RAB DESIGN®

HELIX2-LED300
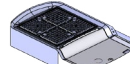## Performance Area Light

Slipfitter | Yoke | Trunnion | Direct mount for round/square poles | House Side Cut Off Shield | Side Cut Off Shield

IDEAL APPLICATIONS

- ✓ Parking Lots
- ✓ Schools
- ✓ Dealerships
- ✓ Commercial Plazas
- ✓ Roadway Lighting

DESCRIPTION:

The HELIX-LED Series are performance area lights available in T2, T3, T4 or T5 optics ideal for a wide range of applications including commercial and retail parking lots, car dealerships, and roadway lighting.

FEATURES:

- Die cast aluminum housing with polycarbonate lens.
- Tool less entry to access driver/wiring compartment. 1m cab tire cable included for external wiring.
- Universal mounting with options for Slip Fitter, Yoke, Trunnion, Direct Mount for round and square poles. Purchase mounting option separately.
- Fixture can be tilted with any mounting option to direct light where needed.
- Options for lighting controls include 7 PIN receptacle for smart control, twist lock photocell, and motion sensor with remote control.
- 10kV surge protection built into the driver.
- High performance optics designed for zero uplight (U0).
- House cut off (HCO) and Side cut off (SCO) are optional.Housing will come with pre-drilled holes and cut off shield (HCO/SCO) can be installed in the field using supplied hardware.
- Rotating optics in 90° segments to redirect light in any direction (factory installed)

SPECIFICATIONS*	HELIX2-LED300
Watts	299.4 W
Lumens	44324 Lm
Efficacy	148 Lm/W
Voltage	120-277V*, 347V
Colour Temp	3000K/4000K*/5000K*
CRI	70
Dimming	1-10V*, 0-10V Dimming
THD	<15%
PF	0.9
Beam Distribution	T2,T3*,T4,T5
LED Life (L80)	100,000 hours
Housing Finish	Bronze*, Custom Colours
Housing Details	Die Cast Aluminum
Lens Details	Clear Polycarbonate Lens
Mounting	Slip fitter, Direct mount for round/square poles, Trunnion mount, Yoke mount
Cable Length	Input Power - 1m Cab Tire Cable (SOOW 3x18 AWG) Dimming - 1m Cab Tire Cable (SJOW 2x18 AWG)
Operating Temp.	-40°C to +50°C
Factory Installed Options	PIR Motion Sensor with Optional Dusk to Dawn Function, Twist Lock Photocell, 7 PIN Receptacle with Shorting Cap ANSI C136. 41-2013 compliant
Options Sold Separately	Slip fitter, Direct mount for round/square poles, Trunnion mount, Yoke mount, Motion sensor remote control
Certifications Logos	cULus, Wet Location, IP65, DLC Premium

*Above specifications are for 120-277V/5K configuration.
See Page 7 for specifications of other configurations

UL CERTIFIED SAFETY US·CA E361278 | IP65 RATED | 5 YEAR WARRANTY | APPROVED FOR WET LOCATION | DLC LISTED PREMIUM

Rotatable Optics

COLOUR OPTIONS

Standard Colours

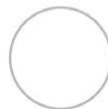|						
bronze 195632 / GS512M17	matte black 103848 / 39/80020	black sandtex (textured) 194288 / P-2128-LT	mirror black (shiny) 103849 / PS111N9	white 103847 / P-1771-9	dove grey 000047 / SCP-409	blue 103865 / SCP-910

red 103866 / P-6015-8	yellow 195585 / RAL 1018 (TIGER)	green 103864 / SCP-651	garden green 194070 / TD01032-F-FILE#116P6

Metallic Colours

hammertone 194290 / TGIC DCL#5980-0799-MMI	sparkle silver 194260 / PM211511

Custom Colours

AMPERAGE DRAW & SURGE PROTECTION

	CURRENT (A)					SURGE PROTECTION (kV)	
	120V	208V	240V	277V	347V	120-277V	347V
HELIX2-LED	1.32A	0.76A	0.66A	0.57A	0.46A	10kV	10kV

TM–21 ESTIMATED LUMEN MAINTENACE

	50,000 Hours	75,000 Hours	100,000 Hours
HELIX2-LED	90.1%	85.5%	81.0%

EPA (ft²)

	0° Tilt	45° Tilt	90° Tilt
HELIX2-LED	0.64	2.46	3.14

WEIGHT (lbs)

HELIX2-LED	20.5

HELIX 2 NO MOUNT

[1.560in]
39.62mm

[23.571in]
598.71mm

[8.982in]
228.13mm

[14.034in]
356.47mm

[2.969in]
75.40mm

HELIX 2 DIRECT MOUNT

[32.07in]
814.55mm

[8.54in]
216.83mm

[.33in]
⌀8.50mm

[.58in]
⌀14.74mm

[1.10in]
27.99mm

[2.09in]
52.99mm

[5.51in]
139.97mm

[6.18in]
156.97mm

[2.44in]
62mm

[14.03in]
356.40mm

HELIX 2 TRUNNION

[28.90in]
734.16mm

[5.33in]
135.50mm

[6.18in]
157mm

[2.94in]
74.68mm

[.55in]
14mm

[1.99in]
50.50mm

[.79in]
⌀20mm

[.67in]
⌀17mm

[2.76in]
70mm

[1.38in]
35mm

[.43in]
⌀11mm

HELIX 2 YOKE MOUNT

HELIX 2 WITH HOUSE CUTOFF (HCO)
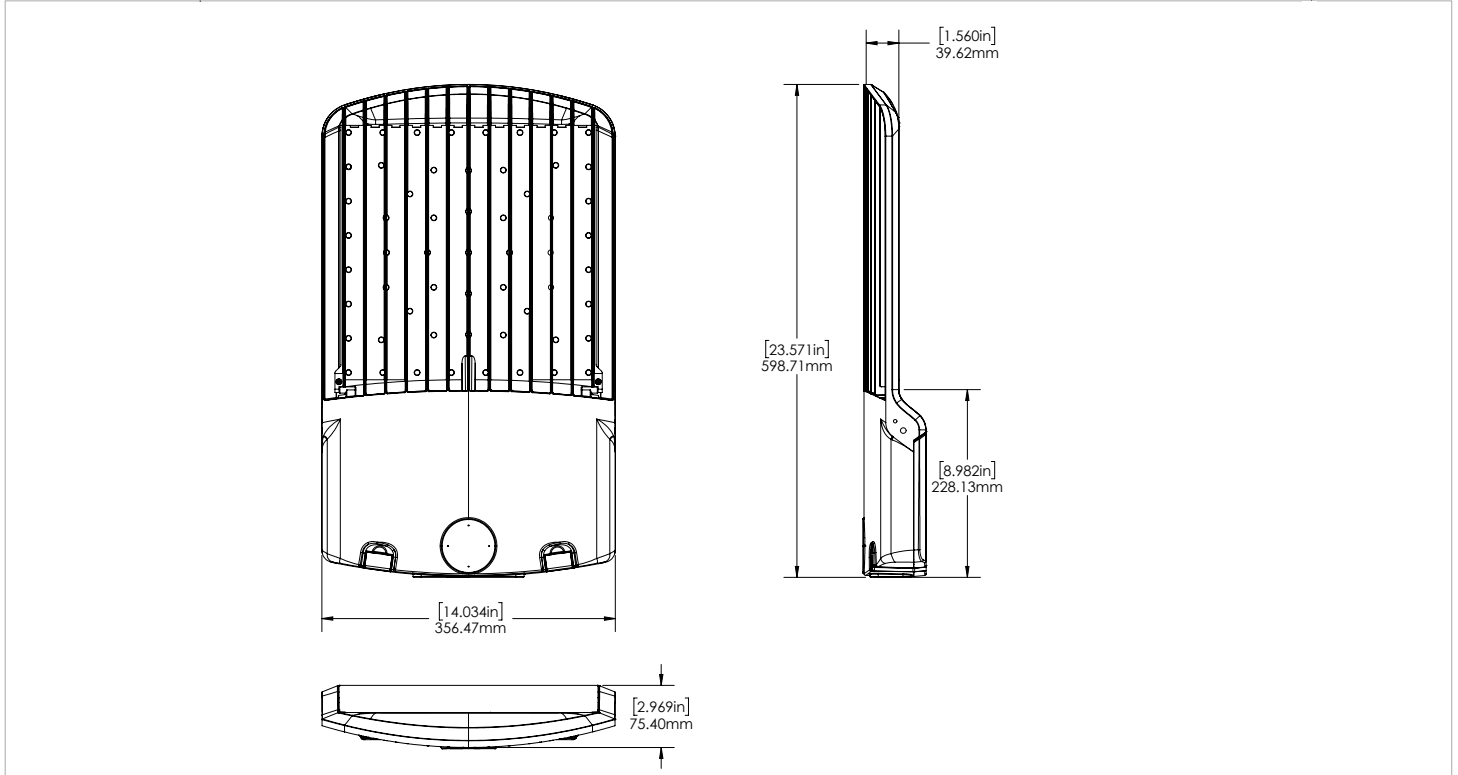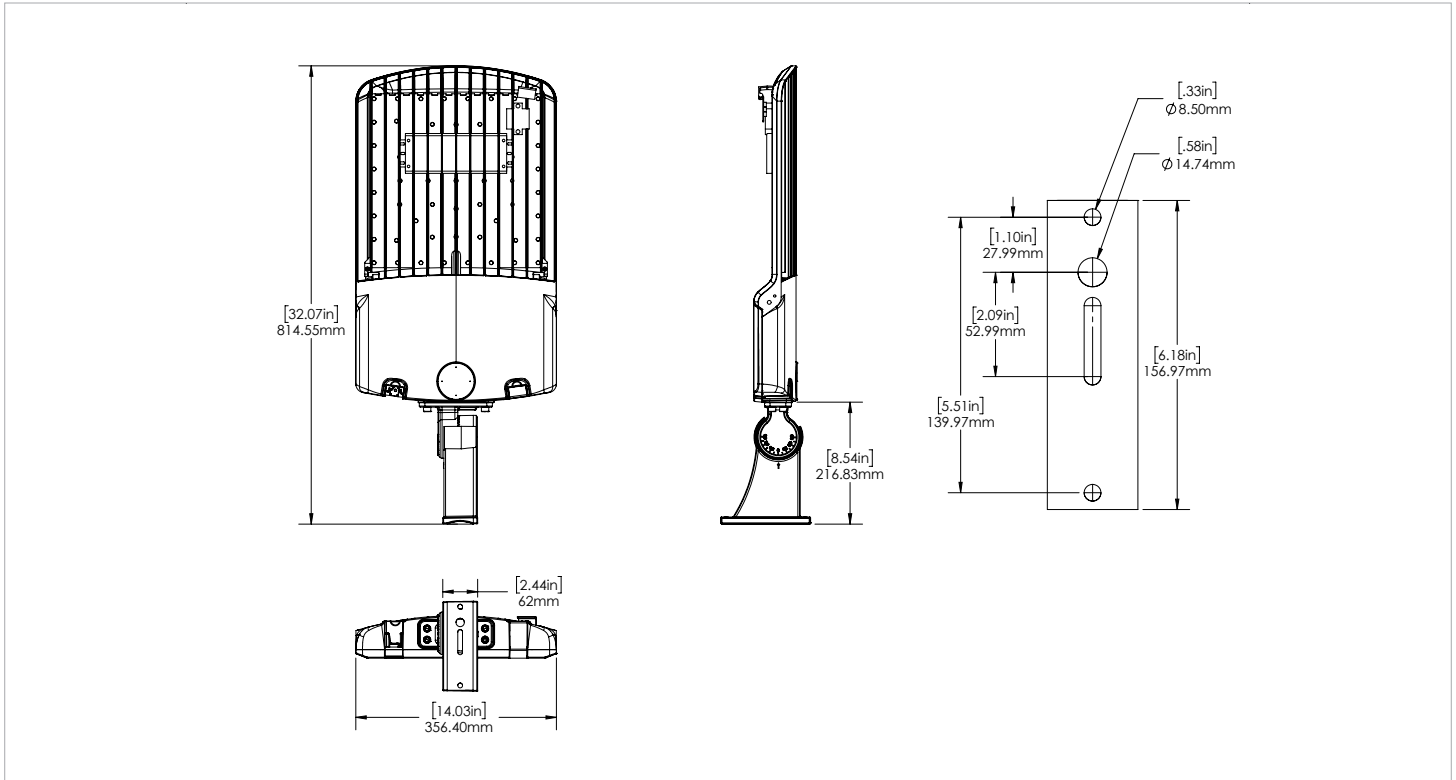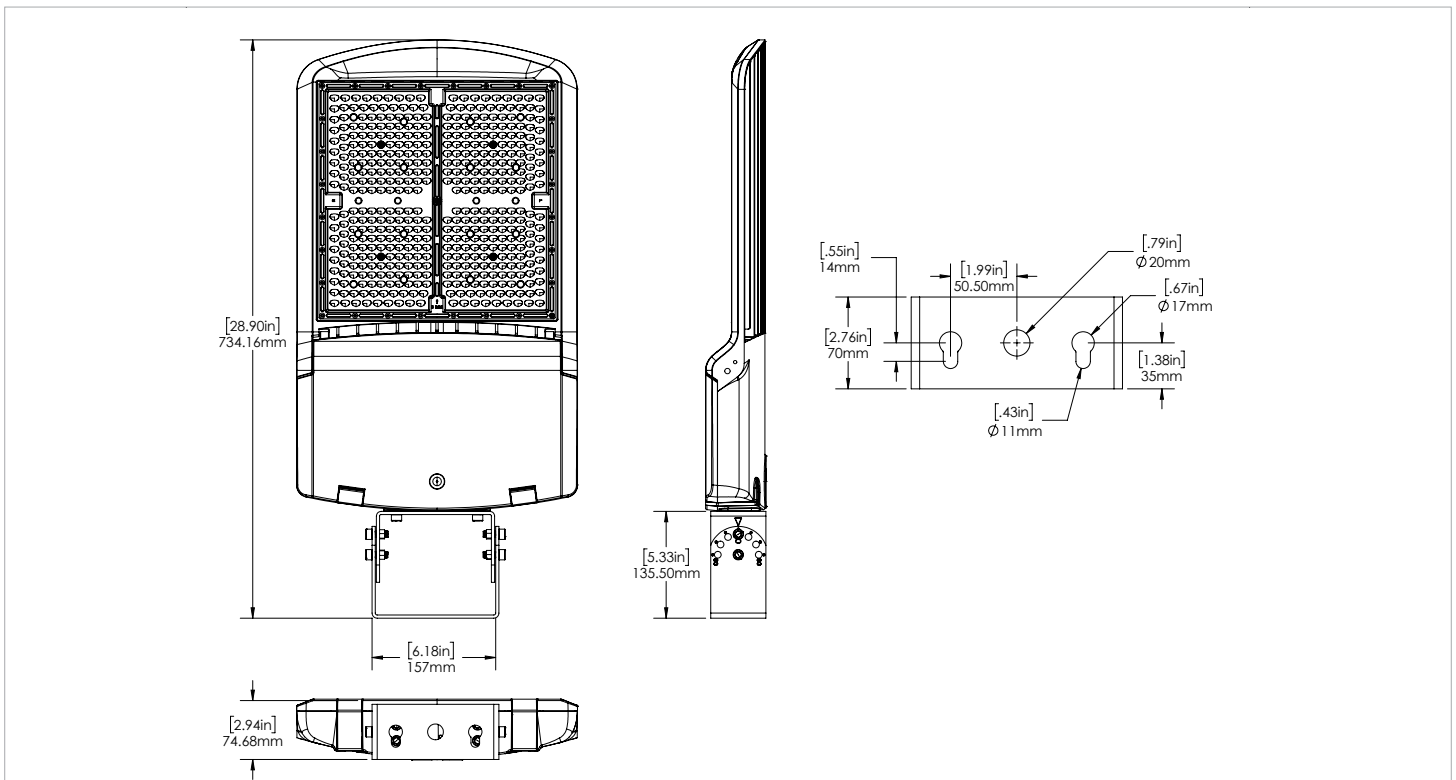
HELIX 2 WITH SIDE CUTOFF (SCO)

[2.967in]
75.36mm

[6.827in]
173.39mm

90deg

[11.942in]
303.32mm
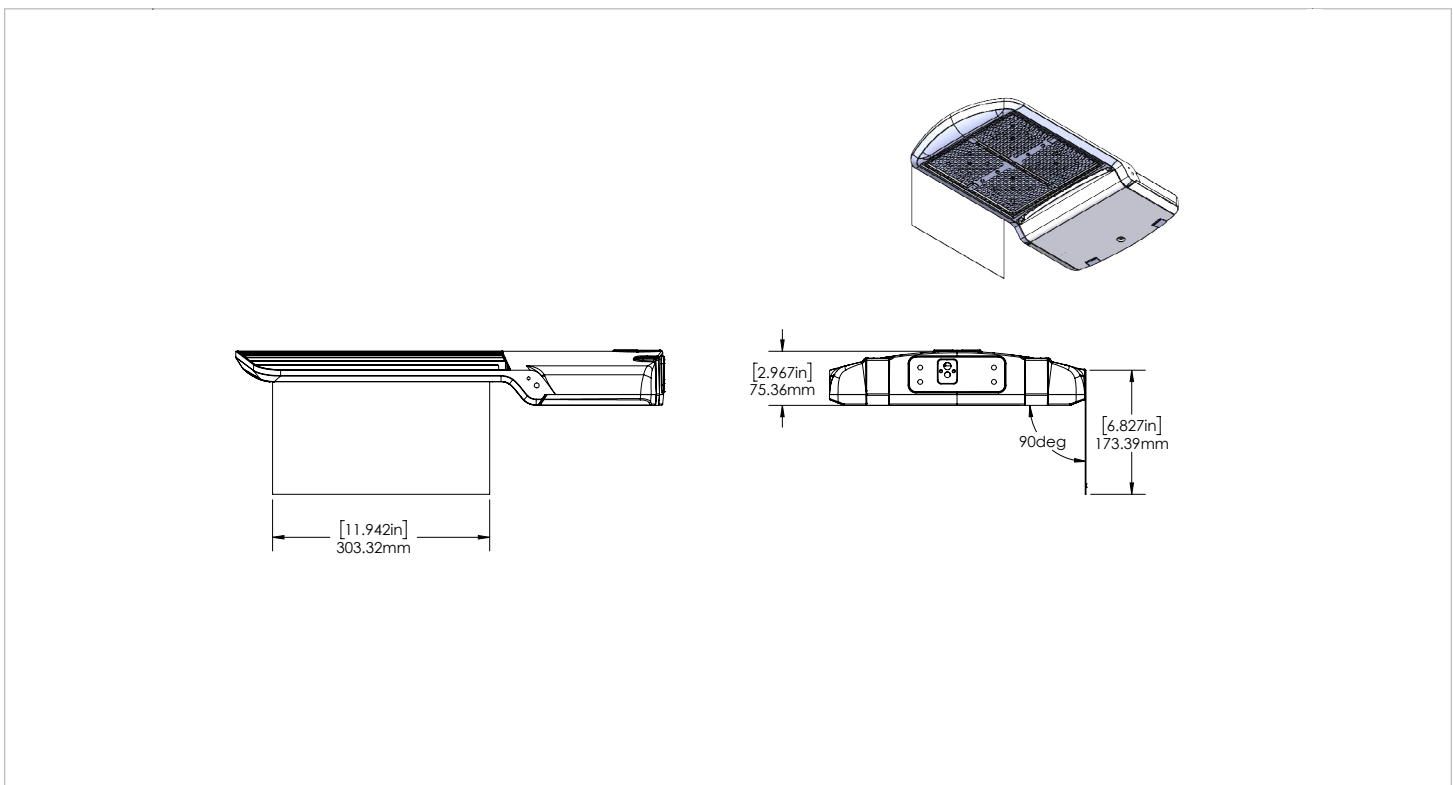
SPECIFICATIONS

| Model Number	Voltage (V)	Power (W)	Light Output (lm)	Efficacy (lm/W)	THD (%)	PF	CCT (K)	B-U-G
HELIX2-LED300-B-3K-T2-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	300	43295	144.5	15.0	0.900	3000	5-0-4
HELIX2-LED300-B-4K-T2-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	299	43419	145.2	15.0	0.900	4000	5-0-4
HELIX2-LED300-B-5K-T2-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	299	43665	146.0	15.0	0.900	5000	5-0-4
HELIX2-LED300-C-3K-T2-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	295	43626	147.9	15.0	0.900	3000	5-0-4
HELIX2-LED300-C-4K-T2-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	295	43846	148.6	15.0	0.900	4000	5-0-4
HELIX2-LED300-C-5K-T2-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	295	44285	150.1	15.0	0.900	5000	5-0-4
HELIX2-LED300-B-3K-T3-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	300	43769	146.0	15.0	0.900	3000	4-0-4
HELIX2-LED300-B-4K-T3-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	299	43954	146.8	15.0	0.900	4000	4-0-4
HELIX2-LED300-B-5K-T3-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	299	44324	148.0	15.0	0.900	5000	4-0-4
HELIX2-LED300-C-3K-T3-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	44079	149.2	15.0	0.900	3000	4-0-4
HELIX2-LED300-C-4K-T3-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	44296	149.9	15.0	0.900	4000	4-0-4
HELIX2-LED300-C-5K-T3-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	44729	151.3	15.0	0.900	5000	4-0-4
HELIX2-LED300-B-3K-T4-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	300	43355	144.7	15.0	0.900	3000	4-0-5
HELIX2-LED300-B-4K-T4-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	300	43592	145.4	15.0	0.900	4000	4-0-5
HELIX2-LED300-B-5K-T4-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	300	44065	147.0	15.0	0.900	5000	4-0-5
HELIX2-LED300-C-3K-T4-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	42846	144.7	15.0	0.900	3000	4-0-5
HELIX2-LED300-C-4K-T4-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	43018	145.3	15.0	0.900	4000	4-0-5
HELIX2-LED300-C-5K-T4-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	43361	146.4	15.0	0.900	5000	4-0-5
HELIX2-LED300-B-3K-T5-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	301	40374	134.3	15.0	0.900	3000	5-0-5
HELIX2-LED300-B-4K-T5-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	301	40616	134.9	15.0	0.900	4000	5-0-5
HELIX2-LED300-B-5K-T5-XXX-DIM-[Blank, DMS, PC, 7PIN]	120-277	301	41100	136.5	15.0	0.900	5000	5-0-5
HELIX2-LED300-C-3K-T5-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	295	41087	139.1	15.0	0.900	3000	5-0-5
HELIX2-LED300-C-4K-T5-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	41326	139.8	15.0	0.900	4000	5-0-5
HELIX2-LED300-C-5K-T5-XXX-DIM-[Blank, DMS, PC, 7PIN]	347	296	41804	141.4	15.0	0.900	5000	5-0-5

LEGEND
B-120-277V, C-347V
3K-3000K, 4K-4000K,5K-5000K
T2-Type II, T3-Type III, T4-Type IV, T5-Type V
XXX - Housing Finish
DIM - 1-10V Dimming for 120-277V, 0-10V Dimming for 347V
DMS - Dimming motion Sensor
PC - Photocell

BRI810/BRI820 SENSOR SPECIFICATIONS

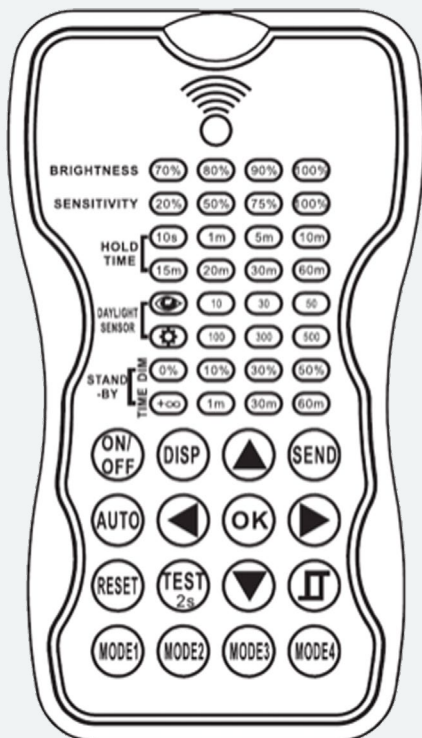| DHFS SENSOR SPECIFICATIONS	
POWER SUPPLY	100-347 VAC, SINGLE PHASE, 60HZ
HIGH FREQUENCY SYSTEM	5.8GHZ +/-75MHZ
DIM CONTROL OUTPUT	0-10V DC DIMMING, 25MA
DETECTION RADIUS/ANGLE	MAX 8M (26FT) AT 360°
MOUNTING HEIGHT	PIR: MAX 15M (50FT)
HUMIDITY	MAX 95% RELATIVE HUMIDITY
OPERATING TEMP.	-40°C TO +70°C
CYCLES	200,000 ON/OFF CYCLES
CERTIFICATIONS	CRUUS, FCC
PROGRAMMING	WIRELESS PROGRAMMING USING RC-100 REMOTE

LIGHTS DETECTION RANGE & RADIUS/ANGLE

Coverage Side View

Coverage Top View
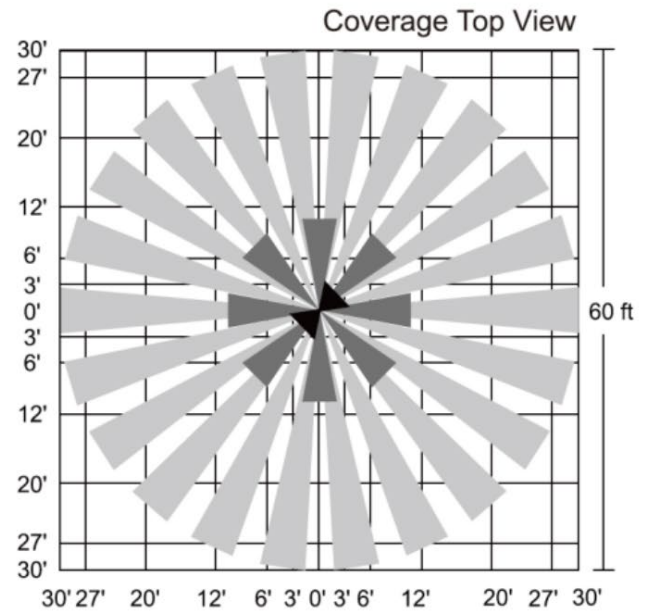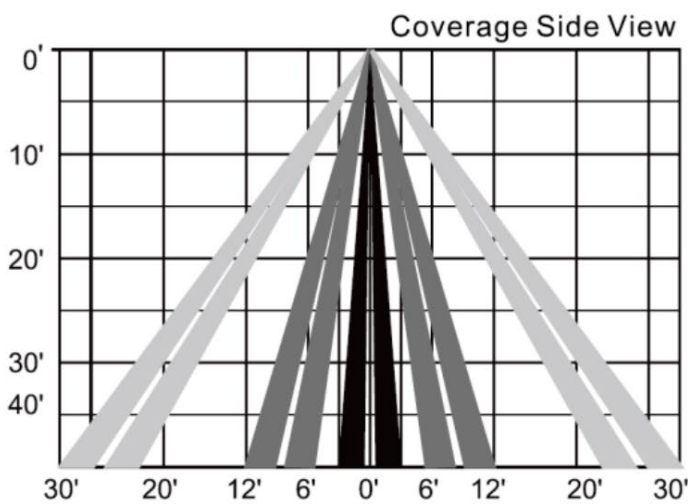
DEFAULT SENSOR SETTINGS					
BRIGHTNESS	SENSITIVITY	HOLD TIME	DAYLIGHT SENSOR	STAND-BY DIM	STAND-BY TIME
100%	100%	5 minutes	Disabled	DIM: 30%	60 minutes

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RC100 REMOTE SPECIFICATIONS

FEATURES

BRIGHTNESS:
Sets the highest light fixture brightness when motion is detected.

SENSITIVITY:
Sets the sensitivity to which the sensor will detect motion.

HOLD TIME:
The time the light fixture will remain at the brightness setting after it detects motion..

DAYLIGHT SENSOR:
The lux setting that the light fixture will turn on/off. If the ambient lux is more than the defined lux setting, the fixture & sensor function will turn off and remain off until the ambient lux is below the setting. To disable the lux sensor, select the SUN icon. To set the lux to match current room conditions, select the EYE icon.

STAND-BY DIM:
The Dim level that the light fixture will dim down after the Hold Time has expired.

To disable dimming and only have ON/OFF, select the 0% icon.

STAND-BY TIME:
The time the light fixture will remain in the dim down state before it shuts off. To disable the light from shutting off, select the INFINITY icon.

RC100 REMOTE CONTROL SPECIFICATION	
Power Supply	2 x AAA 1.5V Batteries
Communication Protocol	940 nm Infrared Tx & Rx
Communication Range	Up to 15m (50 ft)
Operating Temp.	0 ℃ to 50℃ (32°F to 122°F)
Dimensions	123x70x20.3mm (4.84"x2.76"x0.8")

KEY	FUNCTION
ON/OFF	Light fixture will be set to permanently stay ON or OFF. Must press AUTO button to go back to sensor mode.
DISP	Displays the current remote-control parameters.
(arrows/OK)	Navigate through the remote-control parameters and sets them to the desired settings. NOTE: These settings are not yet set on the light fixture sensor. The remote needs to be pointed at the light fixture sensor, and the SEND button needs to be pushed.
SEND	Uploads the selected remote-control parameters to the light fixture sensor. The light fixture will turn on and off as confirmation the new settings have been set.
AUTO	Light fixture sensor is set to sensor mode with the last sent parameters. This must be pressed to exit the ON/OFF setting.

RESET — Resets the light fixture sensor parameters. Default Settings

BRIGHTNESS	SENSITIVITY	HOLD TIME	DAYLIGHT SENSOR	STAND-BY DIM	STAND-BY TIME
100%	100%	5 minutes	Disabled	DIM: 30%	60 minutes

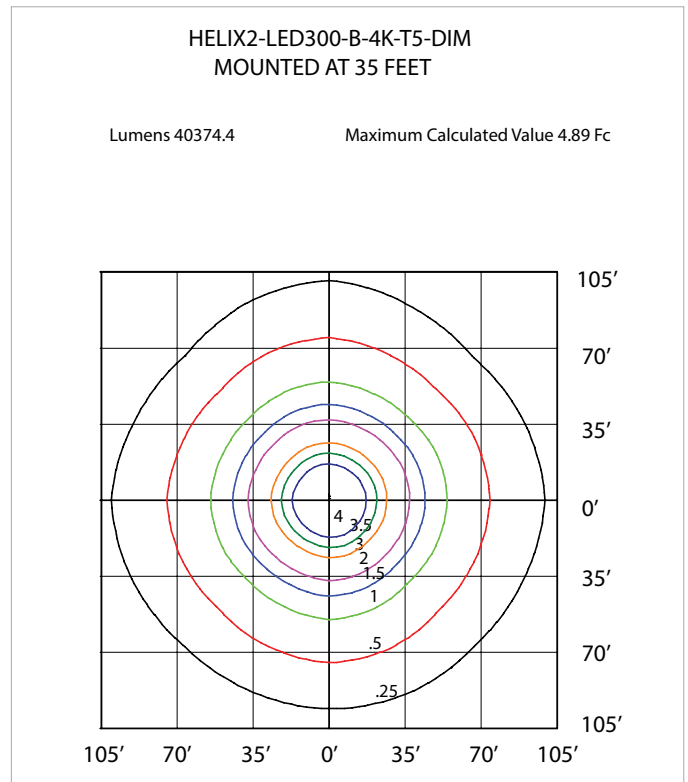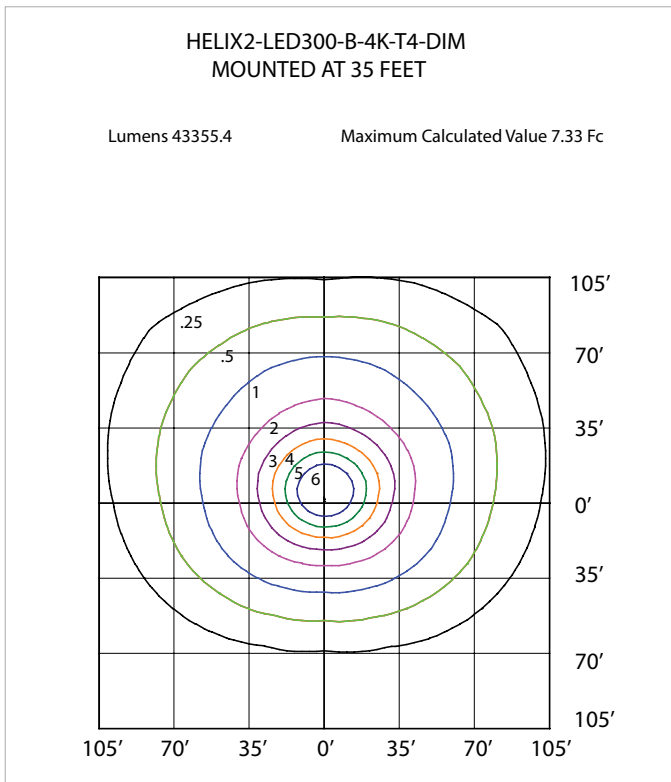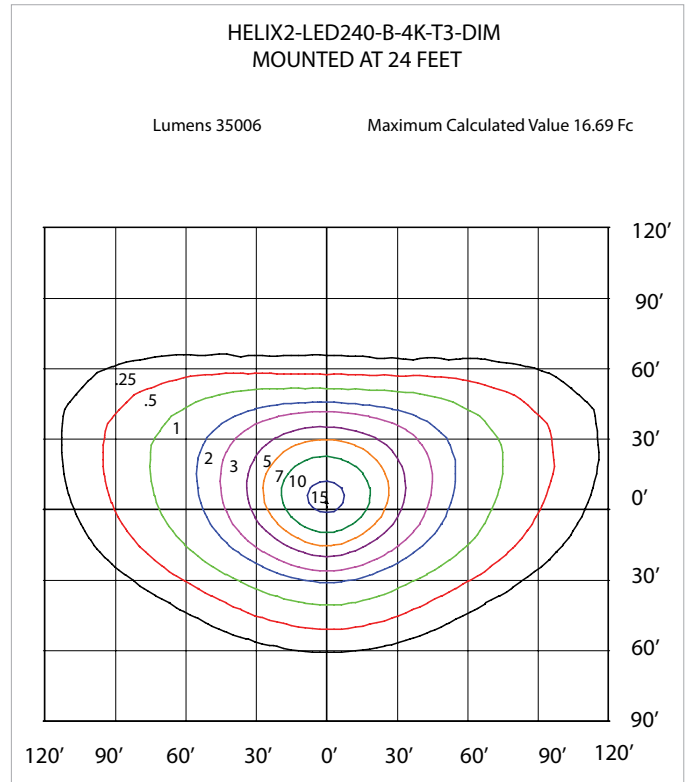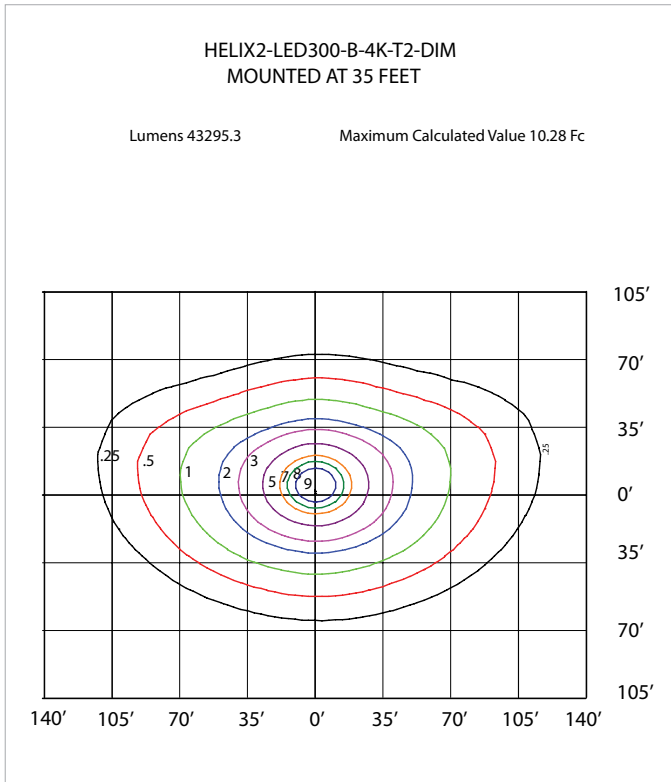| KEY	FUNCTION
TEST 2s	For Testing sensitivity only. The Standby period and daylight sensor are disabled in this mode. Must press AUTO button to go back to sensor mode.
⎍	Photocell Function: If this function is turned on, it is set to a specific lux setting (10, 30, 50, 100, 300, 500). When the lux level exceeds this setting, the sensor will wait and monitor for 1 minute to confirm the lux level is not temporary. After 1 minute, the lights will turn off even when the space is occupied. When the lux level goes below this setting, the light will turn on and remain on without any detected motion. This feature is disabled by default and is intended for outdoor use only.
MODE1 MODE2 MODE3 MODE4	Four modes are available with pre-set parameters. Any mode can be customized by following the steps below: 1. Select mode 1, 2, 3, or 4. 2. press the ARROW BUTTONS to choose the new parameters. 3. Select OK to confirm the new settings on that mode. NOTE: These settings are not yet set on the light fixture sensor. The remote needs to be pointed at the light fixture sensor, and the SEND button needs to be pushed. NOTE: Modes 2, 3, and 4 all have the same default settings. See instructions to change defaults.

MODE DEFAULT SETTINGS	BRIGHTNESS	SENSITIVITY	HOLD TIME	DAYLIGHT SENSOR	STAND-BY DIM	STAND-BY TIME
MODE1	100%	100%	5 minutes	Disabled	DIM: 30%	Disabled
MODE1 MODE2 MODE3 MODE4	70%	20%	10 seconds	Disabled	0%	Disabled

HELIX2-LED300-B-4K-T2-DIM
MOUNTED AT 35 FEET

Lumens 43295.3   Maximum Calculated Value 10.28 Fc

HELIX2-LED240-B-4K-T3-DIM
MOUNTED AT 24 FEET

Lumens 35006   Maximum Calculated Value 16.69 Fc

HELIX2-LED300-B-4K-T4-DIM
MOUNTED AT 35 FEET

Lumens 43355.4   Maximum Calculated Value 7.33 Fc

HELIX2-LED300-B-4K-T5-DIM
MOUNTED AT 35 FEET

Lumens 40374.4   Maximum Calculated Value 4.89 Fc

ORDERING GUIDE:

| HELIX2 | LED300 | | | | | | DIM | |

Fixture	Wattage	Voltage	Color Temp.	Beam	Options	Finish	Dimming	Controls
	LED300	B- 120-277V*	3K - 3000K	T2 - Type 2	BLANK	BRZ - Bronze*	DIM - 0-10V Dimming	BLANK
		C - 347V	4K - 4000K*	T3 - Type 3	HCO - House Cutoff**	CC - Custom Color		DMS - Dimming PIR Motion Sensor
			5K - 5000K*	T4 -Type 4	SCO - Side Cutoff**			7PIN - 7 PIN Receptacle For Smart Control Systems
				T5 - Type 5				PC - Twist Lock
				T3R - Type III Distribution Rotated Right				
				T3L - Type III Distribution Rotated Left				
				T4R - Type IV Distribution Rotated Right				
				T4L - Type IV Distribution Rotated Left				
				T2R - Type II Distribution Rotated Right				
				T2L - Type II Distribution Rotated Left				

* Standard Configuration
**On-site assembly required for the installation of HCO/SCO.
Housing will come with pre-drilled holes.

Note: HCO/SCO with hardware will be shipped in separate packaging
At least one remote per order is needed with DMS control

Ordering Guide For Accessories
Check the items that you wish to order:

☐ 020013   HELIX2 YOKE MOUNT BRZ

☐ 020010   HELIX1/2 DIRECT MOUNT F/ROUND AND SQUARE POLE BRZ

☐ 020011   HELIX1/2 TRUNNION MOUNT BRZ

☐ 020009   HELIX1/2 SLIP FITTER BRZ

☐ 087016   RC-100 MOTION SENSOR REMOTE CONTROL