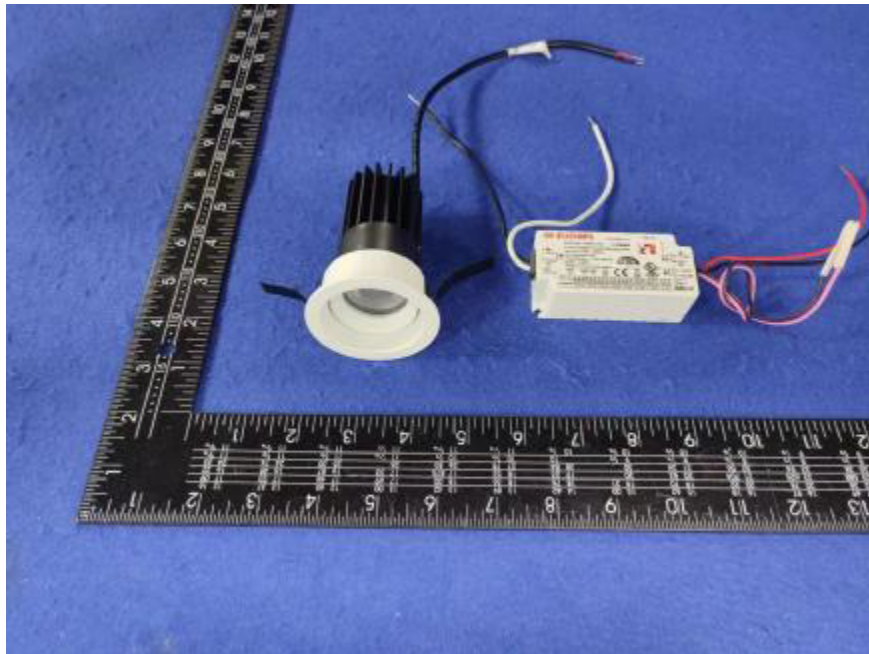


CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24

Photometric report for Flanged and Flangeless Trim



|                     |         |                          |
|---------------------|---------|--------------------------|
| Light Output Ratio: | 64.3%   |                          |
| Luminaire Power:    | 11.33 W |                          |
| SHR Nominal:        | 0.50    | Calculated using the TM5 |
| SHR Maximum:        | 0.50    | fine grid method.        |

C Range: 0 - 360DEG  
C Interval: For a lens beam angle of 24°  
Test Speed: HIGH  
Temperature: 77.54°F  
Operators: zoe  
Test Date: 2023-12-25

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 124.409" [K=1.0000]  
Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
LENS: PM-1103A 24R+DIFFUSER  
DRIVER: PUP10A-1WMC-700 500mA  
30minutes warm-up

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

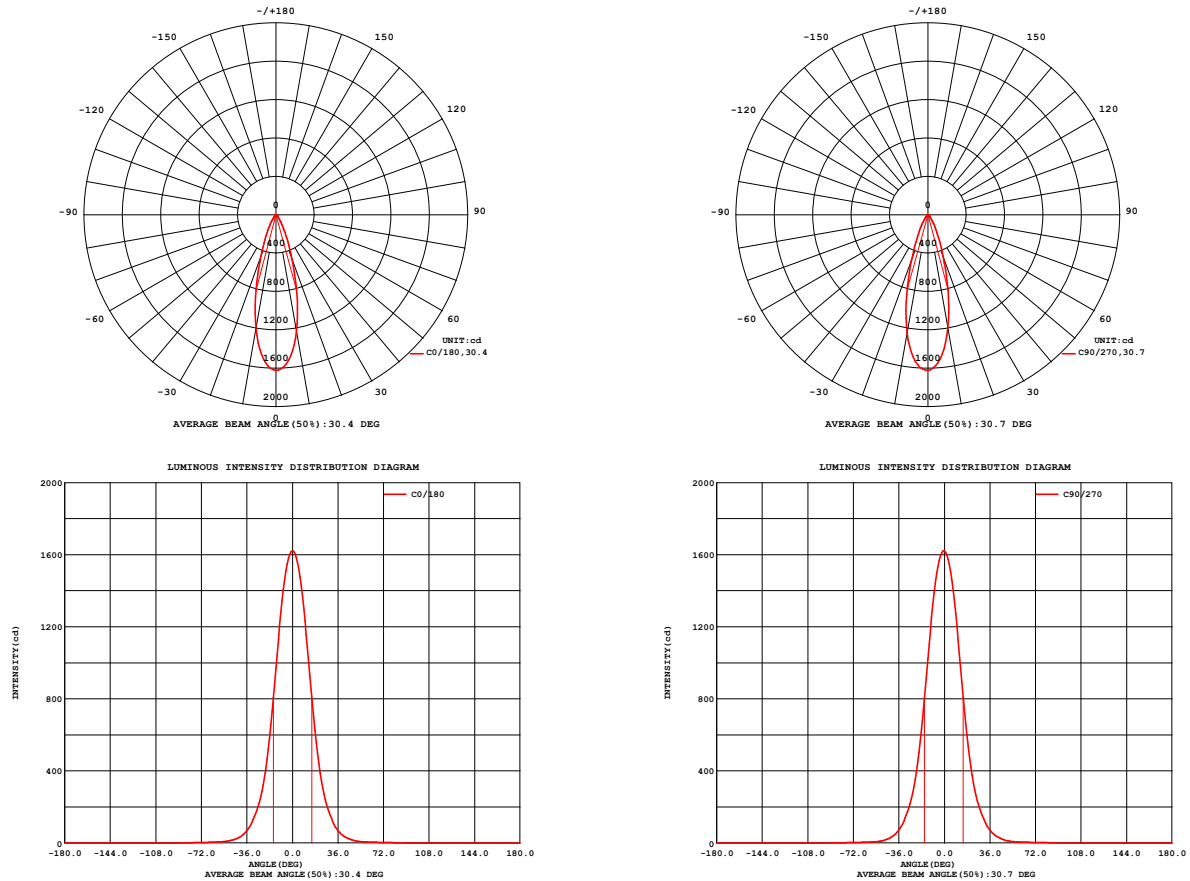


Fig. C0/C180

Fig. C90/C270

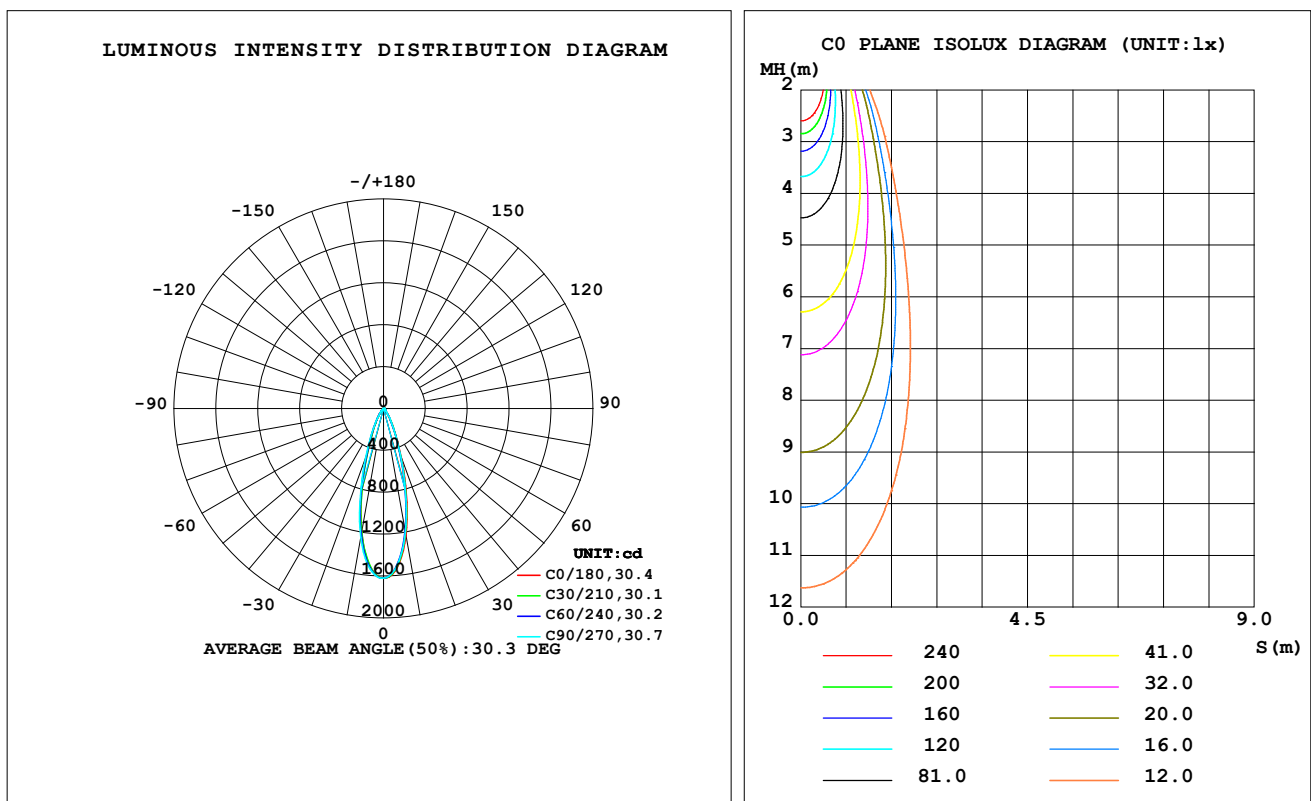
C Range: 0 - 360DEG  
C Interval: For a lens beam angle of 24°  
Test Speed: HIGH  
Temperature: 77.54°F  
Operators: zoe  
Test Date: 2023-12-25

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 124.409" [K=1.0000]  
Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90  
LENS: PM-1103A 24R+DIFFUSER  
DRIVER: PUP10A-1WMC-700 500mA  
30minutes warm-up

## LUMINAIRE PHOTOMETRIC TEST REPORT

|                                                                                   |                                 |                        |
|-----------------------------------------------------------------------------------|---------------------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                                 |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:                           | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:                           | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m <sup>2</sup> | Shielding Angle:       |

| DATA OF LAMP      |           | PHOTOMETRIC DATA      |        |                     |  | Eff: 50.71 lm/W |
|-------------------|-----------|-----------------------|--------|---------------------|--|-----------------|
| MODEL             | Bridgelux | I <sub>max</sub> (cd) | 1621   | S/MH (C0/180)       |  | 0.50            |
| NOMINAL POWER (W) | 11        | LOR (%)               | 64.3   | S/MH (C90/270)      |  | 0.52            |
| RATED VOLTAGE (V) | 120       | TOTAL FLUX (lm)       | 574.33 | ☒ UP, DN (C0-180)   |  | 0.0, 32.0       |
| NOMINAL FLUX (lm) | 893.4     | CIE CLASS             | DIRECT | ☒ UP, DN (C180-360) |  | 0.0, 32.2       |
| LAMPS INSIDE      | 1         | ☒ up (%)              | 0.0    | CIBSE SHR NOM       |  | 0.50            |
| TEST VOLTAGE (V)  | 120       | ☒ down (%)            | 64.3   | CIBSE SHR MAX       |  | 0.50            |



C Range: 0 - 360DEG

C Interval: For a lens beam angle of 24°

Test Speed: HIGH

Temperature: 77.54°F

Operators: zoe

Test Date: 2023-12-25

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity: 65.0%

Test Distance: 124.409" [K=1.0000]

Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90

LENS: PM-1103A 24R+DIFFUSER

DRIVER: PUP10A-1WMC-700 500mA

30minutes warm-up

## ZONAL FLUX DIAGRAM

**ZONAL FLUX DIAGRAM:**

| °   | C0                    | C45   | C90   | C135  | C180  | C225  | C270  | C315  | °       | zone    | total | %lum,lamp |
|-----|-----------------------|-------|-------|-------|-------|-------|-------|-------|---------|---------|-------|-----------|
| 10  | 1233                  | 1200  | 1201  | 1224  | 1205  | 1215  | 1253  | 1257  | 0- 10   | 135.3   | 135.3 | 23.6,15.1 |
| 20  | 496.3                 | 472.3 | 474.5 | 488.4 | 462.5 | 467.5 | 502.8 | 515.1 | 10- 20  | 226.7   | 362.0 | 63,40.5   |
| 30  | 152.4                 | 146.2 | 151.6 | 156.8 | 144.3 | 144.8 | 155.4 | 162.9 | 20- 30  | 127.2   | 489.2 | 85.2,54.8 |
| 40  | 41.22                 | 40.42 | 43.98 | 45.64 | 40.11 | 38.74 | 41.72 | 44.55 | 30- 40  | 53.11   | 542.3 | 94.4,60.7 |
| 50  | 11.57                 | 11.74 | 12.19 | 12.42 | 11.39 | 10.64 | 10.68 | 11.14 | 40- 50  | 18.13   | 560.5 | 97.6,62.7 |
| 60  | 5.214                 | 5.342 | 5.546 | 5.629 | 5.351 | 5.001 | 4.928 | 5.068 | 50- 60  | 6.637   | 567.1 | 98.7,63.5 |
| 70  | 2.861                 | 2.974 | 3.045 | 2.950 | 2.726 | 2.583 | 2.599 | 2.714 | 60- 70  | 3.926   | 571.0 | 99.4,63.9 |
| 80  | 1.770                 | 1.888 | 1.959 | 1.863 | 1.674 | 1.543 | 1.552 | 1.642 | 70- 80  | 2.341   | 573.4 | 99.8,64.2 |
| 90  | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 80- 90  | 0.9605  | 574.3 | 100,64.3  |
| 100 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 90-100  | 0       | 574.3 | 100,64.3  |
| 110 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 100-110 | 0       | 574.3 | 100,64.3  |
| 120 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 110-120 | 0       | 574.3 | 100,64.3  |
| 130 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 120-130 | 0       | 574.3 | 100,64.3  |
| 140 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 130-140 | 0       | 574.3 | 100,64.3  |
| 150 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 140-150 | 0       | 574.3 | 100,64.3  |
| 160 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 150-160 | 0       | 574.3 | 100,64.3  |
| 170 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 160-170 | 0       | 574.3 | 100,64.3  |
| 180 | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 170-180 | 0       | 574.3 | 100,64.3  |
| DEG | LUMINOUS INTENSITY:cd |       |       |       |       |       |       |       |         | UNIT:lm |       |           |

C Range: 0 - 360DEG

C Interval:For a lens beam angle of 24°

Test Speed: HIGH

Temperature:77.54°F

Operators:zoe

Test Date:2023-12-25

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity:65.0%

Test Distance:124.409" [K=1.0000]

Remarks: LAMP:BXRV-DR-1830G-100Z-A-23 Ra:90

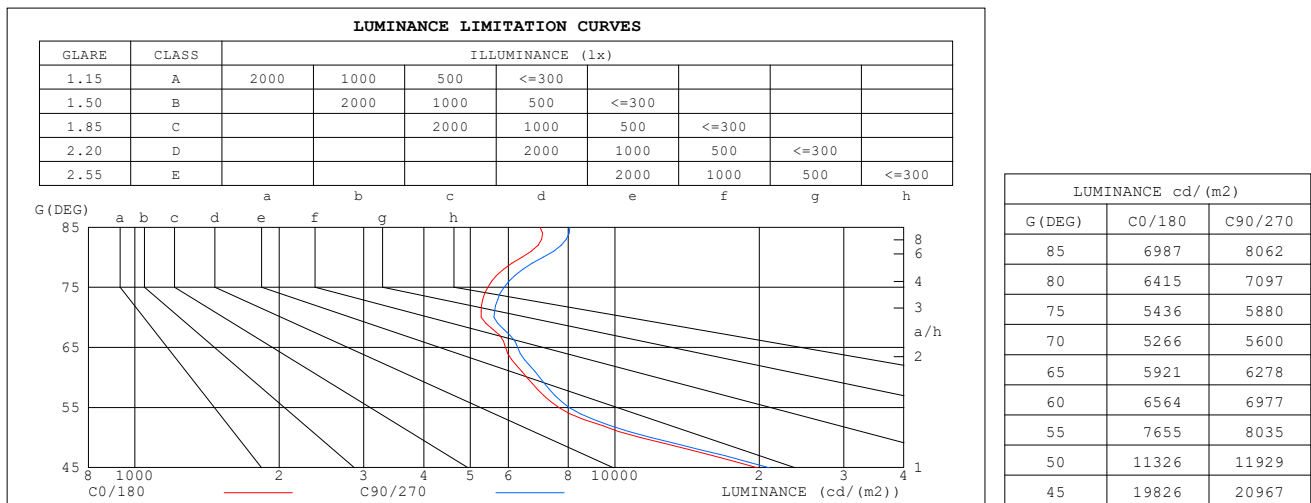
LENS:PM-1103A 24R+DIFFUSER

DRIVER:PUP10A-1WMC-700 500mA

30minutes warm-up

**LUMINANCE LIMITATION CURVES**

|                                                                                                   |                            |                               |
|---------------------------------------------------------------------------------------------------|----------------------------|-------------------------------|
| <b>Test:</b> U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br><b>Lamp Flux:</b> 893.4x1 lm |                            |                               |
| <b>NAME:</b> CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                                     | <b>TYPE:</b>               | <b>WEIGHT:</b>                |
| <b>SPEC.:</b> 3000K                                                                               | <b>DIM.:</b>               | <b>SERIAL No.:</b> 2312251375 |
| <b>MFR.:</b> MERCURY LIGHTING                                                                     | <b>SUR.:</b> 0.001589625m2 | <b>Shielding Angle:</b>       |


**C Range:** 0 - 360DEG

**C Interval:**For a lens beam angle of 24°

**Test Speed:** HIGH

**Temperature:**77.54°F

**Operators:**zoe

**Test Date:**2023-12-25

**γ Range:** 0 - 180DEG

**γ Interval:** 1.0DEG

**Test System:**EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

**Humidity:**65.0%

**Test Distance:**124.409" [K=1.0000]

**Remarks:** LAMP:BXRV-DR-1830G-100Z-A-23 Ra:90

**LENS:**PM-1103A 24R+DIFFUSER

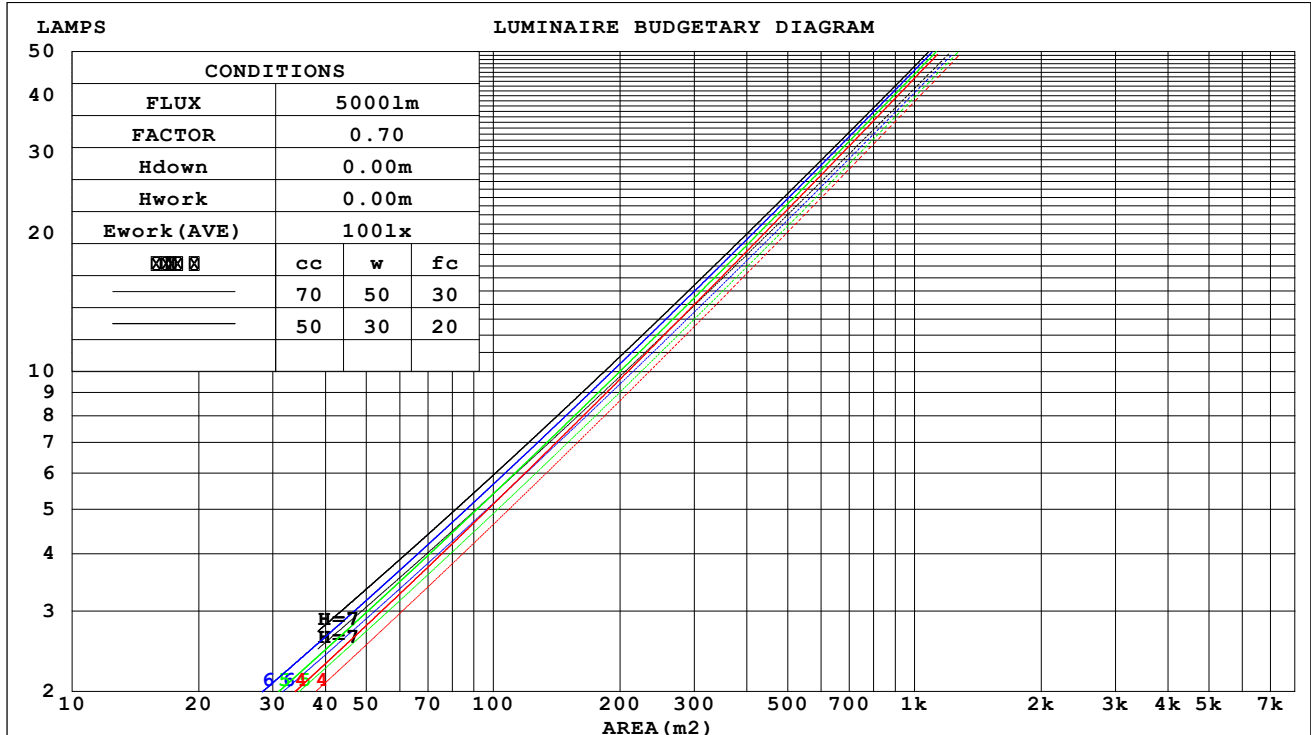
**DRIVER:**PUP10A-1WMC-700 500mA

**30minutes warm-up**

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |

| cc  | 80%                   |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0 |
|-----|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| w   | 50%                   | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| fc  | 20%                   |     |     | 20% |     |     | 20% |     |     | 20% |     |     | 20% |     |     | 0 |
| RCR | RCR:Room Cavity Ratio |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |



C Range: 0 - 360DEG

C Interval: For a lens beam angle of 24°

Test Speed: HIGH

Temperature: 77.54°F

Operators: zoe

Test Date: 2023-12-25

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity: 65.0%

Test Distance: 124.409" [K=1.0000]

Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90

LENS: PM-1103A 24R+DIFFUSER

DRIVER: PUP10A-1WMC-700 500mA

30minutes warm-up

**WEC AND CCEC**

|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |

| cc   | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| w    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| fc   | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0  | .102                  | .058 | .018 | .098 | .056 | .018 | .090                            | .052 | .017 | .083 | .048 | .015 | .076 | .044 | .014 |   |
| 2.0  | .096                  | .053 | .016 | .093 | .051 | .016 | .086                            | .048 | .015 | .080 | .045 | .014 | .074 | .042 | .013 |   |
| 3.0  | .090                  | .048 | .014 | .087 | .047 | .014 | .082                            | .044 | .013 | .076 | .042 | .013 | .072 | .040 | .012 |   |
| 4.0  | .085                  | .044 | .013 | .083 | .043 | .013 | .078                            | .041 | .012 | .073 | .039 | .012 | .069 | .038 | .011 |   |
| 5.0  | .080                  | .041 | .012 | .078 | .040 | .012 | .074                            | .039 | .011 | .070 | .037 | .011 | .067 | .036 | .011 |   |
| 6.0  | .076                  | .038 | .011 | .074 | .038 | .011 | .071                            | .036 | .011 | .067 | .035 | .010 | .064 | .034 | .010 |   |
| 7.0  | .073                  | .036 | .010 | .071 | .035 | .010 | .068                            | .034 | .010 | .065 | .033 | .010 | .062 | .032 | .009 |   |
| 8.0  | .069                  | .034 | .010 | .068 | .033 | .009 | .065                            | .032 | .009 | .062 | .032 | .009 | .060 | .031 | .009 |   |
| 9.0  | .066                  | .032 | .009 | .065 | .032 | .009 | .062                            | .031 | .009 | .060 | .030 | .009 | .058 | .029 | .008 |   |
| 10.0 | .063                  | .030 | .008 | .062 | .030 | .008 | .060                            | .029 | .008 | .058 | .029 | .008 | .056 | .028 | .008 |   |

| cc   | 80%                   |      |      | 70%  |      |      | 50%                                        |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| w    | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                                        | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| fc   | 20%                   |      |      | 20%  |      |      | 20%                                        |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |
| 0.0  | .122                  | .122 | .122 | .105 | .105 | .105 | .071                                       | .071 | .071 | .041 | .041 | .041 | .013 | .013 | .013 |   |
| 1.0  | .109                  | .101 | .094 | .093 | .087 | .081 | .064                                       | .060 | .056 | .037 | .035 | .033 | .012 | .011 | .011 |   |
| 2.0  | .099                  | .085 | .074 | .084 | .073 | .064 | .058                                       | .051 | .045 | .033 | .030 | .026 | .011 | .010 | .009 |   |
| 3.0  | .090                  | .073 | .060 | .077 | .063 | .052 | .053                                       | .044 | .036 | .030 | .026 | .021 | .010 | .008 | .007 |   |
| 4.0  | .082                  | .063 | .049 | .071 | .055 | .042 | .049                                       | .038 | .030 | .028 | .022 | .018 | .009 | .007 | .006 |   |
| 5.0  | .076                  | .056 | .040 | .065 | .048 | .035 | .045                                       | .034 | .025 | .026 | .020 | .015 | .008 | .006 | .005 |   |
| 6.0  | .071                  | .049 | .034 | .061 | .043 | .030 | .042                                       | .030 | .021 | .024 | .018 | .012 | .008 | .006 | .004 |   |
| 7.0  | .066                  | .044 | .029 | .057 | .038 | .025 | .039                                       | .027 | .018 | .023 | .016 | .011 | .007 | .005 | .004 |   |
| 8.0  | .062                  | .040 | .025 | .054 | .035 | .022 | .037                                       | .024 | .015 | .022 | .014 | .009 | .007 | .005 | .003 |   |
| 9.0  | .059                  | .037 | .022 | .051 | .032 | .019 | .035                                       | .022 | .013 | .020 | .013 | .008 | .007 | .004 | .003 |   |
| 10.0 | .056                  | .034 | .019 | .048 | .029 | .017 | .033                                       | .021 | .012 | .019 | .012 | .007 | .006 | .004 | .002 |   |

C Range: 0 - 360DEG

C Interval:For a lens beam angle of 24°

Test Speed: HIGH

Temperature:77.54°F

Operators:zoe

Test Date:2023-12-25

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity:65.0%

Test Distance:124.409" [K=1.0000]

Remarks: LAMP:BXRV-DR-1830G-100Z-A-23 Ra:90

LENS:PM-1103A 24R+DIFFUSER

DRIVER:PUP10A-1WMC-700 500mA

30minutes warm-up

**UGR(Unified Glare Rating) Table**

|                                                                                   |               |                  |      |      |      |                     |                |                        |      |      |      |
|-----------------------------------------------------------------------------------|---------------|------------------|------|------|------|---------------------|----------------|------------------------|------|------|------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |               |                  |      |      |      |                     |                |                        |      |      |      |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            |               |                  |      |      |      | TYPE:               |                | WEIGHT:                |      |      |      |
| SPEC.: 3000K                                                                      |               |                  |      |      |      | DIM.:               |                | SERIAL No.: 2312251375 |      |      |      |
| MFR.: MERCURY LIGHTING                                                            |               |                  |      |      |      | SUR.: 0.001589625m2 |                | Shielding Angle:       |      |      |      |
| ceiling/cavity                                                                    | 0.7           | 0.7              | 0.5  | 0.5  | 0.3  | 0.7                 | 0.7            | 0.5                    | 0.5  | 0.3  |      |
| walls                                                                             | 0.5           | 0.3              | 0.5  | 0.3  | 0.3  | 0.5                 | 0.3            | 0.5                    | 0.3  | 0.3  |      |
| working plane                                                                     | 0.2           | 0.2              | 0.2  | 0.2  | 0.2  | 0.2                 | 0.2            | 0.2                    | 0.2  | 0.2  |      |
| Room dimensions                                                                   |               | Viewed crosswise |      |      |      |                     | Viewed endwise |                        |      |      |      |
| x = 2H y = 2H                                                                     | 16.4          | 17.2             | 16.6 | 17.4 | 17.5 | 16.5                | 17.3           | 16.7                   | 17.5 | 17.6 |      |
|                                                                                   | 3H            | 16.6             | 17.3 | 16.8 | 17.5 | 17.7                | 16.7           | 17.4                   | 16.9 | 17.6 | 17.8 |
|                                                                                   | 4H            | 16.7             | 17.3 | 16.9 | 17.6 | 17.8                | 16.8           | 17.5                   | 17.1 | 17.7 | 17.9 |
|                                                                                   | 6H            | 16.8             | 17.4 | 17.1 | 17.7 | 17.9                | 17.0           | 17.6                   | 17.2 | 17.8 | 18.1 |
|                                                                                   | 8H            | 16.9             | 17.5 | 17.2 | 17.8 | 18.0                | 17.1           | 17.7                   | 17.4 | 17.9 | 18.2 |
|                                                                                   | 12H           | 16.9             | 17.6 | 17.3 | 17.8 | 18.1                | 17.2           | 17.8                   | 17.5 | 18.0 | 18.3 |
| 4H                                                                                | 2H            | 16.3             | 17.0 | 16.6 | 17.2 | 17.5                | 16.4           | 17.1                   | 16.7 | 17.3 | 17.6 |
|                                                                                   | 3H            | 16.6             | 17.2 | 16.9 | 17.5 | 17.7                | 16.7           | 17.3                   | 17.0 | 17.6 | 17.8 |
|                                                                                   | 4H            | 16.8             | 17.3 | 17.1 | 17.6 | 17.9                | 16.9           | 17.5                   | 17.2 | 17.8 | 18.1 |
|                                                                                   | 6H            | 17.0             | 17.5 | 17.4 | 17.9 | 18.2                | 17.2           | 17.7                   | 17.6 | 18.0 | 18.4 |
|                                                                                   | 8H            | 17.2             | 17.7 | 17.6 | 18.0 | 18.4                | 17.4           | 17.9                   | 17.8 | 18.2 | 18.6 |
|                                                                                   | 12H           | 17.3             | 17.8 | 17.7 | 18.1 | 18.5                | 17.6           | 18.0                   | 18.0 | 18.4 | 18.7 |
| 8H                                                                                | 4H            | 16.8             | 17.3 | 17.2 | 17.6 | 18.0                | 16.9           | 17.4                   | 17.3 | 17.7 | 18.1 |
|                                                                                   | 6H            | 17.2             | 17.6 | 17.6 | 18.0 | 18.4                | 17.4           | 17.8                   | 17.8 | 18.1 | 18.6 |
|                                                                                   | 8H            | 17.5             | 17.8 | 17.9 | 18.2 | 18.7                | 17.7           | 18.0                   | 18.1 | 18.4 | 18.9 |
|                                                                                   | 12H           | 17.7             | 18.0 | 18.2 | 18.4 | 18.9                | 17.9           | 18.2                   | 18.4 | 18.7 | 19.1 |
| 12H                                                                               | 4H            | 16.8             | 17.2 | 17.2 | 17.6 | 18.0                | 16.9           | 17.3                   | 17.3 | 17.7 | 18.1 |
|                                                                                   | 6H            | 17.2             | 17.6 | 17.7 | 18.0 | 18.4                | 17.4           | 17.7                   | 17.9 | 18.2 | 18.6 |
|                                                                                   | 8H            | 17.5             | 17.8 | 18.0 | 18.3 | 18.7                | 17.7           | 18.0                   | 18.2 | 18.5 | 18.9 |
| Variations with the observer position at spacings(CIE Pub.117):                   |               |                  |      |      |      |                     |                |                        |      |      |      |
| S = 1.0H                                                                          | + 1.7 / - 1.9 |                  |      |      |      | + 1.7 / - 1.9       |                |                        |      |      |      |
| 1.5H                                                                              | + 3.1 / - 1.8 |                  |      |      |      | + 3.2 / - 1.8       |                |                        |      |      |      |
| 2.0H                                                                              | + 2.3 / - 0.9 |                  |      |      |      | + 2.4 / - 0.8       |                |                        |      |      |      |

CIE Pub.117, 893.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)  
 Area: 0.00158963 m2

|                                          |                                                      |
|------------------------------------------|------------------------------------------------------|
| C Range: 0 - 360DEG                      | γ Range: 0 - 180DEG                                  |
| C Interval: For a lens beam angle of 24° | γ Interval: 1.0DEG                                   |
| Test Speed: HIGH                         | Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.461 |
| Temperature: 77.54°F                     | Humidity: 65.0%                                      |
| Operators: zoe                           | Test Distance: 124.409" [K=1.0000]                   |
| Test Date: 2023-12-25                    | Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90        |
|                                          | LENS: PM-1103A 24R+DIFFUSER                          |
|                                          | DRIVER: PUP10A-1WMC-700 500mA                        |
|                                          | 30minutes warm-up                                    |

**UTILIZATION FACTORS TABLE**

|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |

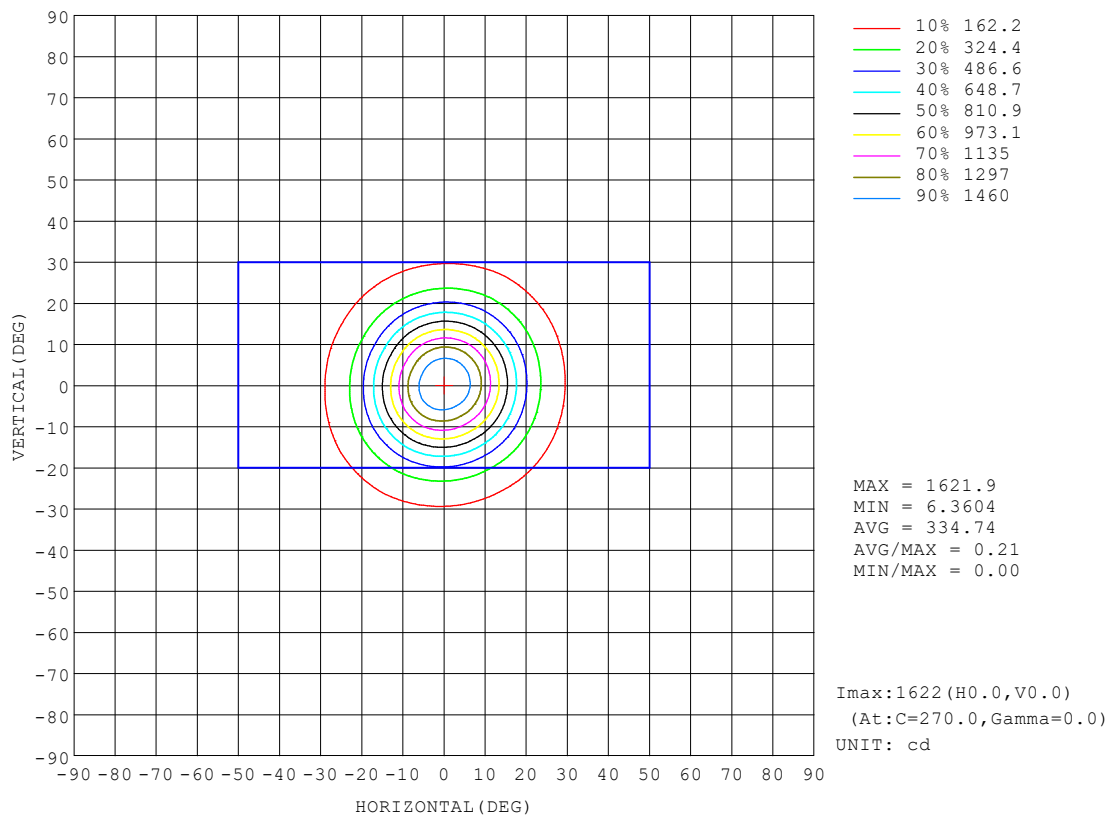
| REFLECTANCE                      |                                                      |     |           |     |     |     |     |               |     |        |
|----------------------------------|------------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8                                                  | 0.8 | 0.8       | 0.7 | 0.7 | 0.7 | 0.5 | 0.5           | 0.5 | 0      |
| Walls                            | 0.7                                                  | 0.5 | 0.3       | 0.7 | 0.5 | 0.3 | 0.7 | 0.5           | 0.3 | 0      |
| Working plane                    | 0.2                                                  | 0.2 | 0.2       | 0.2 | 0.2 | 0.2 | 0.2 | 0.2           | 0.2 | 0      |
| ROOM INDEX                       | UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$ |     |           |     |     |     |     |               |     |        |
| $k = 0.60$                       | 57                                                   | 53  | 50        | 56  | 53  | 50  | 56  | 52            | 50  | 48     |
| 0.80                             | 61                                                   | 58  | 55        | 61  | 57  | 55  | 60  | 57            | 55  | 53     |
| 1.00                             | 64                                                   | 61  | 58        | 64  | 60  | 58  | 63  | 60            | 58  | 55     |
| 1.25                             | 67                                                   | 63  | 61        | 66  | 63  | 61  | 65  | 62            | 60  | 58     |
| 1.50                             | 68                                                   | 65  | 63        | 67  | 65  | 63  | 66  | 64            | 62  | 59     |
| 2.00                             | 70                                                   | 67  | 65        | 69  | 67  | 65  | 67  | 65            | 64  | 60     |
| 2.50                             | 71                                                   | 69  | 67        | 70  | 68  | 66  | 68  | 66            | 65  | 61     |
| 3.00                             | 72                                                   | 70  | 68        | 71  | 69  | 67  | 69  | 67            | 66  | 62     |
| 4.00                             | 73                                                   | 71  | 70        | 72  | 70  | 69  | 70  | 68            | 67  | 63     |
| 5.00                             | 74                                                   | 73  | 71        | 73  | 71  | 70  | 70  | 69            | 68  | 64     |
| ROOM INDEX                       | UF (total)                                           |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |                                                      |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

C Range: 0 - 360DEG  
 C Interval: For a lens beam angle of 24°  
 Test Speed: HIGH  
 Temperature: 77.54°F  
 Operators: zoe  
 Test Date: 2023-12-25

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 124.409" [K=1.0000]  
 Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra:90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

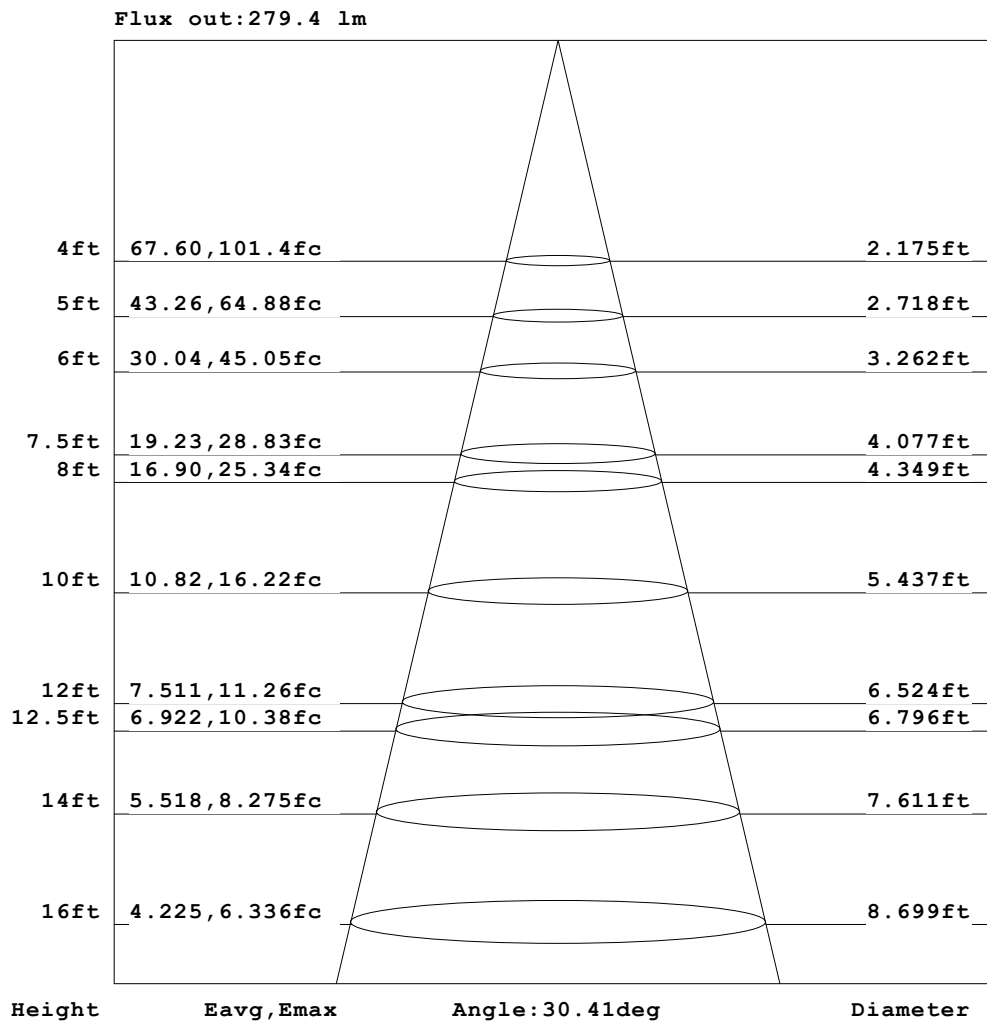
**ISOCANDELA DIAGRAM**

|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |


**C Range: 0 - 360DEG**
**C Interval: For a lens beam angle of 24°**
**Test Speed: HIGH**
**Temperature: 77.54°F**
**Operators: zoe**
**Test Date: 2023-12-25**
**γ Range: 0 - 180DEG**
**γ Interval: 1.0DEG**
**Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461**
**Humidity: 65.0%**
**Test Distance: 124.409" [K=1.0000]**
**Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90**
**LENS: PM-1103A 24R+DIFFUSER**
**DRIVER: PUP10A-1WMC-700 500mA**
**30minutes warm-up**

**AAI Figure**

|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |

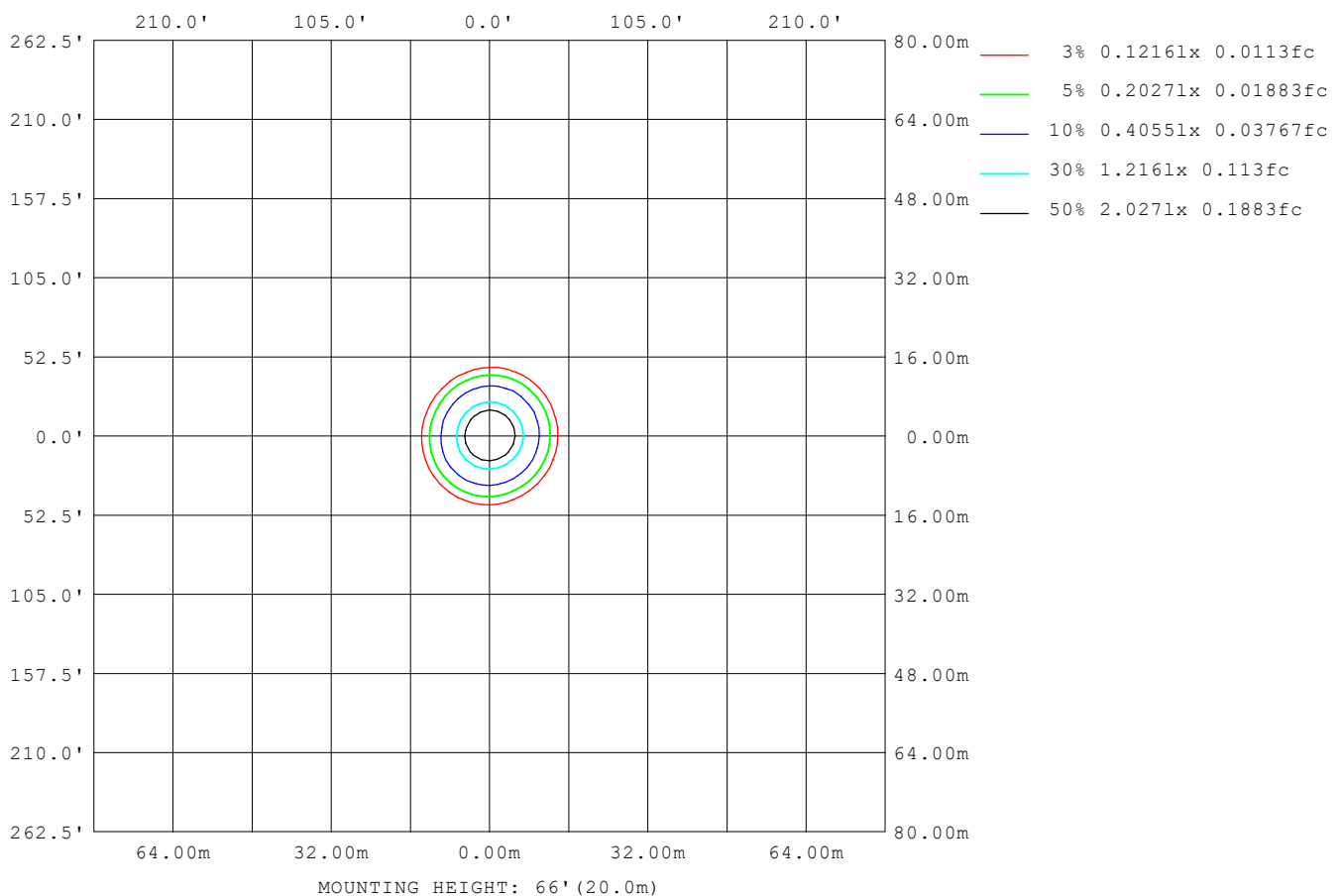


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

|                                          |                                                      |
|------------------------------------------|------------------------------------------------------|
| C Range: 0 - 360DEG                      | γ Range: 0 - 180DEG                                  |
| C Interval: For a lens beam angle of 24° | γ Interval: 1.0DEG                                   |
| Test Speed: HIGH                         | Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.461 |
| Temperature: 77.54°F                     | Humidity: 65.0%                                      |
| Operators: zoe                           | Test Distance: 124.409" [K=1.0000]                   |
| Test Date: 2023-12-25                    | Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90        |
|                                          | LENS: PM-1103A 24R+DIFFUSER                          |
|                                          | DRIVER: PUP10A-1WMC-700 500mA                        |
|                                          | 30minutes warm-up                                    |

**ISOLUX DIAGRAM**

|                                                                                                   |                            |                               |
|---------------------------------------------------------------------------------------------------|----------------------------|-------------------------------|
| <b>Test:</b> U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br><b>Lamp Flux:</b> 893.4x1 lm |                            |                               |
| <b>NAME:</b> CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                                     | <b>TYPE:</b>               | <b>WEIGHT:</b>                |
| <b>SPEC.:</b> 3000K                                                                               | <b>DIM.:</b>               | <b>SERIAL No.:</b> 2312251375 |
| <b>MFR.:</b> MERCURY LIGHTING                                                                     | <b>SUR.:</b> 0.001589625m2 | <b>Shielding Angle:</b>       |



**C Range:** 0 - 360DEG  
**C Interval:** For a lens beam angle of 24°  
**Test Speed:** HIGH  
**Temperature:** 77.54°F  
**Operators:** zoe  
**Test Date:** 2023-12-25

**γ Range:** 0 - 180DEG  
**γ Interval:** 1.0DEG  
**Test System:** EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
**Humidity:** 65.0%  
**Test Distance:** 124.409" [K=1.0000]  
**Remarks:** LAMP: BXRV-DR-1830G-100Z-A-23 Ra:90  
 LENS: PM-1103A 24R+DIFFUSER  
 DRIVER: PUP10A-1WMC-700 500mA  
 30minutes warm-up

**LED Avg.L Report**

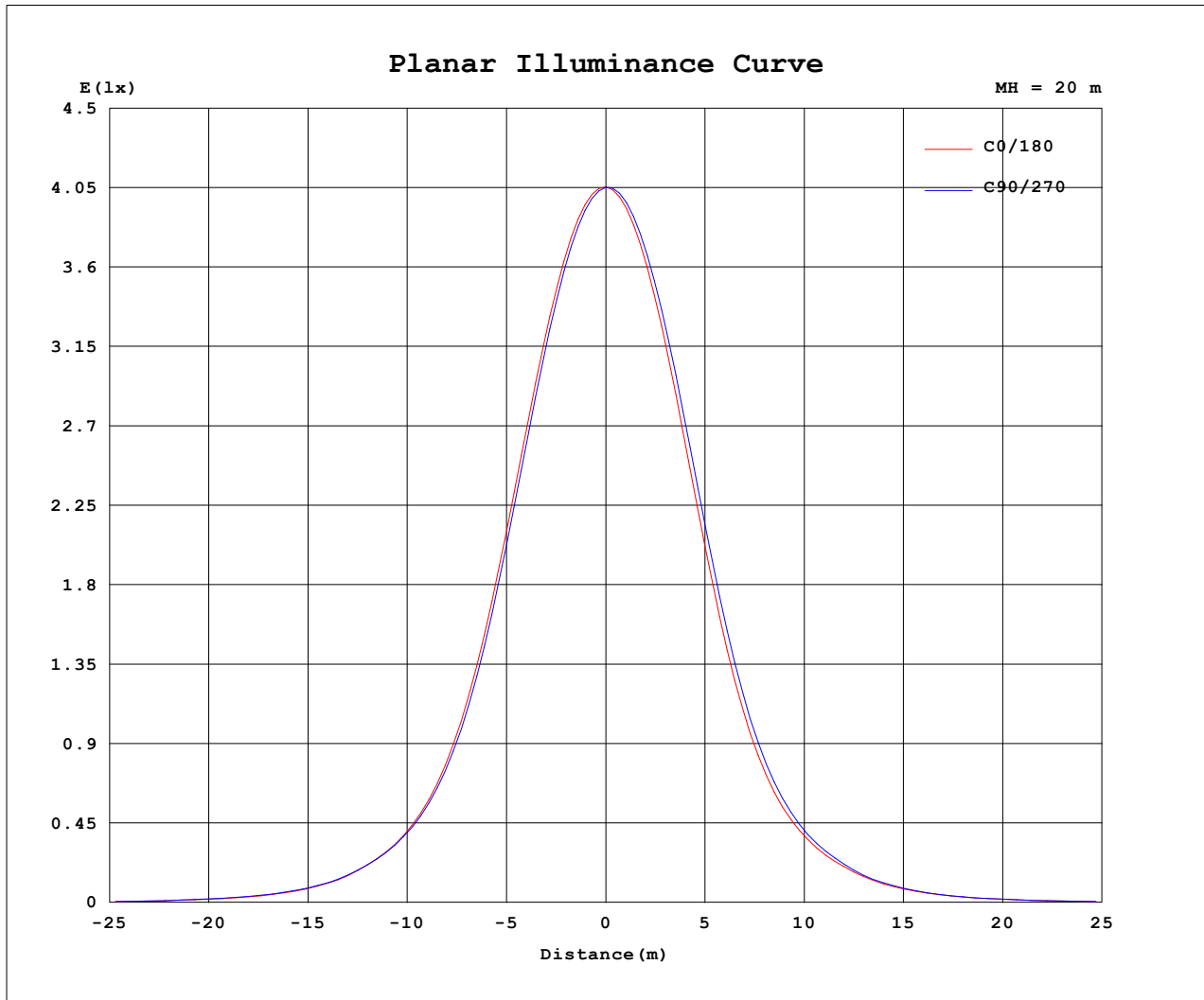
|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |

| AvgL             | cd/m2 |
|------------------|-------|
| L_0~180 (65) av  | 5936  |
| L_0~180 (75) av  | 5291  |
| L_0~180 (85) av  | 6540  |
| L_90~270 (65) av | 5891  |
| L_90~270 (75) av | 5356  |
| L_90~270 (85) av | 6700  |
| L_45 (65) av     | 5900  |
| L_45 (75) av     | 5314  |
| L_45 (85) av     | 6570  |

Standard: GB/T 29293-2012

|                                                                                                                                                        |                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C Range: 0 - 360DEG<br>C Interval: For a lens beam angle of 24°<br>Test Speed: HIGH<br>Temperature: 77.54°F<br>Operators: zoe<br>Test Date: 2023-12-25 | γ Range: 0 - 180DEG<br>γ Interval: 1.0DEG<br>Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.461<br>Humidity: 65.0%<br>Test Distance: 124.409" [K=1.0000]<br>Remarks: LAMP: BXR-V-DR-1830G-100Z-A-23 Ra: 90<br>LENS: PM-1103A 24R+DIFFUSER<br>DRIVER: PUP10A-1WMC-700 500mA<br>30minutes warm-up |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Planar Illuminance Curve



C Range: 0 - 360DEG

C Interval: For a lens beam angle of 24°

Test Speed: HIGH

Temperature: 77.54°F

Operators: zoe

Test Date: 2023-12-25

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity: 65.0%

Test Distance: 124.409" [K=1.0000]

Remarks: LAMP: BXRV-DR-1830G-100Z-A-23 Ra: 90

LENS: PM-1103A 24R+DIFFUSER

DRIVER: PUP10A-1WMC-700 500mA

30minutes warm-up

**LUMINOUS DISTRIBUTION INTENSITY DATA**

|                                                                                   |                     |                        |
|-----------------------------------------------------------------------------------|---------------------|------------------------|
| Test:U:120.19V I:0.0954A P:11.326W PF:0.9865 Freq:59.98Hz<br>Lamp Flux:893.4x1 lm |                     |                        |
| NAME: CTL-MPS-1.5-RD-TF/TL-SH-SG-DW-24                                            | TYPE:               | WEIGHT:                |
| SPEC.: 3000K                                                                      | DIM.:               | SERIAL No.: 2312251375 |
| MFR.: MERCURY LIGHTING                                                            | SUR.: 0.001589625m2 | Shielding Angle:       |

Table--1

UNIT: cd

| C (DEG)<br>(DEG) | 0    | 30   | 60   | 90   | 120  | 150  | 180  | 210  | 240  | 270  | 300  | 330  |  |  |  |  |  |  |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|
| 0                | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 | 1621 |  |  |  |  |  |  |
| 5                | 1523 | 1511 | 1498 | 1503 | 1515 | 1517 | 1508 | 1506 | 1523 | 1533 | 1535 | 1531 |  |  |  |  |  |  |
| 10               | 1233 | 1211 | 1189 | 1201 | 1224 | 1224 | 1205 | 1200 | 1230 | 1253 | 1262 | 1253 |  |  |  |  |  |  |
| 15               | 846  | 825  | 802  | 813  | 834  | 829  | 808  | 802  | 836  | 861  | 872  | 864  |  |  |  |  |  |  |
| 20               | 496  | 481  | 464  | 475  | 492  | 485  | 463  | 454  | 481  | 503  | 518  | 513  |  |  |  |  |  |  |
| 25               | 271  | 262  | 254  | 264  | 277  | 270  | 253  | 247  | 261  | 275  | 289  | 285  |  |  |  |  |  |  |
| 30               | 152  | 148  | 145  | 152  | 158  | 155  | 144  | 141  | 148  | 155  | 165  | 161  |  |  |  |  |  |  |
| 35               | 79.9 | 78.6 | 78.2 | 82.2 | 87.1 | 84.0 | 77.3 | 74.5 | 77.5 | 82.3 | 87.8 | 85.2 |  |  |  |  |  |  |
| 40               | 41.2 | 40.3 | 40.5 | 44.0 | 46.5 | 44.8 | 40.1 | 38.2 | 39.3 | 41.7 | 45.4 | 43.7 |  |  |  |  |  |  |
| 45               | 22.3 | 22.0 | 22.0 | 23.6 | 24.7 | 24.0 | 21.8 | 20.4 | 20.8 | 21.5 | 23.0 | 22.8 |  |  |  |  |  |  |
| 50               | 11.6 | 11.7 | 11.8 | 12.2 | 12.5 | 12.3 | 11.4 | 10.7 | 10.6 | 10.7 | 11.0 | 11.3 |  |  |  |  |  |  |
| 55               | 6.98 | 7.09 | 7.14 | 7.33 | 7.49 | 7.43 | 7.14 | 6.76 | 6.62 | 6.62 | 6.70 | 6.81 |  |  |  |  |  |  |
| 60               | 5.21 | 5.30 | 5.38 | 5.55 | 5.64 | 5.62 | 5.35 | 5.06 | 4.94 | 4.93 | 5.02 | 5.11 |  |  |  |  |  |  |
| 65               | 3.98 | 4.04 | 4.12 | 4.22 | 4.25 | 4.21 | 4.00 | 3.75 | 3.68 | 3.70 | 3.79 | 3.88 |  |  |  |  |  |  |
| 70               | 2.86 | 2.95 | 3.00 | 3.04 | 3.00 | 2.90 | 2.73 | 2.59 | 2.57 | 2.60 | 2.67 | 2.76 |  |  |  |  |  |  |
| 75               | 2.24 | 2.32 | 2.38 | 2.42 | 2.38 | 2.27 | 2.12 | 2.00 | 1.97 | 1.99 | 2.05 | 2.14 |  |  |  |  |  |  |
| 80               | 1.77 | 1.85 | 1.92 | 1.96 | 1.91 | 1.81 | 1.67 | 1.56 | 1.53 | 1.55 | 1.61 | 1.68 |  |  |  |  |  |  |
| 85               | 0.97 | 1.05 | 1.09 | 1.12 | 1.06 | 0.97 | 0.84 | 0.74 | 0.73 | 0.74 | 0.79 | 0.86 |  |  |  |  |  |  |
| 90               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 95               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 100              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 105              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 110              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 115              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 120              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 125              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 130              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 135              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 140              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 145              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 150              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 155              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 160              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 165              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 170              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 175              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |
| 180              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |  |  |  |  |

C Range: 0 - 360DEG

C Interval:For a lens beam angle of 24°

Test Speed: HIGH

Temperature:77.54°F

Operators:zoe

Test Date:2023-12-25

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461

Humidity:65.0%

Test Distance:124.409" [K=1.0000]

Remarks: LAMP:BXRV-DR-1830G-100Z-A-23 Ra:90

LENS:PM-1103A 24R+DIFFUSER

DRIVER:PUP10A-1WMC-700 500mA

30minutes warm-up