

Report No.:

Test Time: 11/09/2018 11:04

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-CC01-06 + LLD-06-CM

Lamp Description: F52-400-60822

Number of Lamps: 1

Lumens per Lamp: 1579 lm

Voltage: 24.0 V

Current: 0.596 A

Power: 14.30 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 547.1 lm

Downward Ratio: 34.51%

Total Rated Lamp Lumens: 1579.0 lm

Efficiency: 34.65%

Upward Ratio: 0.14%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.4, 161.2, 161.0, 161.0

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.0, 113.6, 113.9, 114.0

Luminaire Efficacy Rating (LER): 38.31

Central Intensity: 189.53 cd

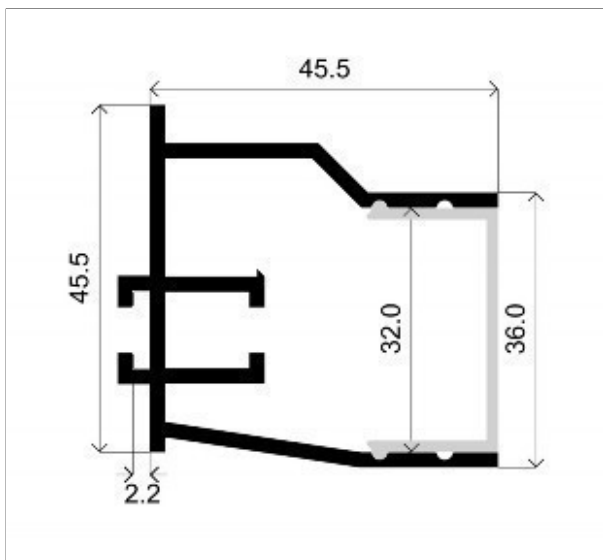
Max. Intensity: 189.53 cd

Pos of Max. Intensity: H0 V0

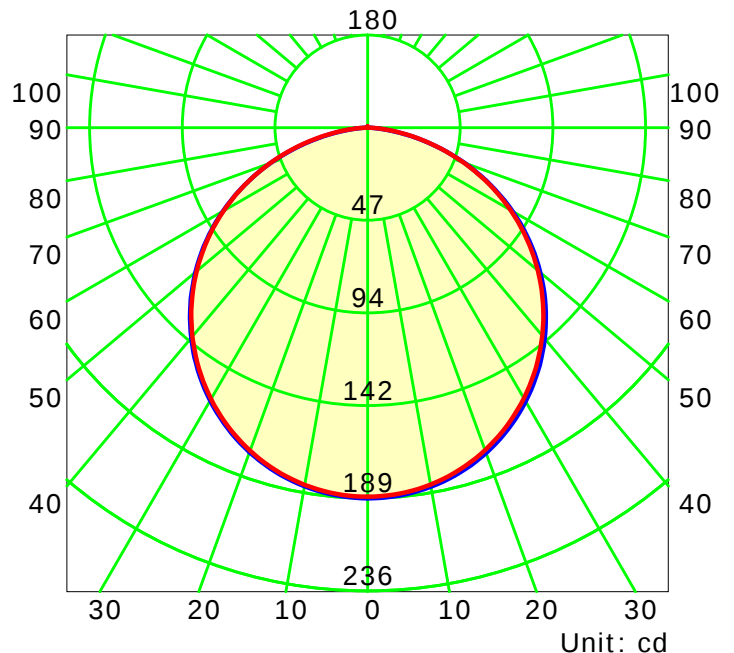
S/MH(C0/C180): 1.27

S/MH(C90/C270): 1.26

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

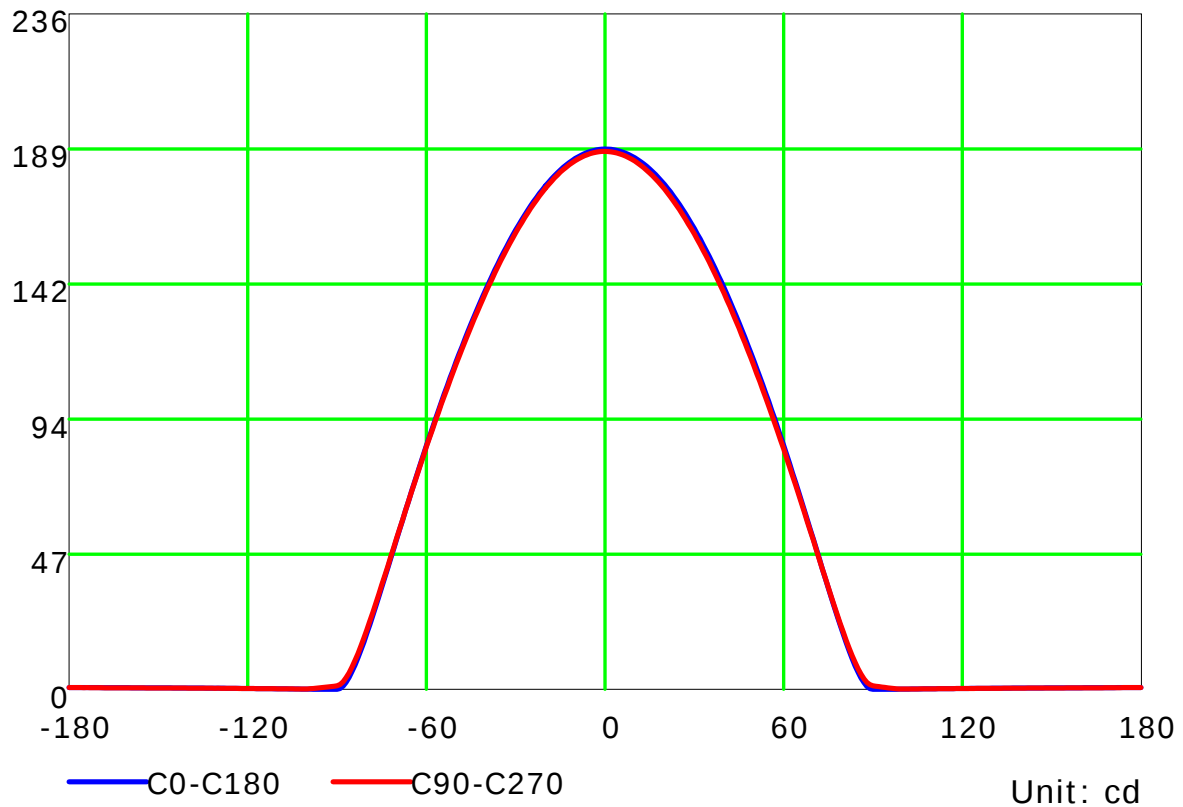
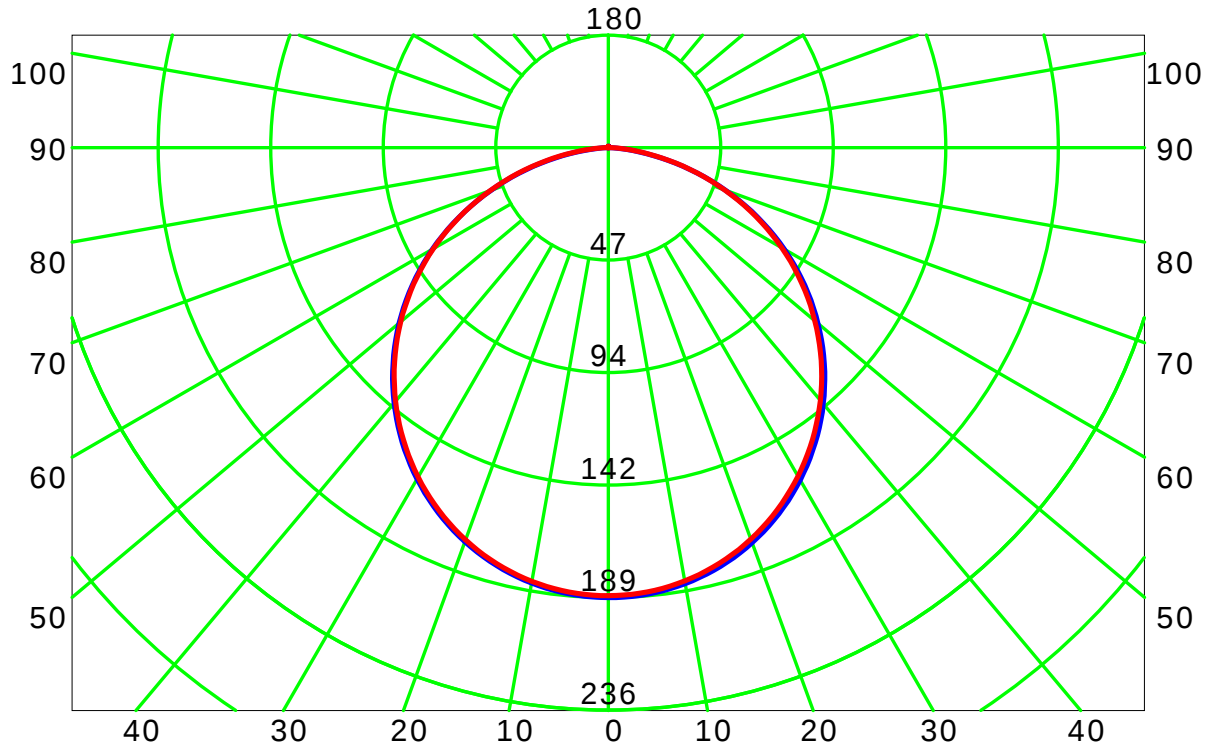
Test Device: GPM-2000

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

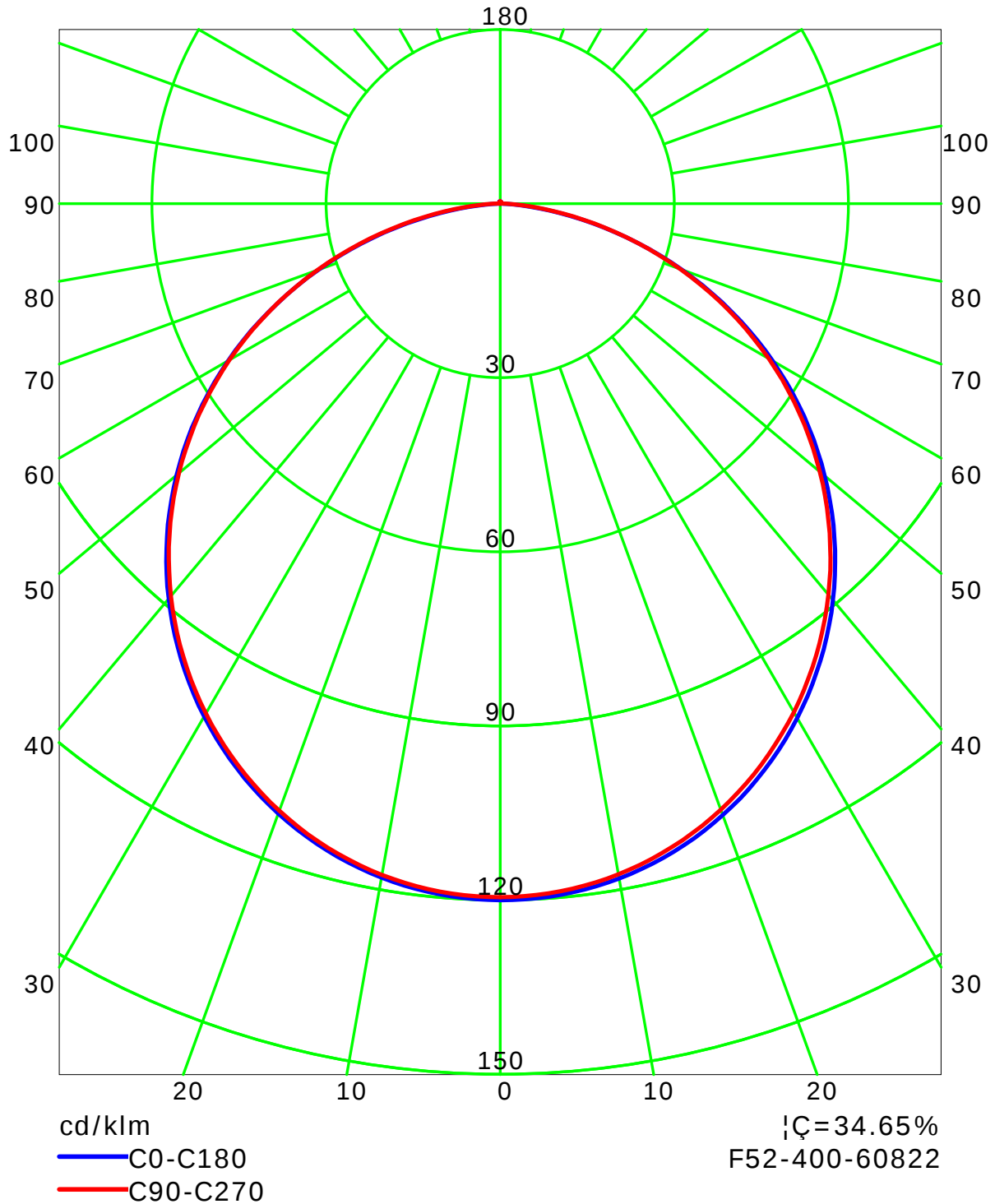
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

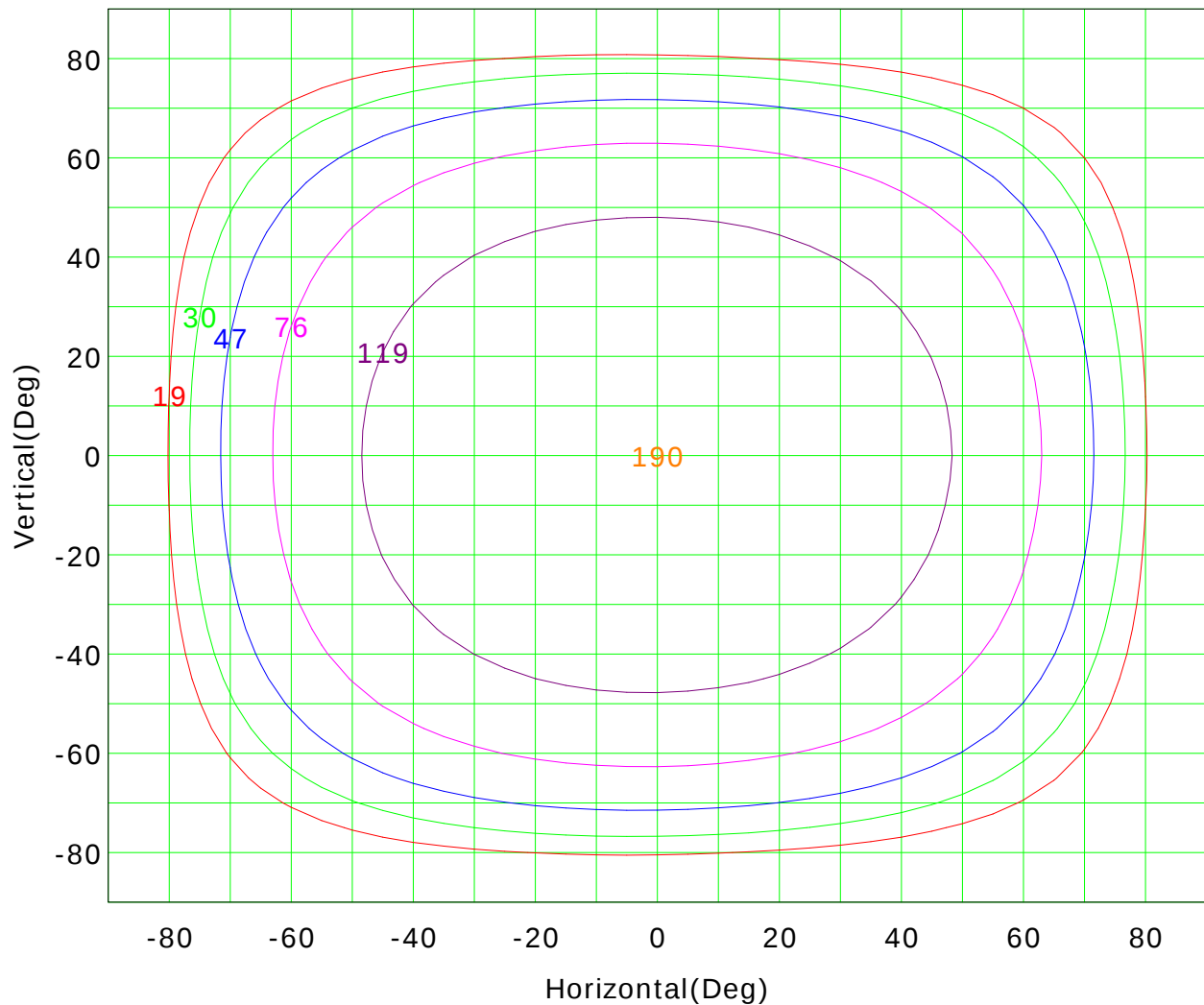
Luminous Intensity Distribution Curve(cd / klm)



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%): 190 cd

— (10%):	19 cd	— (16%):	30 cd
— (25%):	47 cd	— (40%):	76 cd
— (63%):	119 cd	— (100%):	190 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

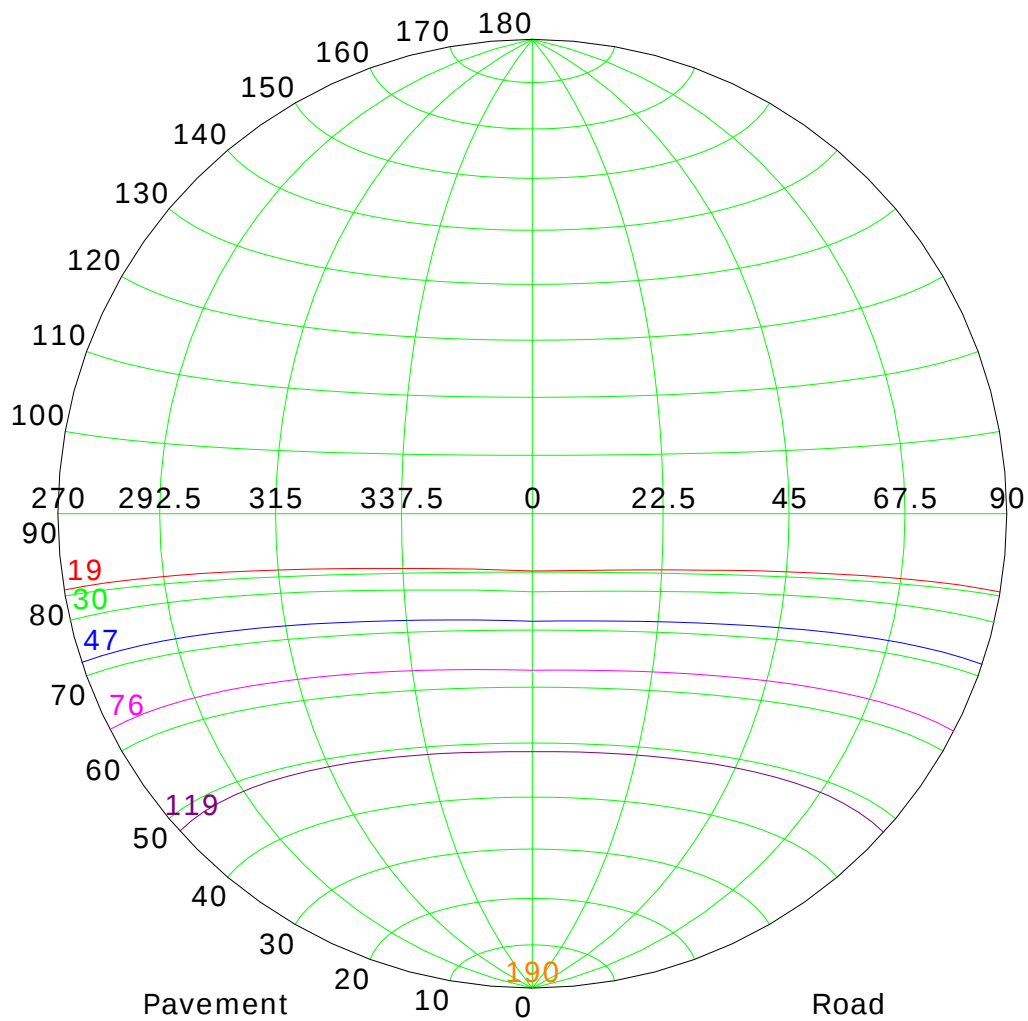
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



I_{max} (100%): 190 cd

(10%):	19 cd	(16%):	30 cd
(25%):	47 cd	(40%):	76 cd
(63%):	119 cd	(100%):	190 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

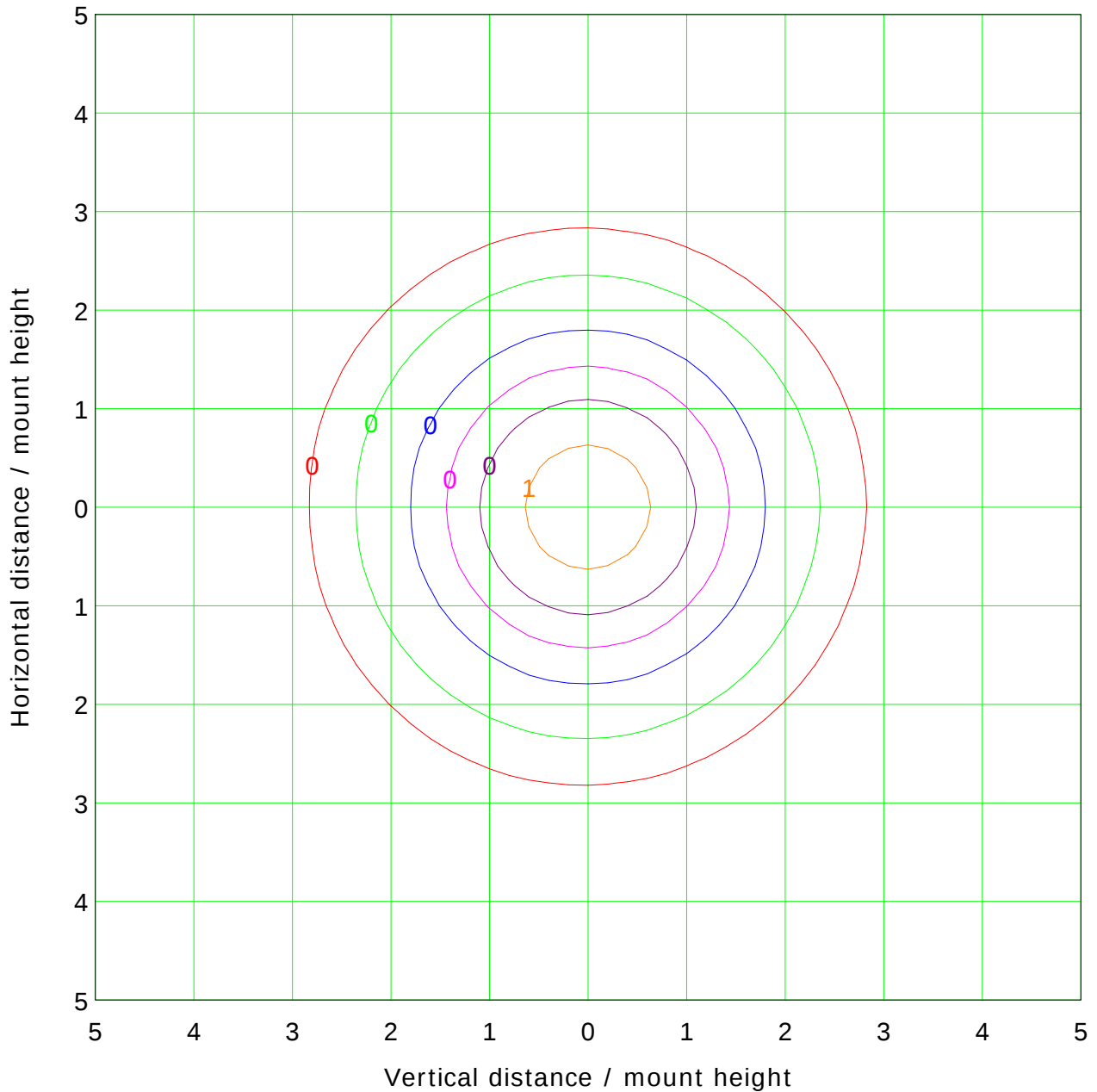
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 1.9 lx

(1%): 0.0 lx	(2%): 0.0 lx
(5%): 0.1 lx	(10%): 0.2 lx
(20%): 0.4 lx	(50%): 0.9 lx
(100%): 1.9 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

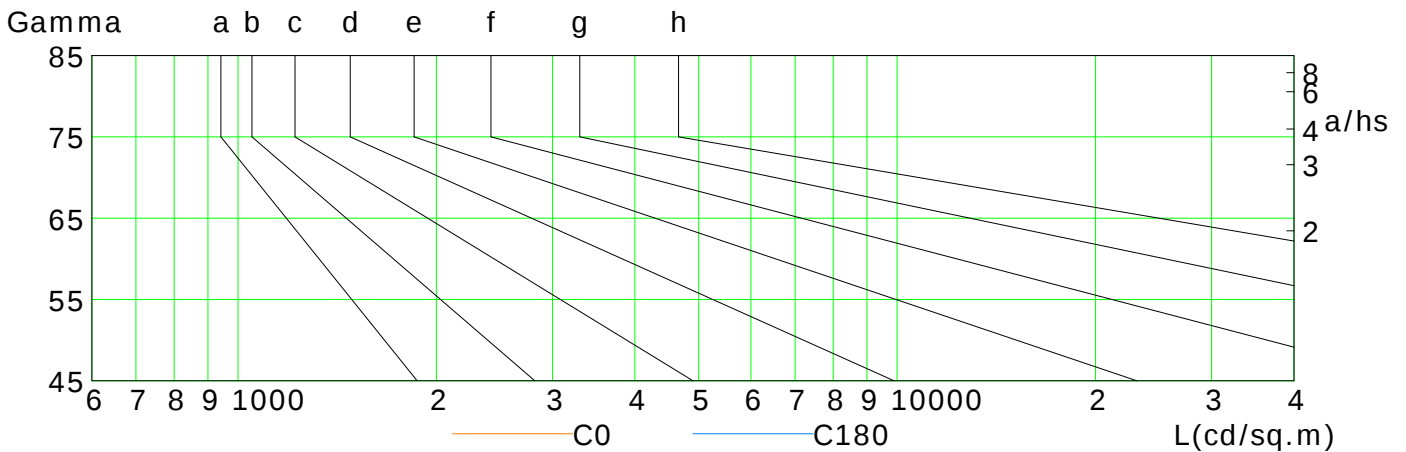
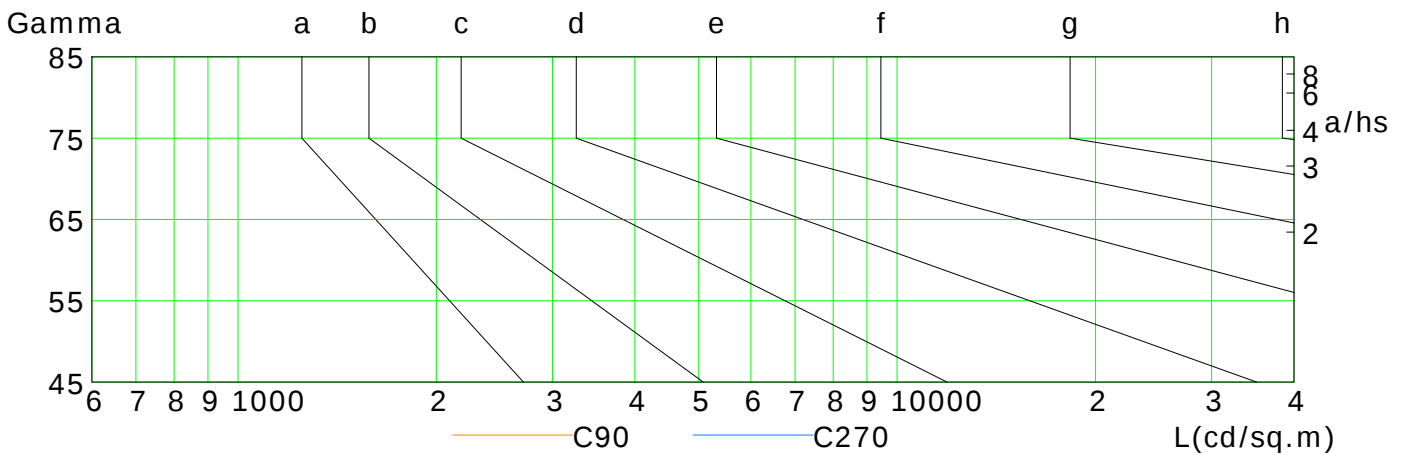
Humidity:

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	129	115	101	86	69	53	36	19	6
C90	127	114	99	84	69	52	36	20	7
C180	128	115	101	85	69	53	36	20	6
C270	127	114	100	85	69	53	37	21	8

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

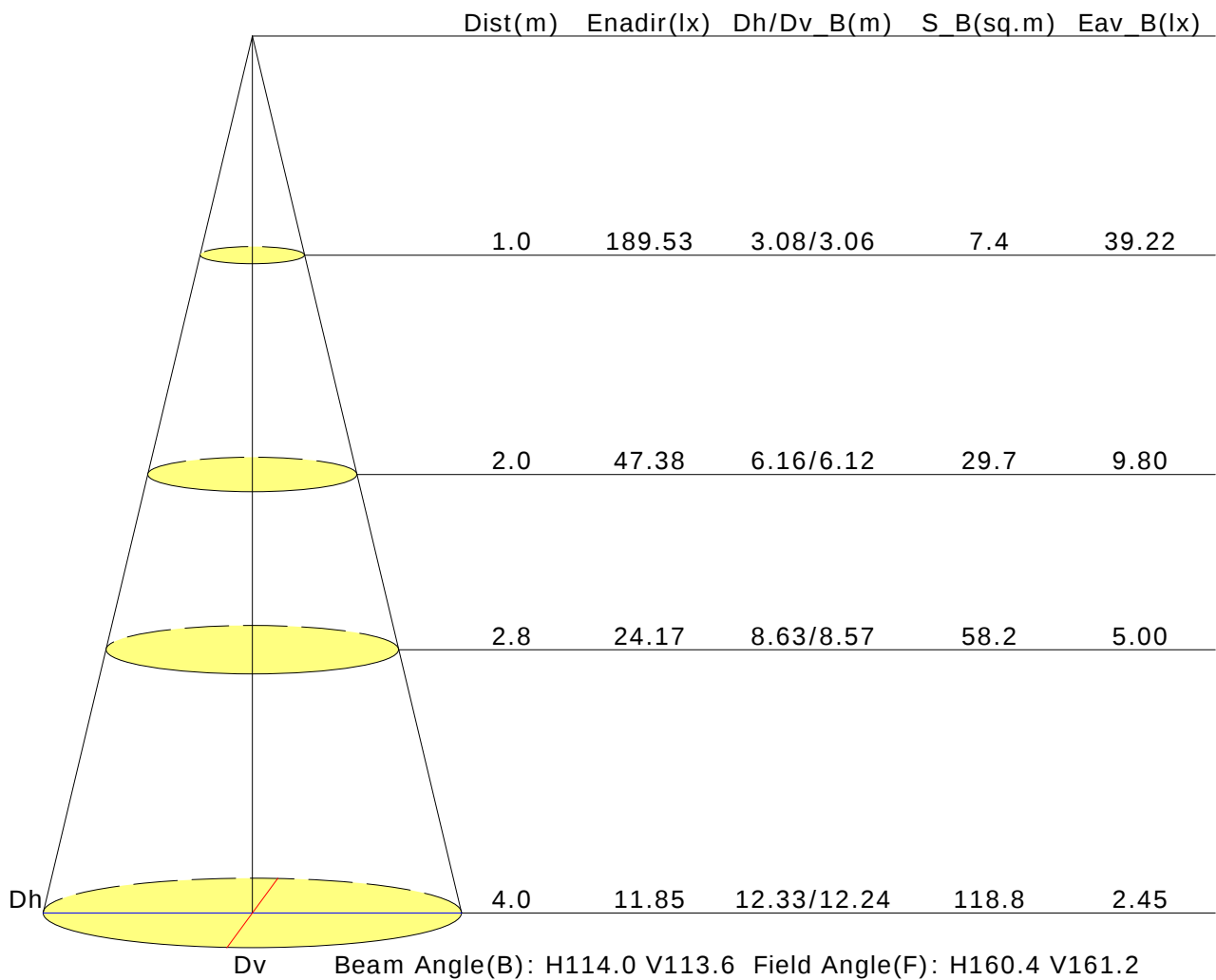
Test Device: GPM-2000

Distance: 7.970 m

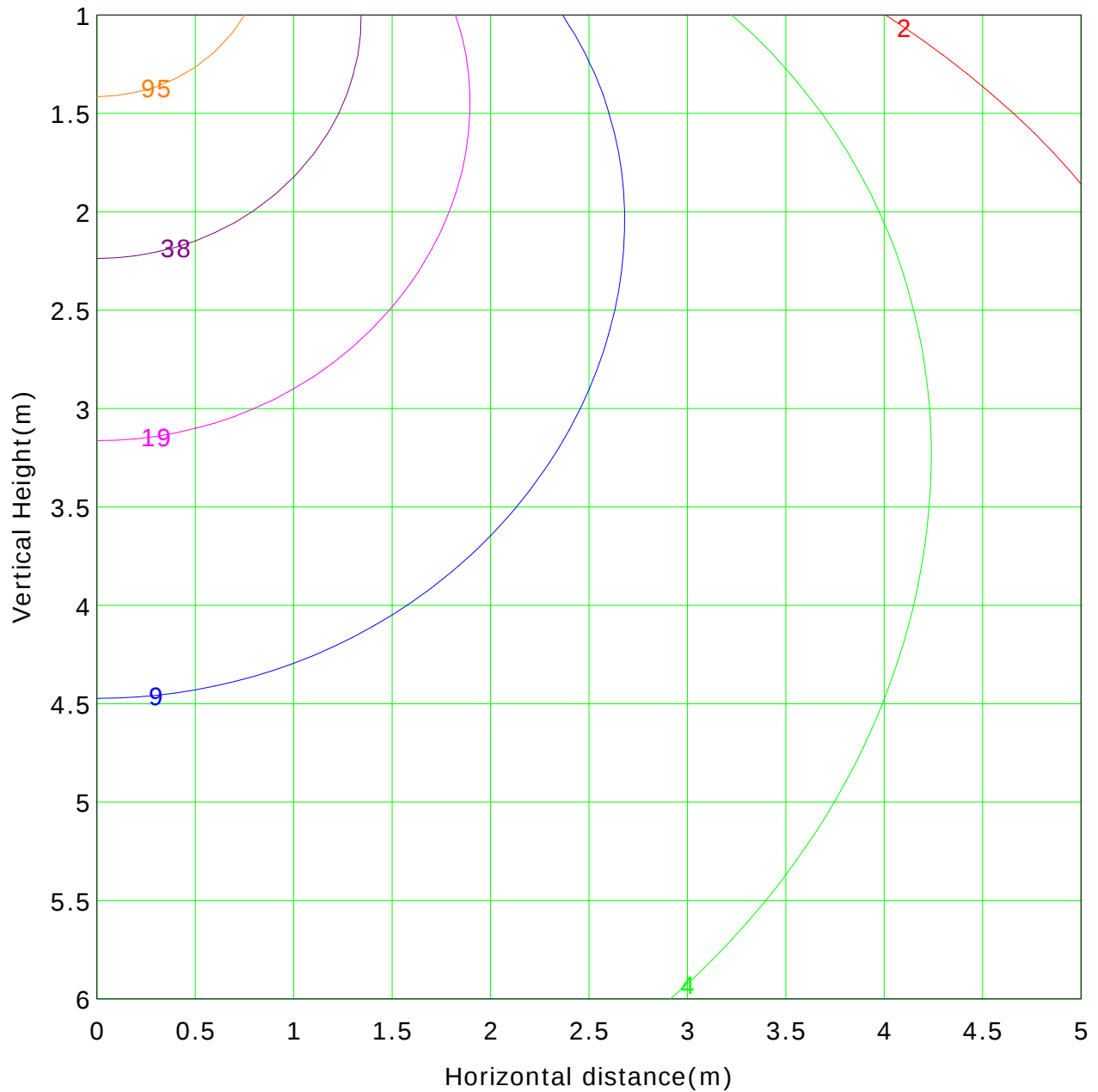
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 189.5 lx
(1%): 1.9 lx	(2%): 3.8 lx	
(5%): 9.5 lx	(10%): 19.0 lx	
(20%): 37.9 lx	(50%): 94.8 lx	
(100%): 189.5 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: 11/09/2018 12:33

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-CC01-06 + LLD-06-CM

Lamp Description: F52-400-60822

Number of Lamps: 1

Lumens per Lamp: 1579 lm

Voltage: 24.0 V

Current: 0.598 A

Power: 14.34 W

Power Factor: 1.000

Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 571.1 lm

Downward Ratio: 32.47%

Total Rated Lamp Lumens: 1579.0 lm

Efficiency: 36.17%

Upward Ratio: 3.70%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.4, 253.6, 211.0, 205.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.9, 131.7, 126.2, 125.8

Luminaire Efficacy Rating (LER): 39.87

Central Intensity: 152.81 cd

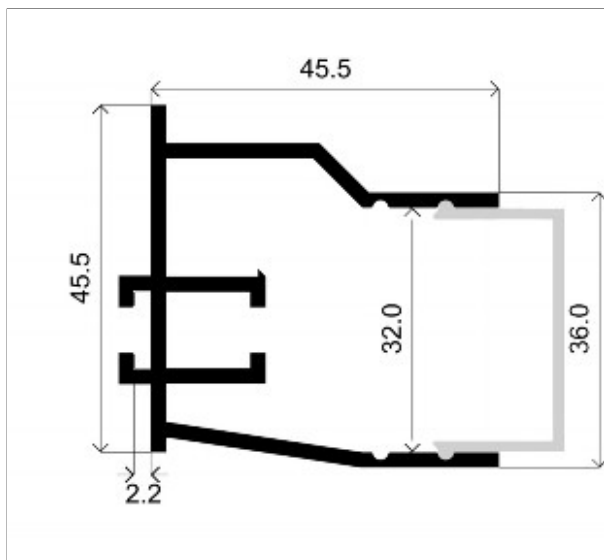
Max. Intensity: 152.81 cd

Pos of Max. Intensity: H0 V0

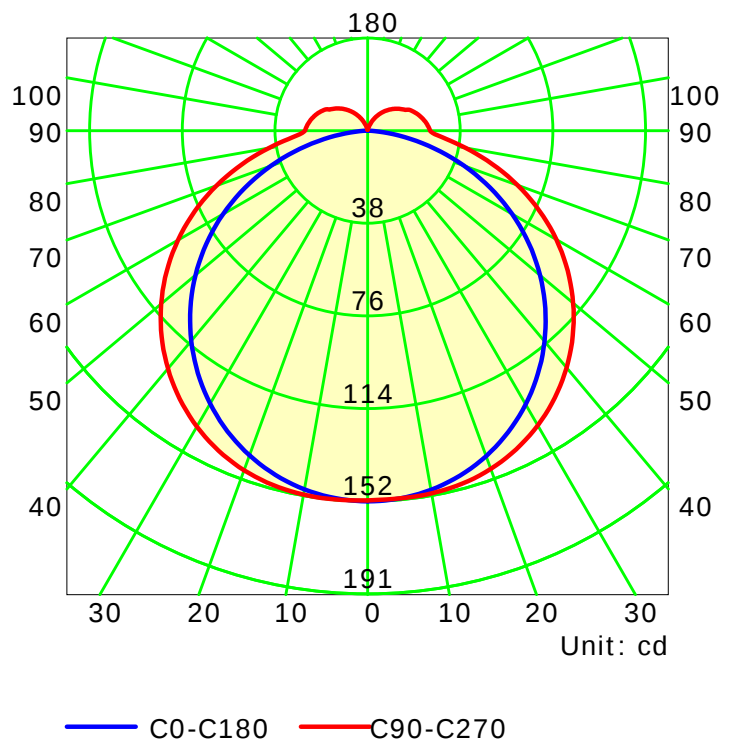
S/MH(C0/C180): 1.27

S/MH(C90/C270): 1.37

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

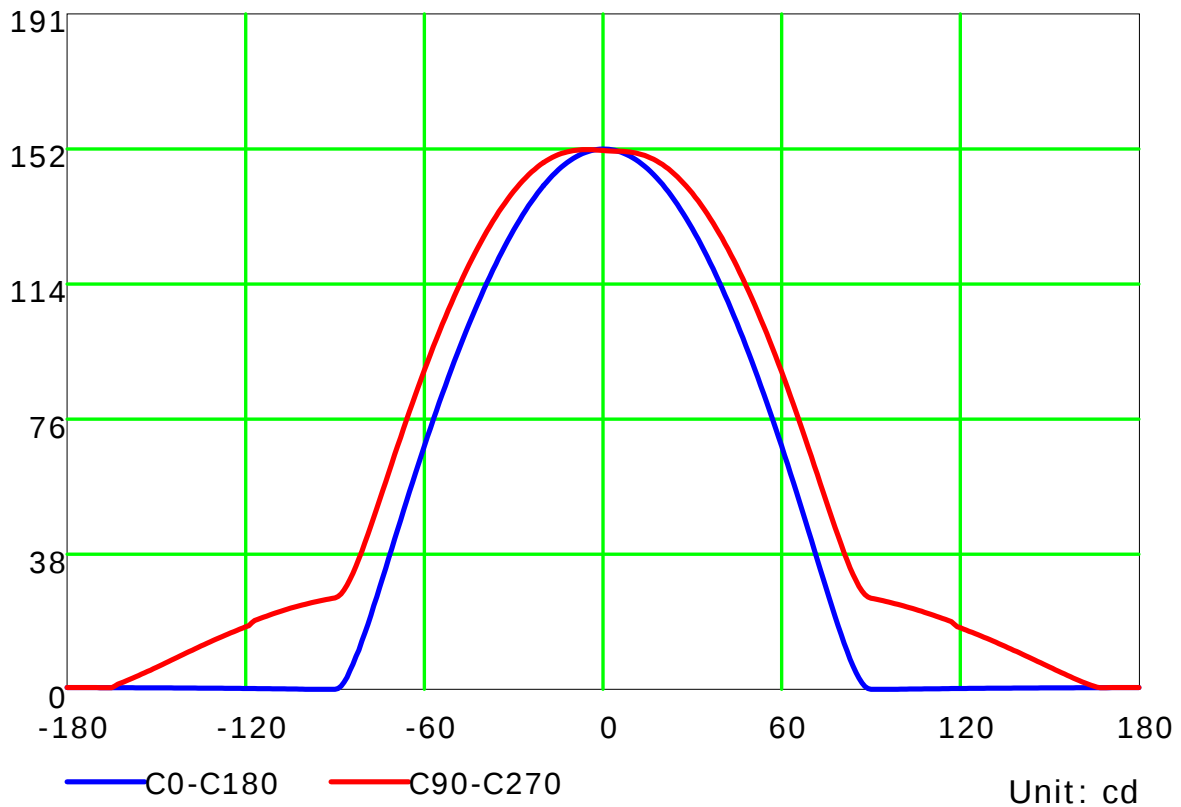
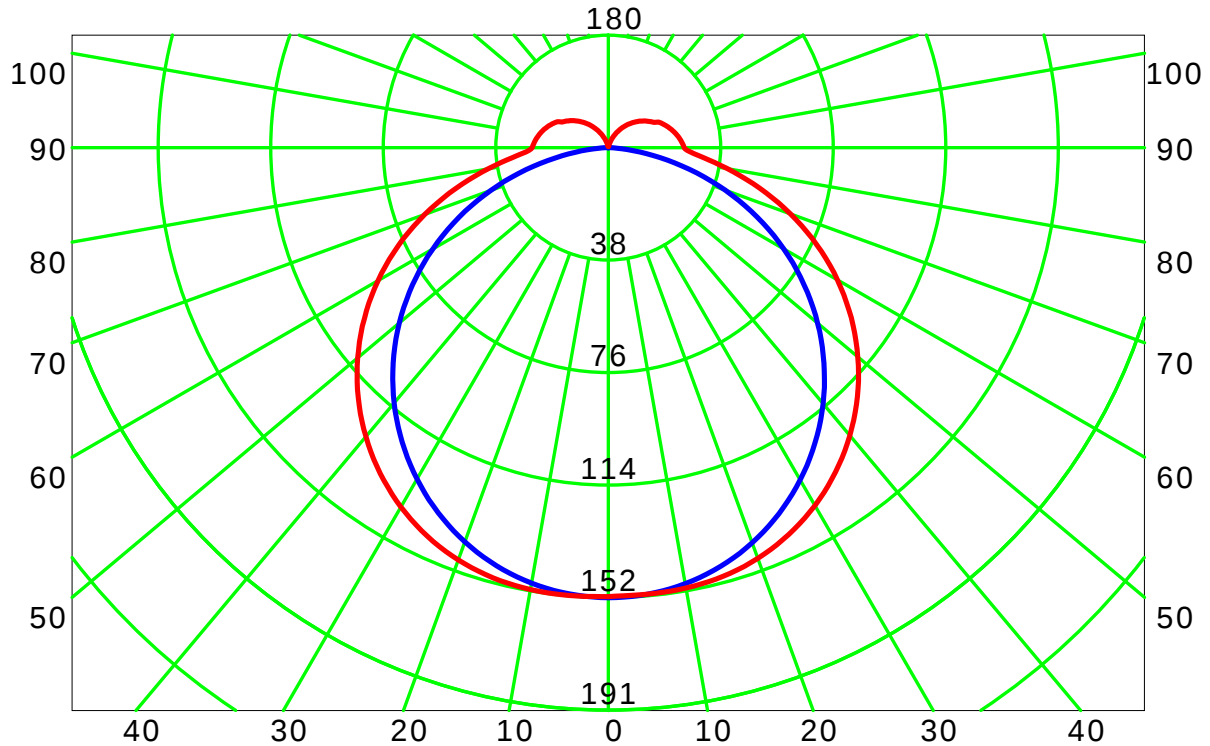
Test Device: GPM-2000

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

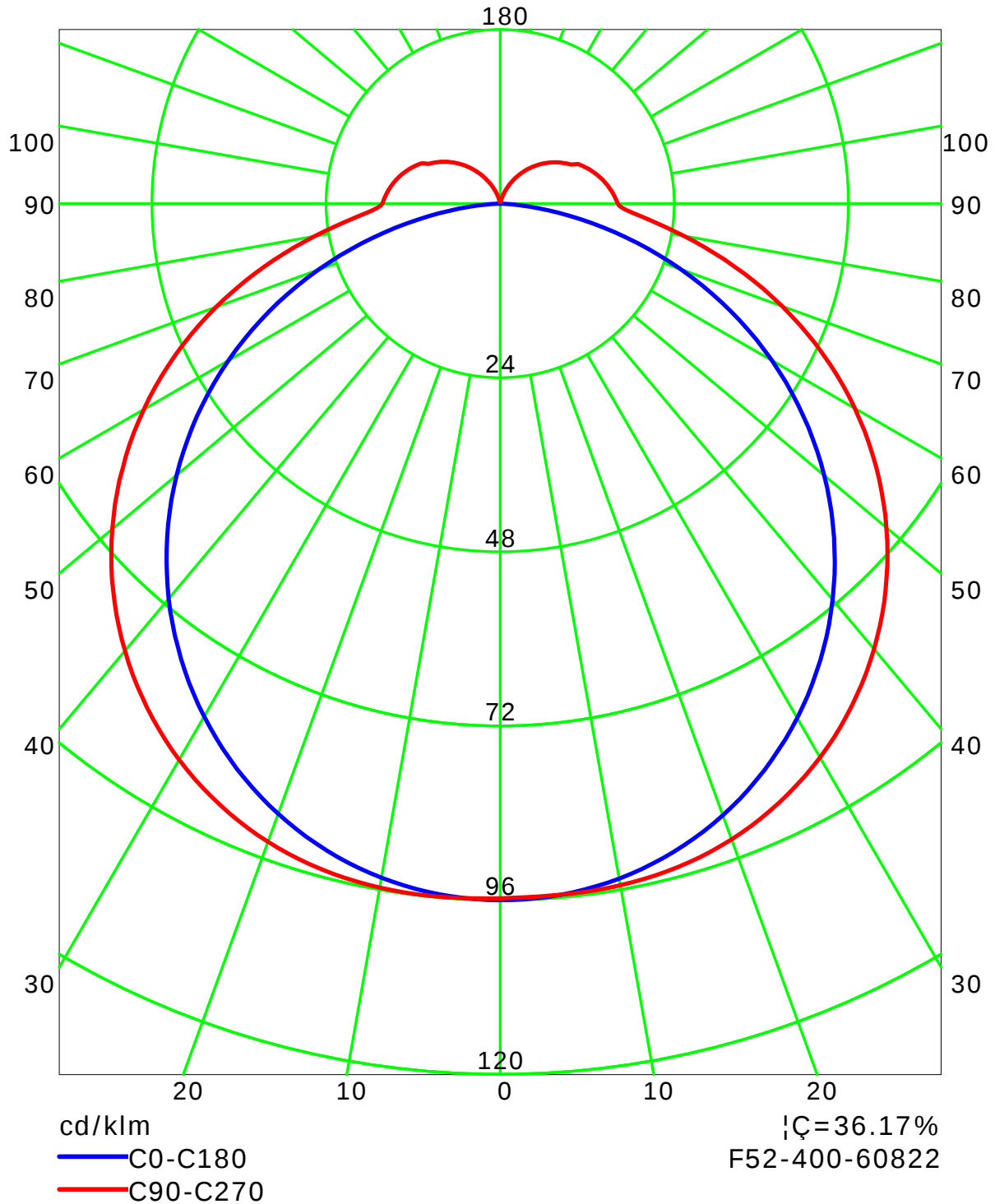
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

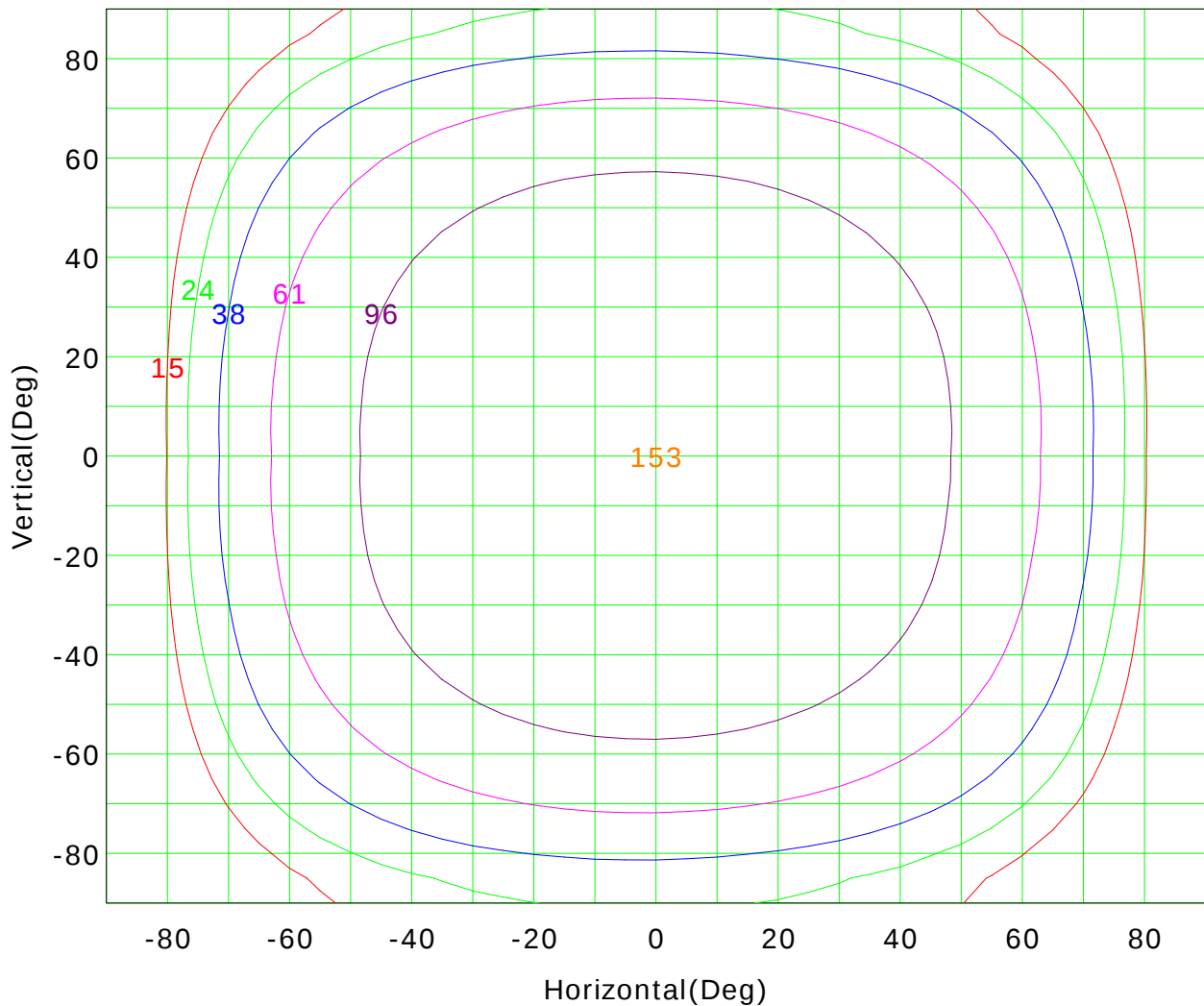
Luminous Intensity Distribution Curve(cd / klm)



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%): 153 cd

(10%):	15 cd	(16%):	24 cd
(25%):	38 cd	(40%):	61 cd
(63%):	96 cd	(100%):	153 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

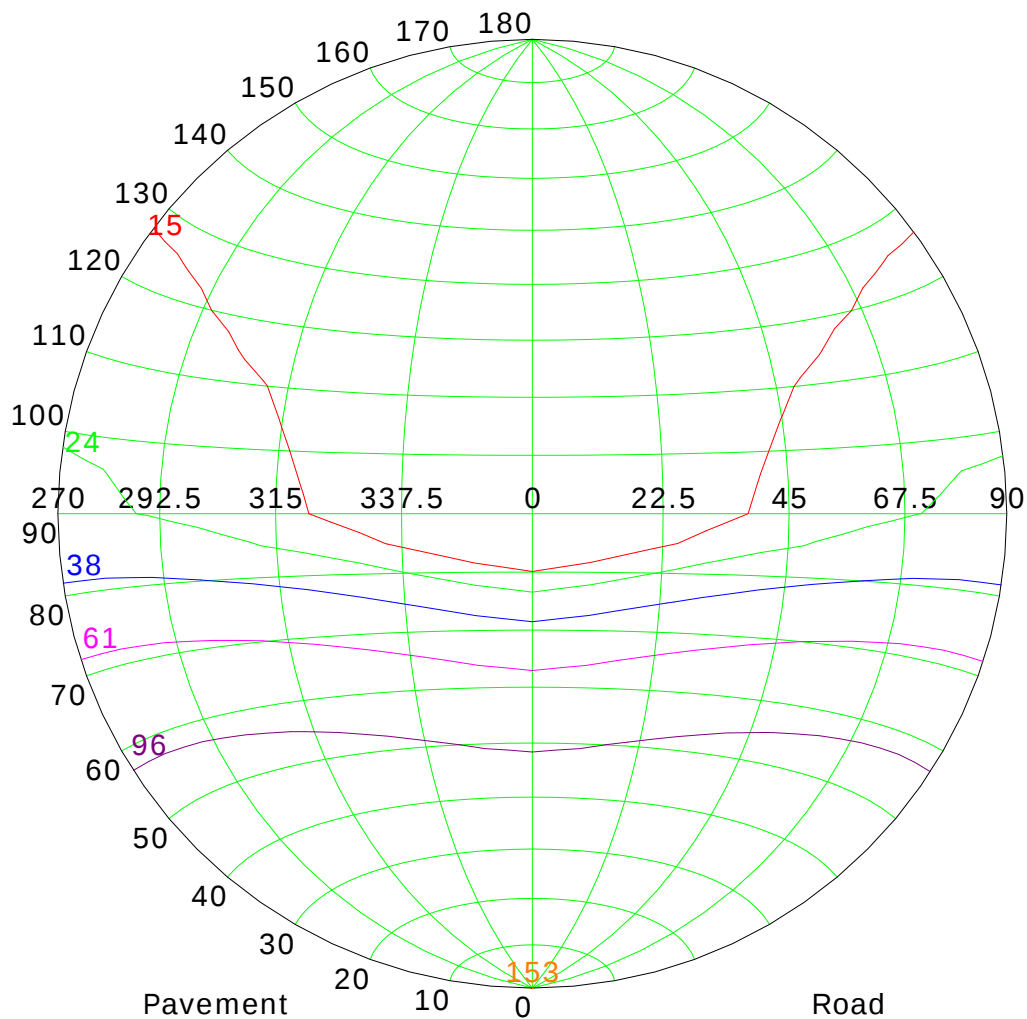
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



I_{max} (100%): 153 cd

(10%):	15 cd	(16%):	24 cd
(25%):	38 cd	(40%):	61 cd
(63%):	96 cd	(100%):	153 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

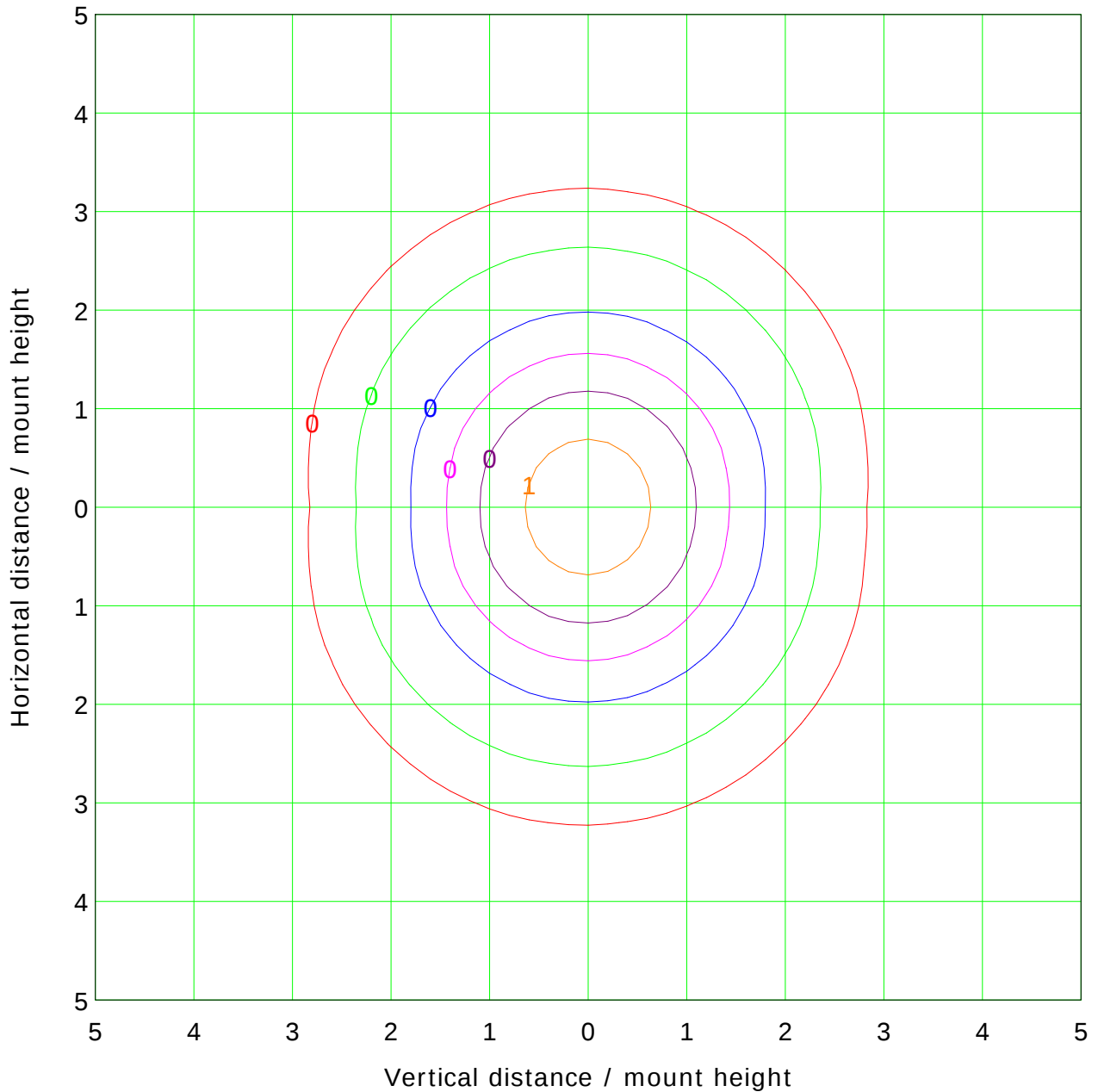
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 1.5 lx

— (1%): 0.0 lx	— (2%): 0.0 lx
— (5%): 0.1 lx	— (10%): 0.2 lx
— (20%): 0.3 lx	— (50%): 0.8 lx
— (100%): 1.5 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

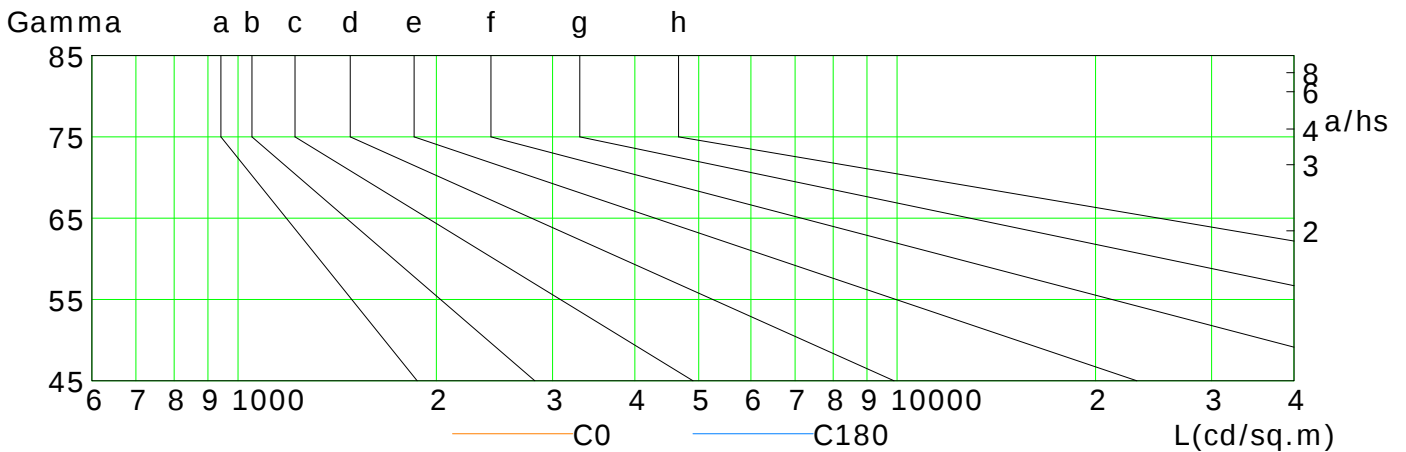
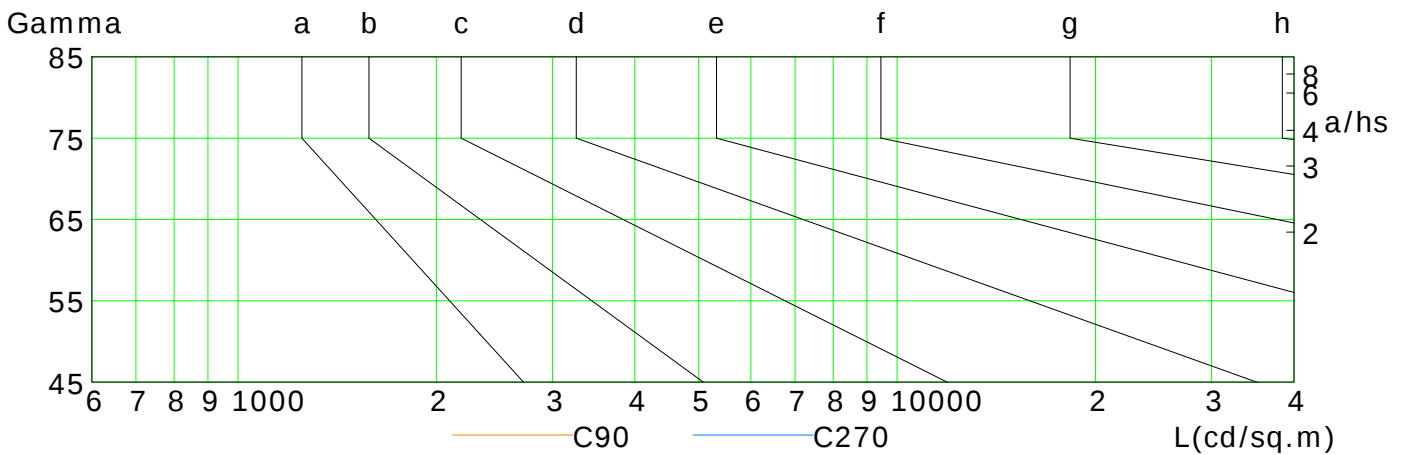
Humidity:

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	104	93	81	69	56	42	28	16	5
C90	120	111	101	90	78	66	53	41	31
C180	103	93	81	69	56	43	29	16	5
C270	120	111	101	90	79	66	54	41	31

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

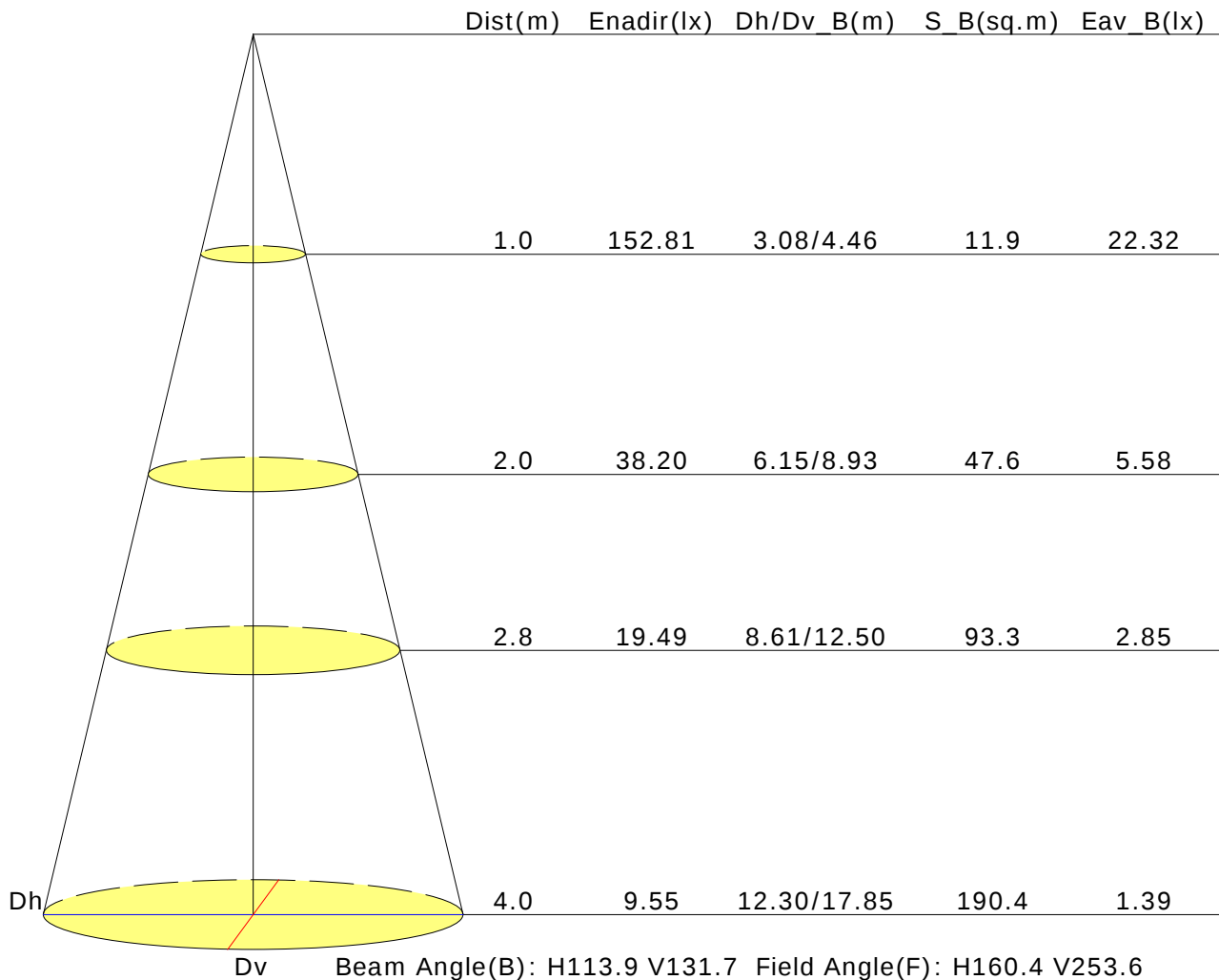
Test Device: GPM-2000

Distance: 7.970 m

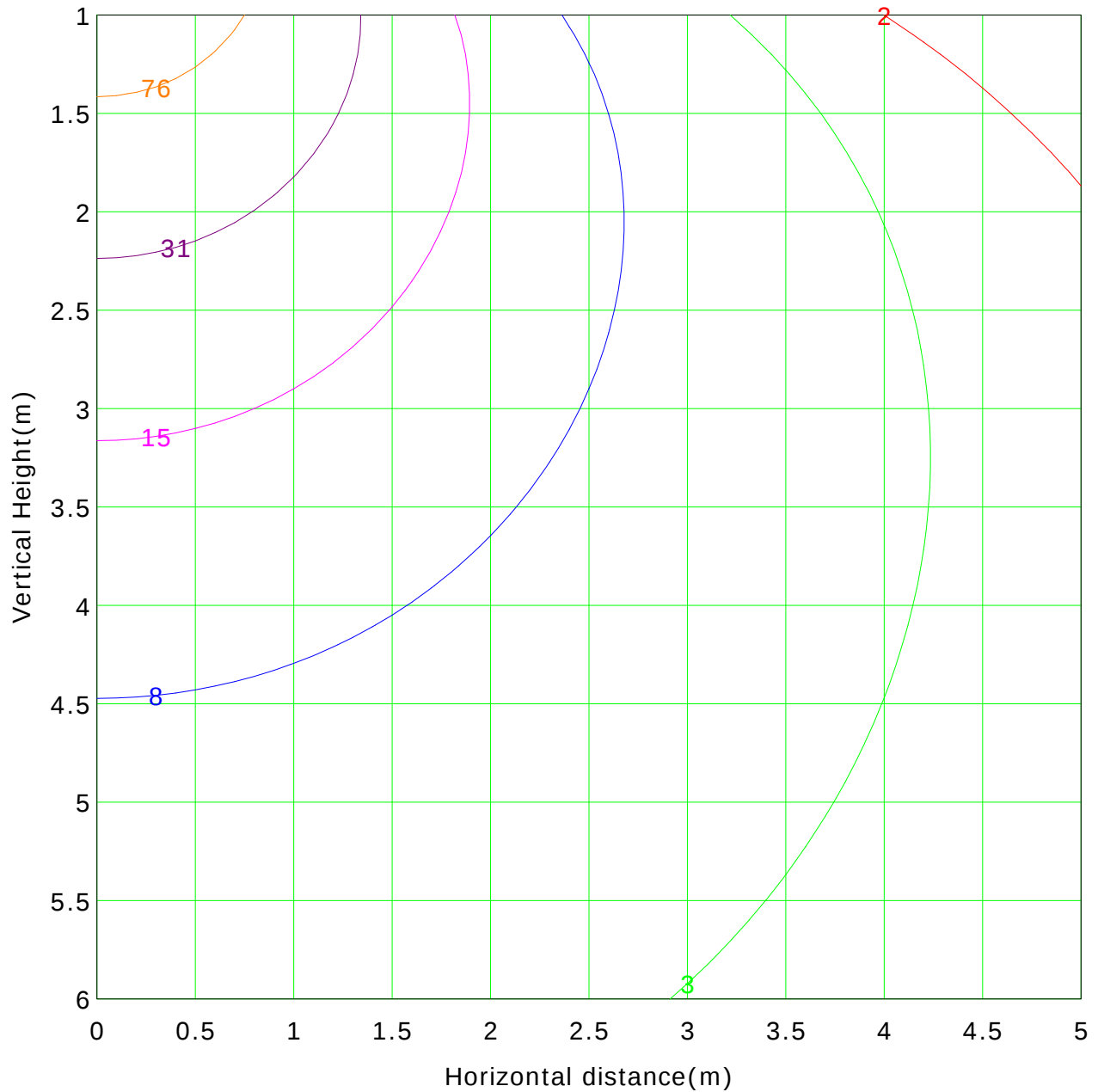
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 6.0m Max Lux: 152.8 lx

(1%): 1.5 lx	(2%): 3.1 lx
(5%): 7.6 lx	(10%): 15.3 lx
(20%): 30.6 lx	(50%): 76.4 lx
(100%): 152.8 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: 11/09/2018 14:18

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-CC01-06 + LLD-06-CS

Lamp Description: F52-400-60822

Number of Lamps: 1

Lumens per Lamp: 1579 lm

Voltage: 24.0 V

Current: 0.584 A

Power: 14.02 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 558 lm

Downward Ratio: 35.19%

Total Rated Lamp Lumens: 1579.0 lm

Efficiency: 35.34%

Upward Ratio: 0.15%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.0, 165.0, 164.6, 164.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.9, 111.2, 111.6, 111.7

Luminaire Efficacy Rating (LER): 39.85

Central Intensity: 195.74 cd

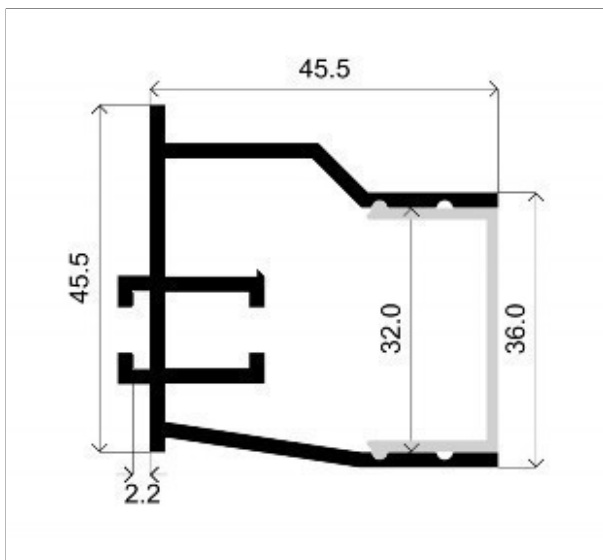
Max. Intensity: 195.75 cd

Pos of Max. Intensity: H0 V0

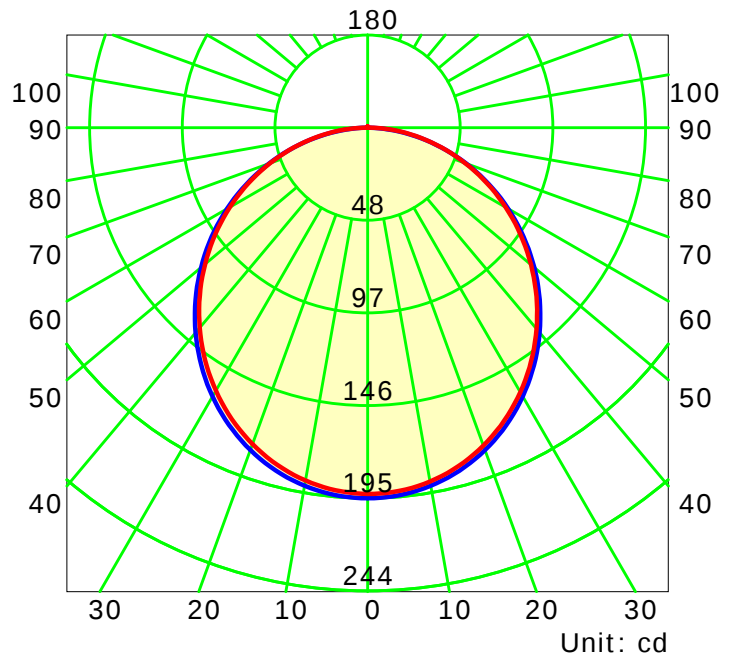
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.24

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

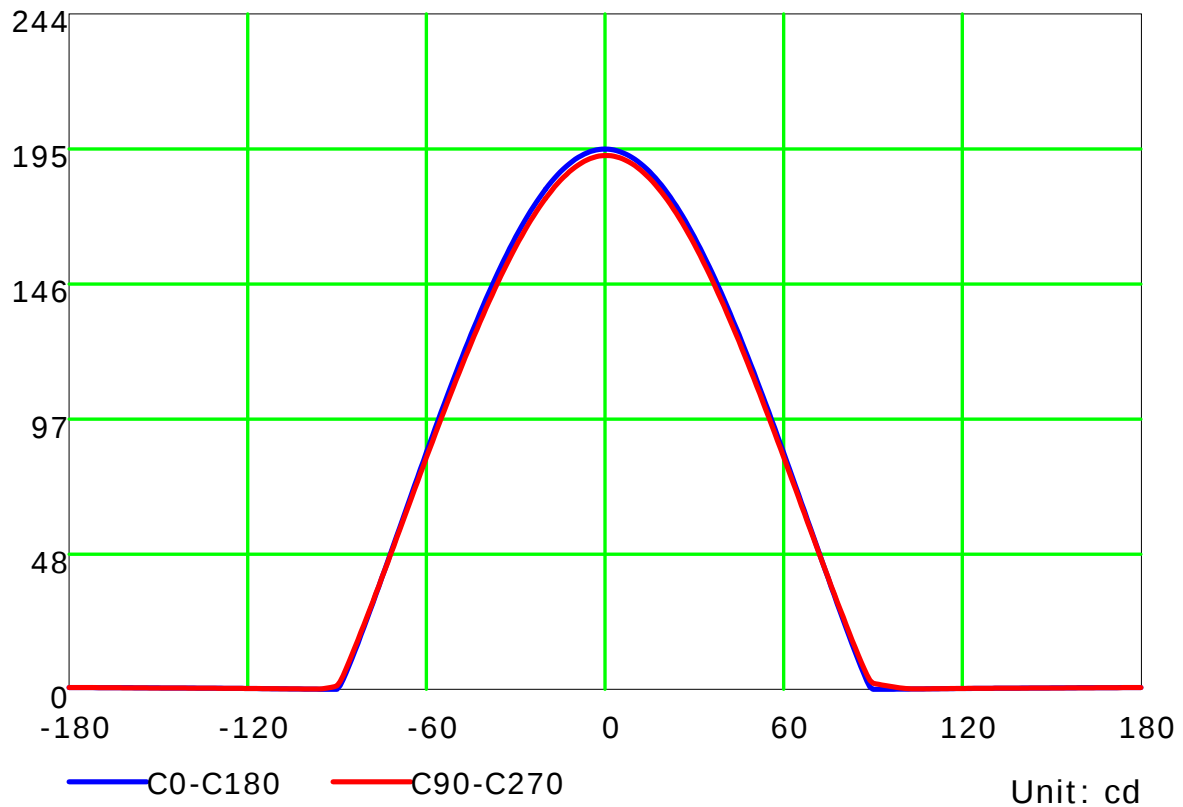
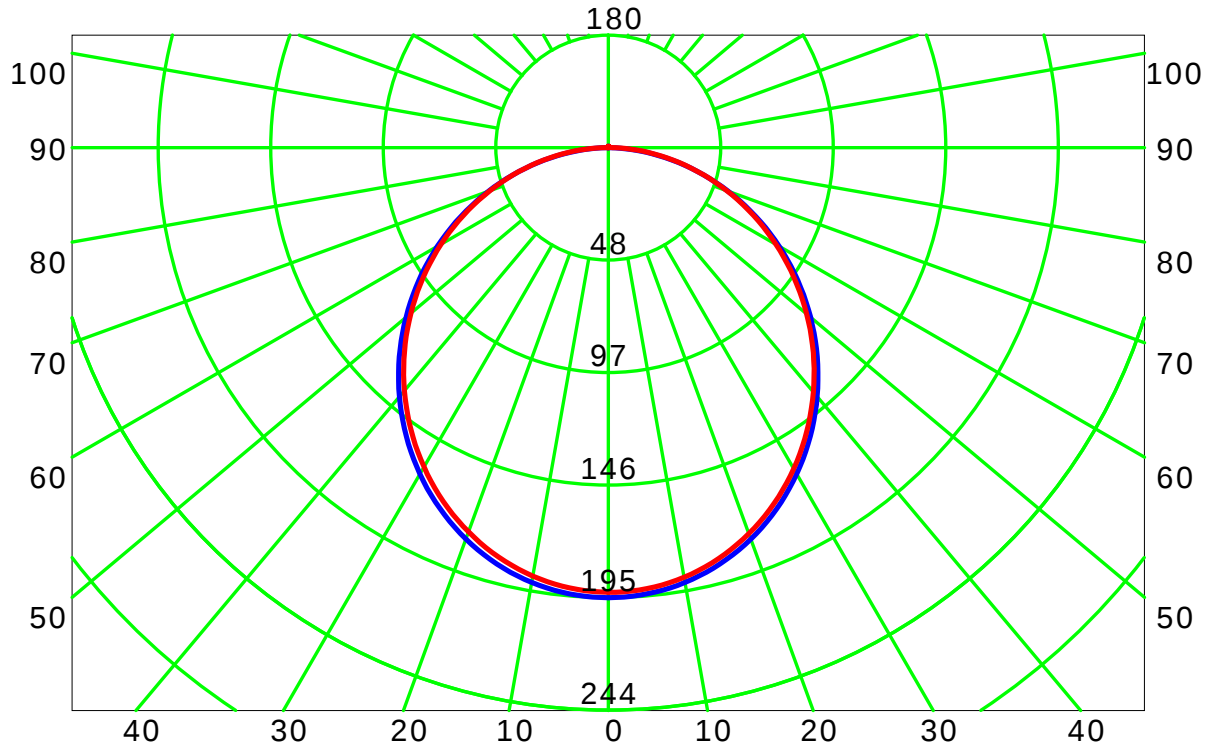
Test Device: GPM-2000

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

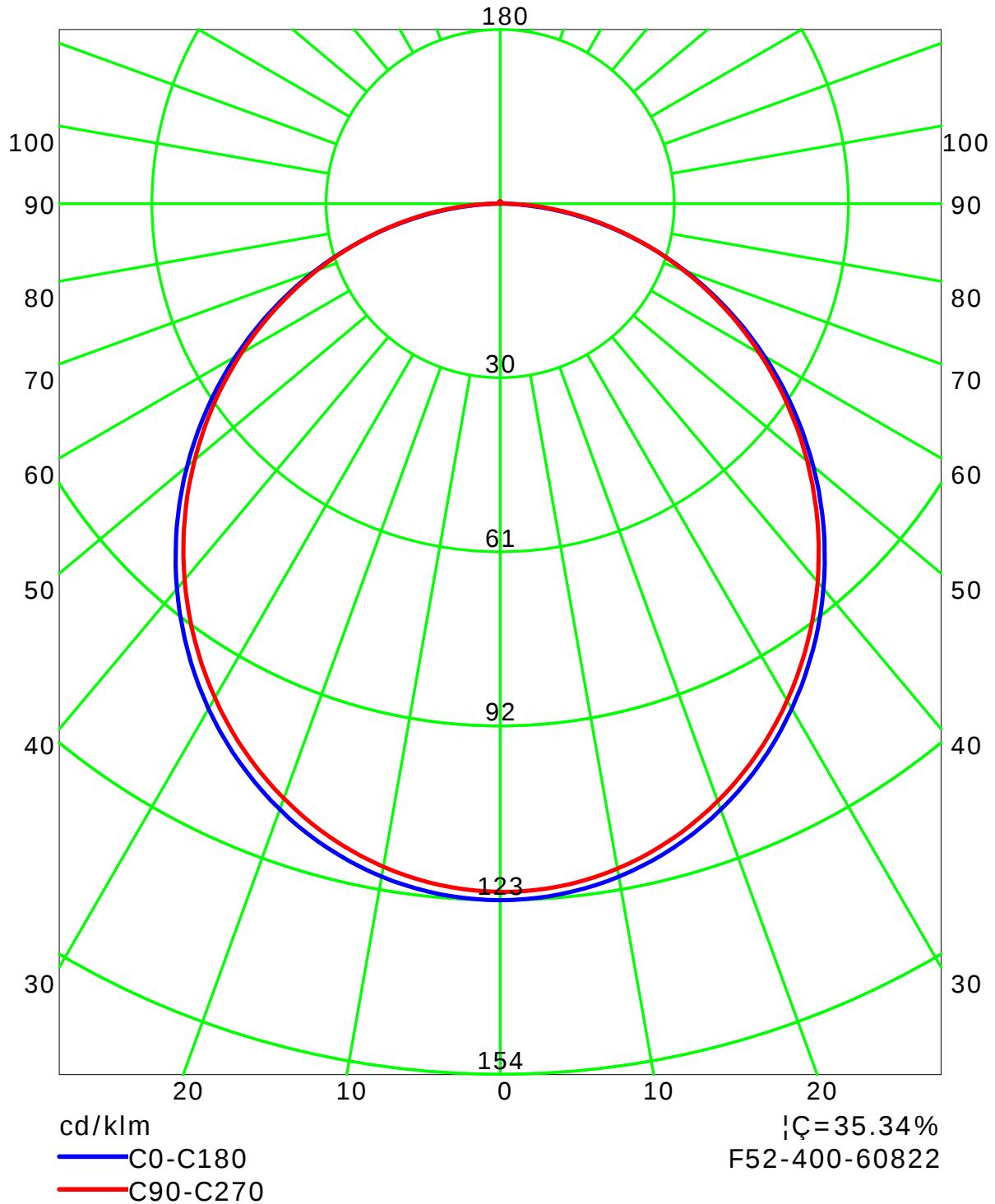
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

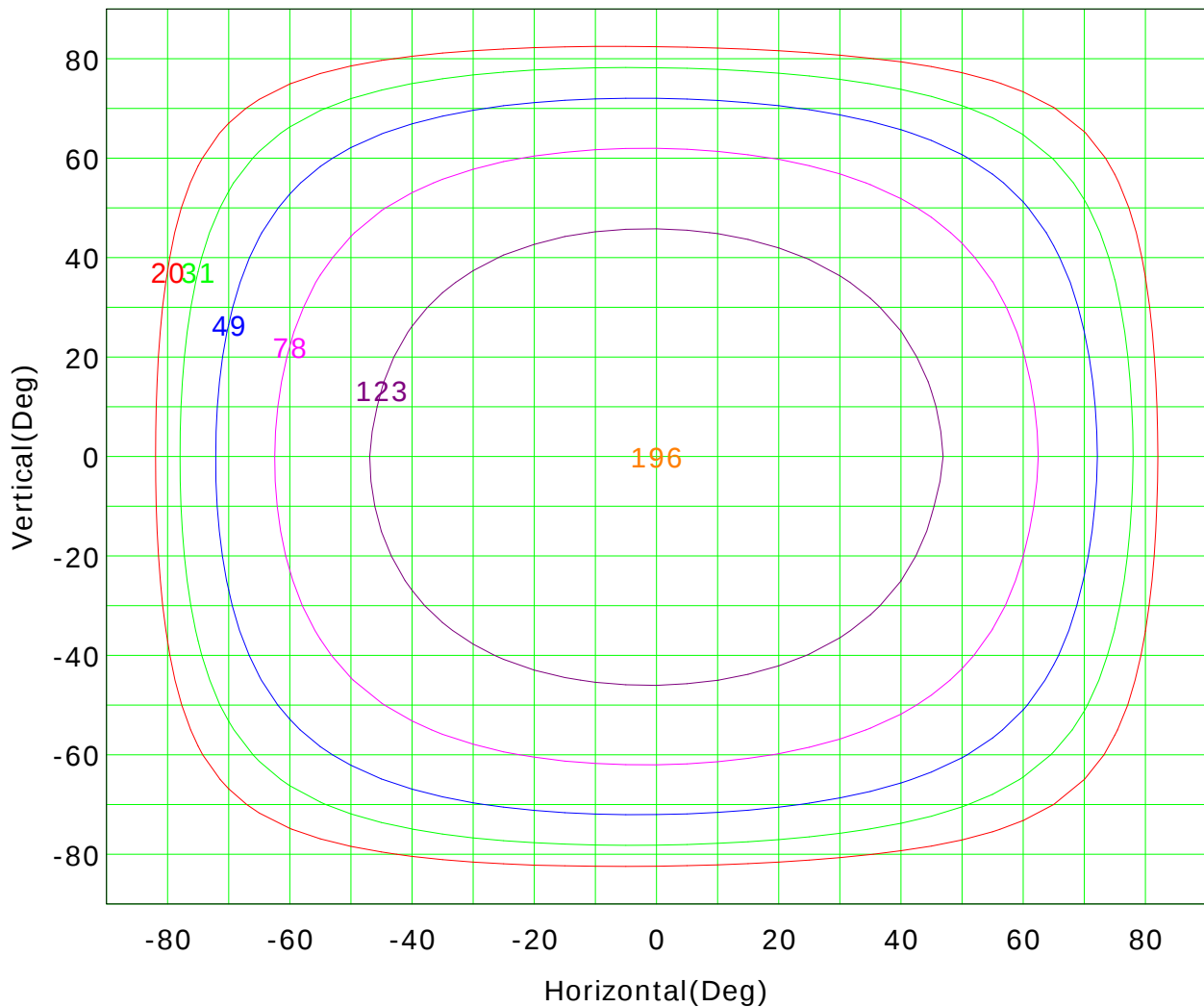
Luminous Intensity Distribution Curve(cd / klm)



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%): 196 cd

(10%):	20 cd	(16%):	31 cd
(25%):	49 cd	(40%):	78 cd
(63%):	123 cd	(100%):	196 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

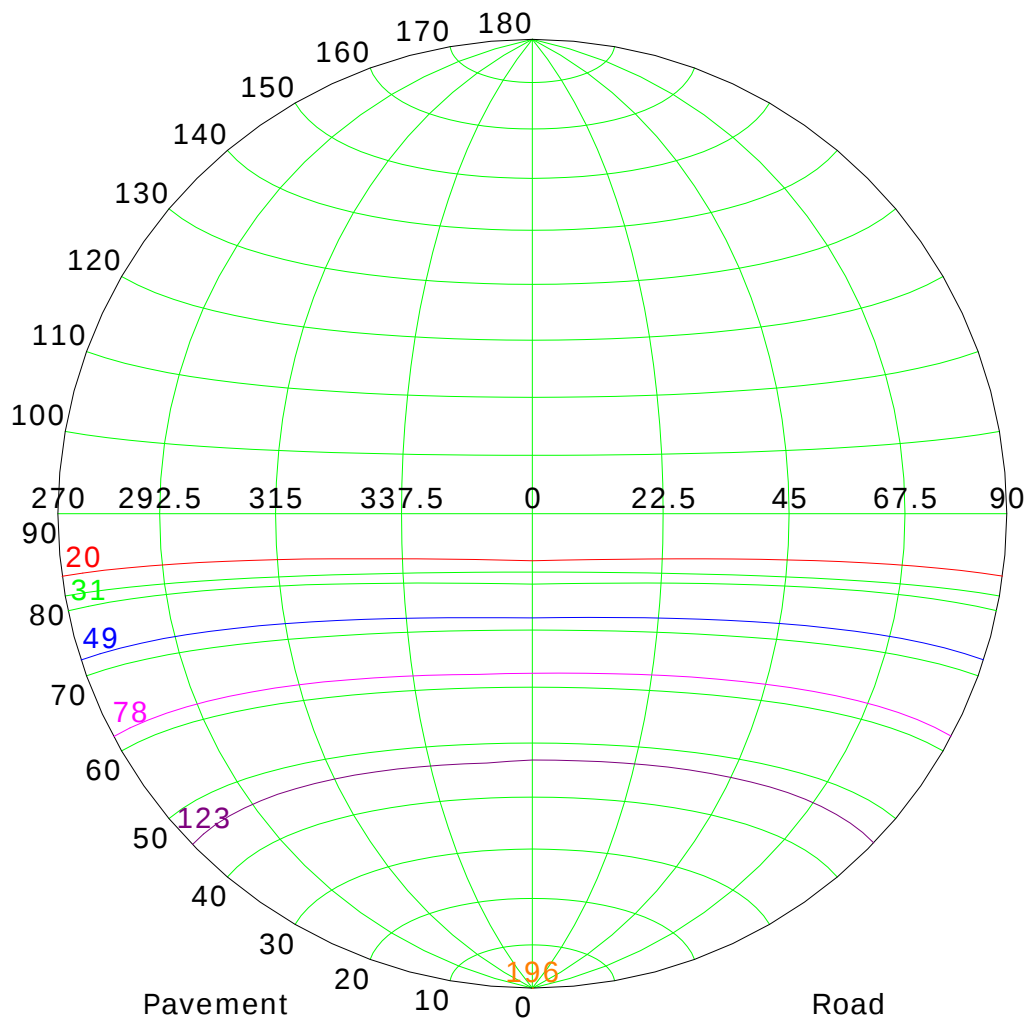
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



I_{max} (100%): 196 cd

(10%):	20 cd	(16%):	31 cd
(25%):	49 cd	(40%):	78 cd
(63%):	123 cd	(100%):	196 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

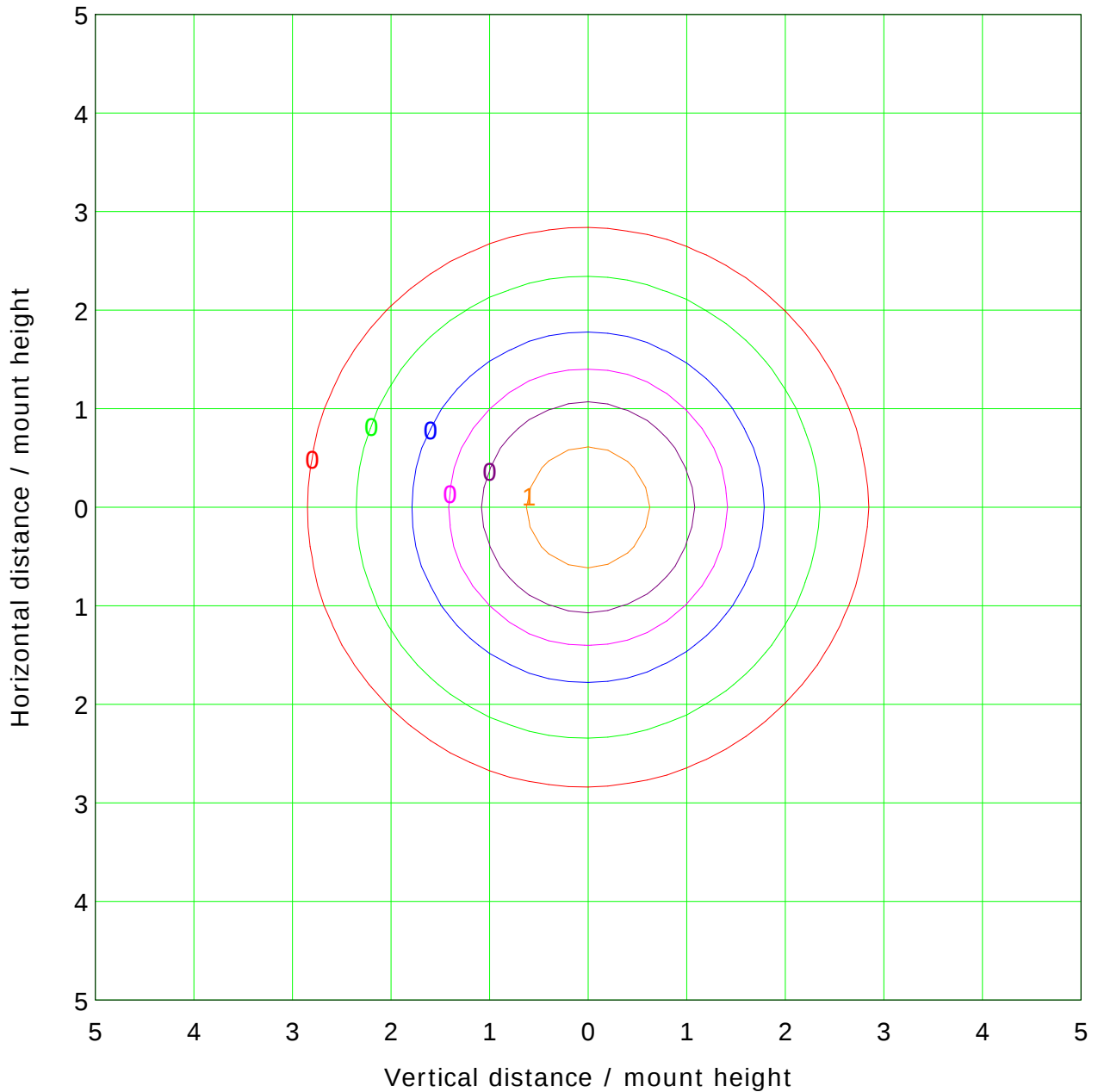
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 2.0 lx

— (1%): 0.0 lx	— (2%): 0.0 lx
— (5%): 0.1 lx	— (10%): 0.2 lx
— (20%): 0.4 lx	— (50%): 1.0 lx
— (100%): 2.0 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

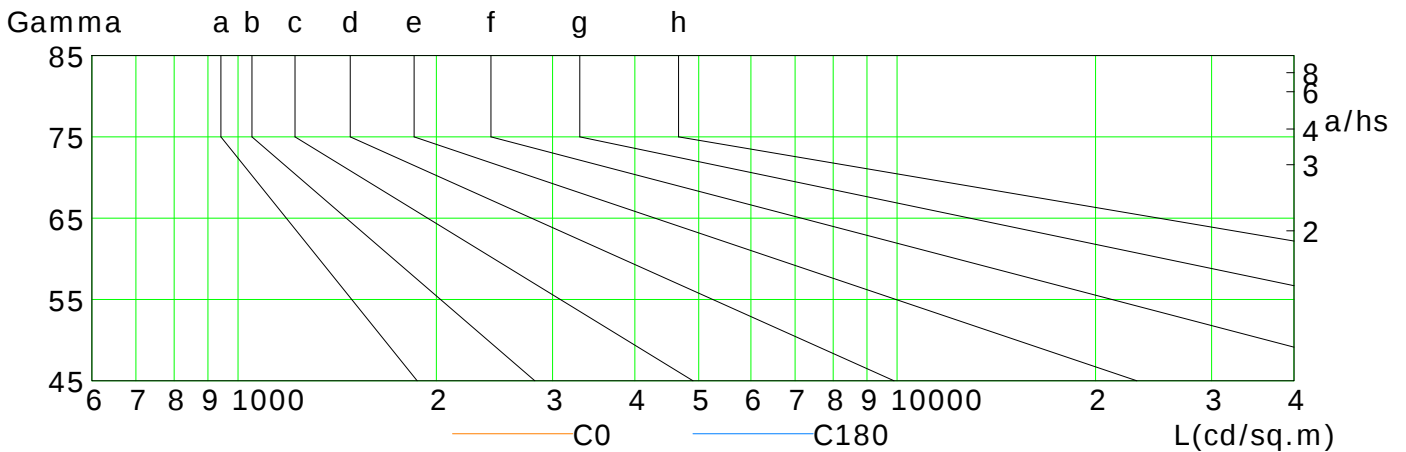
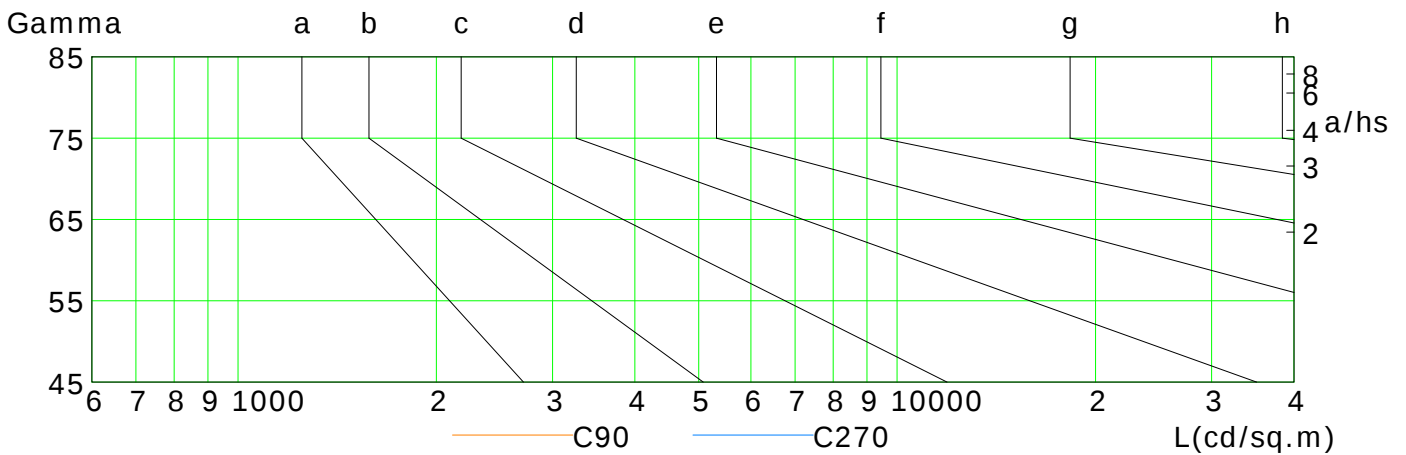
Humidity:

Inspector:

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	129	115	101	86	71	55	40	25	11
C90	126	113	99	84	70	55	40	26	13
C180	129	115	101	86	71	55	40	25	11
C270	125	112	98	84	69	55	40	26	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

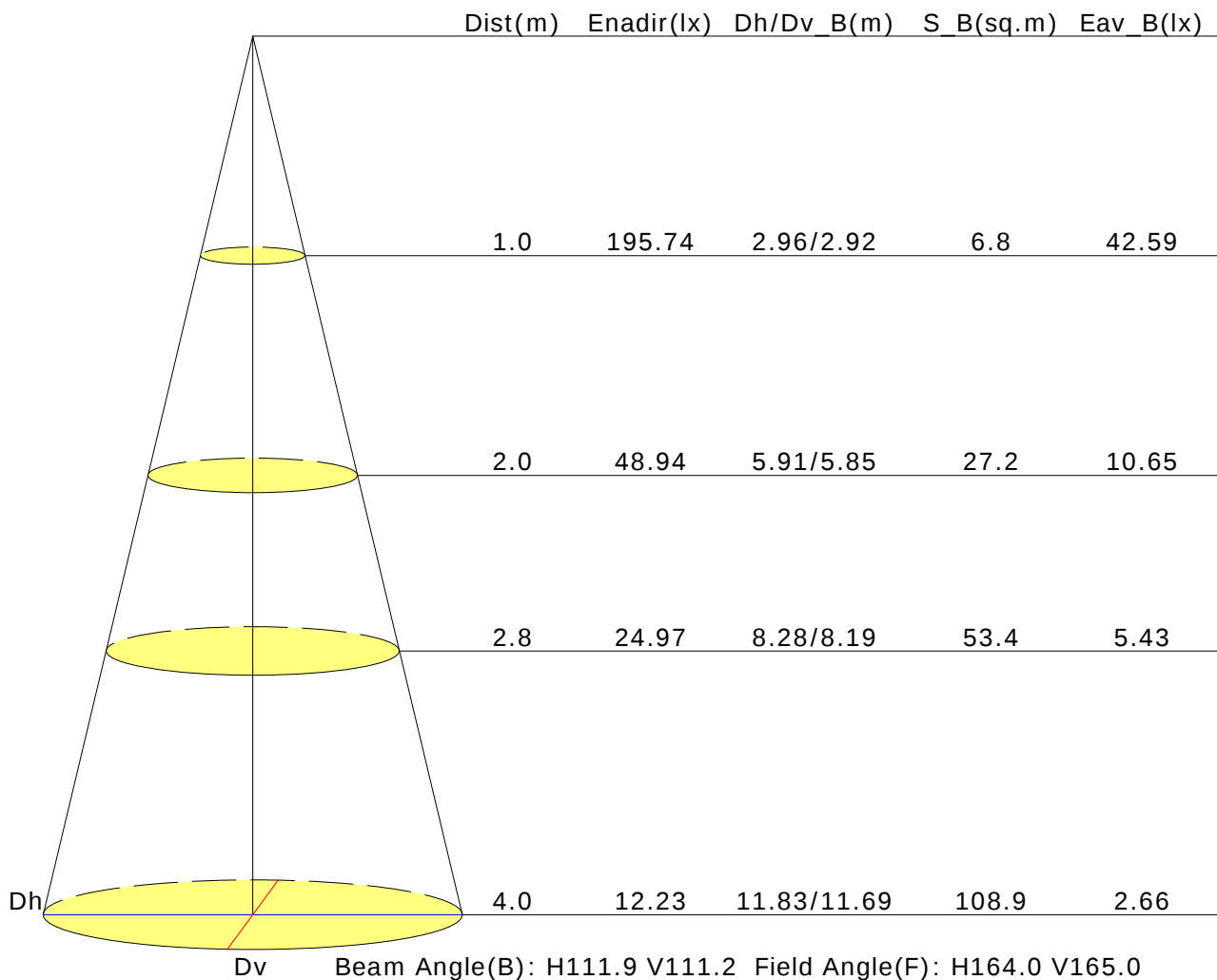
Test Device: GPM-2000

Distance: 7.970 m

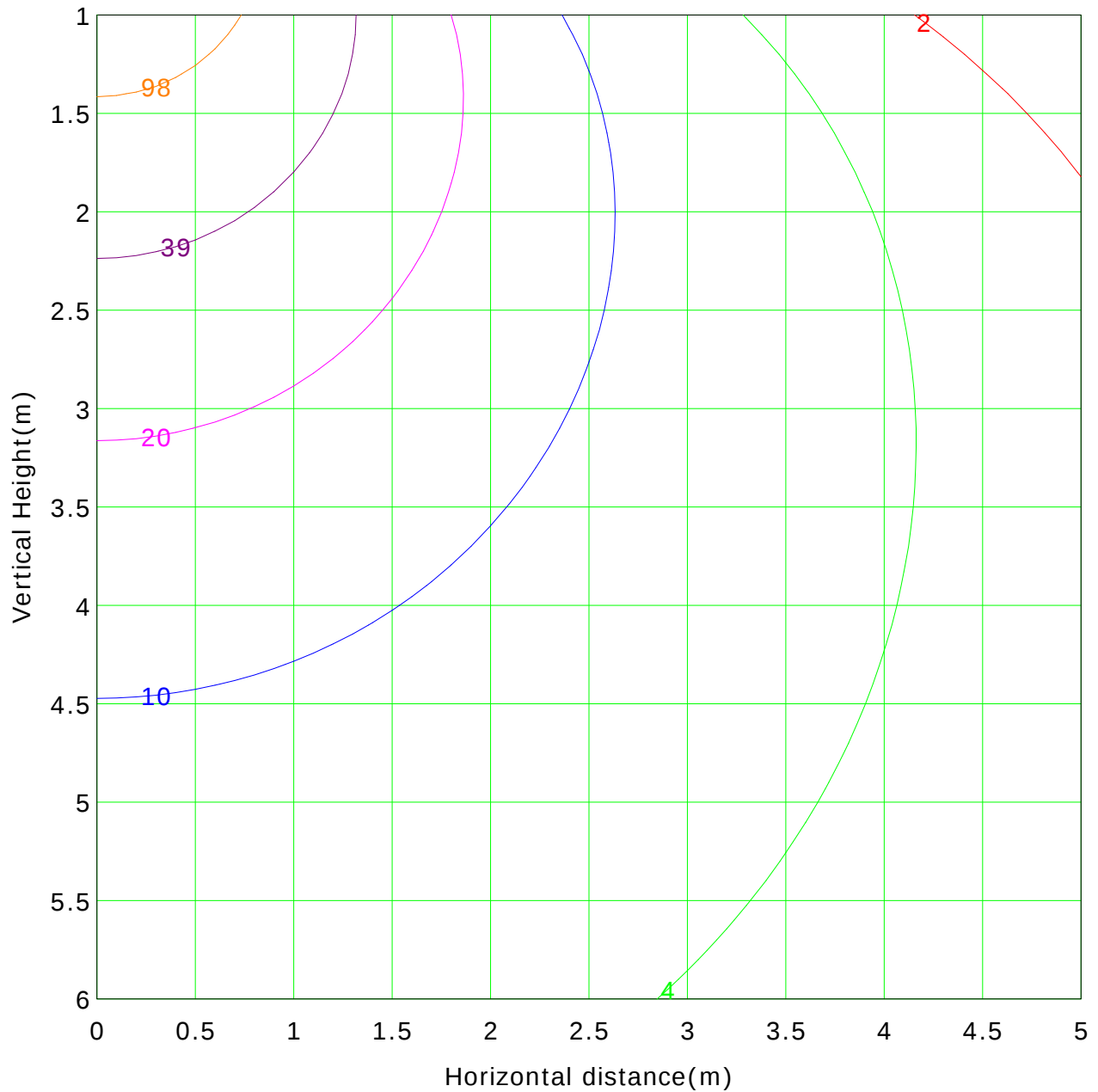
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 6.0m Max Lux: 195.7 lx

(1%): 2.0 lx	(2%): 3.9 lx
(5%): 9.8 lx	(10%): 19.6 lx
(20%): 39.1 lx	(50%): 97.9 lx
(100%): 195.7 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: 11/09/2018 15:59

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-CC01-06 + LLD-06-CS

Lamp Description: F52-400-60822

Number of Lamps: 1

Lumens per Lamp: 1579 lm

Voltage: 24.0 V

Current: 0.599 A

Power: 14.36 W

Power Factor: 1.000

Photometric Results

CIE Class: Semi-Direct

Measurement Flux: 584.7 lm

Downward Ratio: 33.08%

Total Rated Lamp Lumens: 1579.0 lm

Efficiency: 37.03%

Upward Ratio: 3.94%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.0, 255.7, 217.1, 210.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.7, 132.5, 125.8, 125.1

Luminaire Efficacy Rating (LER): 40.76

Central Intensity: 154.72 cd

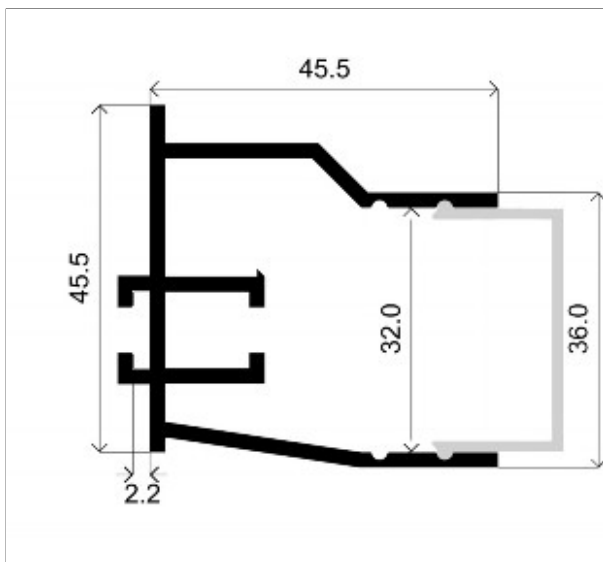
Max. Intensity: 155.03 cd

Pos of Max. Intensity: H260 V6

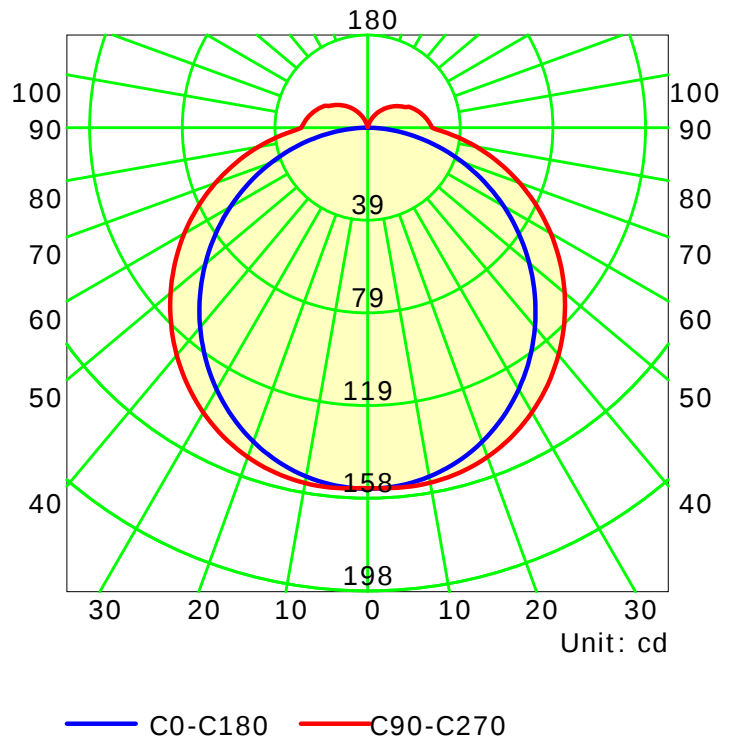
S/MH(C0/C180): 1.24

S/MH(C90/C270): 1.35

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

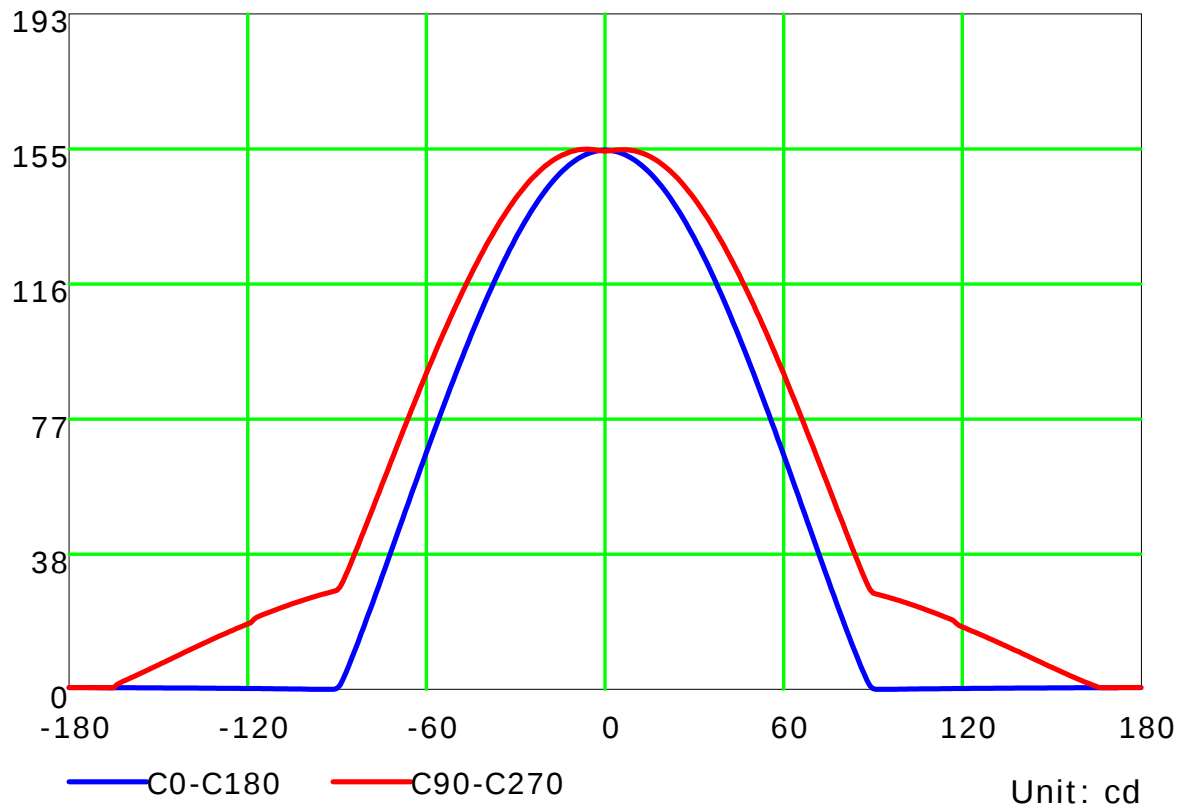
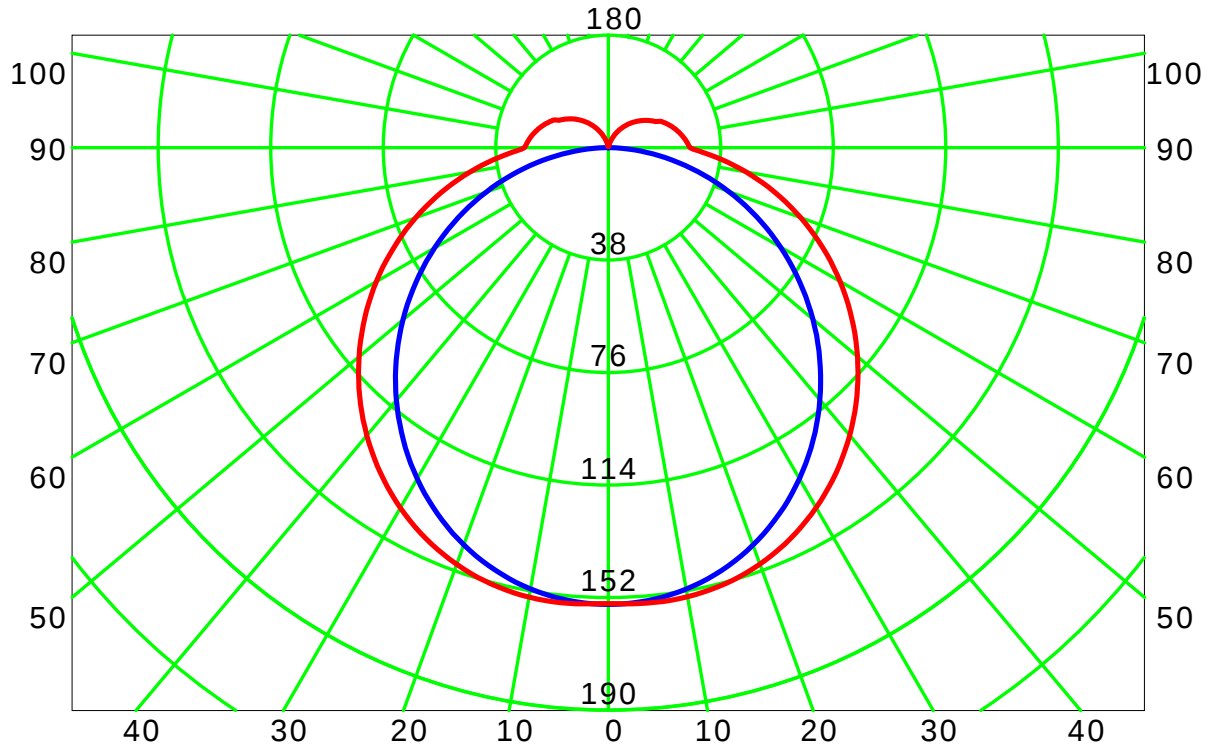
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

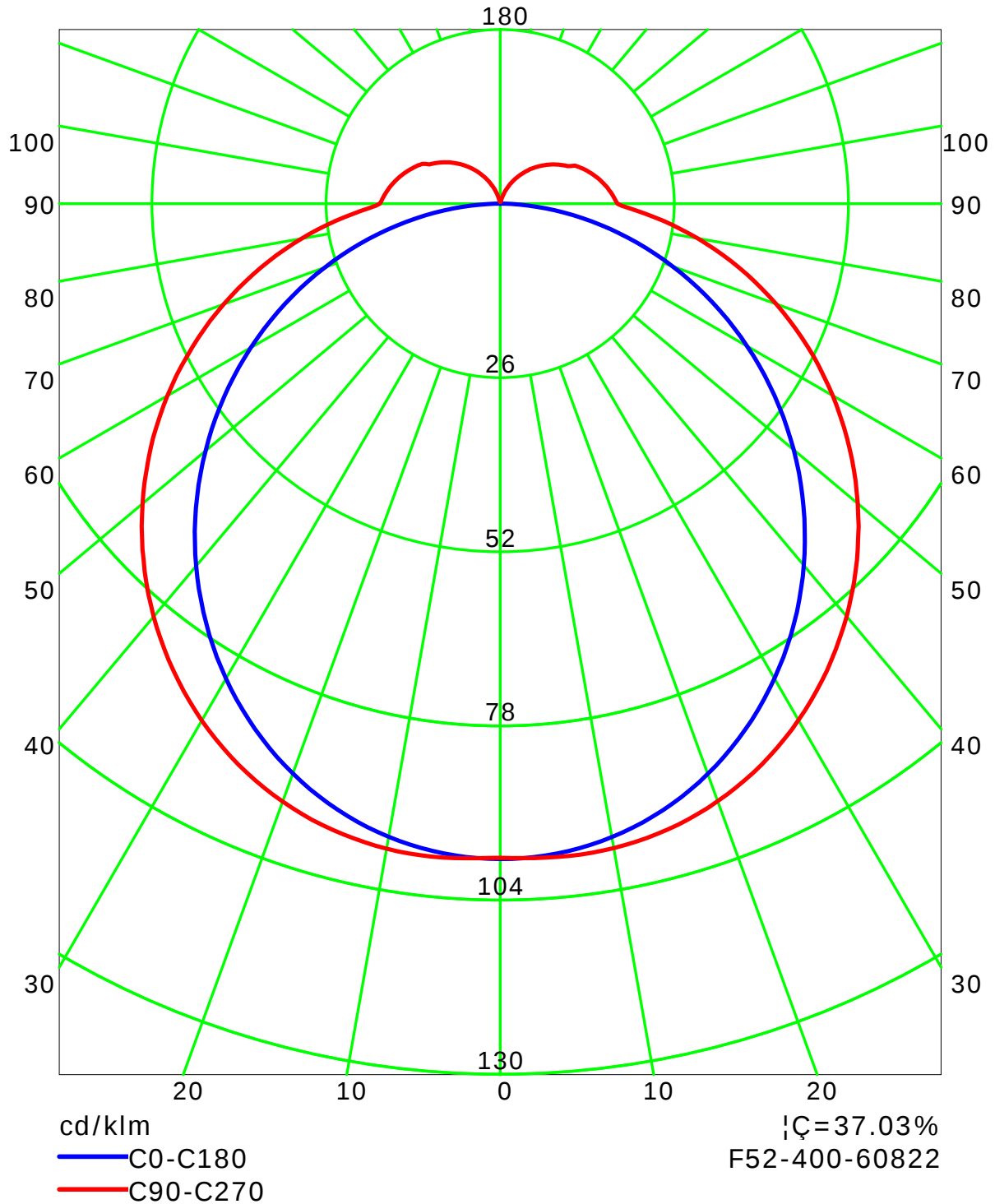
Luminous Intensity Distribution Curve



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:

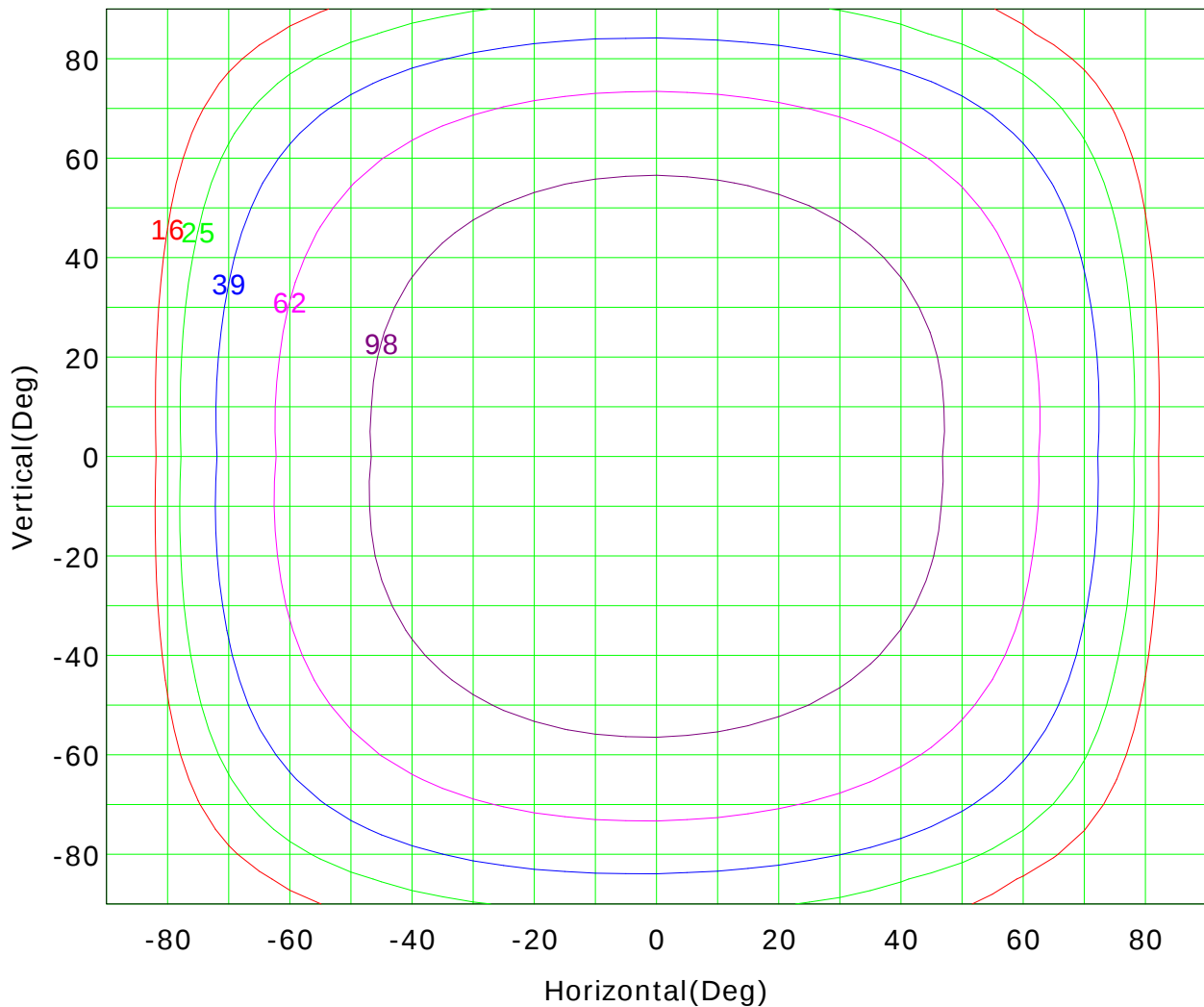
Luminous Intensity Distribution Curve(cd / klm)



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%): 155 cd

(10%):	16 cd	(16%):	25 cd
(25%):	39 cd	(40%):	62 cd
(63%):	98 cd	(100%):	155 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

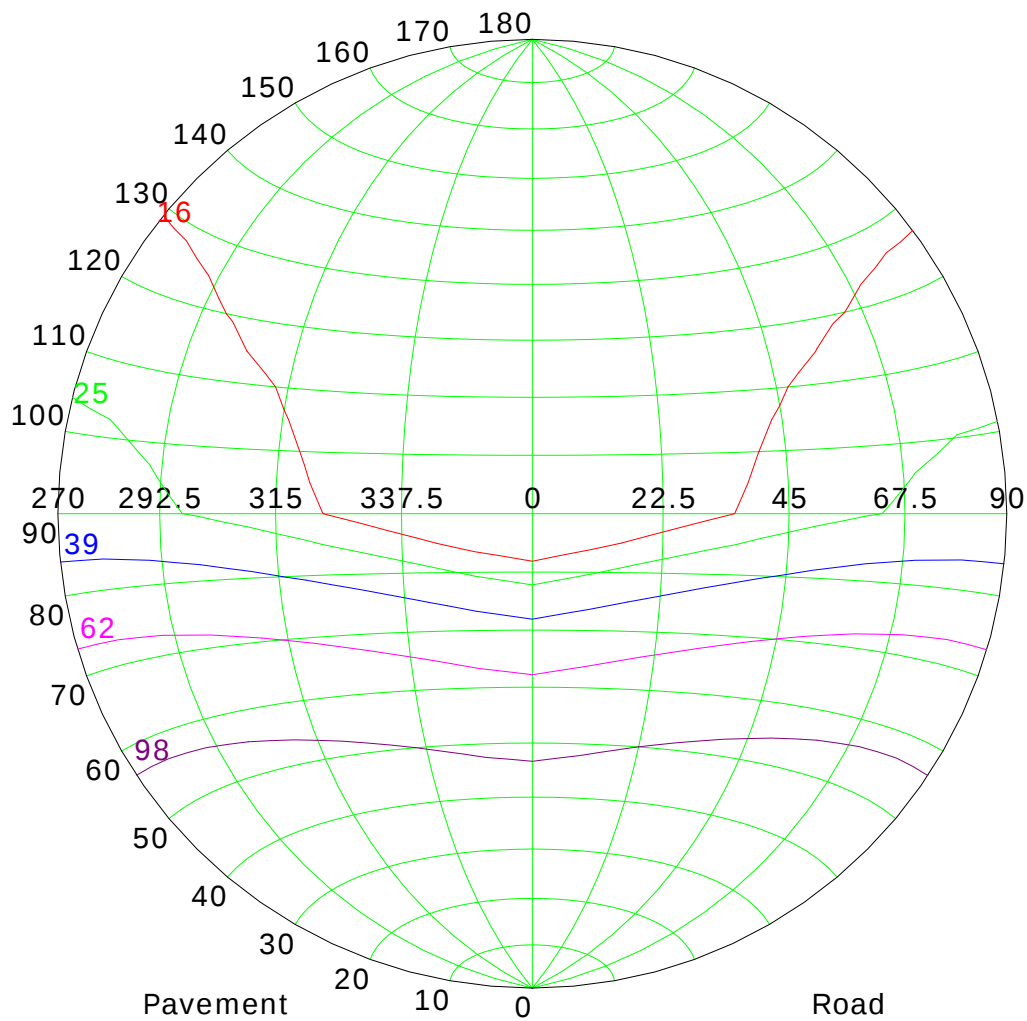
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



I_{max} (100%): 155 cd

(10%):	16 cd	(16%):	25 cd
(25%):	39 cd	(40%):	62 cd
(63%):	98 cd	(100%):	155 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

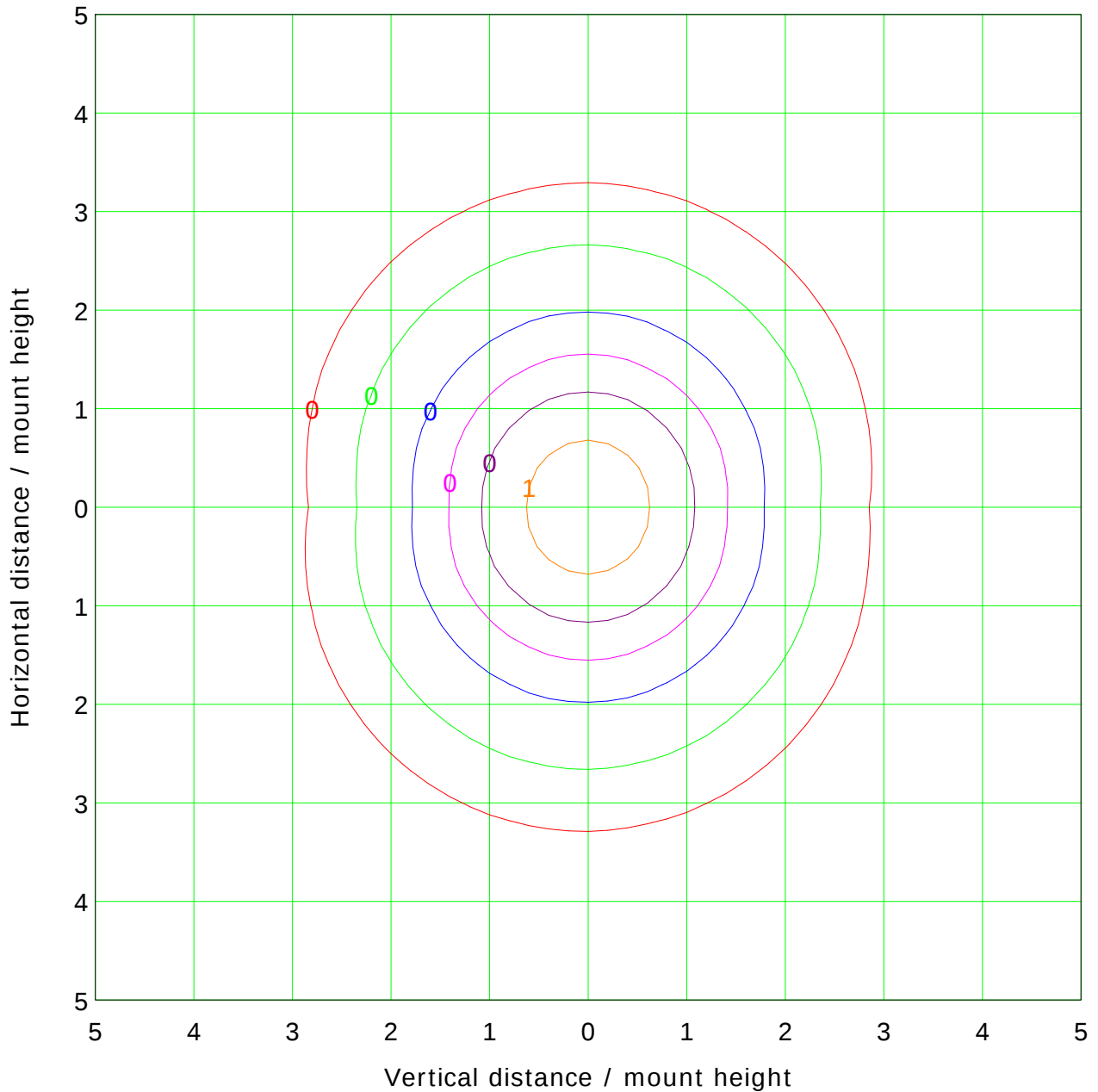
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 1.5 lx

(1%): 0.0 lx	(2%): 0.0 lx
(5%): 0.1 lx	(10%): 0.2 lx
(20%): 0.3 lx	(50%): 0.8 lx
(100%): 1.5 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

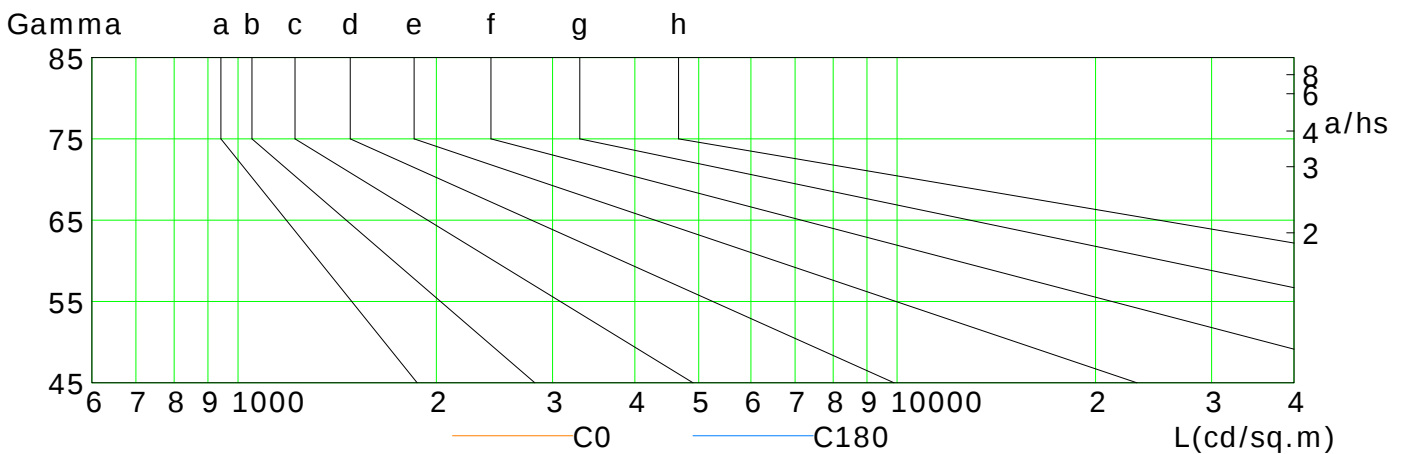
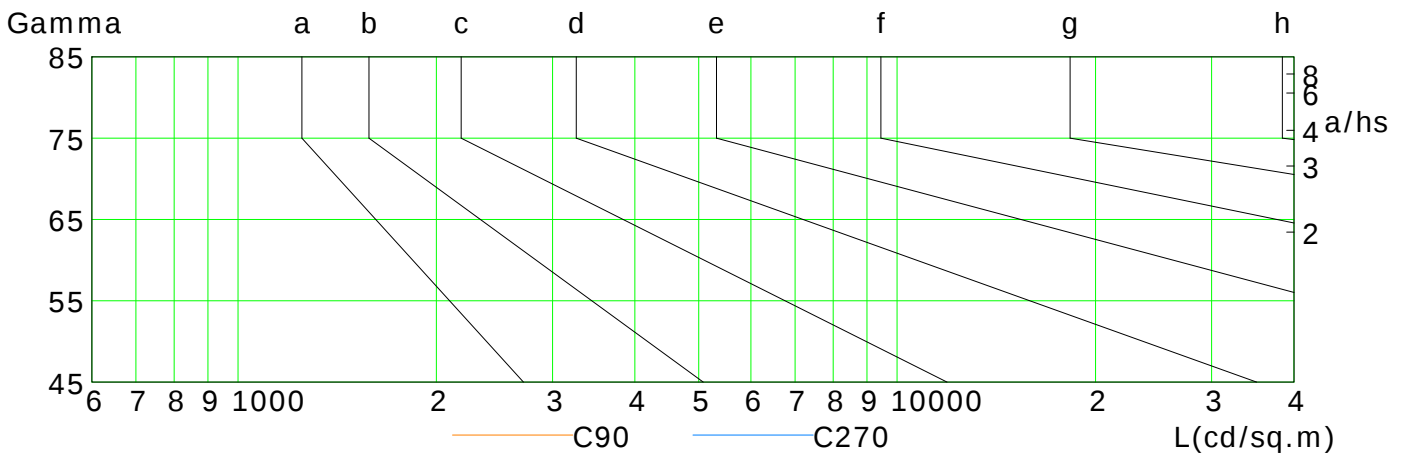
Humidity:

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	101	90	79	67	55	43	31	20	9
C90	119	110	101	91	80	69	58	47	36
C180	102	91	80	68	56	44	32	20	9
C270	119	110	101	91	80	69	59	48	37

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

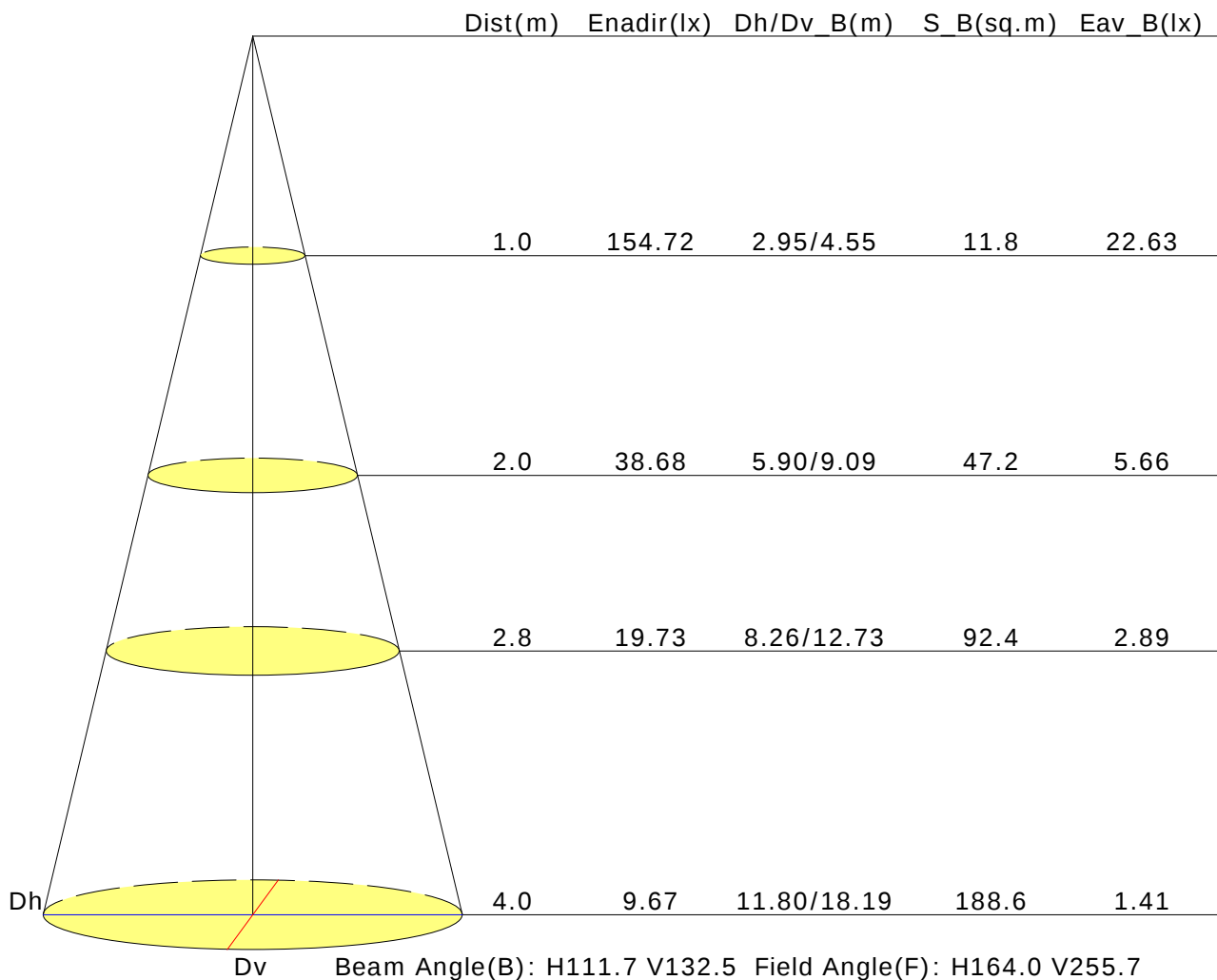
Test Device: GPM-2000

Distance: 7.970 m

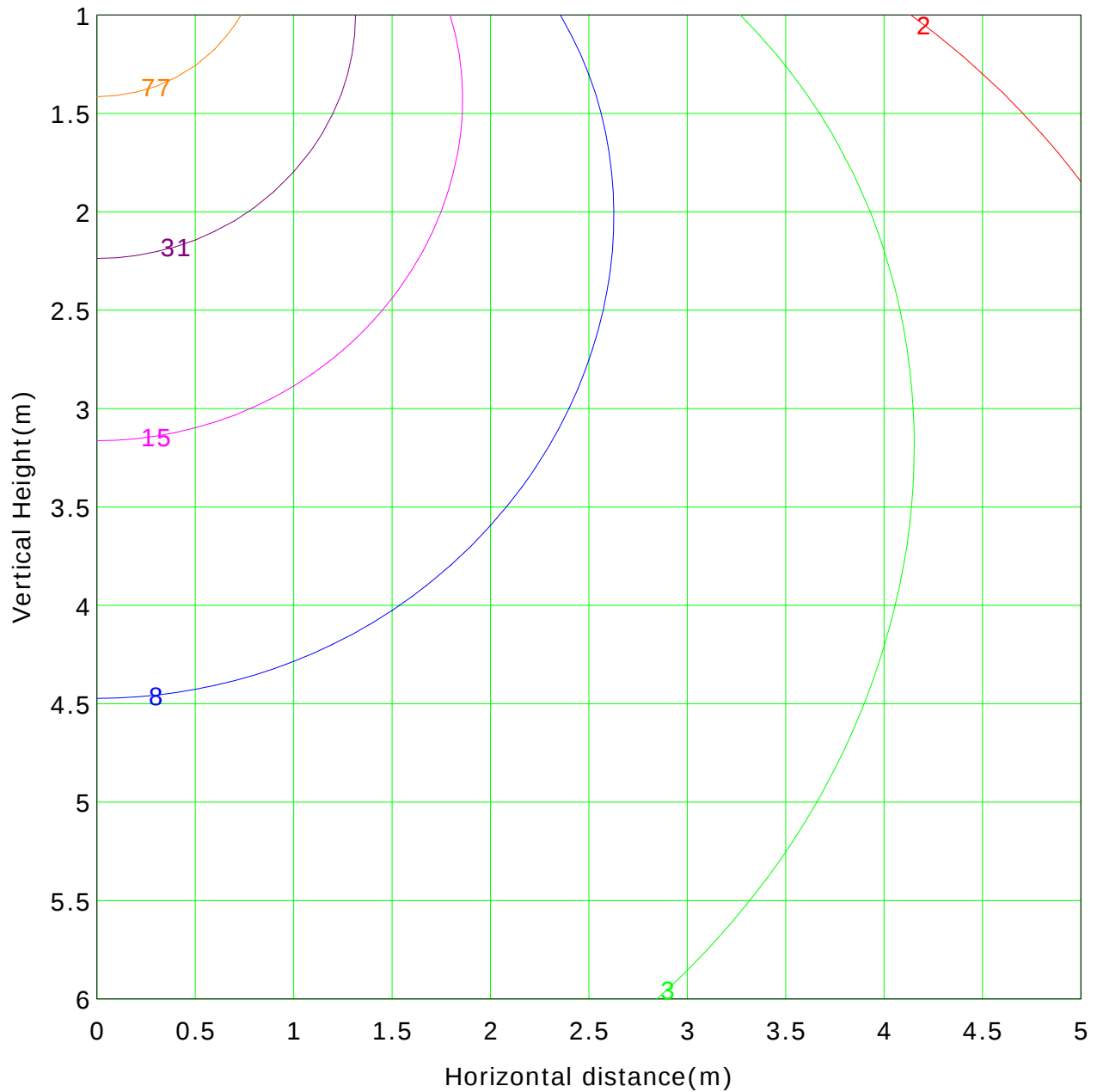
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 154.7 lx
(1%): 1.5 lx	(2%): 3.1 lx	
(5%): 7.7 lx	(10%): 15.5 lx	
(20%): 30.9 lx	(50%): 77.4 lx	
(100%): 154.7 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: