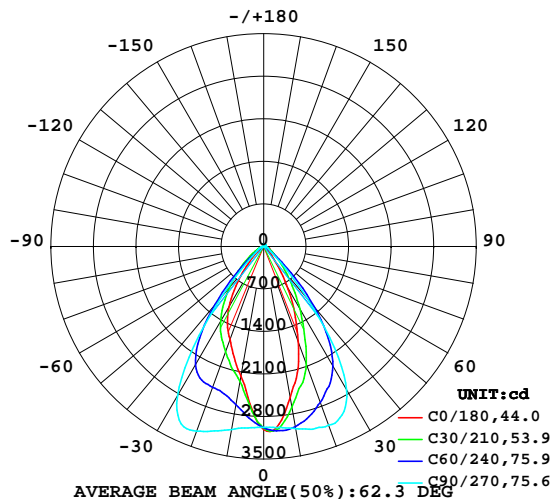


LUMINAIRE PHOTOMETRIC TEST REPORT

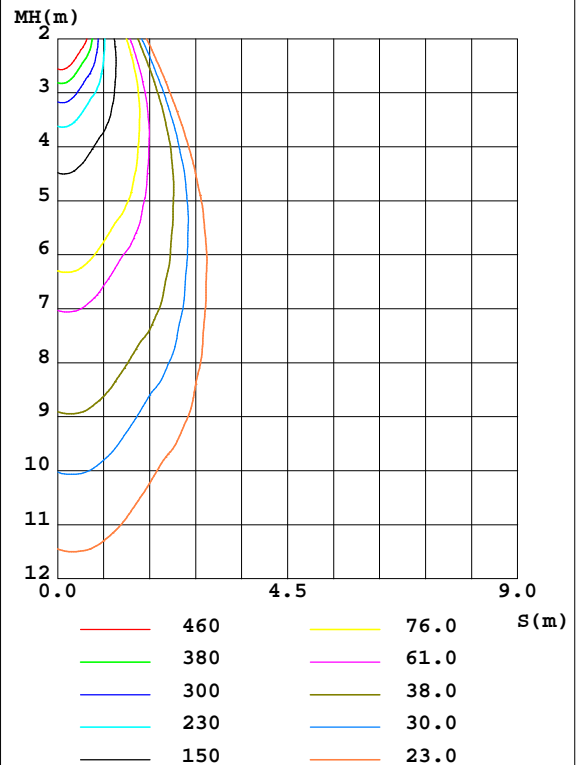
| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |

| DATA OF LAMP | | PHOTOMETRIC DATA Eff: 131.65 lm/W | | | |
|------------------|--------|-----------------------------------|--------|-------------------|----------|
| MODEL | | Imax(cd) | 3257 | S/MH(C0/180) | 0.69 |
| NOMINAL POWER(W) | 30 | LOR(%) | 100.0 | S/MH(C90/270) | 1.10 |
| RATED VOLTAGE(V) | 220 | TOTAL FLUX(lm) | 3607.3 | η UP,DN(C0-180) | 1.6,47.7 |
| NOMINAL FLUX(lm) | 3607.3 | CIE CLASS | DIRECT | η UP,DN(C180-360) | 1.7,49.1 |
| LAMPS INSIDE | 1 | η up(%) | 3.3 | CIBSE SHR NOM | 0.75 |
| TEST VOLTAGE(V) | 220 | η down(%) | 96.7 | CIBSE SHR MAX | 0.75 |

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

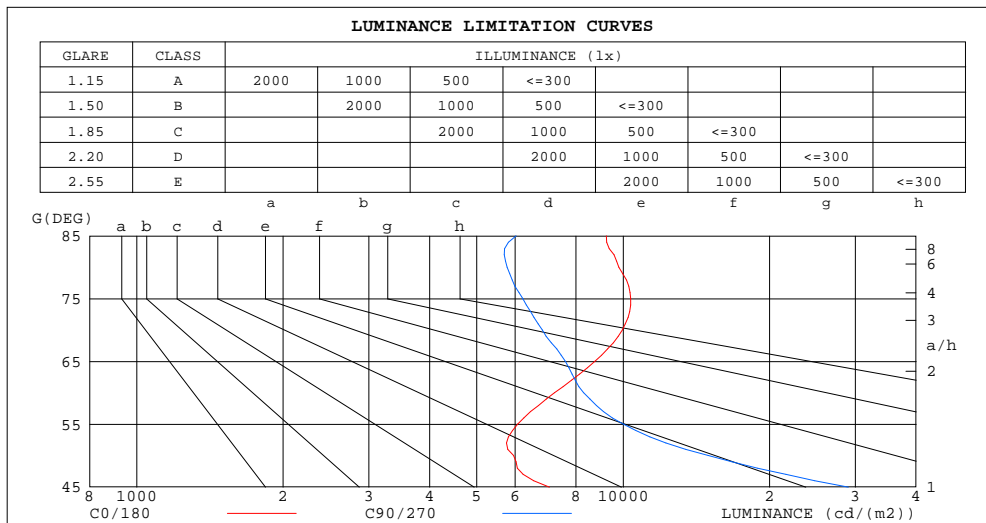
| γ | C0 | C45 | C90 | C135 | C180 | C225 | C270 | C315 | γ | Φ zone | Φ total | %lum, lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|------------|
| 10 | 2517 | 2847 | 3042 | 2444 | 2167 | 2451 | 3058 | 2795 | 0- 10 | 266.9 | 266.9 | 7.4,7.4 |
| 20 | 1674 | 2389 | 3130 | 2115 | 1629 | 2155 | 3234 | 2360 | 10- 20 | 699.2 | 966.1 | 26.8,26.8 |
| 30 | 809.9 | 1738 | 2734 | 1737 | 1146 | 1830 | 2839 | 1778 | 20- 30 | 958.0 | 1924 | 53.3,53.3 |
| 40 | 244.5 | 952.4 | 1127 | 1030 | 496.1 | 1060 | 1074 | 947.2 | 30- 40 | 852.6 | 2777 | 77,77 |
| 50 | 95.67 | 306.1 | 240.4 | 349.2 | 150.2 | 365.5 | 231.9 | 310.8 | 40- 50 | 416.0 | 3193 | 88.5,88.5 |
| 60 | 90.35 | 113.9 | 103.7 | 121.7 | 69.53 | 128.2 | 105.9 | 118.1 | 50- 60 | 156.2 | 3349 | 92.8,92.8 |
| 70 | 85.18 | 58.20 | 58.29 | 52.36 | 48.55 | 55.95 | 59.73 | 61.04 | 60- 70 | 81.06 | 3430 | 95.1,95.1 |
| 80 | 42.52 | 26.29 | 25.07 | 19.39 | 25.82 | 22.98 | 27.01 | 29.16 | 70- 80 | 44.13 | 3474 | 96.3,96.3 |
| 90 | 4.810 | 4.905 | 4.411 | 4.329 | 8.043 | 8.232 | 7.745 | 8.472 | 80- 90 | 15.99 | 3490 | 96.7,96.7 |
| 100 | 6.726 | 7.129 | 6.994 | 6.728 | 9.623 | 10.22 | 9.995 | 10.28 | 90-100 | 7.992 | 3498 | 97,97 |
| 110 | 9.925 | 10.71 | 10.80 | 10.38 | 11.99 | 13.11 | 13.31 | 13.14 | 100-110 | 10.59 | 3509 | 97.3,97.3 |
| 120 | 14.75 | 15.47 | 15.65 | 15.38 | 15.34 | 17.05 | 17.52 | 17.05 | 110-120 | 13.68 | 3522 | 97.6,97.6 |
| 130 | 21.01 | 21.41 | 21.44 | 21.51 | 19.86 | 22.14 | 22.37 | 21.95 | 120-130 | 16.77 | 3539 | 98.1,98.1 |
| 140 | 27.43 | 27.66 | 28.01 | 27.83 | 25.80 | 27.82 | 27.91 | 27.28 | 130-140 | 18.94 | 3558 | 98.6,98.6 |
| 150 | 32.69 | 32.68 | 33.03 | 33.34 | 31.79 | 32.99 | 32.06 | 31.75 | 140-150 | 18.90 | 3577 | 99.2,99.2 |
| 160 | 37.01 | 36.17 | 36.17 | 37.53 | 36.10 | 36.85 | 34.92 | 34.94 | 150-160 | 15.92 | 3593 | 99.6,99.6 |
| 170 | 40.68 | 38.97 | 39.33 | 40.26 | 38.96 | 39.34 | 38.15 | 37.93 | 160-170 | 10.67 | 3604 | 99.9,99.9 |
| 180 | 41.05 | 40.48 | 40.92 | 40.62 | 41.13 | 40.47 | 40.89 | 40.62 | 170-180 | 3.799 | 3607 | 100,100 |
| DEG | LUMINOUS INTENSITY:cd | | | | | | | | | UNIT:lm | | |

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-12-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
 Humidity:65.0%
 Test Distance:8.000m [K=0.7063]
 Remarks:

LUMINANCE LIMITATION CURVES

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |



| LUMINANCE cd/(m2) | | |
|-------------------|--------|---------|
| G(DEG) | C0/180 | C90/270 |
| 85 | 9230 | 6021 |
| 80 | 9793 | 5775 |
| 75 | 10364 | 6221 |
| 70 | 9962 | 6817 |
| 65 | 8742 | 7602 |
| 60 | 7228 | 8298 |
| 55 | 6067 | 10006 |
| 50 | 5953 | 14958 |
| 45 | 7054 | 29037 |

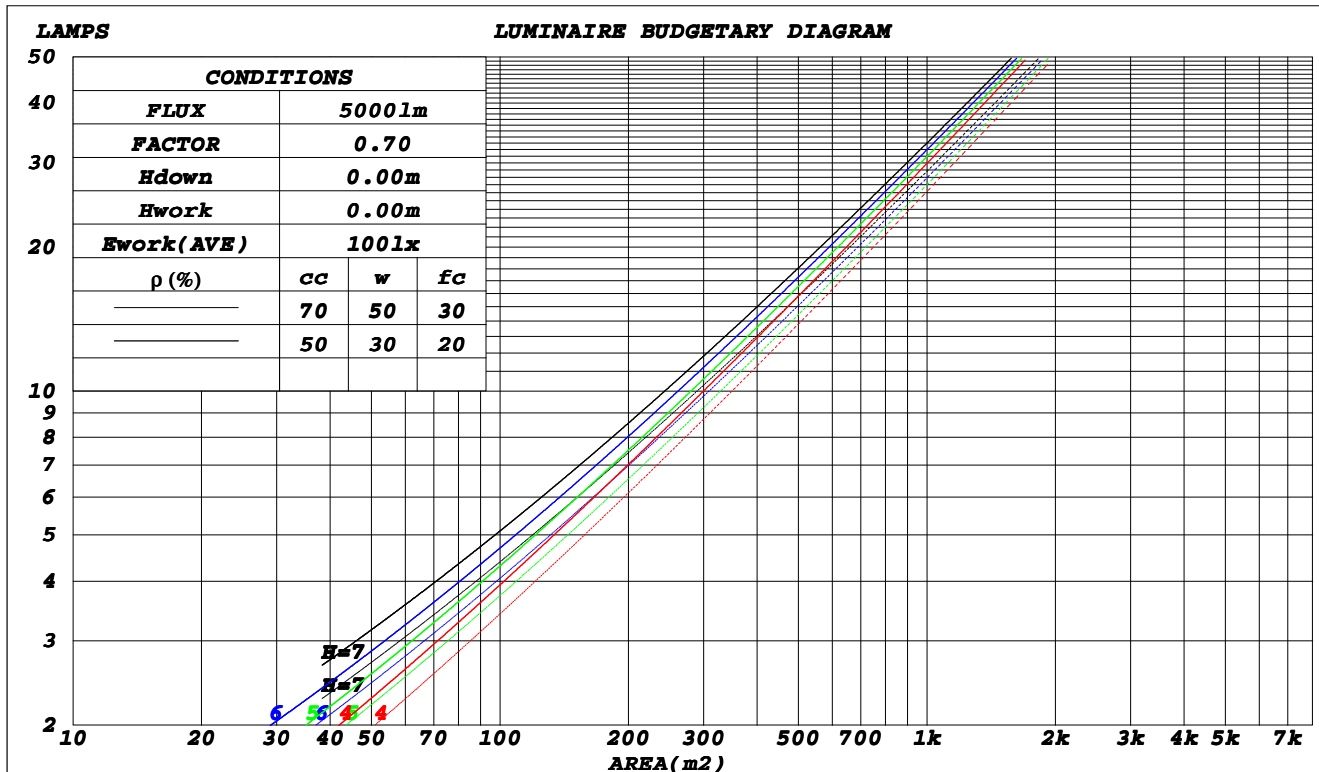
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |

| ρ_{cc} | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|-----|-----|-----|-----|
| ρ_w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρ_{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Coefficients of Utilization(CU) | | | | | | | | | |
| 0.0 | 1.18 | 1.18 | 1.18 | 1.15 | 1.15 | 1.15 | 1.09 | 1.09 | 1.09 | 1.04 | 1.04 | 1.04 | .99 | .99 | .99 | .97 |
| 1.0 | 1.08 | 1.05 | 1.03 | 1.06 | 1.03 | 1.01 | 1.01 | .99 | .97 | .97 | .95 | .93 | .93 | .91 | .90 | .88 |
| 2.0 | .99 | .94 | .90 | .97 | .93 | .89 | .93 | .90 | .86 | .90 | .87 | .84 | .86 | .84 | .82 | .80 |
| 3.0 | .91 | .85 | .80 | .89 | .84 | .79 | .86 | .81 | .78 | .83 | .79 | .76 | .80 | .77 | .74 | .73 |
| 4.0 | .83 | .77 | .72 | .82 | .76 | .71 | .79 | .74 | .70 | .77 | .73 | .69 | .75 | .71 | .68 | .66 |
| 5.0 | .77 | .70 | .65 | .76 | .70 | .65 | .74 | .68 | .64 | .71 | .67 | .63 | .70 | .65 | .62 | .60 |
| 6.0 | .71 | .64 | .59 | .70 | .64 | .59 | .68 | .63 | .58 | .67 | .62 | .58 | .65 | .61 | .57 | .55 |
| 7.0 | .66 | .59 | .55 | .65 | .59 | .54 | .64 | .58 | .54 | .62 | .57 | .53 | .61 | .56 | .53 | .51 |
| 8.0 | .62 | .55 | .50 | .61 | .55 | .50 | .60 | .54 | .50 | .58 | .53 | .49 | .57 | .52 | .49 | .47 |
| 9.0 | .58 | .51 | .46 | .57 | .51 | .46 | .56 | .50 | .46 | .55 | .49 | .46 | .53 | .49 | .45 | .44 |
| 10.0 | .54 | .47 | .43 | .53 | .47 | .43 | .52 | .47 | .43 | .51 | .46 | .42 | .50 | .46 | .42 | .41 |



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-12-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

WEC AND CCEC

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |

| ρ_{cc} | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 | |
|-------------|-----------------------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|---|--|
| ρ_w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 | |
| ρ_{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 | |
| RCR | RCR:Room Cavity Ratio | | | | | | Wall Exitance Coefficients(WEC) | | | | | | | | | | |
| 0.0 | | | | | | | | | | | | | | | | | |
| 1.0 | .212 | .120 | .038 | .204 | .116 | .037 | .189 | .109 | .035 | .176 | .101 | .033 | .163 | .095 | .031 | | |
| 2.0 | .203 | .111 | .034 | .196 | .108 | .033 | .183 | .102 | .032 | .172 | .096 | .030 | .161 | .091 | .029 | | |
| 3.0 | .192 | .102 | .031 | .186 | .100 | .030 | .175 | .095 | .029 | .165 | .090 | .028 | .156 | .086 | .027 | | |
| 4.0 | .182 | .094 | .028 | .177 | .092 | .027 | .167 | .089 | .026 | .158 | .085 | .026 | .150 | .081 | .025 | | |
| 5.0 | .172 | .088 | .025 | .168 | .086 | .025 | .159 | .083 | .024 | .151 | .080 | .024 | .144 | .077 | .023 | | |
| 6.0 | .163 | .082 | .023 | .159 | .080 | .023 | .152 | .078 | .023 | .144 | .075 | .022 | .138 | .072 | .022 | | |
| 7.0 | .155 | .077 | .022 | .151 | .075 | .021 | .144 | .073 | .021 | .138 | .071 | .021 | .132 | .069 | .020 | | |
| 8.0 | .147 | .072 | .020 | .144 | .071 | .020 | .138 | .069 | .020 | .132 | .067 | .019 | .127 | .065 | .019 | | |
| 9.0 | .140 | .068 | .019 | .137 | .067 | .019 | .132 | .065 | .018 | .126 | .063 | .018 | .121 | .062 | .018 | | |
| 10.0 | .134 | .064 | .018 | .131 | .063 | .018 | .126 | .062 | .017 | .121 | .060 | .017 | .117 | .059 | .017 | | |

| ρ_{cc} | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0 |
|-------------|-----------------------|------|------|------|------|------|--------------------------------------------|------|------|------|------|------|------|------|------|---|
| ρ_w | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0 |
| ρ_{fc} | 20% | | | 20% | | | 20% | | | 20% | | | 20% | | | 0 |
| RCR | RCR:Room Cavity Ratio | | | | | | Ceiling Cavity Exitance Coefficients(CCEC) | | | | | | | | | |
| 0.0 | .215 | .215 | .215 | .184 | .184 | .184 | .126 | .126 | .126 | .072 | .072 | .072 | .023 | .023 | .023 | |
| 1.0 | .198 | .182 | .167 | .170 | .156 | .144 | .116 | .107 | .099 | .067 | .062 | .058 | .021 | .020 | .019 | |
| 2.0 | .185 | .157 | .134 | .159 | .136 | .116 | .109 | .094 | .081 | .063 | .055 | .047 | .020 | .018 | .015 | |
| 3.0 | .175 | .139 | .111 | .150 | .120 | .096 | .103 | .083 | .067 | .059 | .049 | .040 | .019 | .016 | .013 | |
| 4.0 | .166 | .125 | .094 | .142 | .108 | .081 | .098 | .075 | .057 | .057 | .044 | .034 | .018 | .014 | .011 | |
| 5.0 | .158 | .114 | .081 | .135 | .098 | .071 | .093 | .069 | .050 | .054 | .040 | .030 | .017 | .013 | .010 | |
| 6.0 | .151 | .105 | .072 | .130 | .091 | .063 | .089 | .064 | .044 | .052 | .037 | .026 | .017 | .012 | .009 | |
| 7.0 | .144 | .098 | .065 | .124 | .085 | .056 | .086 | .059 | .040 | .050 | .035 | .024 | .016 | .011 | .008 | |
| 8.0 | .139 | .092 | .059 | .120 | .079 | .052 | .083 | .056 | .037 | .048 | .033 | .022 | .016 | .011 | .007 | |
| 9.0 | .134 | .087 | .055 | .115 | .075 | .048 | .080 | .053 | .034 | .046 | .031 | .020 | .015 | .010 | .007 | |
| 10.0 | .129 | .082 | .051 | .111 | .072 | .045 | .077 | .050 | .032 | .045 | .030 | .019 | .015 | .010 | .006 | |

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-12-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

UGR(Unified Glare Rating) Table

| | | | | | | | | | | |
|---------------------------------------------------------------------------------|-------------------------|-------------|-------------|-------------|-------------------|-----------------------|-------------|-------------|-------------|-------------|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | | | | | | | | | |
| NAME: LC-LL1603-30W-HighRack 60° | | | | | TYPE:LED | | | | | |
| MFR.: LOW-CARBON | | | | | DIM.: 650*40*95mm | | | | | |
| | | | | | | | | | | |
| 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 | 18.3 | 19.4 | 18.6 | 19.6 | 19.8 | 21.9 | 23.0 | 22.2 | 23.3 | 23.5 |
| 3H | 19.1 | 20.0 | 19.4 | 20.3 | 20.6 | 21.9 | 22.9 | 22.2 | 23.2 | 23.4 |
| 4H | 19.5 | 20.5 | 19.9 | 20.8 | 21.0 | 21.9 | 22.9 | 22.3 | 23.1 | 23.4 |
| 6H | 19.9 | 20.8 | 20.3 | 21.1 | 21.4 | 21.9 | 22.8 | 22.3 | 23.1 | 23.4 |
| 8H | 20.1 | 20.9 | 20.5 | 21.3 | 21.6 | 21.9 | 22.7 | 22.3 | 23.1 | 23.4 |
| 12H | 20.2 | 21.0 | 20.6 | 21.3 | 21.7 | 21.9 | 22.7 | 22.3 | 23.0 | 23.4 |
| 4H 2H | 18.4 | 19.3 | 18.7 | 19.6 | 19.9 | 21.8 | 22.7 | 22.1 | 23.0 | 23.3 |
| 3H | 19.4 | 20.2 | 19.8 | 20.5 | 20.9 | 21.8 | 22.6 | 22.2 | 22.9 | 23.3 |
| 4H | 20.0 | 20.7 | 20.4 | 21.1 | 21.5 | 21.8 | 22.6 | 22.2 | 22.9 | 23.3 |
| 6H | 20.5 | 21.2 | 21.0 | 21.6 | 22.0 | 21.9 | 22.5 | 22.3 | 22.9 | 23.3 |
| 8H | 20.7 | 21.3 | 21.2 | 21.8 | 22.2 | 21.9 | 22.5 | 22.3 | 22.9 | 23.3 |
| 12H | 20.9 | 21.5 | 21.4 | 21.9 | 22.3 | 21.9 | 22.4 | 22.4 | 22.9 | 23.3 |
| 8H 4H | 20.0 | 20.6 | 20.5 | 21.0 | 21.5 | 21.8 | 22.4 | 22.2 | 22.8 | 23.2 |
| 6H | 20.7 | 21.2 | 21.2 | 21.6 | 22.1 | 21.9 | 22.4 | 22.4 | 22.8 | 23.3 |
| 8H | 21.0 | 21.4 | 21.5 | 21.9 | 22.4 | 21.9 | 22.3 | 22.4 | 22.8 | 23.3 |
| 12H | 21.2 | 21.6 | 21.8 | 22.1 | 22.6 | 22.0 | 22.3 | 22.5 | 22.8 | 23.4 |
| 12H 4H | 20.0 | 20.5 | 20.4 | 20.9 | 21.4 | 21.8 | 22.3 | 22.2 | 22.7 | 23.2 |
| 6H | 20.7 | 21.1 | 21.2 | 21.6 | 22.1 | 21.9 | 22.3 | 22.4 | 22.8 | 23.3 |
| 8H | 21.0 | 21.4 | 21.5 | 21.9 | 22.4 | 21.9 | 22.3 | 22.4 | 22.8 | 23.3 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | + 1.1 / - 0.9 | | | | | + 2.2 / - 4.4 | | | | |
| 1.5H | + 1.1 / - 1.4 | | | | | + 3.8 / - 4.1 | | | | |
| 2.0H | + 1.1 / - 1.1 | | | | | + 3.9 / - 2.7 | | | | |

CIE Pub.117, 3607 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.5$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

UTILIZATION FACTORS TABLE

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |

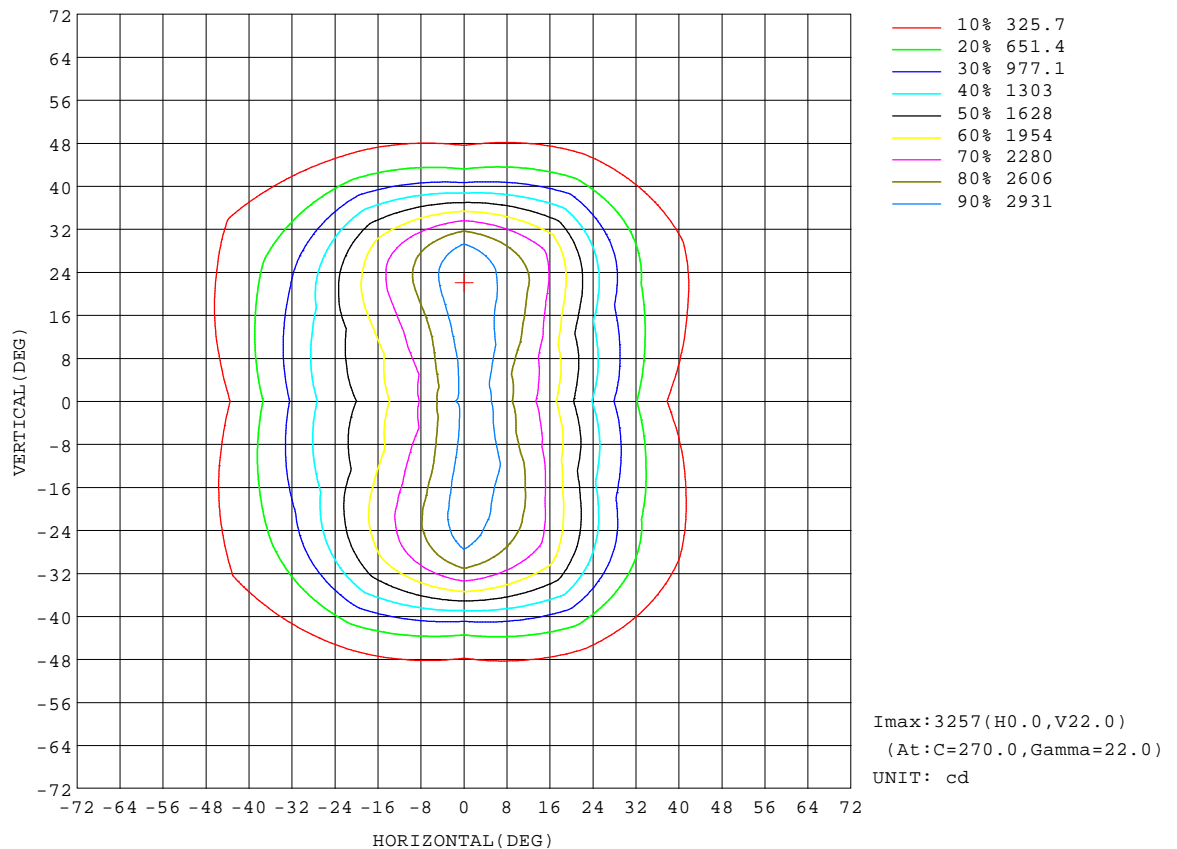
| REFLECTANCE | | | | | | | | | | |
|----------------------------------|-----------------------------------------------------|-----|-----------|-----|-----|-----|-----|---------------|-----|--------|
| Ceiling | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0 |
| Walls | 0.7 | 0.5 | 0.3 | 0.7 | 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) $k(RI) \times RCR = 5$ | | | | | | | | | |
| $k = 0.60$ | 77 | 69 | 64 | 76 | 69 | 64 | 75 | 68 | 64 | 60 |
| 0.80 | 86 | 78 | 73 | 85 | 78 | 73 | 83 | 77 | 73 | 68 |
| 1.00 | 92 | 84 | 80 | 91 | 84 | 79 | 88 | 84 | 79 | 74 |
| 1.25 | 97 | 90 | 86 | 95 | 89 | 85 | 93 | 88 | 84 | 79 |
| 1.50 | 100 | 94 | 90 | 99 | 93 | 89 | 96 | 91 | 88 | 82 |
| 2.00 | 104 | 99 | 95 | 102 | 97 | 94 | 99 | 95 | 92 | 85 |
| 2.50 | 106 | 101 | 98 | 104 | 100 | 96 | 101 | 97 | 94 | 87 |
| 3.00 | 108 | 104 | 100 | 106 | 102 | 99 | 102 | 99 | 97 | 89 |
| 4.00 | 111 | 107 | 104 | 108 | 105 | 103 | 104 | 102 | 100 | 91 |
| 5.00 | 112 | 109 | 107 | 110 | 107 | 105 | 105 | 103 | 101 | 92 |
| 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:25.3DEG
Operators:DAMIN
Test Date:2018-12-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

ISOCANDELA DIAGRAM

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |



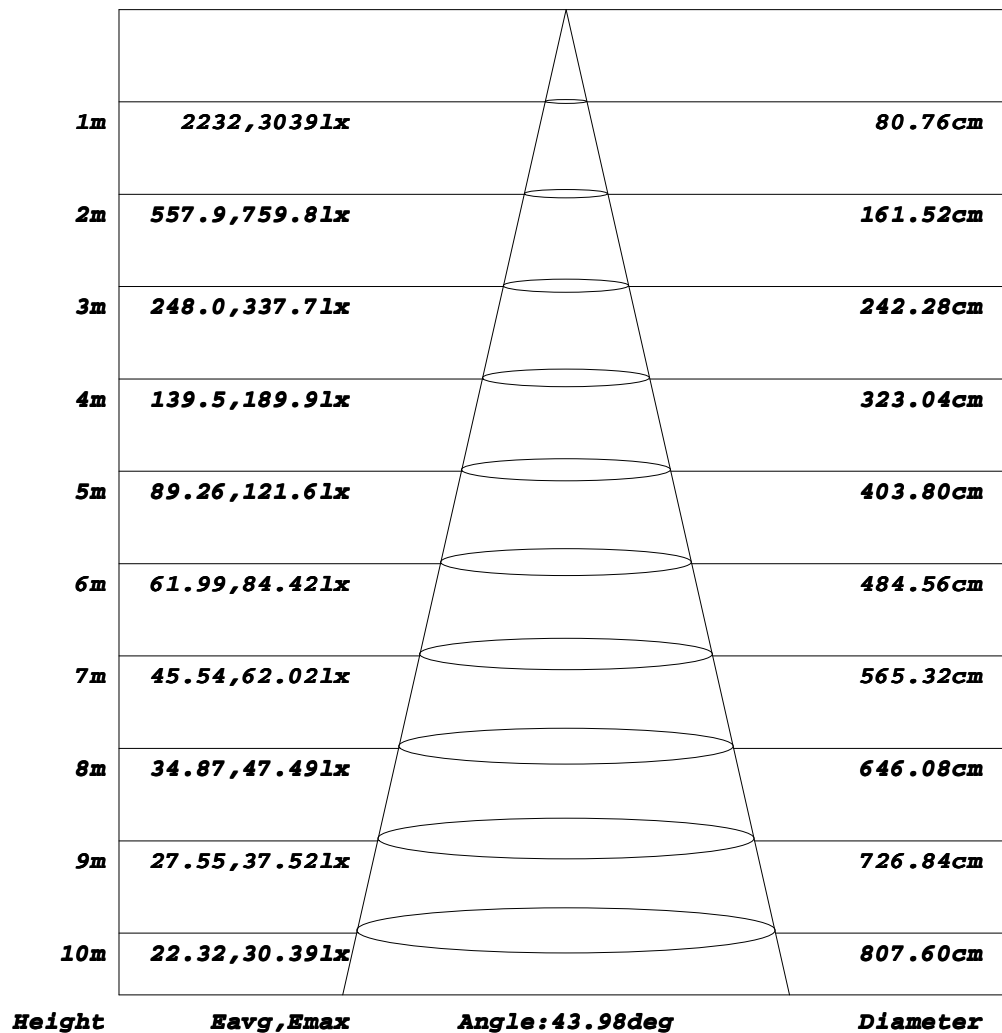
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

AAI Figure

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |

Flux out:1144 lm



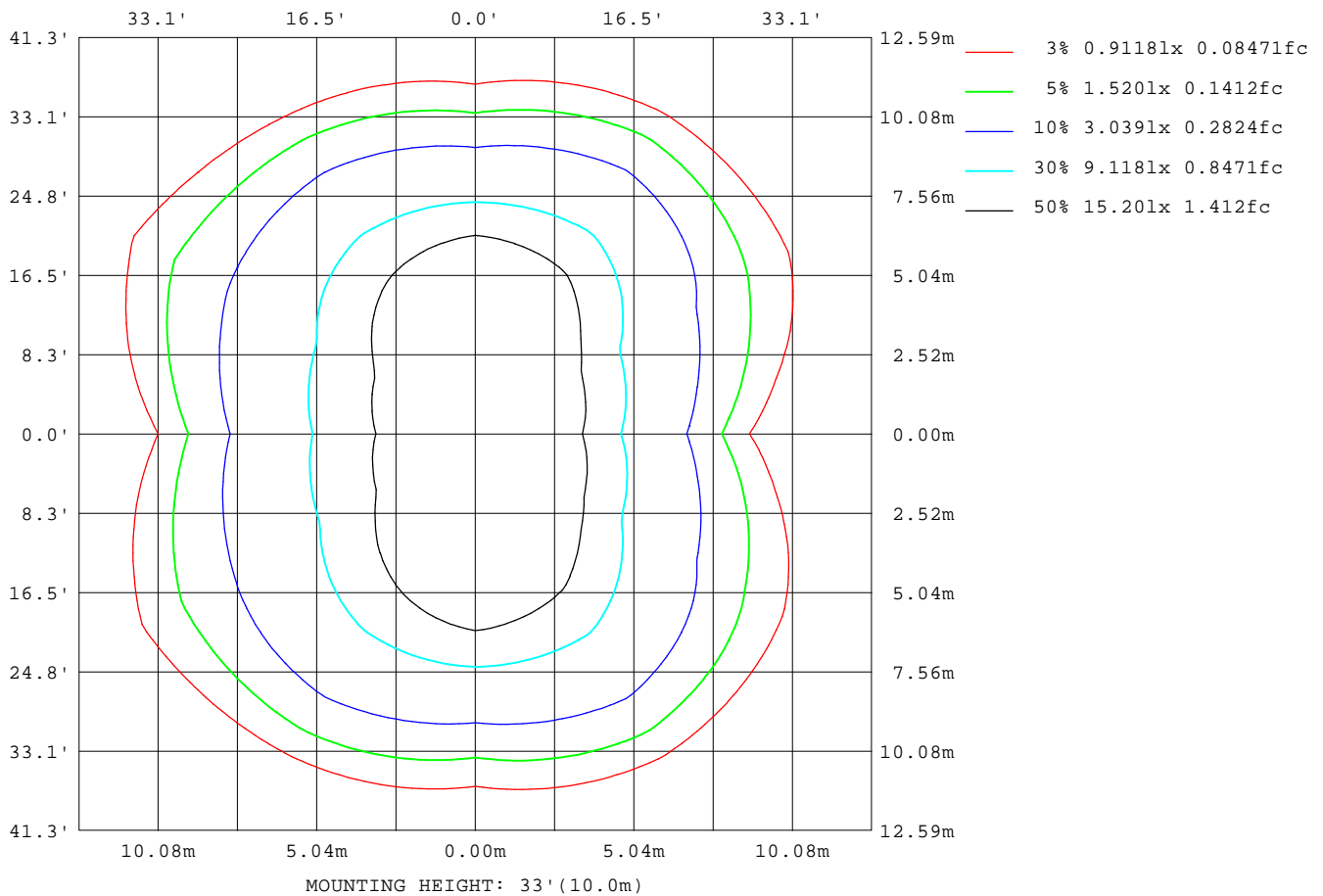
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

ISOLUX DIAGRAM

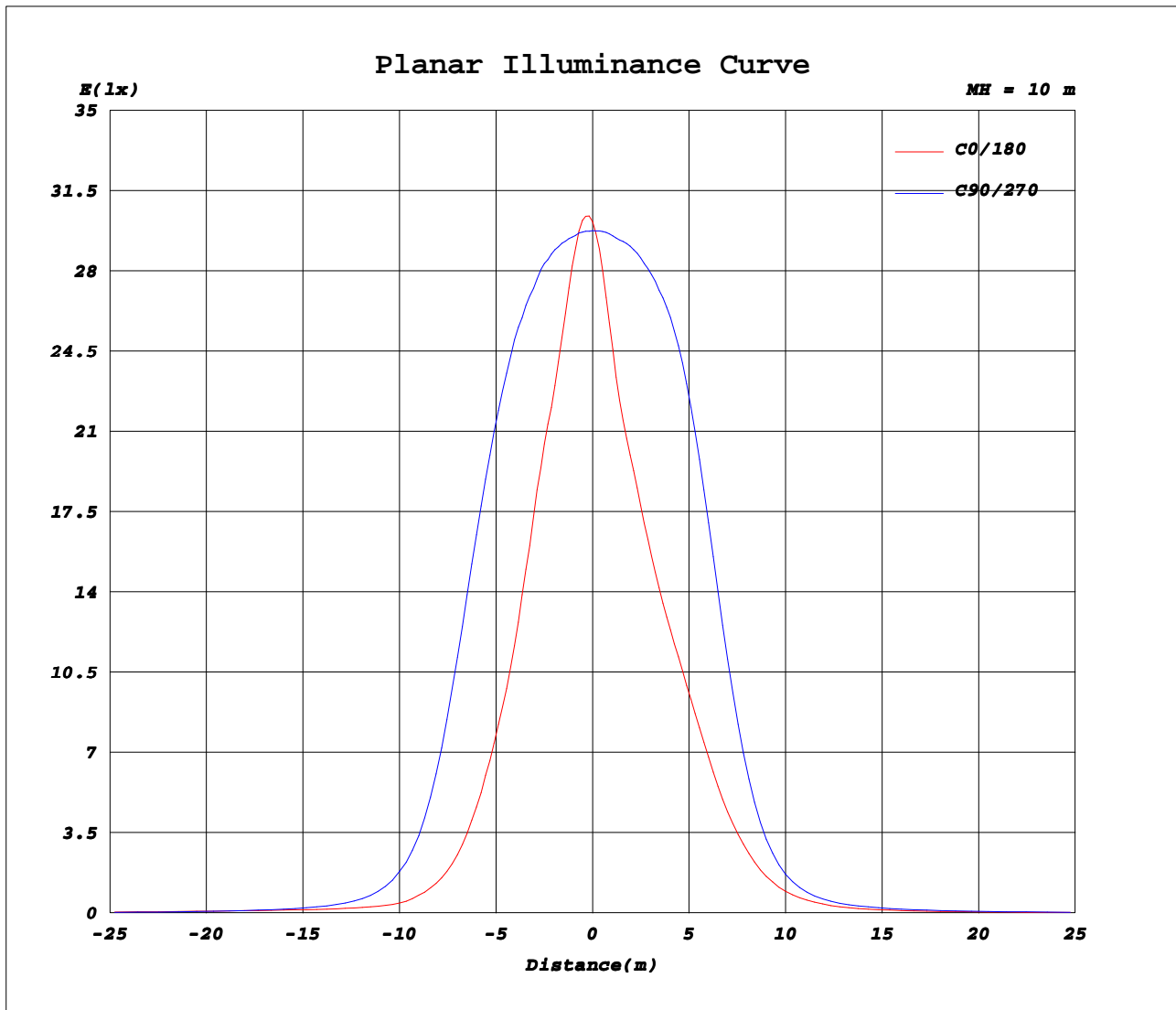
| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2018-12-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

| | | |
|---------------------------------------------------------------------------------|-------------------|--|
| Test:U:220.40V I:0.1310A P:27.400W PF:0.9460 Freq:50.00Hz Lamp Flux:3607.3x1 lm | | |
| NAME: LC-LL1603-30W-HighRack 60° | TYPE:LED | |
| MFR.: LOW-CARBON | DIM.: 650*40*95mm | |
| | | |

Table--1

UNIT: cd

| C(DEG) γ (DEG) | 0 | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|------|-------|------|------|--|--|--|--|--|--|
| 0 | 3015 | 2992 | 2984 | 2976 | 2974 | 2986 | 3015 | 2992 | 2984 | 2976 | 2974 | 2986 | | | | | | |
| 5 | 2936 | 2996 | 3042 | 2990 | 2817 | 2650 | 2603 | 2636 | 2832 | 2996 | 3029 | 2958 | | | | | | |
| 10 | 2517 | 2684 | 3009 | 3042 | 2630 | 2258 | 2167 | 2259 | 2644 | 3058 | 2973 | 2618 | | | | | | |
| 15 | 2154 | 2372 | 2898 | 3114 | 2485 | 2048 | 1886 | 2056 | 2513 | 3143 | 2857 | 2337 | | | | | | |
| 20 | 1674 | 2049 | 2728 | 3130 | 2408 | 1822 | 1629 | 1844 | 2466 | 3234 | 2734 | 1987 | | | | | | |
| 25 | 1208 | 1586 | 2541 | 3060 | 2324 | 1603 | 1419 | 1647 | 2426 | 3223 | 2605 | 1543 | | | | | | |
| 30 | 810 | 1203 | 2274 | 2734 | 2104 | 1370 | 1146 | 1416 | 2244 | 2839 | 2384 | 1172 | | | | | | |
| 35 | 465 | 860 | 1854 | 2030 | 1750 | 1091 | 803 | 1151 | 1841 | 2013 | 1923 | 840 | | | | | | |
| 40 | 245 | 607 | 1298 | 1127 | 1252 | 808 | 496 | 870 | 1250 | 1074 | 1290 | 605 | | | | | | |
| 45 | 125 | 413 | 726 | 513 | 706 | 565 | 268 | 622 | 680 | 479 | 703 | 429 | | | | | | |
| 50 | 95.7 | 280 | 332 | 240 | 320 | 379 | 150 | 421 | 310 | 232 | 324 | 297 | | | | | | |
| 55 | 87.0 | 198 | 148 | 143 | 140 | 256 | 92.6 | 281 | 140 | 143 | 147 | 211 | | | | | | |
| 60 | 90.4 | 144 | 84.0 | 104 | 77.1 | 166 | 69.5 | 176 | 80.7 | 106 | 85.7 | 151 | | | | | | |
| 65 | 92.4 | 104 | 57.5 | 80.3 | 52.5 | 106 | 57.7 | 111 | 55.9 | 82.3 | 59.7 | 108 | | | | | | |
| 70 | 85.2 | 74.3 | 42.1 | 58.3 | 38.1 | 66.6 | 48.5 | 70.3 | 41.7 | 59.7 | 44.7 | 77.3 | | | | | | |
| 75 | 67.1 | 51.5 | 30.6 | 40.3 | 26.7 | 40.4 | 38.3 | 43.7 | 30.2 | 41.6 | 33.2 | 54.3 | | | | | | |
| 80 | 42.5 | 32.5 | 20.1 | 25.1 | 16.7 | 22.1 | 25.8 | 25.6 | 20.3 | 27.0 | 22.9 | 35.4 | | | | | | |
| 85 | 20.1 | 16.3 | 11.1 | 13.1 | 8.58 | 9.63 | 14.1 | 13.4 | 12.3 | 15.6 | 14.2 | 19.6 | | | | | | |
| 90 | 4.81 | 5.03 | 4.78 | 4.41 | 4.25 | 4.41 | 8.04 | 8.47 | 7.99 | 7.75 | 8.14 | 8.81 | | | | | | |
| 95 | 5.60 | 5.81 | 5.68 | 5.46 | 5.39 | 5.34 | 8.78 | 9.27 | 8.99 | 8.72 | 8.87 | 9.48 | | | | | | |
| 100 | 6.73 | 7.10 | 7.16 | 6.99 | 6.86 | 6.59 | 9.62 | 10.3 | 10.2 | 10.00 | 10.1 | 10.5 | | | | | | |
| 105 | 8.11 | 8.66 | 8.86 | 8.76 | 8.60 | 8.13 | 10.7 | 11.5 | 11.6 | 11.5 | 11.5 | 11.6 | | | | | | |
| 110 | 9.92 | 10.6 | 10.8 | 10.8 | 10.7 | 10.1 | 12.0 | 12.9 | 13.3 | 13.3 | 13.2 | 13.1 | | | | | | |
| 115 | 12.1 | 12.8 | 13.0 | 13.1 | 13.1 | 12.4 | 13.5 | 14.6 | 15.2 | 15.3 | 15.1 | 14.8 | | | | | | |
| 120 | 14.8 | 15.4 | 15.6 | 15.7 | 15.8 | 15.0 | 15.3 | 16.7 | 17.4 | 17.5 | 17.3 | 16.9 | | | | | | |
| 125 | 17.7 | 18.2 | 18.3 | 18.4 | 18.7 | 17.9 | 17.5 | 19.0 | 19.9 | 19.8 | 19.6 | 19.2 | | | | | | |
| 130 | 21.0 | 21.4 | 21.5 | 21.4 | 22.0 | 21.0 | 19.9 | 21.6 | 22.6 | 22.4 | 22.2 | 21.7 | | | | | | |
| 135 | 24.3 | 24.5 | 24.7 | 24.7 | 25.1 | 24.3 | 22.6 | 24.5 | 25.4 | 25.2 | 24.8 | 24.4 | | | | | | |
| 140 | 27.4 | 27.5 | 27.8 | 28.0 | 28.2 | 27.5 | 25.8 | 27.5 | 28.2 | 27.9 | 27.5 | 27.0 | | | | | | |
| 145 | 30.2 | 30.2 | 30.6 | 30.9 | 31.0 | 30.5 | 28.9 | 30.3 | 30.7 | 30.3 | 29.9 | 29.5 | | | | | | |
| 150 | 32.7 | 32.6 | 32.8 | 33.0 | 33.5 | 33.2 | 31.8 | 33.0 | 33.0 | 32.1 | 31.8 | 31.7 | | | | | | |
| 155 | 34.9 | 34.8 | 34.4 | 34.6 | 35.7 | 35.7 | 34.1 | 35.3 | 35.0 | 33.5 | 33.1 | 33.7 | | | | | | |
| 160 | 37.0 | 36.7 | 35.7 | 36.2 | 37.5 | 37.5 | 36.1 | 37.0 | 36.7 | 34.9 | 34.4 | 35.5 | | | | | | |
| 165 | 39.1 | 38.2 | 37.1 | 37.8 | 39.1 | 39.2 | 37.6 | 38.5 | 38.1 | 36.5 | 35.9 | 37.1 | | | | | | |
| 170 | 40.7 | 39.4 | 38.6 | 39.3 | 40.2 | 40.3 | 39.0 | 39.4 | 39.3 | 38.1 | 37.5 | 38.3 | | | | | | |
| 175 | 41.2 | 39.9 | 39.8 | 40.5 | 40.8 | 40.6 | 40.0 | 39.9 | 40.1 | 39.7 | 39.3 | 39.3 | | | | | | |
| 180 | 41.1 | 40.4 | 40.6 | 40.9 | 40.8 | 40.4 | 41.1 | 40.3 | 40.6 | 40.9 | 40.9 | 40.4 | | | | | | |

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-12-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.11
Humidity:65.0%
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Remarks: