

20W | FULLY TUNABLE LED JBOX DOWN LIGHT



PRODUCT DESCRIPTION

High-performance lighting solution designed for fast, hassle-free installation in commercial and public spaces. Featuring an integrated junction box, this canless fixture eliminates the need for traditional recessed housings, reducing labor and ceiling penetration complexity.

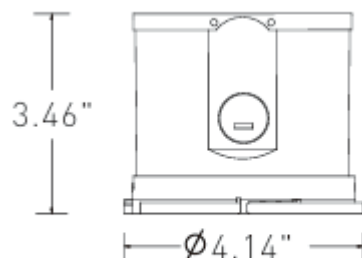


#: RGL-20W-DL-TT

PRODUCT FEATURES & COMMON USE APPLICATIONS

- UL cUL DLC certificate.
- Lumileds or Samsung Chip, high CRI.
- Input voltage 120-277VAC.
- No UV or IR in the beam.
- Easy to install and operate.
- Energy saving, long lifespan.
- Light is soft and uniform, safe to eyes.
- Instant start, NO flickering, NO humming.
- Green and eco-friendly without mercury.
- Offices, Classrooms, ETC.
- Highway toll station and gas station.
- Exhibition hall.
- Gymnasium and supermarkets, etc
- Residential Locations, Kitchen, Den, Living Room

PRODUCT DIMENSIONS



10W IC, 15W IC, 20W IC

LEGENDARY USA SUPPORT



US based phone and online customer support



Rugged Grade Lighting
Industrial Grade Solutions



888-953-2476
sales@ruggedgrade.com



PRODUCT TECHNICAL SPECIFICATIONS

OPTICAL	Input Power (Tolerance : ±10%)	10/15/20 Watt (Wattage Selectable)
	Color Temperature	3000K/3500K/4000K (Color Selectable)
	Lumen (Tolerance : -10%)	800LM/1170LM/1500LM
	Efficacy (Tolerance : -3%)	80LM/W
	CRI	>80
	Available Trims	4", 6", 8" and 10" trim size options
	Diffuser Type	PC Lens(Shatter Proof Lens)
	Beam Angle (50%) (Tolerance :	Multiple Beam Angles(See Photometrics)
ELECTRICAL	Input Voltage and Frequency	120-277VAC, 50/60Hz
	PF (Tolerance : -3%)	≥0.95
	THD (Tolerance : +5%)	≤20%
	Driver Efficacy	<90%
	Driver Brand	Rugged Grade Lighting
	Driver Model	Rugged Grade Lighting Driver
	Dimming	Wattage Selectable Switch
	Optional Accessory	New Construction Frame Kits
MATERIALS	Housing	Aluminum Alloy
	Housing Color	Grey
MATERIALS	Warranty	5 years warranty with 24/7 operating hours Luminaire lifetime at

PRODUCT MOUNTS & ACCESSORIES

All In One, Now Made Simpler

OKT engineers understand how challenging it can be to install full range CP series downlight in one frame kit and perfectly aligned for new construction. That's why they've incorporated a suite of features that work together seamlessly to give you a flawless fit more and with less hassle. This frame kit can suitable for round trims from 3" to 8".



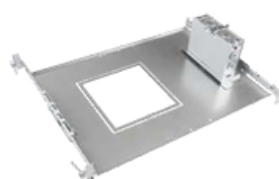
FKR
Round Frame Kit
For 3"-8" Downlights



FKS
Square Frame Kit
For 4"-6" Downlights



FKRJ
Round Frame Kit With J-Box
For 3"-8" Downlights



FKSJ
Square Frame Kit With J-Box
For 4"-6" Downlights

An Ideal Match, CP Downlight + Frame Kits

Because the frame kit was specifically designed for the CP series, it delivers the perfect aperture for a tight, seamless fit. This minimizes the space and materials required for installation.



PRODUCT INSTALLATION GUIDE

NOTE

- Please read this entire manual to fully understand and safely use this product.
1. Unpack and carefully examine the product.
 2. Report any damage and save all packing materials if any part(s) were damaged during shipping.
 3. Do not attempt to use this apparatus if it is damaged.

IMPORTANT SAFETY INFORMATION

CAUTION: RISK OF ELECTRIC SHOCK

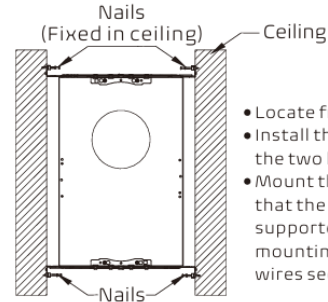
Suitable for damp location. Access above ceiling required. Suitable for suspended ceilings.

READ ALL INSTRUCTIONS BEFORE INSTALLATION

1. Consult a qualified electrician to ensure correct branch circuit conductor.
2. The product should be installed and operated by a qualified electrician or technician in accordance with relevant local codes.
3. Risk of electric shock. Ensure that main power source is off when wiring or soldering the sections of the product.
4. Before installing this fixture or doing any maintenance, make sure to turn off the power supply at the circuit breaker or fuse box.
5. Check to make sure that all fixture connections have been properly made and the fixture is grounded to avoid potential electrical shocks.
6. Designed for use in AC 120-277V for 60w and AC 120-347V for 40w maximum, 50/60Hz, 0-10V dimming, protected circuit.

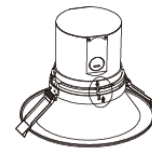
PRE-INSTALLATION

Install the frame kit (Separated order if need)

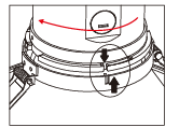


- Locate frame kit position.
- Install the frame kit in the ceiling using the two hanger bars (supplied).
- Mount the frame kit in the ceiling so that the weight of the frame kit is supported by the hanger bars, mounting channel, bar, and/or hanger wires secured to the building structure.

Combine the LED engine and trim together if they are separate.



1. Match the slot of LED engine and trim according to the direction of arrow as shown.

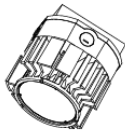


2. Turn clockwise until it is tightened.

Optional LED Engines



20W Max (120-347VAC)



60W Max (120-277VAC)
(Only for 6inch/8inch/10inch round trim and 6inch square trim)



40W Max (120-347VAC)

Optional Trims



4" Round



6" Round



8" Round



10" Round



4" Round Wall Wash



6" Round Wall Wash



4" Square



6" Square

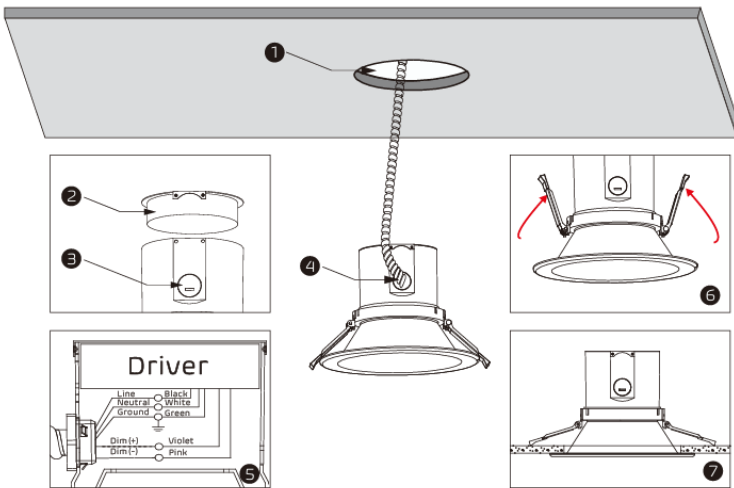


4" Square Wall Wash



6" Square Wall Wash

INSTALLATION



Step 1

Drill hole in the ceiling according to the trim size (See Table 1)

Step 2

Open the cover of LED engine according to the direction of arrow.

Step 3

Remove appropriate knockout(s) for power supply wiring.

Step 4

Bring power supply wires into the junction box using a conduit fitting

Step 5

– Connect the line to the black wire, neutral to the white wire and ground wire to the green wire with the supplied quick disconnect.

Note: Compatible with 0-10V dimmer if need dimming. The driver VIOLET (D+) to the dimmer+ (VIOLET), and the driver PINK (D-) to the dimmer- (PINK) with the supplied nuts.

- Tuck all wires and wire nuts into the fixture junction box.
- Close the cover according to the direction of arrow.

Step 6

Tighten up the spring to mount the LED downlight onto the ceiling, then adjust the position and complete installation 7.

Optional Function:

Use the wattage and CCT dip-switch (if equipped) to adjust the fixture to the desired wattage level and CCT. Refer to label on top of driver for each setting.

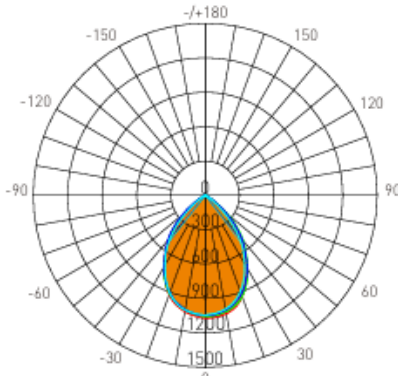
Trim Type	Recommended Hole Size
4 inch round	4.7" min. to 5.2" max.
4 inch round wall wash	5.3" min. to 6" max.
4 inch square	5.3" min. to 6" max.
4 inch square wall wash	5.3" min. to 6" max.
6 inch round	6" min. to 7.3" max.
6 inch round wall wash	6" min. to 7.3" max.
6 inch square	6" min. to 7.3" max.
6 inch square wall wash	6" min. to 7.3" max.
8 inch round	7.4" min. to 8.9" max.
10 inch round	9.5" min. to 10.8" max.

Table 1



PHOTOMETRICS

6" 20W Square Trim



AVERAGE BEAM ANGLE(50%): 76.6°

Lumens: 1515.4 Lm
Watts: 20 W
LPW: 75.77 Lm/W
CCT: 4000K

UNIT: cd
 - C0/180, 75.1°
 - C30/210, 77.8°
 - C60/240, 78.3°
 - C90/270, 75.1°

Zonal Flux Diagram

T	C0	C45	C90	C135	C180
10	1047	1022	1007	992.7	1027
20	939.2	932.1	893.4	892.4	922.1
30	719.9	739.1	687.3	709.4	711.5
40	471.7	497.7	440.1	477.0	457.8
50	170.8	280.1	158.0	250.7	159.6
60	32.27	62.15	30.20	46.44	33.23
70	2.699	4.711	3.380	4.018	3.231
80	1.543	2.277	2.065	2.620	1.965
90	0.1002	0.0711	0.1300	0.0681	0.1300
100	0.0406	0.0496	0.0406	0.0406	0.0451
110	0.0587	0.1195	0.1128	0.1015	0.1038
120	0.2476	0.3584	0.3114	0.3492	0.3024
130	0.6308	0.7486	0.6814	0.7350	0.7086
140	1.149	1.193	1.150	1.217	1.205
150	1.614	1.648	1.633	1.653	1.682
160	2.155	2.061	2.043	2.088	2.156
170	2.363	2.331	2.304	2.322	2.422
180	2.498	2.444	2.431	2.415	2.503
DEG	LUMINOUS INTENSITY:cd				

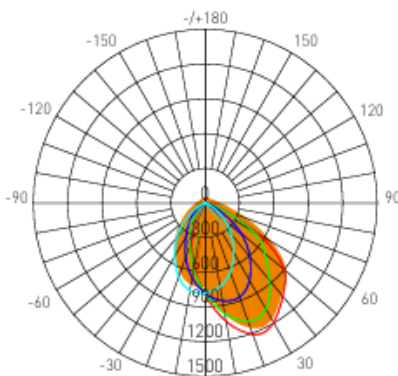
Zonal Lumens

T	Φ total
0-10	98.17
10-20	371.6
20-30	748.1
30-40	1122
40-50	1389
50-60	1490
60-70	1507
70-80	1510
80-90	1511
90-100	1511
100-110	1511
110-120	1512
120-130	1512
130-140	1513
140-150	1514
150-160	1515
160-170	1515
170-180	1515
DEG	UNIT: lm

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	662	908
80	395	528
75	341	445
70	351	439
65	965	913
60	2869	2684
55	6050	5712
50	11807	10926
45	19770	18214

6" 20W Square Wall Wash



AVERAGE BEAM ANGLE(50%): 71.0°

Lumens: 1590.6 Lm
Watts: 20 W
LPW: 79.53 Lm/W
CCT: 4000K

UNIT: cd
 - C0/180, 65.4°
 - C30/210, 68.8°
 - C60/240, 72.5°
 - C90/270, 77.0°

Zonal Flux Diagram

T	C0	C45	C90	C135	C180
10	1038	919.6	732.9	585.3	554.5
20	1209	984.8	638.0	411.7	353.7
30	1192	930.7	494.7	267.4	210.7
40	1053	743.2	354.7	155.9	97.27
50	896.8	548.9	205.7	66.71	21.28
60	526.2	310.4	73.90	12.46	5.292
70	136.0	73.16	14.65	4.282	4.094
80	12.17	4.784	1.600	3.400	3.395
90	0.1674	0.0925	0.0768	0.1779	0.0947
100	0.0812	0.0812	0.1175	0.2143	0.3070
110	0.0631	0.0925	0.1760	0.5996	0.7989
120	1.081	0.1646	0.3880	1.220	1.633
130	0.1577	0.2909	0.6721	1.526	2.147
140	0.3513	0.4938	0.9789	1.914	2.359
150	0.6173	0.7667	1.276	2.081	2.534
160	0.9781	1.127	1.565	2.182	2.530
170	1.433	1.522	1.781	2.153	2.340
180	1.935	1.851	1.826	1.847	1.944
DEG	LUMINOUS INTENSITY:cd				

Zonal Lumens

T	Φ total
0-10	73.89
10-20	284.3
20-30	592.3
30-40	929.2
40-50	1235
50-60	1461
60-70	1563
70-80	1584
80-90	1586
90-100	1586
100-110	1586
110-120	1587
120-130	1588
130-140	1588
140-150	1589
150-160	1590
160-170	1590
170-180	1591
DEG	UNIT: lm

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	373	694
80	3114	410
75	9473	779
70	17677	1904
65	31770	3741
60	46776	6569
55	57281	10368
50	62005	14225
45	61916	17780

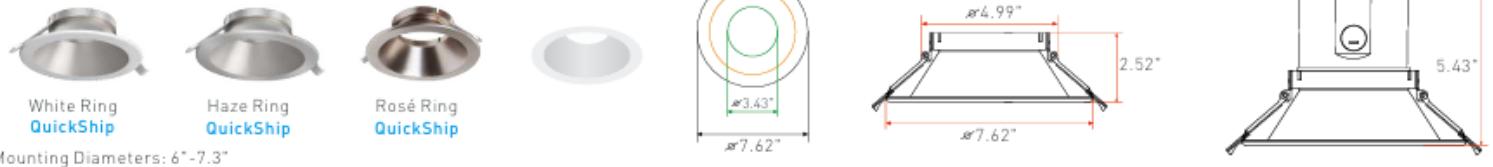


PRODUCT TRIM DIMENSIONS

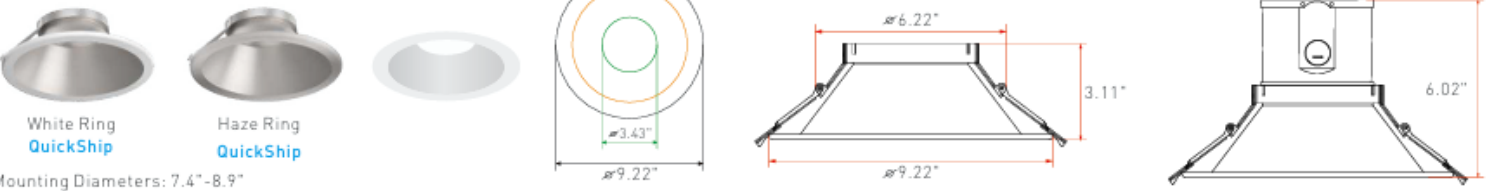
4" Round Trims



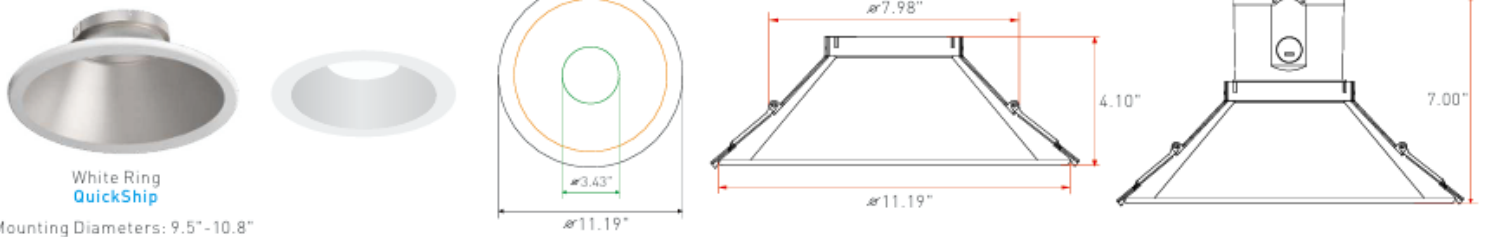
6" Round Trims



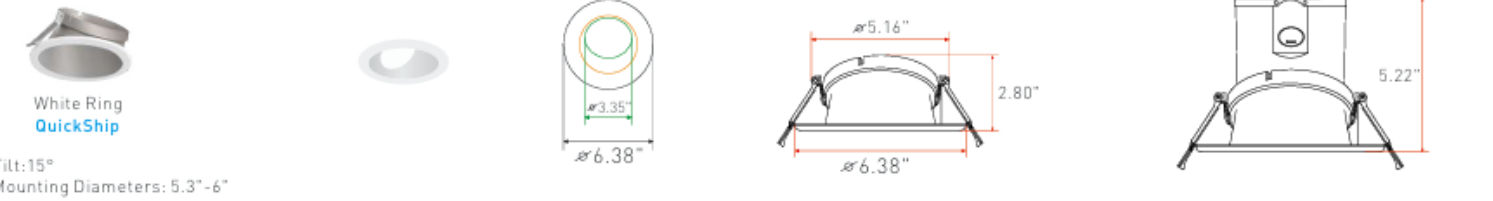
8" Round Trims



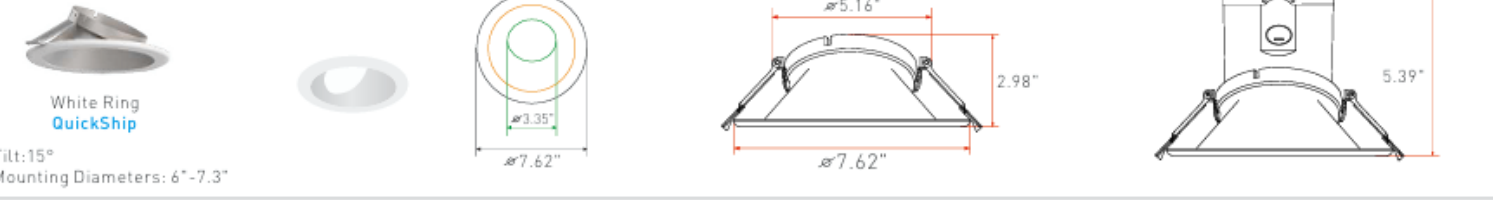
10" Round Trims



4" Round Wall Wash Trims



6" Round Wall Wash Trims

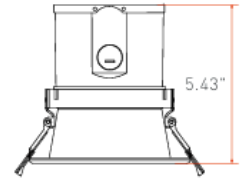
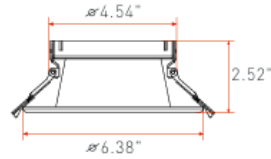
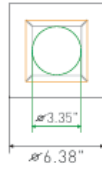


PRODUCT TRIM DIMENSIONS

4" Square Trims



White Ring
QuickShip

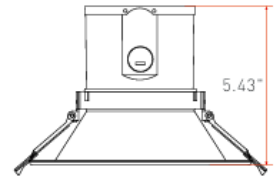
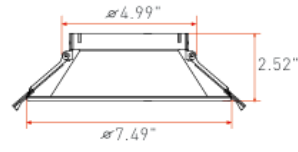
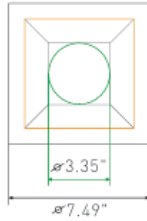


Mounting Diameters: 5.3"-6"

6" Square Trims



White Ring
QuickShip

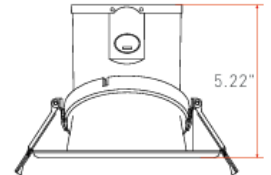
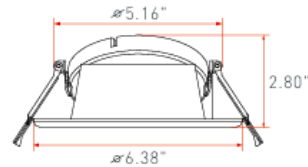
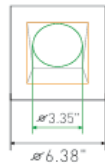


Mounting Diameters: 6"-7.3"

4" Square Wall Wash Trims



White Ring
QuickShip

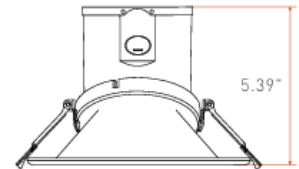
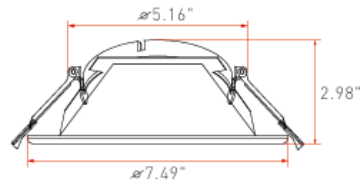
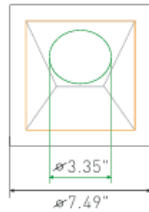


Tilt: 15°
Mounting Diameters: 5.3"-6"

6" Square Wall Wash Trims



White Ring
QuickShip



Tilt: 15°
Mounting Diameters: 6"-7.3"



OPTIONAL NEW CONSTRUCTION KITS



Optional New Construction Frame Kits



FKR QuickShip
New Construction Round Frame Kit For 3"-8" Downlights



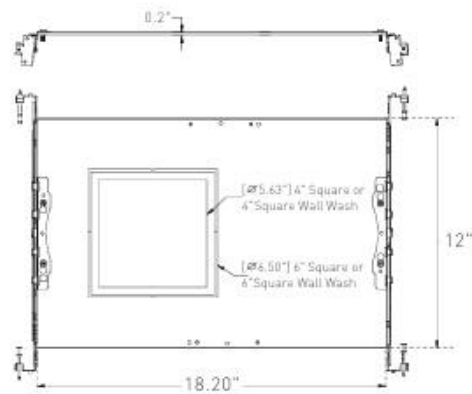
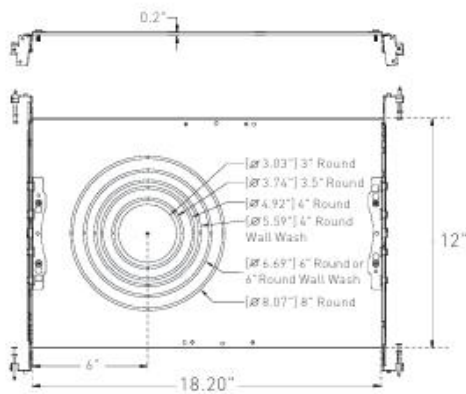
FKS QuickShip
New Construction Square Frame Kit For 4"-6" Downlights



FKRJ QuickShip
New Construction Round Frame Kit With J-Box For 3"-8" Downlights



FKSJ QuickShip
New Construction Square Frame Kit With J-Box For 4"-6" Downlights



PRODUCT WARNINGS

- ⚡ Please turn off power before install or change assembly parts.
- ⚡ The input voltage and lamps should be matched, after connecting the power line.
- ⚡ Please make sure the wiring section is insulated.
- ⚡ Professionals must install and disassemble the lamps.
- ⚡ Surge is the number 1 cause of LED light failure. Outdoor lights must have surge at fixture, pole, and breaker.
- ⚡ Surge is the number 1 cause of LED light failure. Indoor lights must have surge at fixture and breaker.

PRODUCT TROUBLESHOOTING

Issue	Check points
Light Flickers	Check all wiring for disconnections, shorts and burnt wiring and connections. Confirm steady input voltage to the light fixture, fluctuating input voltage will harm the LED driver and can lead to premature failure. Lights with photocells can have photocell tag from ambient light or light reflecting at the sensor. Simply cover the photocell completely and see if flickering continues while the photocell is covered. Call Tech Support for help if none of the above solves the issue.
Light does not work at all.	Check all wiring for disconnections, shorts and burnt wiring and connections. Confirm steady input voltage to the light fixture, fluctuating input voltage will harm the LED driver and can lead to premature failure. If input voltage is not in the voltage range of the fixture, you will need to find the source of your input voltage issue. Call Tech Support for help if none of the above solves the issue.

For more technical information, install questions, troubleshooting help or warranty claims, we have a dedicated US Tech and Customer Support Team to help solve any issues you have and can be reached by email or phone. If you need help with any of our products, we are here for you so that you are never in the dark!

**BETTER LIGHTS.
BETTER SUPPORT.**

