



Report No.:

Test Time: 07/10/2024 15:47

Luminaire Property

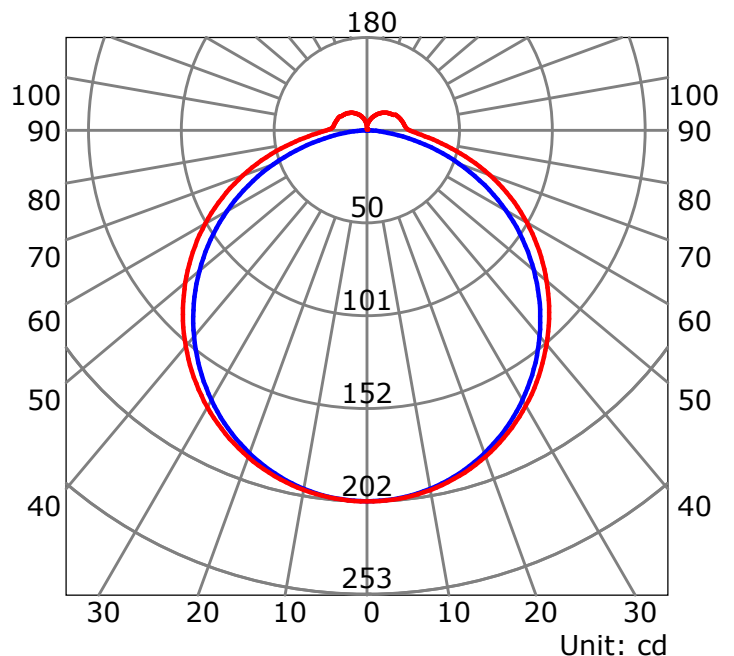
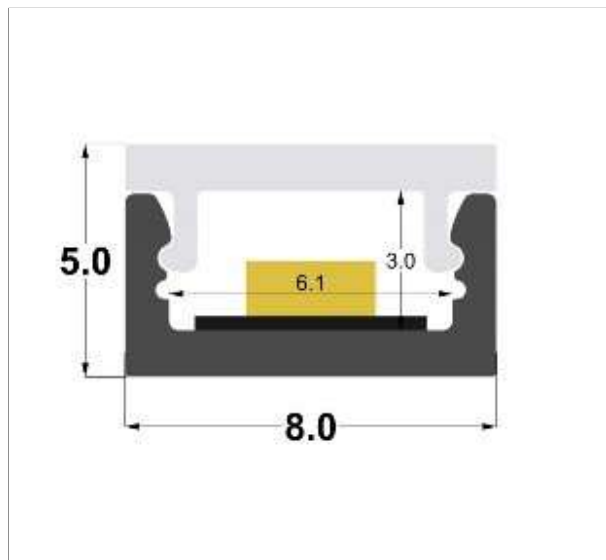
Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL13-0222+LLP-02-FM
 Lamp Description: OR40sF521208F2-W5 1m Number of Lamps: 1
 Lumens per Lamp: 936 Voltage: 24.0 V
 Current: 0.370 A Power: 8.88 W
 Power Factor: 1.000

Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 936.0 lm
Measurement Flux: 676.2 lm	Efficiency: 72.24%
Downward Ratio: 65.92%	Upward Ratio: 6.32%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.1, 194.1, 172.3, 170.7	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.8, 120.1, 116.6, 116.2	
Luminaire Efficacy Rating (LER): 76.20	Central Intensity: 202.74 cd
Max. Intensity: 202.87 cd	Pos of Max. Intensity: H90 V0
S/MH(C0/C180): 1.25	S/MH(C90/C270): 1.28

Picture Of Luminaire

Luminous Intensity Distribution Curve



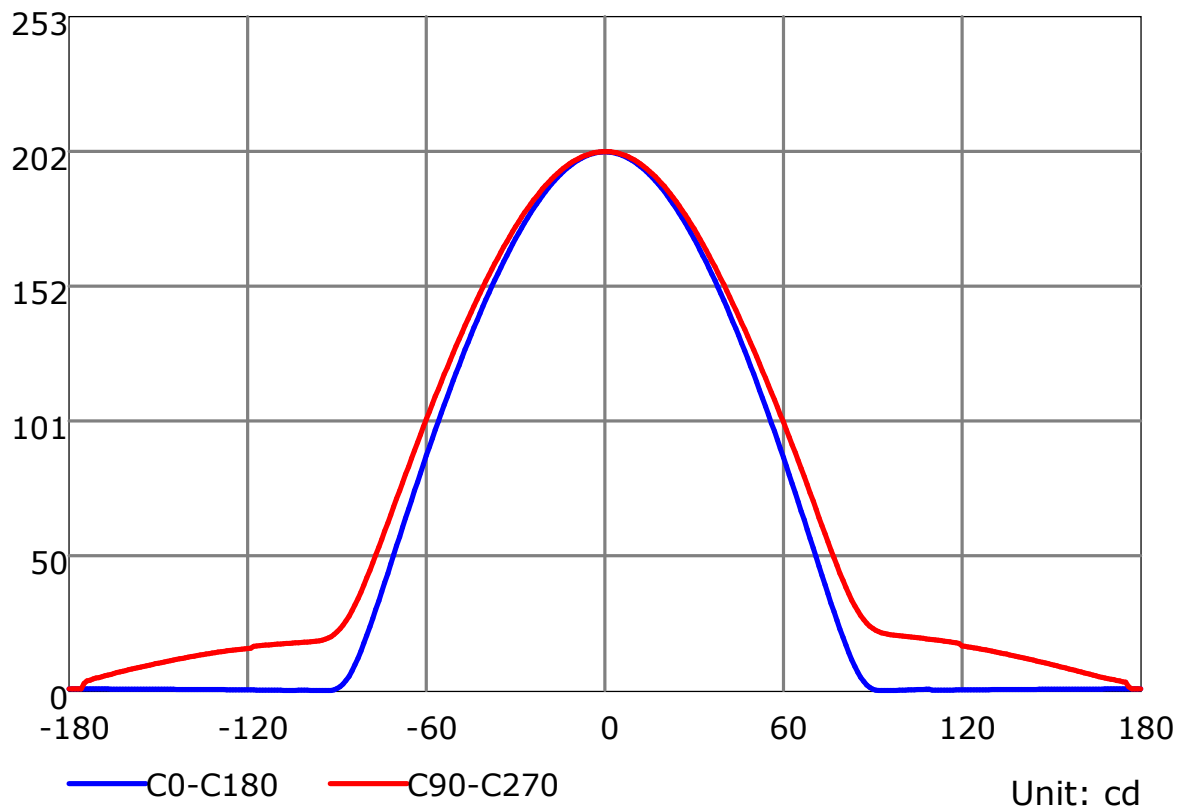
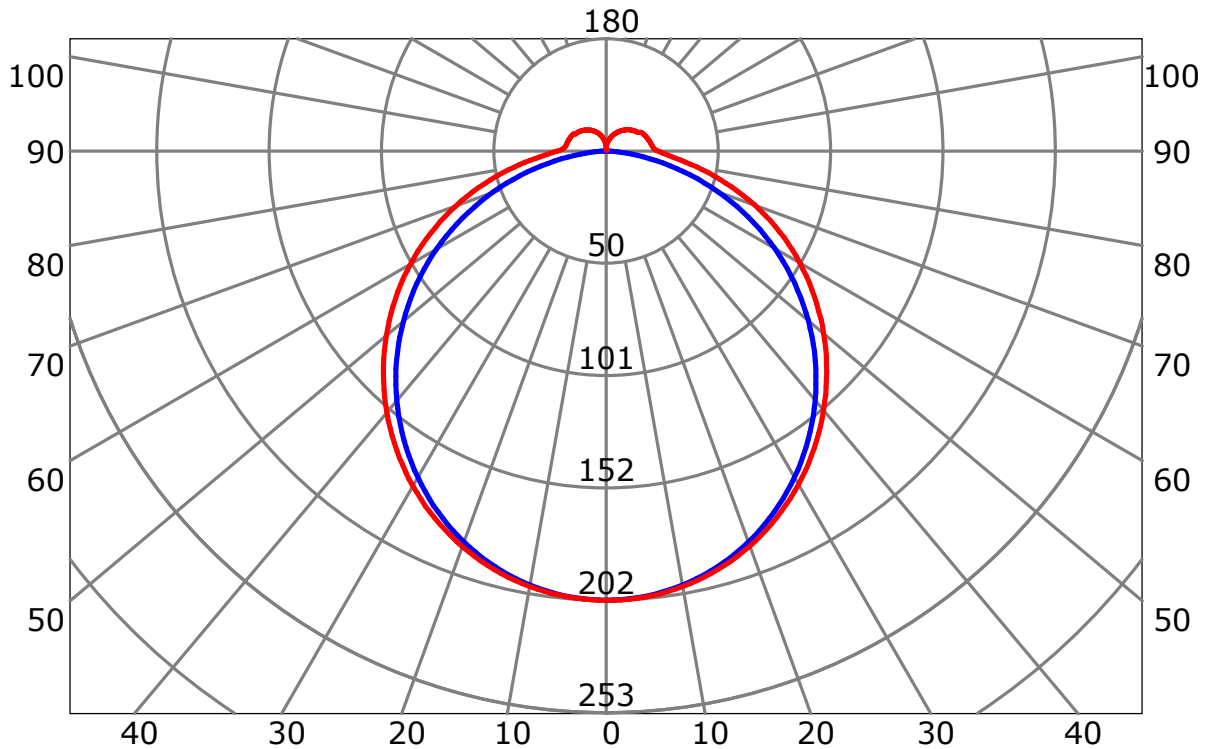
— C0-C180 — C90-C270

