



PROJECT:

ORDERING:

TYPE:

COMMENTS:

FEATURES

- The adjustable fixture can pivot 180° for direct to surface install and pivot 270° when installed with mounting bracket. Usable range is installation dependent.
- Offering a custom optical lens that diffuses light to deliver smooth, uniform output while eliminating hotspots and glare that may reflect off walls or installation surfaces.
- Can be installed either as a traditional downlight or as an uplight, on or off mounting bracket.
- Housing cavity and electronics are encapsulated to help keep all critical components protected against the elements.
- 4,000-volt system surge protection helps guard against system power surges and irregularities.
- Customizable mounting bracket with breakaway corner tabs that allow for easier installations in retrofit applications.
- Bracket is designed as an installation template with centering notch and screw pilot holes for installation guidance when mounting off bracket.

PERFORMANCE

Fixture	16100	16101	16102	16103
Fixture Length	3.5"	6"	12"	18"
Lumen Output	10	40	85	125
Input Voltage	9-15	9-15	9-15	9-15
Power (W) @ 12VAC	0.3	0.9	1.9	2.7
Power (VA) @ 12VAC	0.6	1.5	2.9	3.8
Efficacy (L/W)	43	45	45	46

SPECIFICATIONS

Fixture

Light Source	Integrated LED
Color Temperature	2700K, 3000K
Color Rendering Index	80+
Binning	3 Step
Beam Angle	108°
Fixture can be used in UP or DOWN position	

Input

Input Voltage Range	9 – 15V AC or DC with no loss in light output
Input Frequency	47 – 63Hz
Power Factor	.6 @ 12V

Lumens

3.5" Hardscape (16100)	10
6" Hardscape (16101)	40
12" Hardscape (16102)	85
18" Hardscape (16103)	125

Environmental

Environmental Protection Rating	Wet IP67
Operation Ambient Temperature	-25°C - +40°C
Expected Life Time (L70)	50K Hours

Mechanical & Housing Specification

Length/Width/Height:

16100	3.5" x .78" x .75"
16101	6" x .78" x .75"
16102	12" x .78" x .75"
16103	18" x .78" x .75"

Bracket Depth	3"
Housing Material	Aluminum, Brass
Housing Color & Surface	AZT, BKT, CBR, GRY, SD

Weight:

16100	Alum 0.4Lb, Brass 0.55Lb
16101	Alum 0.45Lb, Brass 0.8Lb
16102	Alum 0.9Lb, Brass 1.3Lb
16103	Alum 1.2Lb, Brass 1.65Lb

FIXTURE

Body

A380 Aluminum, C360 Brass casting

Wire

18 AWG, SPT-1W, 105°C, 300V, 84" usable length

Optics

Custom optics with a diffused lens provides smooth, uniform light distribution to eliminate glare and hotspots

Included Accessories

304 stainless steel masonry bracket, off-bracket mounting kit, and 2 gel-filled wire nuts

AVAILABLE FINISHES



AZT
Textured
Architectural
Bronze



BKT
Textured
Black



CBR
Centennial
Brass



GRY
Textured
Gray



SD
Textured
Sand

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

GENERAL FIXTURE SPACING GUIDELINE				
Item	16100 (3.5")	16101 (6")	16102 (12")	16103 (18")
Mounting Height	Recommended Spacing (center-to-center of fixtures)			
6"-18"	3'-4'	4'-5'	6'-8'	6'-8'
24"	3'-4'	4'-5'	6'-8'	6'-8'
36"	3'-4'	4'-6'	6'-8'	6'-8'
48"	3'-4'	4'-6'	6'-8'	6'-8'
60"	3'-4'	4'-6'	6'-8'	6'-8'

Highlighted values are optimal selections for mounting height application

Tip: Use centering notch on mounting bracket to aid in spacing layout during installation.

Ordering Guide (product number breakdown)	1 Item Number for Fixture Size 16100 = 3.5" Hardscape 16101 = 6" Hardscape 16102 = 12" Hardscape 16103 = 18" Hardscape	2 Product Finish: AZT = Textured Architectural Bronze BKT = Textured Black CBR = Centennial Brass GRY = Textured Gray SD = Textured Sand	3 Color Temperature: 27 = 2700K, Warm White 30 = 3000K, Pure White
	Example: 16101 CBR 30	<u>1</u> <u>6</u> <u>1</u> <u>0</u> <u>1</u>	<u>C</u> <u>B</u> <u>R</u> <u>3</u> <u>0</u>

FOOT-CANDLES (108° BEAM ANGLE)

16100 - 3.5" Hardscape						
Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	17.96	0.44	0.01	0.00	0.00
	1 ft.	4.49	1.14	0.11	0.01	0.02
	2 ft.	1.12	0.76	0.28	0.09	0.03
	3 ft.	0.50	0.42	0.25	0.13	0.06

16101 - 6" Hardscape						
Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	72.60	0.88	0.00	0.00	0.00
	1 ft.	18.15	3.78	0.22	0.01	0.03
	2 ft.	4.54	2.88	0.94	0.23	0.05
	3 ft.	2.02	1.65	0.93	0.42	0.16

16102 - 12" Hardscape						
Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	143.2	2.68	0.02	0.00	0.00
	1 ft.	35.81	8.31	0.67	0.06	0.11
	2 ft.	8.95	5.86	2.08	0.58	0.17
	3 ft.	3.98	3.29	1.93	0.92	0.39

16103 - 18" Hardscape						
Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	216.4	3.25	0.01	0.00	0.00
	1 ft.	54.10	12.28	0.81	0.05	0.13
	2 ft.	13.53	8.88	3.07	0.79	0.20
	3 ft.	6.01	4.99	2.90	1.36	0.56

TROUBLESHOOTING

Fixture does not illuminate	Verify power connections. Review installation guide for installation problem. Insure manual reset breaker has not been tripped.
Fixture turns off	Verify power connections. Review installation guide for installation problems. Insure manual reset breaker has not been tripped. Check voltage drop at fixture.
Fixture trips breaker	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.

CSA C22.2#250.7 Issued: 2007/11/01 (R2012)

Ed: 1 Extra-low-voltage landscape lighting systems – General Instruction No. 1: 2008.

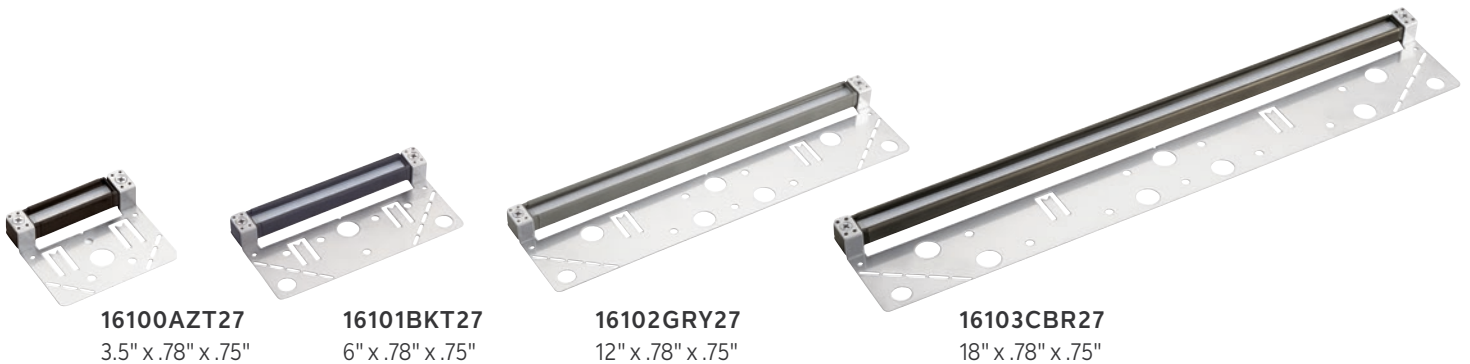
Contact: layouts@kichler.com

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 for warranty details.

Consult Kichler Advanced Product Solutions for additional product support and design layouts by visiting Kichler.com/APS.



Visit Kichler.com/Hardscape

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