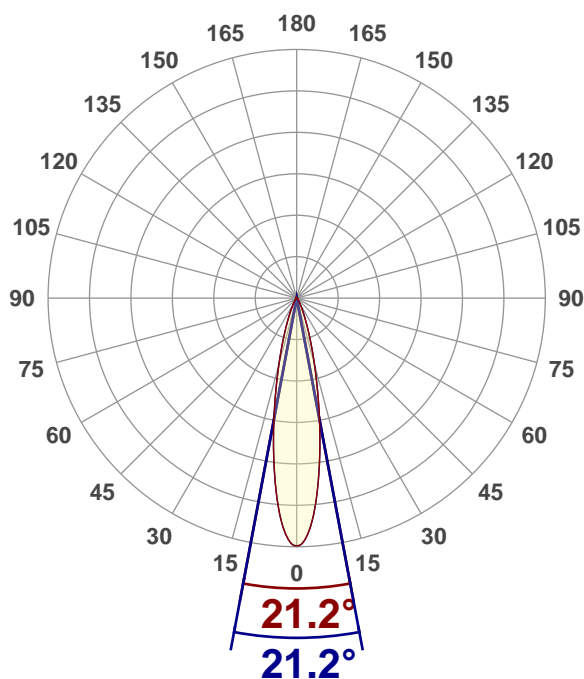


Light efficiency:**43 Lumen/Watt****Light quality:****CRI: 91.0****Color temperature:****3173 K****Output: 581 lm****Peak: 2767 cd****Power: 13.6 W****Voltage: 120 V****Current: 0.113 A****PF: 0.9****THD: n/a %****Product name:****H2x-1030S00xxN-xxx - 1****Driver Used:****Test Date:****2019-08-19****Beam Angle:****21.2°****Field Angle:****43.2°****Cut Off Angle:****61.4°****Beam details**

*measured at center of beam

| Mounting Height (feet)\(meter) | Lux* | Footcandles* | Beam width (feet) / (meter) |
|-----------------------------------|---------|--------------|--------------------------------|
| 4 ft / 1.2 m | 1861 lx | 173 fcd | 1.5 ft / 0.5 m |
| 8 ft / 2.4 m | 465 lx | 43 fcd | 3 ft / 0.9 m |
| 12 ft / 3.7 m | 207 lx | 19 fcd | 4.5 ft / 1.4 m |
| 16 ft / 4.9 m | 116 lx | 11 fcd | 6 ft / 1.8 m |
| 20 ft / 6.1 m | 74 lx | 7 fcd | 7.5 ft / 2.3 m |

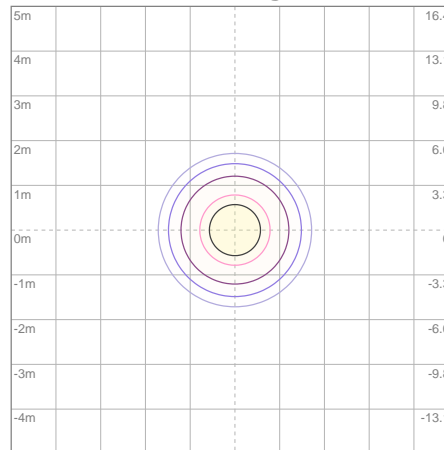
Beam center

Light planning Photometric Testing Report

Zonal Lumen Summary

| Zone | Lumen | %Luminaire |
|--------|-------|------------|
| 0-30 | 490 | 84.34% |
| 0-40 | 518 | 89.16% |
| 0-60 | 540 | 92.94% |
| 60-90 | 14.2 | 2.44% |
| 70-100 | 13.6 | 2.34% |
| 90-120 | 12.3 | 2.12% |
| 0-90 | 554 | 95.35% |
| 90-180 | 26.4 | 4.54% |
| 0-180 | 581 | 100.00% |

ISO lux diagram



Mounting height: 3.05 meters (10 feet)

| | |
|----------------|-----------|
| Lux at center: | 297 lx |
| 3% | 8.91 lx |
| 5% | 14.85 lx |
| 10% | 29.70 lx |
| 30% | 89.10 lx |
| 50% | 148.50 lx |

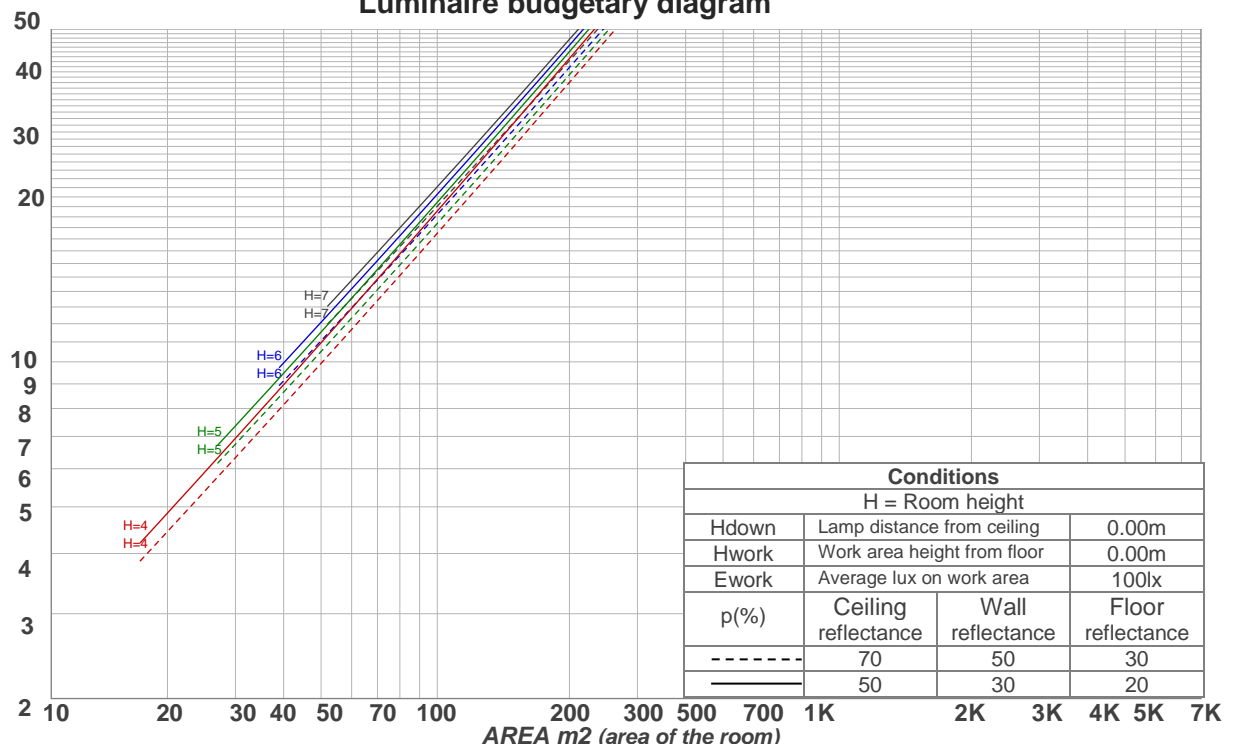
Conditions:
Number of planes: 8
Lux distribution on a surface when lamp is mounted at 3.05 meters from the surface.

Coefficients of Utilization

| Ceiling reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| Wall reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Floor reflectance | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0 |
| RCR | (RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 103 | 103 | 103 | 98 | 98 | 98 | 95 |
| 1 | 113 | 110 | 108 | 106 | 110 | 108 | 106 | 104 | 103 | 102 | 100 | 99 | 97 | 96 | 95 | 94 | 93 | 91 |
| 2 | 109 | 104 | 101 | 98 | 106 | 102 | 99 | 97 | 98 | 96 | 94 | 95 | 93 | 91 | 91 | 90 | 89 | 87 |
| 3 | 105 | 99 | 95 | 92 | 102 | 97 | 94 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 89 | 87 | 85 | 83 |
| 4 | 101 | 95 | 90 | 87 | 99 | 93 | 89 | 86 | 91 | 87 | 85 | 88 | 85 | 83 | 86 | 84 | 82 | 80 |
| 5 | 97 | 91 | 86 | 83 | 96 | 90 | 85 | 82 | 87 | 84 | 81 | 85 | 82 | 80 | 83 | 81 | 79 | 77 |
| 6 | 94 | 87 | 83 | 79 | 93 | 86 | 82 | 79 | 84 | 81 | 78 | 83 | 79 | 77 | 81 | 78 | 76 | 75 |
| 7 | 91 | 84 | 79 | 76 | 90 | 83 | 79 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 79 | 76 | 74 | 73 |
| 8 | 88 | 81 | 77 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 73 | 78 | 75 | 72 | 77 | 74 | 72 | 70 |
| 9 | 86 | 79 | 74 | 71 | 85 | 78 | 74 | 71 | 77 | 73 | 70 | 76 | 72 | 70 | 75 | 72 | 70 | 68 |
| 10 | 84 | 76 | 72 | 69 | 82 | 76 | 72 | 69 | 75 | 71 | 68 | 74 | 70 | 68 | 73 | 70 | 68 | 67 |

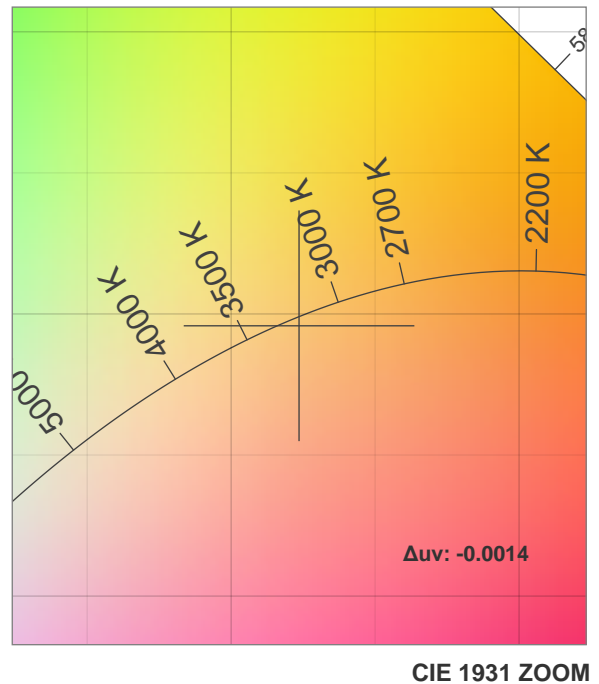
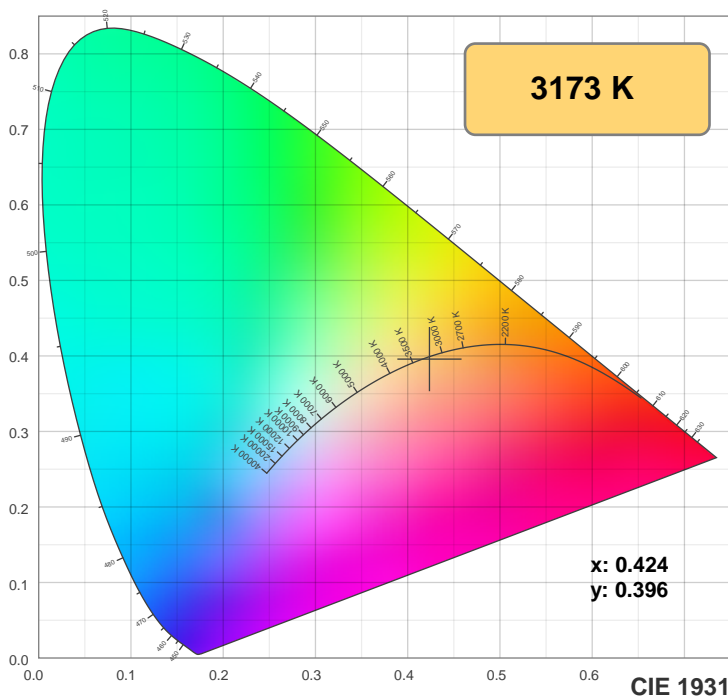
LAMPS (number of lamps)

Luminaire budgetary diagram

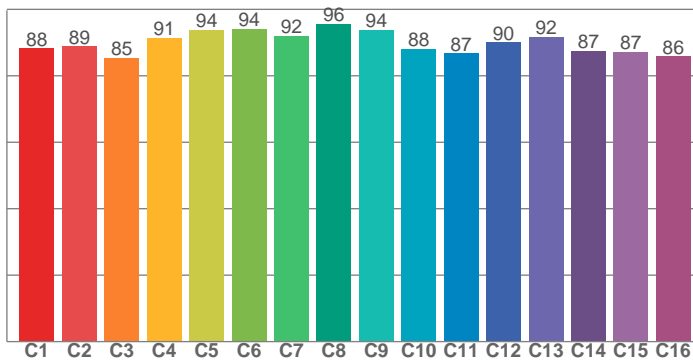


Color details

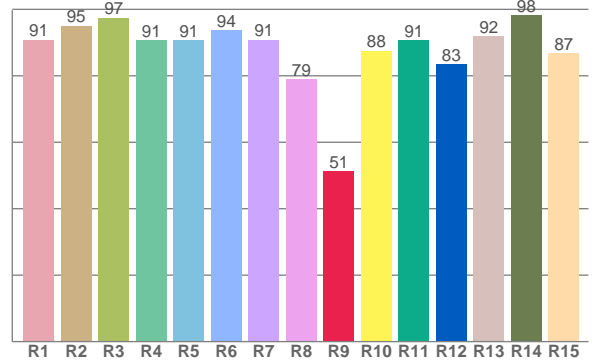
Photometric Testing Report



TM30: 90.0



CRI: 91.0 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1 | R2 | R3 | R4 | R5 | R6 | R7 | R8 | R9 | R10 | R11 | R12 | R13 | R14 | R15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90.8 | 95.1 | 97.5 | 90.7 | 90.6 | 93.7 | 90.8 | 78.9 | 51.3 | 87.5 | 90.6 | 83.5 | 91.9 | 98.2 | 86.7 |

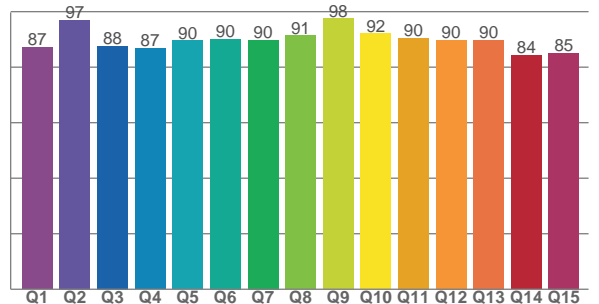
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 88.2 | 88.8 | 85.4 | 91.4 | 93.8 | 94.1 | 92.0 | 95.6 | 93.8 | 88.2 | 86.8 | 90.0 | 91.7 | 87.4 | 87.1 | 85.8 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 87.2 | 97.0 | 87.6 | 86.8 | 89.6 | 90.2 | 89.7 | 91.3 | 97.5 | 92.0 | 90.5 | 89.7 | 89.9 | 84.3 | 85.1 |

CQS: 89.2



Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT | CRI | CRI R9 | TM30 Rf | TM30 Rg | CQS | x | y | u | v | Δuv |
| 3173 K | 91.0 | 51.3 | 90.0 | 99.3 | 89.2 | 0.424 | 0.396 | 0.245 | 0.344 | -0.0014 |

UGR Photometric Testing Report

Glare Evaluation According to UGR

| | | | | | | | | | | | |
|---|-----|---|------|------|------|------|---|------|------|------|------|
| p Ceiling | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| p Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| p Floor | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room size X Y | | Viewing direction at right angles to lamp axis | | | | | Viewing direction parallel to lamp axis | | | | |
| 2H | 2H | 8.6 | 9.3 | 8.9 | 9.6 | 9.8 | 8.6 | 9.3 | 8.9 | 9.6 | 9.8 |
| | 3H | 9.6 | 10.2 | 10.0 | 10.5 | 10.9 | 9.6 | 10.2 | 10.0 | 10.5 | 10.9 |
| | 4H | 10.5 | 11.1 | 10.9 | 11.4 | 11.8 | 10.5 | 11.1 | 10.9 | 11.4 | 11.8 |
| | 6H | 11.7 | 12.2 | 12.1 | 12.6 | 13.0 | 11.7 | 12.2 | 12.1 | 12.6 | 13.0 |
| | 8H | 12.4 | 13.0 | 12.9 | 13.3 | 13.7 | 12.4 | 13.0 | 12.9 | 13.3 | 13.7 |
| | 12H | 13.4 | 13.9 | 13.8 | 14.3 | 14.7 | 13.4 | 13.9 | 13.8 | 14.3 | 14.7 |
| 4H | 2H | 8.8 | 9.4 | 9.1 | 9.7 | 10.0 | 8.8 | 9.4 | 9.1 | 9.7 | 10.0 |
| | 3H | 10.2 | 10.7 | 10.6 | 11.1 | 11.5 | 10.2 | 10.7 | 10.6 | 11.1 | 11.5 |
| | 4H | 11.4 | 11.8 | 11.8 | 12.2 | 12.7 | 11.4 | 11.8 | 11.8 | 12.2 | 12.7 |
| | 6H | 12.9 | 13.2 | 13.4 | 13.7 | 14.2 | 12.9 | 13.2 | 13.4 | 13.7 | 14.2 |
| | 8H | 13.8 | 14.1 | 14.3 | 14.6 | 15.1 | 13.8 | 14.1 | 14.3 | 14.6 | 15.1 |
| | 12H | 14.9 | 15.2 | 15.4 | 15.7 | 16.2 | 14.9 | 15.2 | 15.4 | 15.7 | 16.2 |
| 8H | 4H | 11.9 | 12.3 | 12.4 | 12.7 | 13.2 | 11.9 | 12.3 | 12.4 | 12.7 | 13.2 |
| | 6H | 13.7 | 14.0 | 14.3 | 14.5 | 15.0 | 13.7 | 14.0 | 14.3 | 14.5 | 15.0 |
| | 8H | 14.9 | 15.1 | 15.4 | 15.6 | 16.2 | 14.9 | 15.1 | 15.4 | 15.6 | 16.2 |
| | 12H | 16.2 | 16.4 | 16.8 | 16.9 | 17.5 | 16.2 | 16.4 | 16.8 | 16.9 | 17.5 |
| 12H | 4H | 12.1 | 12.4 | 12.6 | 12.8 | 13.3 | 12.1 | 12.4 | 12.6 | 12.8 | 13.3 |
| | 6H | 14.0 | 14.2 | 14.5 | 14.7 | 15.3 | 14.0 | 14.2 | 14.5 | 14.7 | 15.3 |
| | 8H | 15.3 | 15.4 | 15.8 | 16.0 | 16.6 | 15.3 | 15.4 | 15.8 | 16.0 | 16.6 |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | | |
| S = 1.0H | | +0.3 / -0.3 | | | | | +0.3 / -0.3 | | | | |
| S = 1.5H | | +0.7 / -0.5 | | | | | +0.7 / -0.5 | | | | |
| S = 2.0H | | +1.3 / -0.8 | | | | | +1.3 / -0.8 | | | | |
| Standard table | | --- | | | | | --- | | | | |
| Correction summand | | --- | | | | | --- | | | | |
| Corrected glare indices referring to 581 lm total luminous flux | | | | | | | | | | | |

Due to our continued efforts to improve our products, product specifications are subject to change without notice. Please refer to our website for the latest test results.