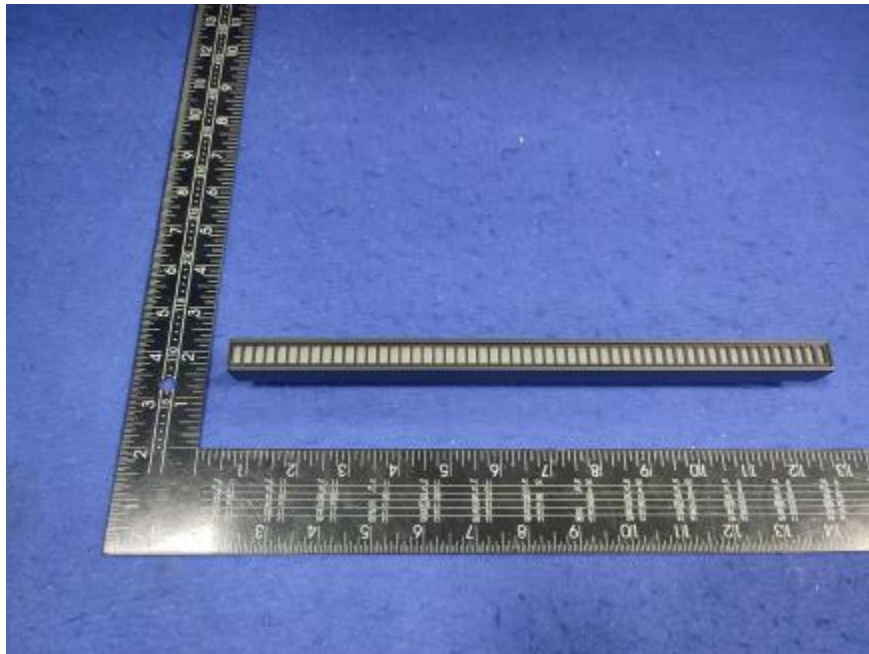


## Luminaire Photograph



|                     |         |                          |
|---------------------|---------|--------------------------|
| Light Output Ratio: | 15.7%   |                          |
| Luminaire Power:    | 5.356 W |                          |
| SHR Nominal:        | 0.75    | Calculated using the TM5 |
| SHR Maximum:        | 0.95    | fine grid method.        |

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3 °C  
Operators: zoe  
Test Date: 2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 3.160m [K=1.0000]  
Remarks: LAMP: HL-A-2835D90W-2-S1-08L-HR5 Ra: 90  
DIFFUSER: PL-0101A+PM-0144A+PS-0516  
NOT DRIVER: 48V  
30minutes warm-up

## LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

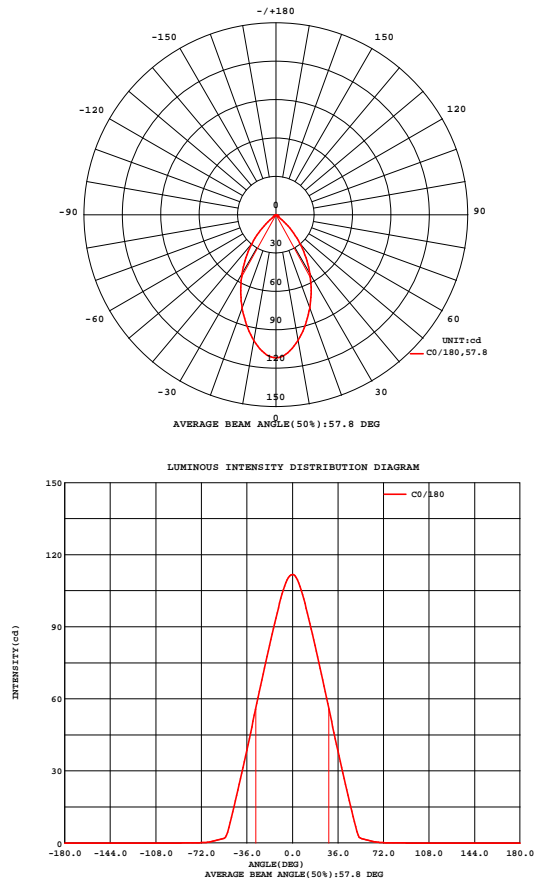


Fig. C0/C180

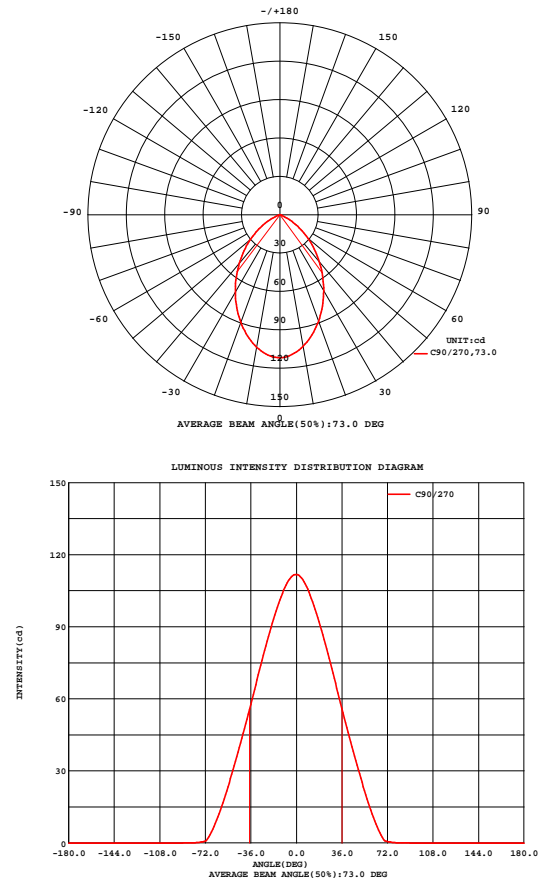


Fig. C90/C270

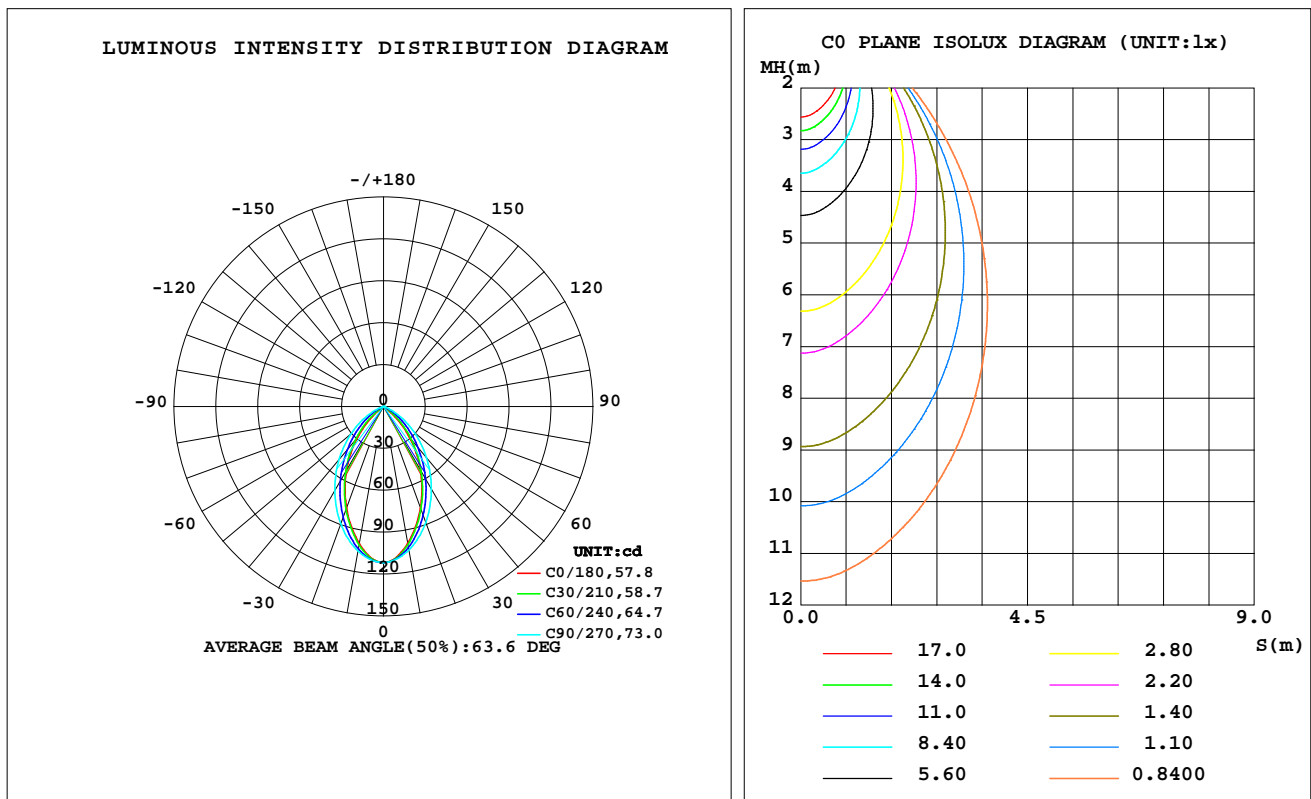
C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## LUMINAIRE PHOTOMETRIC TEST REPORT

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

| DATA OF LAMP     |         | PHOTOMETRIC DATA Eff: 24.14 lm/W |        |                        |         |
|------------------|---------|----------------------------------|--------|------------------------|---------|
| MODEL            | HONGLI  | Imax(cd)                         | 111.8  | S/MH(C0/180)           | 0.84    |
| NOMINAL POWER(W) | 5       | LOR(%)                           | 15.7   | S/MH(C90/270)          | 0.99    |
| RATED VOLTAGE(V) | 48      | TOTAL FLUX(lm)                   | 129.29 | $\eta$ UP,DN(C0-180)   | 0.0,7.8 |
| NOMINAL FLUX(lm) | 823.228 | CIE CLASS                        | DIRECT | $\eta$ UP,DN(C180-360) | 0.0,8.0 |
| LAMPS INSIDE     | 1       | $\eta$ up(%)                     | 0.0    | CIBSE SHR NOM          | 0.75    |
| TEST VOLTAGE(V)  | 48      | $\eta$ down(%)                   | 15.7   | CIBSE SHR MAX          | 0.95    |



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

| $\gamma$ | C0                    | C45    | C90    | C135   | C180   | C225   | C270   | C315   | $\gamma$ | $\Phi$ zone | $\Phi$ total | %lum,lamp |
|----------|-----------------------|--------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|-----------|
| 10       | 99.67                 | 101.6  | 104.4  | 101.7  | 99.86  | 102.2  | 105.1  | 102.0  | 0- 10    | 10.18       | 10.18        | 7.88,1.24 |
| 20       | 77.52                 | 80.71  | 88.49  | 80.57  | 77.54  | 81.53  | 89.60  | 81.34  | 10- 20   | 25.86       | 36.04        | 27.9,4.38 |
| 30       | 53.15                 | 57.29  | 68.60  | 56.98  | 53.21  | 58.25  | 69.96  | 58.04  | 20- 30   | 32.24       | 68.29        | 52.8,8.29 |
| 40       | 29.16                 | 34.97  | 48.02  | 34.55  | 29.06  | 36.03  | 49.56  | 35.78  | 30- 40   | 29.58       | 97.86        | 75.7,11.9 |
| 50       | 6.850                 | 15.75  | 28.78  | 15.27  | 6.401  | 16.89  | 30.35  | 16.56  | 40- 50   | 20.21       | 118.1        | 91.3,14.3 |
| 60       | 1.169                 | 3.815  | 12.12  | 3.649  | 1.182  | 4.482  | 13.68  | 4.246  | 50- 60   | 8.747       | 126.8        | 98.1,15.4 |
| 70       | 0.1946                | 0.2504 | 0.8188 | 0.2376 | 0.1867 | 0.3625 | 1.741  | 0.3239 | 60- 70   | 2.280       | 129.1        | 99.9,15.7 |
| 80       | 0.0394                | 0.0358 | 0.0941 | 0.0337 | 0.0353 | 0.0423 | 0.1198 | 0.0437 | 70- 80   | 0.1726      | 129.3        | 100,15.7  |
| 90       | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 80- 90   | 0.0185      | 129.3        | 100,15.7  |
| 100      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 90-100   | 0           | 129.3        | 100,15.7  |
| 110      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 100-110  | 0           | 129.3        | 100,15.7  |
| 120      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 110-120  | 0           | 129.3        | 100,15.7  |
| 130      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 120-130  | 0           | 129.3        | 100,15.7  |
| 140      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 130-140  | 0           | 129.3        | 100,15.7  |
| 150      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 140-150  | 0           | 129.3        | 100,15.7  |
| 160      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 150-160  | 0           | 129.3        | 100,15.7  |
| 170      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 160-170  | 0           | 129.3        | 100,15.7  |
| 180      | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 170-180  | 0           | 129.3        | 100,15.7  |
| DEG      | LUMINOUS INTENSITY:cd |        |        |        |        |        |        |        |          | UNIT:lm     |              |           |

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

### LUMINANCE LIMITATION CURVES

Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz  
Lamp Flux:823.228x1 lm

NAME: OZ48-P2L-3

TYPE:

WEIGHT:

SPEC.: 3000K

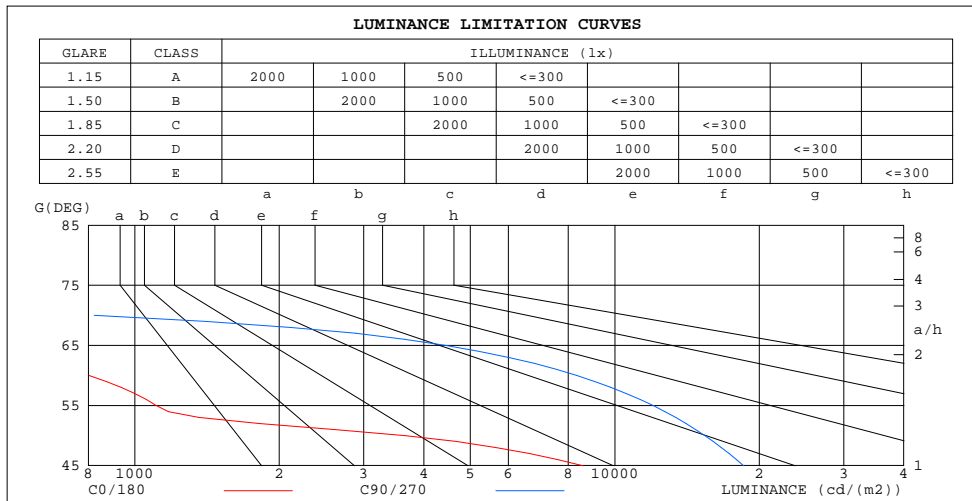
DIM.:

SERIAL No.: 2412261527

MFR.: RISE

SUR.: 0.00291m2

Shielding Angle:



| LUMINANCE cd/(m2) |        |         |
|-------------------|--------|---------|
| G(DEG)            | C0/180 | C90/270 |
| 85                | 38     | 82      |
| 80                | 78     | 186     |
| 75                | 122    | 426     |
| 70                | 195    | 823     |
| 65                | 412    | 4443    |
| 60                | 804    | 8335    |
| 55                | 1108   | 12025   |
| 50                | 3662   | 15398   |
| 45                | 8586   | 18546   |

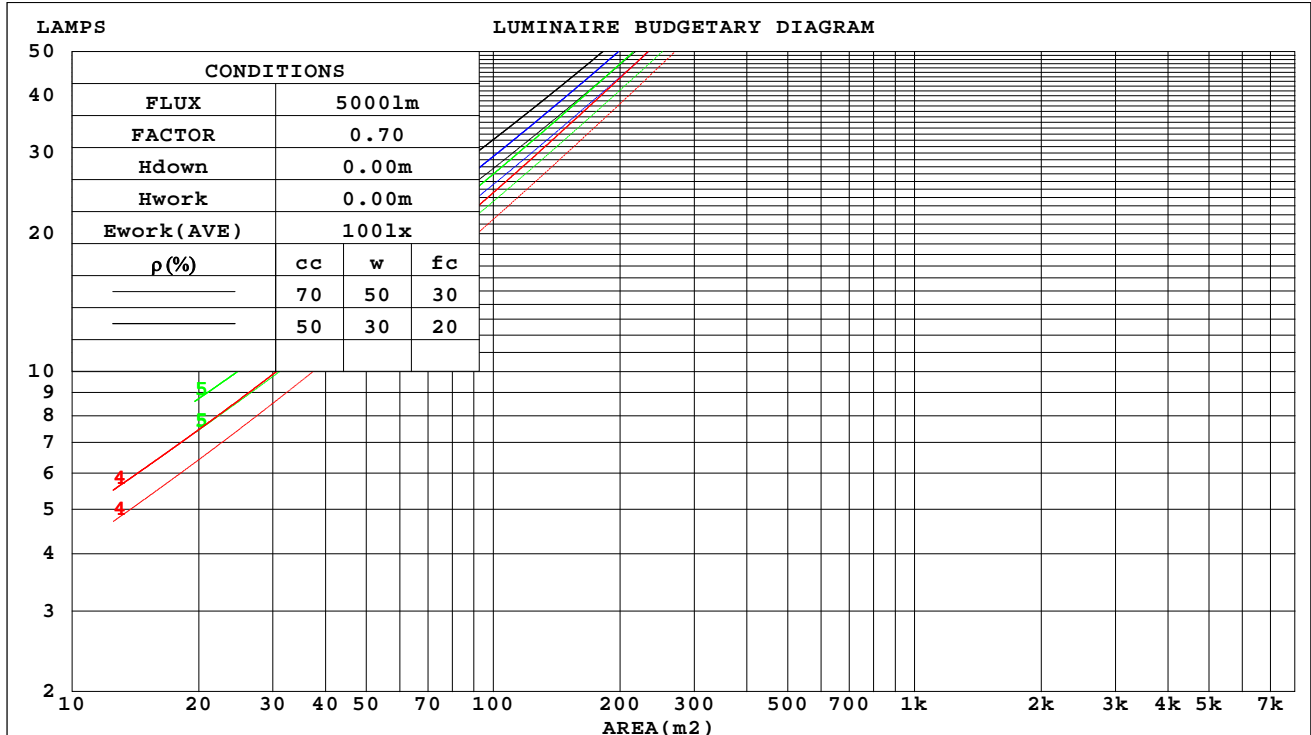
C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

| pcc | 80%                   |     |     | 70% |     |     | 50% |     |     | 30% |     |     | 10% |     |     | 0 |
|-----|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| pw  | 50%                   | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pfc | 20%                   |     |     | 20% |     |     | 20% |     |     | 20% |     |     | 20% |     |     | 0 |
| RCR | RCR:Room Cavity Ratio |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

### WEC AND CCEC

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%                             |      |      | 30%  |      |      | 10%  |      |      | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%                             | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%                             |      |      | 20%  |      |      | 20%  |      |      | 0 |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Wall Exitance Coefficients(WEC) |      |      |      |      |      |      |      |      |   |
| 0.0  |                       |      |      |      |      |      |                                 |      |      |      |      |      |      |      |      |   |
| 1.0  | .032                  | .018 | .006 | .031 | .018 | .006 | .029                            | .017 | .005 | .027 | .016 | .005 | .025 | .015 | .005 |   |
| 2.0  | .031                  | .017 | .005 | .030 | .017 | .005 | .029                            | .016 | .005 | .027 | .015 | .005 | .026 | .014 | .005 |   |
| 3.0  | .030                  | .016 | .005 | .029 | .016 | .005 | .028                            | .015 | .005 | .026 | .014 | .004 | .025 | .014 | .004 |   |
| 4.0  | .028                  | .015 | .004 | .028 | .015 | .004 | .027                            | .014 | .004 | .025 | .014 | .004 | .024 | .013 | .004 |   |
| 5.0  | .027                  | .014 | .004 | .027 | .014 | .004 | .025                            | .013 | .004 | .024 | .013 | .004 | .023 | .012 | .004 |   |
| 6.0  | .026                  | .013 | .004 | .025 | .013 | .004 | .024                            | .012 | .004 | .023 | .012 | .004 | .022 | .012 | .004 |   |
| 7.0  | .025                  | .012 | .003 | .024 | .012 | .003 | .023                            | .012 | .003 | .022 | .011 | .003 | .022 | .011 | .003 |   |
| 8.0  | .023                  | .011 | .003 | .023 | .011 | .003 | .022                            | .011 | .003 | .021 | .011 | .003 | .021 | .011 | .003 |   |
| 9.0  | .022                  | .011 | .003 | .022 | .011 | .003 | .021                            | .010 | .003 | .020 | .010 | .003 | .020 | .010 | .003 |   |
| 10.0 | .021                  | .010 | .003 | .021 | .010 | .003 | .020                            | .010 | .003 | .020 | .010 | .003 | .019 | .010 | .003 |   |

| pcc  | 80%                   |      |      | 70%  |      |      | 50%  |      |      | 30%  |      |      | 10%  |      |      | 0 |  |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|--|
| pw   | 50%                   | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 0 |  |
| pfc  | 20%                   |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 20%  |      |      | 0 |  |
| RCR  | RCR:Room Cavity Ratio |      |      |      |      |      | Ceiling Cavity Exitance Coefficients(CCEC) |      |      |      |      |      |      |      |      |   |  |
| 0.0  | .030                  | .030 | .030 | .026 | .026 | .026 | .017                                       | .017 | .017 | .010 | .010 | .010 | .003 | .003 | .003 |   |  |
| 1.0  | .027                  | .025 | .022 | .023 | .021 | .019 | .016                                       | .015 | .013 | .009 | .008 | .008 | .003 | .003 | .003 |   |  |
| 2.0  | .025                  | .021 | .017 | .021 | .018 | .015 | .015                                       | .012 | .010 | .008 | .007 | .006 | .003 | .002 | .002 |   |  |
| 3.0  | .023                  | .018 | .013 | .020 | .015 | .012 | .014                                       | .011 | .008 | .008 | .006 | .005 | .003 | .002 | .002 |   |  |
| 4.0  | .022                  | .016 | .011 | .019 | .014 | .009 | .013                                       | .009 | .007 | .008 | .006 | .004 | .002 | .002 | .001 |   |  |
| 5.0  | .021                  | .014 | .009 | .018 | .012 | .008 | .012                                       | .008 | .005 | .007 | .005 | .003 | .002 | .002 | .001 |   |  |
| 6.0  | .020                  | .012 | .007 | .017 | .011 | .006 | .012                                       | .008 | .004 | .007 | .004 | .003 | .002 | .001 | .001 |   |  |
| 7.0  | .019                  | .011 | .006 | .016 | .010 | .005 | .011                                       | .007 | .004 | .006 | .004 | .002 | .002 | .001 | .001 |   |  |
| 8.0  | .018                  | .010 | .005 | .015 | .009 | .005 | .011                                       | .006 | .003 | .006 | .004 | .002 | .002 | .001 | .001 |   |  |
| 9.0  | .017                  | .010 | .005 | .015 | .008 | .004 | .010                                       | .006 | .003 | .006 | .003 | .002 | .002 | .001 | .001 |   |  |
| 10.0 | .016                  | .009 | .004 | .014 | .008 | .003 | .010                                       | .005 | .002 | .006 | .003 | .001 | .002 | .001 | .000 |   |  |

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## UGR(Unified Glare Rating) Table

|   |                  |      |      |      |                 |                |      |                        |      |      |
|---|------------------|------|------|------|-----------------|----------------|------|------------------------|------|------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                  |      |      |      |                 |                |      |                        |      |      |
| NAME: OZ48-P2L-3  |                  |      |      |      | TYPE:           |                |      | WEIGHT:                |      |      |
| SPEC.: 3000K  |                  |      |      |      | DIM.:           |                |      | SERIAL No.: 2412261527 |      |      |
| MFR.: RISE  |                  |      |      |      | SUR.: 0.00291m2 |                |      | 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   | 16.5             | 17.6 | 16.7 | 17.8 | 18.0            | 20.6           | 21.7 | 20.8                   | 21.9 | 22.1 |
| 3H  | 16.3             | 17.3 | 16.6 | 17.5 | 17.8            | 20.5           | 21.5 | 20.8                   | 21.7 | 21.9 |
| 4H  | 16.2             | 17.2 | 16.5 | 17.4 | 17.6            | 20.4           | 21.4 | 20.7                   | 21.6 | 21.8 |
| 6H  | 16.1             | 17.0 | 16.4 | 17.3 | 17.5            | 20.3           | 21.2 | 20.6                   | 21.5 | 21.7 |
| 8H  | 16.1             | 16.9 | 16.4 | 17.2 | 17.5            | 20.3           | 21.1 | 20.6                   | 21.4 | 21.7 |
| 12H   | 16.0             | 16.9 | 16.4 | 17.1 | 17.4            | 20.2           | 21.0 | 20.5                   | 21.3 | 21.6 |
| 4H 2H   | 16.5             | 17.4 | 16.8 | 17.7 | 17.9            | 20.3           | 21.3 | 20.6                   | 21.5 | 21.8 |
| 3H  | 16.3             | 17.1 | 16.6 | 17.4 | 17.7            | 20.2           | 21.1 | 20.6                   | 21.4 | 21.6 |
| 4H  | 16.2             | 16.9 | 16.5 | 17.3 | 17.6            | 20.2           | 20.9 | 20.5                   | 21.2 | 21.5 |
| 6H  | 16.1             | 16.8 | 16.5 | 17.1 | 17.4            | 20.1           | 20.7 | 20.4                   | 21.1 | 21.4 |
| 8H  | 16.1             | 16.7 | 16.4 | 17.0 | 17.4            | 20.0           | 20.6 | 20.4                   | 21.0 | 21.4 |
| 12H   | 16.0             | 16.6 | 16.4 | 16.9 | 17.3            | 20.0           | 20.5 | 20.4                   | 20.9 | 21.3 |
| 8H 4H   | 16.1             | 16.7 | 16.5 | 17.0 | 17.4            | 20.0           | 20.6 | 20.4                   | 21.0 | 21.3 |
| 6H  | 16.0             | 16.5 | 16.4 | 16.9 | 17.3            | 19.9           | 20.4 | 20.3                   | 20.8 | 21.2 |
| 8H  | 15.9             | 16.3 | 16.4 | 16.8 | 17.2            | 19.9           | 20.3 | 20.3                   | 20.7 | 21.2 |
| 12H   | 15.9             | 16.2 | 16.3 | 16.7 | 17.1            | 19.8           | 20.2 | 20.3                   | 20.6 | 21.1 |
| 12H 4H  | 16.0             | 16.6 | 16.4 | 16.9 | 17.3            | 20.0           | 20.5 | 20.4                   | 20.9 | 21.3 |
| 6H  | 15.9             | 16.3 | 16.4 | 16.8 | 17.2            | 19.9           | 20.3 | 20.3                   | 20.7 | 21.2 |
| 8H  | 15.9             | 16.2 | 16.3 | 16.7 | 17.1            | 19.8           | 20.2 | 20.3                   | 20.6 | 21.1 |
| Variations with the observer position at spacings(CIE Pub.117):                 |                  |      |      |      |                 |                |      |                        |      |      |
| S = 1.0H  | + 2.5 / -11.1    |      |      |      |                 | + 1.4 / - 1.9  |      |                        |      |      |
| 1.5H  | + 2.7 / - 8.3    |      |      |      |                 | + 1.7 / - 2.5  |      |                        |      |      |
| 2.0H  | + 5.4 / -10.9    |      |      |      |                 | + 3.8 / - 7.8  |      |                        |      |      |

CIE Pub.117, 823.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)  
Area: 0.00291 m2

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up



### UTILIZATION FACTORS TABLE

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

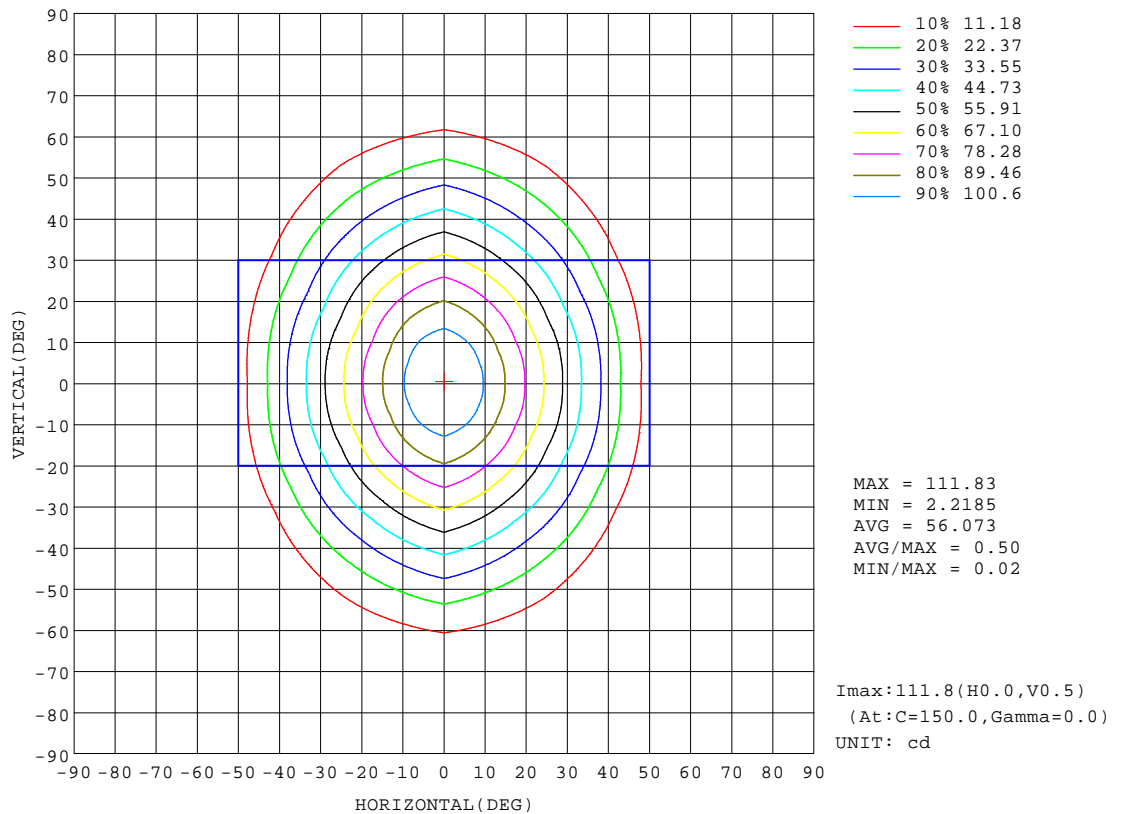
| REFLECTANCE                      |   |     |           |     |     |     |     |               |     |        |
|----------------------------------|---|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling                          | 0.8   | 0.8 | 0.8       | 0.7 | 0.7 | 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                         | 12  | 11  | 10        | 12  | 11  | 10  | 12  | 10            | 10  | 9      |
| 0.80                             | 13  | 12  | 11        | 13  | 12  | 11  | 13  | 12            | 11  | 10     |
| 1.00                             | 14  | 13  | 13        | 14  | 13  | 12  | 14  | 13            | 12  | 12     |
| 1.25                             | 15  | 14  | 14        | 15  | 14  | 13  | 15  | 14            | 13  | 13     |
| 1.50                             | 16  | 15  | 14        | 16  | 15  | 14  | 15  | 15            | 14  | 13     |
| 2.00                             | 17  | 16  | 15        | 16  | 16  | 15  | 16  | 15            | 15  | 14     |
| 2.50                             | 17  | 16  | 16        | 17  | 16  | 15  | 16  | 16            | 15  | 14     |
| 3.00                             | 17  | 17  | 16        | 17  | 16  | 16  | 16  | 16            | 15  | 14     |
| 4.00                             | 18  | 17  | 17        | 17  | 17  | 16  | 17  | 16            | 16  | 15     |
| 5.00                             | 18  | 17  | 17        | 17  | 17  | 17  | 17  | 16            | 16  | 15     |
| ROOM INDEX                       | UF(total)   |     |           |     |     |     |     |               |     | Direct |
| According to DIN EN 13032-2 2004 |   |     | Suspended |     |     |     |     | SHRNOM = 1.25 |     |        |

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## ISOCANDELA DIAGRAM

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

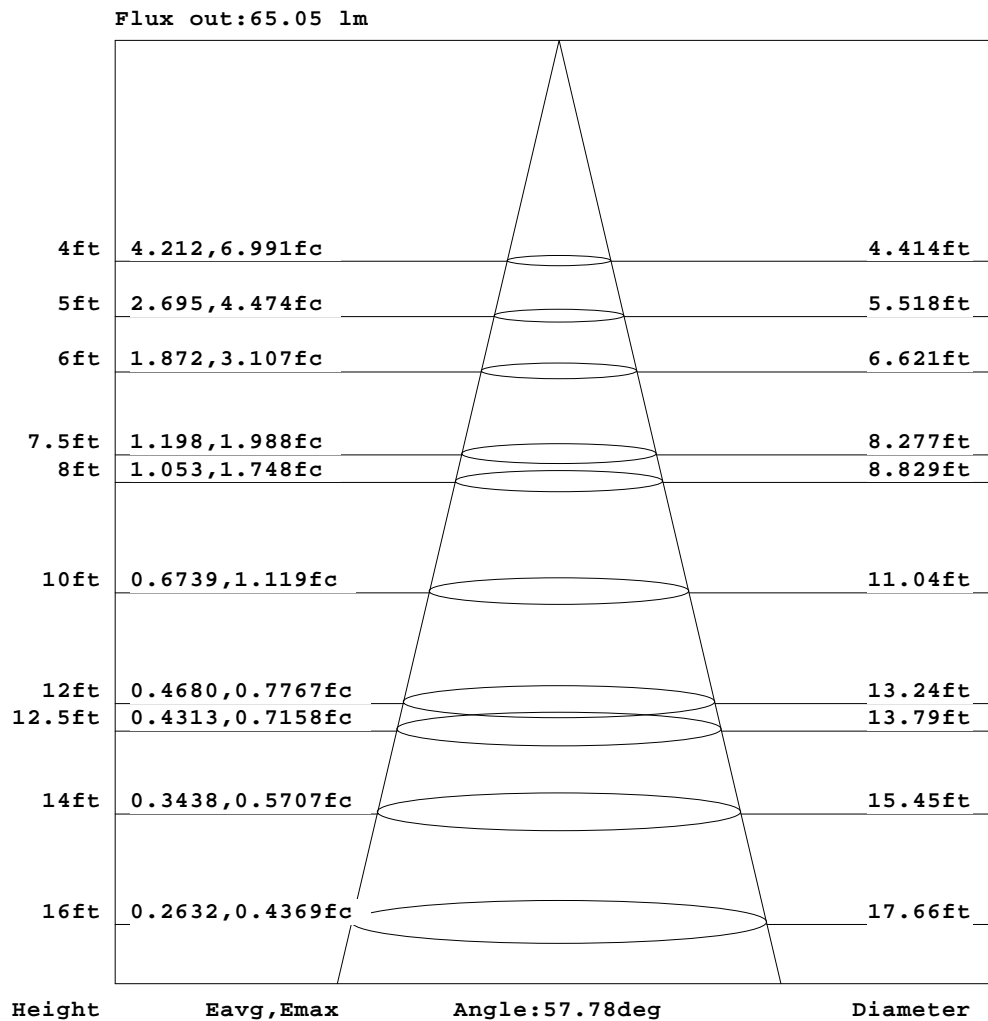


C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## AAI Figure

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |



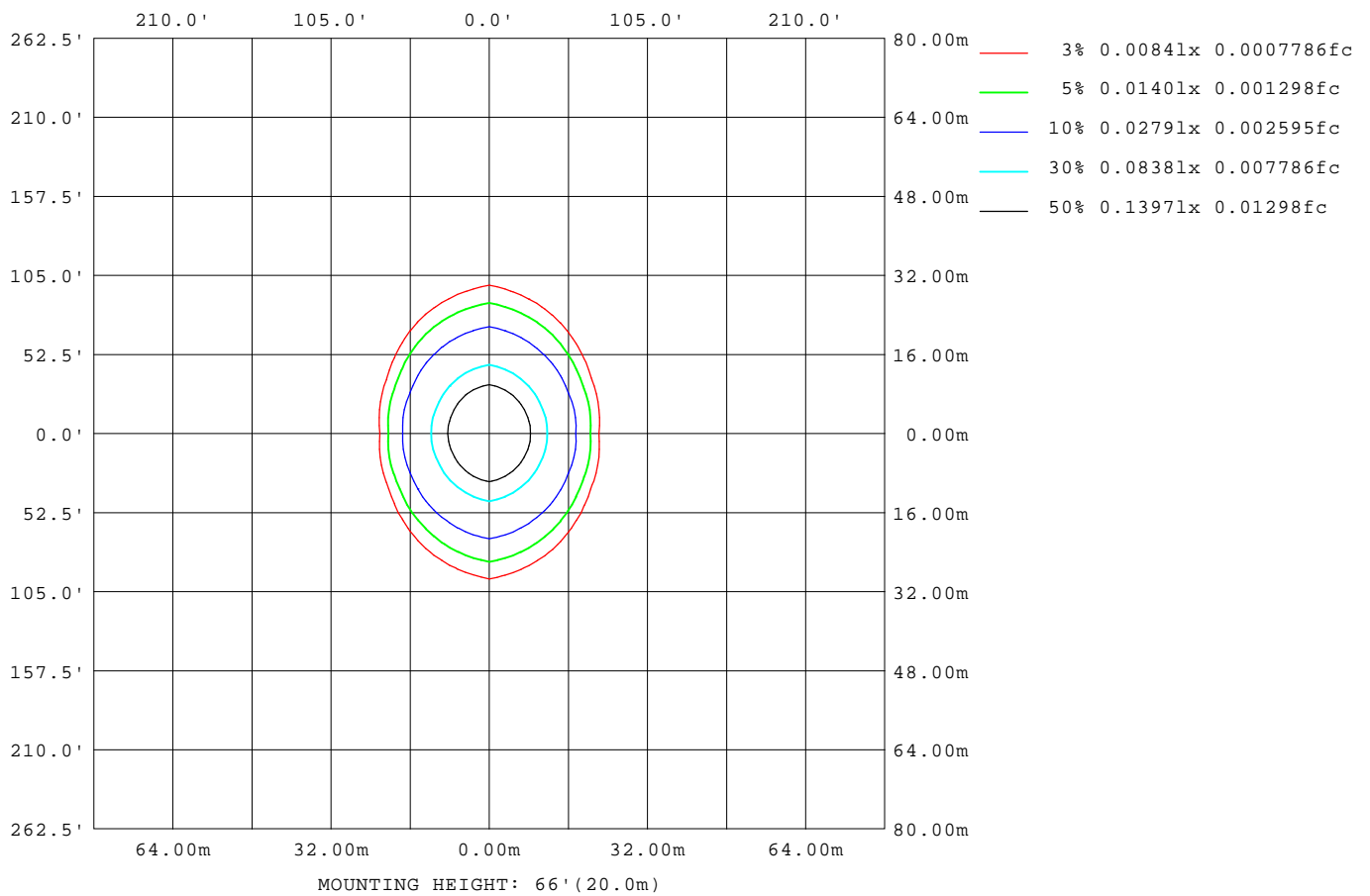
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: zoe  
Test Date: 2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity: 65.0%  
Test Distance: 3.160m [K=1.0000]  
Remarks: LAMP: HL-A-2835D90W-2-S1-08L-HR5 Ra: 90  
DIFFUSER: PL-0101A+PM-0144A+PS-0516  
NOT DRIVER: 48V  
30minutes warm-up

## ISOLUX DIAGRAM

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

### LED Avg.L Report

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

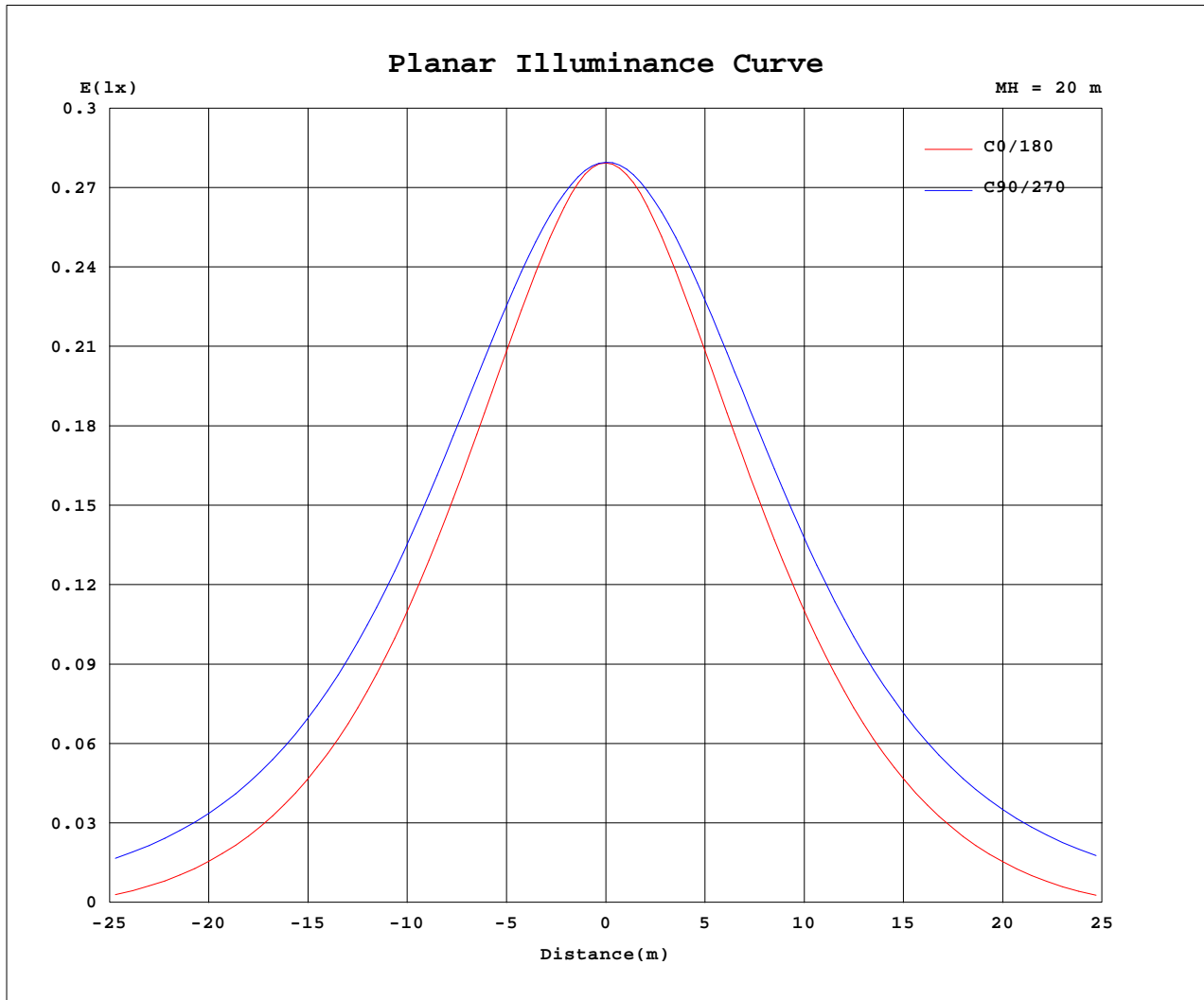
| AvgL           | cd/m2 |
|----------------|-------|
| L_0~180(65)av  | 413   |
| L_0~180(75)av  | 120   |
| L_0~180(85)av  | 40    |
| L_90~270(65)av | 5005  |
| L_90~270(75)av | 488   |
| L_90~270(85)av | 94    |
| L_45(65)av     | 1037  |
| L_45(75)av     | 100   |
| L_45(85)av     | 38    |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up

## Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators: zoe  
 Test Date: 2024-12-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
 Humidity: 65.0%  
 Test Distance: 3.160m [K=1.0000]  
 Remarks: LAMP: HL-A-2835D90W-2-S1-08L-HR5 Ra: 90  
 DIFFUSER: PL-0101A+PM-0144A+PS-0516  
 NOT DRIVER: 48V  
 30minutes warm-up



## LUMINOUS DISTRIBUTION INTENSITY DATA

|   |                 |                        |
|---|-----------------|------------------------|
| Test:U:47.997V I:0.1116A P:5.3565W PF:1.0000 Freq:0Hz<br>Lamp Flux:823.228x1 lm |                 |                        |
| NAME: OZ48-P2L-3  | TYPE:           | WEIGHT:                |
| SPEC.: 3000K  | DIM.:           | SERIAL No.: 2412261527 |
| MFR.: RISE  | SUR.: 0.00291m2 | Shielding Angle:       |

Table--1

UNIT: cd

| C(DEG)<br>γ (DEG) | 0    | 30   | 60   | 90   | 120  | 150  | 180  | 210  | 240  | 270  | 300  | 330  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|
| 0                 | 112  | 112  | 112  | 112  | 112  | 112  | 112  | 112  | 112  | 112  | 112  | 112  |  |  |  |  |  |  |
| 5                 | 108  | 109  | 109  | 110  | 109  | 109  | 108  | 109  | 110  | 110  | 110  | 109  |  |  |  |  |  |  |
| 10                | 99.7 | 101  | 103  | 104  | 103  | 100  | 99.9 | 101  | 104  | 105  | 103  | 101  |  |  |  |  |  |  |
| 15                | 89.1 | 90.0 | 93.5 | 97.2 | 93.7 | 89.9 | 89.2 | 90.2 | 94.9 | 98.1 | 94.3 | 90.3 |  |  |  |  |  |  |
| 20                | 77.5 | 78.4 | 83.0 | 88.5 | 83.0 | 78.1 | 77.5 | 78.6 | 84.5 | 89.6 | 83.9 | 78.7 |  |  |  |  |  |  |
| 25                | 65.4 | 66.3 | 71.7 | 78.8 | 71.6 | 66.0 | 65.5 | 66.6 | 73.4 | 80.1 | 72.8 | 66.7 |  |  |  |  |  |  |
| 30                | 53.1 | 54.2 | 60.3 | 68.6 | 60.0 | 53.9 | 53.2 | 54.5 | 62.0 | 70.0 | 61.4 | 54.6 |  |  |  |  |  |  |
| 35                | 41.0 | 42.5 | 49.2 | 58.2 | 48.8 | 42.1 | 41.0 | 42.8 | 50.9 | 59.7 | 50.3 | 42.9 |  |  |  |  |  |  |
| 40                | 29.2 | 31.3 | 38.6 | 48.0 | 38.2 | 30.9 | 29.1 | 31.7 | 40.4 | 49.6 | 39.8 | 31.8 |  |  |  |  |  |  |
| 45                | 17.7 | 21.0 | 28.8 | 38.1 | 28.5 | 20.4 | 17.5 | 21.4 | 30.6 | 39.7 | 30.0 | 21.4 |  |  |  |  |  |  |
| 50                | 6.85 | 11.4 | 20.1 | 28.8 | 19.7 | 10.8 | 6.40 | 12.0 | 21.8 | 30.4 | 21.2 | 11.9 |  |  |  |  |  |  |
| 55                | 1.85 | 3.36 | 12.5 | 20.1 | 12.2 | 2.87 | 1.85 | 3.83 | 14.0 | 21.6 | 13.5 | 3.66 |  |  |  |  |  |  |
| 60                | 1.17 | 1.21 | 6.42 | 12.1 | 6.09 | 1.20 | 1.18 | 1.27 | 7.70 | 13.7 | 7.24 | 1.25 |  |  |  |  |  |  |
| 65                | 0.51 | 0.60 | 2.08 | 5.46 | 1.82 | 0.59 | 0.51 | 0.67 | 3.01 | 6.85 | 2.62 | 0.66 |  |  |  |  |  |  |
| 70                | 0.19 | 0.18 | 0.32 | 0.82 | 0.31 | 0.16 | 0.19 | 0.20 | 0.53 | 1.74 | 0.44 | 0.21 |  |  |  |  |  |  |
| 75                | 0.09 | 0.08 | 0.10 | 0.32 | 0.09 | 0.07 | 0.09 | 0.08 | 0.12 | 0.41 | 0.11 | 0.09 |  |  |  |  |  |  |
| 80                | 0.04 | 0.03 | 0.04 | 0.09 | 0.04 | 0.03 | 0.04 | 0.04 | 0.05 | 0.12 | 0.05 | 0.04 |  |  |  |  |  |  |
| 85                | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.03 | 0.01 | 0.01 |  |  |  |  |  |  |
| 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: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:zoe  
Test Date:2024-12-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.461  
Humidity:65.0%  
Test Distance:3.160m [K=1.0000]  
Remarks: LAMP:HL-A-2835D90W-2-S1-08L-HR5 Ra:90  
DIFFUSER:PL-0101A+PM-0144A+PS-0516  
NOT DRIVER:48V  
30minutes warm-up