

Light efficiency:

66 Lumen/Watt

Light quality:

CRI: 94.6

Color temperature:

2810 K

Output: 1364 lm

Peak: 2171 cd

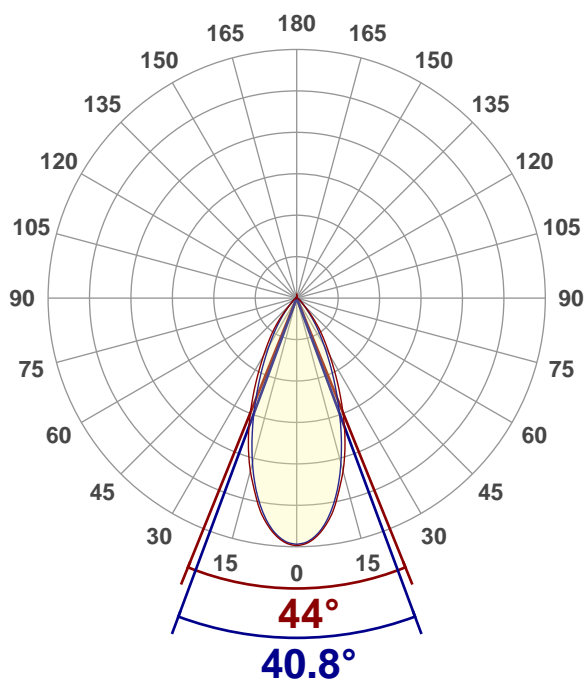
Power: 20.7 W

Voltage: 120 V

Current: 0.175 A

PF: 0.99

THD: 19.56 %



Product name:

RA56-20F-90WHWH - 2700K

Driver Used:

SLM-CDVR-20W

Test Date:

2019-05-13

Beam Angle:

42.4°

Field Angle:

77.6°

Cut Off Angle:

99.7°

Beam details

*measured at center of beam

| Mounting Height (feet)\(meter) | Lux* | Footcandles* | Beam width (feet) / (meter) |
|-----------------------------------|---------|--------------|--------------------------------|
| 4 ft / 1.2 m | 1456 lx | 135 fcd | 3.1 ft / 0.9 m |
| 8 ft / 2.4 m | 364 lx | 34 fcd | 6.2 ft / 1.9 m |
| 12 ft / 3.7 m | 162 lx | 15 fcd | 9.3 ft / 2.8 m |
| 16 ft / 4.9 m | 91 lx | 8 fcd | 12.4 ft / 3.8 m |
| 20 ft / 6.1 m | 58 lx | 5 fcd | 15.5 ft / 4.7 m |

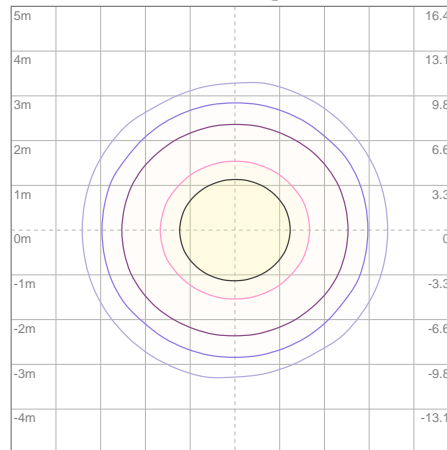
Beam center

Light planning Photometric Testing Report

Zonal Lumen Summary

| Zone | Lumen | %Luminaire |
|--------|-------|------------|
| 0-30 | 988 | 72.43% |
| 0-40 | 1199 | 87.90% |
| 0-60 | 1309 | 95.97% |
| 60-90 | 33.0 | 2.42% |
| 70-100 | 17.8 | 1.30% |
| 90-120 | 9.61 | 0.70% |
| 0-90 | 1342 | 98.39% |
| 90-180 | 22.1 | 1.62% |
| 0-180 | 1364 | 100.00% |

ISO lux diagram



Mounting height: 3.05 meters (10 feet)

| | |
|----------------|-----------|
| Lux at center: | 233 lx |
| 3% | 6.99 lx |
| 5% | 11.65 lx |
| 10% | 23.30 lx |
| 30% | 69.90 lx |
| 50% | 116.50 lx |

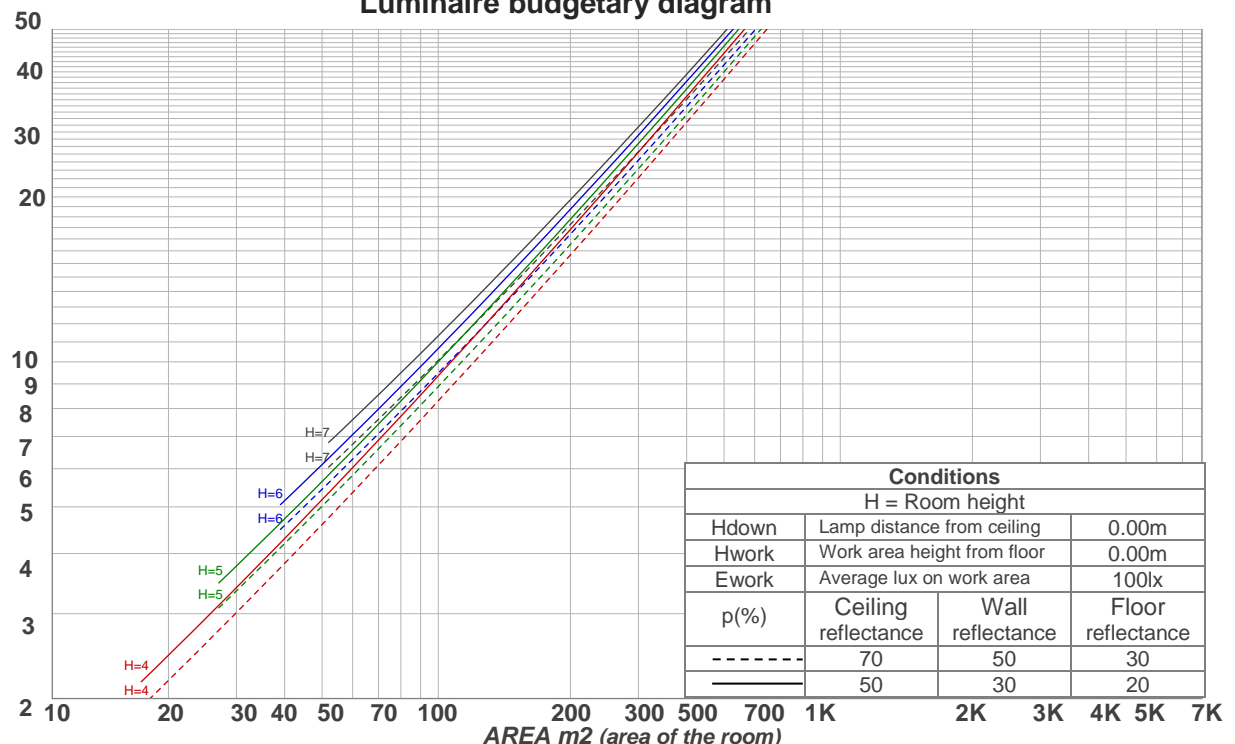
Conditions:
Number of planes: 8
Lux distribution on a surface when lamp is mounted at 3.05 meters from the surface.

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 110 | 110 | 110 | 105 | 105 | 105 | 101 | 101 | 101 | 98 |
| 1 | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 103 | 102 | 100 | 99 | 98 | 97 | 96 | 95 | 94 | 92 |
| 2 | 107 | 102 | 98 | 95 | 105 | 100 | 97 | 94 | 97 | 94 | 91 | 94 | 91 | 89 | 91 | 89 | 87 | 85 |
| 3 | 102 | 95 | 90 | 87 | 100 | 94 | 89 | 86 | 91 | 87 | 84 | 88 | 85 | 83 | 86 | 83 | 81 | 80 |
| 4 | 97 | 89 | 84 | 80 | 95 | 88 | 83 | 79 | 86 | 81 | 78 | 84 | 80 | 77 | 82 | 78 | 76 | 74 |
| 5 | 92 | 84 | 78 | 74 | 91 | 83 | 78 | 74 | 81 | 76 | 73 | 79 | 75 | 72 | 77 | 74 | 71 | 70 |
| 6 | 88 | 79 | 73 | 69 | 86 | 78 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 68 | 74 | 70 | 67 | 66 |
| 7 | 84 | 75 | 69 | 65 | 82 | 74 | 68 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 70 | 66 | 63 | 62 |
| 8 | 80 | 71 | 65 | 61 | 79 | 70 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 |
| 9 | 77 | 67 | 61 | 58 | 75 | 67 | 61 | 57 | 66 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 57 | 55 |
| 10 | 73 | 64 | 58 | 55 | 72 | 63 | 58 | 54 | 62 | 58 | 54 | 62 | 57 | 54 | 61 | 57 | 54 | 52 |

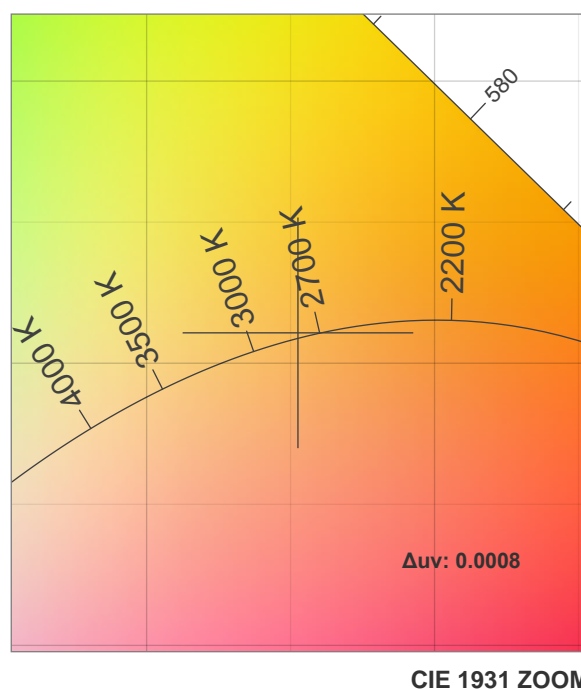
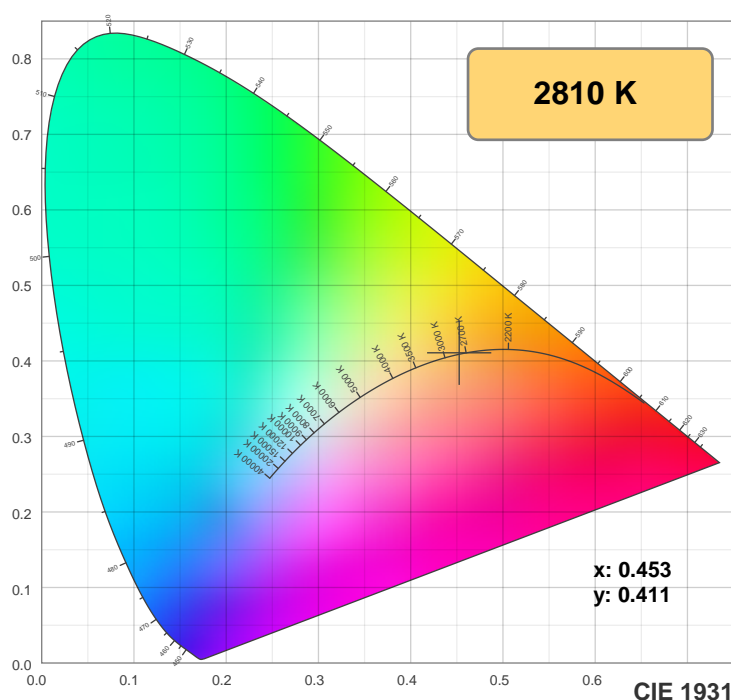
LAMPS (number of lamps)

Luminaire budgetary diagram



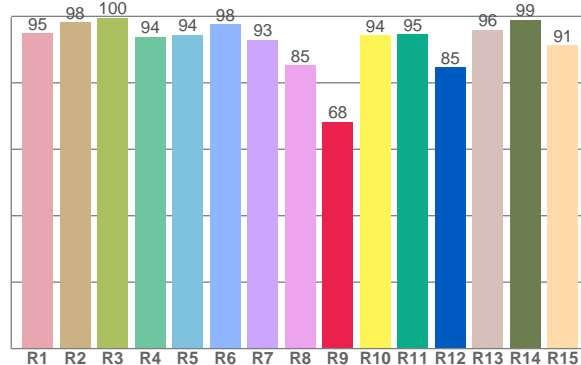
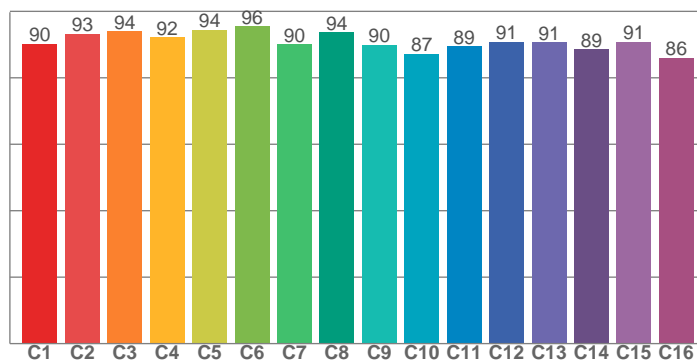
Color details

Photometric Testing Report



TM30: 91.1

CRI: 94.6 (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 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 95.0 | 98.2 | 99.6 | 93.9 | 94.5 | 97.7 | 92.9 | 85.3 | 68.3 | 94.4 | 94.6 | 84.8 | 96.0 | 99.0 | 91.3 |

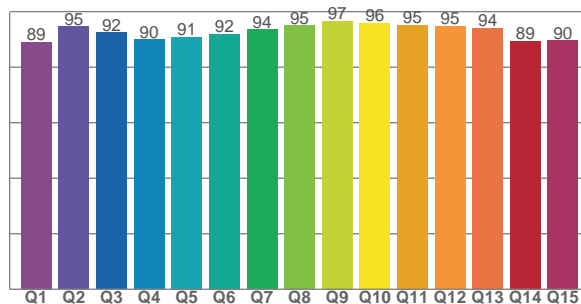
TM30 C values, 16 binned values out of total of 99 C values

| C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90.2 | 93.3 | 94.0 | 92.2 | 94.4 | 95.5 | 90.1 | 93.7 | 90.0 | 87.2 | 89.4 | 90.8 | 90.7 | 88.6 | 90.9 | 86.0 |

CQS Q values

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 89.0 | 94.7 | 92.5 | 90.0 | 90.9 | 91.9 | 93.6 | 95.0 | 96.7 | 95.8 | 95.2 | 94.7 | 94.1 | 89.5 | 89.6 |

CQS: 92.3



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 |
| 2810 K | 94.6 | 68.3 | 91.1 | 97.0 | 92.3 | 0.453 | 0.411 | 0.258 | 0.351 | 0.0008 |

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 | 18.5 | 19.3 | 18.8 | 19.5 | 19.7 | 17.7 | 18.4 | 18.0 | 18.7 | 18.9 |
| | 3H | 18.7 | 19.4 | 19.0 | 19.6 | 19.9 | 17.9 | 18.6 | 18.2 | 18.8 | 19.1 |
| | 4H | 18.8 | 19.4 | 19.1 | 19.7 | 20.0 | 18.0 | 18.6 | 18.3 | 18.9 | 19.2 |
| | 6H | 18.8 | 19.4 | 19.2 | 19.7 | 20.0 | 18.1 | 18.7 | 18.4 | 19.0 | 19.3 |
| | 8H | 18.9 | 19.4 | 19.2 | 19.8 | 20.1 | 18.1 | 18.7 | 18.5 | 19.0 | 19.3 |
| | 12H | 18.9 | 19.5 | 19.3 | 19.8 | 20.1 | 18.2 | 18.7 | 18.6 | 19.1 | 19.4 |
| 4H | 2H | 18.5 | 19.1 | 18.8 | 19.4 | 19.7 | 17.7 | 18.4 | 18.1 | 18.6 | 18.9 |
| | 3H | 18.8 | 19.3 | 19.2 | 19.6 | 20.0 | 18.0 | 18.5 | 18.4 | 18.9 | 19.2 |
| | 4H | 18.9 | 19.4 | 19.3 | 19.7 | 20.1 | 18.2 | 18.7 | 18.6 | 19.0 | 19.4 |
| | 6H | 19.1 | 19.5 | 19.5 | 19.9 | 20.3 | 18.4 | 18.8 | 18.8 | 19.2 | 19.6 |
| | 8H | 19.2 | 19.5 | 19.6 | 19.9 | 20.4 | 18.5 | 18.9 | 19.0 | 19.3 | 19.7 |
| | 12H | 19.3 | 19.6 | 19.7 | 20.0 | 20.5 | 18.6 | 18.9 | 19.1 | 19.4 | 19.8 |
| 8H | 4H | 19.0 | 19.3 | 19.4 | 19.7 | 20.1 | 18.3 | 18.6 | 18.7 | 19.0 | 19.5 |
| | 6H | 19.2 | 19.5 | 19.7 | 19.9 | 20.4 | 18.6 | 18.8 | 19.1 | 19.3 | 19.8 |
| | 8H | 19.4 | 19.6 | 19.9 | 20.1 | 20.6 | 18.7 | 19.0 | 19.2 | 19.4 | 19.9 |
| | 12H | 19.6 | 19.8 | 20.1 | 20.2 | 20.8 | 19.0 | 19.1 | 19.5 | 19.6 | 20.2 |
| 12H | 4H | 18.9 | 19.2 | 19.4 | 19.7 | 20.1 | 18.3 | 18.6 | 18.7 | 19.0 | 19.5 |
| | 6H | 19.2 | 19.5 | 19.7 | 19.9 | 20.4 | 18.6 | 18.8 | 19.1 | 19.3 | 19.8 |
| | 8H | 19.4 | 19.6 | 19.9 | 20.1 | 20.6 | 18.8 | 19.0 | 19.3 | 19.5 | 20.0 |
| Variation of the observer position for the luminaire distance S | | | | | | | | | | | |
| S = 1.0H | | +2.7 / -2.1 | | | | | +2.3 / -1.8 | | | | |
| S = 1.5H | | +4.9 / -2.6 | | | | | +4.4 / -2.4 | | | | |
| S = 2.0H | | +6.8 / -3.2 | | | | | +6.2 / -3.1 | | | | |
| Standard table | | BK02 | | | | | BK02 | | | | |
| Correction summand | | 1.5 | | | | | 0.8 | | | | |
| Corrected glare indices referring to 1364 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.