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



Luminous Intensity Distribution Curve

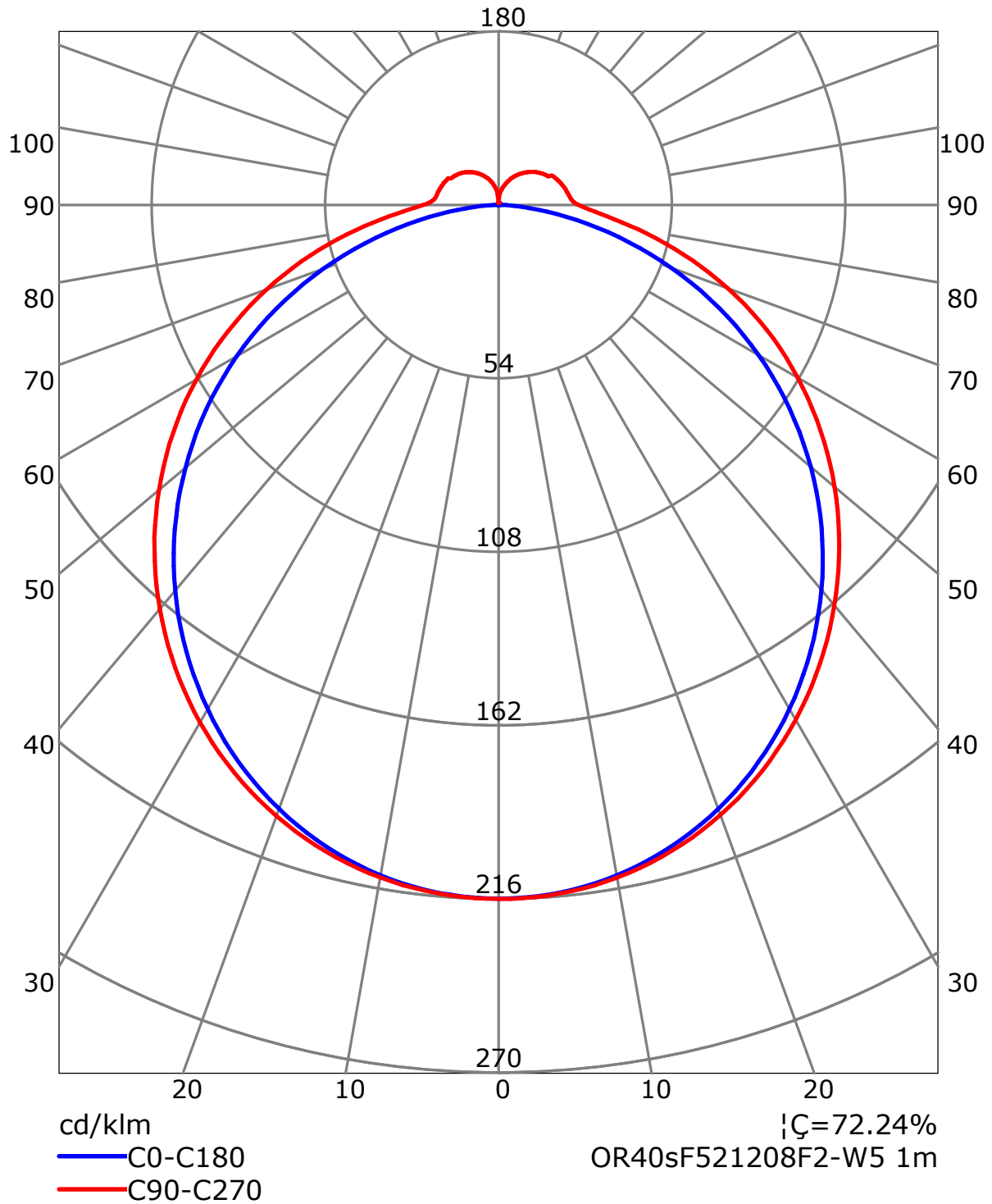


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

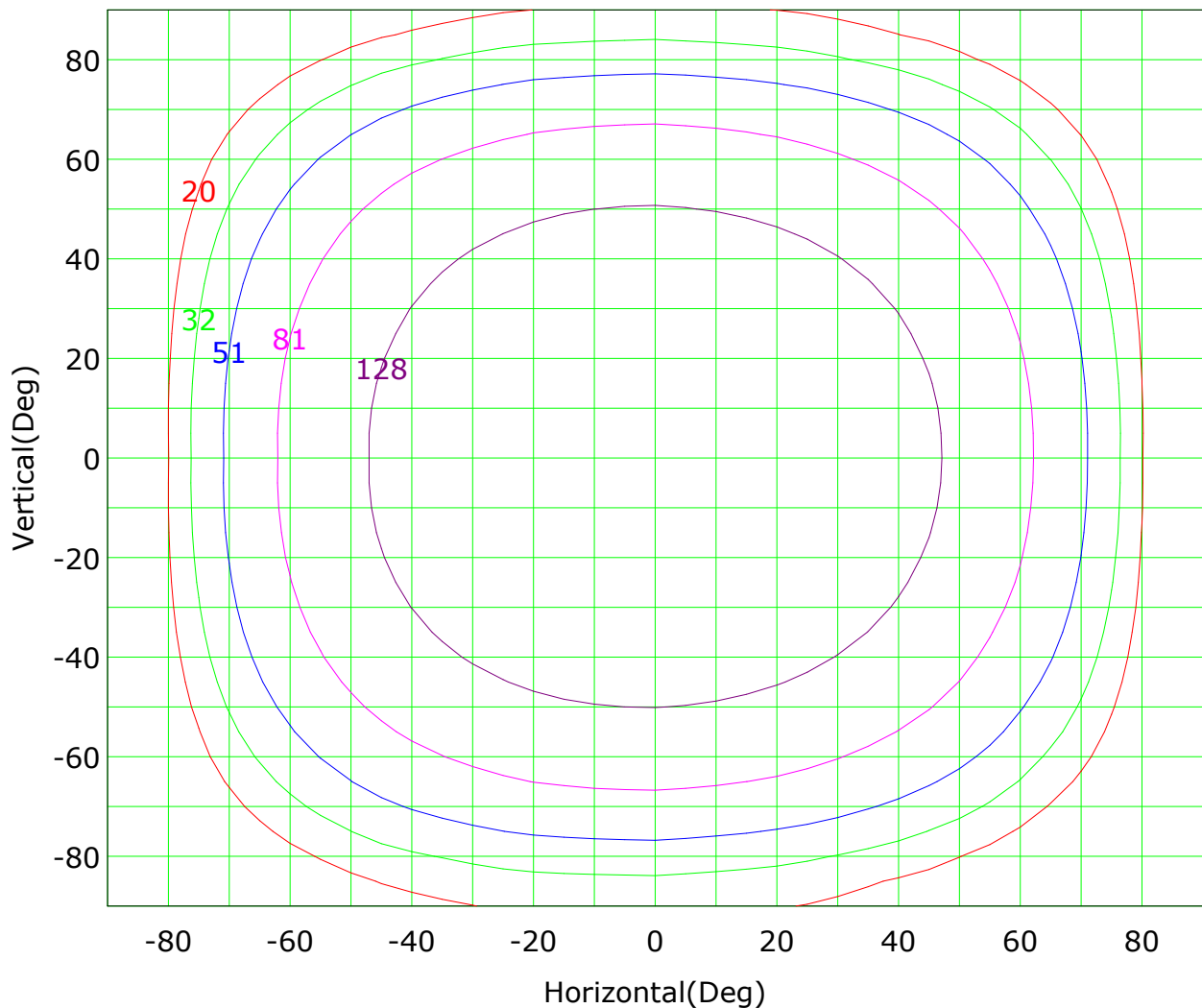


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 203 cd

— (10%):	20 cd	— (16%):	32 cd
— (25%):	51 cd	— (40%):	81 cd
— (63%):	128 cd	— (100%):	203 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: GPM-1800B

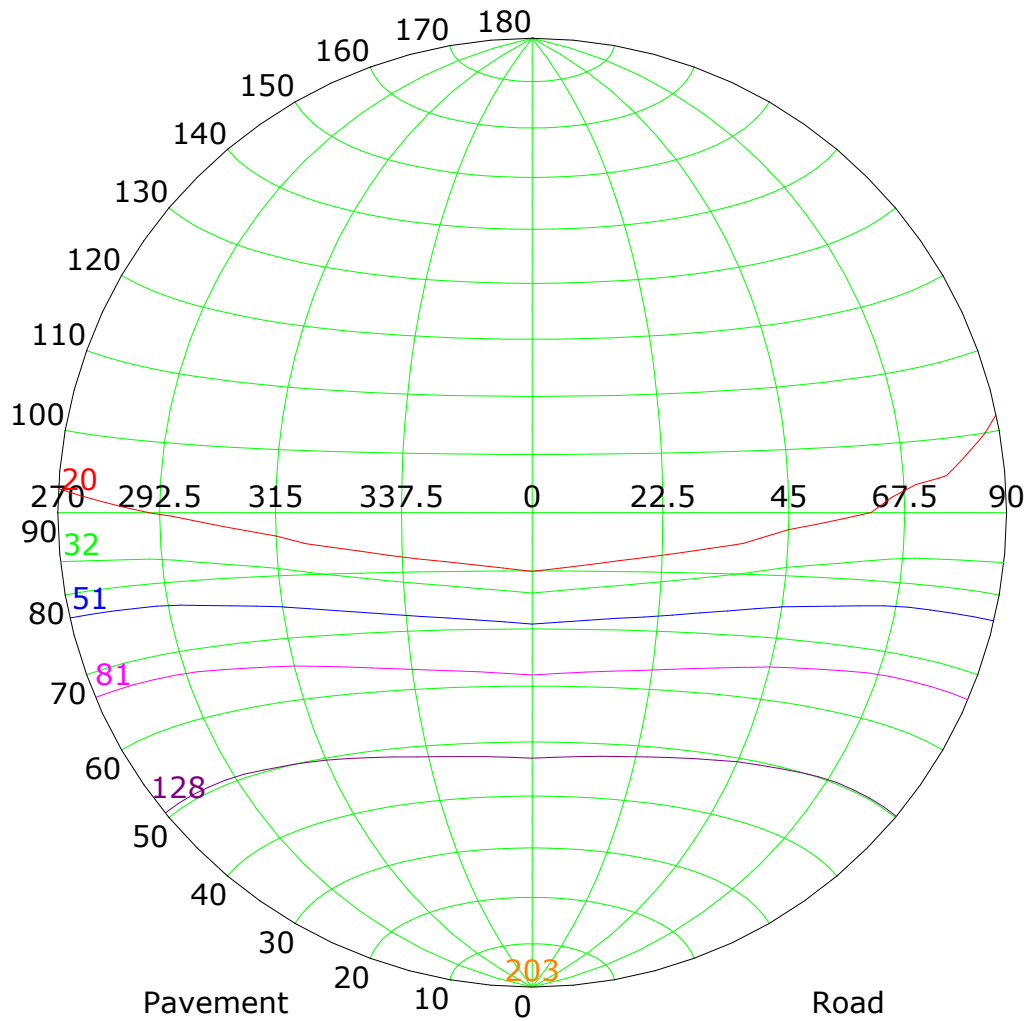
Distance: 7.792 m

Humidity:

Inspector:



Isocandela (sphere)



Imax (100%): 203 cd

— (10%):	20 cd	— (16%):	32 cd
— (25%):	51 cd	— (40%):	81 cd
— (63%):	128 cd	— (100%):	203 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: GPM-1800B

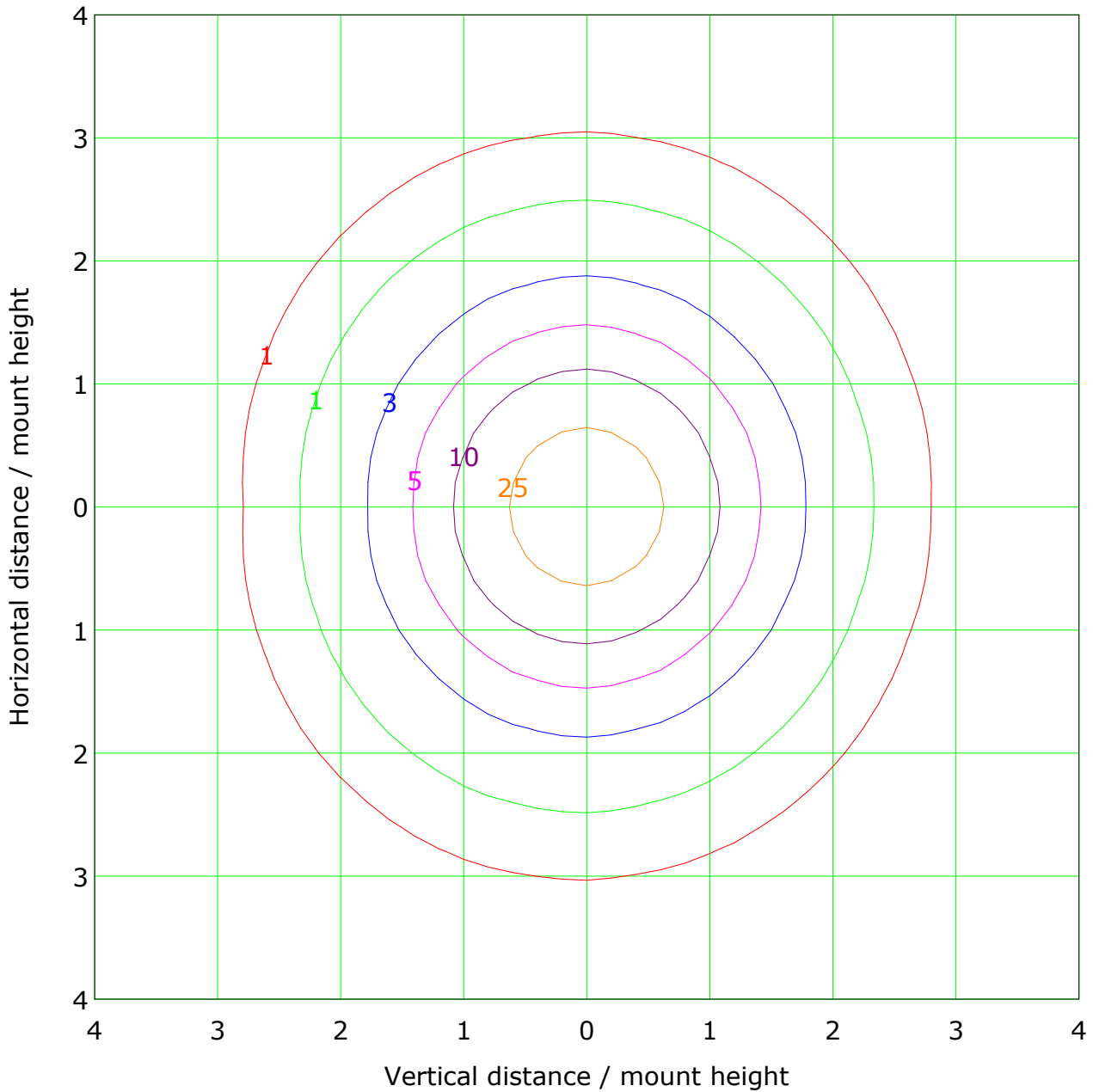
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 50.7 lx
<ul style="list-style-type: none"> — (1%): 0.5 lx — (5%): 2.5 lx — (20%): 10.1 lx — (100%): 50.7 lx 	<ul style="list-style-type: none"> — (2%): 1.0 lx — (10%): 5.1 lx — (50%): 25.4 lx 	

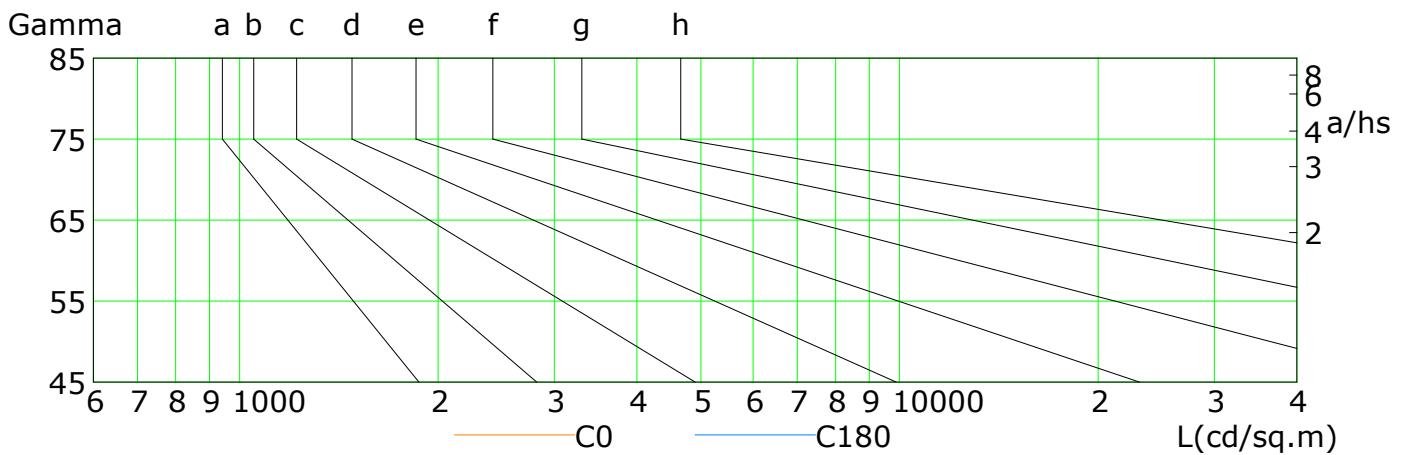
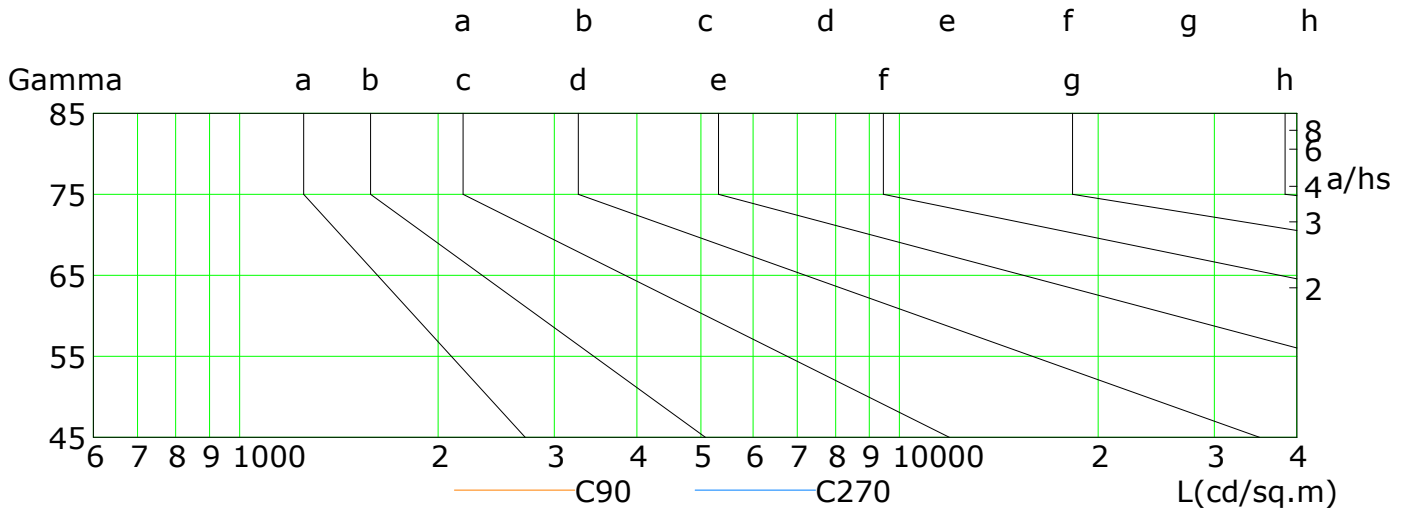
C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: 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



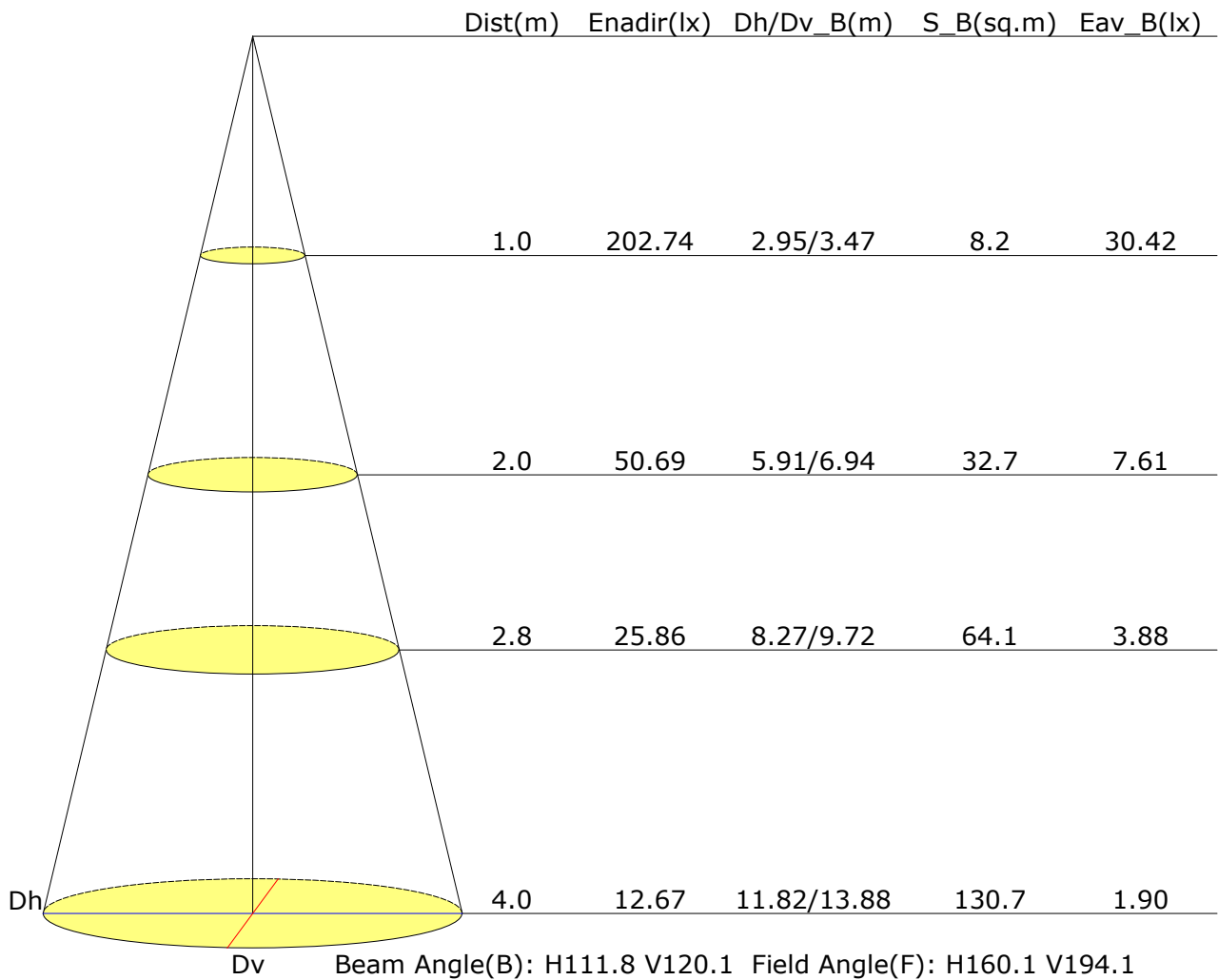
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	134	119	104	88	71	54	36	20	7
C90	141	128	115	101	87	71	56	42	30
C180	134	120	104	89	72	54	37	21	7
C270	142	130	116	102	87	72	57	42	30

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



Illuminance at a Distance

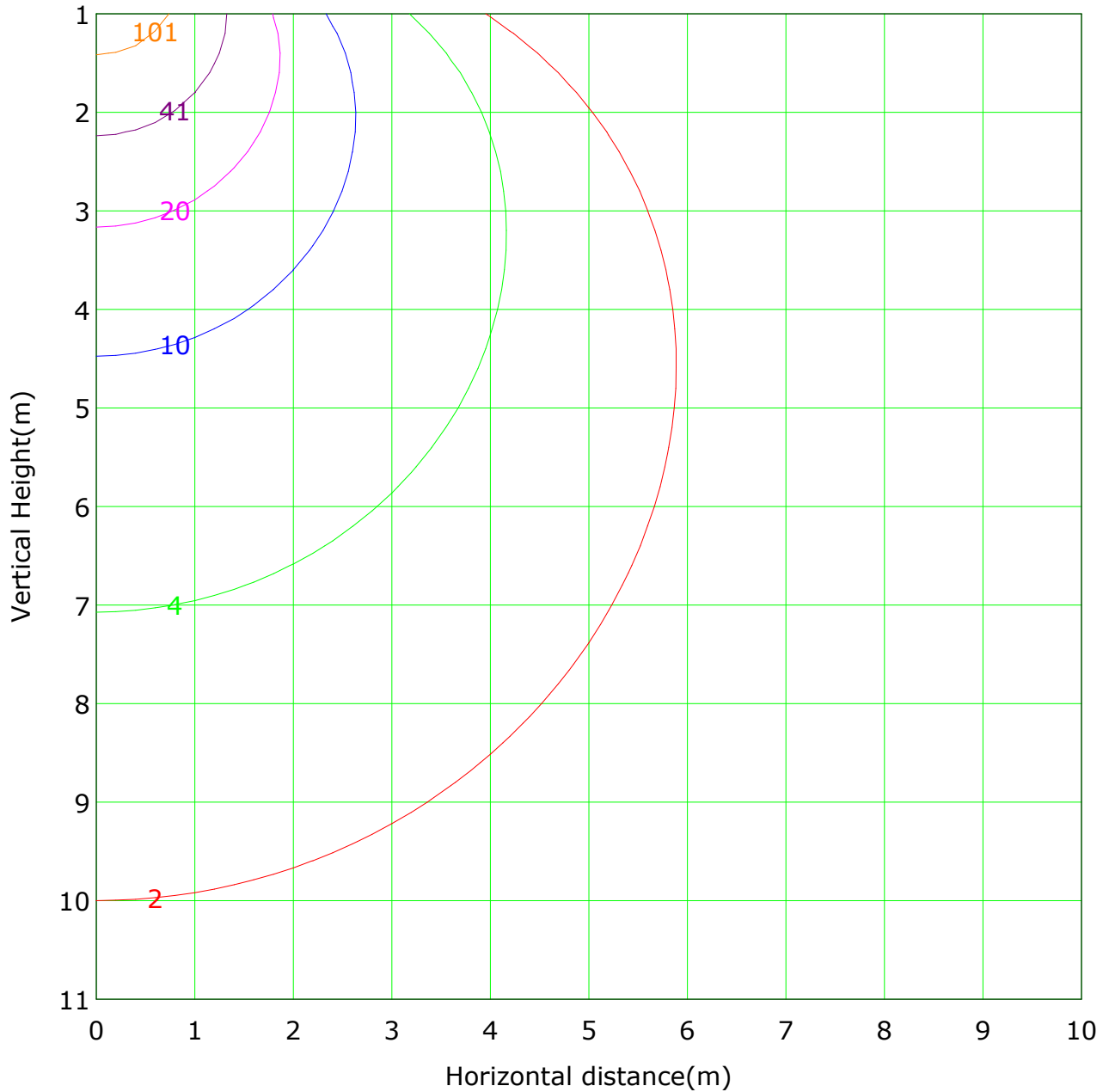


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 202.7 lx
— (1%): 2.0 lx	— (2%): 4.1 lx	
— (5%): 10.1 lx	— (10%): 20.3 lx	
— (20%): 40.5 lx	— (50%): 101.4 lx	
— (100%): 202.7 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: GPM-1800B
 Distance: 7.792 m
 Humidity:
 Inspector:



Report No.:

Test Time: 08/10/2024 09:42

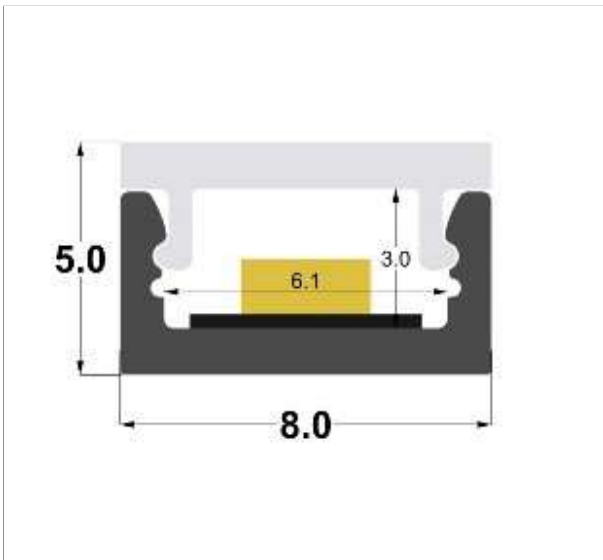
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL13-0222+LLP-02-FS
 Lamp Description: OR40sF521208F2-W5 1m Number of Lamps: 1
 Lumens per Lamp: 936 Voltage: 24.0 V
 Current: 0.369 A Power: 8.84 W
 Power Factor: 1.000

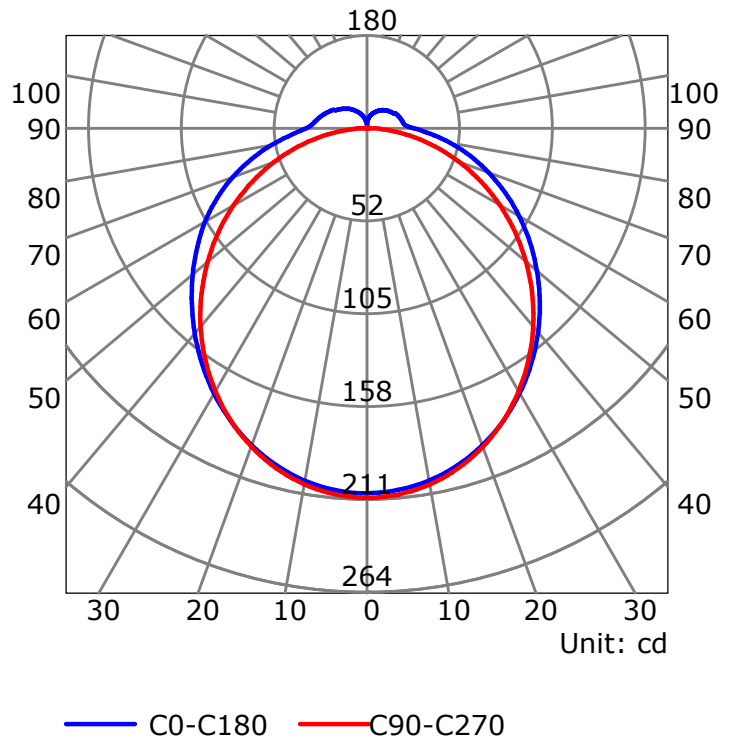
Photometric Results

CIE Class: Semi-Direct	Total Rated Lamp Lumens: 936.0 lm
Measurement Flux: 707.9 lm	Efficiency: 75.63%
Downward Ratio: 67.98%	Upward Ratio: 7.65%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 220.0, 163.0, 180.4, 180.9	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 119.7, 108.7, 114.0, 114.1	
Luminaire Efficacy Rating (LER): 80.13	Central Intensity: 208.19 cd
Max. Intensity: 210.87 cd	Pos of Max. Intensity: H157.5 V1
S/MH(C0/C180): 1.25	S/MH(C90/C270): 1.22

Picture Of Luminaire



Luminous Intensity Distribution Curve

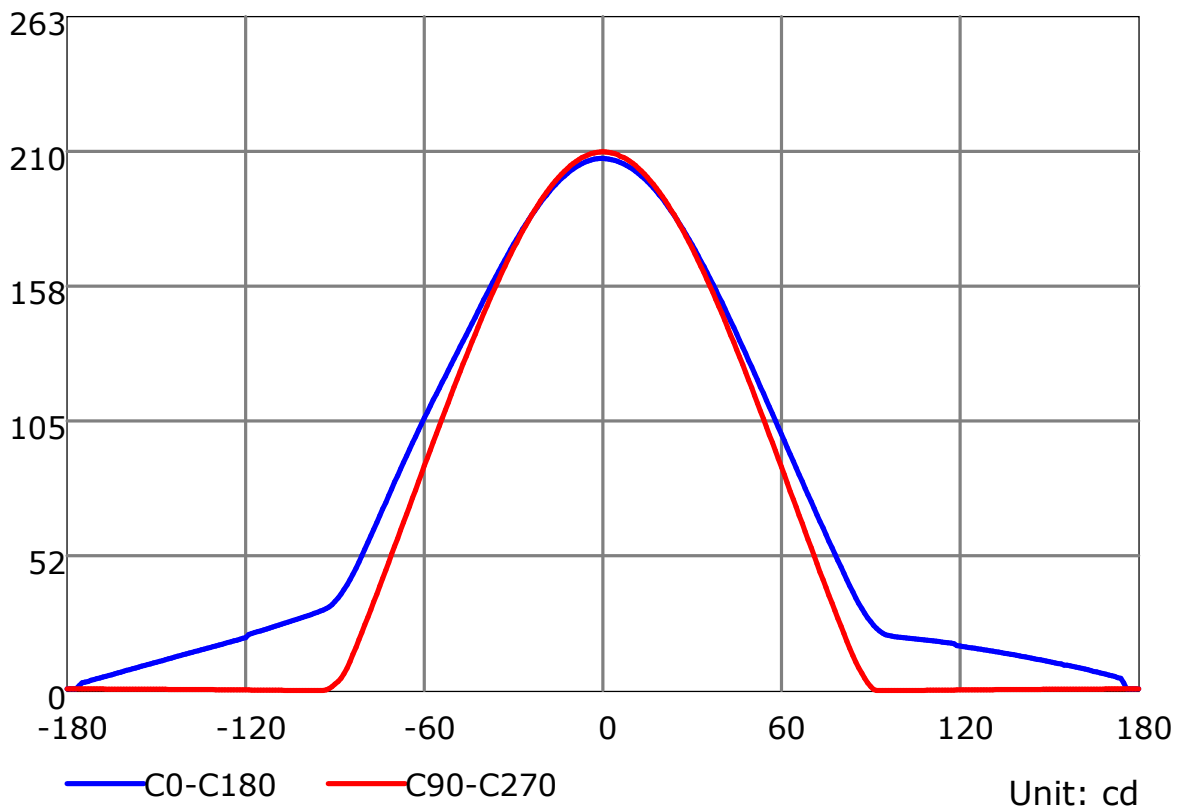
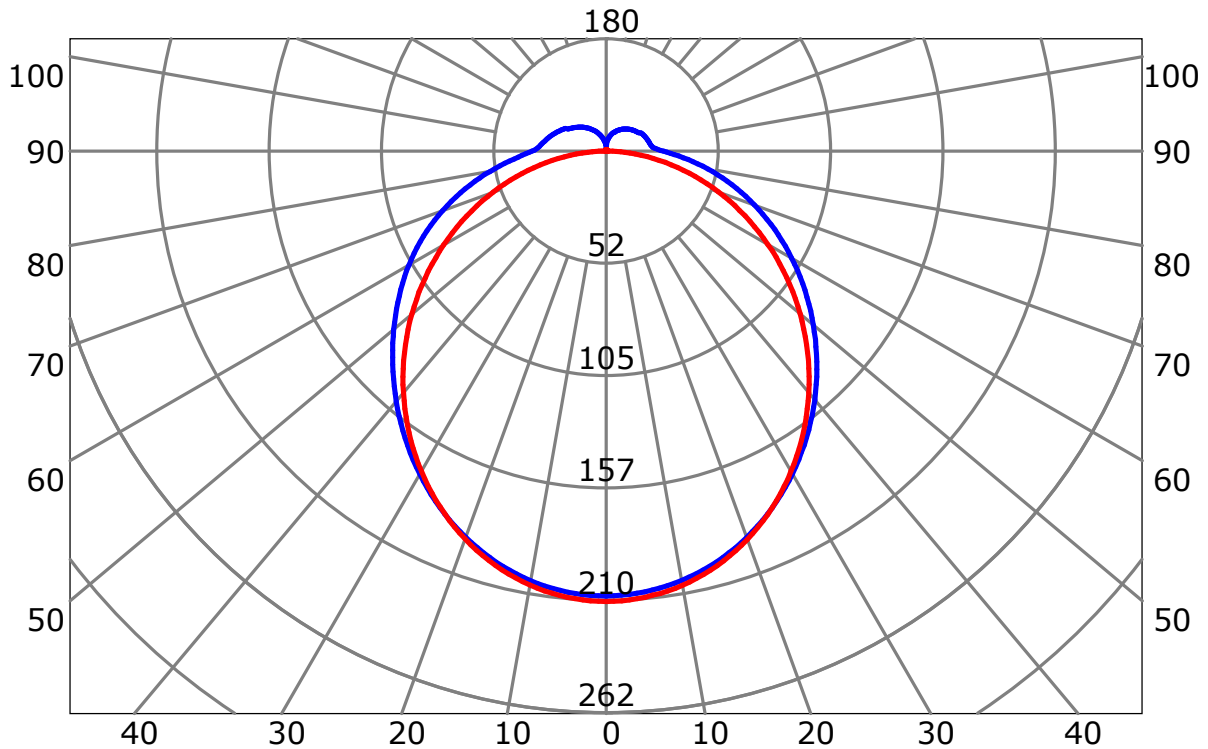


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Luminous Intensity Distribution Curve

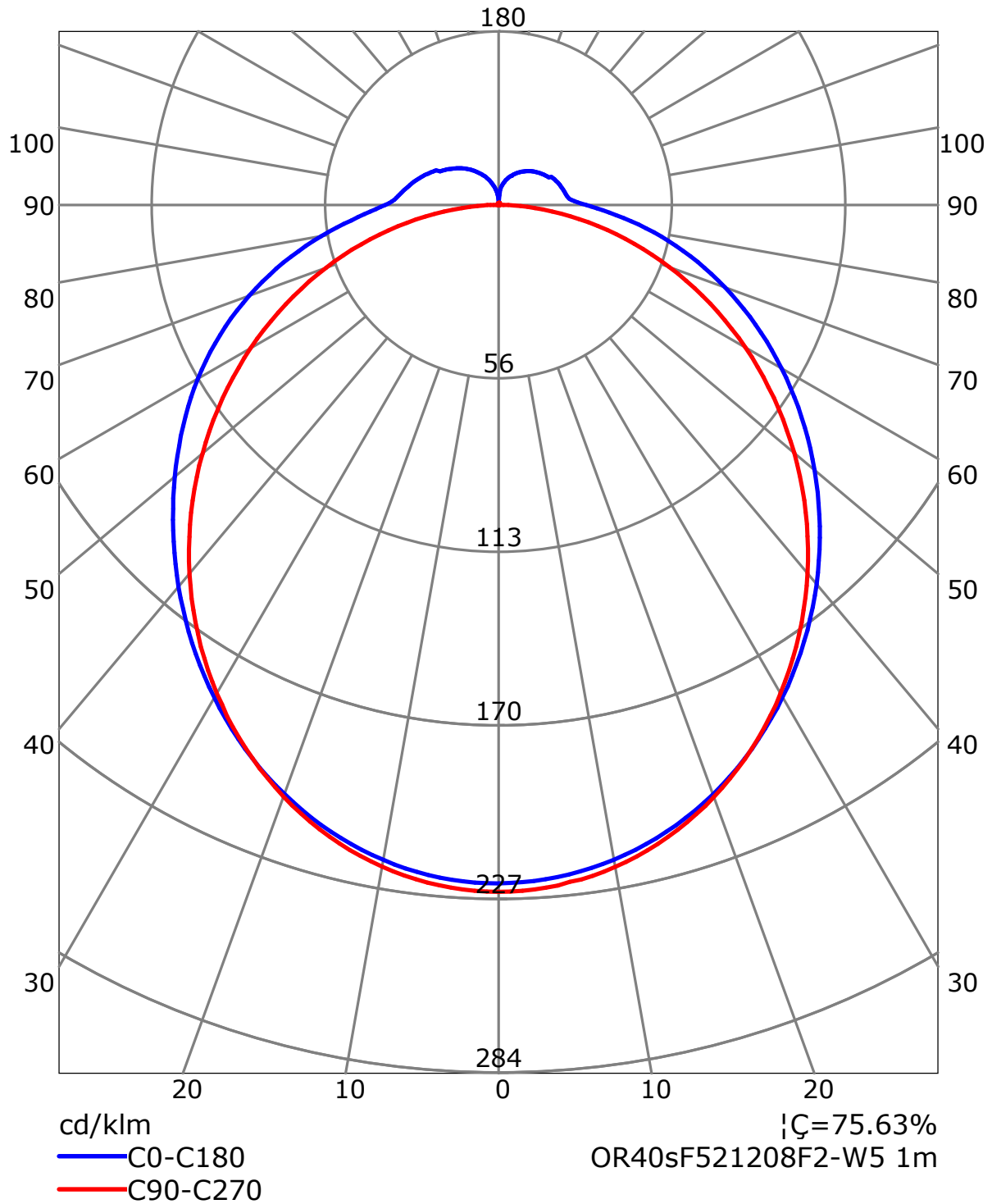


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

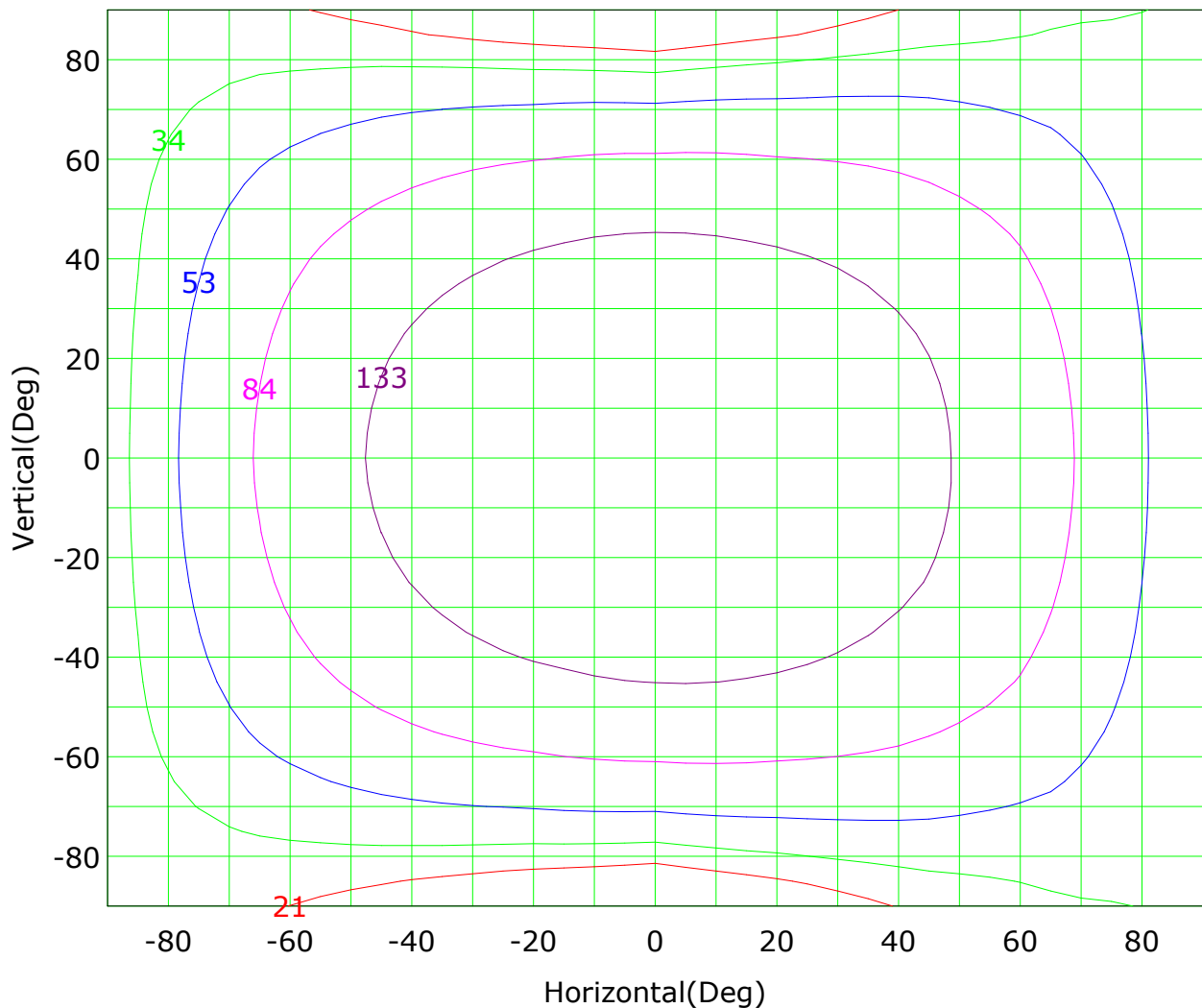


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 211 cd

(10%):	21 cd	(16%):	34 cd
(25%):	53 cd	(40%):	84 cd
(63%):	133 cd	(100%):	211 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: GPM-1800B

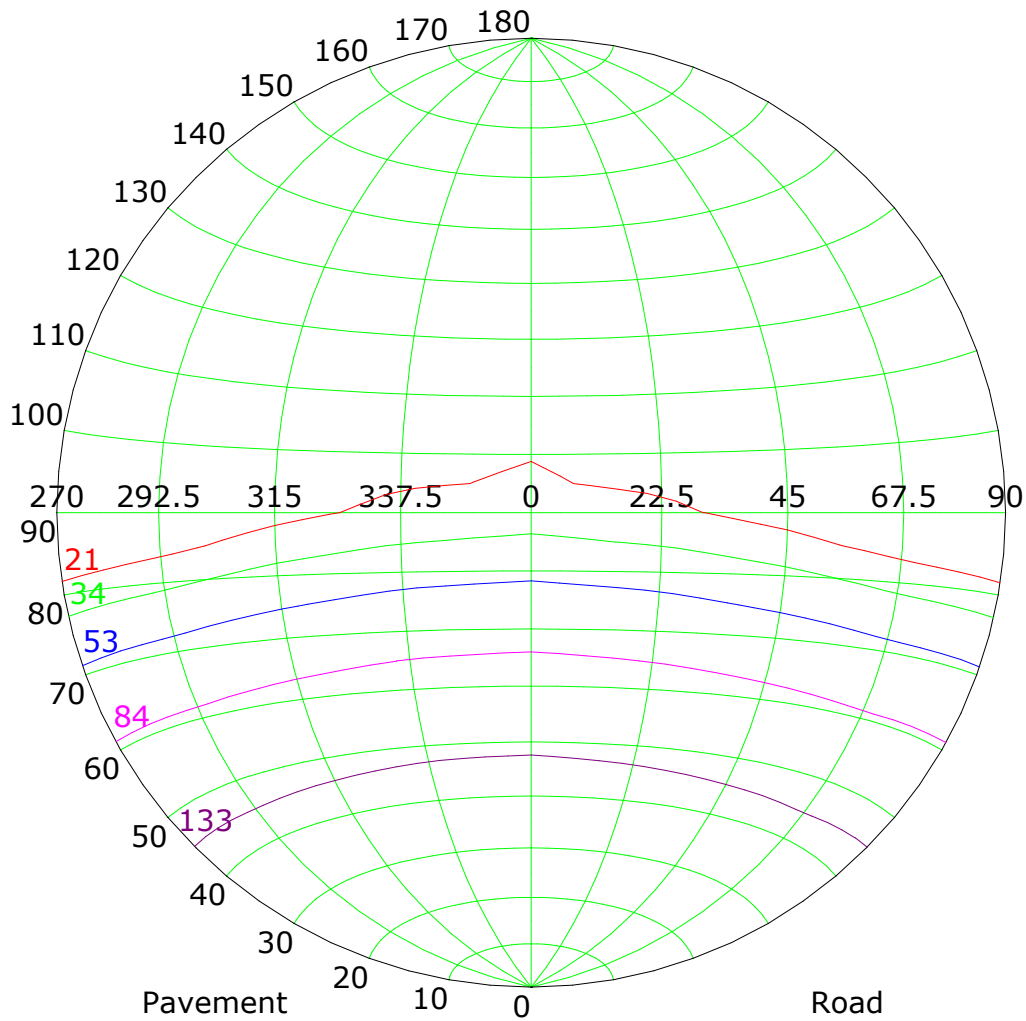
Distance: 7.792 m

Humidity:

Inspector:



Isocandela (sphere)



Imax (100%): 211 cd

— (10%):	21 cd	— (16%):	34 cd
— (25%):	53 cd	— (40%):	84 cd
— (63%):	133 cd	— (100%):	211 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: GPM-1800B

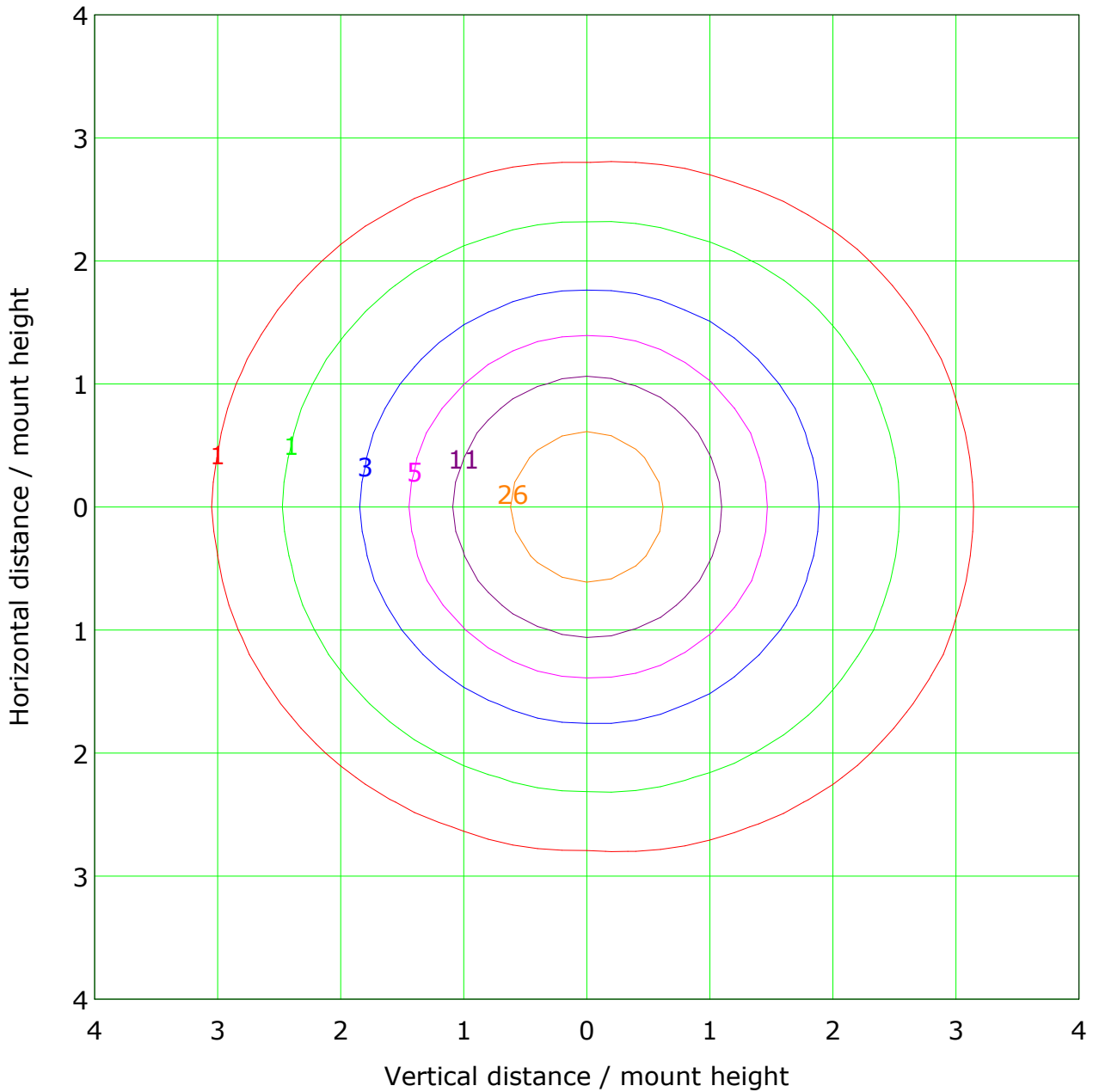
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 52.7 lx
— (1%):	0.5 lx	— (2%): 1.1 lx
— (5%):	2.6 lx	— (10%): 5.3 lx
— (20%):	10.5 lx	— (50%): 26.4 lx
— (100%):	52.7 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: GPM-1800B

Distance: 7.792 m

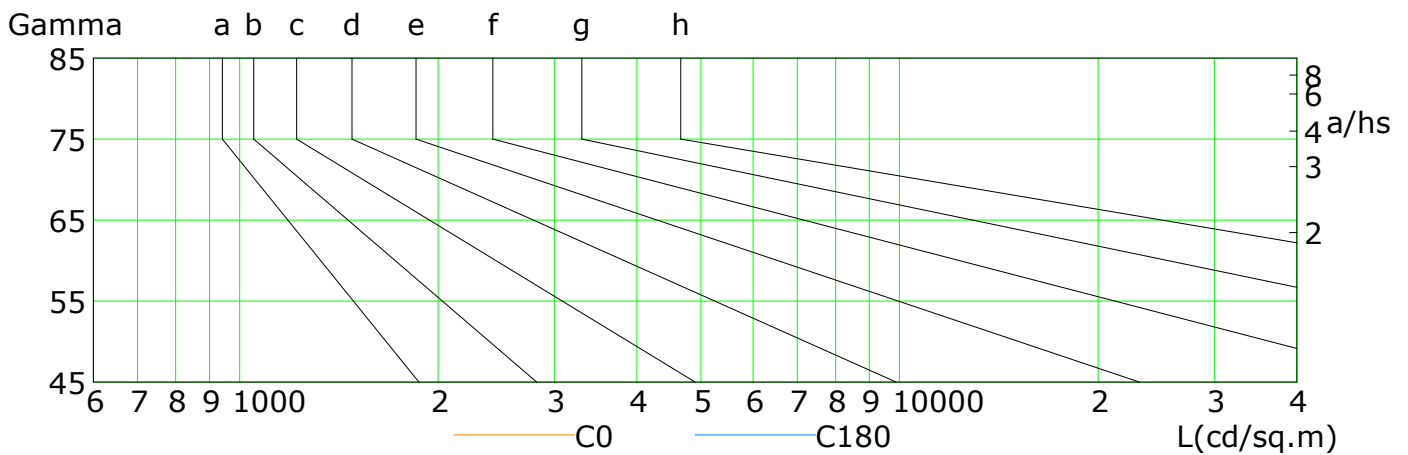
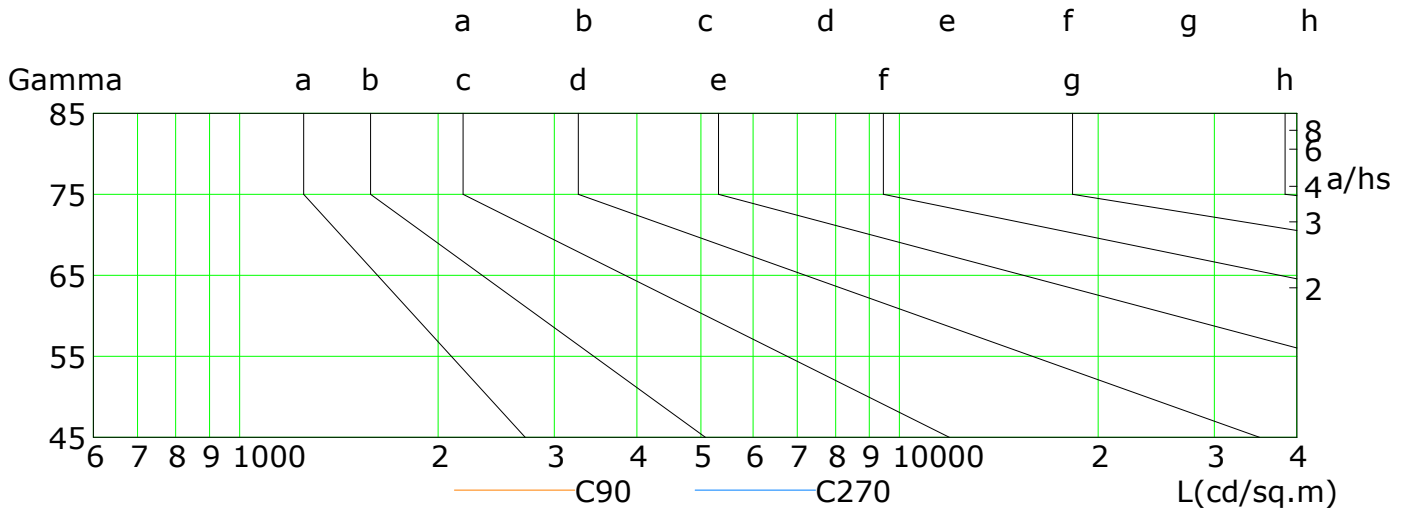
Humidity:

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



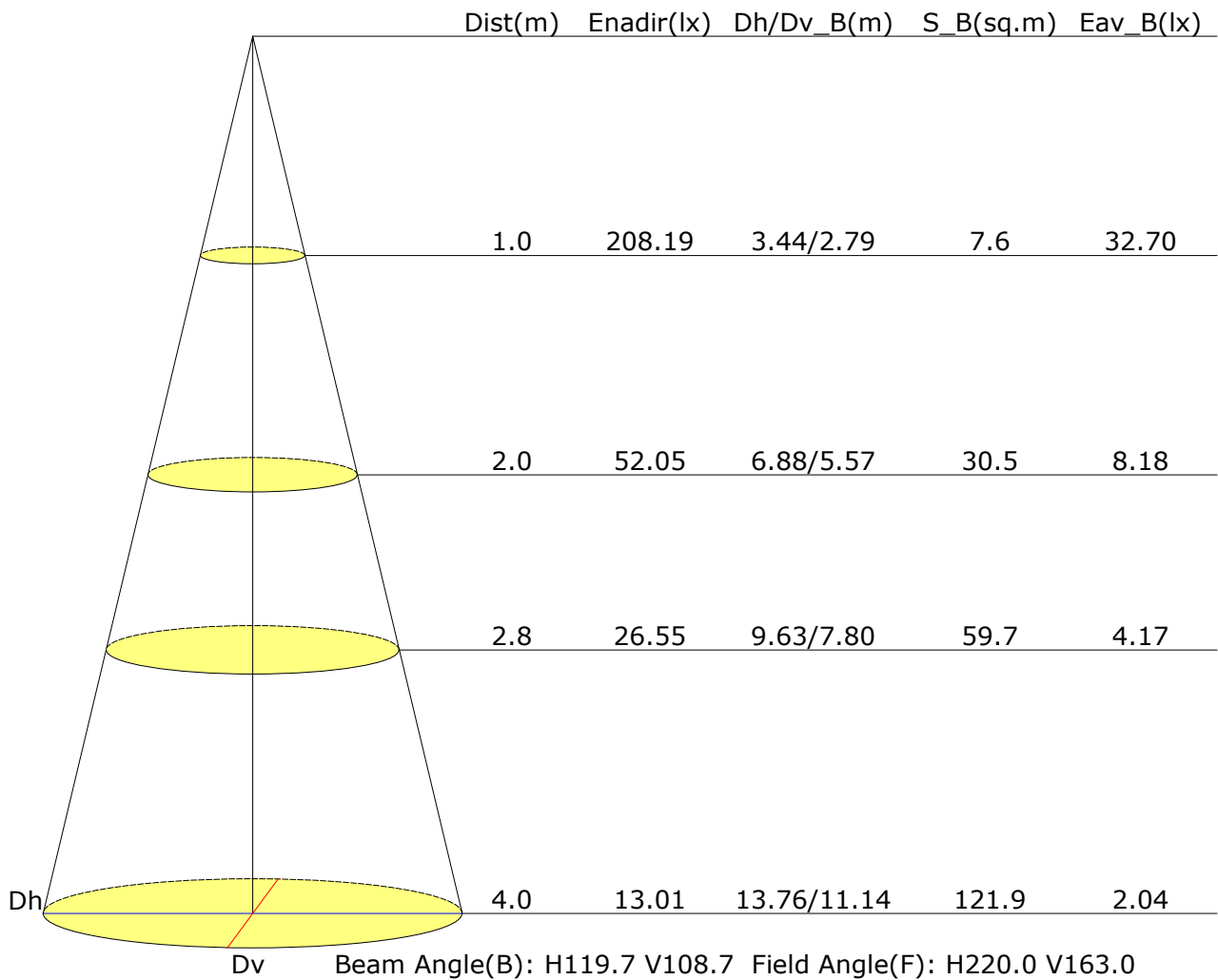
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	140	127	114	100	87	74	61	48	36
C90	133	119	103	87	72	56	40	25	11
C180	141	130	118	107	94	82	68	55	43
C270	134	119	103	88	72	56	41	26	11

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

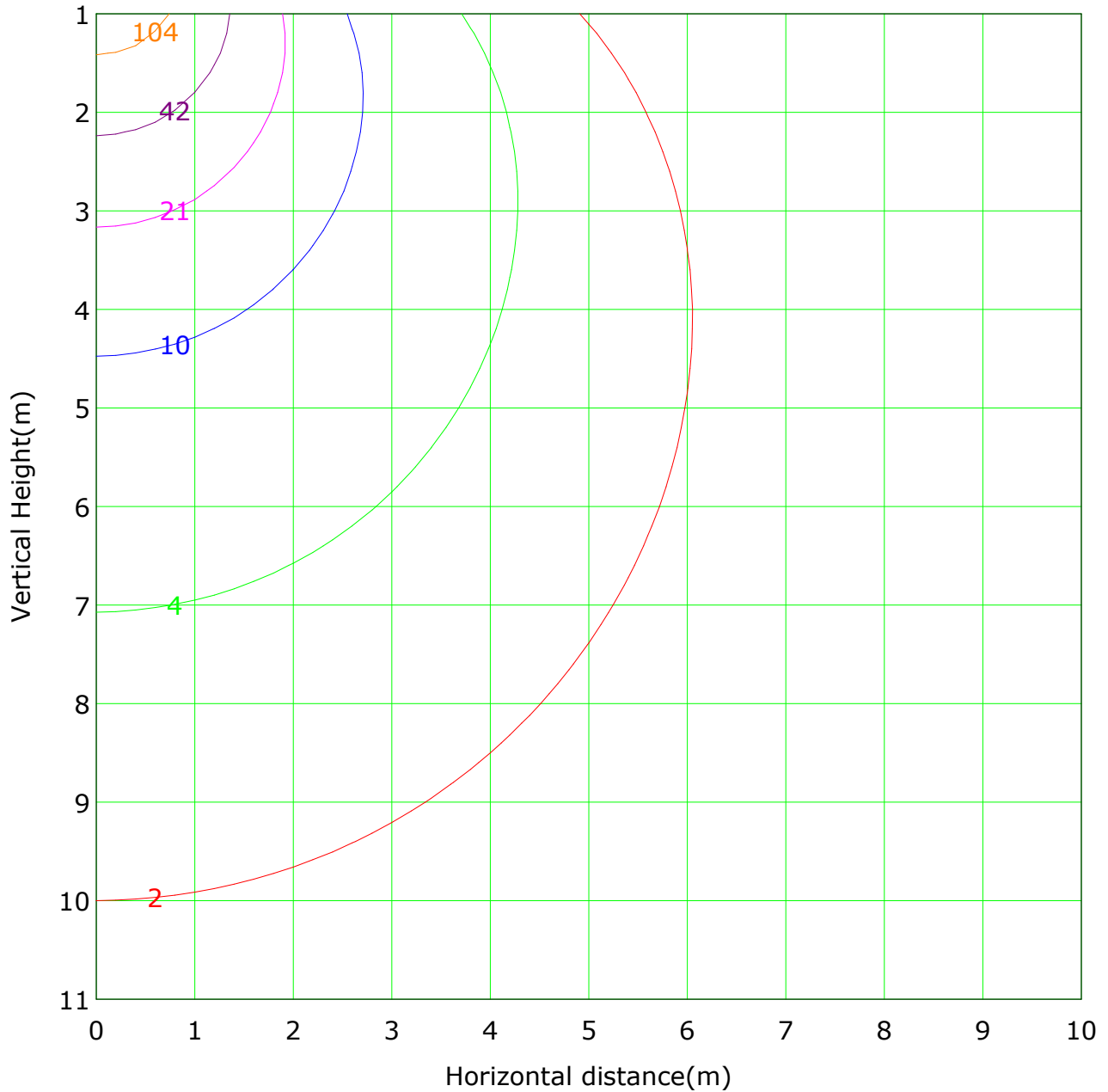


Illuminance at a Distance





Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 208.2 lx
— (1%): 2.1 lx — (2%): 4.2 lx
— (5%): 10.4 lx — (10%): 20.8 lx
— (20%): 41.6 lx — (50%): 104.1 lx
— (100%): 208.2 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: GPM-1800B
Distance: 7.792 m
Humidity:
Inspector:



Report No.:

Test Time: 08/10/2024 10:46

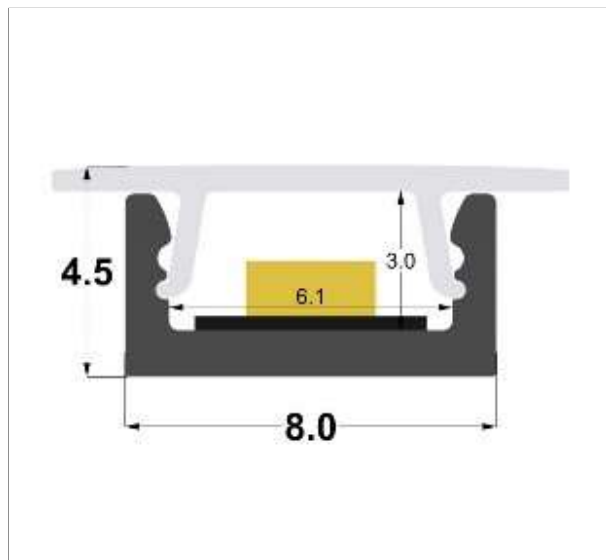
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL13-0222+LLP-22-FM
 Lamp Description: OR40sF521208F2-W5 1m Number of Lamps: 1
 Lumens per Lamp: 936 Voltage: 24.0 V
 Current: 0.370 A Power: 8.88 W
 Power Factor: 1.000

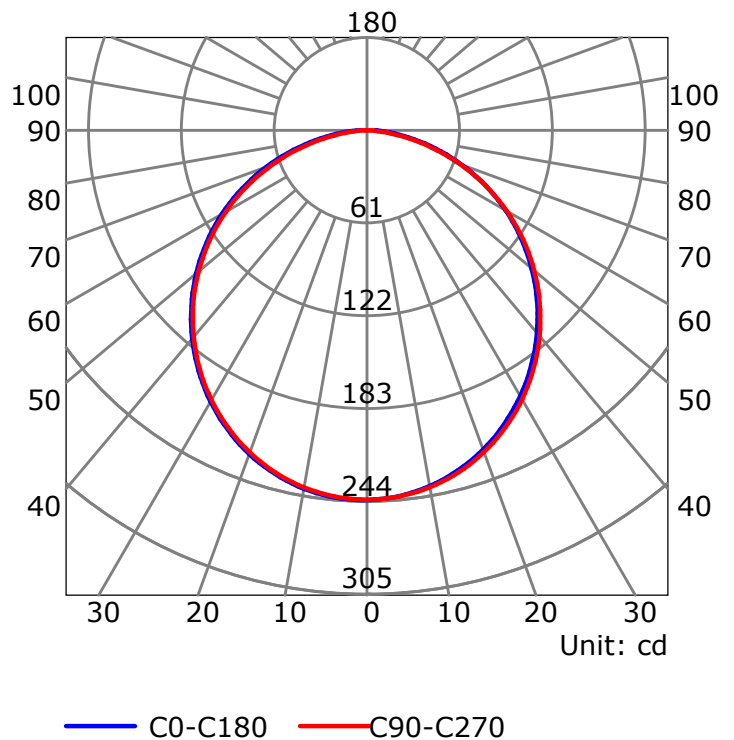
Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 936.0 lm
Measurement Flux: 694.8 lm	Efficiency: 74.23%
Downward Ratio: 74.23%	Upward Ratio: 0.00%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 162.9, 160.2, 161.7, 161.8	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.6, 112.4, 112.5, 112.5	
Luminaire Efficacy Rating (LER): 78.29	Central Intensity: 243.37 cd
Max. Intensity: 243.42 cd	Pos of Max. Intensity: H180 V1
S/MH(C0/C180): 1.25	S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve

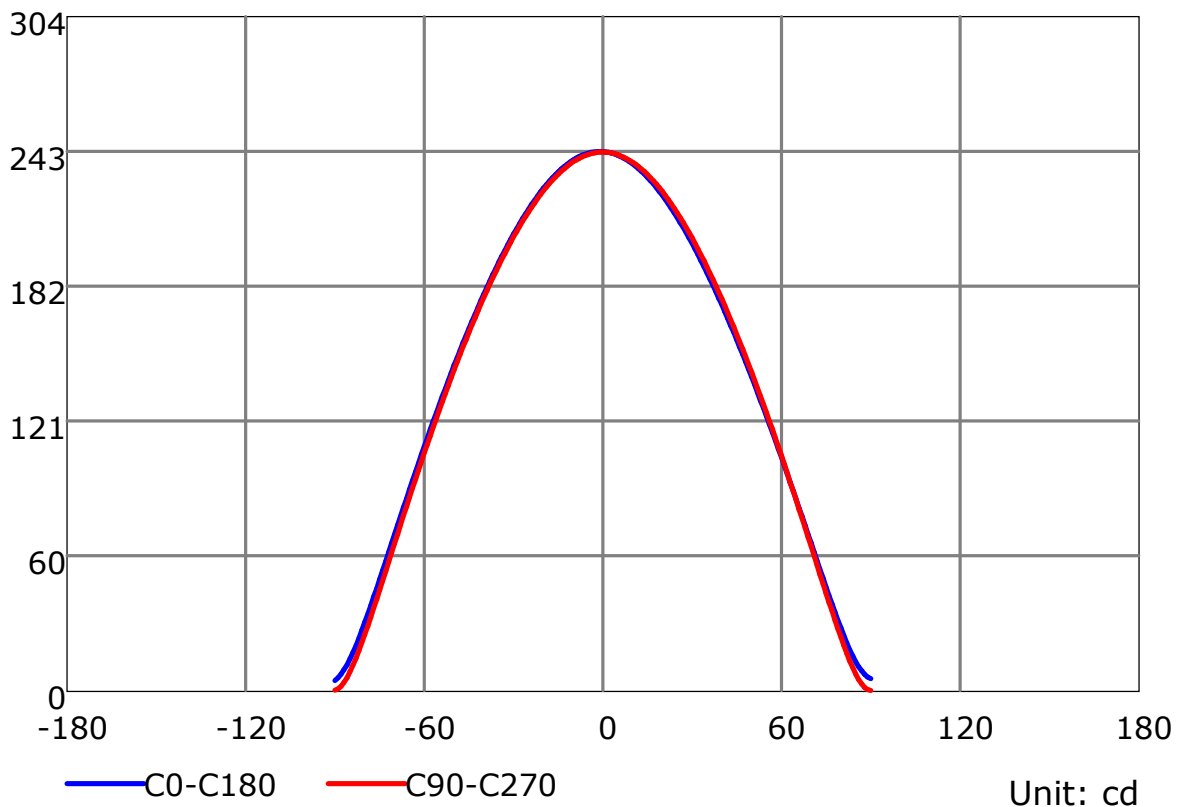
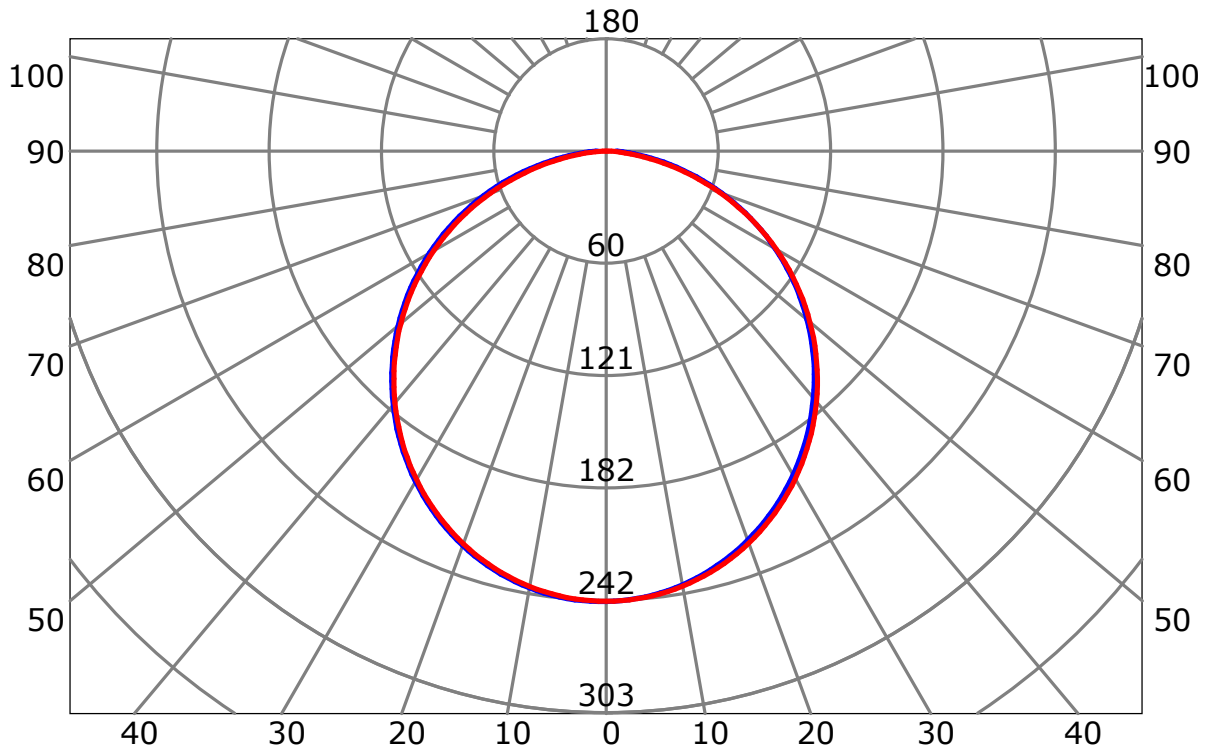


C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Luminous Intensity Distribution Curve

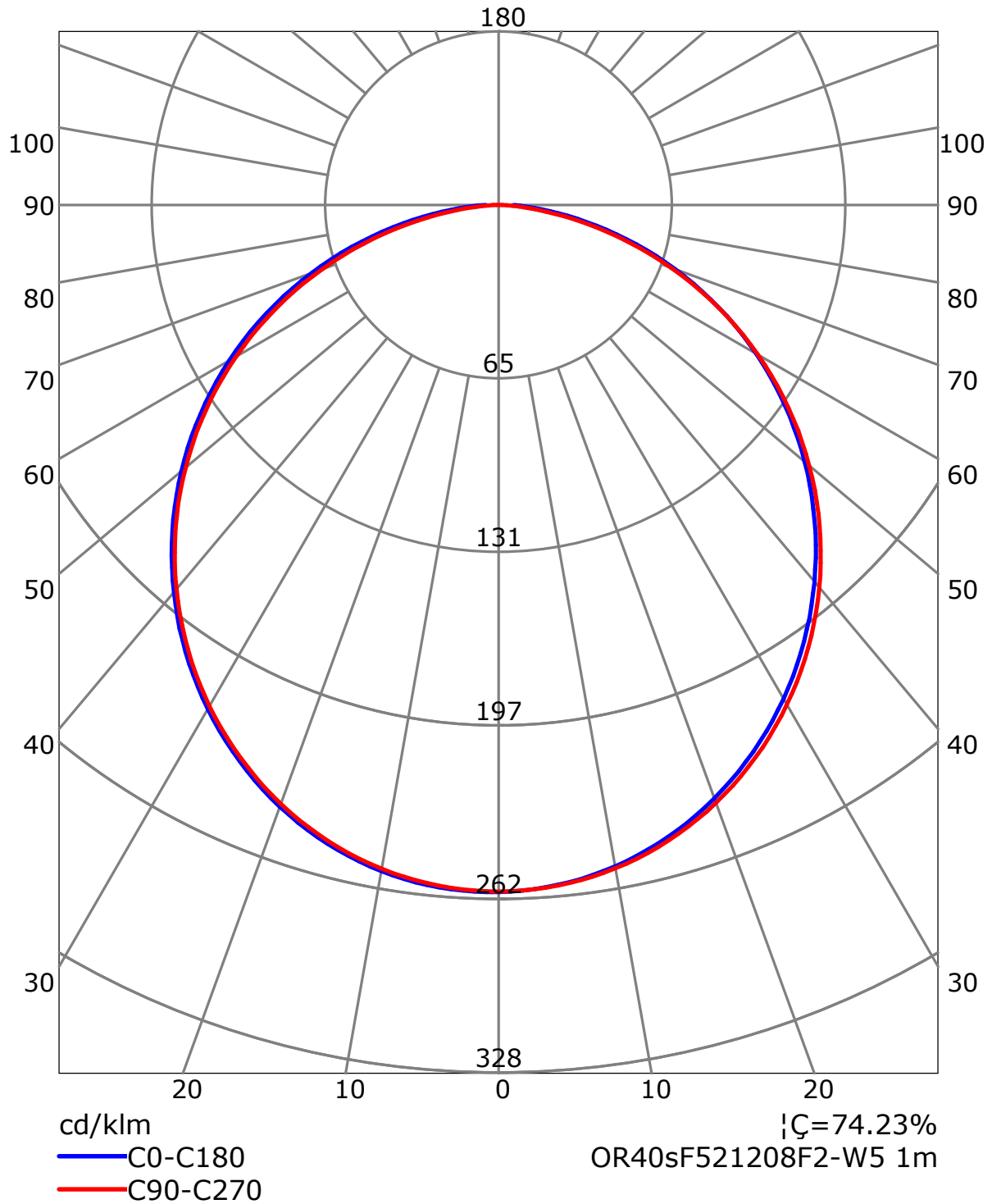


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

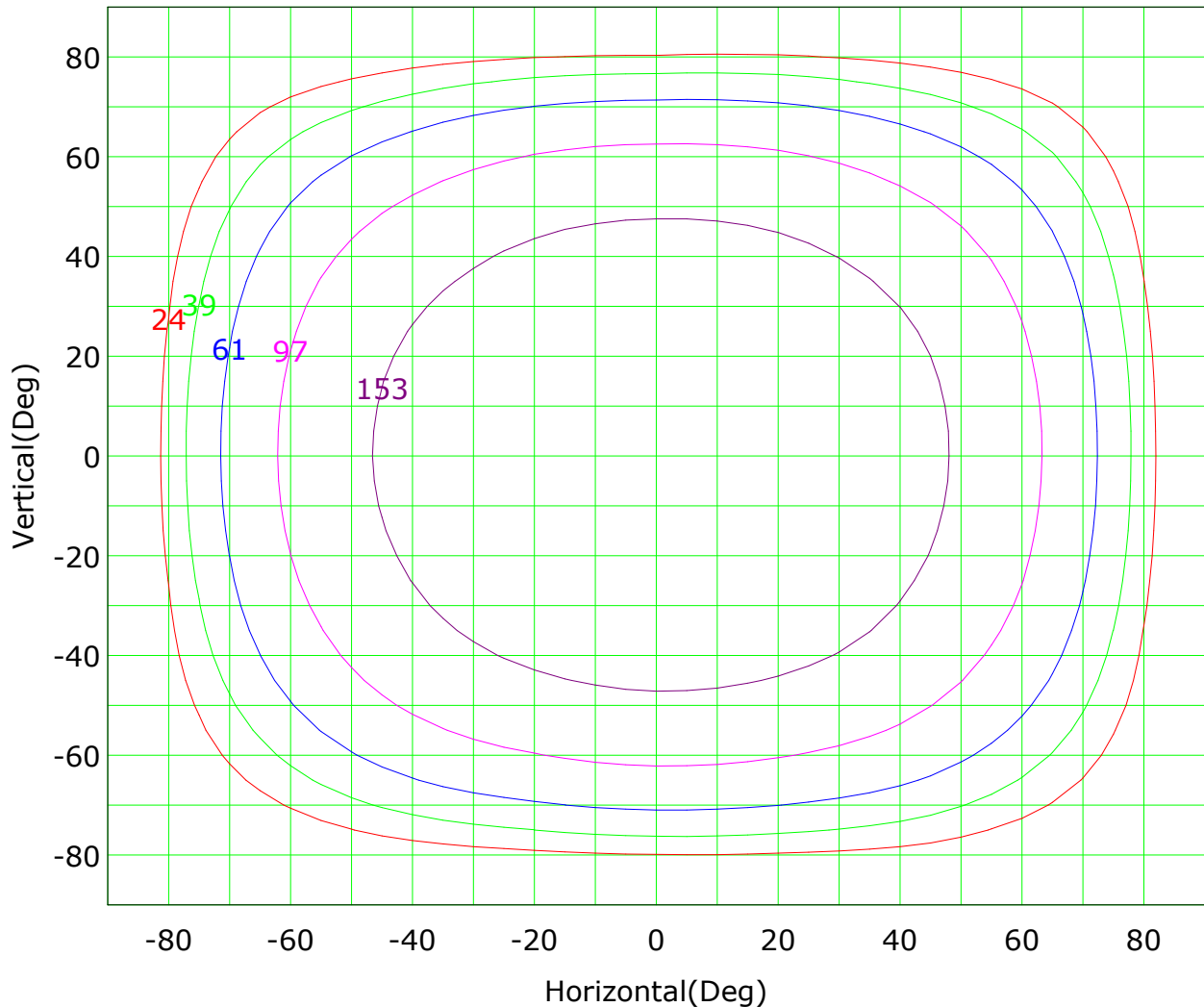


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 243 cd

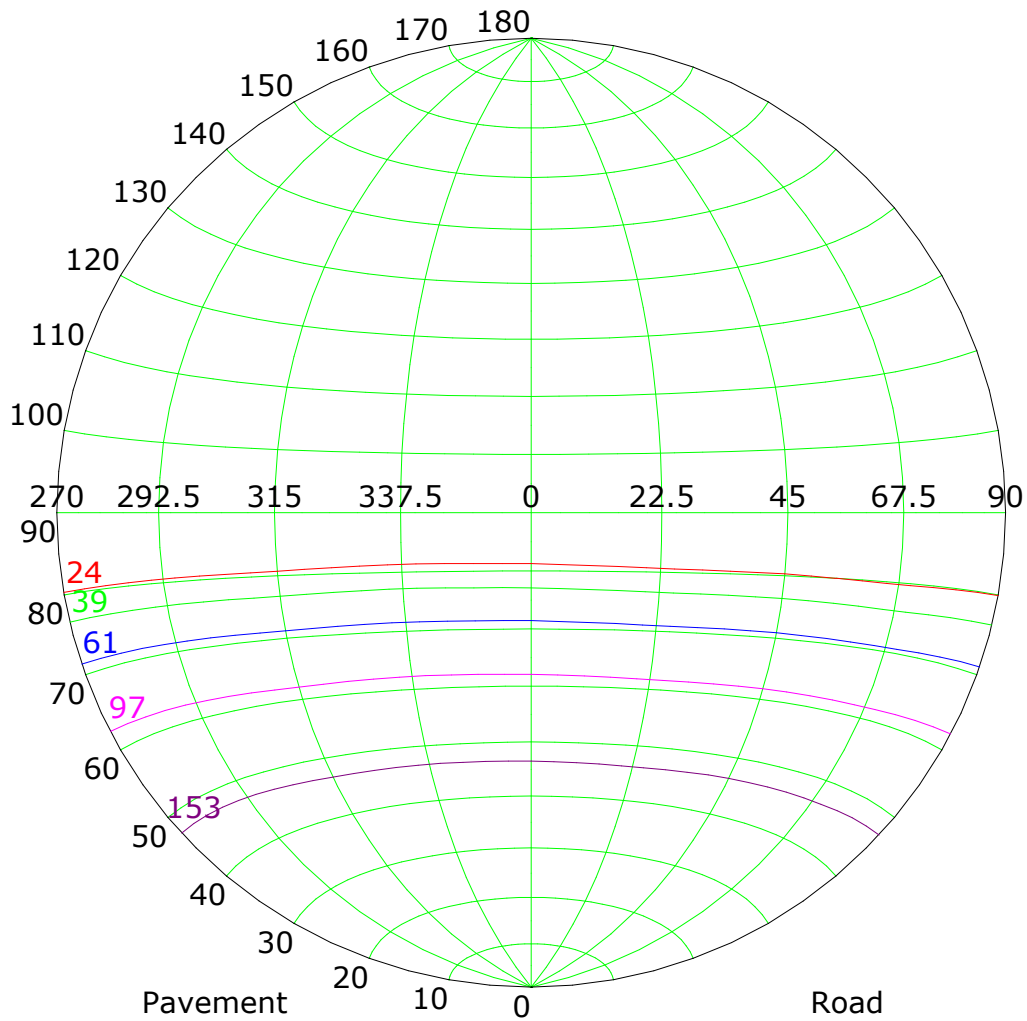
— (10%):	24 cd	— (16%):	39 cd
— (25%):	61 cd	— (40%):	97 cd
— (63%):	153 cd	— (100%):	243 cd

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%): 243 cd

— (10%):	24 cd	— (16%):	39 cd
— (25%):	61 cd	— (40%):	97 cd
— (63%):	153 cd	— (100%):	243 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

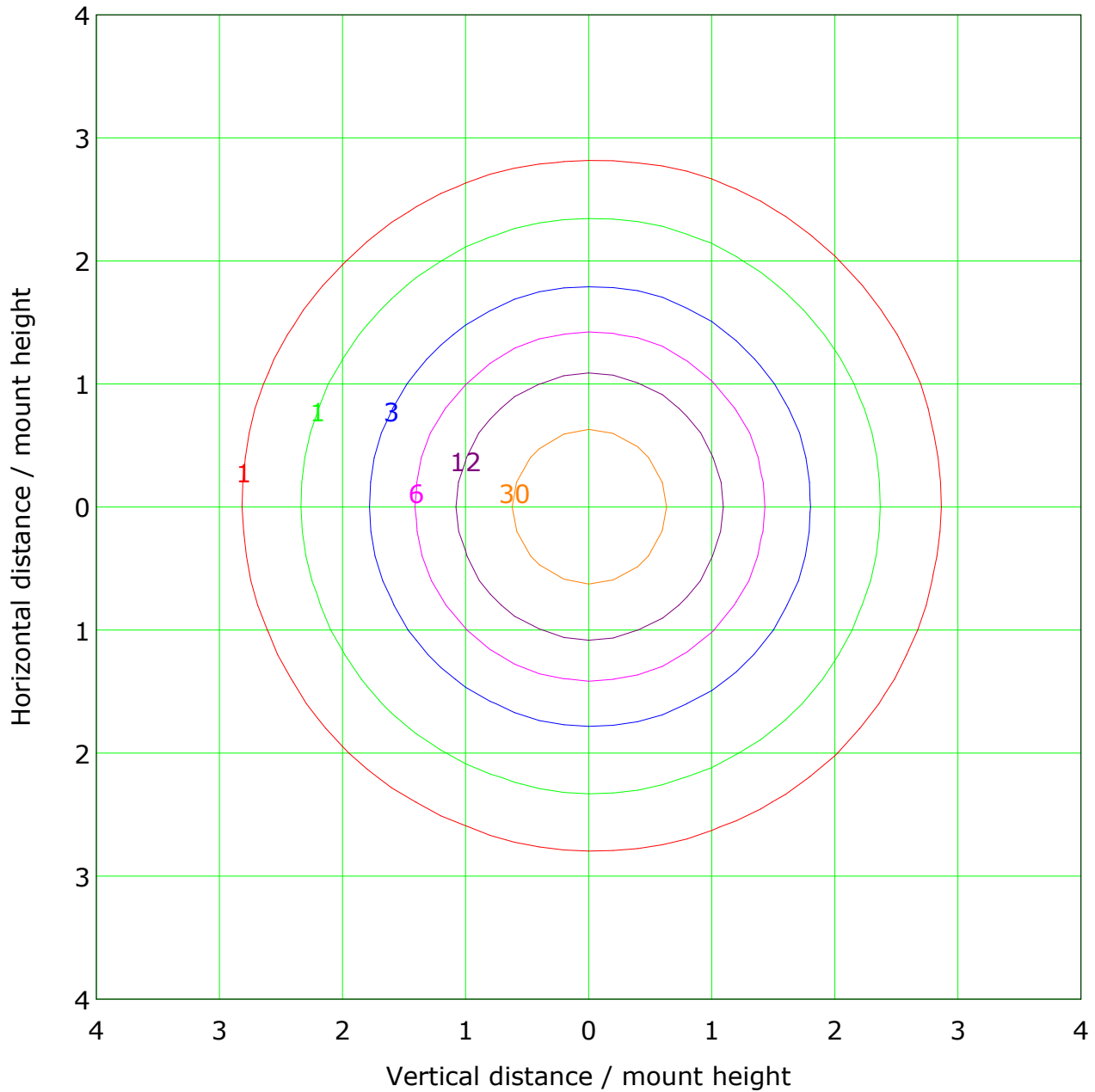
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



Mounting Height: 2.0m		Max Lux(100%): 60.8 lx
— (1%):	0.6 lx	— (2%): 1.2 lx
— (5%):	3.0 lx	— (10%): 6.1 lx
— (20%):	12.2 lx	— (50%): 30.4 lx
— (100%):	60.8 lx	

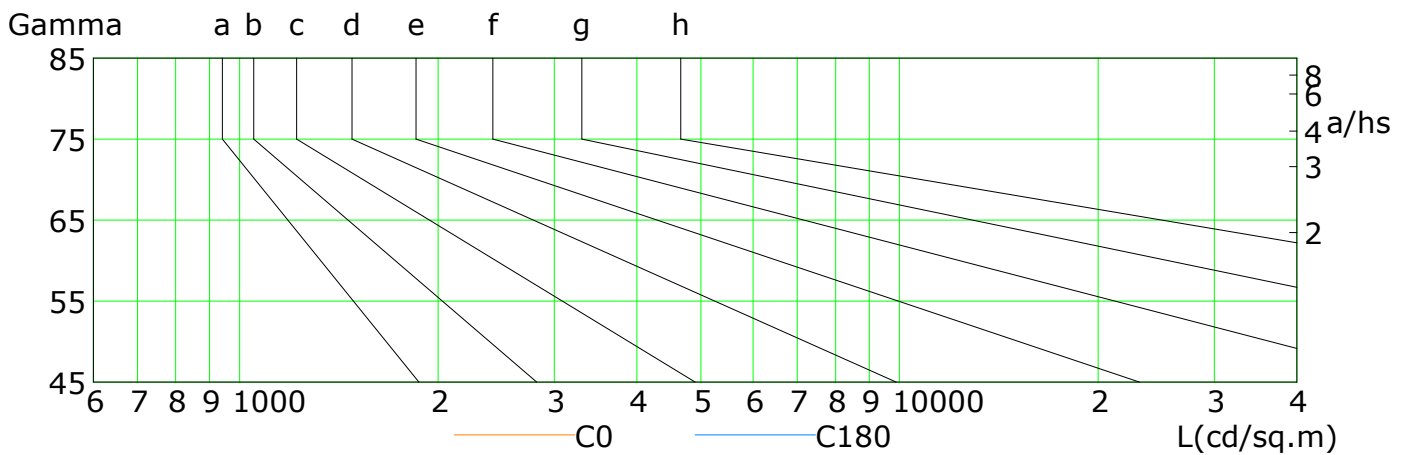
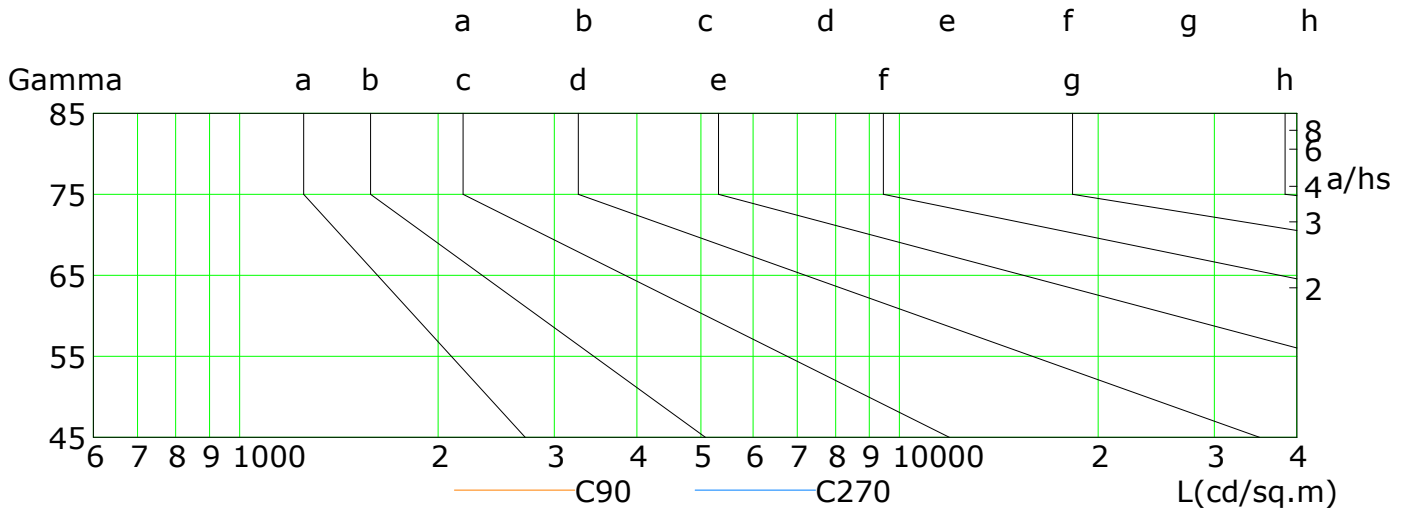
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



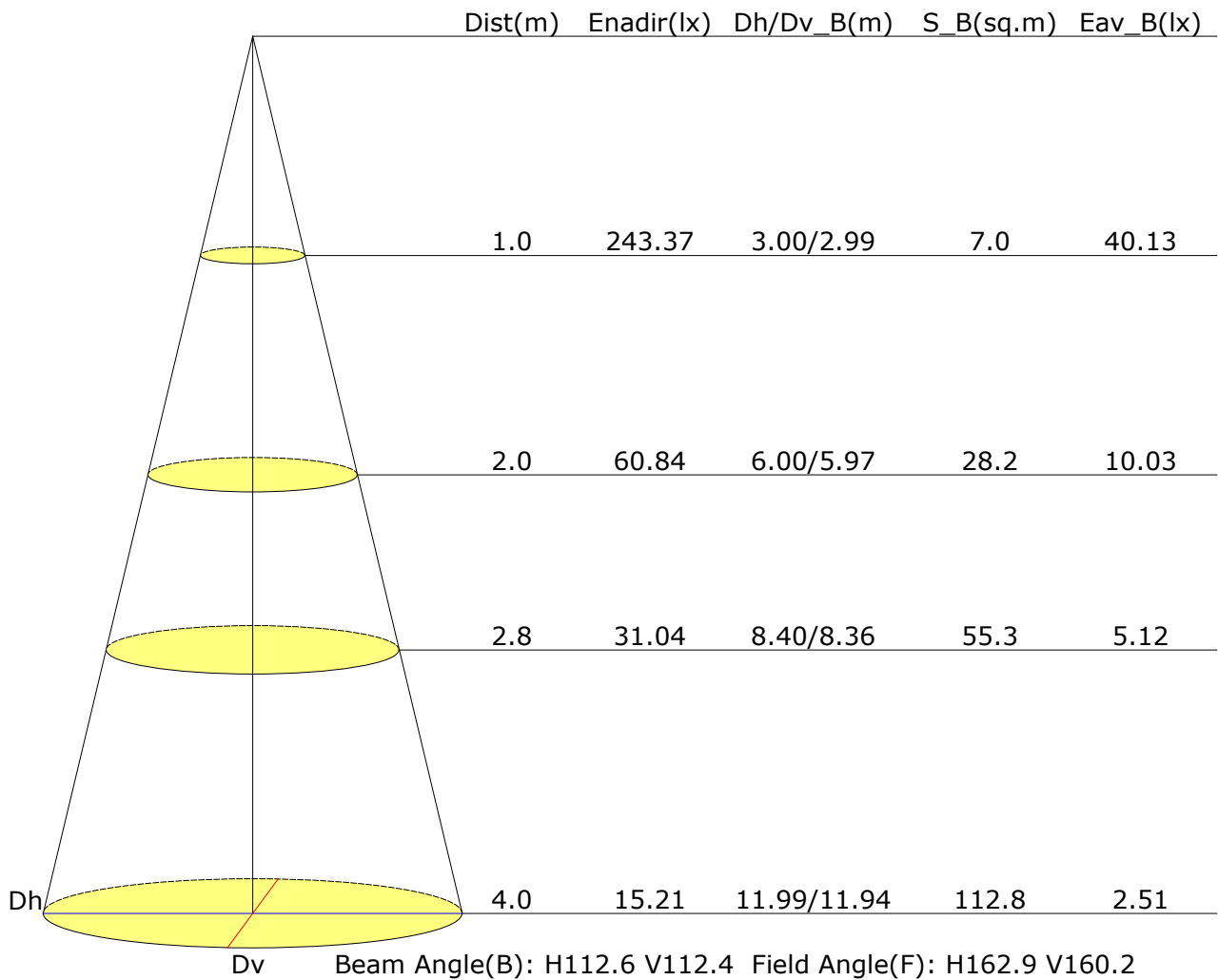
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	158	142	124	105	86	67	47	28	13
C90	161	144	126	106	86	65	44	24	7
C180	164	147	129	110	91	71	50	31	14
C270	162	145	127	107	87	66	46	25	9

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:

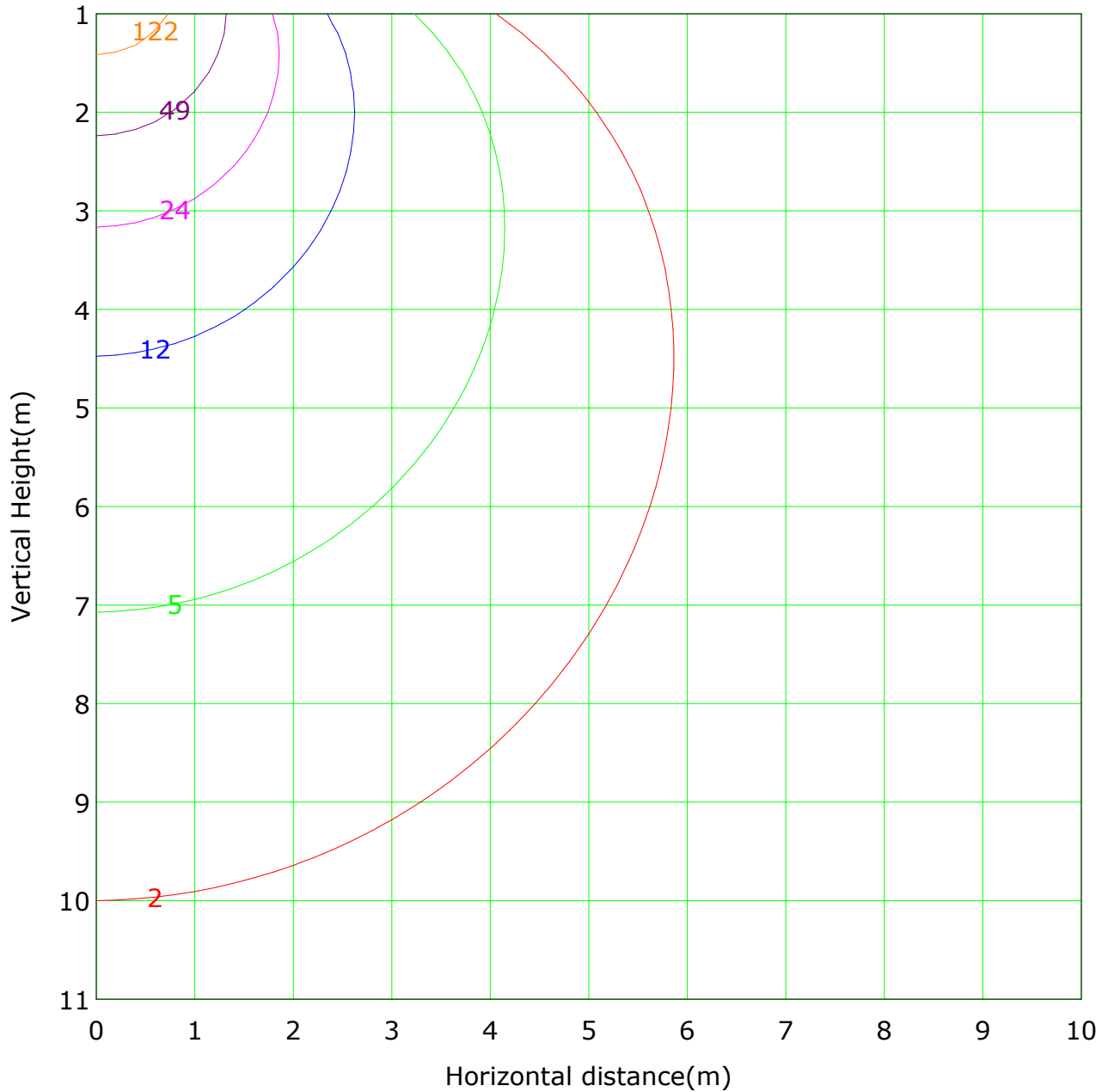


Illuminance at a Distance





Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 243.4 lx
— (1%): 2.4 lx	— (2%): 4.9 lx	
— (5%): 12.2 lx	— (10%): 24.3 lx	
— (20%): 48.7 lx	— (50%): 121.7 lx	
— (100%): 243.4 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: