



Report No.:

Test Time: 16/09/2019 10:09

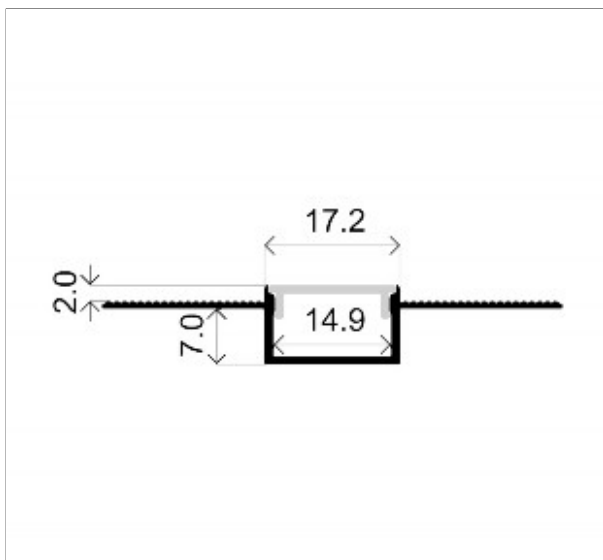
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-DW08-03 + LLD-03-FK
 Lamp Description: Strip 14,4W/m 60led/m Number of Lamps: 1
 Lumens per Lamp: 1264 lm Voltage: 24.0 V
 Current: 0.594 A Power: 14.25 W
 Power Factor: 1.000

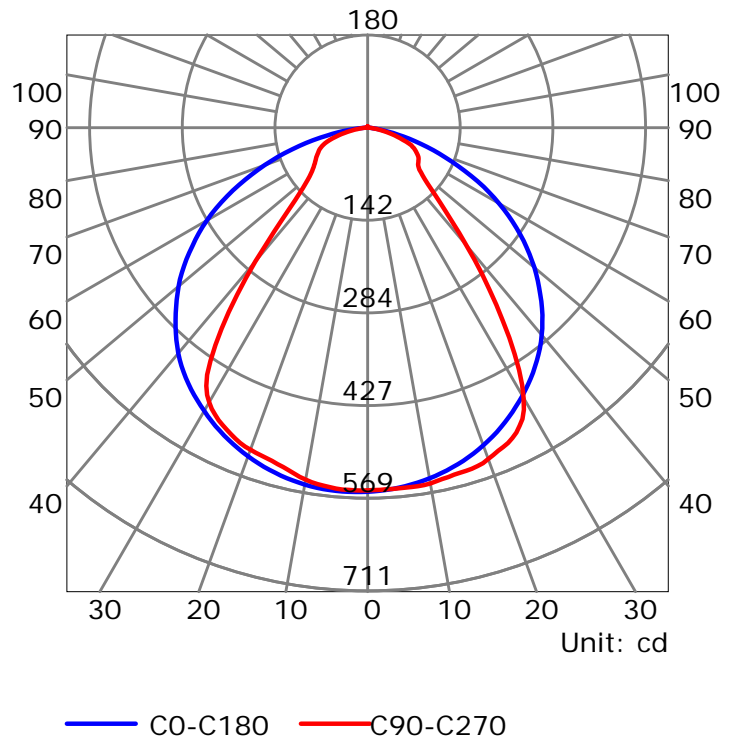
Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1264.0 lm
Measurement Flux: 1263.6 lm	Efficiency: 99.96%
Downward Ratio: 99.69%	Upward Ratio: 0.27%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 155.9, 144.5, 139.7, 139.8	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 116.1, 77.9, 92.8, 93.0	
Luminaire Efficacy Rating (LER): 88.72	Central Intensity: 559.45 cd
Max. Intensity: 560.4 cd	Pos of Max. Intensity: H180 V4
S/MH(C0/C180): 1.30	S/MH(C90/C270): 1.24

Picture Of Luminaire



Luminous Intensity Distribution Curve

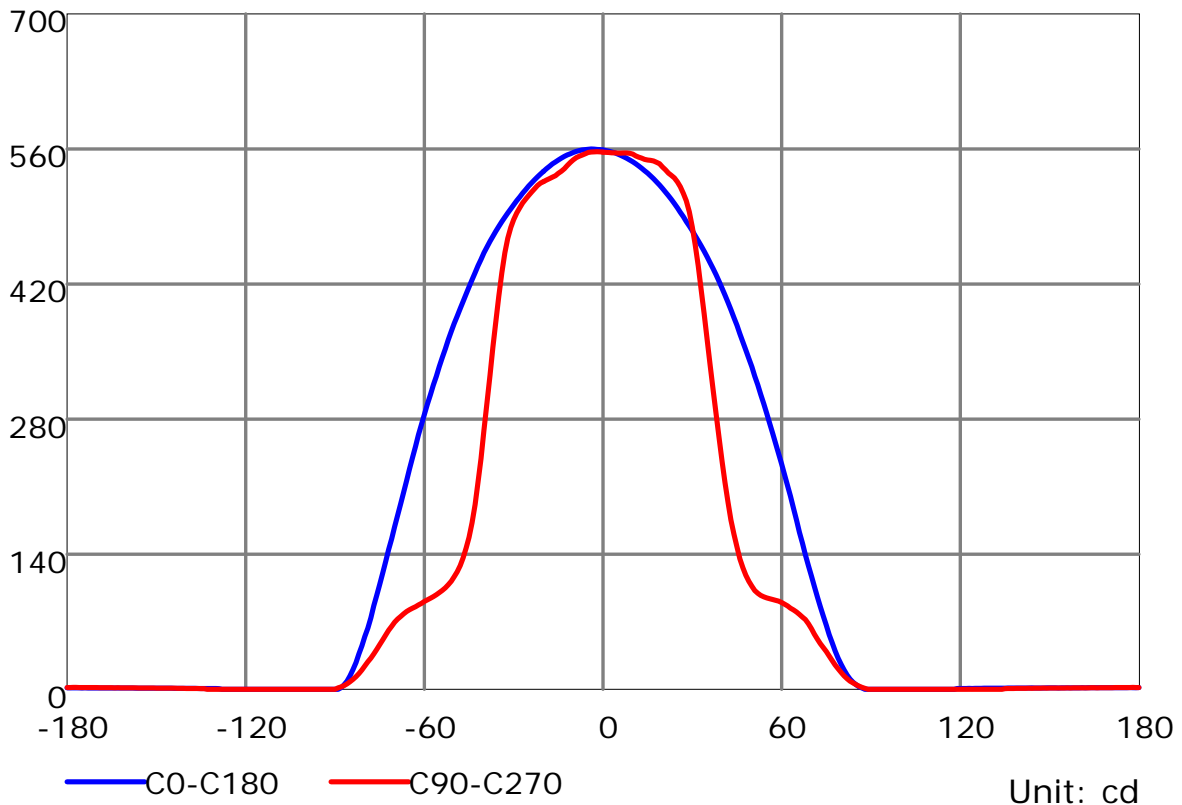
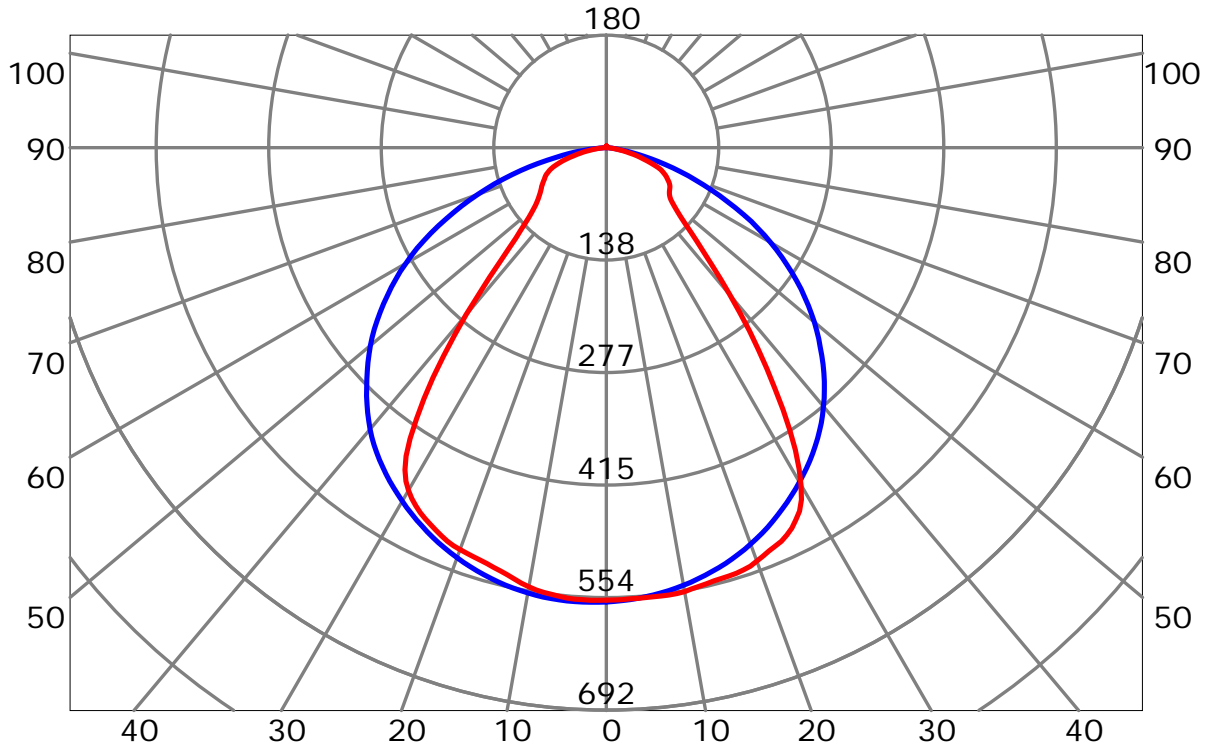


C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-2000
 Distance: 7.970 m
 Humidity:
 Inspector:



Luminous Intensity Distribution Curve

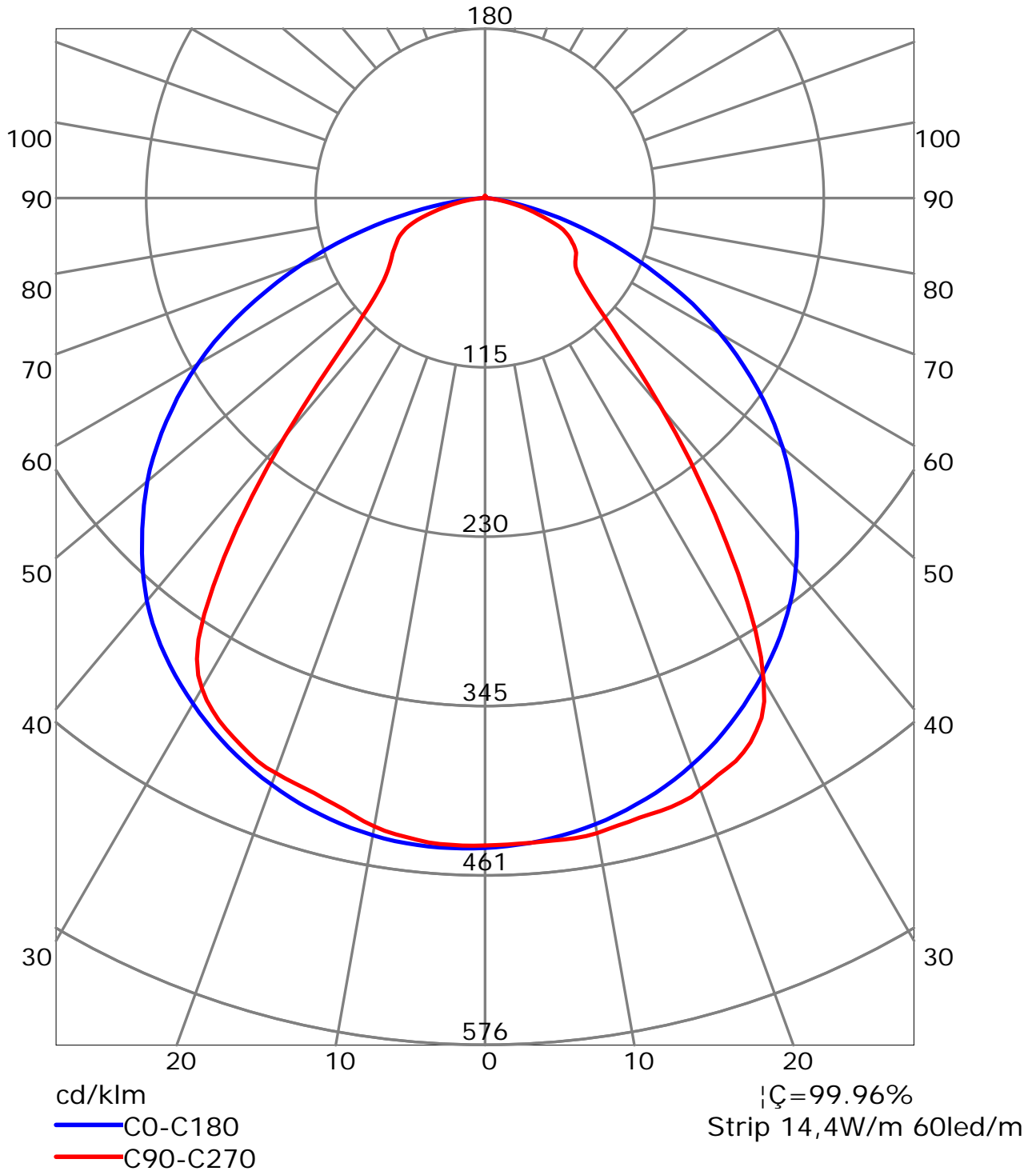


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-2000
Distance: 7.970 m
Humidity:
Inspector:



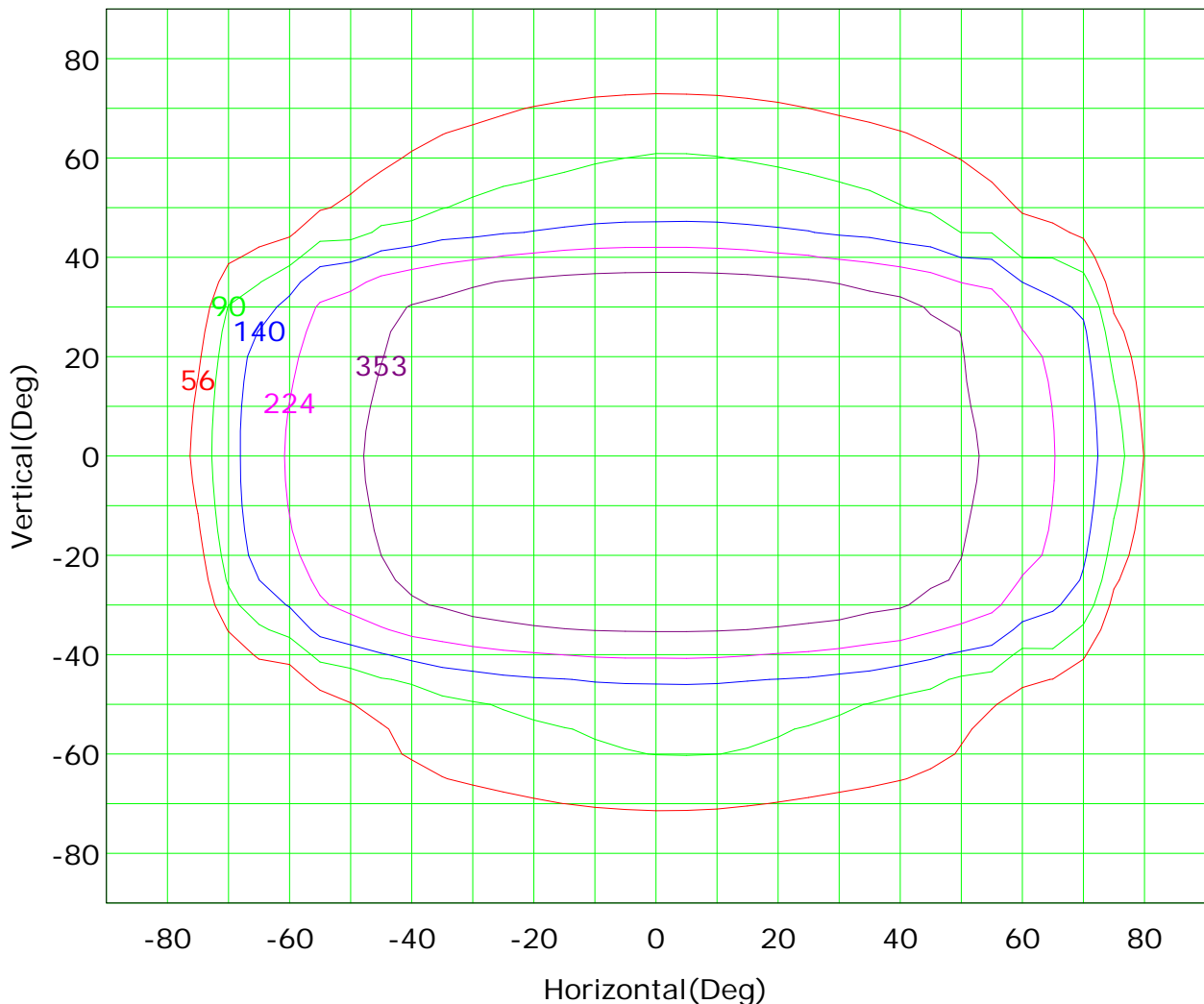
Luminous Intensity Distribution Curve(cd/klm)



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)



Imax (100%): 560 cd

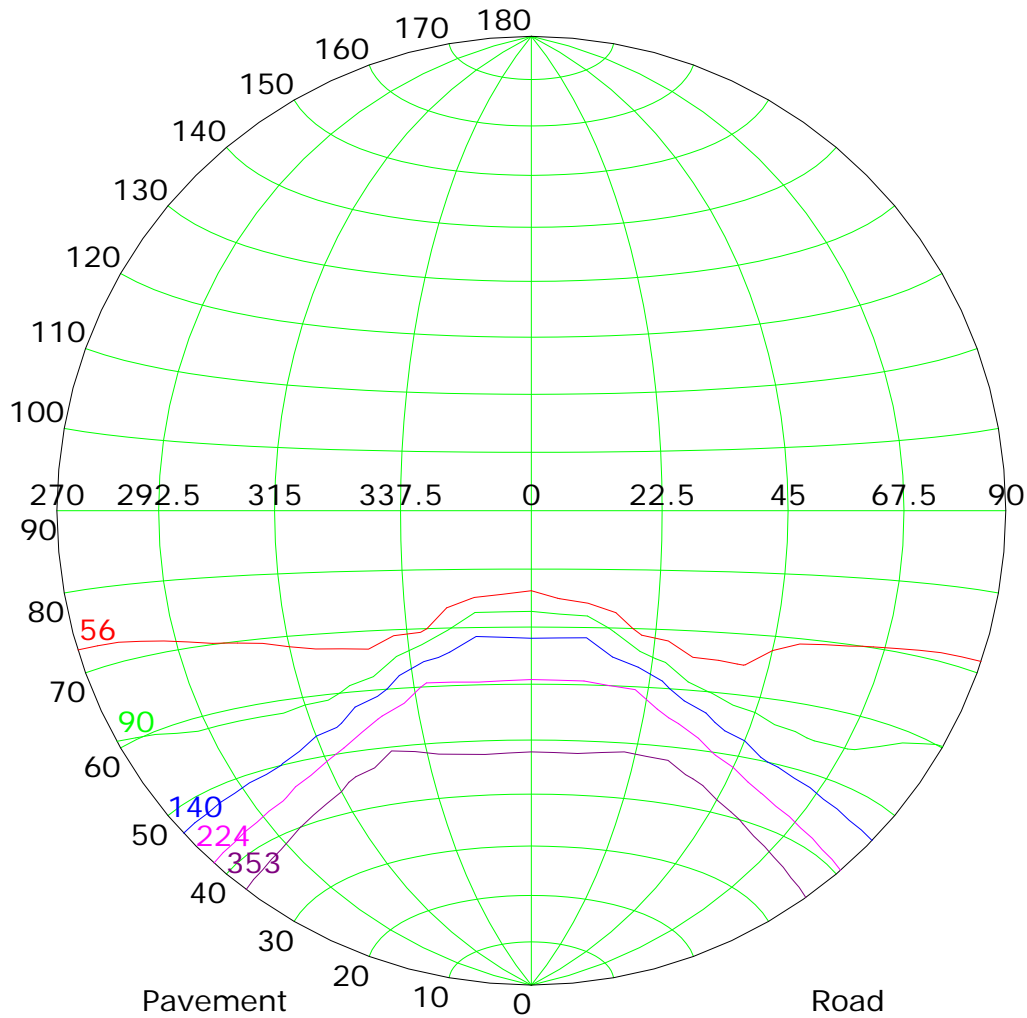
— (10%):	56 cd	— (16%):	90 cd
— (25%):	140 cd	— (40%):	224 cd
— (63%):	353 cd	— (100%):	560 cd

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%): 560 cd

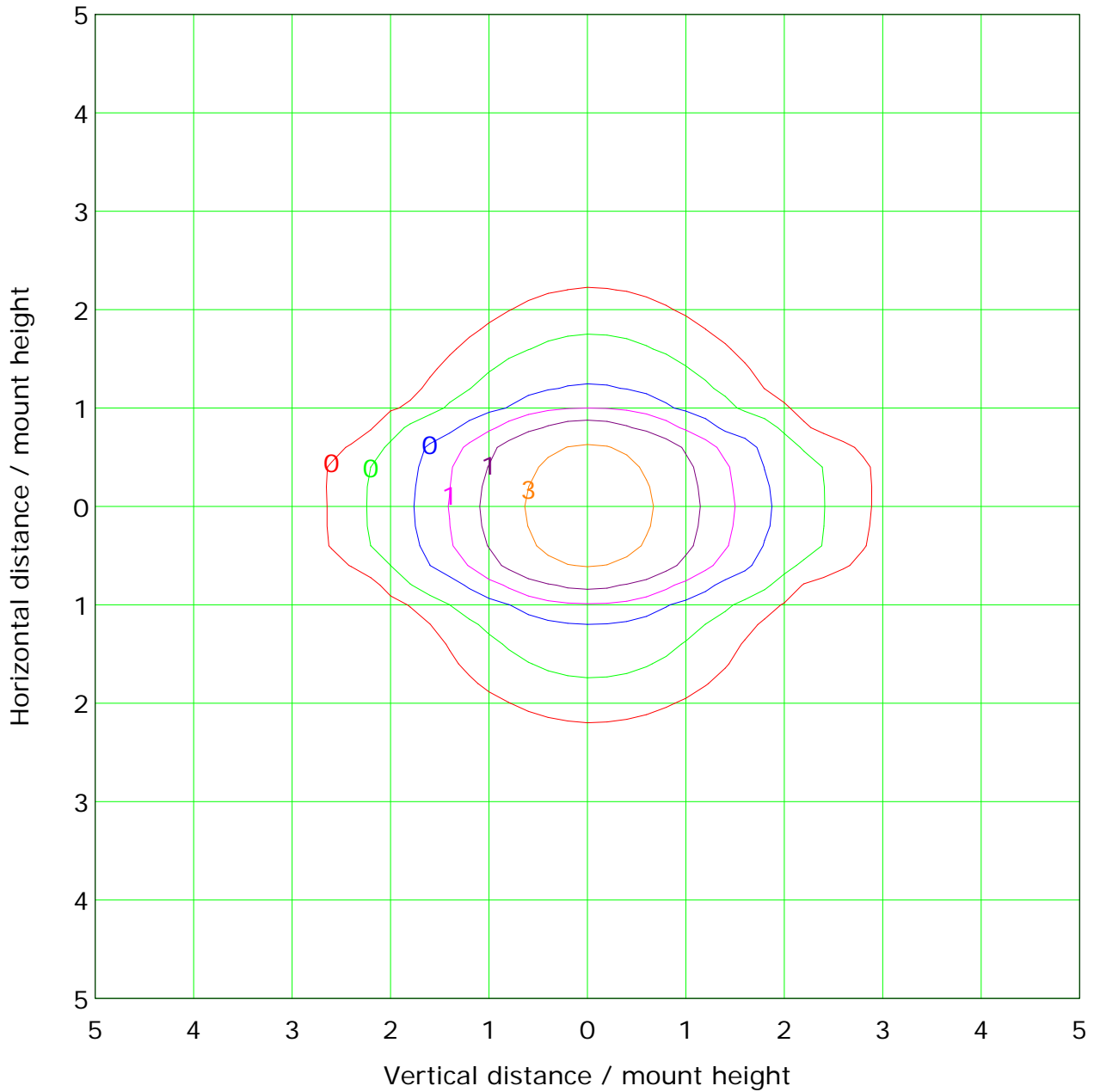
— (10%):	56 cd	— (16%):	90 cd
— (25%):	140 cd	— (40%):	224 cd
— (63%):	353 cd	— (100%):	560 cd

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%): 5.6 lx	
— (1%):	0.1 lx	— (2%):	0.1 lx
— (5%):	0.3 lx	— (10%):	0.6 lx
— (20%):	1.1 lx	— (50%):	2.8 lx
— (100%):	5.6 lx		

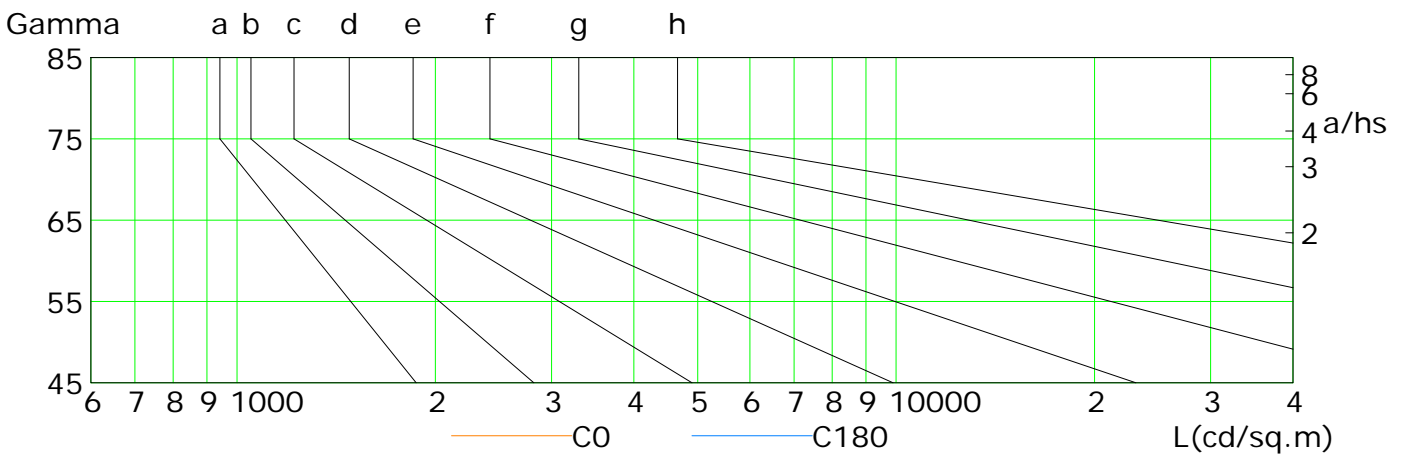
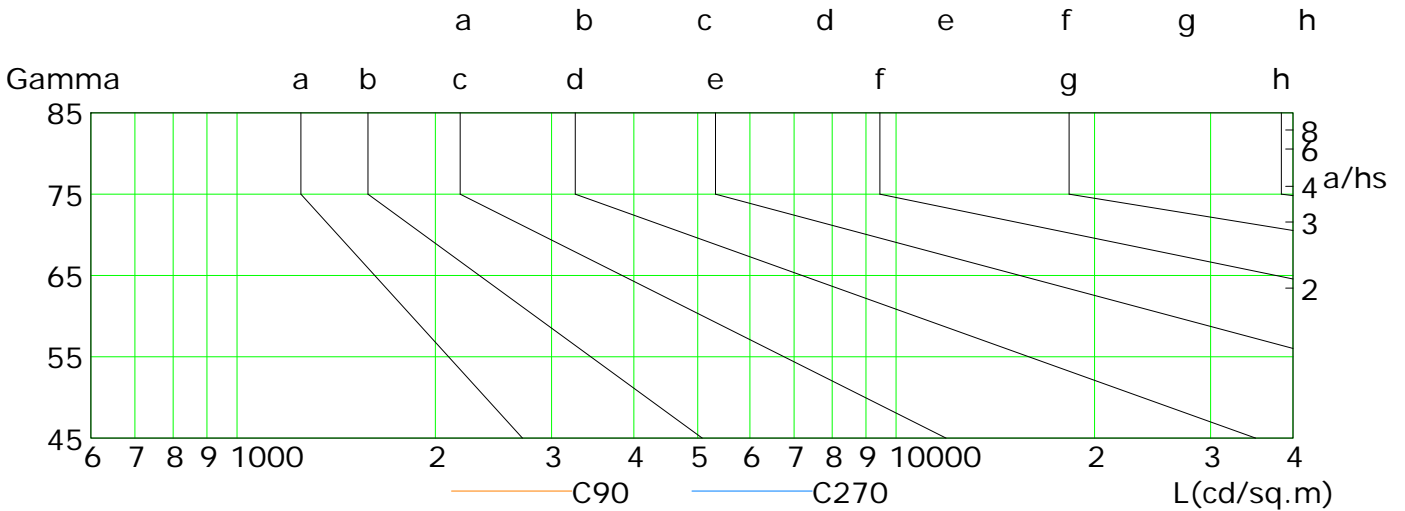
C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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)							
		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	377	335	286	234	176	118	66	26	5
C90	148	107	95	90	80	63	39	18	5
C180	417	379	335	285	228	169	109	55	14
C270	158	117	100	91	83	70	46	24	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

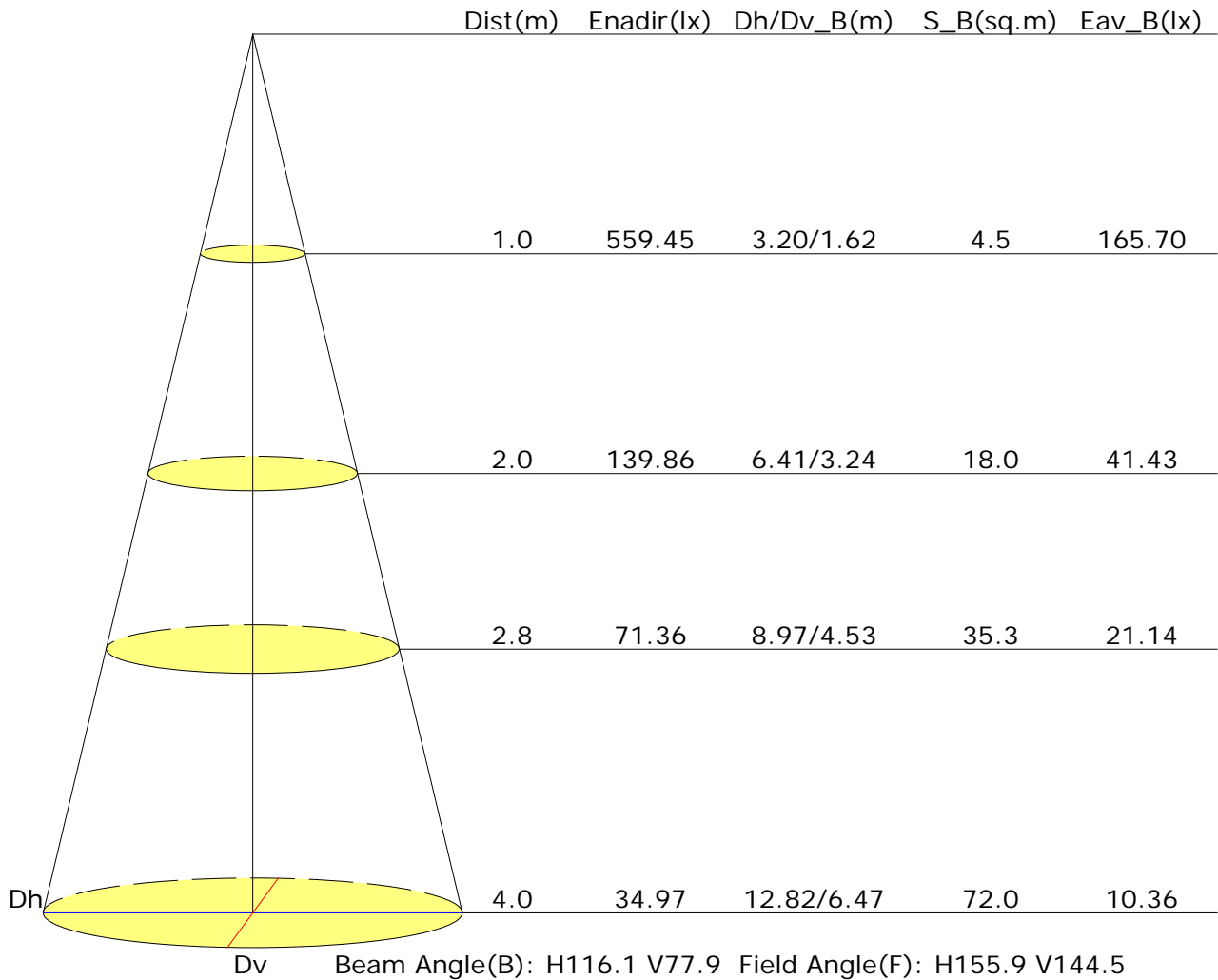
Distance: 7.970 m

Humidity:

Inspector:

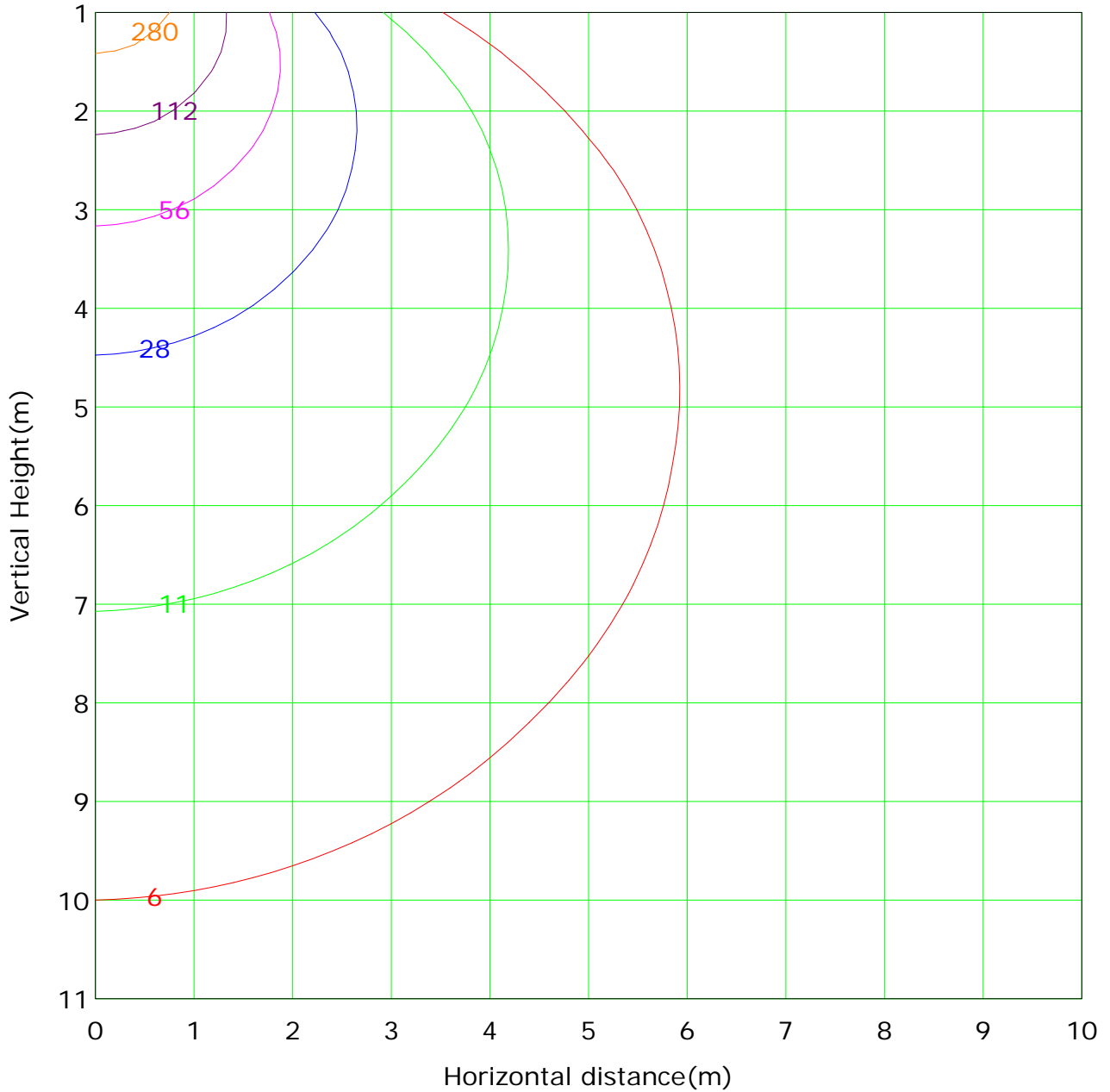


Illuminance at a Distance





Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 559.5 lx

— (1%): 5.6 lx	— (2%): 11.2 lx
— (5%): 28.0 lx	— (10%): 55.9 lx
— (20%): 111.9 lx	— (50%): 279.7 lx
— (100%): 559.5 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: 13/09/2019 16:40

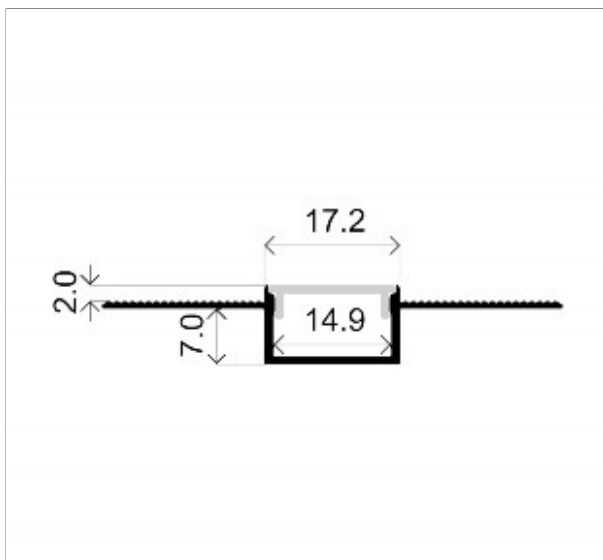
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-DW08-03 + LLD-03-FH
 Lamp Description: Strip 14,4W/m 60led/m Number of Lamps: 1
 Lumens per Lamp: 1209 lm Voltage: 24.0 V
 Current: 0.597 A Power: 14.32 W
 Power Factor: 1.000

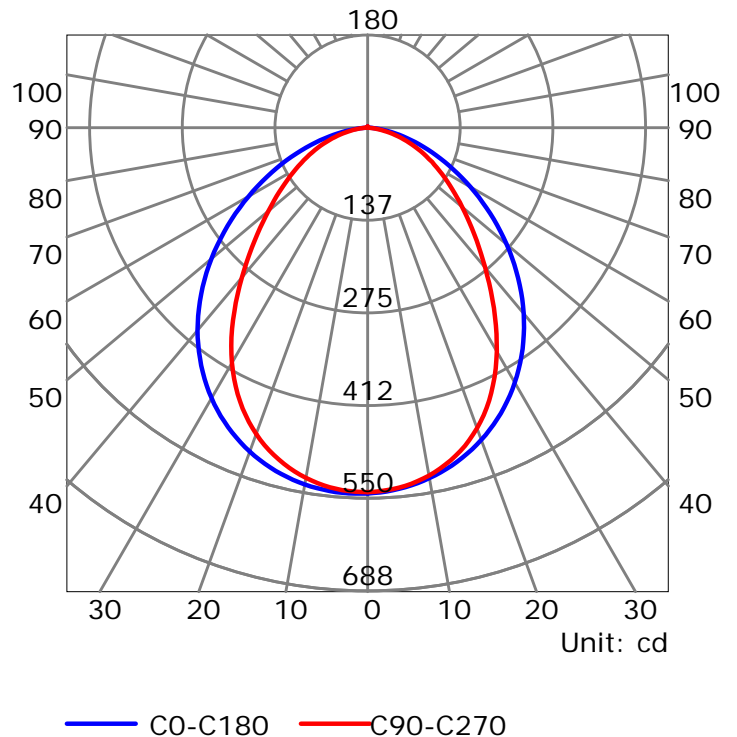
Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1209.0 lm
Measurement Flux: 1209.2 lm	Efficiency: 100.02%
Downward Ratio: 99.76%	Upward Ratio: 0.25%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 153.7, 145.8, 148.1, 148.3	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 102.9, 81.9, 90.9, 91.1	
Luminaire Efficacy Rating (LER): 84.49	Central Intensity: 543.49 cd
Max. Intensity: 543.93 cd	Pos of Max. Intensity: H180 V3
S/MH(C0/C180): 1.23	S/MH(C90/C270): 1.11

Picture Of Luminaire



Luminous Intensity Distribution Curve

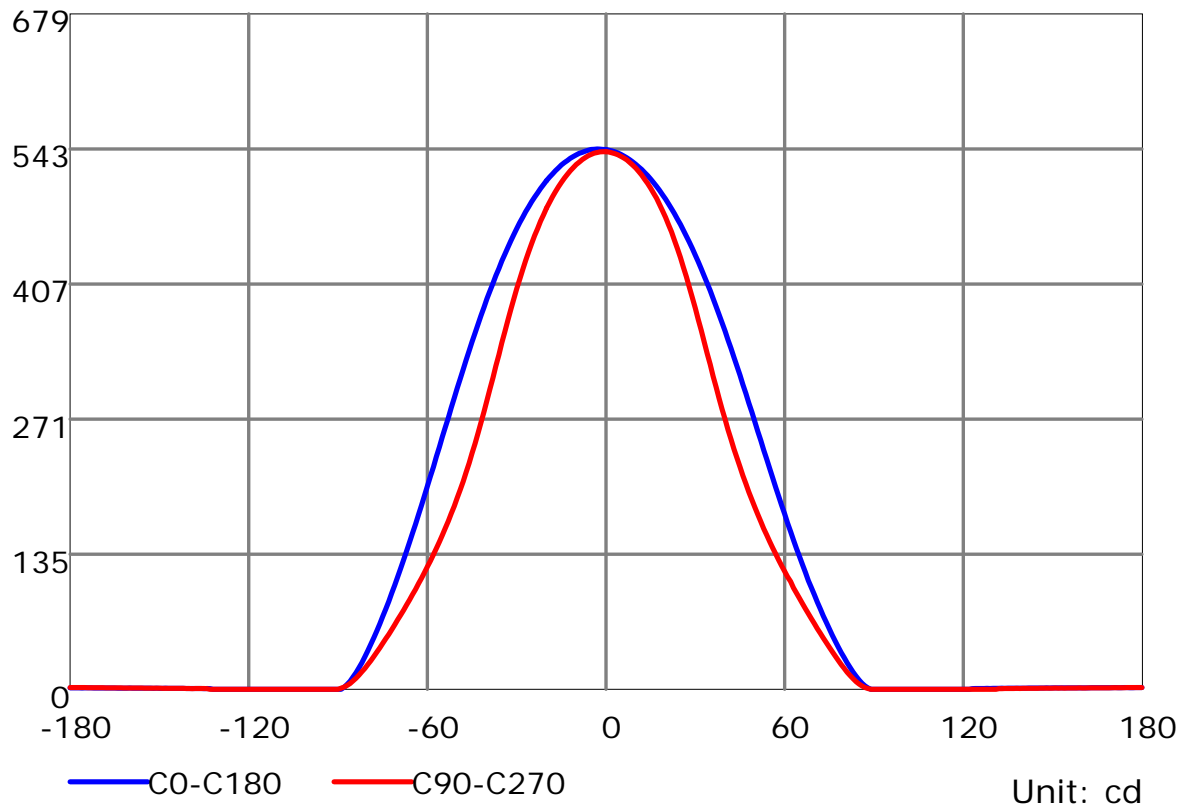
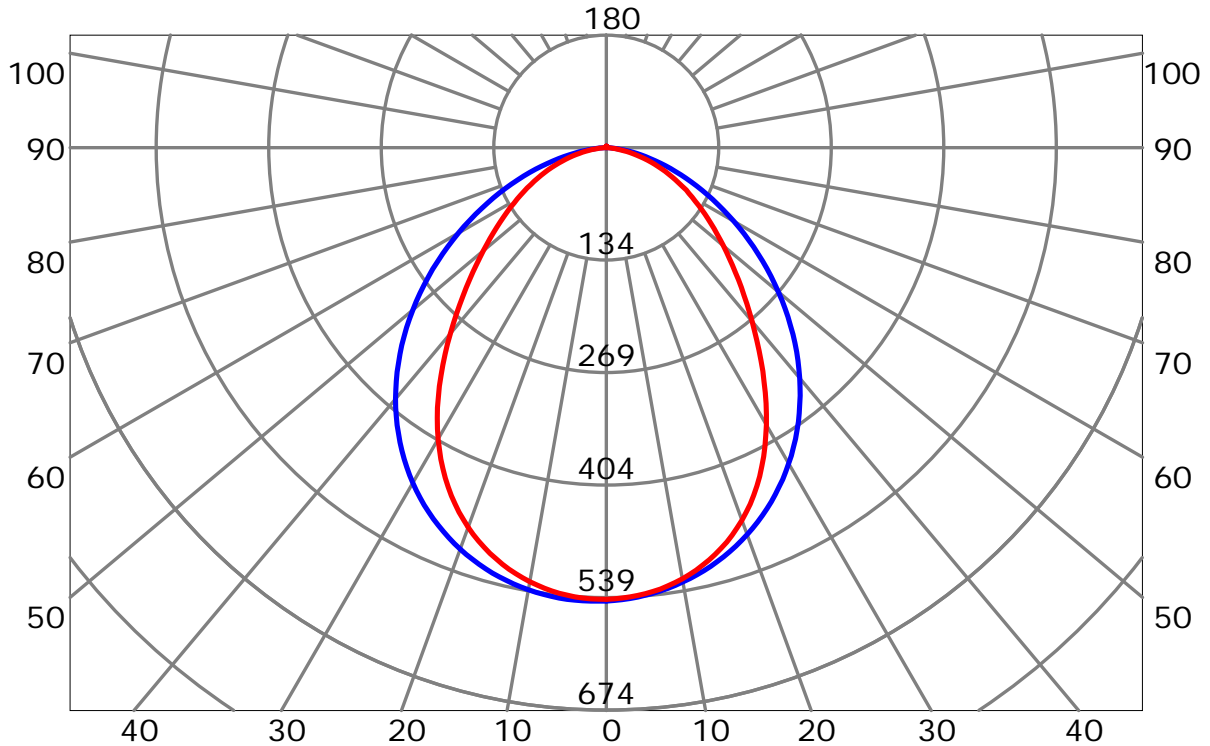


C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-2000
 Distance: 7.970 m
 Humidity:
 Inspector:



Luminous Intensity Distribution Curve

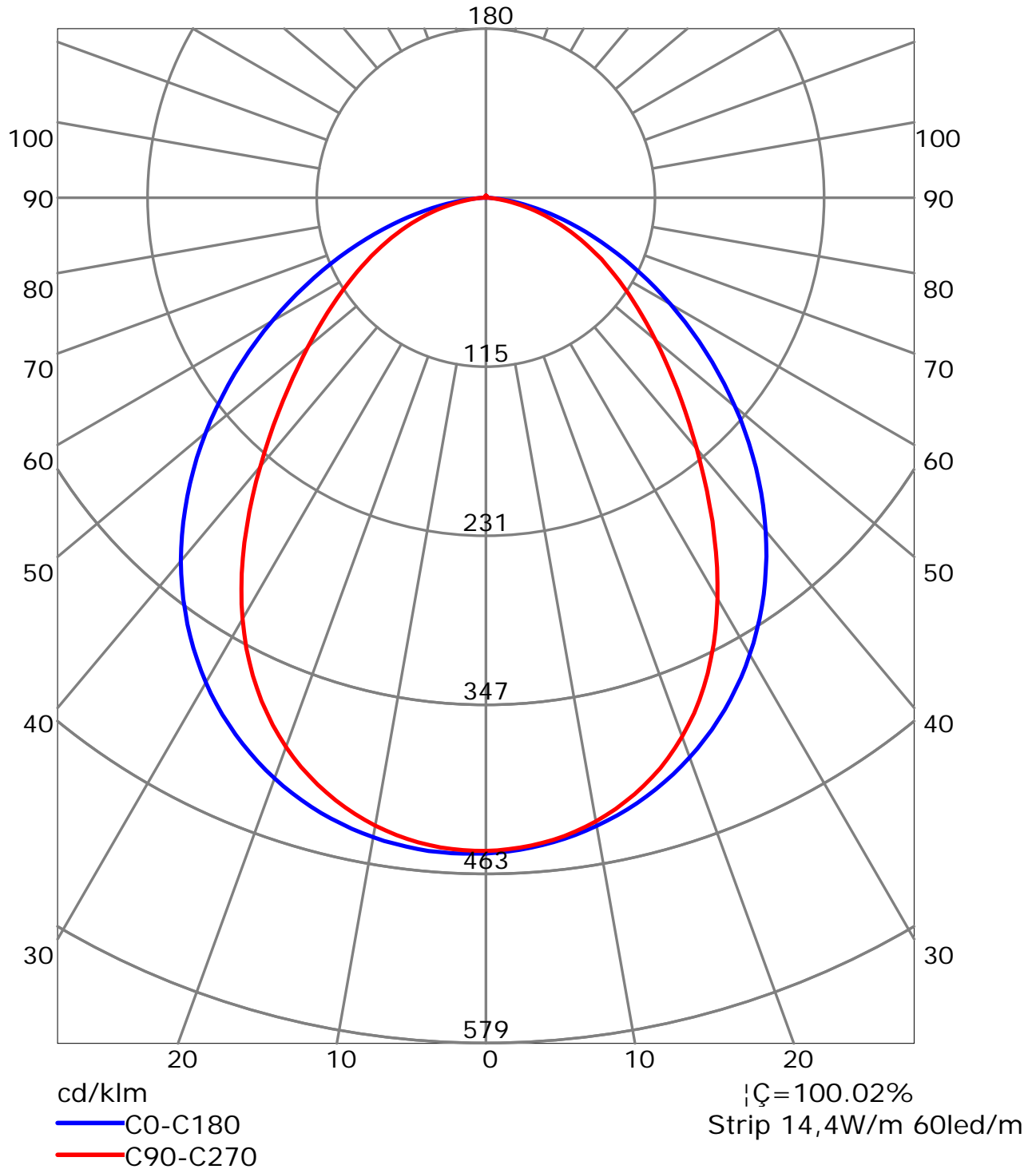


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-2000
Distance: 7.970 m
Humidity:
Inspector:



Luminous Intensity Distribution Curve(cd/klm)

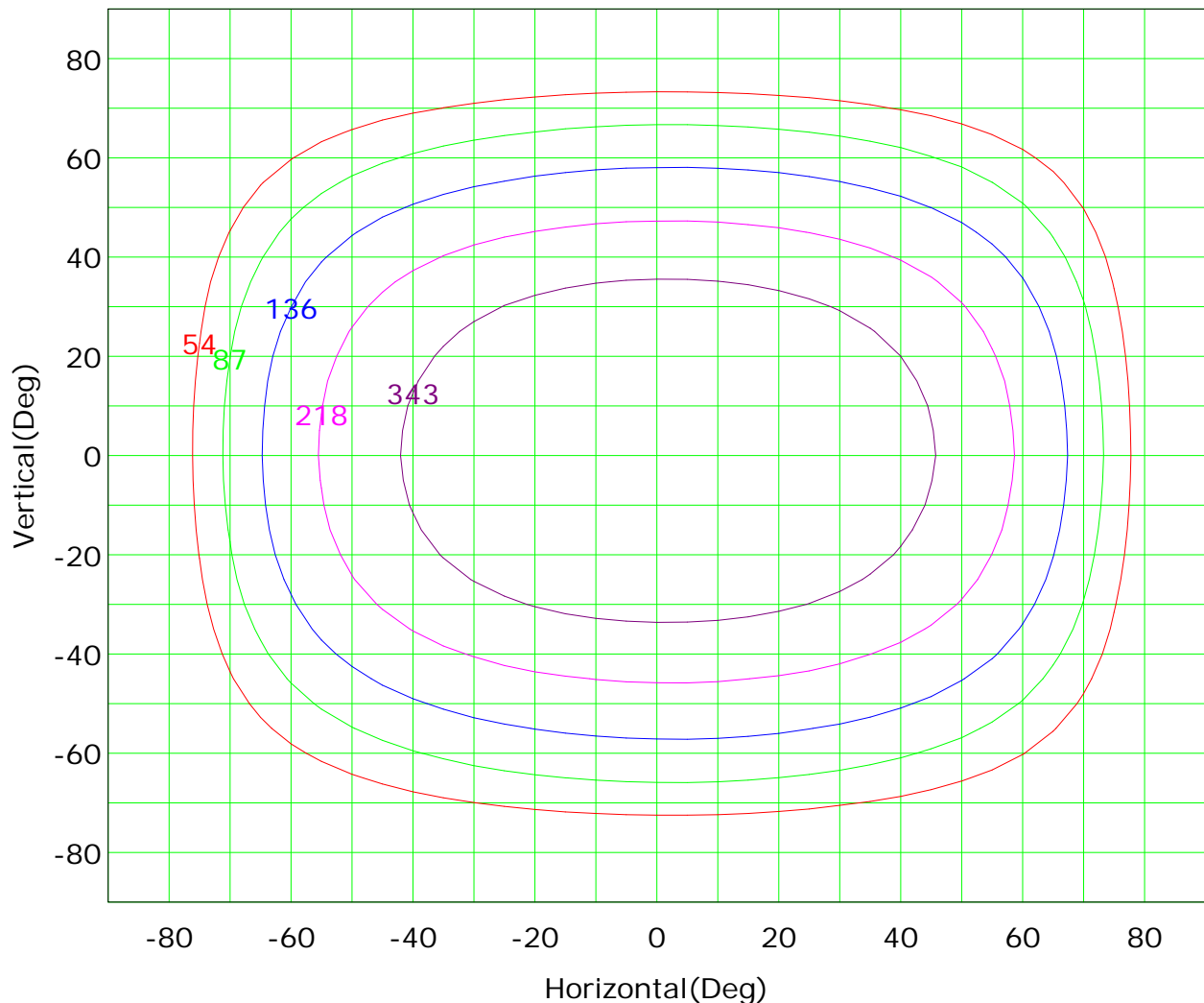


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-2000
Distance: 7.970 m
Humidity:
Inspector:



Isocandela (rectangle)



Imax (100%): 544 cd

— (10%):	54 cd	— (16%):	87 cd
— (25%):	136 cd	— (40%):	218 cd
— (63%):	343 cd	— (100%):	544 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

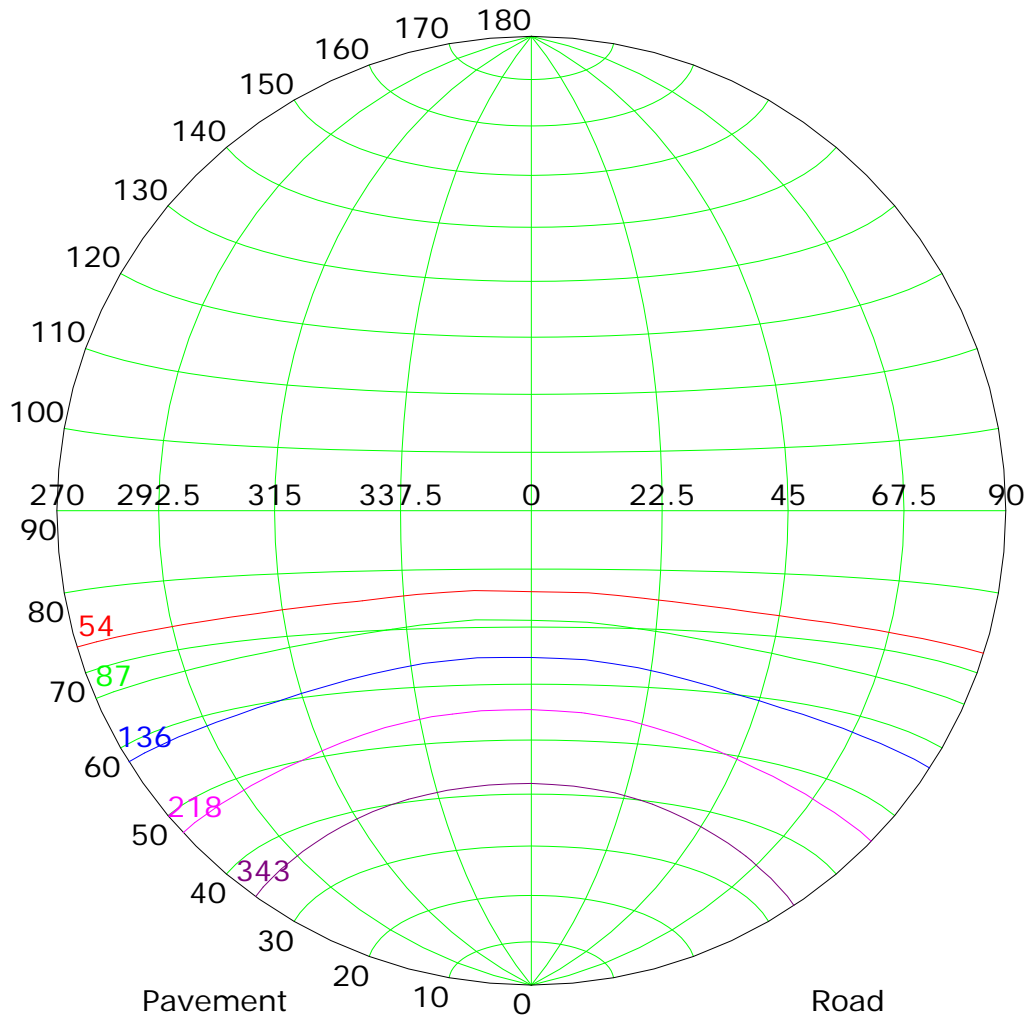
Test Device: GPM-2000

Distance: 7.970 m

Humidity:

Inspector:

Isocandela (sphere)

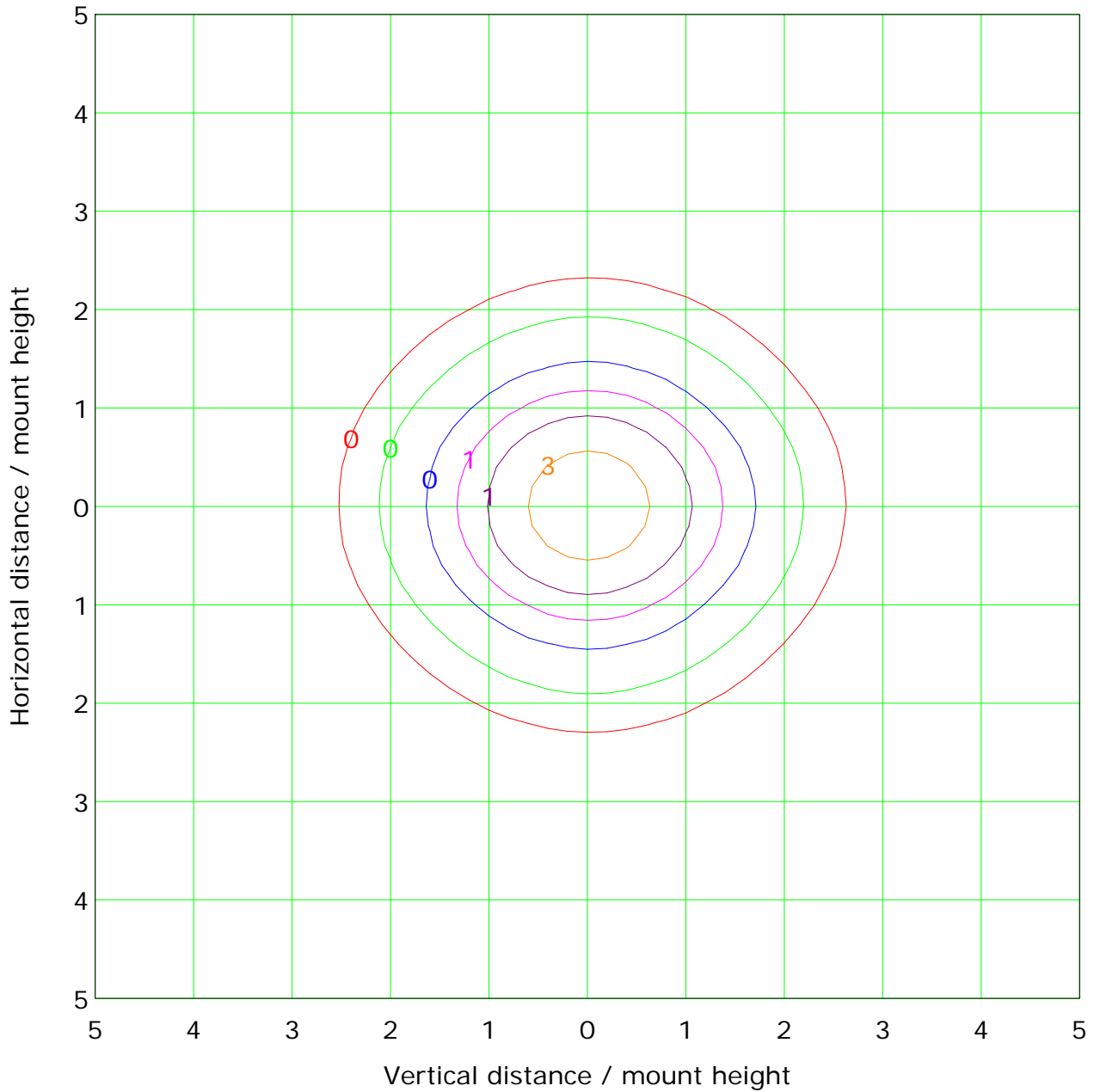


Imax (100%): 544 cd

— (10%):	54 cd	— (16%):	87 cd
— (25%):	136 cd	— (40%):	218 cd
— (63%):	343 cd	— (100%):	544 cd



IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 5.4 lx	
— (1%):	0.1 lx	— (2%):	0.1 lx
— (5%):	0.3 lx	— (10%):	0.5 lx
— (20%):	1.1 lx	— (50%):	2.7 lx
— (100%):	5.4 lx		

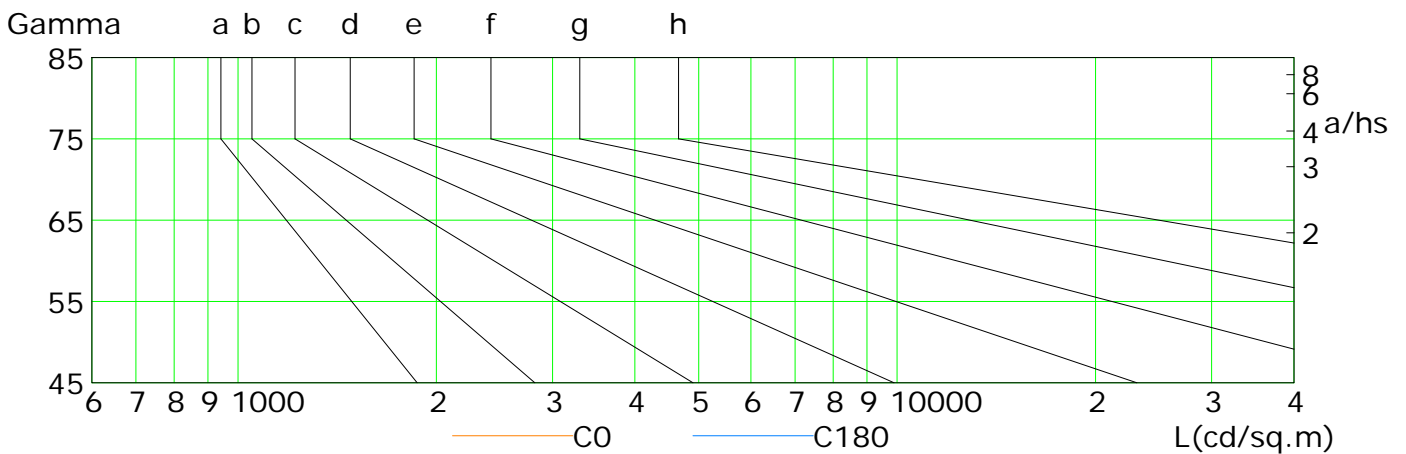
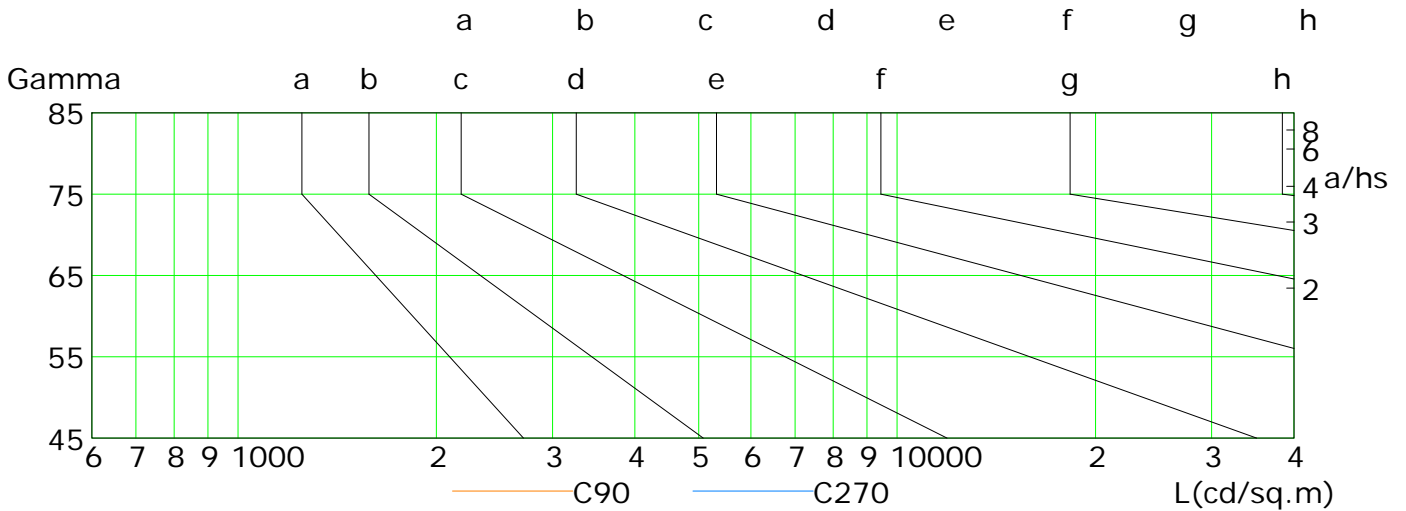
C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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)							
		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	316	269	222	177	134	95	61	32	9
C90	224	183	149	119	92	66	42	21	5
C180	350	303	254	204	157	113	73	39	12
C270	238	193	155	123	96	70	46	25	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

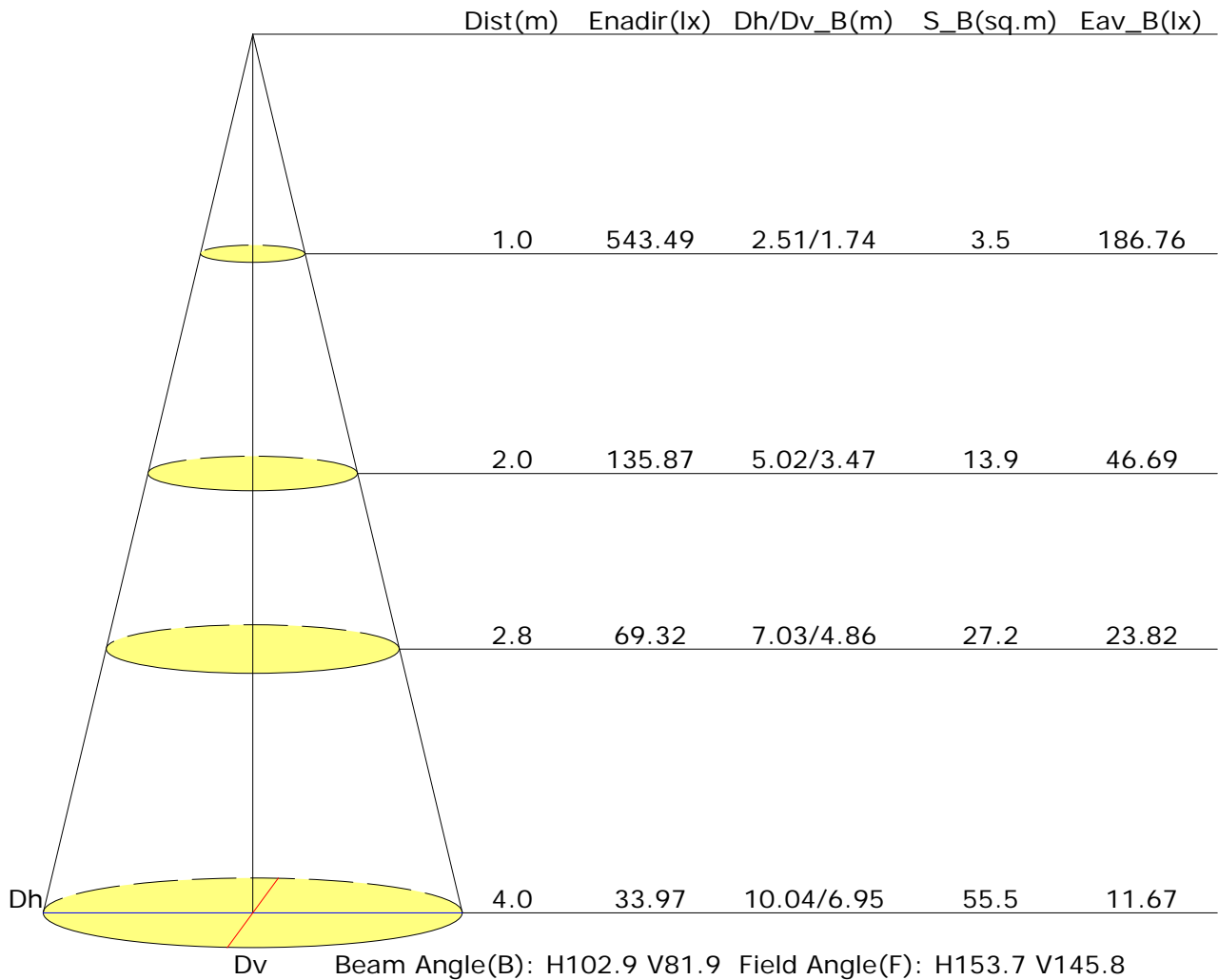
Distance: 7.970 m

Humidity:

Inspector:

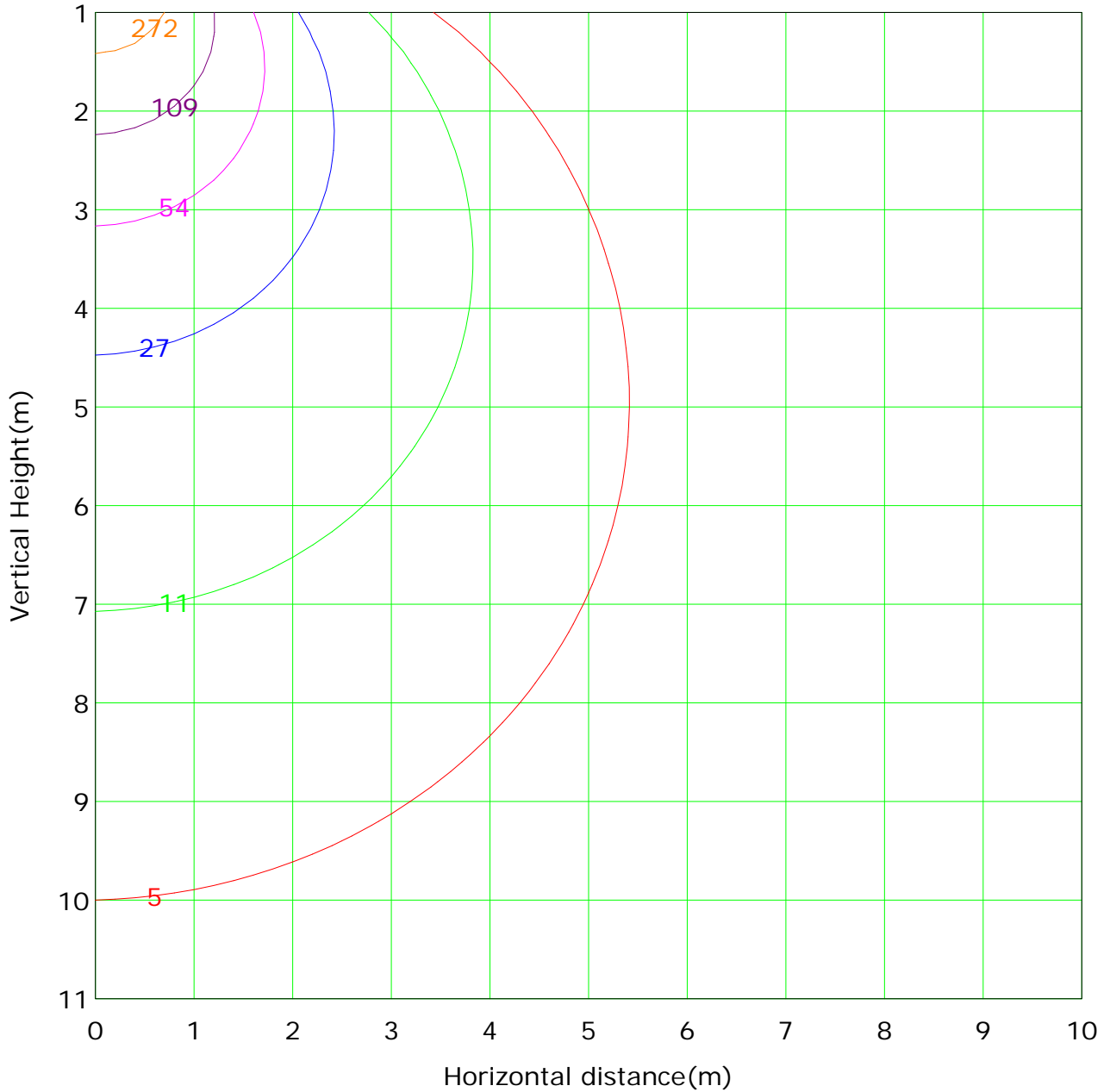


Illuminance at a Distance





Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 543.5 lx

— (1%): 5.4 lx	— (2%): 10.9 lx
— (5%): 27.2 lx	— (10%): 54.3 lx
— (20%): 108.7 lx	— (50%): 271.7 lx
— (100%): 543.5 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: 13/09/2019 12:21

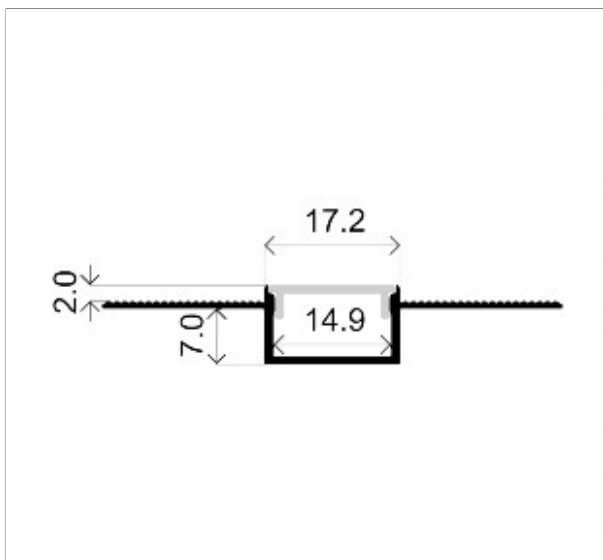
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-DW08-03 + LLD-03-FM
 Lamp Description: Strip 14,4W/m 60led/m Number of Lamps: 1
 Lumens per Lamp: 1012 lm Voltage: 24.0 V
 Current: 0.604 A Power: 14.49 W
 Power Factor: 1.000

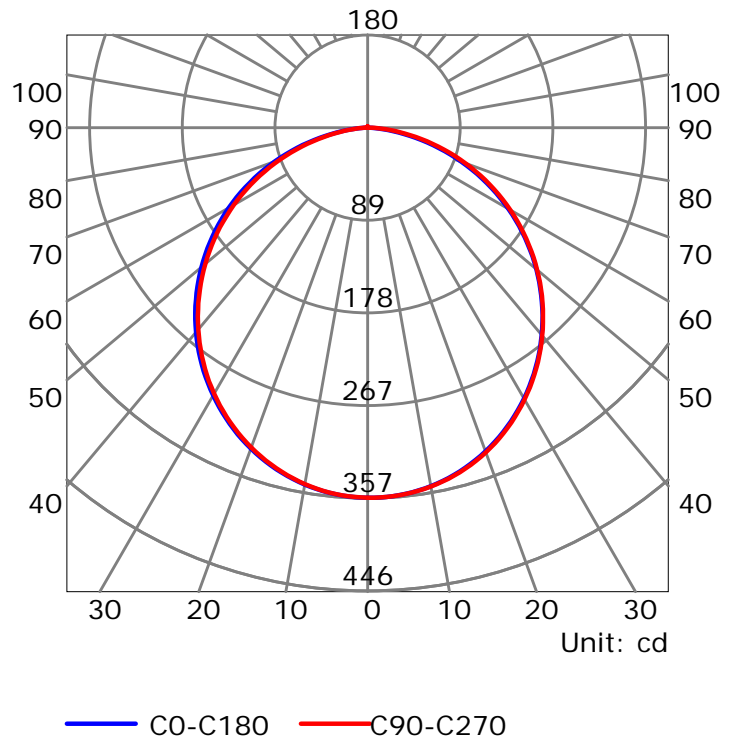
Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 1012.0 lm
Measurement Flux: 1011.7 lm	Efficiency: 99.97%
Downward Ratio: 99.56%	Upward Ratio: 0.41%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.0, 160.6, 160.5, 160.5	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.0, 111.3, 111.9, 112.0	
Luminaire Efficacy Rating (LER): 69.87	Central Intensity: 356.6 cd
Max. Intensity: 357.09 cd	Pos of Max. Intensity: H170 V0
S/MH(C0/C180): 1.25	S/MH(C90/C270): 1.25

Picture Of Luminaire



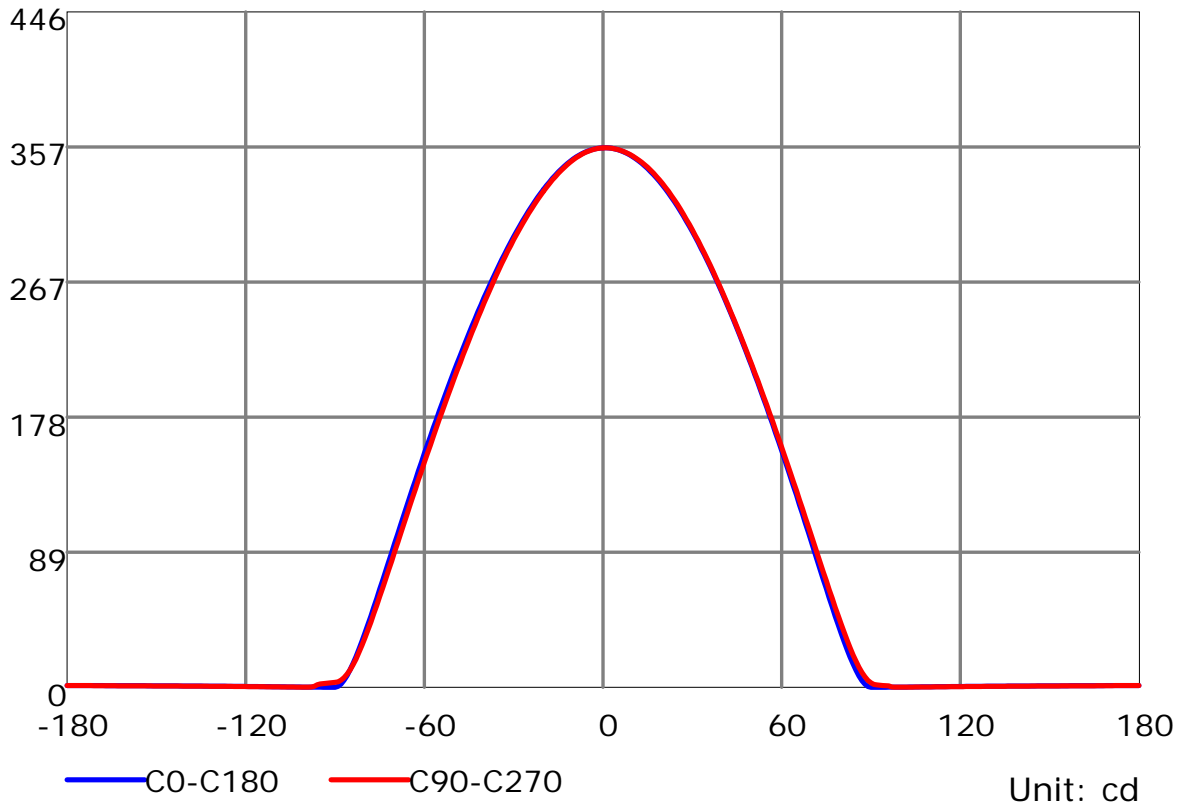
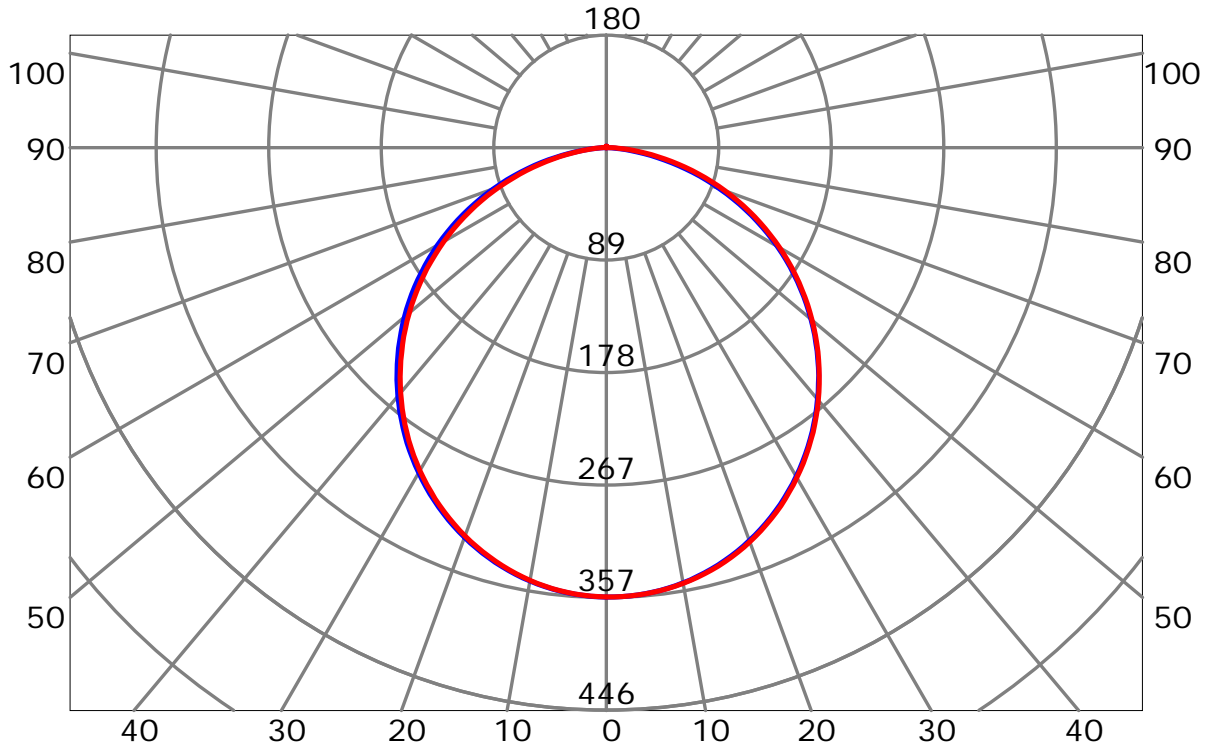
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 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

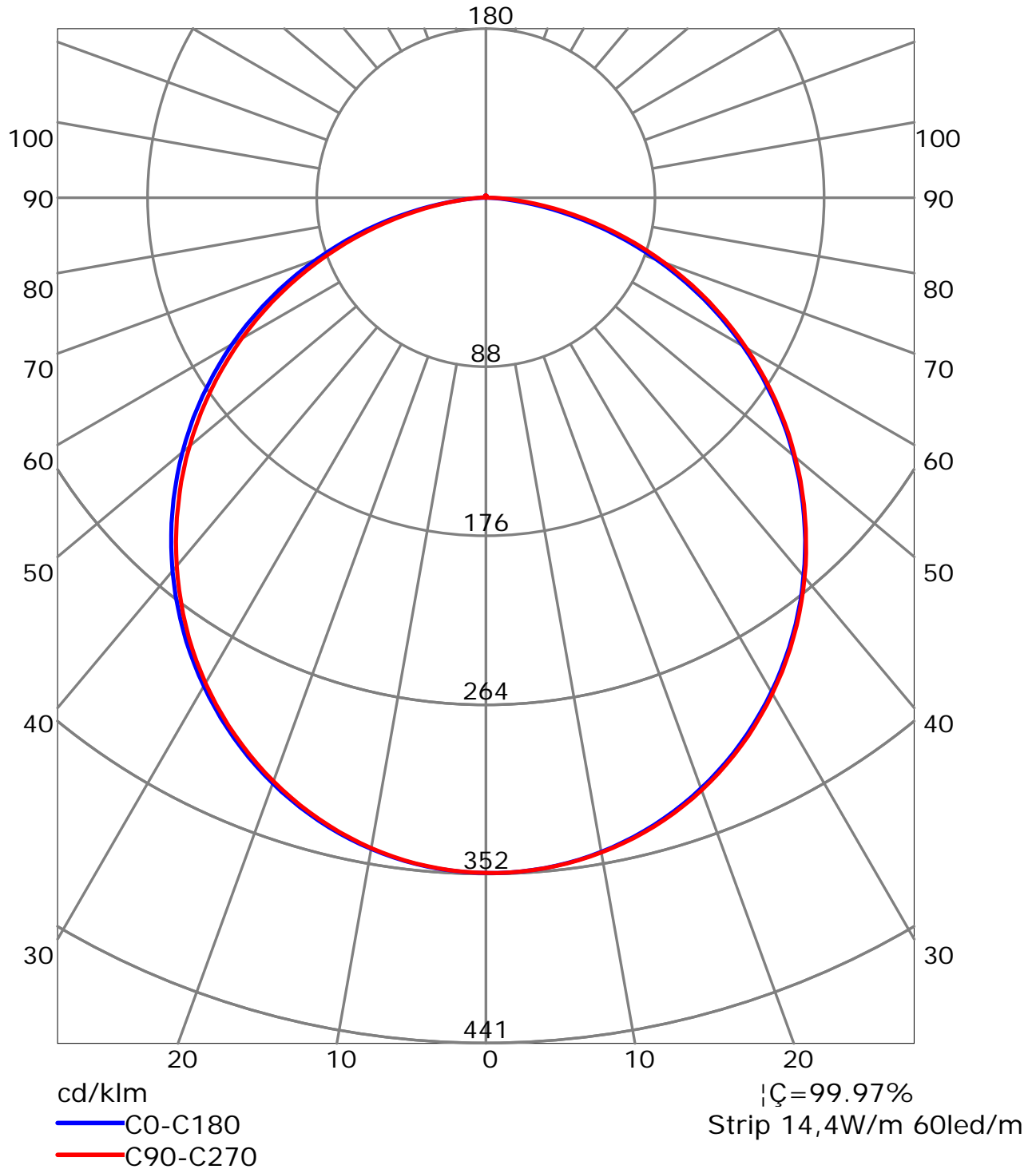


C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-2000
 Distance: 7.970 m
 Humidity:
 Inspector:



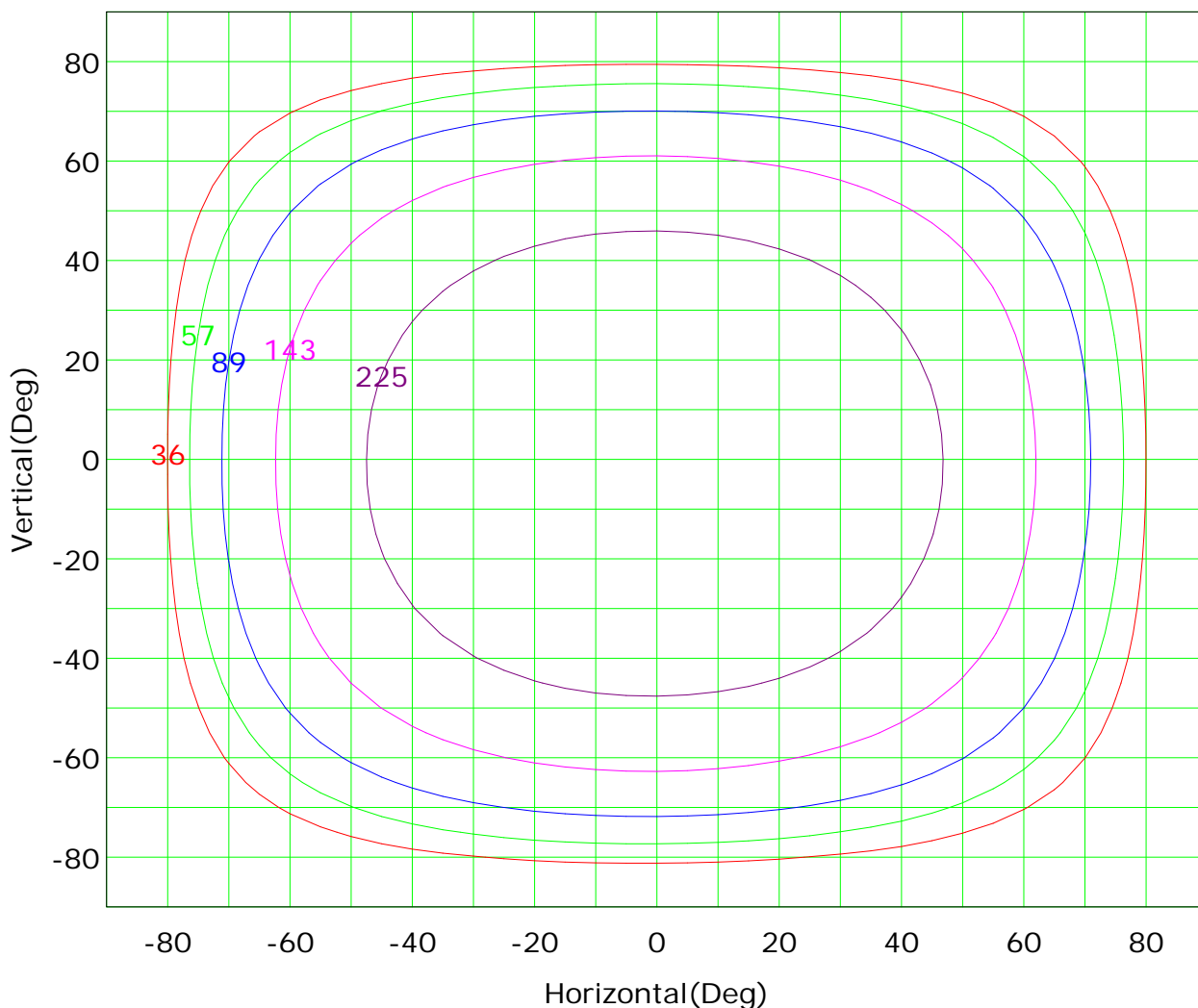
Luminous Intensity Distribution Curve(cd/klm)



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)



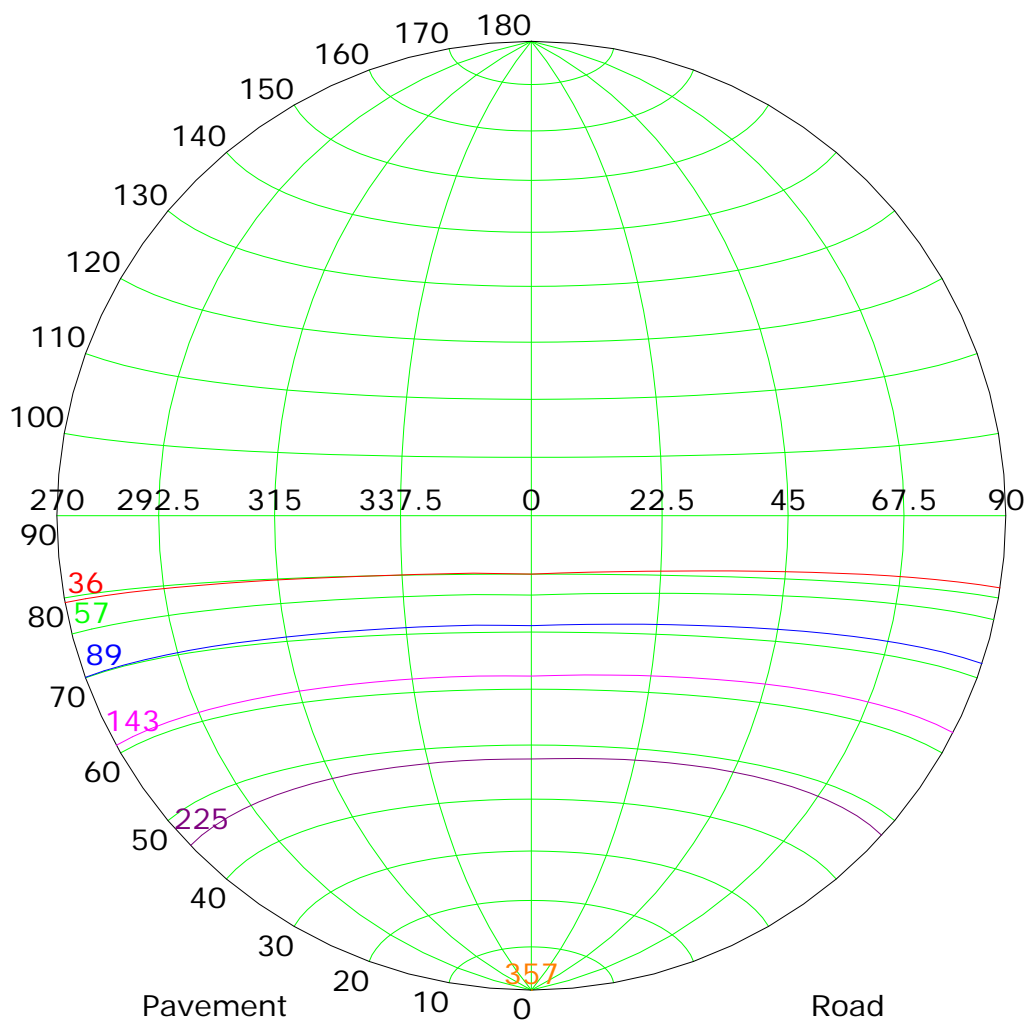
Imax (100%): 357 cd

— (10%):	36 cd	— (16%):	57 cd
— (25%):	89 cd	— (40%):	143 cd
— (63%):	225 cd	— (100%):	357 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%): 357 cd

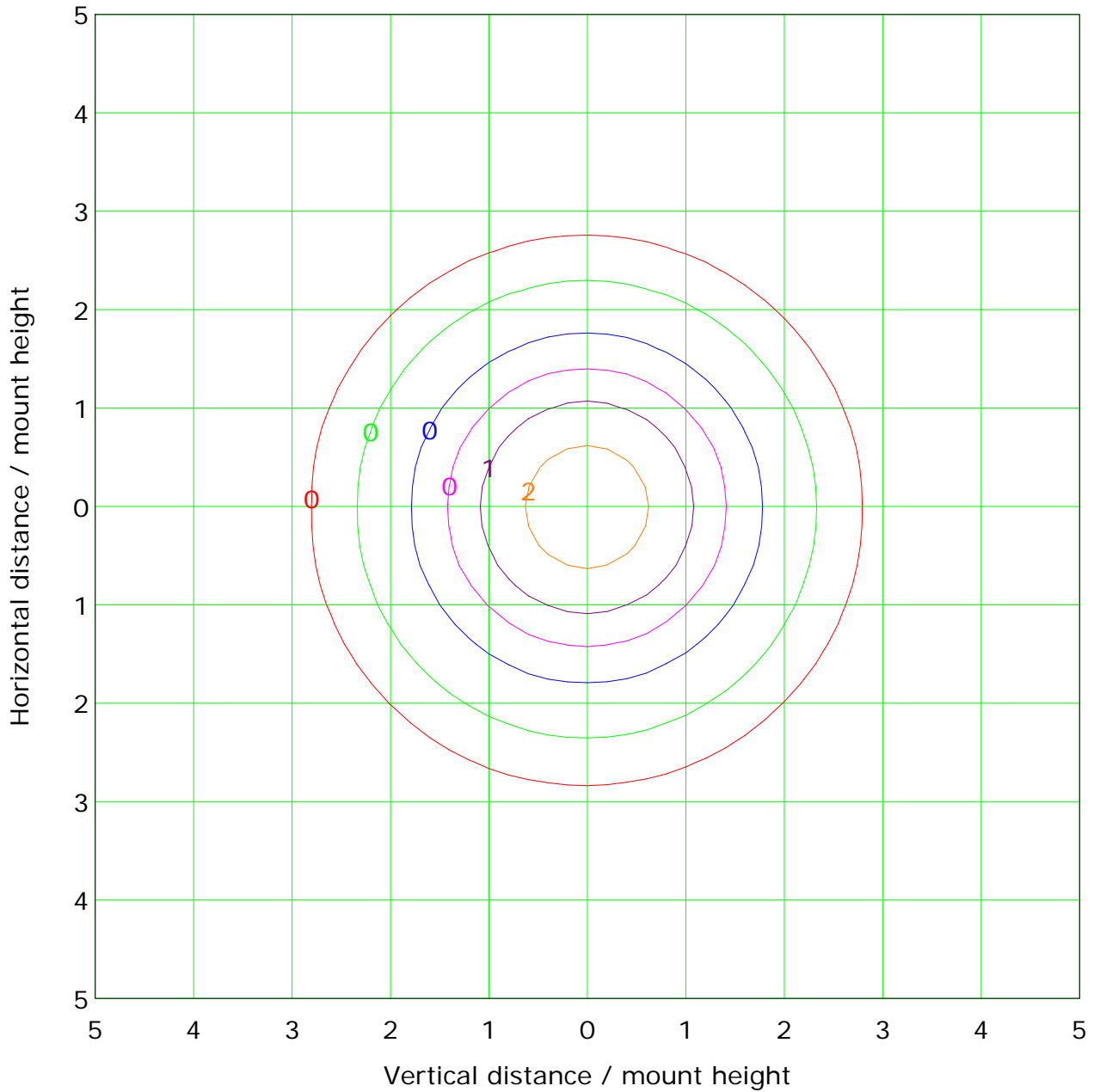
— (10%):	36 cd	— (16%):	57 cd
— (25%):	89 cd	— (40%):	143 cd
— (63%):	225 cd	— (100%):	357 cd

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%): 3.6 lx	
— (1%):	0.0 lx	— (2%):	0.1 lx
— (5%):	0.2 lx	— (10%):	0.4 lx
— (20%):	0.7 lx	— (50%):	1.8 lx
— (100%):	3.6 lx		

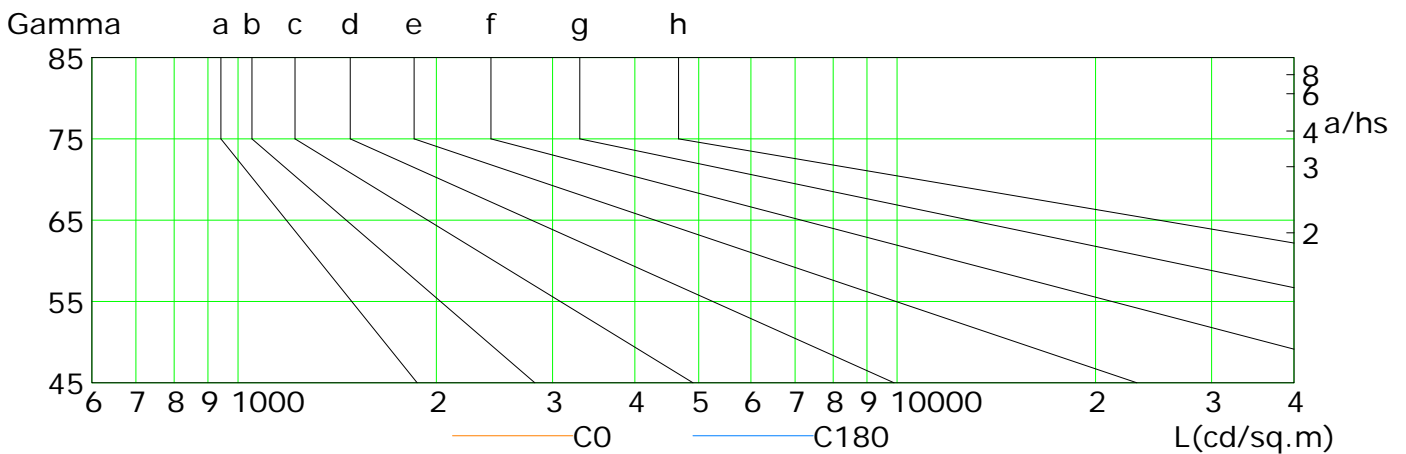
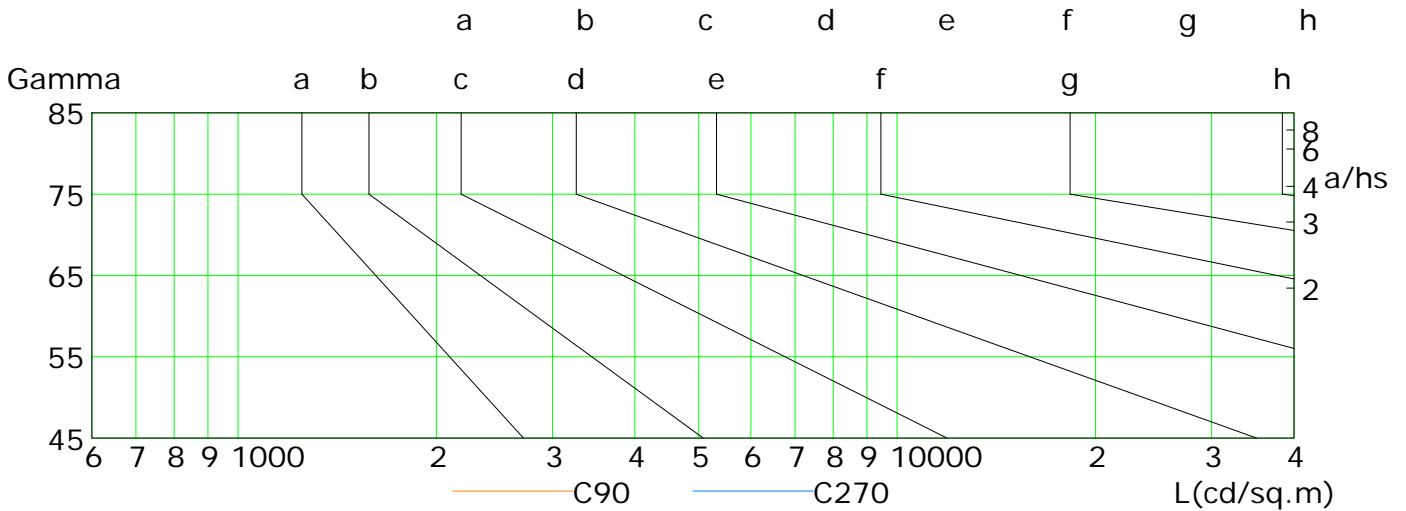
C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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)							
		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	237	212	185	157	127	96	65	36	11
C90	238	213	187	159	130	100	71	42	17
C180	234	209	183	155	125	95	65	36	11
C270	230	204	177	149	119	90	60	33	11

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

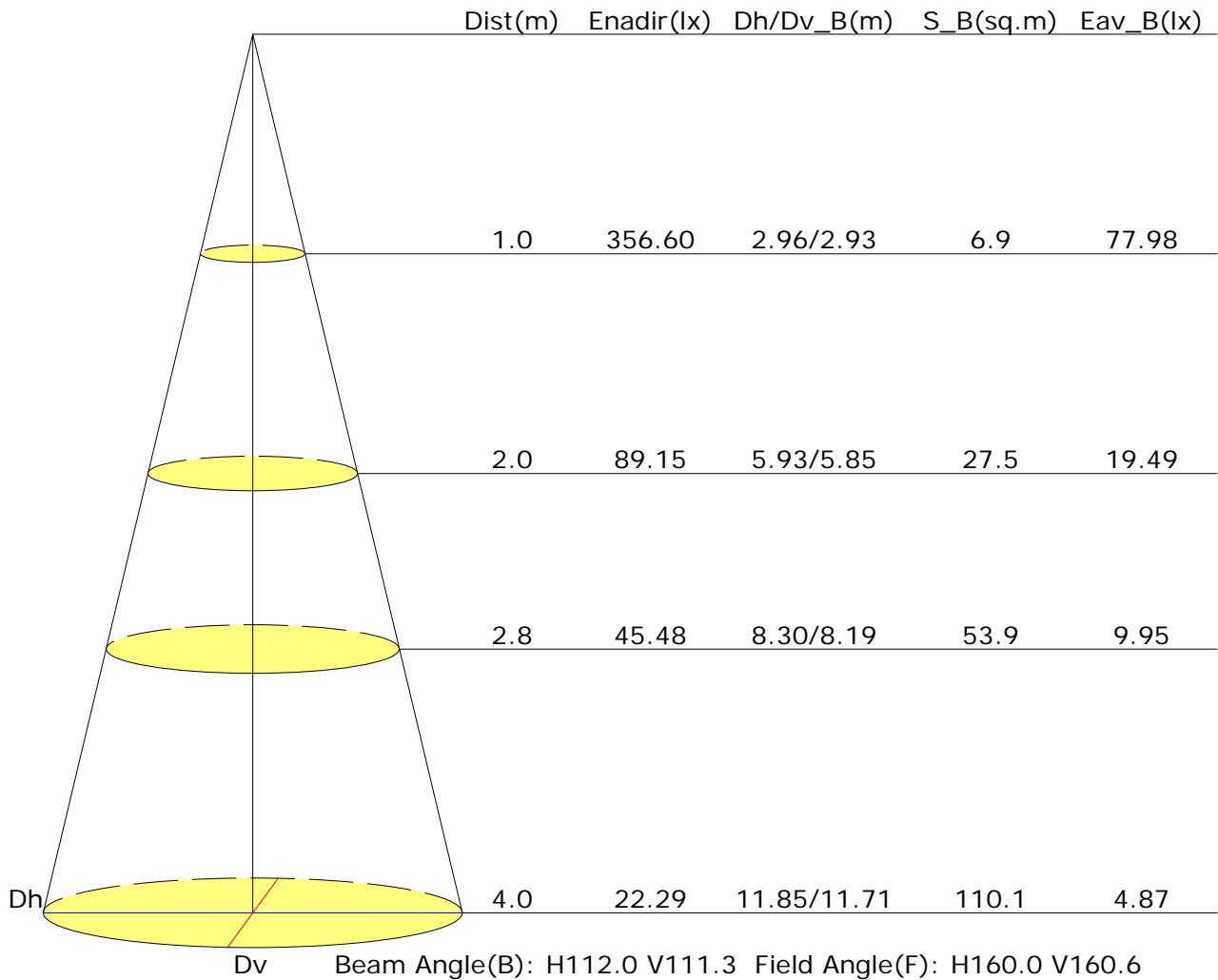
Distance: 7.970 m

Humidity:

Inspector:

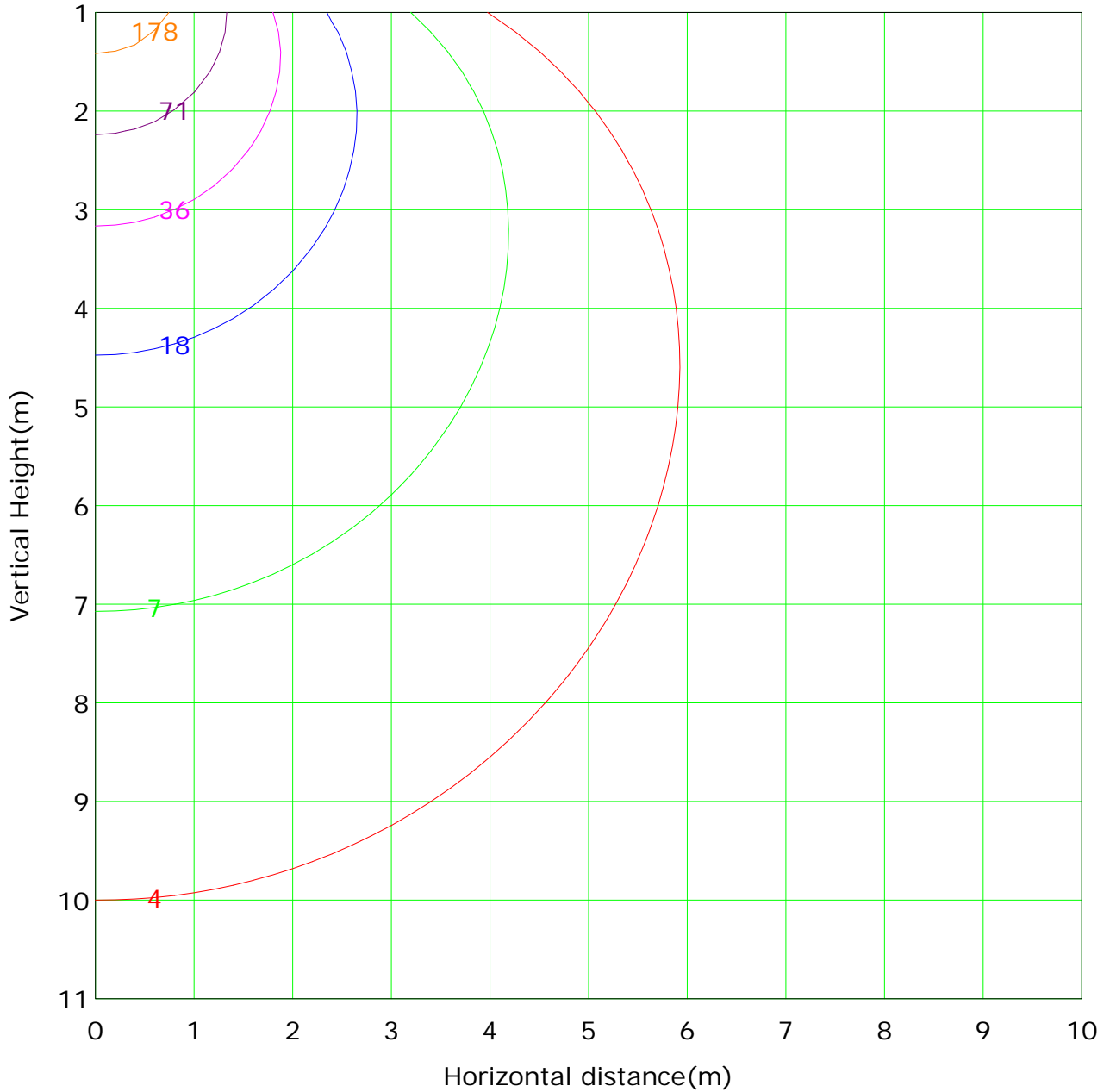


Illuminance at a Distance





Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 356.6 lx
— (1%): 3.6 lx	— (2%): 7.1 lx	
— (5%): 17.8 lx	— (10%): 35.7 lx	
— (20%): 71.3 lx	— (50%): 178.3 lx	
— (100%): 356.6 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: 13/09/2019 14:09

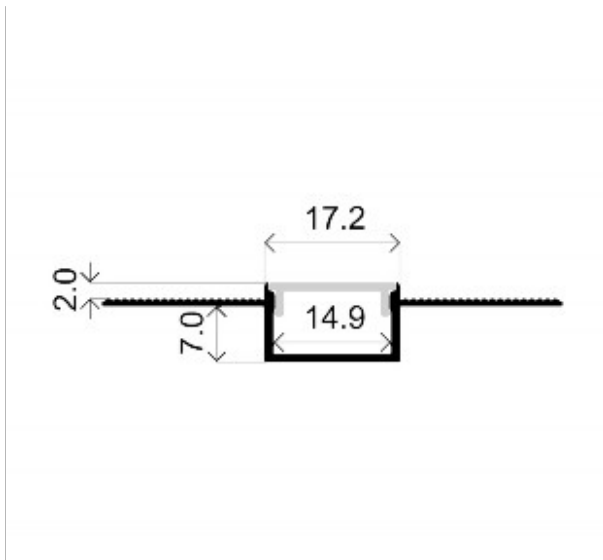
Luminaire Property

Luminaire Manufacturer: Lightng Line
 Lamp Description: Strip 14,4W/m 60led/m Number of Lamps: 1
 Lumens per Lamp: 954 lm Voltage: 24.0 V
 Current: 0.595 A Power: 14.28 W
 Power Factor: 1.000

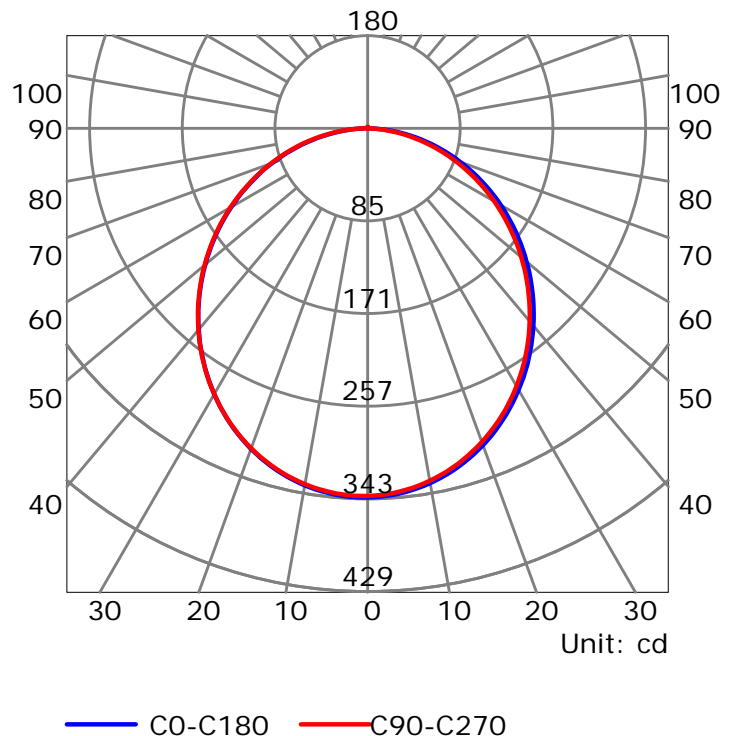
Photometric Results

CIE Class: Direct	Total Rated Lamp Lumens: 954.0 lm
Measurement Flux: 953.8 lm	Efficiency: 99.98%
Downward Ratio: 99.63%	Upward Ratio: 0.34%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 163.3, 162.6, 162.9, 163.0	
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 109.4, 108.5, 109.2, 109.4	
Luminaire Efficacy Rating (LER): 66.84	Central Intensity: 342.5 cd
Max. Intensity: 342.56 cd	Pos of Max. Intensity: H180 V1
S/MH(C0/C180): 1.23	S/MH(C90/C270): 1.22

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

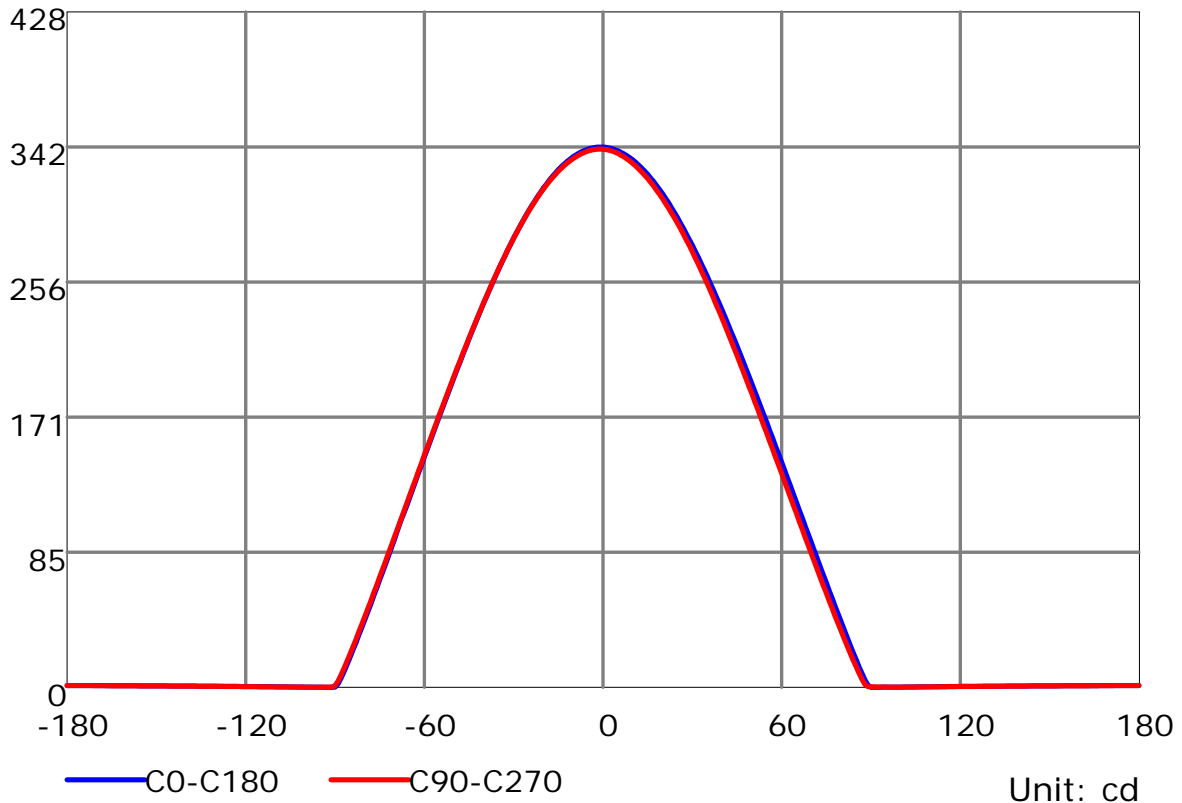
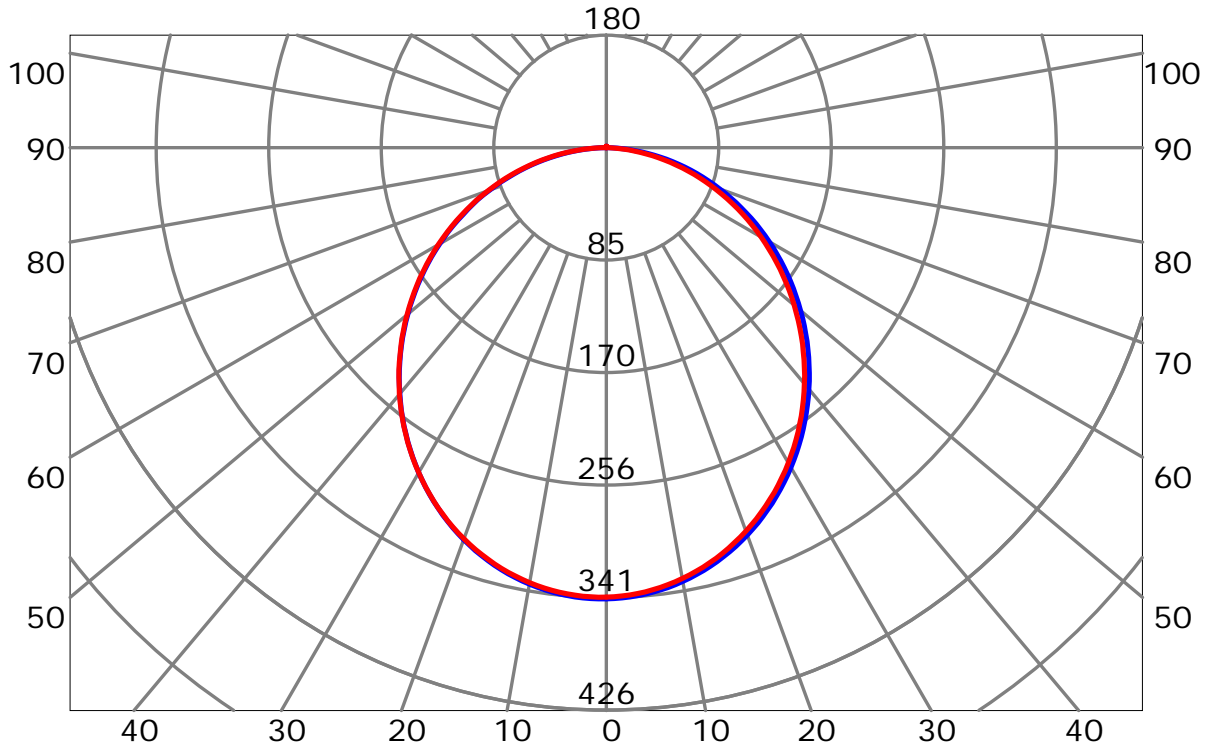
Distance: 7.970 m

Humidity:

Inspector:



Luminous Intensity Distribution Curve

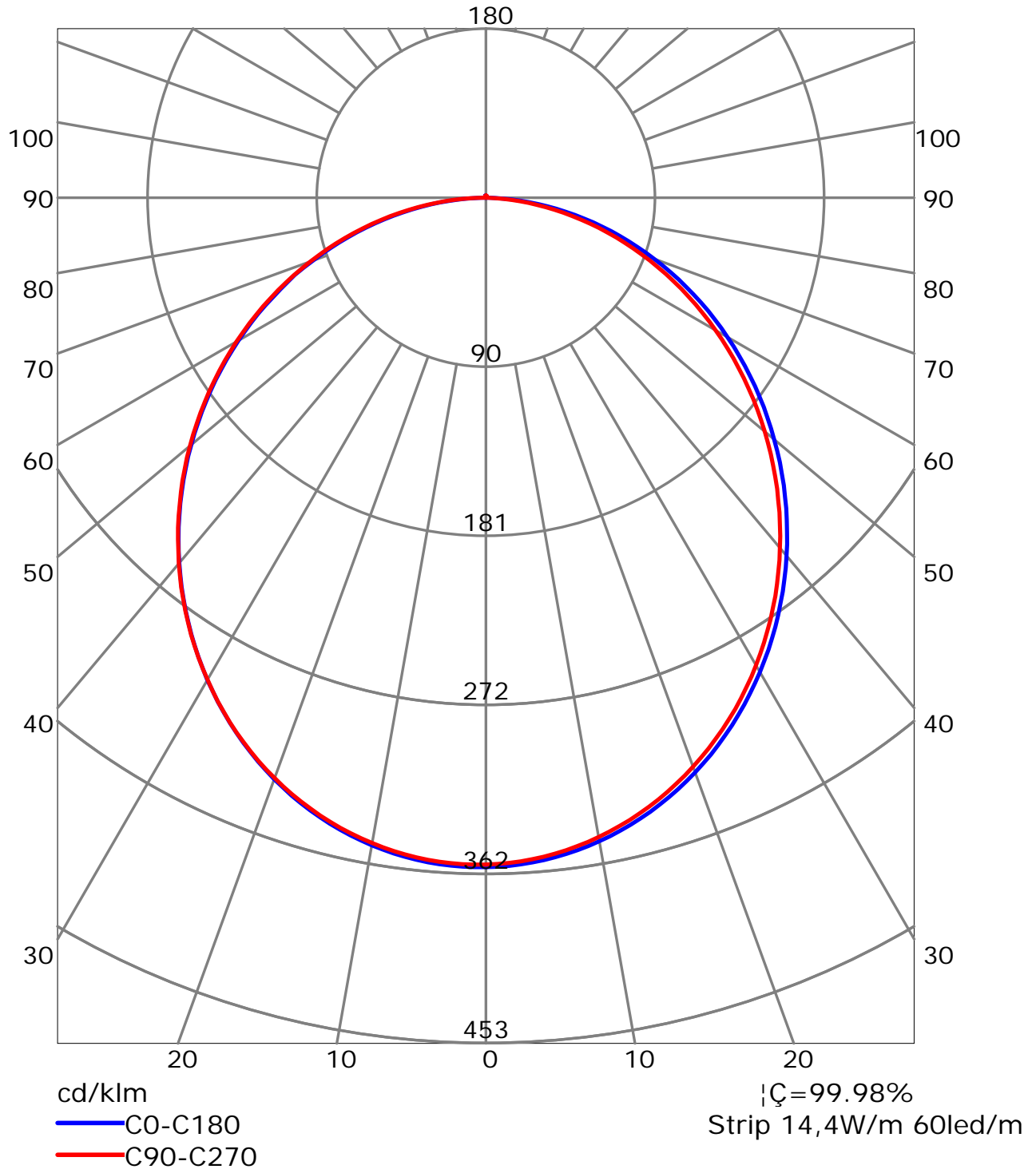


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-2000
Distance: 7.970 m
Humidity:
Inspector:



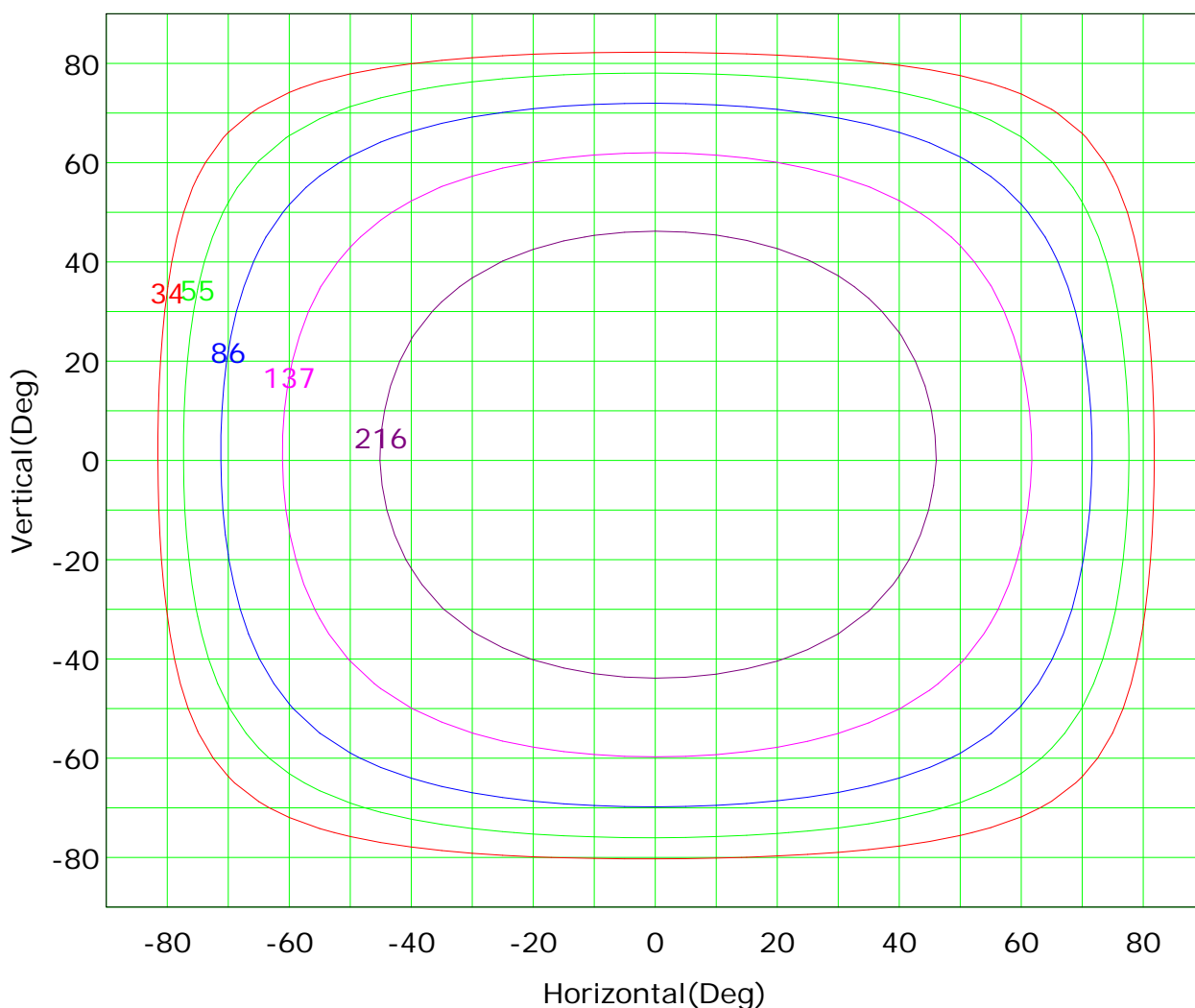
Luminous Intensity Distribution Curve(cd/klm)



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)



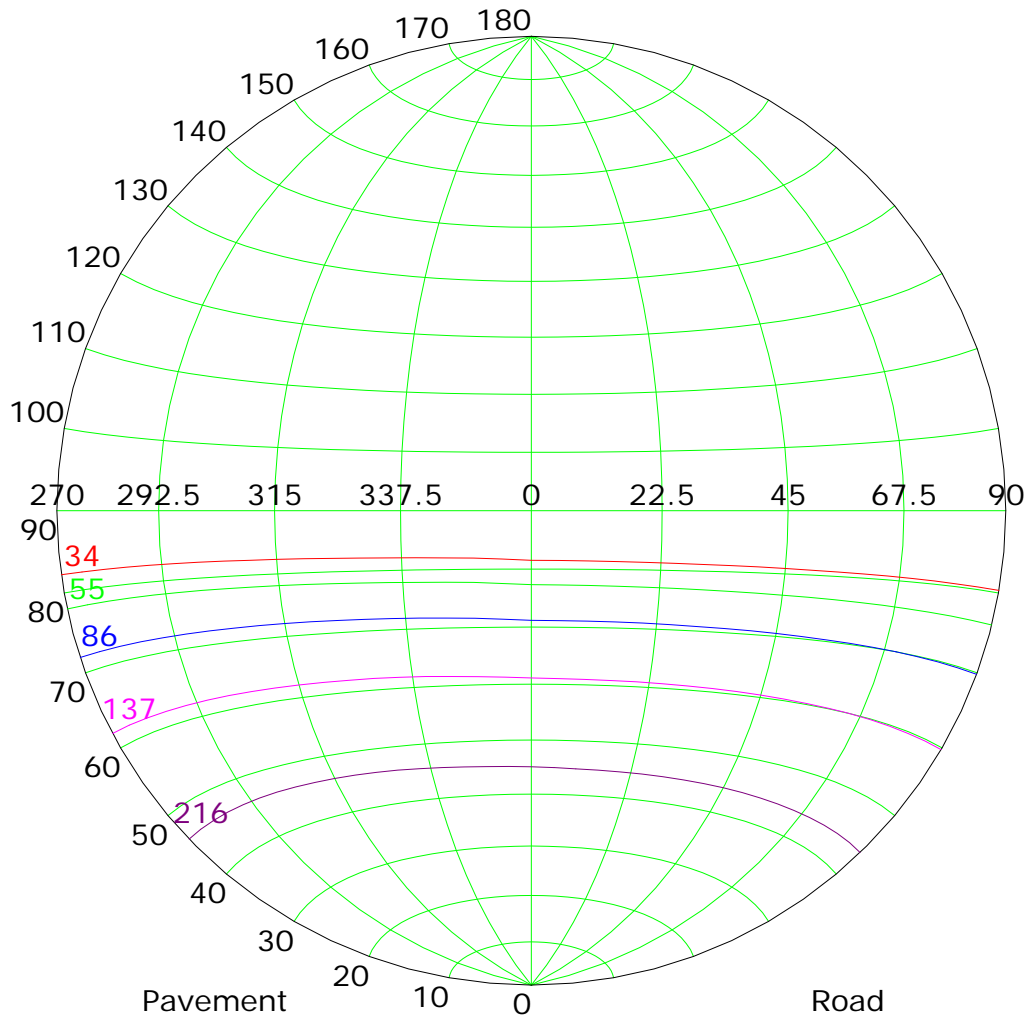
Imax (100%): 343 cd

— (10%):	34 cd	— (16%):	55 cd
— (25%):	86 cd	— (40%):	137 cd
— (63%):	216 cd	— (100%):	343 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%): 343 cd

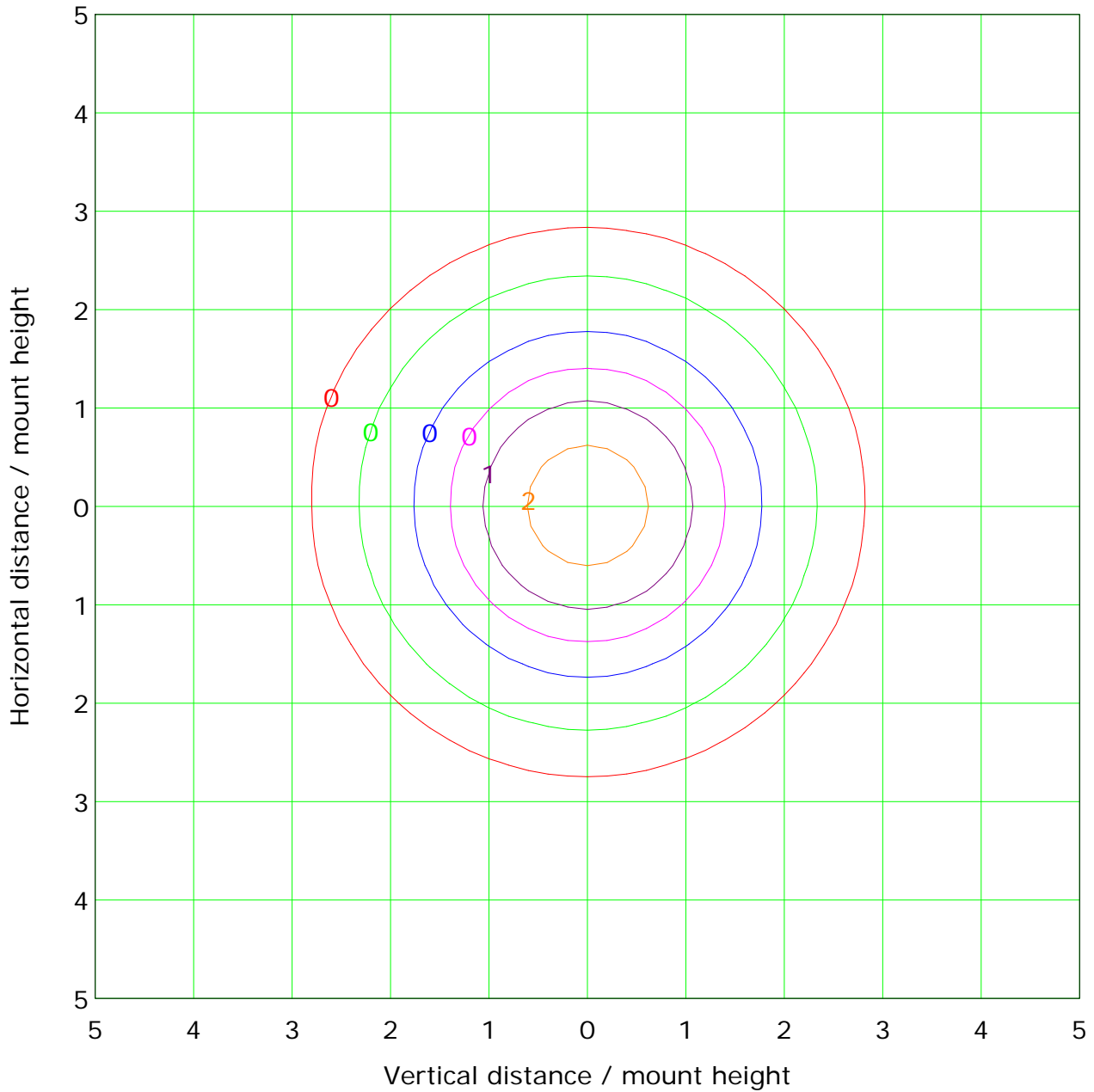
— (10%):	34 cd	— (16%):	55 cd
— (25%):	86 cd	— (40%):	137 cd
— (63%):	216 cd	— (100%):	343 cd

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%): 3.4 lx	
— (1%):	0.0 lx	— (2%):	0.1 lx
— (5%):	0.2 lx	— (10%):	0.3 lx
— (20%):	0.7 lx	— (50%):	1.7 lx
— (100%):	3.4 lx		

C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

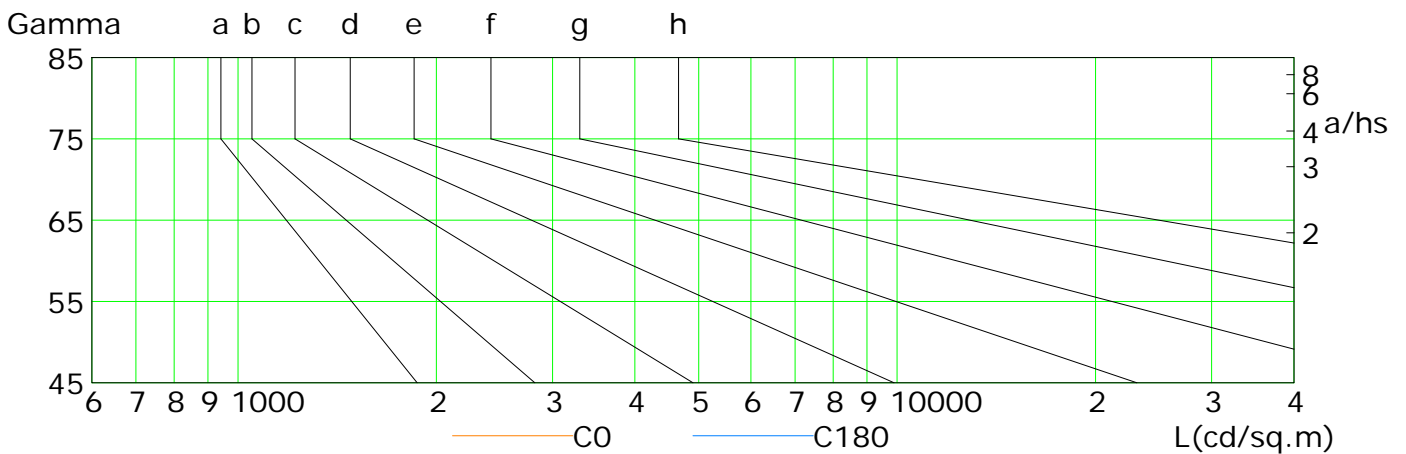
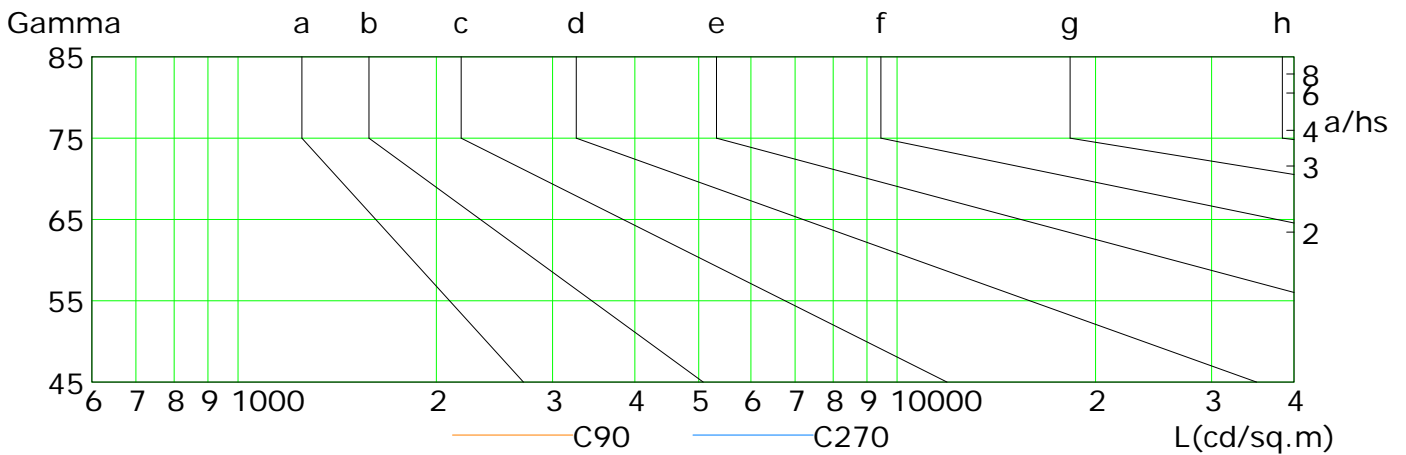
Gamma Plane (°):0.0-180.0:1.0
 Test Device: GPM-2000
 Distance: 7.970 m
 Humidity:
 Inspector:



Lum Limit Curve

Dazzle	Quality	Illuminance (lx)								
		2000	1000	500	<=300					
1.15	A									
1.50	B									
1.85	C									
2.20	D									
2.55	E									

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	216	192	168	143	117	92	66	41	18
C90	211	186	161	136	110	85	60	36	13
C180	221	197	172	146	120	94	68	43	19
C270	221	198	173	147	121	96	70	45	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

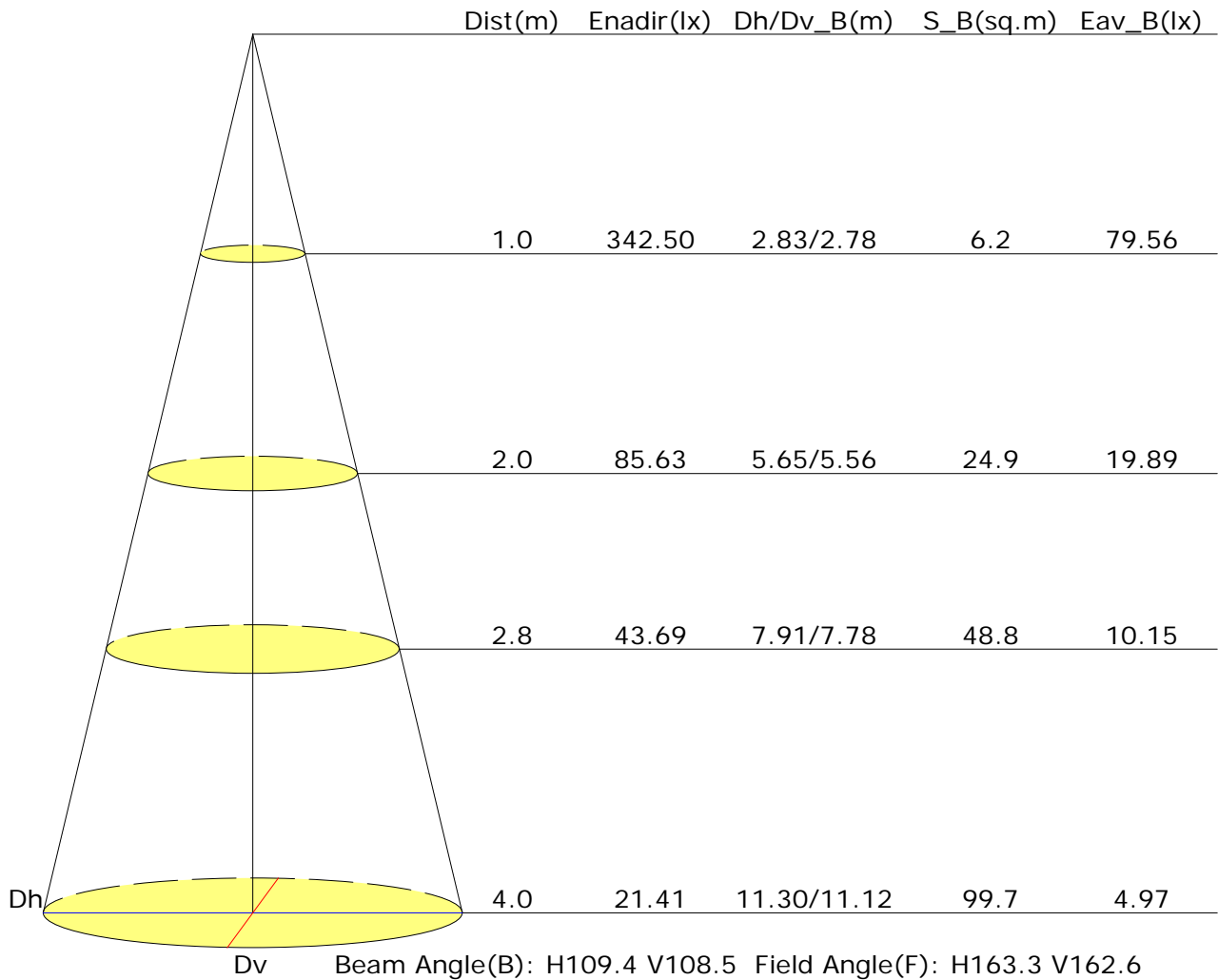
Distance: 7.970 m

Humidity:

Inspector:

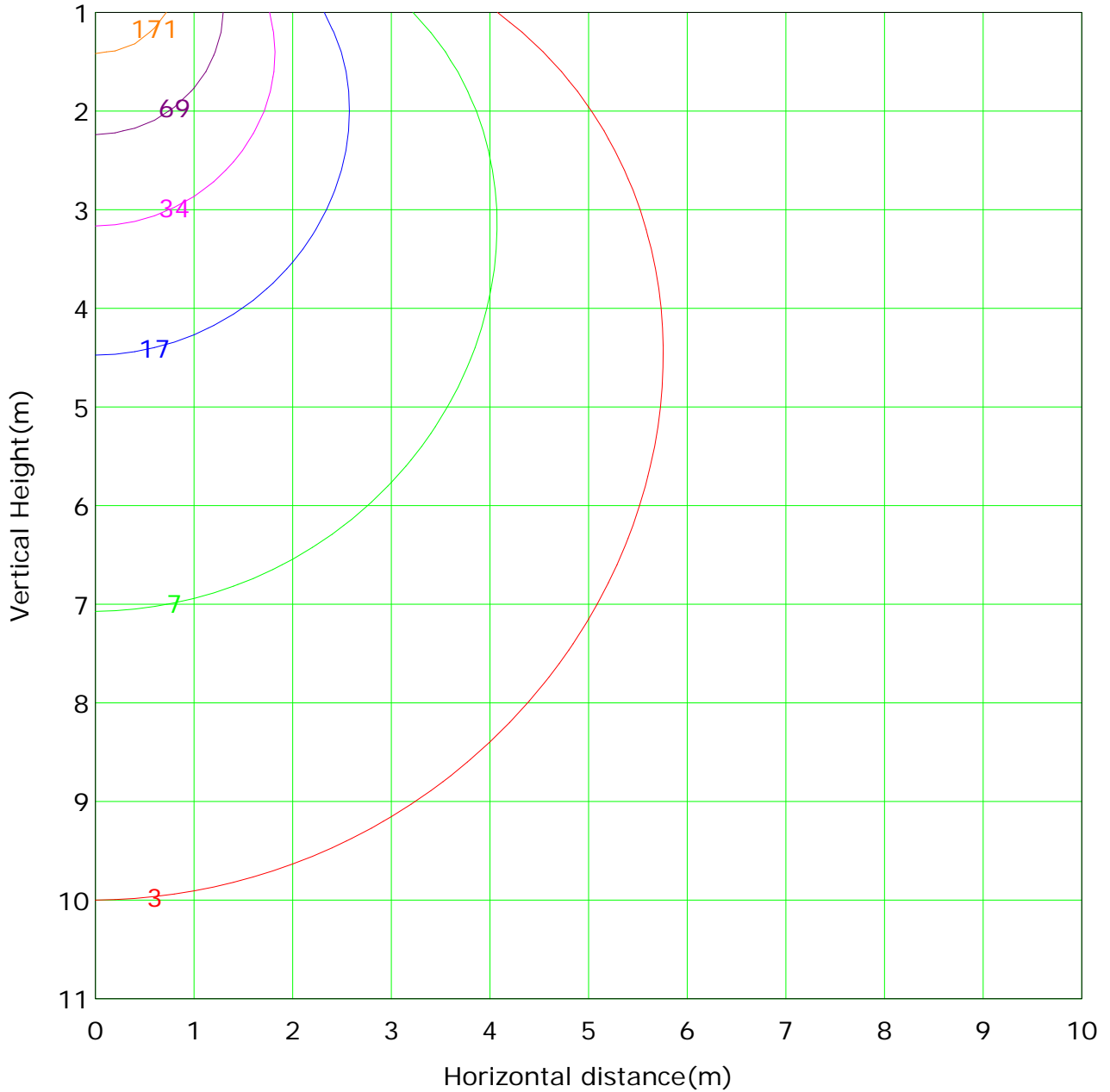


Illuminance at a Distance





Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 342.5 lx
— (1%): 3.4 lx	— (2%): 6.8 lx	
— (5%): 17.1 lx	— (10%): 34.3 lx	
— (20%): 68.5 lx	— (50%): 171.3 lx	
— (100%): 342.5 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: