



Report No.:

Test Time: 30/07/2018 17:10

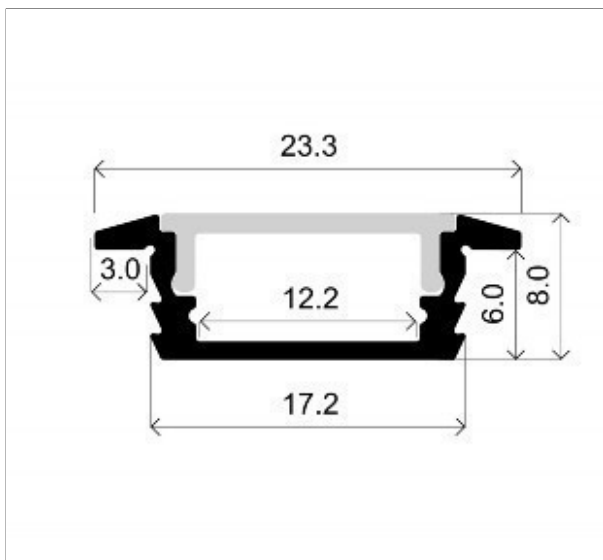
## Luminaire Property

Luminaire Manufacturer: Lighting Line  
 Luminaire Description: LLP-RE01-03 + LLD-03-FK  
 Lamp Description: Strip 14,4W/m 60led/m Number of Lamps: 1  
 Lumens per Lamp: 1579 lm Voltage: 24.0 V  
 Current: 0.594 A Power: 14.25 W  
 Power Factor: 1.000

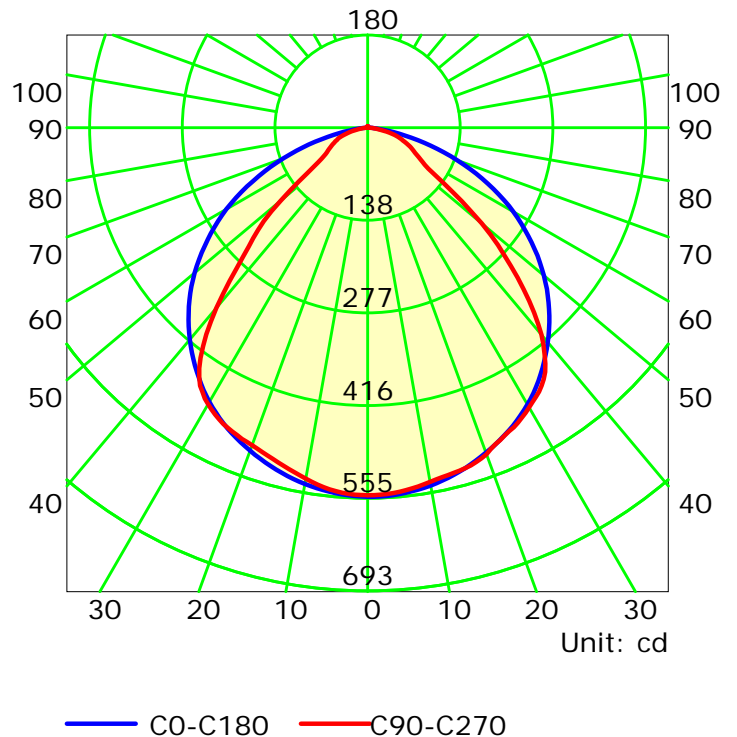
## Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1579.0 lm
Measurement Flux: 1331.4 lm	Efficiency: 84.32%
Downward Ratio: 83.98%	Upward Ratio: 0.34%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 155.8, 136.3, 135.4, 134.7	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.2, 90.9, 103.7, 103.4	
Luminaire Efficacy Rating (LER): 93.48	Central Intensity: 552.69 cd
Max. Intensity: 552.79 cd	Pos of Max. Intensity: H0 V1
S/MH(C0/C180): 1.28	S/MH(C90/C270): 1.30

Picture Of Luminaire



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

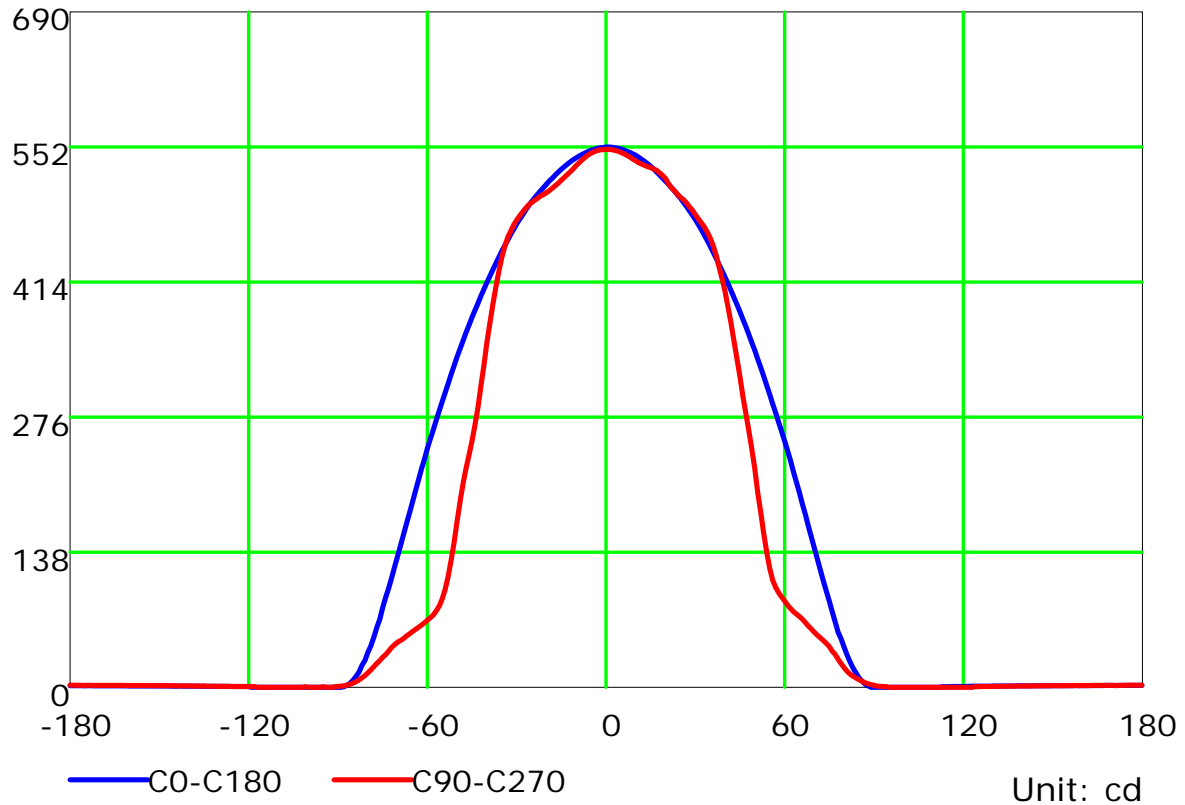
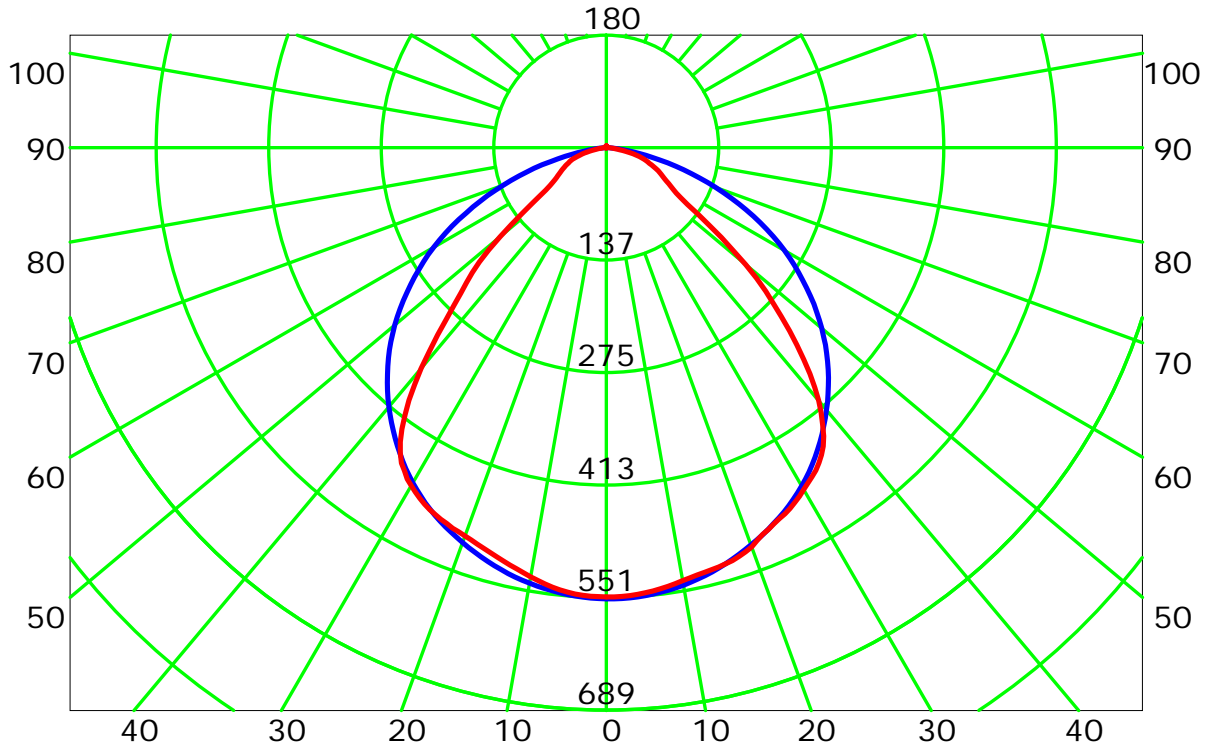
Distance: 7.970 m

Humidity:

Inspector:



## Luminous Intensity Distribution Curve

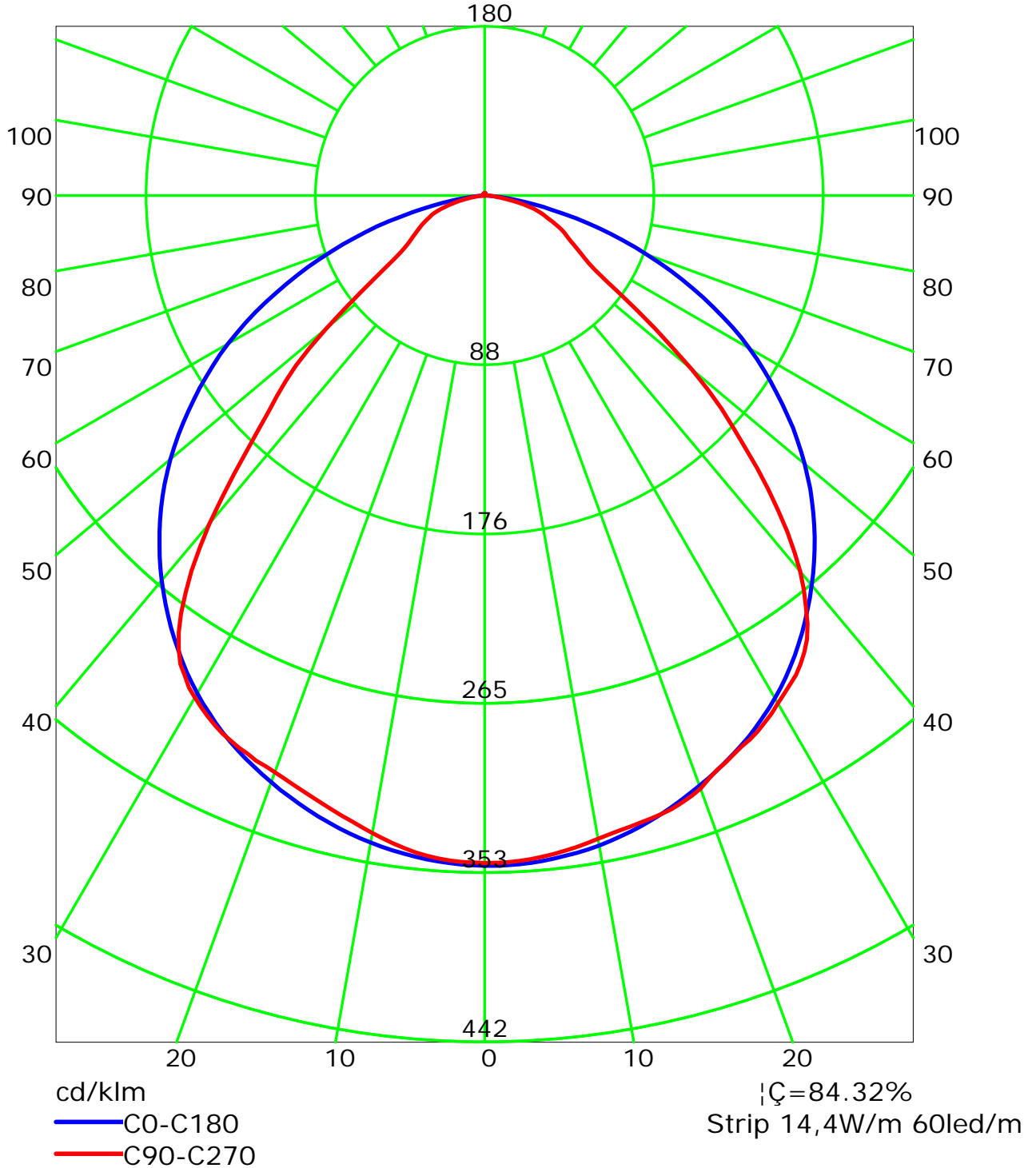


C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-2000  
Distance: 7.970 m  
Humidity:  
Inspector:



## Luminous Intensity Distribution Curve(cd/klm)

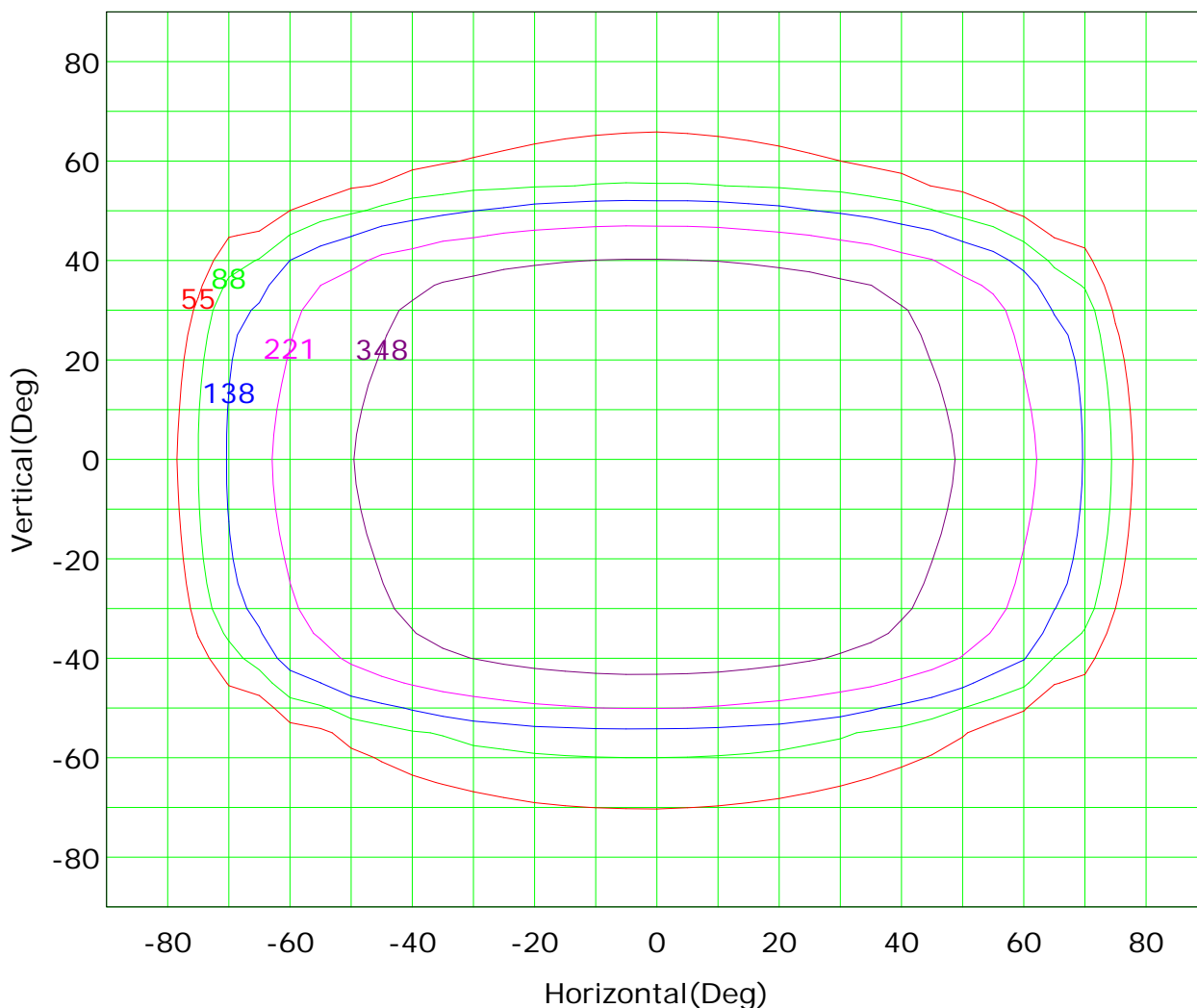


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Isocandela (rectangle)



Imax (100%): 553 cd

— ( 10%):	55 cd	— ( 16%):	88 cd
— ( 25%):	138 cd	— ( 40%):	221 cd
— ( 63%):	348 cd	— (100%):	553 cd

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

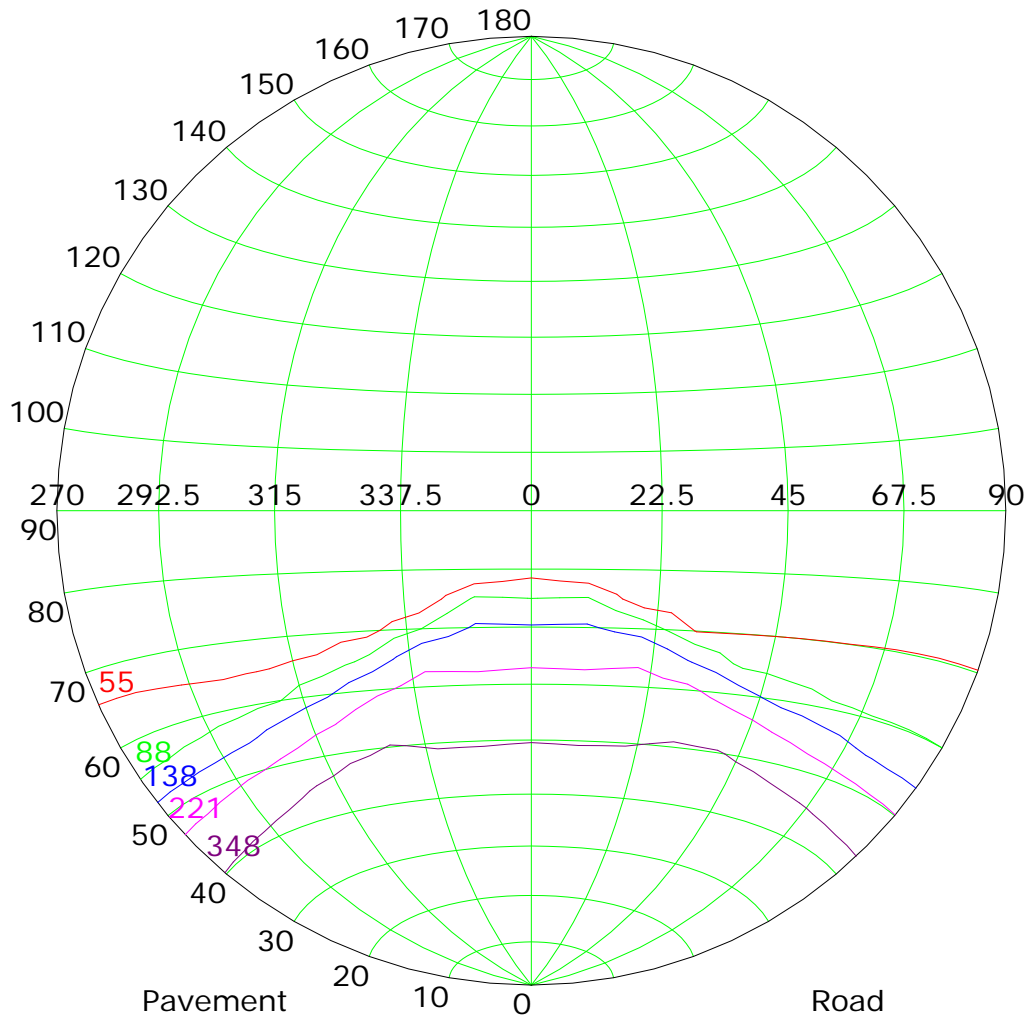
Distance: 7.970 m

Humidity:

Inspector:



## Isocandela (sphere)



Imax (100%): 553 cd

- |           |        |           |        |
|-----------|--------|-----------|--------|
| — ( 10%): | 55 cd  | — ( 16%): | 88 cd  |
| — ( 25%): | 138 cd | — ( 40%): | 221 cd |
| — ( 63%): | 348 cd | — (100%): | 553 cd |

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

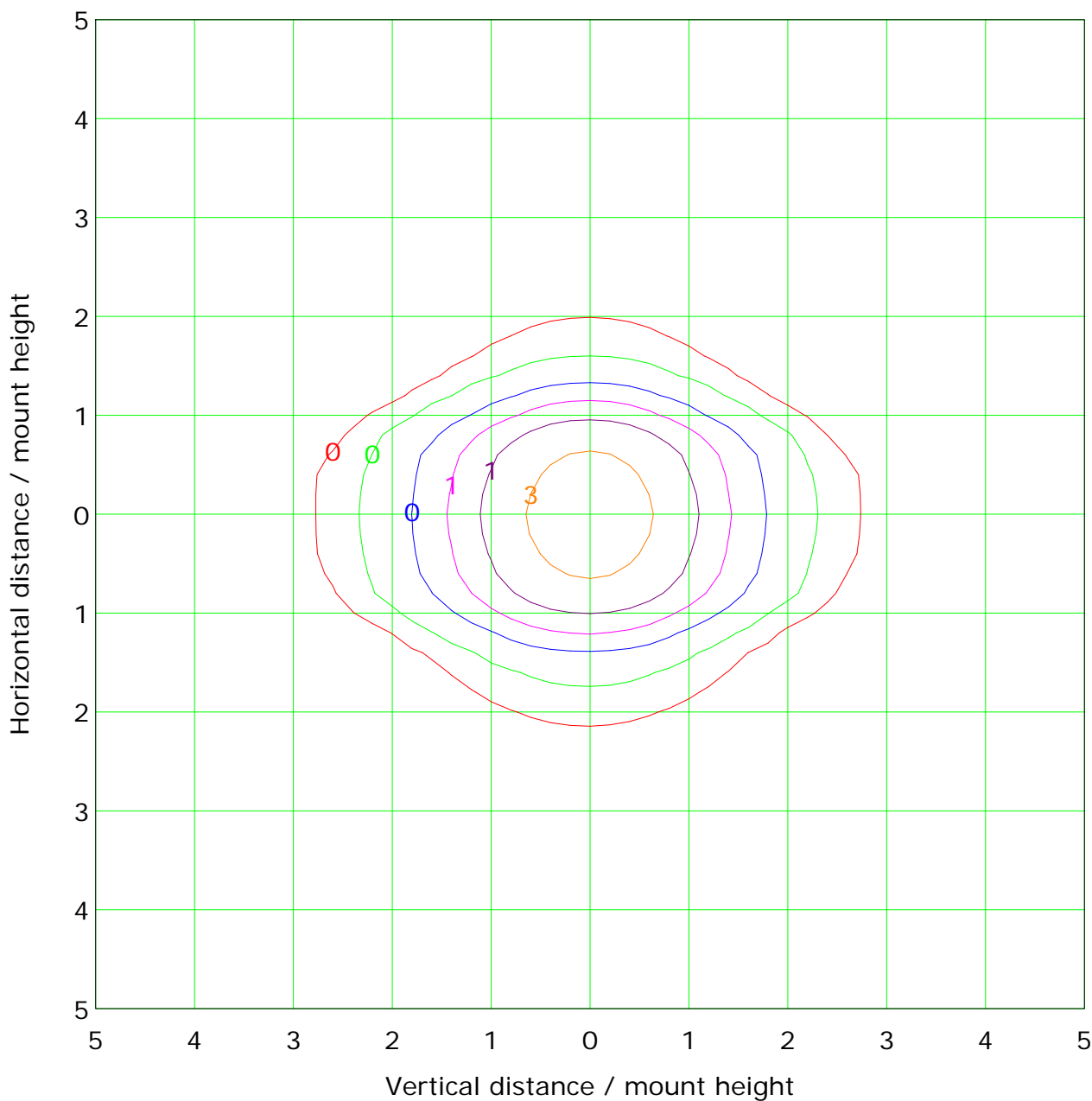
Distance: 7.970 m

Humidity:

Inspector:



## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 5.5 lx	
— ( 1%):	0.1 lx	— ( 2%):	0.1 lx
— ( 5%):	0.3 lx	— (10%):	0.6 lx
— (20%):	1.1 lx	— (50%):	2.8 lx
— (100%):	5.5 lx		

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

Distance: 7.970 m

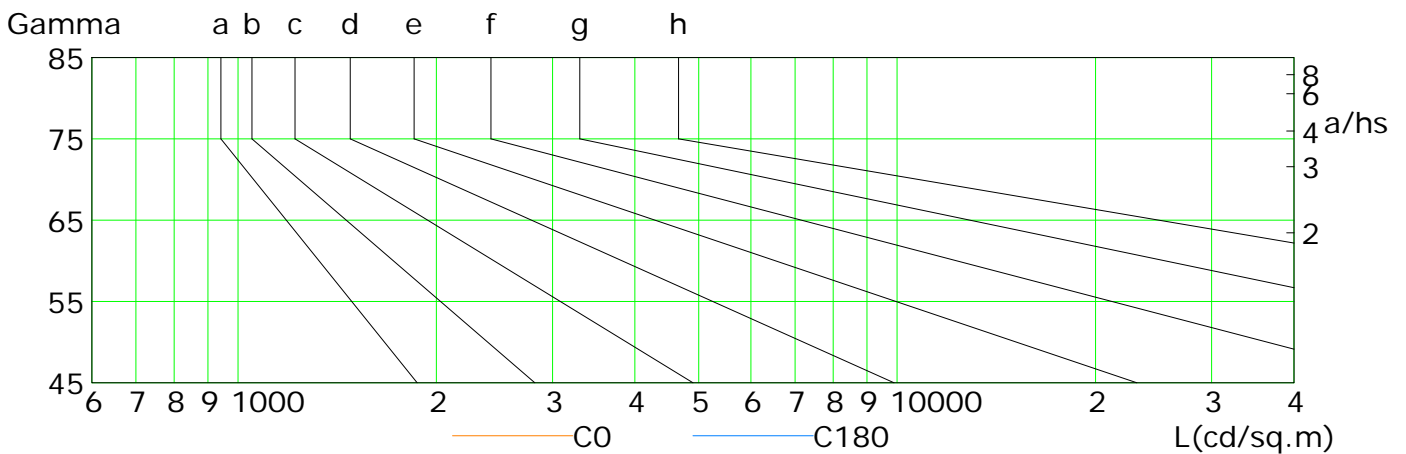
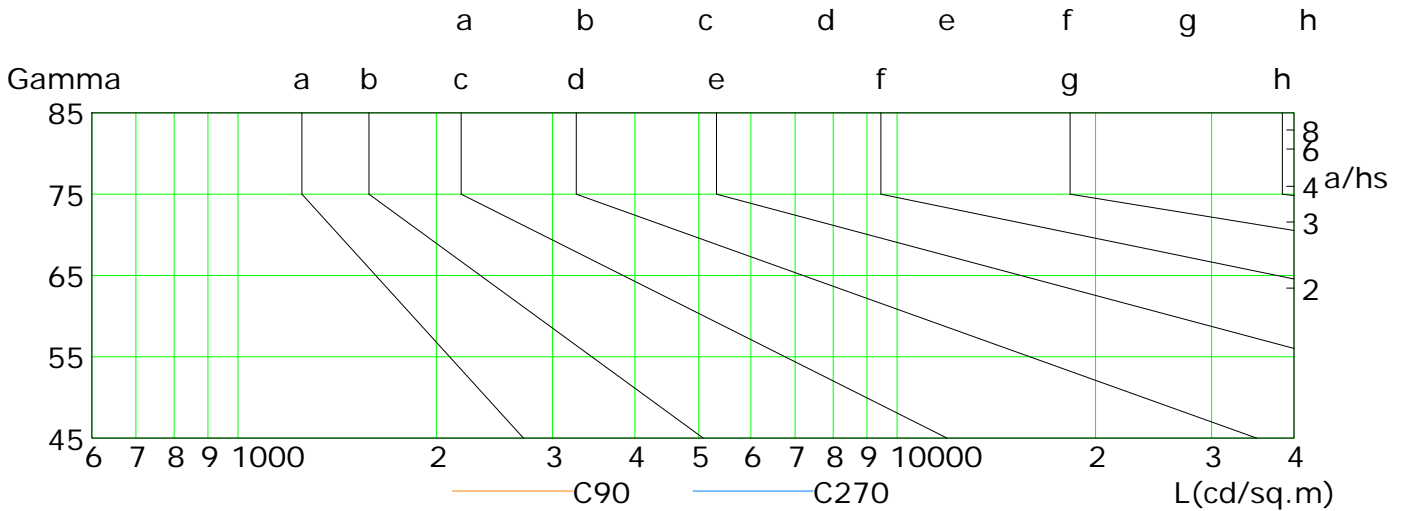
Humidity:

Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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



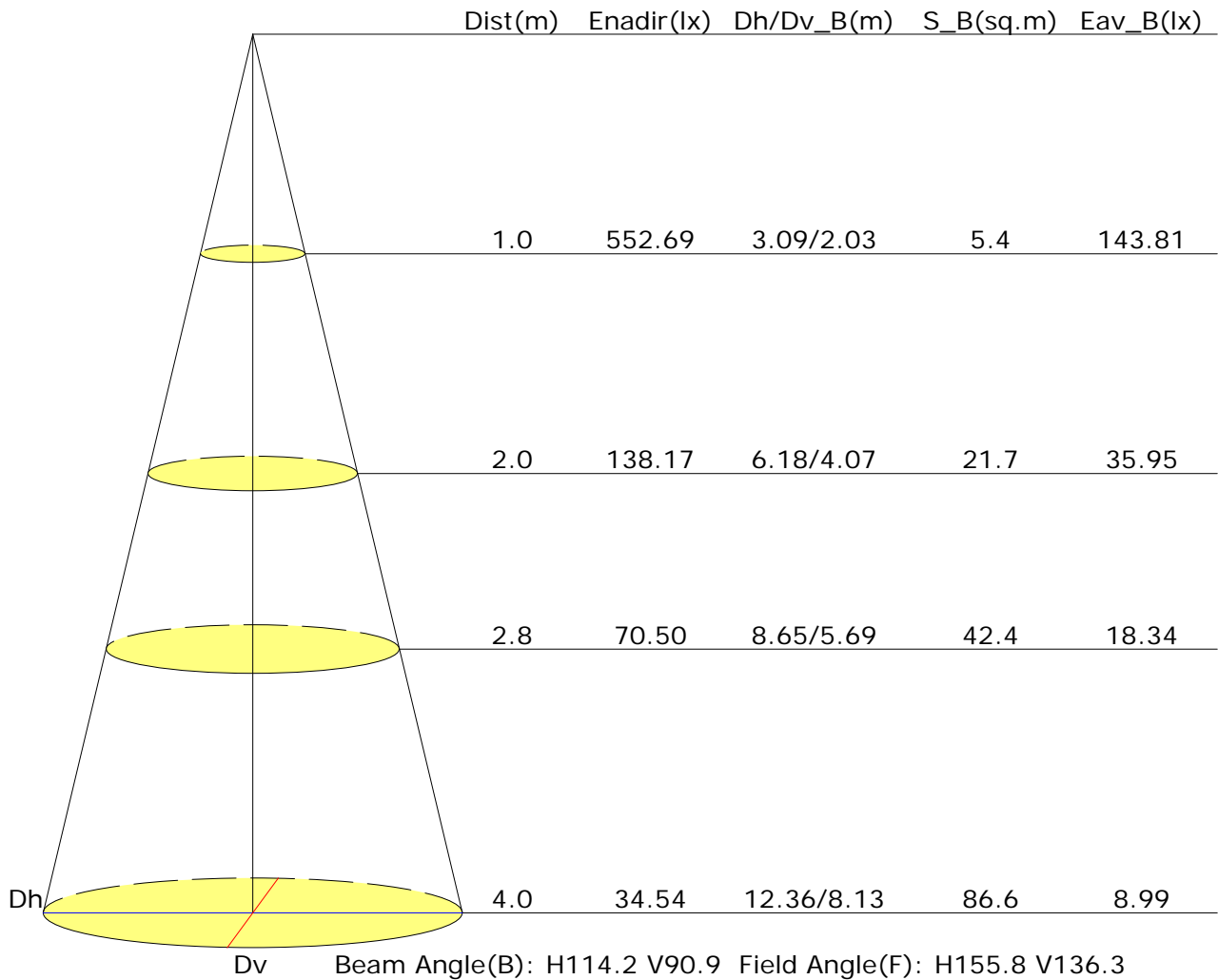
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	384	345	300	252	199	142	88	41	10
C90	318	223	122	88	72	56	42	20	8
C180	379	338	292	244	189	134	82	36	7
C270	252	170	91	69	57	46	31	15	4

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



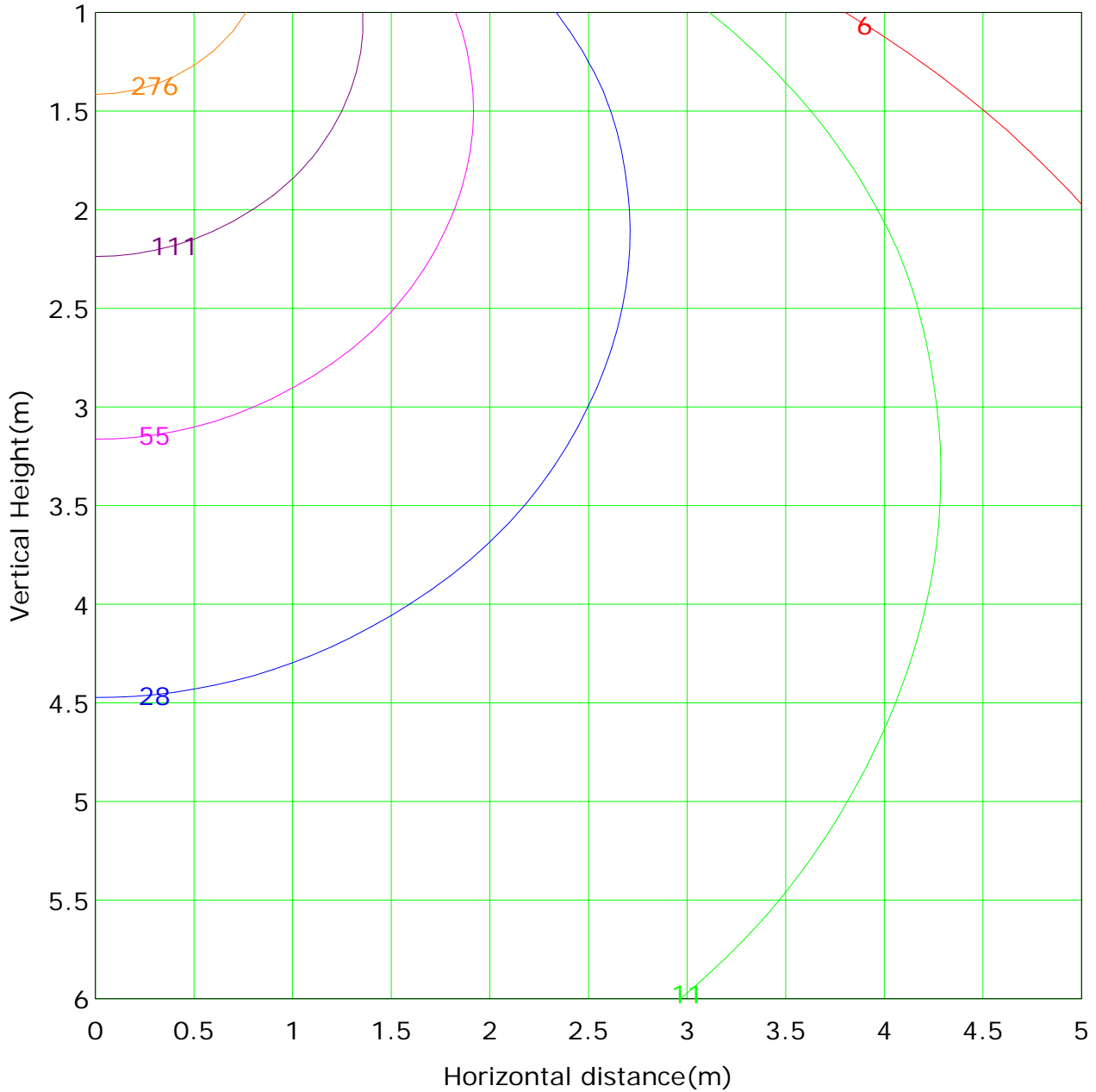
## Illuminance at a Distance







## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 552.7 lx
— ( 1%): 5.5 lx	— ( 2%): 11.1 lx	
— ( 5%): 27.6 lx	— (10%): 55.3 lx	
— (20%): 110.5 lx	— (50%): 276.3 lx	
— (100%): 552.7 lx		

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



Report No.:

Test Time: 30/08/2018 16:59

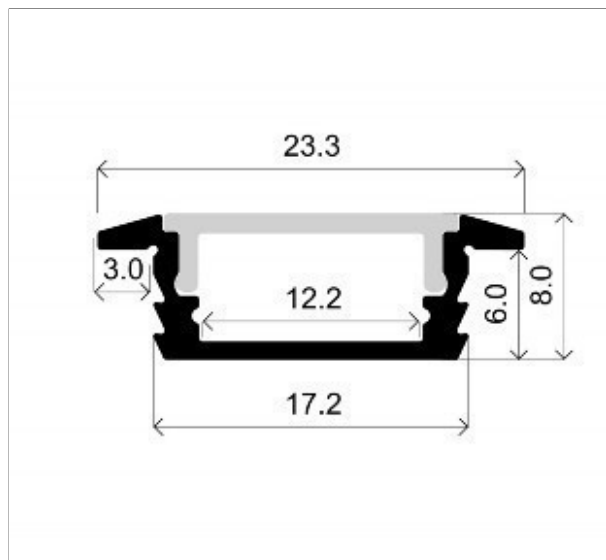
## Luminaire Property

Luminaire Manufacturer: Lighting Line  
 Luminaire Description: LLP-RE01-03 + LLD-03-FH  
 Lamp Description: Strip 14,4W/m 60led/m      Number of Lamps: 1  
 Lumens per Lamp: 1579 lm      Voltage: 24.0 V  
 Current: 0.591 A      Power: 14.18 W  
 Power Factor: 1.000

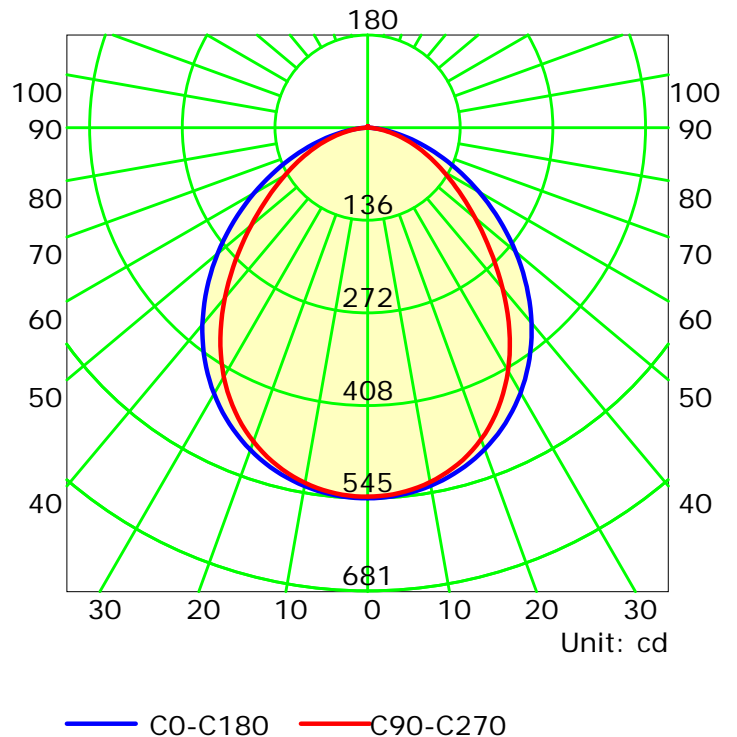
## Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1579.0 lm
Measurement Flux: 1270.5 lm	Efficiency: 80.46%
Downward Ratio: 80.17%	Upward Ratio: 0.29%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 154.2, 148.2, 150.6, 150.7	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 102.9, 88.7, 95.4, 95.6	
Luminaire Efficacy Rating (LER): 89.65	Central Intensity: 545 cd
Max. Intensity: 545 cd	Pos of Max. Intensity: H0 V0
S/MH(C0/C180): 1.23	S/MH(C90/C270): 1.16

Picture Of Luminaire



Luminous Intensity Distribution Curve

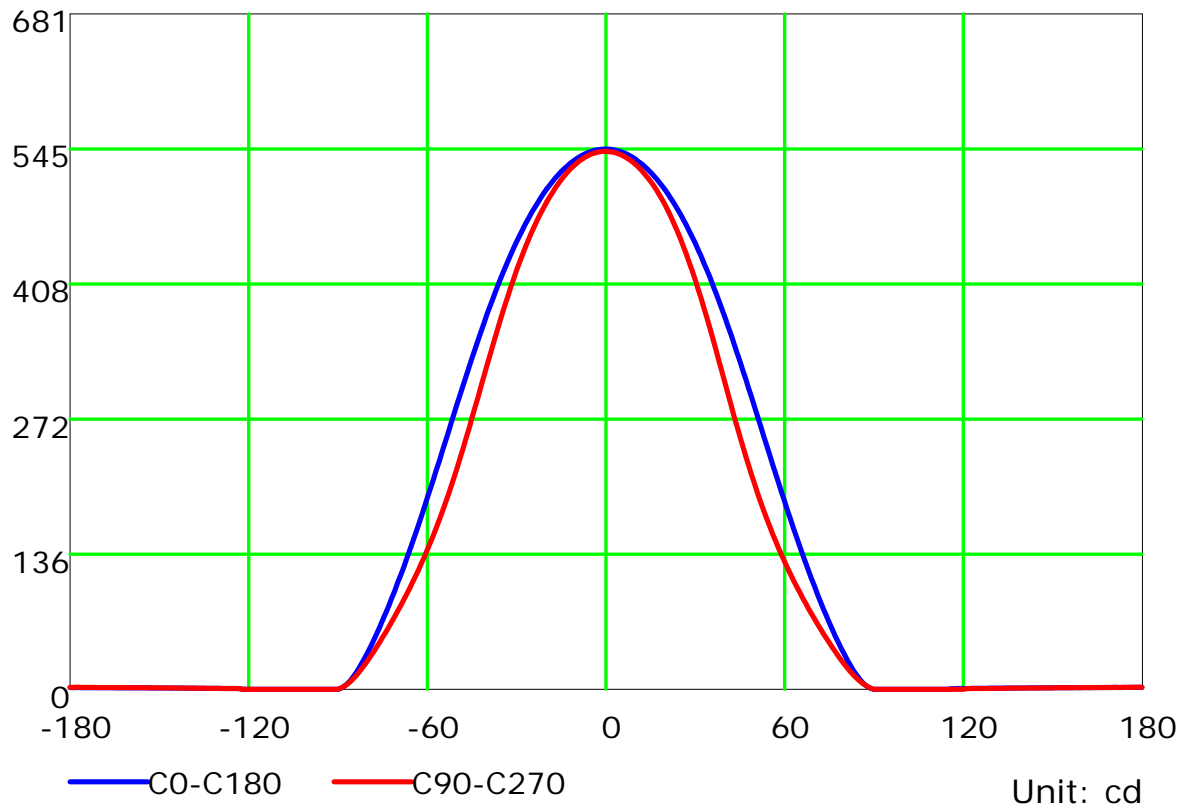
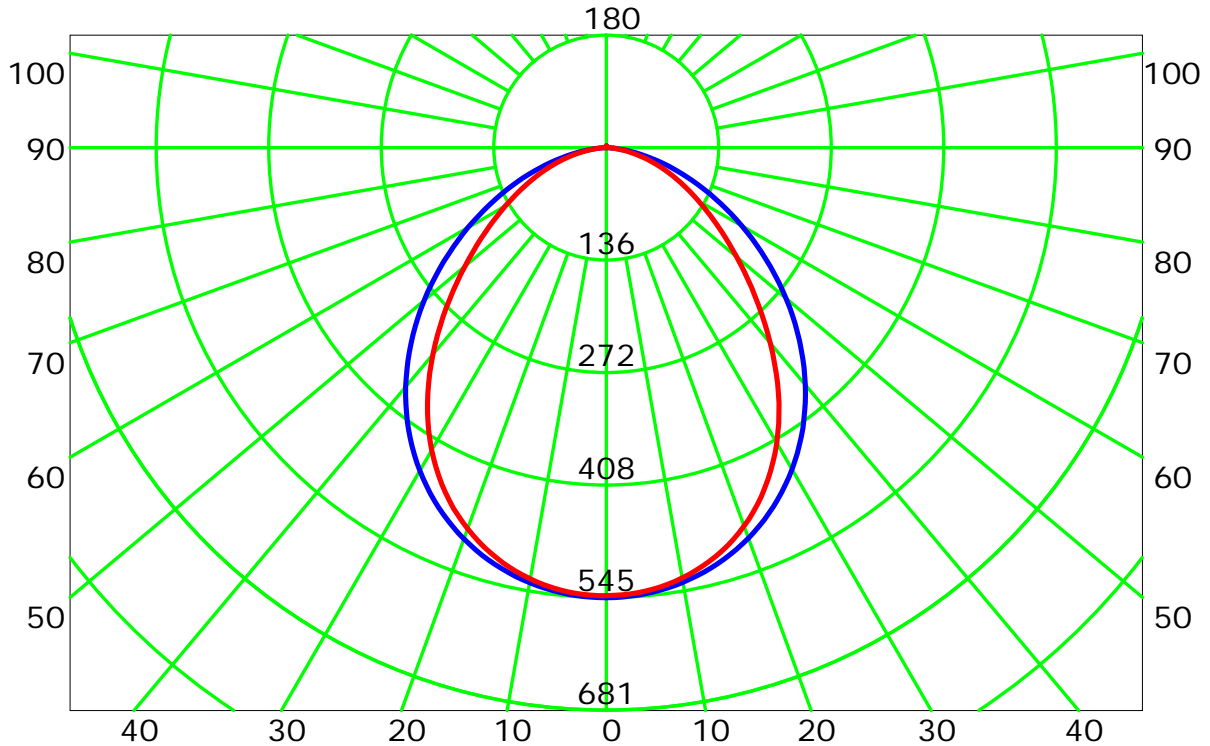


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Luminous Intensity Distribution Curve

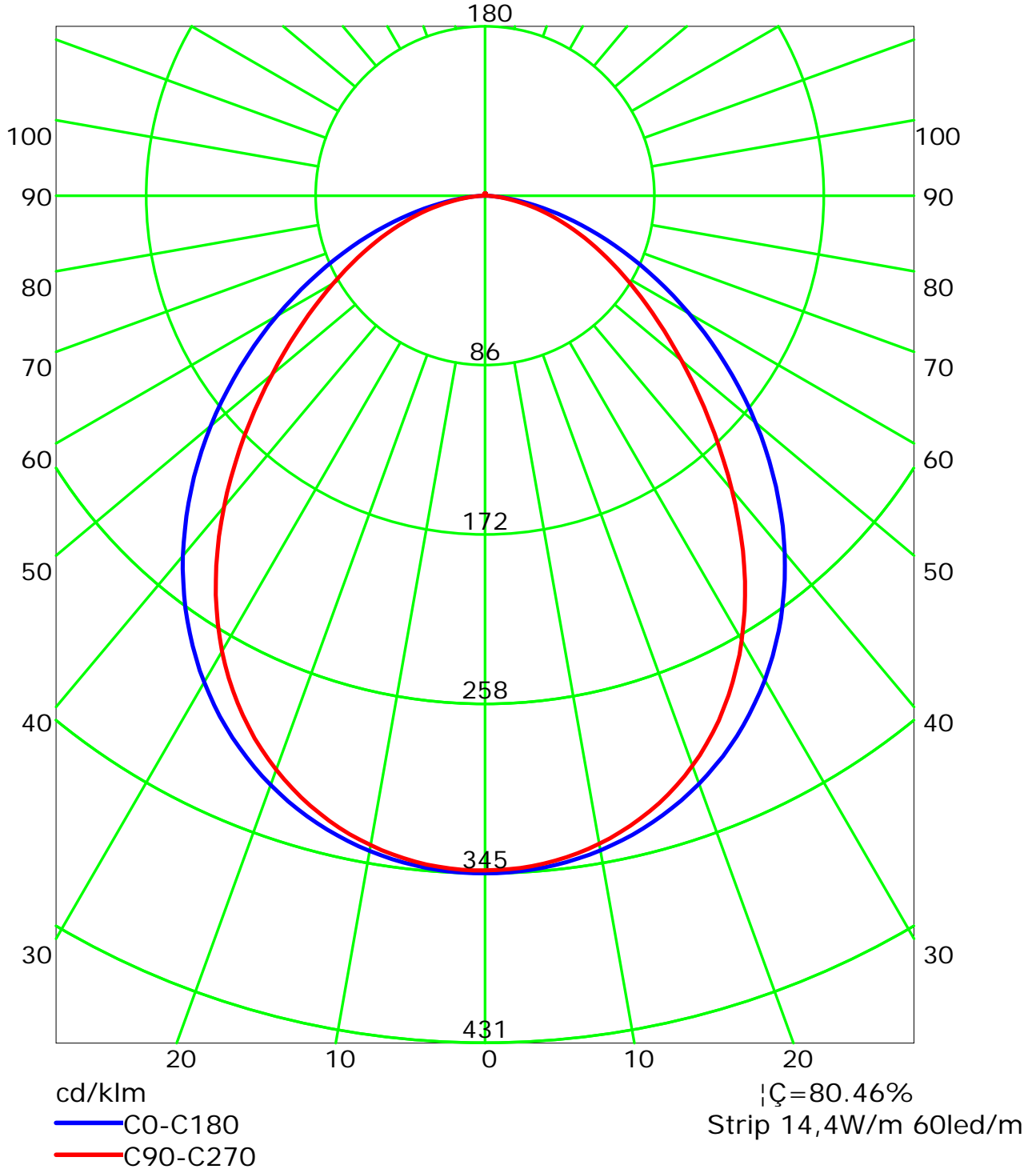


C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-2000  
Distance: 7.970 m  
Humidity:  
Inspector:



## Luminous Intensity Distribution Curve(cd/klm)

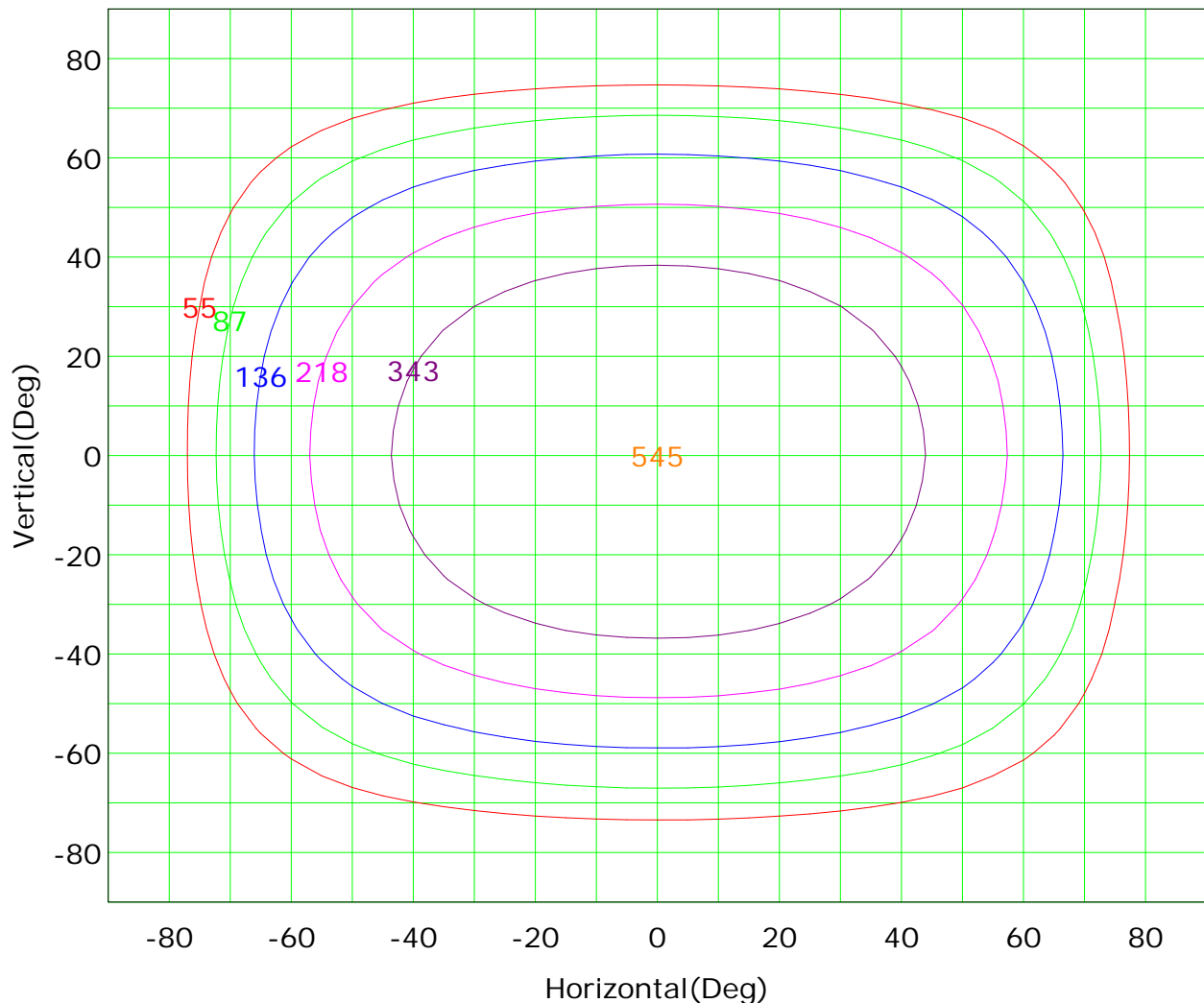


C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-2000  
Distance: 7.970 m  
Humidity:  
Inspector:



## Isocandela (rectangle)



Imax (100%): 545 cd

— ( 10%):	55 cd	— ( 16%):	87 cd
— ( 25%):	136 cd	— ( 40%):	218 cd
— ( 63%):	343 cd	— (100%):	545 cd

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

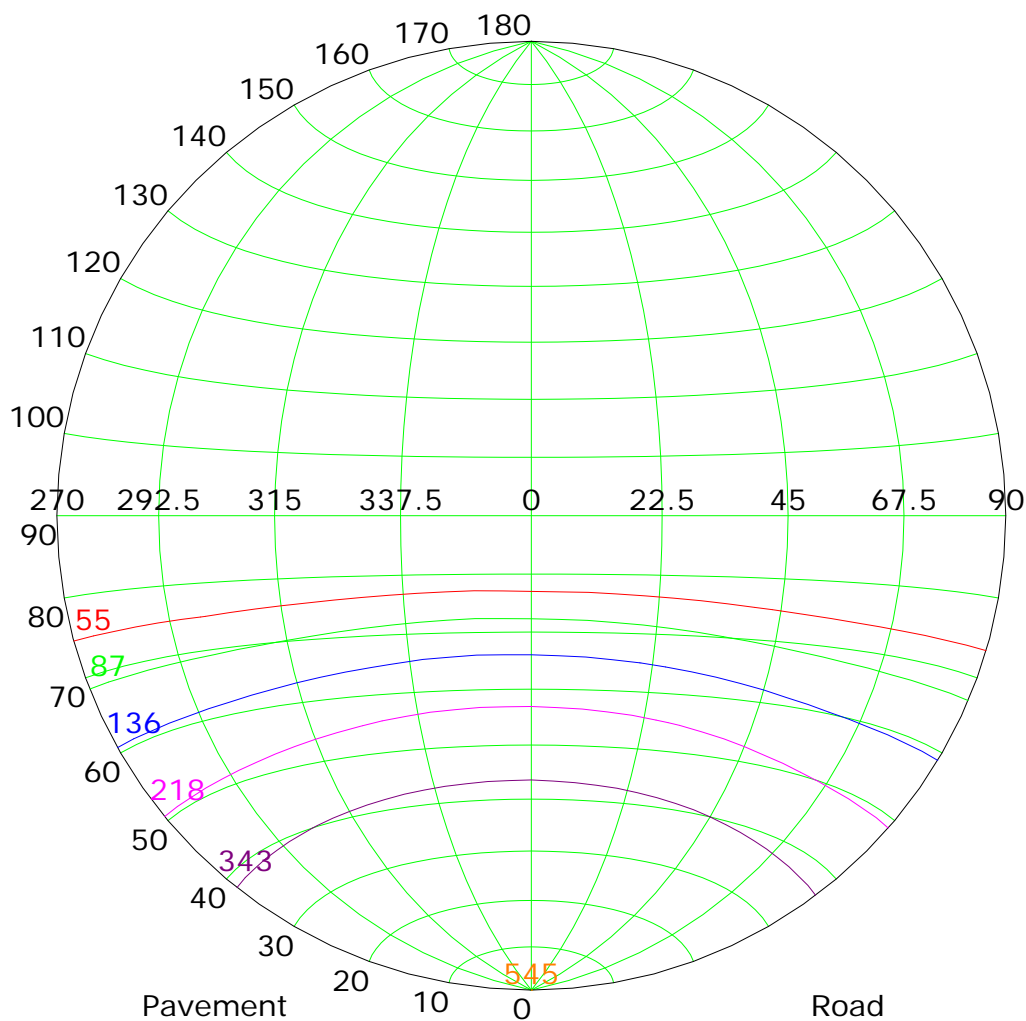
Distance: 7.970 m

Humidity:

Inspector:



## Isocandela (sphere)



Imax (100%): 545 cd

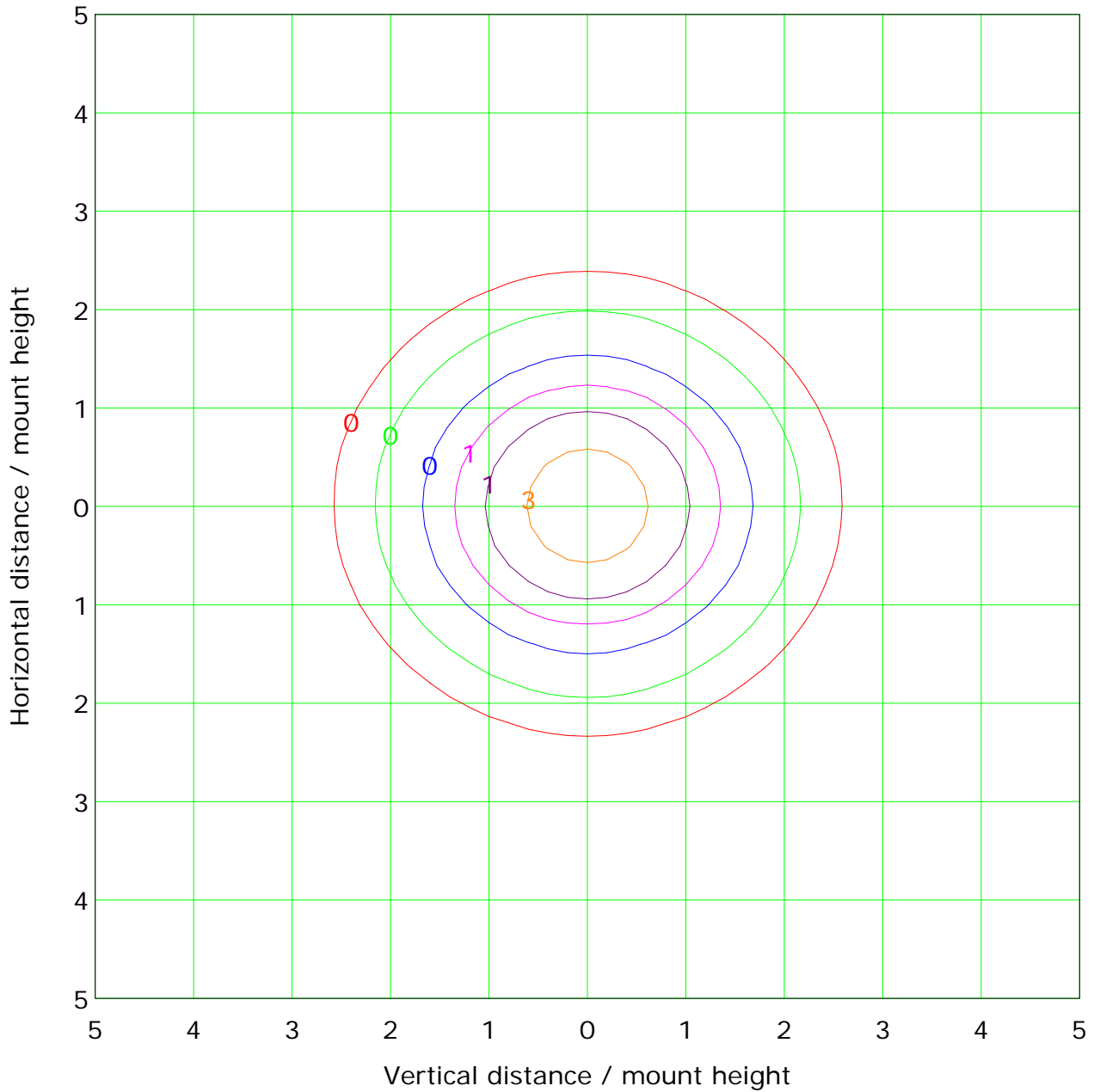
— ( 10%):	55 cd	— ( 16%):	87 cd
— ( 25%):	136 cd	— ( 40%):	218 cd
— ( 63%):	343 cd	— (100%):	545 cd

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 5.4 lx	
— ( 1%):	0.1 lx	— ( 2%):	0.1 lx
— ( 5%):	0.3 lx	— (10%):	0.5 lx
— (20%):	1.1 lx	— (50%):	2.7 lx
— (100%):	5.4 lx		

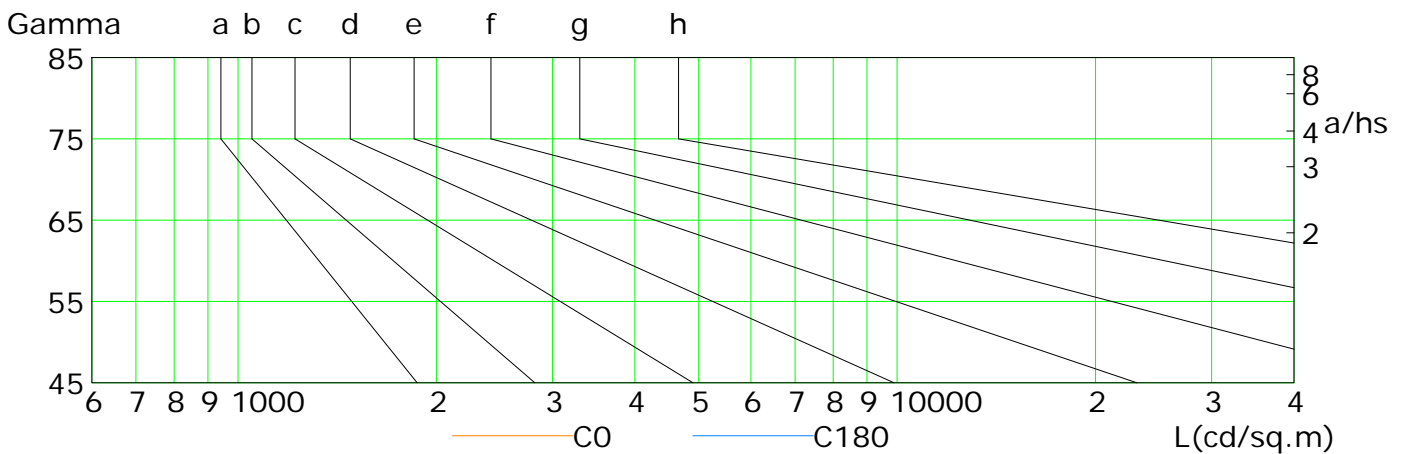
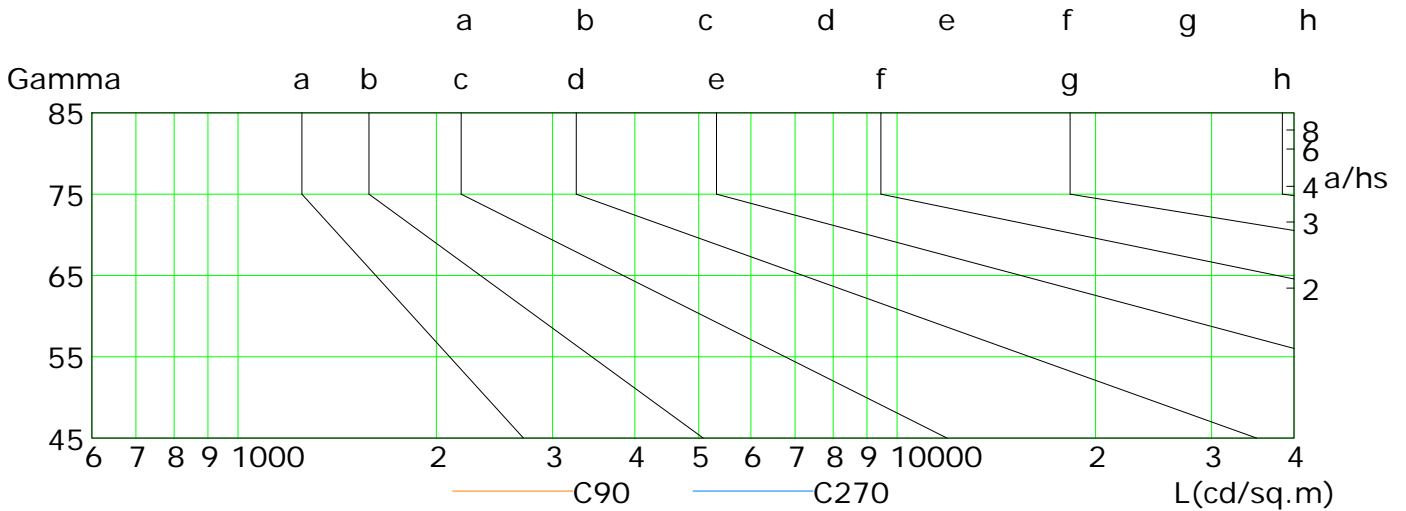
C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	331	284	236	190	145	104	67	36	11
C90	255	206	164	129	98	71	47	26	9
C180	334	288	240	193	148	108	70	38	12
C270	274	224	179	141	108	79	53	29	10

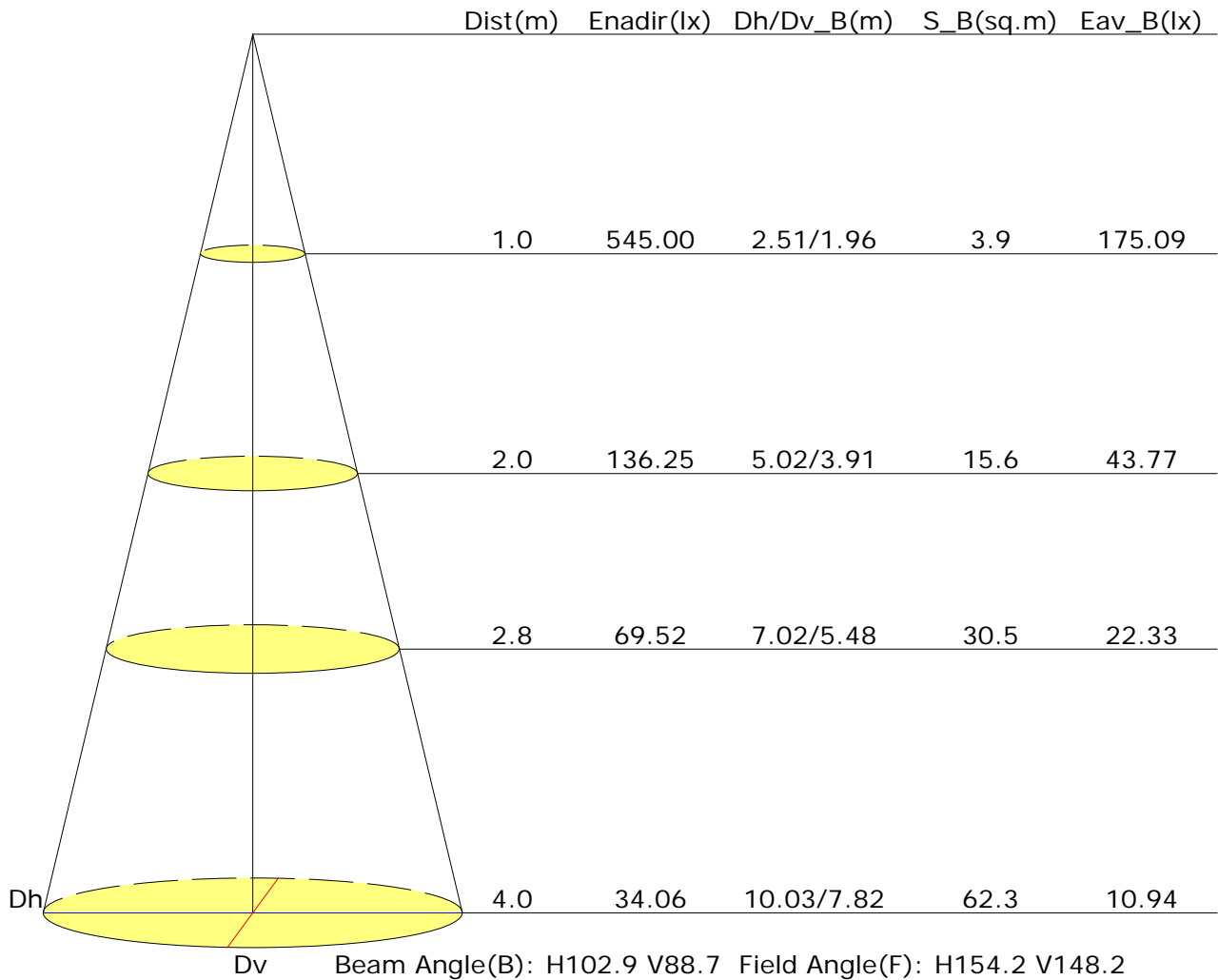
C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:





## Illuminance at a Distance

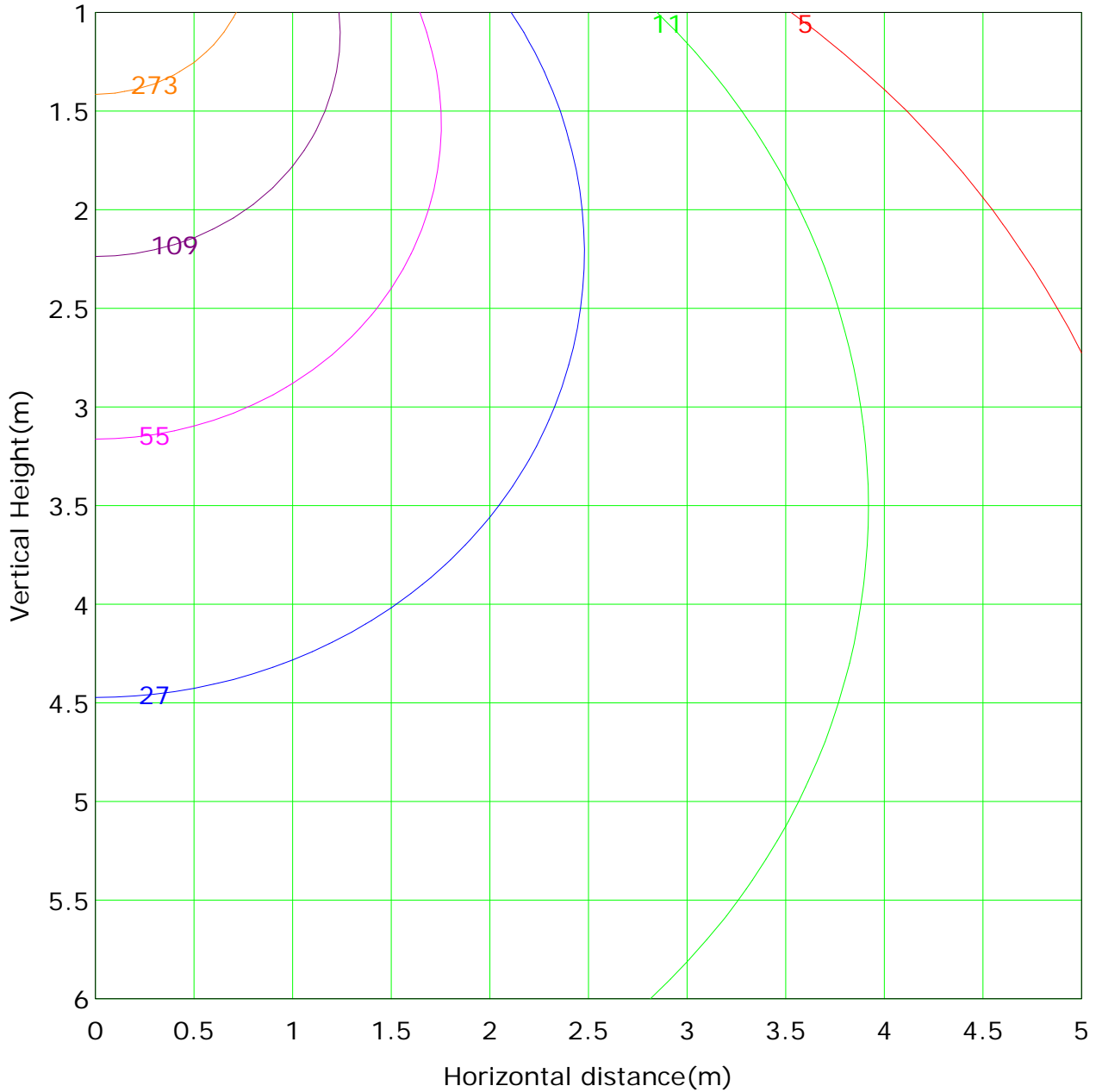


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 545.0 lx
— ( 1%): 5.5 lx	— ( 2%): 10.9 lx	
— ( 5%): 27.3 lx	— ( 10%): 54.5 lx	
— ( 20%): 109.0 lx	— ( 50%): 272.5 lx	
— (100%): 545.0 lx		

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



Report No.:

Test Time: 31/07/2018 10:27

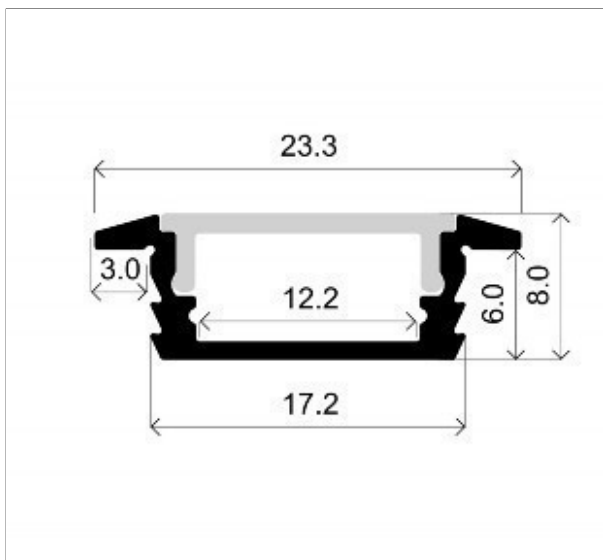
## Luminaire Property

Luminaire Manufacturer: Lighting Line  
 Luminaire Description: LLP-RE01-03 + LLD-03-FM  
 Lamp Description: Strip 14,4W/m 60led/m      Number of Lamps: 1  
 Lumens per Lamp: 1579 lm      Voltage: 24.0 V  
 Current: 0.594 A      Power: 14.24 W  
 Power Factor: 1.000

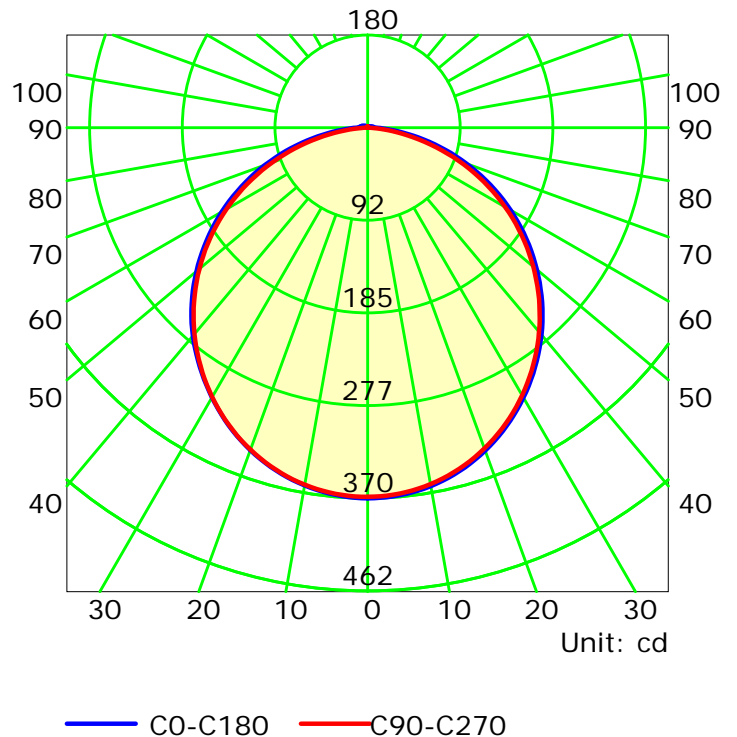
## Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1579.0 lm
Measurement Flux: 1075.1 lm	Efficiency: 68.09%
Downward Ratio: 67.17%	Upward Ratio: 0.91%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.4, 160.1, 162.7, 162.8	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.6, 112.0, 113.1, 113.2	
Luminaire Efficacy Rating (LER): 75.55	Central Intensity: 370.1 cd
Max. Intensity: 370.11 cd	Pos of Max. Intensity: H0 V0
S/MH(C0/C180): 1.25	S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve

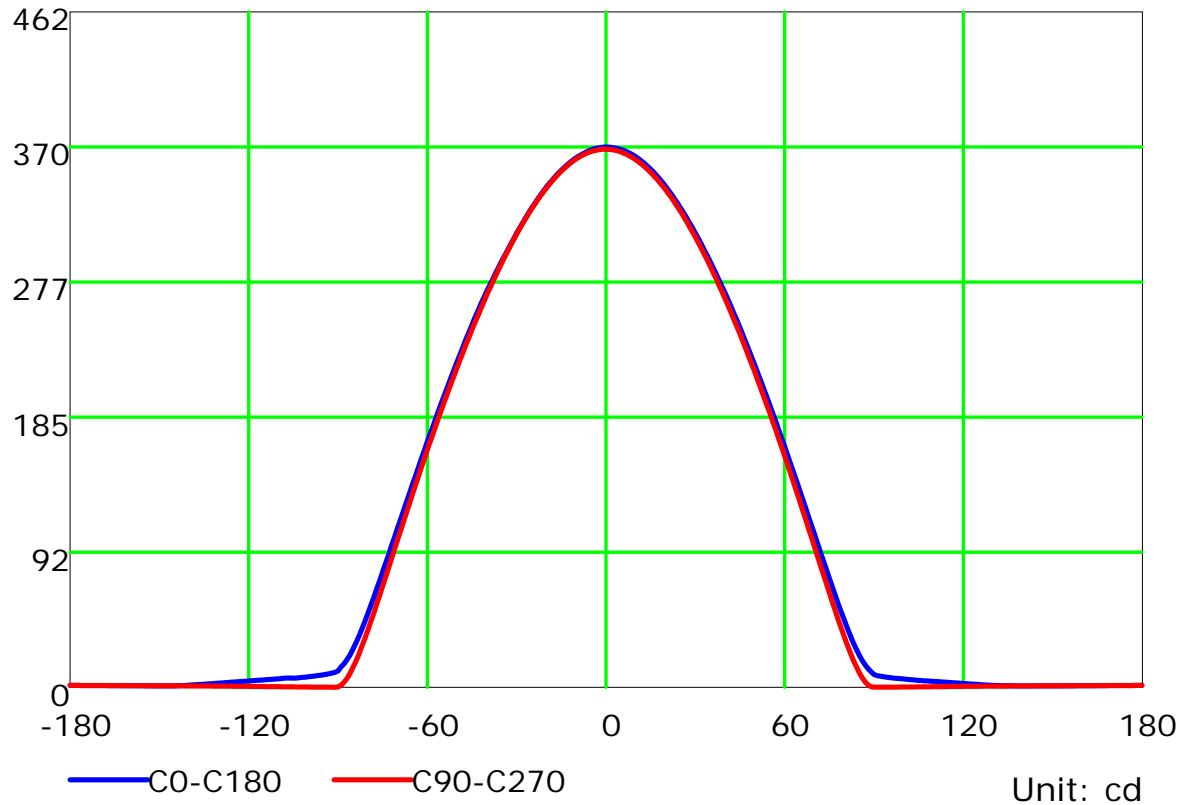
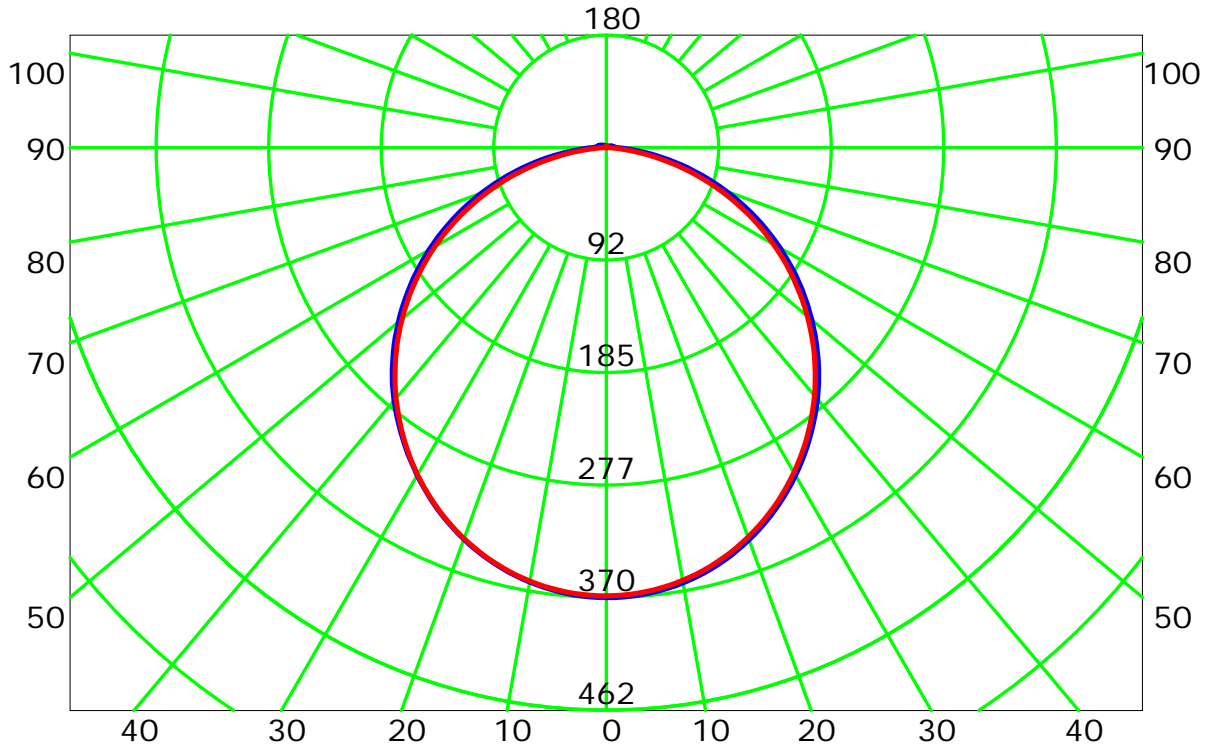


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Luminous Intensity Distribution Curve

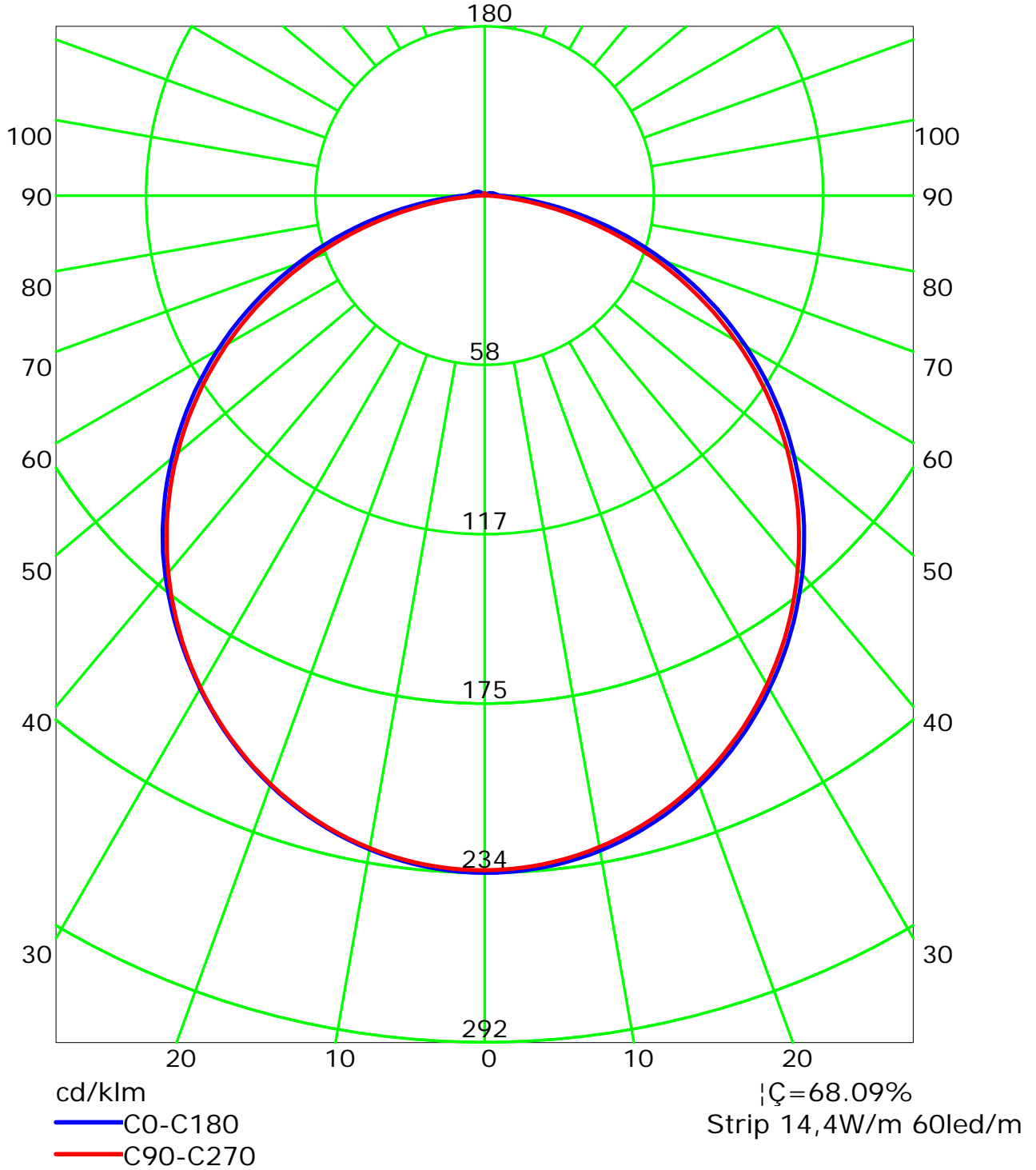


C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-2000  
Distance: 7.970 m  
Humidity:  
Inspector:



## Luminous Intensity Distribution Curve(cd/klm)

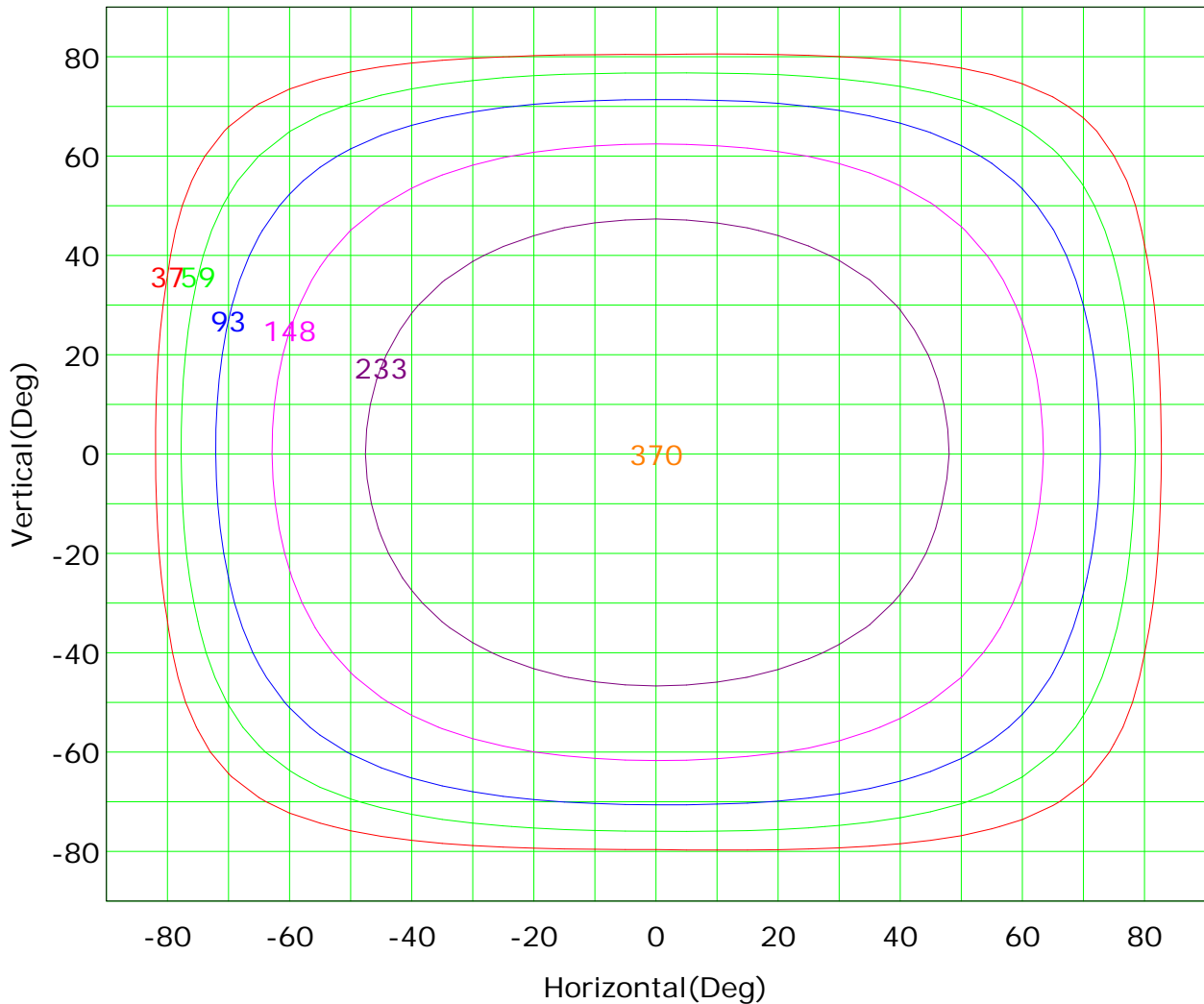


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Isocandela (rectangle)



Imax (100%): 370 cd

— ( 10%):	37 cd	— ( 16%):	59 cd
— ( 25%):	93 cd	— ( 40%):	148 cd
— ( 63%):	233 cd	— (100%):	370 cd

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

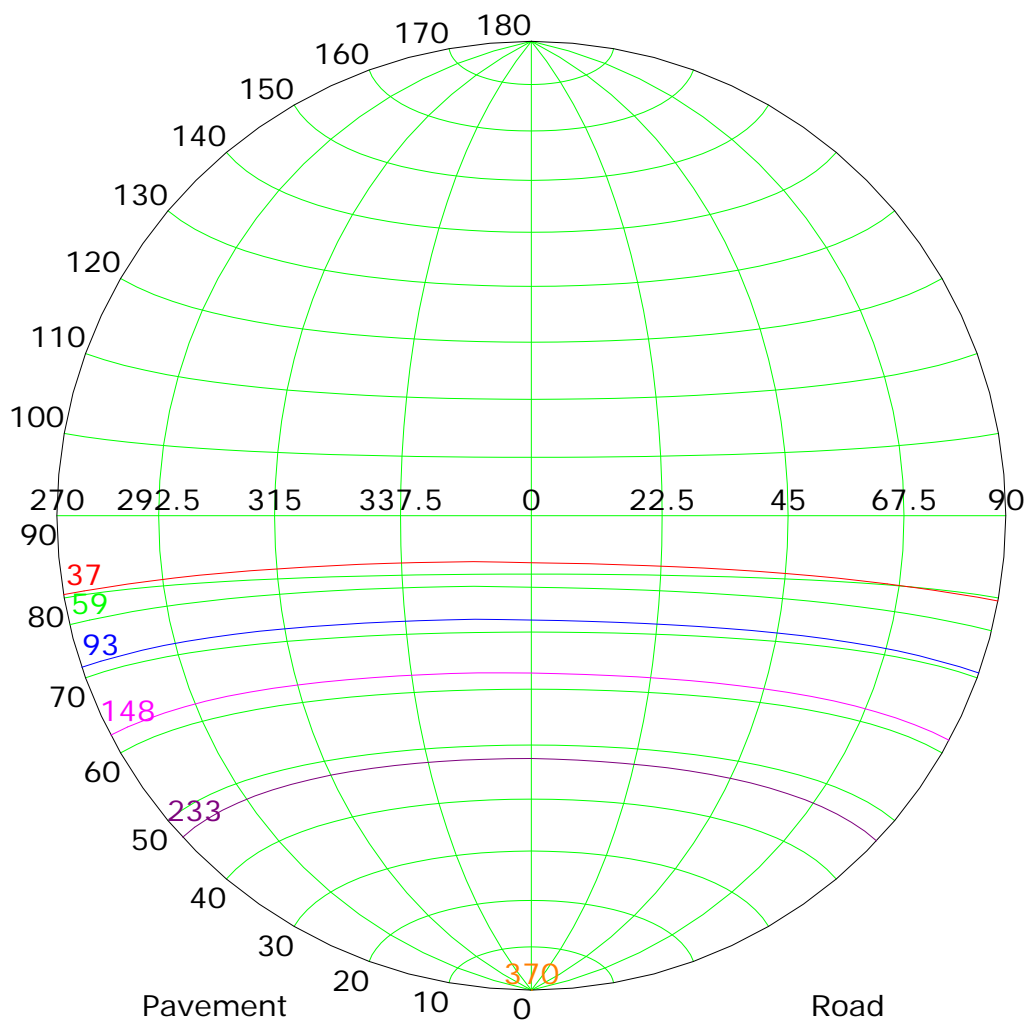
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

## Isocandela (sphere)



**I<sub>max</sub> (100%): 370 cd**

- |                  |                  |
|------------------|------------------|
| — ( 10%): 37 cd  | — ( 16%): 59 cd  |
| — ( 25%): 93 cd  | — ( 40%): 148 cd |
| — ( 63%): 233 cd | — (100%): 370 cd |

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

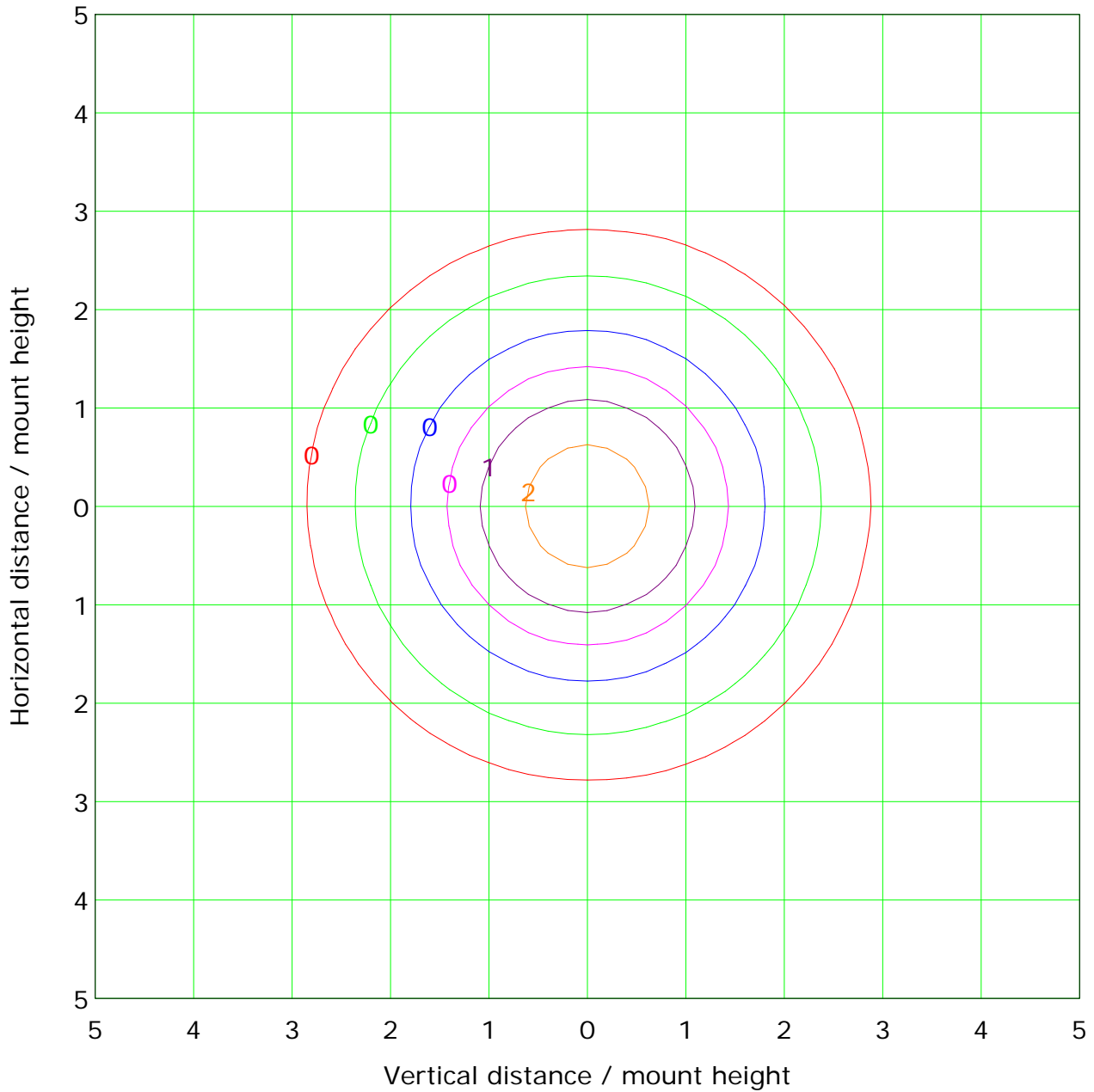
Distance: 7.970 m

Humidity:

Inspector:



## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 3.7 lx	
— ( 1%):	0.0 lx	— ( 2%):	0.1 lx
— ( 5%):	0.2 lx	— ( 10%):	0.4 lx
— ( 20%):	0.7 lx	— ( 50%):	1.9 lx
— (100%):	3.7 lx		

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

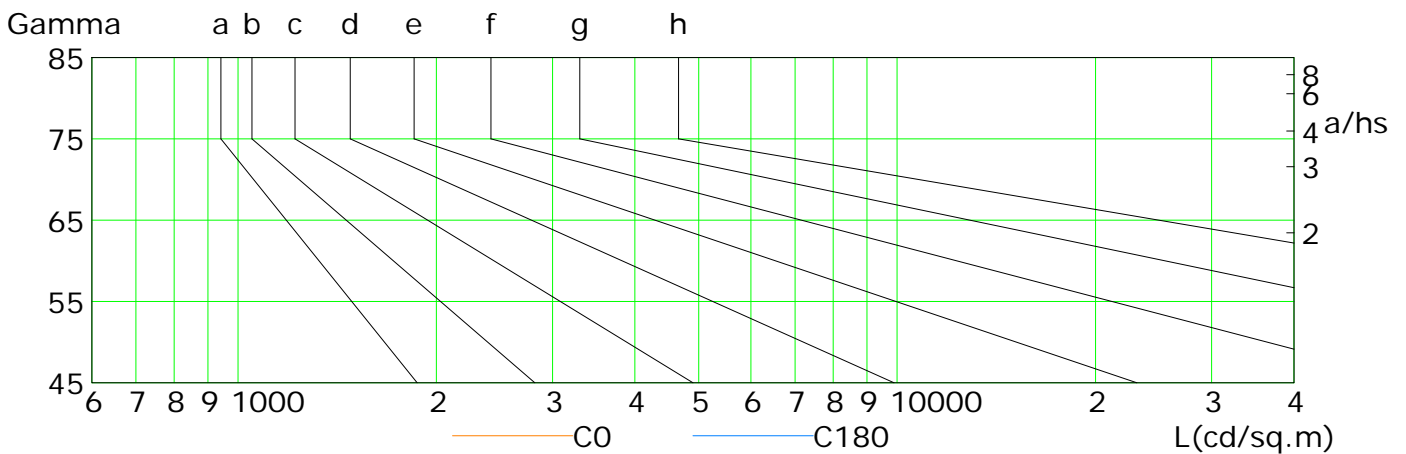
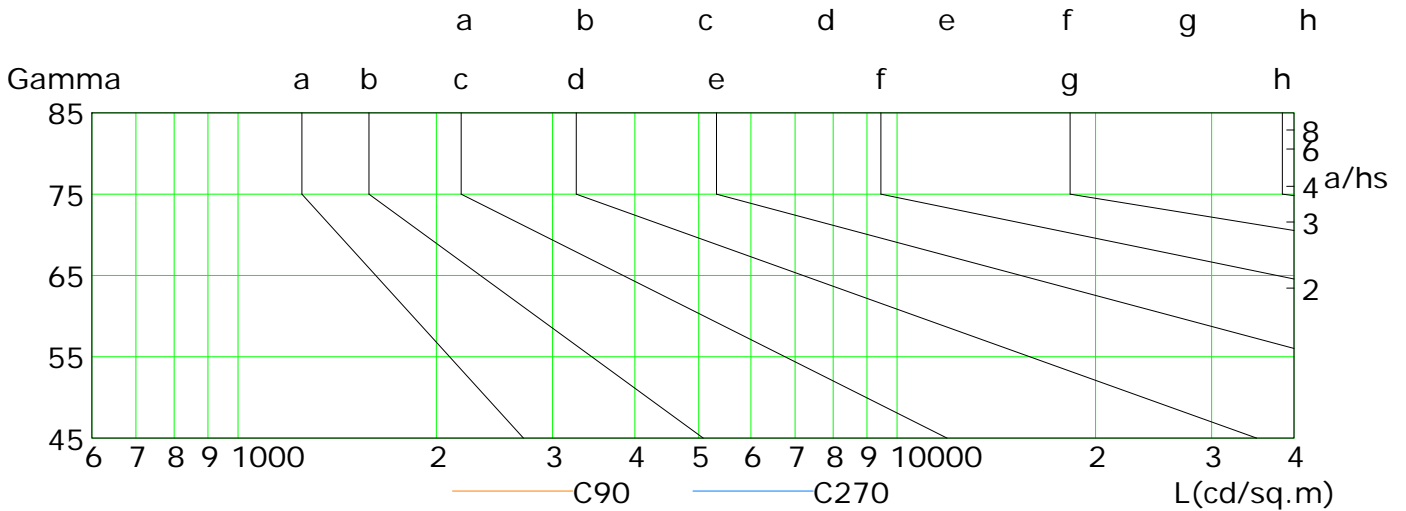
Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:





## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	246	221	193	165	135	105	75	46	22
C90	242	216	188	159	128	96	65	35	10
C180	248	223	196	168	139	109	79	51	26
C270	245	219	192	163	132	101	70	39	14

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

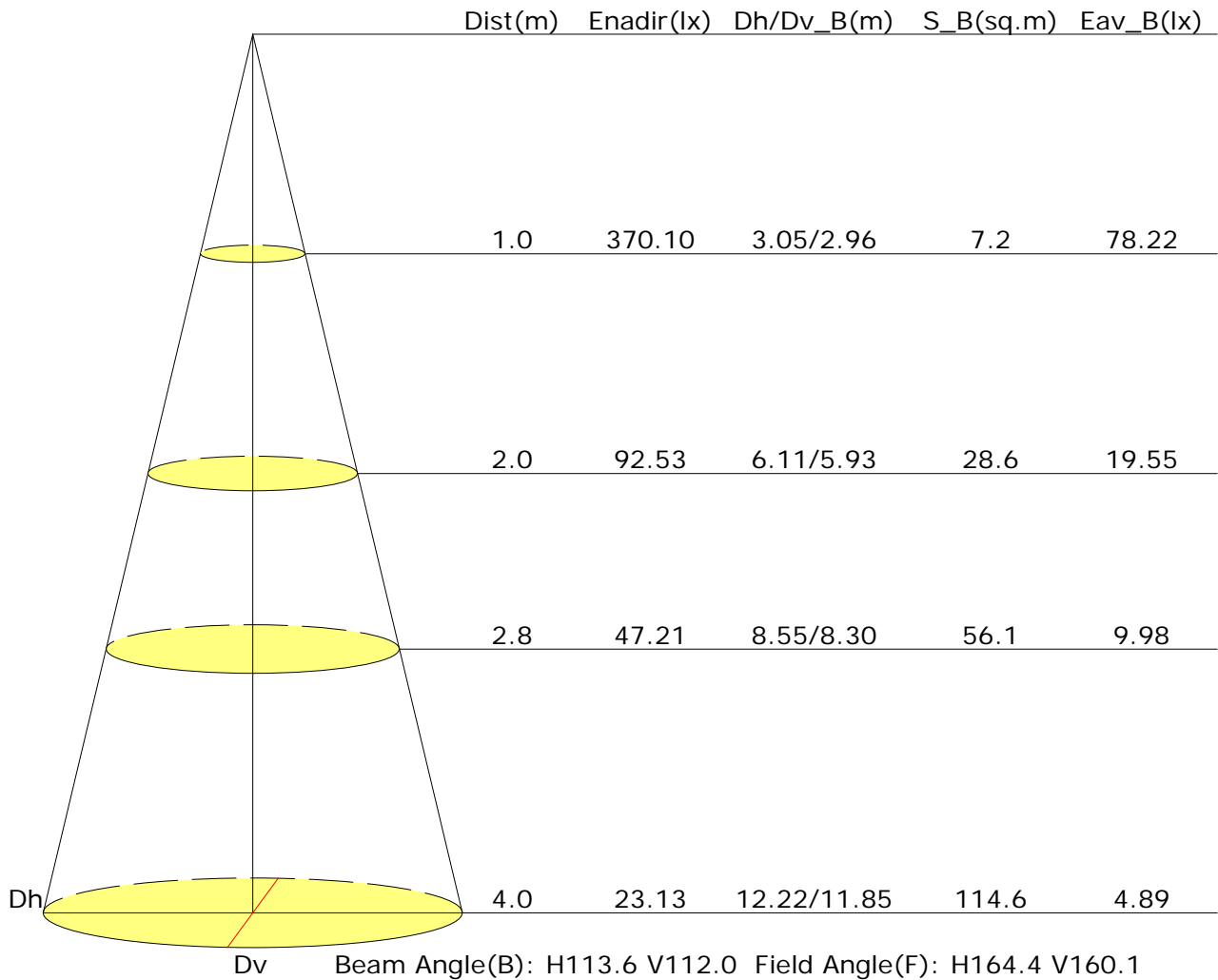
Distance: 7.970 m

Humidity:

Inspector:

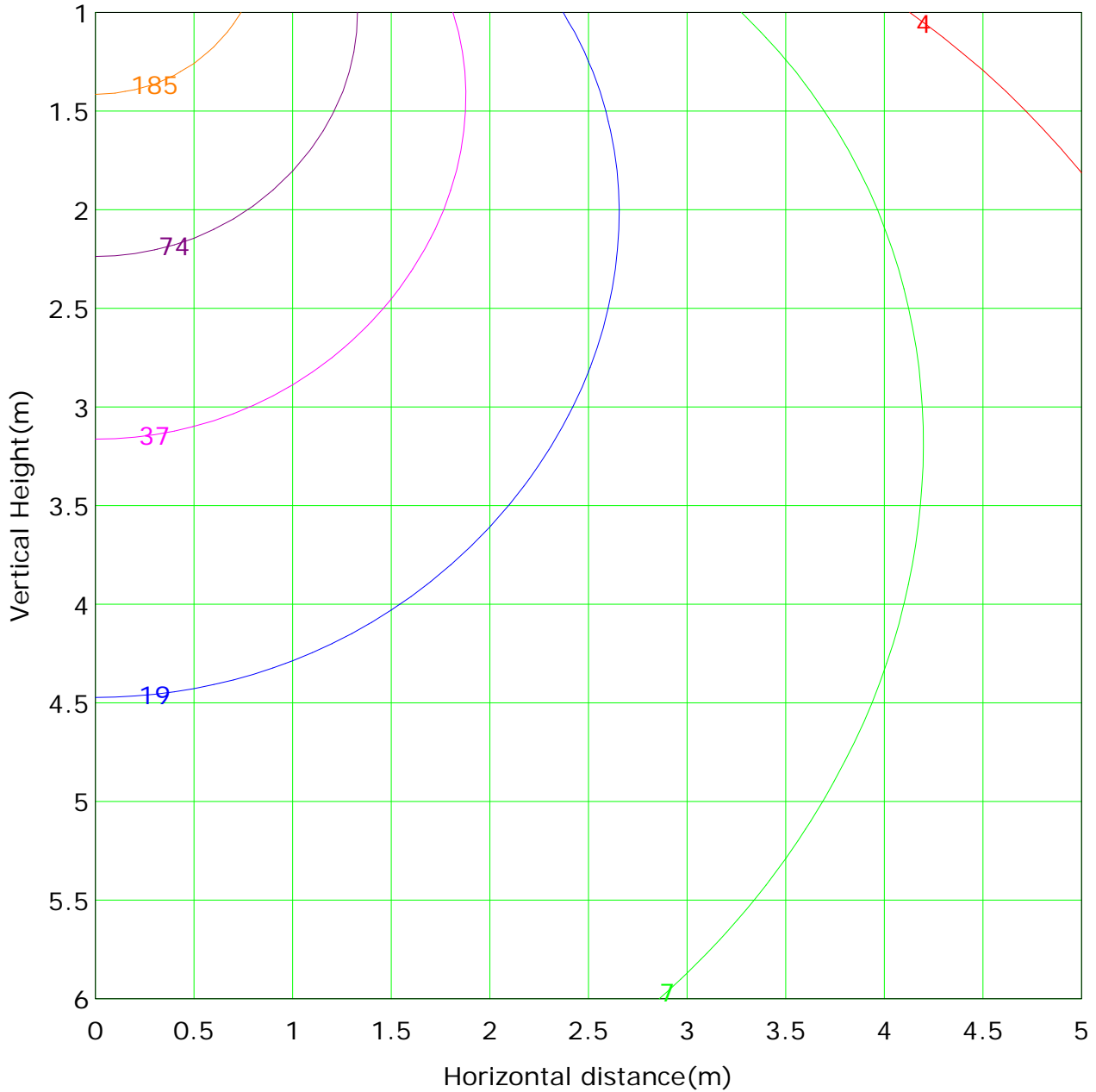


## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 370.1 lx
( 1%): 3.7 lx	( 2%): 7.4 lx	( 10%): 37.0 lx
( 5%): 18.5 lx	( 20%): 74.0 lx	( 50%): 185.1 lx
(100%): 370.1 lx		

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



Report No.:

Test Time: 31/08/2018 10:00

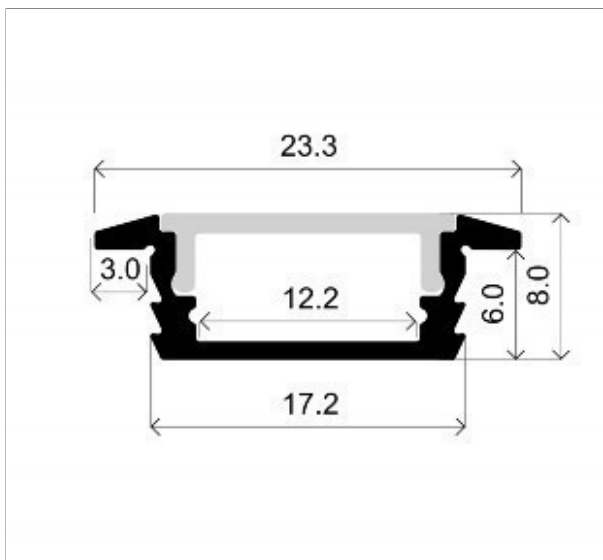
## Luminaire Property

Luminaire Manufacturer: Lighting Line  
 Luminaire Description: LLP-RE01-03 + LLD-03-FS  
 Lamp Description: Strip 14,4W/m 60led/m      Number of Lamps: 1  
 Lumens per Lamp: 1579 lm      Voltage: 24.0 V  
 Current: 0.590 A      Power: 14.15 W  
 Power Factor: 1.000

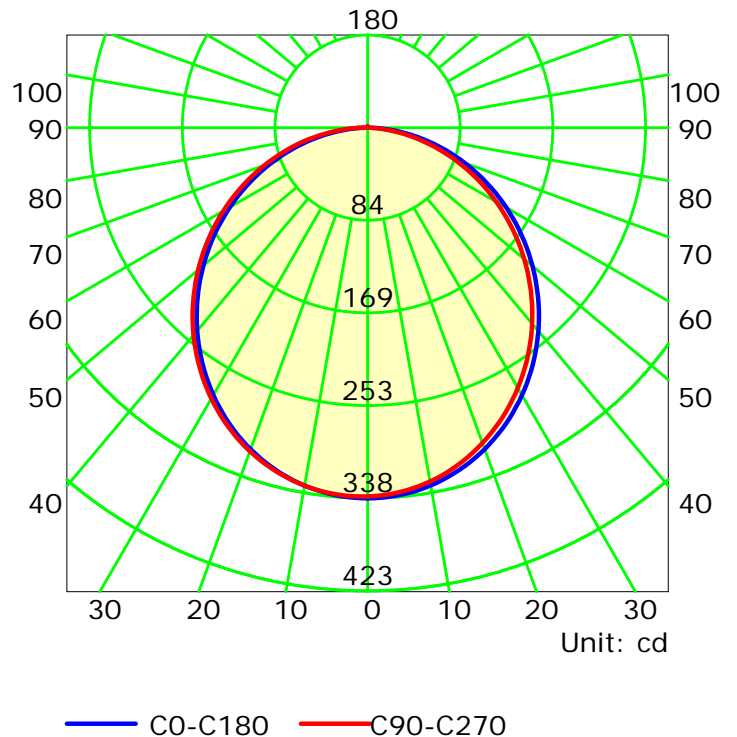
## Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1579.0 lm
Measurement Flux: 956.9 lm	Efficiency: 60.60%
Downward Ratio: 60.38%	Upward Ratio: 0.22%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 163.5, 163.2, 163.3, 163.4	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 110.9, 110.5, 110.8, 110.8	
Luminaire Efficacy Rating (LER): 67.67	Central Intensity: 338.41 cd
Max. Intensity: 338.42 cd	Pos of Max. Intensity: H0 V0
S/MH(C0/C180): 1.24	S/MH(C90/C270): 1.24

Picture Of Luminaire



Luminous Intensity Distribution Curve

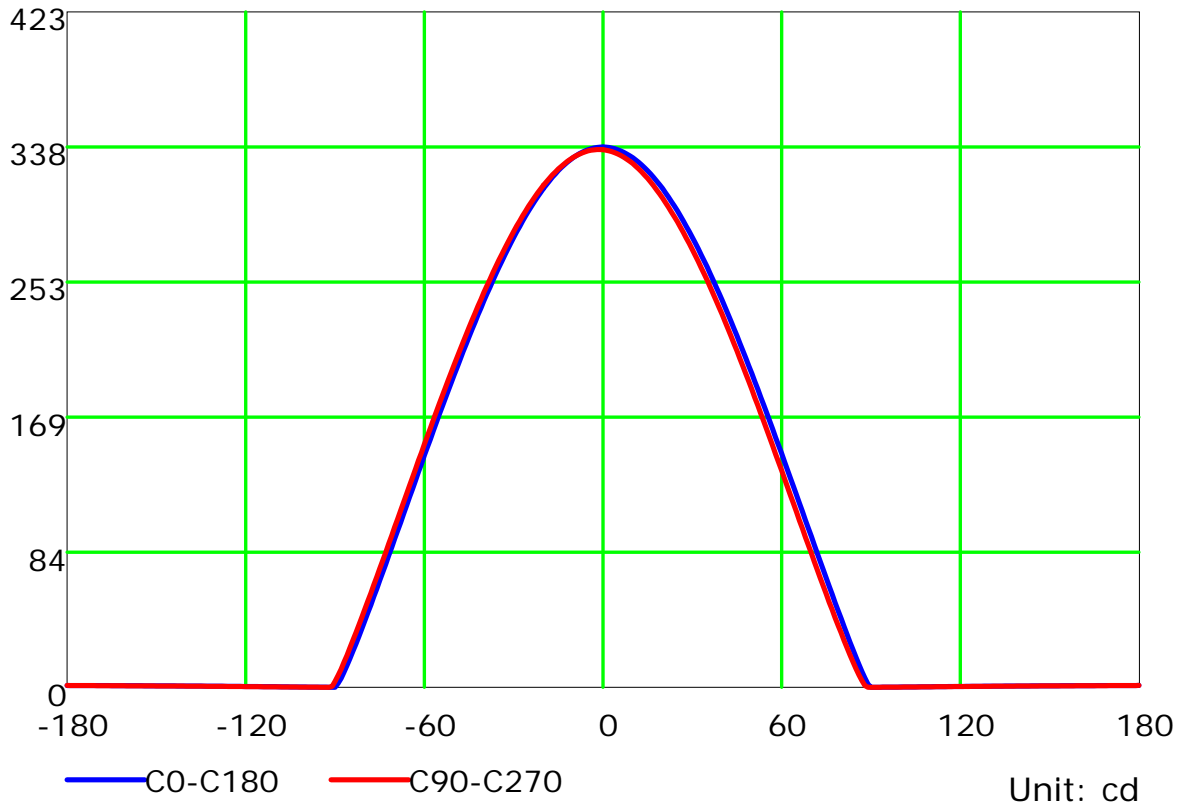
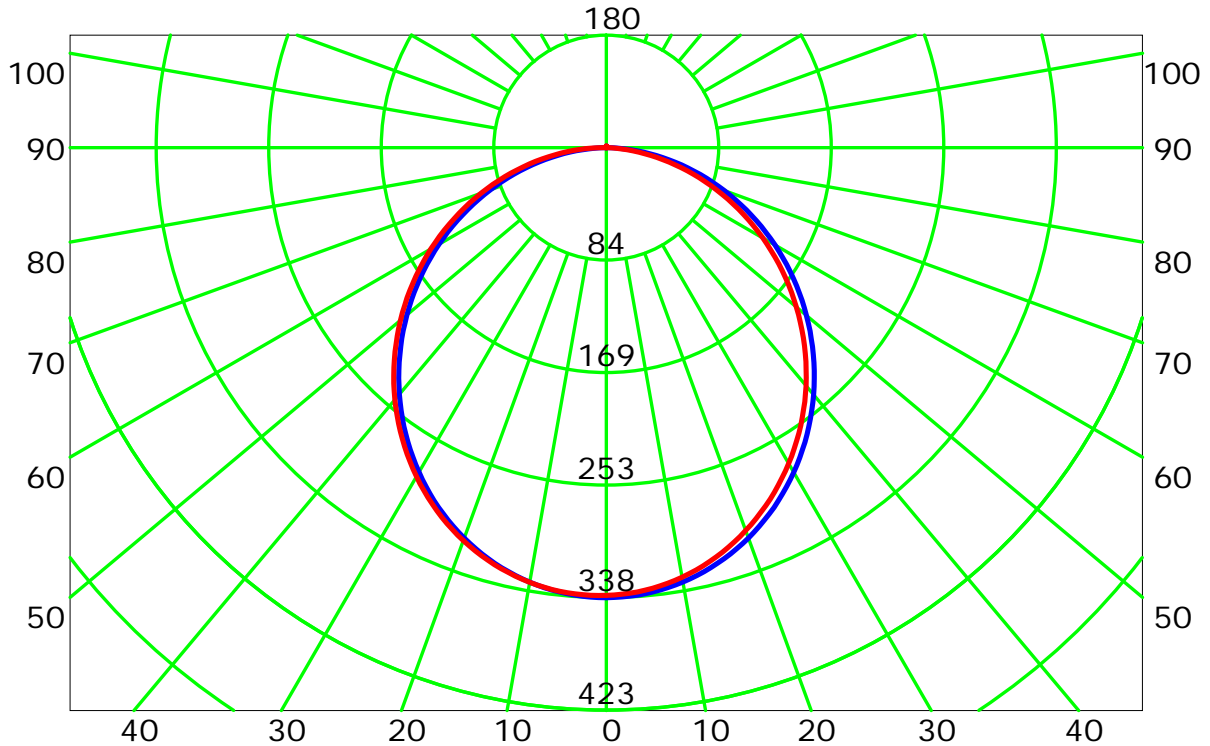


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Luminous Intensity Distribution Curve

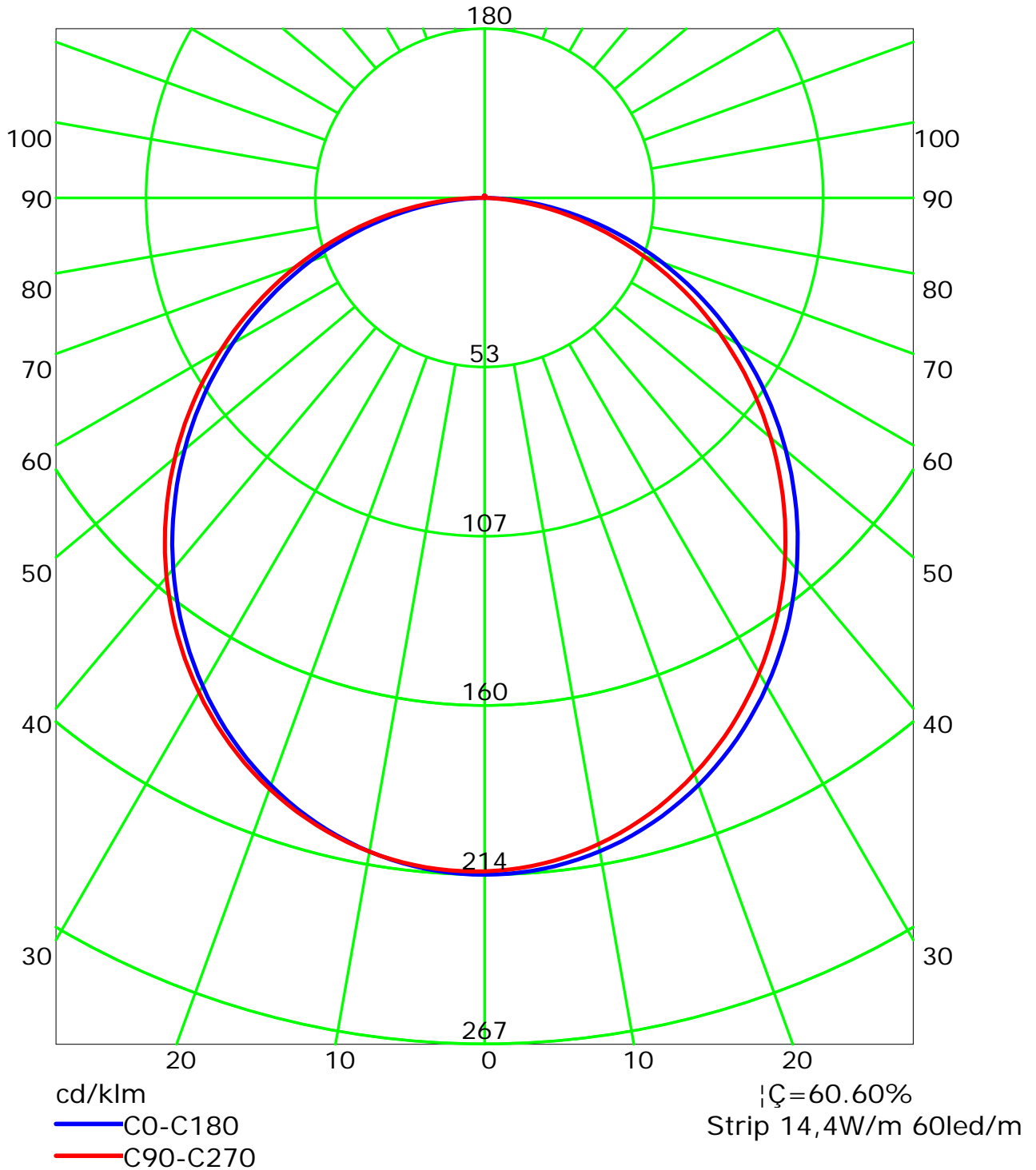


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



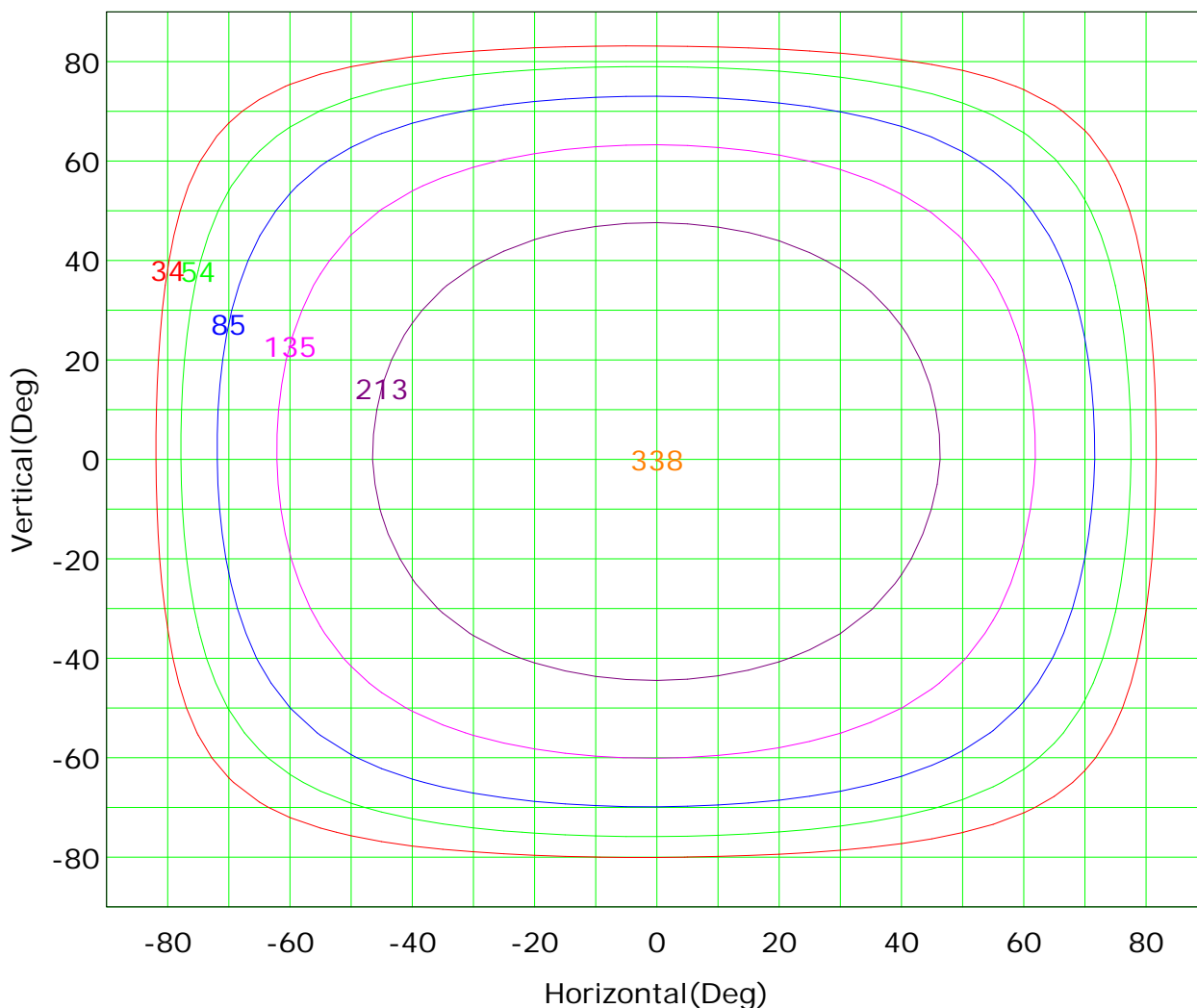
## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-2000  
Distance: 7.970 m  
Humidity:  
Inspector:

## Isocandela (rectangle)



Imax (100%): 338 cd

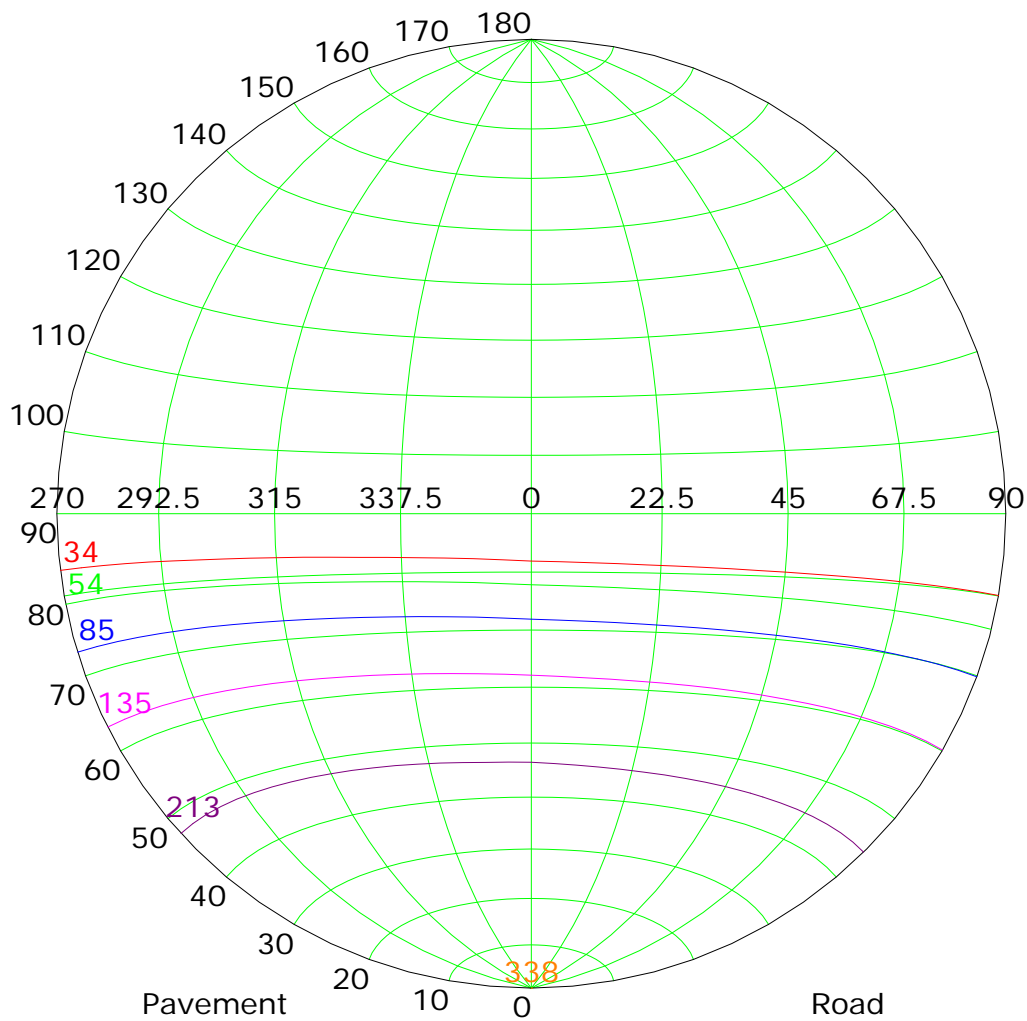
— ( 10%):	34 cd	— ( 16%):	54 cd
— ( 25%):	85 cd	— ( 40%):	135 cd
— ( 63%):	213 cd	— (100%):	338 cd

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Isocandela (sphere)



Imax (100%): 338 cd

- |           |        |           |        |
|-----------|--------|-----------|--------|
| — ( 10%): | 34 cd  | — ( 16%): | 54 cd  |
| — ( 25%): | 85 cd  | — ( 40%): | 135 cd |
| — ( 63%): | 213 cd | — (100%): | 338 cd |

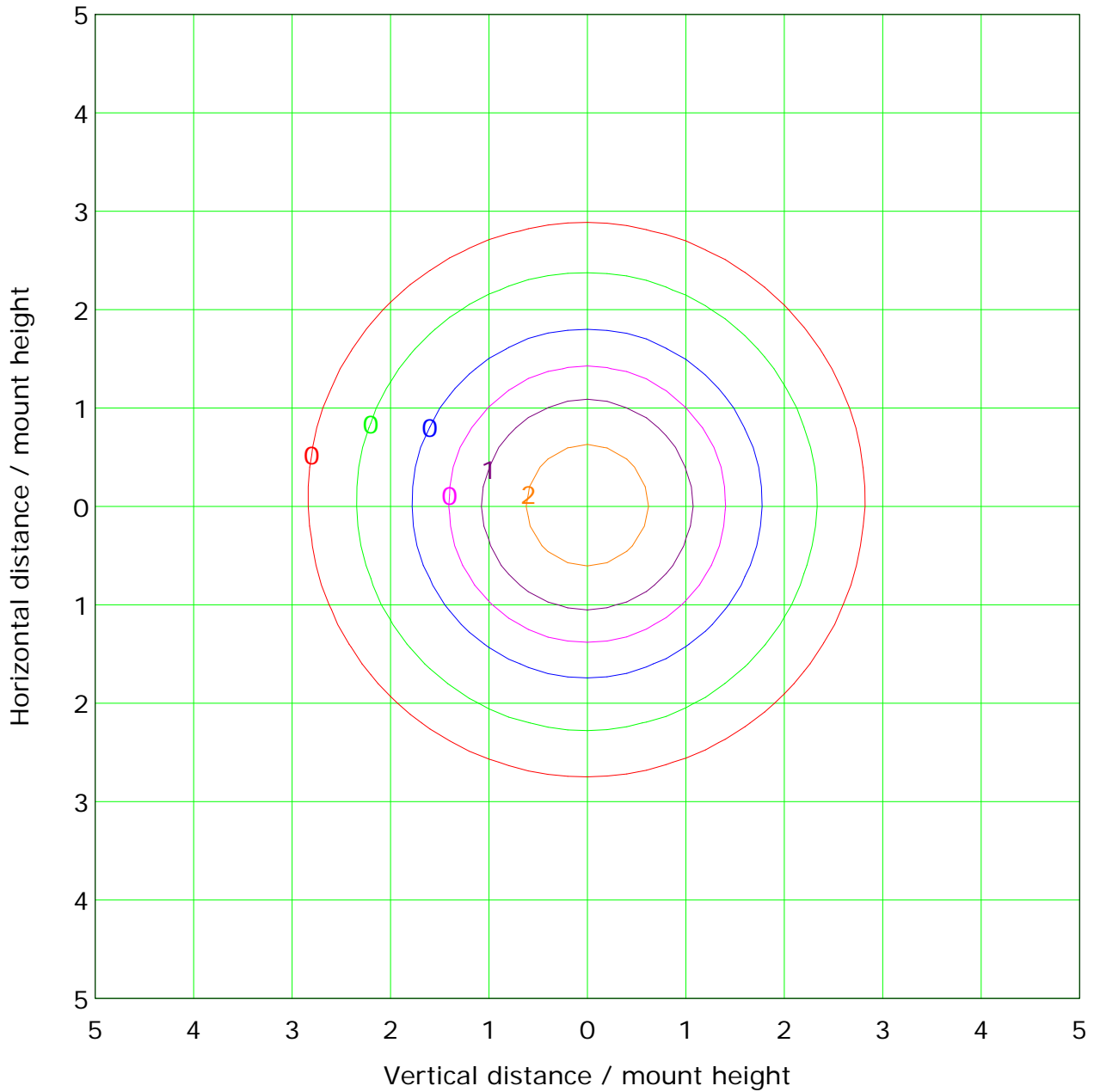
C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:





## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 3.4 lx	
— ( 1%):	0.0 lx	— ( 2%):	0.1 lx
— ( 5%):	0.2 lx	— (10%):	0.3 lx
— (20%):	0.7 lx	— (50%):	1.7 lx
— (100%):	3.4 lx		

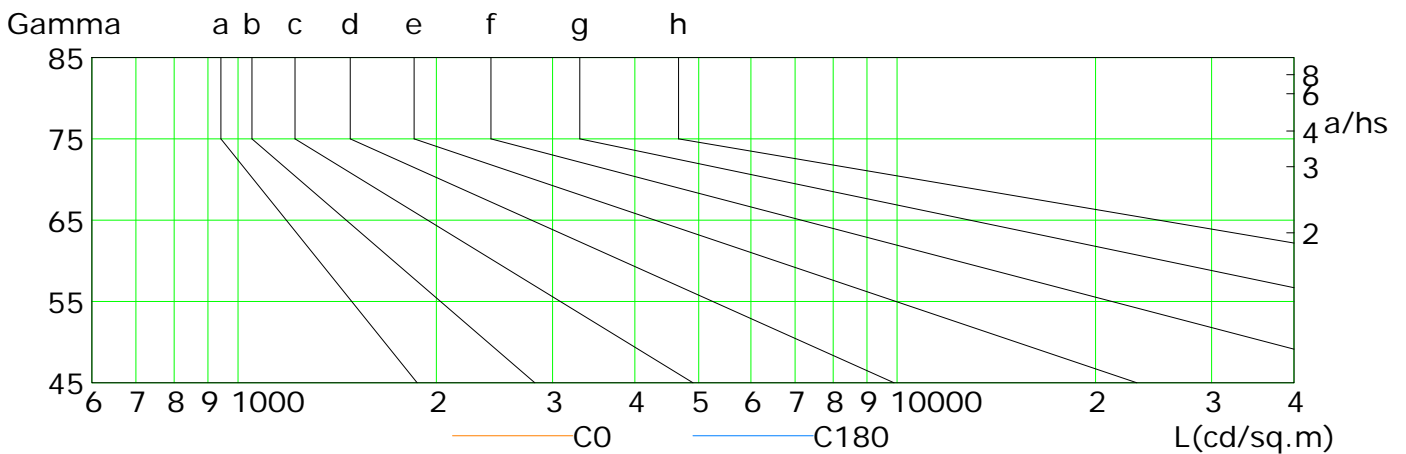
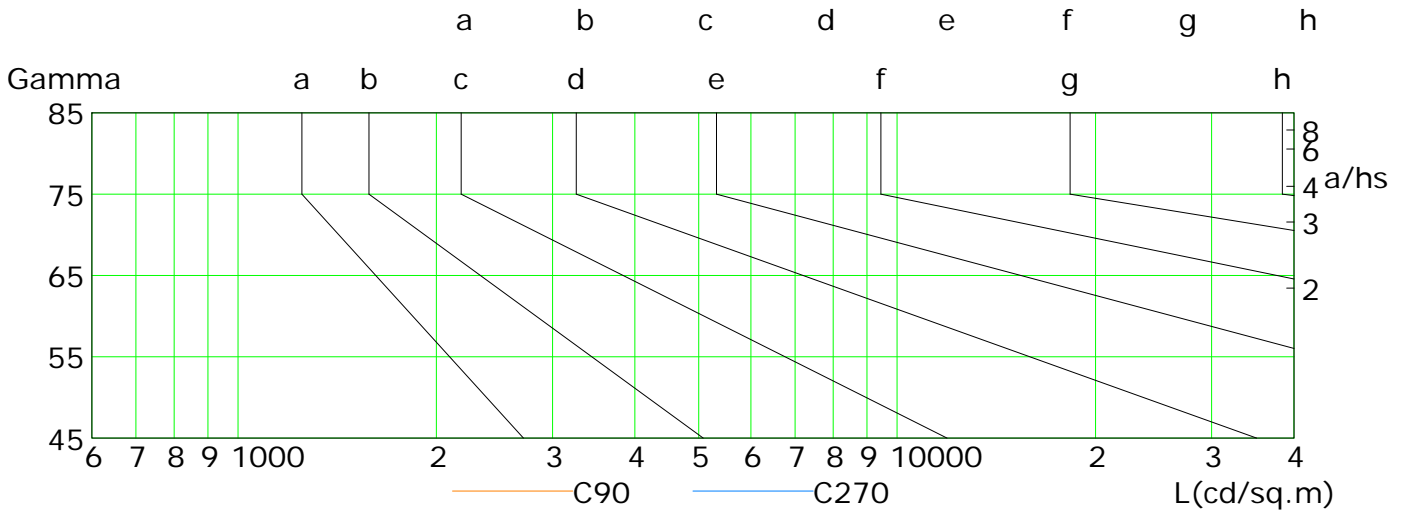
C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	220	197	172	146	120	94	68	43	19
C90	211	187	161	136	110	84	58	34	12
C180	220	196	171	145	119	93	67	42	18
C270	225	202	178	152	126	100	74	49	25

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

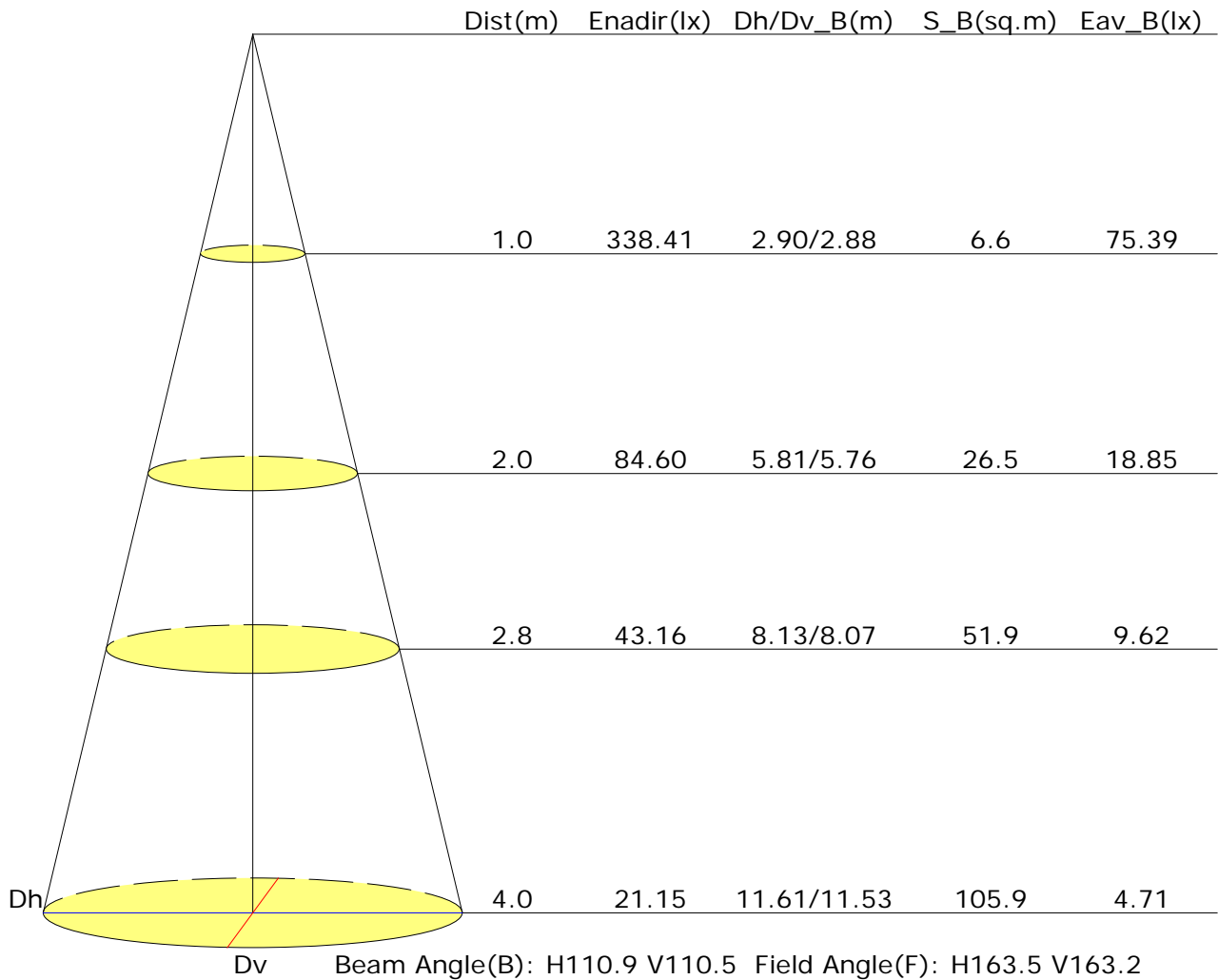
Distance: 7.970 m

Humidity:

Inspector:

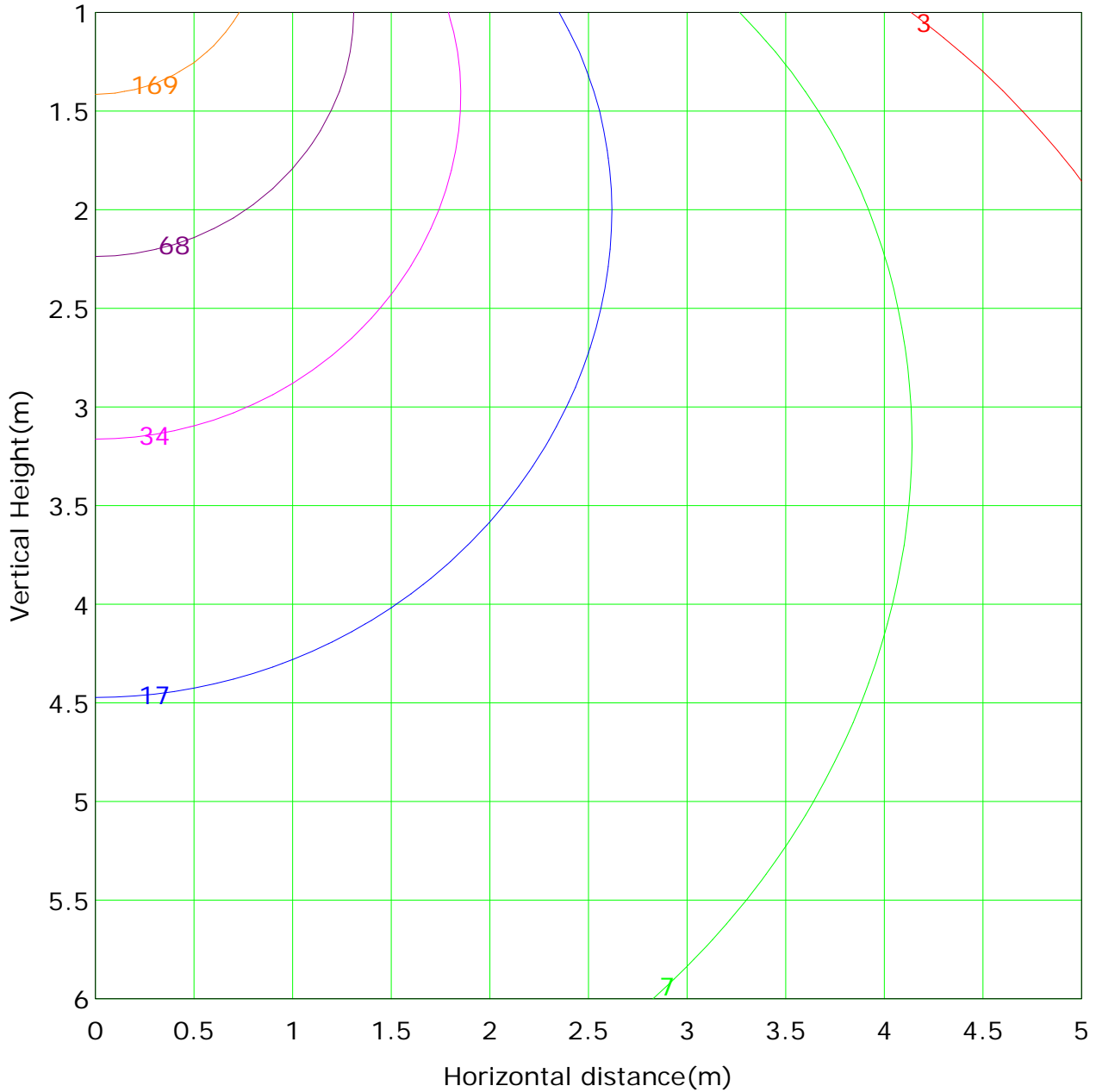


## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 338.4 lx
— ( 1%): 3.4 lx	— ( 2%): 6.8 lx	— ( 10%): 33.8 lx
— ( 5%): 16.9 lx	— ( 20%): 67.7 lx	— ( 50%): 169.2 lx
— (100%): 338.4 lx		

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



Report No.:

Test Time: 18/09/2018 14:07

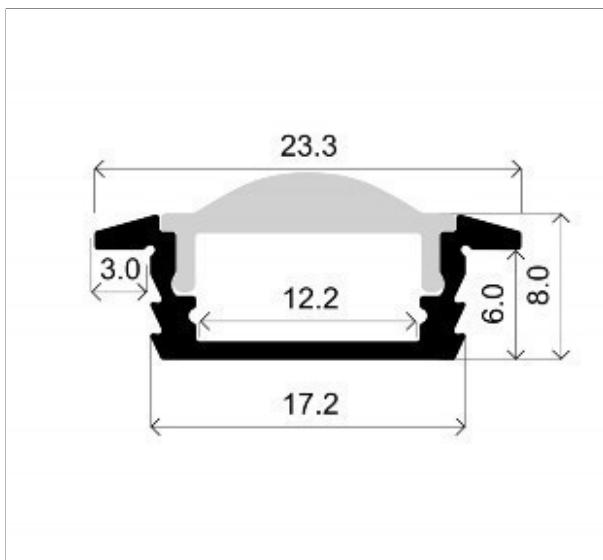
## Luminaire Property

Luminaire Manufacturer: Lighting Line  
 Luminaire Description: LLP-RE01-03 + LLD-03-XK3-L1  
 Lamp Description: Strip 14,4W/m 60led/m Number of Lamps: 1  
 Lumens per Lamp: 1579 lm Voltage: 24.0 V  
 Current: 0.583 A Power: 13.98 W  
 Power Factor: 1.000

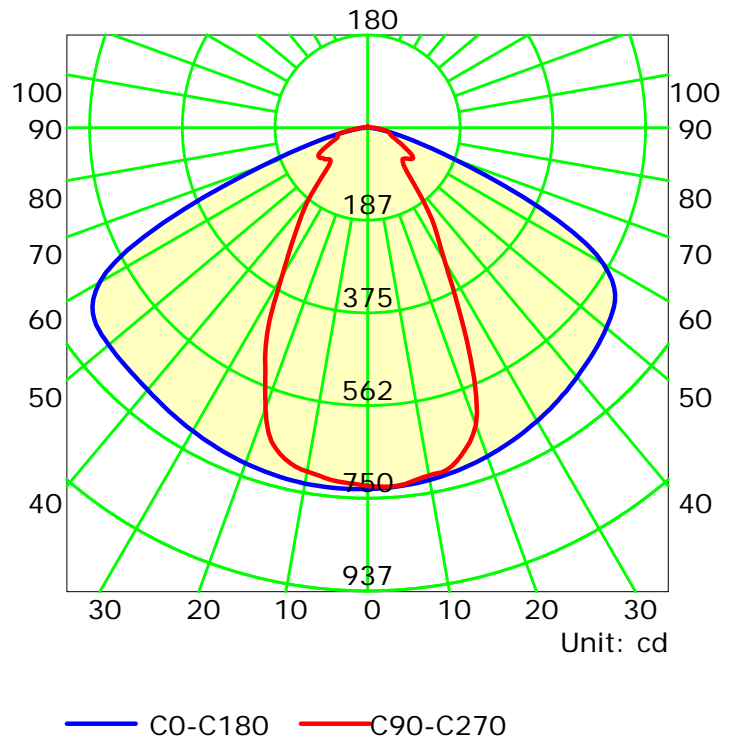
## Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1579.0 lm
Measurement Flux: 1331.7 lm	Efficiency: 84.33%
Downward Ratio: 83.69%	Upward Ratio: 0.64%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 152.7, 134.0, 116.0, 115.9	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 132.4, 57.5, 69.7, 70.2	
Luminaire Efficacy Rating (LER): 95.30	Central Intensity: 731.6 cd
Max. Intensity: 732.55 cd	Pos of Max. Intensity: H180 V6
S/MH(C0/C180): 1.44	S/MH(C90/C270): 0.93

Picture Of Luminaire



Luminous Intensity Distribution Curve

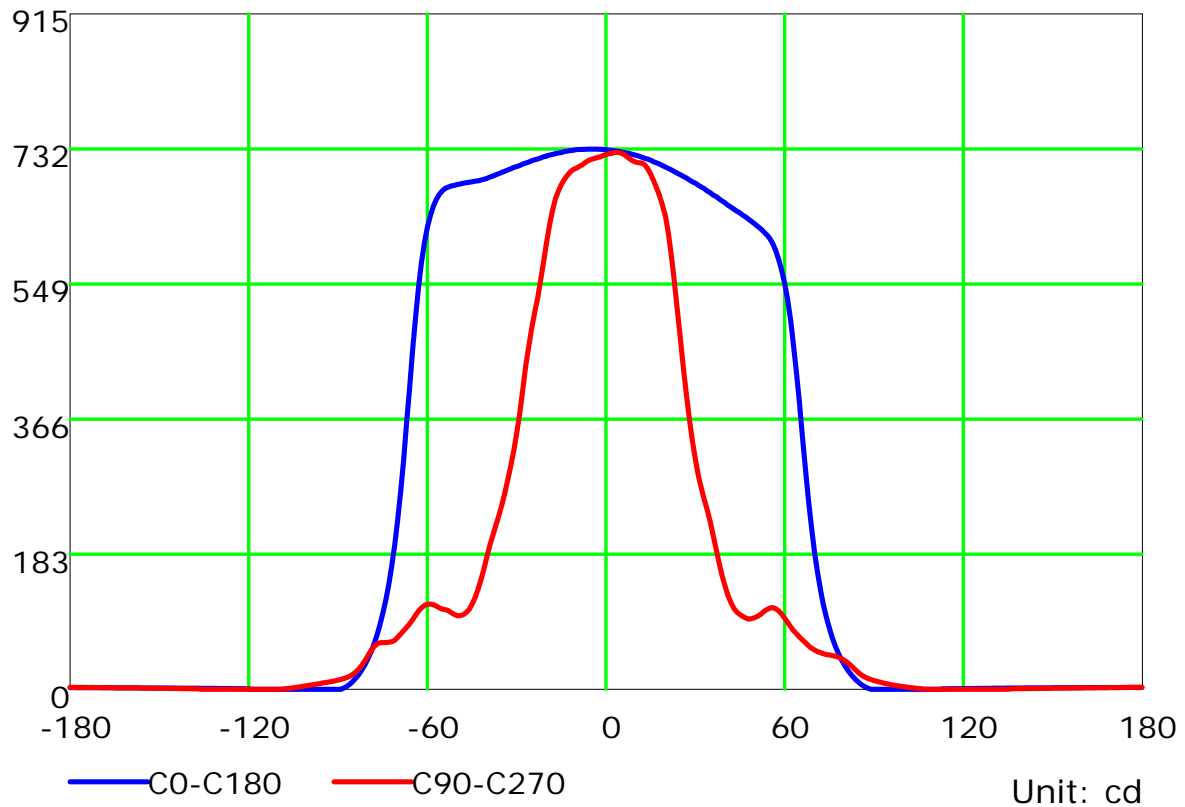
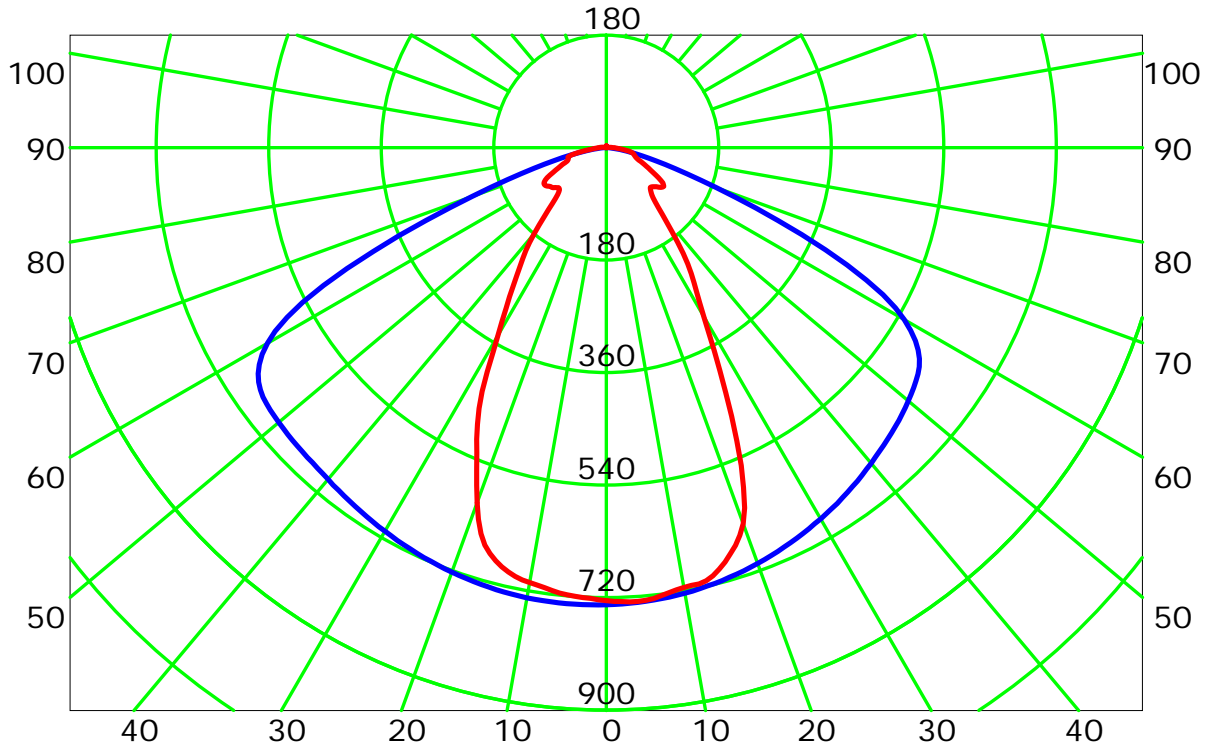


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Luminous Intensity Distribution Curve

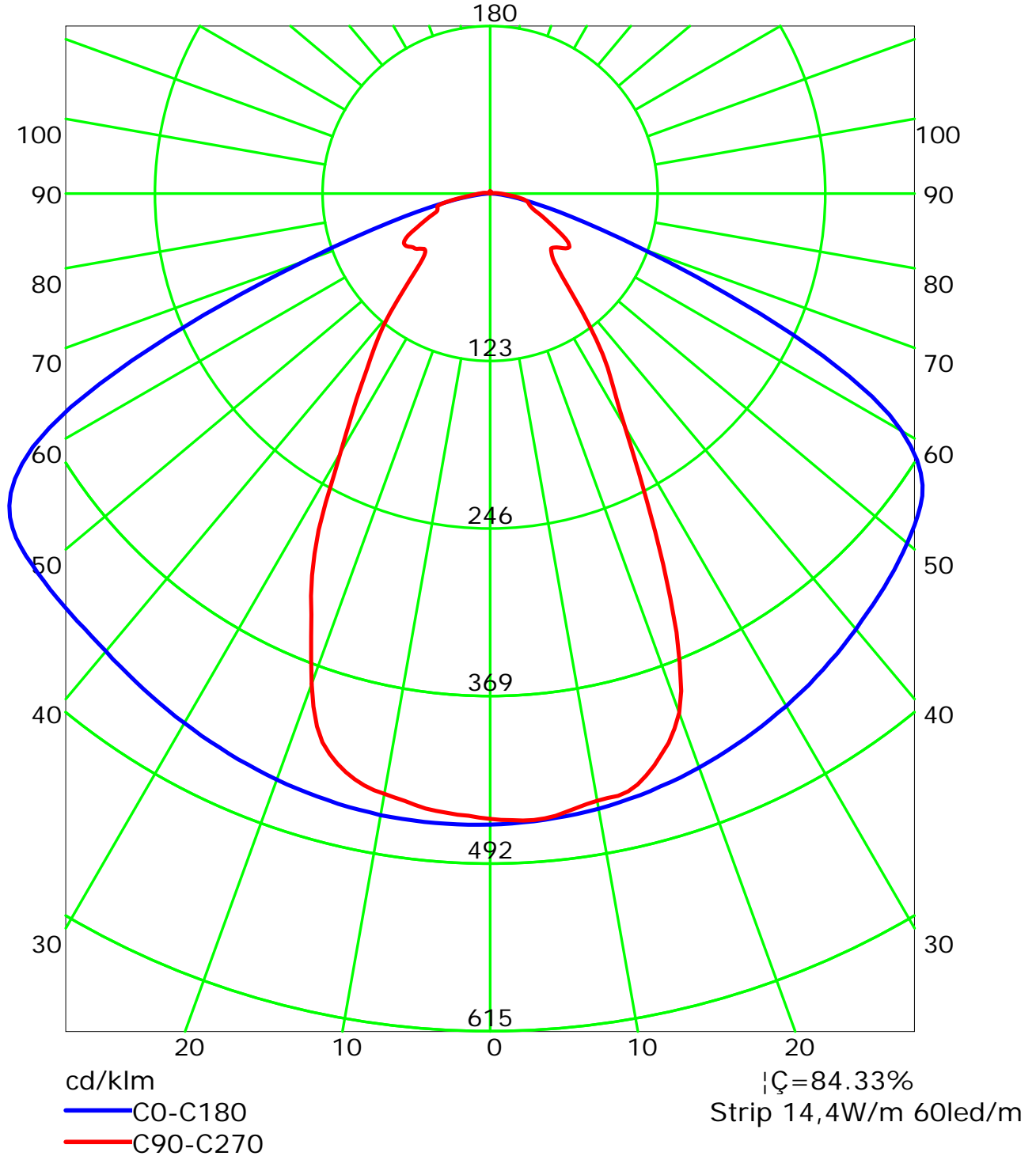


C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



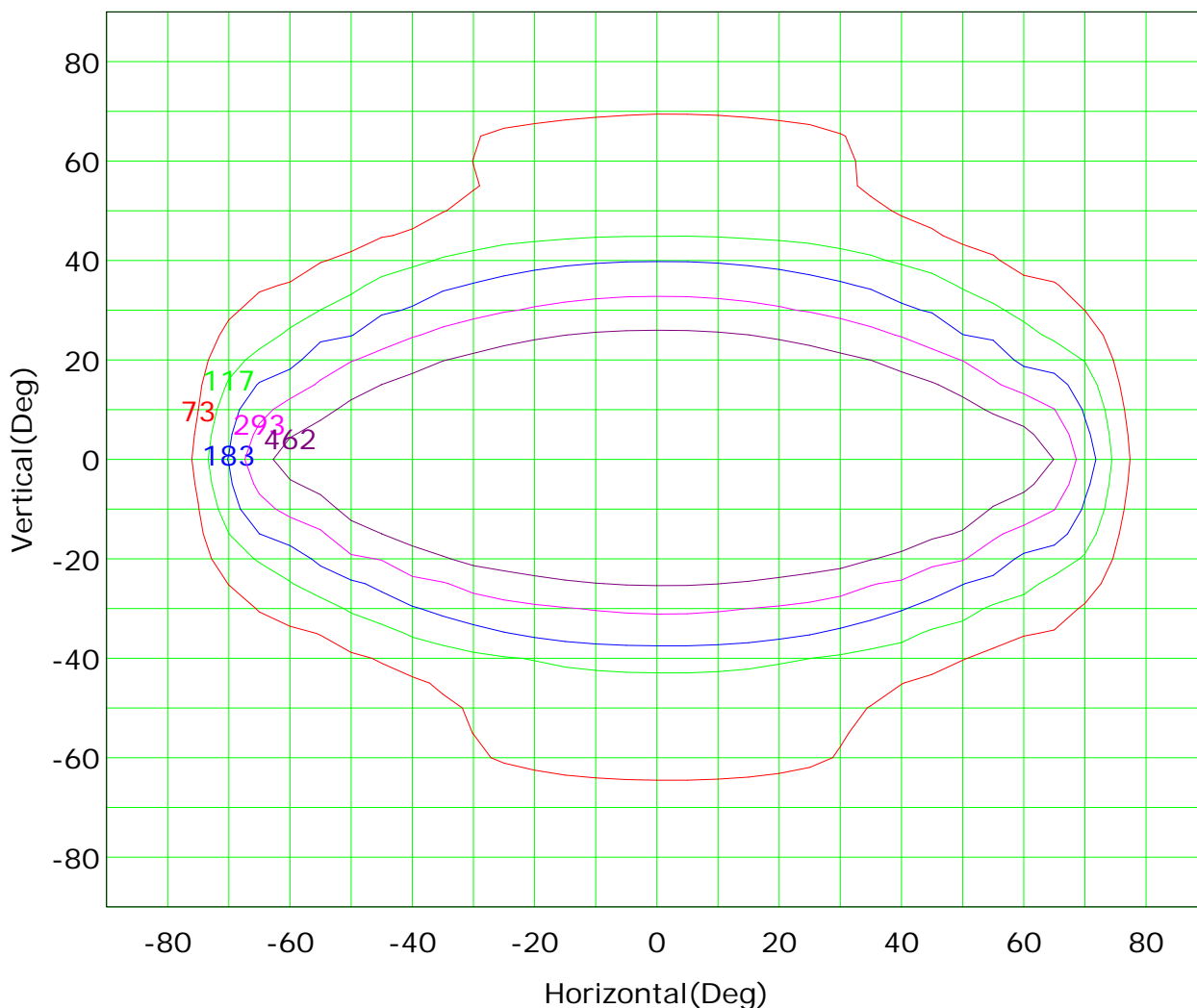
## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 10.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-2000  
Distance: 7.970 m  
Humidity:  
Inspector:

## Isocandela (rectangle)



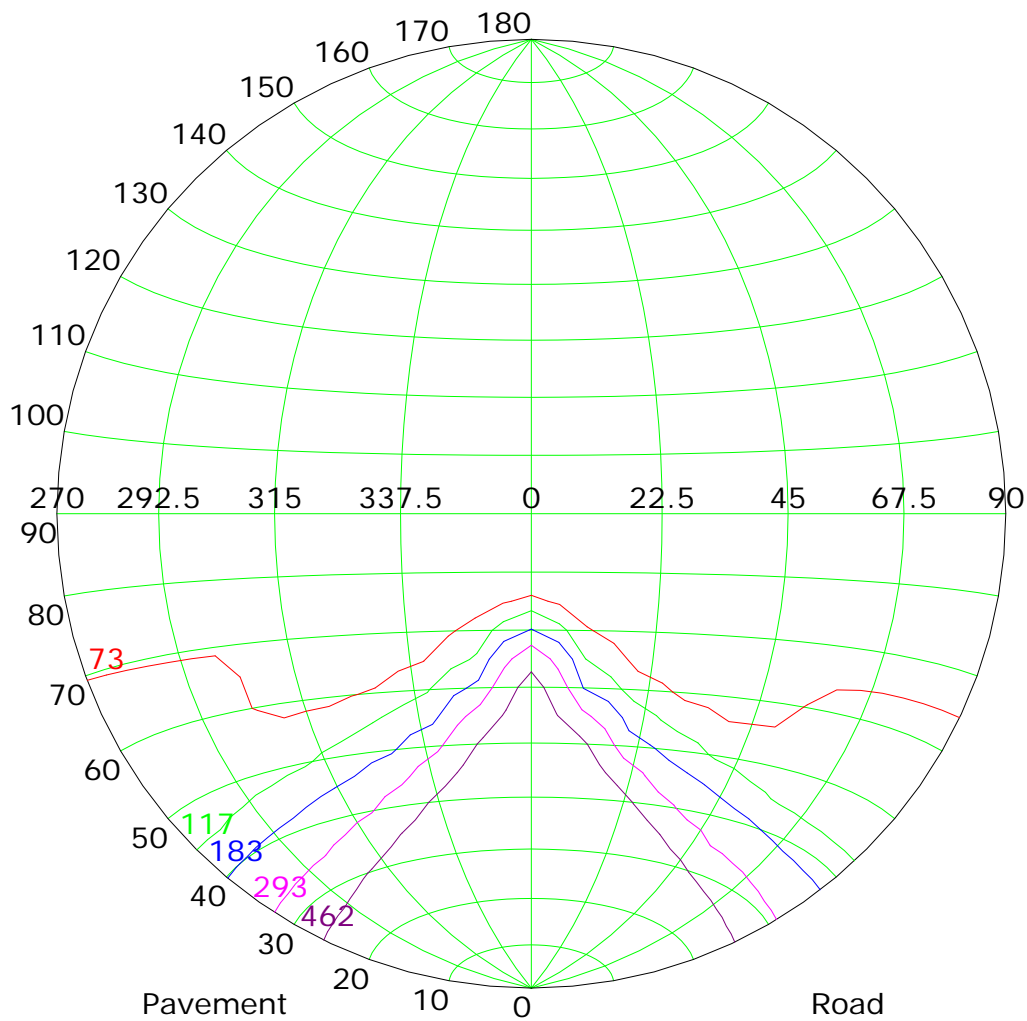
Imax (100%): 733 cd

- |           |        |           |        |
|-----------|--------|-----------|--------|
| — ( 10%): | 73 cd  | — ( 16%): | 117 cd |
| — ( 25%): | 183 cd | — ( 40%): | 293 cd |
| — ( 63%): | 462 cd | — (100%): | 733 cd |





## Isocandela (sphere)



Imax (100%): 733 cd

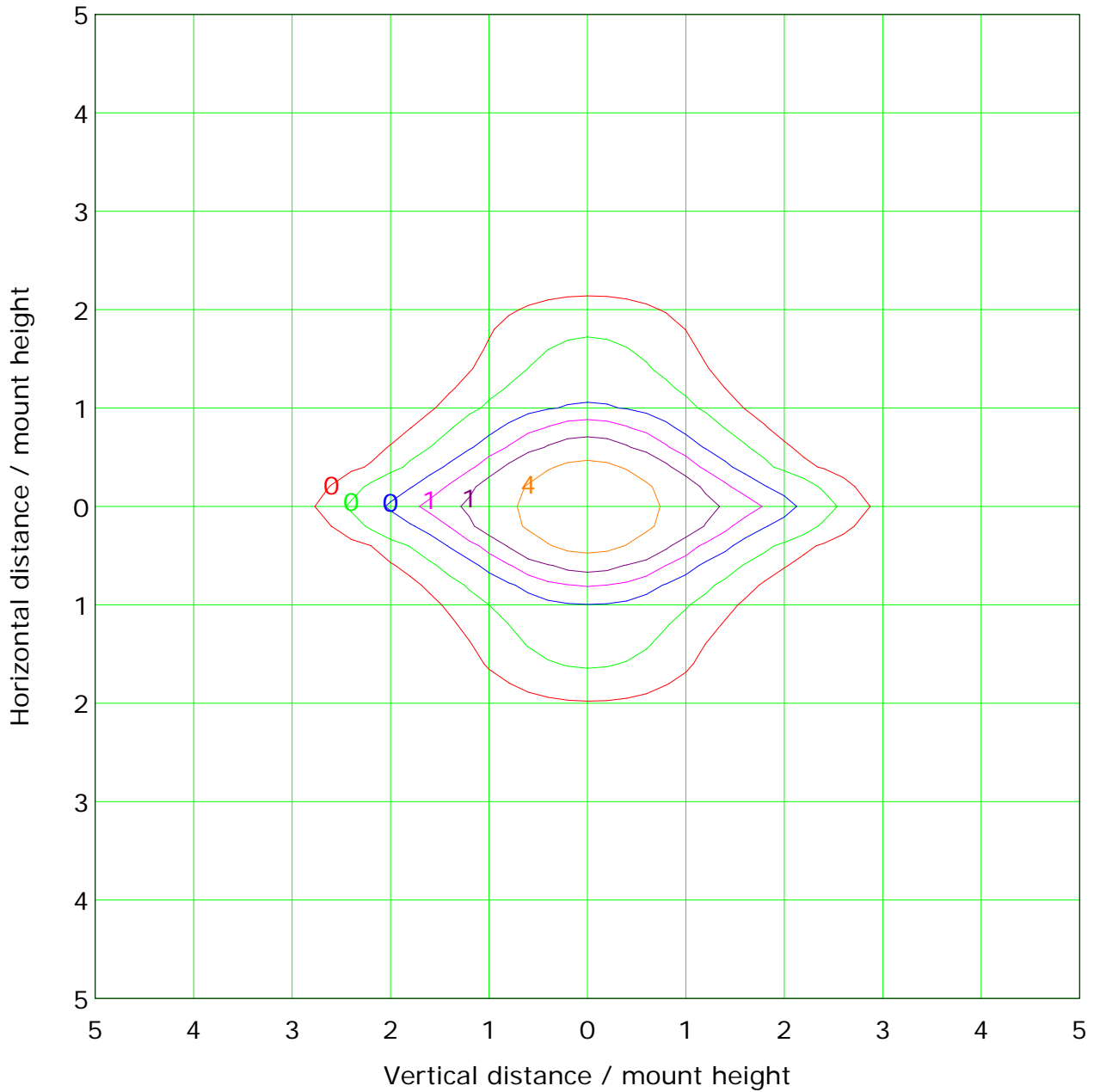
— ( 10%):	73 cd	— ( 16%):	117 cd
— ( 25%):	183 cd	— ( 40%):	293 cd
— ( 63%):	462 cd	— (100%):	733 cd

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 7.3 lx

— ( 1%): 0.1 lx	— ( 2%): 0.1 lx
— ( 5%): 0.4 lx	— (10%): 0.7 lx
— (20%): 1.5 lx	— (50%): 3.7 lx
— (100%): 7.3 lx	

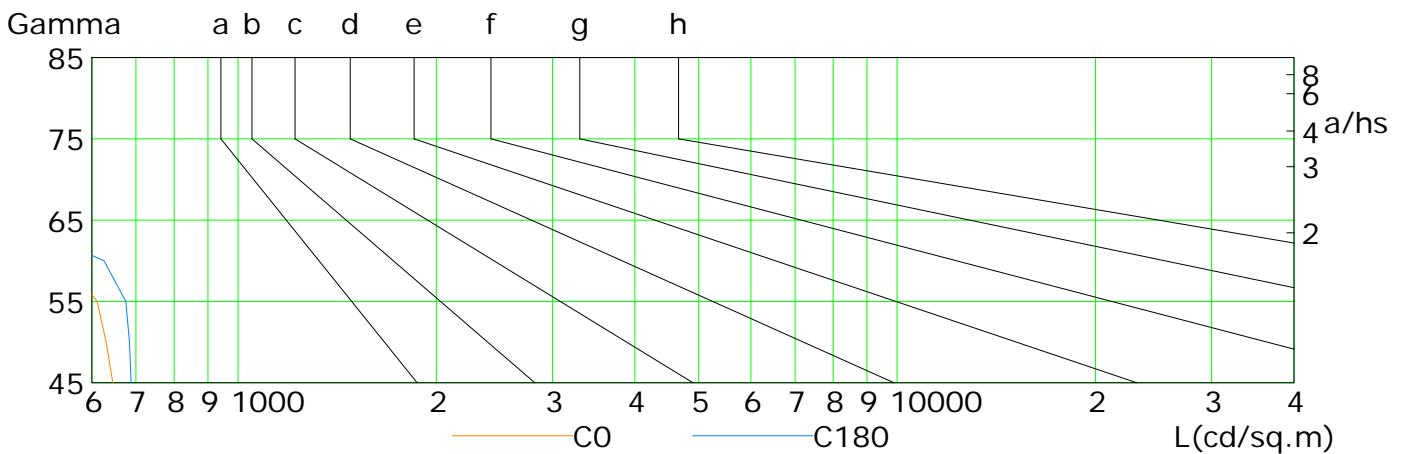
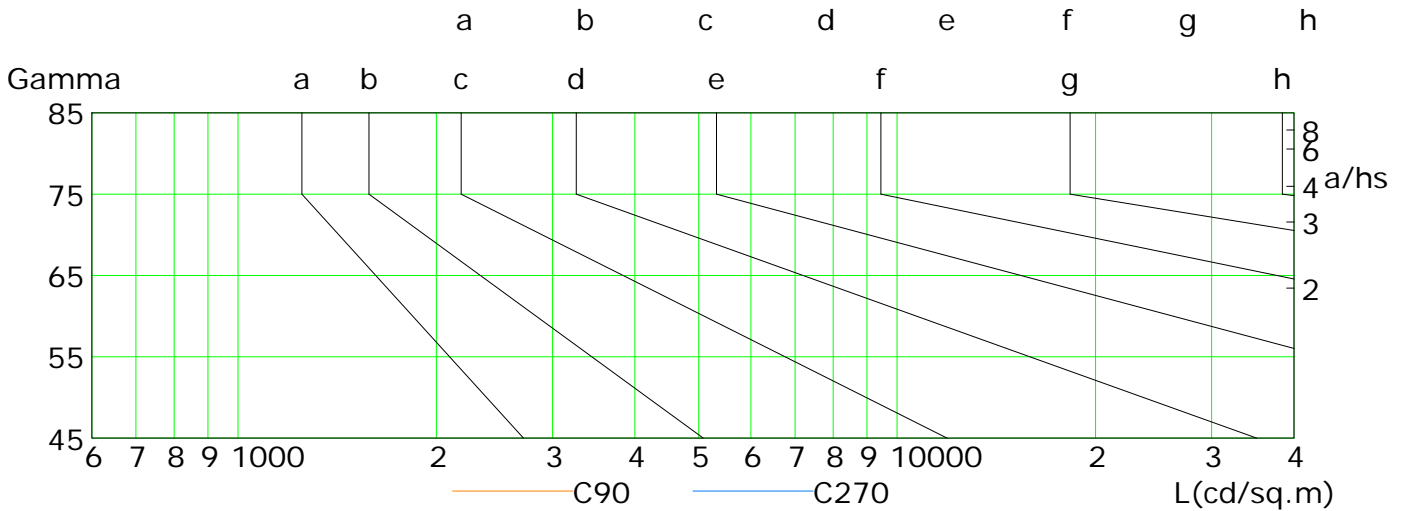
C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	646	631	611	551	387	187	83	34	9
C90	101	97	110	97	71	53	47	40	22
C180	688	684	676	626	458	229	103	41	11
C270	115	100	109	116	94	71	63	45	21

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-2000

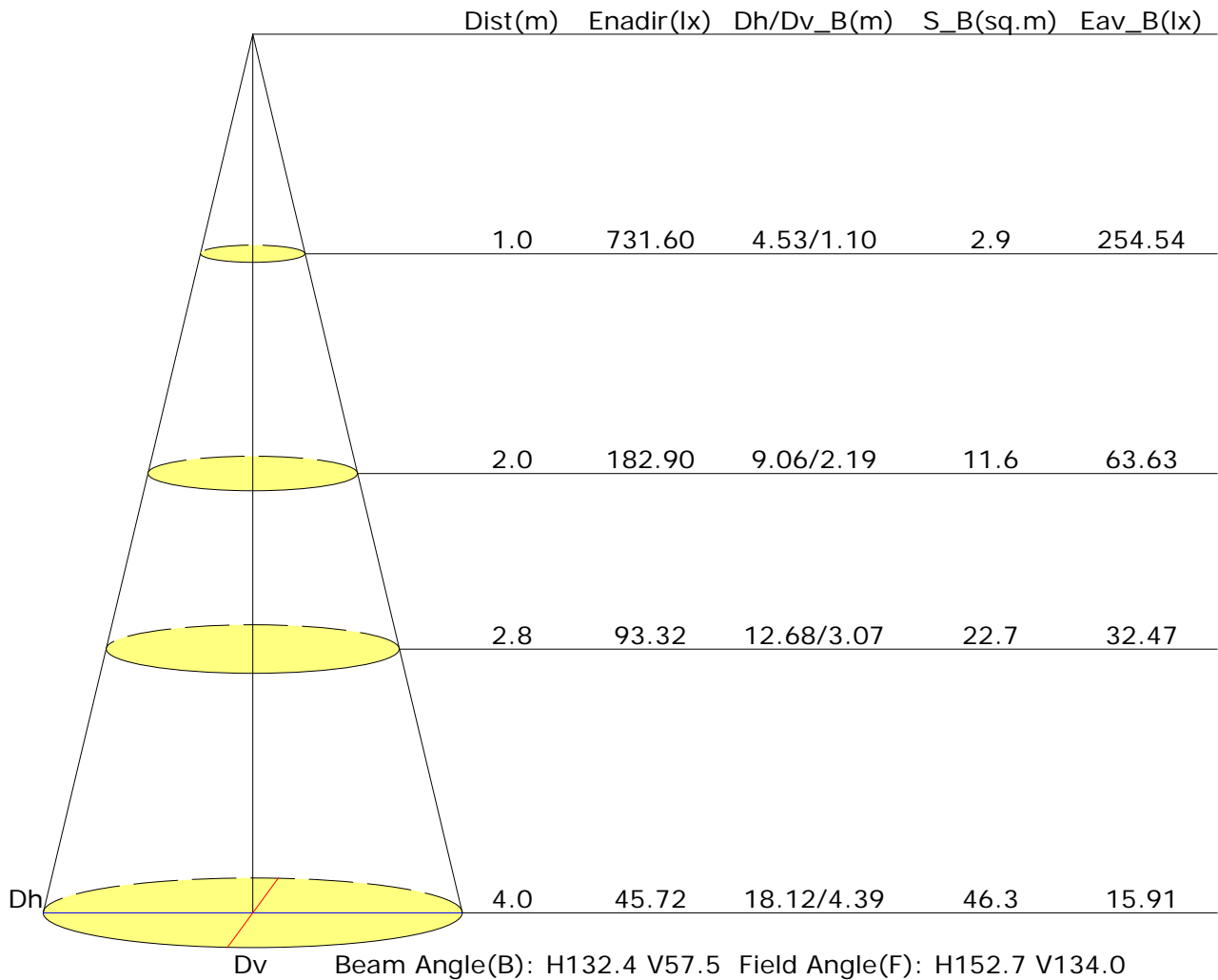
Distance: 7.970 m

Humidity:

Inspector:

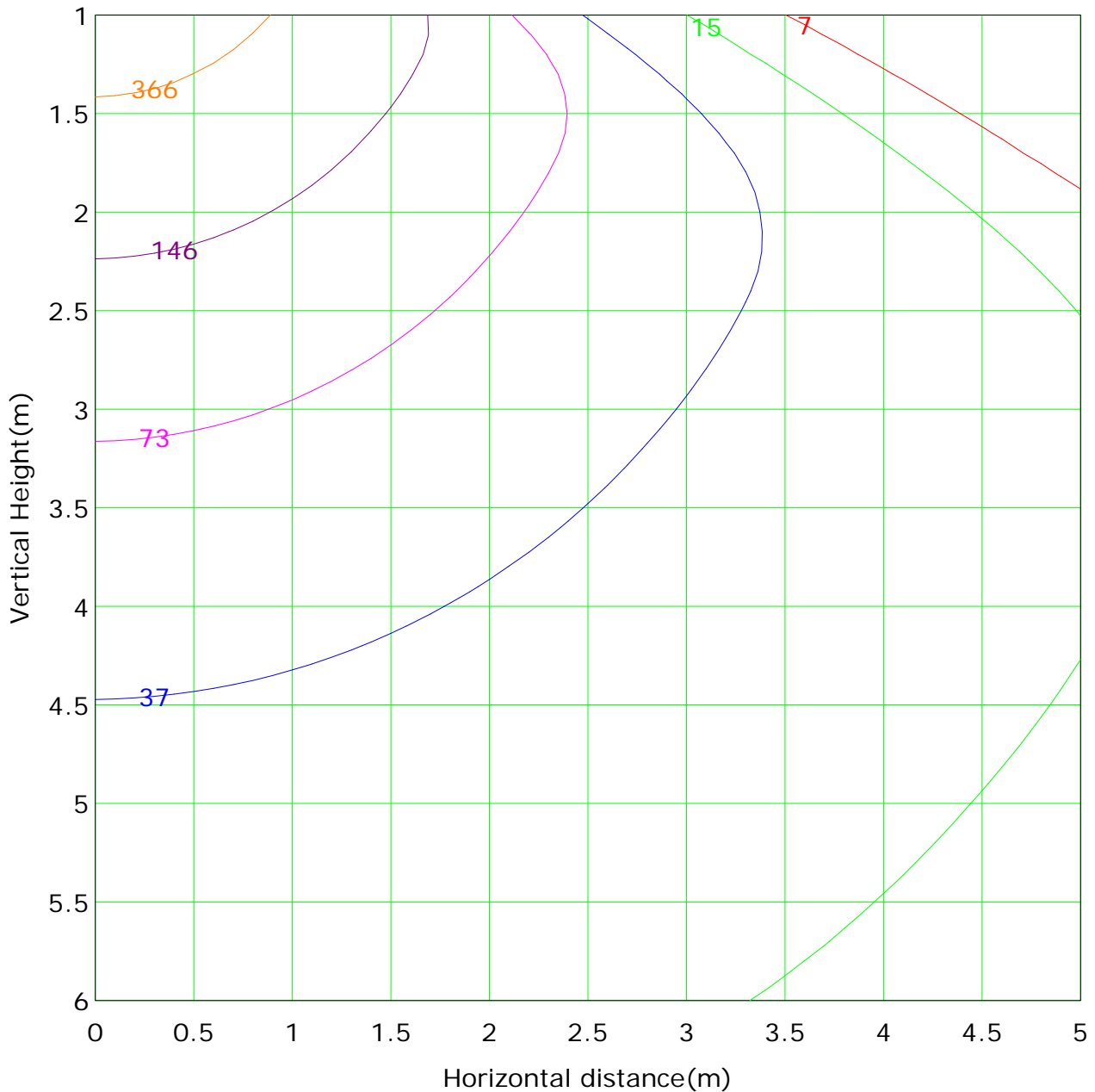


## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 731.6 lx
( 1%): 7.3 lx	( 2%): 14.6 lx	
( 5%): 36.6 lx	( 10%): 73.2 lx	
( 20%): 146.3 lx	( 50%): 365.8 lx	
(100%): 731.6 lx		

C Plane (°):0.0-360.0: 10.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-2000  
 Distance: 7.970 m  
 Humidity:  
 Inspector:



Report No.:

Test Time: 18/11/2020 15:35

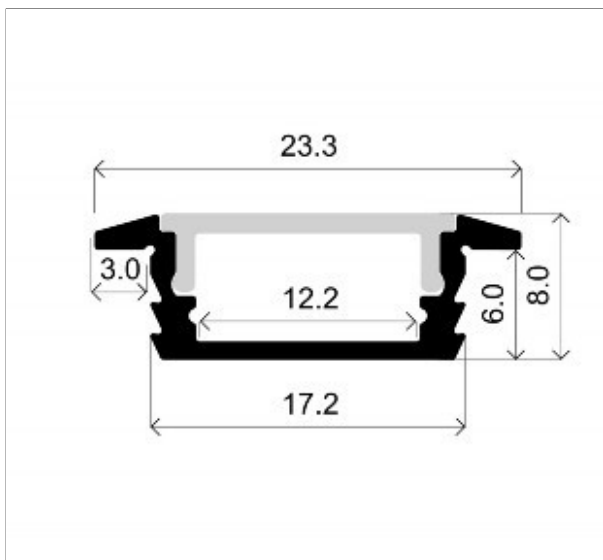
## Luminaire Property

Luminaire Manufacturer: Lighting Line  
 Luminaire Description: LLP-RE01-03 + LLD-03-FB  
 Lamp Description: F52-400-60822  
 Lumens per Lamp: 1579 lm  
 Current: 0.592 A  
 Power Factor: 1.000  
 Number of Lamps: 1  
 Voltage: 24.0 V  
 Power: 14.21 W

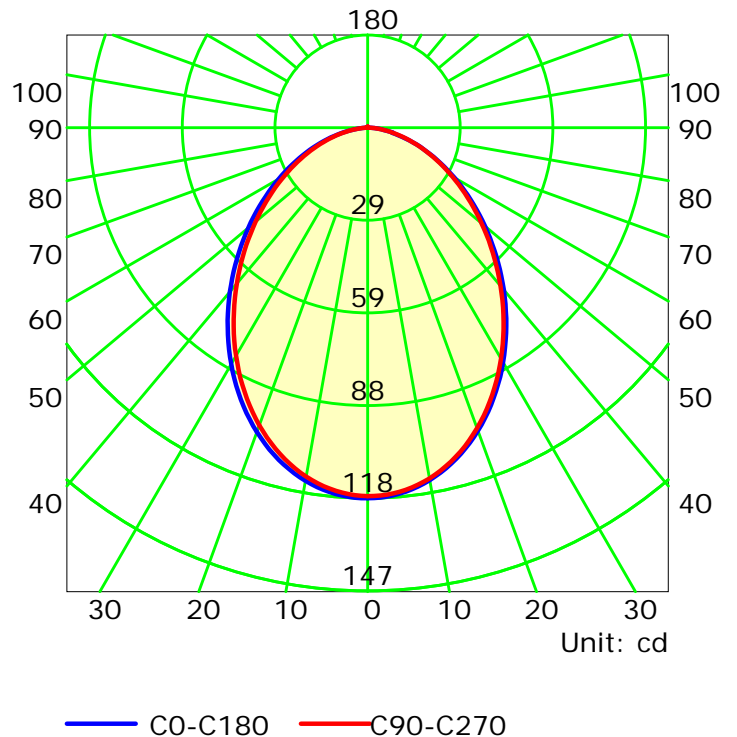
## Photometric Results

CIE Class: Direct  
 Measurement Flux: 252.2 lm  
 Downward Ratio: 15.94%  
 Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 149.9, 149.7, 149.7, 149.8  
 Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 89.3, 87.1, 88.2, 88.4  
 Luminaire Efficacy Rating (LER): 17.80  
 Max. Intensity: 118.17 cd  
 S/MH(C0/C180): 1.11  
 Total Rated Lamp Lumens: 1579.0 lm  
 Efficiency: 15.97%  
 Upward Ratio: 0.03%  
 Central Intensity: 118.16 cd  
 Pos of Max. Intensity: H0 V0  
 S/MH(C90/C270): 1.09

Picture Of Luminaire



Luminous Intensity Distribution Curve

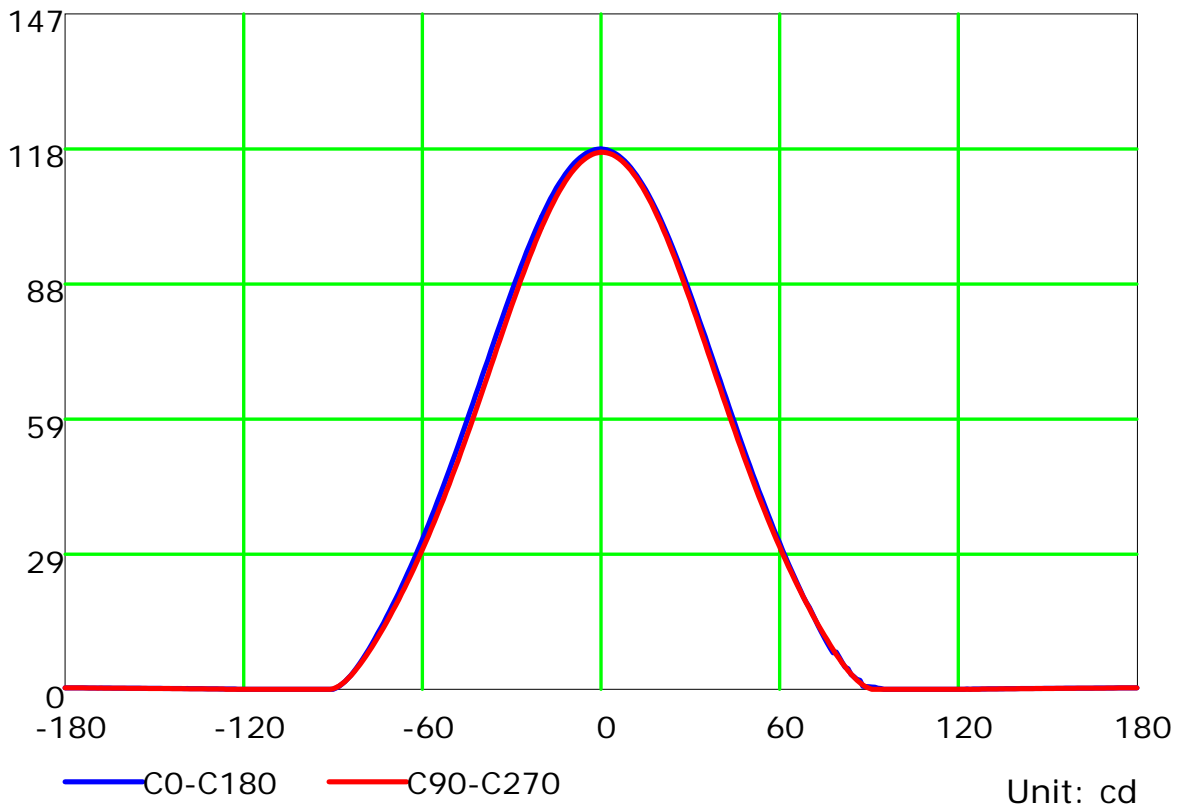
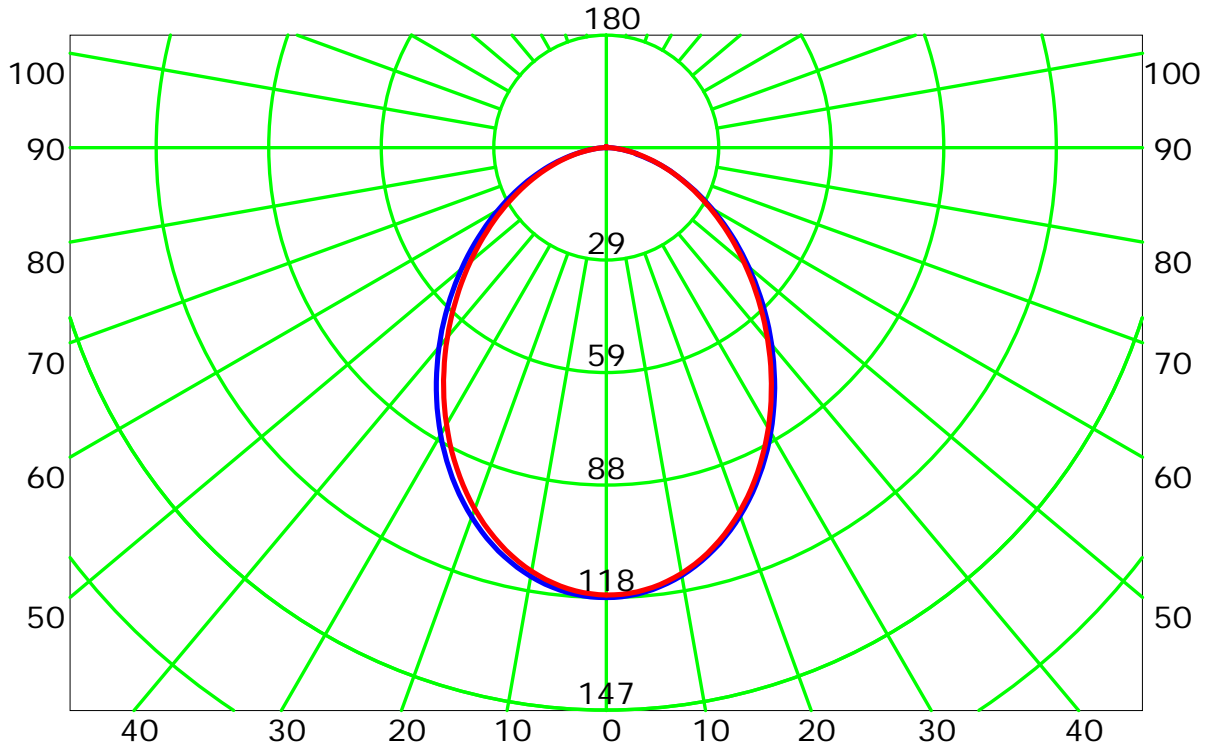


C Plane (°):0.0-360.0: 45.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.979 m  
 Humidity:  
 Inspector:



## Luminous Intensity Distribution Curve

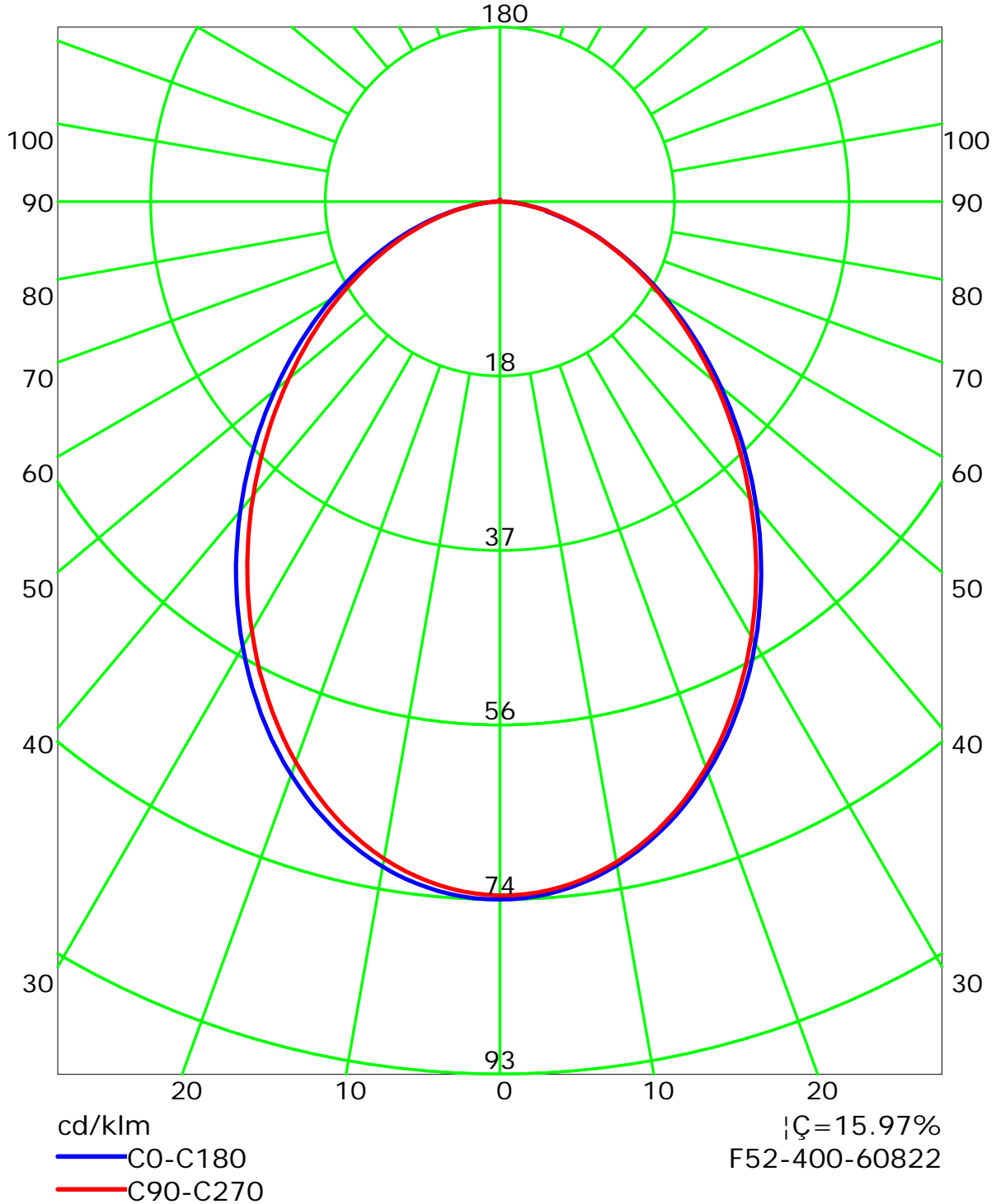


C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 7.979 m  
Humidity:  
Inspector:



## Luminous Intensity Distribution Curve(cd/klm)



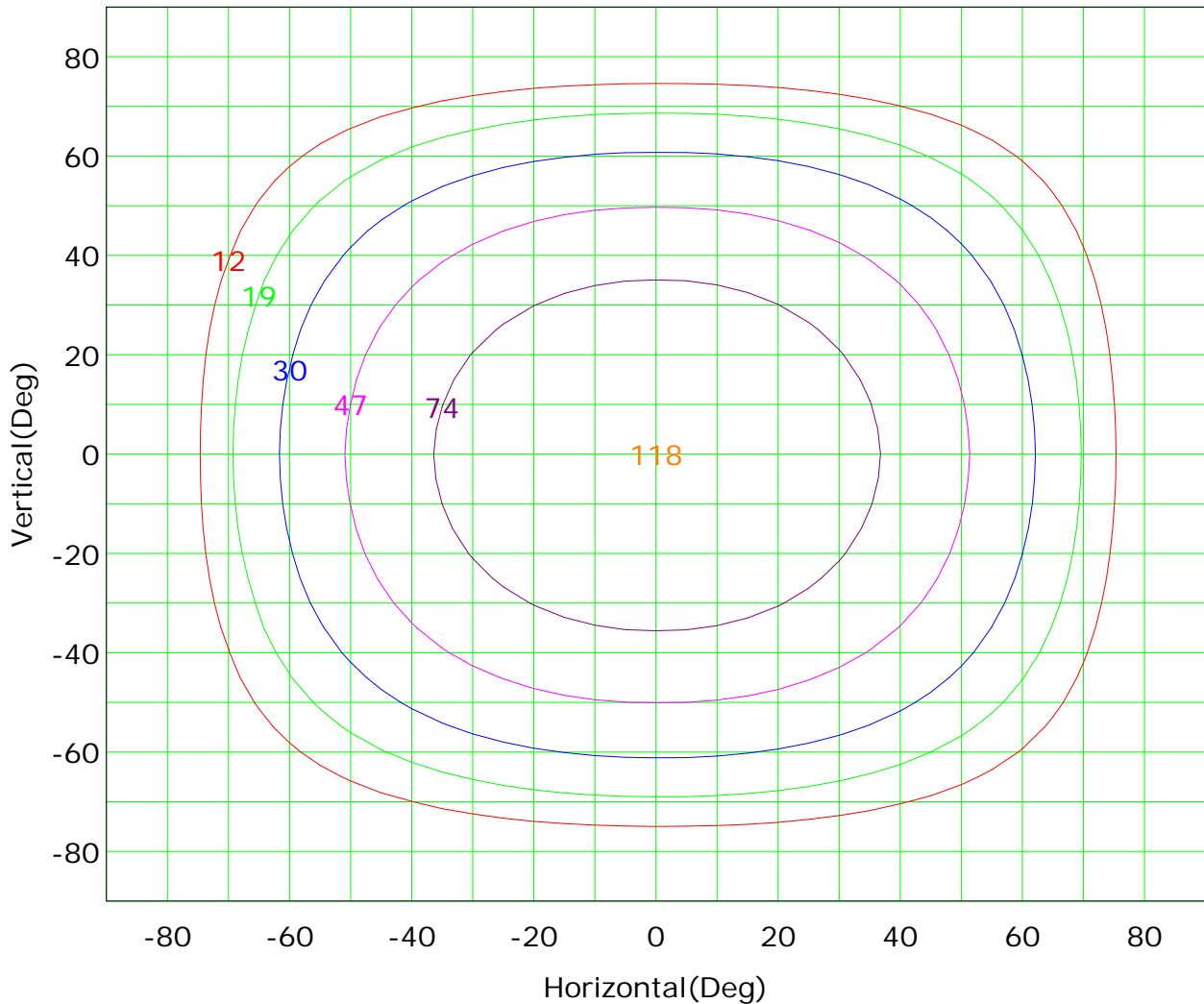
C Plane (°):0.0-360.0: 45.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 7.979 m  
Humidity:  
Inspector:





## Isocandela (rectangle)



Imax (100%): 118 cd

— ( 10%):	12 cd	— ( 16%):	19 cd
— ( 25%):	30 cd	— ( 40%):	47 cd
— ( 63%):	74 cd	— (100%):	118 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-1800B

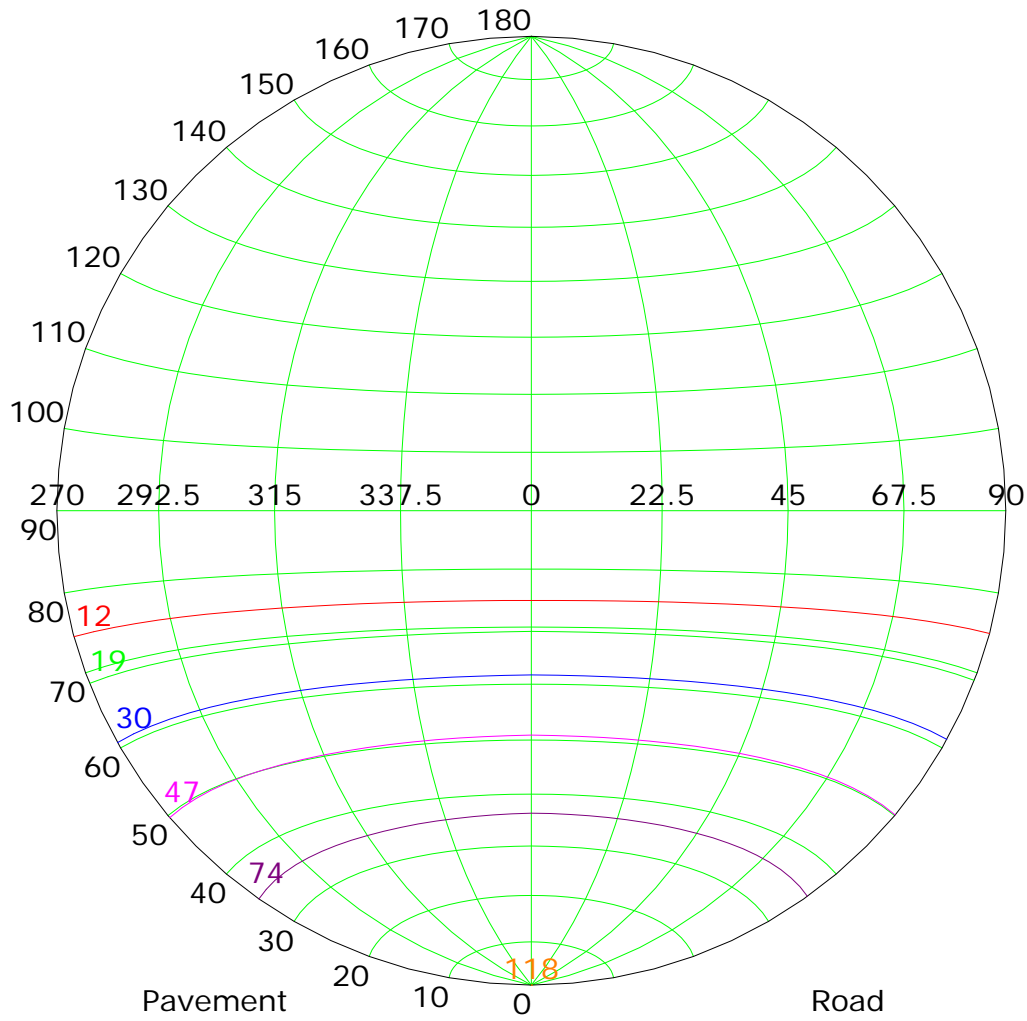
Distance: 7.979 m

Humidity:

Inspector:



## Isocandela (sphere)



Imax (100%): 118 cd

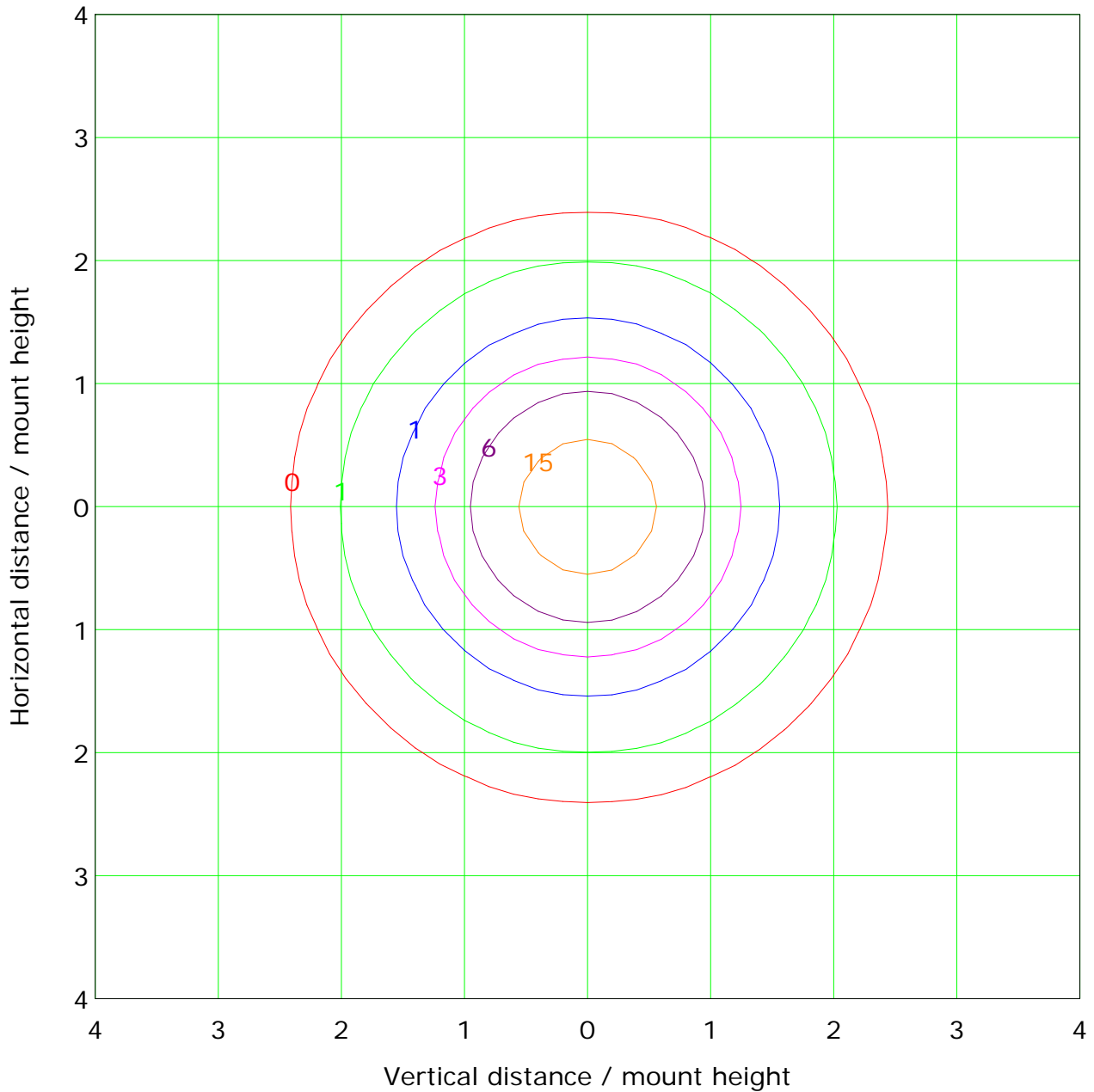
— ( 10%):	12 cd	— ( 16%):	19 cd
— ( 25%):	30 cd	— ( 40%):	47 cd
— ( 63%):	74 cd	— (100%):	118 cd

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-1800B  
 Distance: 7.979 m  
 Humidity:  
 Inspector:



## IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 29.5 lx	
— ( 1%):	0.3 lx	— ( 2%):	0.6 lx
— ( 5%):	1.5 lx	— (10%):	3.0 lx
— (20%):	5.9 lx	— (50%):	14.8 lx
— (100%):	29.5 lx		

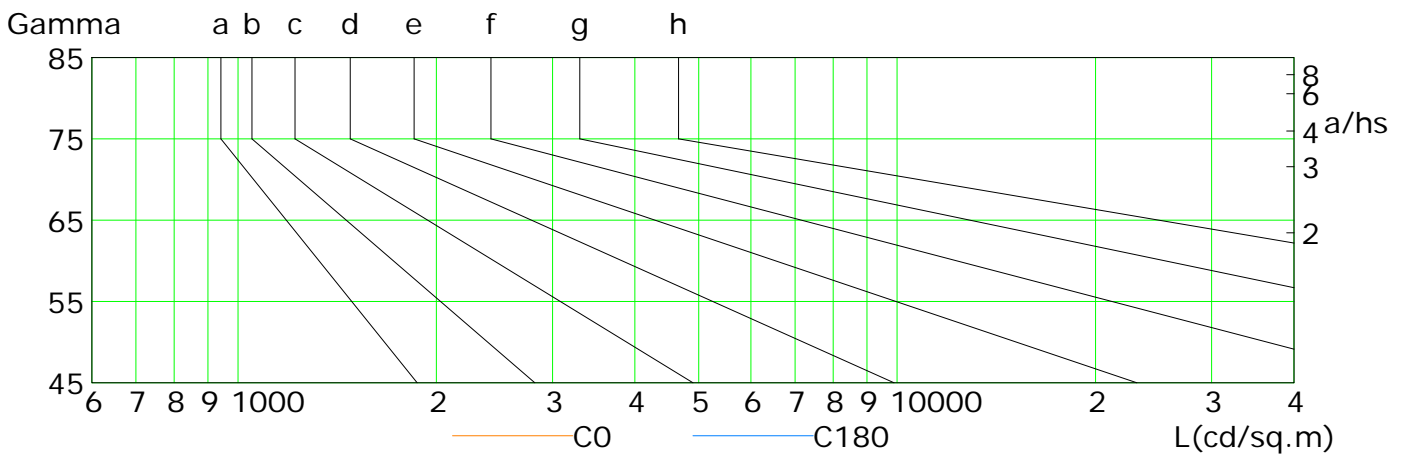
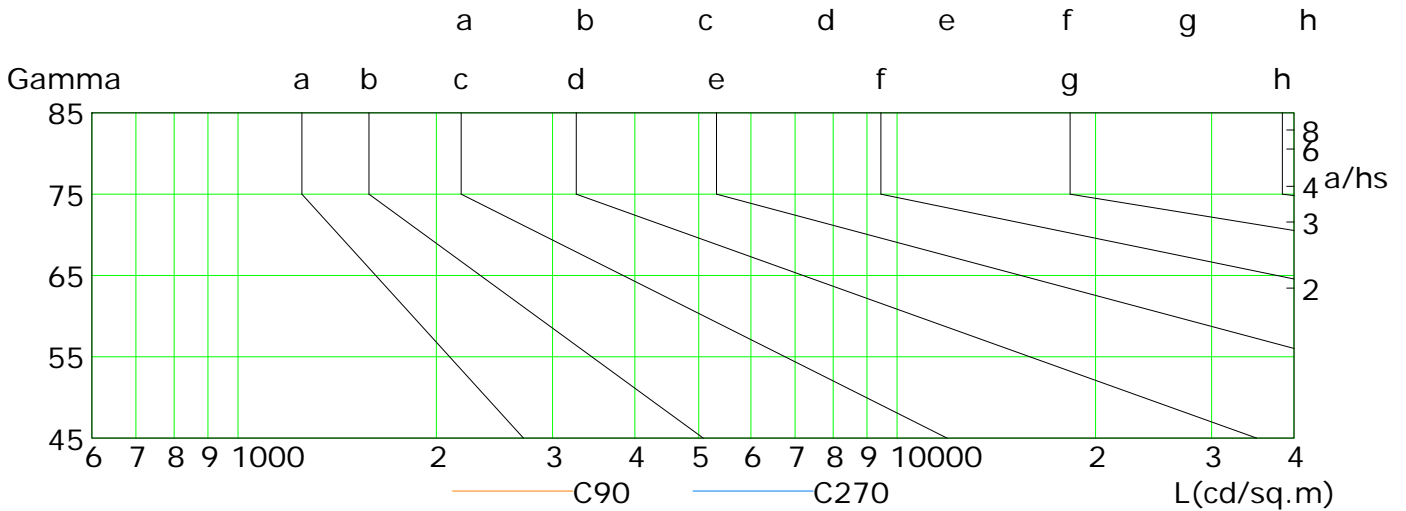
C Plane (°):0.0-360.0: 45.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: GPM-1800B  
 Distance: 7.979 m  
 Humidity:  
 Inspector:



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	58	49	40	32	24	18	11	7	3
C90	56	47	39	31	24	18	12	7	3
C180	59	50	41	33	25	18	12	7	2
C270	56	47	38	31	24	17	11	6	2

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-1800B

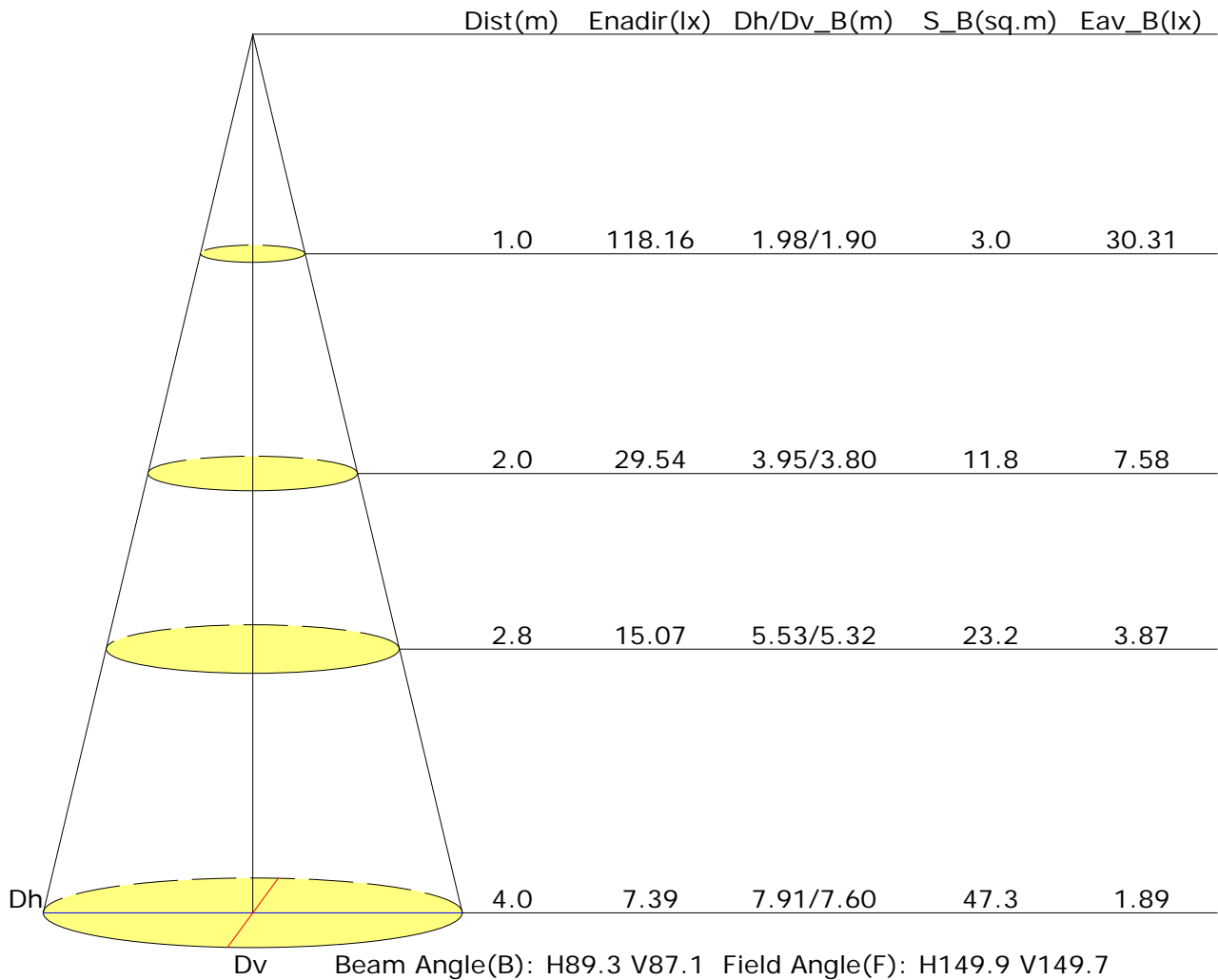
Distance: 7.979 m

Humidity:

Inspector:

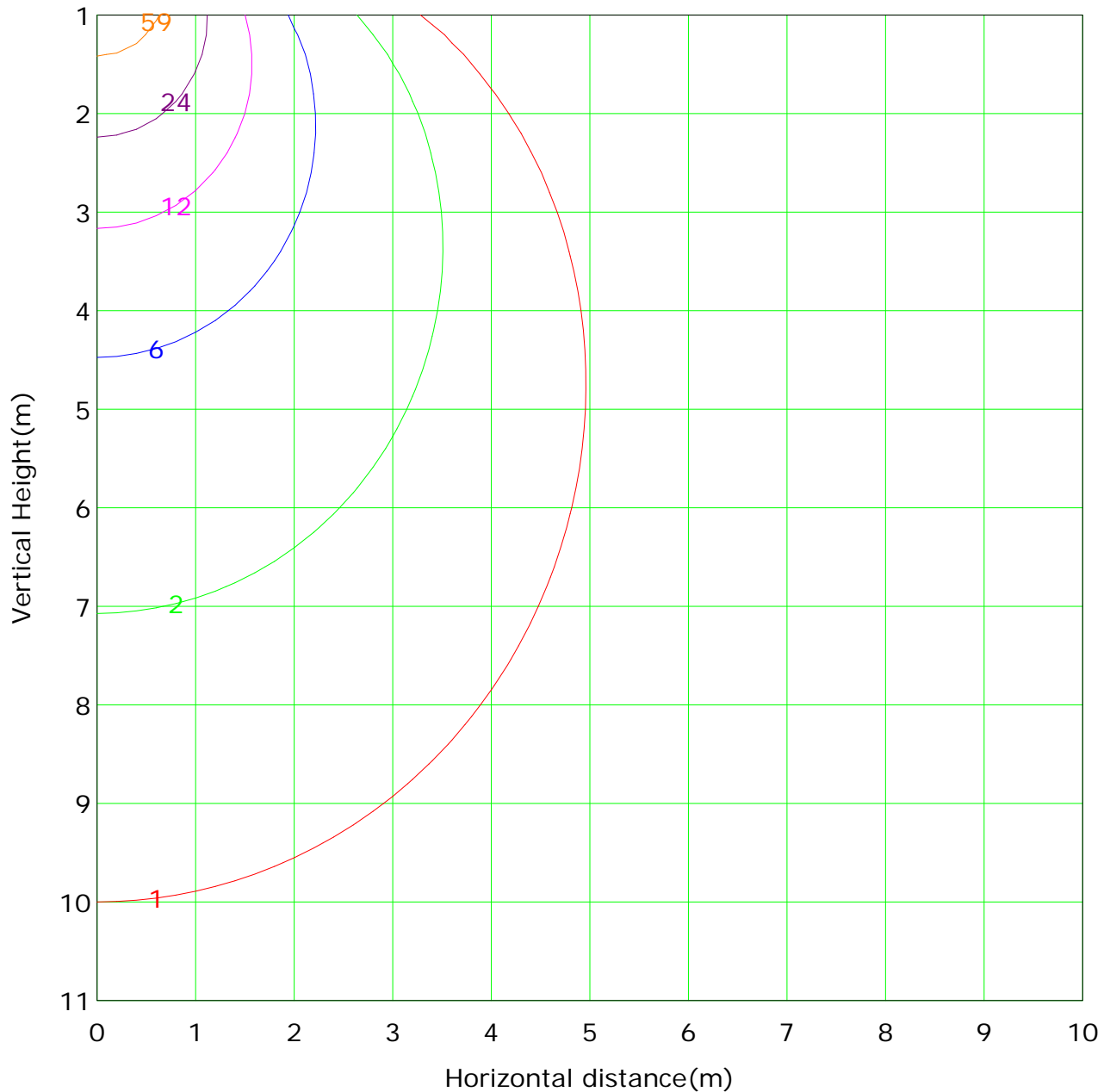


## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 118.2 lx
( 1%): 1.2 lx	( 2%): 2.4 lx	
( 5%): 5.9 lx	( 10%): 11.8 lx	
( 20%): 23.6 lx	( 50%): 59.1 lx	
(100%): 118.2 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-1800B  
Distance: 7.979 m  
Humidity:  
Inspector: