



Report No.:

Test Time: 01/10/2024 16:40

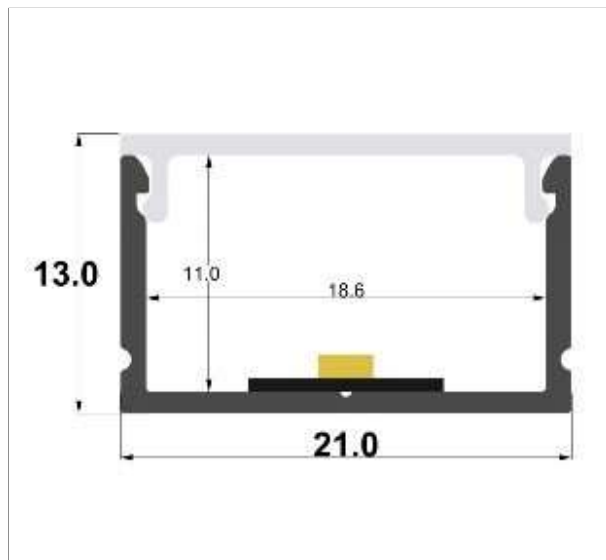
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL15-01+LLD-01-FM
 Lamp Description: OR40sF521208F2/14.4 1m
 Number of Lamps: 1
 Voltage: 24.0 V
 Power: 13.39 W
 Lumens per Lamp: 1491
 Current: 0.558 A
 Power Factor: 1.000

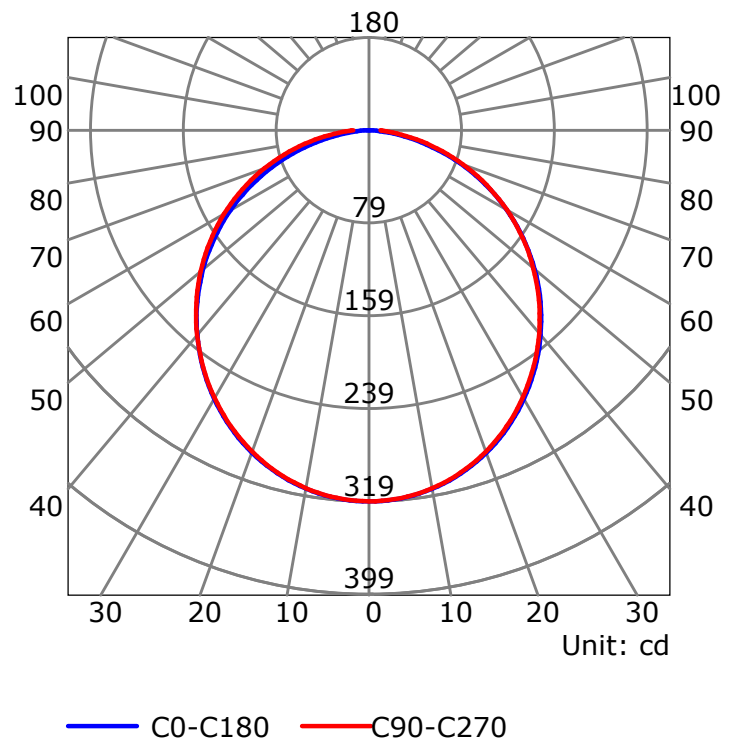
Photometric Results

CIE Class: Direct
 Measurement Flux: 908.2 lm
 Downward Ratio: 60.91%
 Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 159.8, 164.7, 163.2, 162.4
 Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.1, 112.0, 111.7, 111.6
 Luminaire Efficacy Rating (LER): 67.87
 Max. Intensity: 319.77 cd
 S/MH(C0/C180): 1.24
 Total Rated Lamp Lumens: 1491.0 lm
 Efficiency: 60.91%
 Upward Ratio: 0.00%
 Central Intensity: 319.76 cd
 Pos of Max. Intensity: H0 V0
 S/MH(C90/C270): 1.24

Picture Of Luminaire



Luminous Intensity Distribution Curve

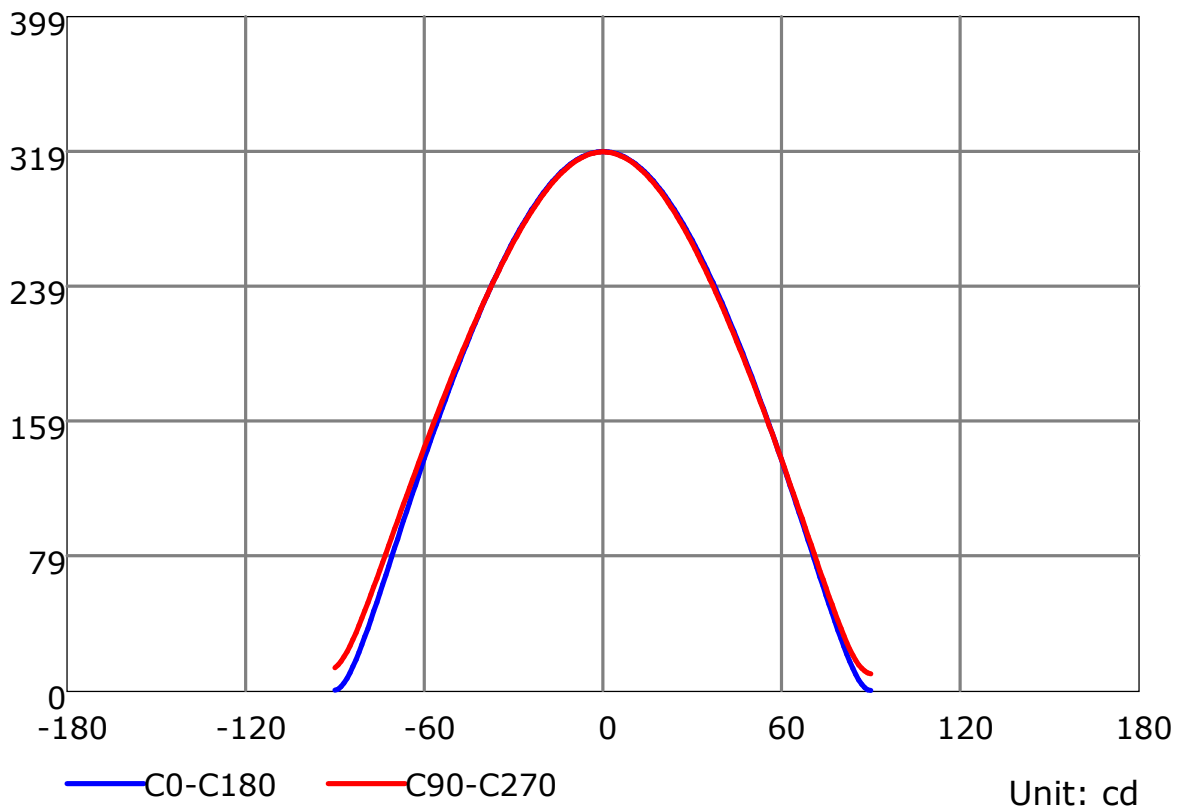
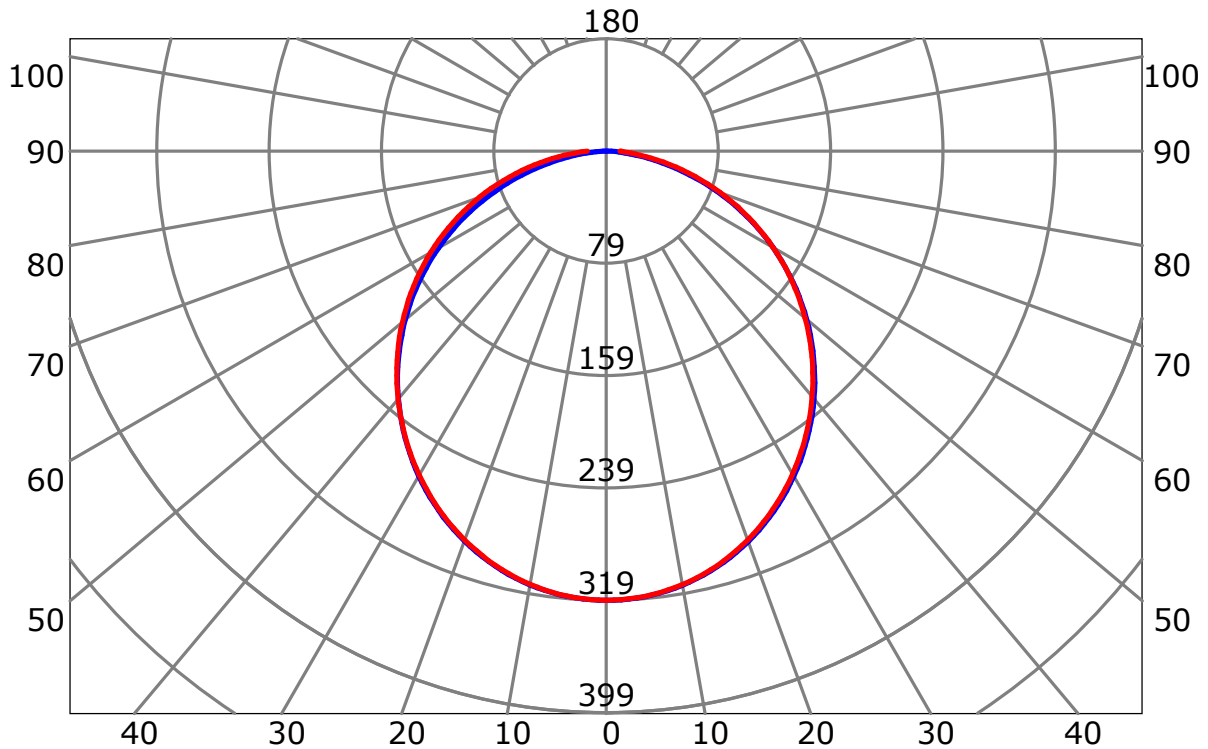


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Luminous Intensity Distribution Curve

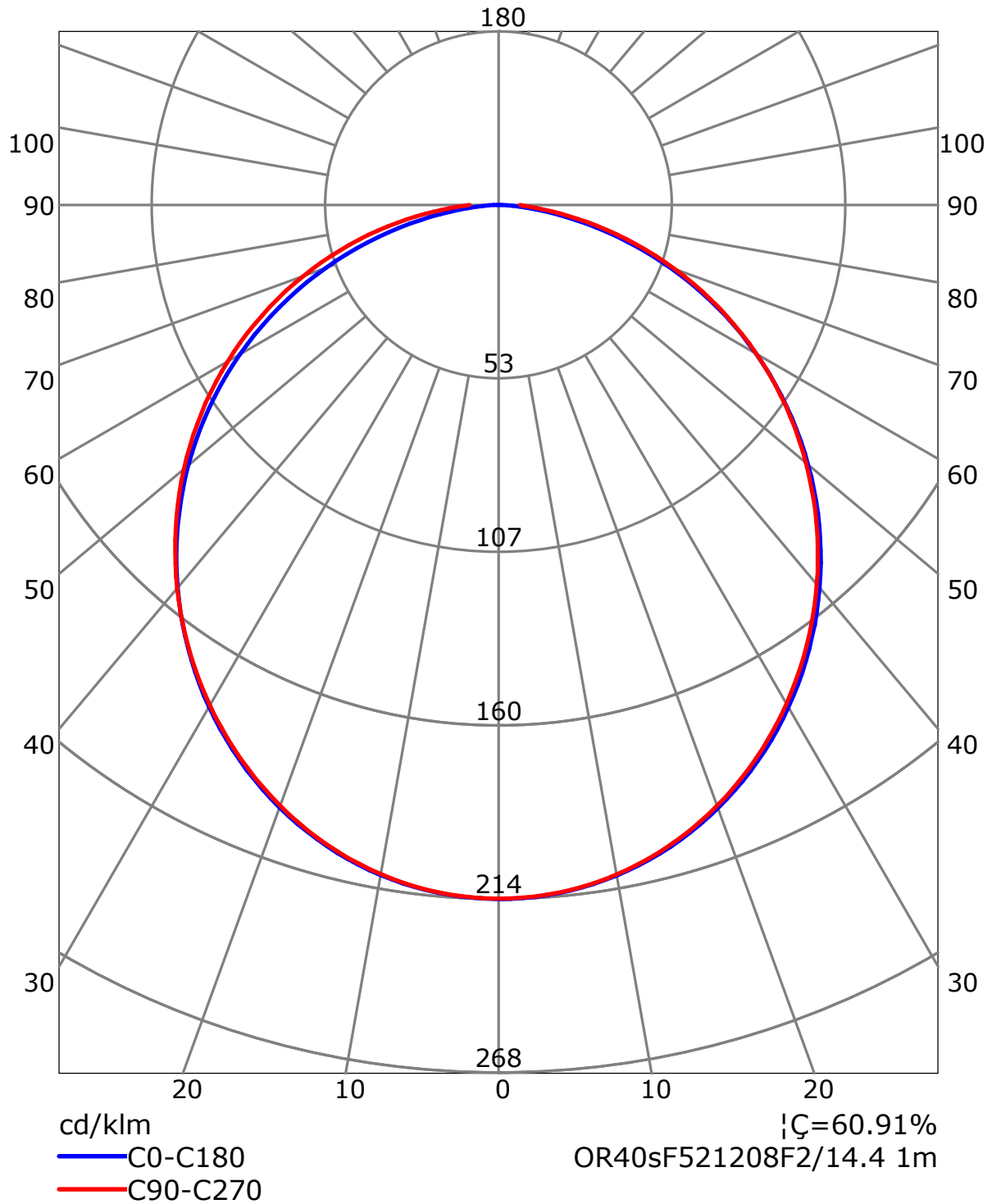


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

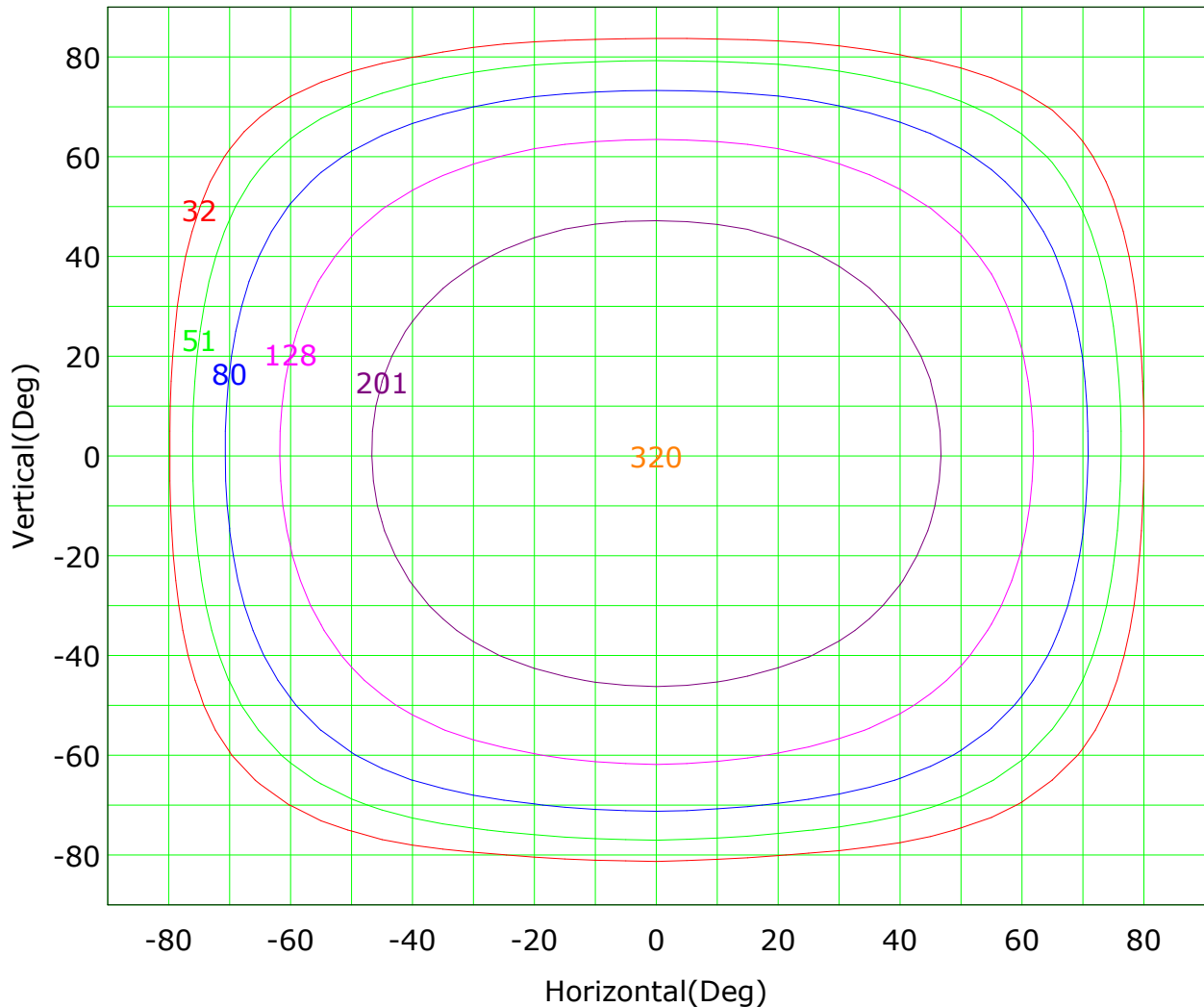


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 320 cd

— (10%):	32 cd	— (16%):	51 cd
— (25%):	80 cd	— (40%):	128 cd
— (63%):	201 cd	— (100%):	320 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

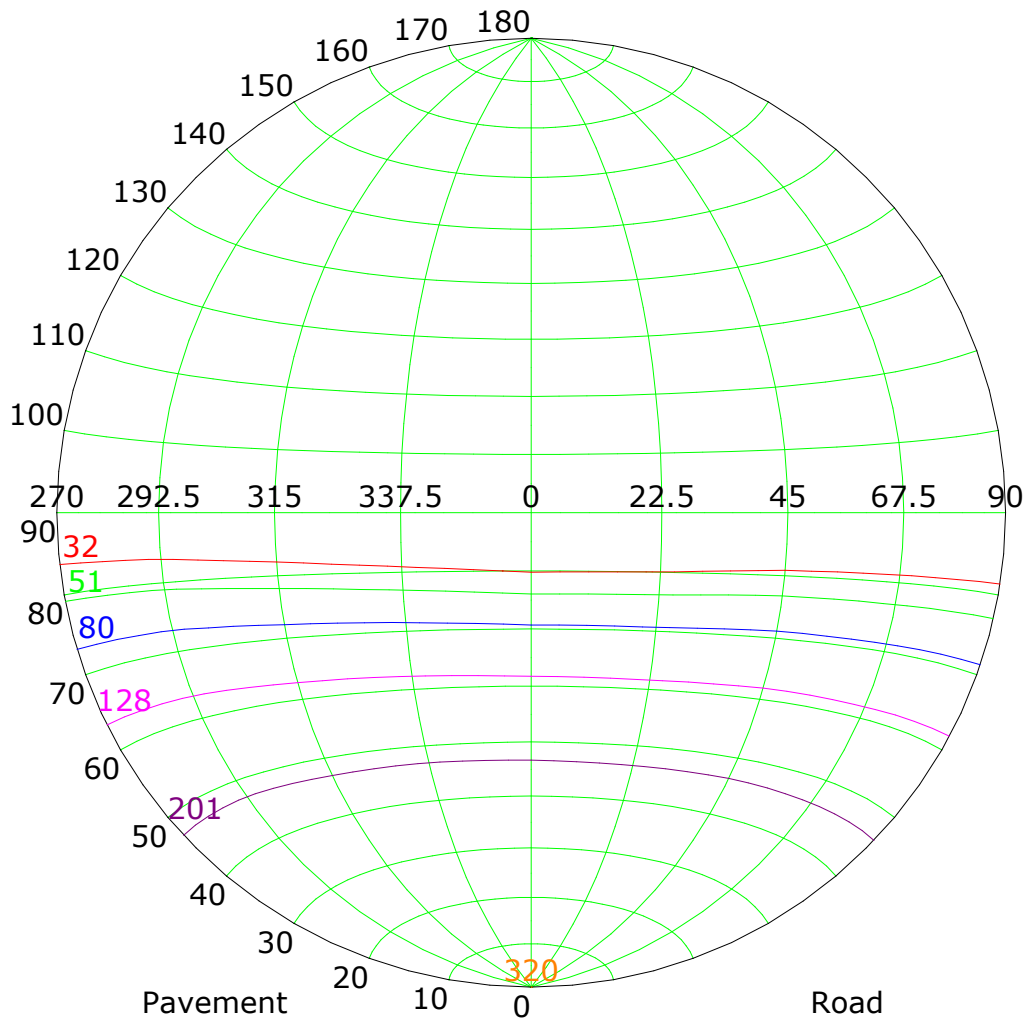
Distance: 7.792 m

Humidity:

Inspector:



Isocandela (sphere)



Imax (100%): 320 cd

— (10%):	32 cd	— (16%):	51 cd
— (25%):	80 cd	— (40%):	128 cd
— (63%):	201 cd	— (100%):	320 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

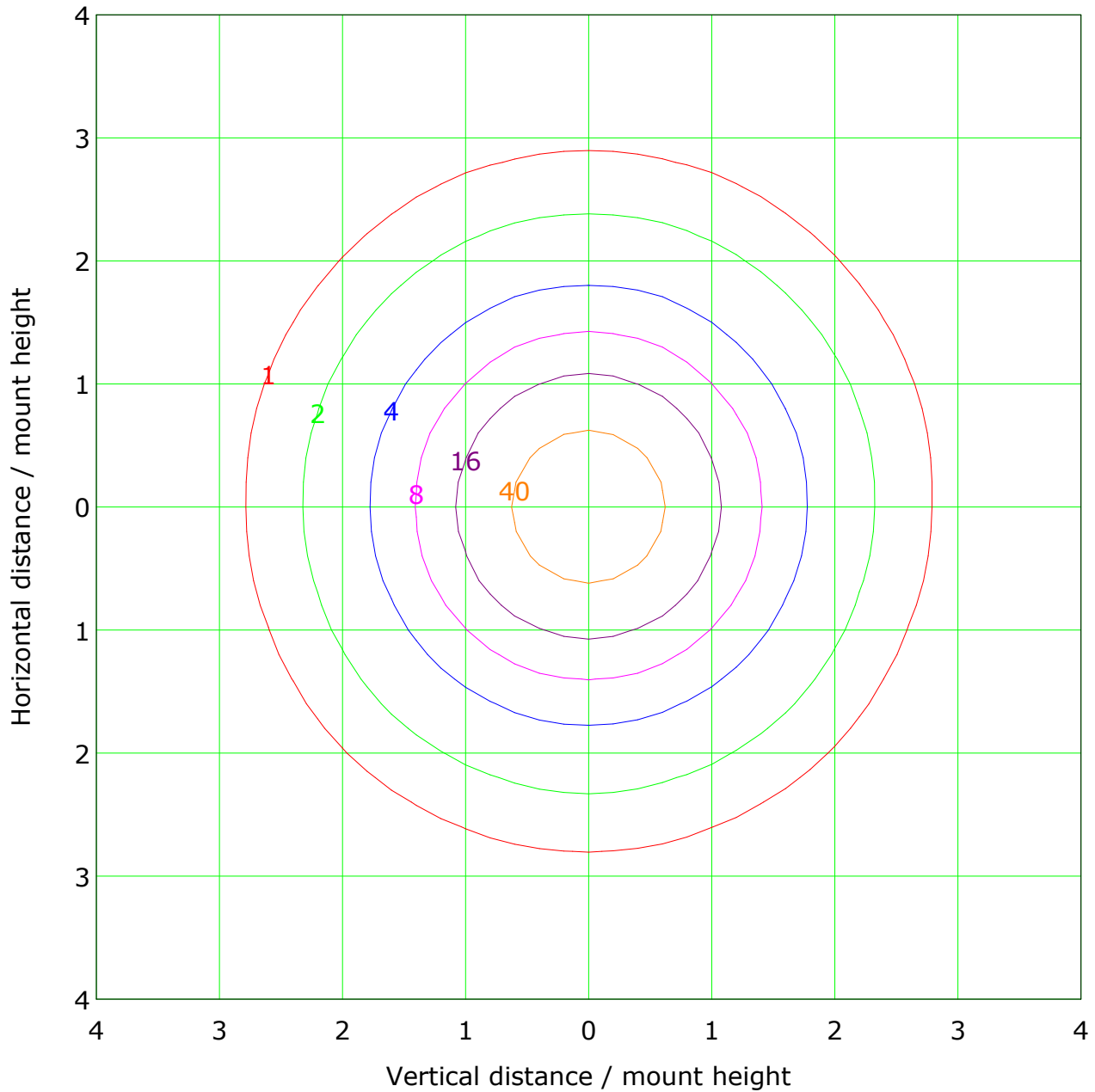
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 79.9 lx
— (1%):	0.8 lx	— (2%): 1.6 lx
— (5%):	4.0 lx	— (10%): 8.0 lx
— (20%):	16.0 lx	— (50%): 40.0 lx
— (100%):	79.9 lx	

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

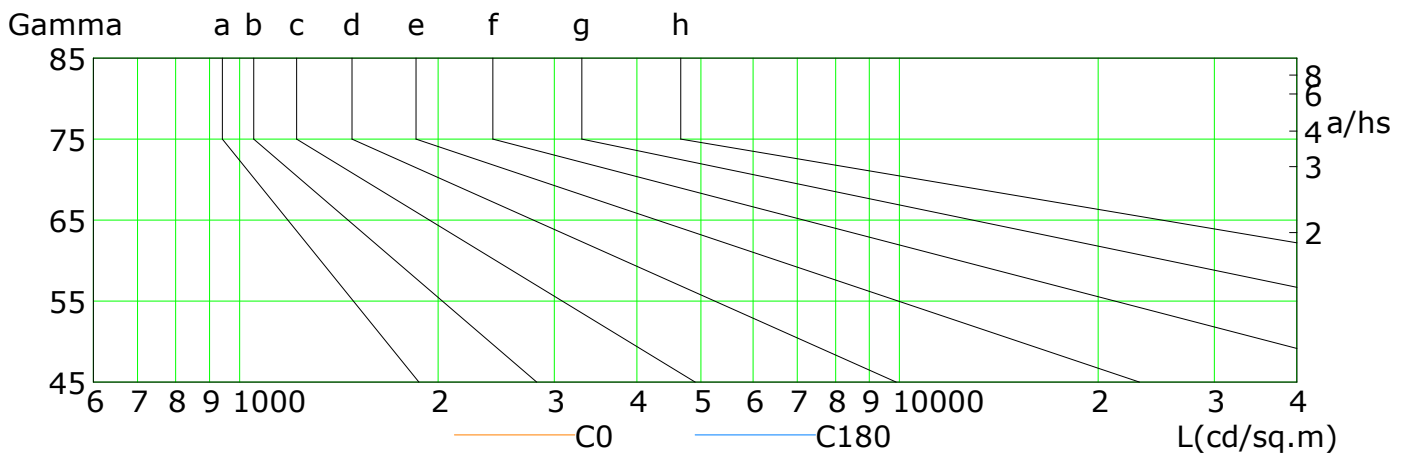
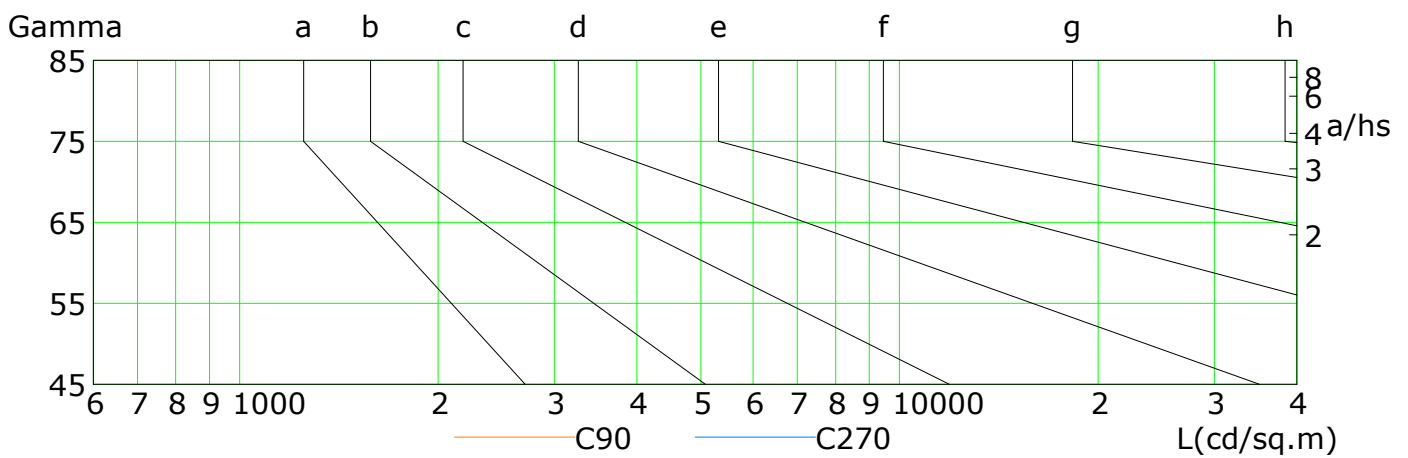
Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1800B
Distance: 7.792 m
Humidity:
Inspector:



Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		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	209	186	162	137	111	84	57	31	10
C90	207	185	162	137	112	86	61	37	18
C180	209	187	163	138	112	85	58	32	11
C270	210	189	167	144	120	96	71	47	27

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

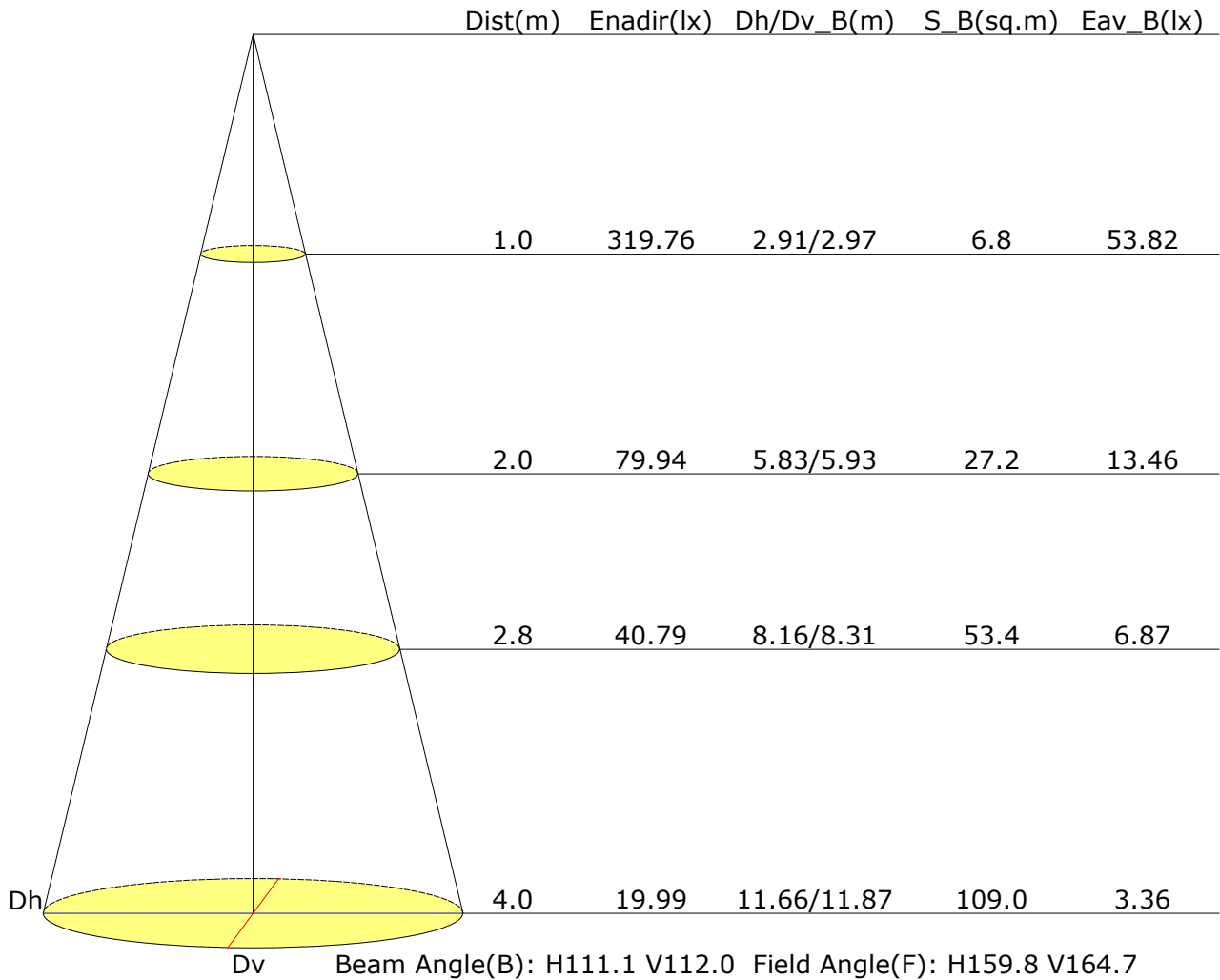
Distance: 7.792 m

Humidity:

Inspector:



Illuminance at a Distance

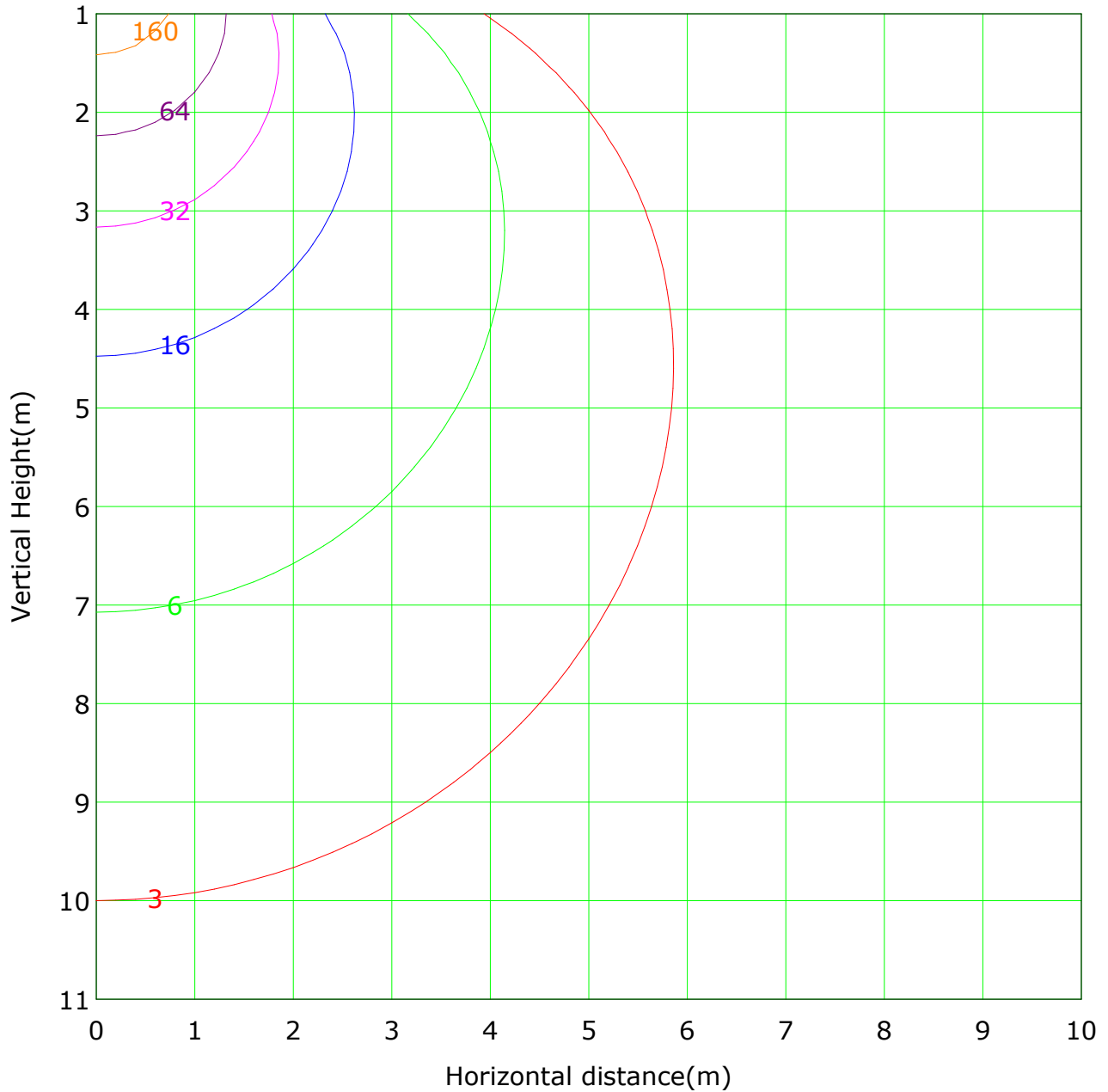


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 319.8 lx

— (1%): 3.2 lx	— (2%): 6.4 lx
— (5%): 16.0 lx	— (10%): 32.0 lx
— (20%): 64.0 lx	— (50%): 159.9 lx
— (100%): 319.8 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:



Report No.:

Test Time: 01/10/2024 15:39

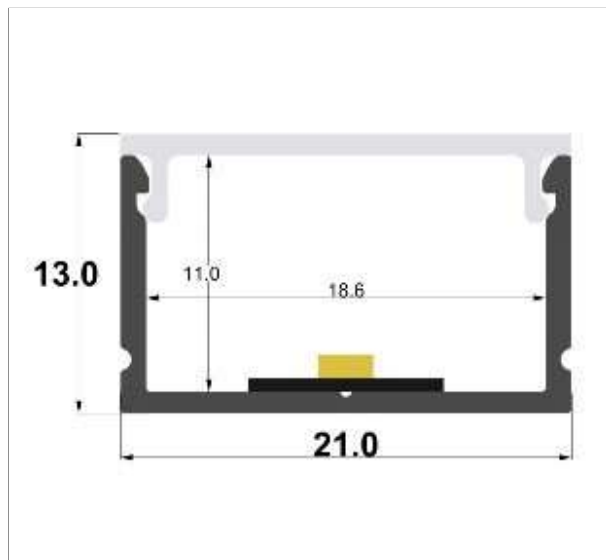
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL15-01+LLD-01-FS
 Lamp Description: OR40sF521208F2/14.4 1m
 Number of Lamps: 1
 Voltage: 24.0 V
 Power: 13.44 W
 Lumens per Lamp: 1491
 Current: 0.560 A
 Power Factor: 1.000

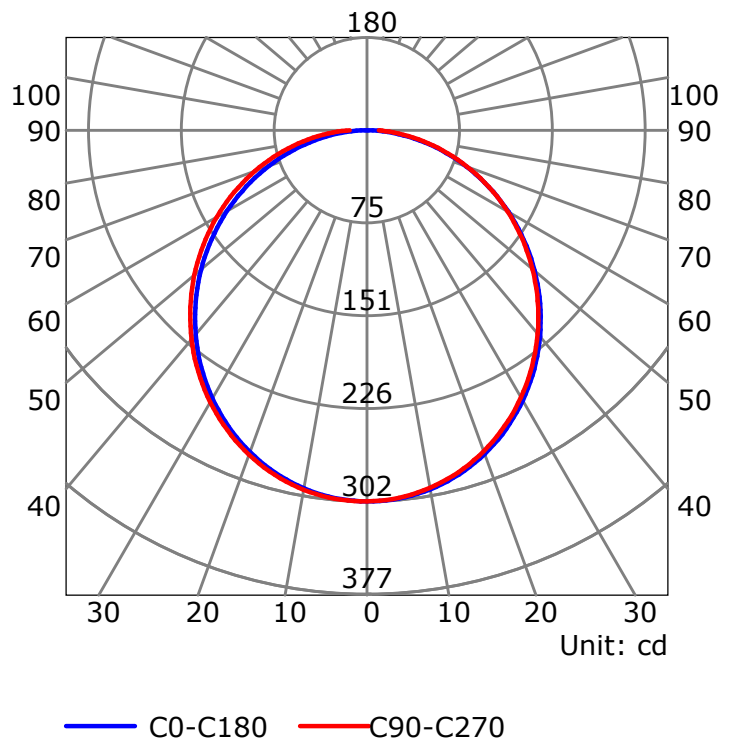
Photometric Results

CIE Class: Direct
 Measurement Flux: 882.3 lm
 Downward Ratio: 59.17%
 Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 163.9, 168.5, 166.8, 166.6
 Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.9, 113.5, 112.9, 112.8
 Luminaire Efficacy Rating (LER): 65.70
 Max. Intensity: 302.23 cd
 S/MH(C0/C180): 1.24
 Total Rated Lamp Lumens: 1491.0 lm
 Efficiency: 59.17%
 Upward Ratio: 0.00%
 Central Intensity: 302.19 cd
 Pos of Max. Intensity: H22.5 V0
 S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve

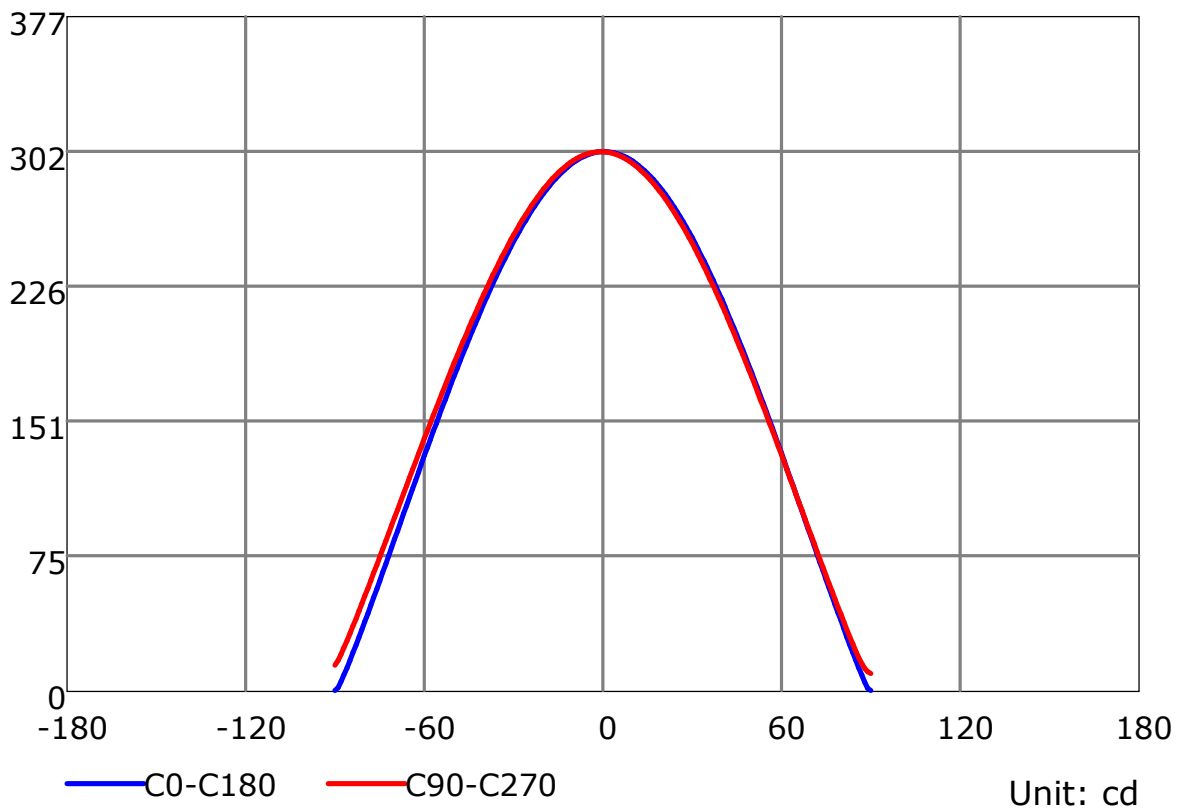
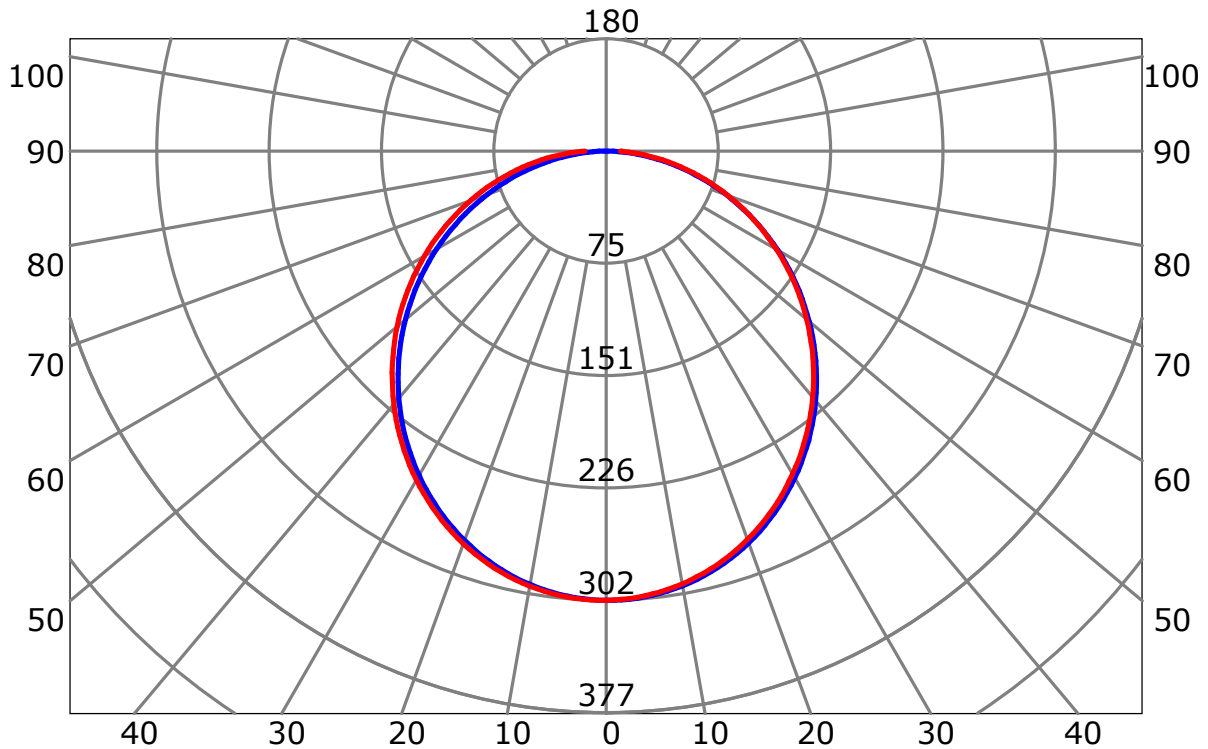


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Luminous Intensity Distribution Curve

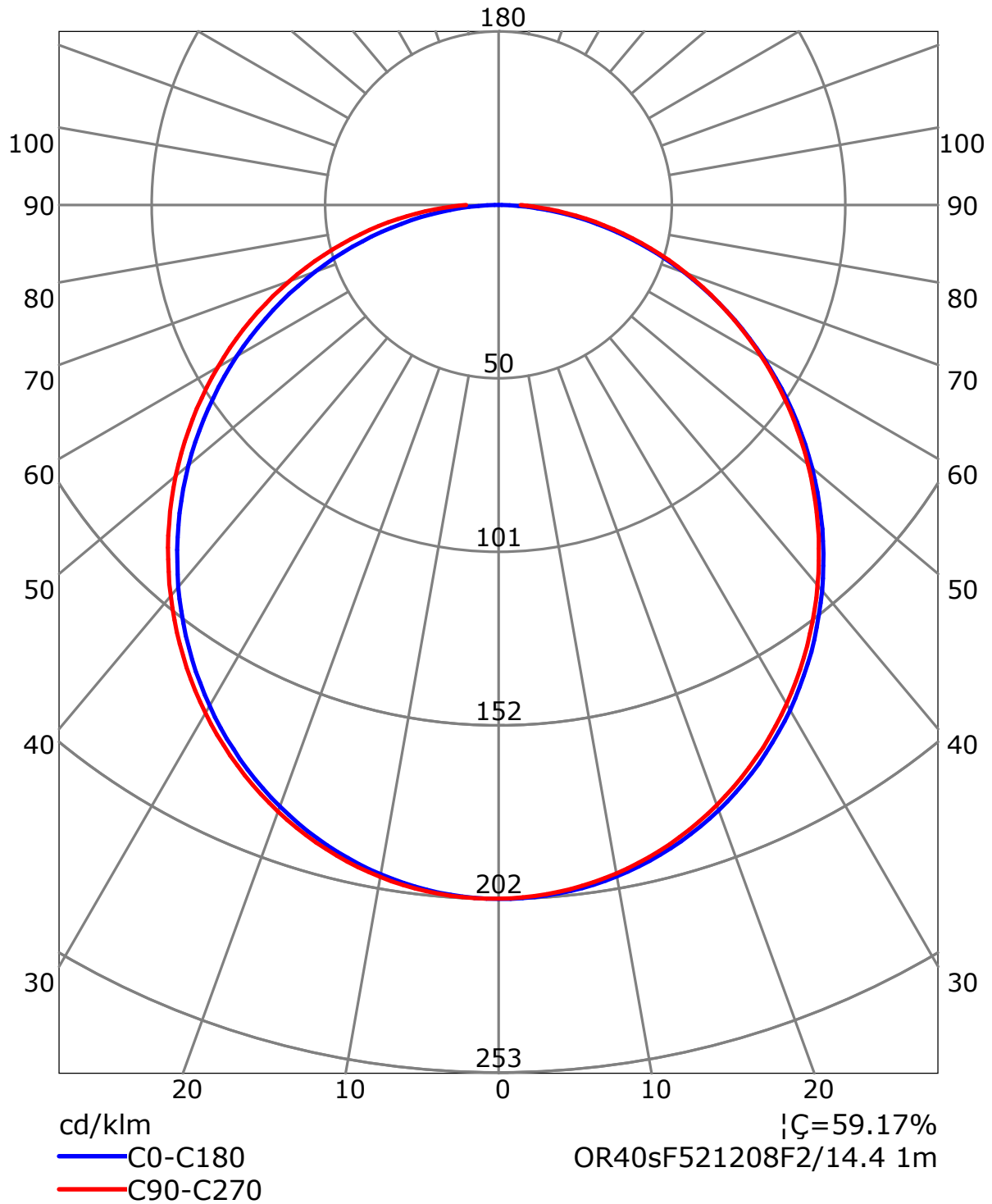


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

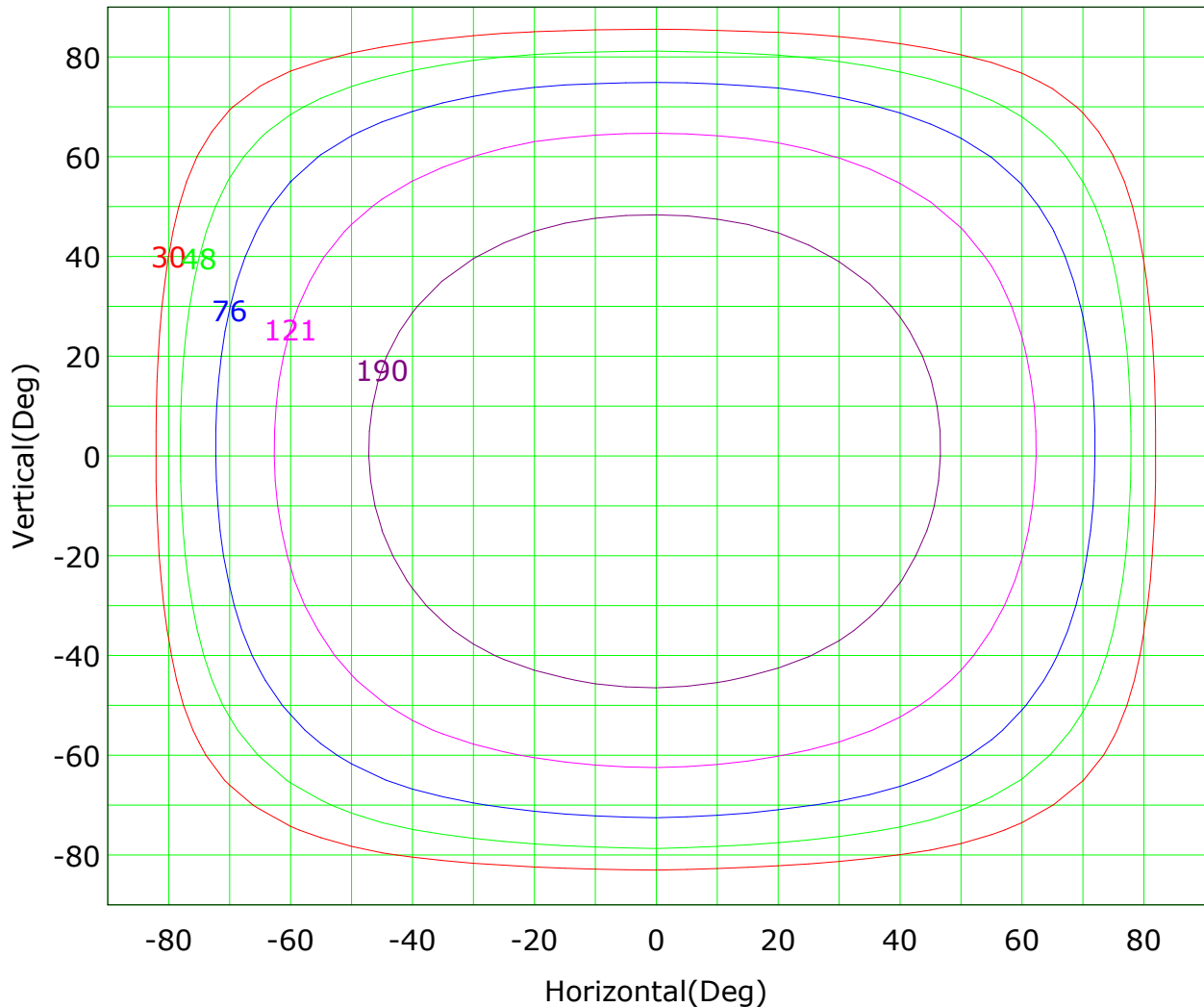


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 302 cd

— (10%):	30 cd	— (16%):	48 cd
— (25%):	76 cd	— (40%):	121 cd
— (63%):	190 cd	— (100%):	302 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

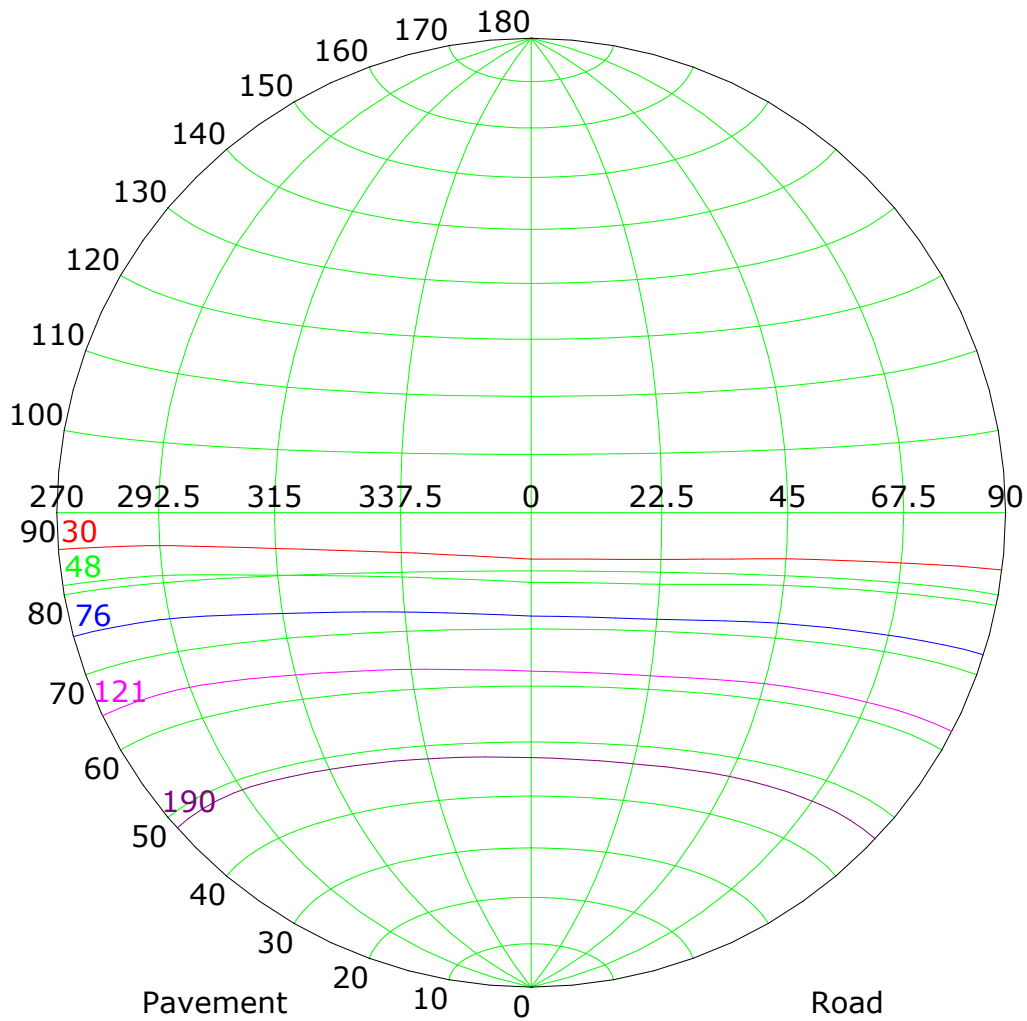
Distance: 7.792 m

Humidity:

Inspector:



Isocandela (sphere)



Imax (100%): 302 cd

— (10%):	30 cd	— (16%):	48 cd
— (25%):	76 cd	— (40%):	121 cd
— (63%):	190 cd	— (100%):	302 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

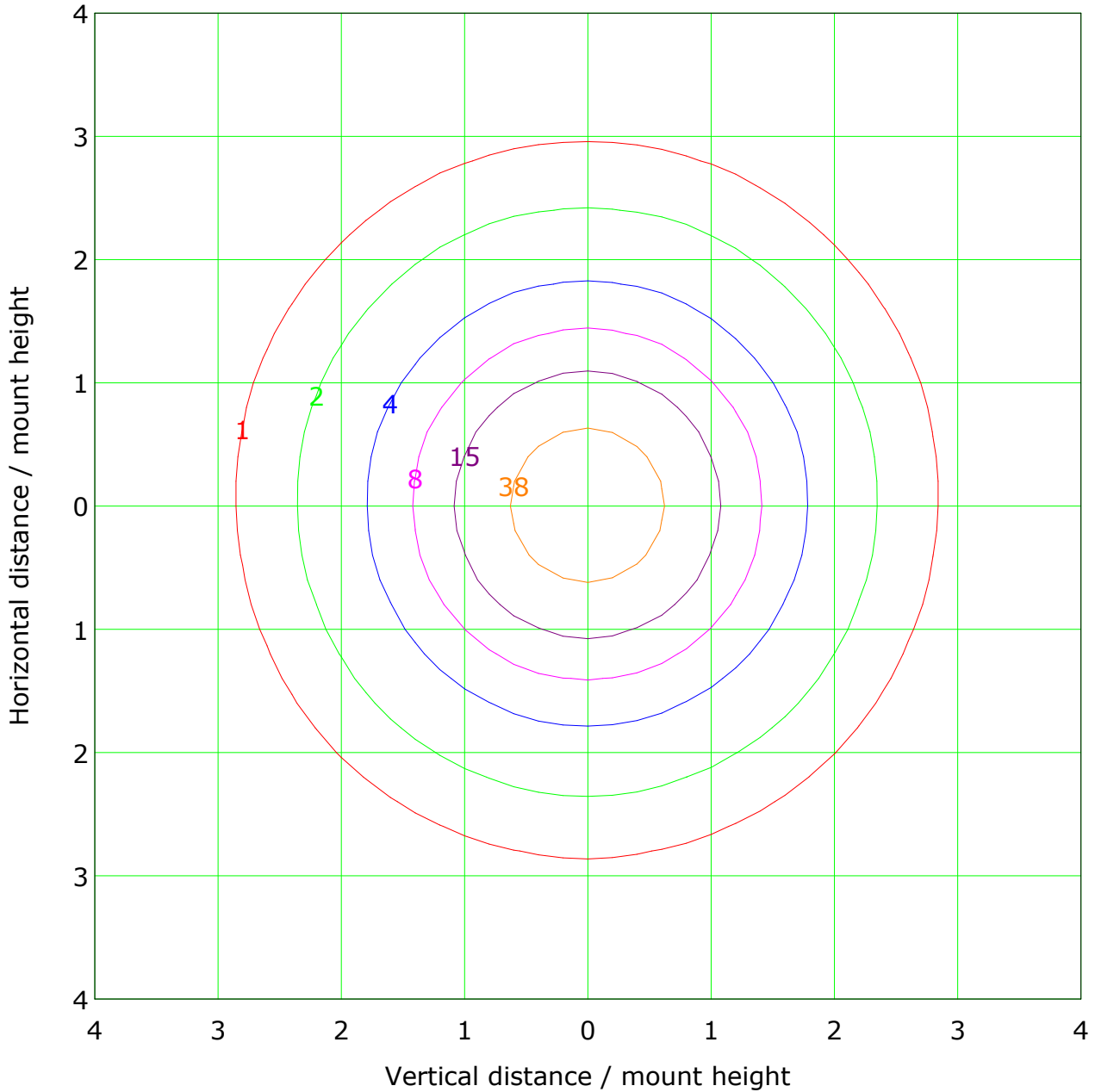
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 75.6 lx
<ul style="list-style-type: none"> — (1%): 0.8 lx — (5%): 3.8 lx — (20%): 15.1 lx — (100%): 75.6 lx 	<ul style="list-style-type: none"> — (2%): 1.5 lx — (10%): 7.6 lx — (50%): 37.8 lx 	

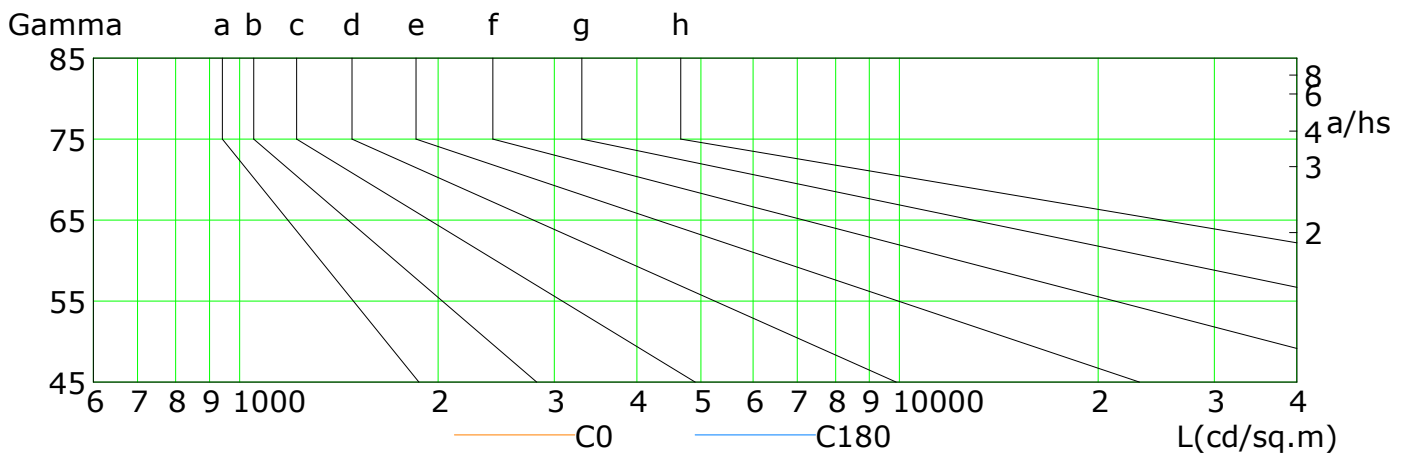
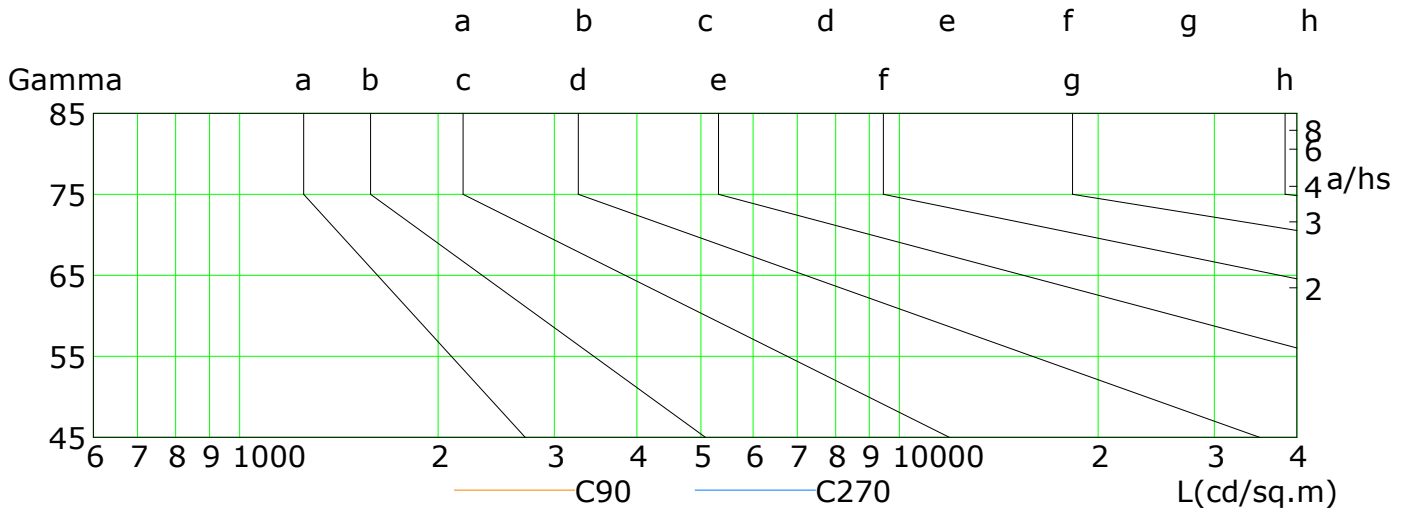
C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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)							
		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



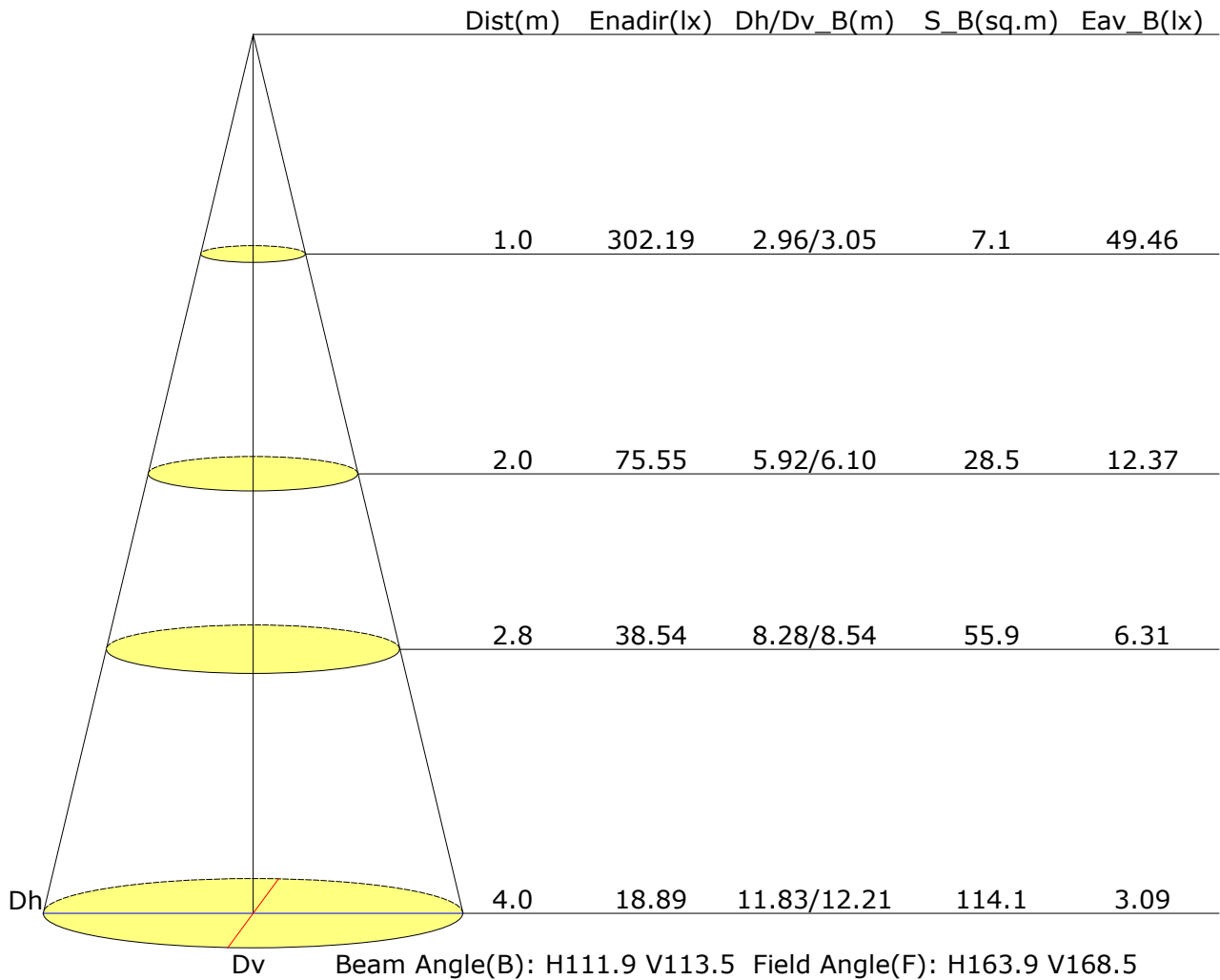
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	199	178	156	133	110	86	62	39	17
C90	197	176	155	132	110	87	64	43	22
C180	197	176	154	132	108	85	62	39	17
C270	204	184	163	141	119	97	75	53	32

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



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

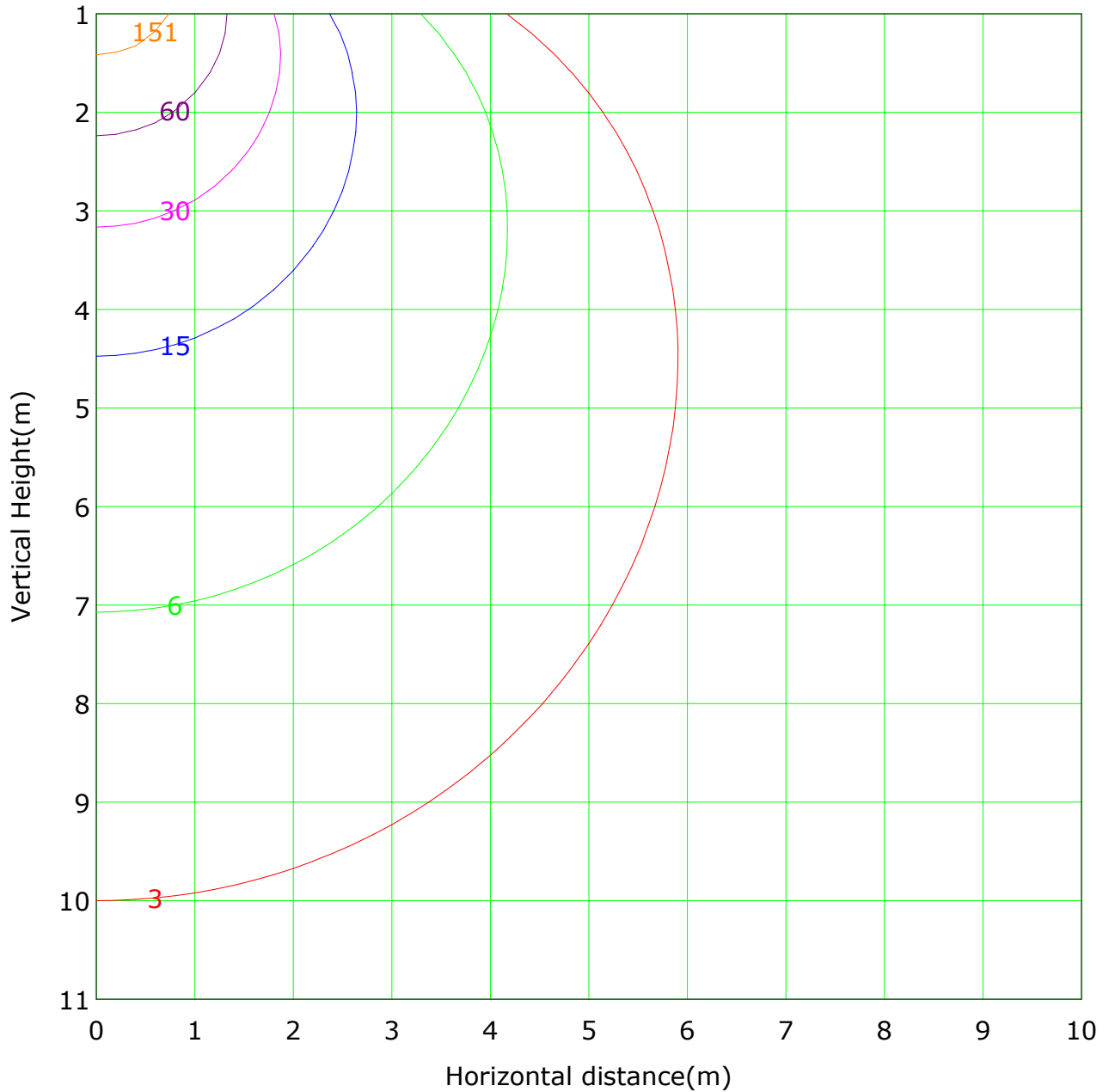
Distance: 7.792 m

Humidity:

Inspector:



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 302.2 lx

— (1%): 3.0 lx	— (2%): 6.0 lx
— (5%): 15.1 lx	— (10%): 30.2 lx
— (20%): 60.4 lx	— (50%): 151.1 lx
— (100%): 302.2 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:



Report No.:

Test Time: 02/10/2024 08:59

Luminaire Property

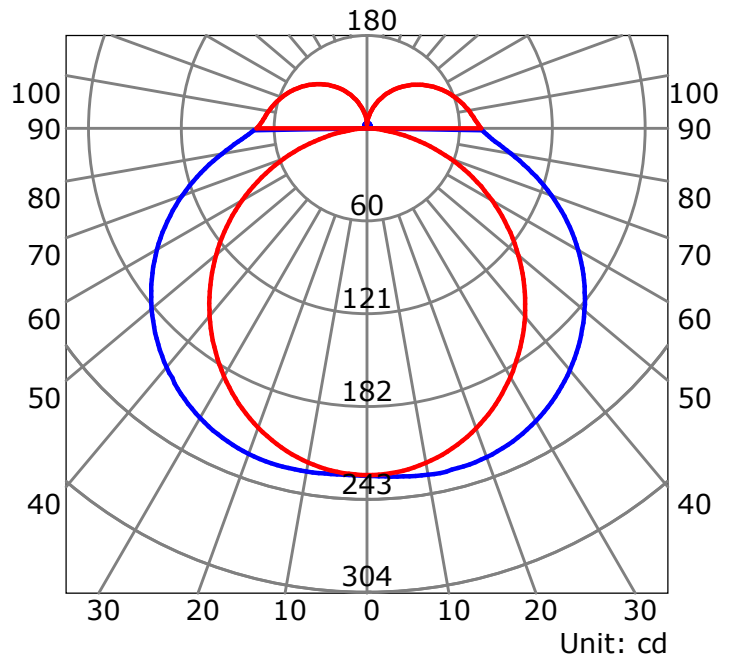
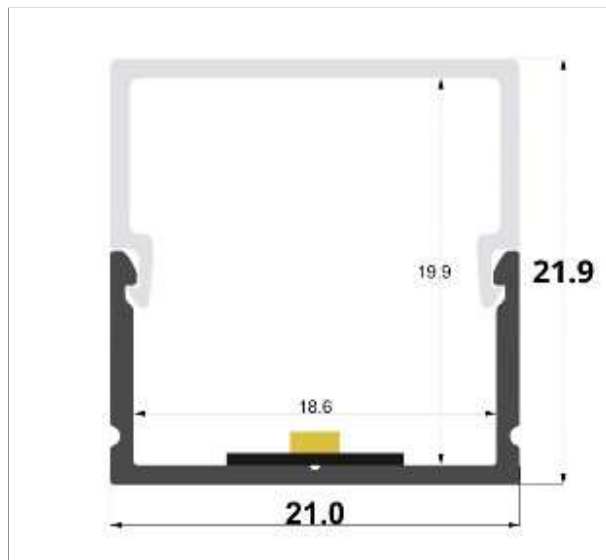
Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL15-01+LLD-01-CM
 Lamp Description: F52-40s-1208F2/14.4 1m Lumens per Lamp: 1
 Luminous Length (mm): 1491 Voltage: 24.0 V
 Current: 0.551 A Power: 13.21 W
 Power Factor: 1.000

Photometric Results

CIE Class: Semi-Direct	Total Rated Lamp Lumens: 1025.6 lm
Measurement Flux: 1025.6 lm	Efficiency: 100%
Downward Ratio: 82%	Upward Ratio: 18%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 179.4, 309.6, 286.6, 286.4	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 148.1, 109.3, 134.0, 134.2	
Luminaire Efficacy Rating (LER): 77.69	Central Intensity: 228.42 cd
Max. Intensity: 231.68 cd	Pos of Max. Intensity: H0 V13
S/MH(C0/C180): 1.44	S/MH(C90/C270): 1.23

Picture Of Luminaire

Luminous Intensity Distribution Curve



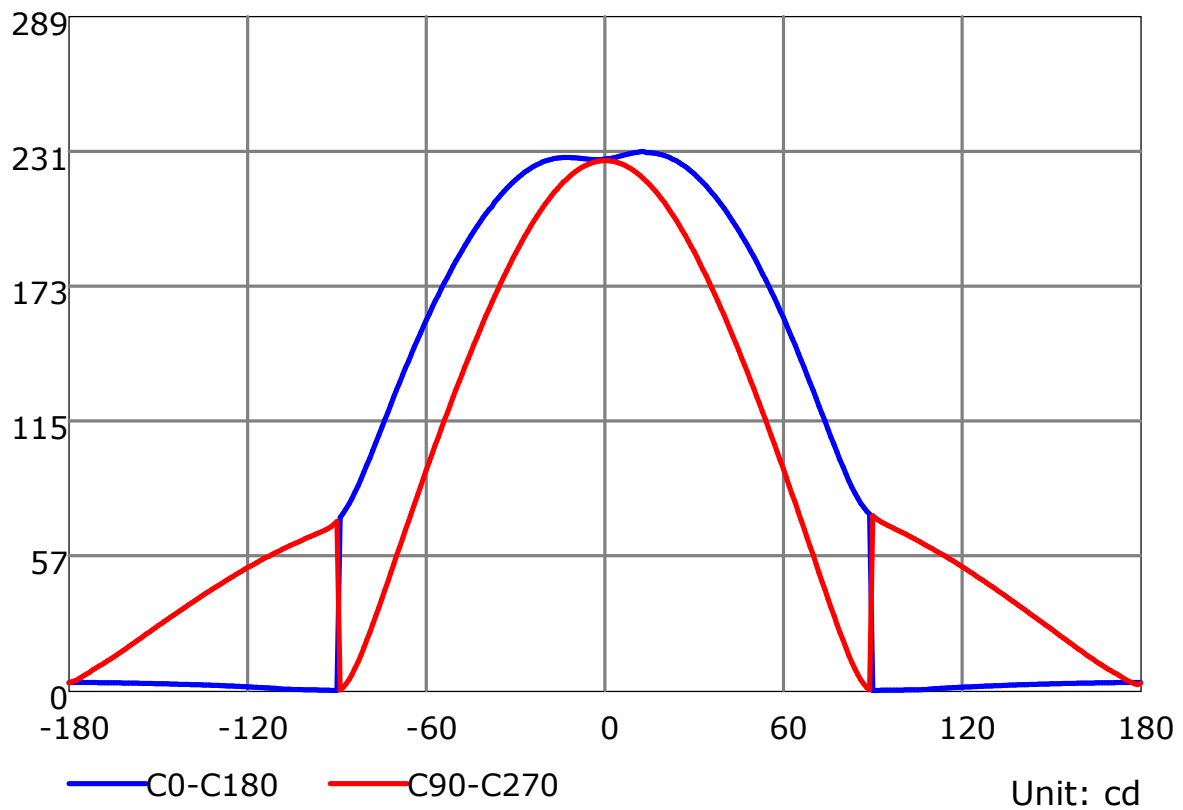
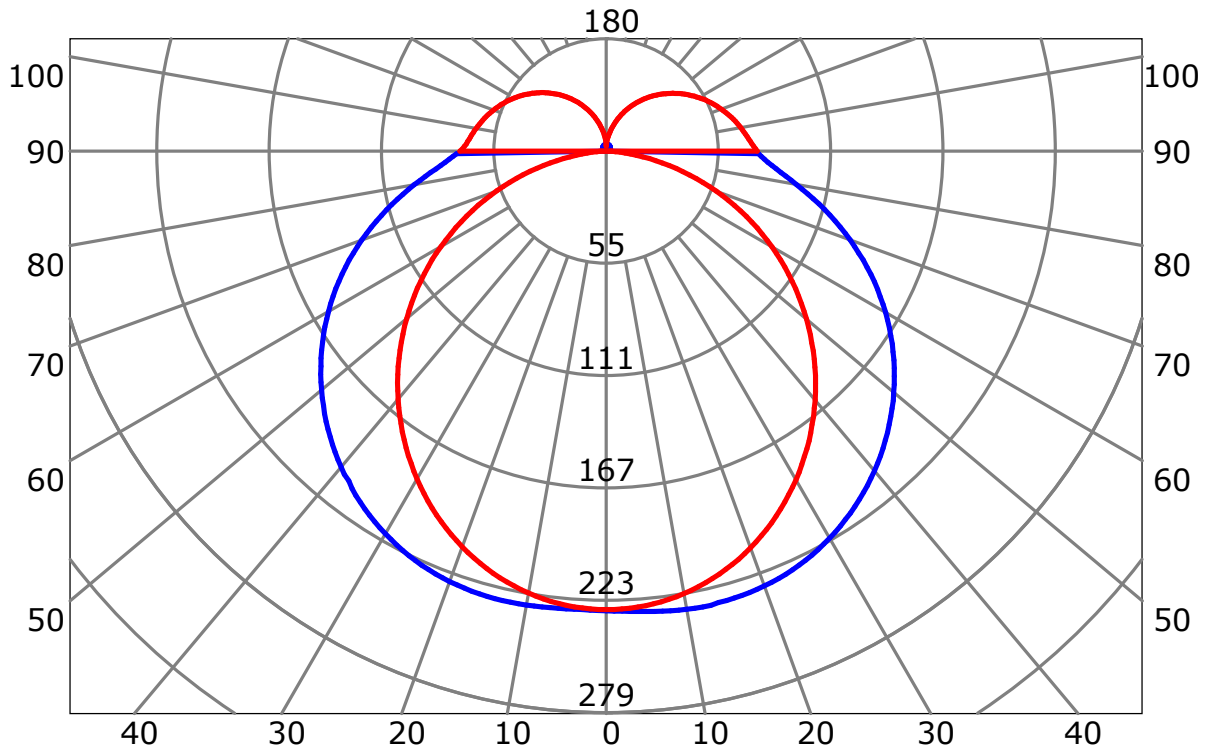
— C0-C180 — C90-C270

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

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



Luminous Intensity Distribution Curve

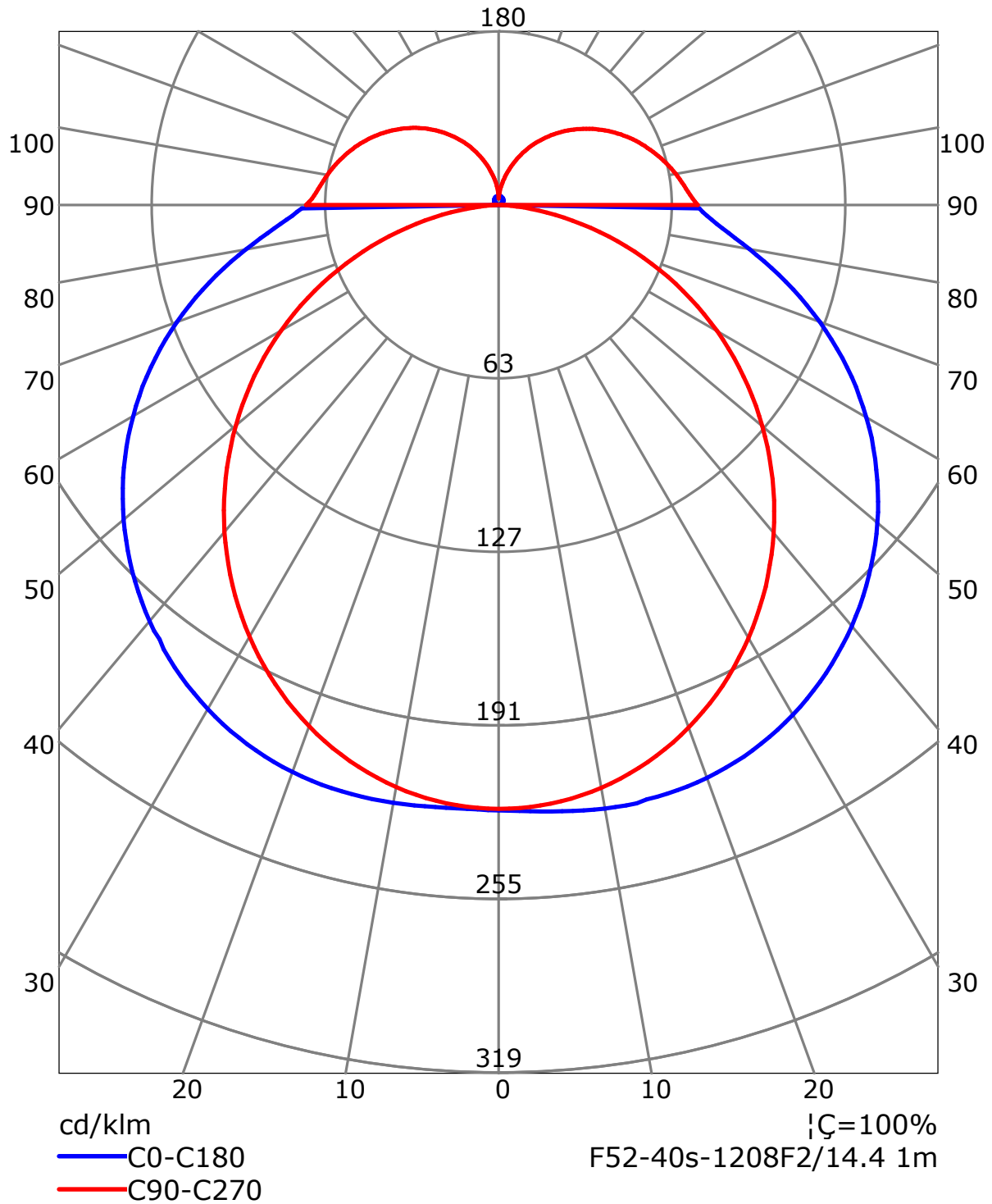


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

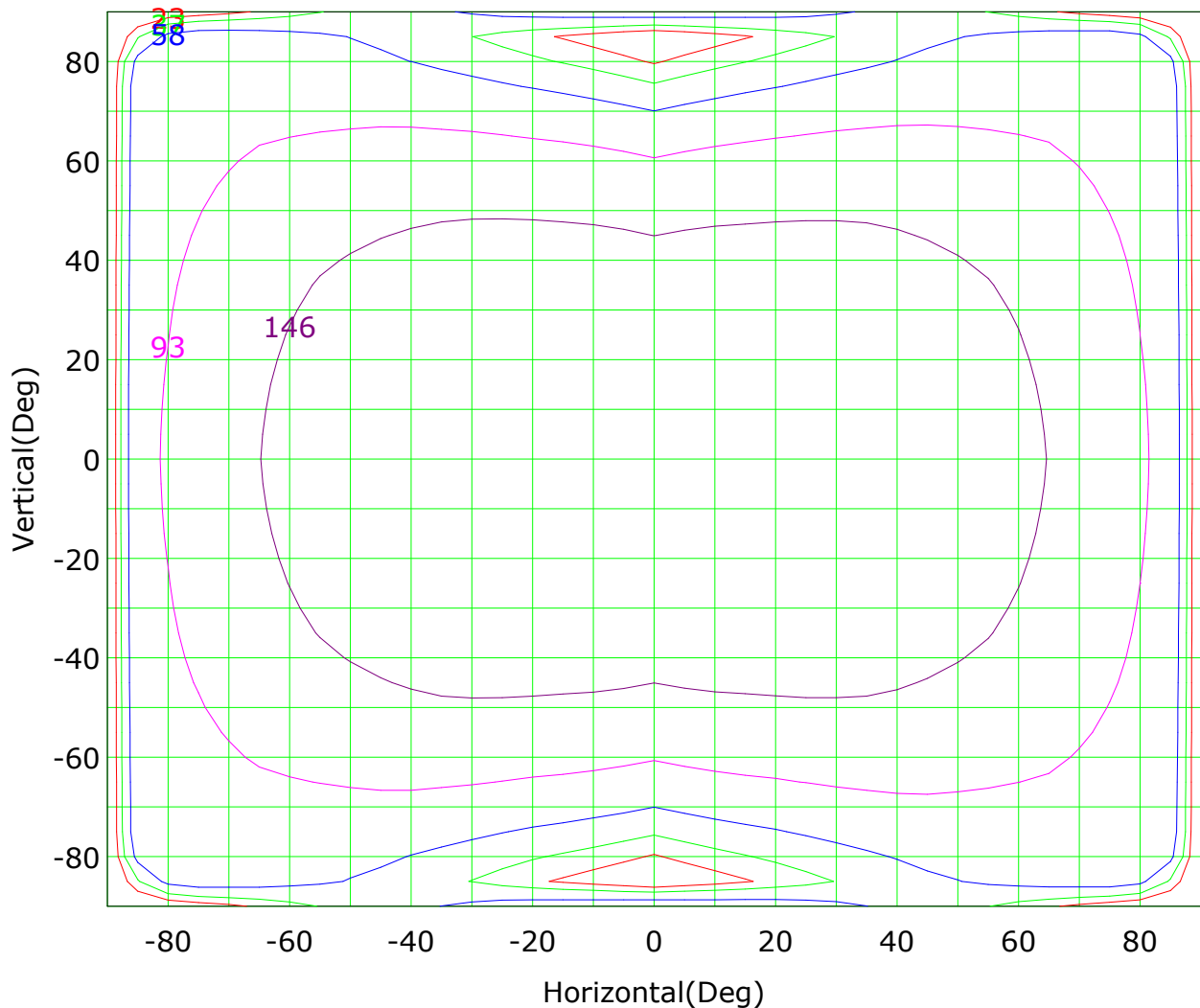


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 232 cd

(10%):	23 cd	(16%):	37 cd
(25%):	58 cd	(40%):	93 cd
(63%):	146 cd	(100%):	232 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: GMP-1800B

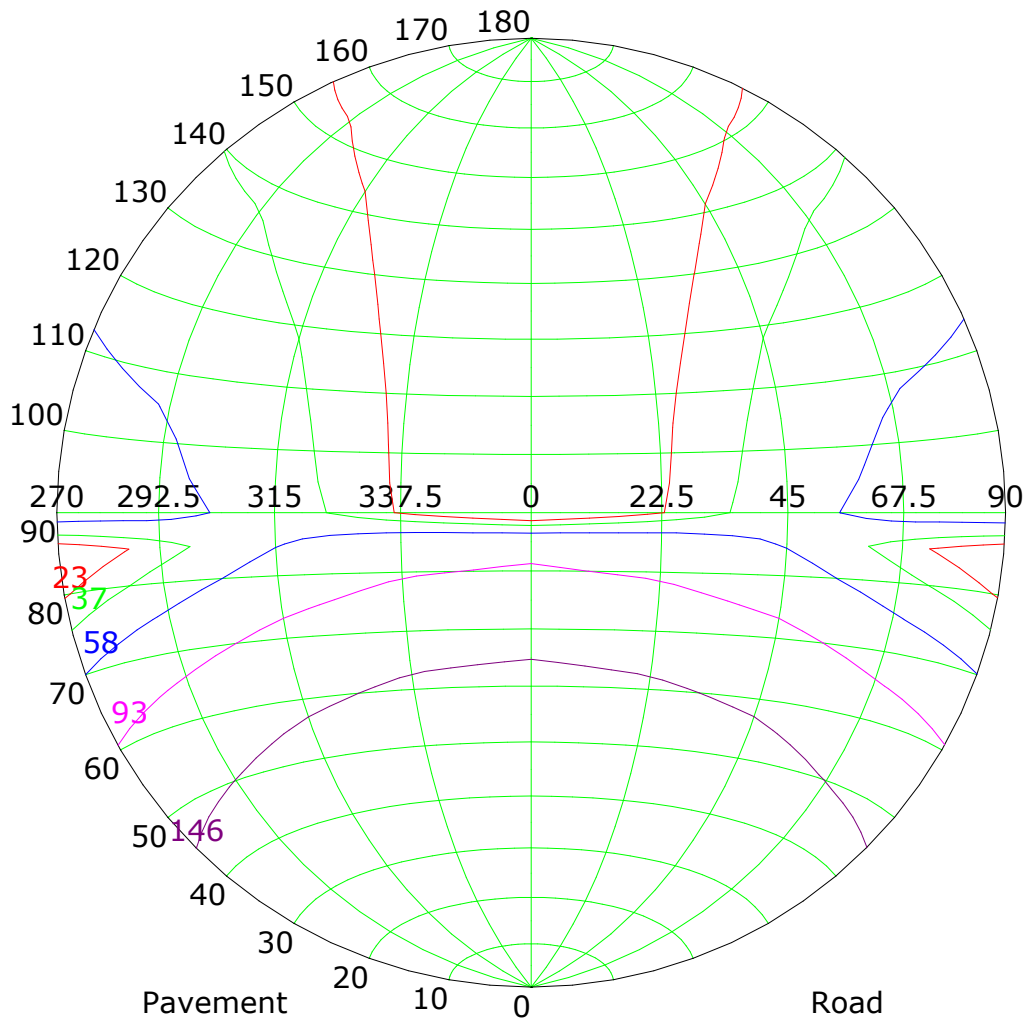
Distance: 7.792 m

Humidity:

Inspector:



Isocandela (sphere)



Imax (100%): 232 cd

— (10%):	23 cd	— (16%):	37 cd
— (25%):	58 cd	— (40%):	93 cd
— (63%):	146 cd	— (100%):	232 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: GMP-1800B

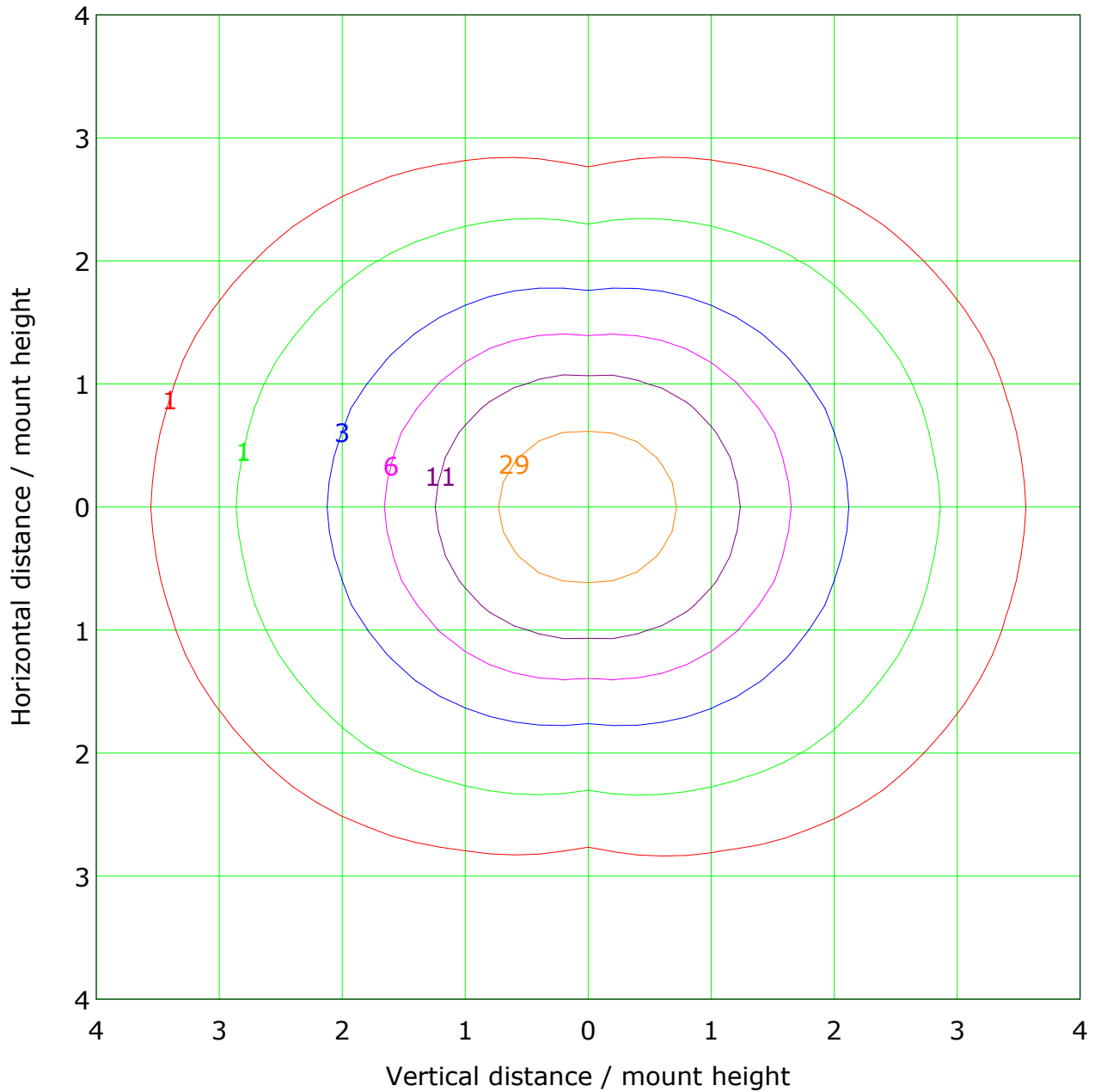
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



Mounting Height: 2.0m	Max Lux(100%): 57.1 lx
(1%): 0.6 lx	(2%): 1.1 lx
(5%): 2.9 lx	(10%): 5.7 lx
(20%): 11.4 lx	(50%): 28.6 lx
(100%): 57.1 lx	

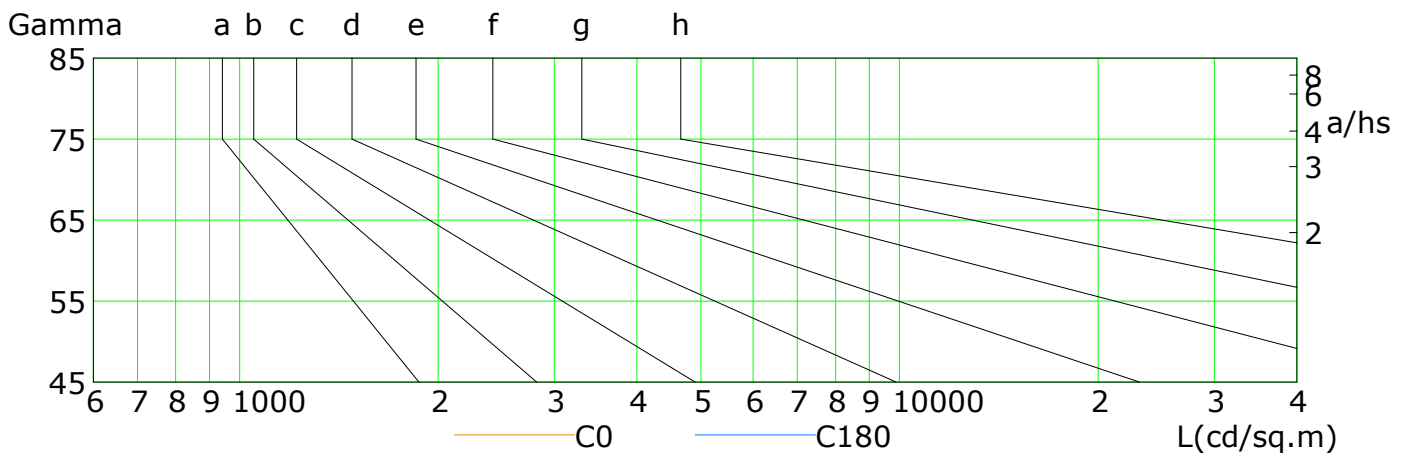
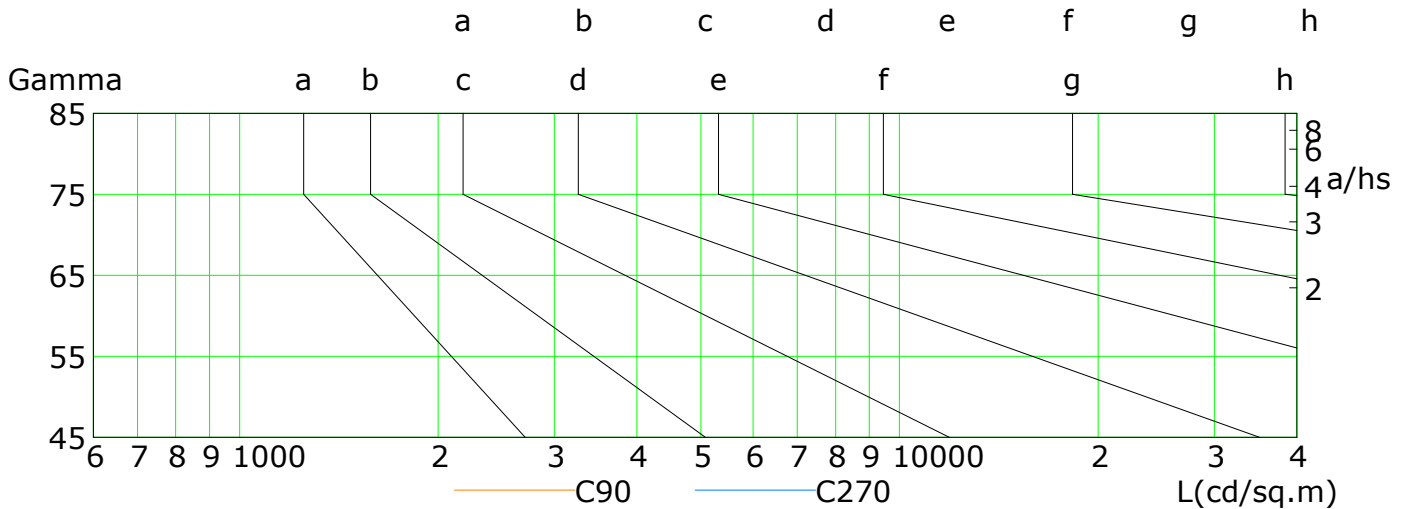
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GMP-1800B
Distance: 7.792 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



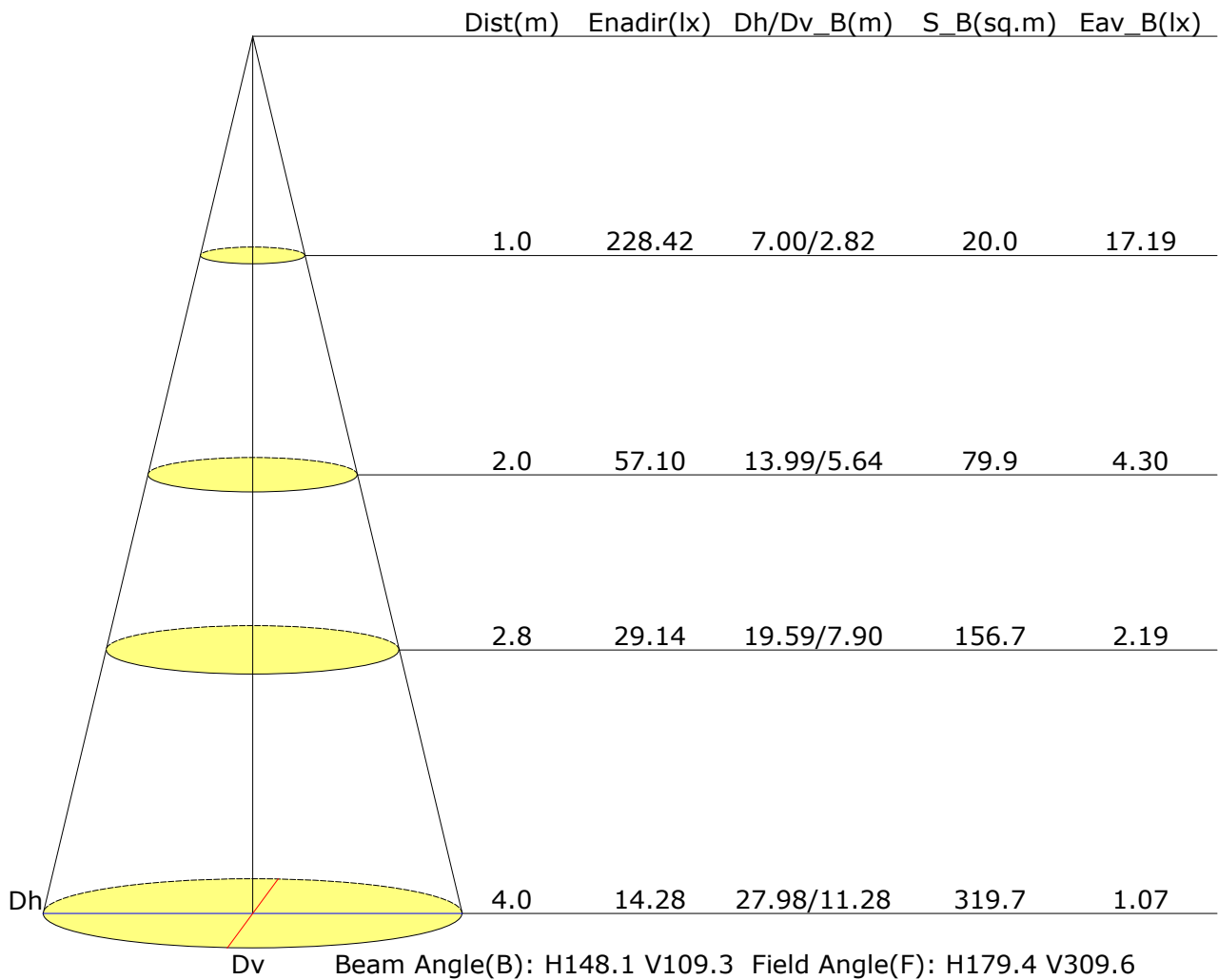
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	198	187	174	160	145	129	112	96	83
C90	146	130	113	95	77	58	39	22	7
C180	196	185	173	159	145	129	113	97	83
C270	146	130	113	95	77	58	39	22	7

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: GMP-1800B
 Distance: 7.792 m
 Humidity:
 Inspector:



Illuminance at a Distance

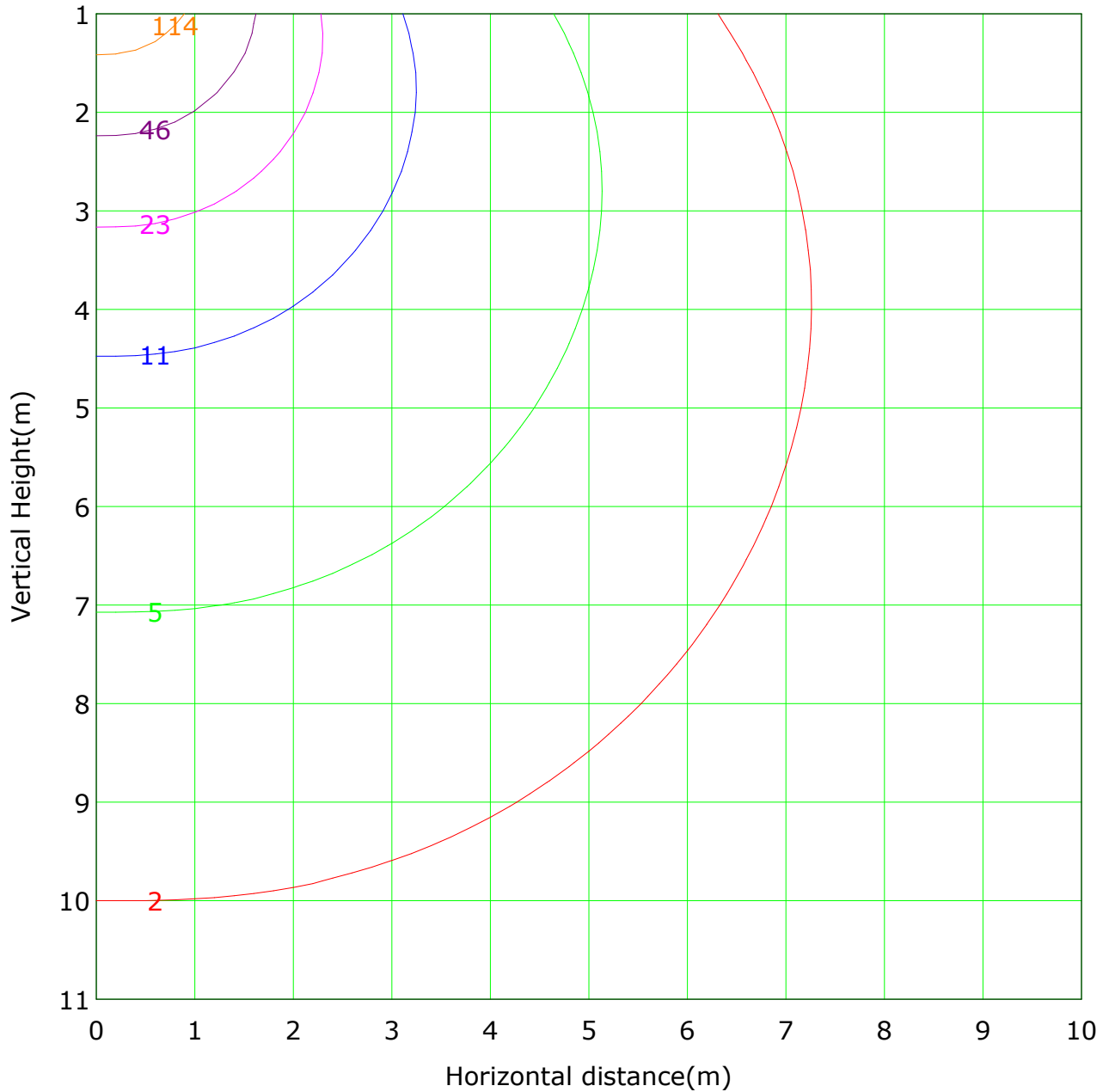


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 228.4 lx
— (1%): 2.3 lx	— (2%): 4.6 lx	
— (5%): 11.4 lx	— (10%): 22.8 lx	
— (20%): 45.7 lx	— (50%): 114.2 lx	
— (100%): 228.4 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: GMP-1800B
 Distance: 7.792 m
 Humidity:
 Inspector: