

Report No.:

Test Time: 19/04/2025 00:04

## Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-SL20-20+LLD-20-UK

Lamp Description: F52-40s-1208F2/14.4 20cm

Number of Lamps: 1

Lumens per Lamp: 298

Voltage: 24.01 V

Current: 0.106 A

Power: 2.6 W

Power Factor: 1

## Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 298.0 lm

Measurement Flux: 280.6 lm

Efficiency: 94.16%

Downward Ratio: 91.81%

Upward Ratio: 2.35%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 154.3, 117.0, 131.9, 130.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.6, 100.1, 105.8, 105.5

Luminaire Efficacy Rating (LER): 107.97

Central Intensity: 113.77 cd

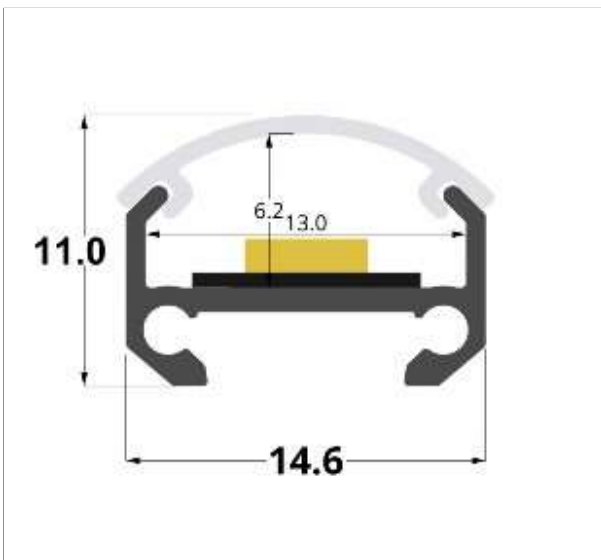
Max. Intensity: 114.27 cd

Pos of Max. Intensity: H67.5 V2

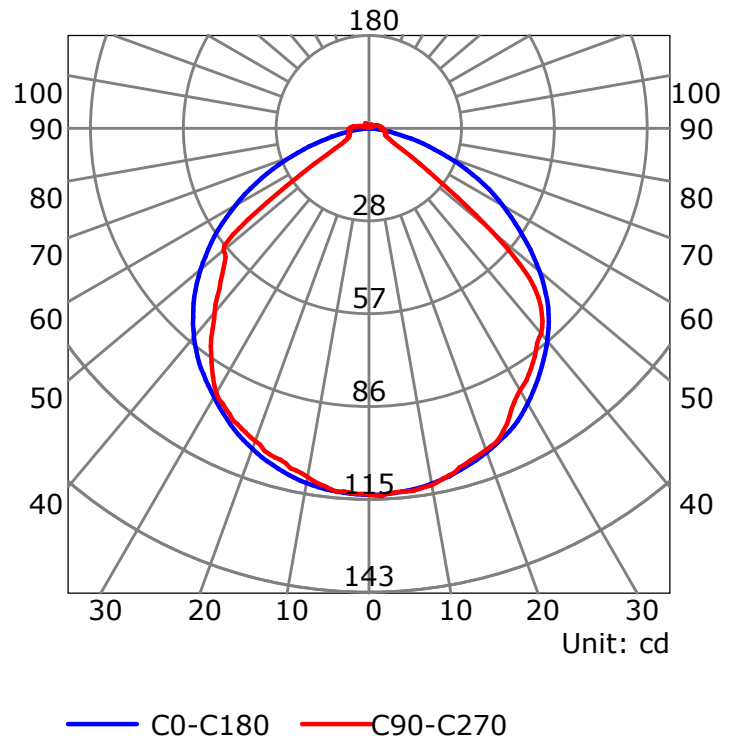
S/MH(C0/C180): 1.27

S/MH(C90/C270): 1.23

Picture Of Luminaire



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

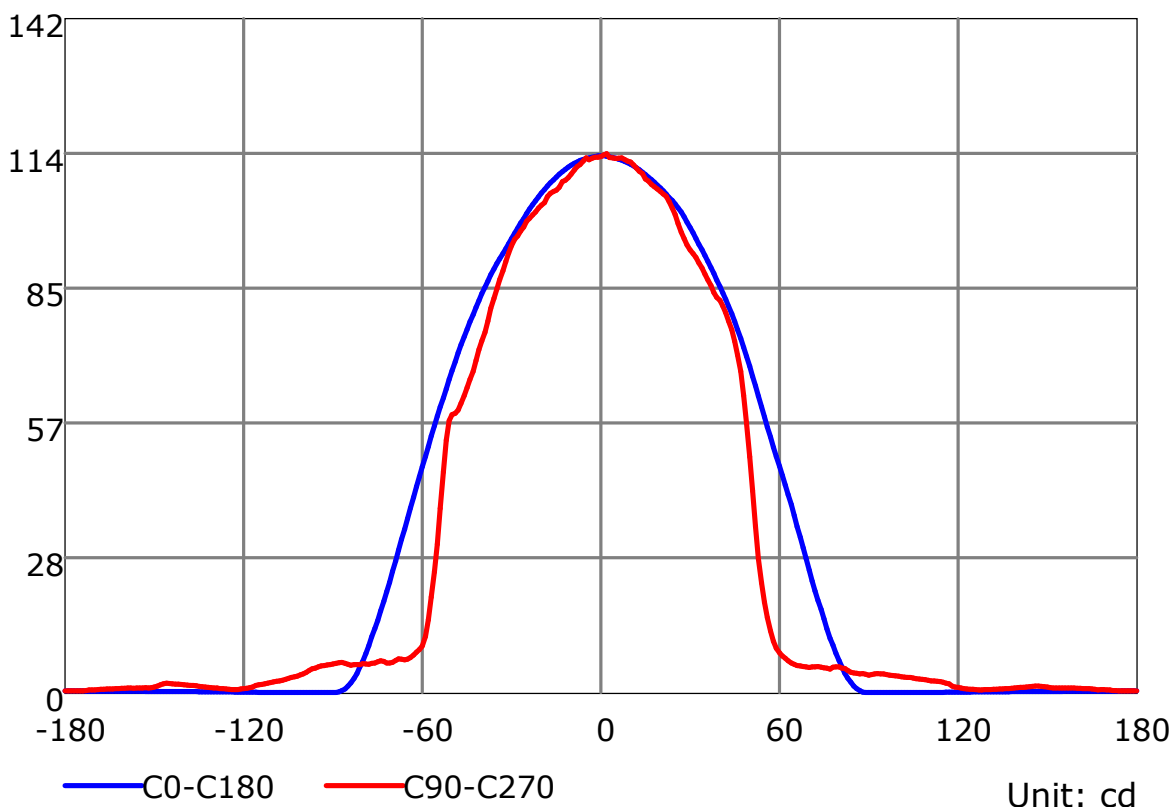
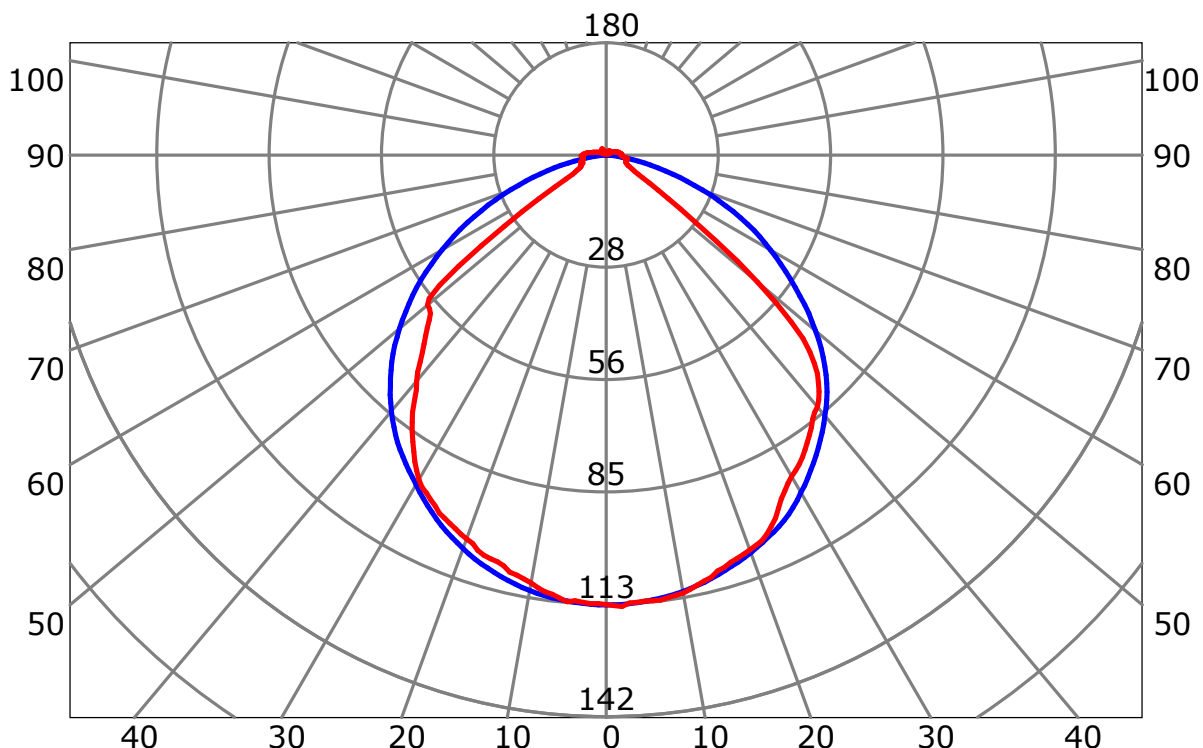
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

