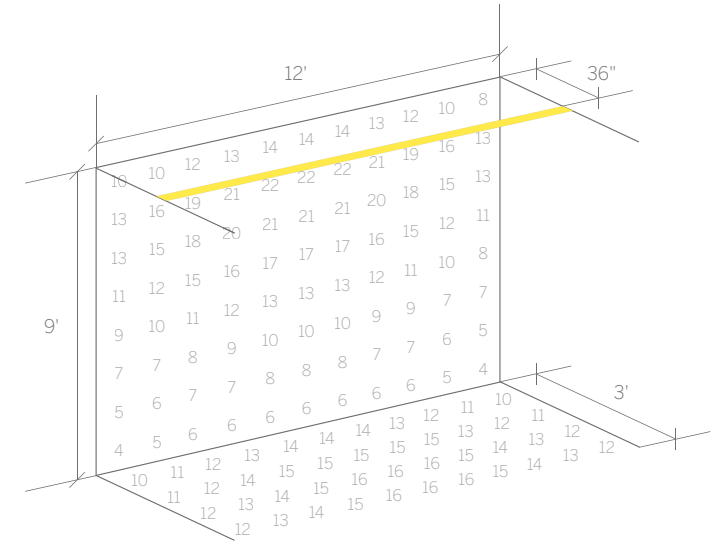
9' Ceiling, 18" Offset



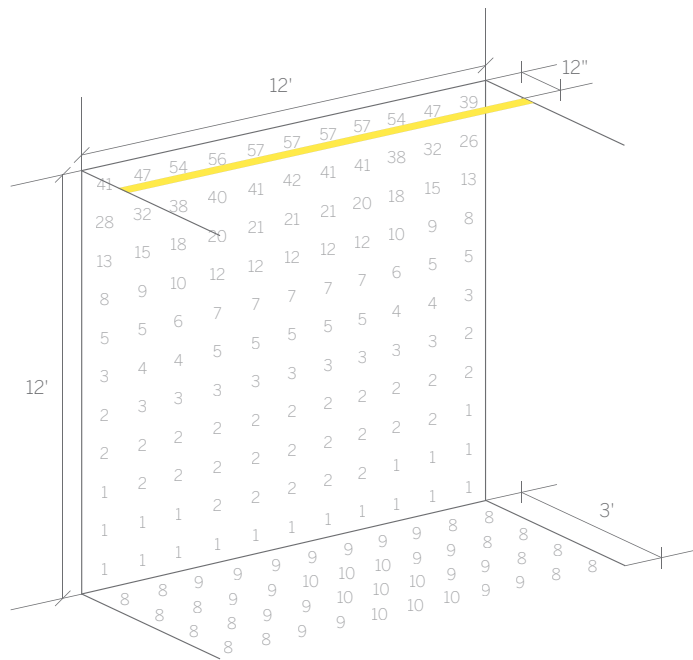
9' Ceiling, 30" Offset



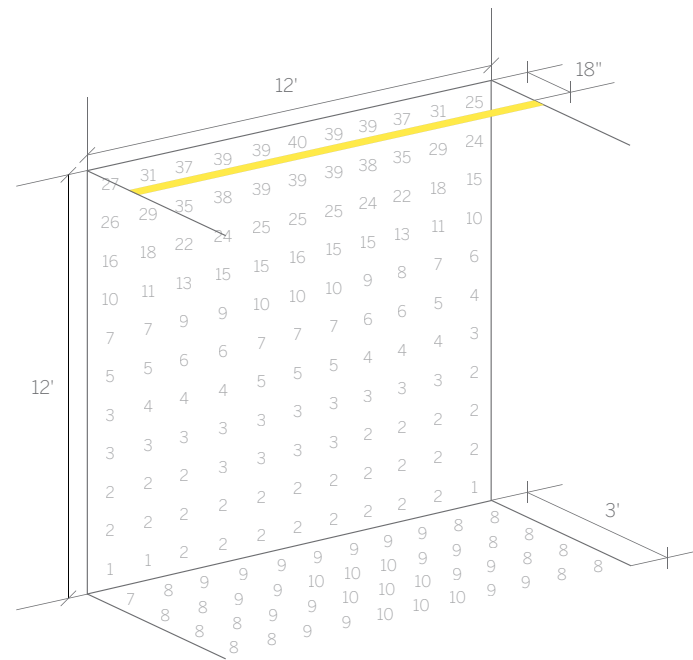
9' Ceiling, 36" Offset



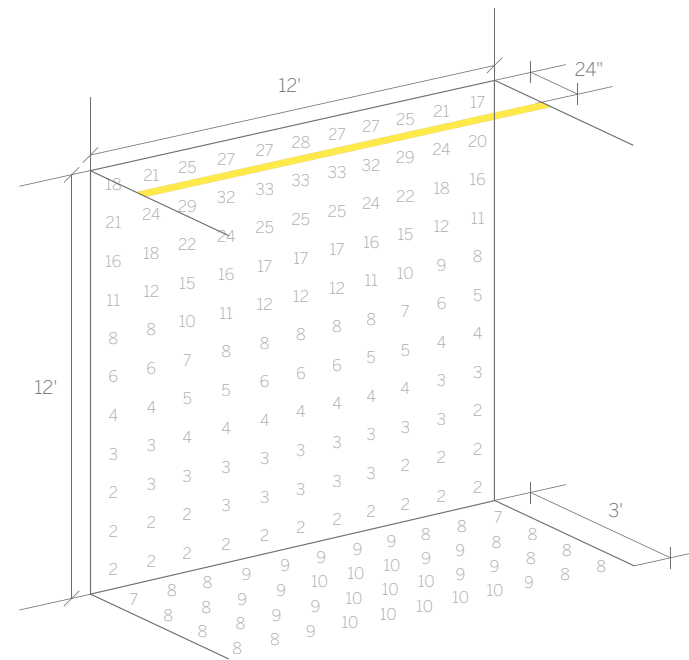
12' Ceiling, 12" Offset



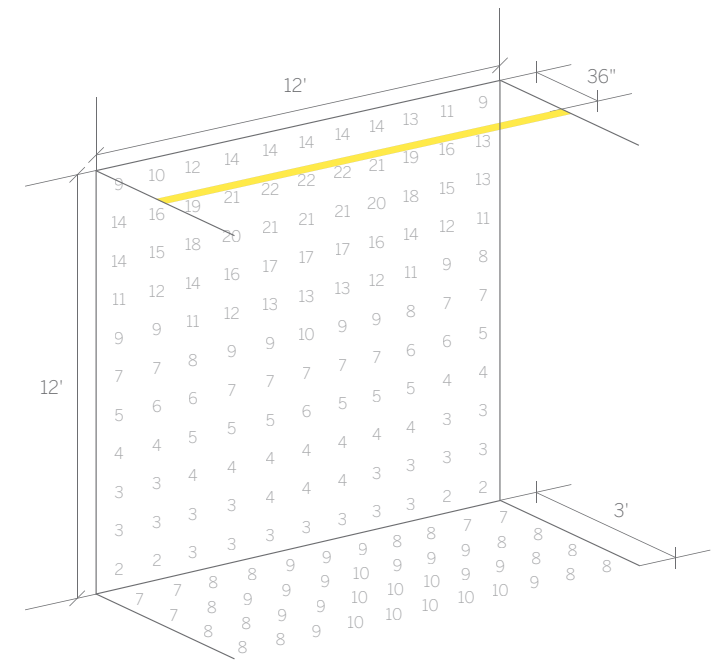
12' Ceiling, 18" Offset



12' Ceiling, 24" Offset



12' Ceiling, 36" Offset



Values in Foot Candles

Values in Foot Candles

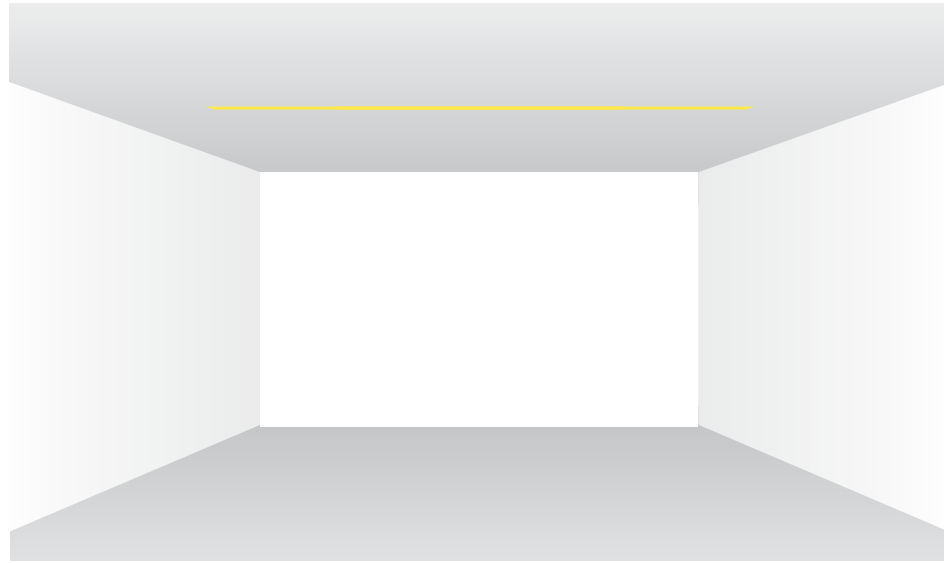
<b>20 Linear Plaster Trim</b>	Product Details	120	<b>20 Linear Surface Mount</b>	Product Details	124-127
<b>20 Linear Bezel Trim</b>	Product Details	122	<b>20 Linear Under Cabinet</b>	Product Details	144

Calculated on the following basis:

<b>Reflectances</b>	<b>Maintenance Factor</b>	<b>LED</b>	<b>Diffuser</b>
Ceiling 70%	1.0	579lm/ft*	Satin Opal
Walls 50%		3000 Kelvin	
Floor 20%		90 CRI	

# 20 Linear/60 Linear - Single Luminaire

WG 20LDL-RPT, WG 20LDL-RBT, WG 20LDL-SM, WG 20LRF, WG 20LUC-SM, WG 60LDL-RPT, WG 60LDL-RBT, WG 60LDL-SM, WG 60LDL-S



Plaster trim, bezel trim, surface mount and suspended luminaires with continuous even light along the entire lens.

Use for general area lighting in single units, grid patterns or groups, and continuous runs including horizontal and vertical corners.

Also, consider using at close offset from a wall or other feature surface to draw focus to it.

Refer to the diagram on the left, select your luminaire and read off the light level achieved in the table below.

Calculated on the following basis:

**Reflectances**

Ceiling 70%

Walls 50%

Floor 20%

**Maintenance factor**

1.0

**LED**

Medium Power

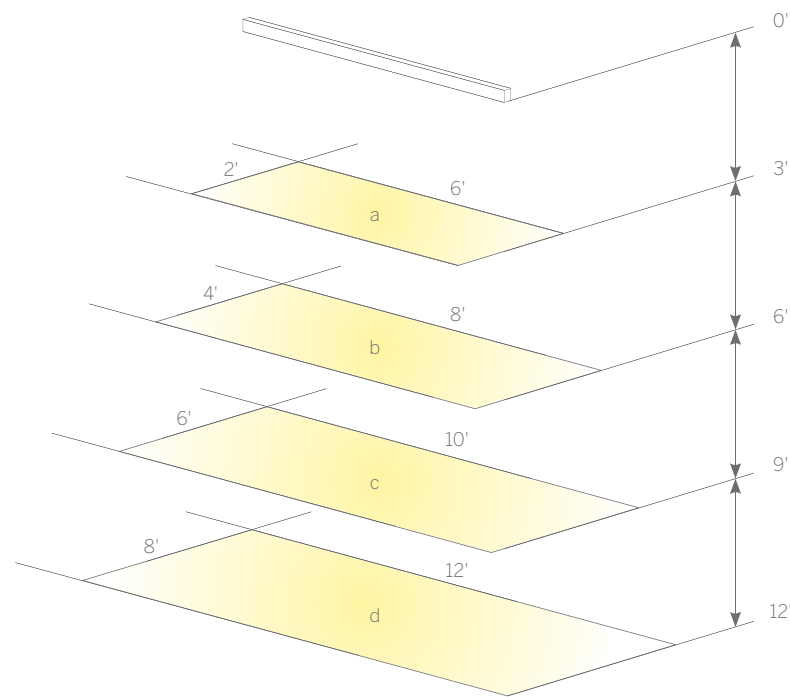
3000 Kelvin

90 CRI

**Average light levels at set distances**

The diagram shows the average light level achieved across an area of the size shown, at the given distance from the luminaire.

Length of fixture: 4 ft



Values in Foot Candles

**Calculation Results**

Luminaire Type	Accessory	Power	Average light levels (fc) at given distance from luminaire			
			a	b	c	d
WG 20LDL-RPT, WG 20LDL-RBT, WG 20LDL-SM, WG 20LUC-SM, WG 20LRF	Satin Opal	579lm/ft*	34	12	7	5
	Satin Clear	579lm/ft*	54	18	10	7
WG 60LDL-RPT, WG 60LDL-RBT, WG 60LDL-SM, WG 60LDL-S	Satin Opal	691lm/ft*	48	17	9	6
	Satin Clear	691lm/ft*	66	23	12	8

Values in Foot Candles

**20 Linear All Mounting Options**

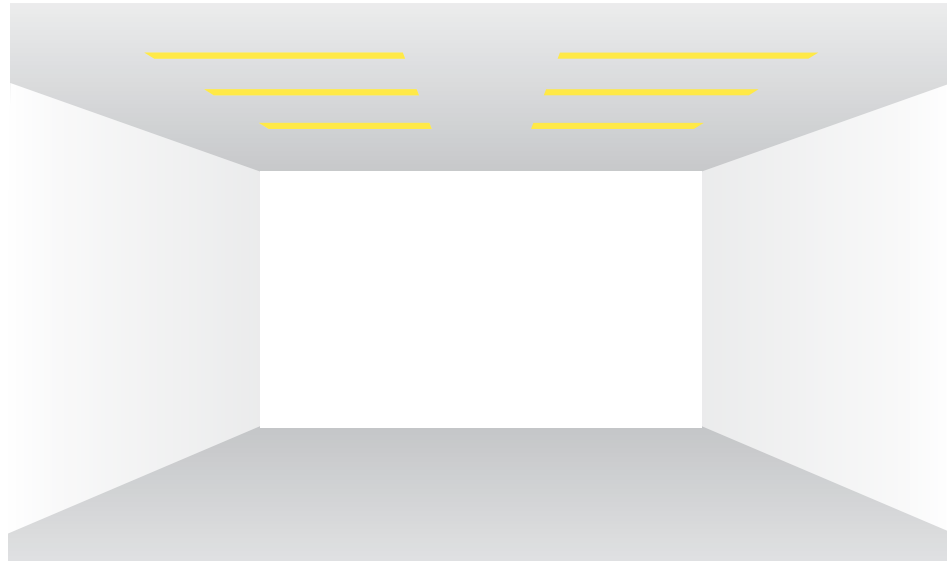
Product Details 120-139

**60 Linear All Mounting Options**

Product Details 184-191

# 20 Linear/60 Linear - Grid Set Out

WG 20LDL-RPT, WG 20LDL-RBT, WG 20LDL-SM, WG 20LUC-SM, WG 60LDL-RPT, WG 60LDL-RBT, WG 60LDL-SM, WG 60LDL-S



Surface mount, suspended, plaster trim and bezel trim luminaires available in any length with continuous even light along the entire lens.

Use for general area lighting in grid patterns or groups. Also, consider using at close offset from a wall or other feature surface to draw focus to it.

Refer to the diagram on the left, select your luminaire, ceiling height and set out, and read off the light level achieved in the table below.

Calculated in a 20'x20' room size and on the following basis:

**Reflectances**

Ceiling 70%  
Walls 50%  
Floor 20%

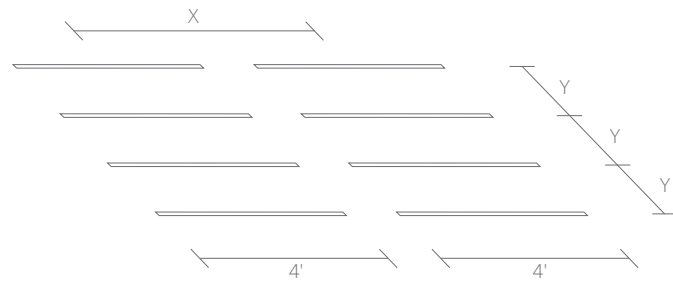
**Maintenance factor**

1.0

**LED**

Medium Power  
3000 Kelvin  
90 CRI

**Average light levels at set spacing**



The diagram and table can be read to establish light levels achieved when luminaires are set out at the dimensions indicated, at the ceiling heights shown.

20LDL Satin Clear 579lm/ft\*  
60LDL Satin Clear 691lm/ft\*

X = luminaire spacing center to center  
4.0' spacing = continuous luminaire  
Y = distance between rows

**Calculation Results**

Luminaire Type	Accessory	Ceiling Height	Y	X Average Light Levels (fc)			
				4.0'	6.0'	8.0'	10.0'
WG 20LDL-RPT, WG 20LDL-RBT, WG 20LDL-SM, WG 20LUC-S	Satin Clear	9.0'	4.0'	45	42	39	36
			6.0'	38	35	32	30
			8.0'	29	27	25	23
			10.0'	22	20	19	18
	12.0'	4.0'	35	34	31	30	
		6.0'	30	29	27	25	
		8.0'	23	21	21	19	
		10.0'	18	17	16	15	
WG 60LDL-RPT, WG 60LDL-RBT, WG 60LDL-SM, WG 60LDL-S	Satin Clear	9.0'	4.0'	34	31	29	27
			6.0'	28	26	24	22
			8.0'	21	20	18	17
			10.0'	17	15	14	13
	12.0'	4.0'	26	25	24	22	
		6.0'	23	21	20	19	
		8.0'	17	16	15	14	
		10.0'	13	12	12	11	

Values in Foot Candles

**20 Linear  
All Trim Options**

Product Details 120-139

**60 Linear  
All Trim Options**

Product Details 184-191