

Report No.:

Test Time: 10/09/2018 14:37

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-RE09-02 + LLD-02-FM

Lamp Description: F52-400-1208C2-W5

Voltage: 24.0 V

Power: 9.02 W

Lumens per Lamp: 1000 lm

Current: 0.376 A

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 499.8 lm

Downward Ratio: 92%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 159.8, 184.5, 170.4, 169.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.6, 119.2, 116.4, 116.1

Luminaire Efficacy Rating (LER): 55.46

Max. Intensity: 152.56 cd

S/MH(C0/C180): 1.25

Total Rated Lamp Lumens: 499.8 lm

Efficiency: 100%

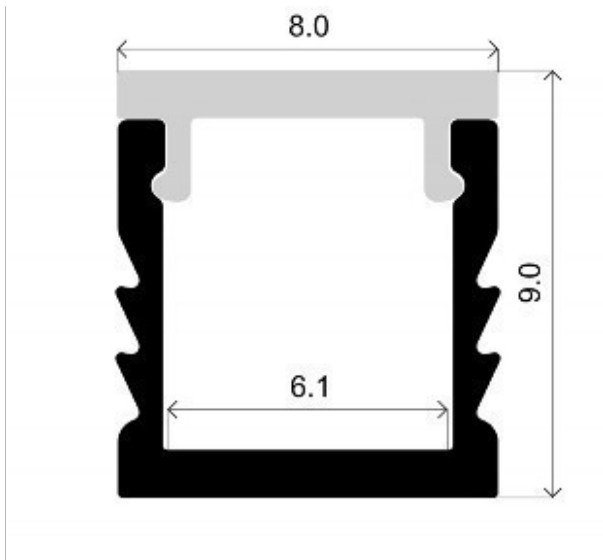
Upward Ratio: 8%

Central Intensity: 152.53 cd

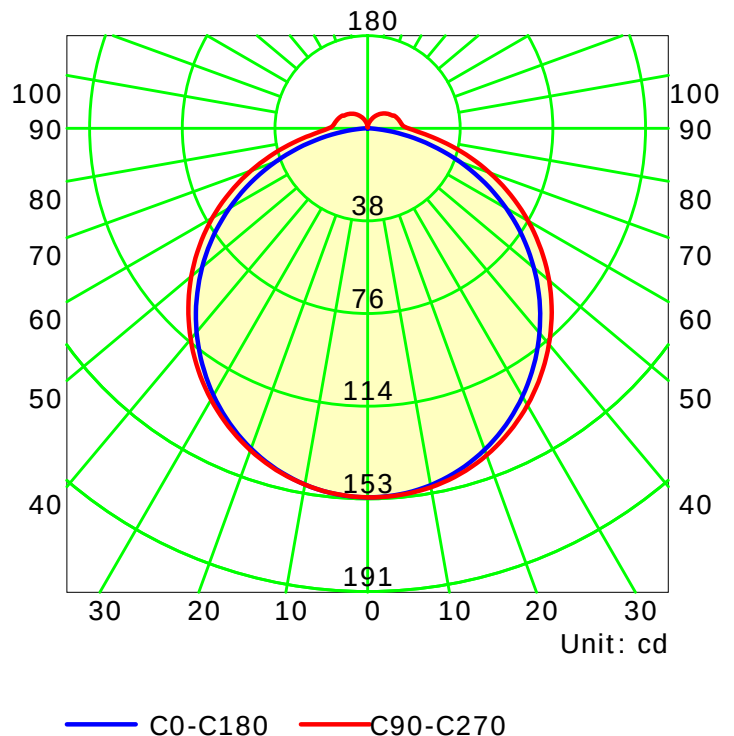
Pos of Max. Intensity: H90 V1

S/MH(C90/C270): 1.27

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

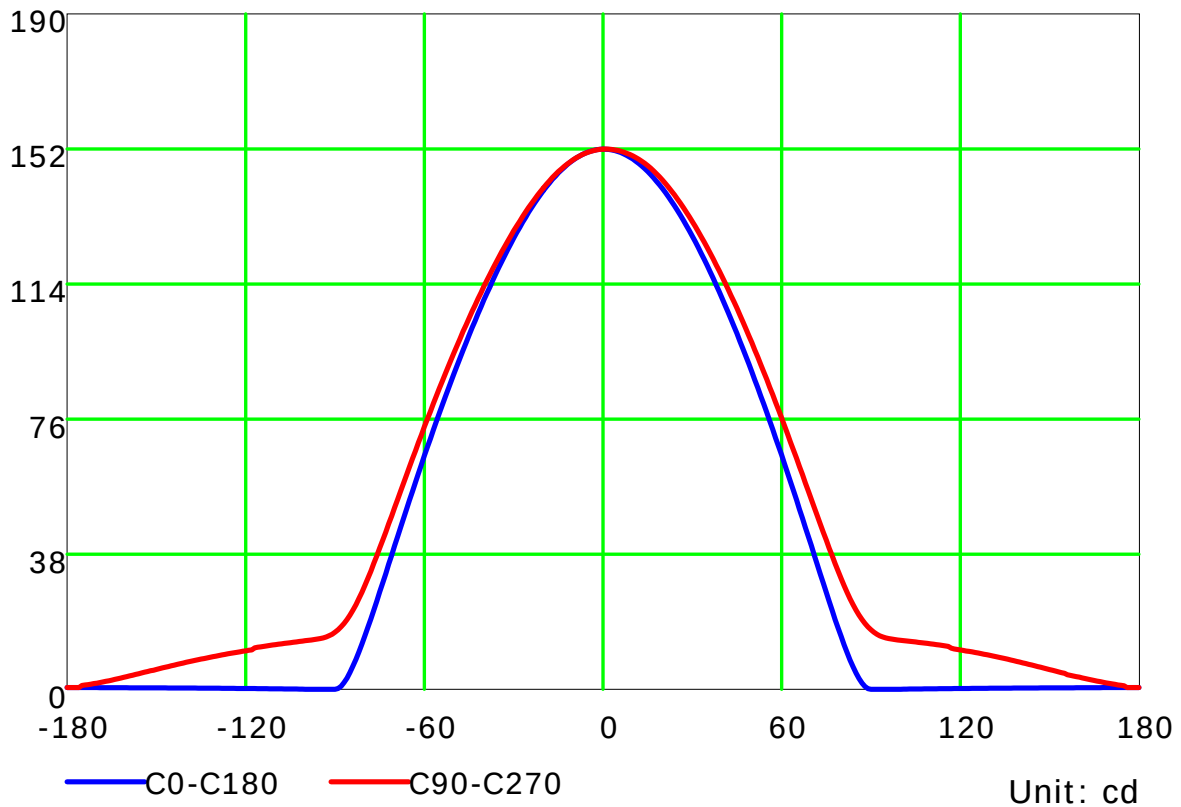
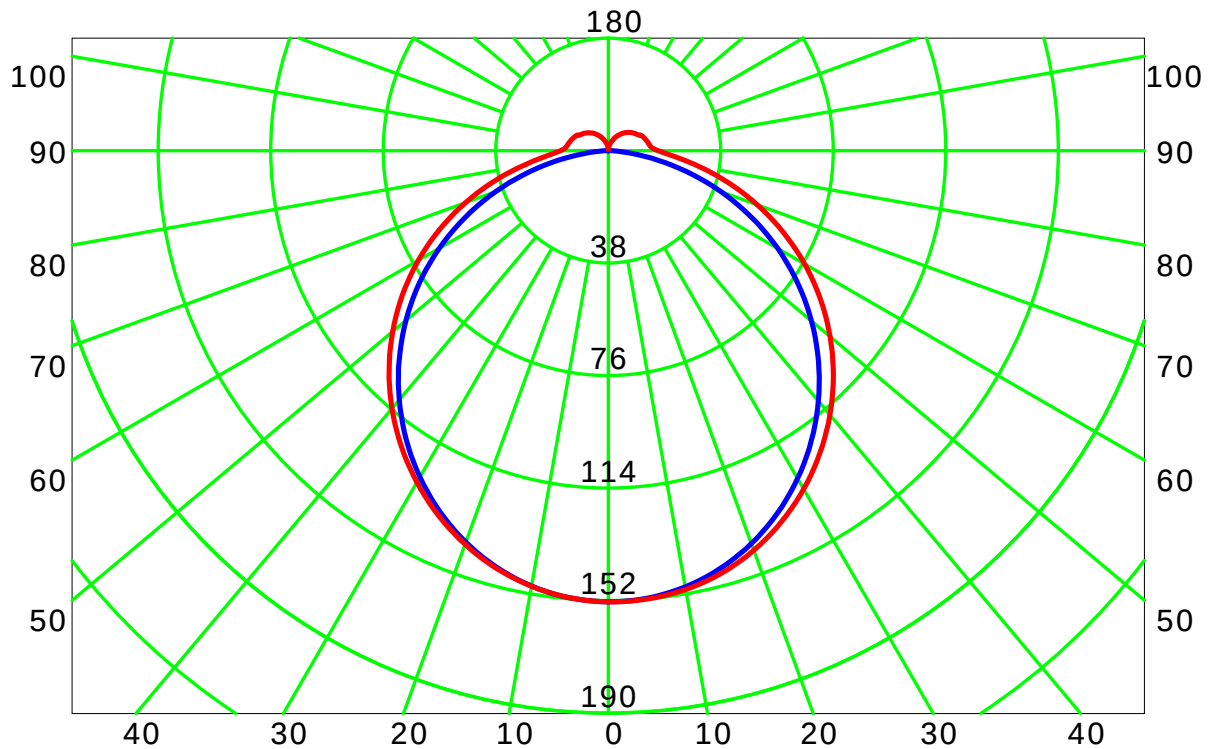
Test Device: GPM-2000

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

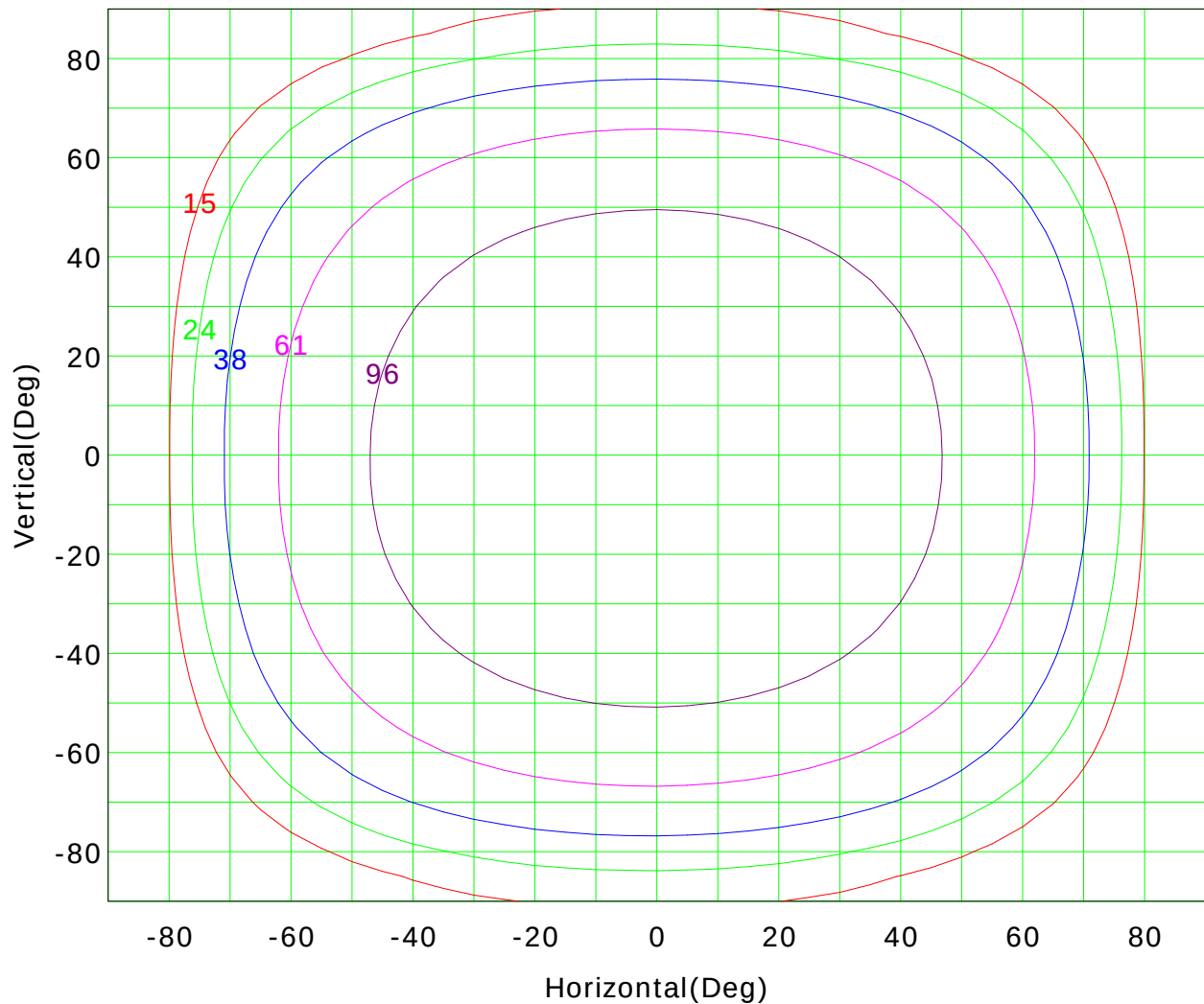
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

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

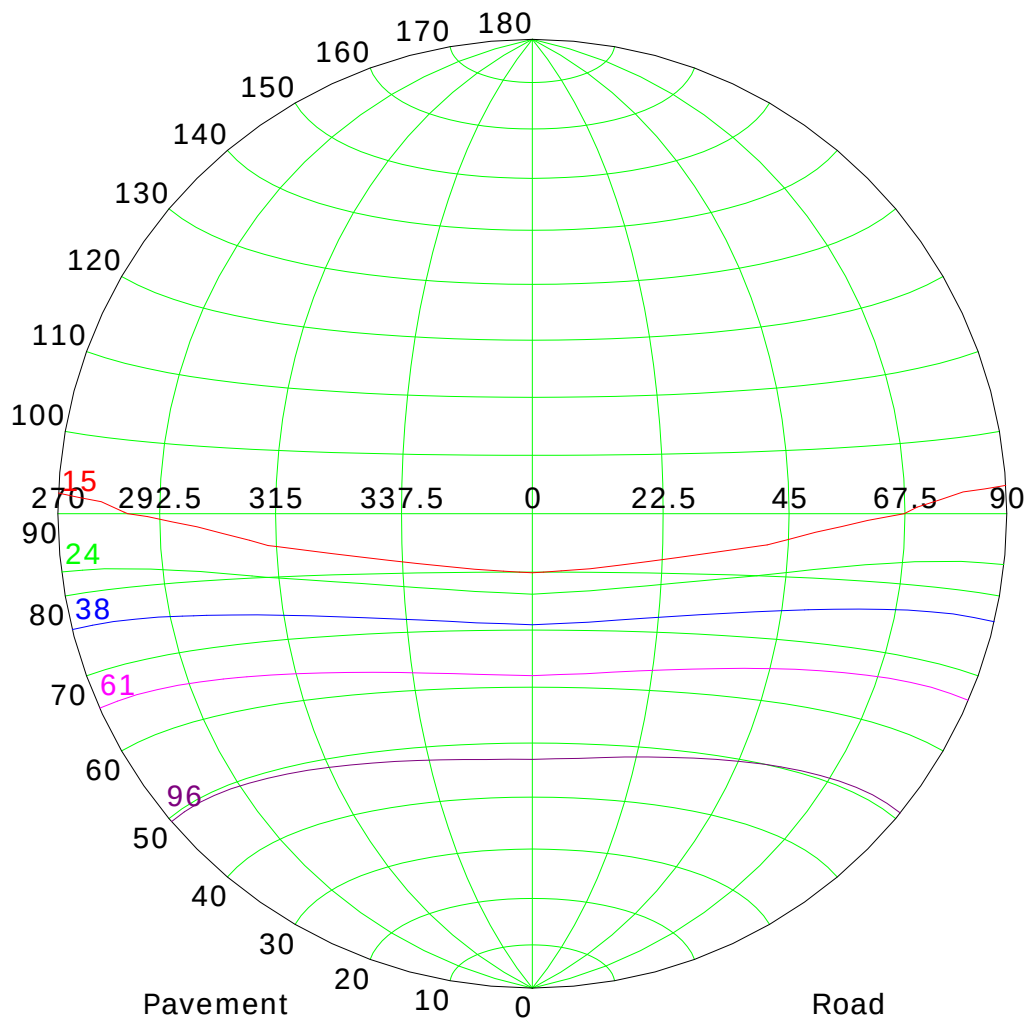
Test Device: GPM-2000

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

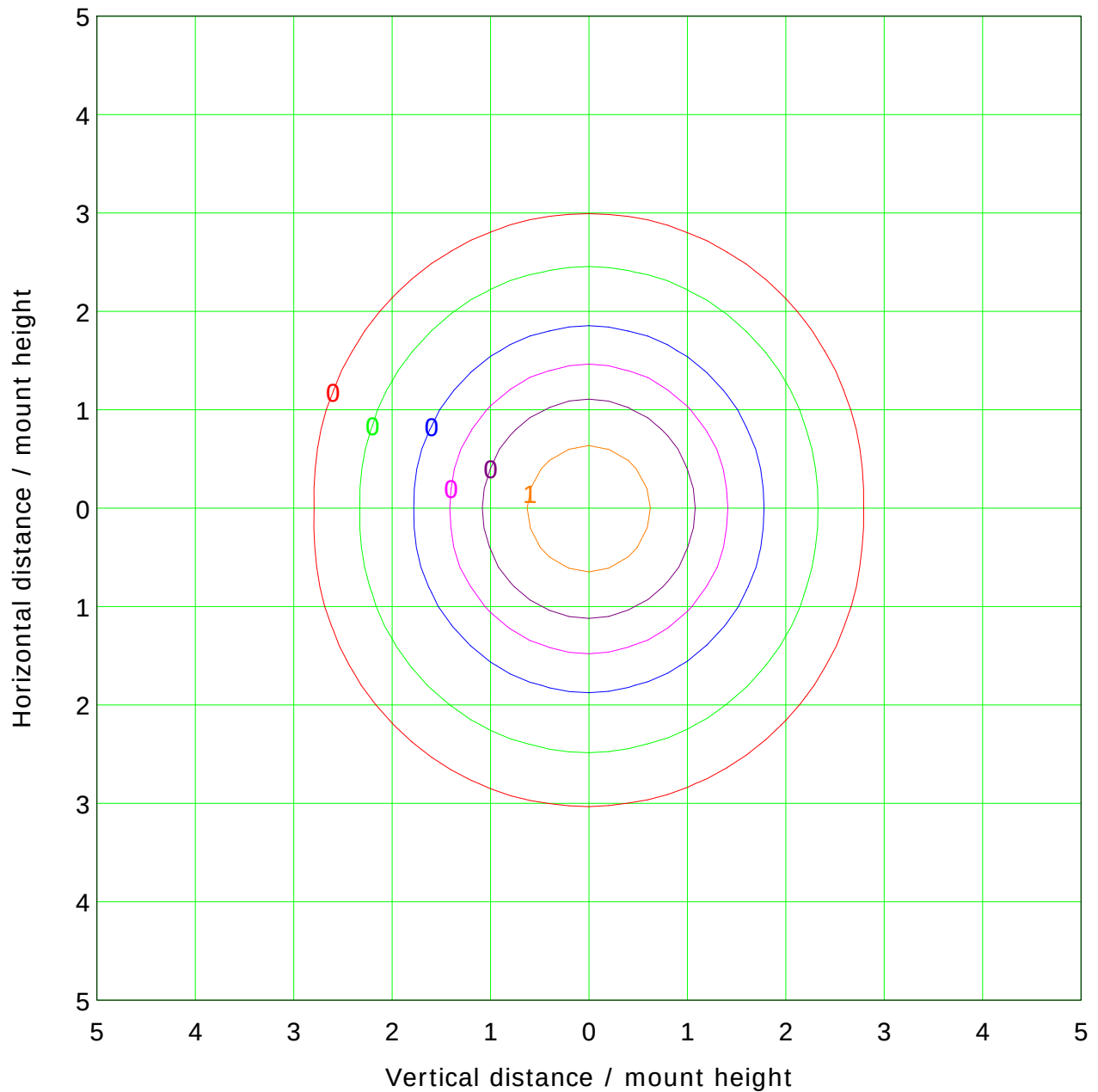
Test Device: GPM-2000

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

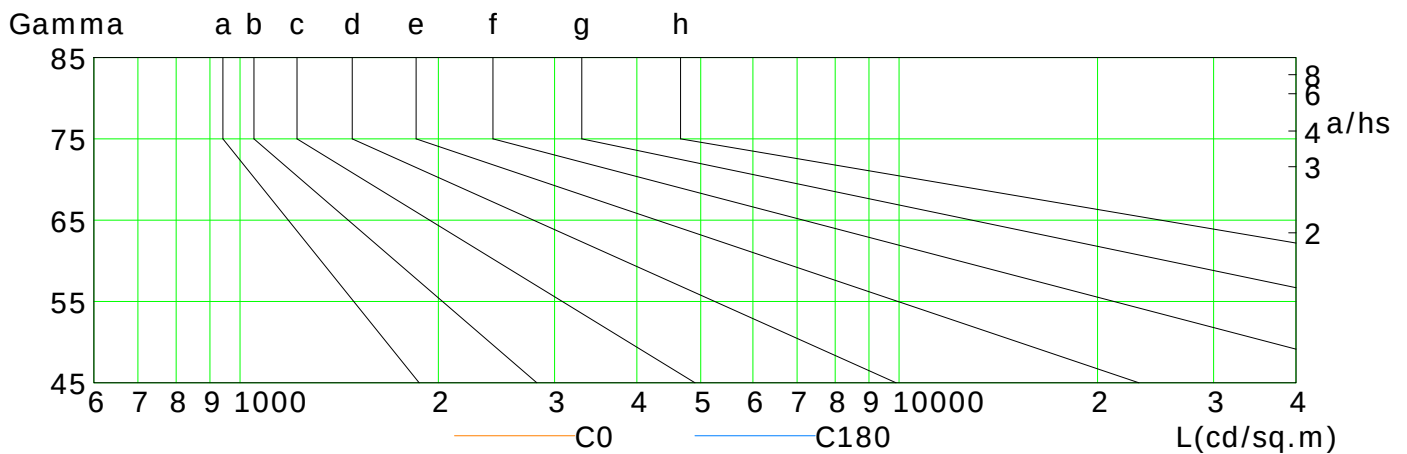
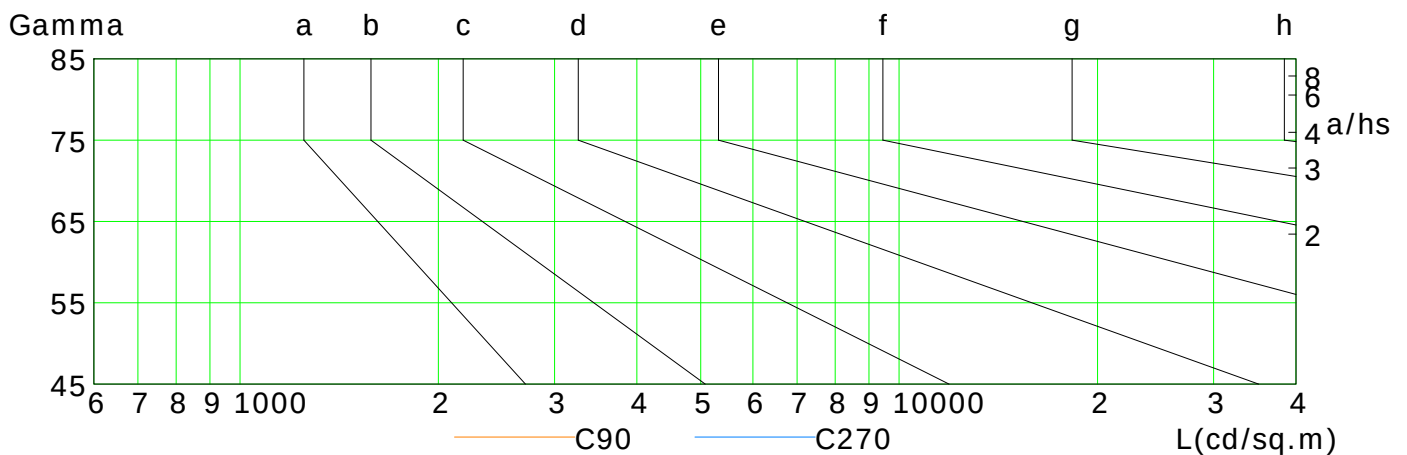
Humidity:

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	100	90	78	66	54	41	27	15	5
C90	108	98	88	77	65	54	42	31	22
C180	100	89	78	66	53	41	28	15	5
C270	105	95	85	74	63	51	40	29	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

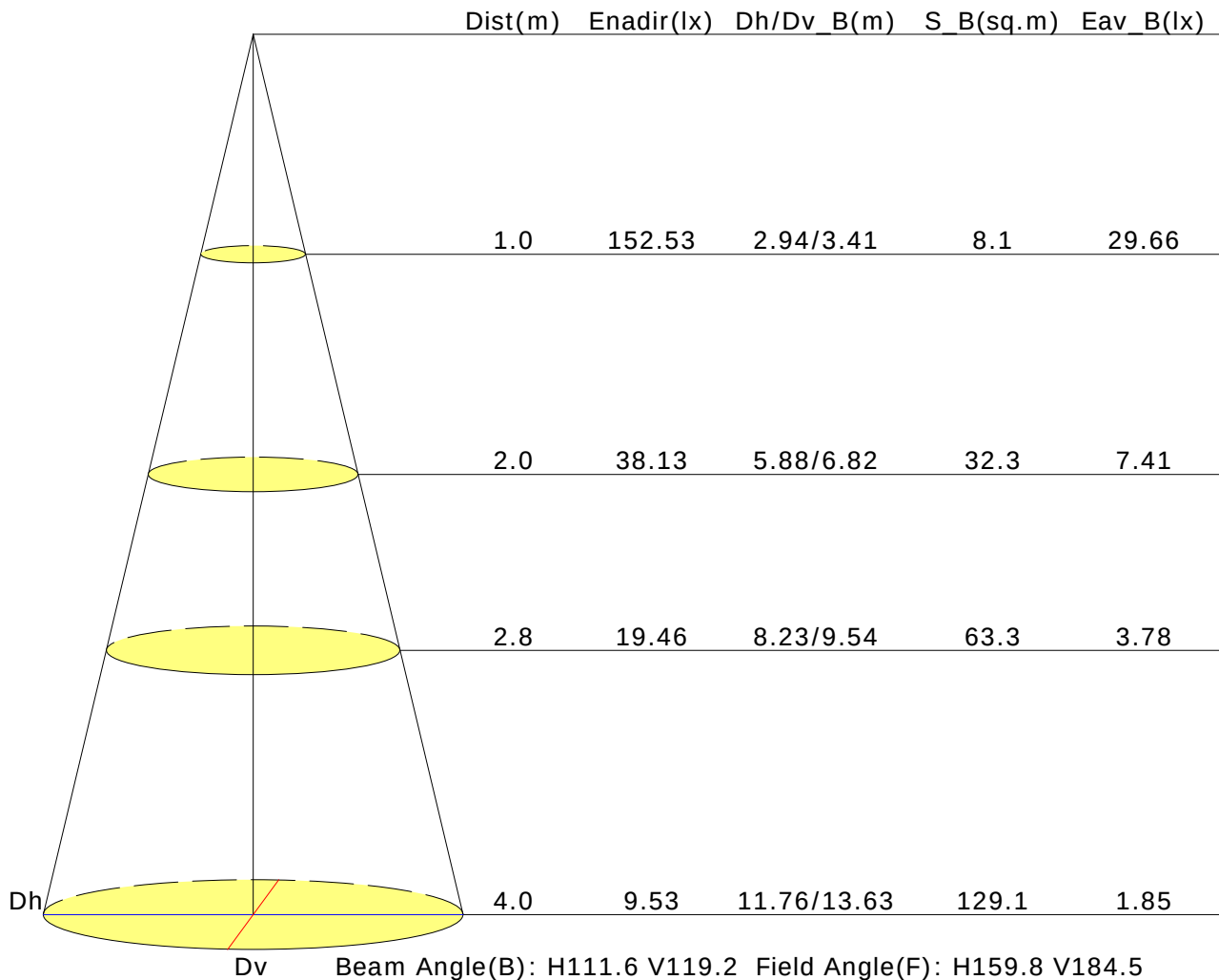
Test Device: GPM-2000

Distance: 7.970 m

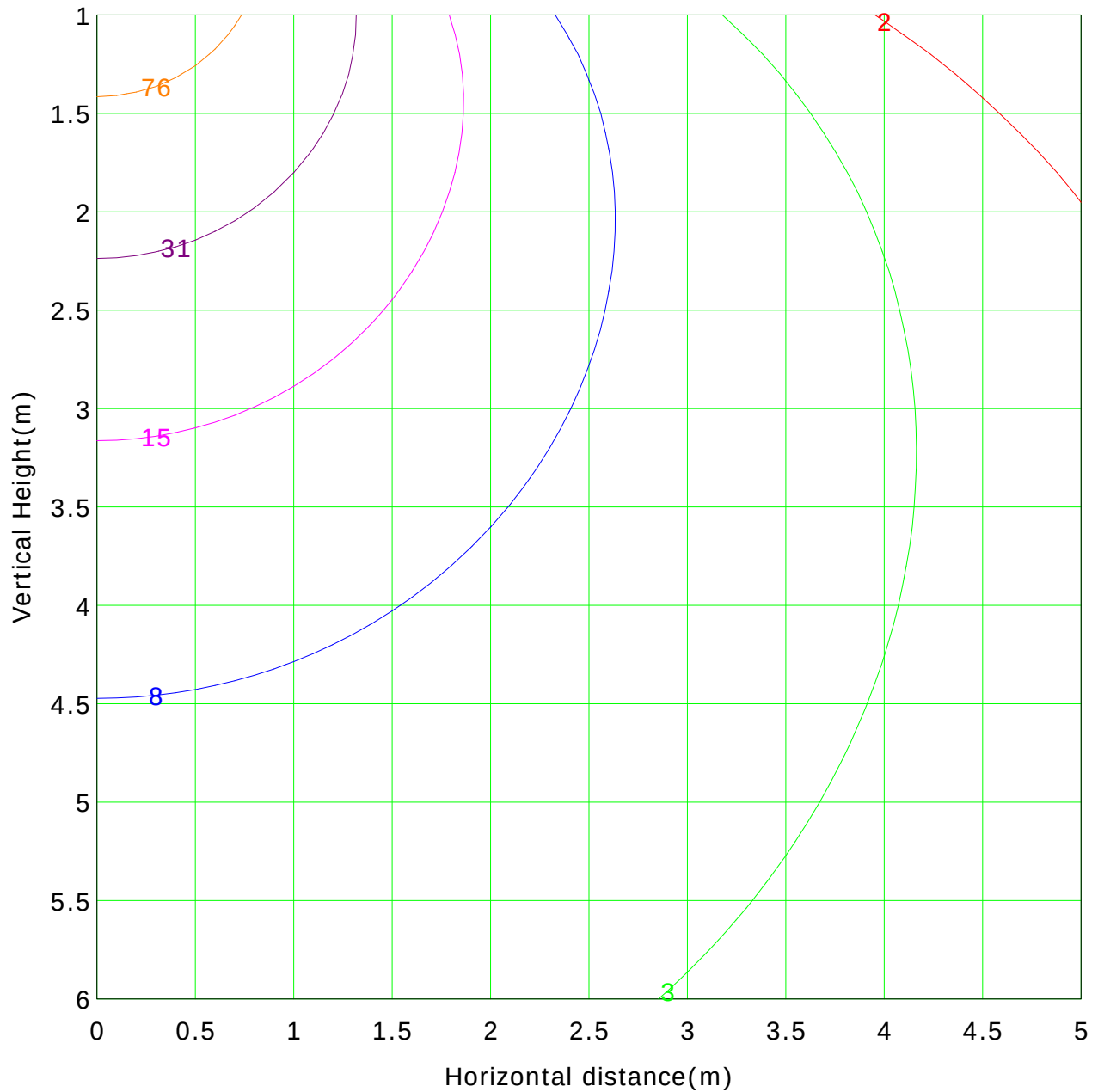
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 6.0m Max Lux: 152.5 lx

(1%): 1.5 lx	(2%): 3.1 lx
(5%): 7.6 lx	(10%): 15.3 lx
(20%): 30.5 lx	(50%): 76.3 lx
(100%): 152.5 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: 10/09/2018 15:54

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-RE09-02 + LLD-02-FS

Lamp Description: F52-400-1208C2-W5

Number of Lamps: 1

Lumens per Lamp: 1000 lm

Voltage: 24.0 V

Current: 0.376 A

Power: 9.03 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 474.7 lm

Downward Ratio: 43.56%

Total Rated Lamp Lumens: 1000.0 lm

Efficiency: 47.47%

Upward Ratio: 3.91%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 163.5, 195.8, 175.5, 175.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 110.3, 118.9, 115.5, 115.3

Luminaire Efficacy Rating (LER): 52.62

Central Intensity: 142.71 cd

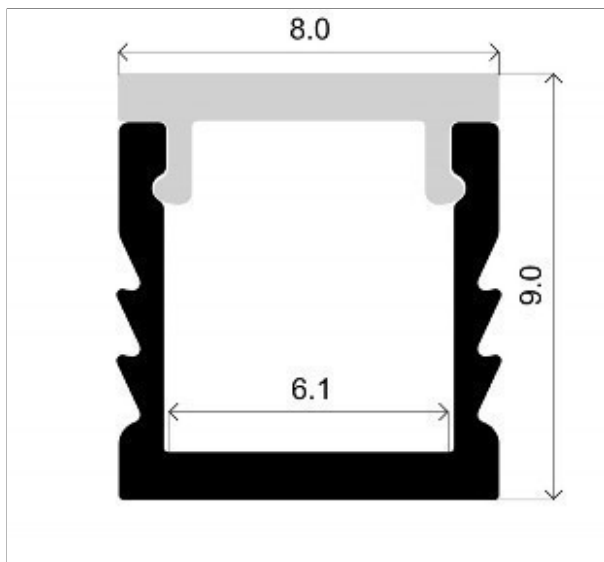
Max. Intensity: 142.76 cd

Pos of Max. Intensity: H100 V0

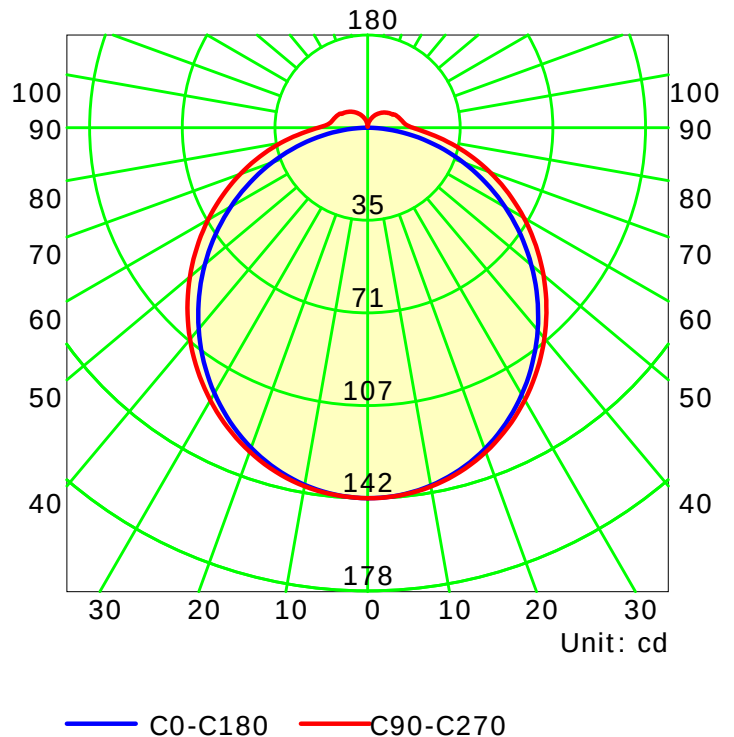
S/MH(C0/C180): 1.23

S/MH(C90/C270): 1.26

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

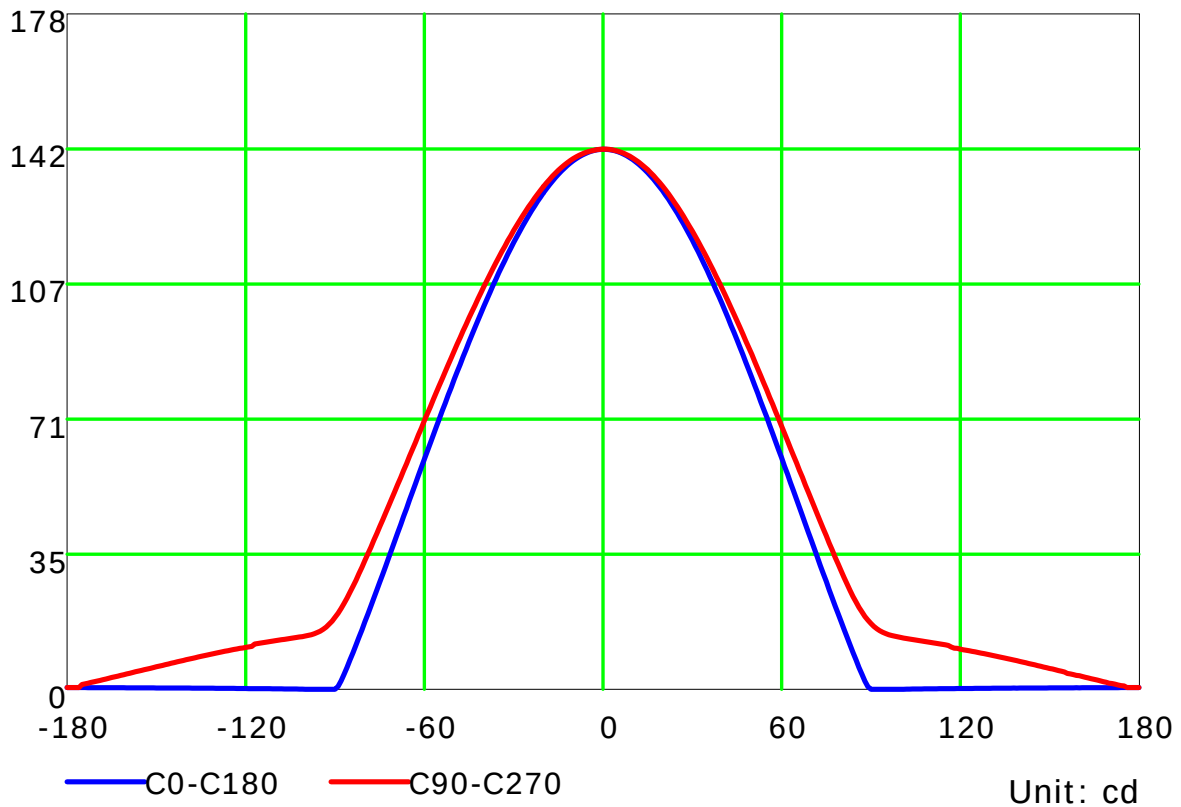
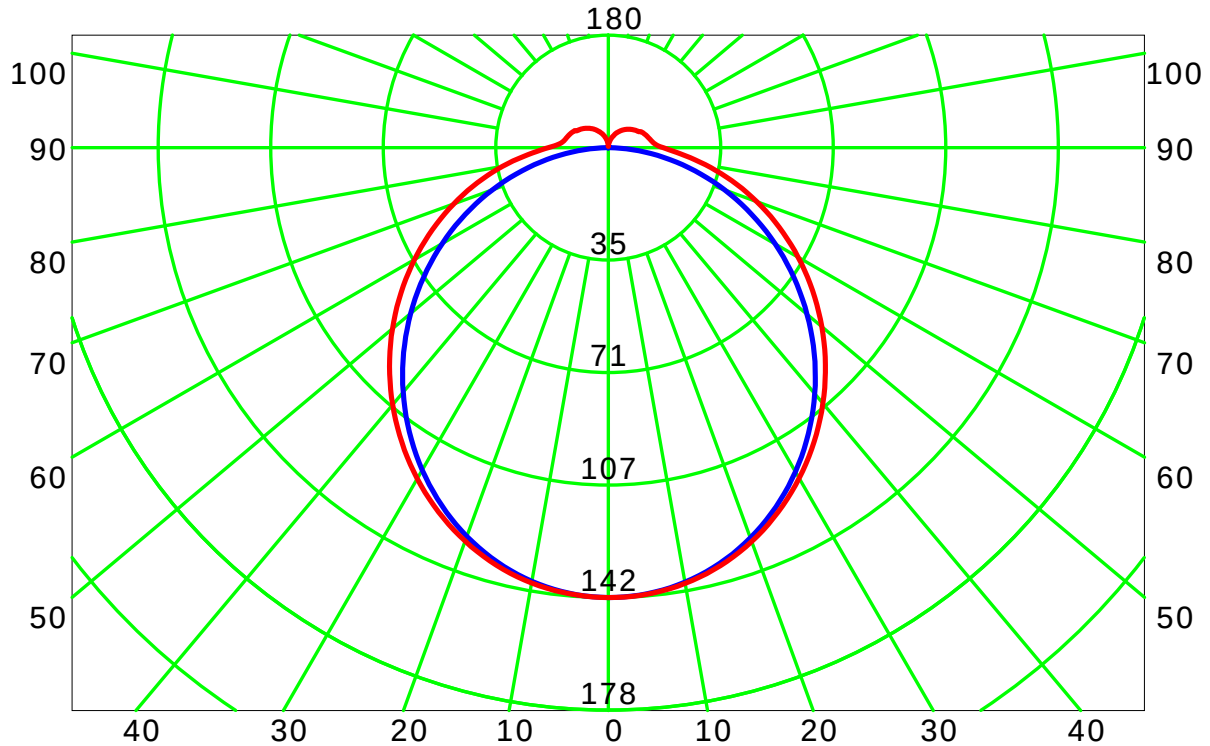
Test Device: GPM-2000

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

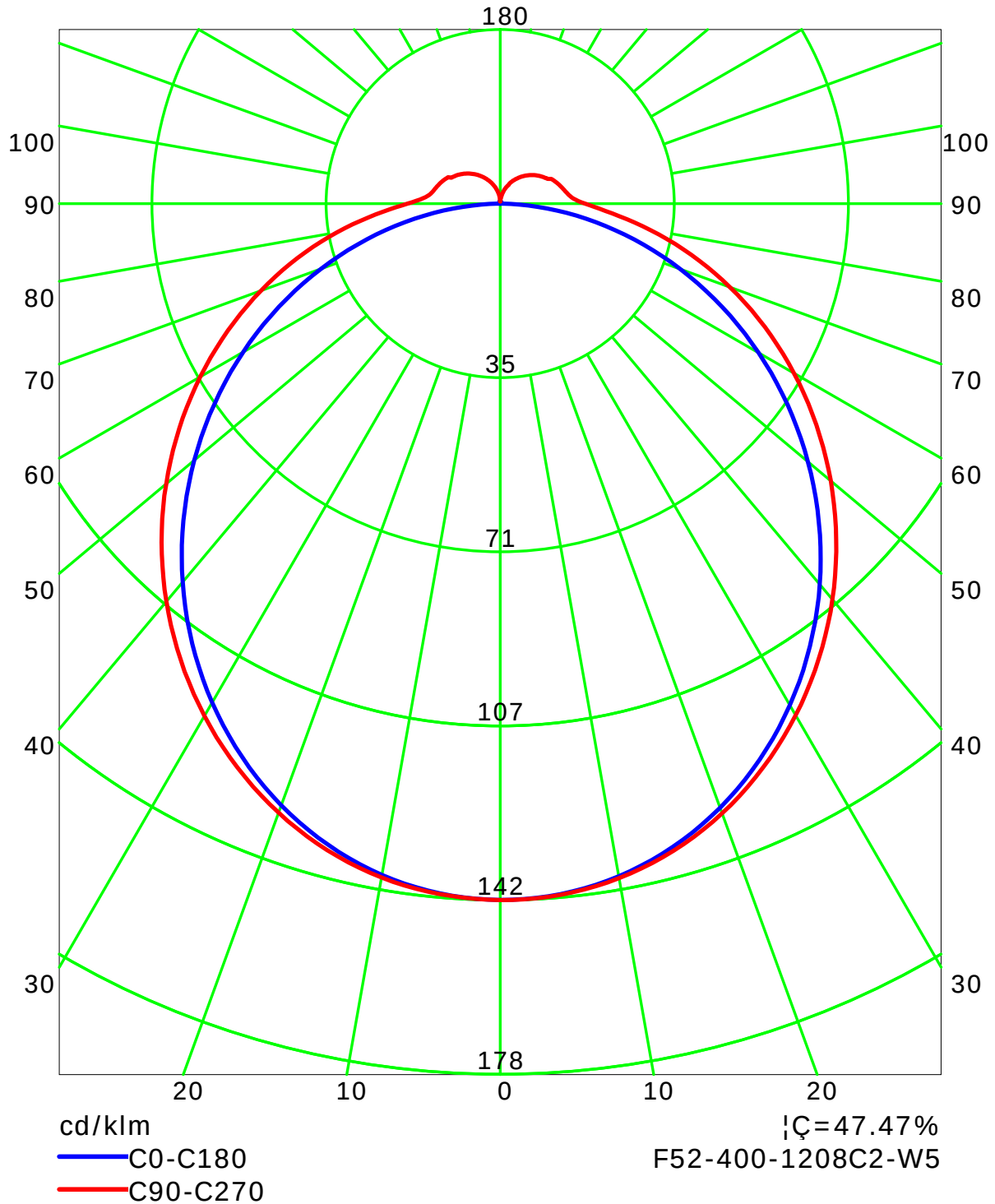
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

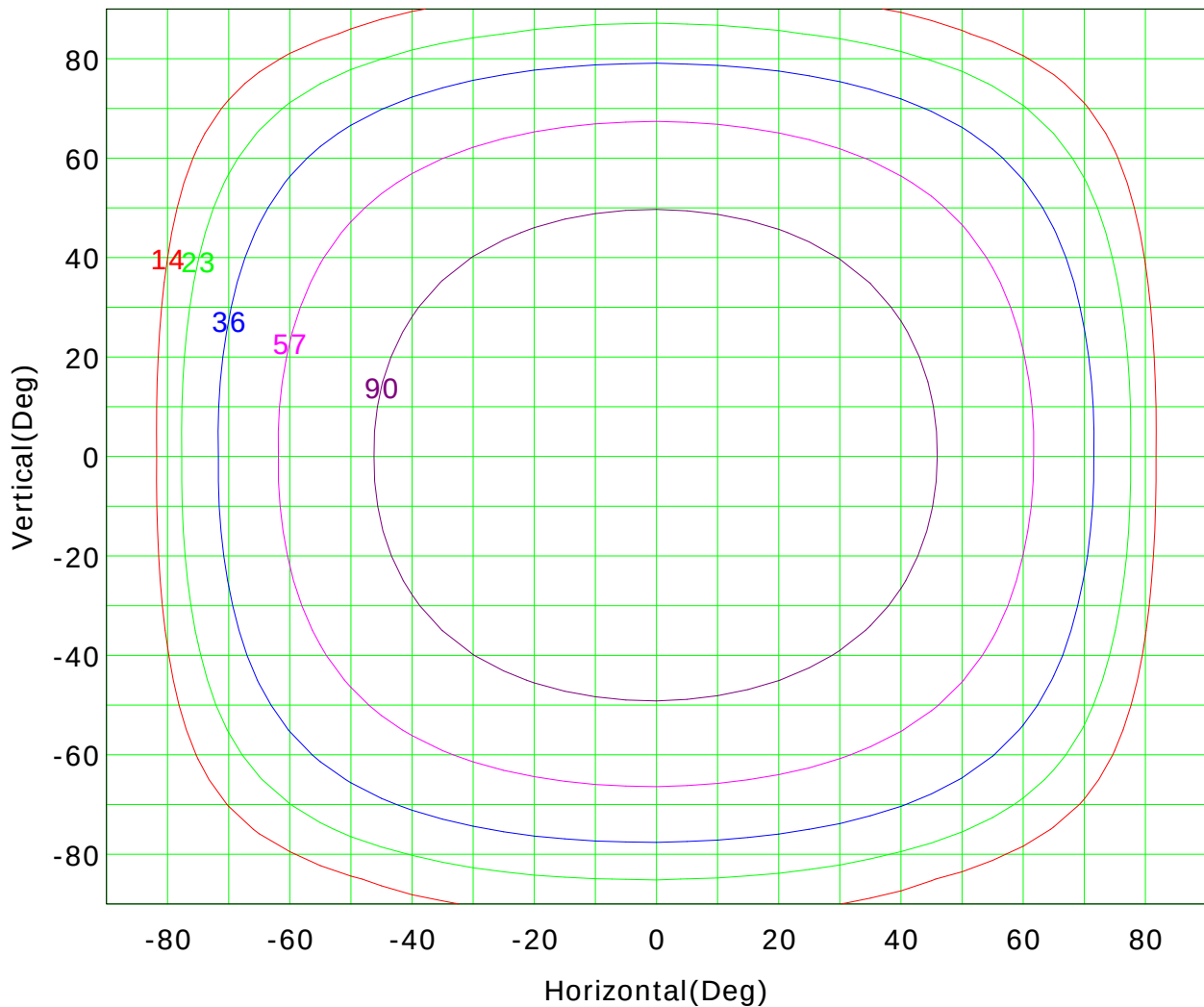
Luminous Intensity Distribution Curve(cd / klm)



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%): 143 cd

(10%):	14 cd	(16%):	23 cd
(25%):	36 cd	(40%):	57 cd
(63%):	90 cd	(100%):	143 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

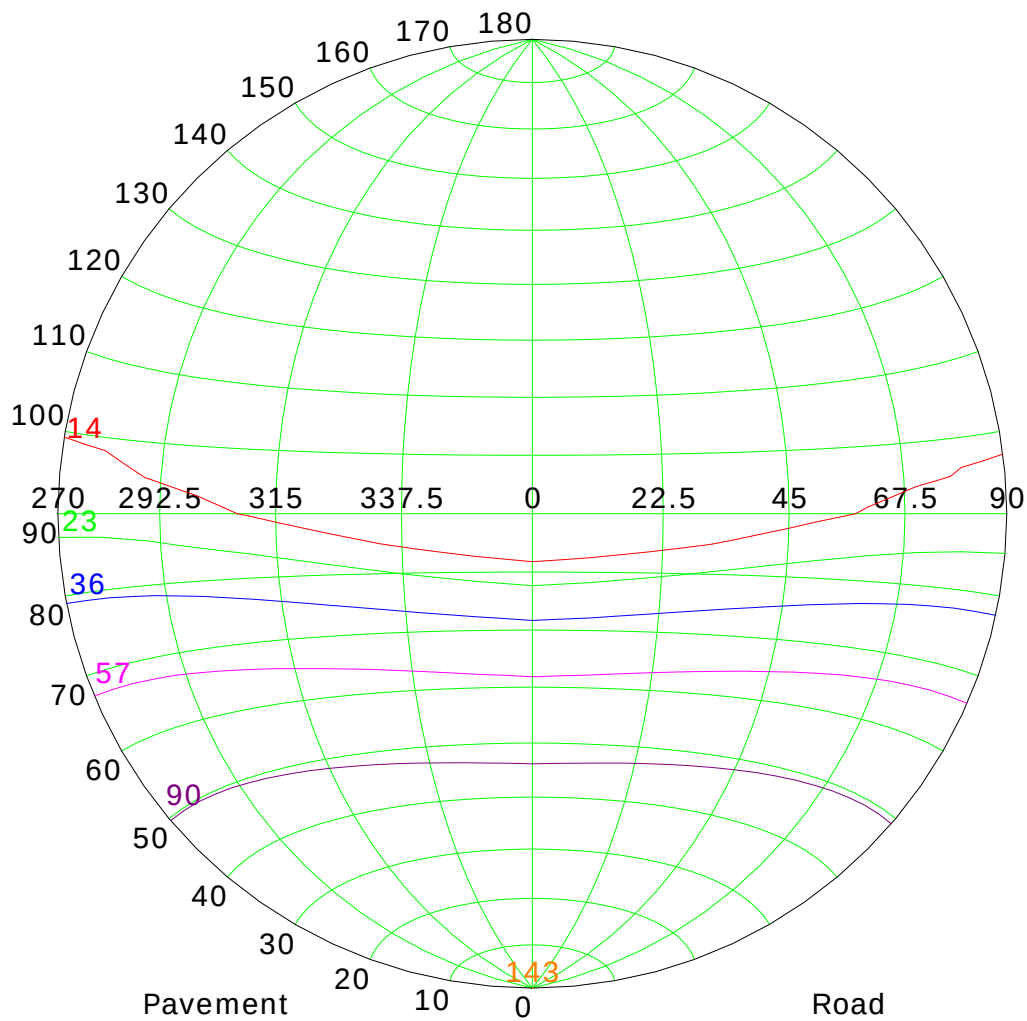
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)



I_{max} (100%): 143 cd

(10%):	14 cd	(16%):	23 cd
(25%):	36 cd	(40%):	57 cd
(63%):	90 cd	(100%):	143 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

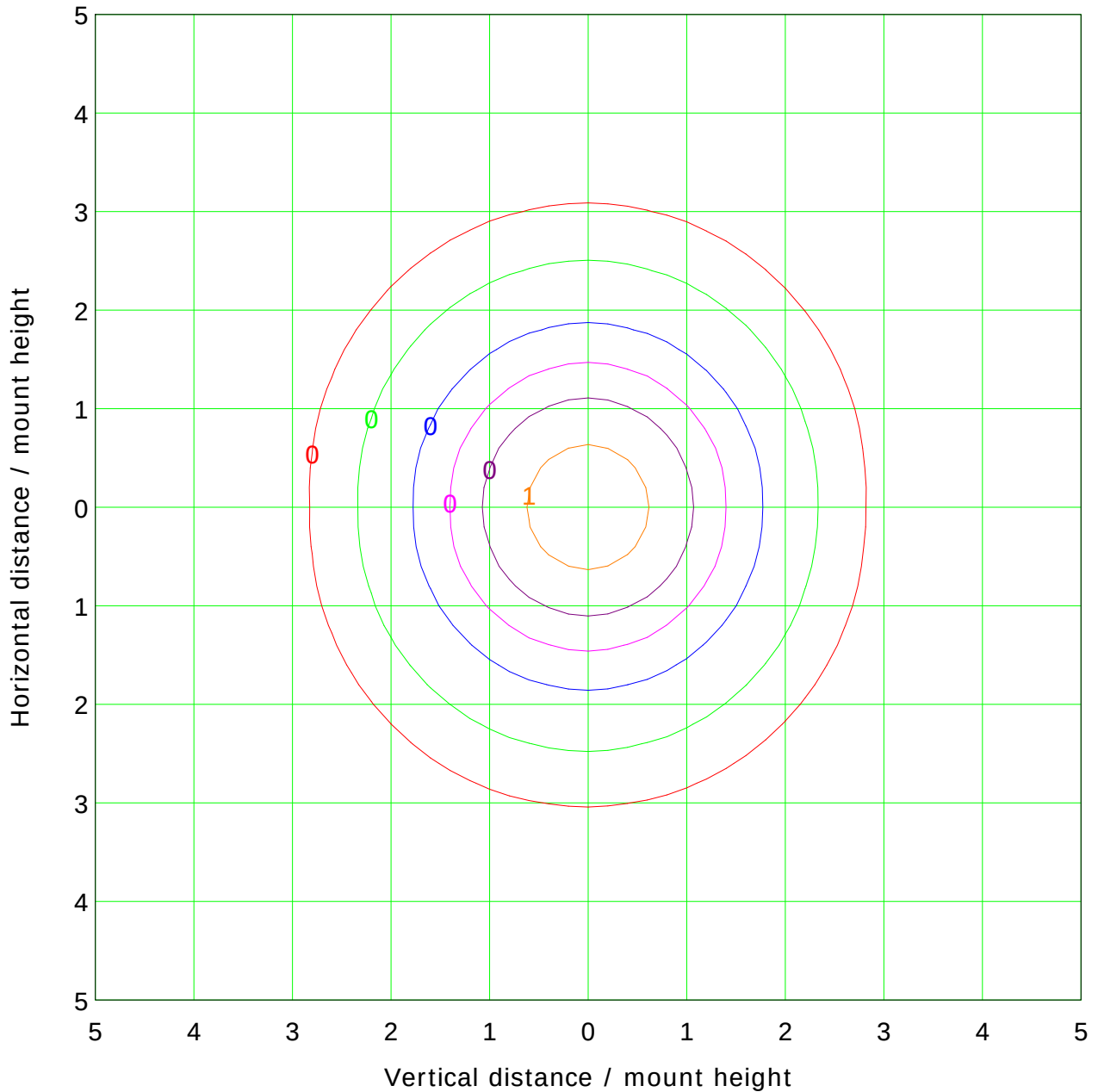
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 1.4 lx

(1%): 0.0 lx	(2%): 0.0 lx
(5%): 0.1 lx	(10%): 0.1 lx
(20%): 0.3 lx	(50%): 0.7 lx
(100%): 1.4 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

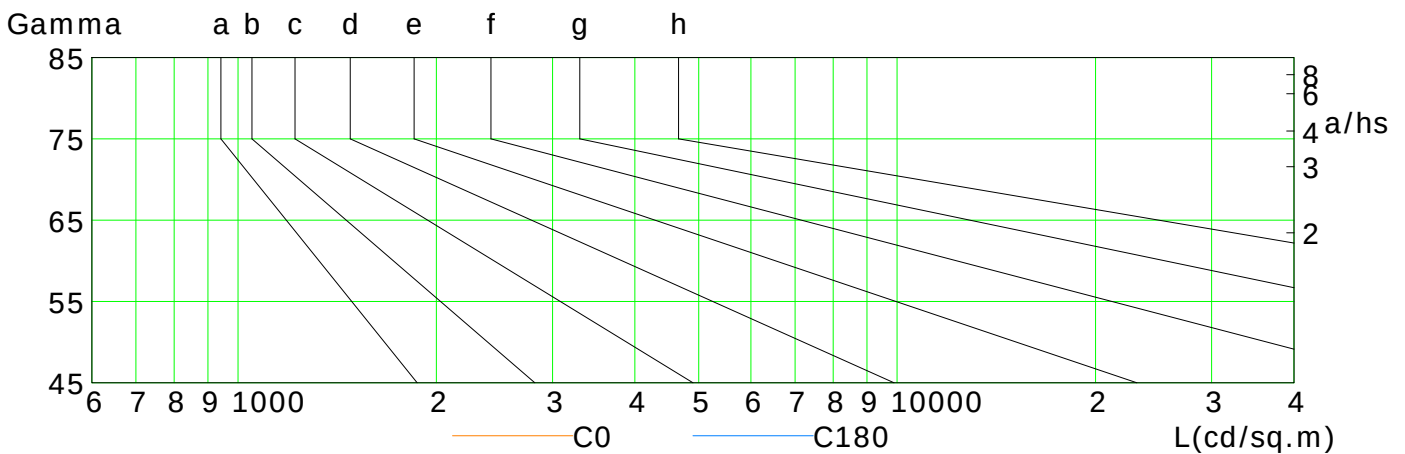
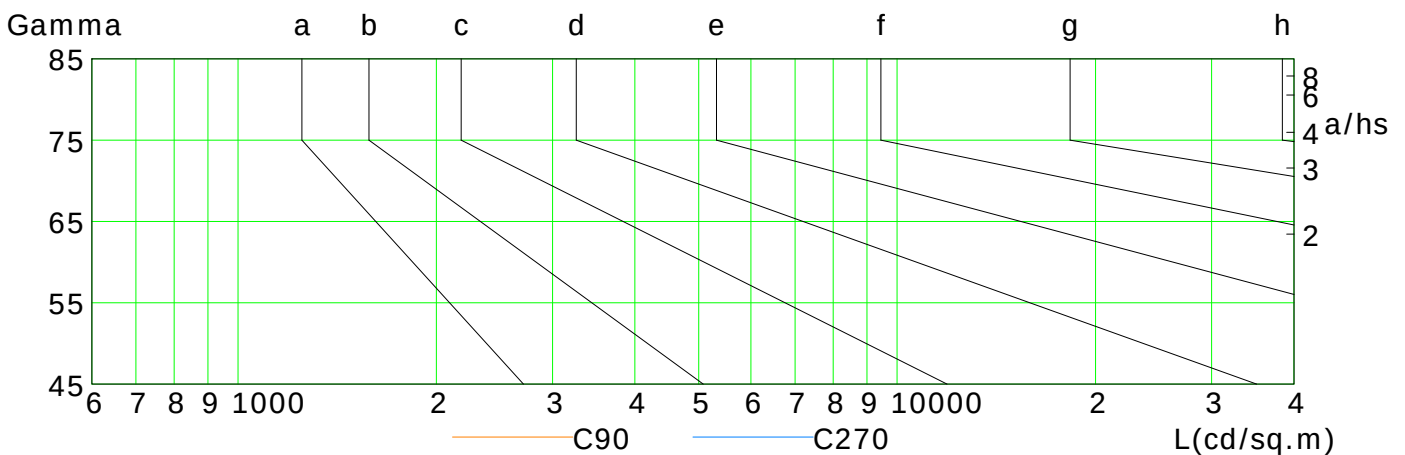
Humidity:

Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
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	92	82	72	61	50	39	29	18	8
C90	97	88	79	70	60	50	41	31	23
C180	92	82	71	61	50	39	28	18	8
C270	98	89	80	71	62	52	43	34	26

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

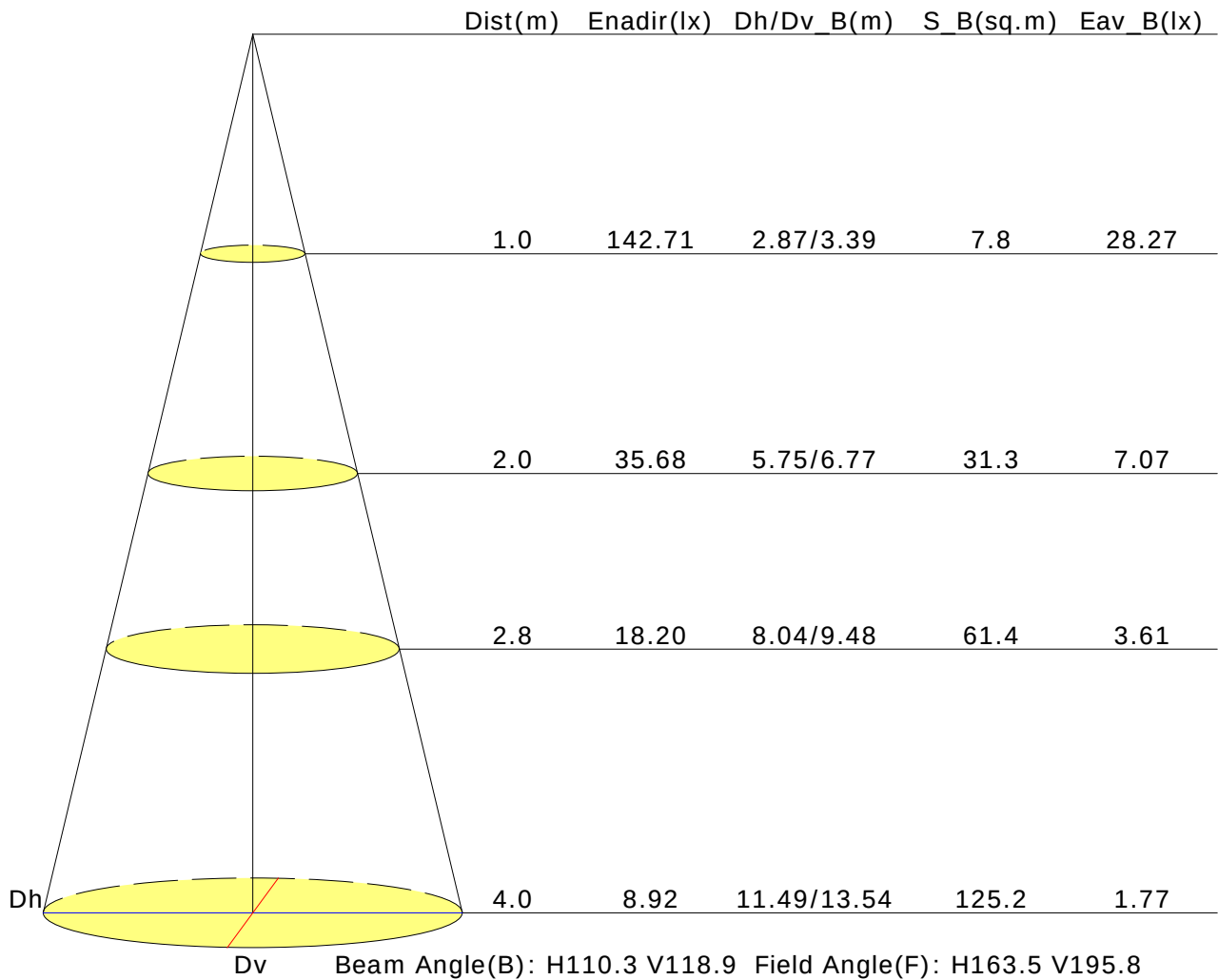
Test Device: GPM-2000

Distance: 7.970 m

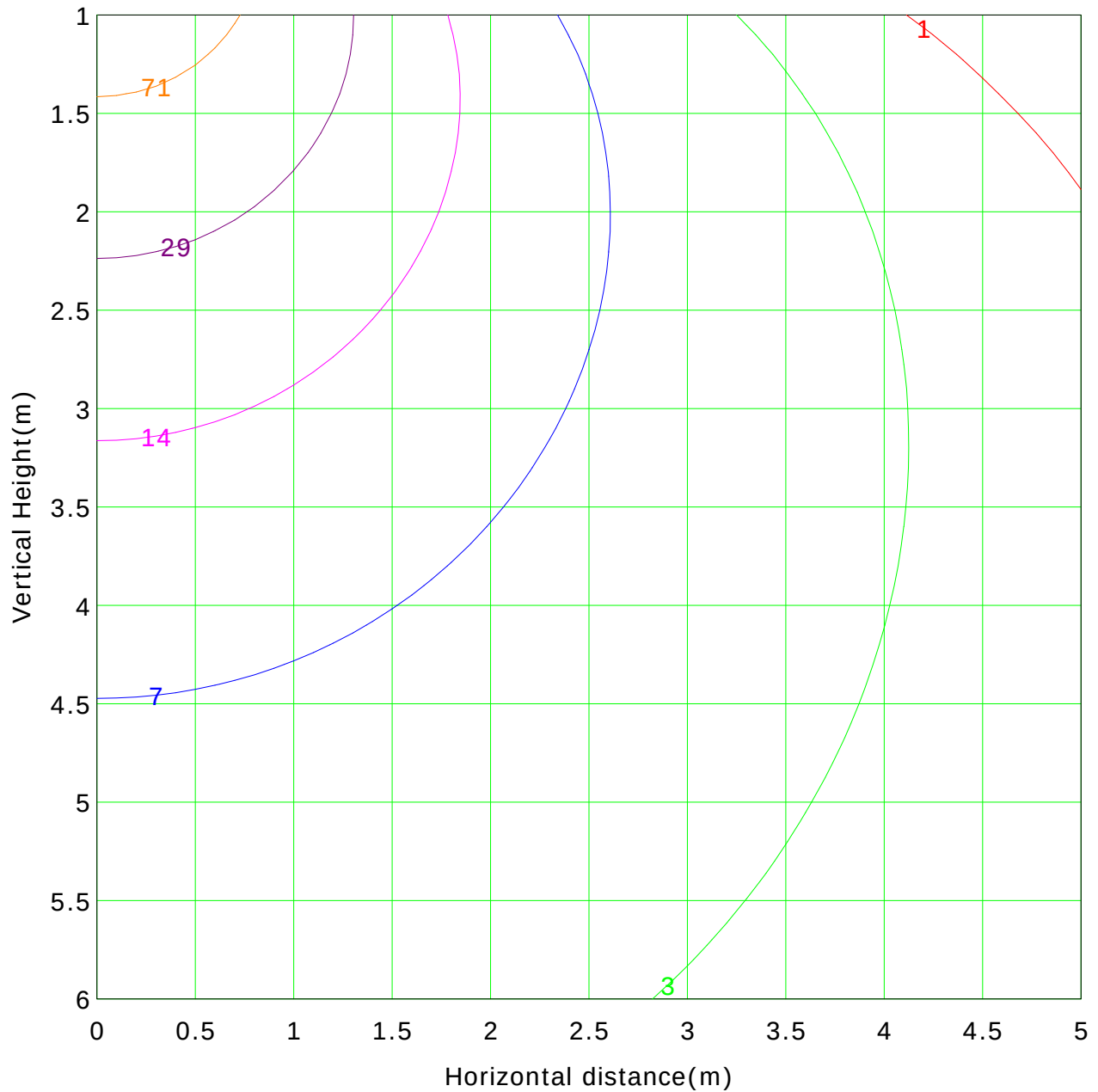
Humidity:

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 6.0m	Max Lux: 142.7 lx
(1%): 1.4 lx	(2%): 2.9 lx	
(5%): 7.1 lx	(10%): 14.3 lx	
(20%): 28.5 lx	(50%): 71.4 lx	
(100%): 142.7 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: 10/10/2024 15:13

Luminaire Property

Luminaire Manufacturer: Lighting Line

Luminaire Description: LLP-RE09-0222+LLP-22-FM

Lamp Description: F52-40s-1208F2-W5 1mt Number of Lamps: 1

Lumens per Lamp: 936

Voltage: 24.0 V

Current: 0.371 A

Power: 8.90 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 484.6 lm

Downward Ratio: 51.77%

Total Rated Lamp Lumens: 936.0 lm

Efficiency: 51.77%

Upward Ratio: 0.00%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.2, 163.0, 161.9, 161.5

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.6, 112.8, 112.8, 112.6

Luminaire Efficacy Rating (LER): 54.50

Central Intensity: 169.42 cd

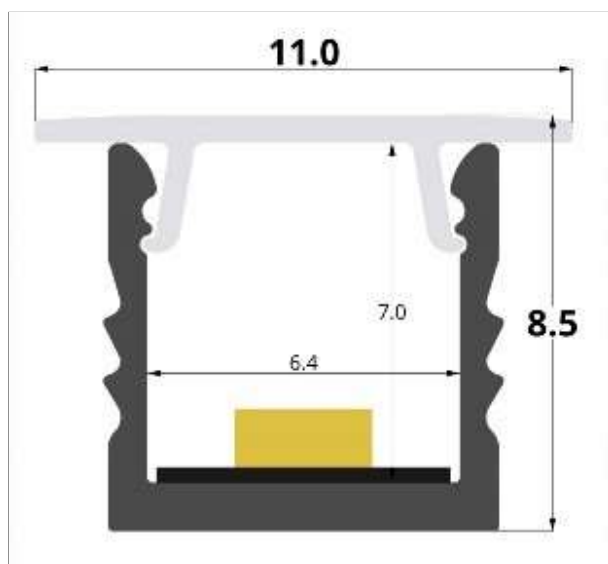
Max. Intensity: 169.42 cd

Pos of Max. Intensity: H0 V0

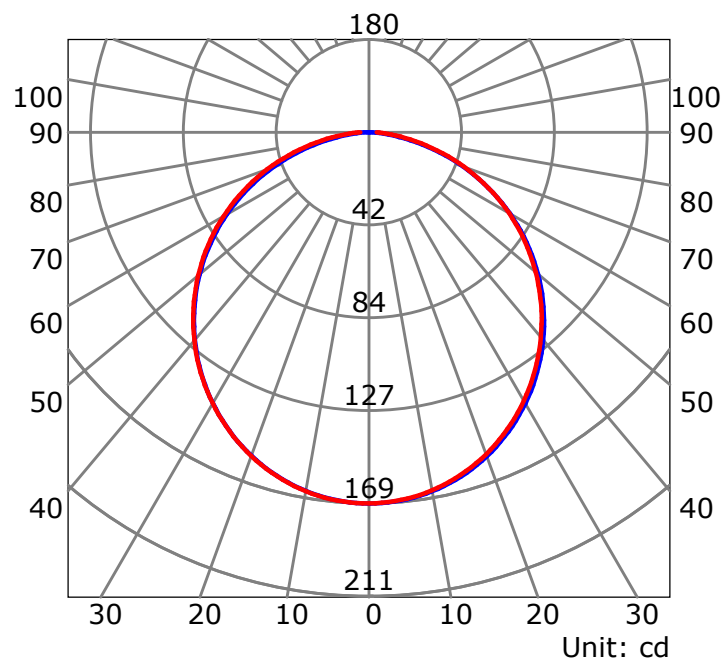
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

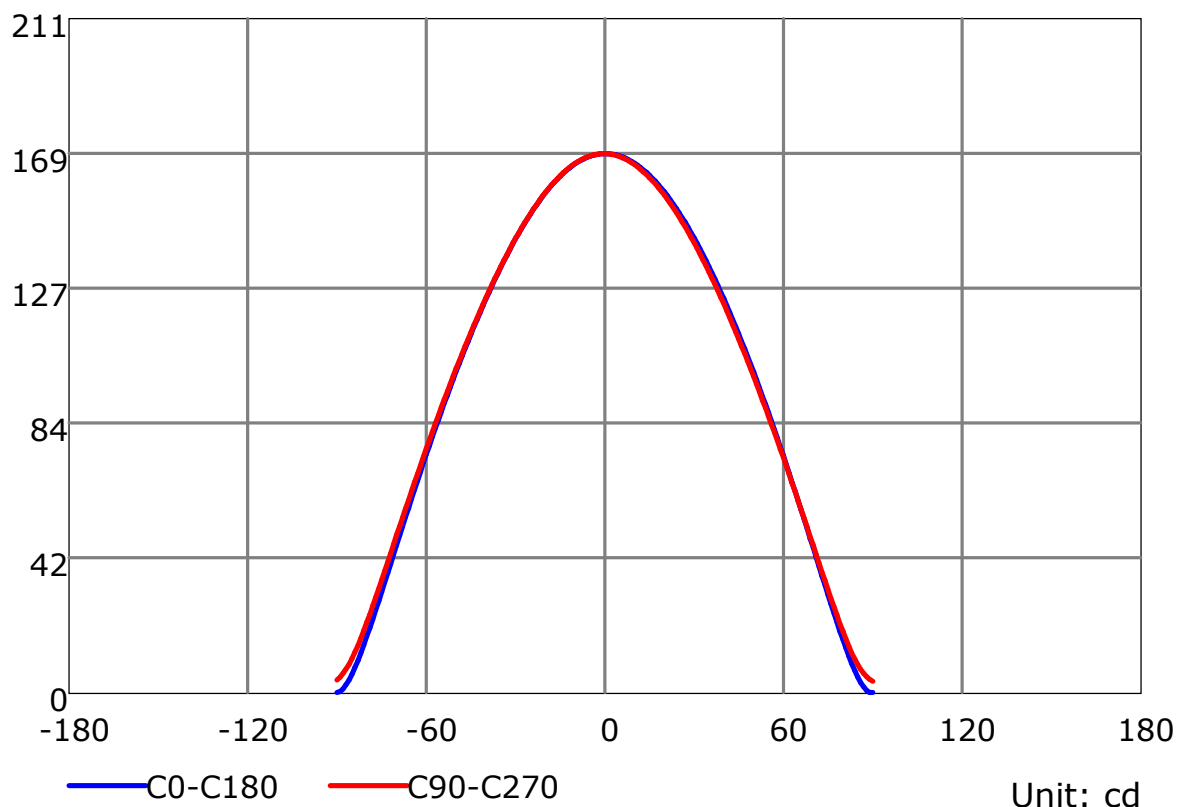
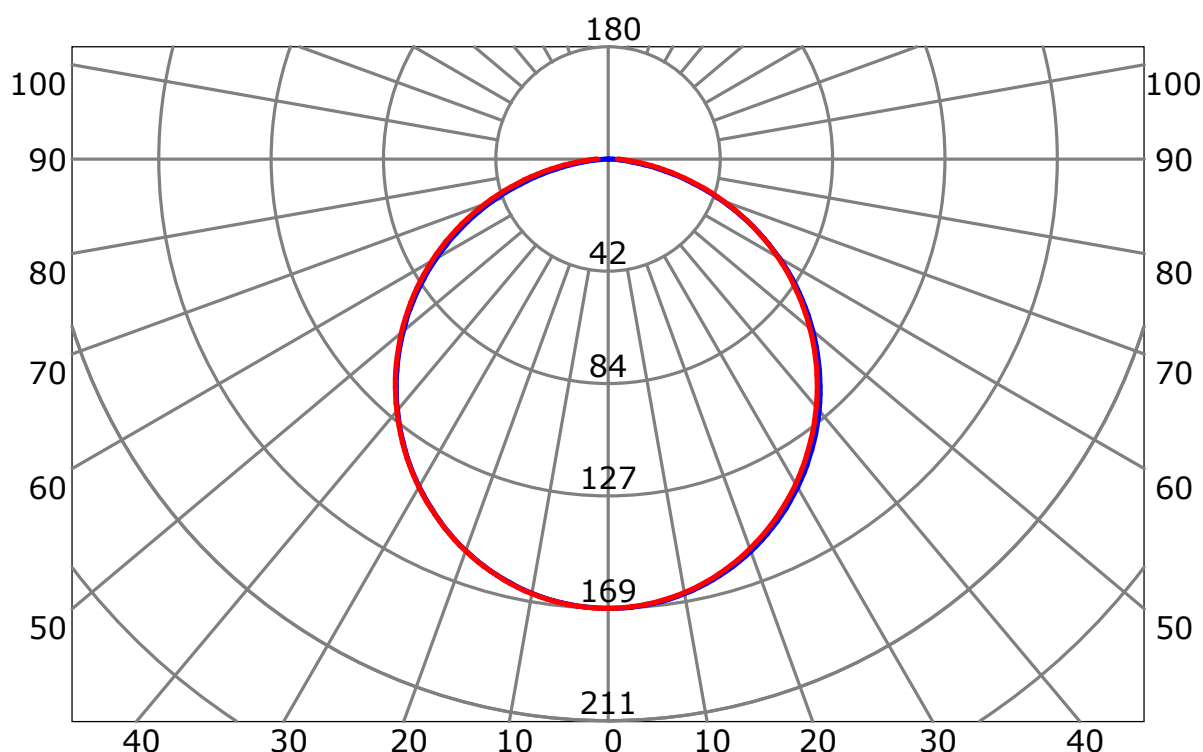
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

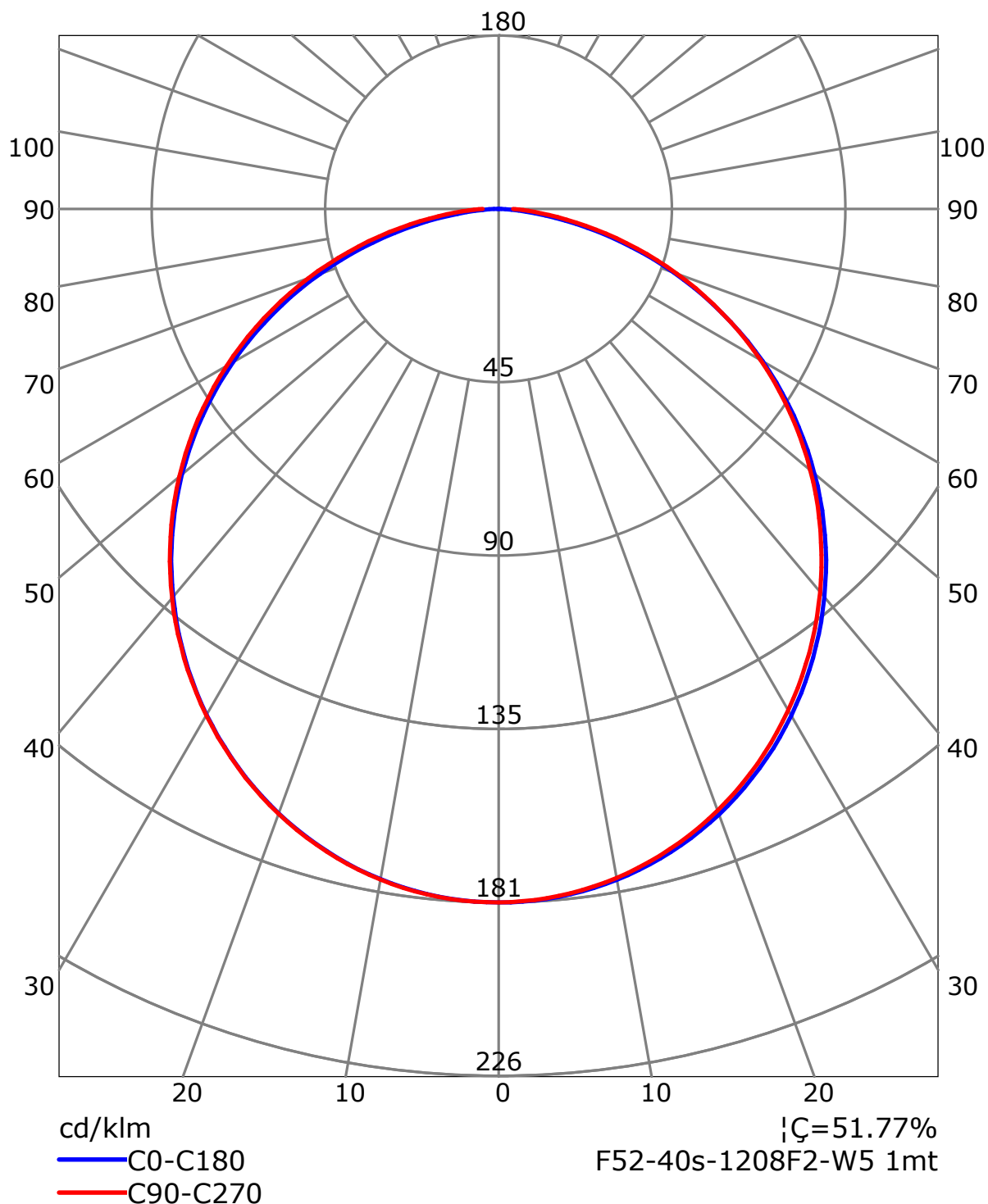
Luminous Intensity Distribution Curve



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

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 7.792 m
Humidity:
Inspector:

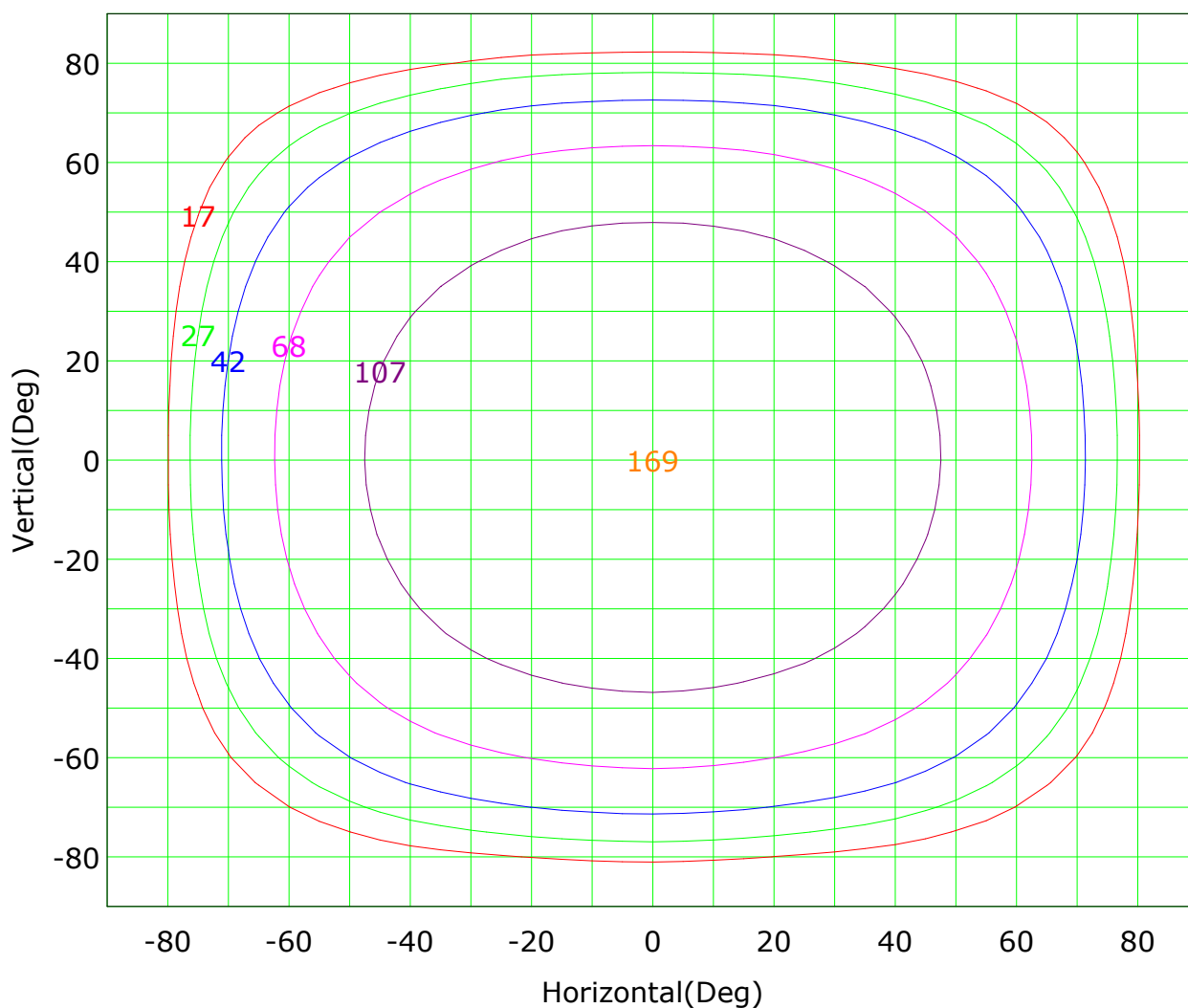
Luminous Intensity Distribution Curve(cd/klm)



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

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 7.792 m
Humidity:
Inspector:

Isocandela (rectangle)



Imax (100%): 169 cd

(10%):	17 cd	(16%):	27 cd
(25%):	42 cd	(40%):	68 cd
(63%):	107 cd	(100%):	169 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

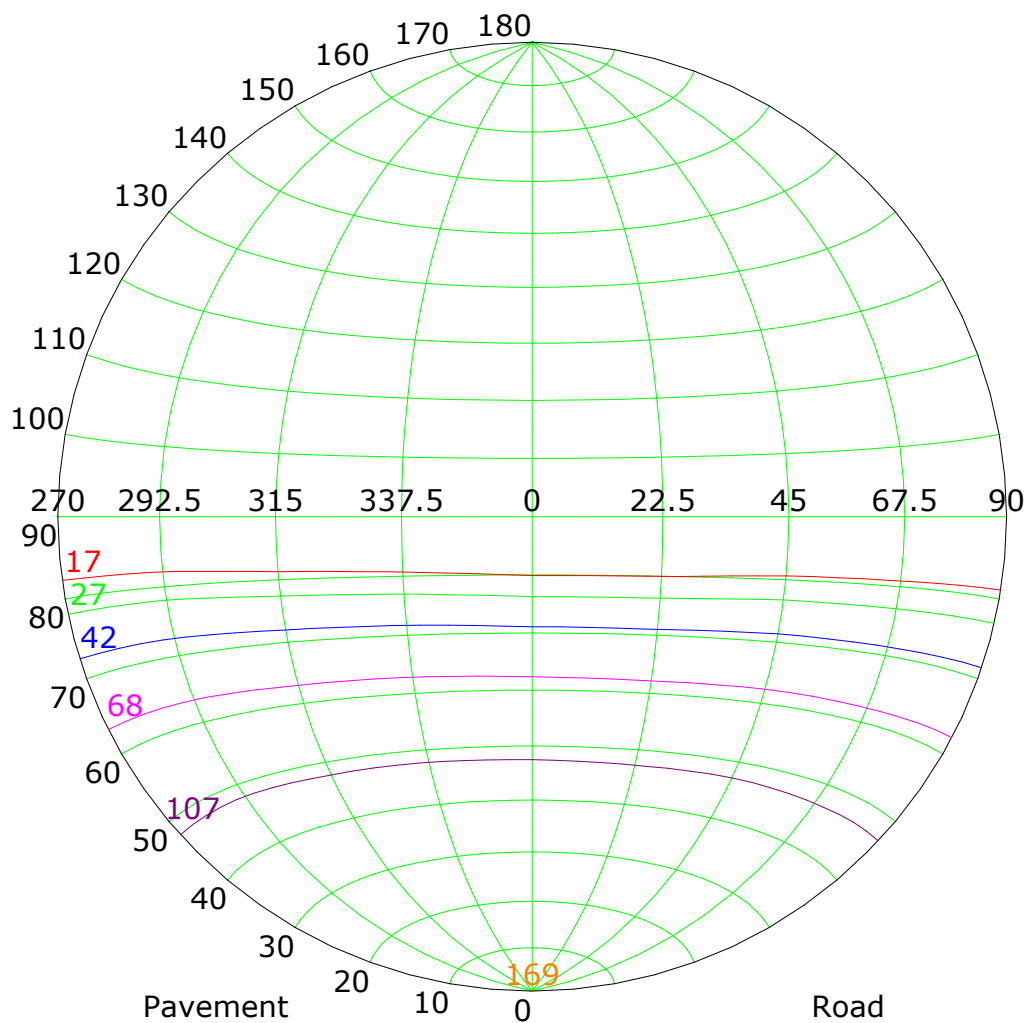
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

Isocandela (sphere)



Imax (100%): 169 cd

(10%):	17 cd	(16%):	27 cd
(25%):	42 cd	(40%):	68 cd
(63%):	107 cd	(100%):	169 cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:1.0

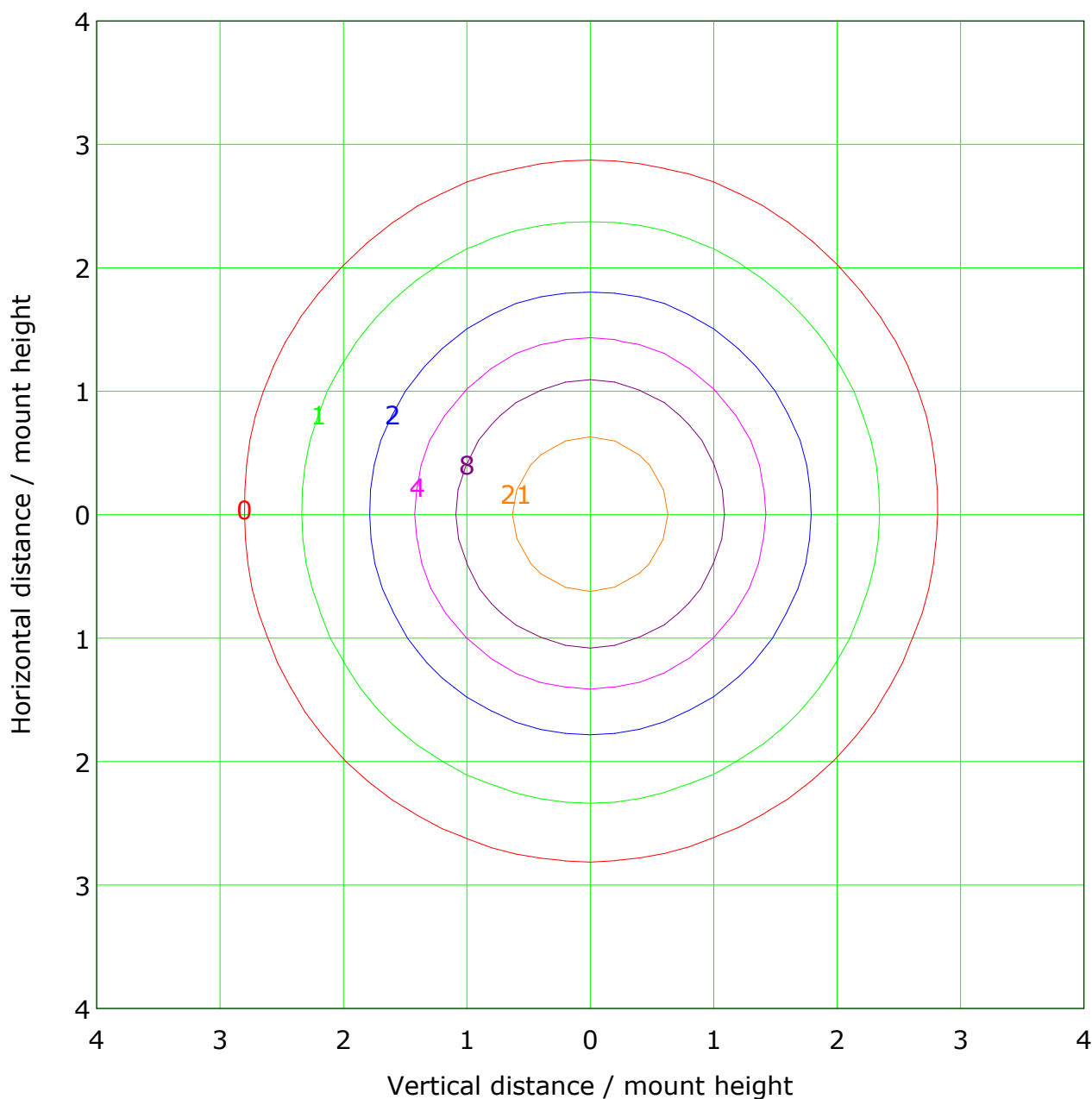
Test Device: GPM-1800B

Distance: 7.792 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 42.4 lx	
— (1%):	0.4 lx	— (2%):	0.8 lx
— (5%):	2.1 lx	— (10%):	4.2 lx
— (20%):	8.5 lx	— (50%):	21.2 lx
— (100%):	42.4 lx		

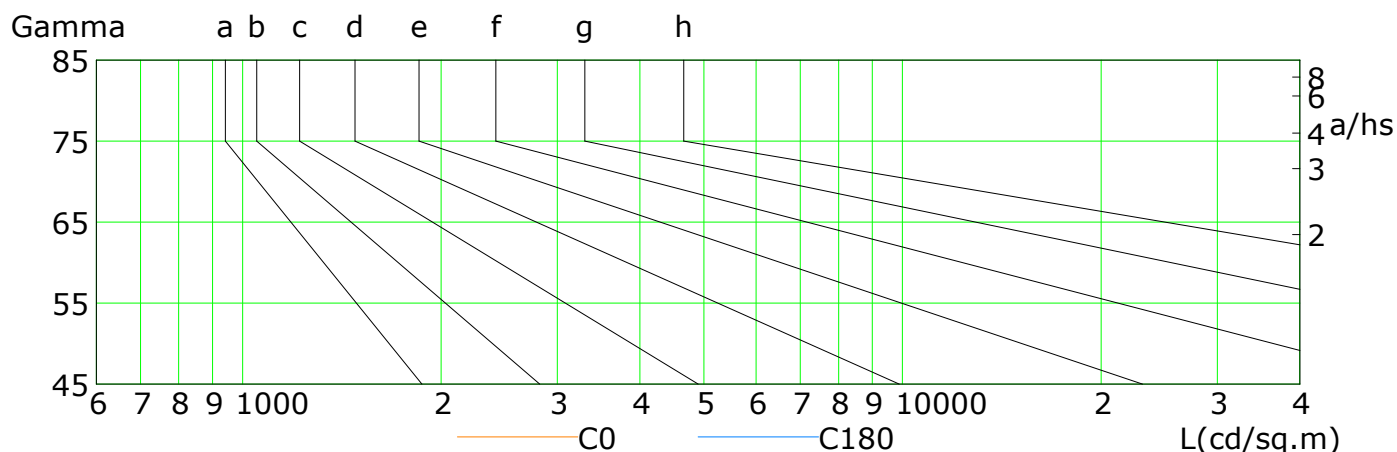
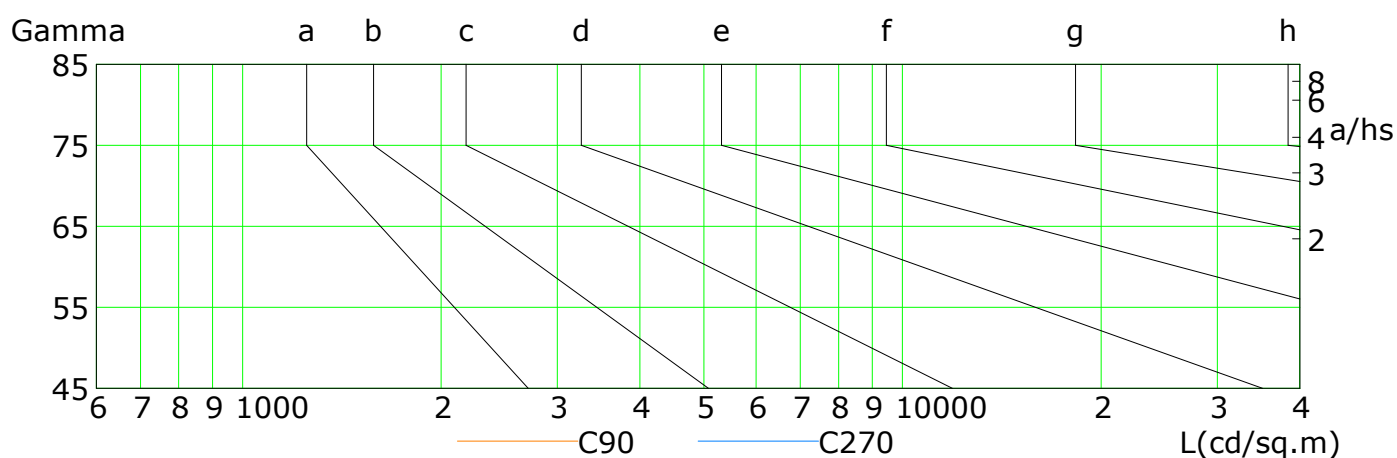
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 7.792 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

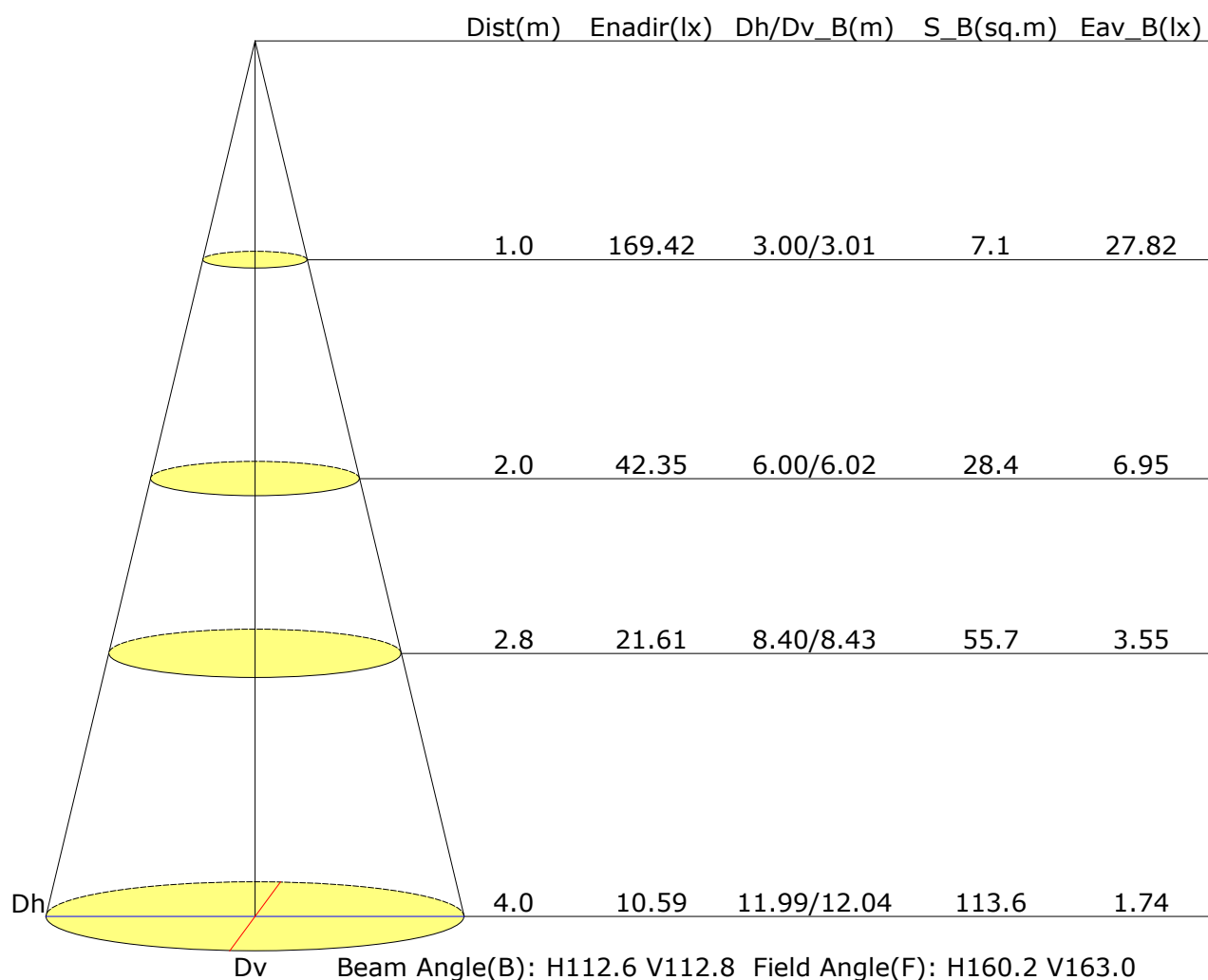


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	113	101	88	74	60	46	31	17	5
C90	111	99	87	74	60	46	32	19	9
C180	113	101	88	75	61	46	32	18	6
C270	113	102	90	77	63	50	35	22	11

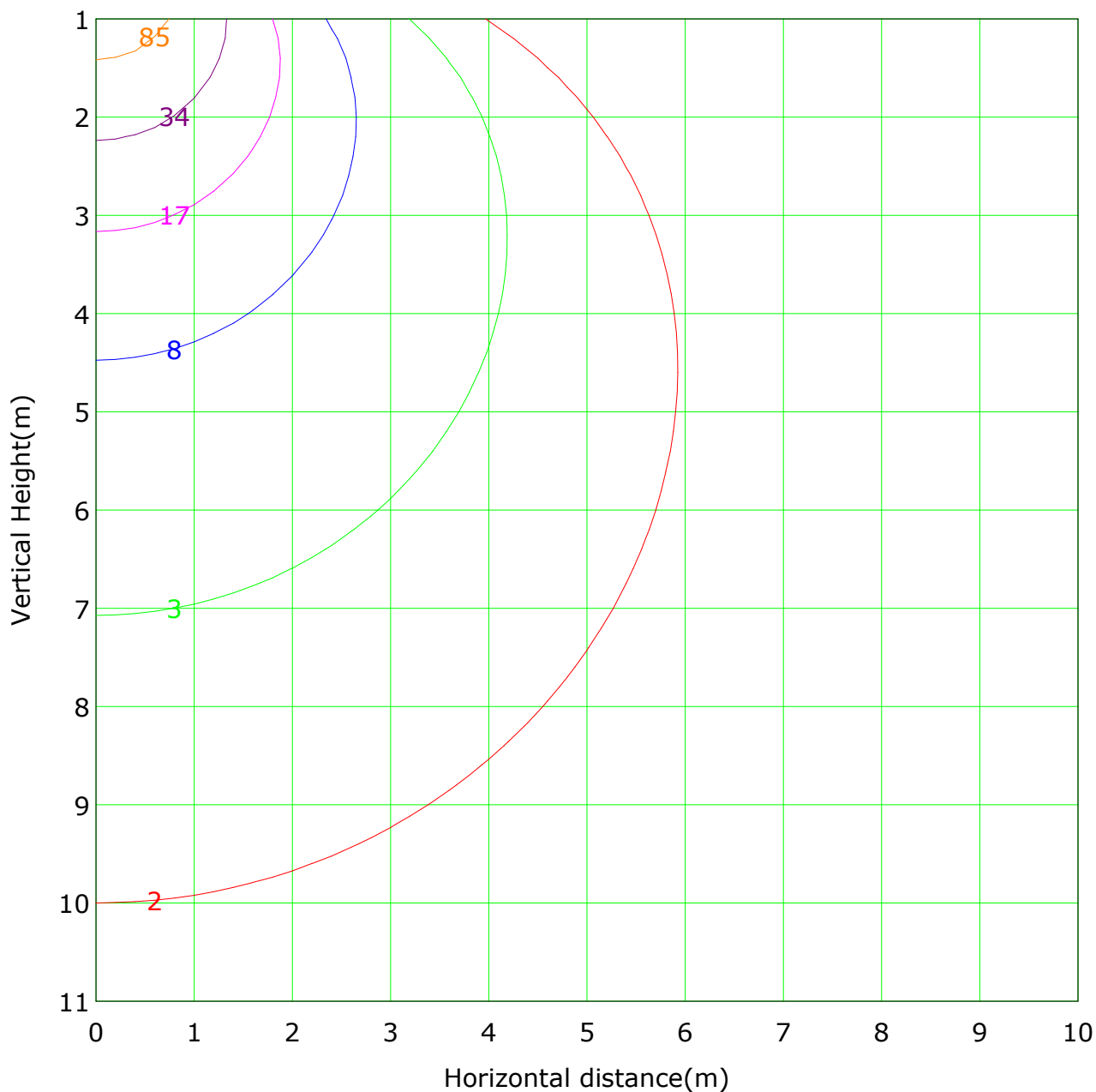
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-90.0:1.0
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: 169.4 lx

— (1%): 1.7 lx	— (2%): 3.4 lx
— (5%): 8.5 lx	— (10%): 16.9 lx
— (20%): 33.9 lx	— (50%): 84.7 lx
— (100%): 169.4 lx	