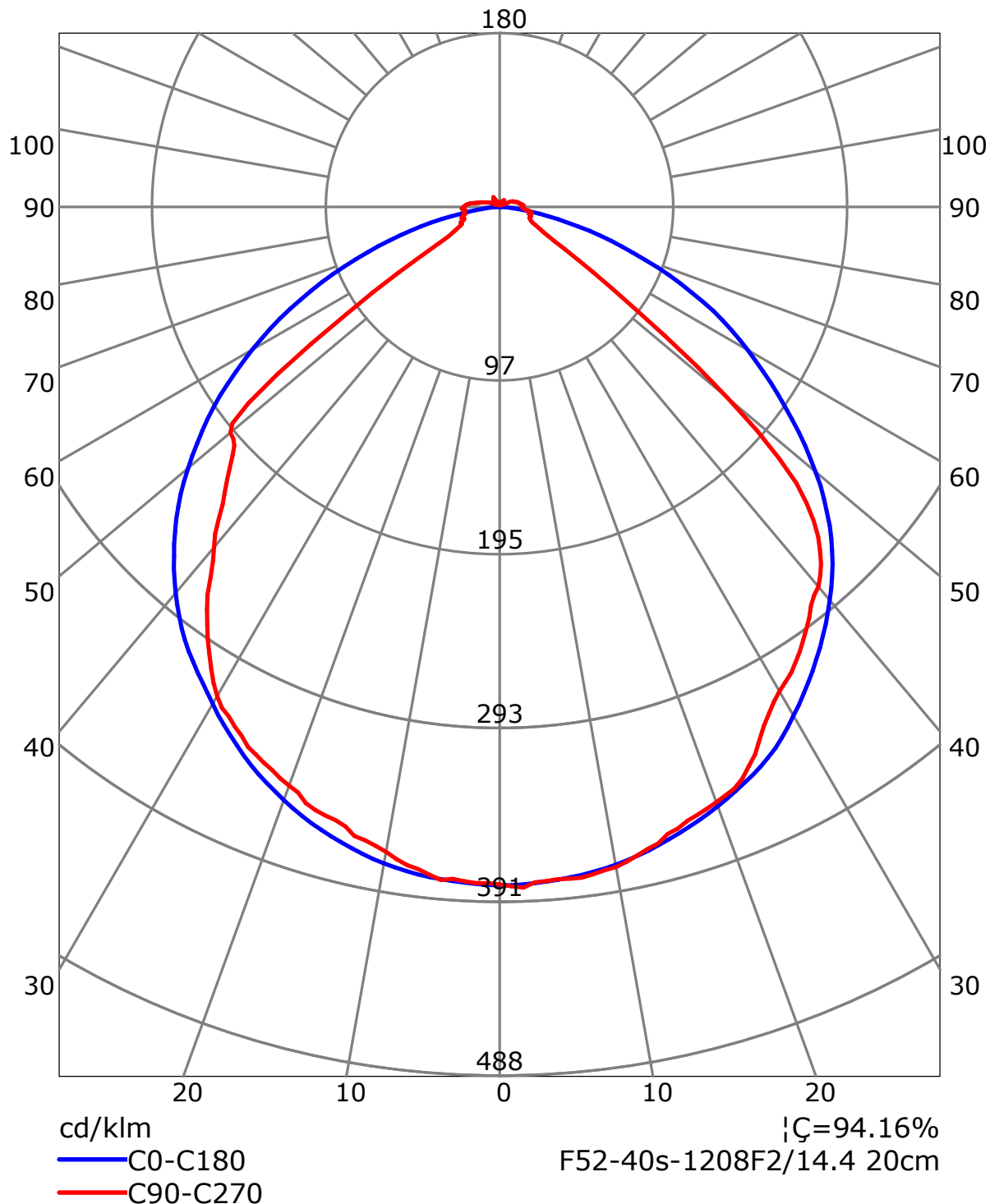
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

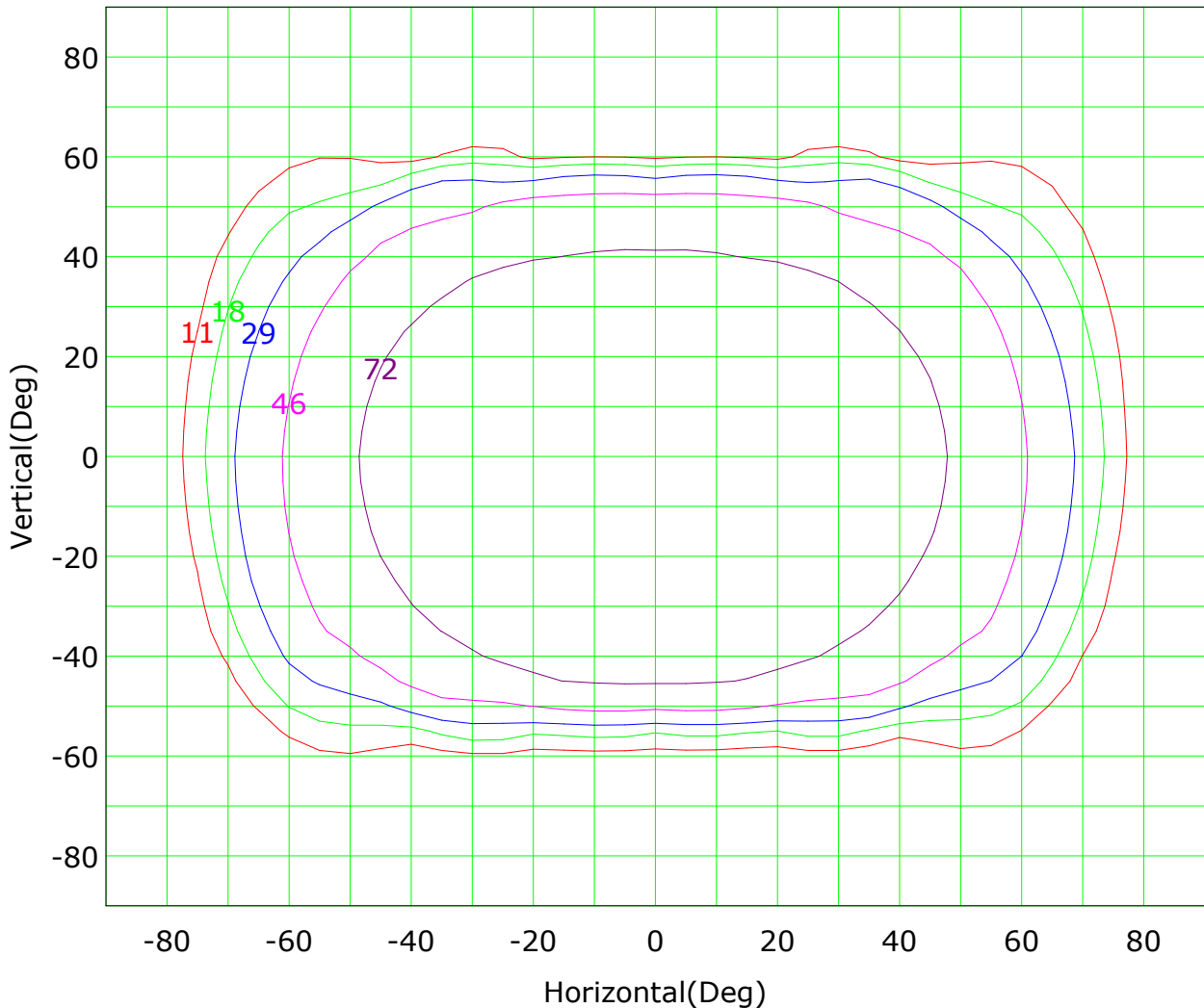
## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

## Isocandela (rectangle)



Imax (100%): 114 cd

— ( 10%):	11 cd	— ( 16%):	18 cd
— ( 25%):	29 cd	— ( 40%):	46 cd
— ( 63%):	72 cd	— (100%):	114 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

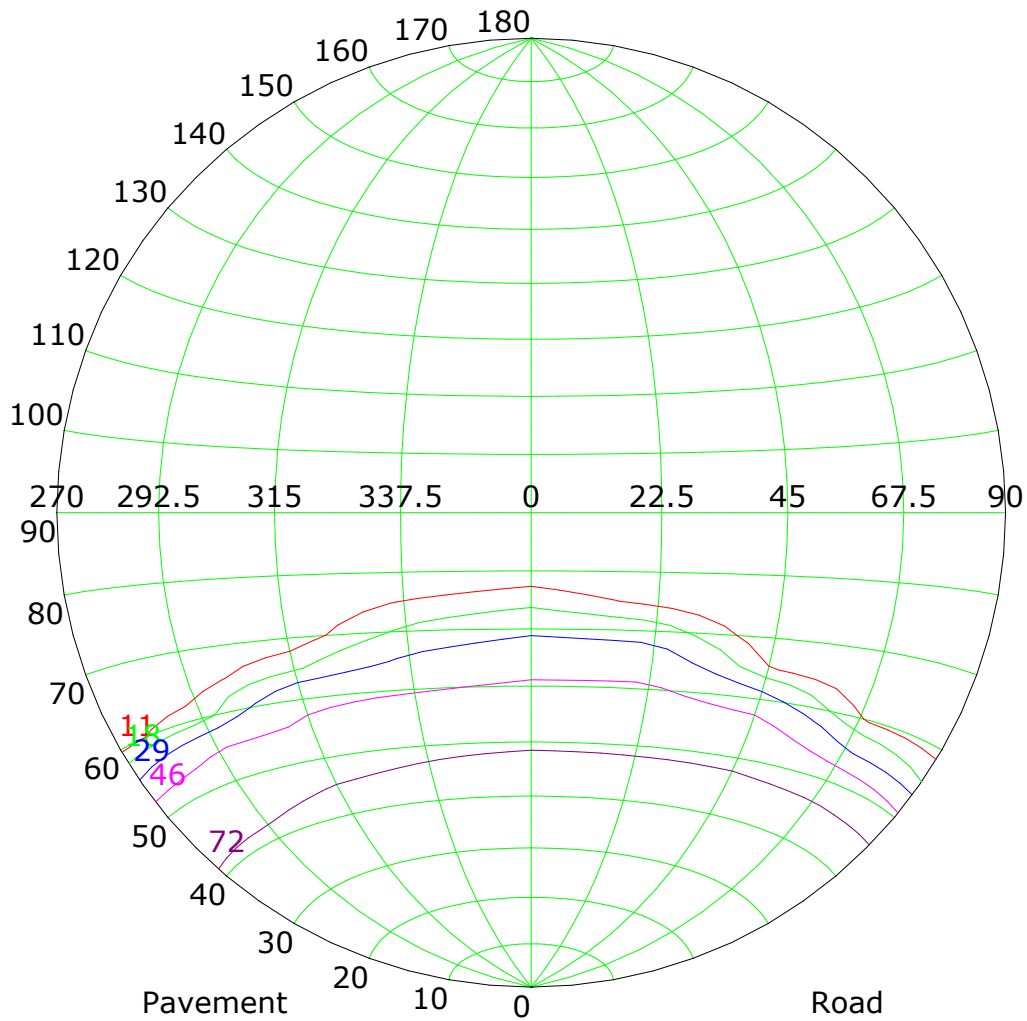
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 114 cd

— ( 10%):	11 cd	— ( 16%):	18 cd
— ( 25%):	29 cd	— ( 40%):	46 cd
— ( 63%):	72 cd	— (100%):	114 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

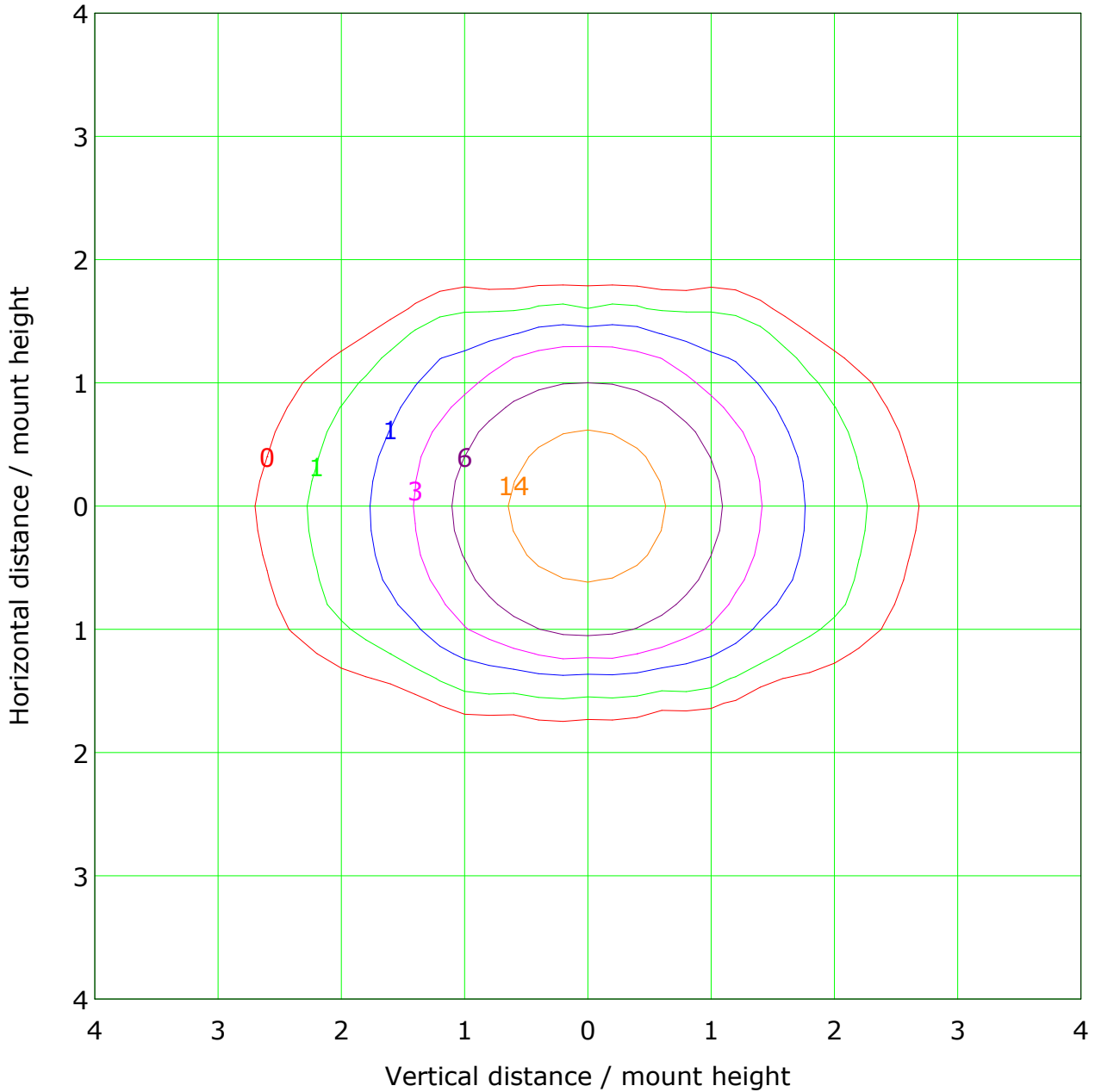
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 28.5 lx
— ( 1%):	0.3 lx	— ( 2%): 0.6 lx
— ( 5%):	1.4 lx	— ( 10%): 2.9 lx
— ( 20%):	5.7 lx	— ( 50%): 14.3 lx
— (100%):	28.5 lx	

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 7.792 m

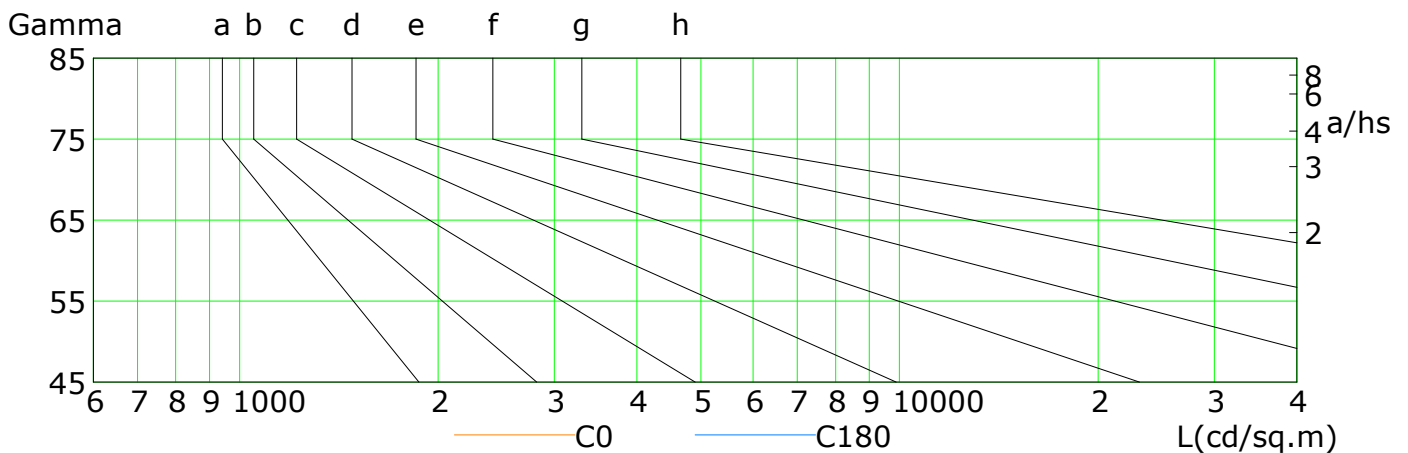
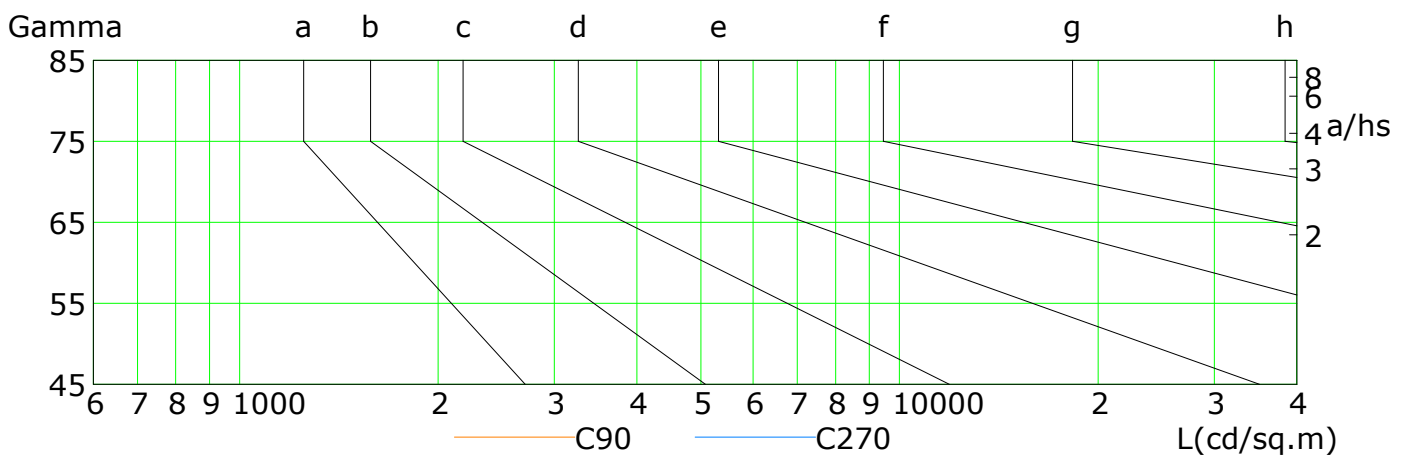
Humidity:

Inspector:

## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		2000	1000	500	<=300				
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	79	69	58	48	38	26	16	7	1
C90	74	50	19	8	6	5	5	5	4
C180	77	68	59	48	37	26	15	7	1
C270	65	59	31	10	7	6	7	6	6

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

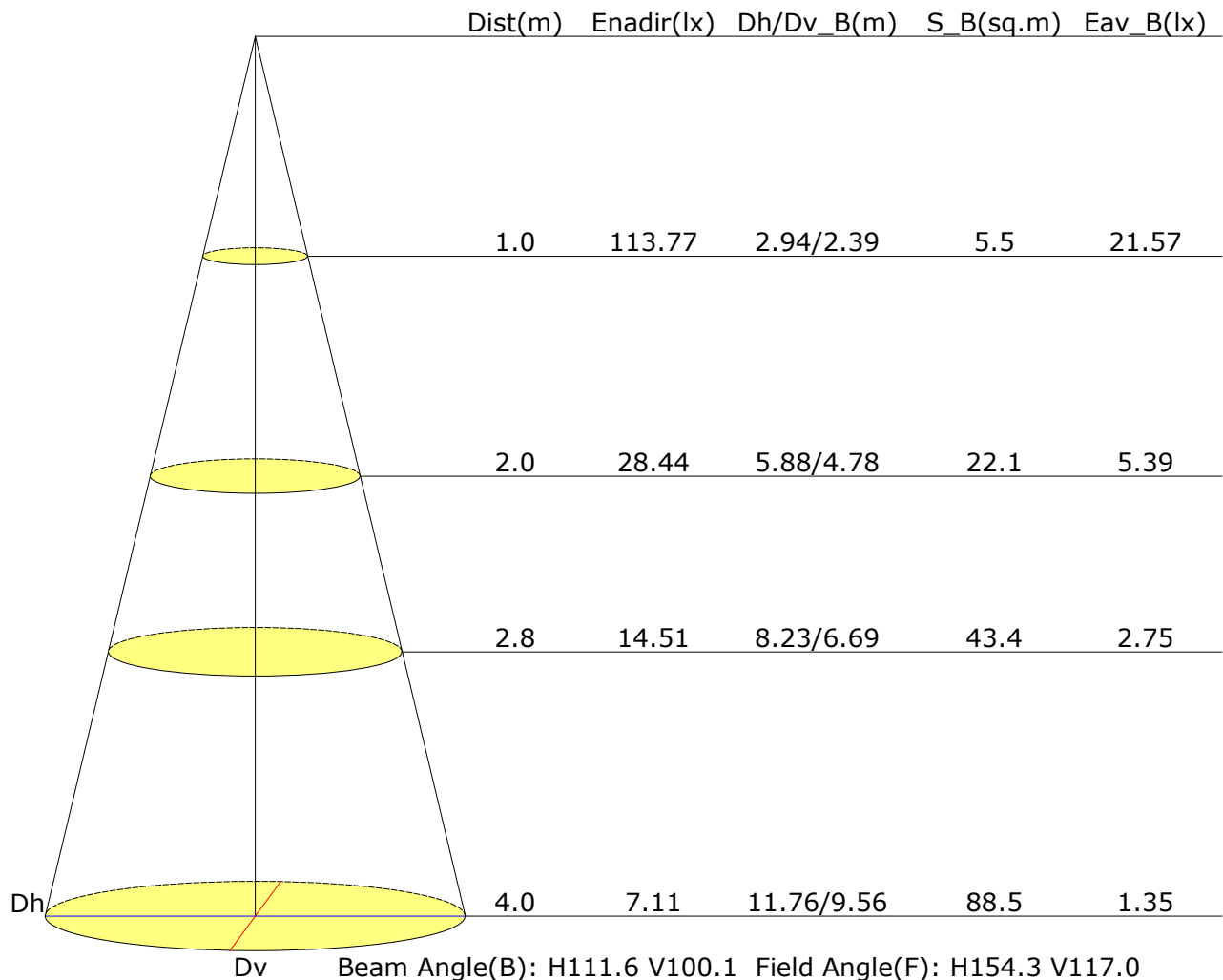
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

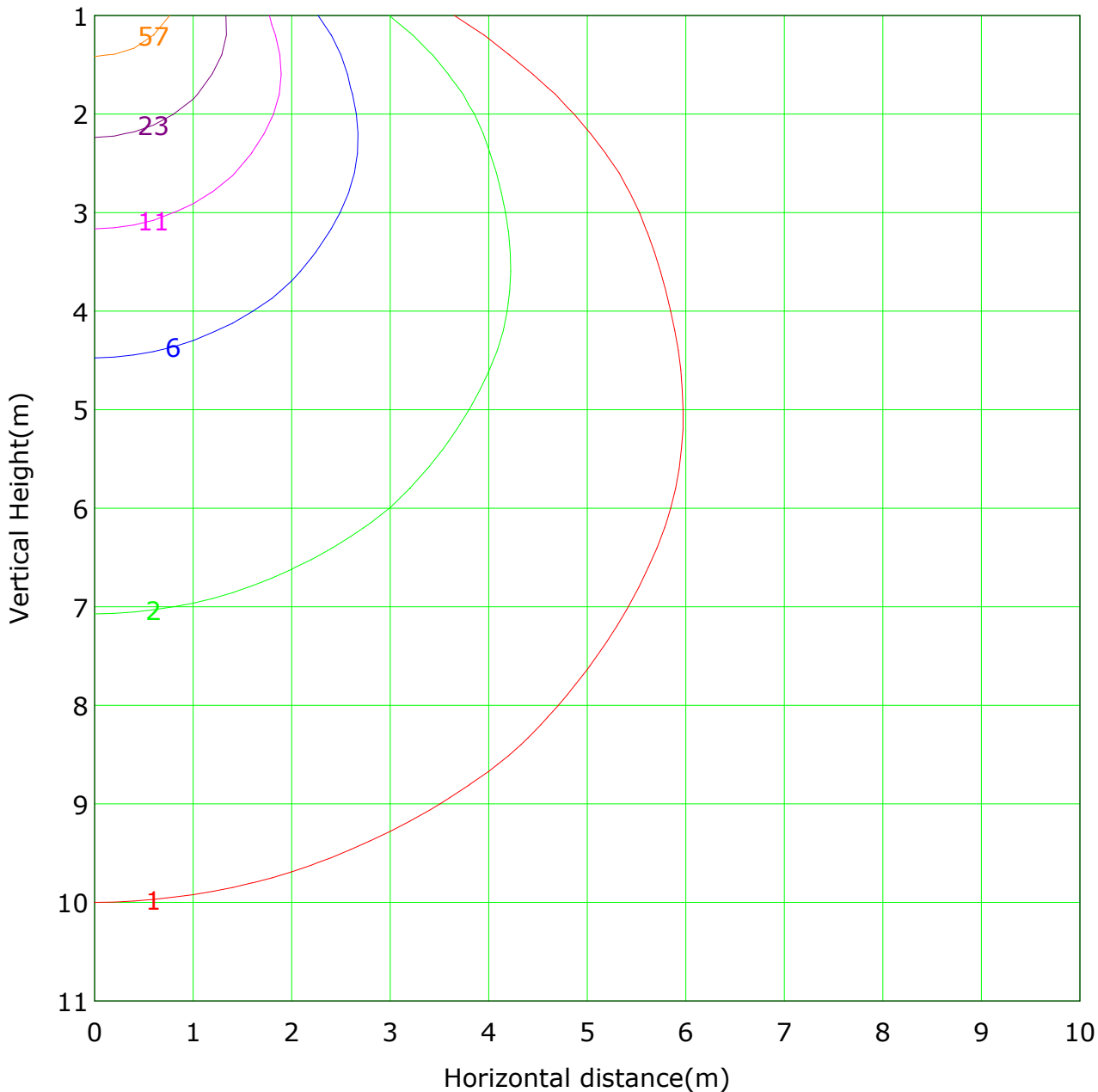
## Illuminance at a Distance



C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 113.8 lx

— ( 1%): 1.1 lx	— ( 2%): 2.3 lx
— ( 5%): 5.7 lx	— ( 10%): 11.4 lx
— ( 20%): 22.8 lx	— ( 50%): 56.9 lx
— (100%): 113.8 lx	

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

Report No.:

Test Time: 19/04/2025 01:12

## Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-SL20-20+LLD-20-UM

Lamp Description: F52-40s-1208F2/14.4 20cm

Number of Lamps: 1

Lumens per Lamp: 298

Voltage: 24.01 V

Current: 0.502A

Power: 13.26 W

Power Factor: 1

## Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 298.0 lm

Measurement Flux: 228 lm

Efficiency: 76.51%

Downward Ratio: 72.93%

Upward Ratio: 3.57%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 158.2, 195.6, 175.3, 175.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 107.1, 114.6, 110.2, 110.3

Luminaire Efficacy Rating (LER): 17.24

Central Intensity: 74.28 cd

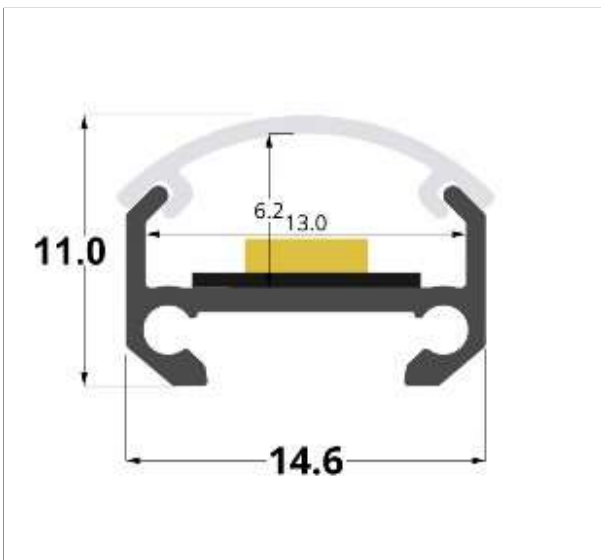
Max. Intensity: 74.34 cd

Pos of Max. Intensity: H270 V1

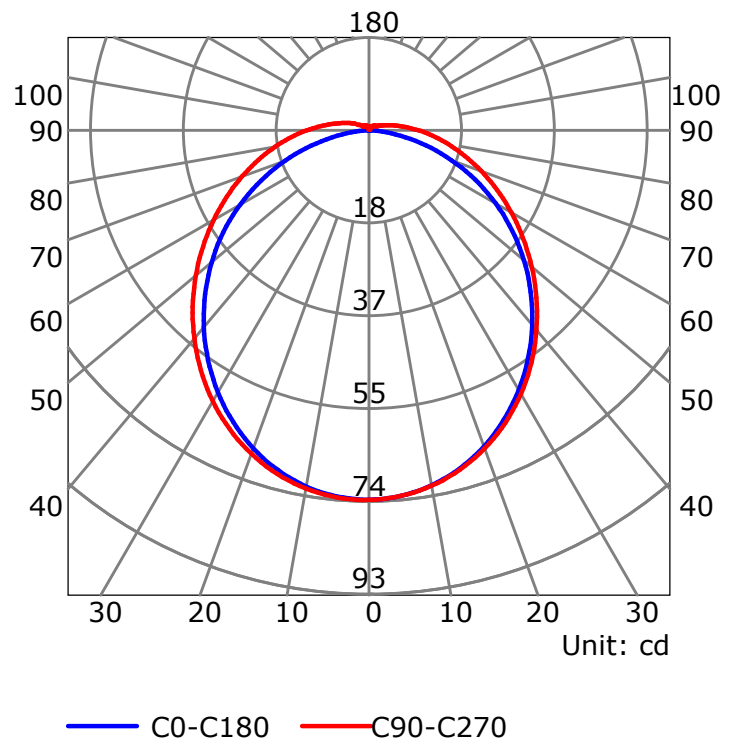
S/MH(C0/C180): 1.21

S/MH(C90/C270): 1.24

Picture Of Luminaire



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

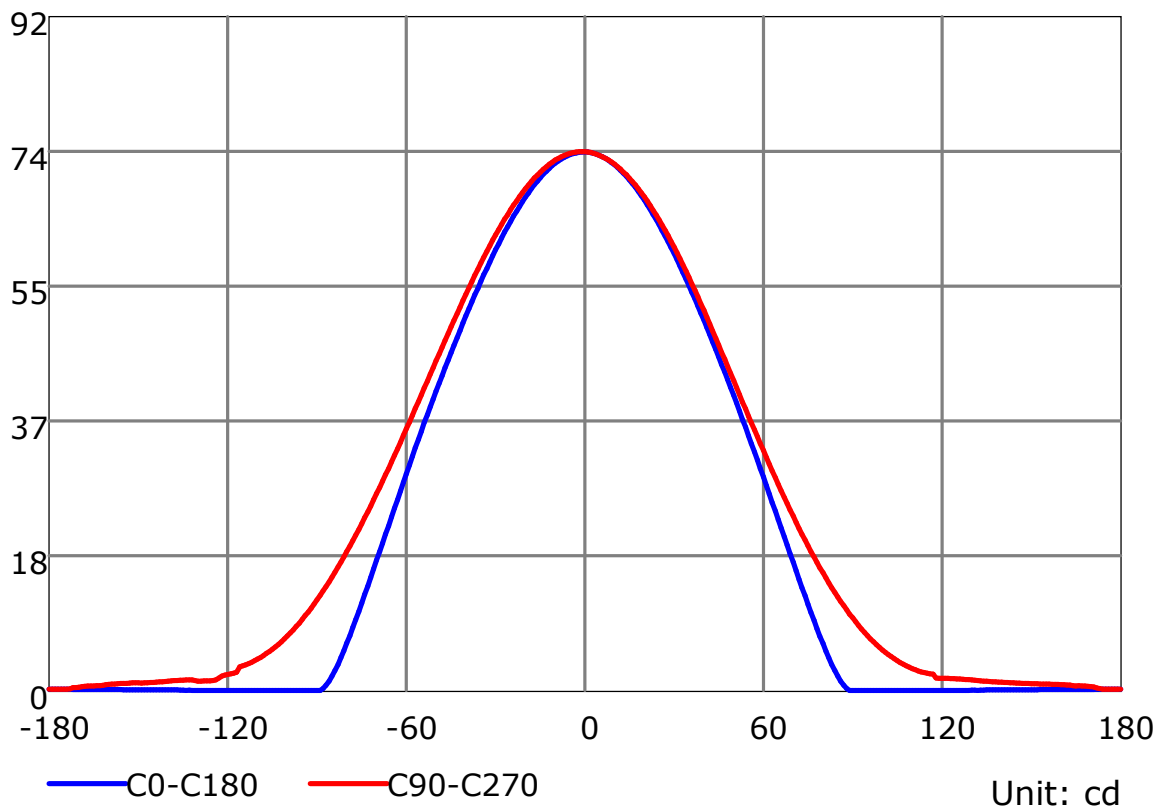
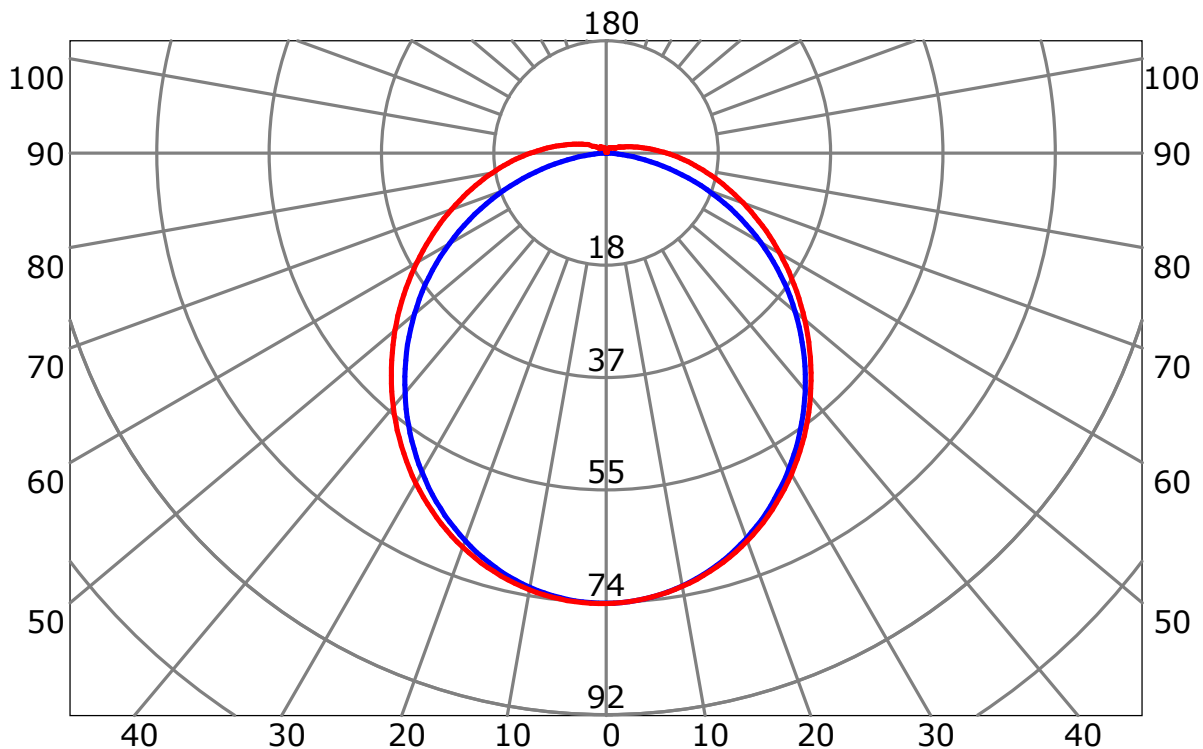
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

## Luminous Intensity Distribution Curve

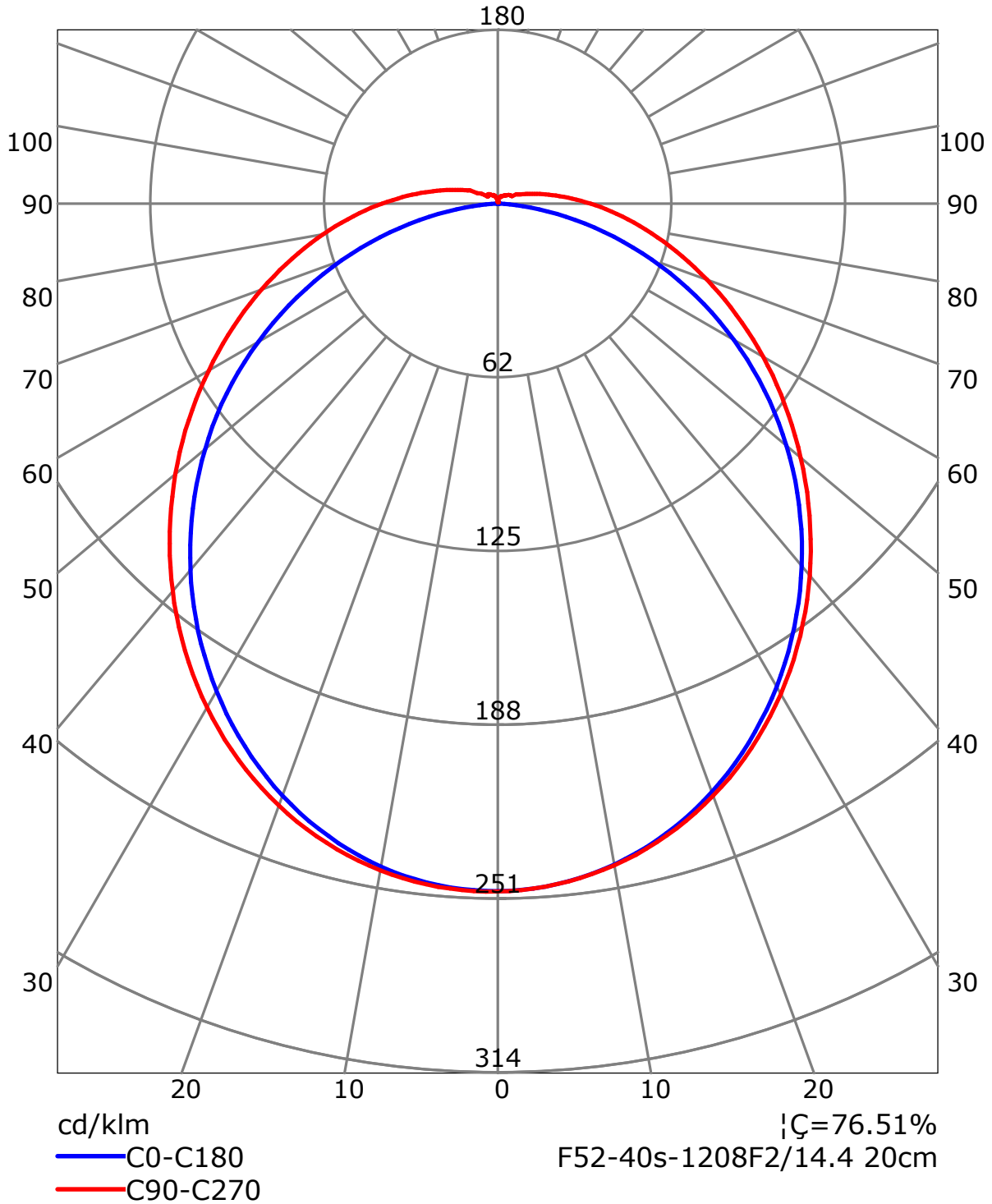


Unit: cd

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

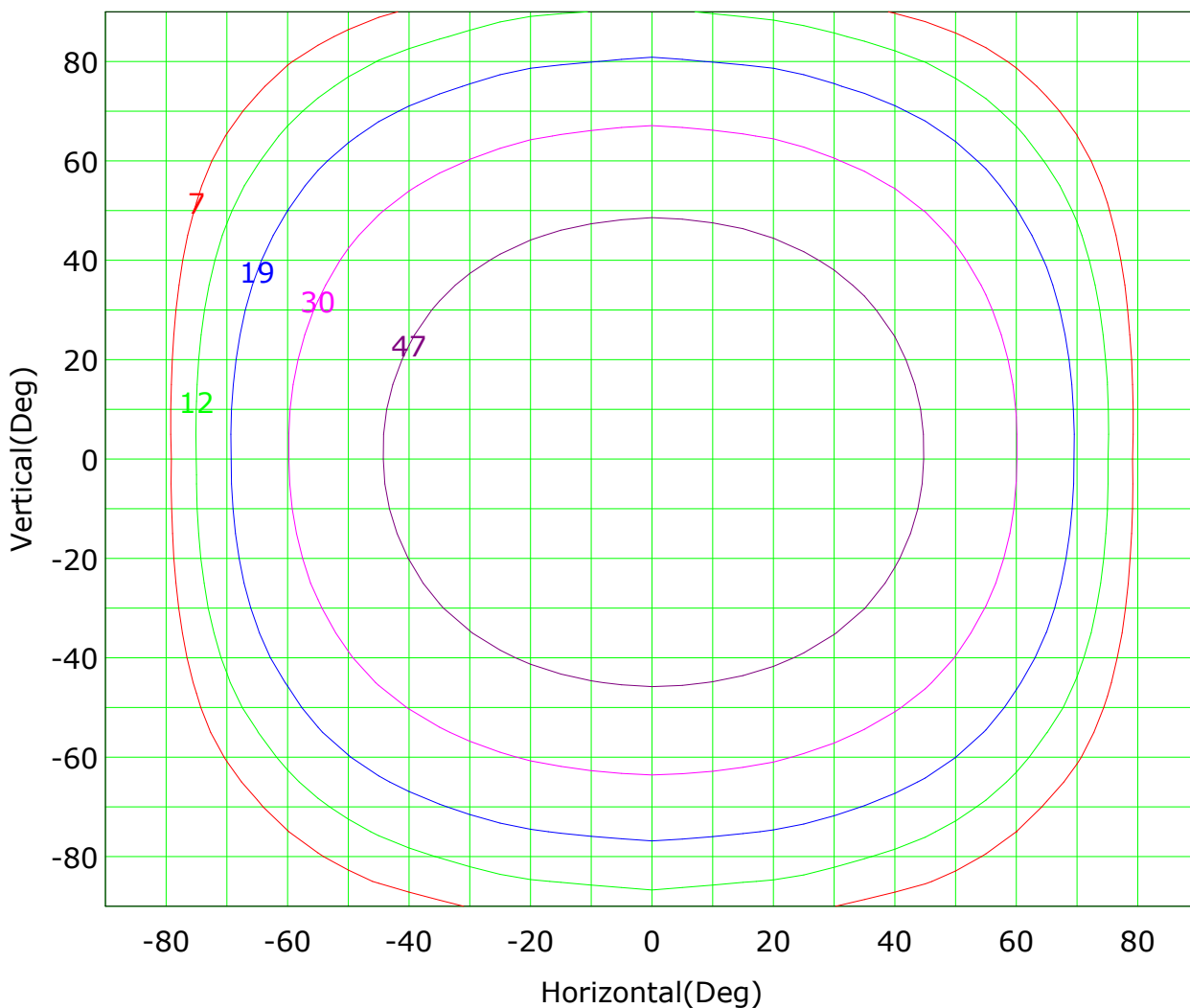
## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

## Isocandela (rectangle)



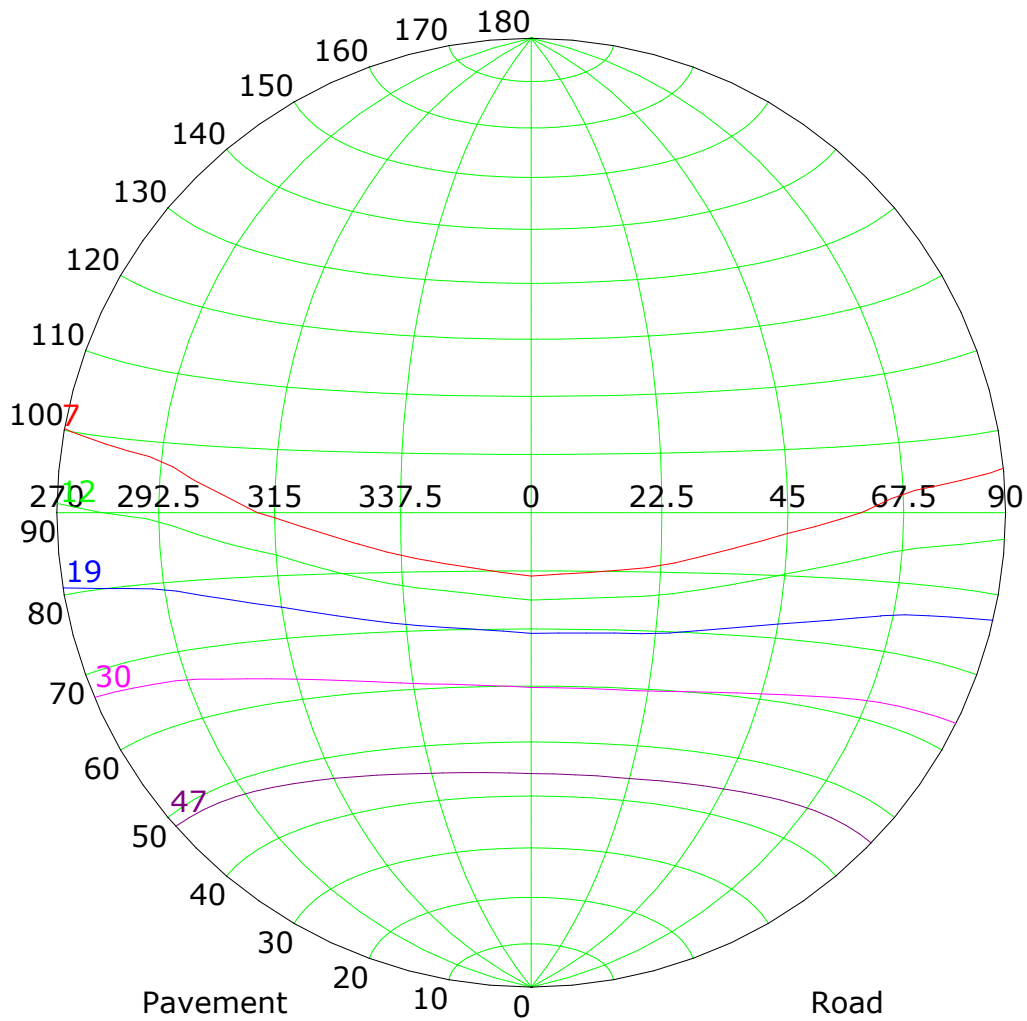
Imax (100%): 74 cd

— ( 10%):	7 cd	— ( 16%):	12 cd
— ( 25%):	19 cd	— ( 40%):	30 cd
— ( 63%):	47 cd	— (100%):	74 cd

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector:

## Isocandela (sphere)



Imax (100%): 74 cd

— ( 10%):	7 cd	— ( 16%):	12 cd
— ( 25%):	19 cd	— ( 40%):	30 cd
— ( 63%):	47 cd	— (100%):	74 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

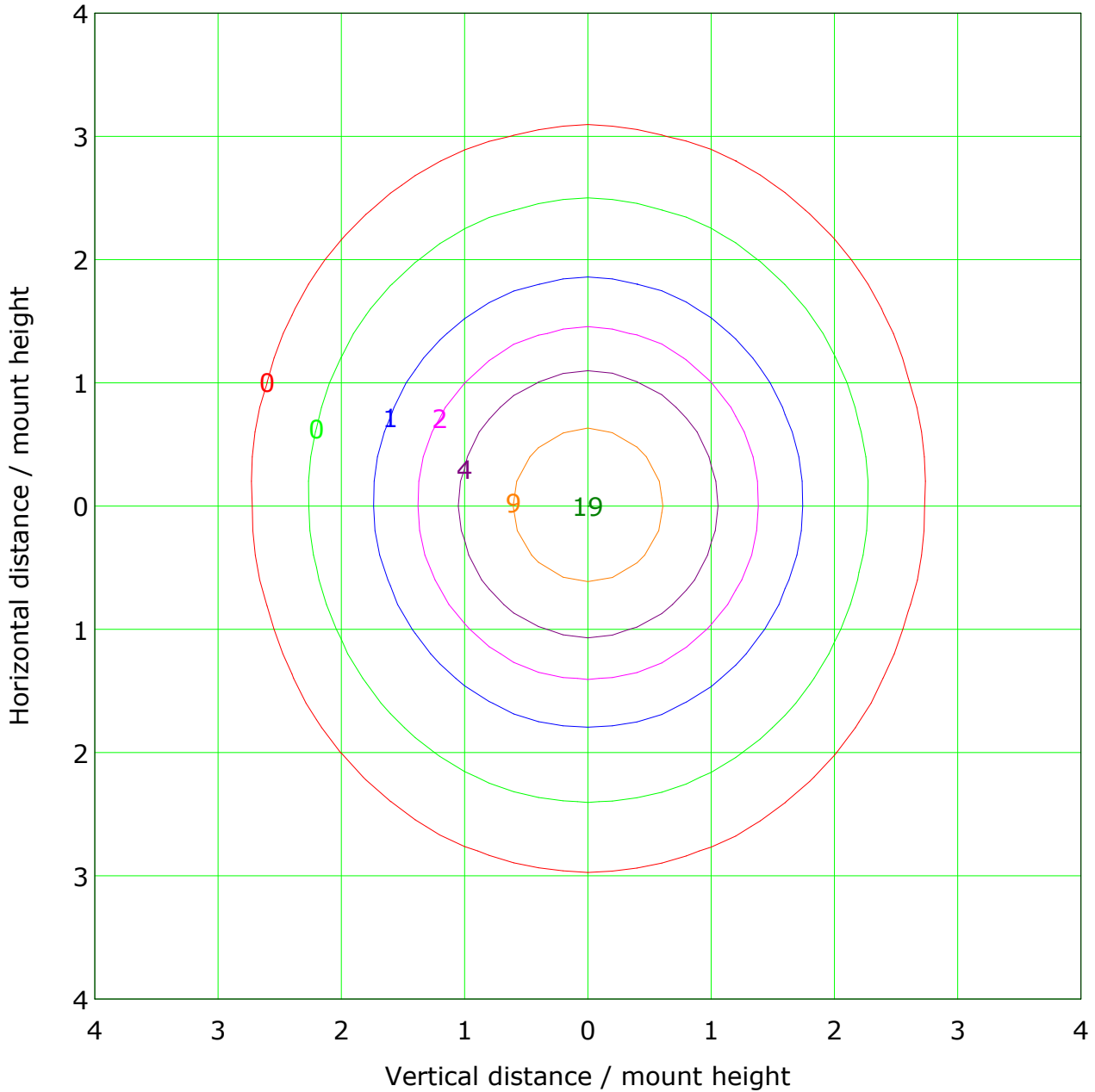
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 18.6 lx	
— ( 1%):	0.2 lx	— ( 2%):	0.4 lx
— ( 5%):	0.9 lx	— ( 10%):	1.9 lx
— ( 20%):	3.7 lx	— ( 50%):	9.3 lx
— (100%):	18.6 lx		

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 7.792 m

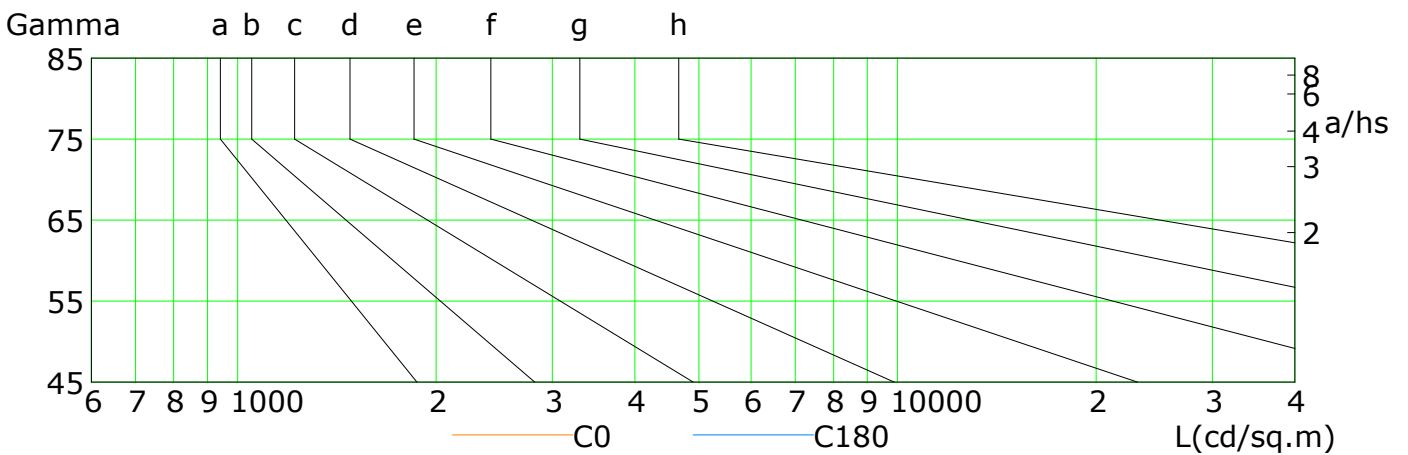
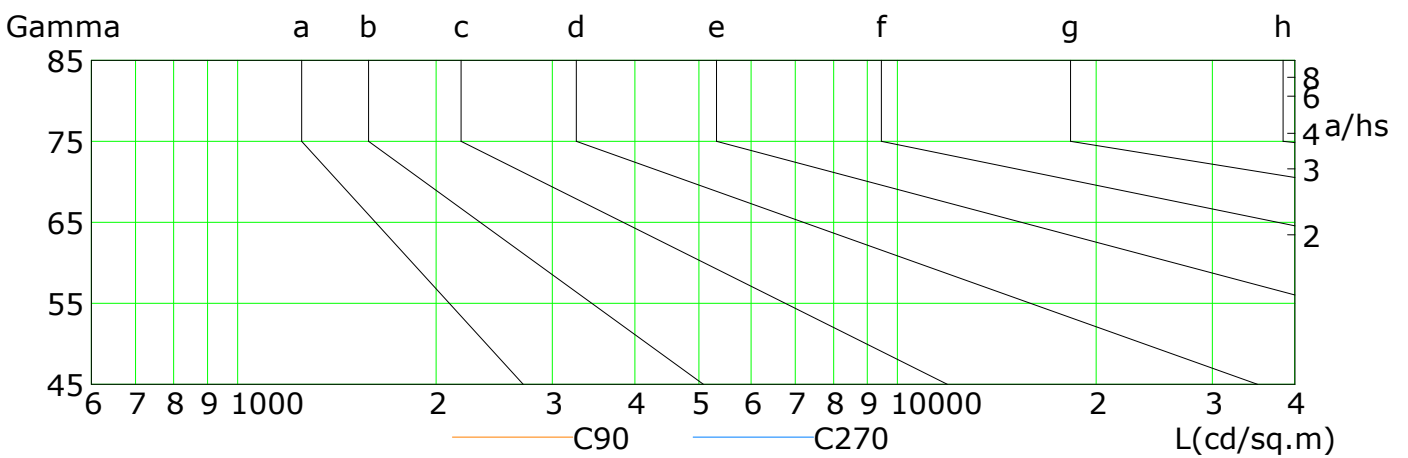
Humidity:

Inspector:

## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		2000	1000	500	<=300				
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	46	41	35	29	24	18	12	6	2
C90	48	43	38	33	28	24	20	16	13
C180	47	41	36	30	24	18	12	7	2
C270	50	46	41	36	32	27	23	19	16

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

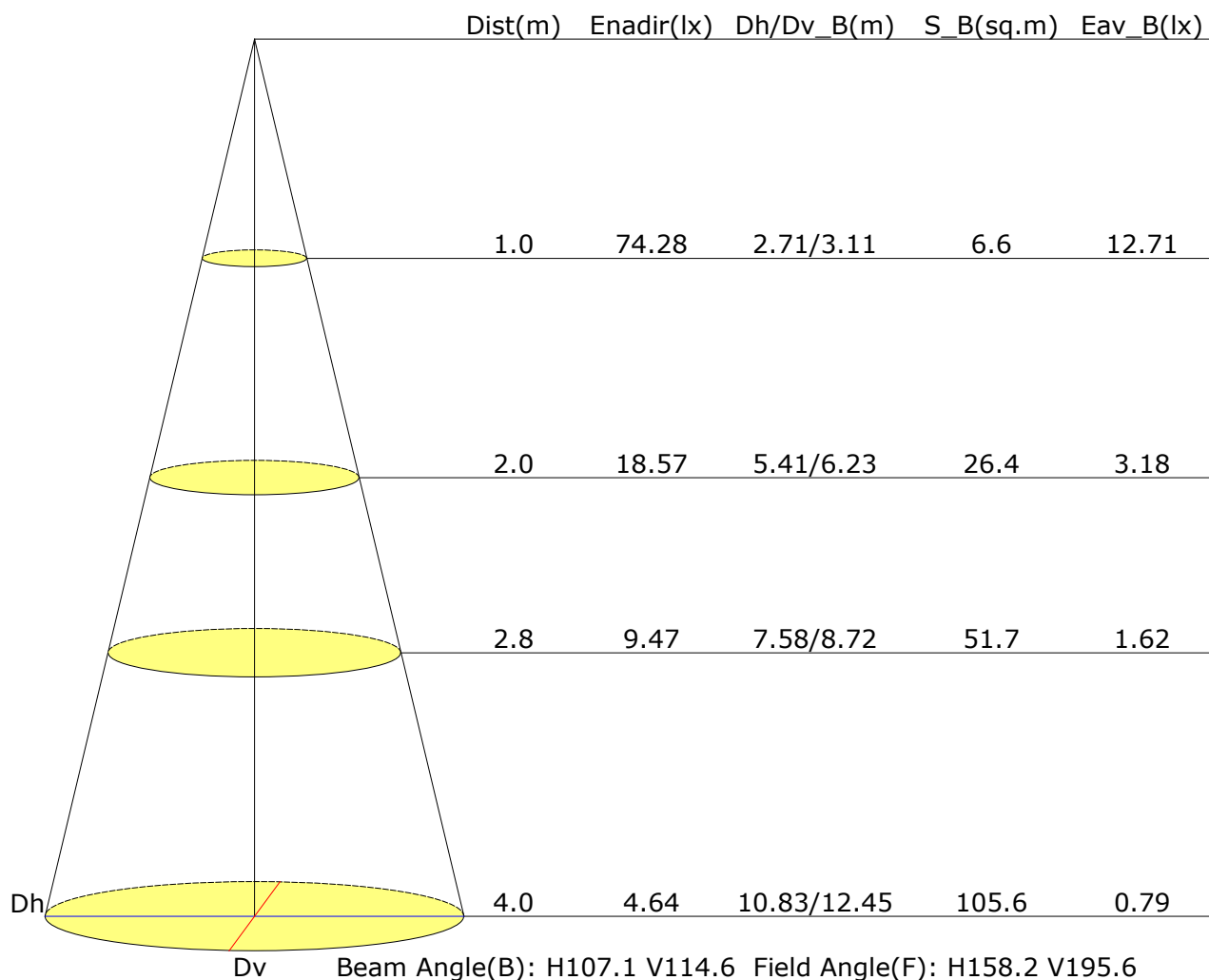
Test Device: GPM-1800B

Distance: 7.792 m

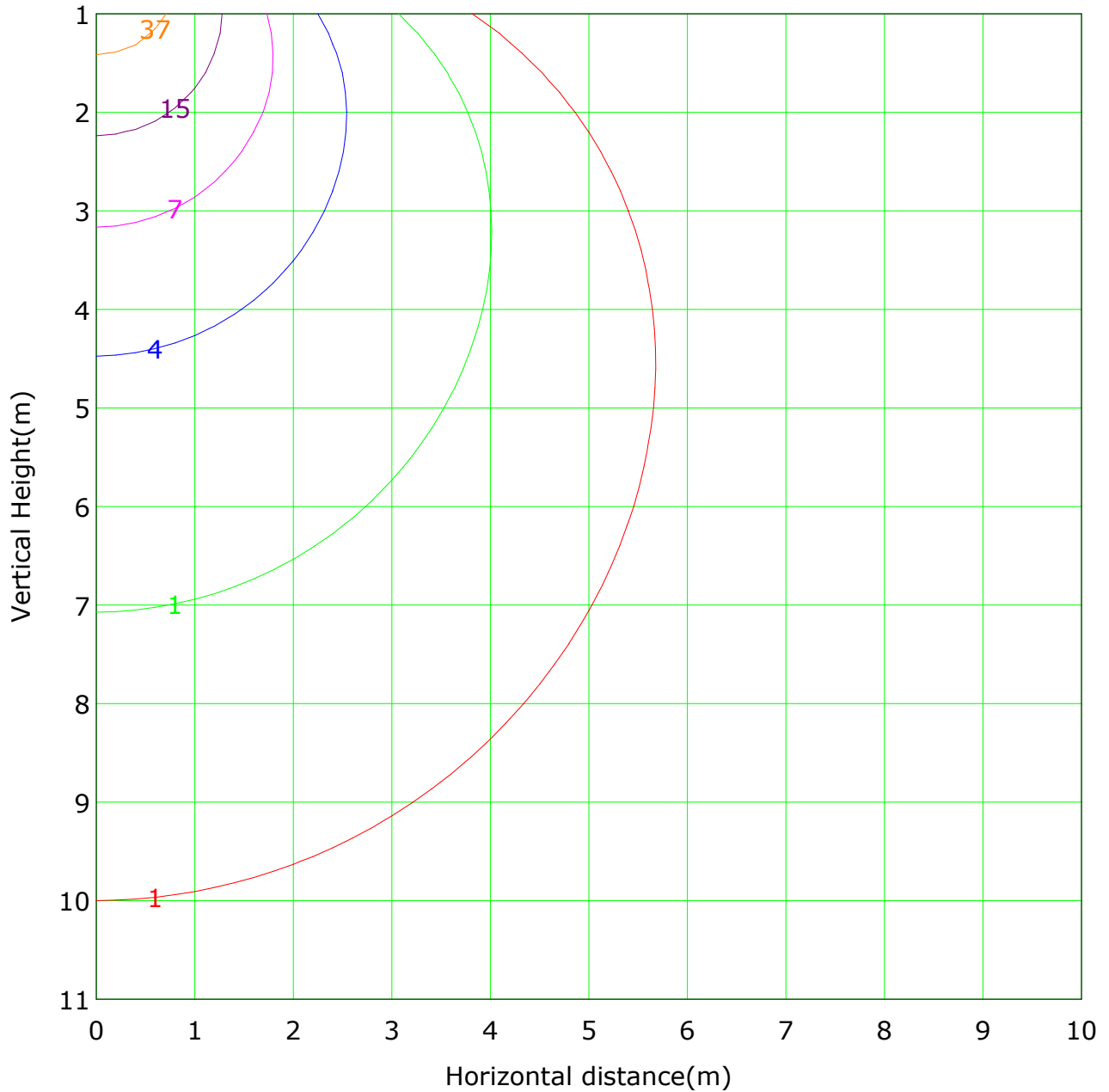
Humidity:

Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 74.3 lx
— ( 1%): 0.7 lx	— ( 2%): 1.5 lx	
— ( 5%): 3.7 lx	— ( 10%): 7.4 lx	
— ( 20%): 14.9 lx	— ( 50%): 37.1 lx	
— (100%): 74.3 lx		

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.792 m  
 Humidity:  
 Inspector: