

# 12V Integrated LED All-Purpose Recessed Light

16140, 16141



<b>PROJECT:</b>	<b>ORDERING:</b>
<b>TYPE:</b>	<b>COMMENTS:</b>

## OVERVIEW

Landscape lighting versatility and functionality get completely redefined with the Kichler 12V Integrated LED All-Purpose Recessed Light. Use it practically anywhere to create a dynamic lighting effect: embed in concrete to mark a path, install over a patio to deliver ambient light, uplight trees or walls for beauty and safety.

## FEATURES

- 3 field changeable beam spread optics included: 20°, 40° and 75°
- Integrated, fully sealed and encapsulated fixture protects against the elements
- 9 to 15-volt operating range to assure consistent light output throughout a run
- Removable spring clip and compression sleeve adapts to a wide variety of applications
- True delivered lumens and beam spreads

## PERFORMANCE

Output Position	16140	16141
Lumen output	100	200
Input voltage	9-15	9-15
Power (VA) @ 15V AC	3.5 VA	5.5 VA
Power (W) @ 15V AC	2 W	3.5 W
Efficacy (lm/W @ AC)	50	57
Halogen Comparison	10W	20W

## SPECIFICATIONS

### Fixture

Light Source	Integrated LED
Number of LEDs	1 High Output Discrete LED
Color Temperature	2700K, 3000K
Color Rendering Index	80+
Beam Angles	20°, 40°, 75°
Binning	3 Step
Fixture can be used	UP or DOWN position
Drive and Walk Over Rated	Yes for Pedestrian Traffic

### Input

Input Voltage Range	9-15V AC or DC with no loss in light output
Input Frequency	47-63Hz
Input Current	1A (100 lm), 2A Max (200 lm) @ 9V AC
Inrush Current	3A Max
Efficiency	> 50 lm/W @ 12VAC
Power Factor	> 0.7 @ 15V

### Output

16140	100 Lm
16141	200 Lm

### Environmental

Environmental Protection Rating	Wet, IP 68
Operation Ambient Temperature	-25°C - +40°C
Expected Life Time (L70)	50K Hours

### Mechanical & Housing Specification

Diameter (top)	2.2"
Height (fixture)	2"
Width (body)	1.5"
Height (body)	1.75"
Height (top)	0.25"
Housing Material	Stainless Steel
Housing Color & Surface	CBR Brass/ SS Stainless Steel
Weight	.94 LBS

## FIXTURE

### Glass Lens

Tempered, shock resistance glass with high tolerance for thermal expansion and stress.

### Body

304 Stainless Steel body, 304 Stainless Steel or C360 Brass tops, 304 Stainless Steel Retention Clips

### Wire

18 AWG, SJT-W, 105°C, 300V, 72" useable length

### Optics

Polycarbonate T.I.R. lens provides superior fixture beam angle. 40° installed, 20° and 75° included as accessories.

### Included Accessories

Includes 20°, 40°, and 75° optics, 2 gel-filled wire nuts, PVC sleeve and spring expandable retention clip.

Note: 75° Optic is marked with a 60° on the optic, 75° beam spread is delivered from the fixture. Also, includes O-rings for both 1.5" Schedule 40 and 80 PVC



## AVAILABLE FINISHES



**KICHLER**

# 12V Integrated LED All-Purpose Recessed Light

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Item Number	16140		16141	
Beam Angle	20		20	
Max Candela	358.52		594.23	
Ft. Away	Foot Candles	Beam Width Ft.	Foot Candles	Beam Width Ft.
2	89.6	0.89	148.6	0.99
4	22.4	1.79	37.1	1.98
6	10	2.68	16.5	2.98
8	5.6	3.58	9.3	3.97
10	3.6	4.47	5.9	4.96
12	2.5	5.37	4.1	5.95
14	1.8	6.26	3	6.94
16	1.4	7.16	2.3	7.94
18	1.1	8.05	1.8	8.93
20	0.9	8.95	1.5	9.92

Item Number	16140		16141	
Beam Angle	40		40	
Max Candela	170.85		308.33	
Ft. Away	Foot Candles	Beam Width Ft.	Foot Candles	Beam Width Ft.
2	42.6	1.66	77	1.47
4	10.6	3.32	19.2	2.95
6	4.7	4.99	8.6	4.42
8	2.7	6.65	4.8	5.9
10	1.7	8.31	3.1	7.37
12	1.2	9.97	2.1	8.85
14	0.9	11.64	1.6	10.32
16	0.7	13.3	1.2	11.8
18	0.5	14.96	1	13.27
20	0.4	16.62	0.8	14.75

Item Number	16140		16141	
Beam Angle	75		75	
Max Candela	67.58		139.54	
Ft. Away	Foot Candles	Beam Width Ft.	Foot Candles	Beam Width Ft.
2	16.8	3.44	34.8	2.93
4	4.2	6.87	8.7	5.86
6	1.9	10.31	3.9	8.79
8	1.1	13.74	2.2	11.72
10	0.7	17.18	1.4	14.65
12	0.5	20.62	1	17.58
14	0.3	24.05	0.7	20.51
16	0.3	27.49	0.5	23.44
18	0.2	30.92	0.4	26.37
20	0.2	34.36	0.3	29.3

Power (W)	Wire Gauge / Length / (ft/m) Load Chart			
	10	12	14	16
0-20	1860/567	1150/351	730/223	450/137
40	930/283	580/177	370/113	230/70
60	620/189	390/119	240/73	150/46
80	470/143	290/88	180/55	110/34
100	370/113	230/70	140/43	90/27
>100	Consult Technical Support			

## INSTALLATION INFORMATION

## INSTALLATION TIPS

Core Drill Sizes	Included Sleeve:	Retention Clips:	Fixture with O-Rings:	Flush Mount:
	1-3/4"	1-3/4"	1-5/8"	2-1/4"

## TROUBLESHOOTING

<b>Fixture does not illuminate</b>	Verify power connections. Review installation guide for installation problem. Insure manual reset breaker has not been tripped.
<b>Fixture turns off</b>	Verify power connections. Review installation guide for installation problems. Insure manual reset breaker has not been tripped. Check voltage drop at fixture.
<b>Fixture trips breaker</b>	Check installation for a possible short or overload state. Isolate the identified short and replace affected fixture or remove fixture(s) installed in overload.

## LISTING

UL 1838 Issued: 2003/01/13 Ed: 3 Rev: 2015/01/13  
 Low Voltage Landscape Lighting Systems.  
 Contact: layouts@kichler.com

CSA C22.2#250.7 Issued: 2007/11/01 (R2012)  
 Ed: 1 Extra-low-voltage landscape lighting systems –  
 General Instruction No. 1: 2008.

1. Chip binning ranges: (2700K 80+ CRI: 3 step), (3000K 80+ CRI: 3 step). LED chip data measured in accordance to IES LM-80
2. Fixture has a 90% confidence luminous flux range to stated 3000K CCT target. Photometric (flux and color) data has been measured in accordance to IES LM-79.
3. Actual efficacy value can be calculated as follows: Lumen value divided by average power consumption.
4. Do not extend beyond the recommended maximum run length.
5. Recommend product be installed with 10 or 12 gauge wire.
6. Recommend 80% load/20% overhead rule for fixture load planning in reference to the power source. Calculating fixture loading this way provides additional resource for fixture adjustment and loss due to voltage drop due to wire run lengths.

7. We reserve the right to modify and improve the design of our fixtures without prior notice. We cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.
8. Do not modify product beyond instructions or warranty will be void.

## WARRANTY

See [Kichler.com/Warranty](http://Kichler.com/Warranty) for warranty details.

Consult **Kichler Advanced Product Solutions** for additional product support and design layouts by visiting [Kichler.com/APS](http://Kichler.com/APS).

Visit [Kichler.com](http://Kichler.com)