

CUBE

MAXIMIZE EVERY HARVEST CYCLE

# **Optimizing the Addition of Light**

Best practices for sustainable cannabis cultivation have evolved, particularly in regards to lighting.

#### **LIGHTING IS:**

- The leading driver of energy costs for cultivation facilities
- The key determinant of yield, quality and revenue
- The highest ROI purchase a grower can make

Brighter top-lighting is effective to a degree, but has it's own limitations and downsides. Intercanopy lighting is a cost-effective strategy to increase production by 20% or higher, as proven in university studies and customer facilities at scale. To provide more photons where they're best spent, PROXIMITY™ designed the intercanopy CUBE™ to surround the crop and maximize flower production.

## ONLY INCREASING TOPLIGHT OUTPUT LEADS TO:

- Taller plant morphology as the crop stretches upward
- Additional labor costs due to netting & defoliation
- Inefficient space utilization (taller plants = taller tiers)
- Burning and photobleaching close to toplights
- Increased likelihood of micro-climates





## PROXIMITY CUBE LIGHTING SYSTEM DELIVERS:

- 150% more light-on-leaf surounding crop on four sides
- Shorter plant structure and denser lower canopy growth
- Larger average flower size
- Increased light uniformity over any sized bench or rack
- Higher leaf-temperatures to promote photosynthesis

## Add Photons Where They're Most Useful With CUMBE

The PROXIMITY CUBE enhances any existing top-lighting by distributing supplemental light to underserved, light-deprived areas of the crop without photobleaching, burning or obstructing access to plants. CUBE adds four additional planes of productive canopy to boost overall biomass and yield. By increasing PAR levels in the most light-hungry layers of the crop, CUBE deploys additional wattage where it's best spent to promote tighter internodal spacing, increased cola size and uniformity, and higher output per square foot, regardless of the cultivation approach.

### **Proximity Increases Efficiency**

Exponential photosynthetic energy is lost with every inch between light fixture and leaves. Optimize the delivery of photons with CUBE to target underserved areas of the crop for efficient deployment of additional PPFD.

#### **Lighting & Support Combined**

CUBE can replace supports used for crop netting and doesn't restrict access to plants or spacing options on benches. Easy to trim and harvest around, the CUBE can be installed and cleaned in place between harvest cycles.

#### **Mitigate Micro-Climates**

CUBE eliminates shaded areas and provides additional heat to promote air-flow. An evenly lit crop is also easier to see and manage, helping to minimize micro-climates that lead to mold and powdery mildew.



# **Increase Yield & Revenue Every Harvest**

The CUBE intercanopy lighting system delivers optimal light distribution to promote crop uniformity and increased yield, flower size and grade, leading to increased revenue.

CUMBE CUSTOMER RESULTS							
Cultivator/State	Legion of Bloom California	Strawberry Fields  Colorado	Harborside California	Culta Maryland	Mad Cow Genetics  California		
Environment	Indoor LED	Greenhouse HPS/LED	Greenhouse LED	Indoor HPS	Indoor HPS		
Yield % Change	24.7%	22.6%	24% Avg.	28%	27.5%.		
Grading Increase	47.5%	63.6%	42% Avg.	30%	8.6%		
Strain Name	Wedding Cake	Mandarin Cookies	Banjo & G4-OG	Poochie, Soap & Mango	2090, Baby Powder & CM <sub>10</sub>		





MAXIMIZE HARVEST & REVENUE WITH CUMBE

20%+

20%+

20%+

Increased Yield

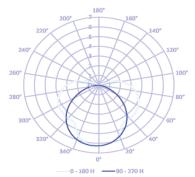
Higher Grading

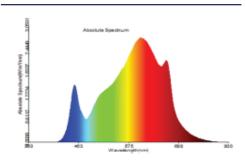
Revenue Increase

CUBE is available in standard sizes of 4'x4', 4'x5', 4'x6' and 5'x5' and designed to cover any sized tray, bench or crop row. CUBE is installed end-to-end for maximum light uniformity with two horizontal rows of light spaced 12" apart and is ideal for both greenhouse and indoor applications.















Product/SKU	CUBE 4x4 C44-1-240M-D-1FL	CUBE 4x5 C45-1-320M-D-1FL	<b>CUBE 4x6</b> C46-1-320M-D-1FL	CUBE 5x5 C55-1-320M-D-1FL			
Area Coverage	16ft² (1.49m²)	20ft <sup>2</sup> (1.86m <sup>2</sup> )	24ft <sup>2</sup> (2.23m <sup>2</sup> )	25ft² (2.32m²)			
Light Output (PPF)	475 μmol/s	550 μmol/s	618 µmol/s	618 µmol/s			
Power (AC)	208W	240W	270W	270W			
Efficacy (PPE)	2.3 μmol/j	2.3 μmol/j	2.3 μmol/j	2.3 µmol/j			
Input Voltage (AC)	120-277VAC	120-277VAC	120-277VAC	120-277VAC			
Power Factor	> .95 @ 277VAC	> .93 @ 277VAC	> .94 @ 277VAC	> .94 @ 277VAC			
Weight	24lbs (10.9kg)	26.6lbs (12.1kg)	27.3lbs (12.4kg)	27.3lbs (12.4kg)			
Dimensions (L x W)	47.8" x 47.8" (1.2m x 1.2m)	47.8" x 59.6" (1.2m x 1.5m)	47.8" x 71.8" (1.2m x 1.7m)	59.6" x 59.6" (1.5m x 1.5m)			
Height	Adjustable between 33" - 45" (0.84m - 1.14m)						
Light Source	Broad Spectrum 3000K CCT						
Light Distribution	210° per lightbar (two 120° boards offset by 90°)						
Thermal Management	Passive						
LED Lifetime (L90)	> 48,000 hrs						
Max. Ambient Temp.	25° C (77° F)						
THD	< 10%						
IP Rating	IP65						
Warranty	5 Years						
Certifications	ETL, DLC						

