

# PHOTOMETRIC TEST REPORT

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LINEAR 275 ADJUSTABLE 48V  
TRACK DALI - MATT WHITE

astro

# LINEAR 275 ADJUSTABLE 48V TRACK DALI -

astro

## LIGHT EFFICIENCY:



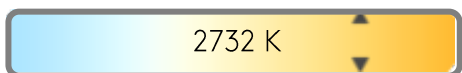
OUTPUT: 356 lm

## LIGHT QUALITY:



PEAK: 129 cd

## COLOR TEMPERATURE:



POWER: 11.7 W

PF: 0.72



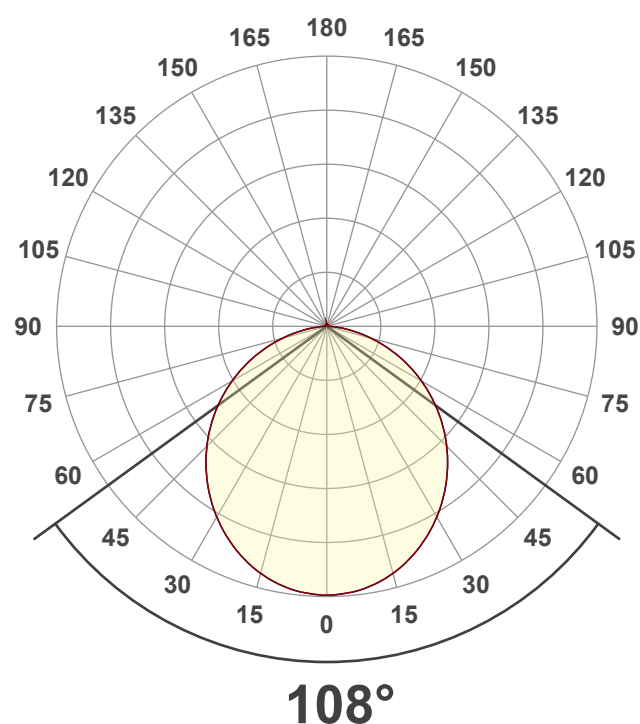
Tracking number: [n/a](#)

Product name:  
Linear 275 Adjustable 48V Track DALI -  
Matt White

Item number:  
1521002

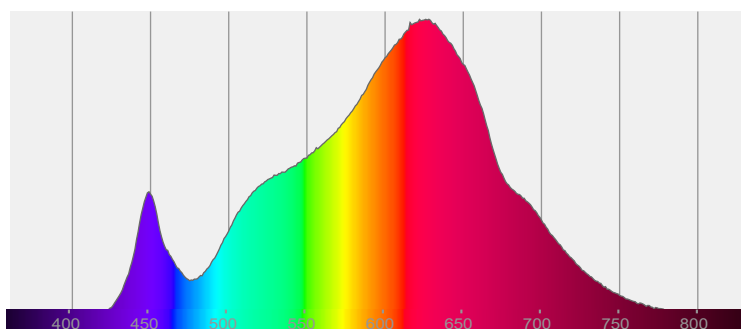
Date and time:  
18/12/2025 10:34:53

Description:  
IP20 48V Track Light  
Tested with Stucchi 9500/P-100E-B-SP-N  
Driver Box

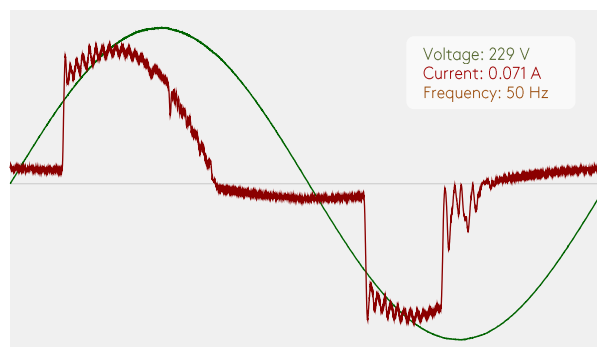


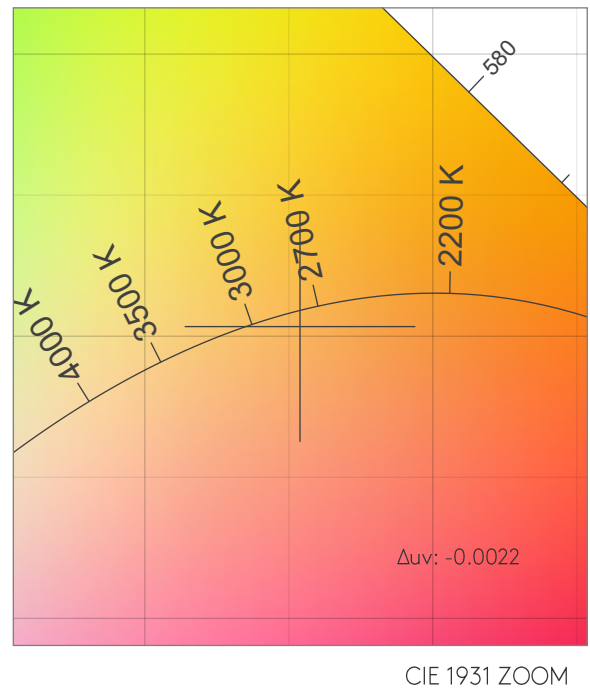
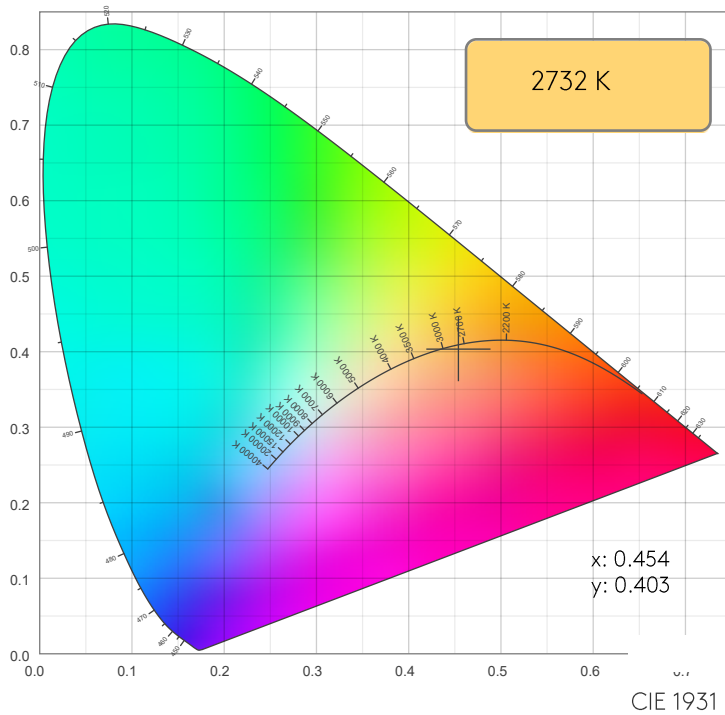
CIE 1931  
x: 0.454  
y: 0.403

## SPECTRA



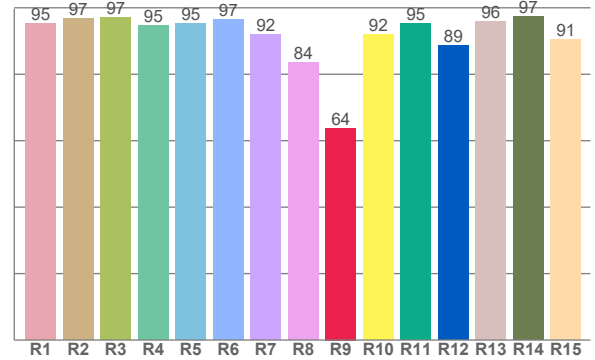
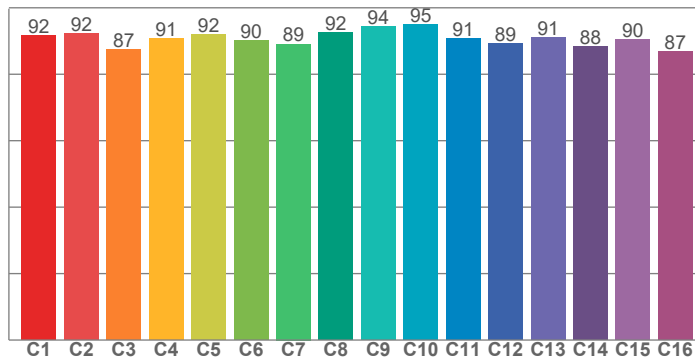
## POWER





TM30: 91.0

CRI: 93.9 (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  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 95.2 | 96.7 | 97.0 | 94.8 | 95.2 | 96.6 | 92.0 | 83.6 | 63.8 | 91.9 | 95.4 | 88.6 | 95.8 | 97.5 | 90.6 |

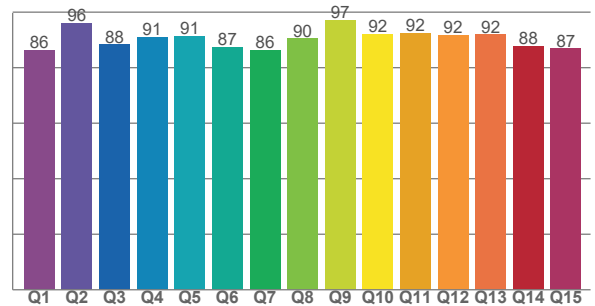
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 91.7 | 92.3 | 87.4 | 90.8 | 92.0 | 90.0 | 89.1 | 92.5 | 94.4 | 94.9 | 90.7 | 89.3 | 91.1 | 88.4 | 90.4 | 86.9 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 86.4 | 96.1 | 88.3 | 91.1 | 91.5 | 87.4 | 86.4 | 90.5 | 97.1 | 92.2 | 92.4 | 91.7 | 91.9 | 87.7 | 86.9 |

CQS: 89.8



## 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                | $\Delta uv$                     |
| 2732 K            | 93.9                  | 63.8          | 91.0           | 103.0       | 89.8                | 0.454                     | 0.403                     | 0.262            | 0.349            | -0.0022                         |

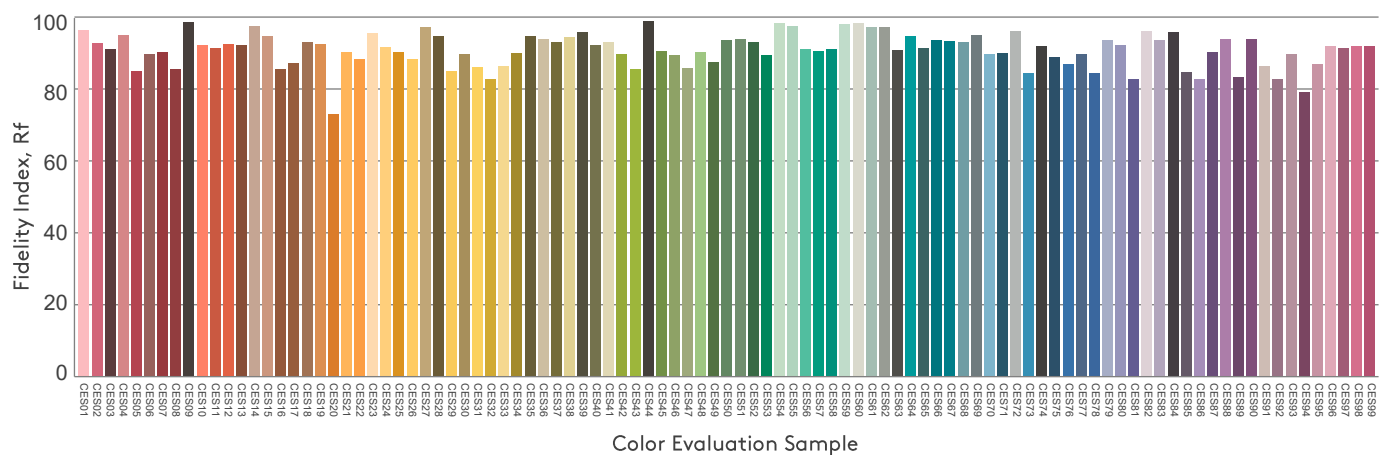
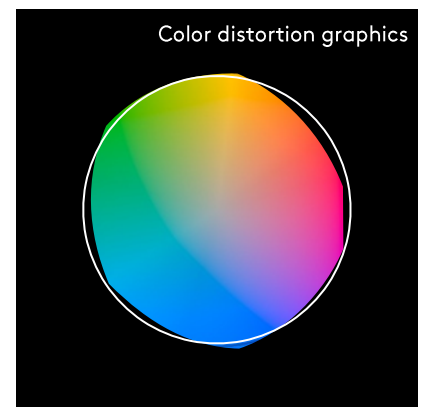
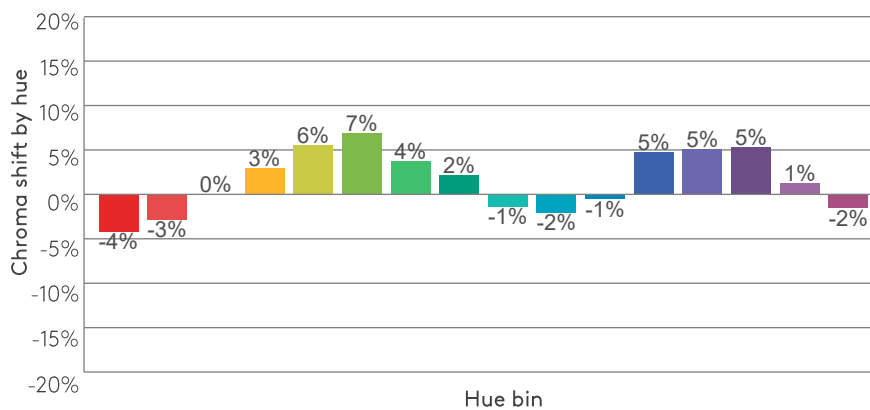
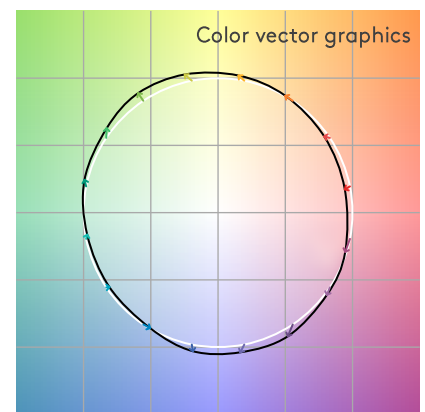
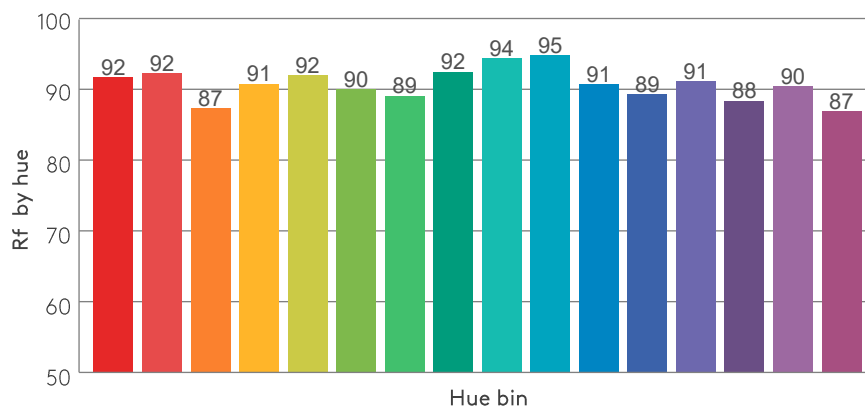
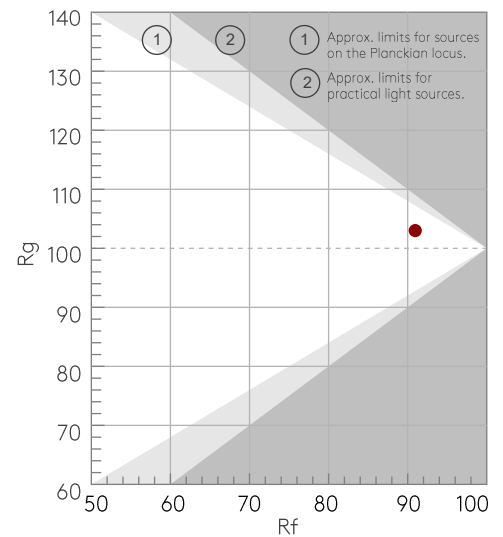
# LINEAR 275 ADJUSTABLE 48V TRACK DALI - TM30 DETAILS

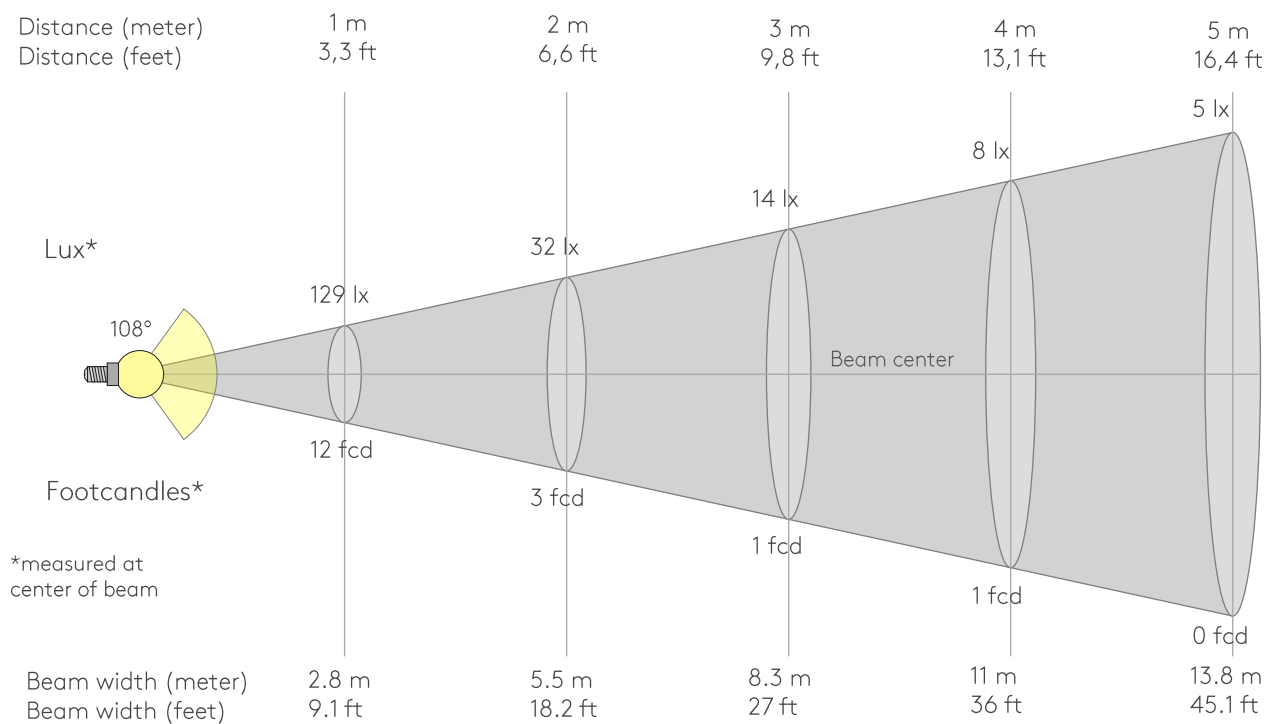
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Rf 91.0  
Fidelity index Rf

Rg 103.0  
Gammut index Rg

| Hue Bin | Rf | Graphic shifts (%) |      |
|---------|----|--------------------|------|
|         |    | Chroma             | Hue  |
| 1       | 92 | -4%                | -1%  |
| 2       | 92 | -3%                | 3%   |
| 3       | 87 | 0%                 | 7%   |
| 4       | 91 | 3%                 | 5%   |
| 5       | 92 | 6%                 | 4%   |
| 6       | 90 | 7%                 | 0%   |
| 7       | 89 | 4%                 | -6%  |
| 8       | 92 | 2%                 | -5%  |
| 9       | 94 | -1%                | -3%  |
| 10      | 95 | -2%                | 1%   |
| 11      | 91 | -1%                | 6%   |
| 12      | 89 | 5%                 | 2%   |
| 13      | 91 | 5%                 | -4%  |
| 14      | 88 | 5%                 | -8%  |
| 15      | 90 | 1%                 | -6%  |
| 16      | 87 | -2%                | -10% |





Beam intensities from 1-20m

| 1m    | 2m    | 3m     | 4m     | 5m     | 6m     | 7m     | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft | 6.6ft | 9.8ft  | 13.1ft | 16.4ft | 19.7ft | 23ft   | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 129lx | 32lx  | 14lx   | 8lx    | 5lx    | 4lx    | 3lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    | 0lx    |
| 12fcd | 3fcd  | 1.3fcd | 0.8fcd | 0.5fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0fcd   | 0fcd   | 0fcd   | 0fcd   | 0fcd   |

Intensities in 0° c-plane

| 0°   | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 129  | 129 | 126 | 123 | 118 | 113 | 106 | 98  | 90  | 82  | 72  | 63  | 53  | 42  | 32  | 22  | 13  | 5   | 2   | 1   |
| 100% | 99% | 98% | 95% | 91% | 87% | 82% | 76% | 70% | 63% | 56% | 48% | 41% | 33% | 25% | 17% | 10% | 4%  | 1%  | 0%  |

Intensities in 90° c-plane

| 0°   | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 129  | 129 | 126 | 123 | 118 | 113 | 106 | 98  | 90  | 82  | 72  | 63  | 53  | 42  | 32  | 22  | 13  | 5   | 2   | 1   |
| 100% | 99% | 98% | 95% | 91% | 87% | 82% | 76% | 70% | 63% | 56% | 48% | 41% | 33% | 25% | 17% | 10% | 4%  | 1%  | 0%  |

Intensities in 180° c-plane

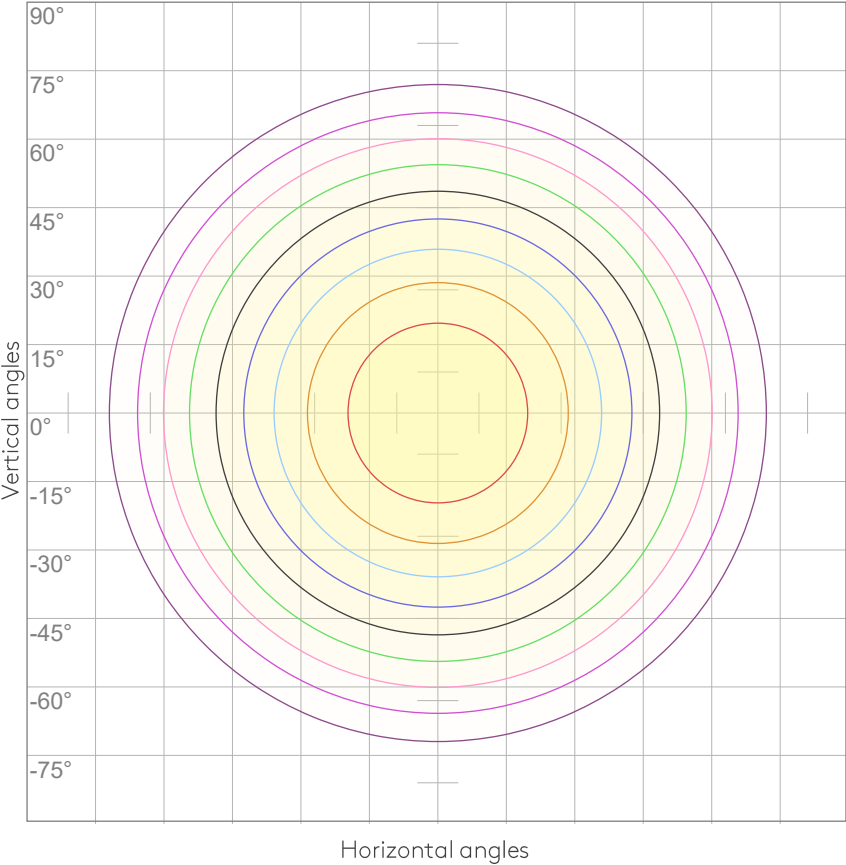
| 0°   | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 129  | 129 | 126 | 123 | 118 | 113 | 106 | 98  | 90  | 82  | 72  | 63  | 53  | 42  | 32  | 22  | 13  | 5   | 2   | 1   |
| 100% | 99% | 98% | 95% | 91% | 87% | 82% | 76% | 70% | 63% | 56% | 48% | 41% | 33% | 25% | 17% | 10% | 4%  | 1%  | 0%  |

Intensities in 270° c-plane

| 0°   | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 129  | 129 | 126 | 123 | 118 | 113 | 106 | 98  | 90  | 82  | 72  | 63  | 53  | 42  | 32  | 22  | 13  | 5   | 2   | 1   |
| 100% | 99% | 98% | 95% | 91% | 87% | 82% | 76% | 70% | 63% | 56% | 48% | 41% | 33% | 25% | 17% | 10% | 4%  | 1%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 108°           | 159.9°          | 173.4°            | 78.6%                        | 54.1%                       |

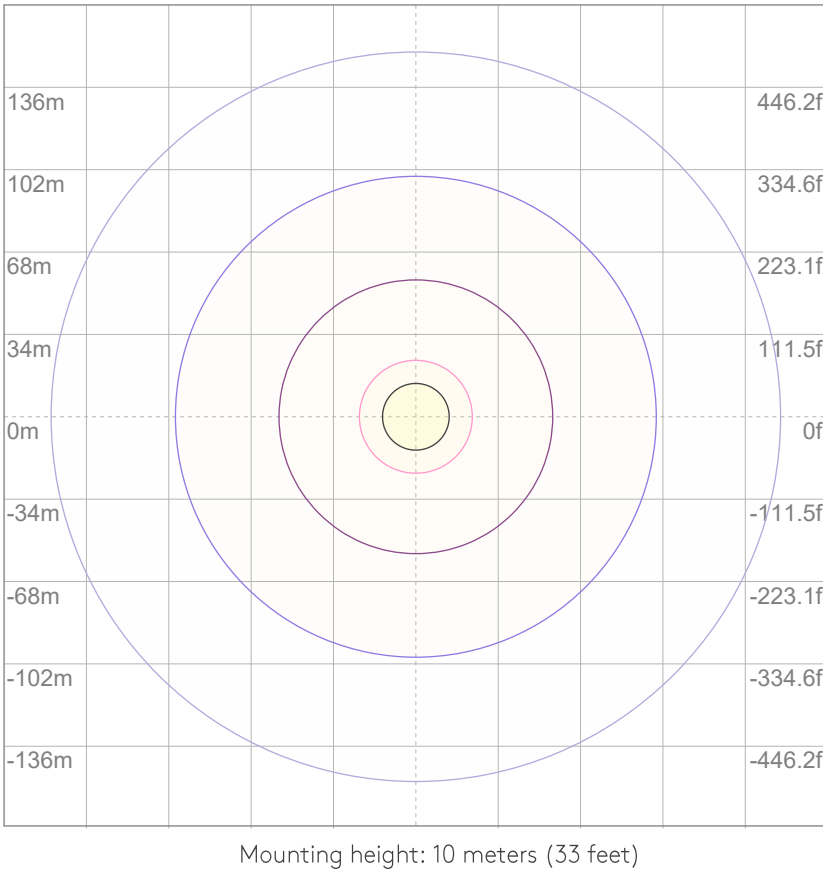
ISO CANDELA DIAGRAM



|     |        |
|-----|--------|
| 10% | 13 cd  |
| 20% | 26 cd  |
| 30% | 39 cd  |
| 40% | 52 cd  |
| 50% | 65 cd  |
| 60% | 78 cd  |
| 70% | 91 cd  |
| 80% | 103 cd |
| 90% | 116 cd |

Conditions:  
Number of c-planes: 8  
Candela at center: 129 cd

ISO LUX DIAGRAM



|     |          |
|-----|----------|
| 3%  | 38.8m lx |
| 5%  | 64.7m lx |
| 10% | 0.129 lx |
| 30% | 0.388 lx |
| 50% | 0.647 lx |

Conditions:  
Number of c-planes: 8  
Lux at center: 1.29 lx

Lux distribution on a surface  
when lamp is mounted at 10  
meters from the surface.

UGR

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<br>X      Y                                           |     | Viewing direction at right angles to lamp axis |      |      |      |      | Viewing direction parallel to lamp axis |      |      |      |      |
| 2H                                                              | 2H  | 22.6                                           | 23.8 | 22.9 | 24.1 | 24.4 | 22.6                                    | 23.8 | 22.9 | 24.1 | 24.4 |
|                                                                 | 3H  | 24.0                                           | 25.3 | 24.5 | 25.6 | 25.8 | 24.0                                    | 25.3 | 24.5 | 25.6 | 25.8 |
|                                                                 | 4H  | 24.6                                           | 25.8 | 25.0 | 26.1 | 26.4 | 24.6                                    | 25.8 | 25.0 | 26.1 | 26.4 |
|                                                                 | 6H  | 25.1                                           | 26.1 | 25.4 | 26.4 | 26.8 | 25.1                                    | 26.1 | 25.4 | 26.4 | 26.8 |
|                                                                 | 8H  | 25.2                                           | 26.2 | 25.6 | 26.6 | 27.0 | 25.2                                    | 26.2 | 25.6 | 26.6 | 27.0 |
|                                                                 | 12H | 25.3                                           | 26.3 | 25.7 | 26.6 | 27.1 | 25.3                                    | 26.3 | 25.7 | 26.6 | 27.1 |
| 4H                                                              | 2H  | 23.2                                           | 24.4 | 23.6 | 24.7 | 25.0 | 23.2                                    | 24.4 | 23.6 | 24.7 | 25.0 |
|                                                                 | 3H  | 24.9                                           | 25.9 | 25.3 | 26.3 | 26.7 | 24.9                                    | 25.9 | 25.3 | 26.3 | 26.7 |
|                                                                 | 4H  | 25.6                                           | 26.5 | 26.0 | 26.9 | 27.5 | 25.6                                    | 26.5 | 26.0 | 26.9 | 27.5 |
|                                                                 | 6H  | 26.1                                           | 27.0 | 26.6 | 27.3 | 27.7 | 26.1                                    | 27.0 | 26.6 | 27.3 | 27.7 |
|                                                                 | 8H  | 26.3                                           | 27.0 | 26.8 | 27.4 | 27.8 | 26.3                                    | 27.0 | 26.8 | 27.4 | 27.8 |
|                                                                 | 12H | 26.4                                           | 27.0 | 26.9 | 27.5 | 28.0 | 26.4                                    | 27.0 | 26.9 | 27.5 | 28.0 |
| 8H                                                              | 4H  | 25.8                                           | 26.6 | 26.4 | 27.0 | 27.4 | 25.8                                    | 26.6 | 26.4 | 27.0 | 27.4 |
|                                                                 | 6H  | 26.5                                           | 27.1 | 27.0 | 27.6 | 28.2 | 26.5                                    | 27.1 | 27.0 | 27.6 | 28.2 |
|                                                                 | 8H  | 26.8                                           | 27.3 | 27.3 | 27.8 | 28.5 | 26.8                                    | 27.3 | 27.3 | 27.8 | 28.5 |
|                                                                 | 12H | 27.0                                           | 27.4 | 27.6 | 27.9 | 28.6 | 27.0                                    | 27.4 | 27.6 | 27.9 | 28.6 |
| 12H                                                             | 4H  | 25.8                                           | 26.5 | 26.4 | 26.9 | 27.4 | 25.8                                    | 26.5 | 26.4 | 26.9 | 27.4 |
|                                                                 | 6H  | 26.6                                           | 27.1 | 27.1 | 27.6 | 28.3 | 26.6                                    | 27.1 | 27.1 | 27.6 | 28.3 |
|                                                                 | 8H  | 26.9                                           | 27.3 | 27.5 | 27.8 | 28.5 | 26.9                                    | 27.3 | 27.5 | 27.8 | 28.5 |
| Variation of the observer position for the luminaire distance S |     |                                                |      |      |      |      |                                         |      |      |      |      |
| S = 1.0H                                                        |     | 0.1 / -0.1                                     |      |      |      |      | 0.1 / -0.1                              |      |      |      |      |
| S = 1.5H                                                        |     | 0.1 / -0.3                                     |      |      |      |      | 0.1 / -0.3                              |      |      |      |      |
| S = 2.0H                                                        |     | 0.4 / -0.5                                     |      |      |      |      | 0.4 / -0.5                              |      |      |      |      |
| Standard table                                                  |     | n/a                                            |      |      |      |      | n/a                                     |      |      |      |      |
| Correction<br>summand                                           |     | n/a                                            |      |      |      |      | n/a                                     |      |      |      |      |
| Corrected glare indices referring to 356 lm total luminous flux |     |                                                |      |      |      |      |                                         |      |      |      |      |

# LINEAR 275 ADJUSTABLE 48V TRACK DALI - LIGHT PLANNING

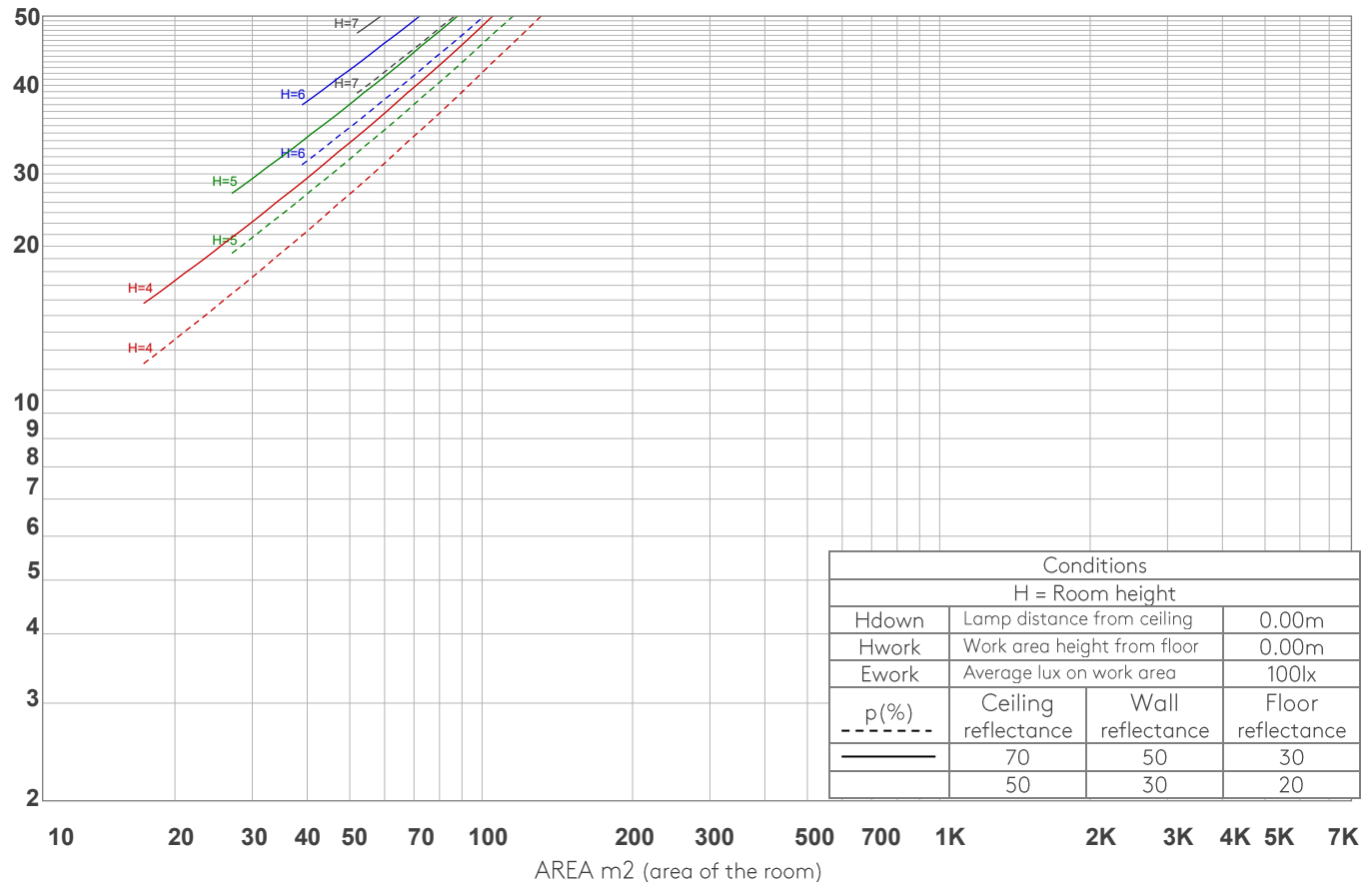
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## COEFFICIENTS OF UTILIZATION

| 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 | 99 |
| 1                   | 109                                                                                                      | 104 | 100 | 96  | 106 | 101 | 98  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83 |
| 2                   | 99                                                                                                       | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69 |
| 3                   | 90                                                                                                       | 80  | 72  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 58 |
| 4                   | 83                                                                                                       | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 66  | 59  | 54  | 64  | 58  | 53  | 62  | 56  | 52  | 50 |
| 5                   | 76                                                                                                       | 63  | 54  | 48  | 74  | 62  | 54  | 47  | 60  | 52  | 47  | 58  | 51  | 46  | 56  | 50  | 45  | 43 |
| 6                   | 70                                                                                                       | 57  | 48  | 42  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 50  | 45  | 40  | 38 |
| 7                   | 65                                                                                                       | 52  | 43  | 37  | 63  | 51  | 42  | 37  | 49  | 42  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33 |
| 8                   | 61                                                                                                       | 47  | 39  | 33  | 59  | 46  | 38  | 33  | 45  | 38  | 32  | 44  | 37  | 32  | 42  | 36  | 32  | 30 |
| 9                   | 57                                                                                                       | 43  | 35  | 30  | 55  | 43  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27 |
| 10                  | 53                                                                                                       | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24 |

LAMPS (number of lamps)

## LUMINAIRE BUDGETARY DIAGRAM



## ZONAL LUMEN SUMMARY

| 0°-10°   | 10°-20°   | 20°-30°   | 30°-40°   | 40°-50°   | 50°-60°   | 60°-70°   | 70°-80°   | 80°-90°   |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 12.2 lm  | 34.7 lm   | 51.9 lm   | 61.6 lm   | 63.0 lm   | 56.0 lm   | 42.0 lm   | 23.4 lm   | 6.29 lm   |
| 90°-100° | 100°-110° | 110°-120° | 120°-130° | 130°-140° | 140°-150° | 150°-160° | 160°-170° | 170°-180° |
| 0.603 lm | 0.569 lm  | 0.619 lm  | 0.666 lm  | 0.664 lm  | 0.596 lm  | 0.500 lm  | 0.307 lm  | 0.108 lm  |

## Flicker /TLA details

## FLICKER

Flicker Meter Type Viso Systems LabFlicker  
Frequency of input power 50 Hz  
Flicker/TLA sample rate 20000 samples/s

Measurement time  
PstLM 180 sec  
All other indices 1,2 sec

### Flicker indices according to Illuminating Engineering Society (IES)

Flicker frequency 1000 Hz  
Percent Flicker 0.67 %  
Flicker index 0

### Flicker indices according to California Energy Commission (CEC) 2016b

JA8/10 40 Hz 0.05 %  
JA8/10 90 Hz 0.05 %  
JA8/10 200 Hz 0.06 %  
JA8/10 400 Hz 0.09 %  
JA8/10 1000 Hz 1.18 %

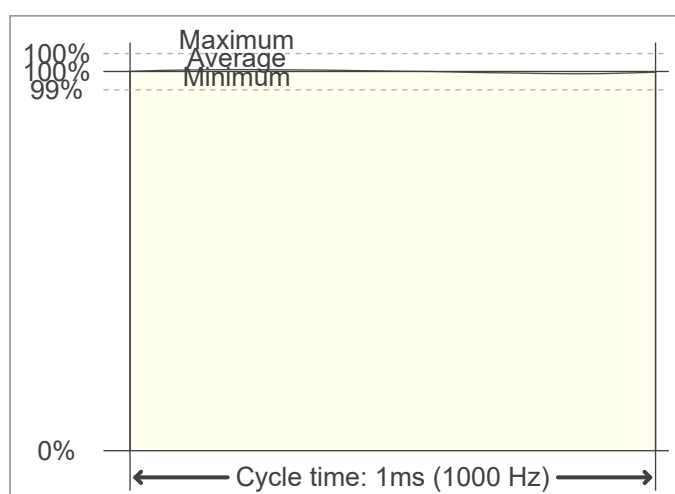
### TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)

PstLM value ( $F < 80$  Hz) 0.03  
SVM value ( $80 < F < 2000$  Hz) 0.01

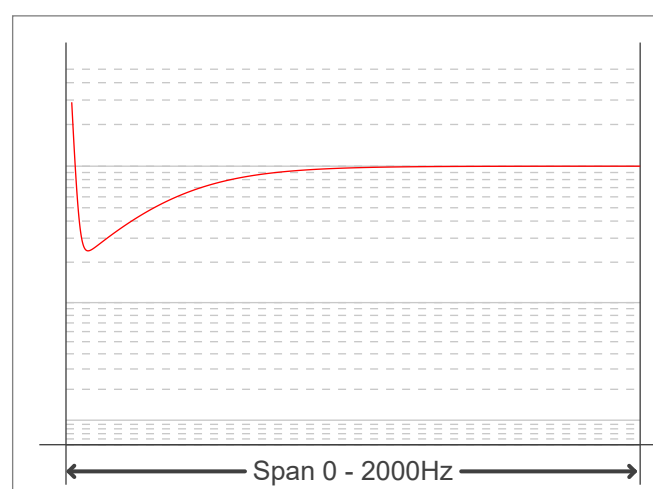
### Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp 0.01

### Flicker frame (frame of one flicker period in time domain)



### Flicker FFT (flicker curve in frequency domain)



### IEEE 1789 Frequency/modulation plot

