

TOKISTAR Gradient



TOKISTAR LIGHTING



Gradient™

Tokistar Gradient is a highly efficient LED luminaire for use in wall grazing and other interior lighting applications. The system incorporates high-output LEDs within an extruded aluminum housing. Heat sinking inside the fixture ensures all exposed surfaces remain cool to the touch.

Gradient's optics package includes four lens styles to control, shape and direct light for the greatest impact.

Tokistar offers all the components necessary to dim Gradient from industry-standard DMX or 0/1-10VDC dimming systems. Wiring is in parallel so fixtures can be ordered with any number of LEDs from one to thirty-two.



Gradient with 3000K color temperature produces quality light similar to warm incandescent sources.

Contents

[Introduction](#) | 2 - 3

[Design Guidelines](#) | 4

[Specifications](#) | 5

[Photometrics](#) | 6

[LED Drivers / Dimmer Packs](#) | 7



Cover:
Grazing light evenly illuminates this distinctive wall panel.



Fixed or pivoting brackets focus light precisely where needed.



Fixtures positioned above the window bring welcome attention to this display.



A spread lens positioned behind the valance attractively grazes light on the fabric.



Gradient with a broader light spread illuminates this entire ceiling cove.

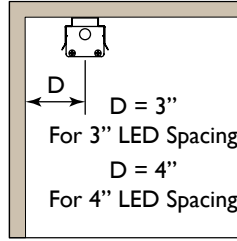
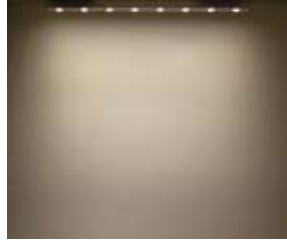


Design Guidelines

LED Spacing/Fixture Location

LEDs may be specified as 3" or 4" on center. Four inch spacing is the most economical choice and ideal in most applications. Three inch spacing is typically used when the fixture is positioned closer to the reflective surface for more uniform illumination.

To prevent light scallop images, we recommend the distance of the fixture from the wall be equal to the LED Spacing.



LED Color

Select the appropriate LED color to complement the ambiente. Gradient is offered in either 3000K or 4300K.



IW: 3000K



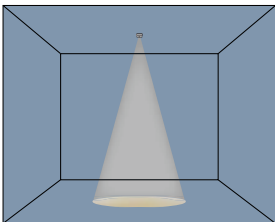
NW: 4300K

Lens Selection

The distribution and intensity of light striking the surface varies depending on the lens selection.

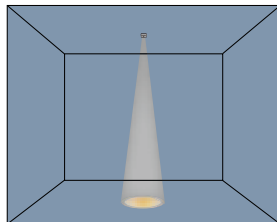
8 x 32° Spread Lens

This asymmetrical lens is the most popular choice for typical wall-grazing applications.



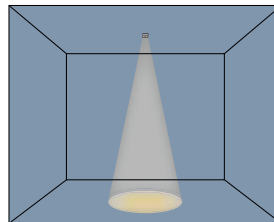
8° Lens

This lens is used to produce a distinct concentration of light from greater distances.



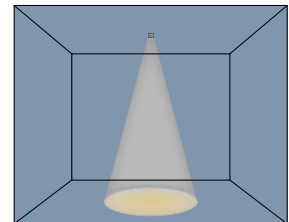
20° Lens

The 20° lens has a wide range of applications from wall grazing to down lighting.



40° Lens

The broad distribution of this lens is suitable for many indirect lighting tasks.





Specifications

How To Specify

GR - 100 - IW - SP

Specify Gradient by selecting Spacing, Color and Lens Style. Fixtures may have any increment of LED Modules from 1 to 32 in 3" spacing, or from 1 to 24 in 4" spacing.

LED Spacing		LED Color		Lens	
Code	Inches (mm)	Code	Color	Code	Style
75	3" (75 mm)	IW	3000K	SP	Spread
100	4" (100 mm)	NW	4300K	08D	8°
				20D	20°
				40D	40°

Mounting Brackets

Gradient is attached with pivoting or fixed mounting brackets.

For fixtures with up to four LED modules, a single pivoting bracket is all that's required. Fixtures exceeding four LED modules require two brackets.



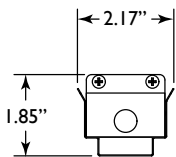
Part# GR-A-MB
Pivoting Mounting Bracket

For fixtures with fixed brackets, a minimum of two brackets is required. Fixtures exceeding five feet require three brackets.

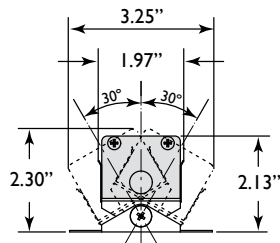


Part# GR-F-MB
Fixed Mounting Bracket

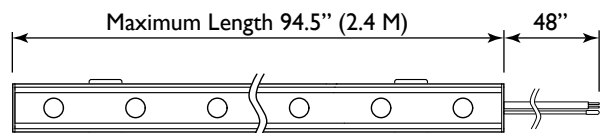
Specifications



With Fixed Bracket

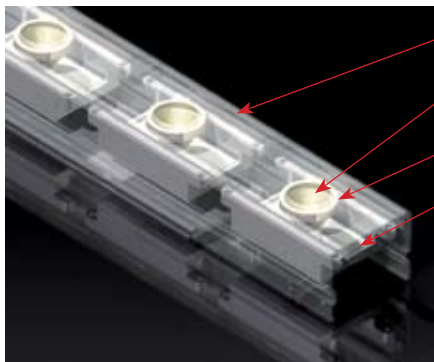


With Pivoting Bracket



Weight: 360 g/ft. @ 3" On Center

Weight: 320 g/ft. @ 4" On Center



Fixture housing Top and Bottom: Extruded Aluminum

Each LED operates at 24 VDC / Consumes 2.5 Watts
Lumens: 80 Lm @ 3000K / 100 Lm @ 4300K

Optics include 8 x 32° Spread, 8°, 20° or 40° Lens

Internal Heat Sink Dissipates Heat
Surface Temperature of Housing @ 40°C

Life Rating:

Under typical conditions, LED lifetime is in the range of 40,000-50,000 hours based upon lumen depreciation to 70% of initial light output.



Dry-Location Listed

LM 79 & LM 80
COMPLIANT

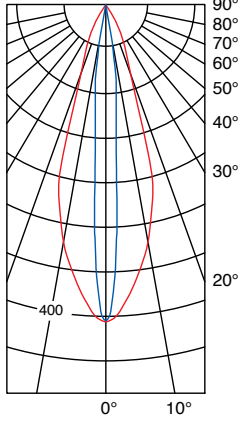


Photometrics Light Distribution Curves

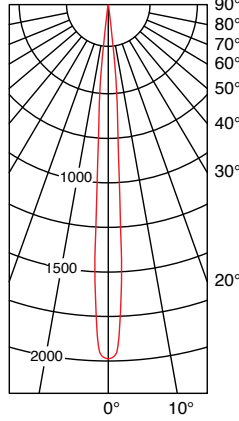
Test Criteria:
Lamp: 2.5 Watt LED/80 Lm/3000K

Conversion Factor:
Lamp: Multiply by 1.25 for 2.5 Watt LED/100 Lm/4300K

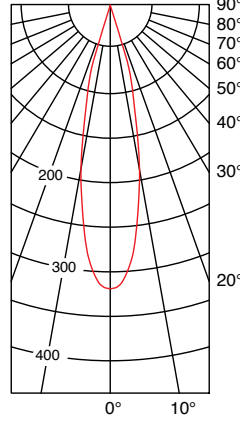
8 x 32° Spread Lens



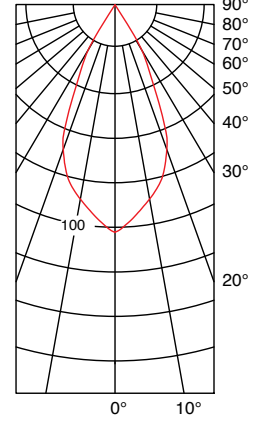
8° Lens



20° Lens



40° Lens



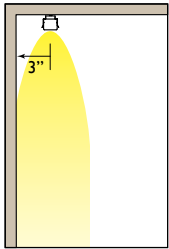
Footcandle Summaries

Test Criteria:
Lamp: 2.5 Watt/80 Lm/3000K
Spacing: 3" OC (75 mm)
Length: 71" (1.8 M)
Reflectance Values: Ceiling: 80% / Wall 50% / Floor 20%

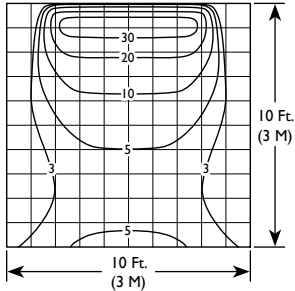
Conversion Factors:
Lamp: Multiply by 1.25 for 2.5 Watt LED/100 Lm/4300K
Spacing: Multiply by 0.75 for 4" (100 mm) Spacing
Lux Value: Multiply Footcandle Value by 10.764 to Determine Lux Value

On Wall

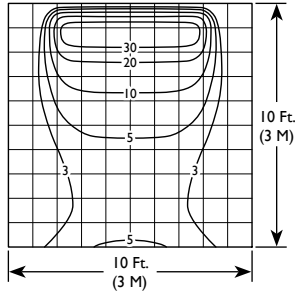
Fixture Orientation



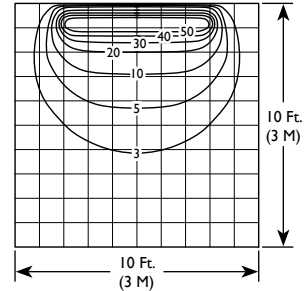
8 x 32° Spread Lens



20° Lens

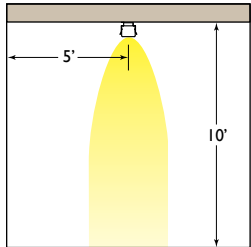


40° Lens

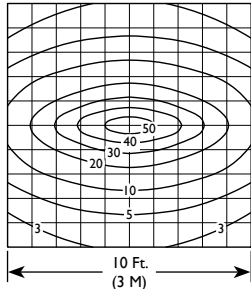


On Floor

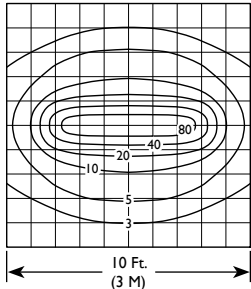
Fixture Orientation



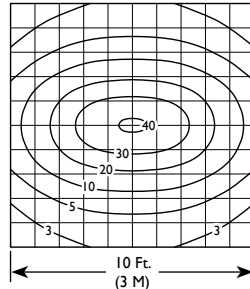
8 x 32° Spread Lens



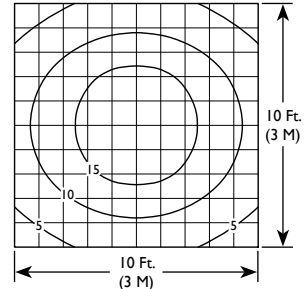
8° Lens



20° Lens



40° Lens



Photometrics by Tokyo Metropolitan Industrial Technology Research Institute. Testing conducted in accordance with IESNA LM-79-08.

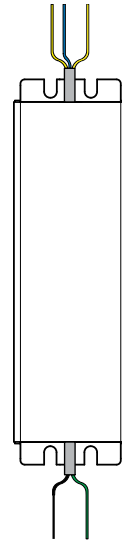
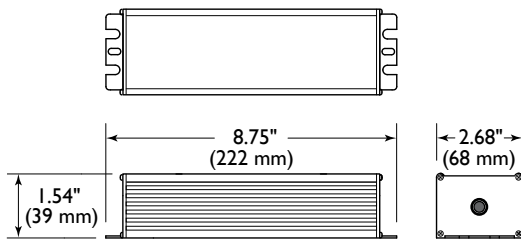


Drivers & Dimmer Packs

LED Drivers

LDR24-96

Tokistar's LDR24-96 is a 96 Watt Class 2 LED Driver used to convert an AC input into a 24VDC output. It may be operated from a wide range of input voltages.



Specifications

Input Range: 100~277 VAC
Frequency Range: 50/60 Hz
Output: 24VDC (+/- 3%)
Max. Output Current: 4.0A
Max. Output Power: 96W
Protection: Overload, Over voltage, Short Circuit, Over Temperature
Working Temperature: -30°C~+50°C

Mechanical Specifications

Dimensions: 2.68" x 8.75" x 1.54"
Weight: 998g / 2.20 lbs
Enclosure Rating: Suitable for use in Dry, Damp and Wet Locations/IP67 Rated
Mounting: Flange Mount

Safety Standards

UL 879, UL 8750, UL 1310 Class 2, TUV EN60950-1, EN61347-1, EN61347-2-3 ind. CAN/CSA C22.2 No. 223-M91, IP67 Rated

LED Capacity

Up to 38 LED Modules @ 2.5 Watts

Dimming

Tokistar's dimming components use the PWM method for optimum results in dimming LEDs. Up to 25 LC-GR-DP dimmer packs can be connected in series to our LC-DMR.

The LC-ICH-MULTI converter is used to operate our dimmer packs from industry-standard dimmers working on 0/1-10VDC or DMX protocol. Each converter can operate up to 25 dimmer packs. For projects exceeding this count, multiple converters can be wired in series and each in the series will operate up to 25 dimmer packs.



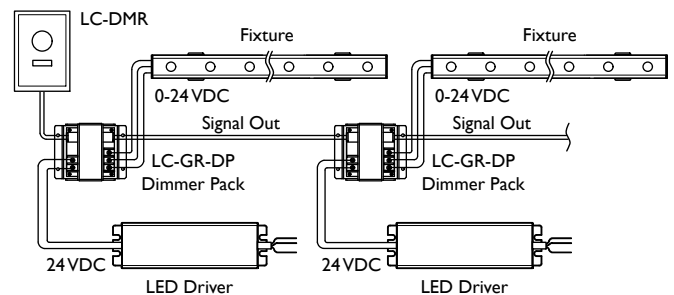
Part #: LC-GR-DP

Power Input: 24VDC
Power Output: 0-24VDC
Dimensions: 1-3/8" x 3-1/4" x 4"
Weight: 205g / 0.45 lbs
Operating Temp: -20°C ~+ 60°C
LED Capacity: Up to 38 LED Modules



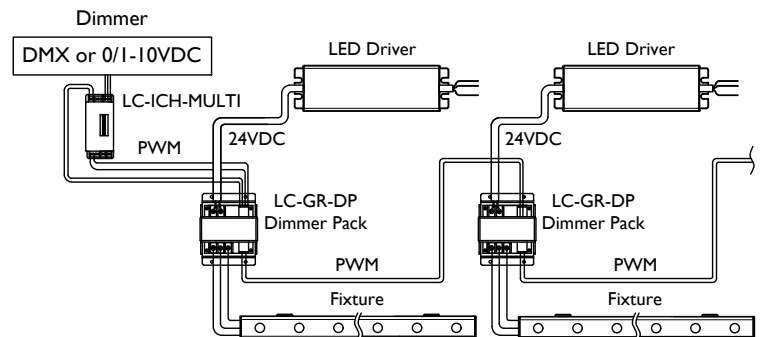
Part #: LC-DMR

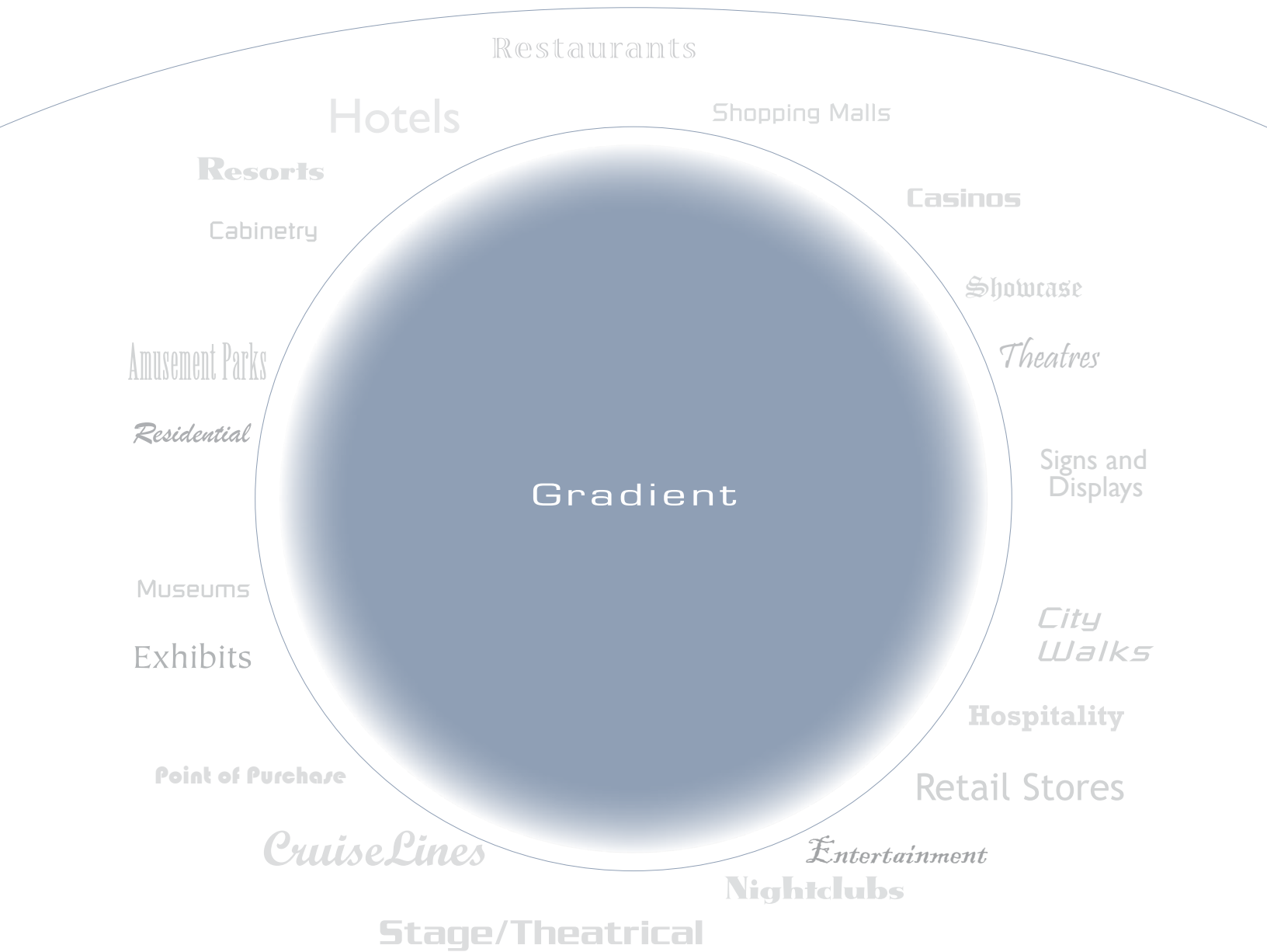
The remote wall dimmer connects to the LC-GR-DP dimmer packs with CAT5 cable. Up to 25 dimmer packs may be connected in series if the total length of all CAT5 cable does not exceed 165 feet.



Part #: LC-ICH-MULTI

This device is required to operate the LC-GR-DP dimmer packs from DMX or 0/1-10VDC dimmers. Dimensions: 3/4" x 1-3/4" x 3-1/2"
Weight: 50g / 0.11 lbs
Operating Temperature: 0~+50°C





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