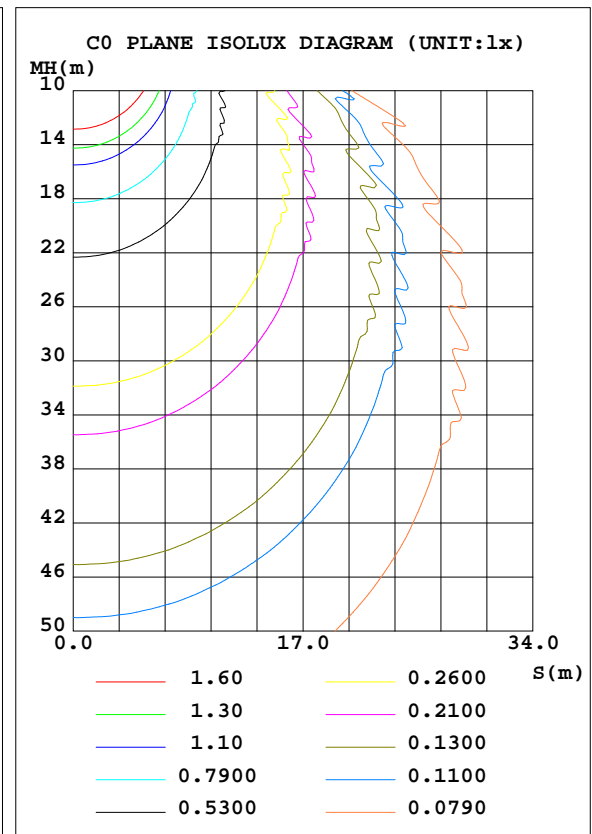
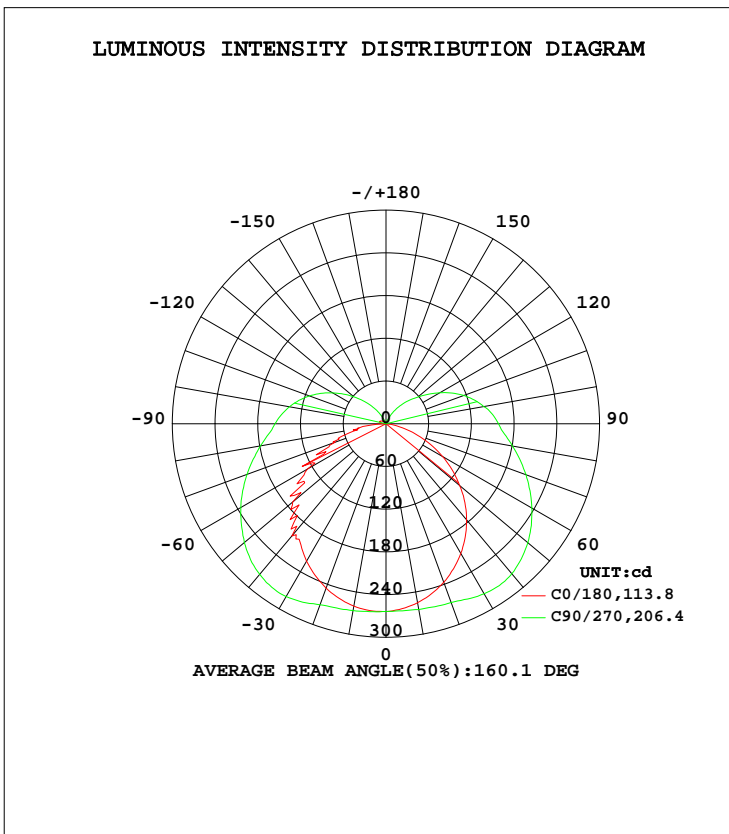


LUMINAIRE PHOTOMETRIC TEST REPORT

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 73.68 lm/W | | | |
|---------------------------------------|---------|----------------------------------|---------|-------------------------|----------|
| MODEL ASD-OLWS-22-MV-18N20CC-BZ 5000K | | | 281.0 | S/MH(C0/180) | 1.19 |
| NOMINAL POWER(W) | | LOR(%) | 100.0 | S/MH(C90/270) | 1.60 |
| RATED VOLTAGE(V) | 120 | TOTAL FLUX(lm) | 1403.6 | η UP, DN(C0-180) | 9.8,40.7 |
| NOMINAL FLUX(lm) | 1403.64 | CIE CLASS | SEMI-D. | η UP, DN(C180-360) | 9.8,39.7 |
| LAMPS INSIDE | 1 | η up(%) | 19.6 | CIBSE SHR NOM | 1.50 |
| TEST VOLTAGE(V) | 120 | η down(%) | 80.4 | CIBSE SHR MAX | 1.55 |



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum,lamp |
|----------|-----------------------|-------|--------|--------|--------|--------|--------|--------|----------|-------------|--------------|-----------|
| 10 | 260.1 | 264.3 | 266.4 | 261.0 | 255.3 | 259.0 | 265.0 | 261.9 | 0- 10 | 25.07 | 25.07 | 1.79,1.79 |
| 20 | 245.7 | 259.4 | 270.5 | 253.5 | 237.2 | 251.0 | 267.2 | 256.0 | 10- 20 | 73.22 | 98.29 | 7,7 |
| 30 | 223.0 | 253.2 | 280.3 | 245.1 | 210.3 | 240.5 | 275.8 | 247.0 | 20- 30 | 116.2 | 214.5 | 15.3,15.3 |
| 40 | 205.7 | 245.2 | 276.0 | 234.9 | 176.1 | 230.8 | 275.1 | 239.2 | 30- 40 | 151.3 | 365.8 | 26.1,26.1 |
| 50 | 171.2 | 226.6 | 259.6 | 212.7 | 135.2 | 211.2 | 260.1 | 223.7 | 40- 50 | 172.9 | 538.7 | 38.4,38.4 |
| 60 | 127.6 | 205.7 | 235.5 | 181.7 | 91.39 | 181.7 | 236.5 | 201.9 | 50- 60 | 176.6 | 715.3 | 51,51 |
| 70 | 76.08 | 161.5 | 207.7 | 148.1 | 47.34 | 149.0 | 209.3 | 160.4 | 60- 70 | 163.8 | 879.1 | 62.6,62.6 |
| 80 | 38.76 | 130.9 | 179.1 | 116.3 | 11.28 | 117.2 | 180.4 | 129.0 | 70- 80 | 138.4 | 1017 | 72.5,72.5 |
| 90 | 2.468 | 106.0 | 156.0 | 93.98 | 0.1077 | 95.87 | 158.1 | 105.8 | 80- 90 | 111.0 | 1128 | 80.4,80.4 |
| 100 | 7.003 | 88.52 | 137.8 | 77.67 | 0.1619 | 80.13 | 139.6 | 89.31 | 90-100 | 92.45 | 1221 | 87,87 |
| 110 | 9.590 | 68.99 | 114.5 | 58.89 | 0.2024 | 60.54 | 116.4 | 68.05 | 100-110 | 73.42 | 1294 | 92.2,92.2 |
| 120 | 7.819 | 46.56 | 86.96 | 40.57 | 0.3085 | 41.20 | 87.26 | 46.13 | 110-120 | 52.05 | 1346 | 95.9,95.9 |
| 130 | 5.691 | 28.56 | 58.95 | 24.53 | 0.3115 | 26.78 | 58.72 | 29.98 | 120-130 | 32.11 | 1378 | 98.2,98.2 |
| 140 | 3.987 | 13.07 | 34.11 | 10.61 | 0.3548 | 13.17 | 36.29 | 16.29 | 130-140 | 16.88 | 1395 | 99.4,99.4 |
| 150 | 2.707 | 1.877 | 12.91 | 1.197 | 0.4549 | 1.189 | 16.15 | 6.078 | 140-150 | 6.655 | 1402 | 99.9,99.9 |
| 160 | 1.718 | 1.390 | 1.407 | 1.024 | 0.4826 | 0.5729 | 0.9588 | 0.9304 | 150-160 | 1.334 | 1403 | 100,100 |
| 170 | 1.125 | 1.227 | 1.139 | 0.8433 | 0.5831 | 0.6263 | 0.7911 | 0.9572 | 160-170 | 0.2734 | 1404 | 100,100 |
| 180 | 1.068 | 1.067 | 0.7425 | 1.185 | 1.069 | 1.062 | 0.9213 | 0.8993 | 170-180 | 0.0864 | 1404 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

Conical surface Flux(90deg): 450.6 lm

%lum = 32.1%

%lamp = 32.1%

Conical surface Flux(120deg): 715.29 lm

%lum = 51.0%

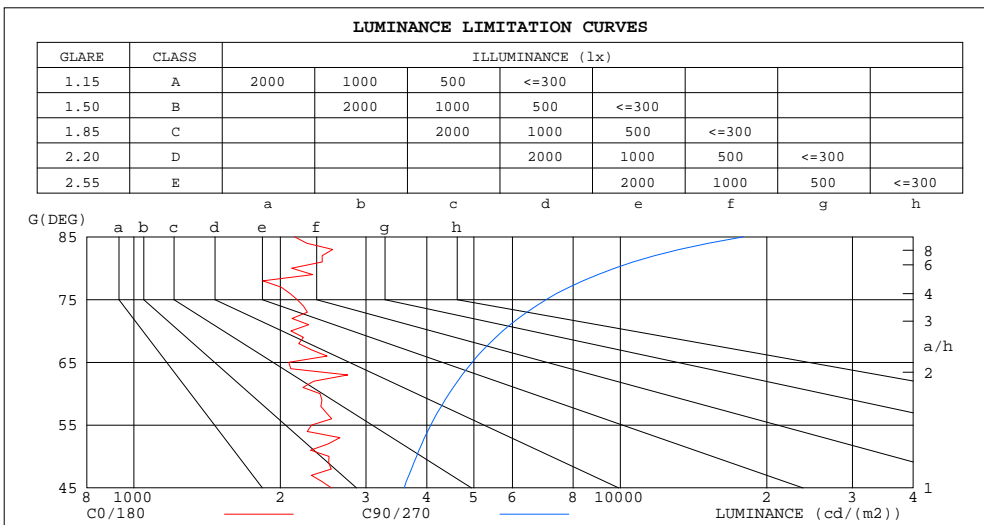
%lamp = 51.0%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 2140 | 17908 |
| 80 | 2111 | 9736 |
| 75 | 2166 | 7042 |
| 70 | 2104 | 5732 |
| 65 | 2082 | 4960 |
| 60 | 2413 | 4445 |
| 55 | 2319 | 4079 |
| 50 | 2519 | 3812 |
| 45 | 2547 | 3595 |

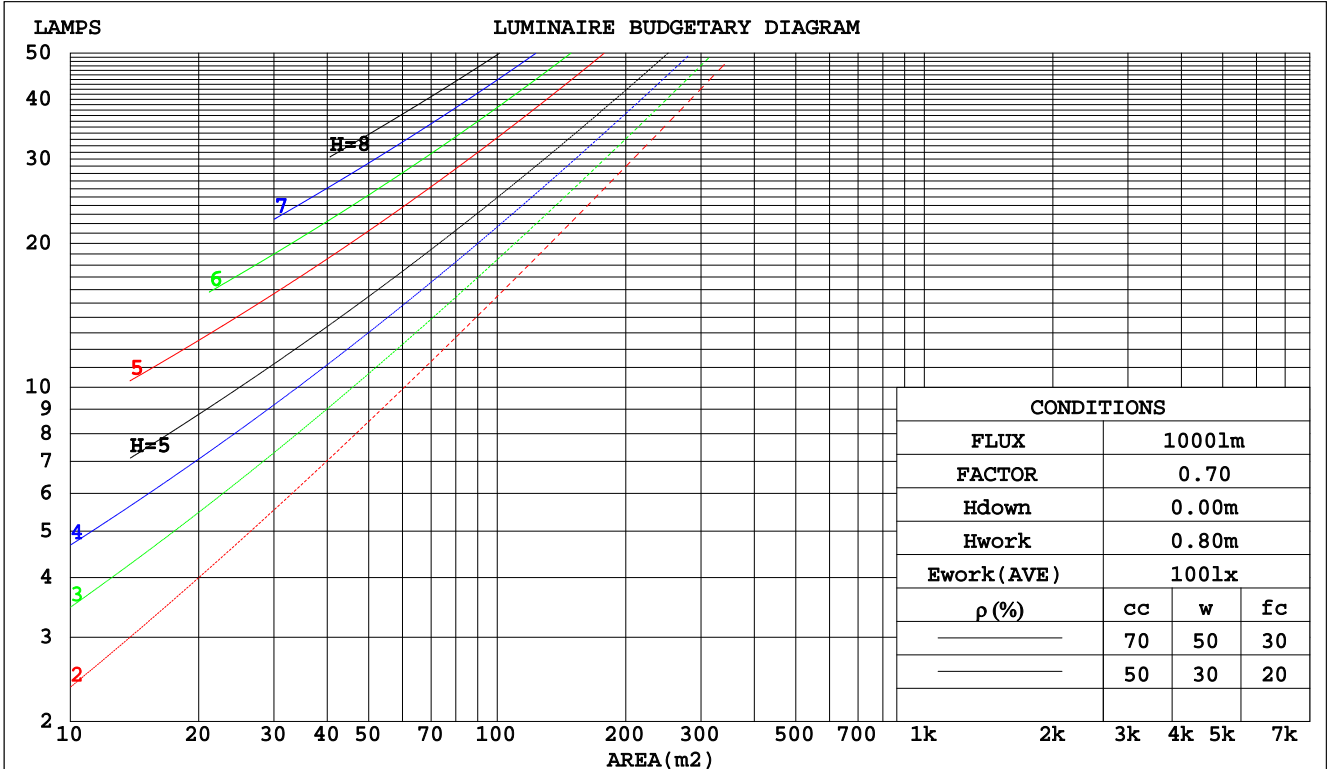
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

| pcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|---------------------------------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| pw | | | | | | | | | | | | | | | | 0 |
| pfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | | | | | | | | | | |
| | Coefficients of Utilization(CU) | | | | | | | | | | | | | | | |
| 0.0 | 1.14 | 1.14 | 1.14 | 1.09 | 1.09 | 1.09 | 1.00 | 1.00 | 1.00 | .92 | .92 | .92 | .84 | .84 | .84 | .80 |
| 1.0 | .95 | .89 | .84 | .91 | .86 | .81 | .83 | .79 | .75 | .75 | .72 | .69 | .69 | .66 | .64 | .60 |
| 2.0 | .81 | .73 | .66 | .77 | .70 | .64 | .70 | .64 | .59 | .64 | .59 | .55 | .58 | .54 | .51 | .47 |
| 3.0 | .70 | .61 | .53 | .67 | .58 | .52 | .61 | .54 | .48 | .55 | .50 | .45 | .50 | .46 | .42 | .38 |
| 4.0 | .61 | .51 | .44 | .58 | .50 | .43 | .53 | .46 | .40 | .49 | .42 | .37 | .44 | .39 | .35 | .32 |
| 5.0 | .54 | .44 | .37 | .52 | .43 | .36 | .47 | .40 | .34 | .43 | .37 | .32 | .39 | .34 | .30 | .27 |
| 6.0 | .48 | .39 | .32 | .46 | .37 | .31 | .42 | .35 | .29 | .39 | .32 | .27 | .36 | .30 | .26 | .23 |
| 7.0 | .43 | .34 | .28 | .42 | .33 | .27 | .38 | .31 | .26 | .35 | .29 | .24 | .32 | .27 | .23 | .20 |
| 8.0 | .39 | .31 | .25 | .38 | .30 | .24 | .35 | .28 | .23 | .32 | .26 | .21 | .30 | .24 | .20 | .18 |
| 9.0 | .36 | .28 | .22 | .35 | .27 | .21 | .32 | .25 | .20 | .30 | .23 | .19 | .27 | .22 | .18 | .16 |
| 10.0 | .33 | .25 | .20 | .32 | .24 | .19 | .29 | .23 | .18 | .27 | .21 | .17 | .25 | .20 | .16 | .14 |



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

WEC AND CCEC

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | |
| 1.0 | .394 | .224 | .071 | .381 | .217 | .069 | .356 | .204 | .065 | .333 | .192 | .062 | .312 | .181 | .058 | |
| 2.0 | .340 | .186 | .057 | .328 | .180 | .056 | .305 | .170 | .053 | .285 | .160 | .050 | .265 | .150 | .047 | |
| 3.0 | .301 | .160 | .048 | .290 | .155 | .047 | .270 | .146 | .044 | .251 | .138 | .042 | .234 | .129 | .040 | |
| 4.0 | .270 | .140 | .041 | .261 | .136 | .040 | .242 | .128 | .038 | .225 | .121 | .036 | .209 | .114 | .035 | |
| 5.0 | .245 | .125 | .036 | .236 | .121 | .035 | .220 | .114 | .034 | .204 | .108 | .032 | .189 | .101 | .030 | |
| 6.0 | .224 | .113 | .032 | .216 | .109 | .031 | .201 | .103 | .030 | .187 | .097 | .029 | .173 | .091 | .027 | |
| 7.0 | .207 | .102 | .029 | .199 | .099 | .028 | .185 | .094 | .027 | .172 | .088 | .026 | .160 | .083 | .024 | |
| 8.0 | .192 | .094 | .026 | .185 | .091 | .026 | .172 | .086 | .025 | .160 | .081 | .023 | .148 | .076 | .022 | |
| 9.0 | .178 | .086 | .024 | .172 | .084 | .024 | .160 | .079 | .022 | .149 | .075 | .021 | .139 | .070 | .020 | |
| 10.0 | .167 | .080 | .022 | .161 | .078 | .022 | .150 | .074 | .021 | .140 | .069 | .020 | .130 | .065 | .019 | |

| ρcc | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|------|-----------------------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|---|
| ρw | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρfc | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Ceiling Cavity Exitance Coefficients(CCEC) | | | | | | | | | |
| 0.0 | .340 | .340 | .340 | .290 | .290 | .290 | .198 | .198 | .198 | .114 | .114 | .114 | .036 | .036 | .036 | |
| 1.0 | .337 | .306 | .278 | .288 | .263 | .240 | .197 | .181 | .166 | .113 | .105 | .096 | .036 | .034 | .031 | |
| 2.0 | .330 | .283 | .244 | .283 | .244 | .211 | .194 | .169 | .147 | .112 | .098 | .086 | .036 | .032 | .028 | |
| 3.0 | .323 | .267 | .222 | .277 | .230 | .193 | .190 | .160 | .135 | .110 | .093 | .080 | .035 | .030 | .026 | |
| 4.0 | .315 | .255 | .208 | .270 | .220 | .181 | .186 | .153 | .127 | .108 | .090 | .075 | .035 | .029 | .025 | |
| 5.0 | .308 | .245 | .199 | .264 | .212 | .173 | .182 | .148 | .122 | .105 | .087 | .072 | .034 | .028 | .024 | |
| 6.0 | .300 | .237 | .192 | .258 | .205 | .167 | .178 | .144 | .118 | .103 | .085 | .070 | .033 | .028 | .023 | |
| 7.0 | .293 | .230 | .187 | .252 | .200 | .163 | .174 | .140 | .115 | .101 | .083 | .069 | .033 | .027 | .023 | |
| 8.0 | .286 | .225 | .183 | .246 | .195 | .159 | .170 | .137 | .113 | .099 | .081 | .067 | .032 | .026 | .022 | |
| 9.0 | .280 | .220 | .180 | .241 | .191 | .157 | .167 | .134 | .111 | .097 | .079 | .066 | .032 | .026 | .022 | |
| 10.0 | .274 | .216 | .177 | .236 | .188 | .155 | .164 | .132 | .110 | .096 | .078 | .066 | .031 | .026 | .022 | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|---|------------------|------|------|------|-----------|----------------|------|---------------------|------|------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | | | | | | | | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | | | | | TYPE:N/A | | | WEIGHT:N/A | | |
| SPEC.:N/A | | | | | DIM.: N/A | | | SERIAL No.:N/A | | |
| MFR.: ASD Lighting corp | | | | | SUR.:N/A | | | Shielding Angle:N/A | | |
| 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 | 14.8 | 16.2 | 15.3 | 16.7 | 17.3 | 17.3 | 18.6 | 17.8 | 19.2 | 19.8 |
| 3H | 16.5 | 17.8 | 17.1 | 18.4 | 19.0 | 20.0 | 21.2 | 20.5 | 21.8 | 22.4 |
| 4H | 17.2 | 18.5 | 17.8 | 19.0 | 19.7 | 21.5 | 22.7 | 22.0 | 23.2 | 23.9 |
| 6H | 17.8 | 18.9 | 18.4 | 19.5 | 20.2 | 23.1 | 24.2 | 23.7 | 24.8 | 25.5 |
| 8H | 18.1 | 19.2 | 18.7 | 19.8 | 20.5 | 24.0 | 25.1 | 24.6 | 25.7 | 26.4 |
| 12H | 18.2 | 19.3 | 18.9 | 19.9 | 20.6 | 25.1 | 26.1 | 25.7 | 26.8 | 27.5 |
| 4H 2H | 16.1 | 17.3 | 16.7 | 17.9 | 18.6 | 17.8 | 19.0 | 18.4 | 19.6 | 20.3 |
| 3H | 18.1 | 19.2 | 18.7 | 19.8 | 20.5 | 20.8 | 21.8 | 21.4 | 22.5 | 23.2 |
| 4H | 19.0 | 20.0 | 19.7 | 20.6 | 21.4 | 22.5 | 23.4 | 23.1 | 24.1 | 24.8 |
| 6H | 19.8 | 20.6 | 20.4 | 21.3 | 22.1 | 24.3 | 25.2 | 25.0 | 25.9 | 26.7 |
| 8H | 20.2 | 21.0 | 20.8 | 21.6 | 22.4 | 25.4 | 26.2 | 26.1 | 26.9 | 27.7 |
| 12H | 20.4 | 21.2 | 21.1 | 21.9 | 22.7 | 26.6 | 27.3 | 27.3 | 28.0 | 28.8 |
| 8H 4H | 20.1 | 20.9 | 20.8 | 21.6 | 22.4 | 22.8 | 23.6 | 23.5 | 24.3 | 25.1 |
| 6H | 21.3 | 22.0 | 22.0 | 22.7 | 23.5 | 25.0 | 25.7 | 25.7 | 26.4 | 27.2 |
| 8H | 21.9 | 22.5 | 22.6 | 23.2 | 24.1 | 26.3 | 26.9 | 27.0 | 27.6 | 28.5 |
| 12H | 22.4 | 22.9 | 23.1 | 23.7 | 24.5 | 27.7 | 28.3 | 28.5 | 29.0 | 29.9 |
| 12H 4H | 20.5 | 21.2 | 21.2 | 21.9 | 22.7 | 22.9 | 23.6 | 23.6 | 24.3 | 25.1 |
| 6H | 21.9 | 22.5 | 22.6 | 23.2 | 24.1 | 25.1 | 25.8 | 25.9 | 26.5 | 27.3 |
| 8H | 22.6 | 23.2 | 23.4 | 23.9 | 24.8 | 26.5 | 27.0 | 27.2 | 27.8 | 28.7 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 0.1 / - 0.1 | | | | | + 0.1 / - 0.1 | | | | |
| 1.5H | + 0.3 / - 0.2 | | | | | + 0.2 / - 0.3 | | | | |
| 2.0H | + 0.4 / - 0.5 | | | | | + 0.2 / - 0.3 | | | | |

CIE Pub.117 Corrected 1404 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.2)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

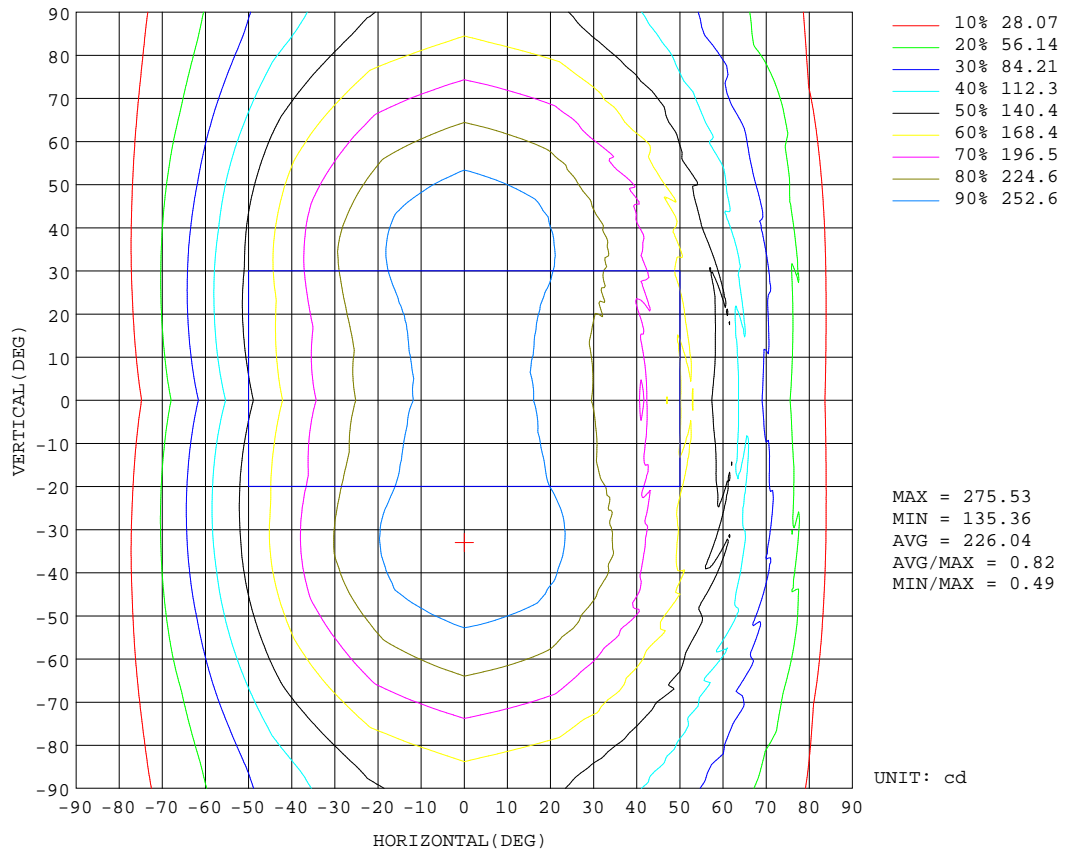
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|---|-----|-----------|-----|-----|-----|---------------|-----|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0.7 | 0.5 | 0.3 | 0 |
| Working plane | 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 | 46 | 33 | 26 | 45 | 33 | 26 | 43 | 32 | 25 | 19 |
| 0.80 | 55 | 42 | 34 | 54 | 41 | 33 | 51 | 40 | 32 | 25 |
| 1.00 | 63 | 50 | 41 | 61 | 49 | 41 | 57 | 49 | 39 | 30 |
| 1.25 | 70 | 57 | 48 | 68 | 56 | 47 | 63 | 53 | 46 | 36 |
| 1.50 | 75 | 63 | 54 | 72 | 61 | 53 | 67 | 58 | 51 | 40 |
| 2.00 | 83 | 71 | 63 | 79 | 69 | 61 | 74 | 65 | 58 | 46 |
| 2.50 | 87 | 77 | 68 | 84 | 74 | 67 | 77 | 69 | 63 | 50 |
| 3.00 | 91 | 81 | 74 | 87 | 79 | 72 | 80 | 73 | 67 | 54 |
| 4.00 | 96 | 88 | 81 | 92 | 84 | 78 | 84 | 78 | 73 | 58 |
| 5.00 | 99 | 92 | 86 | 95 | 88 | 83 | 87 | 82 | 77 | 62 |
| ROOM INDEX | UF(total) | | | | | | | | | Direct |
| According to DIN EN 13032-2 2004 | | | Suspended | | | | SHRNOM = 1.25 | | | |

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

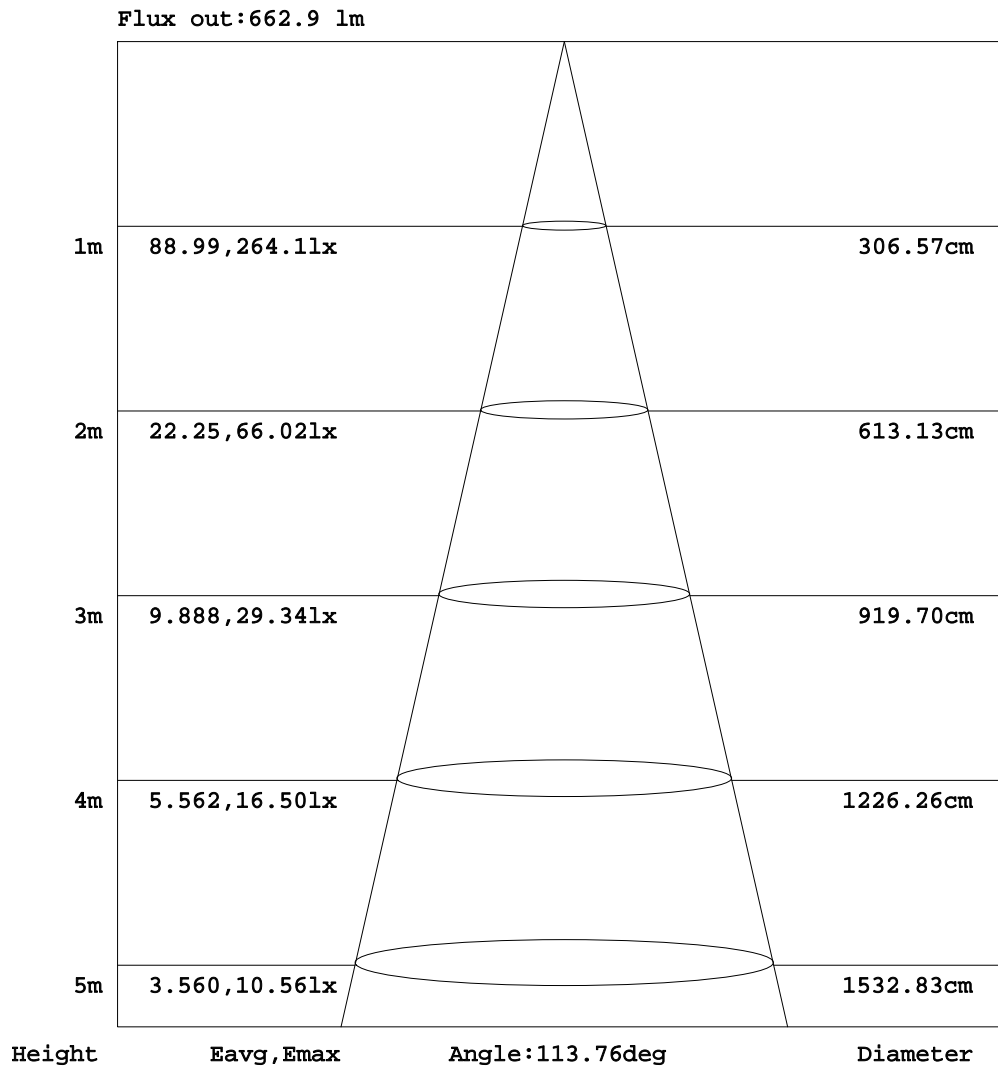


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

AAI Figure

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |



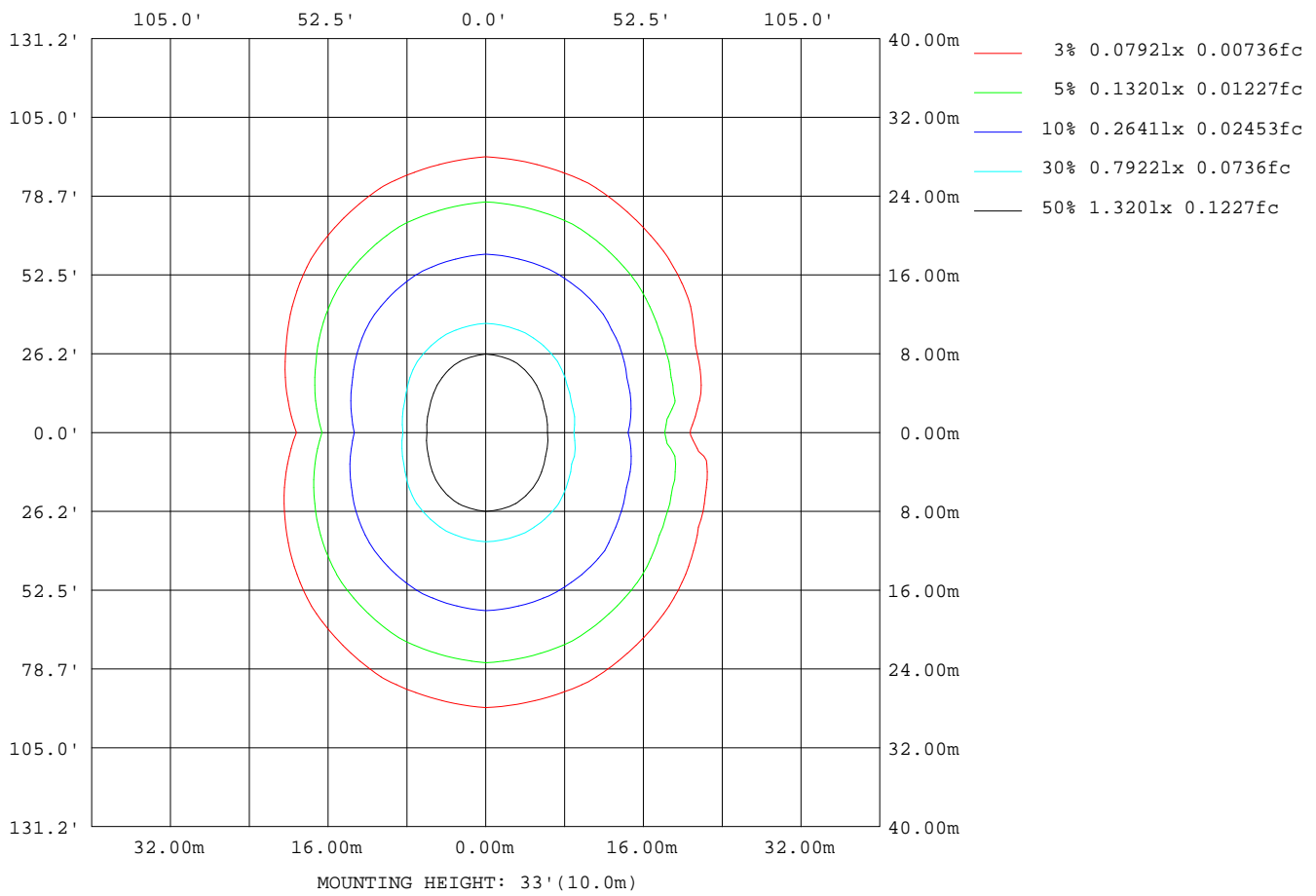
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.4DEG
 Operators:Carl
 Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity:39%
 Test Distance:2.526m [K=1.0000]
 Remarks:

LED Avg.L Report

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

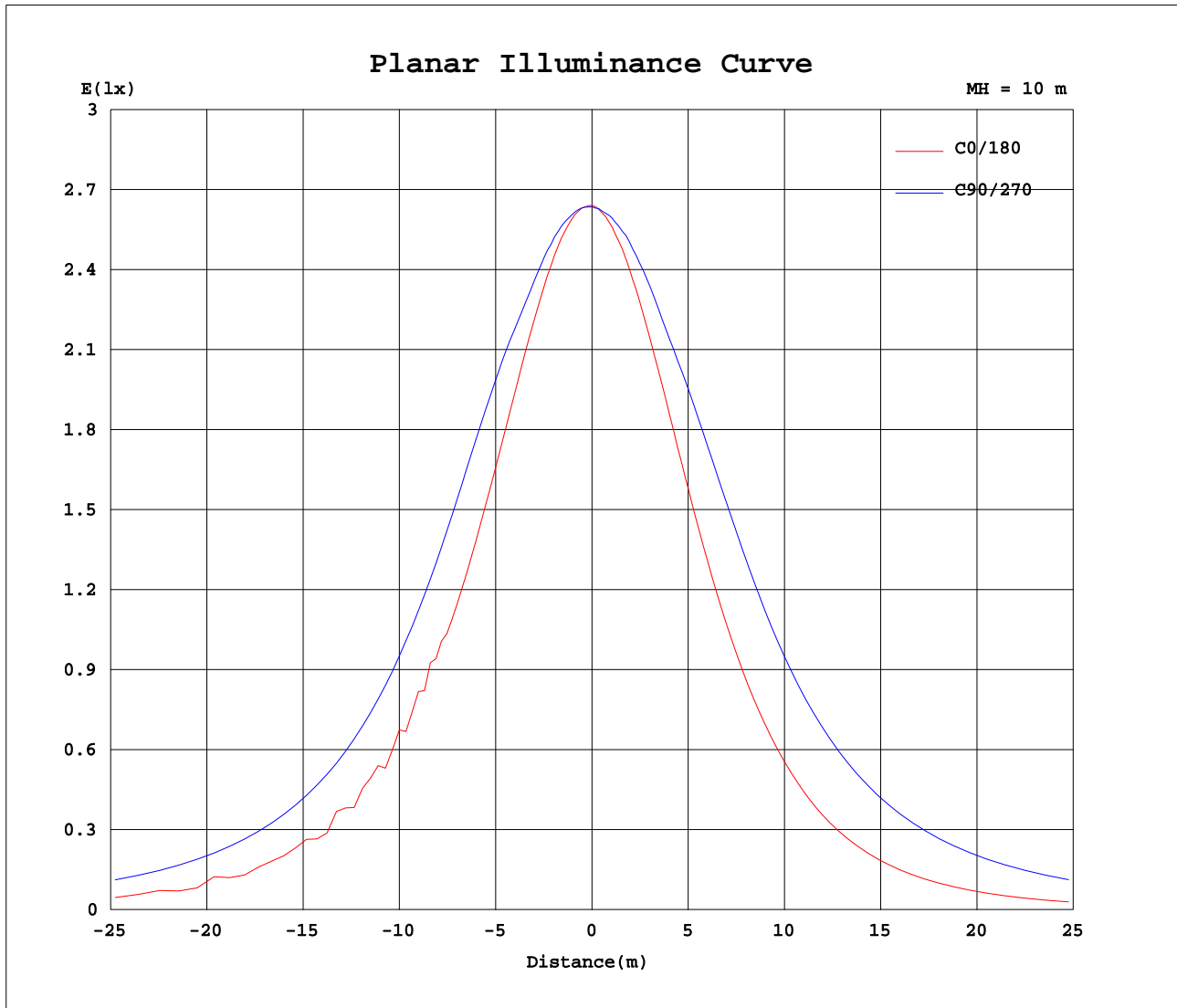
| AvgL | cd/m2 |
|----------------|-------|
| L_0~180(65)av | 1812 |
| L_0~180(75)av | 1581 |
| L_0~180(85)av | 1137 |
| L_90~270(65)av | 4978 |
| L_90~270(75)av | 7080 |
| L_90~270(85)av | 18015 |
| L_45(65)av | 3848 |
| L_45(75)av | 5148 |
| L_45(85)av | 11888 |

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.4DEG
Operators:Carl
Test Date:2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.351
Humidity:39%
Test Distance:2.526m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.4DEG
 Operators: Carl
 Test Date: 2022-05-31

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.351
 Humidity: 39%
 Test Distance: 2.526m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---|-----------|---------------------|
| Test:U:120.1V I:0.1610A P:19.05W PF:0.9857 Lamp Flux:1403.64x1 lm | | |
| NAME: ASD-OLWS-22-MV-18N20CC-BZ 5000K | TYPE:N/A | WEIGHT:N/A |
| SPEC.:N/A | DIM.: N/A | SERIAL No.:N/A |
| MFR.: ASD Lighting corp | SUR.:N/A | Shielding Angle:N/A |

Table--1

UNIT: cd

| C(DEG)\ γ (DEG) | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 | | | |
|--------------------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|--|--|--|
| 0 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 264 | | | |
| 5 | 263 | 264 | 265 | 265 | 265 | 264 | 263 | 262 | 261 | 261 | 262 | 263 | 264 | 264 | 263 | 263 | | | |
| 10 | 260 | 262 | 264 | 266 | 266 | 265 | 261 | 258 | 255 | 256 | 259 | 262 | 265 | 264 | 262 | 260 | | | |
| 15 | 254 | 257 | 262 | 267 | 268 | 264 | 258 | 252 | 247 | 249 | 256 | 262 | 266 | 264 | 259 | 255 | | | |
| 20 | 246 | 251 | 259 | 268 | 271 | 264 | 254 | 244 | 237 | 241 | 251 | 262 | 267 | 264 | 256 | 248 | | | |
| 25 | 235 | 242 | 256 | 271 | 277 | 267 | 249 | 234 | 225 | 231 | 246 | 263 | 272 | 266 | 252 | 239 | | | |
| 30 | 223 | 232 | 253 | 274 | 280 | 269 | 245 | 222 | 210 | 219 | 241 | 265 | 276 | 269 | 247 | 228 | | | |
| 35 | 208 | 221 | 250 | 274 | 280 | 268 | 241 | 209 | 194 | 206 | 237 | 265 | 277 | 269 | 244 | 216 | | | |
| 40 | 206 | 215 | 245 | 269 | 276 | 263 | 235 | 196 | 176 | 192 | 231 | 261 | 275 | 266 | 239 | 204 | | | |
| 45 | 190 | 200 | 238 | 261 | 269 | 255 | 225 | 182 | 157 | 178 | 223 | 254 | 269 | 259 | 233 | 190 | | | |
| 50 | 171 | 187 | 227 | 251 | 260 | 244 | 213 | 168 | 135 | 164 | 211 | 244 | 260 | 250 | 224 | 189 | | | |
| 55 | 141 | 169 | 211 | 238 | 248 | 231 | 198 | 152 | 114 | 148 | 197 | 233 | 249 | 238 | 208 | 166 | | | |
| 60 | 128 | 155 | 206 | 225 | 235 | 218 | 182 | 134 | 91.4 | 131 | 182 | 219 | 236 | 225 | 202 | 154 | | | |
| 65 | 93.0 | 141 | 180 | 211 | 222 | 204 | 165 | 115 | 69.1 | 113 | 165 | 205 | 223 | 211 | 178 | 132 | | | |
| 70 | 76.1 | 126 | 162 | 196 | 208 | 189 | 148 | 94.9 | 47.3 | 93.7 | 149 | 190 | 209 | 196 | 160 | 116 | | | |
| 75 | 59.3 | 108 | 152 | 181 | 193 | 174 | 132 | 75.6 | 27.4 | 75.2 | 132 | 176 | 195 | 181 | 148 | 98.6 | | | |
| 80 | 38.8 | 77.9 | 131 | 166 | 179 | 160 | 116 | 58.4 | 11.3 | 58.6 | 117 | 161 | 180 | 167 | 129 | 75.2 | | | |
| 85 | 19.7 | 70.3 | 117 | 152 | 165 | 146 | 103 | 44.6 | 1.26 | 45.7 | 104 | 148 | 167 | 153 | 115 | 67.2 | | | |
| 90 | 2.47 | 55.3 | 106 | 142 | 156 | 137 | 94.0 | 36.1 | 0.11 | 37.9 | 95.9 | 139 | 158 | 143 | 106 | 53.1 | | | |
| 95 | 5.05 | 49.2 | 97.8 | 134 | 147 | 129 | 86.1 | 29.7 | 0.13 | 31.7 | 88.6 | 131 | 150 | 135 | 98.2 | 45.6 | | | |
| 100 | 7.00 | 39.2 | 88.5 | 124 | 138 | 120 | 77.7 | 23.7 | 0.16 | 25.3 | 80.1 | 122 | 140 | 126 | 89.3 | 38.9 | | | |
| 105 | 8.76 | 30.9 | 78.7 | 114 | 127 | 109 | 68.5 | 18.3 | 0.17 | 19.7 | 70.8 | 111 | 129 | 115 | 79.3 | 31.1 | | | |
| 110 | 9.59 | 24.3 | 69.0 | 101 | 115 | 97.7 | 58.9 | 13.8 | 0.20 | 15.4 | 60.5 | 99.8 | 116 | 103 | 68.1 | 24.7 | | | |
| 115 | 8.82 | 20.4 | 57.0 | 88.8 | 101 | 85.5 | 49.4 | 10.1 | 0.27 | 11.8 | 50.4 | 86.7 | 102 | 89.2 | 56.2 | 19.9 | | | |
| 120 | 7.82 | 14.8 | 46.6 | 75.5 | 87.0 | 72.5 | 40.6 | 6.72 | 0.31 | 8.75 | 41.2 | 73.0 | 87.3 | 75.1 | 46.1 | 15.5 | | | |
| 125 | 6.71 | 10.0 | 37.3 | 62.5 | 72.7 | 59.9 | 32.2 | 3.66 | 0.33 | 5.98 | 33.9 | 60.1 | 72.4 | 61.7 | 37.6 | 11.6 | | | |
| 130 | 5.69 | 6.23 | 28.6 | 50.0 | 58.9 | 47.9 | 24.5 | 1.24 | 0.31 | 3.31 | 26.8 | 48.8 | 58.7 | 50.0 | 30.0 | 7.94 | | | |
| 135 | 4.83 | 4.38 | 20.6 | 38.6 | 46.0 | 36.9 | 17.3 | 0.94 | 0.36 | 1.03 | 19.9 | 39.0 | 47.3 | 40.0 | 22.7 | 5.00 | | | |
| 140 | 3.99 | 3.61 | 13.1 | 28.0 | 34.1 | 26.7 | 10.6 | 0.87 | 0.35 | 0.43 | 13.2 | 29.1 | 36.3 | 30.5 | 16.3 | 3.28 | | | |
| 145 | 3.36 | 2.93 | 6.36 | 18.2 | 23.1 | 17.2 | 4.59 | 0.85 | 0.36 | 0.44 | 6.70 | 19.4 | 25.8 | 22.0 | 10.8 | 2.57 | | | |
| 150 | 2.71 | 2.43 | 1.88 | 9.15 | 12.9 | 8.50 | 1.20 | 0.81 | 0.45 | 0.45 | 1.19 | 10.3 | 16.1 | 14.2 | 6.08 | 1.84 | | | |
| 155 | 2.18 | 1.93 | 1.50 | 2.05 | 4.33 | 1.77 | 1.10 | 0.84 | 0.50 | 0.50 | 0.53 | 2.78 | 7.46 | 7.04 | 2.13 | 1.37 | | | |
| 160 | 1.72 | 1.55 | 1.39 | 1.42 | 1.41 | 1.31 | 1.02 | 0.83 | 0.48 | 0.52 | 0.57 | 0.63 | 0.96 | 1.19 | 0.93 | 1.03 | | | |
| 165 | 1.26 | 1.28 | 1.34 | 1.29 | 1.28 | 1.16 | 0.98 | 0.73 | 0.46 | 0.47 | 0.49 | 0.69 | 0.82 | 0.84 | 0.95 | 0.99 | | | |
| 170 | 1.13 | 1.14 | 1.23 | 1.14 | 1.14 | 1.09 | 0.84 | 0.77 | 0.58 | 0.58 | 0.63 | 0.65 | 0.79 | 0.91 | 0.96 | 1.02 | | | |
| 175 | 1.00 | 0.98 | 1.01 | 1.06 | 1.02 | 0.84 | 0.82 | 0.76 | 0.69 | 0.69 | 0.75 | 0.78 | 0.76 | 0.92 | 1.00 | 0.92 | | | |
| 180 | 1.07 | 1.07 | 1.07 | 1.03 | 0.74 | 0.85 | 1.18 | 1.08 | 1.07 | 1.07 | 1.06 | 1.05 | 0.92 | 0.80 | 0.90 | 1.07 | | | |

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