SEA TURTLE FRIENDLY LIGHTING

ZLED LIGHTING
ZLED-LIGHTING.COM

The Florida Fish and Wildlife Conservation Commission (FWC) has developed a model lighting ordinance as a guideline to **help coastal counties and municipalities in Florida develop their own local ordinances to protect sea turtles from the adverse effects of artificial lighting.**

By knowing what types of lamps to install, people can help to protect sea turtle hatchlings and other beach-dwelling animals.

When retroffiting fixtures for beachfront commercial and residential property, proper Sea Turtle lighting can **provide adequate lighting for safety, attractiveness and compliance with beachfront lighting ordinances.**

ZLEDLighting's lamps and Magnilumen Plus retrofit boards are sea turtle-friendly because they utilize long-wavelength light of 610 nanometers or longer.

Go to **www.myfwc.com** for complete turtle light information.

MINI LED CORN LAMPS – 15W

- **Wattages:** 15W
- **Color Temp:** Amber
- **Input Voltage:** 100-277V
- **Dimensions:** 2.52" x 5.91"
- **Base:** E26
- **Wavelength:** 587-614 nanometers
- **Part Number:** C-E26-IP64-15-AMBER-TURTLE-MINI
- **Applications:** Beach front open + enclosed fixtures

MINI LED CORN LAMPS – 25W

- **Wattages:** 25W
- **Color Temp:** Amber
- **Input Voltage:** 100-277V
- **Dimensions:** 2.52" x 5.91"
- **Base:** E26
- **Wavelength:** 587-614 nanometers
- **Part Number:** C-E26-IP64-25-AMBER-TURTLE-MINI
- **Applications:** Beach front open + enclosed fixtures

MAGNILUMEN PLUS AMBER RETROFIT BOARDS

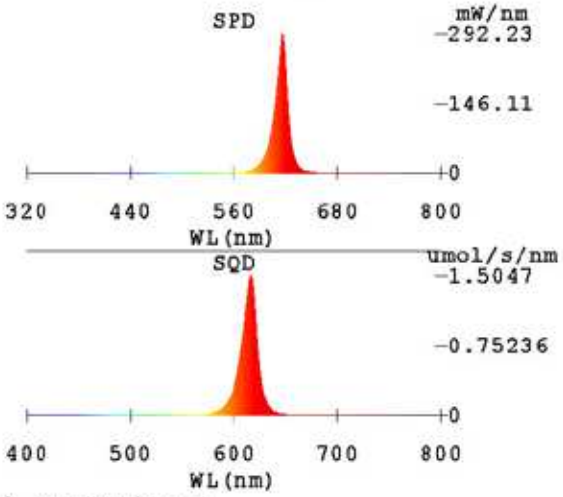
- **Max Wattage Per Board:**
  2 foot: 15W / 4 foot: 30W
- **Color Temp:** Amber
- **Input Voltage:** 100-277V
- **Dimensions:** 2 feet (21")
  4 feet (43")
- **Wavelength:** 610 nanometers
- **Part Number:** 2 ft: MRK2220-TURTLE-PLUS
  4 ft: MRK2430-TURTLE-PLUS
- **Applications:** Parking lots, outdoor docks, and pool structures

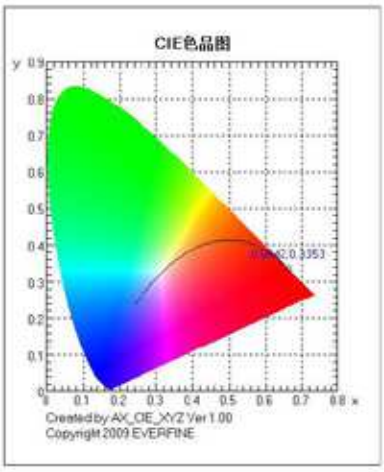
Specifications and actual product may vary.
Office (800) 679-9243 • sales@zledlighting.com • www.zledlighting.com

TEST: MRK2220-TURTLE-PLUS

EVERFINE SP-20Suite Test Report

Spectrum Test Report





Plant Parameters:

Radiometry System:

Φv(lm): 1746	Qv(lm.s): 1746
Φe,λ(W): 0.01064	Qe(J): 5.52
ηb: 0.2169	Φe,b(W): 5.533
Φr(W): 5.527	Φch-A(W): 0.7675
Qch-A(J): 0.7675	Φch-B(W): 0.5189
Qch-B(J): 0.5189	

Quantum System:

PPF(umol/s): 28.29	PPF(400-500)(umol/s): 0.008891
PPF(500-600)(umol/s): 2.522	PPF(600-700)(umol/s): 25.79
Numol(umol): 28.29	PPE(umol/s/W): 1.109
KFr(umol/s/W): 0.001506	Φp,uv(umol/s): 0.006315
Φp,fr(umol/s): 0.03842	

Color Parameters:

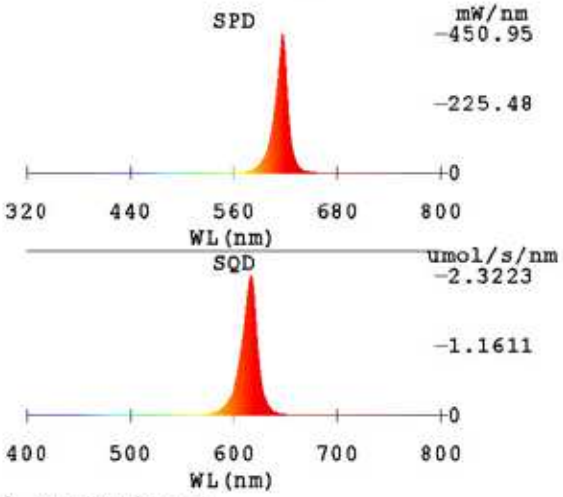
Chromaticity Coordinate: x = 0.6642 y = 0.3353 u' = 0.4665 v' = 0.5298
CCT = 1001K(Duv = -0.0187) Dominant WL:Ld = 609.6nm
Purity = 99.9% Ratio: R:G:B=86.4:13.6:0.0
Ra = 26.4
R1 = 10.7 R2 = 78.7 R3 = 28.2 R4 = 0.0 R5 = 2.1
R6 = 89.4 R7 = 2.2 R8 = 0.0 R9 = 0.0 R10 = 70.7
R11 = 0.0 R12 = 77.0 R13 = 31.3 R14 = 60.5 R15 = 0.0
Electric:U = 129.99 V I = 0.1997 A P = 25.51 W PF = 0.9824 Eff = 68.47 lm/W
λp = 616.0nm FWHM = 15.3nm
LEVEL: OUT WHITE: OUT
Status: Integral T = 81 ms Ip = 40329 (62%)

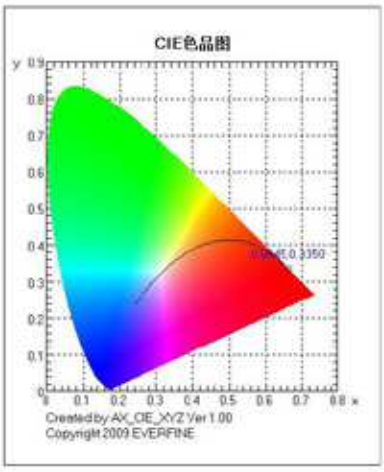
Model:	Number:15
Tester:	Date:2022-05-25 21:31:39
Temperature:25.3Deg	Humidity:65.0%
Manufacturer:	Remarks:0.6m

TEST: MRK2430-TURTLE-PLUS

EVERFINE SP-20Suite Test Report

Spectrum Test Report





Plant Parameters:

Radiometry System:

Φv(lm): 2673	Qv(lm.s): 2673
Φe,λ(W): 0.01632	Qe(J): 8.47
ηb: 0.2109	Φe,b(W): 8.487
Φr(W): 8.48	Φch-A(W): 1.178
Qch-A(J): 1.178	Φch-B(W): 0.7959
Qch-B(J): 0.7959	

Quantum System:

PPF(umol/s): 43.42	PPF(400-500)(umol/s): 0.01207
PPF(500-600)(umol/s): 3.818	PPF(600-700)(umol/s): 39.63
Numol(umol): 43.42	PPE(umol/s/W): 1.079
KFr(umol/s/W): 0.001347	Φp,uv(umol/s): 0.00893
Φp,fr(umol/s): 0.05422	

Color Parameters:

Chromaticity Coordinate: x = 0.6645 y = 0.3350 u' = 0.4671 v' = 0.5298
CCT = 1001K(Duv = -0.0192) Dominant WL:Ld = 609.7nm
Purity = 99.9% Ratio: R:G:B=86.5:13.5:0.0
Ra = 26.4
R1 = 10.6 R2 = 78.6 R3 = 28.2 R4 = 0.0 R5 = 2.0
R6 = 89.4 R7 = 2.2 R8 = 0.0 R9 = 0.0 R10 = 70.6
R11 = 0.0 R12 = 77.0 R13 = 31.2 R14 = 60.5 R15 = 0.0
Electric:U = 130.08 V I = 0.3114 A P = 40.24 W PF = 0.9935 Eff = 66.44 lm/W
λp = 616.3nm FWHM = 15.3nm
LEVEL: OUT WHITE: OUT
Status: Integral T = 56 ms Ip = 43001 (66%)

Model:	Number:11
Tester:	Date:2022-05-25 21:26:21
Temperature:25.3Deg	Humidity:65.0%
Manufacturer:	Remarks:1.2m