



2FT LED TUBE

VOL-2TL-009-CW



SECTION 1: SPECIFICATIONS

POWER	9W
VOLTAGE	85-277V
DIFFUSER TYPE	POLYMETHYL METHACRYLATE
BASE MATERIAL	CAST ALUMINUM
LIGHT OUTPUT	900 lm
BEAM ANGLE	120°
CCT	6000-6500K (CW)
FIXTURE LIFESPAN	50,000 HRS (10+ YEARS AT 12 HRS PER DAY)
IP RATING	40

CERTIFICATIONS

RoHS
Compliant



SECTION 2: LIGHT SOURCE DESCRIPTION (LED CHIP)

LED SHAPE	2835 SMD
NUMBER OF LEDS	120
LED TYPE	EPISTAR

SECTION 3: COMPARABLE OLDER LIGHT SOURCE

2FT LED TUBE	2FT FLUORESCENT TUBE
9 WATTS OF POWER	25 WATTS OF POWER
50,000 HOUR LIFESPAN	200 HOUR LIFESPAN
CARRIES 1 YEAR WARRANTY	CARRIES NO WARRANTY
WITHSTANDS VOLTAGE SURGES	DESTROYED WITH SMALL VOLTAGE SURGES
AVAILABLE IN COOL WHITE	ONLY AVAILABLE IN WARM

SECTION 4: INSTALLATION

This guide explains the steps necessary to install our LED Tubes properly into your existing fixture to replace a fluorescent T8 tube. Only certified electricians should attempt the installation.

Warning/Disclaimer

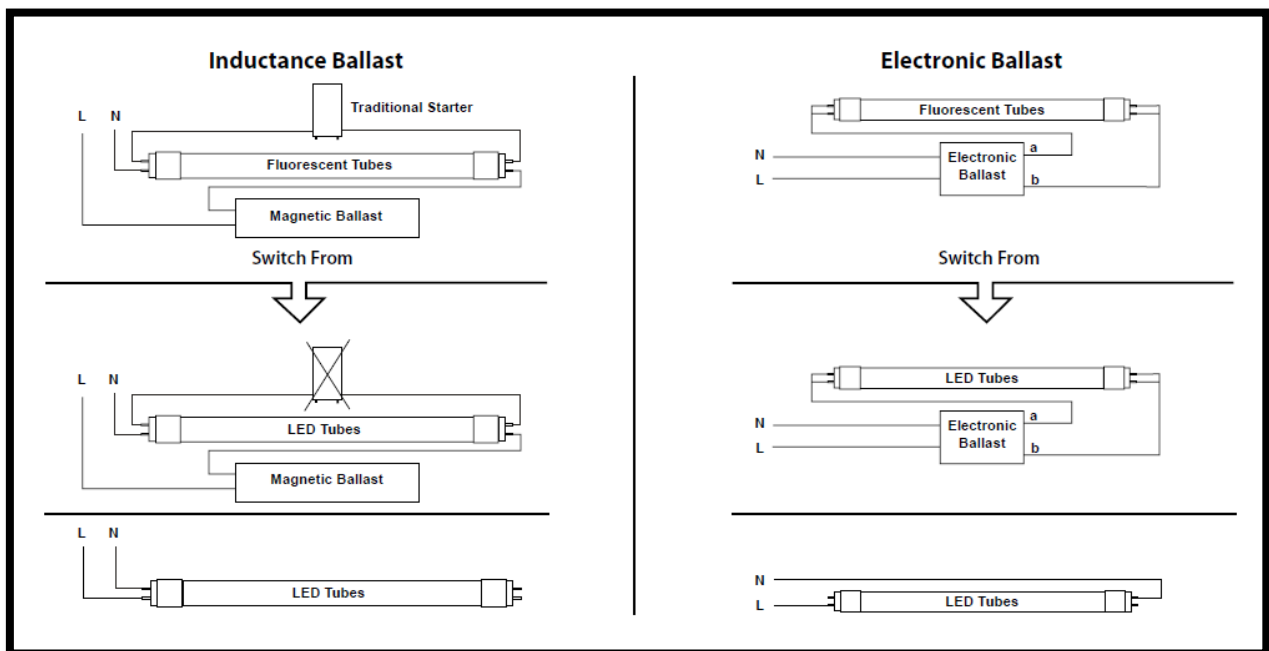
Target Solutions Ltd is not responsible for any damage or harm caused by improper handling and installation or our tube lights. Installation by a certified electrician is highly recommended.

Cautions

- Do not touch this product with wet hands
- Do not disassemble, repair or alter the light
- Designed for indoor application
- Be careful and do not touch the light pins to the metal housing when installing
- This device is not intended for use with emergency exists
- Do not use with dimmers

Installation

1. Disconnect the power of the fixture (Do not only turn off the switch)
2. Open the housing fixture
3. Remove the existing fluorescent lamps, and cut the wires according to the diagram and remove the ballast.
4. Connect the wires as seen in the diagram below according to either single powered or double powered tubes.



5. Install the LED Tube by placing the pins into the fixture and turn clockwise.
6. Double-check all the wiring is done correctly and then close the housing fixture.
7. Re-connect the power to the fixture and then switch on the light.

SECTION 5: PHOTOMETRIC RESULTS

Report No.: 020

Test Time: 2014-01-07 19:43

Lamp Catalog: LED
Number of Lamps: 48
Luminous Length (mm): 550
Luminous Height (mm): 26
Current: 0.048 A
Power Factor: 0.900

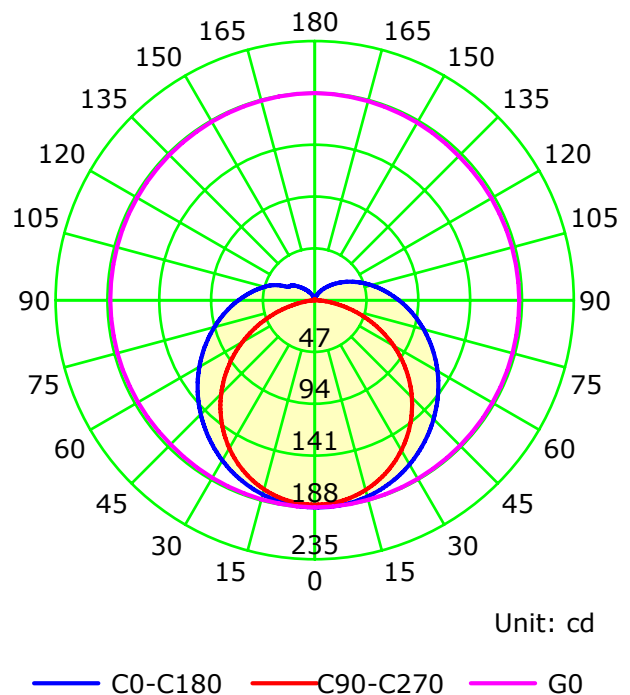
Lamp Description: 2835-48
Lumens per Lamp: 820
Luminous Width (mm): 26
Voltage: 220.9 V
Power: 9.60 W

Photometric Results

CIE Class: Semi-Direct
Measurement Flux: 780.2 lm
Downward Ratio: 1.70%
Field Angle: H265.4 V158.9
Luminaire Efficacy Rating (LER): 81
Max. Intensity: 188.33 cd

Total Rated Lamp Lumens: 39360.0 lm
Efficiency: 1.98%
Upward Ratio: 0.28%
Beam Angle: H154.9 V111.2
Central Intensity: 188.32 cd
Pos of Max. Intensity: H0 V0

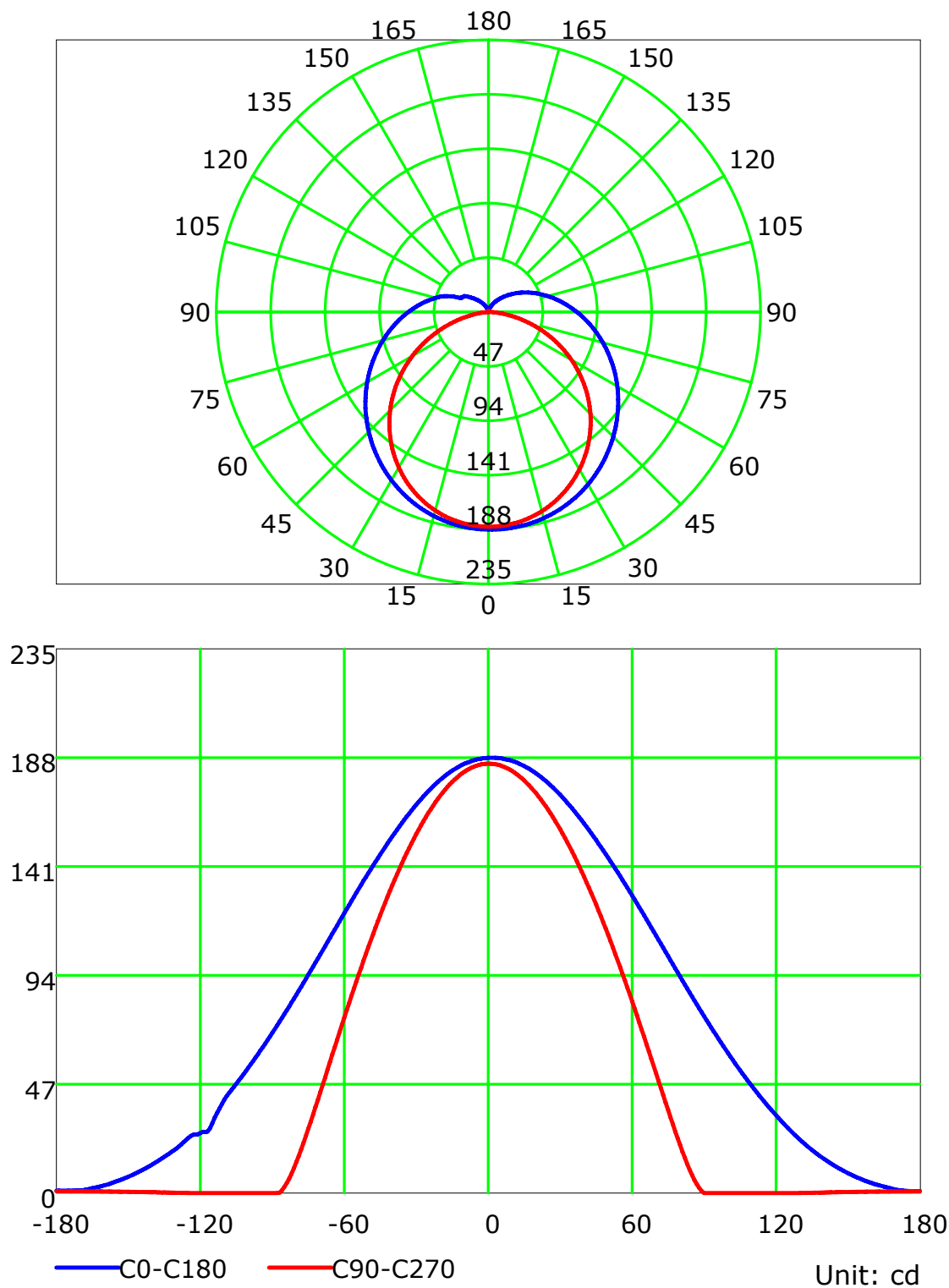
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector:

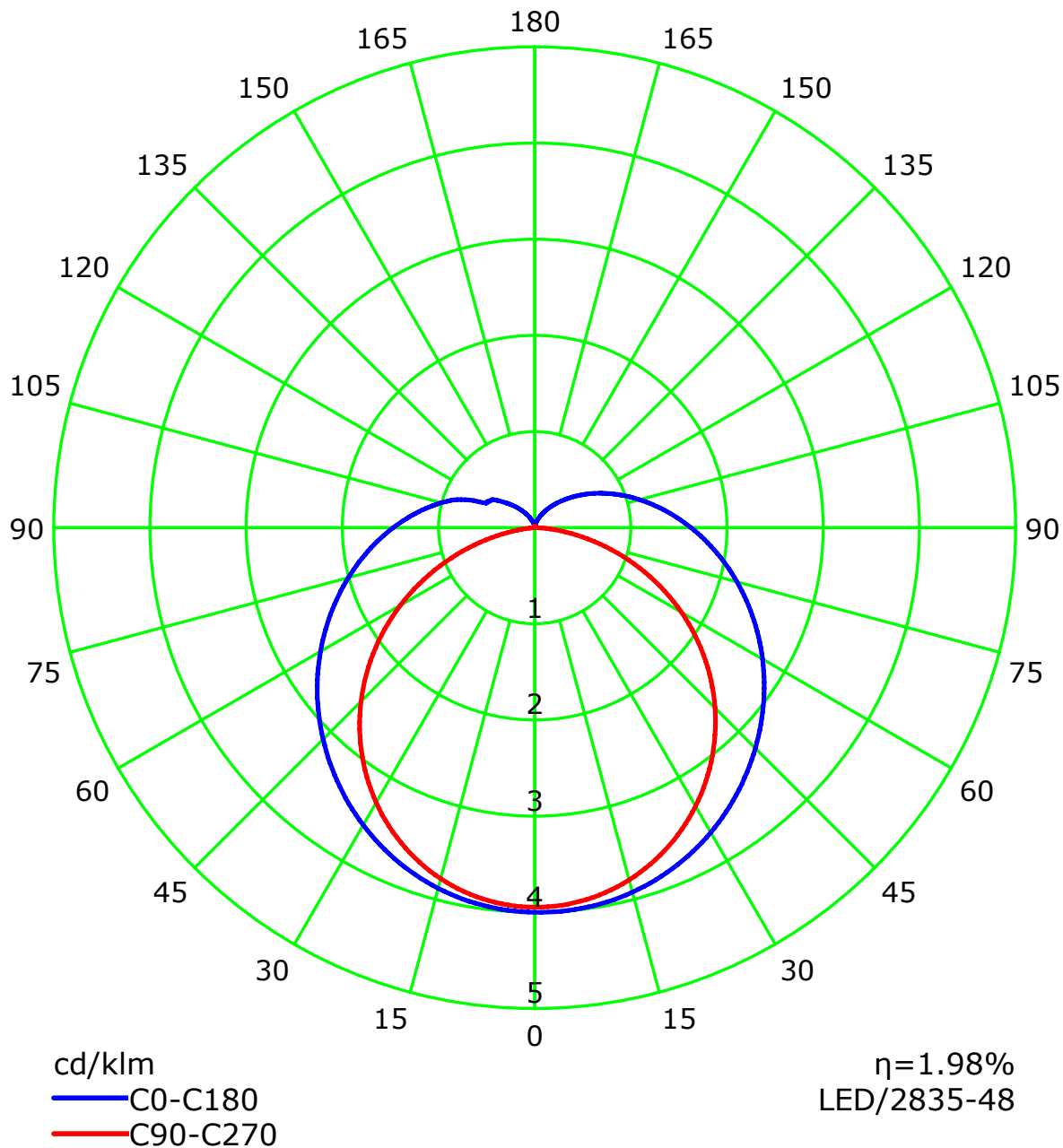
SECTION 6: LUMINOUS INTENSITY DISTRIBUTION CURVE



C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector:

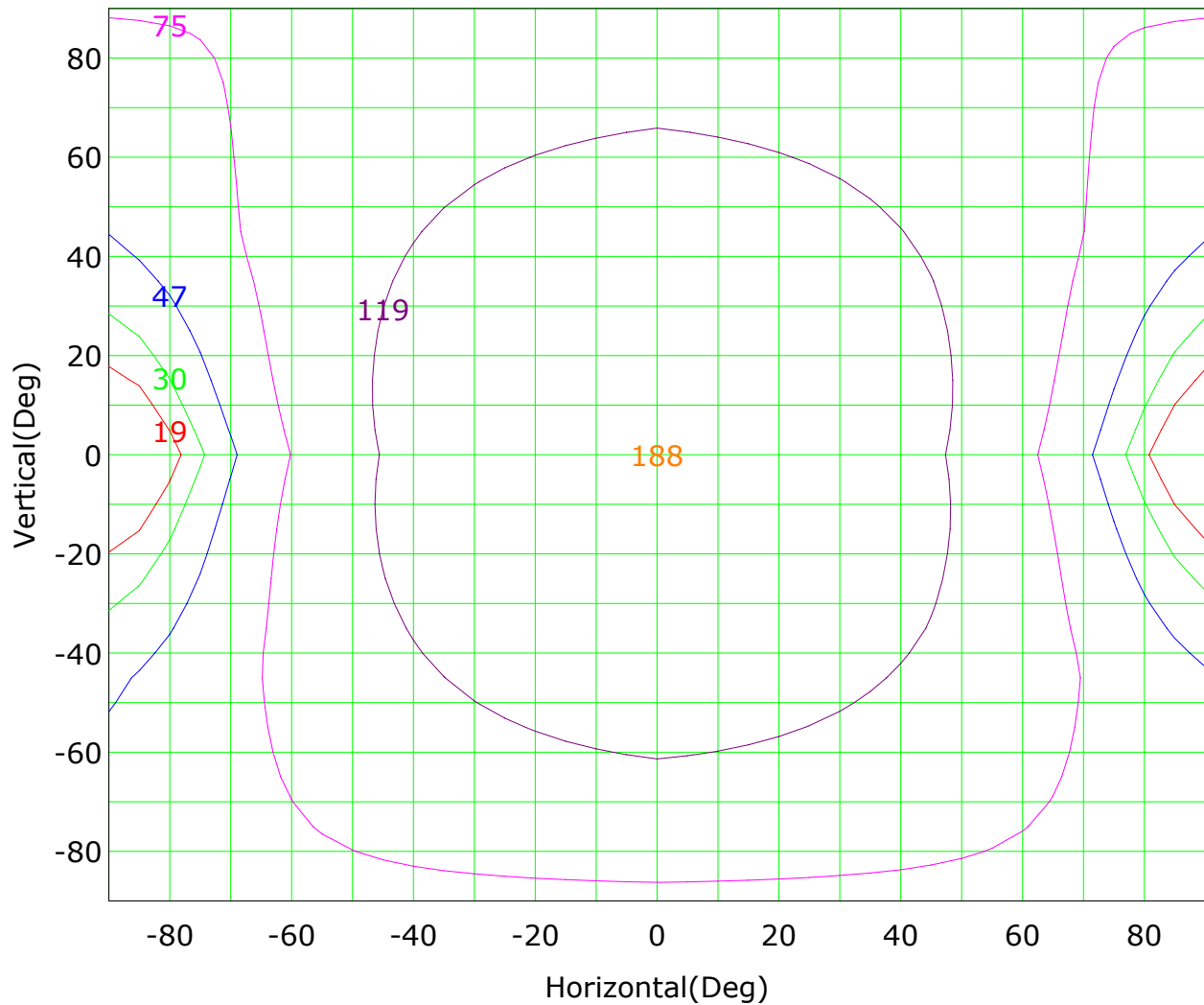
Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector:

SECTION 7: ISOCANDELA DIAGRAM



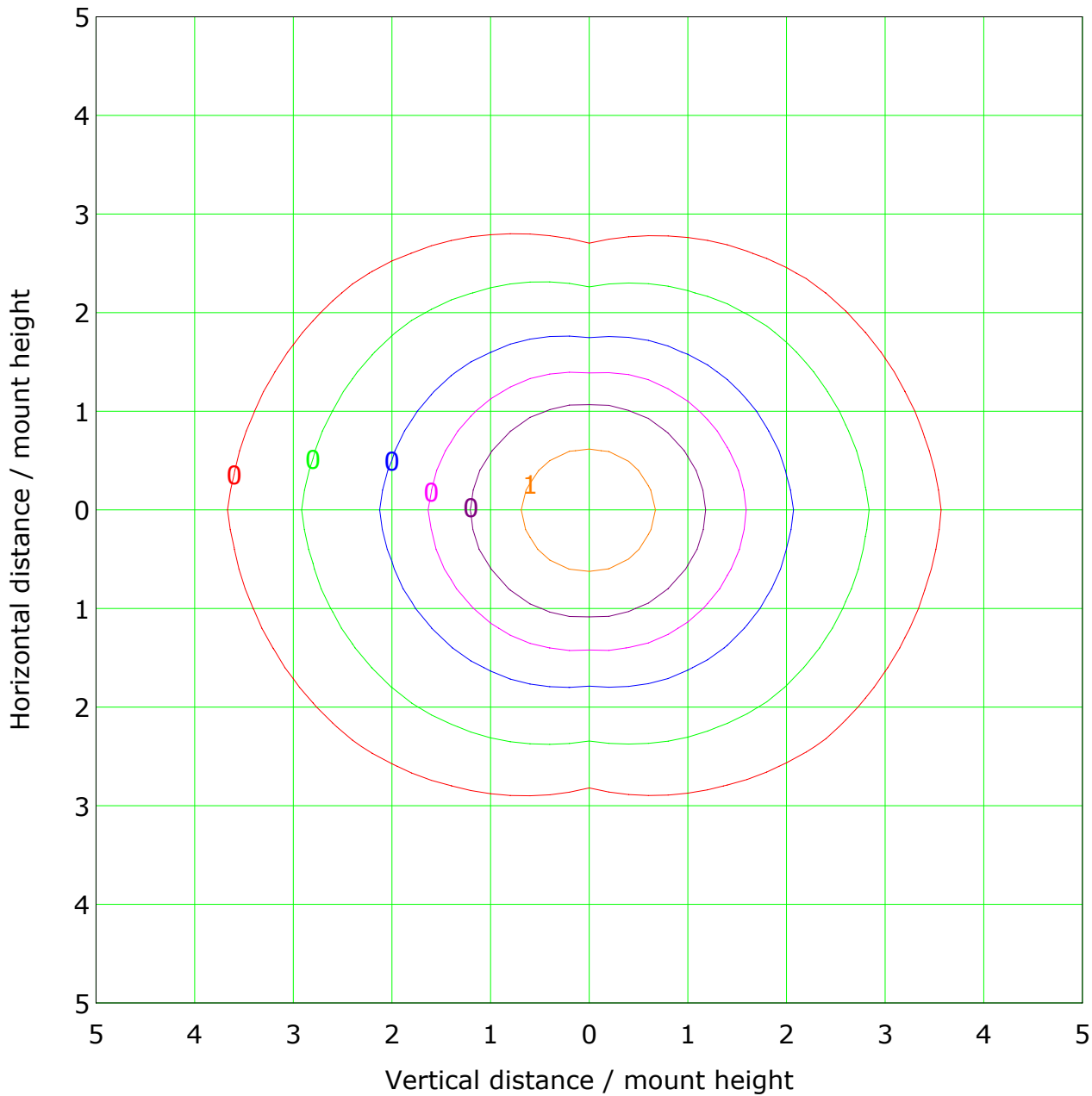
Imax (100%): 188 cd

(10%): 19 cd	(16%): 30 cd
(25%): 47 cd	(40%): 75 cd
(63%): 119 cd	(100%): 188 cd

C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector:

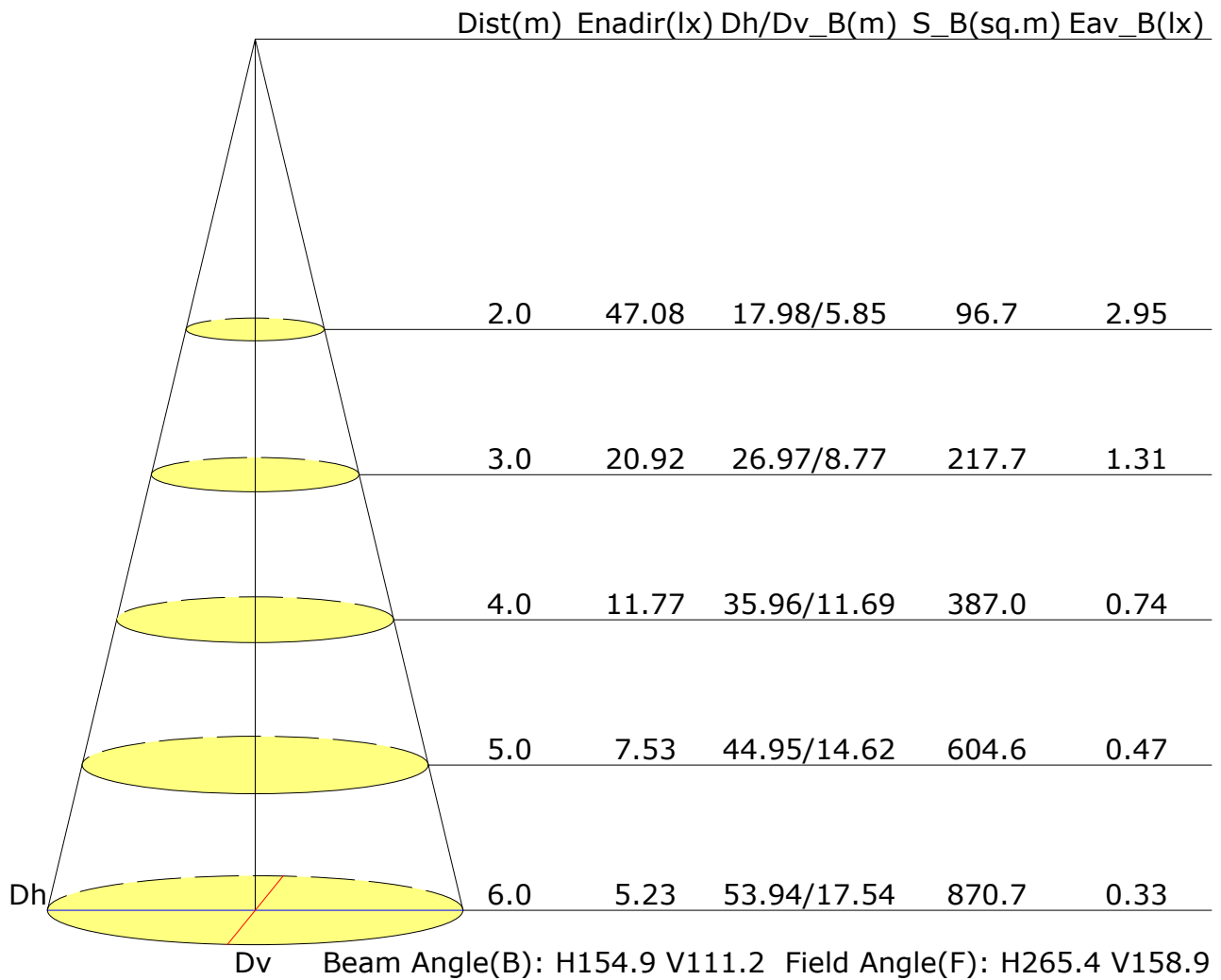
SECTION 8: ISOLUX PLOT



C Plane (°):0.0-360.0: 45.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-1600
 Distance: 6.498 m
 Humidity:
 Inspector:

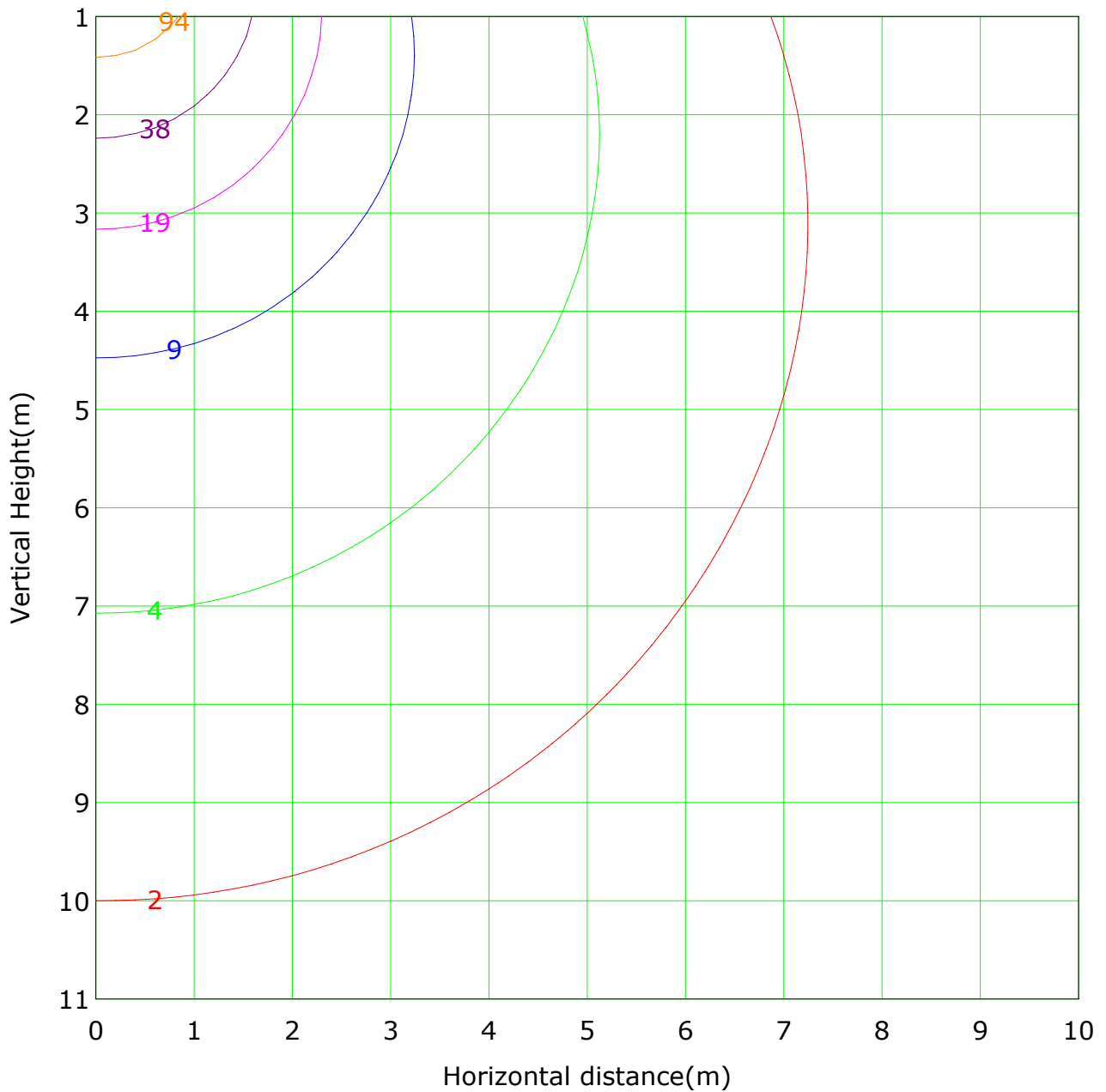
SECTION 9: ILLUMINANCE AT A DISTANCE



C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector:

SECTION 10: VERTICAL ISOLUX PLOT

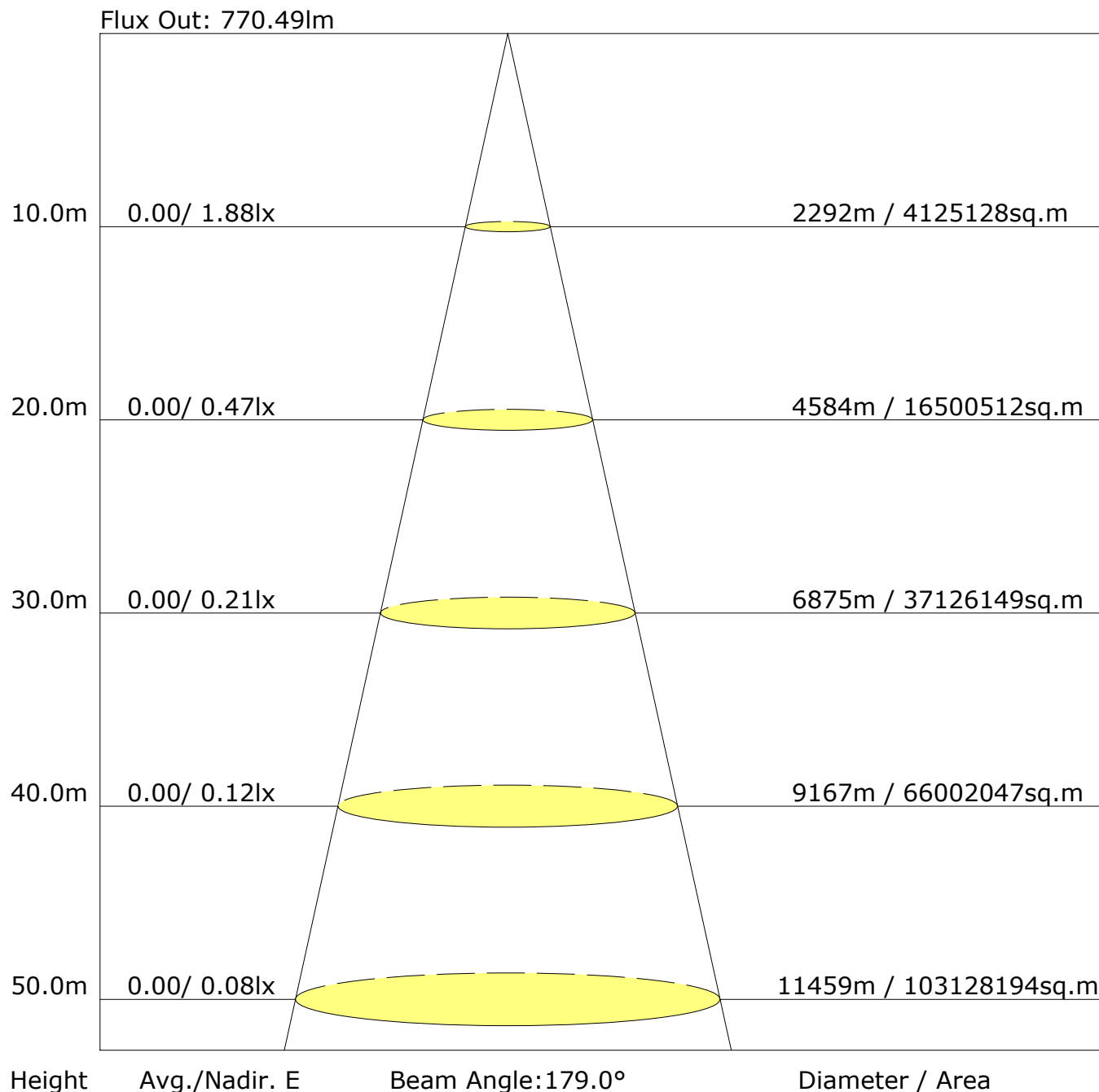


Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 188.3 lx
(1%): 1.9 lx	(2%): 3.8 lx	
(5%): 9.4 lx	(10%): 18.8 lx	
(20%): 37.7 lx	(50%): 94.2 lx	
(100%): 188.3 lx		

C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector:

SECTION 11: THE AVERAGE ILLUMINANCE EFFECTIVE FIGURE



C Plane (°):0.0-360.0: 45.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600
Distance: 6.498 m
Humidity:
Inspector: