

Report No.:

Test Time: 07/09/2018 10:42

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-WL03-01 + LLD-01-FM

Lamp Description: F52-400-60822

Number of Lamps: 1

Lumens per Lamp: 1579 lm

Voltage: 24.0 V

Current: 0.587 A

Power: 14.08 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 905.4 lm

Downward Ratio: 57.12%

Total Rated Lamp Lumens: 1579.0 lm

Efficiency: 57.34%

Upward Ratio: 0.22%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.1, 161.2, 160.8, 160.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.5, 111.8, 112.2, 112.1

Luminaire Efficacy Rating (LER): 64.35

Central Intensity: 318.51 cd

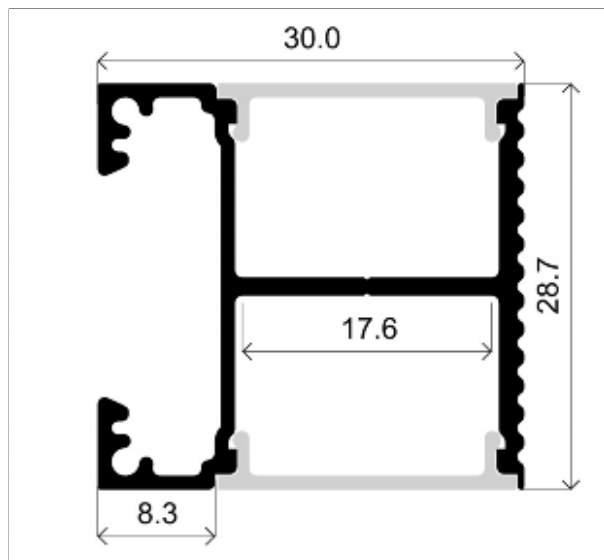
Max. Intensity: 318.52 cd

Pos of Max. Intensity: H110 V0

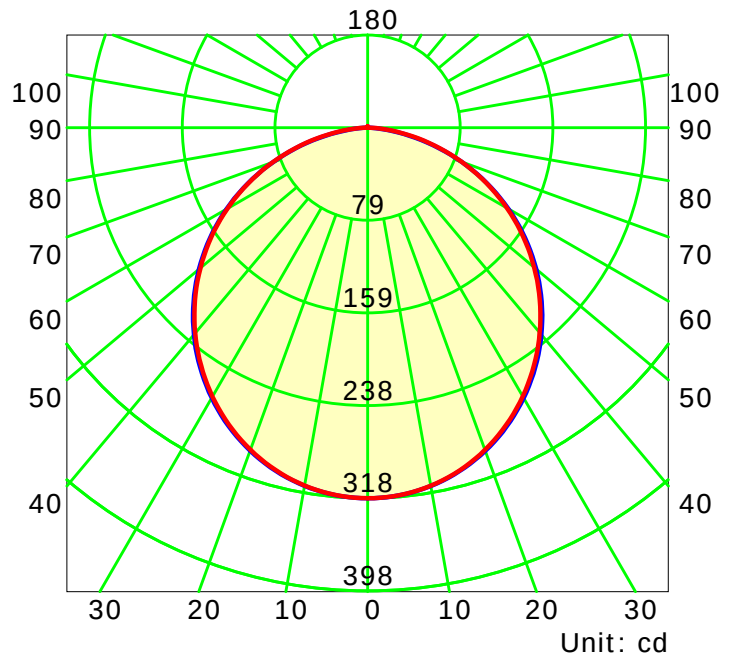
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

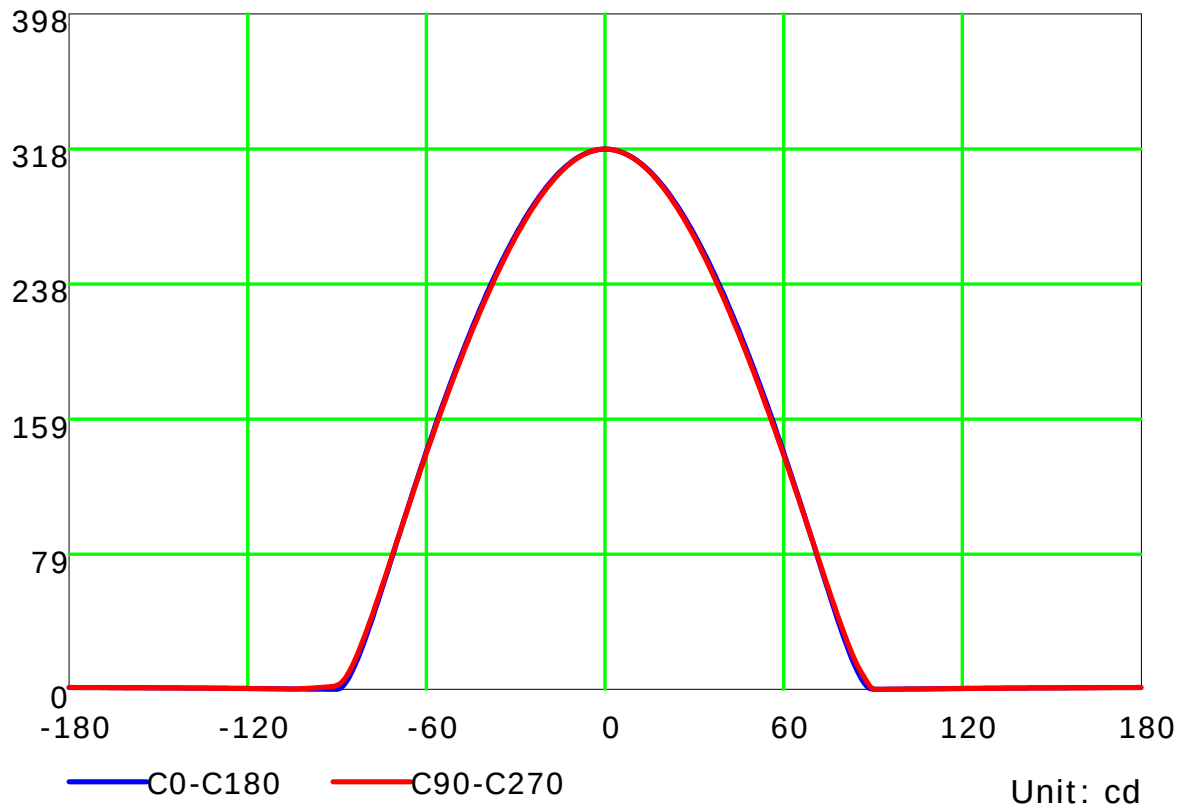
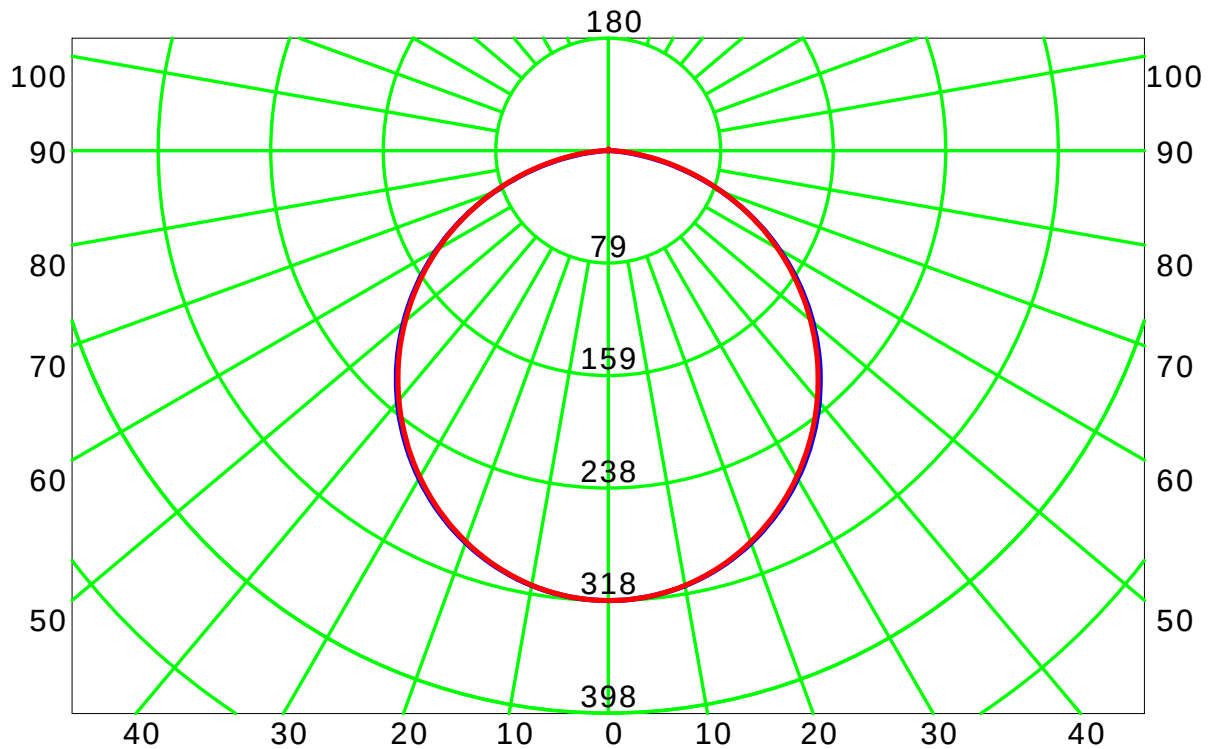
Test Device: GPM-2000

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

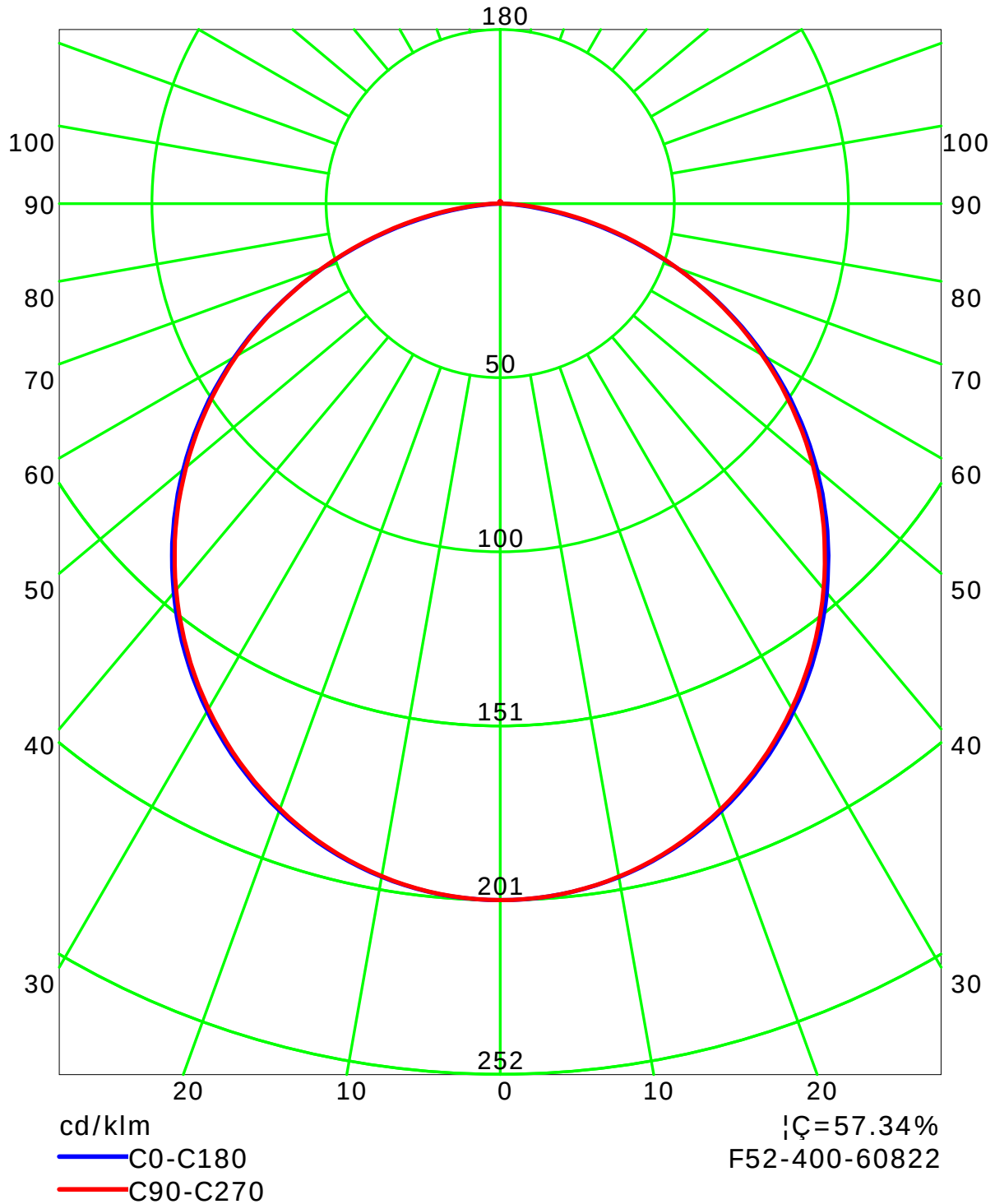
Test Device: GPM-2000

Distance: 7.970 m

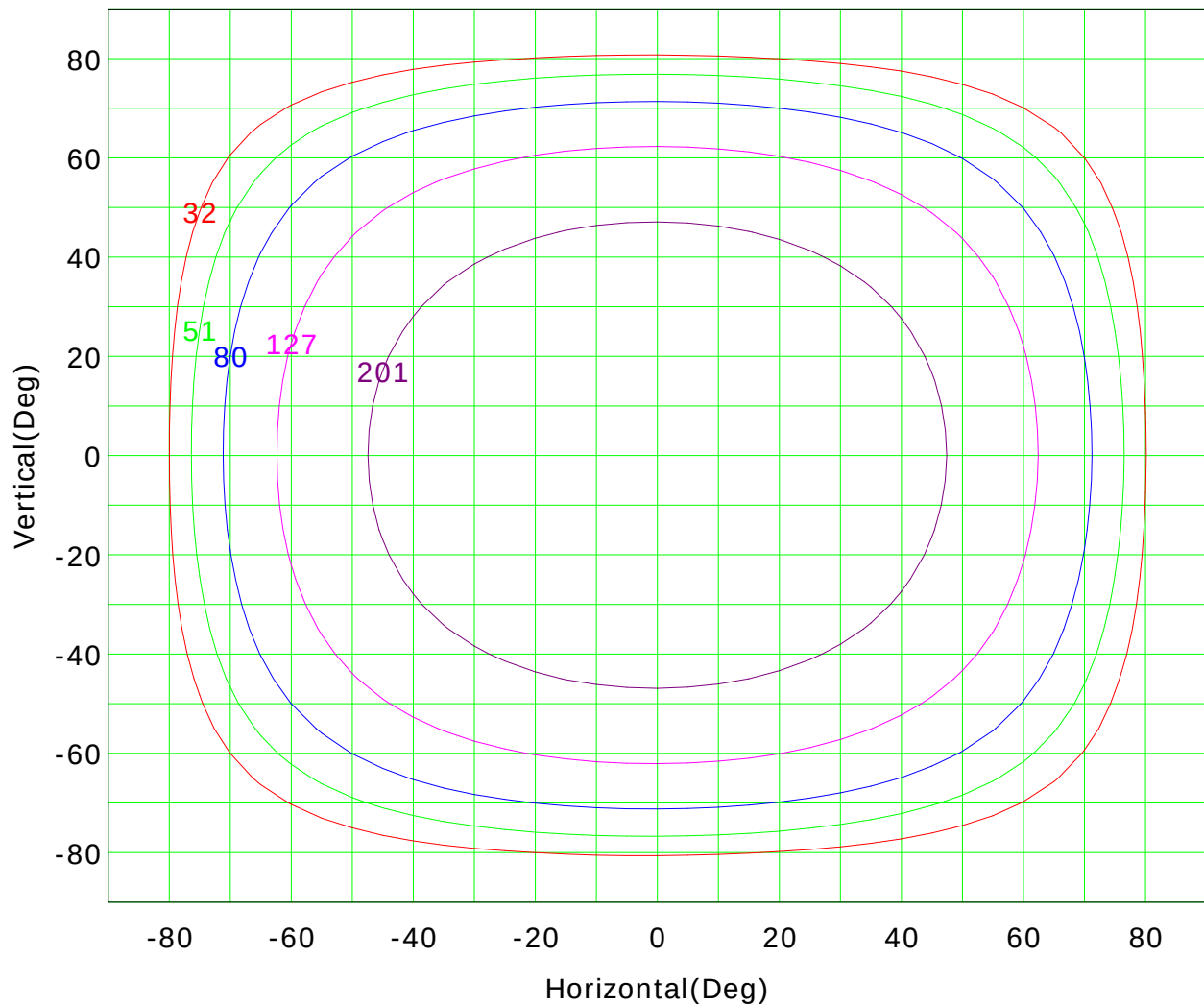
Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd / klm)



Isocandela (rectangle)



I_{max} (100%): 319 cd

(10%):	32 cd	(16%):	51 cd
(25%):	80 cd	(40%):	127 cd
(63%):	201 cd	(100%):	319 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

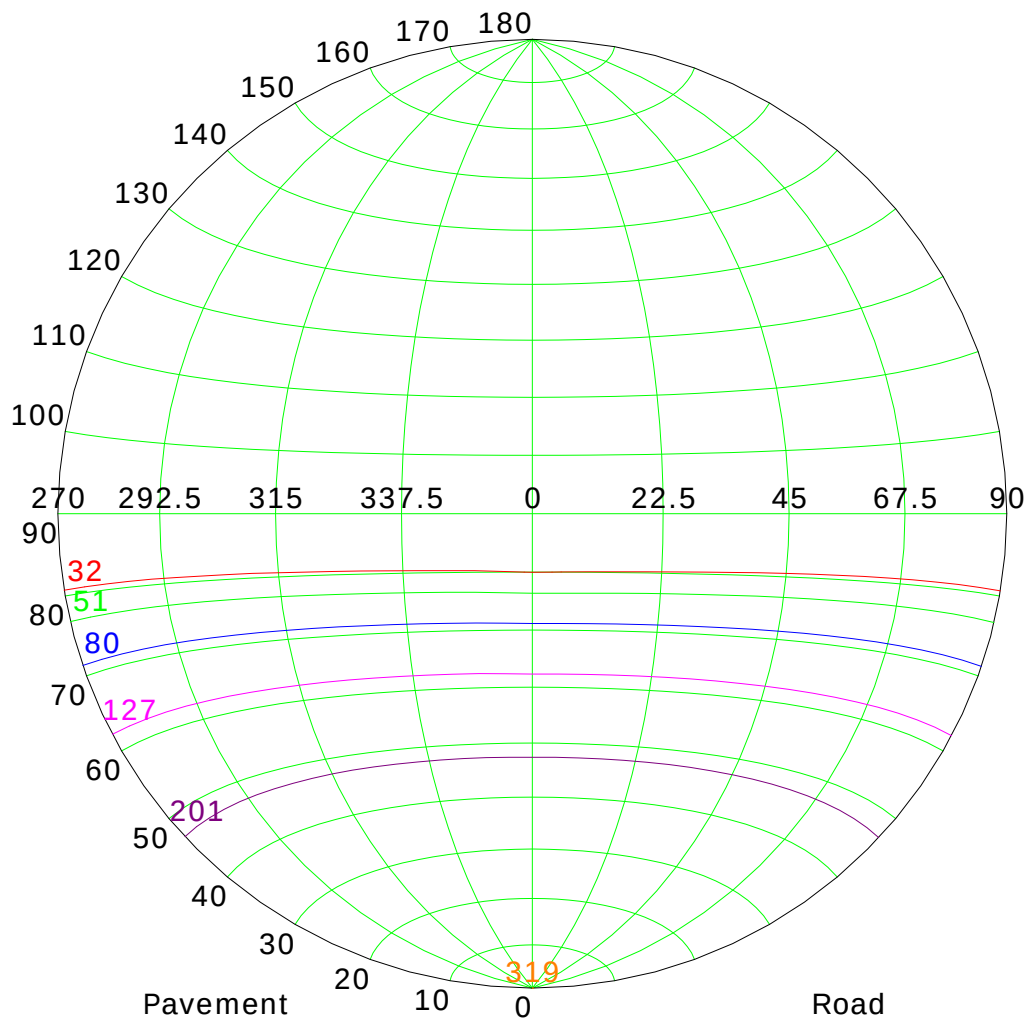
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



I_{max} (100%): 319 cd

— (10%):	32 cd	— (16%):	51 cd
— (25%):	80 cd	— (40%):	127 cd
— (63%):	201 cd	— (100%):	319 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

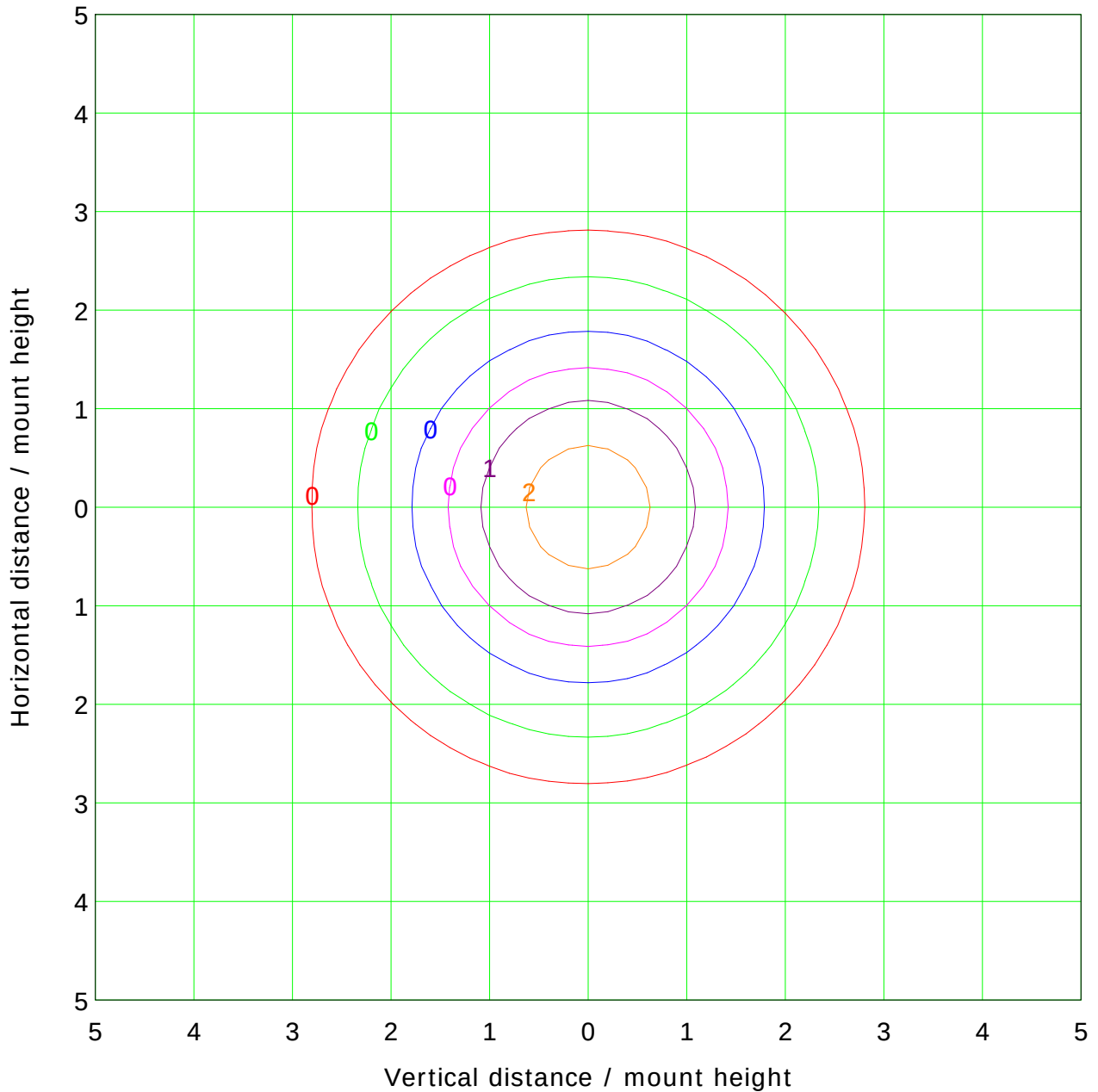
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 3.2 lx	
— (1%):	0.0 lx	— (2%):	0.1 lx
— (5%):	0.2 lx	— (10%):	0.3 lx
— (20%):	0.6 lx	— (50%):	1.6 lx
— (100%):	3.2 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

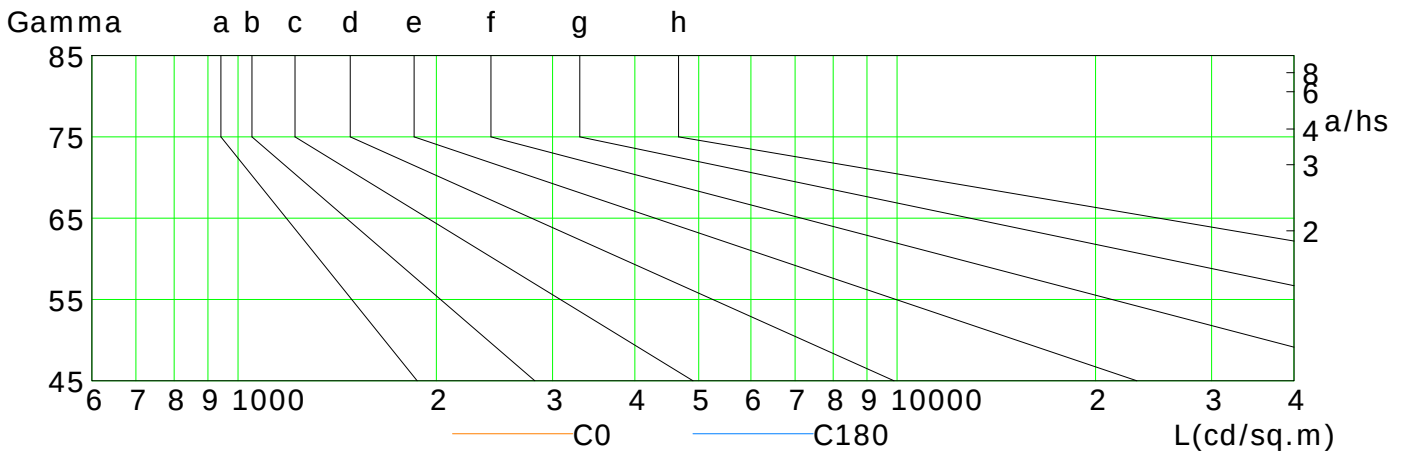
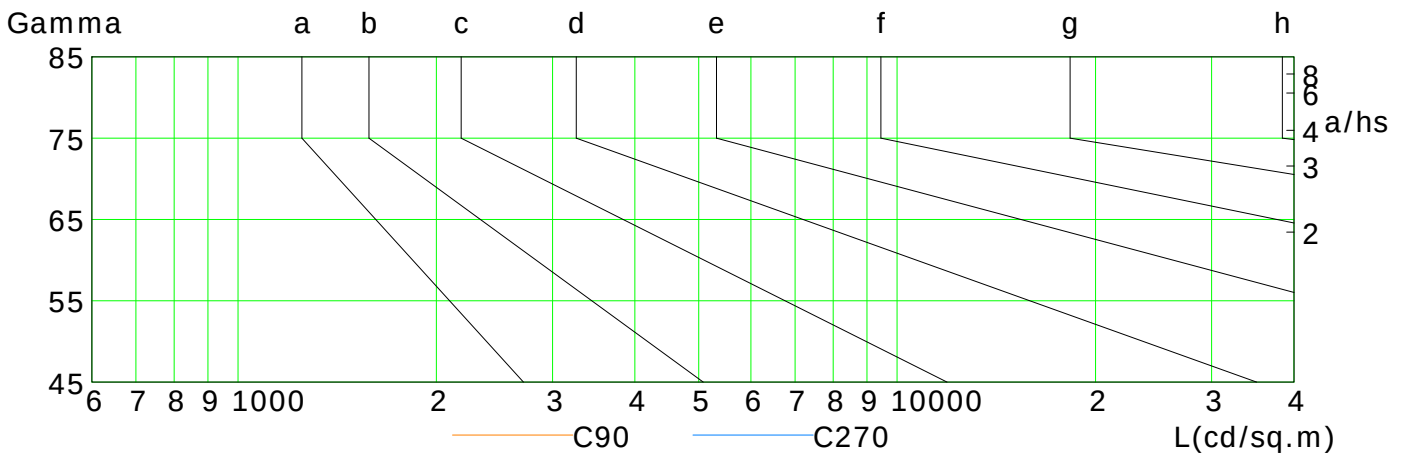
Humidity:

Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
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	212	189	165	140	113	86	58	32	10
C90	209	187	163	138	113	86	60	34	13
C180	212	189	166	140	114	86	59	32	11
C270	210	188	164	139	113	87	60	35	13

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

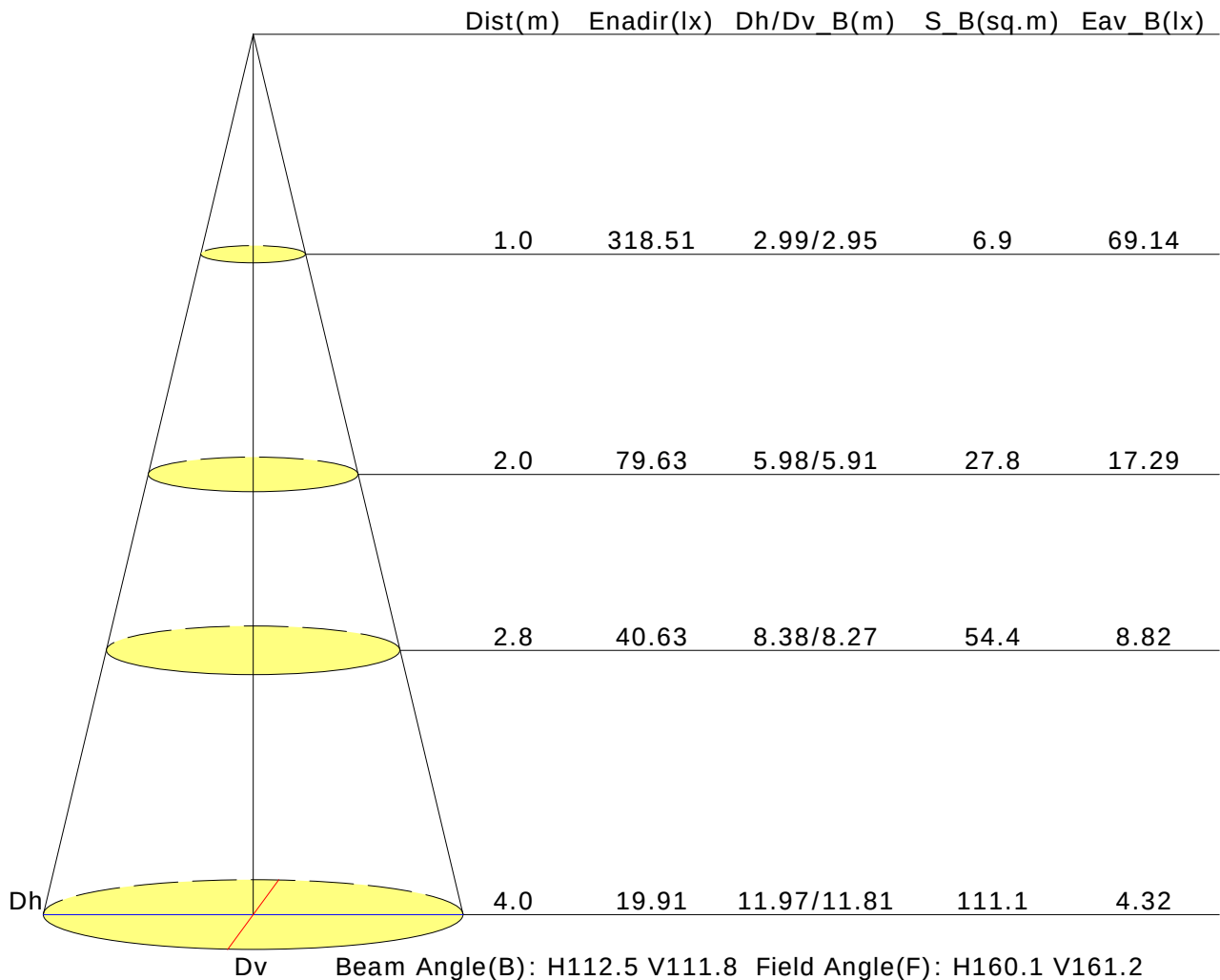
Test Device: GPM-2000

Distance: 7.970 m

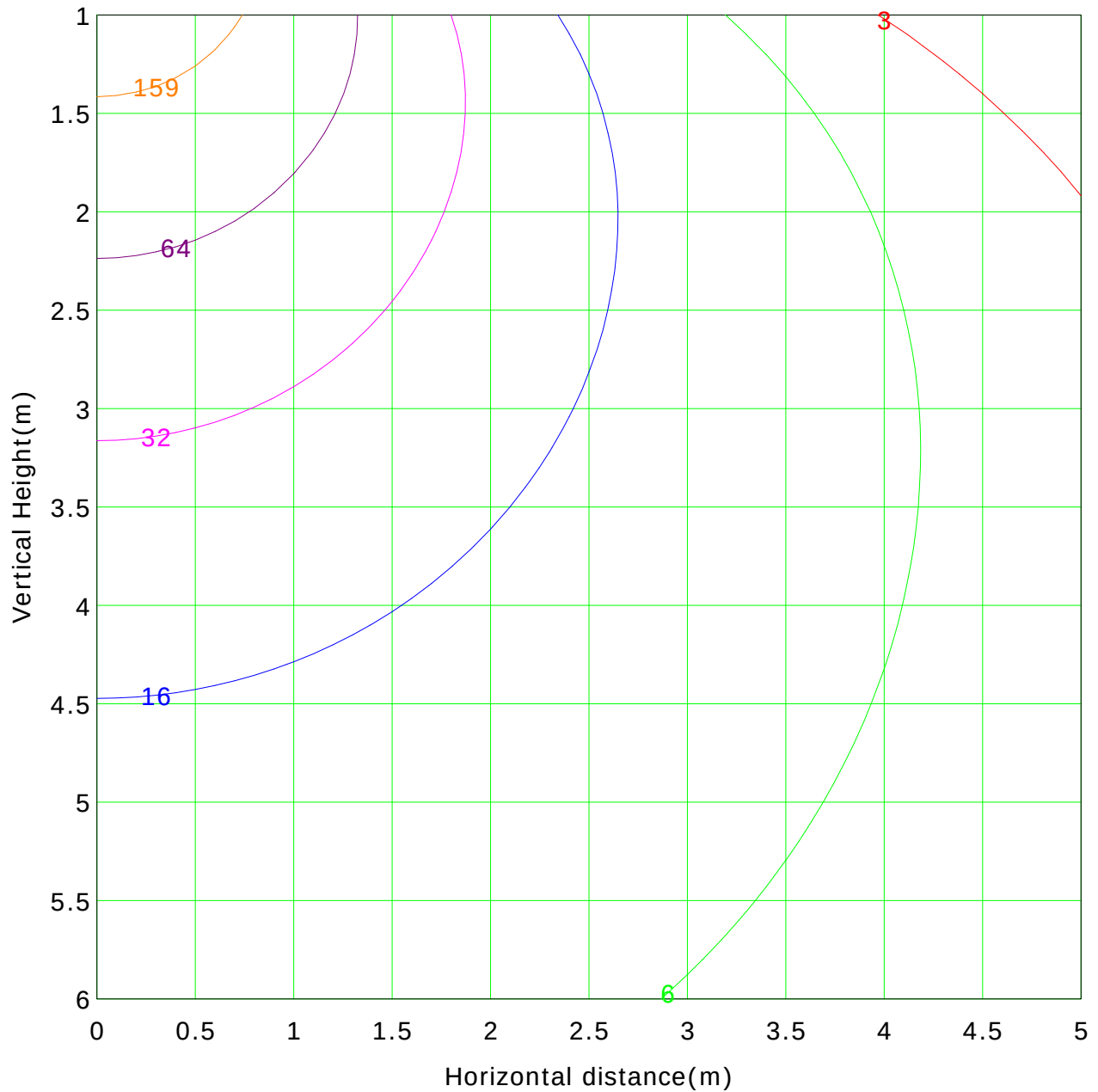
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 318.5 lx
(1%): 3.2 lx	(2%): 6.4 lx	
(5%): 15.9 lx	(10%): 31.9 lx	
(20%): 63.7 lx	(50%): 159.3 lx	
(100%): 318.5 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:

Report No.:

Test Time: 07/09/2018 12:10

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-WL03-01 + LLD-01-CM

Lamp Description: F52-400-60822

Number of Lamps: 1

Lumens per Lamp: 1579 lm

Voltage: 24.0 V

Current: 0.587 A

Power: 14.09 W

Power Factor: 1.000

Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 996.9 lm

Downward Ratio: 55.65%

Total Rated Lamp Lumens: 1579.0 lm

Efficiency: 63.13%

Upward Ratio: 7.48%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 159.2, 261.6, 232.9, 231.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 109.4, 141.7, 131.2, 130.6

Luminaire Efficacy Rating (LER): 70.80

Central Intensity: 245.48 cd

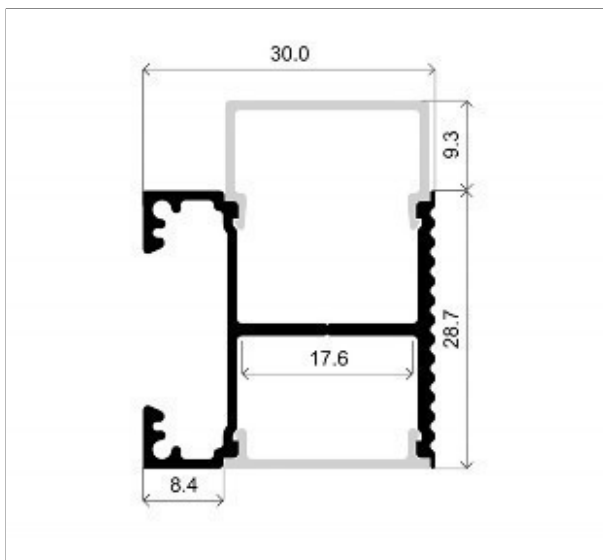
Max. Intensity: 253.28 cd

Pos of Max. Intensity: H90 V15

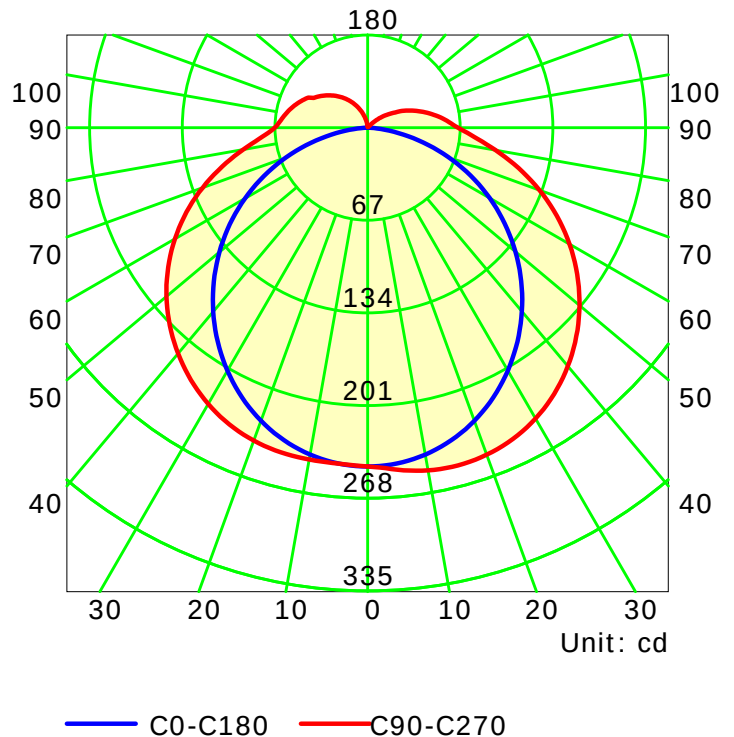
S/MH(C0/C180): 1.23

S/MH(C90/C270): 1.43

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

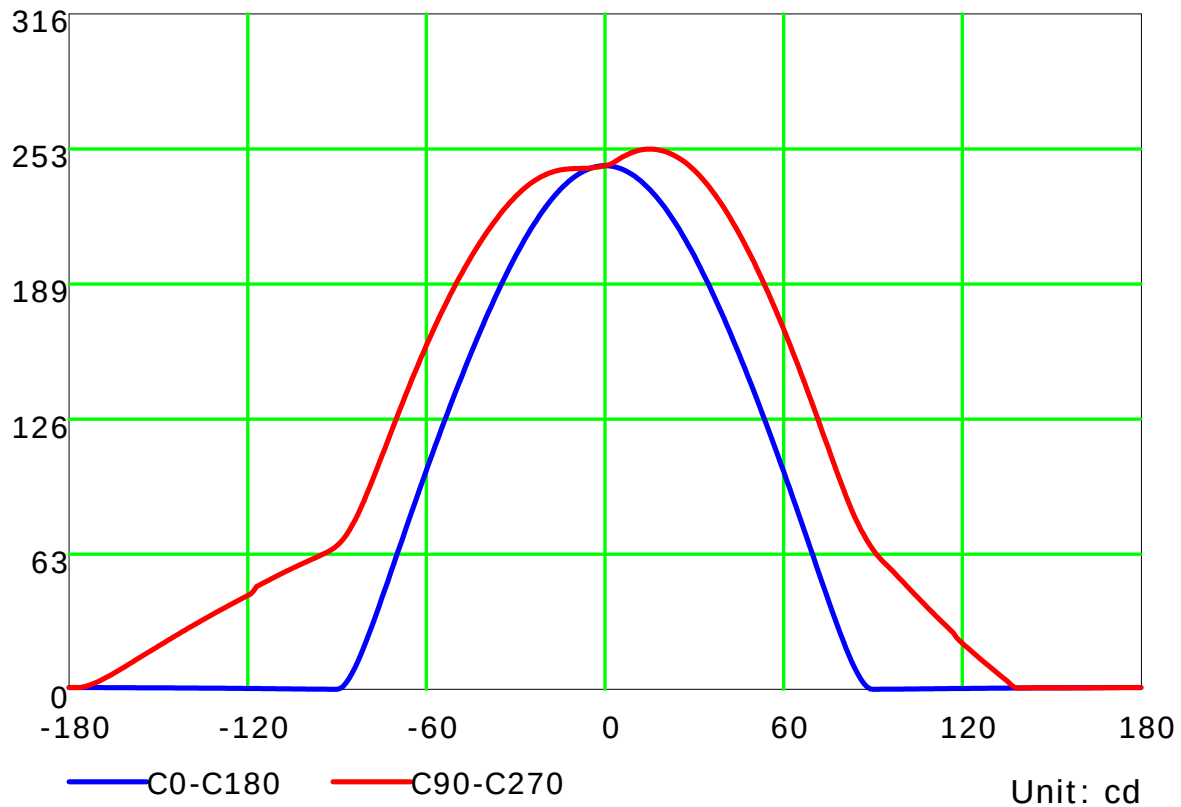
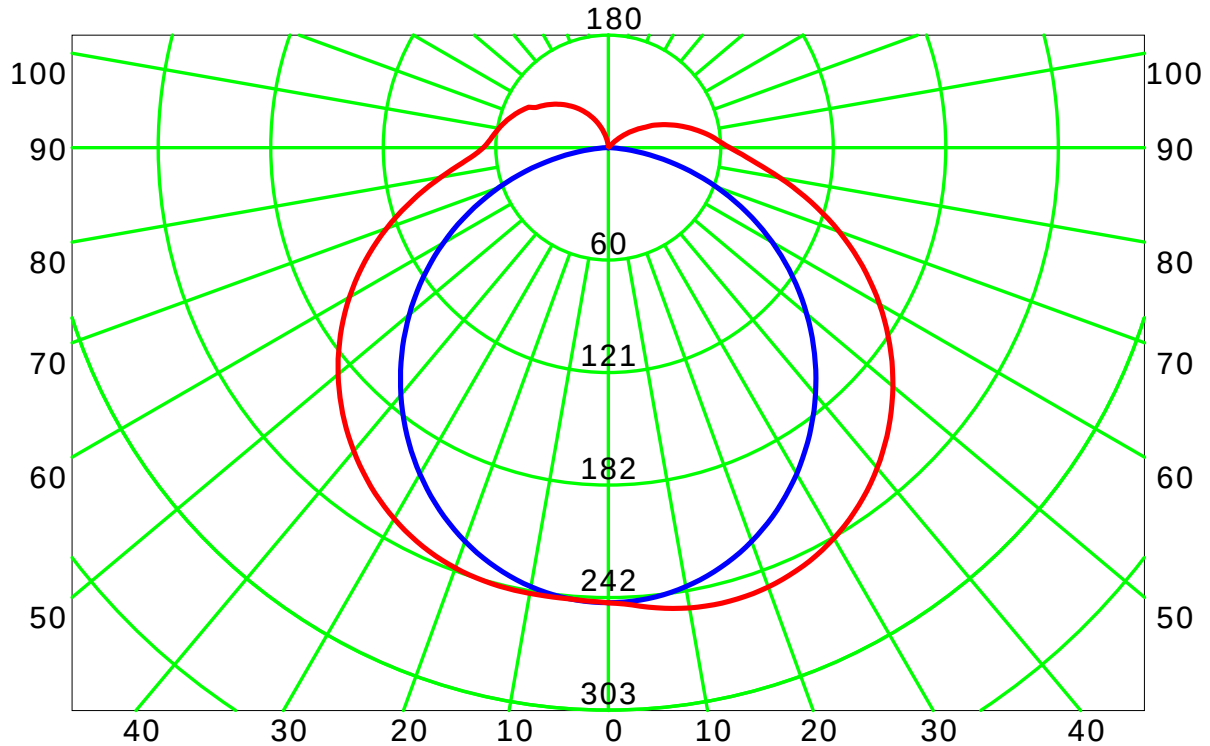
Test Device: GPM-2000

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

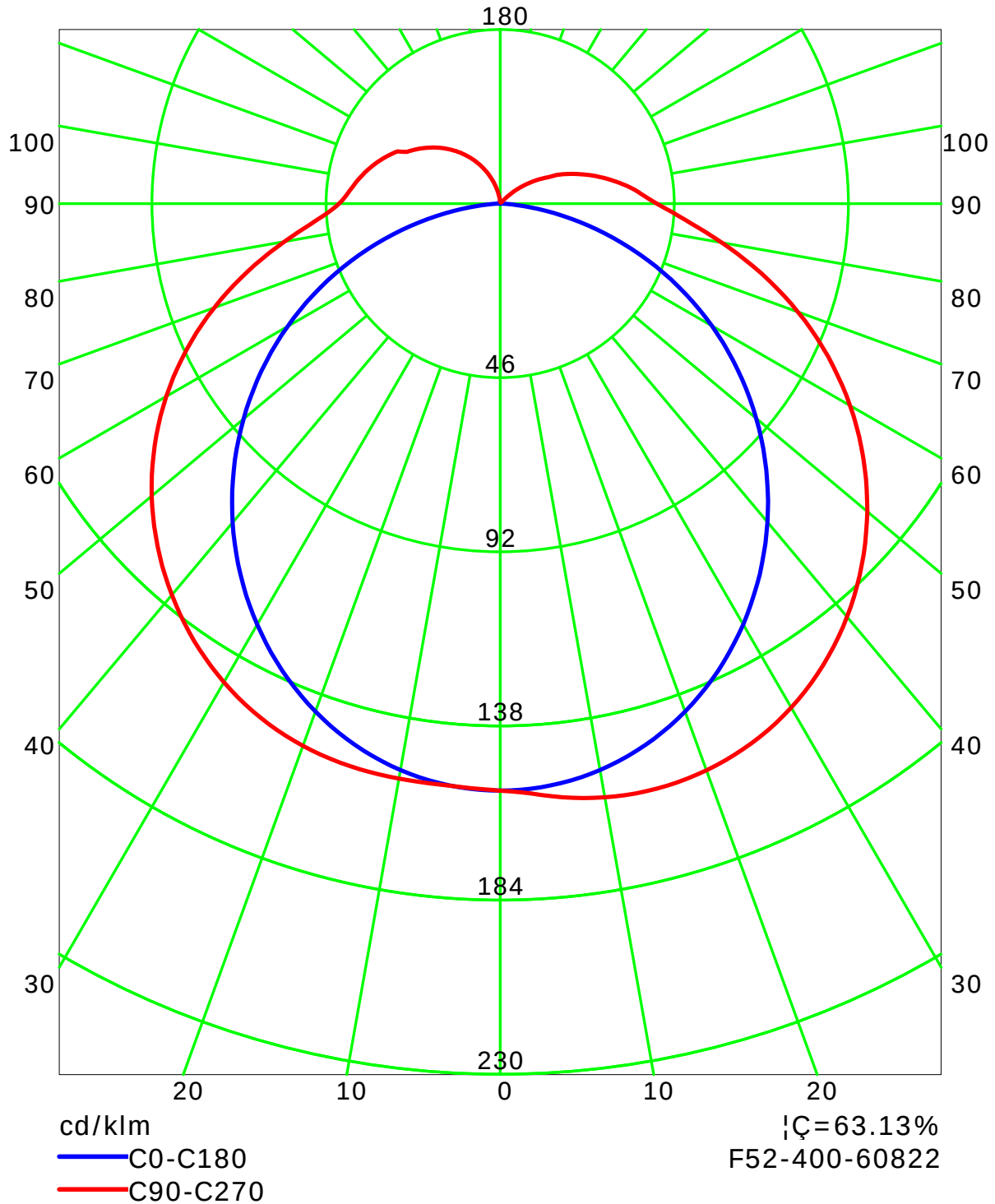
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

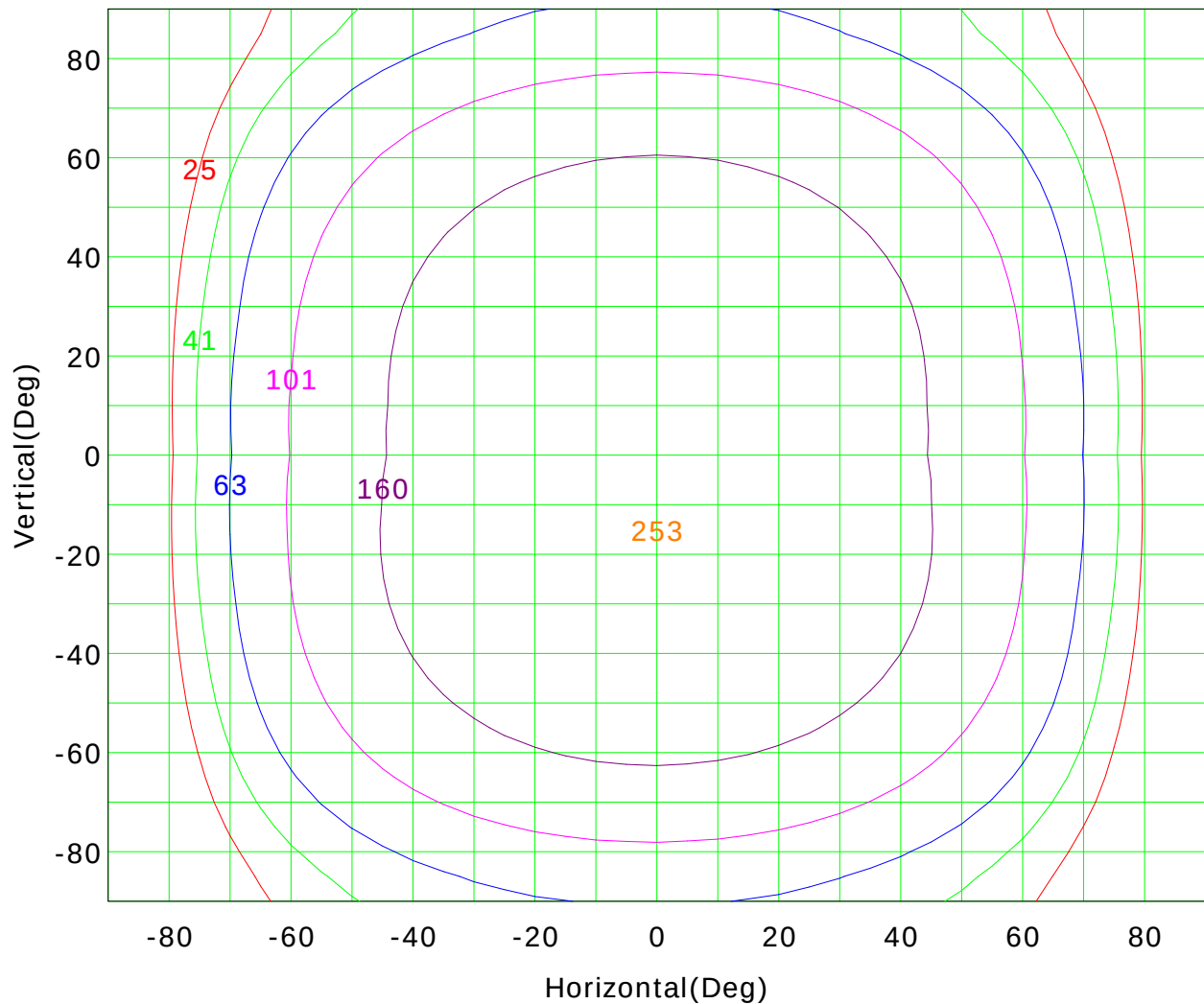
Luminous Intensity Distribution Curve(cd / klm)



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)



I_{max} (100%): 253 cd

(10%):	25 cd	(16%):	41 cd
(25%):	63 cd	(40%):	101 cd
(63%):	160 cd	(100%):	253 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

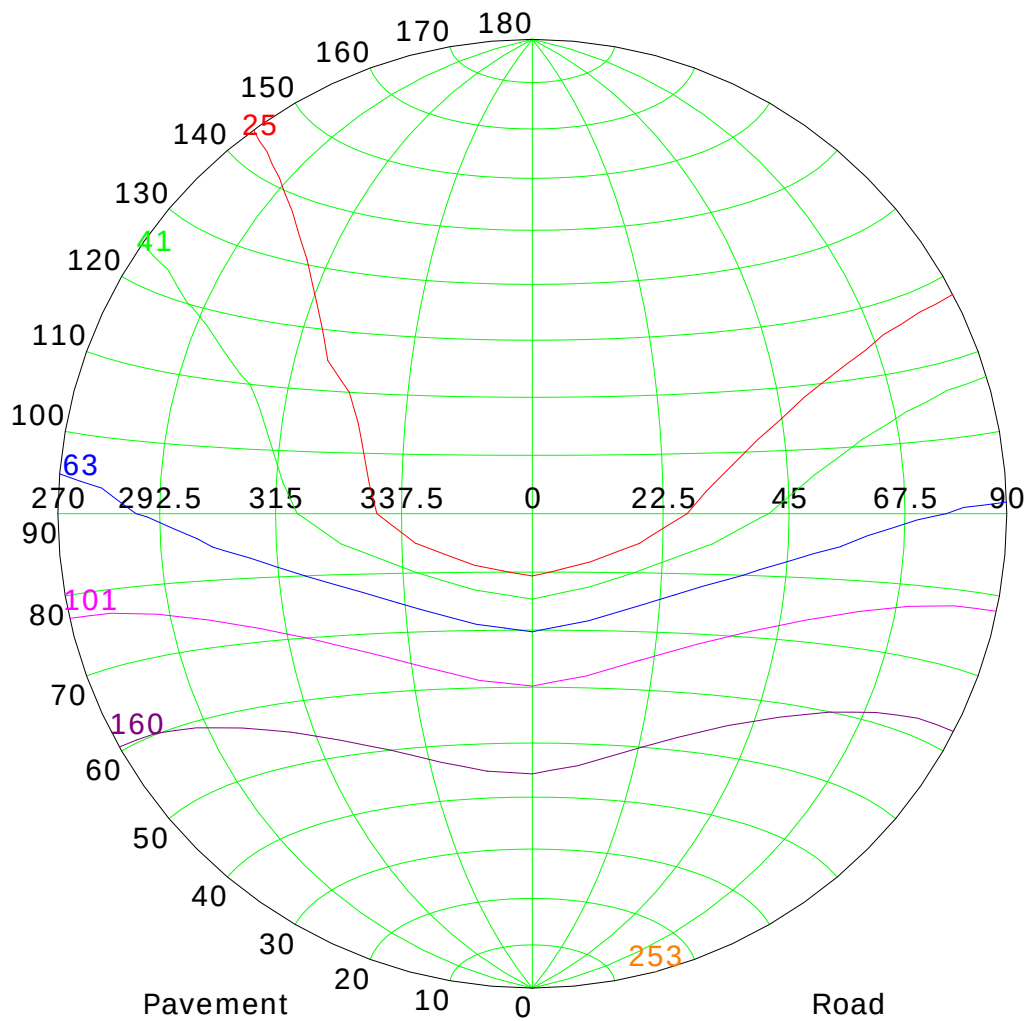
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



Imax (100%): 253 cd

(10%):	25 cd	(16%):	41 cd
(25%):	63 cd	(40%):	101 cd
(63%):	160 cd	(100%):	253 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

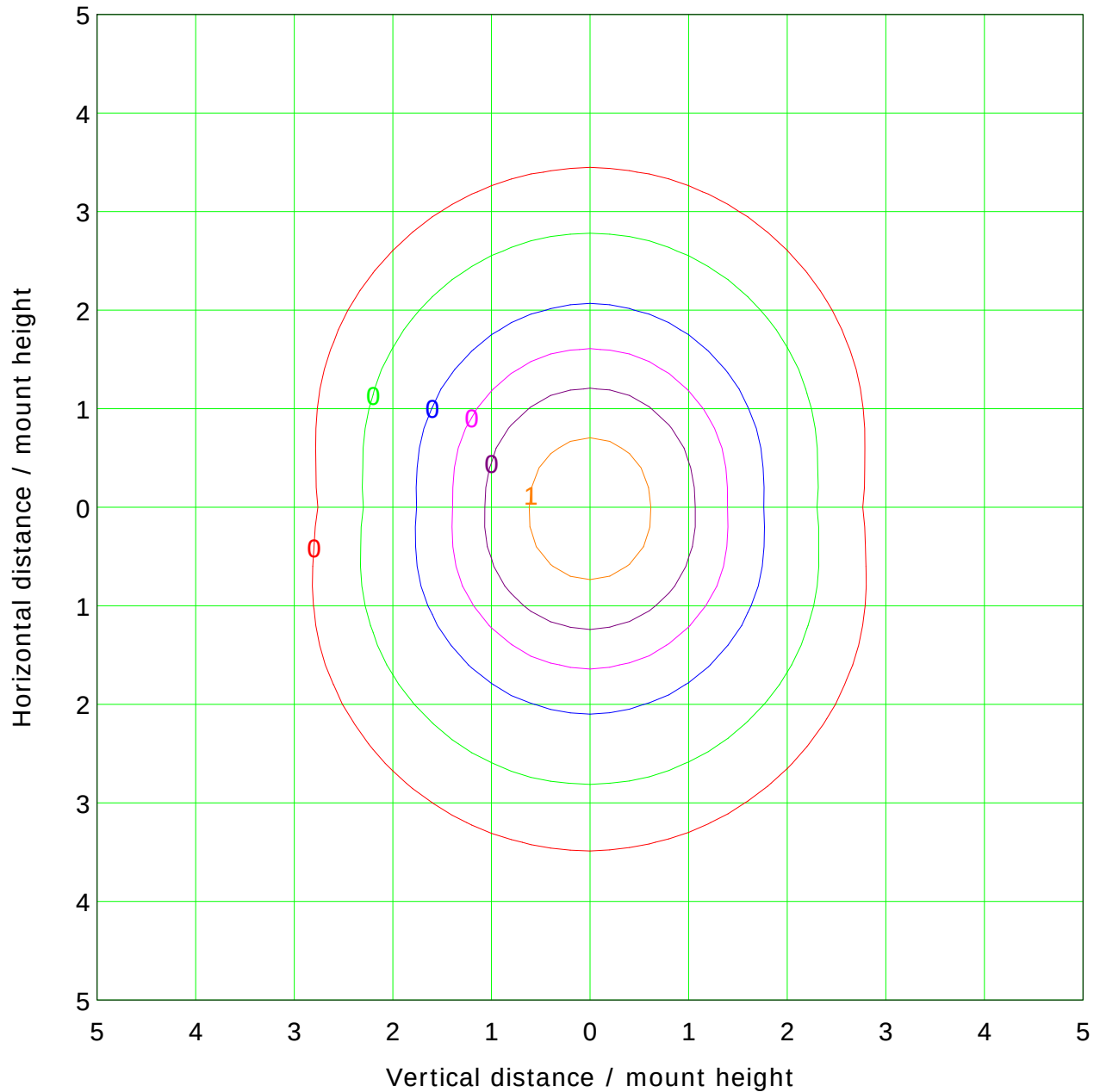
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 2.5 lx

(1%): 0.0 lx	(2%): 0.0 lx
(5%): 0.1 lx	(10%): 0.2 lx
(20%): 0.5 lx	(50%): 1.2 lx
(100%): 2.5 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

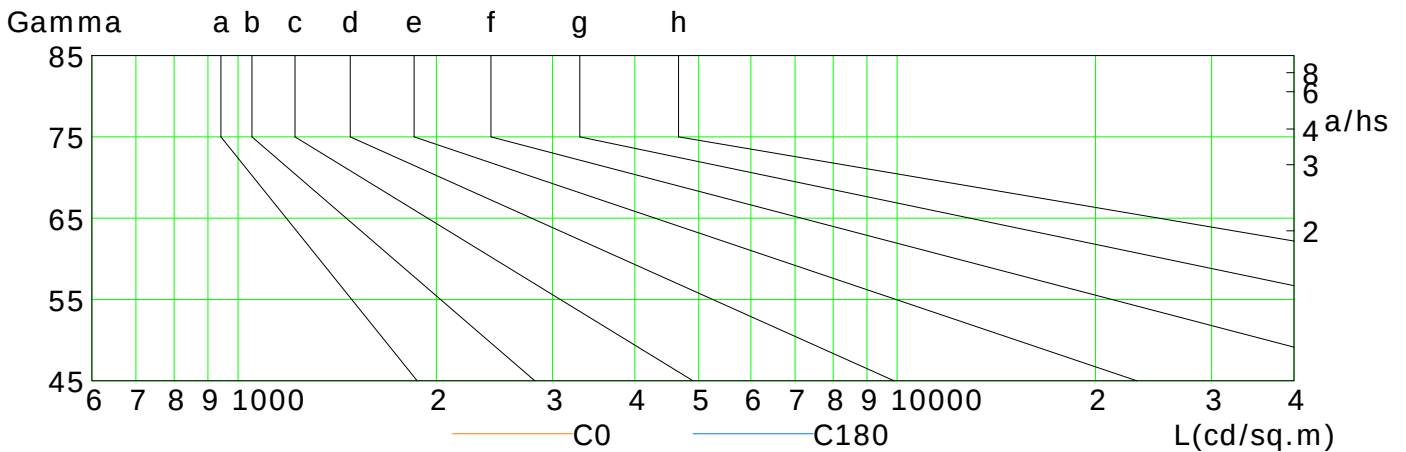
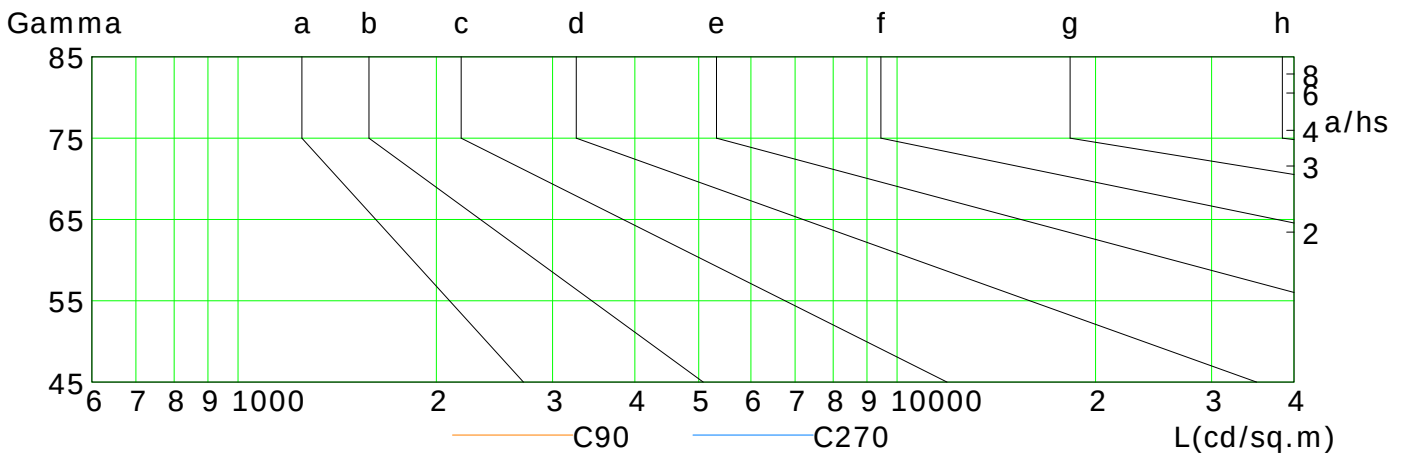
Humidity:

Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
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	157	140	121	102	82	62	42	23	7
C90	214	200	185	169	151	132	113	94	78
C180	158	140	122	103	83	63	43	23	7
C270	203	190	176	161	145	127	109	92	77

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

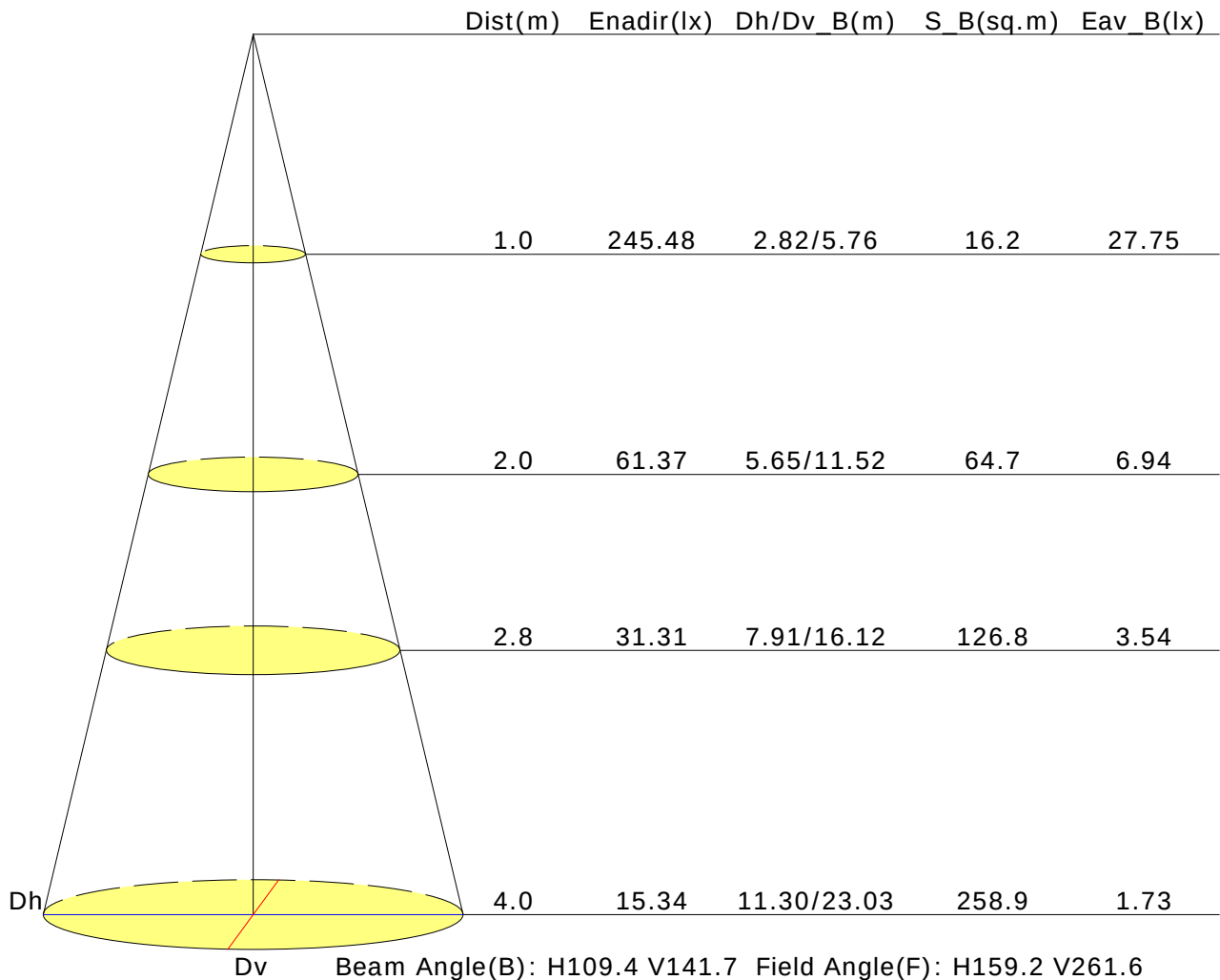
Test Device: GPM-2000

Distance: 7.970 m

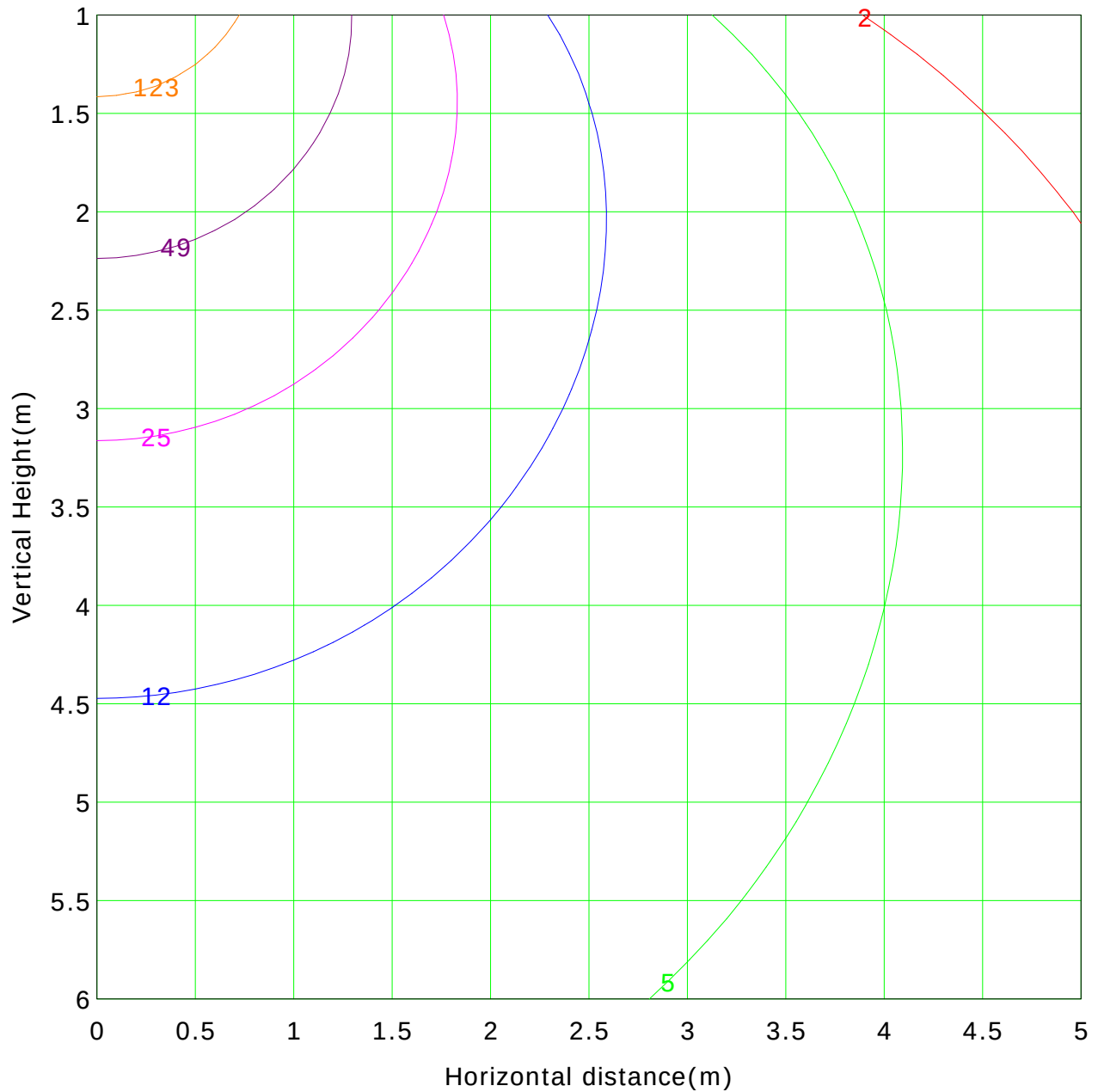
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 6.0m Max Lux: 245.5 lx

(1%): 2.5 lx	(2%): 4.9 lx
(5%): 12.3 lx	(10%): 24.5 lx
(20%): 49.1 lx	(50%): 122.7 lx
(100%): 245.5 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: