



Report No.:

Test Time: 02/10/2024 12:13

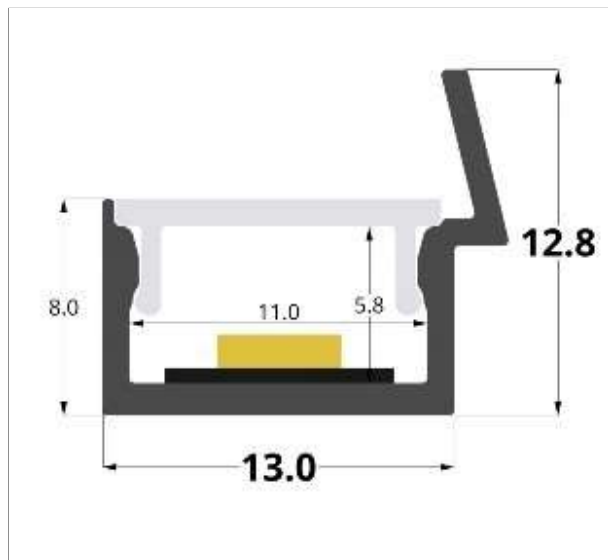
Luminaire Property

Luminaire Manufacturer: Lighting line
 Luminaire Description: LLP-SL16-16+LLD-16-FM
 Lamp Description: OR40sF521208F2/14.4 1m
 Number of Lamps: 1
 Voltage: 24.0 V
 Power: 13.50 W
 Lumens per Lamp: 1491
 Current: 0.563 A
 Power Factor: 1.000

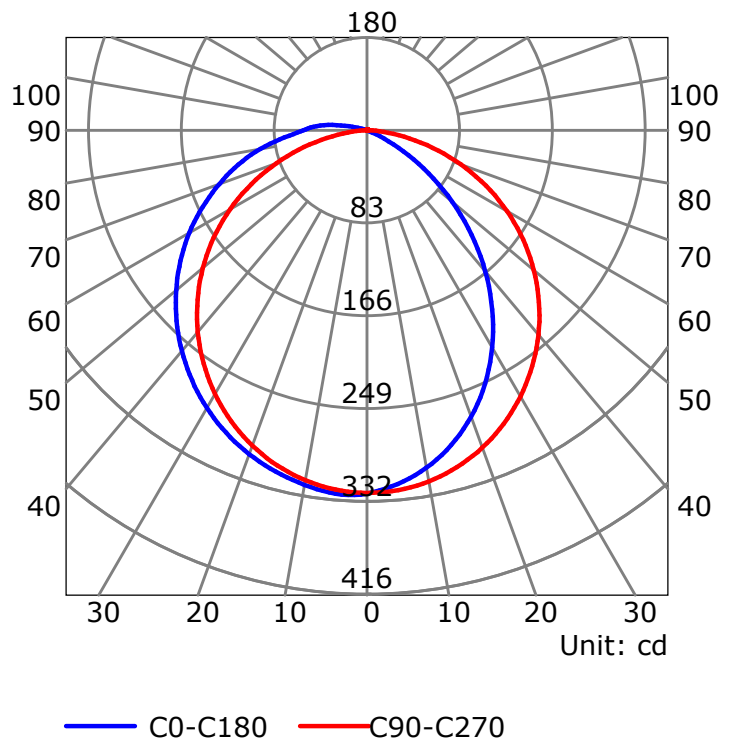
Photometric Results

CIE Class: Direct
 Measurement Flux: 883.6 lm
 Downward Ratio: 58.09%
 Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 159.7, 160.1, 155.6, 155.9
 Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 105.0, 112.7, 106.1, 105.9
 Luminaire Efficacy Rating (LER): 65.50
 Max. Intensity: 327.56 cd
 S/MH(C0/C180): 1.18
 Total Rated Lamp Lumens: 1491.0 lm
 Efficiency: 59.26%
 Upward Ratio: 1.17%
 Central Intensity: 325.74 cd
 Pos of Max. Intensity: H170 V4
 S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve

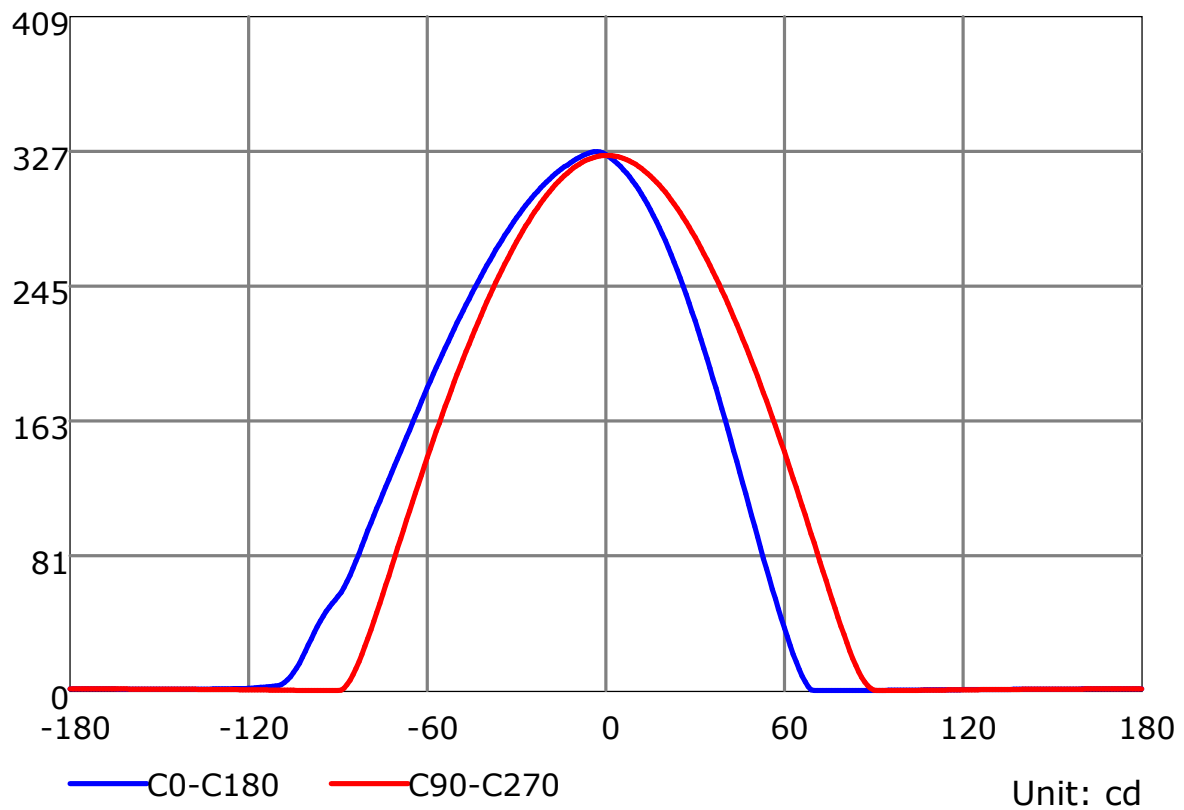
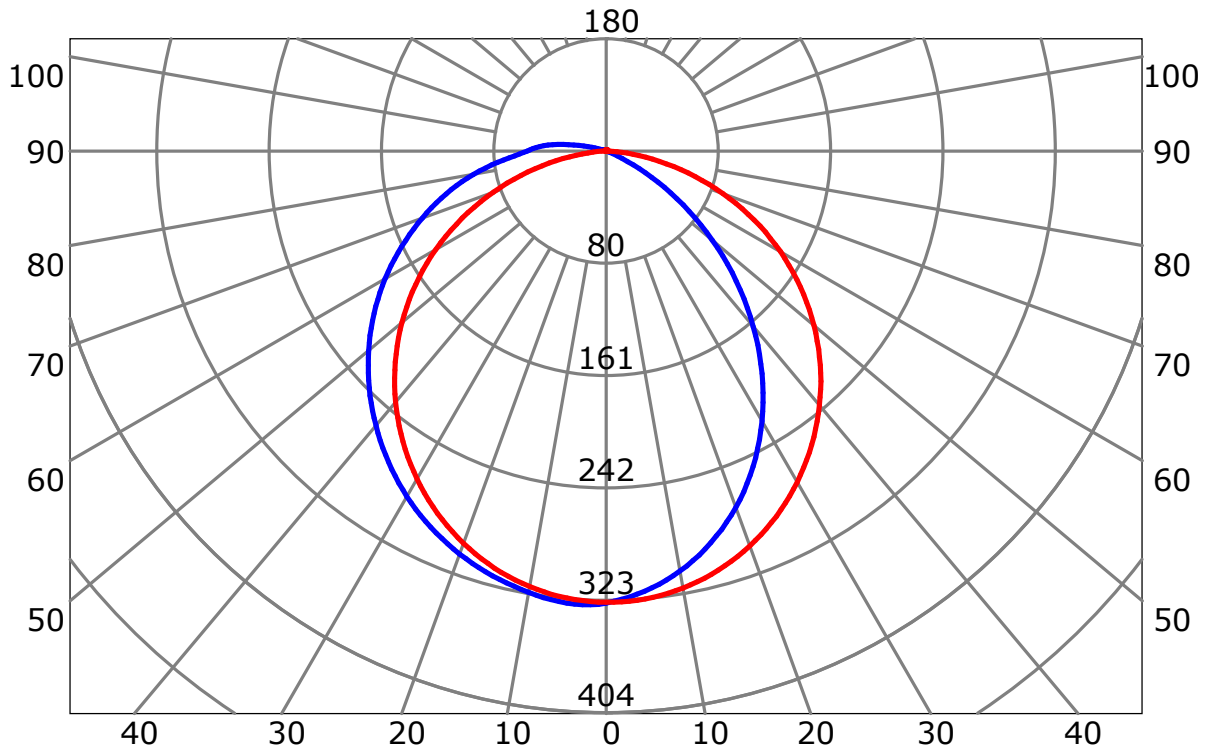


C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Luminous Intensity Distribution Curve



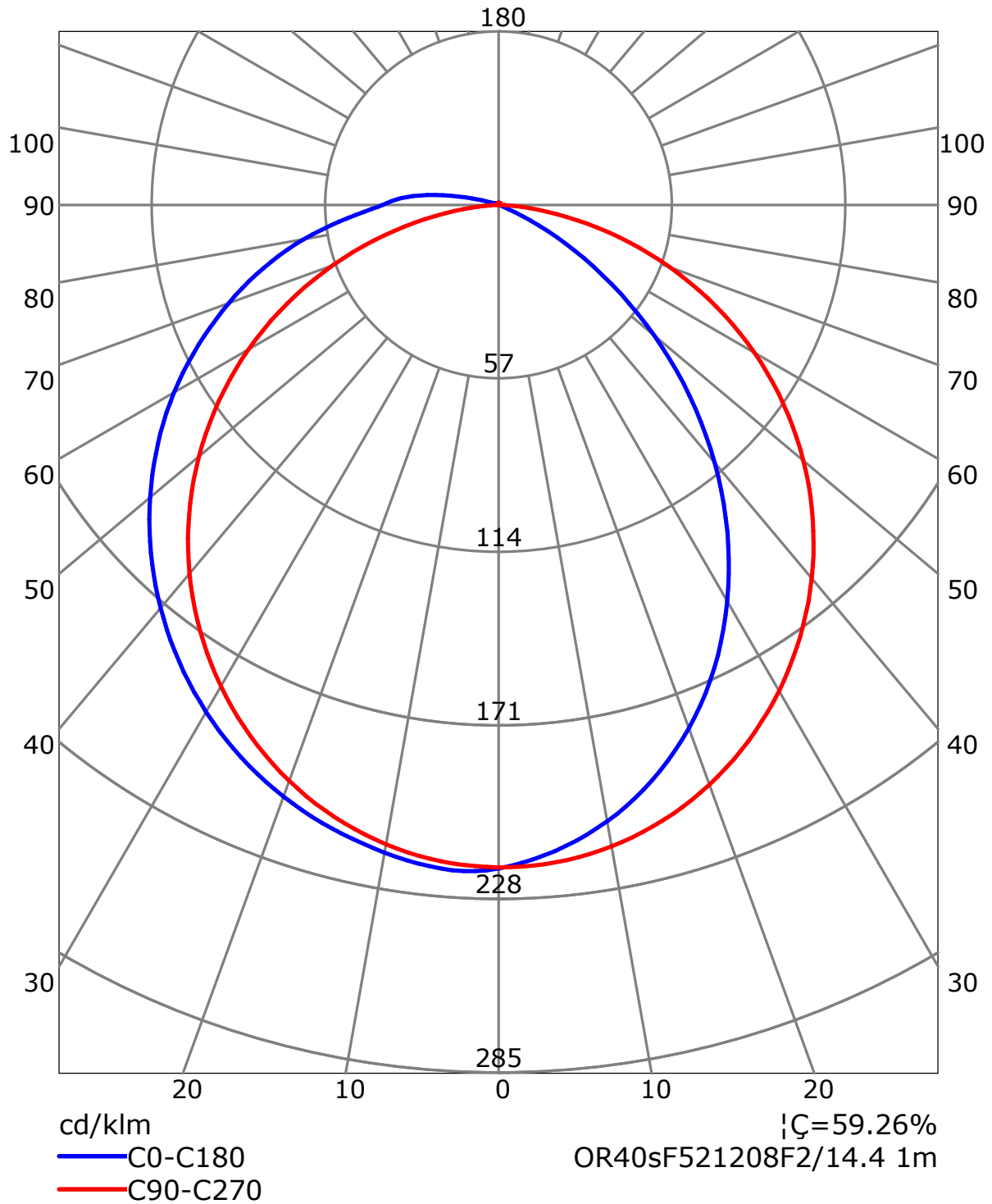
Unit: cd

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-1800B
 Distance: 7.792 m
 Humidity:
 Inspector:



Luminous Intensity Distribution Curve(cd/klm)

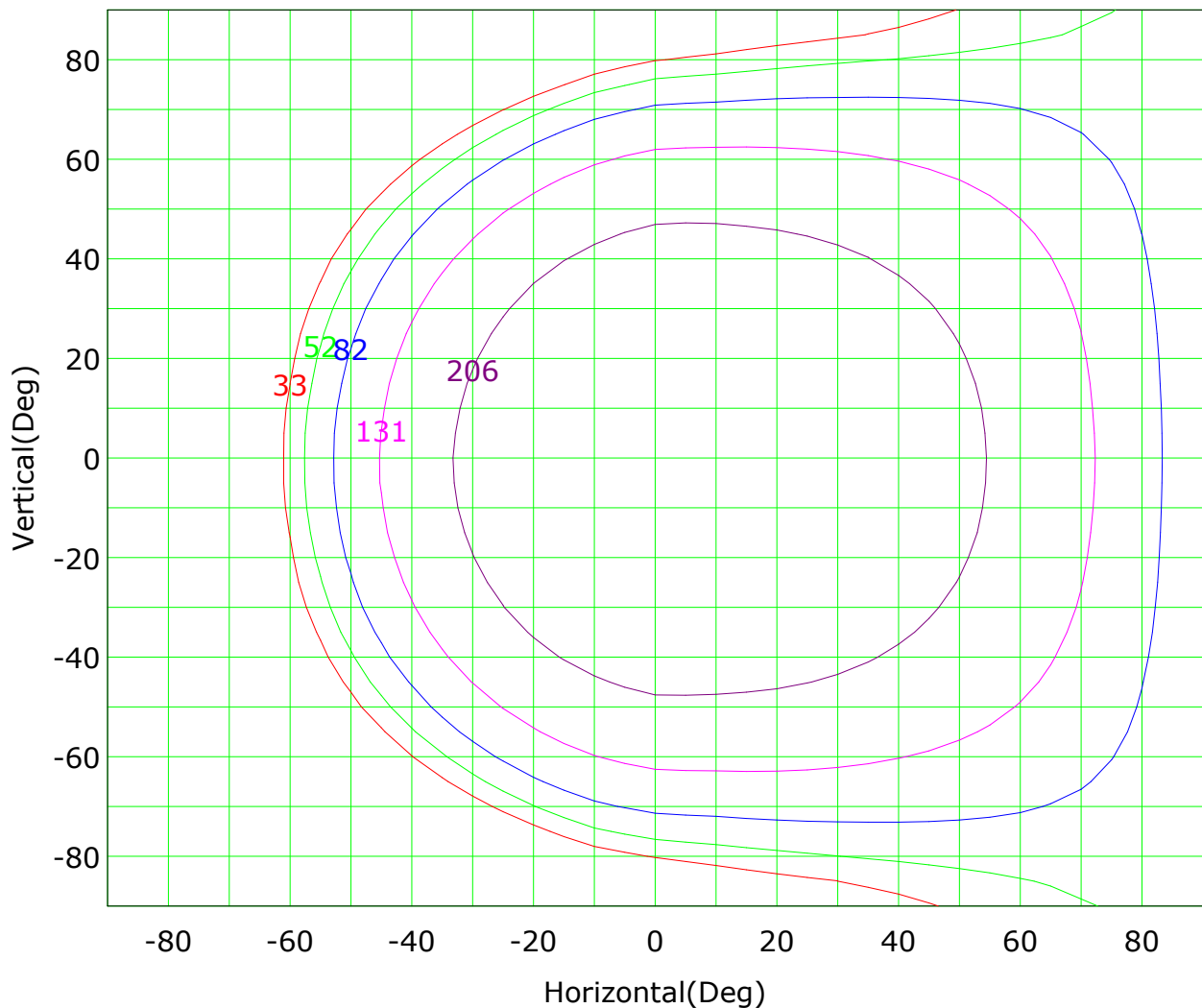


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 328 cd

| | | | |
|-----------|--------|-----------|--------|
| — (10%): | 33 cd | — (16%): | 52 cd |
| — (25%): | 82 cd | — (40%): | 131 cd |
| — (63%): | 206 cd | — (100%): | 328 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-1800B

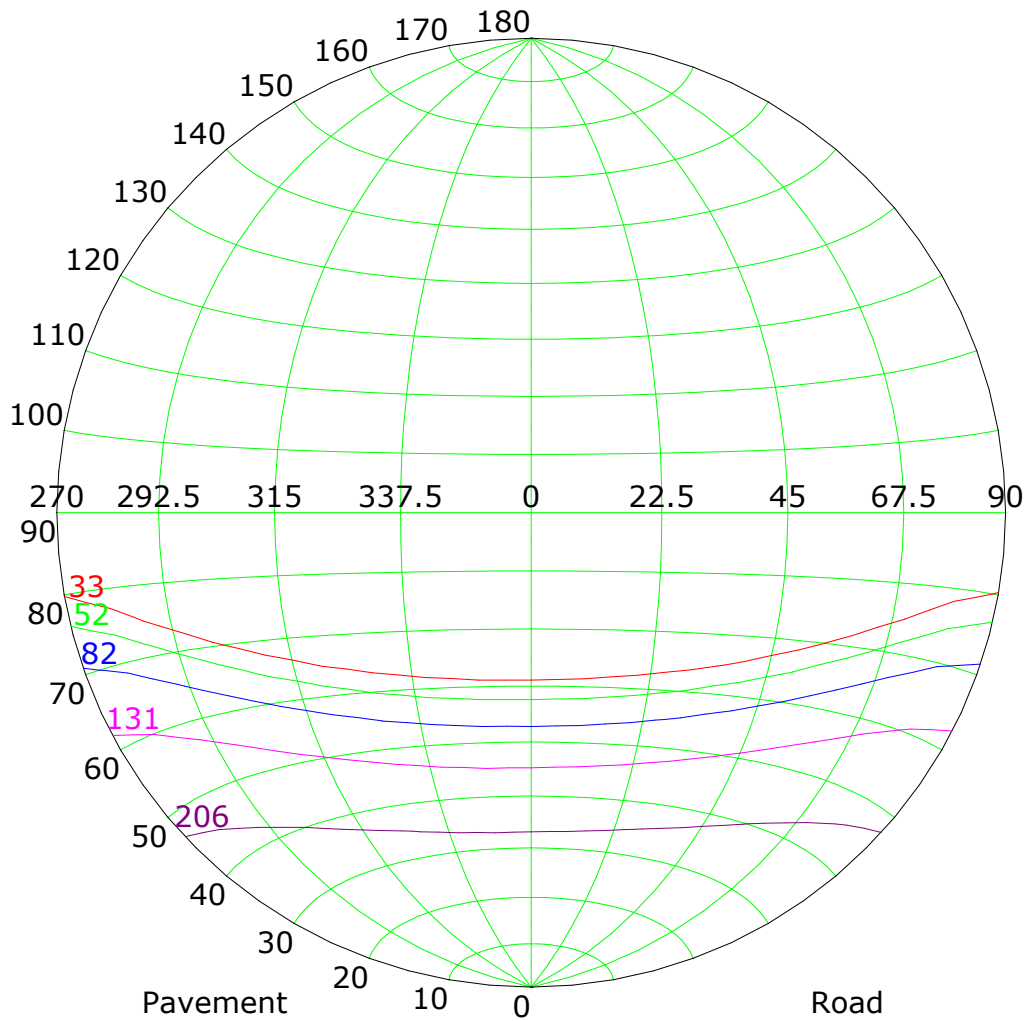
Distance: 7.792 m

Humidity:

Inspector:



Isocandela (sphere)



Imax (100%): 328 cd

| | | | |
|-----------|--------|-----------|--------|
| — (10%): | 33 cd | — (16%): | 52 cd |
| — (25%): | 82 cd | — (40%): | 131 cd |
| — (63%): | 206 cd | — (100%): | 328 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-1800B

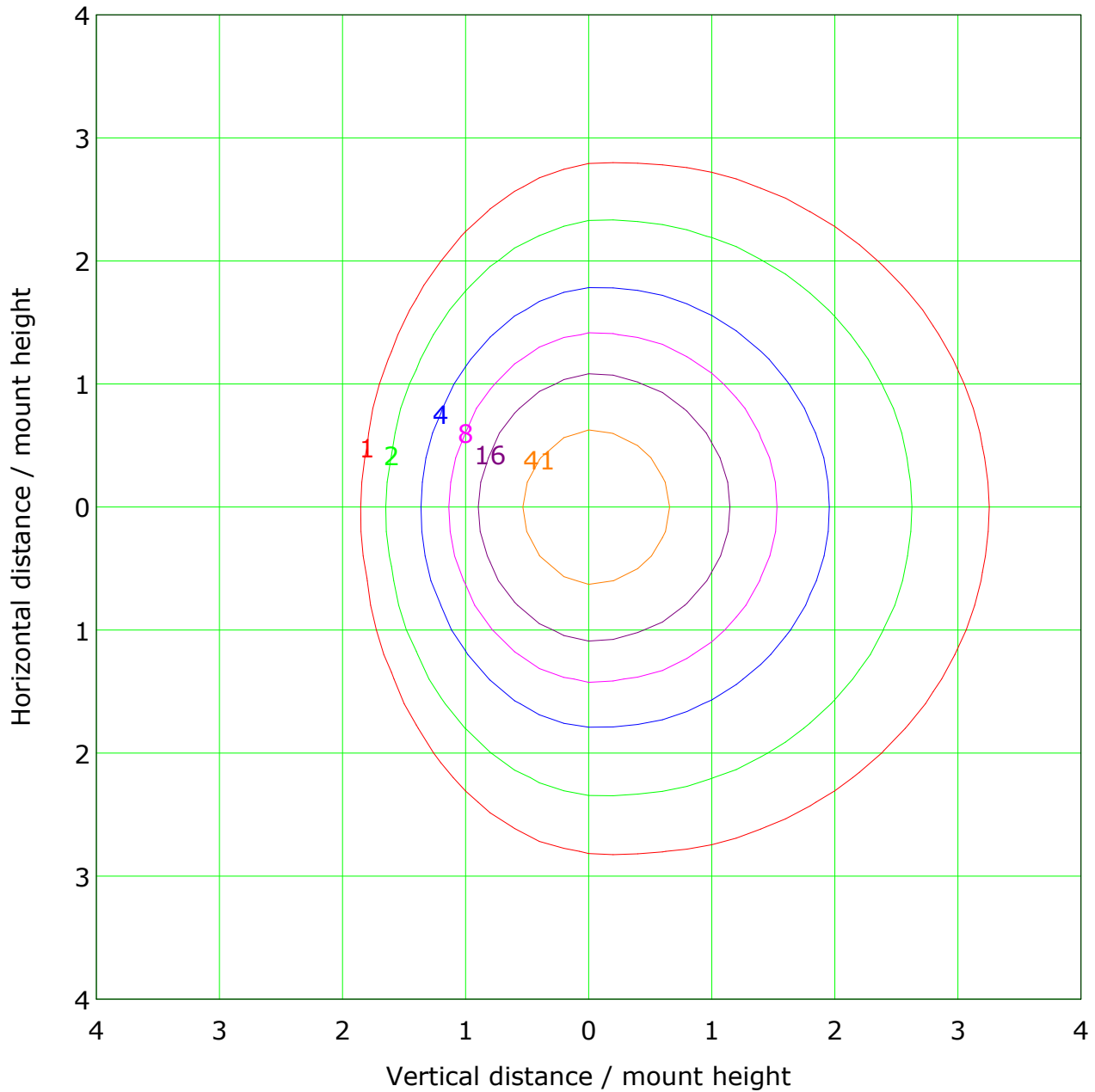
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



| | | | |
|-----------------------|---------|------------------------|---------|
| Mounting Height: 2.0m | | Max Lux(100%): 81.7 lx | |
| — (1%): | 0.8 lx | — (2%): | 1.6 lx |
| — (5%): | 4.1 lx | — (10%): | 8.2 lx |
| — (20%): | 16.3 lx | — (50%): | 40.8 lx |
| — (100%): | 81.7 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-1800B

Distance: 7.792 m

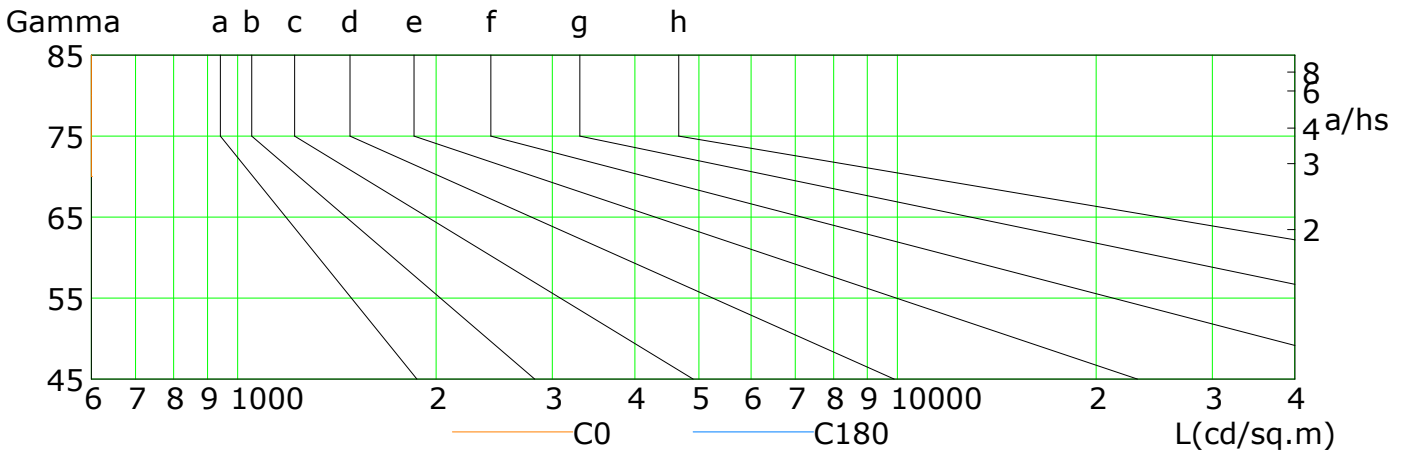
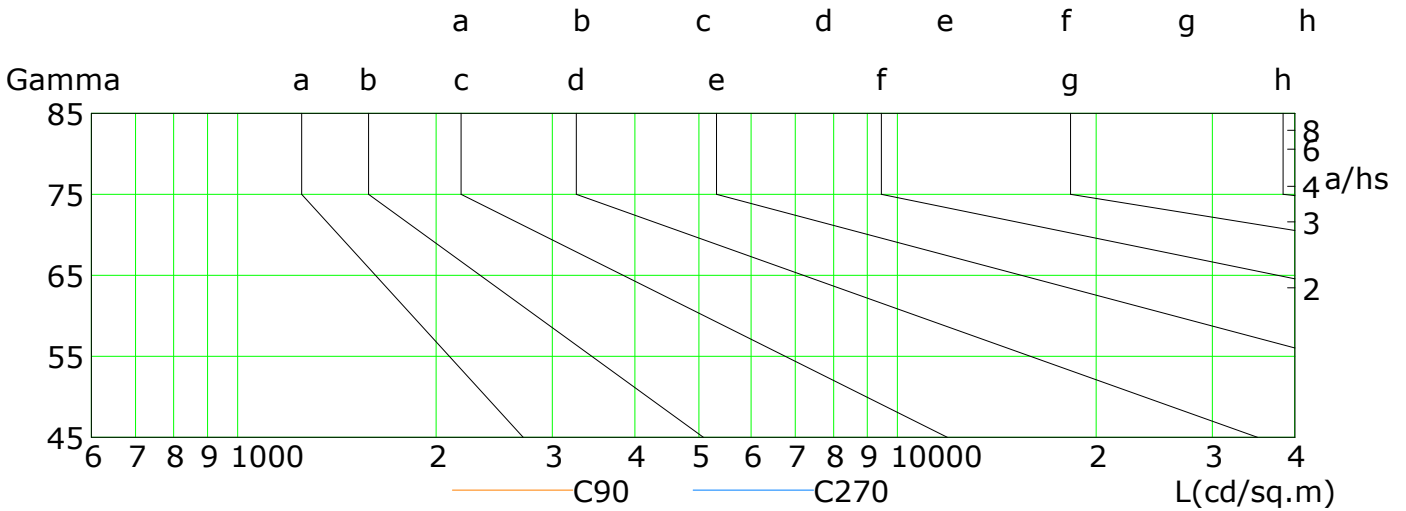
Humidity:

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 | 133 | 100 | 68 | 38 | 13 | 0 | 0 | 0 | 0 |
| C90 | 218 | 195 | 171 | 145 | 118 | 90 | 61 | 34 | 11 |
| C180 | 242 | 224 | 204 | 184 | 163 | 141 | 120 | 97 | 74 |
| C270 | 215 | 192 | 168 | 142 | 115 | 87 | 59 | 32 | 10 |

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-1800B

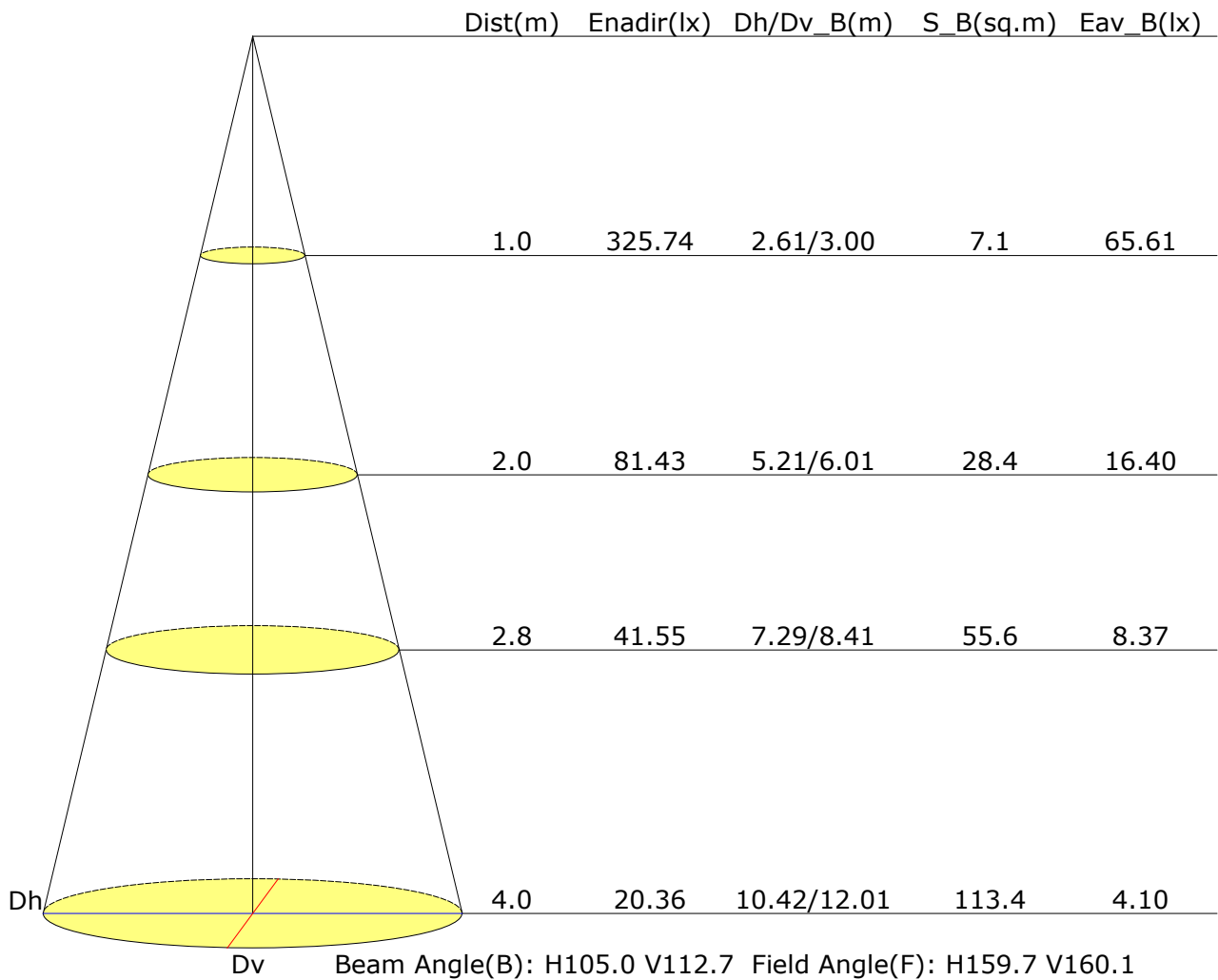
Distance: 7.792 m

Humidity:

Inspector:



Illuminance at a Distance

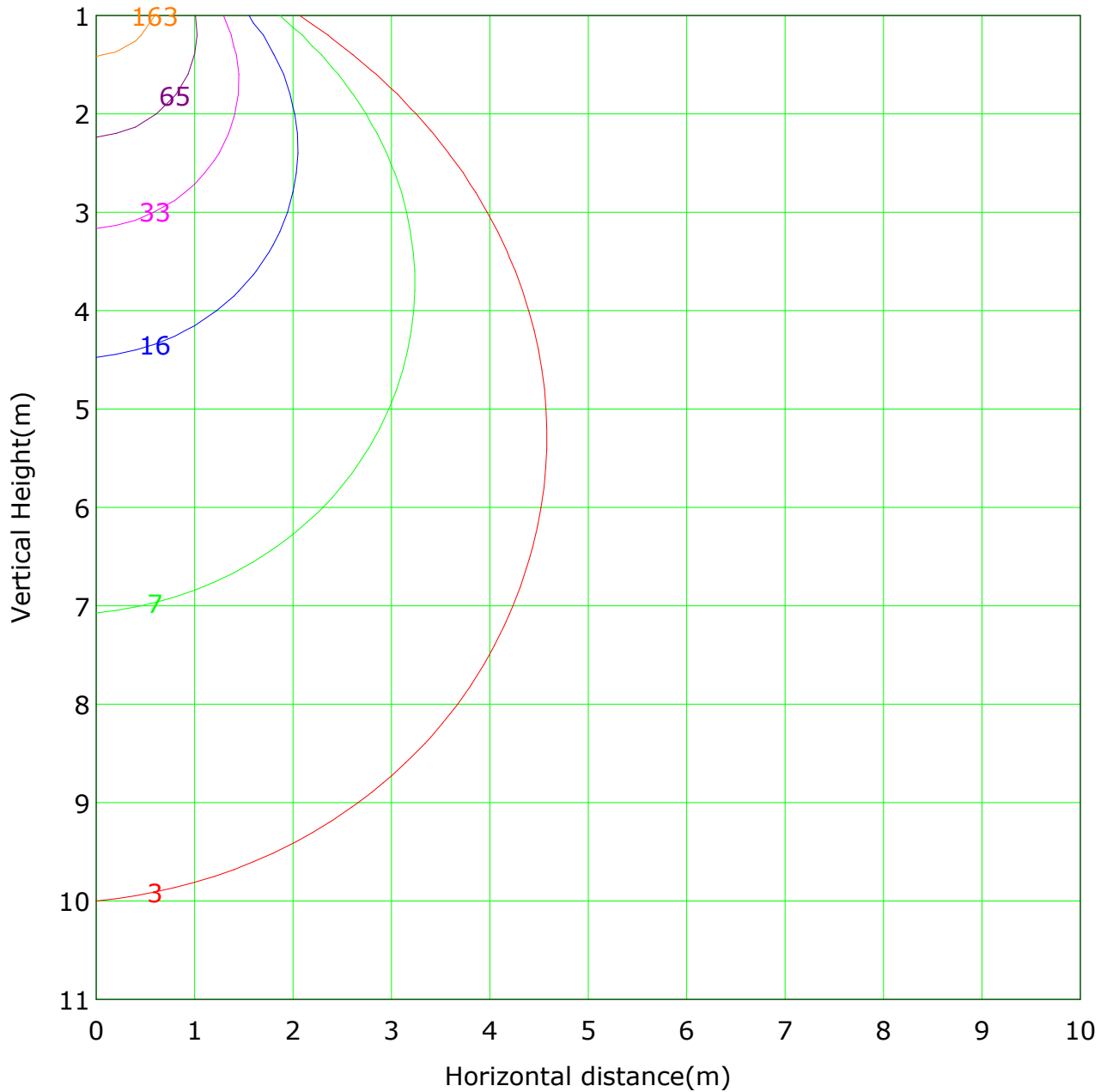


C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 325.7 lx
 — (1%): 3.3 lx — (2%): 6.5 lx
 — (5%): 16.3 lx — (10%): 32.6 lx
 — (20%): 65.1 lx — (50%): 162.9 lx
 — (100%): 325.7 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-1800B
 Distance: 7.792 m
 Humidity:
 Inspector:



Report No.:

Test Time: 02/10/2024 10:47

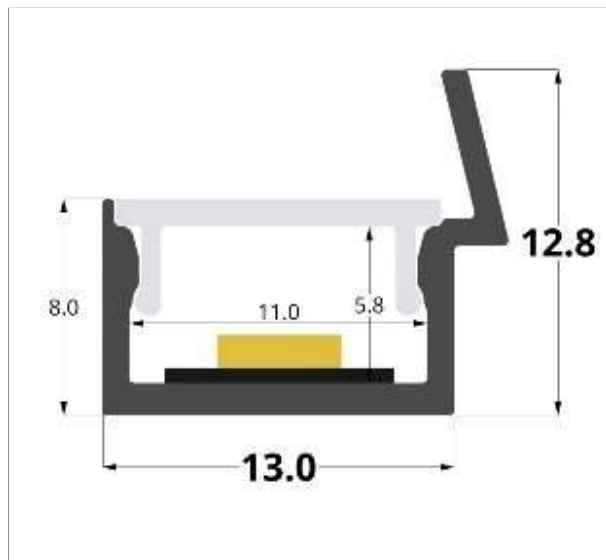
Luminaire Property

Luminaire Manufacturer: Lighting Line
 Luminaire Description: LLP-SL16-16+PRD-16-FS
 Lamp Description: OR40sF521208F2/14.4 1m
 Number of Lamps: 1
 Voltage: 24.0 V
 Power: 13.49 W
 Lumens per Lamp: 1491
 Current: 0.562 A
 Power Factor: 1.000

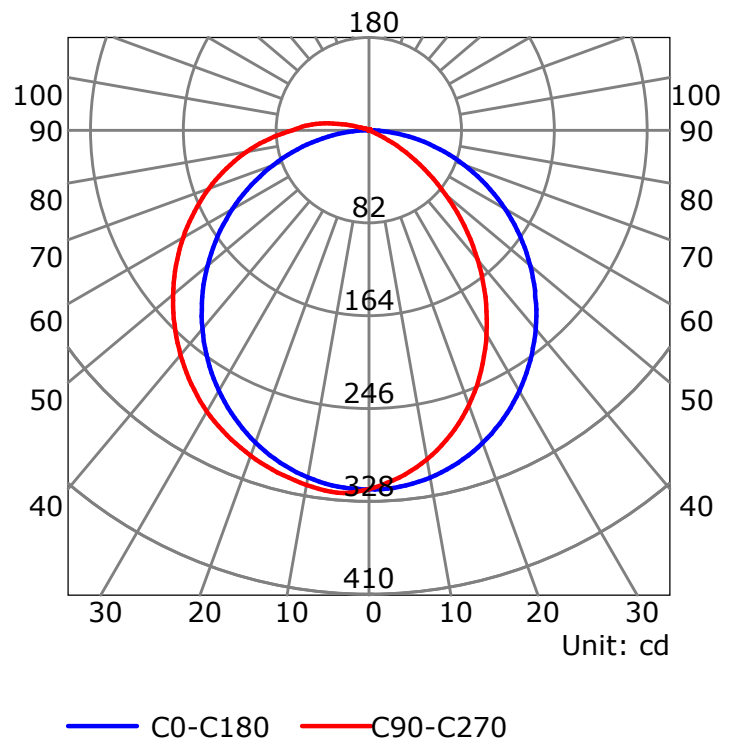
Photometric Results

CIE Class: Direct
 Measurement Flux: 878.2 lm
 Downward Ratio: 57.44%
 Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 163.9, 161.3, 159.0, 158.8
 Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.9, 105.6, 105.8, 105.8
 Luminaire Efficacy Rating (LER): 65.15
 Max. Intensity: 321.5 cd
 S/MH(C0/C180): 1.25
 Total Rated Lamp Lumens: 1491.0 lm
 Efficiency: 58.90%
 Upward Ratio: 1.46%
 Central Intensity: 317.26 cd
 Pos of Max. Intensity: H270 V5
 S/MH(C90/C270): 1.17

Picture Of Luminaire



Luminous Intensity Distribution Curve

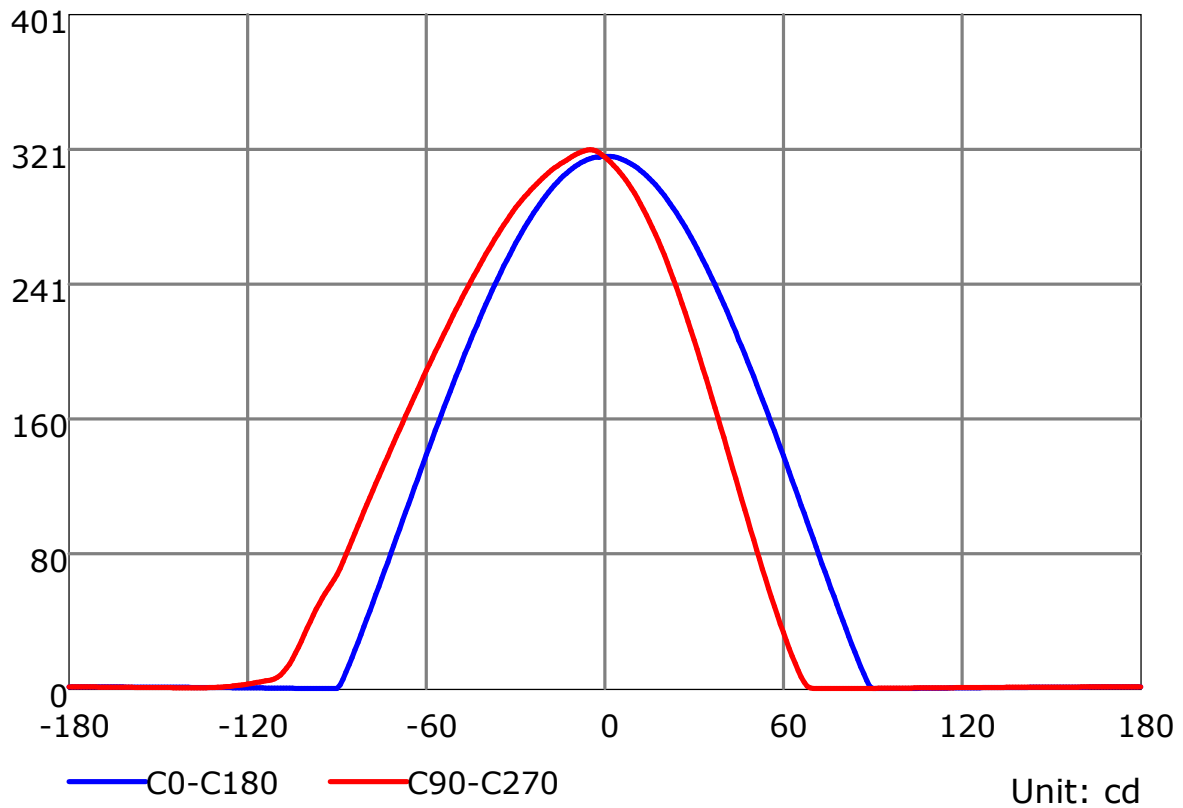
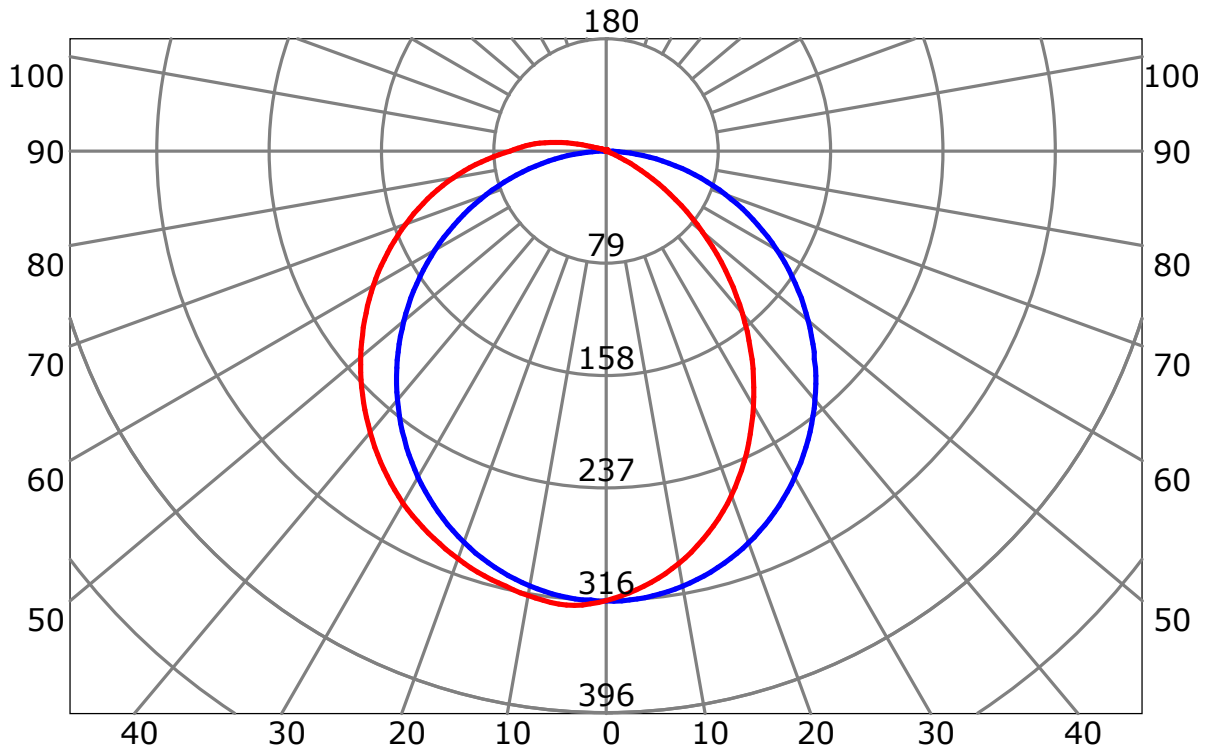


C Plane (°):0.0-360.0: 10.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Luminous Intensity Distribution Curve

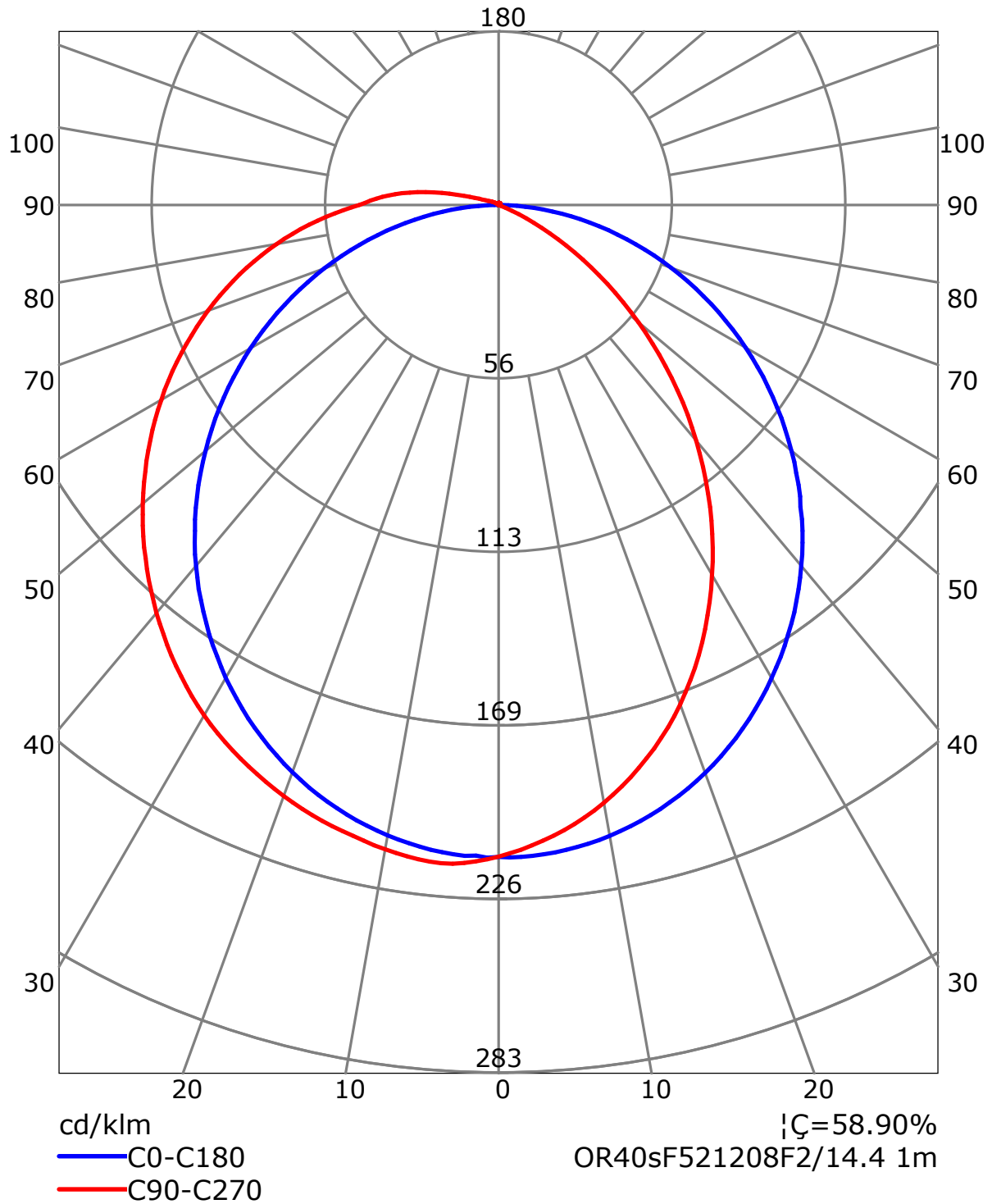


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Luminous Intensity Distribution Curve(cd/klm)

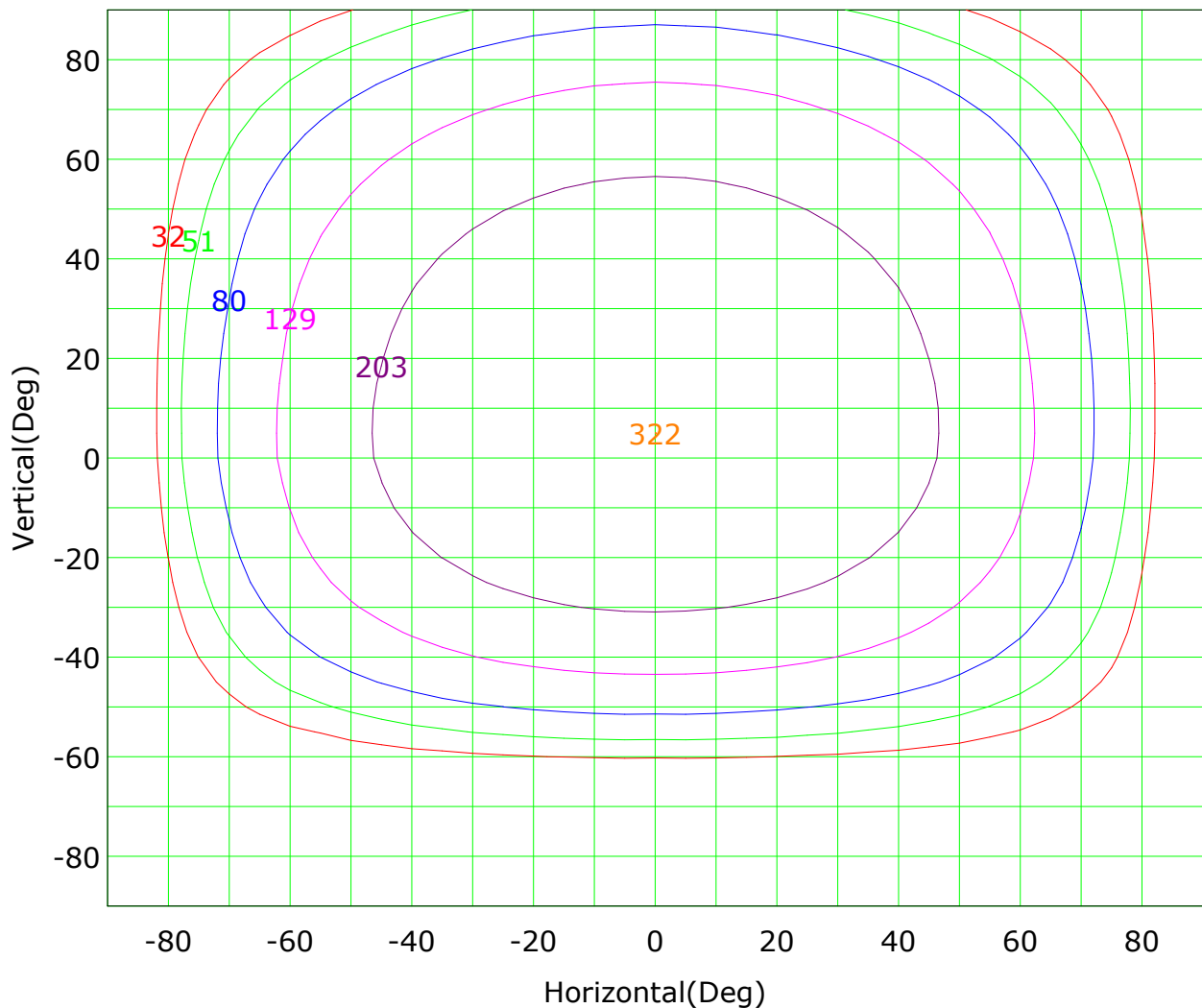


C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



Isocandela (rectangle)



Imax (100%): 322 cd

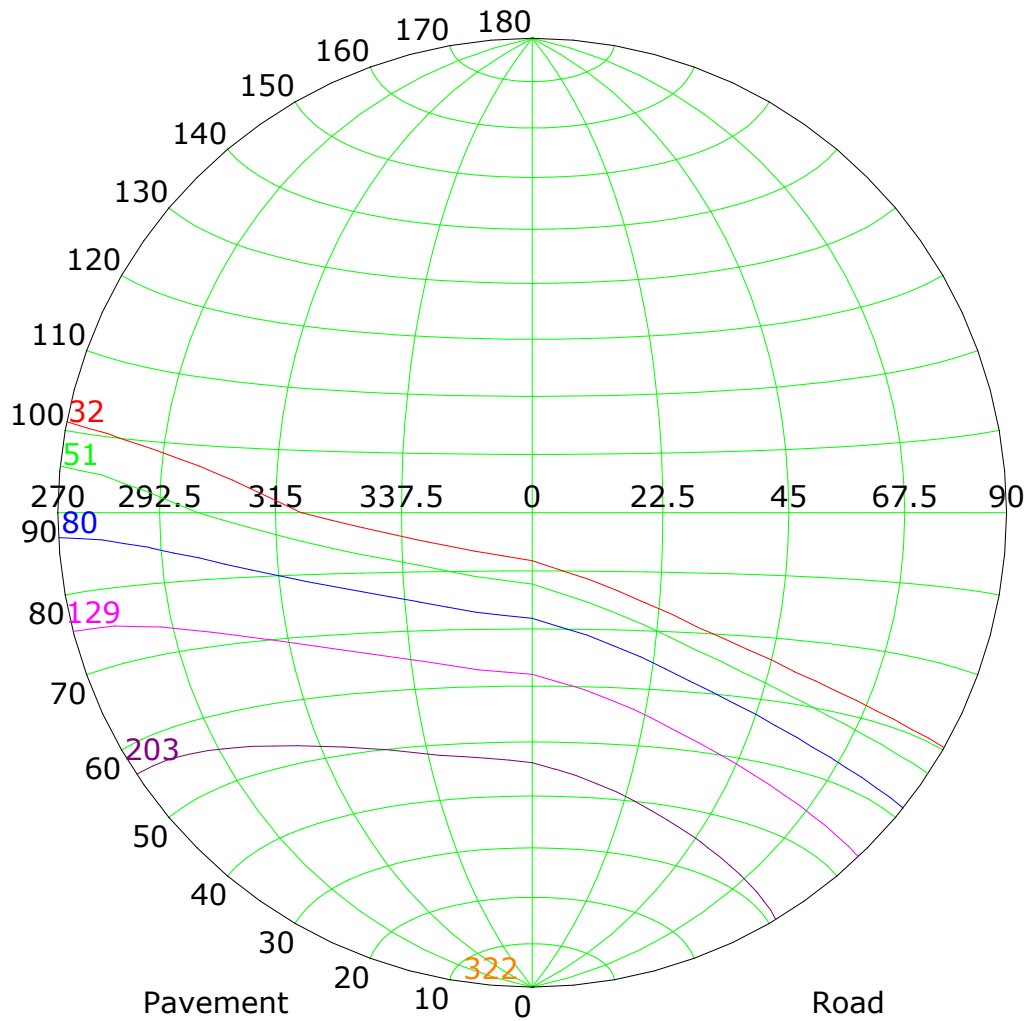
| | | | |
|-----------|--------|-----------|--------|
| — (10%): | 32 cd | — (16%): | 51 cd |
| — (25%): | 80 cd | — (40%): | 129 cd |
| — (63%): | 203 cd | — (100%): | 322 cd |

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-1800B
 Distance: 7.792 m
 Humidity:
 Inspector:



Isocandela (sphere)



Imax (100%): 322 cd

| | | | |
|-----------|--------|-----------|--------|
| — (10%): | 32 cd | — (16%): | 51 cd |
| — (25%): | 80 cd | — (40%): | 129 cd |
| — (63%): | 203 cd | — (100%): | 322 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-1800B

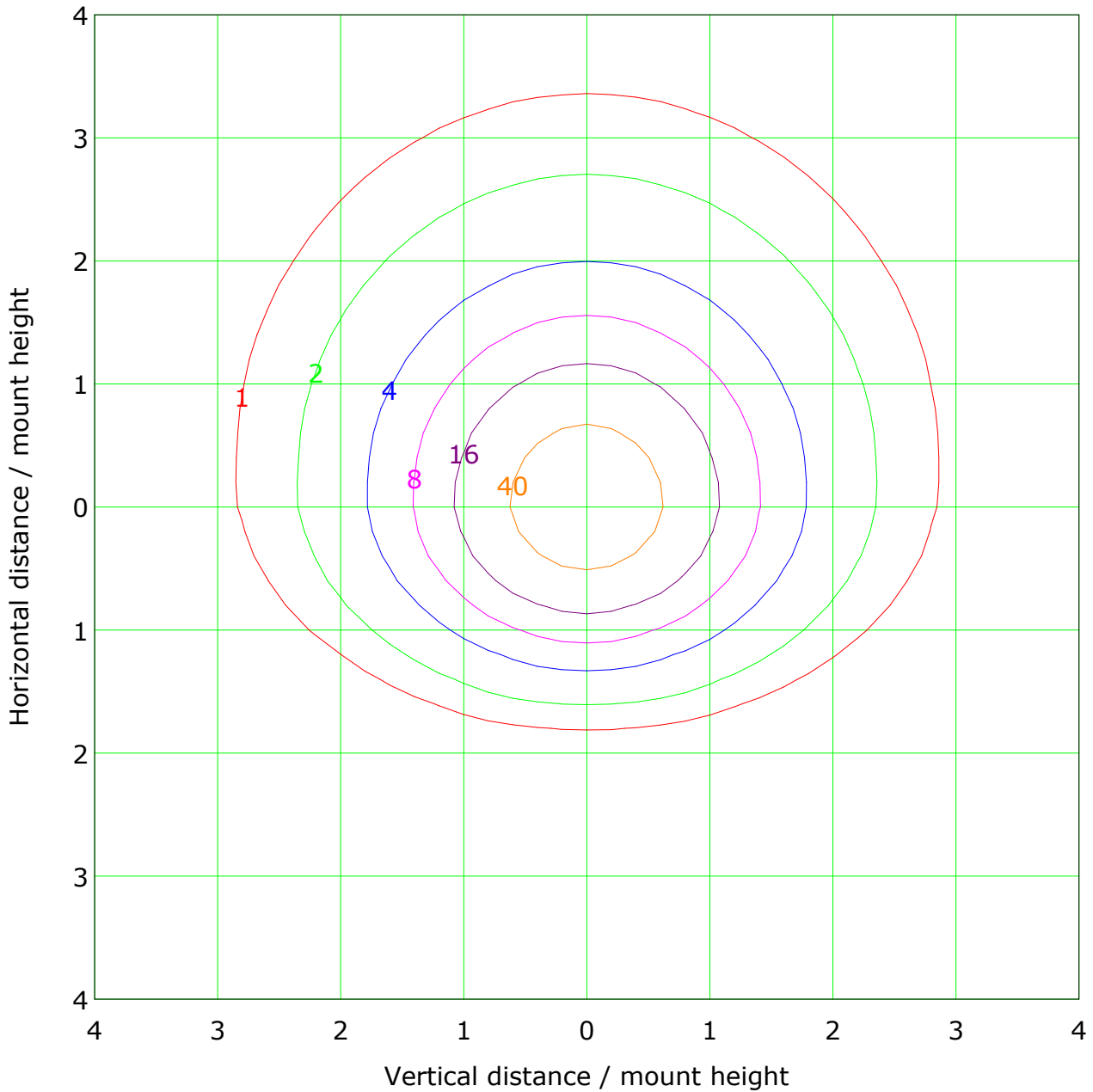
Distance: 7.792 m

Humidity:

Inspector:



IsoLux Plot



| | | |
|-----------------------|---------|------------------------|
| Mounting Height: 2.0m | | Max Lux(100%): 79.8 lx |
| — (1%): | 0.8 lx | — (2%): 1.6 lx |
| — (5%): | 4.0 lx | — (10%): 8.0 lx |
| — (20%): | 16.0 lx | — (50%): 39.9 lx |
| — (100%): | 79.8 lx | |

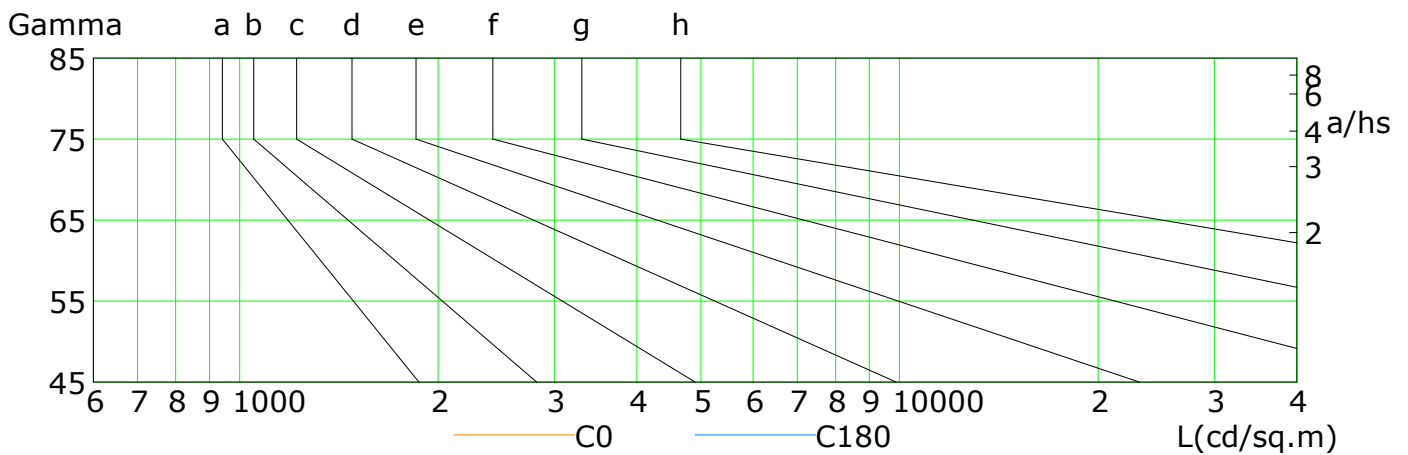
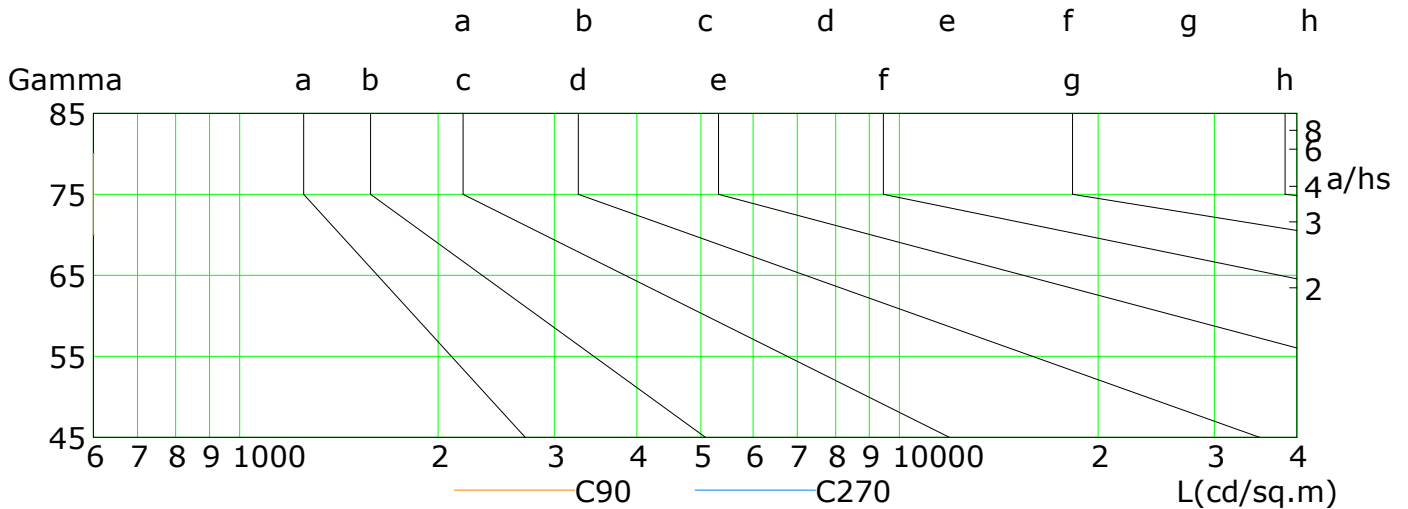
C Plane (°):0.0-360.0: 10.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



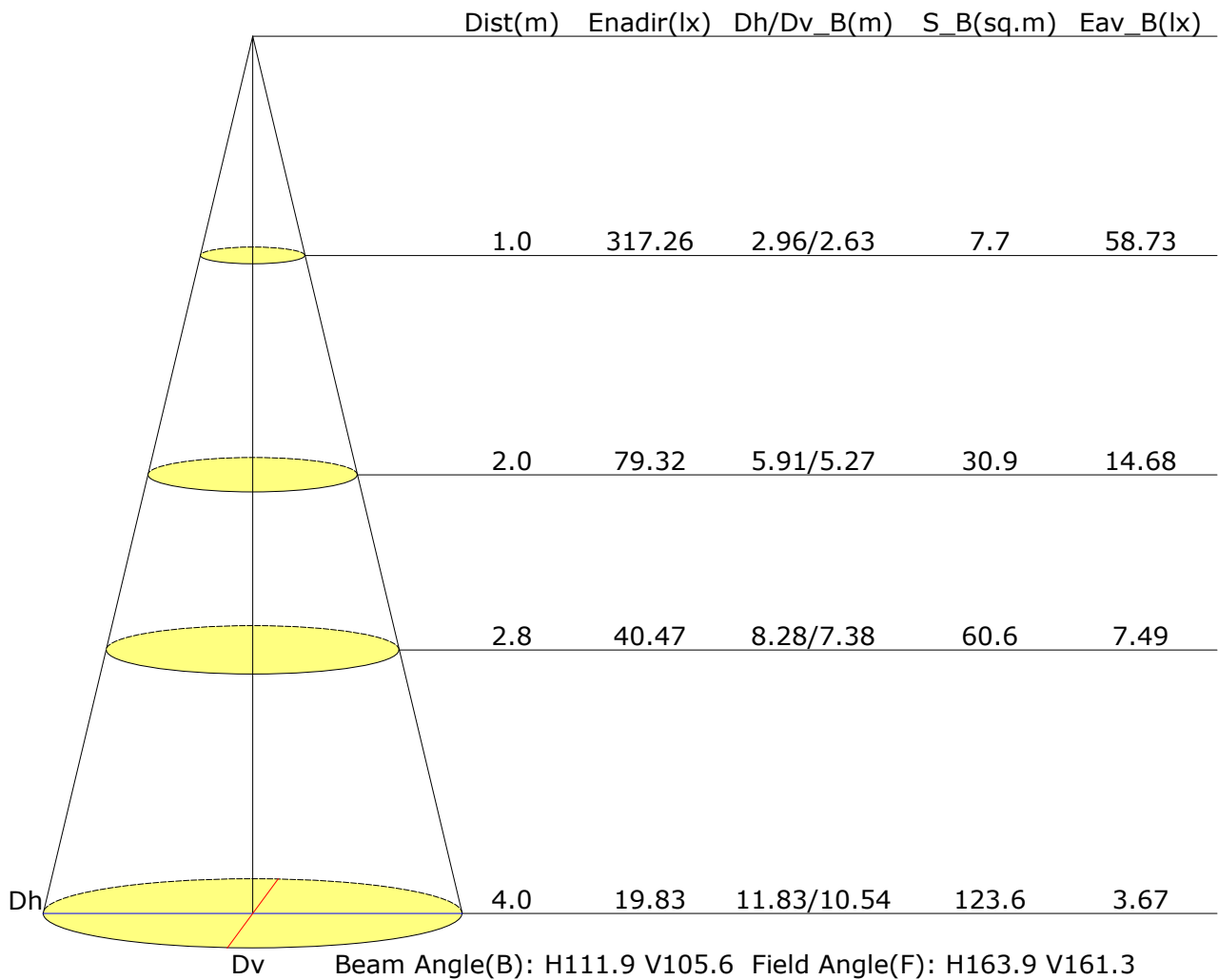
| L(cd/sq.m) | G45 | G50 | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C0 | 208 | 186 | 163 | 139 | 114 | 89 | 65 | 40 | 17 |
| C90 | 119 | 89 | 60 | 34 | 11 | 0 | 0 | 0 | 0 |
| C180 | 209 | 186 | 163 | 140 | 115 | 90 | 66 | 41 | 18 |
| C270 | 243 | 226 | 208 | 190 | 170 | 151 | 131 | 110 | 89 |

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-1800B
 Distance: 7.792 m
 Humidity:
 Inspector:



Illuminance at a Distance



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-1800B

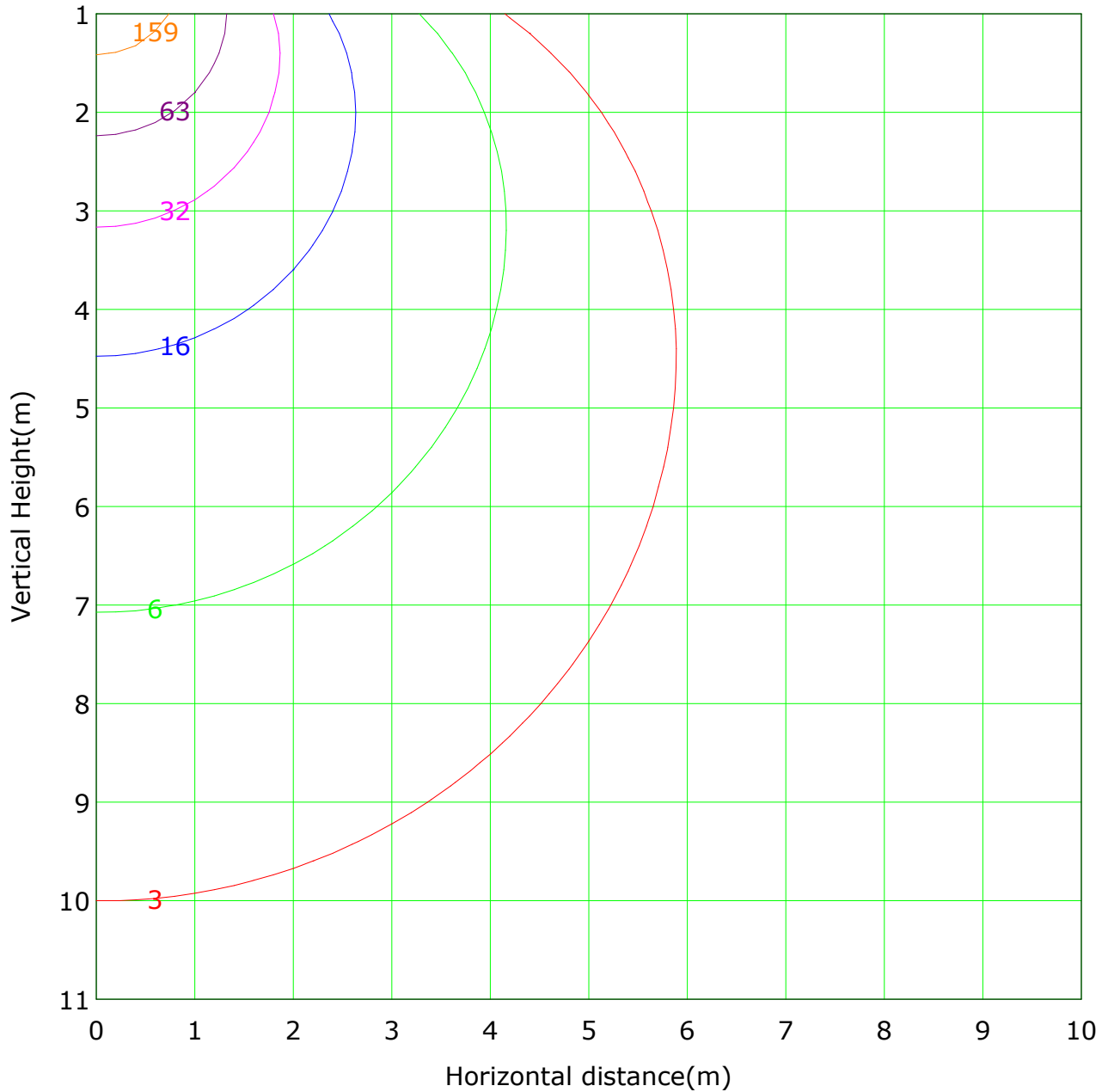
Distance: 7.792 m

Humidity:

Inspector:



Vertical IsoLux Plot



| | | |
|--------------------|--------------------|-------------------|
| Lowest(m): 1.0m | Highest(m): 11.0m | Max Lux: 317.3 lx |
| — (1%): 3.2 lx | — (2%): 6.3 lx | |
| — (5%): 15.9 lx | — (10%): 31.7 lx | |
| — (20%): 63.5 lx | — (50%): 158.6 lx | |
| — (100%): 317.3 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-1800B
 Distance: 7.792 m
 Humidity:
 Inspector: