# 300W QUATTRO EXPLOSION PROOF FLOOD LIGHT

**VOL-EPF-300-CW**

| SECTION 1: SPECIFICATIONS | |
|---|---|
| POWER | 300W |
| VOLTAGE | 100-227V |
| CCT | 5500-6500K (CW) |
| OPERATIONAL TEMPERATURE | -40°-65°C |
| LUMENS | 30,000 |
| IP RATING | 67 |
| LIGHT OUTPUT | 80-90 lm/W |
| BEAM ANGLE | 120° |
| WEIGHT | 15 kg |
| FIXTURE COLOR | AVAILABLE IN YELLOW & GREY |
| CERTIFICATION | CLASS I, DIVISION II |

CERTIFICATIONS

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## SECTION 2: CERTIFICATIONS MET

| |
|---|
| THIS LED FLOOD LIGHT IS CERTIFIED FOR HAZARDOUS AREA LIGHTING ZONES |
| HOUSING: EXPLOSION PROOF ALUMINUM ALLOY |
| GLASS: TEMPERED GLASS. 95% LIGHT TRANSMIT, SHOCK & VIBRATION RESISTANT |
| LED: CERTIFIED, HIGH EFFICACY, LOW DECAY |
| PCB: ALUMINUM THICKNESS 2.5mm, COPPER 2OZ, HEAT TRANSMIT 2.5 |
| DRIVER: MEAN WELL HLG SERIES, 90% DRIVER EFFICACY, UL CERTIFY |

## SECTION 3: LIGHT SOURCE DESCRIPTION (LED CHIP)

| | |
|---|---|
| LED SHAPE | SMD |
| LEDS LUMINOUS EFFICIENCY | 100 lm/W |
| LED TYPE | SMD CREE LED CHIP |

## SECTION 4: ADDITIONAL BENEFITS OF THE FLOOD LIGHT

| | |
|---|---|
| LONG TERM INVESTMENT | LED Light fixtures feature a robust, protective design gives this luminaire an IP of 67 and the ability to handle harsh environments. The specially designed heat sink does not let dust easily collect, while also allowing more air to flow Through it, providing for greater heat dissipation and, in turn, improving the performance of a long-lasting, durable luminaire. LED Fixtures additionally use a lot less energy and pay for themselves with the energy savings. |
| INSTANT START UP AND RESTRIKE TIME | LED Light fixtures do not require a filament to warm up or cool down before the maximum amount of light can be achieved. The lifespan of an LED fixture is not affected by switching on and off. |

## SECTION 5: APPLICATION

| |
|---|
| OIL & GAS OFFSHORT PLATFORM, TRANSPORT AND STORAGE, REFINERY, CHEMICAL INDUSTRIES |
| LAND/DRILLING RIGS, MINING, PAINTING/COATING PLANTS |
| MILITARY, AIRPORT, AEROSPACE INDUSTRY, ETC. |

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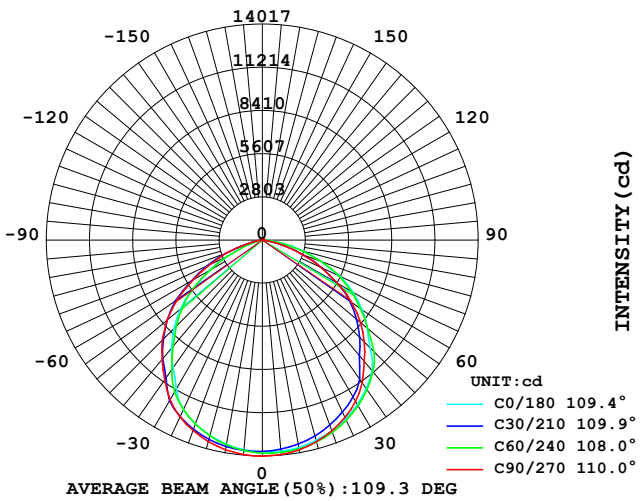
# SECTION 6: LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|---|---|
| MANUFACTURER: VOLLNER | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION:B | DIMENSION: | SERIAL No. |

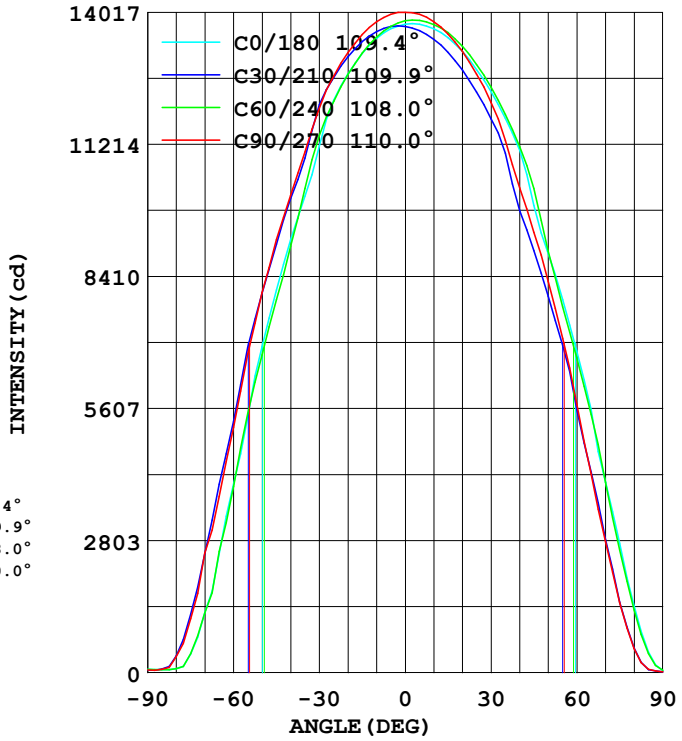
| | | | | | |
|---|---|---|---|---|---|
| DATA OF LAMP | | Imax(cd) | 14084 | S/MH(C0/180) | 1.20 |
| MODEL | . | EFFICIENCY(%) | 100.0 | S/MH(C90/270) | 1.26 |
| NOMINAL POWER(W) | 300 | TOTAL FLUX(lm) | 37223 | Voltage(V) | 216.6 |
| RATED VOLTAGE(V) | 216 | EFFICIENCY(lm/W) | 124.2 | Current(A) | 1.419 |
| NOMINAL FLUX(lm) | 37222.8 | η up(%) | 1.4 | Power(W) | 299.7 |
| LAMPS QUANTITY | 1 | η down(%) | 98.6 | Power Factor(PF) | 0.974 |
| TEST VOLTAGE(V) | 216.7 | Effictive Flux(lm) | 36090.8 | EEI | 0.113 |

LUMINOUS INTENSITY DISTRIBUTION




AVERAGE BEAM ANGLE(50%):109.3 DEG

LUMINOUS INTENSITY DISTRIBUTION




Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:08-03-2019

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:9.000 m
Remarks:

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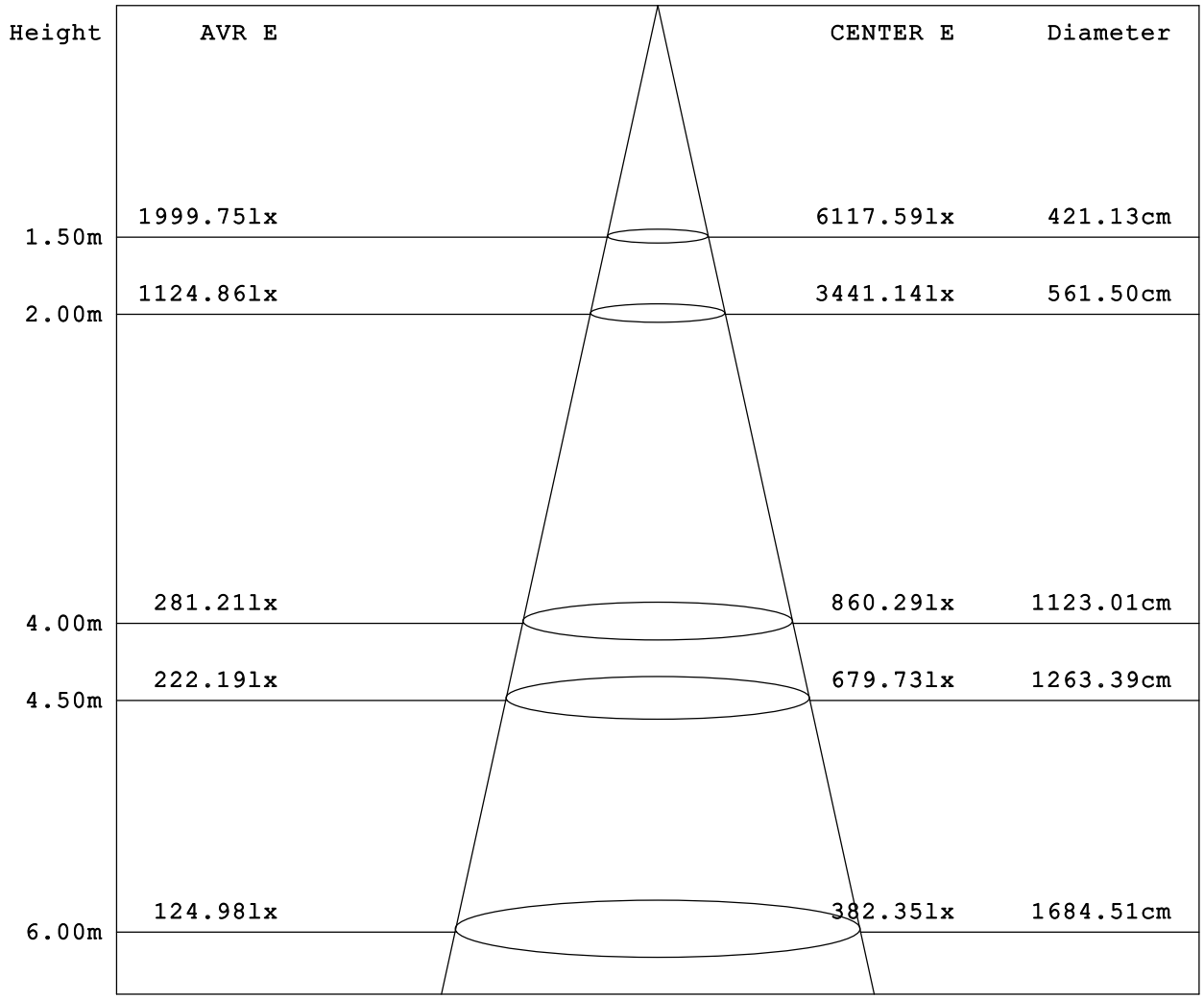
## AVERAGE AND CENTER E FIGURE

| | | |
|---|---|---|
| MANUFACTURER:VOLLNER | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION:B | DIMENSION: | SERIAL No. |




Angle:109.1deg

Test System:HOPOO HPG1800
Temperature:25.3DEG
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Test Set: 5.0deg/s C-Gamma (TYPE C)
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Remarks:

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## ZONAL FLUX DIAGRAM

| | | |
|---|---|---|
| MANUFACTURER: VOLLNER | Address: | |
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION:B | DIMENSION: | SERIAL No.:1# |

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | zone | total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.0 | 1366 | 1371 | 1397 | 1391 | 1376 | 1373 | 1397 | 1403 | 0- 5 | 331.6 | 331.6 |
| 10.0 | 1346 | 1355 | 1381 | 1368 | 1366 | 1360 | 1382 | 1394 | 5- 10 | 985.1 | 1317 |
| 15.0 | 1314 | 1327 | 1355 | 1335 | 1348 | 1337 | 1355 | 1375 | 10- 15 | 1609 | 2926 |
| 20.0 | 1270 | 1289 | 1316 | 1289 | 1318 | 1304 | 1318 | 1344 | 15- 20 | 2183 | 5109 |
| 25.0 | 1215 | 1238 | 1266 | 1229 | 1280 | 1261 | 1270 | 1302 | 20- 25 | 2690 | 7799 |
| 30.0 | 1118 | 1173 | 1198 | 1149 | 1234 | 1210 | 1211 | 1249 | 25- 30 | 3103 | 10902 |
| 35.0 | 1011 | 1060 | 1105 | 1066 | 1177 | 1144 | 1130 | 1180 | 30- 35 | 3392 | 14294 |
| 40.0 | 918.0 | 955.0 | 1012 | 966.2 | 1109 | 1048 | 1028 | 1087 | 35- 40 | 3545 | 17840 |
| 45.0 | 812.3 | 850.8 | 919.5 | 861.4 | 991.6 | 961.7 | 934.3 | 991.7 | 40- 45 | 3576 | 21416 |
| 50.0 | 691.8 | 739.8 | 806.5 | 722.7 | 889.3 | 846.1 | 829.7 | 880.9 | 45- 50 | 3464 | 24880 |
| 55.0 | 541.1 | 619.6 | 675.6 | 588.0 | 791.6 | 735.2 | 709.6 | 760.7 | 50- 55 | 3213 | 28093 |
| 60.0 | 400.2 | 464.5 | 520.9 | 452.6 | 682.5 | 613.4 | 570.6 | 637.3 | 55- 60 | 2823 | 30916 |
| 65.0 | 252.7 | 328.3 | 374.0 | 311.9 | 558.2 | 486.6 | 421.2 | 493.2 | 60- 65 | 2293 | 33209 |
| 70.0 | 127.4 | 189.5 | 253.8 | 169.3 | 404.5 | 342.4 | 277.2 | 359.2 | 65- 70 | 1681 | 34890 |
| 75.0 | 39.90 | 82.17 | 114.2 | 69.31 | 274.5 | 205.1 | 148.1 | 218.3 | 70- 75 | 1059 | 35949 |
| 80.0 | 8.699 | 22.06 | 34.46 | 21.17 | 142.1 | 93.04 | 51.17 | 101.6 | 75- 80 | 522.9 | 36472 |
| 85.0 | 6.164 | 6.897 | 7.427 | 6.816 | 43.86 | 23.28 | 7.071 | 27.98 | 80- 85 | 189.3 | 36661 |
| 90.0 | 6.876 | 6.313 | 5.678 | 6.382 | 4.519 | 3.175 | 1.401 | 3.009 | 85- 90 | 50.78 | 36712 |
| 95.0 | 7.727 | 7.213 | 6.585 | 7.290 | 0.899 | 1.320 | 1.620 | 1.182 | 90- 95 | 24.21 | 36736 |
| 100.0 | 8.569 | 8.152 | 7.581 | 8.249 | 1.409 | 1.790 | 2.057 | 1.615 | 95-100 | 24.88 | 36761 |
| 105.0 | 9.379 | 9.051 | 8.561 | 9.173 | 2.033 | 2.353 | 2.583 | 2.150 | 100-105 | 28.36 | 36790 |
| 110.0 | 10.22 | 9.963 | 9.541 | 10.04 | 2.689 | 2.940 | 3.118 | 2.733 | 105-110 | 31.57 | 36821 |
| 115.0 | 11.10 | 10.87 | 10.35 | 10.83 | 3.345 | 3.551 | 3.669 | 3.333 | 110-115 | 34.30 | 36855 |
| 120.0 | 11.96 | 11.76 | 11.11 | 11.57 | 4.025 | 4.159 | 4.147 | 3.892 | 115-120 | 36.40 | 36892 |
| 125.0 | 12.70 | 12.59 | 11.79 | 12.26 | 4.754 | 4.787 | 4.665 | 4.394 | 120-125 | 37.76 | 36930 |
| 130.0 | 13.32 | 13.32 | 12.43 | 12.91 | 5.475 | 5.418 | 5.240 | 4.932 | 125-130 | 38.33 | 36968 |
| 135.0 | 13.87 | 13.97 | 13.08 | 13.55 | 6.156 | 6.103 | 5.888 | 5.536 | 130-135 | 38.20 | 37006 |
| 140.0 | 14.45 | 14.55 | 13.65 | 14.13 | 6.917 | 6.893 | 6.706 | 6.257 | 135-140 | 37.44 | 37044 |
| 145.0 | 14.95 | 15.05 | 14.09 | 14.64 | 7.751 | 7.796 | 7.654 | 7.083 | 140-145 | 35.97 | 37080 |
| 150.0 | 15.32 | 15.47 | 14.45 | 15.09 | 8.699 | 8.772 | 8.691 | 7.994 | 145-150 | 33.78 | 37113 |
| 155.0 | 15.55 | 15.79 | 14.75 | 15.38 | 9.760 | 9.853 | 9.833 | 8.991 | 150-155 | 30.77 | 37144 |
| 160.0 | 15.56 | 15.90 | 15.00 | 15.49 | 10.84 | 10.92 | 10.91 | 10.01 | 155-160 | 26.82 | 37171 |
| 165.0 | 15.41 | 15.82 | 15.21 | 15.46 | 11.76 | 11.93 | 11.91 | 11.05 | 160-165 | 21.96 | 37193 |
| 170.0 | 15.13 | 15.60 | 15.21 | 15.18 | 12.59 | 12.91 | 12.90 | 12.17 | 165-170 | 16.33 | 37209 |
| 175.0 | 14.69 | 15.23 | 14.95 | 14.72 | 13.33 | 13.82 | 13.77 | 13.17 | 170-175 | 10.08 | 37219 |
| 180.0 | 14.06 | 14.28 | 13.85 | 13.69 | 14.61 | 14.91 | 14.49 | 14.38 | 175-180 | 3.410 | 37223 |
| DEG | LUMINOUS INTENSITY:×10cd | | | | | | | | | UNIT:lm | |

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:08-03-2019

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:9.000 m
Remarks:

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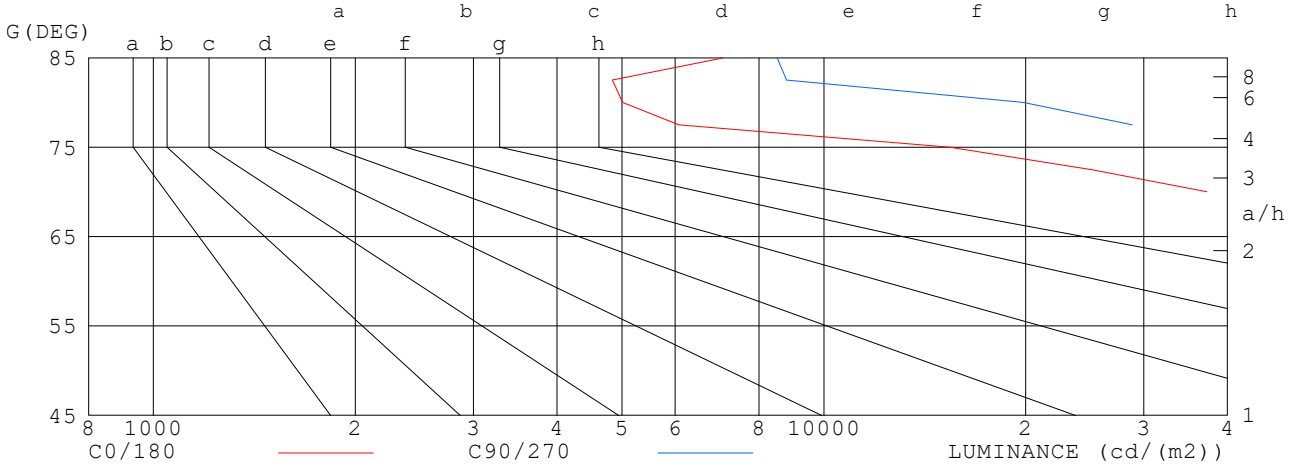
## LUMINANCE LIMITATION CURVES

| | | |
|---|---|---|
| **MANUFACTURER:VOLLNER** | **Address:** | |
| **NAME:** | **TYPE:** | **WEIGHT:** |
| **SPECIFICATION:B** | **DIMENSION:** | **SERIAL No.:** |

### LUMINANCE LIMITATION CURVES

| GLARE | CLASS | 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 |




| LUMINANCE cd/(m2) | | |
|---|---|---|
| G(DEG) | C0/180 | C90/270 |
| 85 | 7073 | 8522 |
| 80 | 5010 | 19848 |
| 75 | 15420 | 44140 |
| 70 | 37272 | 74217 |
| 65 | 59802 | 88512 |
| 60 | 80047 | 104182 |
| 55 | 94349 | 117794 |
| 50 | 107637 | 125478 |
| 45 | 114878 | 130046 |

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## ISOCANDELA DIAGRAM

| | | |
|---|---|---|
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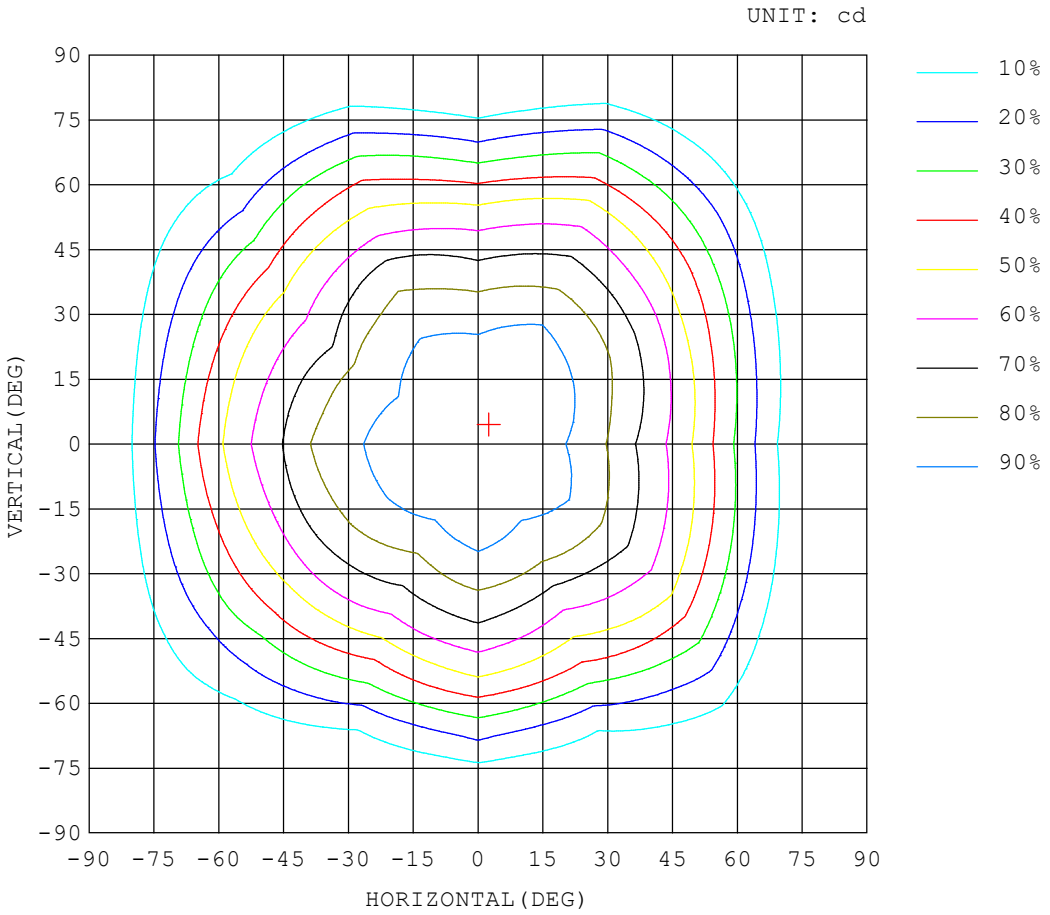
| NAME: | TYPE: | WEIGHT: |
| SPECIFICATION:B | DIMENSION: | SERIAL No.: |

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