

Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

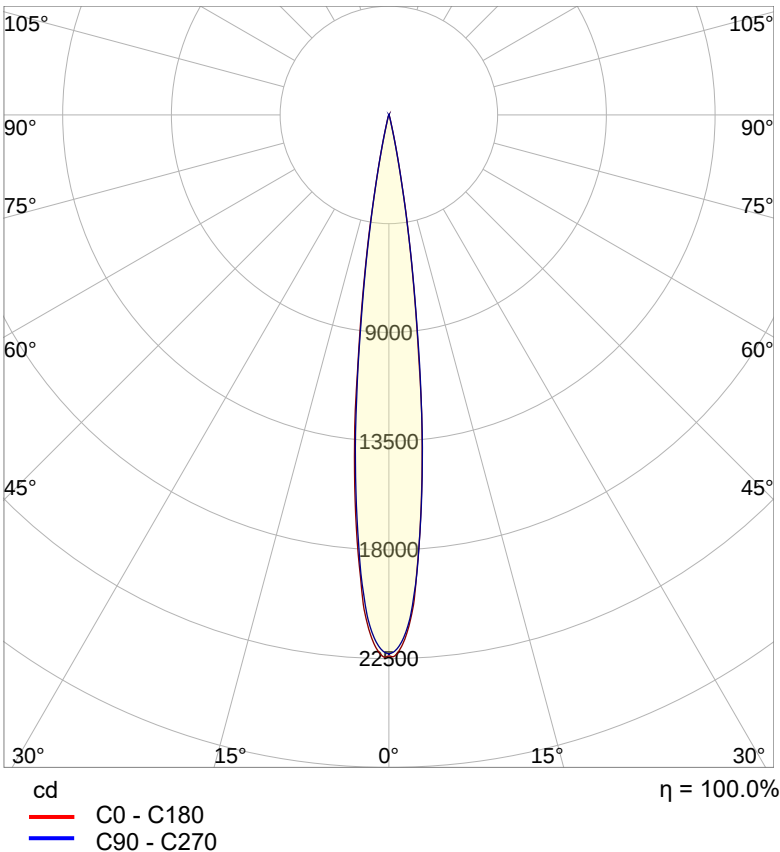
QuikSpot_OutputGain_Enabled_13D_2700K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1277 lm – 0% / 100%
n/a lm/W
22437 cd
2700 K
CRI 0.0

Polar light distribution diagram

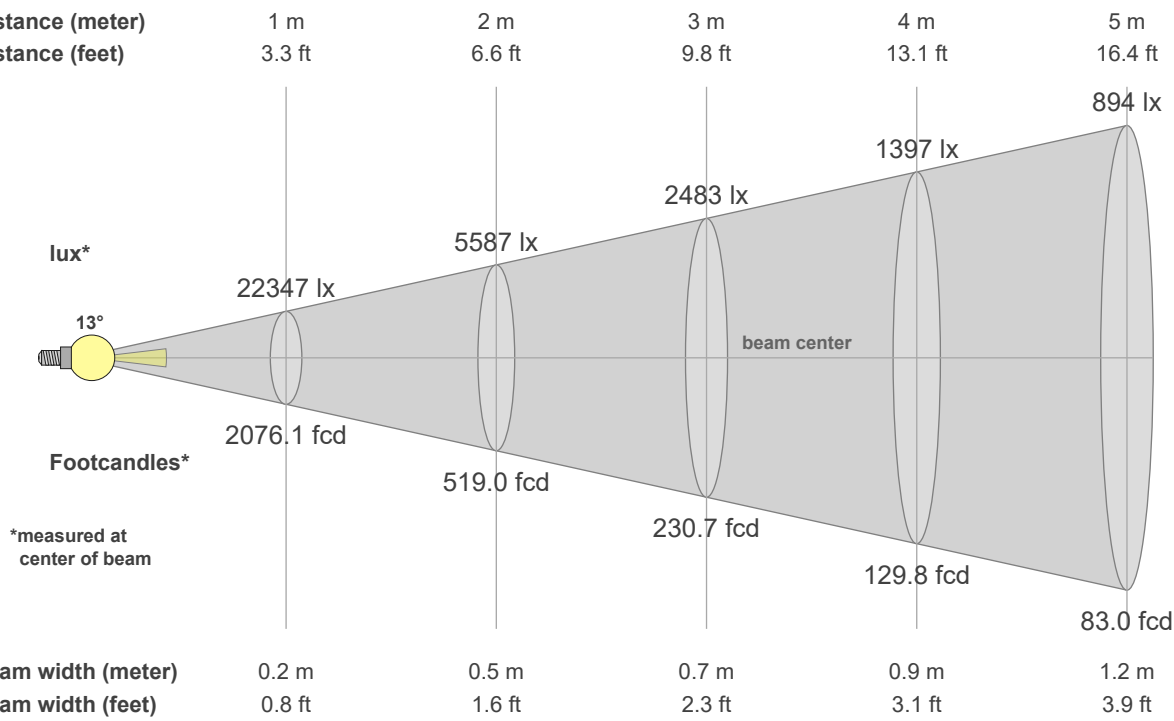


Test report

Light measurement results

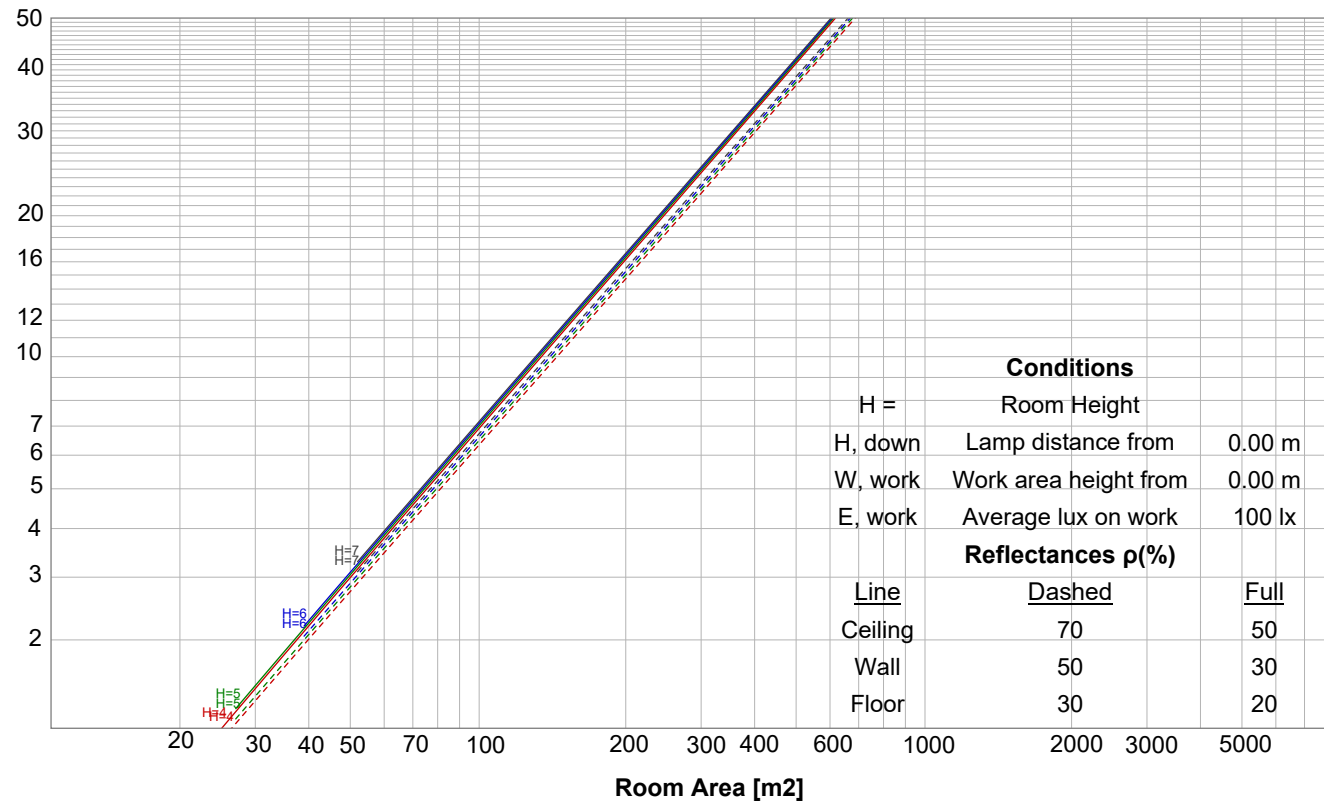
Print date 9/26/2025

Beam details

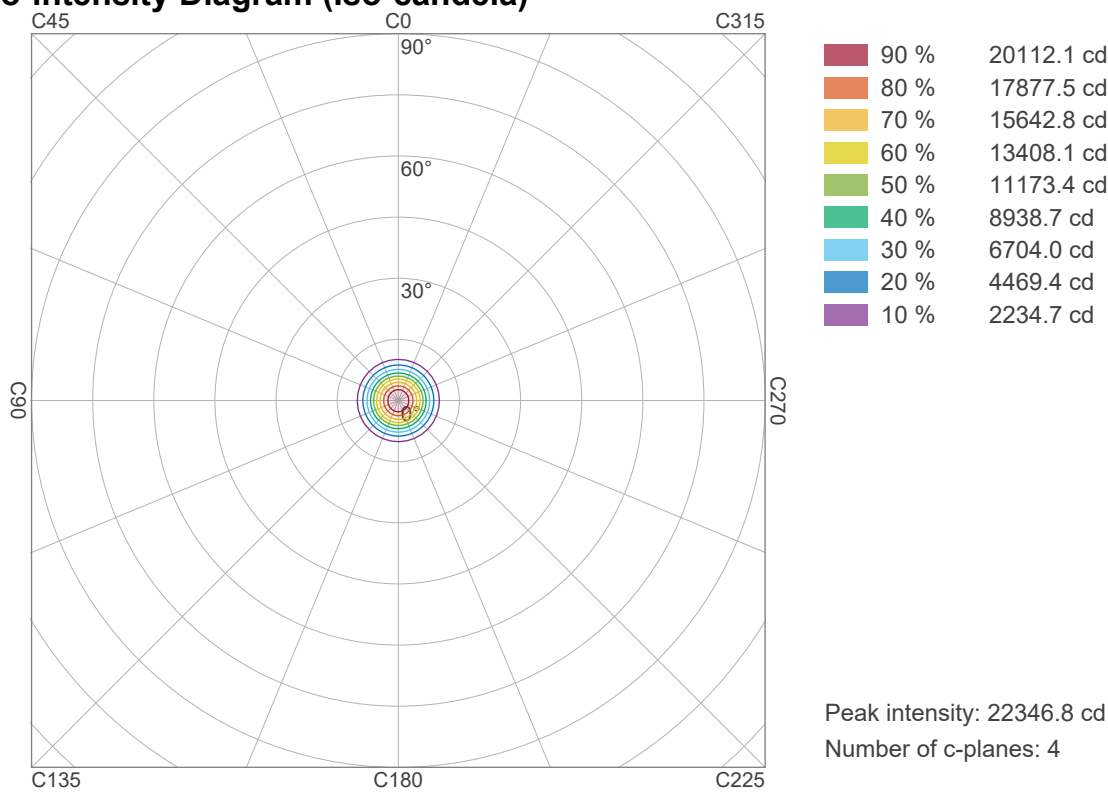


Luminaire budgetary diagram

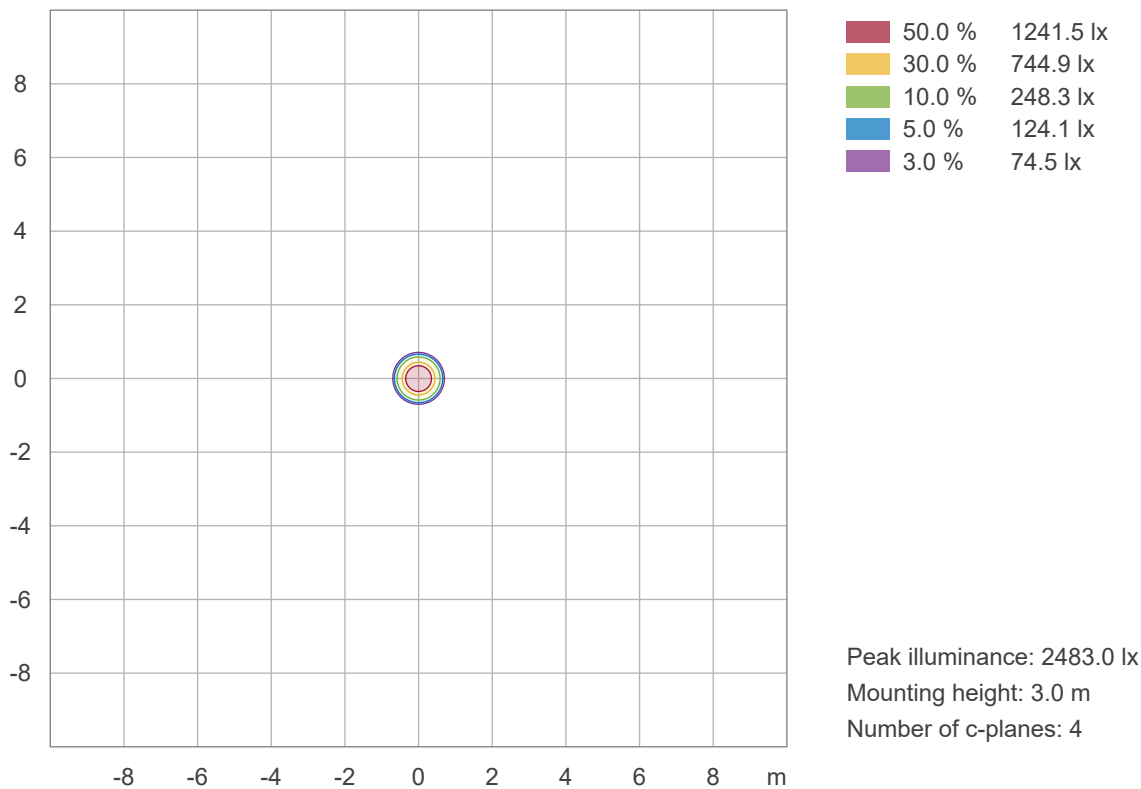
LAMPS (number of lamps)



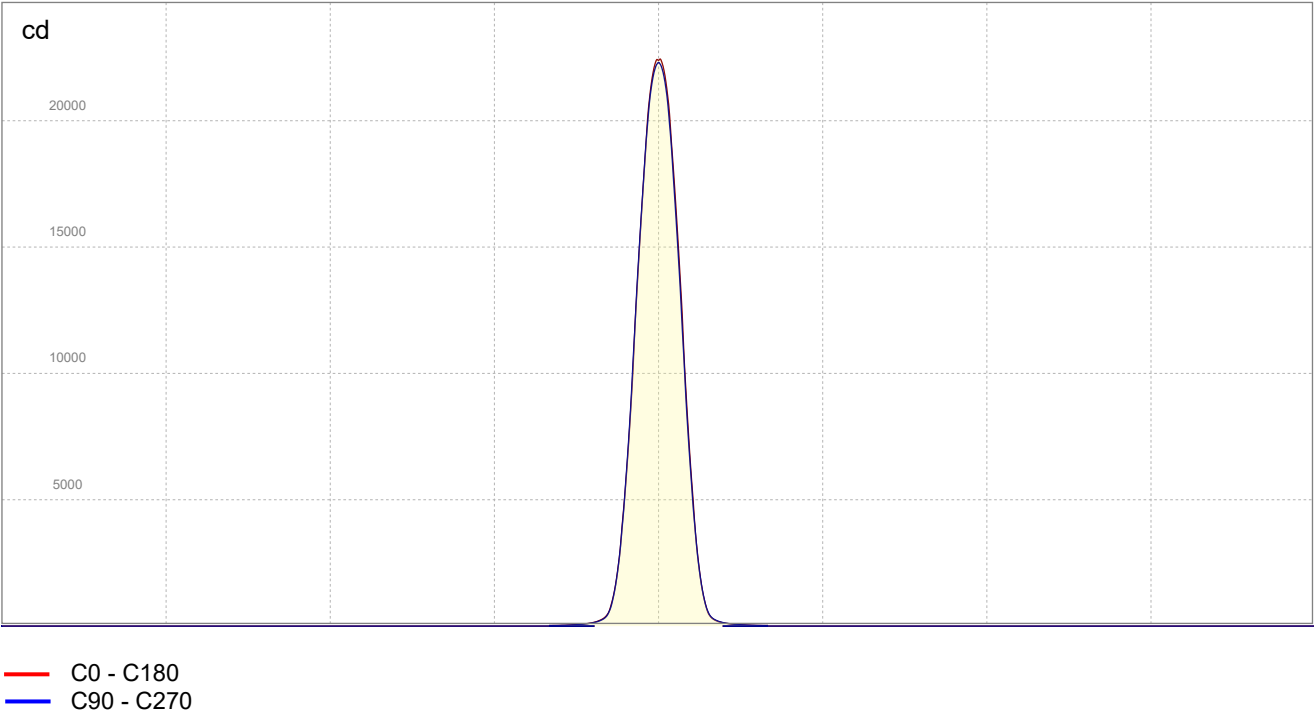
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

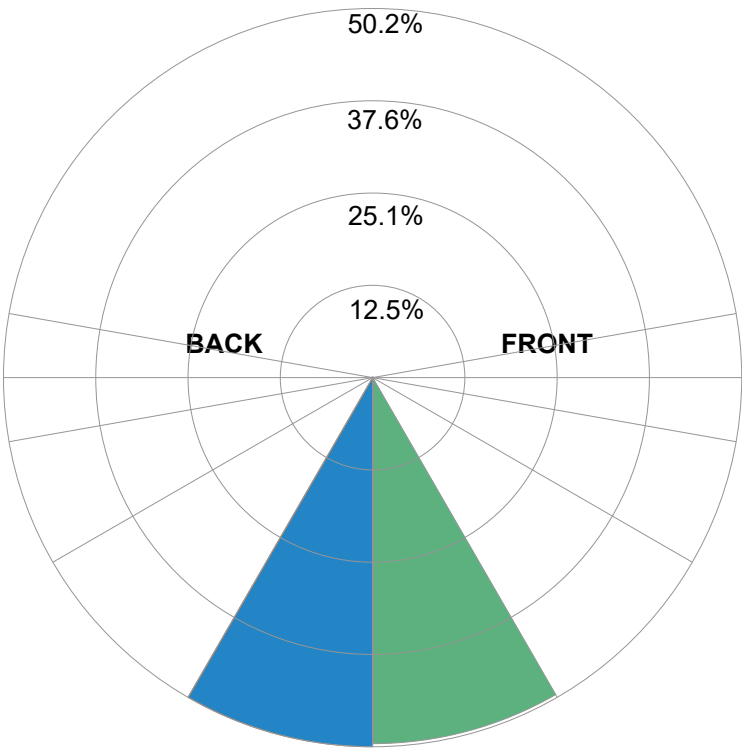


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	635.4	lm	49.8%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	640.7	lm	50.2%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1277	lm	100%
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n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

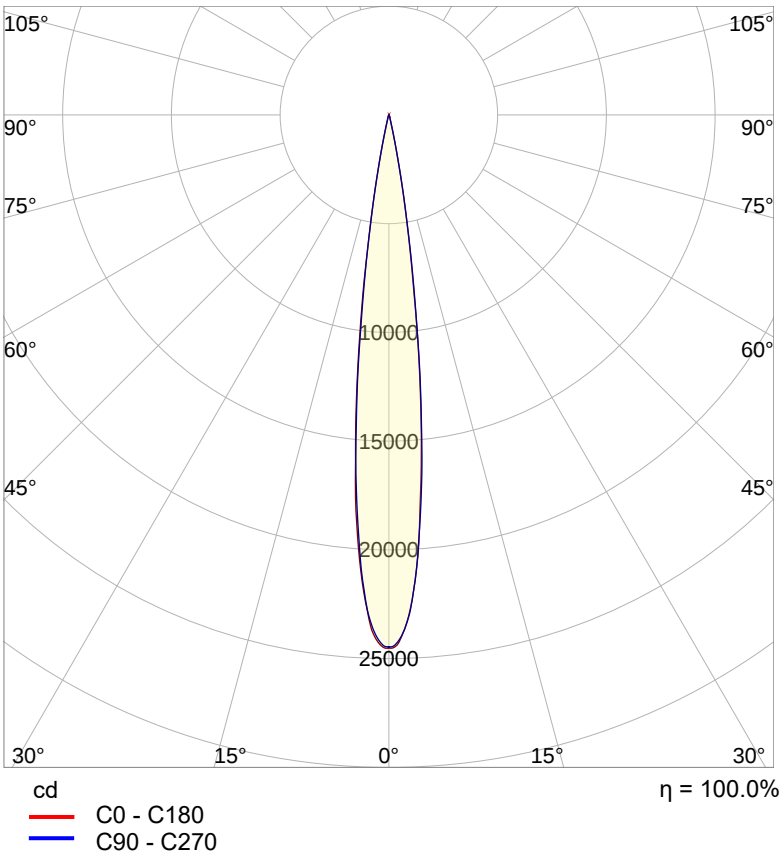
QuikSpot_OutputGain_Enabled_13D_3200K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1400 lm – 0% / 100%
n/a lm/W
24521 cd
3200 K
CRI 0.0

Polar light distribution diagram

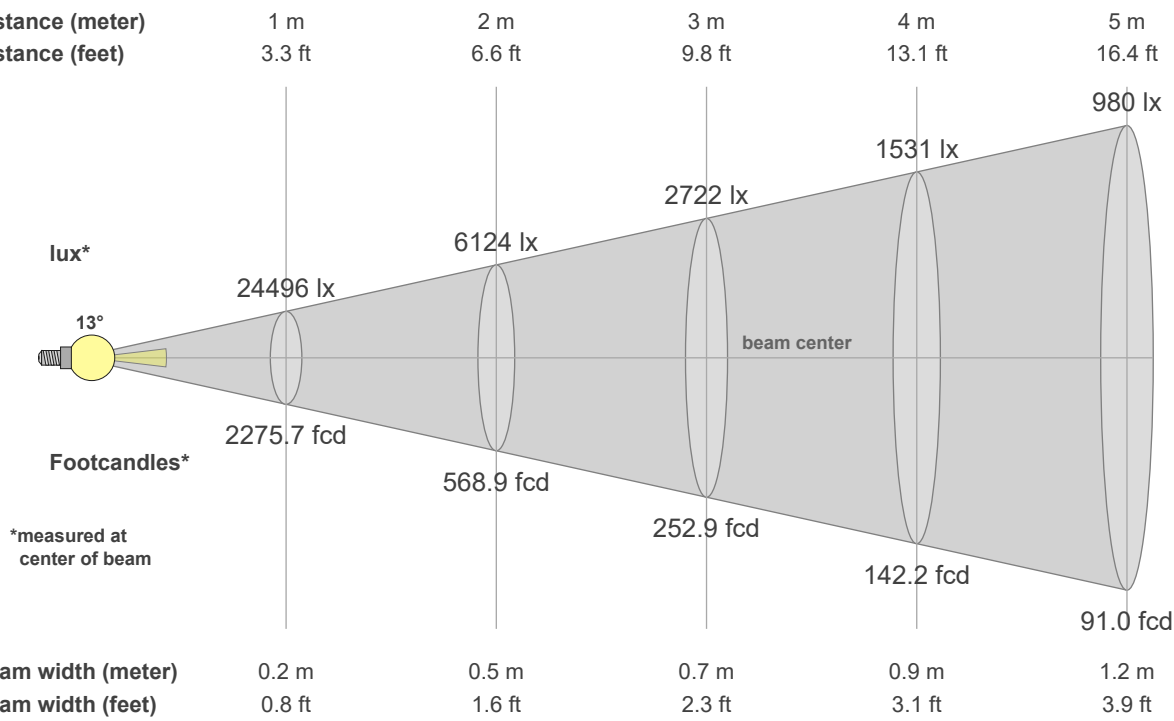


Test report

Light measurement results

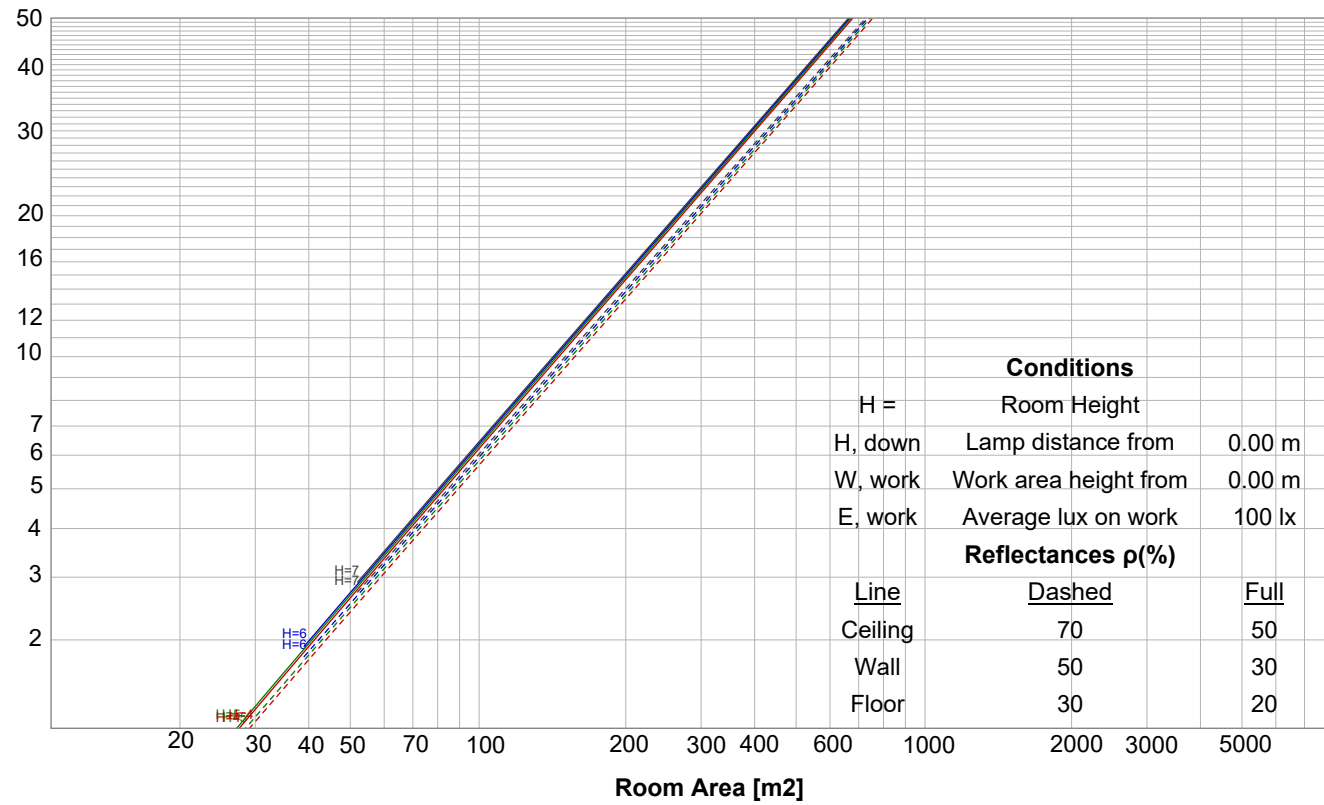
Print date 9/26/2025

Beam details

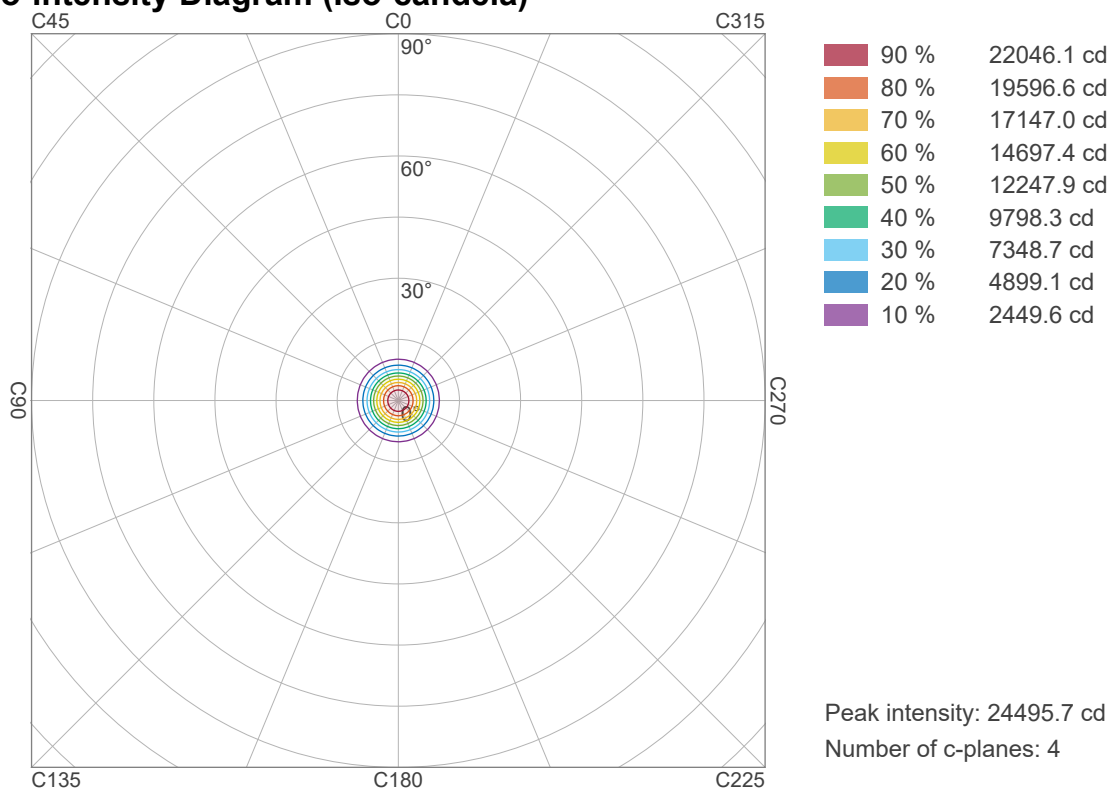


Luminaire budgetary diagram

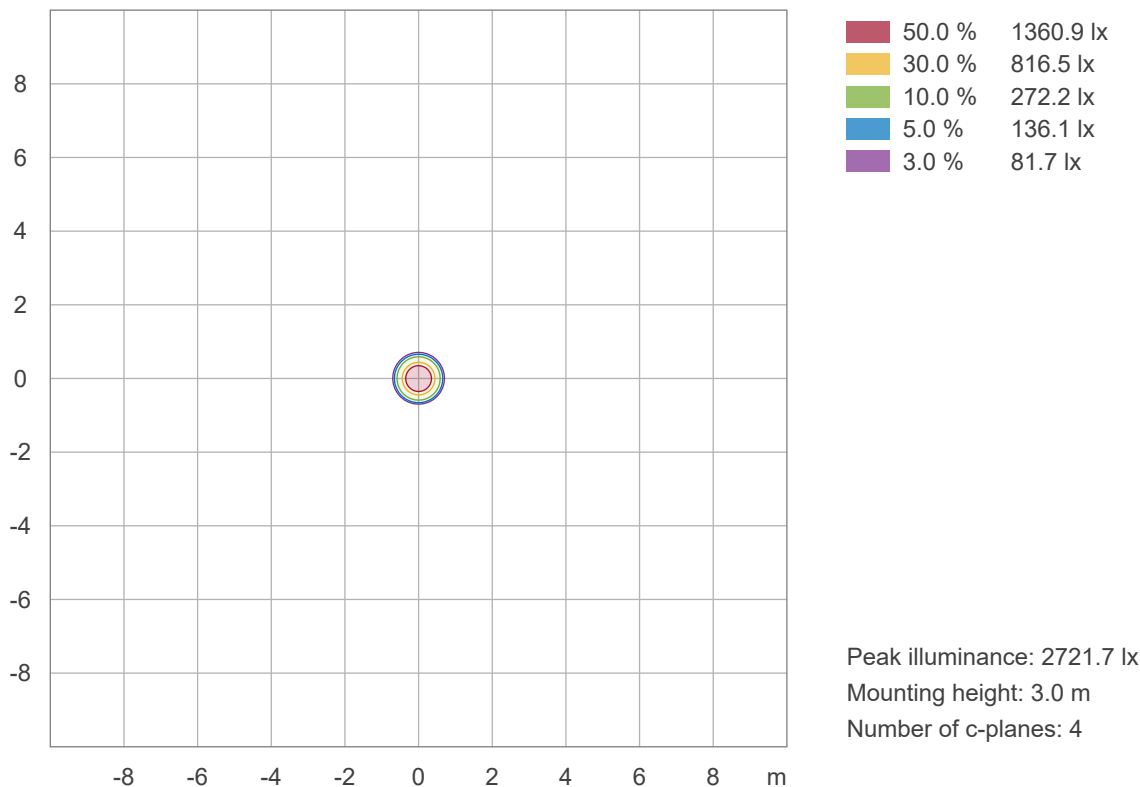
LAMPS (number of lamps)



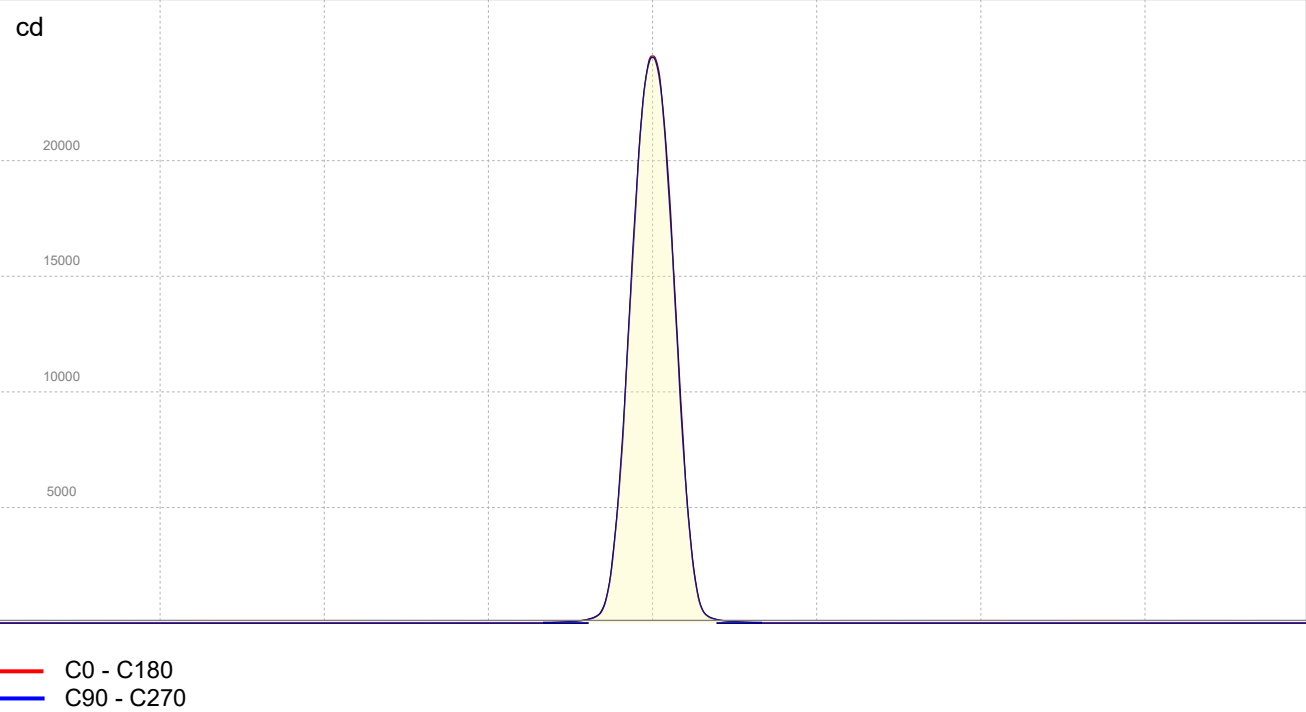
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

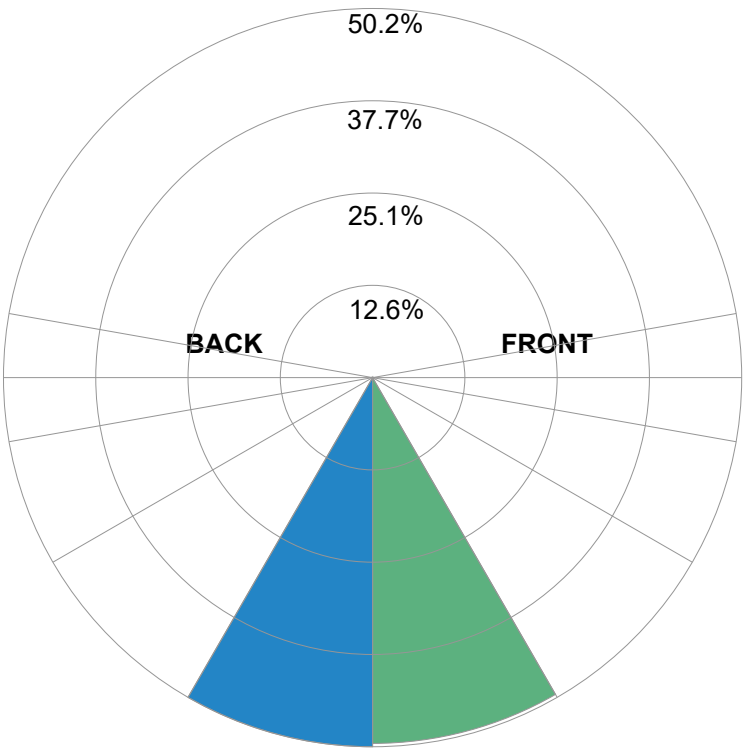


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	696.4	lm	49.8%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	702.7	lm	50.2%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1400	lm	100%
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Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

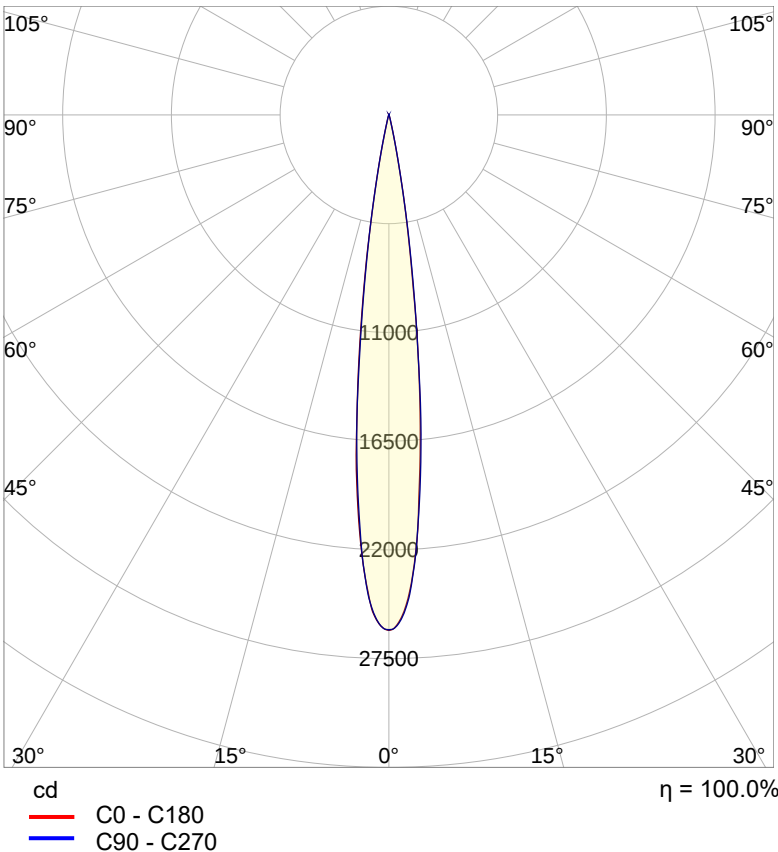
QuikSpot_OutputGain_Enabled_13D_4000K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1490 lm – 0% / 100%
n/a lm/W
26065 cd
4000 K
CRI 0.0

Polar light distribution diagram

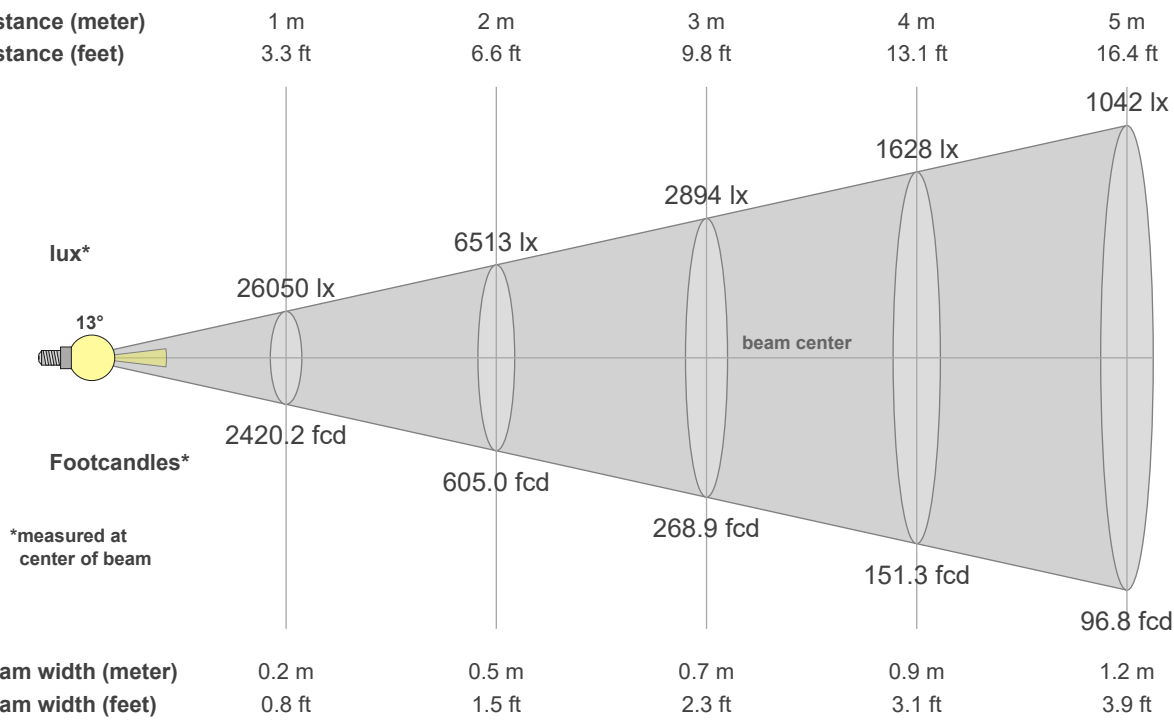


Test report

Light measurement results

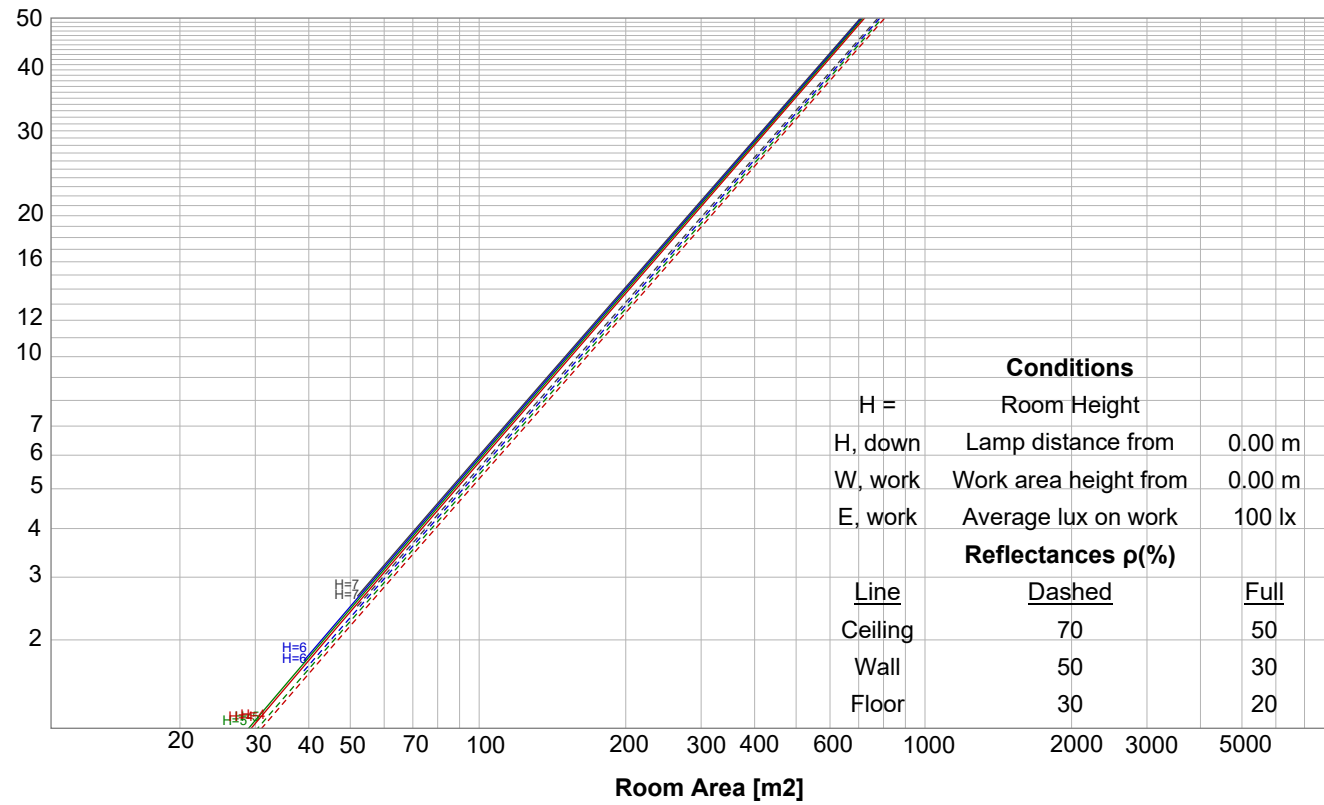
Print date 9/26/2025

Beam details

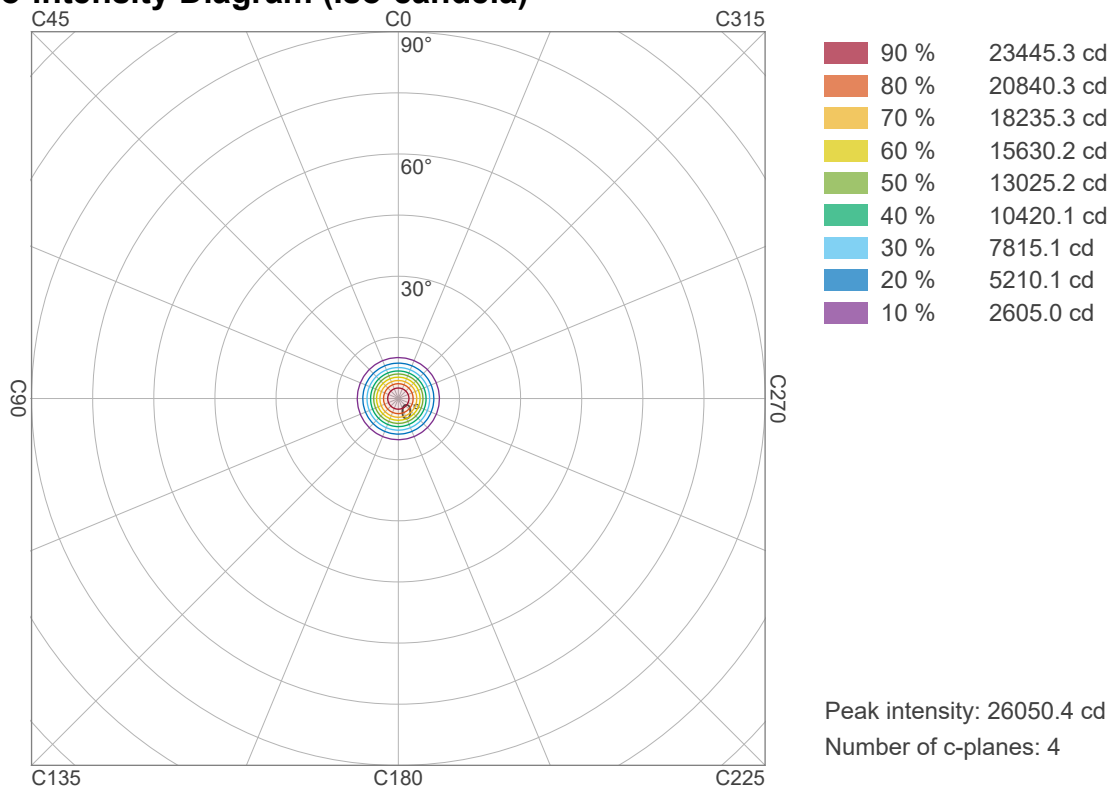


Luminaire budgetary diagram

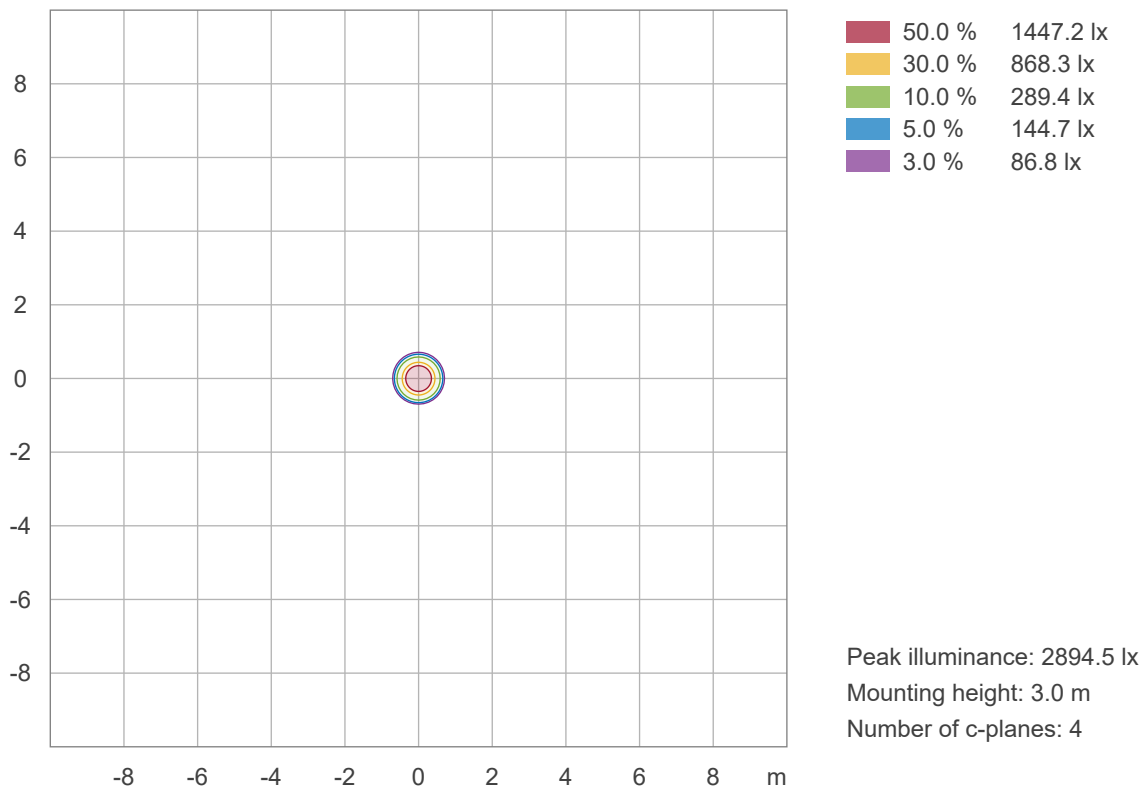
LAMPS (number of lamps)



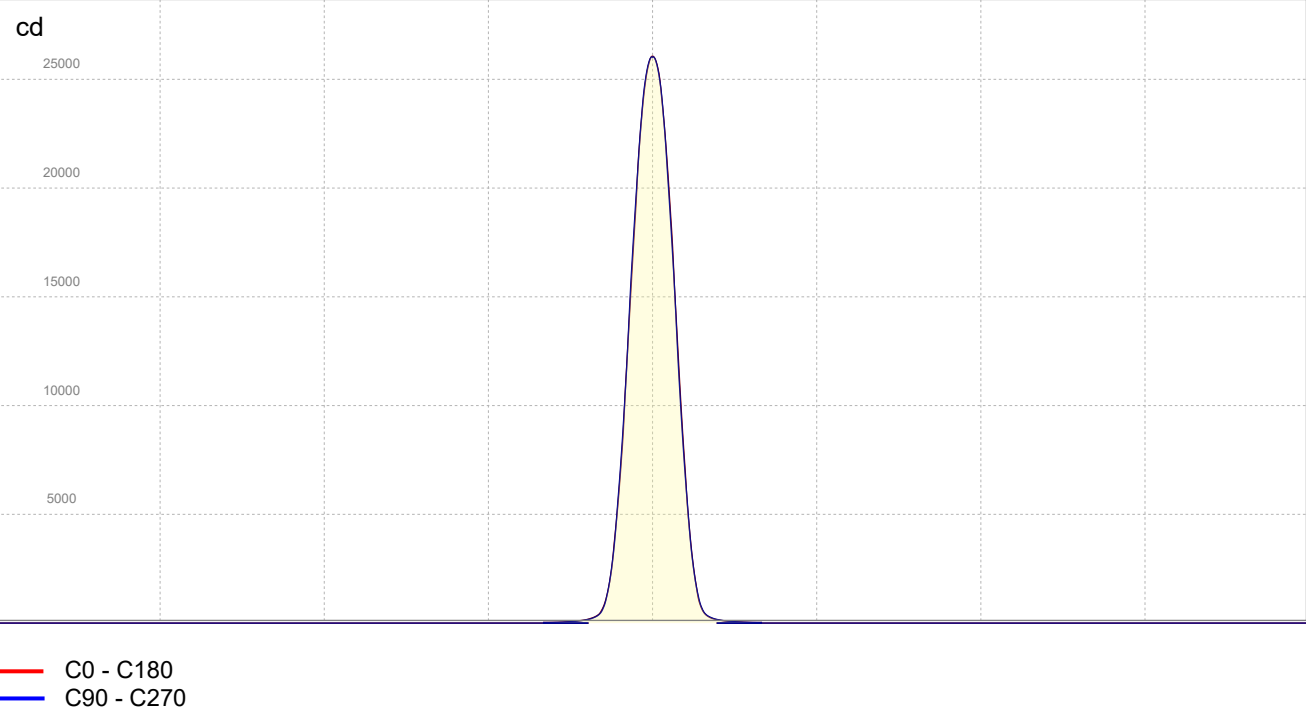
Iso-intensity Diagram (Iso-candela)



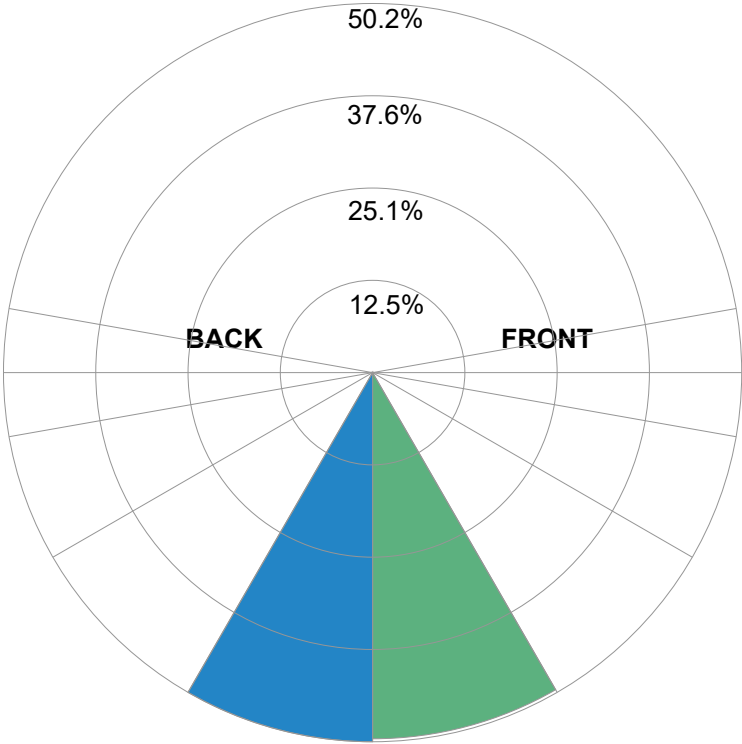
Iso-illuminance Diagram (Iso-lux)



Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires
BUG rating B2 U0 G0



Forward Light

Low (0-30°)	741.5	lm	49.8%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	747.5	lm	50.2%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1490	lm	100%
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Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

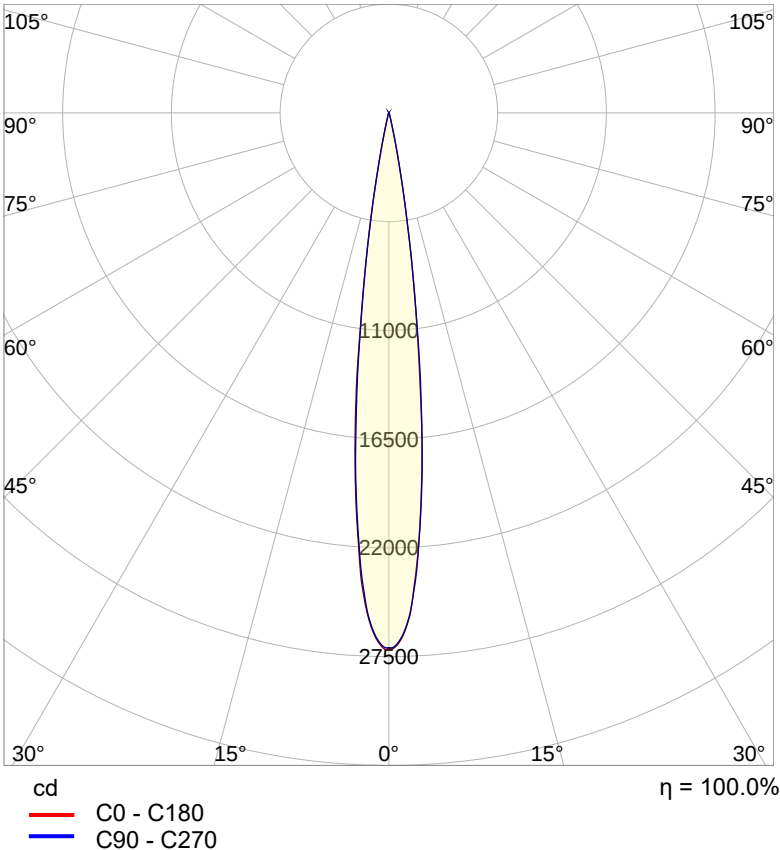
QuikSpot_OutputGain_Enabled_13D_5500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1551 lm – 0% / 100%
n/a lm/W
27117 cd
5500 K
CRI 0.0

Polar light distribution diagram

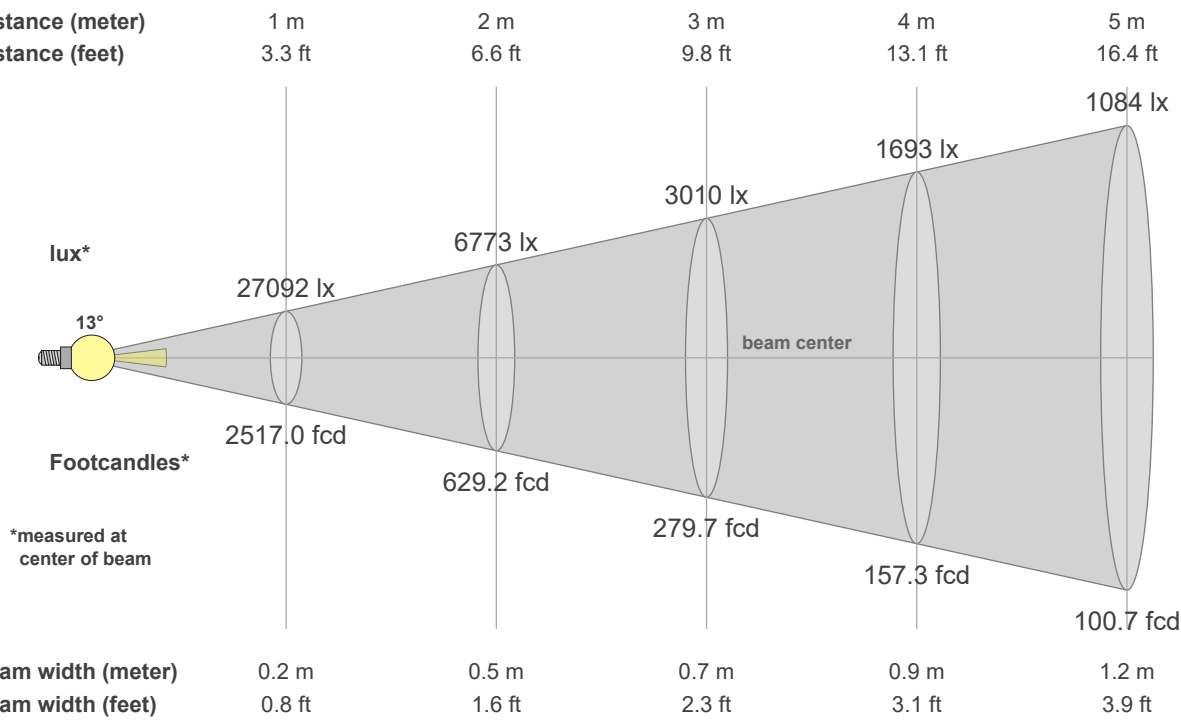


Test report

Light measurement results

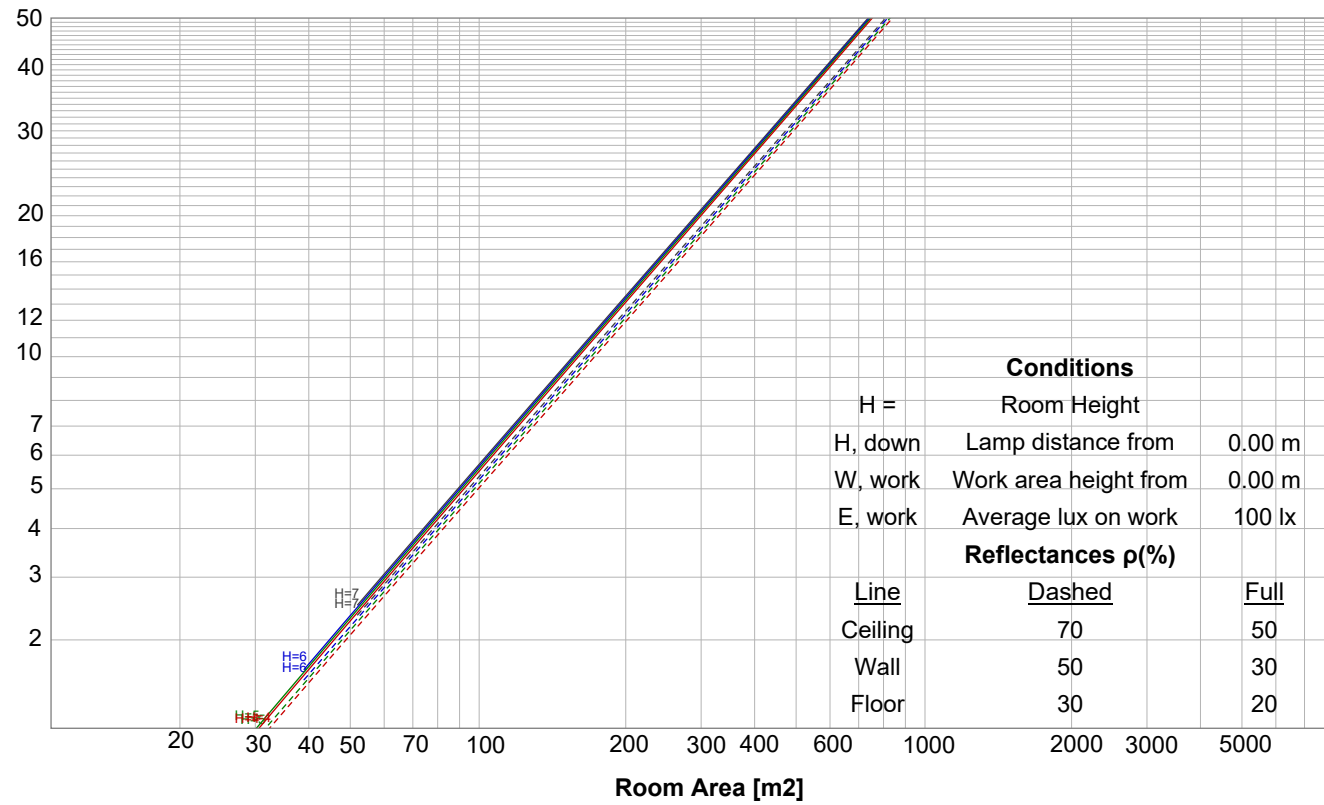
Print date 9/26/2025

Beam details

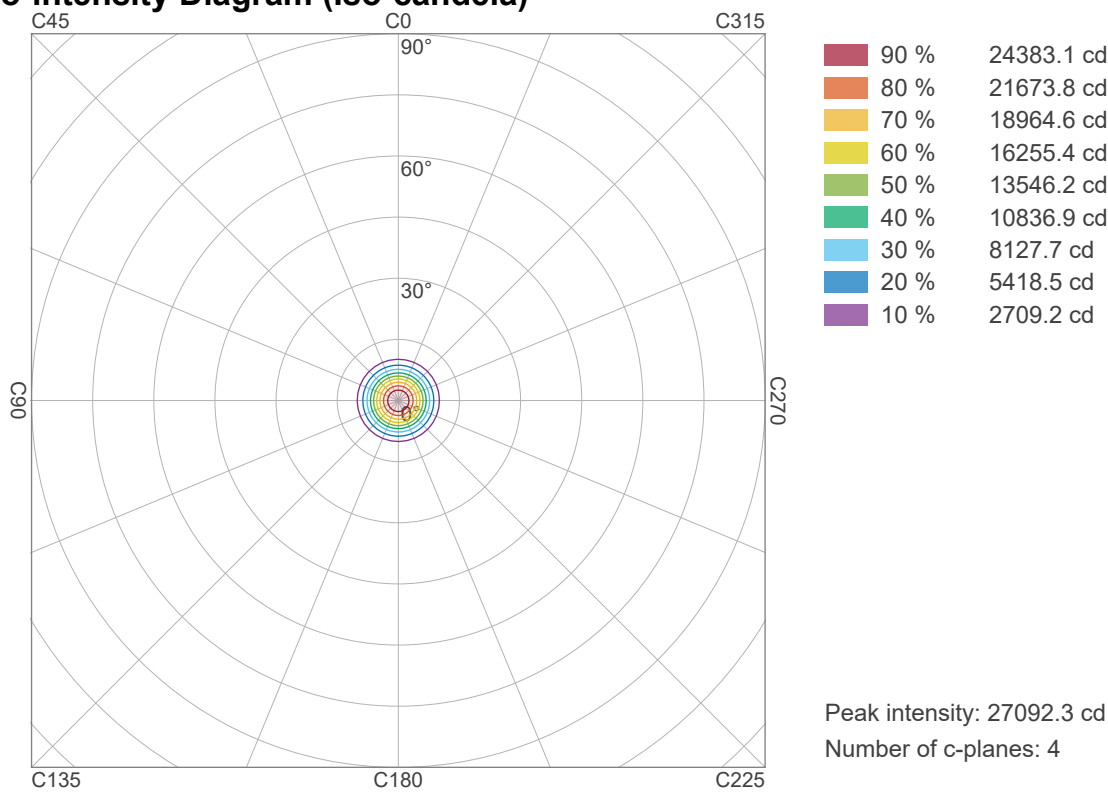


Luminaire budgetary diagram

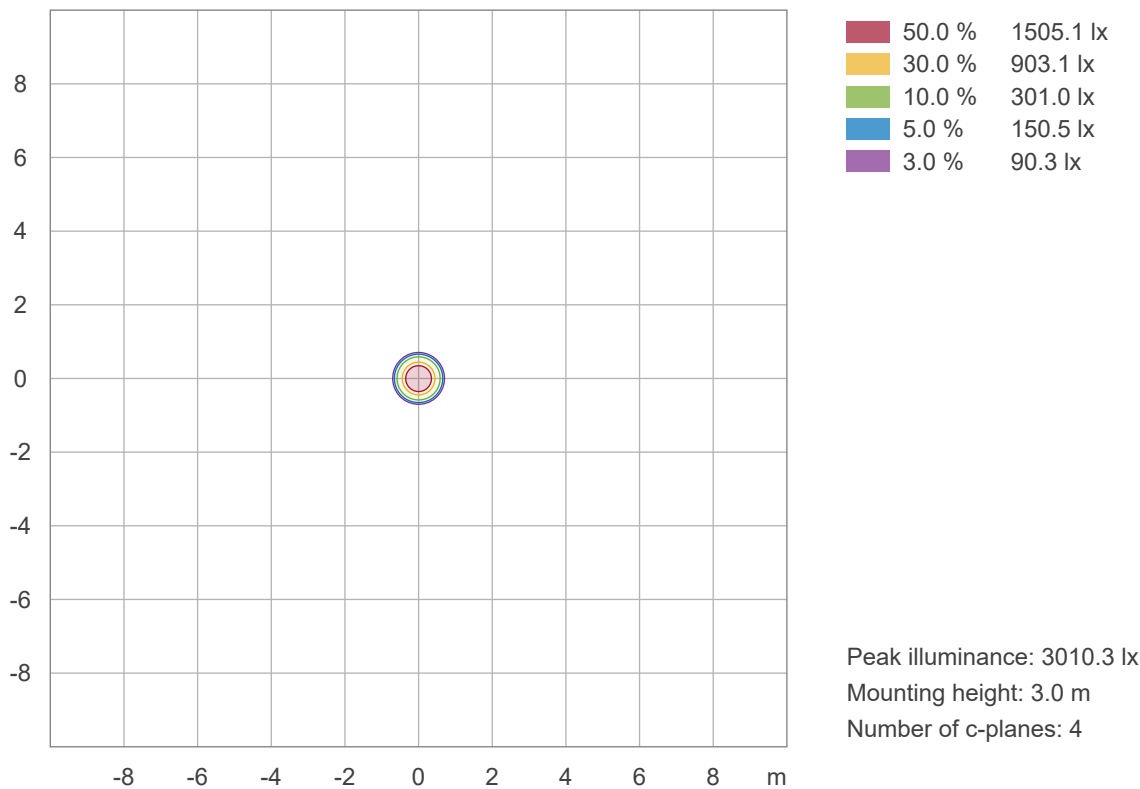
LAMPS (number of lamps)



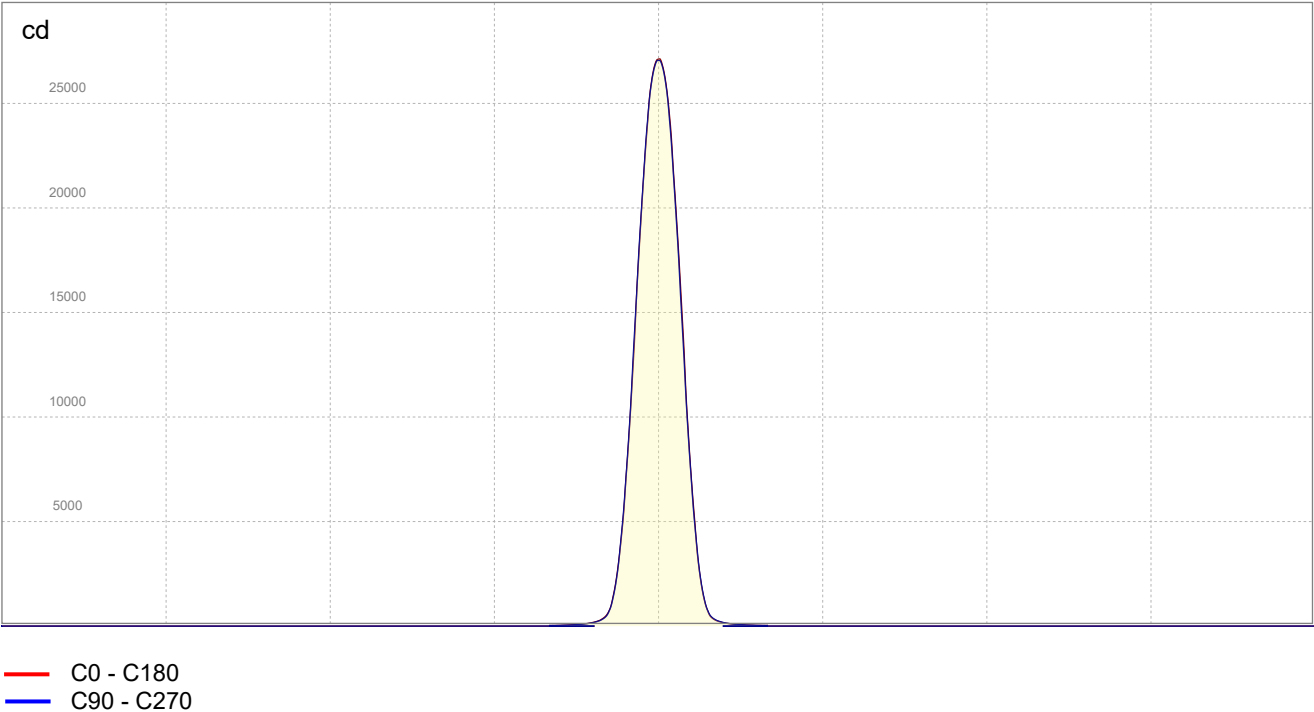
Iso-intensity Diagram (Iso-candela)



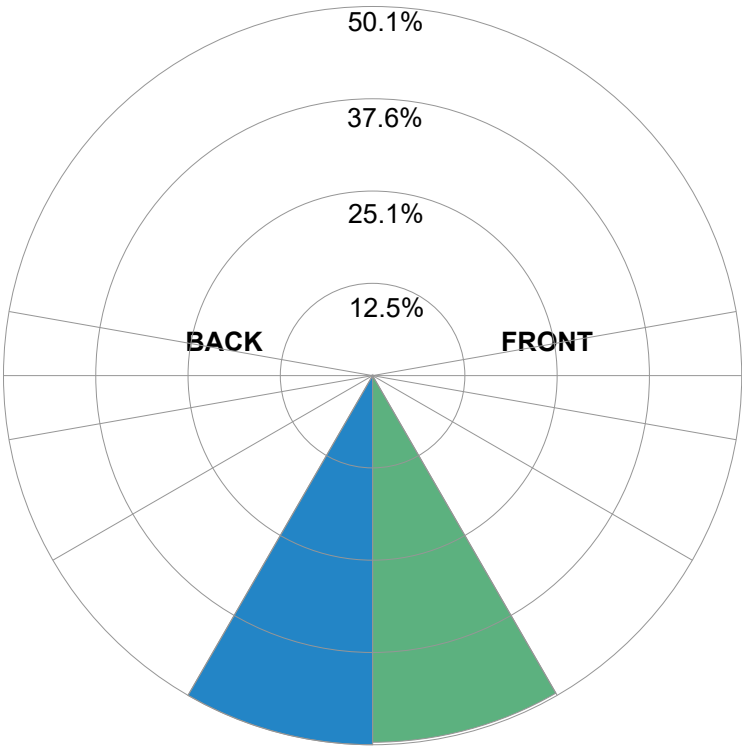
Iso-illuminance Diagram (Iso-lux)



Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires
BUG rating B2 U0 G0



Forward Light

Low (0-30°)	772.6	lm	49.8%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	777.8	lm	50.1%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1551	lm	100%
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Test report

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Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

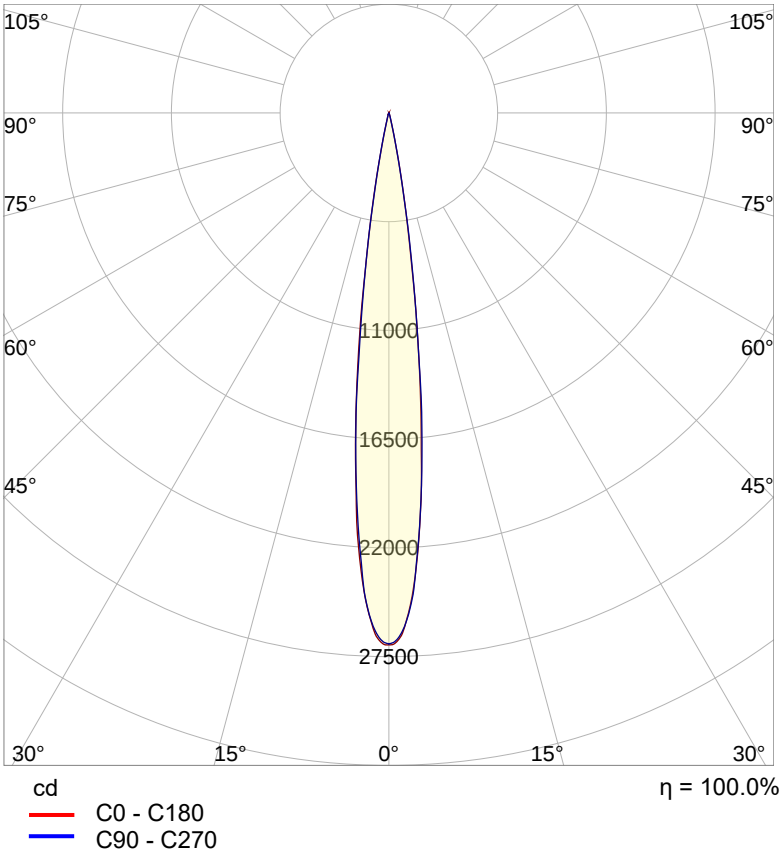
QuikSpot_OutputGain_Enabled_13D_6500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1540 lm – 0% / 100%
n/a lm/W
26905 cd
6500 K
CRI 0.0

Polar light distribution diagram

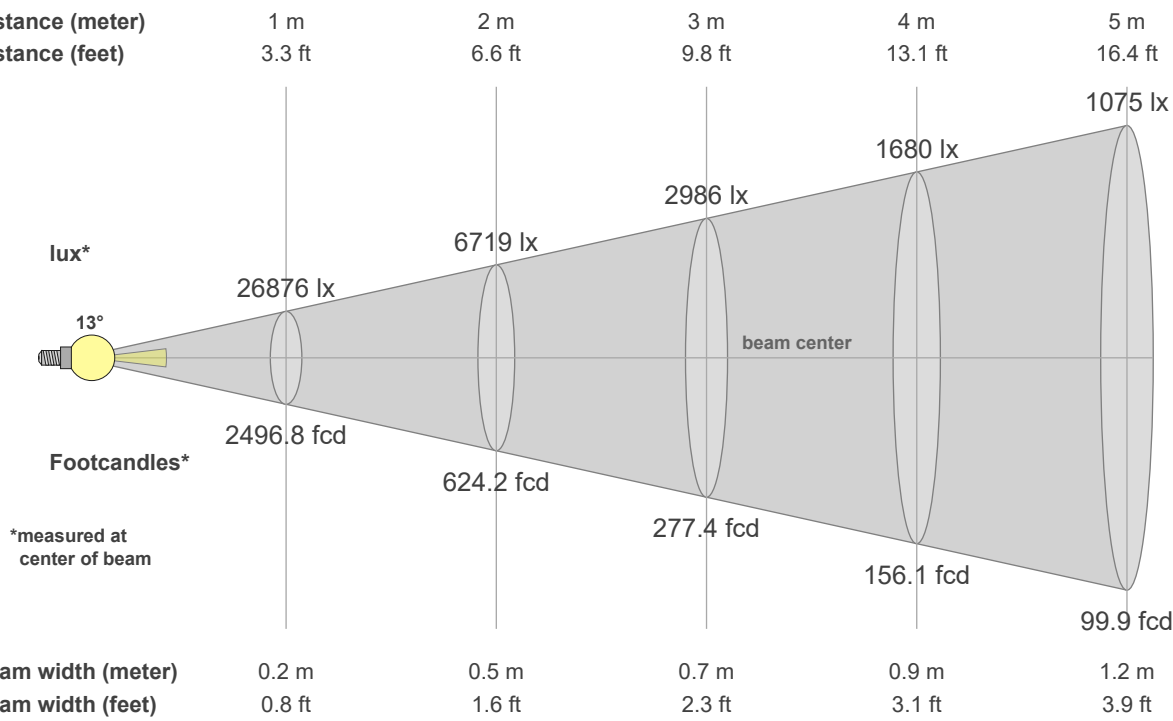


Test report

Light measurement results

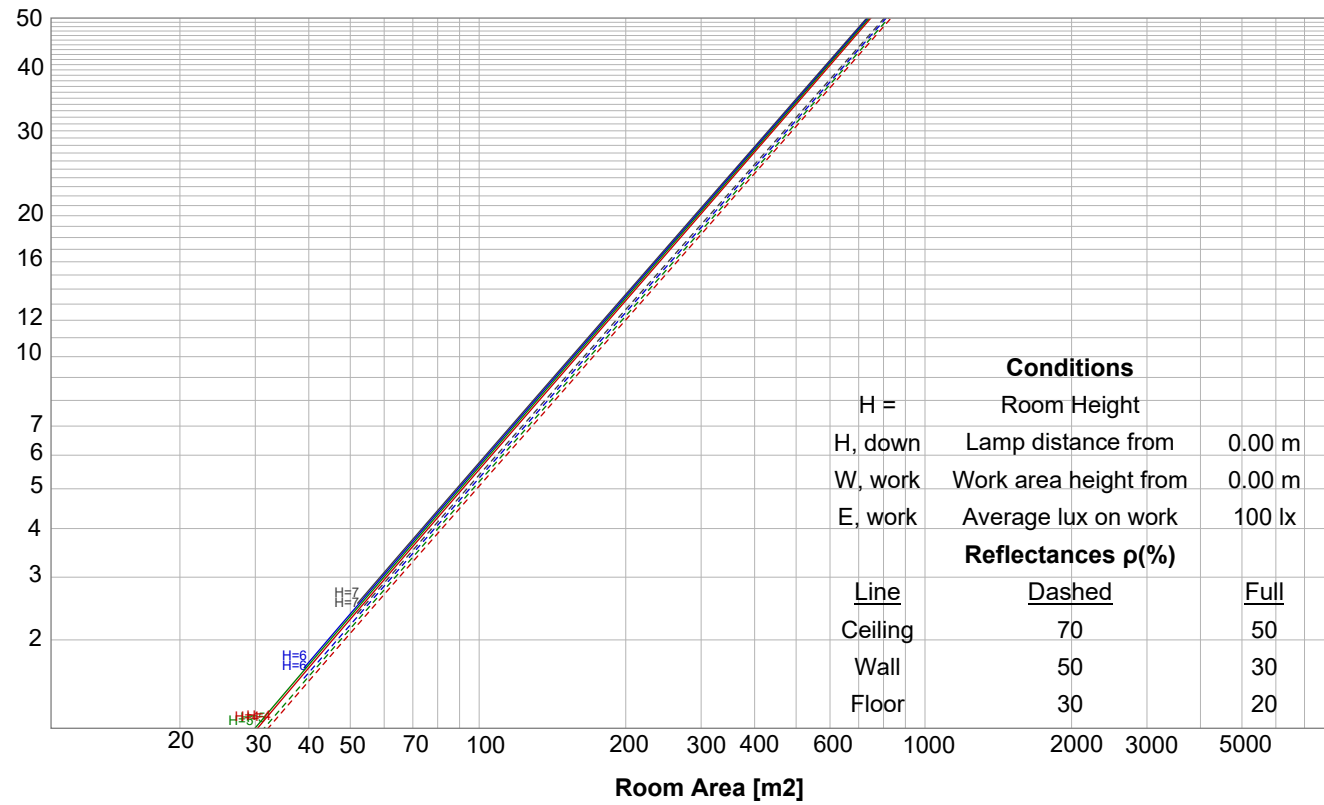
Print date 9/26/2025

Beam details

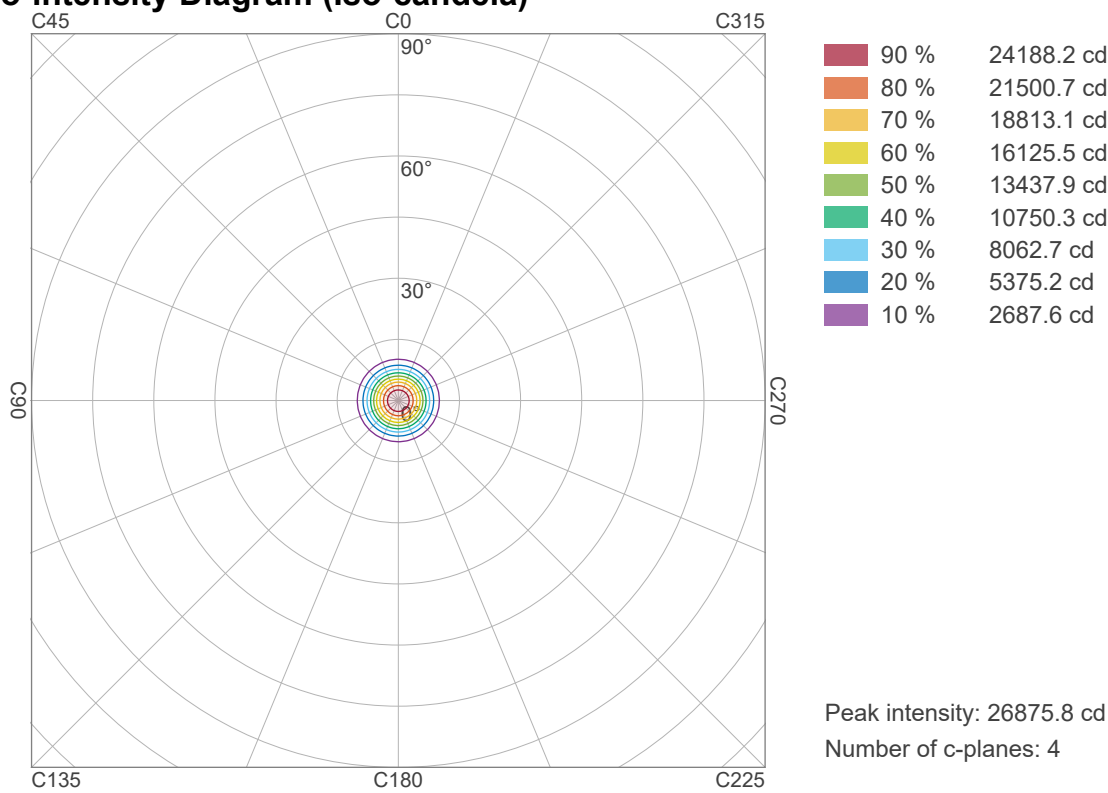


Luminaire budgetary diagram

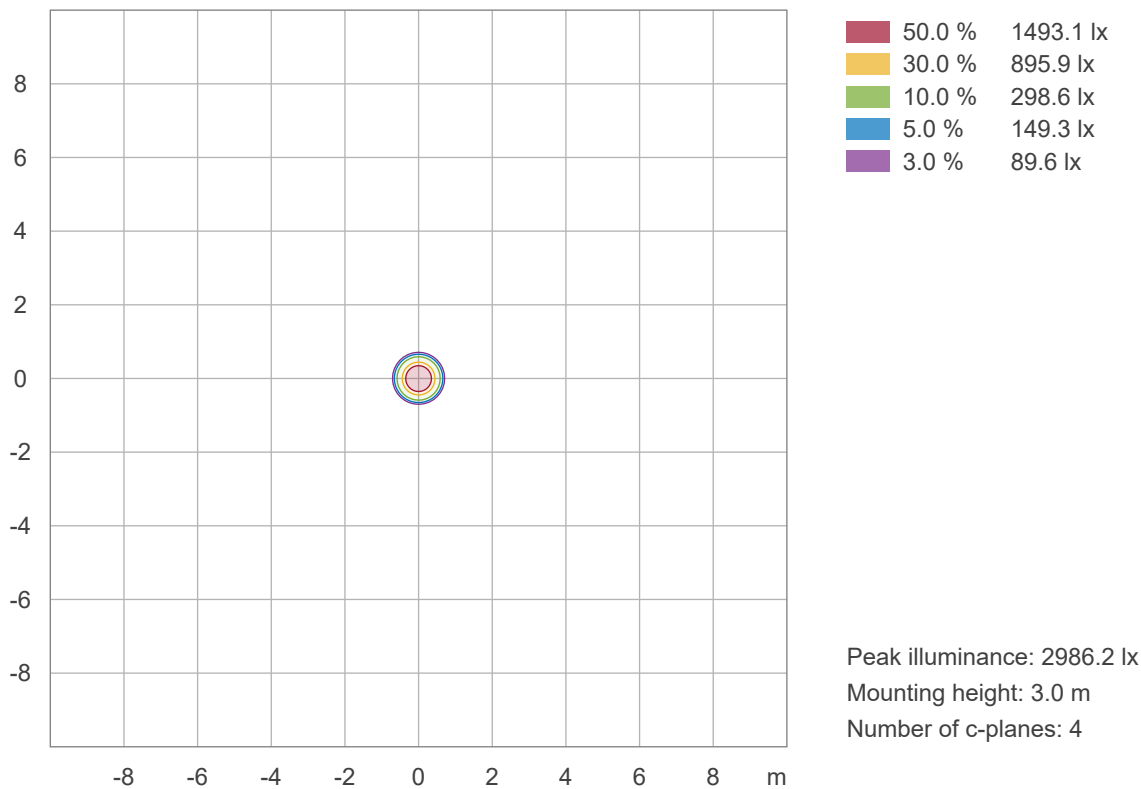
LAMPS (number of lamps)



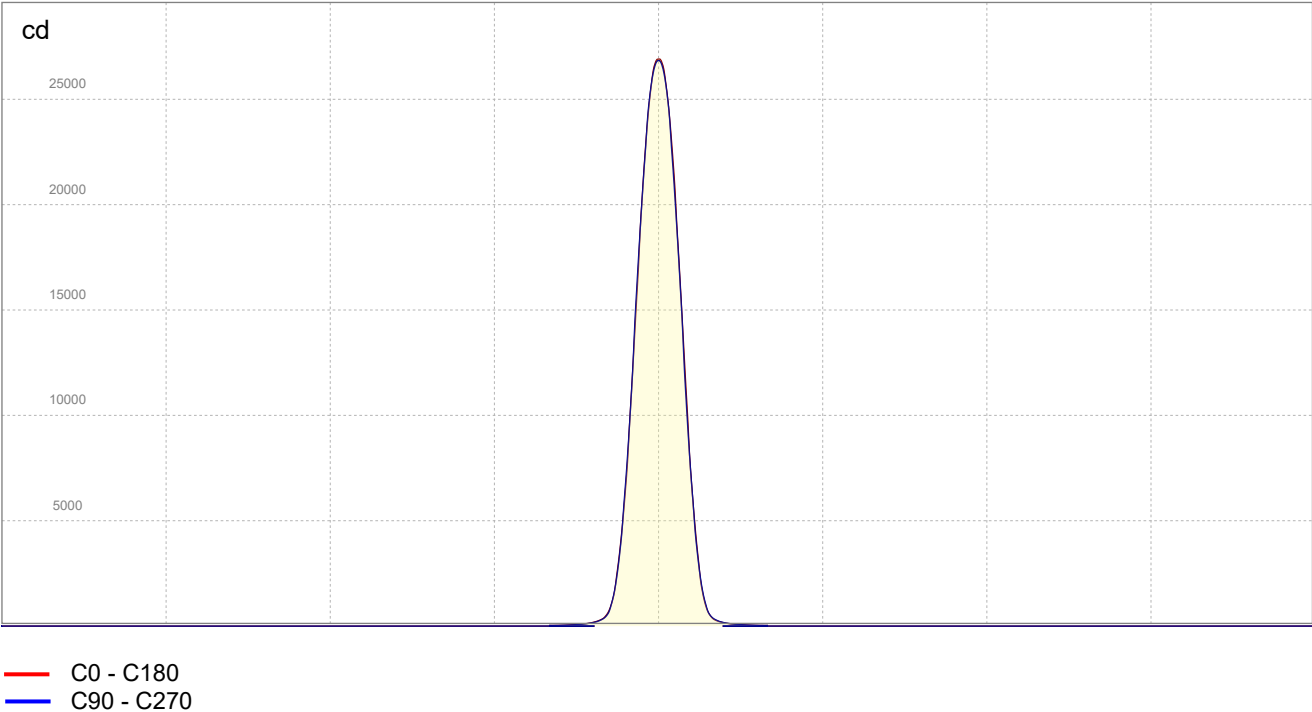
Iso-intensity Diagram (Iso-candela)



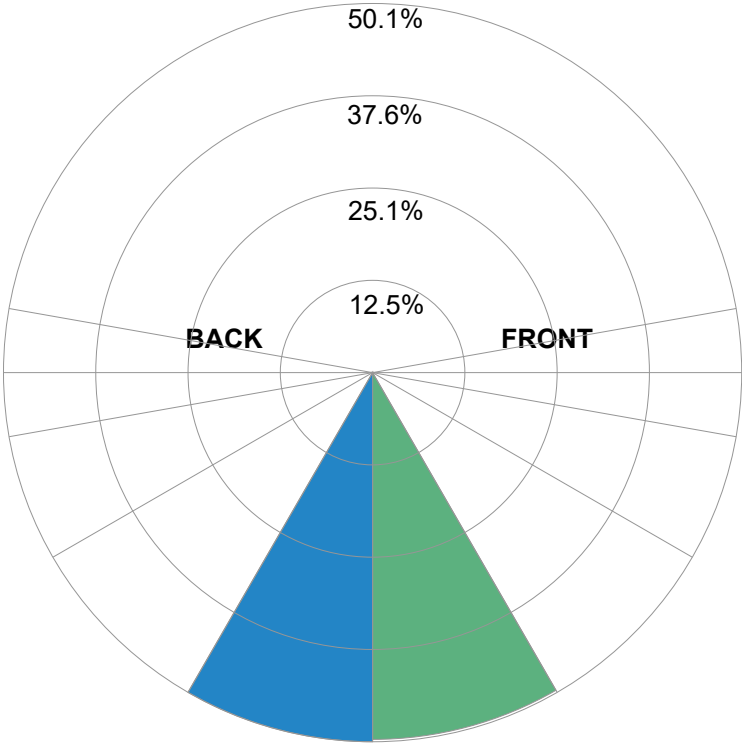
Iso-illuminance Diagram (Iso-lux)



Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires
BUG rating B2 U0 G0



Forward Light

Low (0-30°)	767.1	lm	49.8%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	772	lm	50.1%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1540	lm	100%
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Test report

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Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

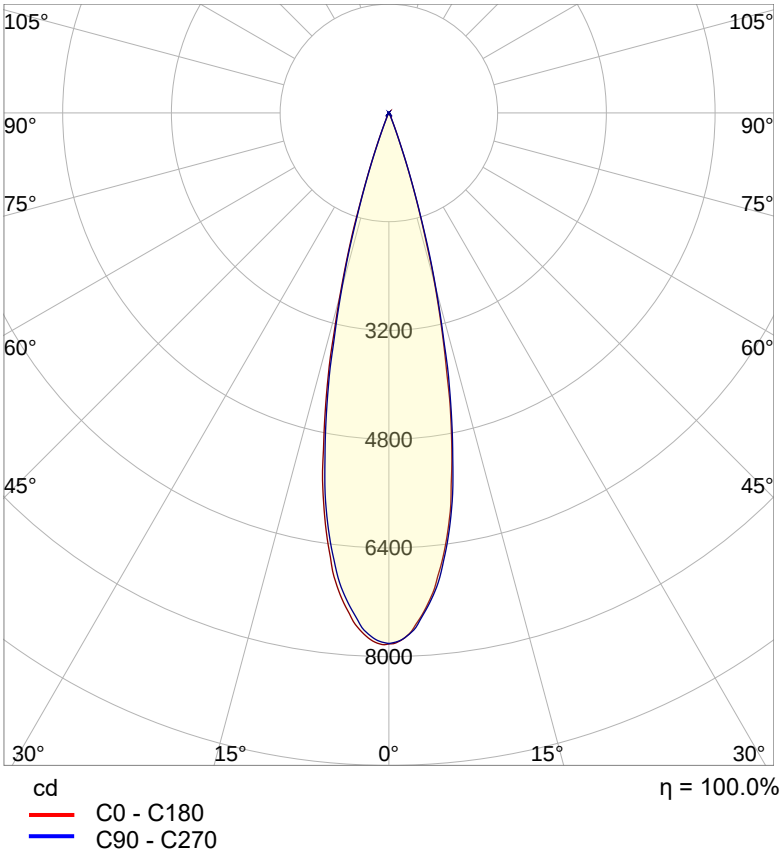
QuikSpot_OutputGain_Enabled_30D_2700K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1405 lm – 0% / 100%
n/a lm/W
7826 cd
2700 K
CRI 0.0

Polar light distribution diagram

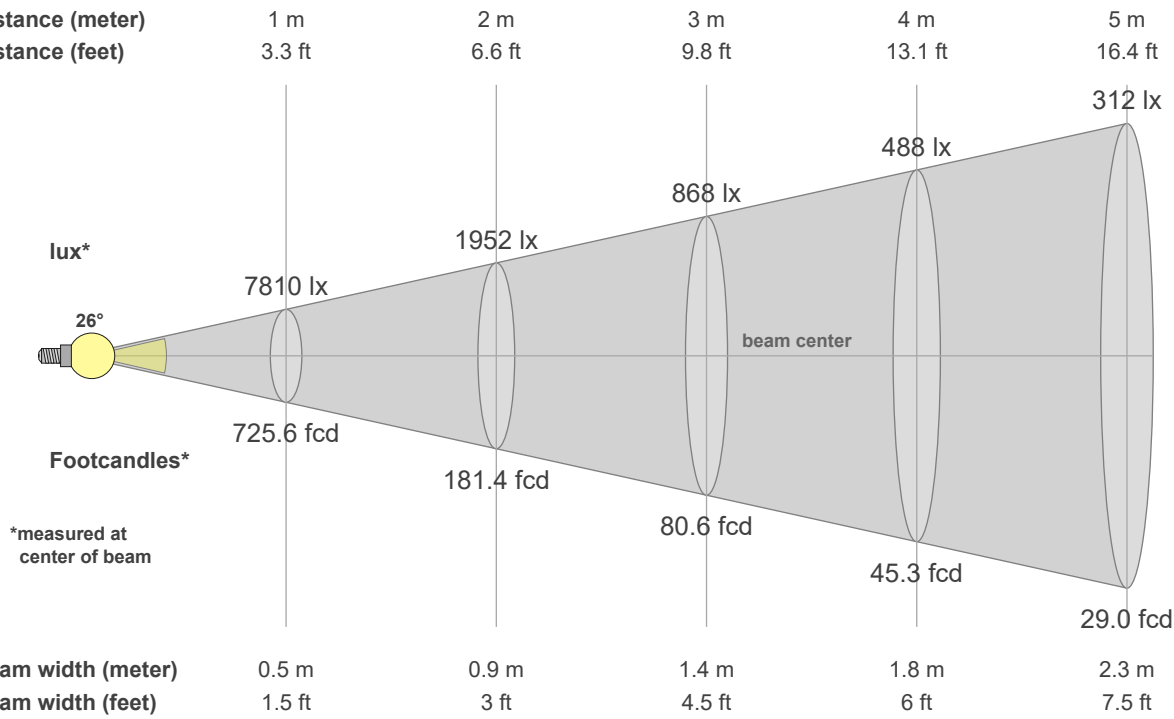


Test report

Light measurement results

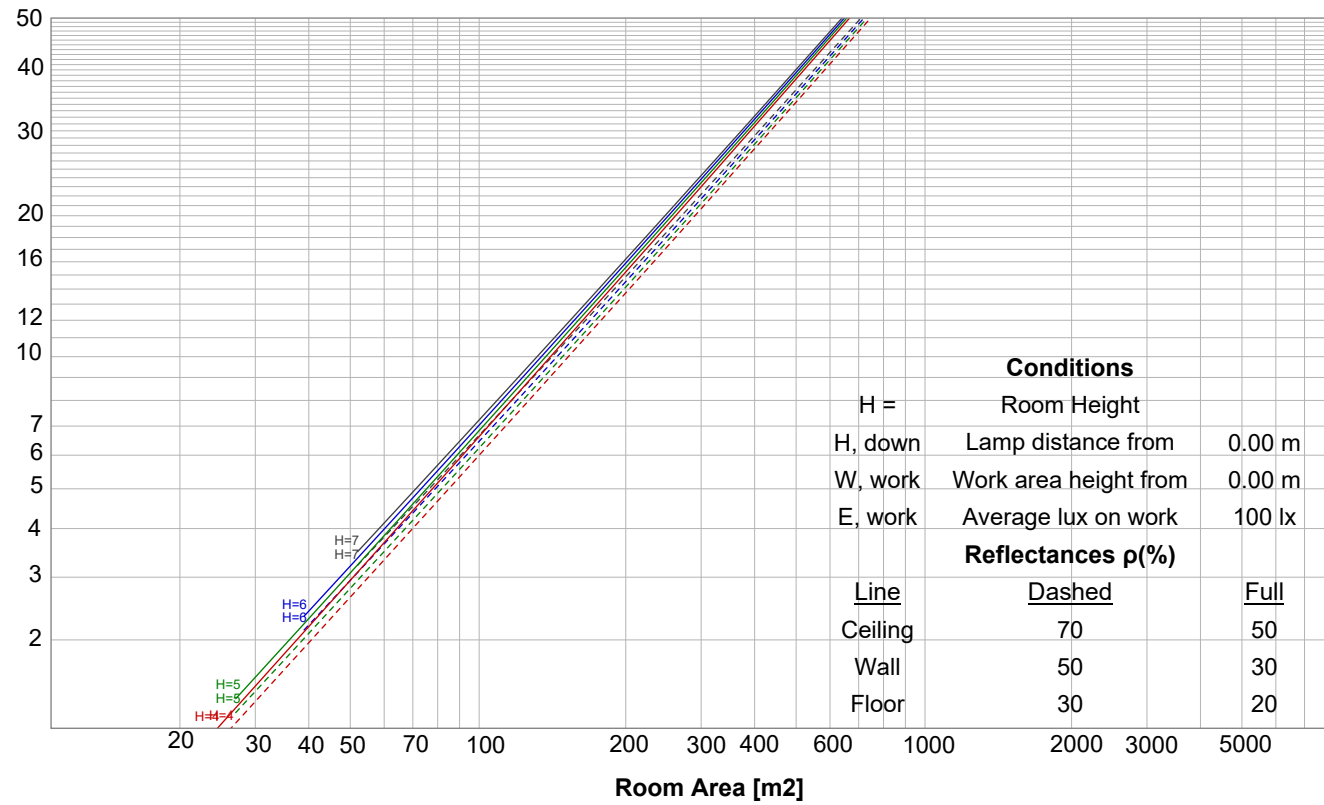
Print date 9/26/2025

Beam details

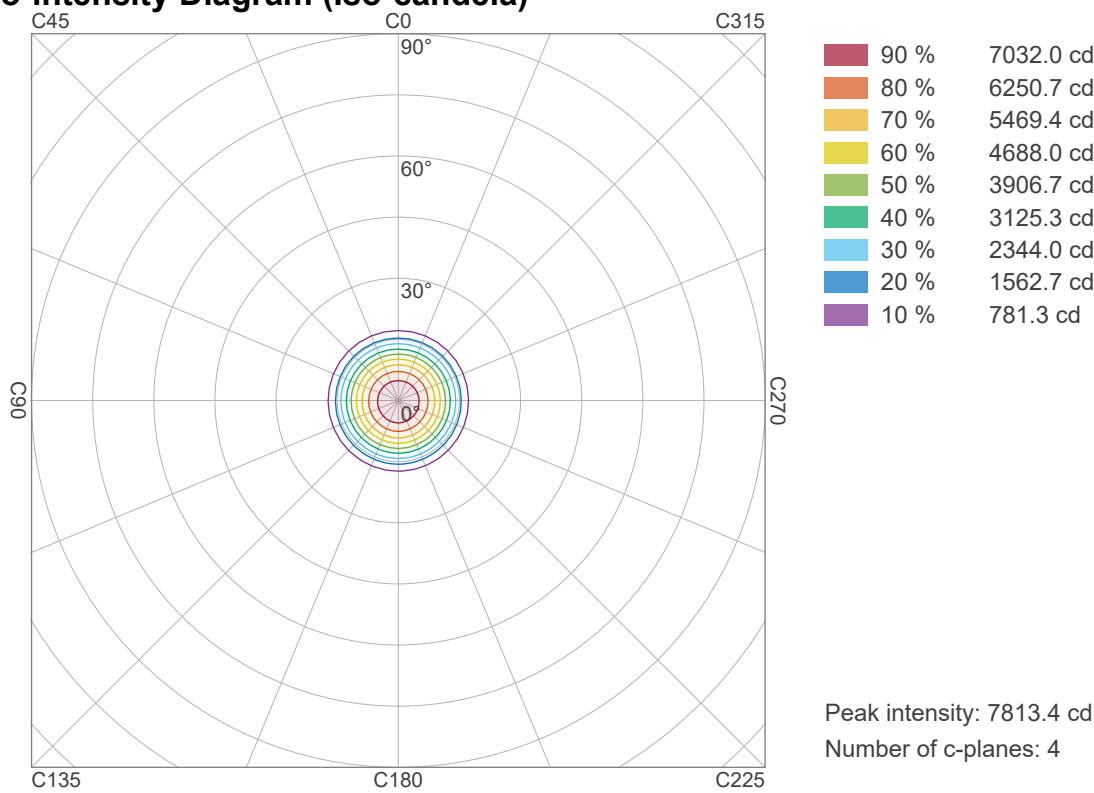


Luminaire budgetary diagram

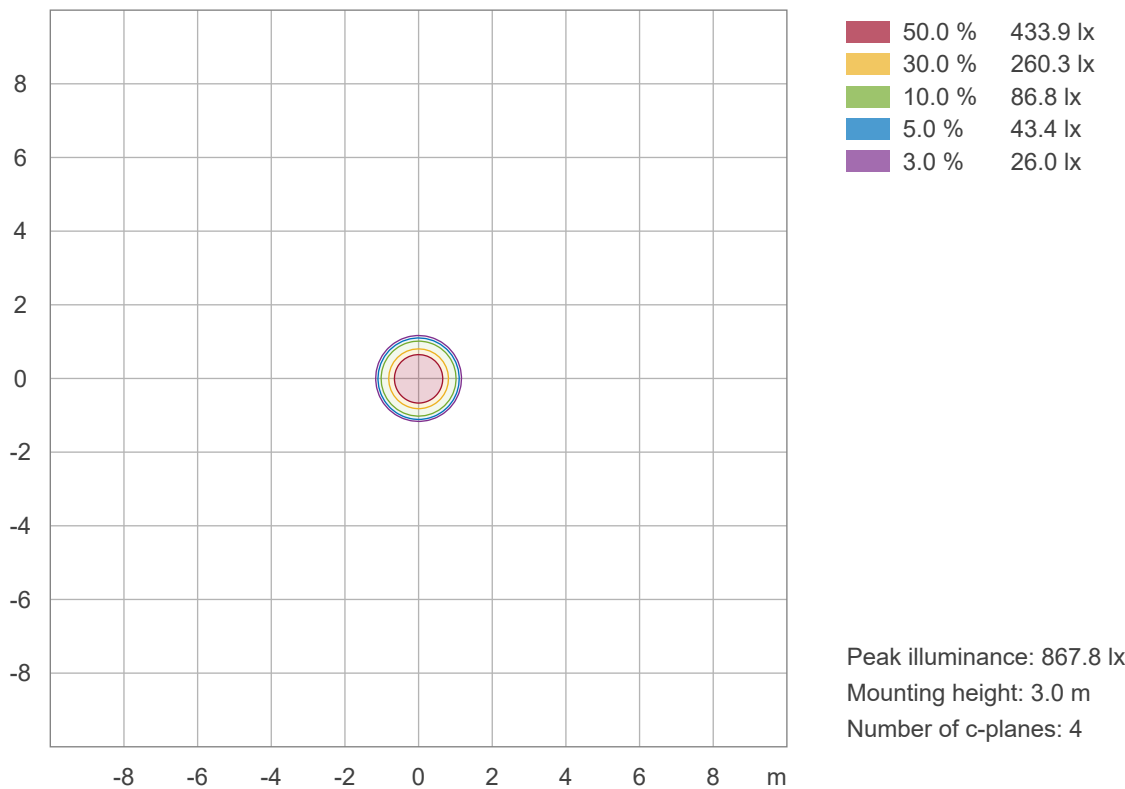
LAMPS (number of lamps)



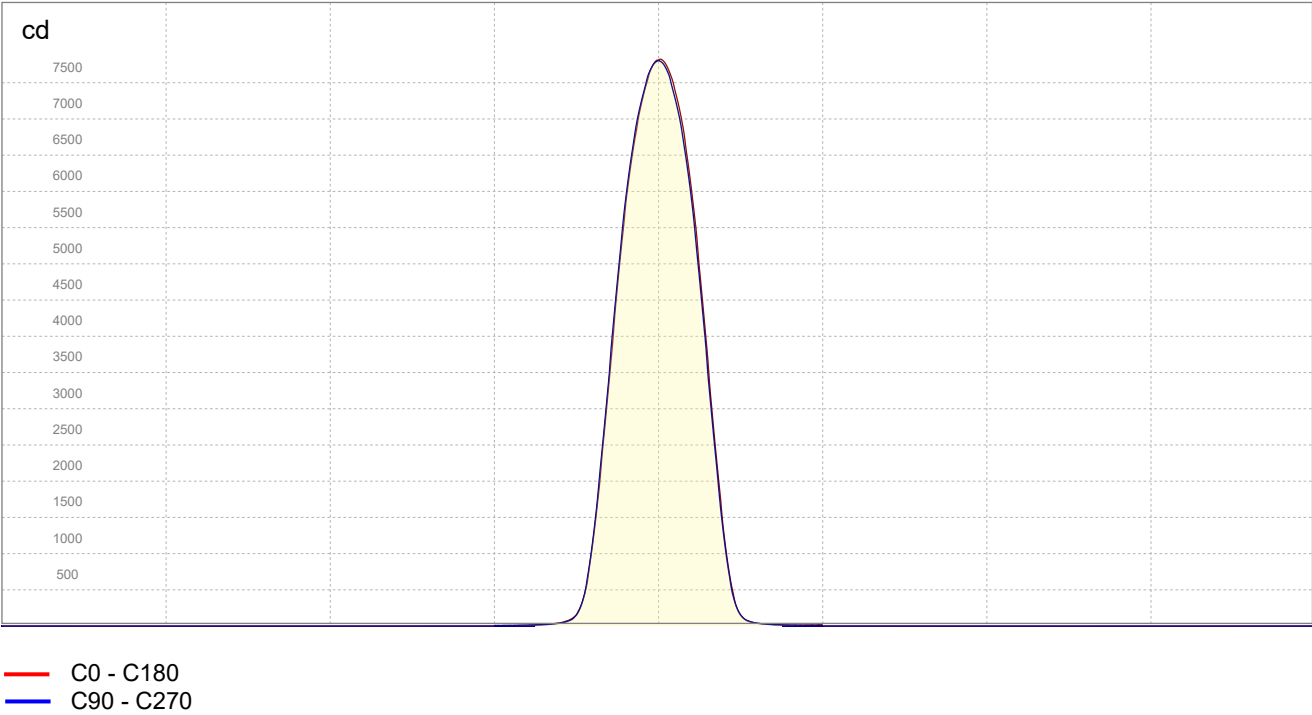
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

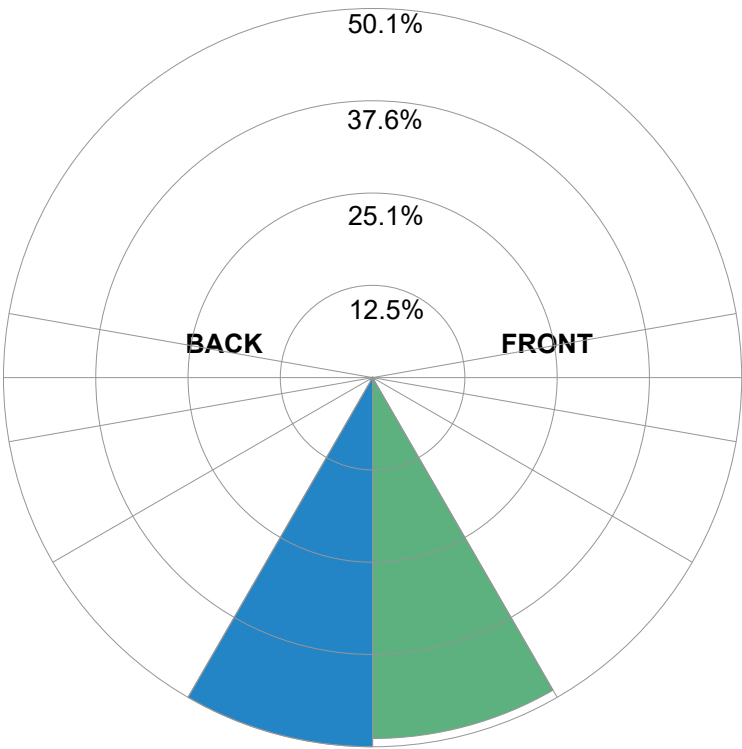


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	688.3	lm	49%
Medium (30-60°)	5.9	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	704	lm	50.1%
Medium (30-60°)	6.6	lm	0.5%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1405	lm	100%
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Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

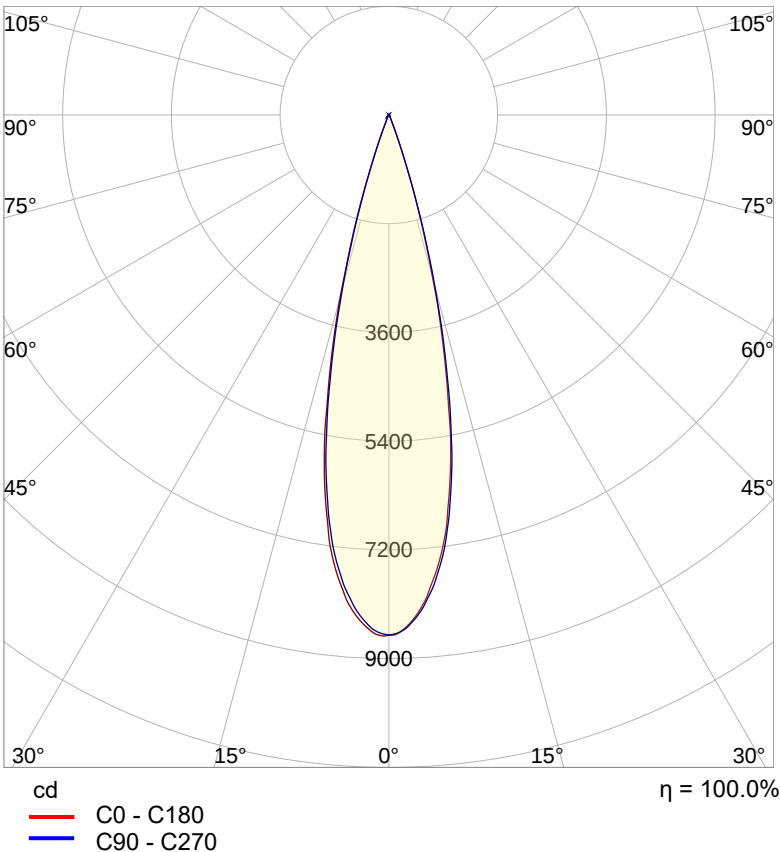
QuikSpot_OutputGain_Enabled_30D_3200K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1544 lm – 0% / 100%
n/a lm/W
8626 cd
3200 K
CRI 0.0

Polar light distribution diagram

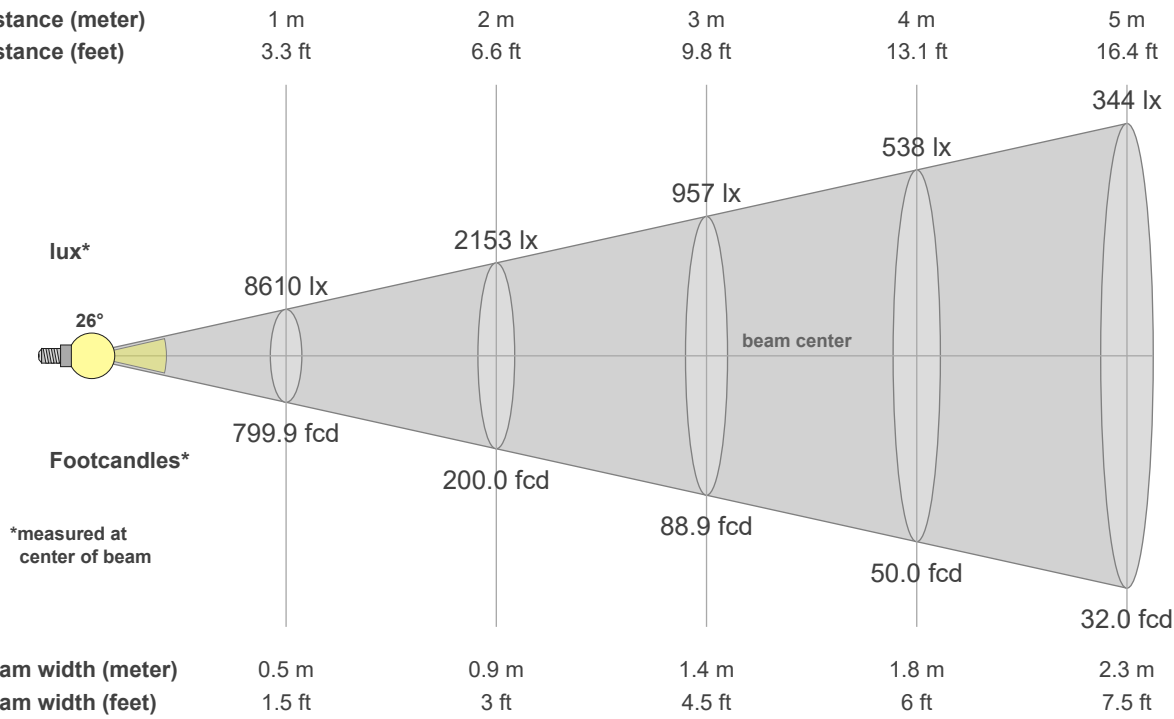


Test report

Light measurement results

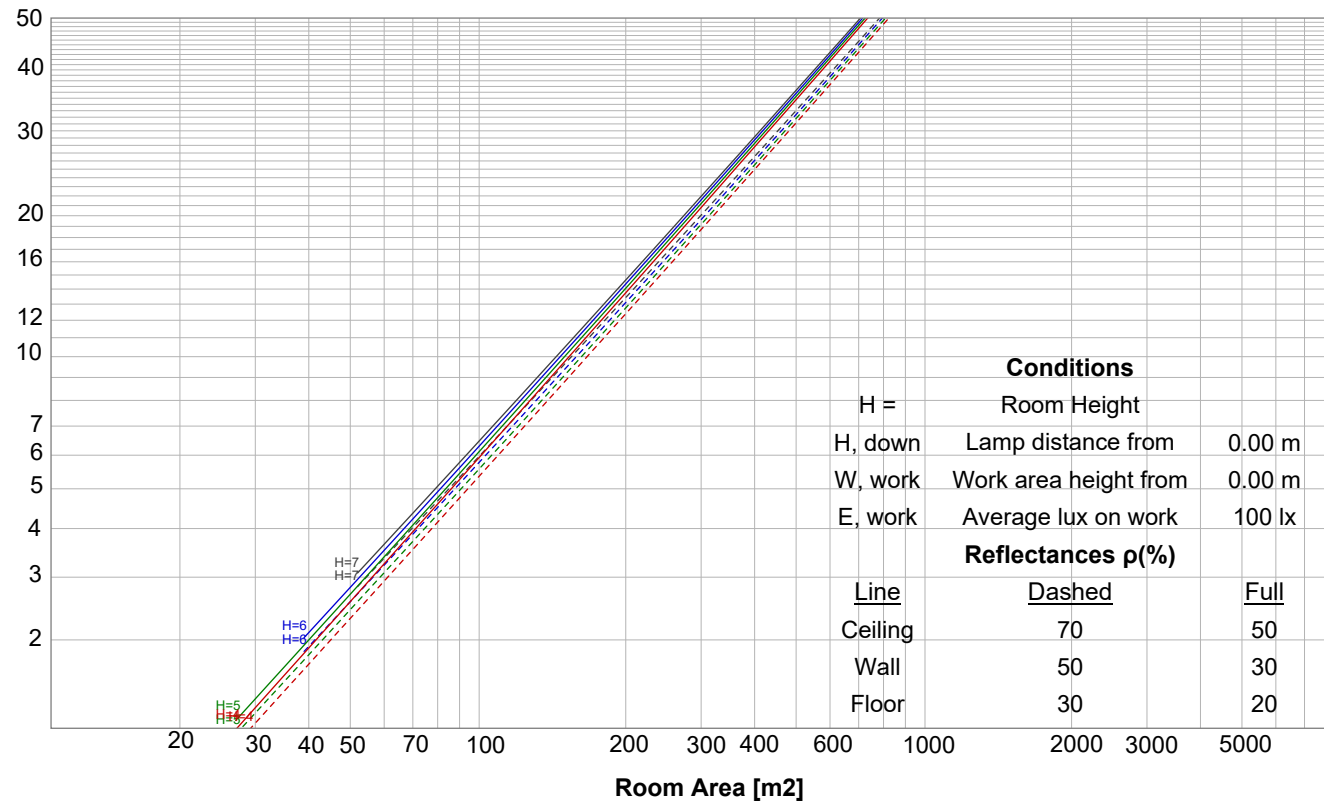
Print date 9/26/2025

Beam details

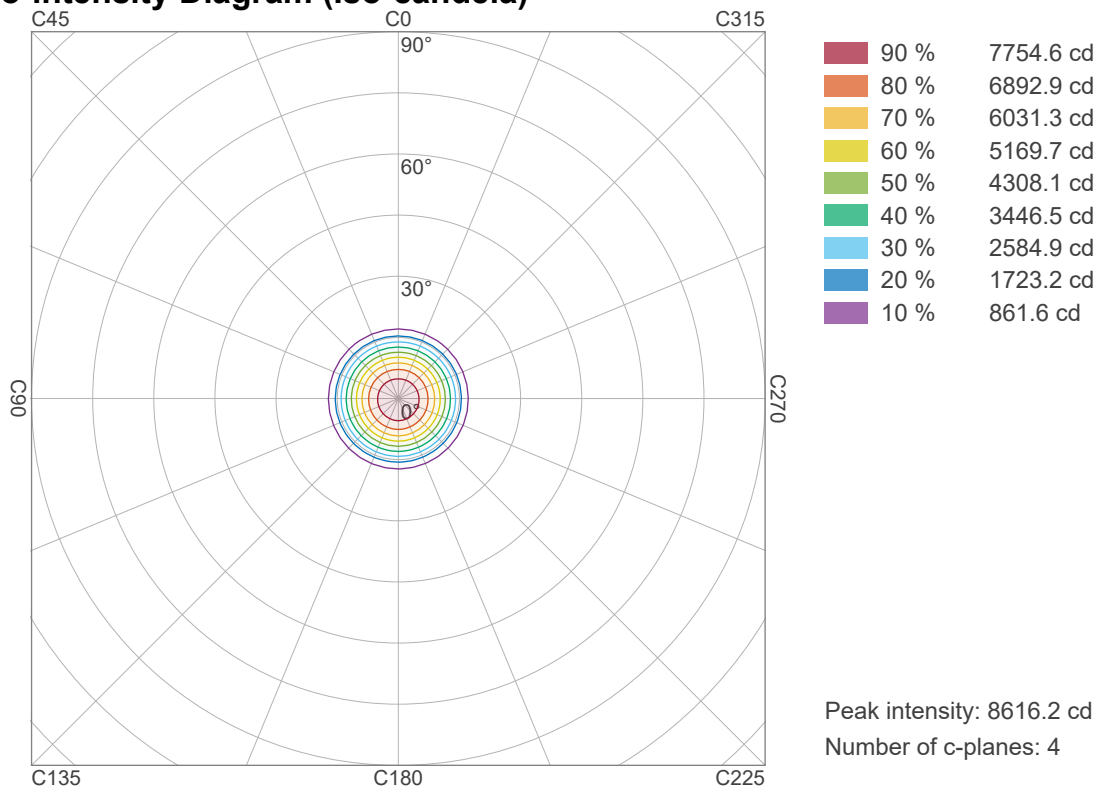


Luminaire budgetary diagram

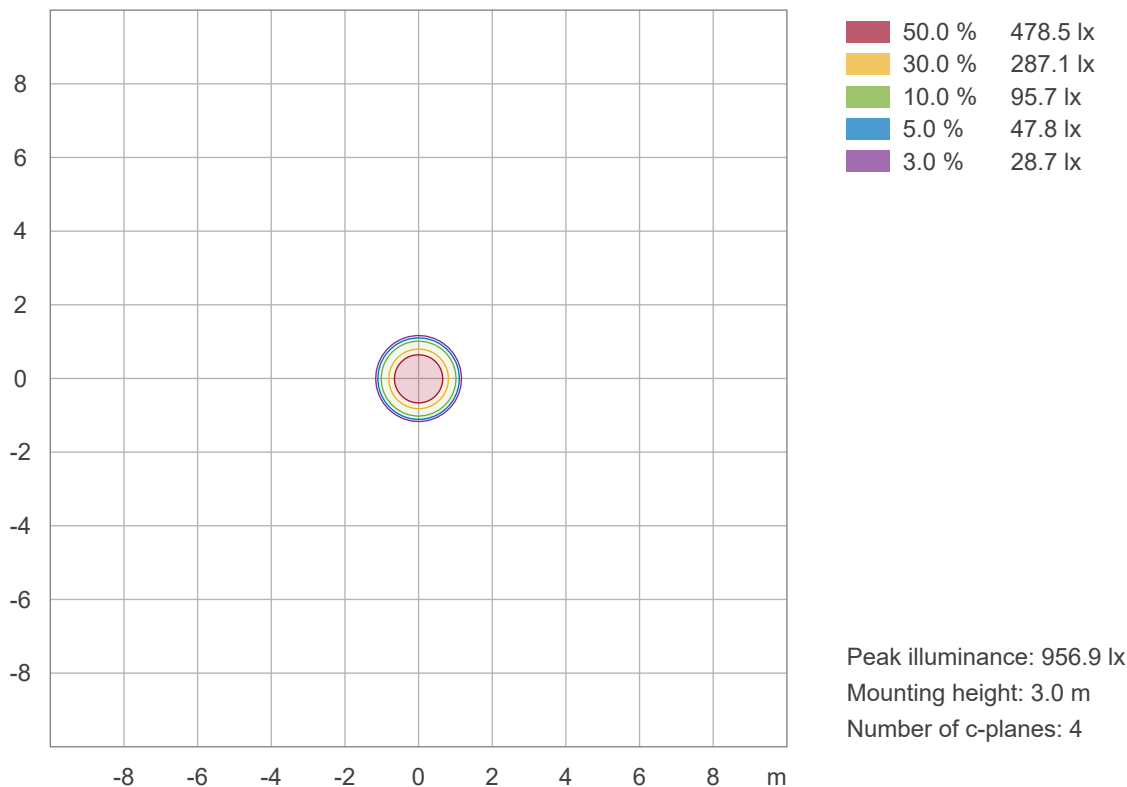
LAMPS (number of lamps)



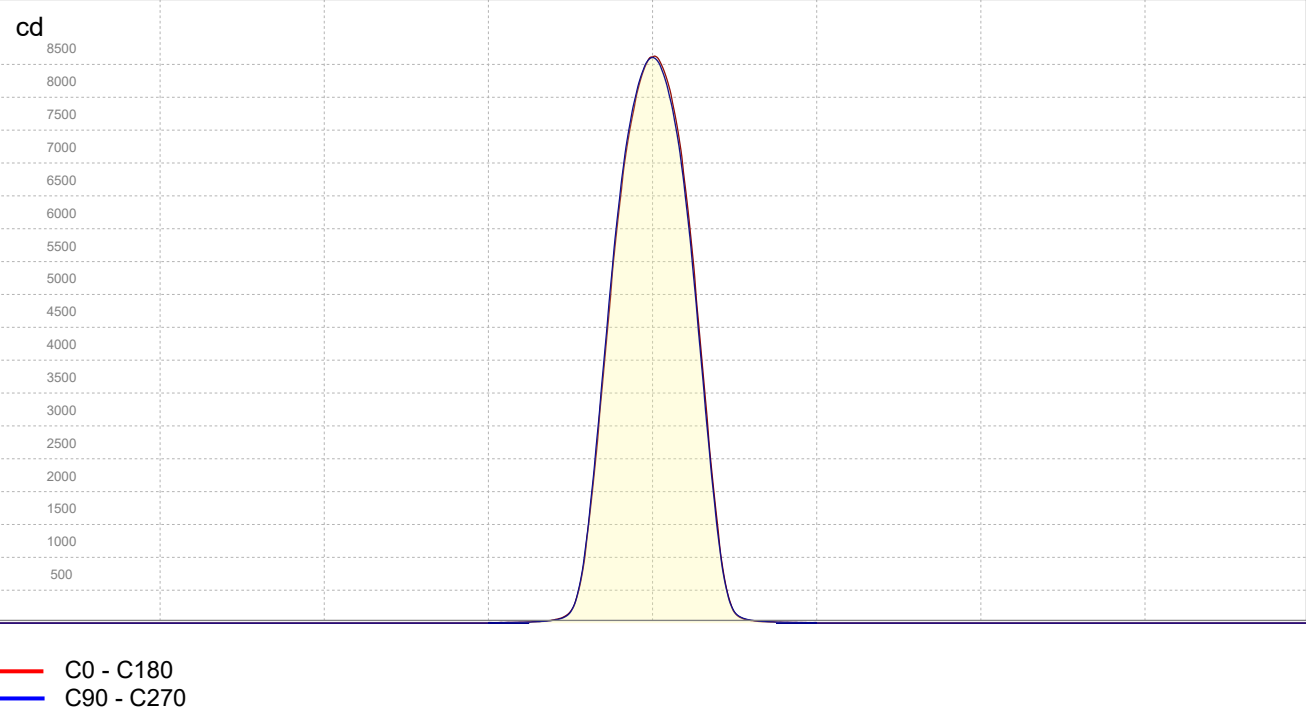
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

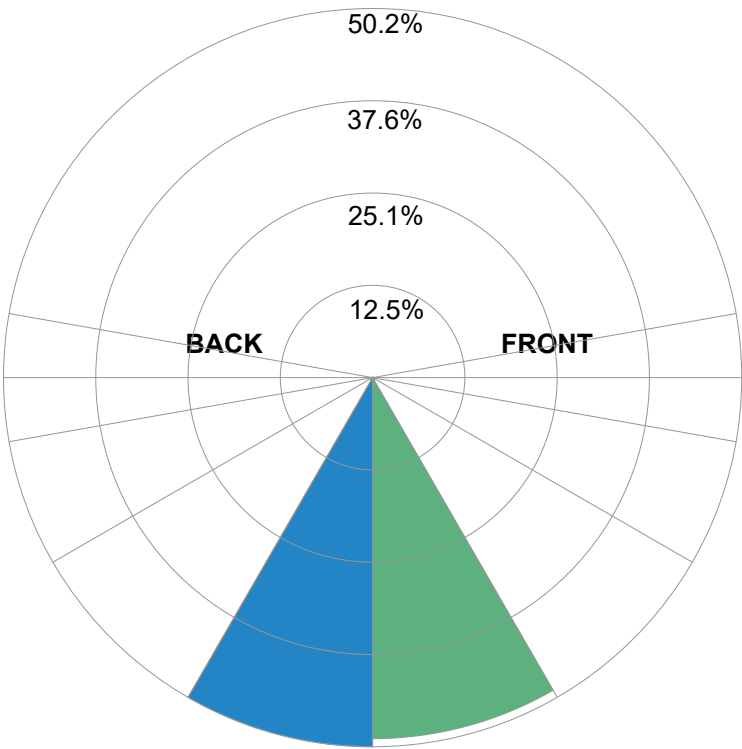


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	757.9	lm	49.1%
Medium (30-60°)	5.9	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	774.9	lm	50.2%
Medium (30-60°)	5.7	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1544	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

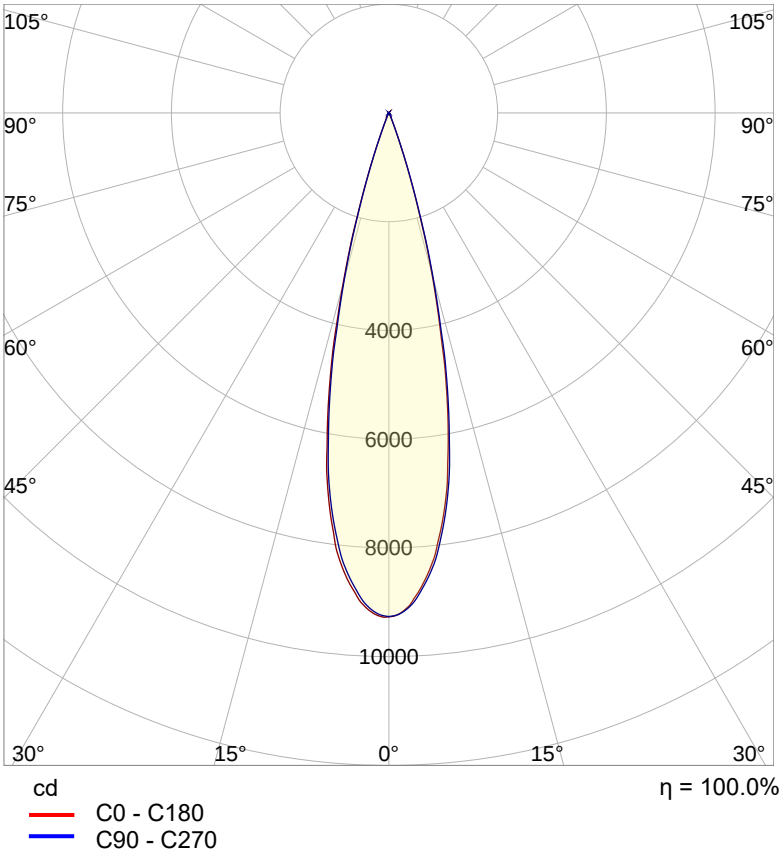
QuikSpot_OutputGain_Enabled_30D_4000K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1656 lm – 0% / 100%
n/a lm/W
9275 cd
4000 K
CRI 0.0

Polar light distribution diagram

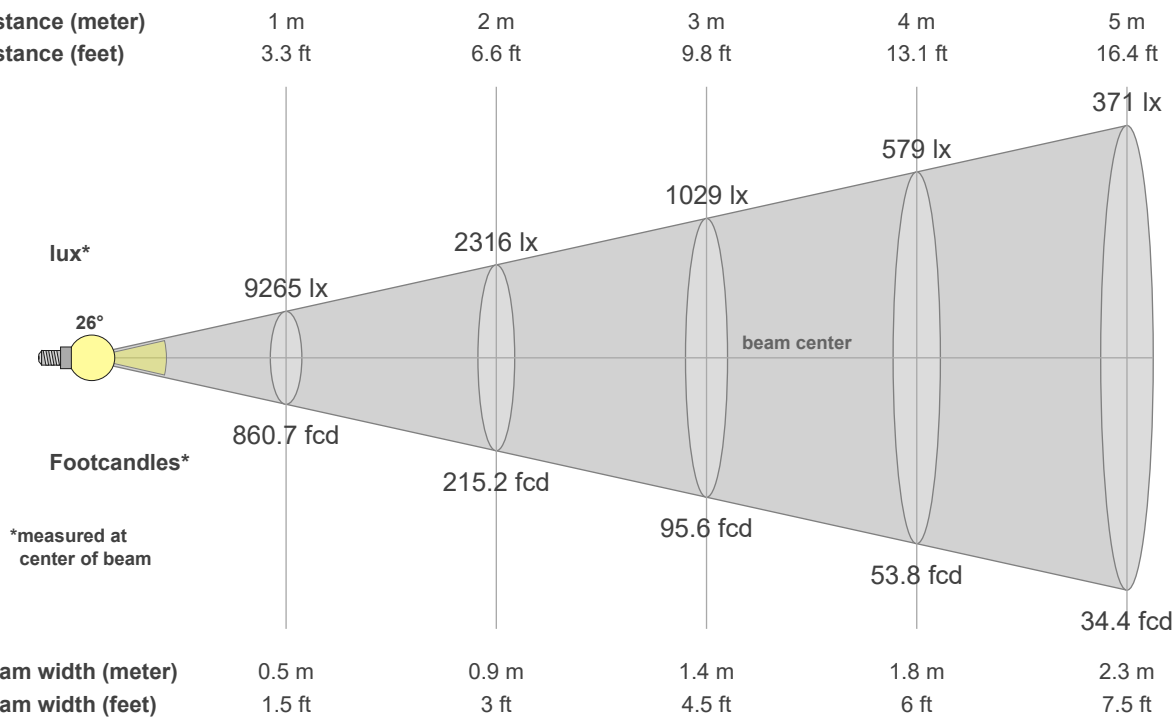


Test report

Light measurement results

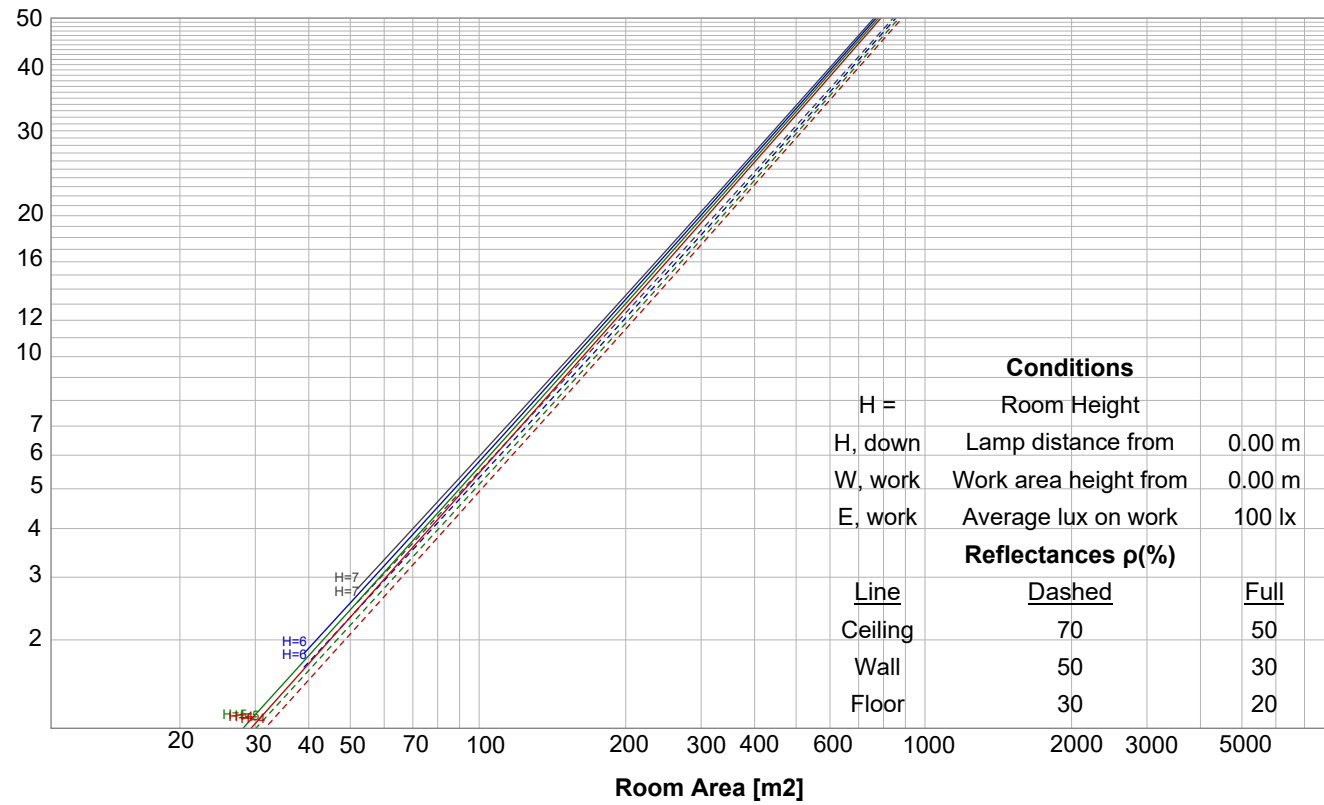
Print date 9/26/2025

Beam details

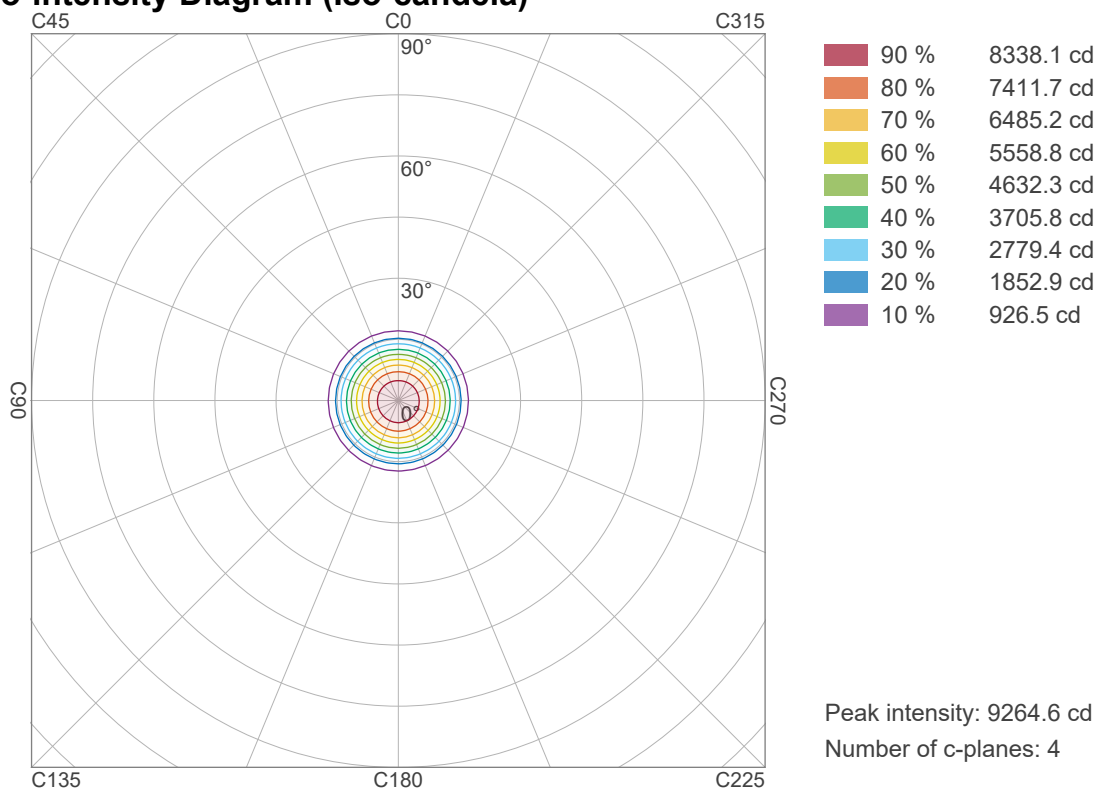


Luminaire budgetary diagram

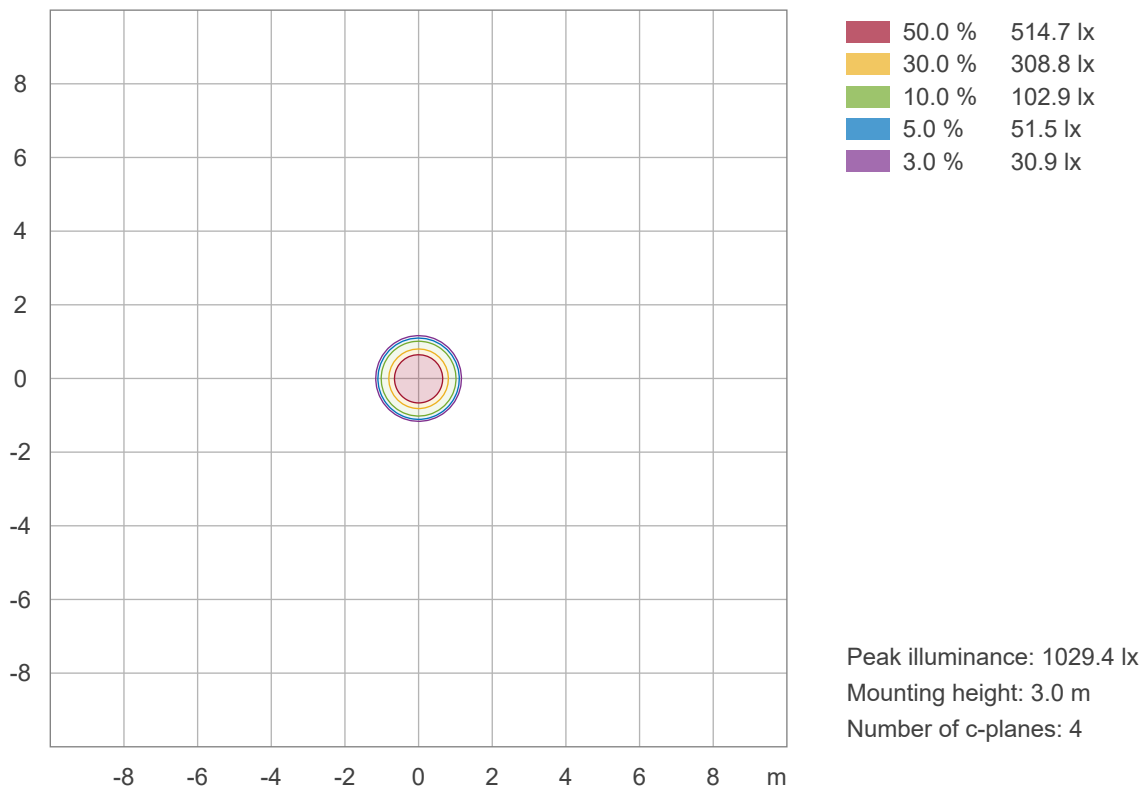
LAMPS (number of lamps)



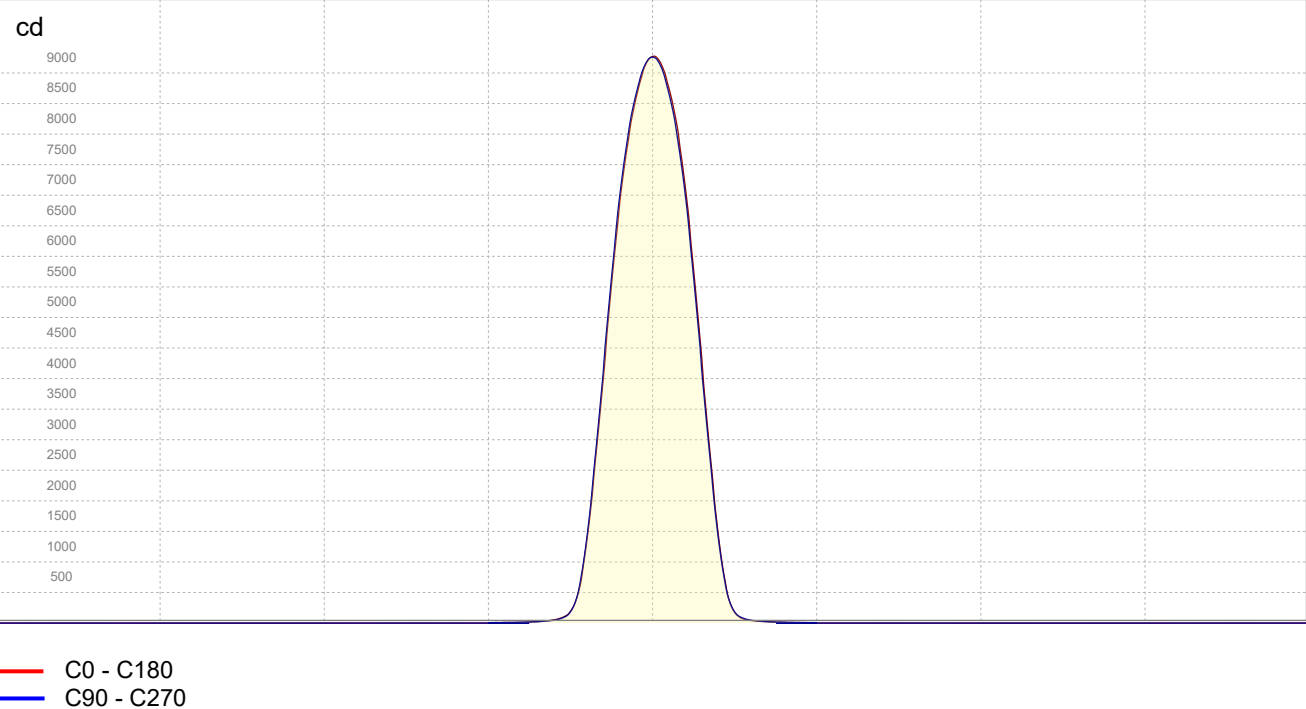
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

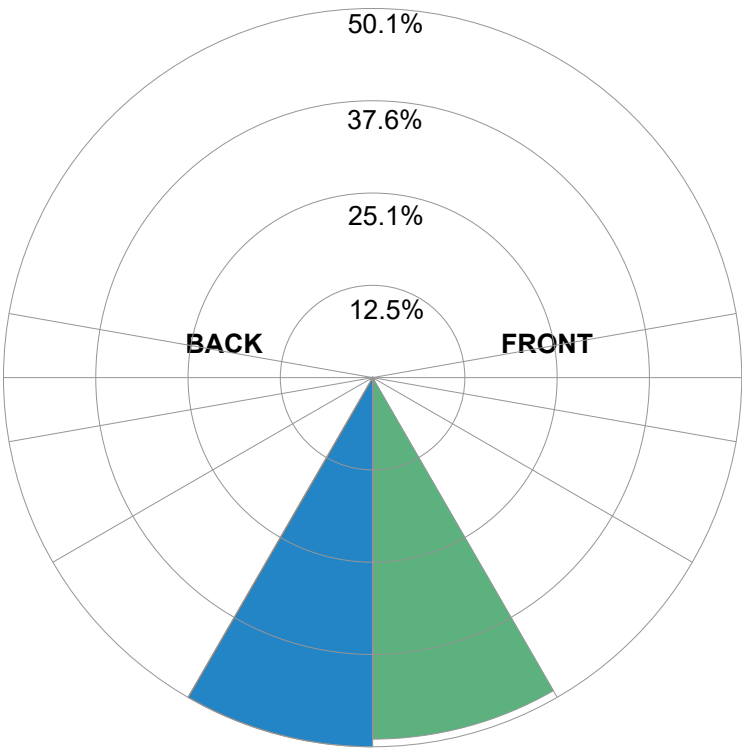


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	812.9	lm	49.1%
Medium (30-60°)	6.5	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	830	lm	50.1%
Medium (30-60°)	6.3	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1656	lm	100%
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Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

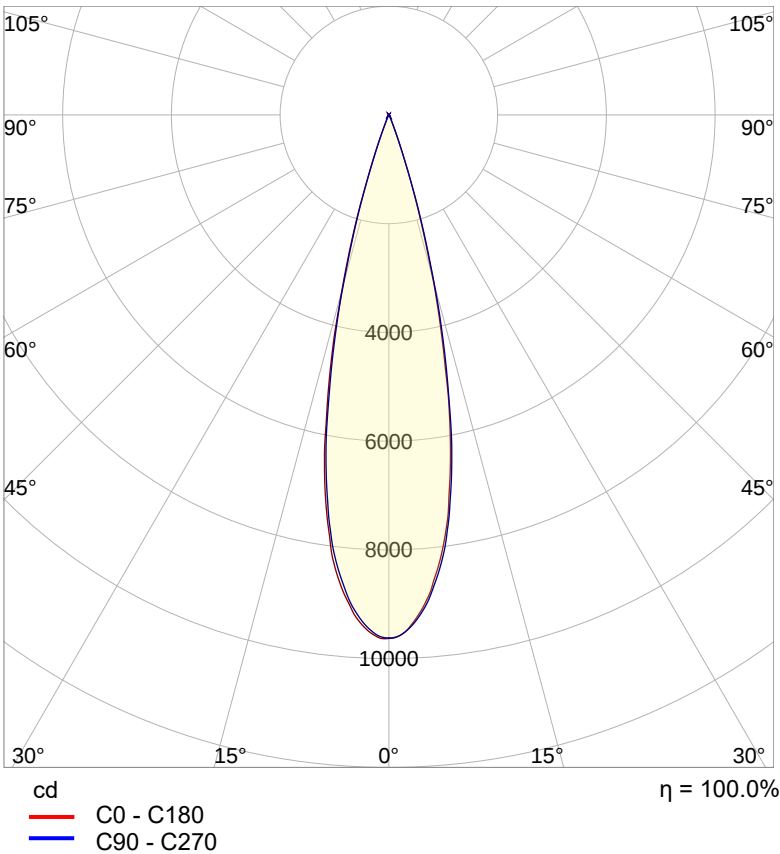
QuikSpot_OutputGain_Enabled_30D_5500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1711 lm – 0% / 100%
n/a lm/W
9634 cd
5500 K
CRI 0.0

Polar light distribution diagram

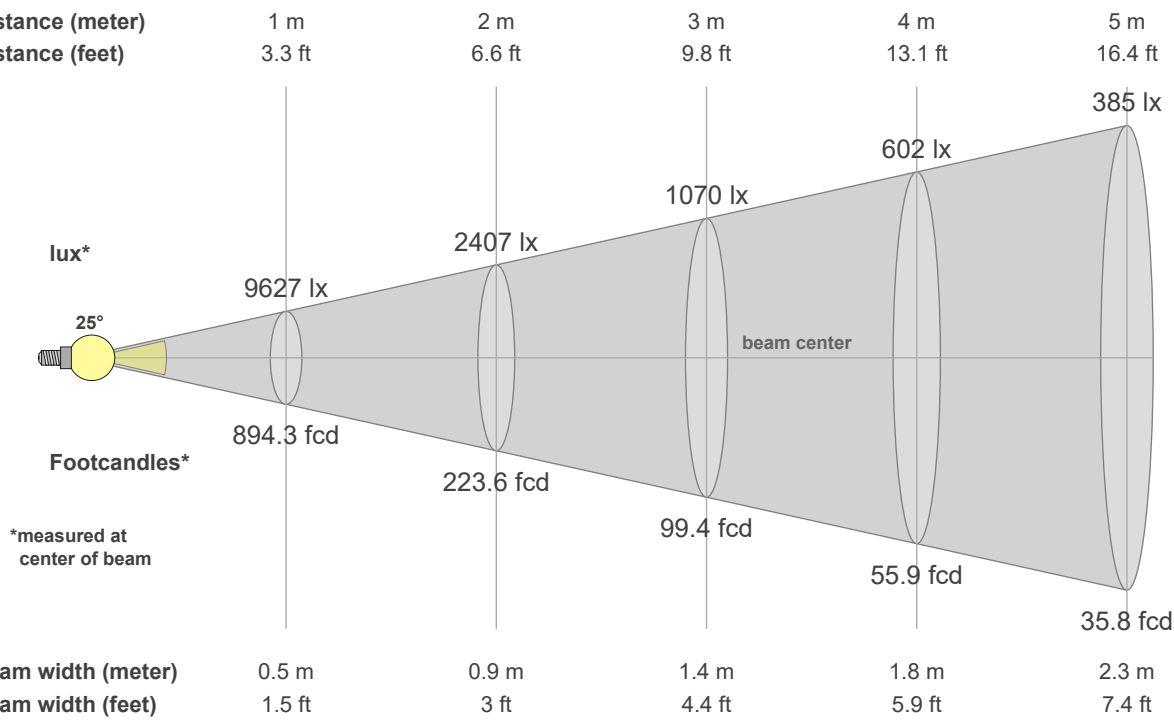


Test report

Light measurement results

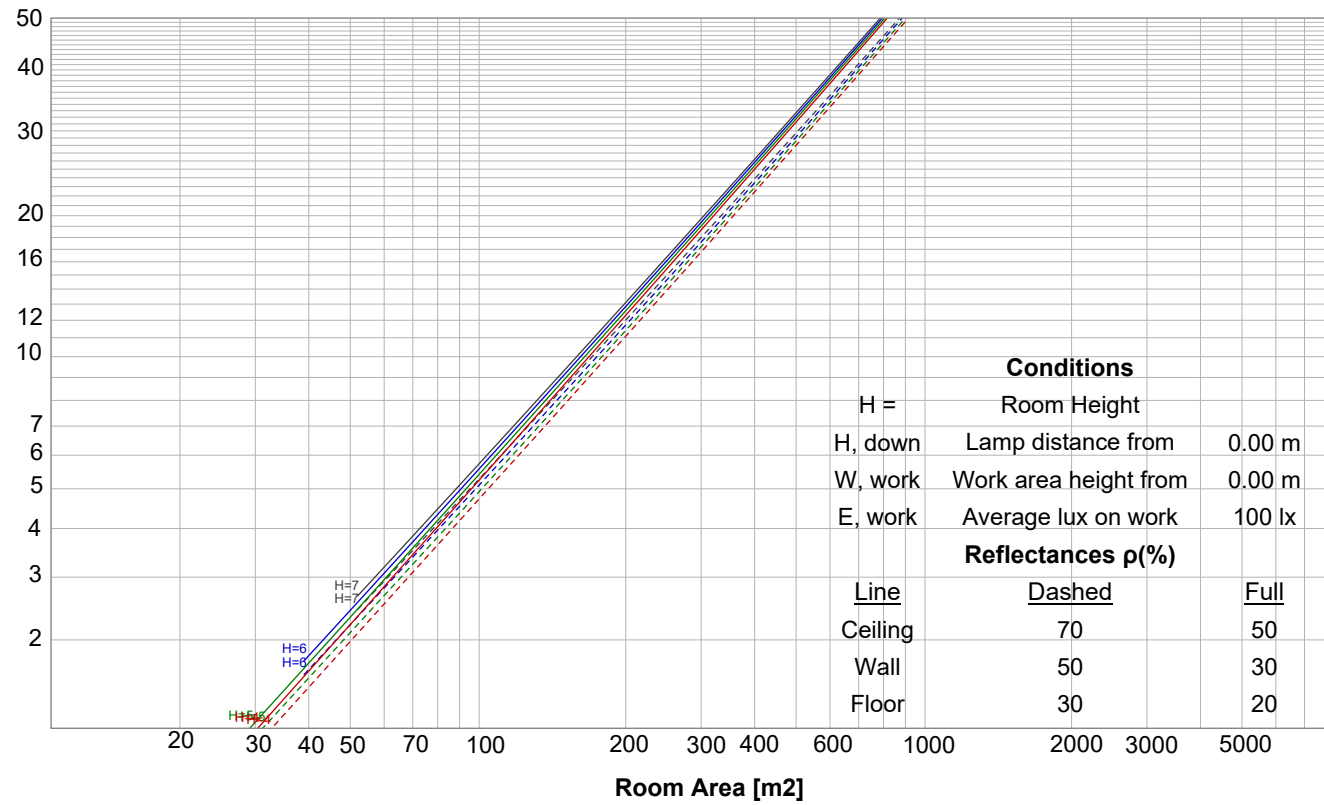
Print date 9/26/2025

Beam details

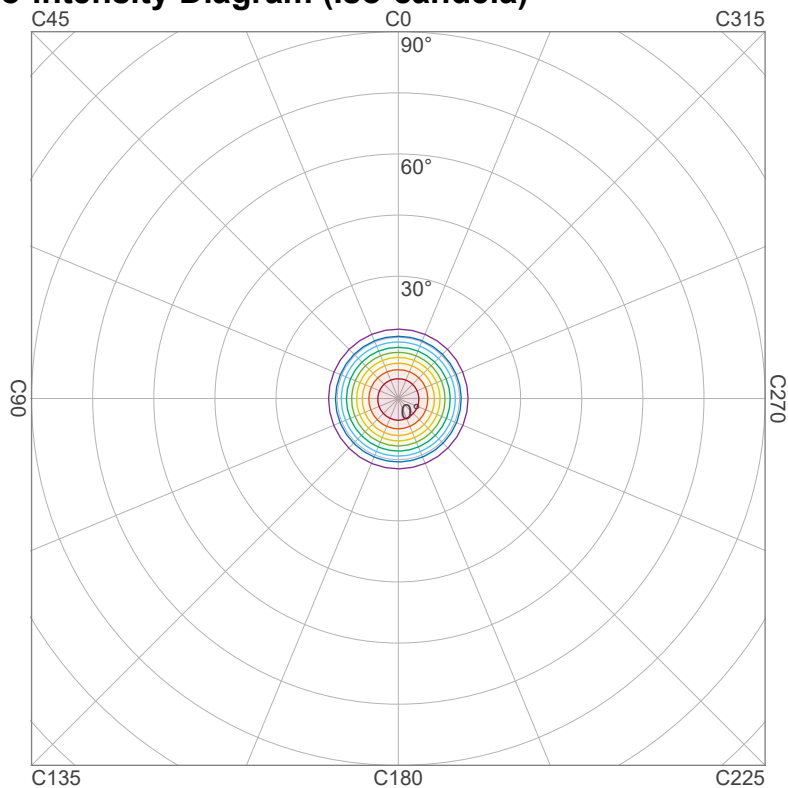


Luminaire budgetary diagram

LAMPS (number of lamps)



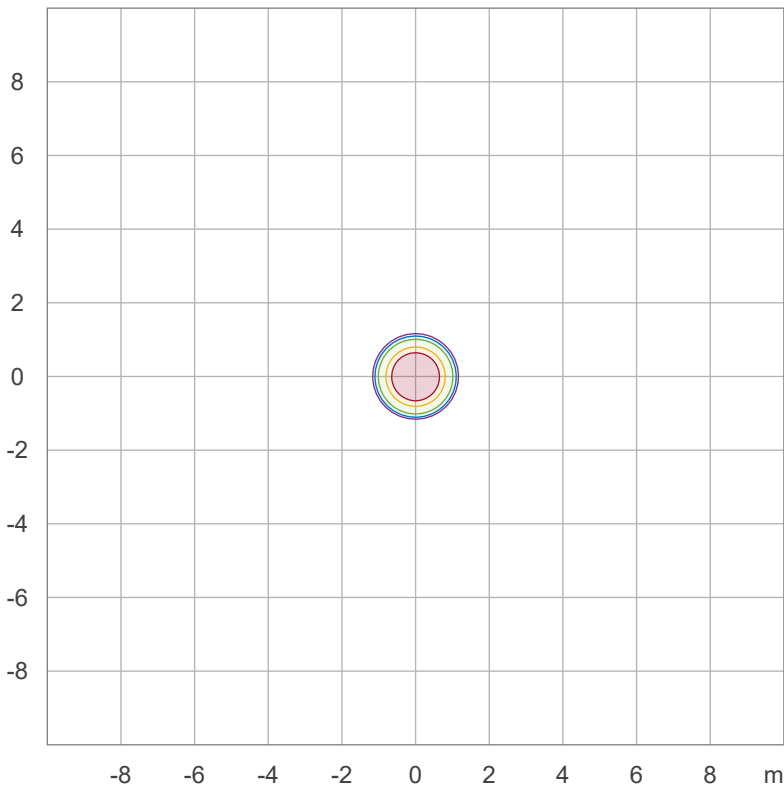
Iso-intensity Diagram (Iso-candela)



90 %	8663.9 cd
80 %	7701.3 cd
70 %	6738.6 cd
60 %	5776.0 cd
50 %	4813.3 cd
40 %	3850.6 cd
30 %	2888.0 cd
20 %	1925.3 cd
10 %	962.7 cd

Peak intensity: 9626.6 cd
Number of c-planes: 4

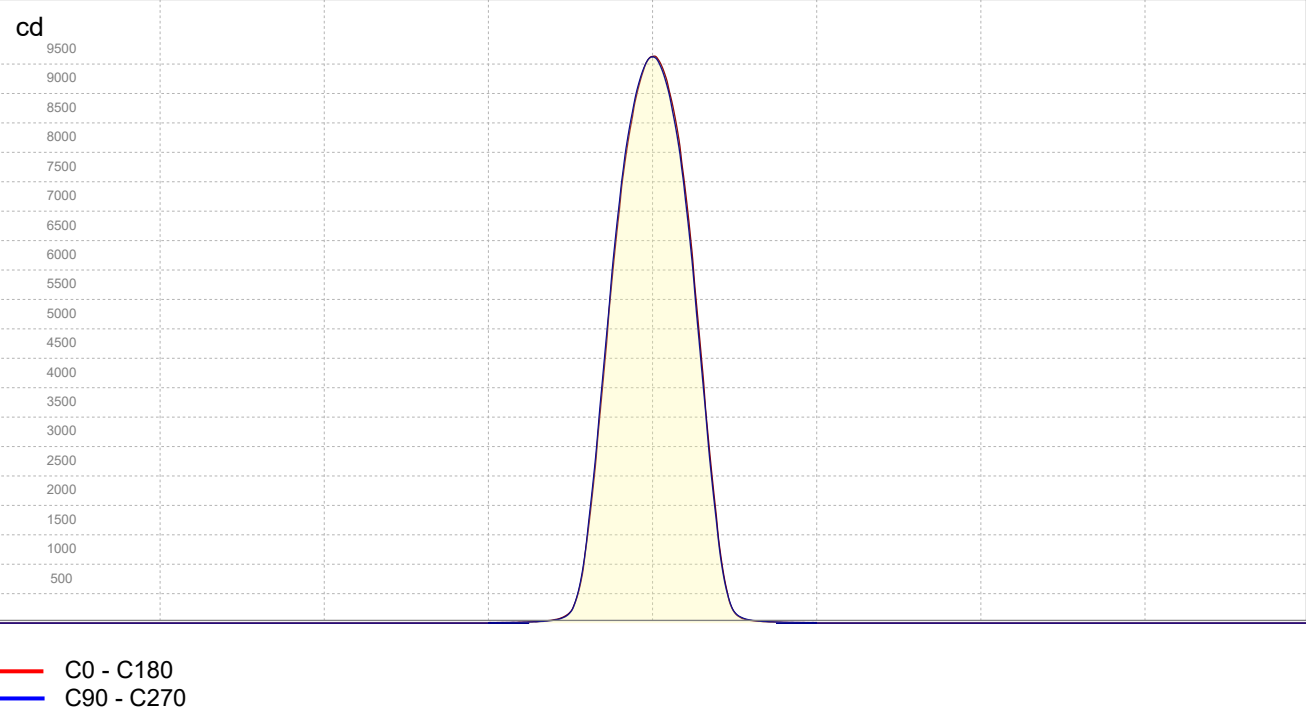
Iso-illuminance Diagram (Iso-lux)



50.0 %	534.8 lx
30.0 %	320.9 lx
10.0 %	107.0 lx
5.0 %	53.5 lx
3.0 %	32.1 lx

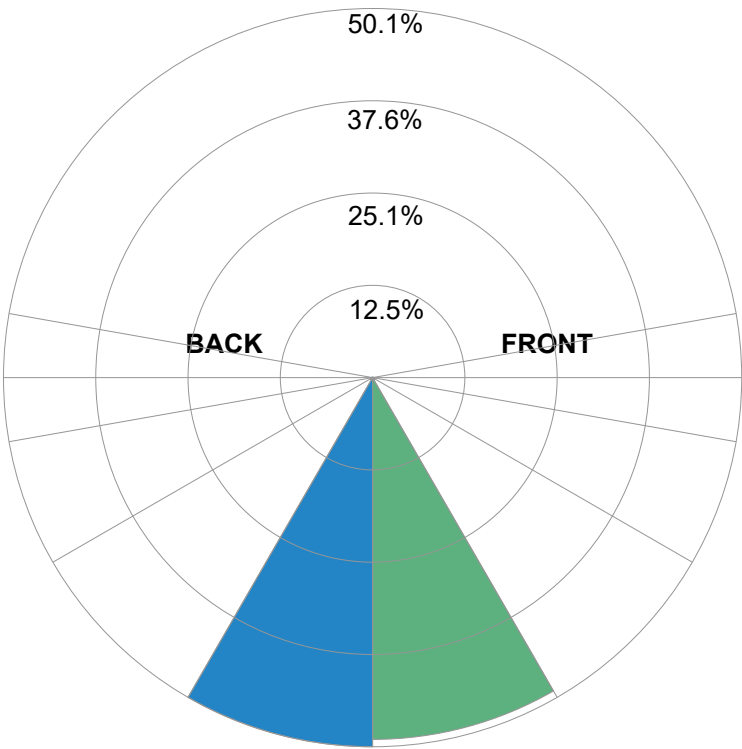
Peak illuminance: 1069.6 lx
Mounting height: 3.0 m
Number of c-planes: 4

Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	840.3	lm	49.1%
Medium (30-60°)	6.7	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	857.3	lm	50.1%
Medium (30-60°)	6.5	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1711	lm	100%
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Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

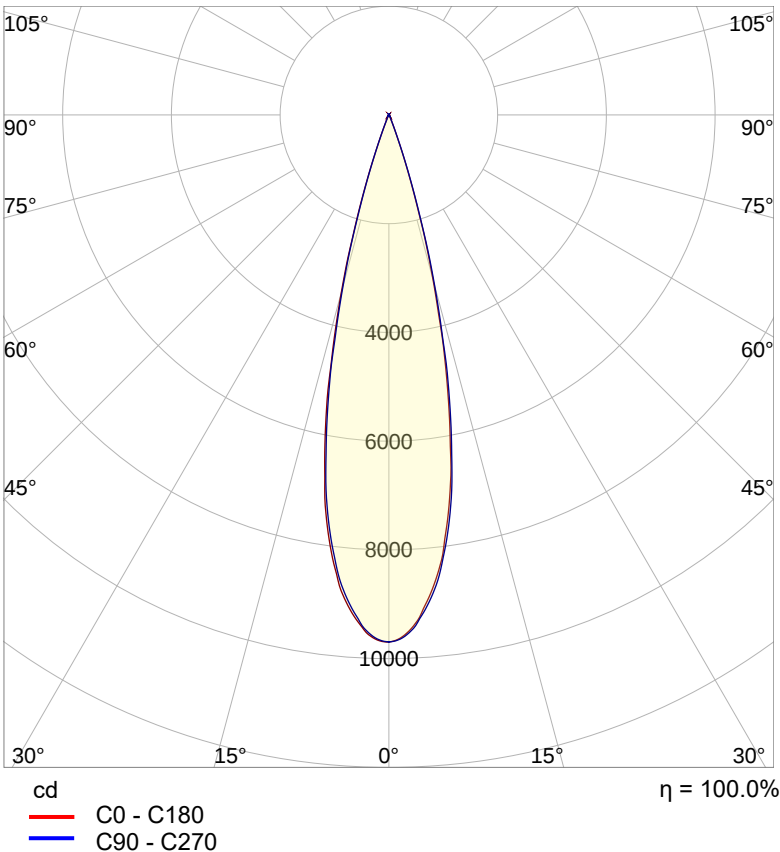
QuikSpot_OutputGain_Enabled_30D_6500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1718 lm – 0% / 100%
n/a lm/W
9693 cd
6500 K
CRI 0.0

Polar light distribution diagram

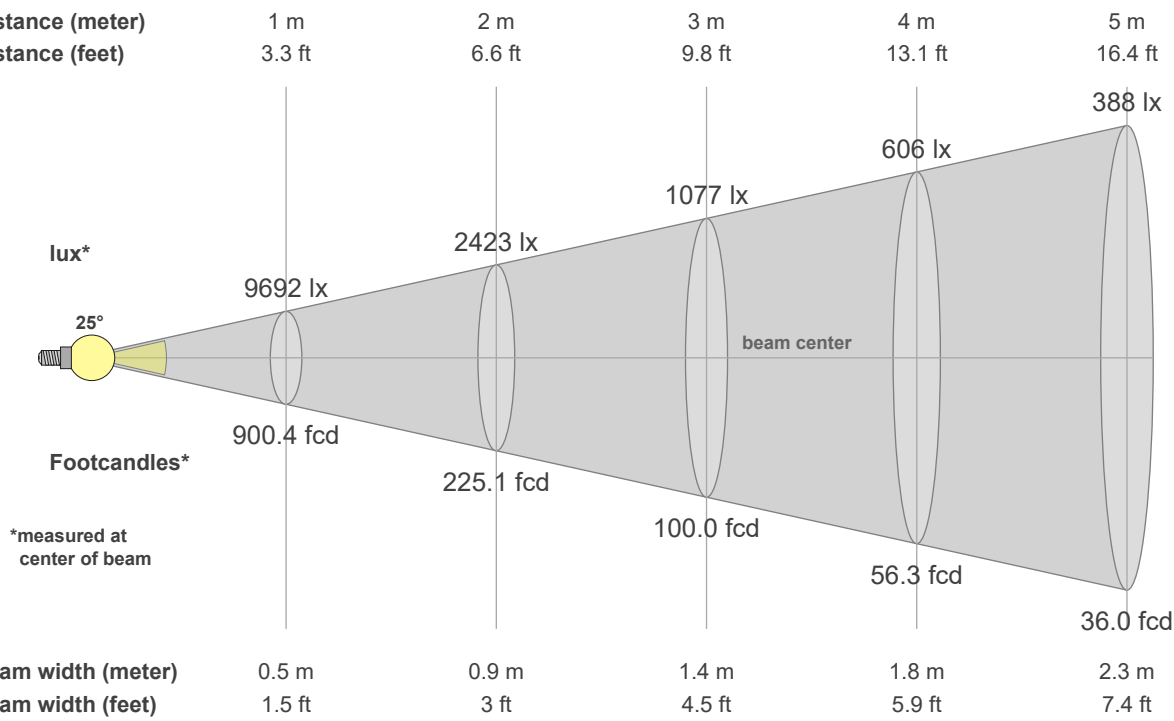


Test report

Light measurement results

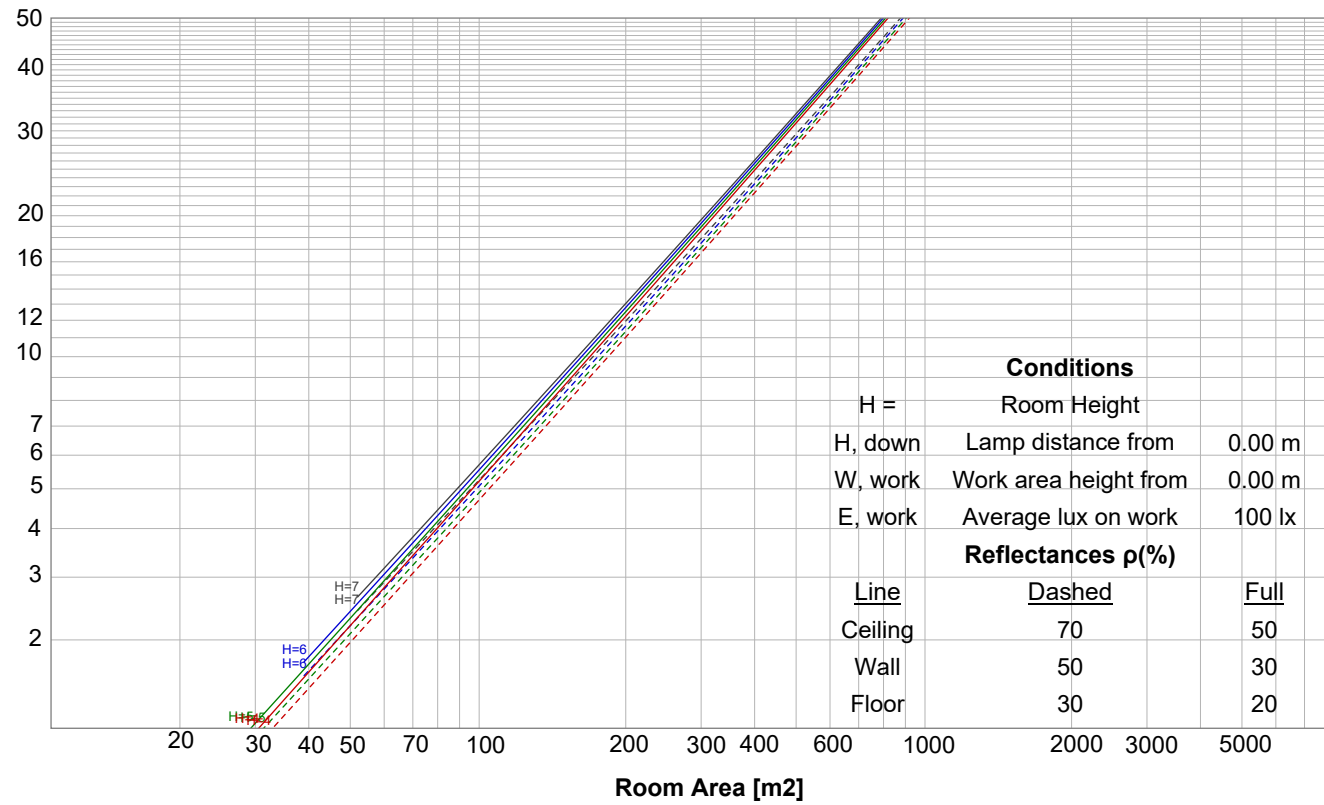
Print date 9/26/2025

Beam details

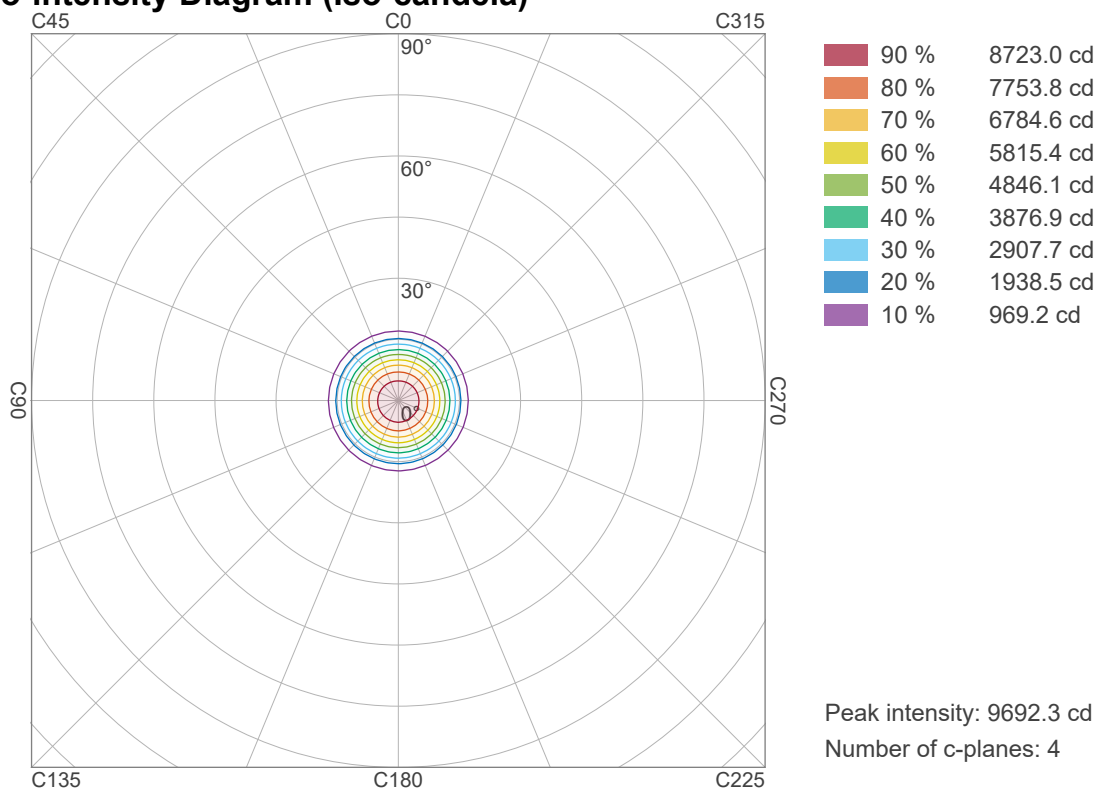


Luminaire budgetary diagram

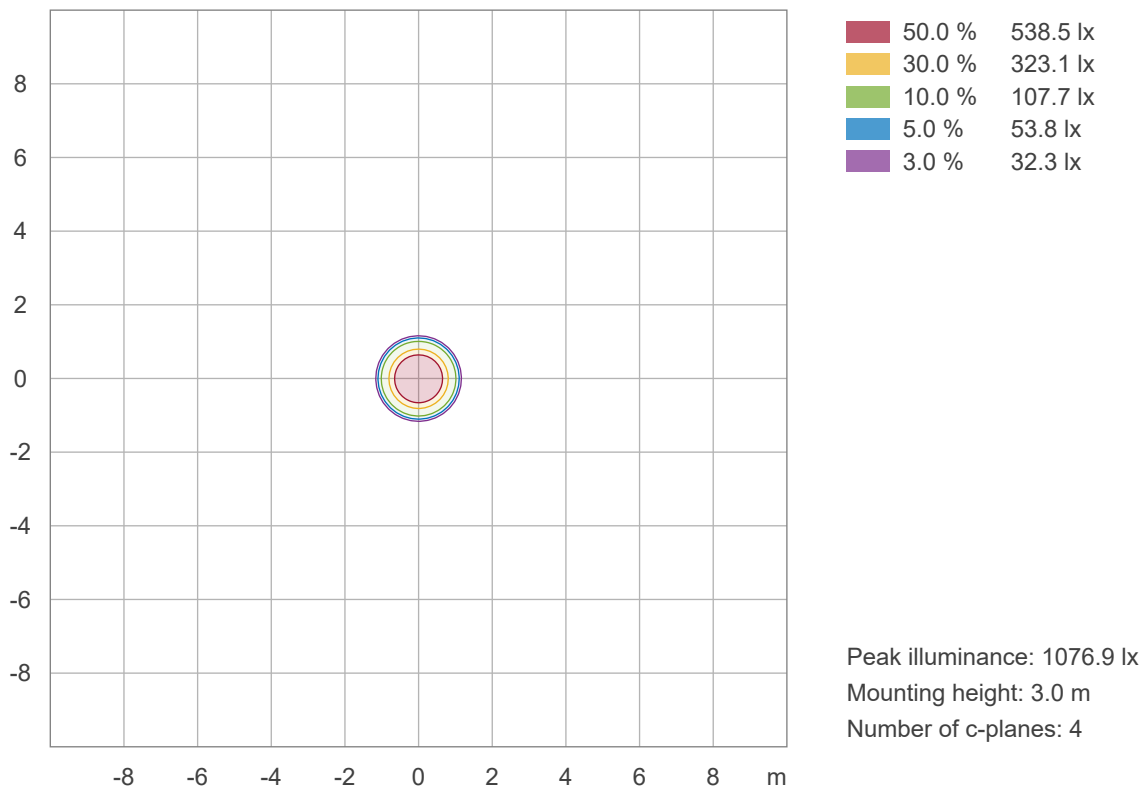
LAMPS (number of lamps)



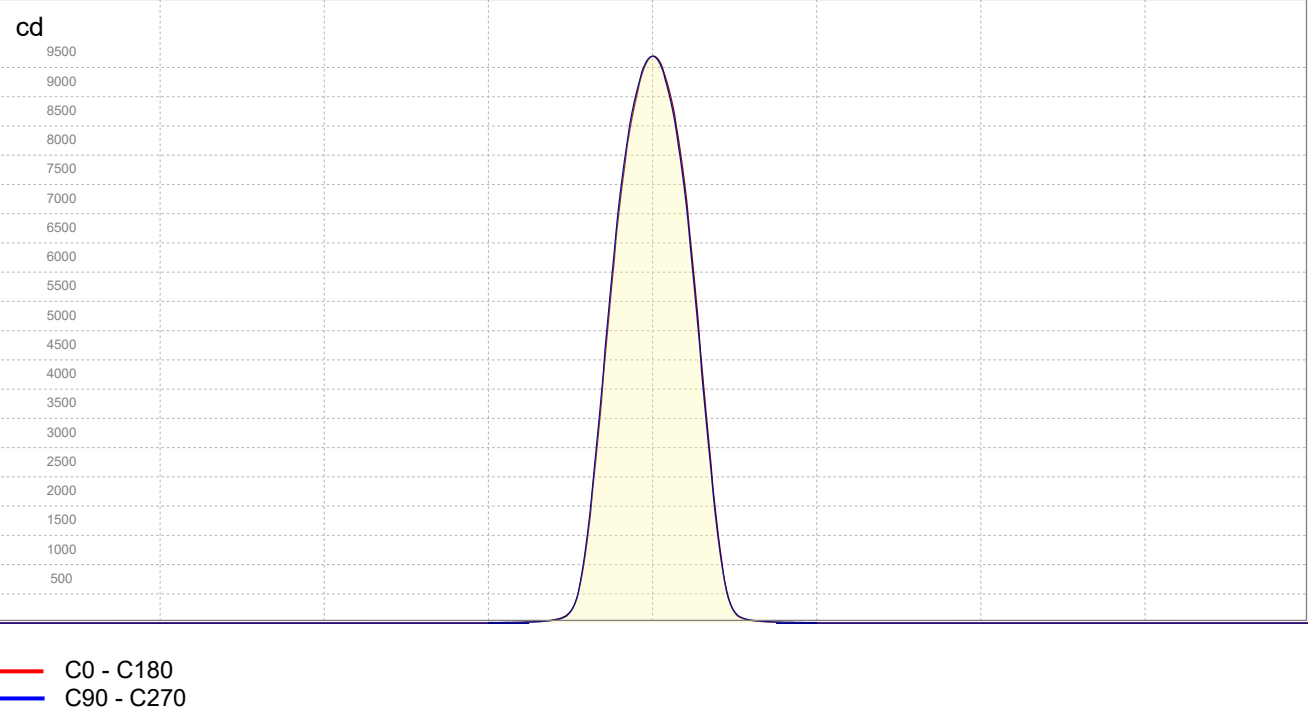
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

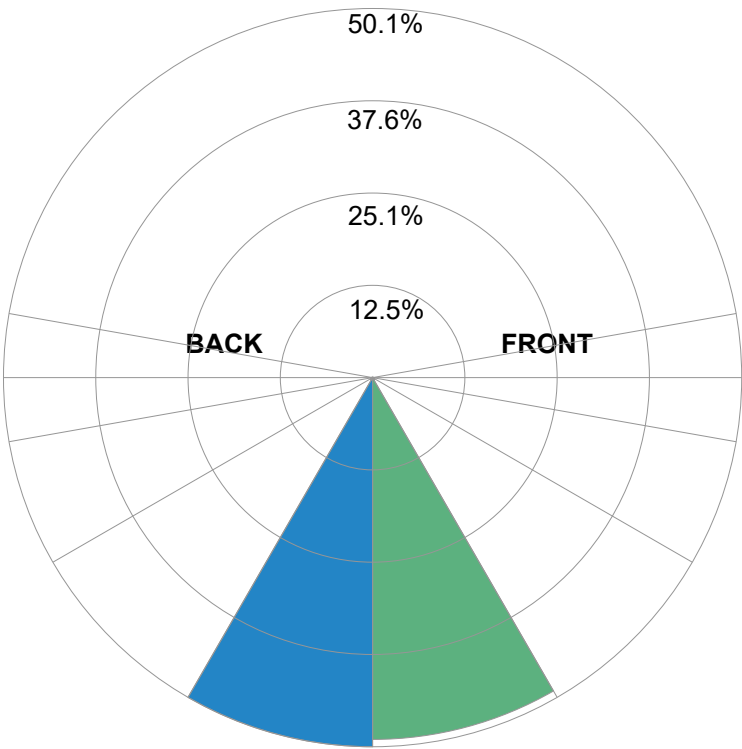


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light			
Low (0-30°)	844.1	Im	49.1%
Medium (30-60°)	6.6	Im	0.4%
High (60-80°)	0	Im	0%
Very High	0	Im	0%
Back Light			
Low (0-30°)	861.2	Im	50.1%
Medium (30-60°)	6.2	Im	0.4%
High (60-80°)	0	Im	0%
Very High	0	Im	0%
Uplight			
Low (90-100°)	0	Im	0%
High (100-180°)	0	Im	0%
Total			
Sum	1718	Im	100%

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

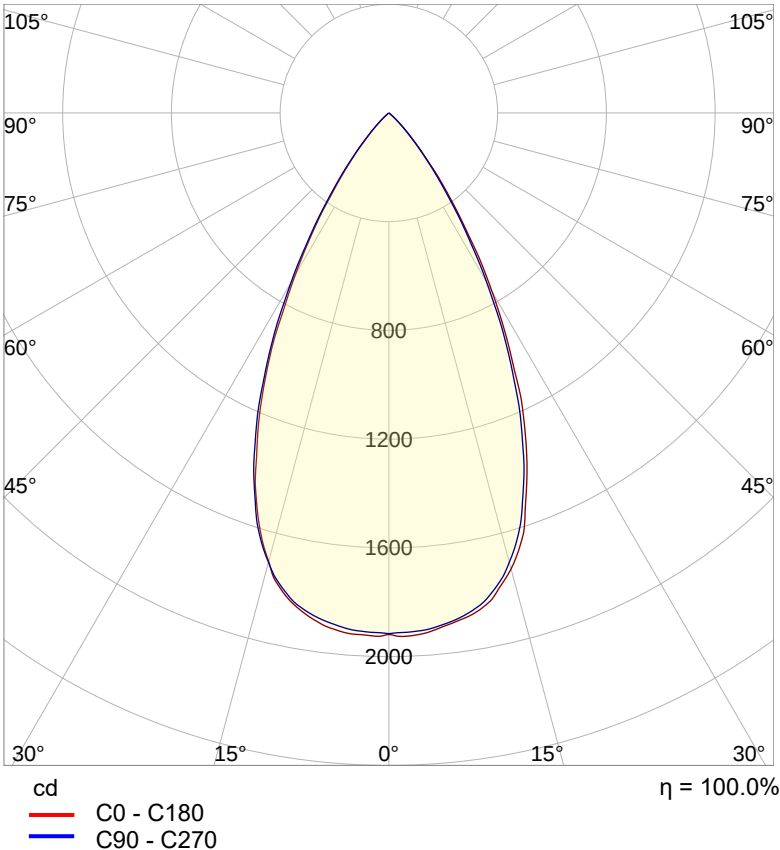
QuikSpot_OutputGain_Enabled_60D_2700K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1464 lm – 0% / 100%
n/a lm/W
1926 cd
2700 K
CRI 0.0

Polar light distribution diagram

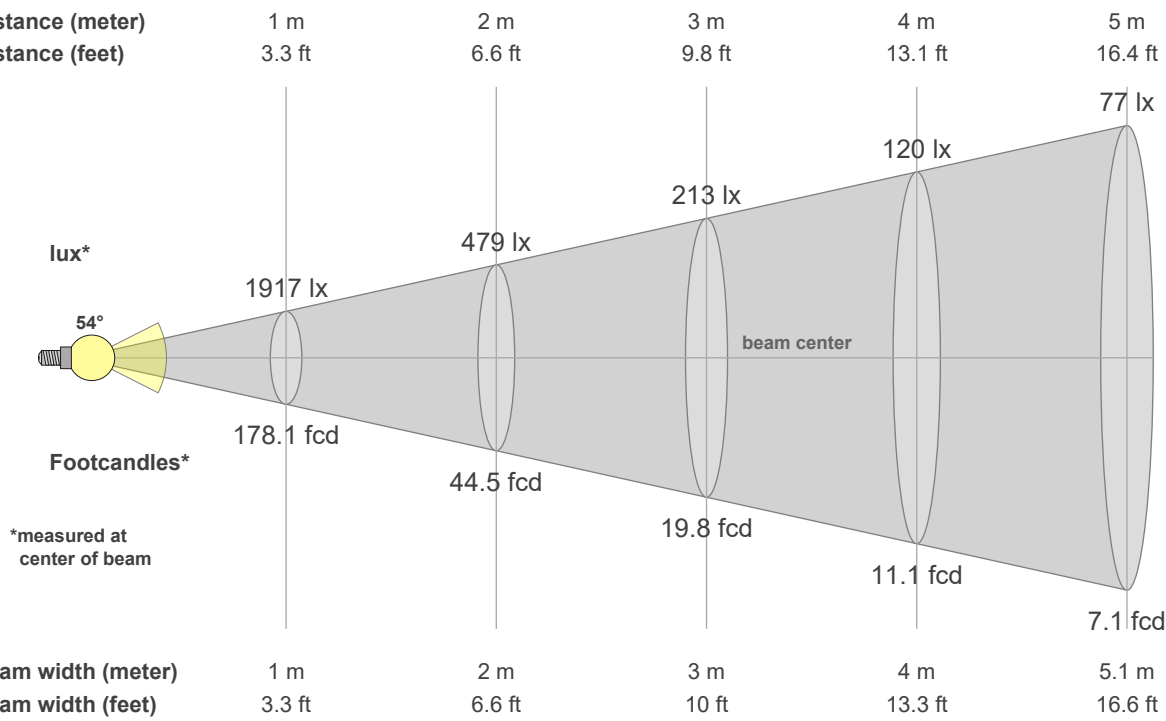


Test report

Light measurement results

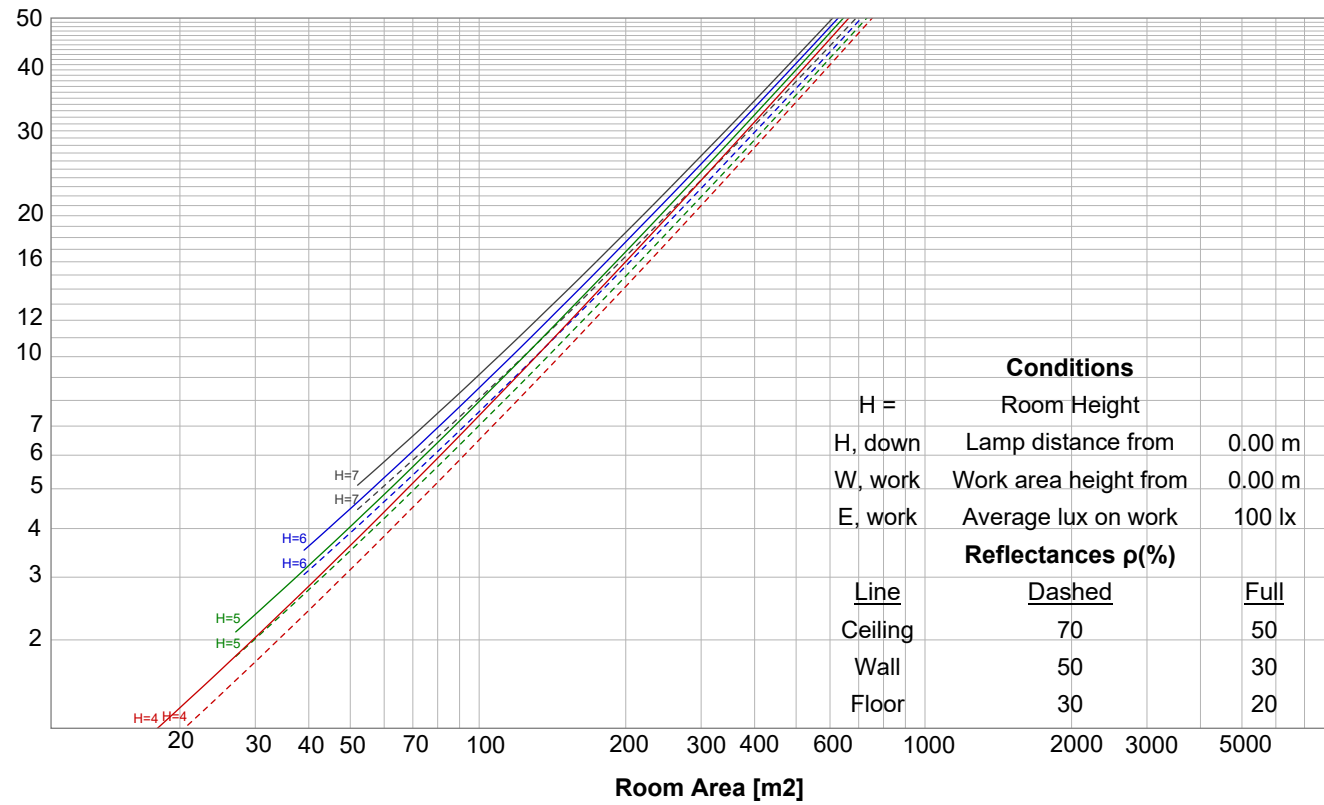
Print date 9/26/2025

Beam details

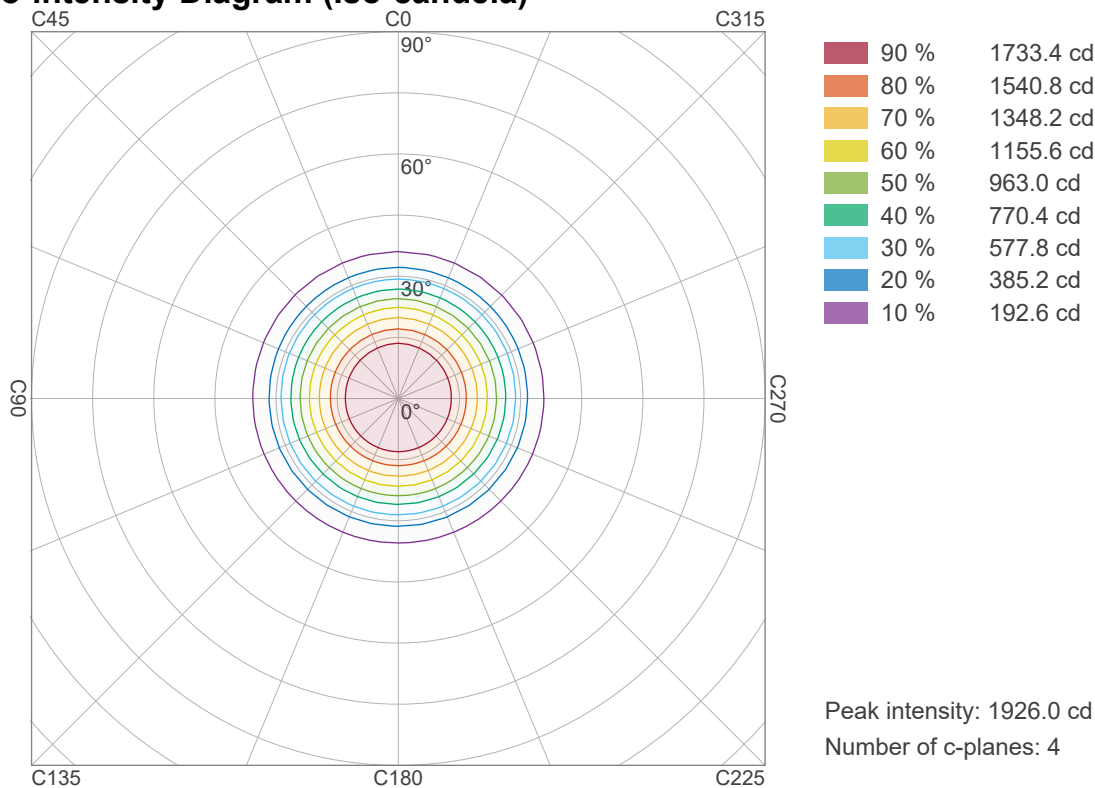


Luminaire budgetary diagram

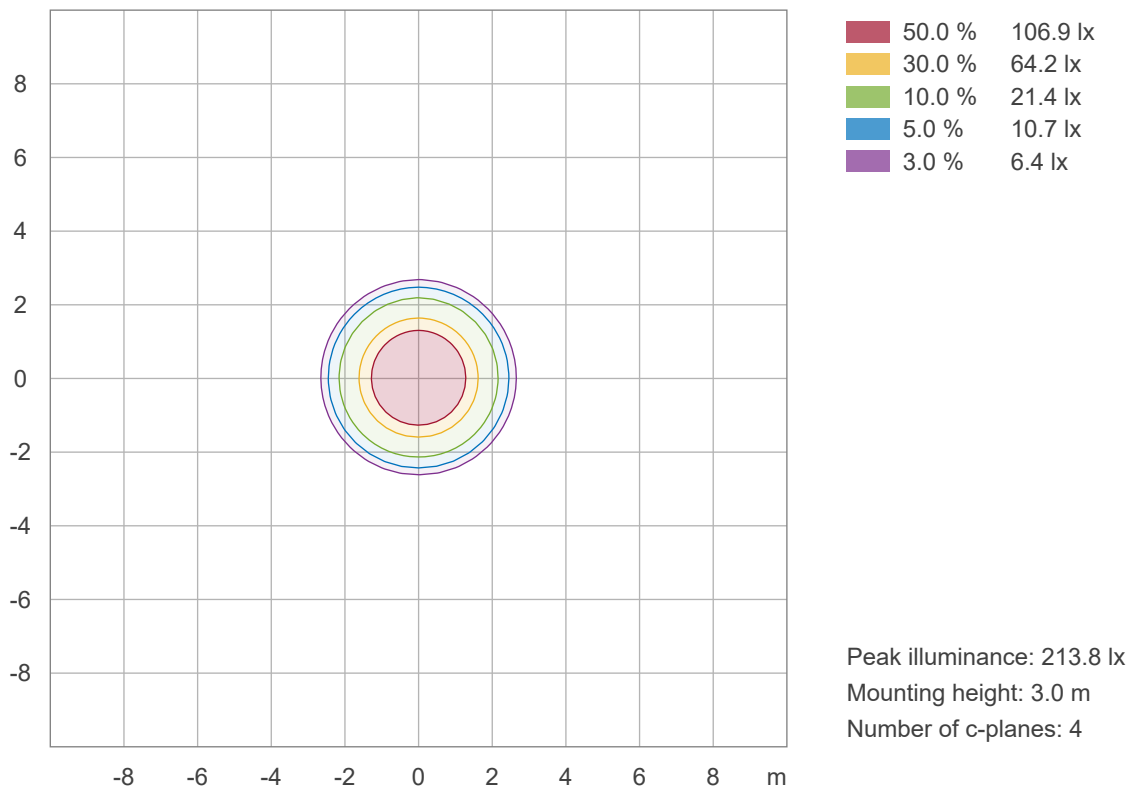
LAMPS (number of lamps)



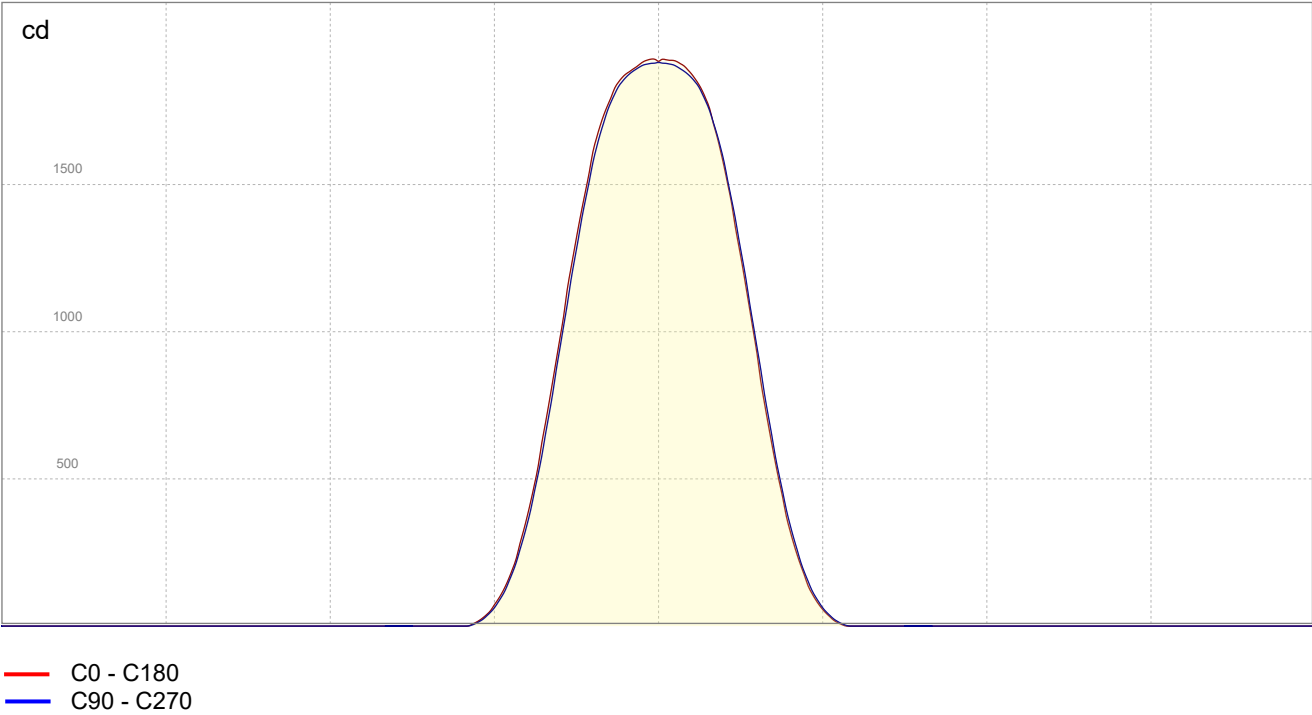
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

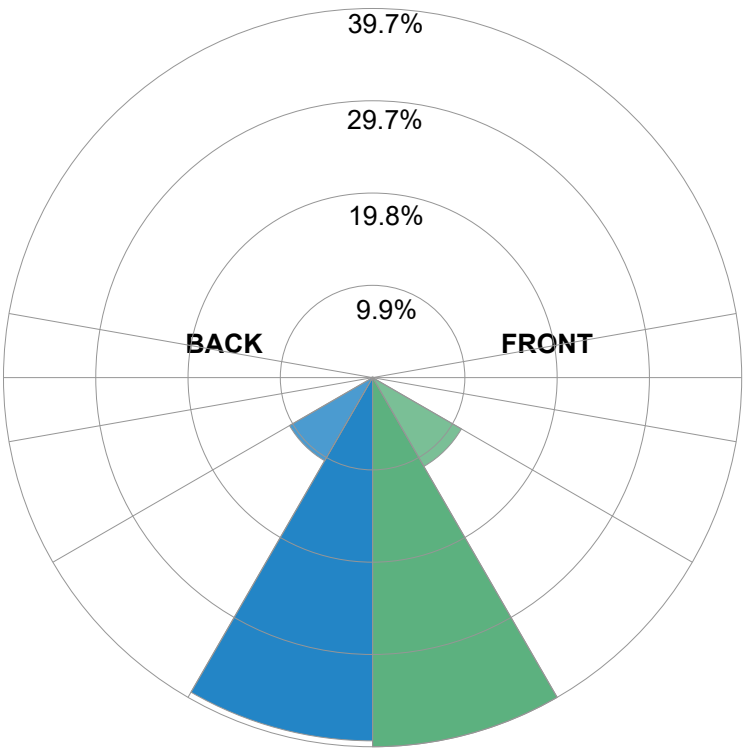


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	580.5	lm	39.7%
Medium (30-60°)	161.3	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	571.2	lm	39%
Medium (30-60°)	150.9	lm	10.3%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1464	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

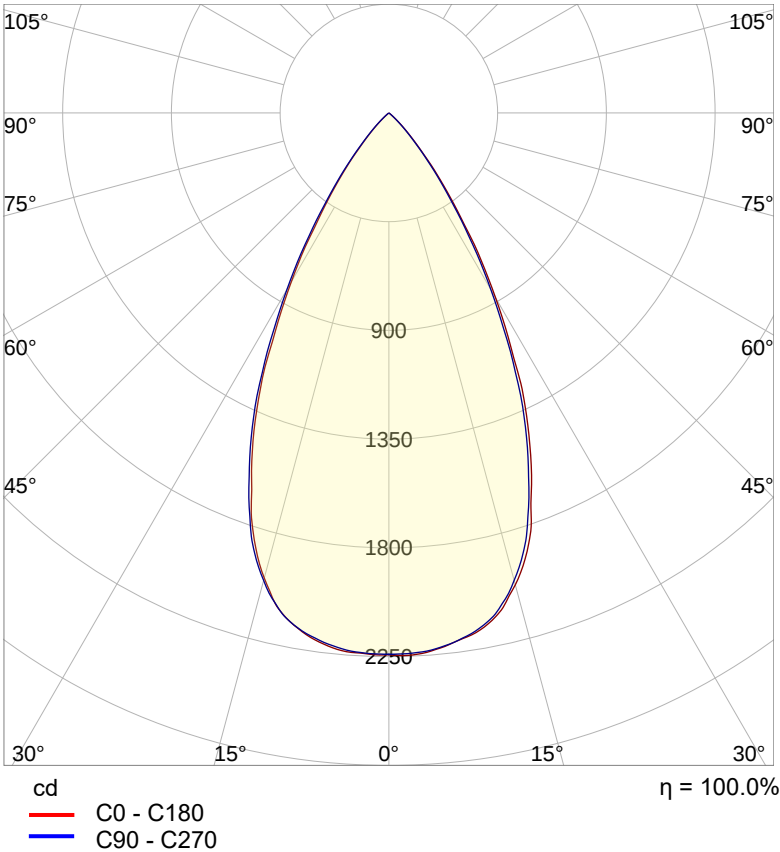
QuikSpot_OutputGain_Enabled_60D_3200K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1712 lm – 0% / 100%
n/a lm/W
2246 cd
3200 K
CRI 0.0

Polar light distribution diagram

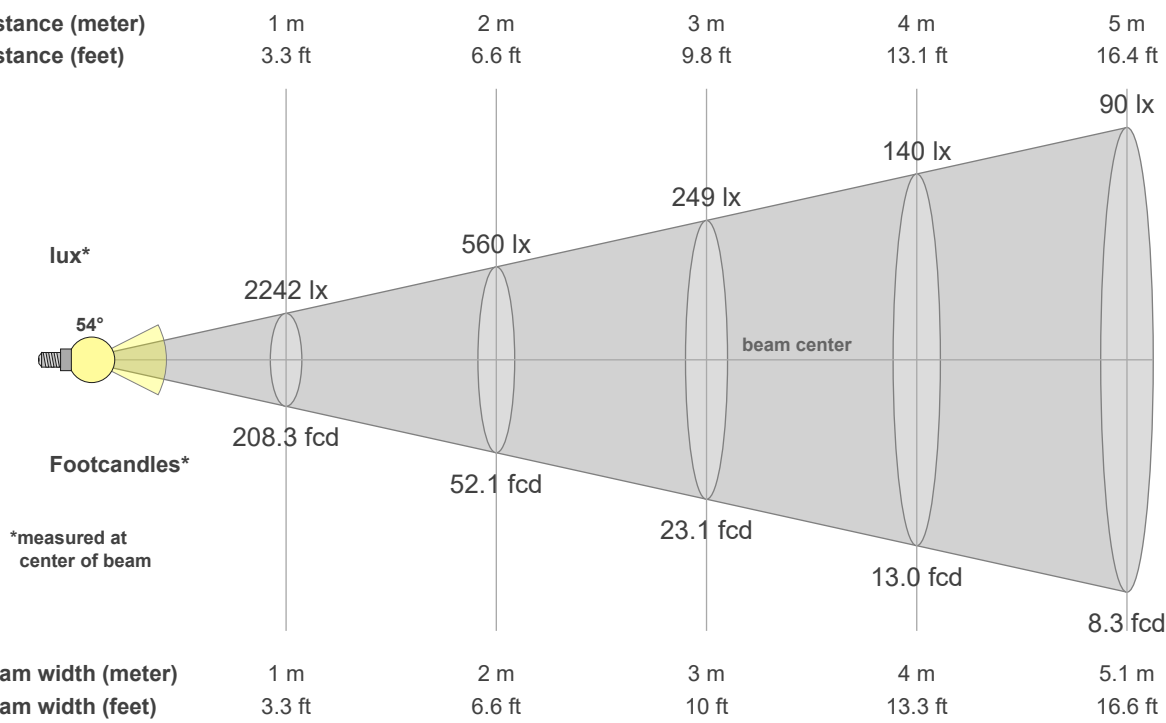


Test report

Light measurement results

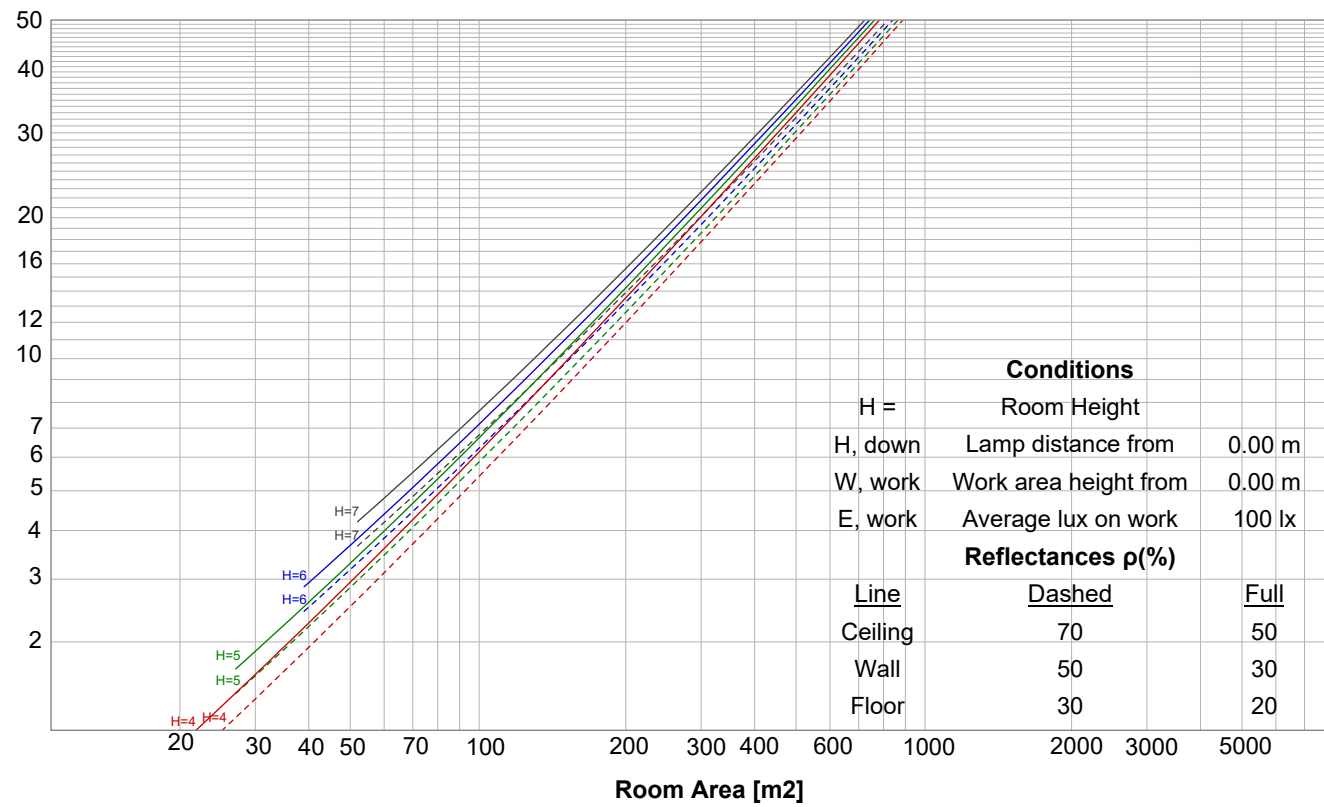
Print date 9/26/2025

Beam details

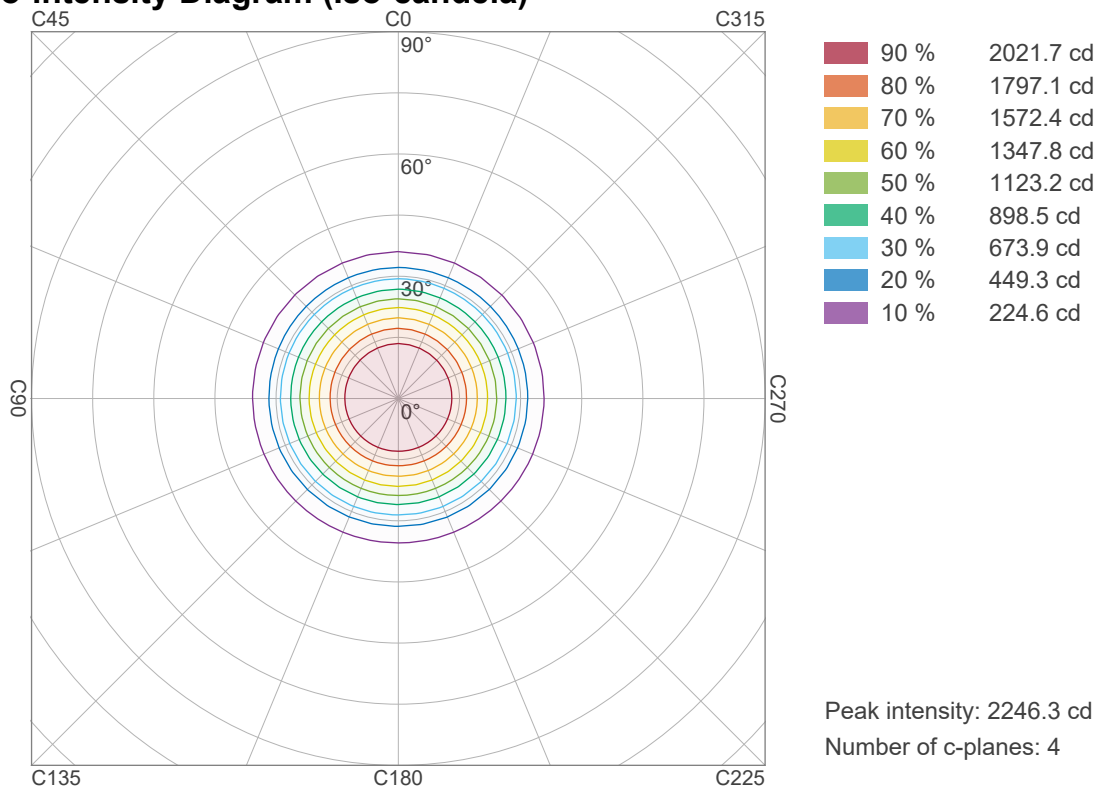


Luminaire budgetary diagram

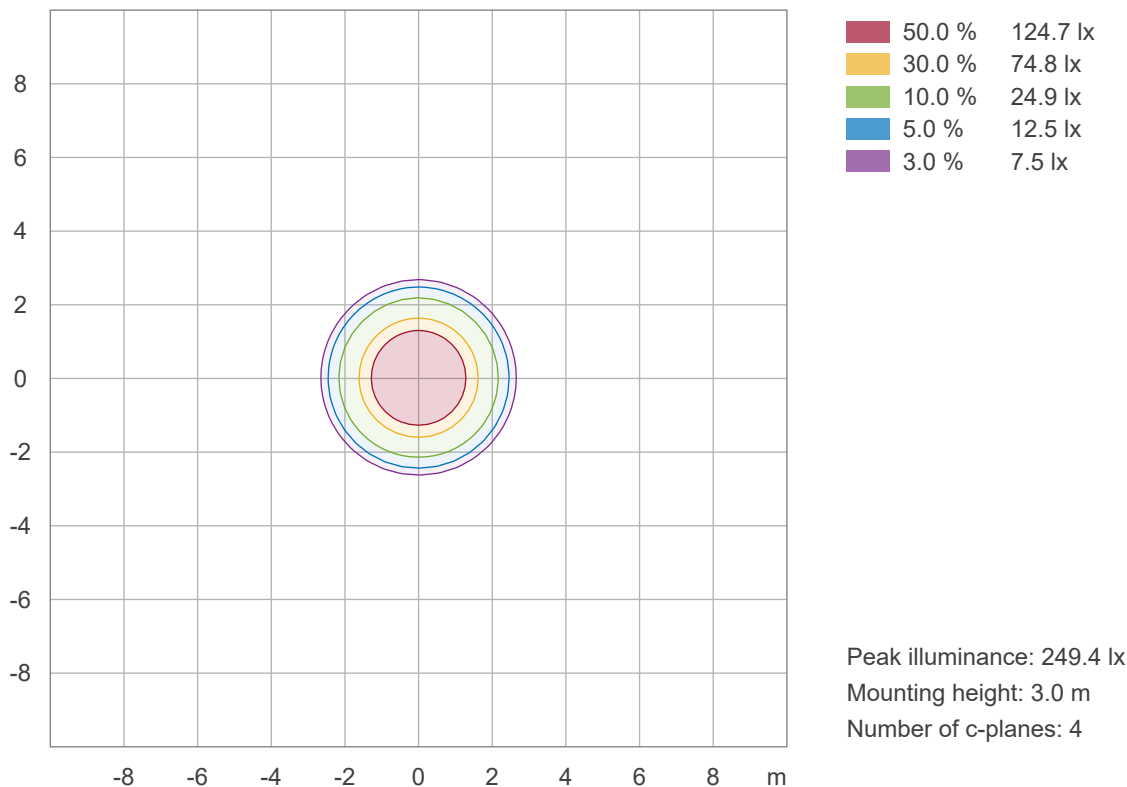
LAMPS (number of lamps)



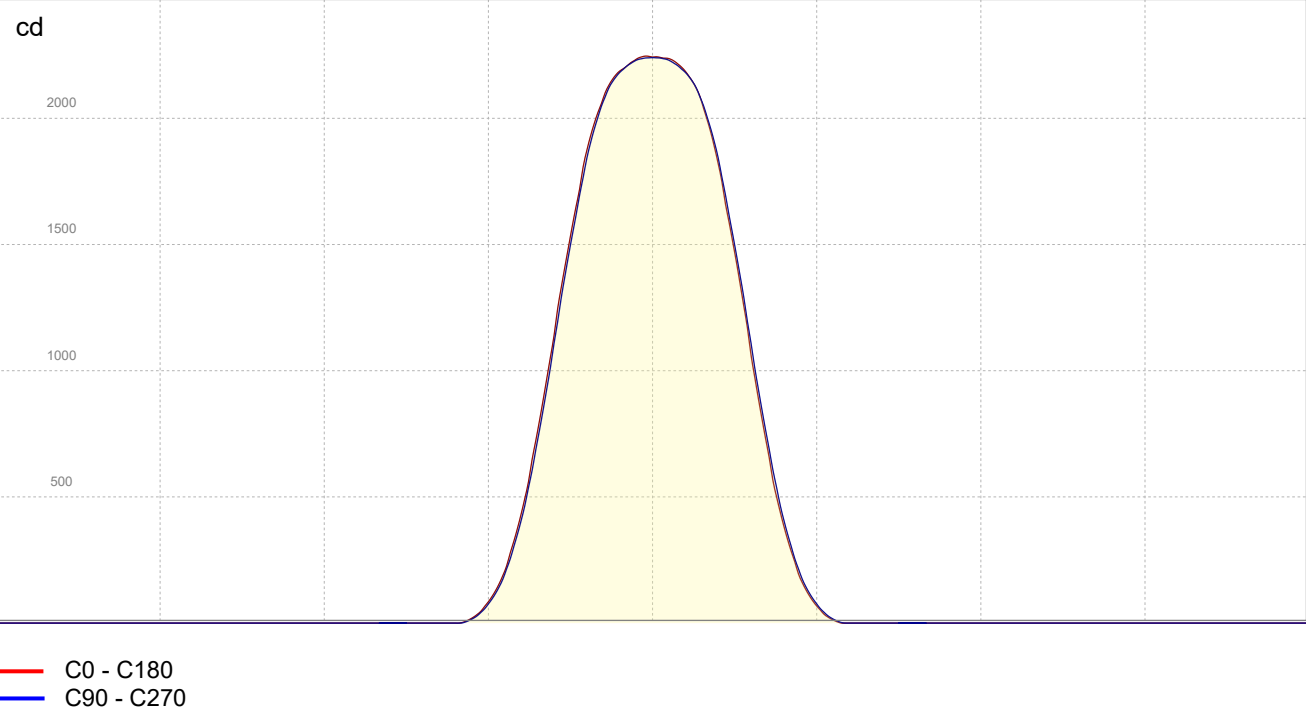
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

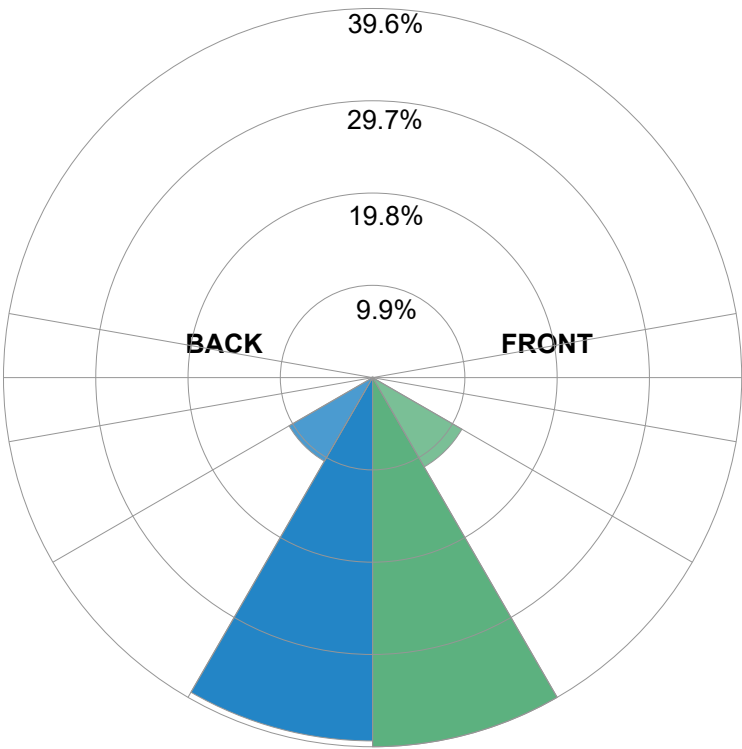


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	677.9	lm	39.6%
Medium (30-60°)	189.4	lm	11.1%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	667.2	lm	39%
Medium (30-60°)	177.1	lm	10.3%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1712	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

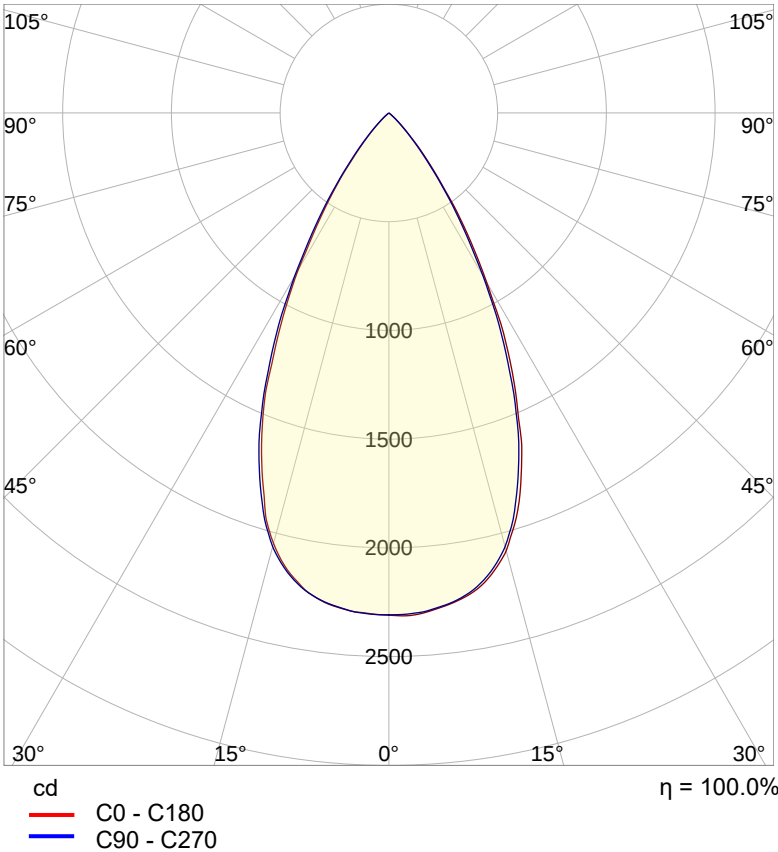
QuikSpot_OutputGain_Enabled_60D_4000K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1759 lm – 0% / 100%
n/a lm/W
2314 cd
4000 K
CRI 0.0

Polar light distribution diagram

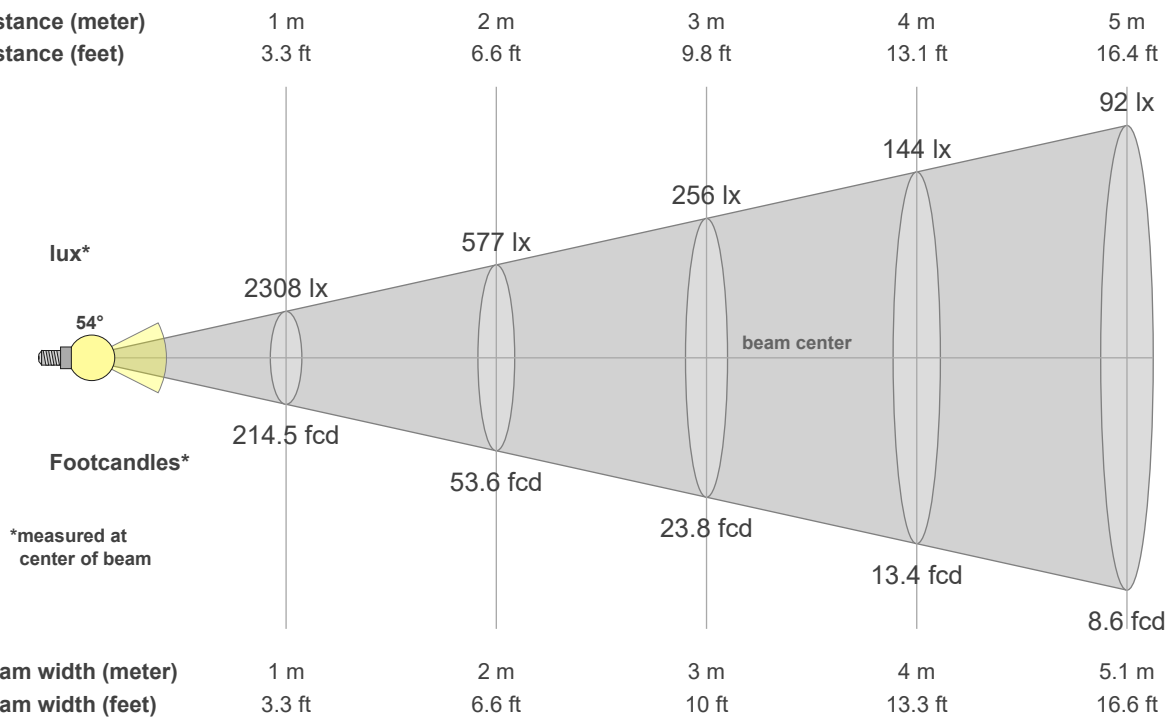


Test report

Light measurement results

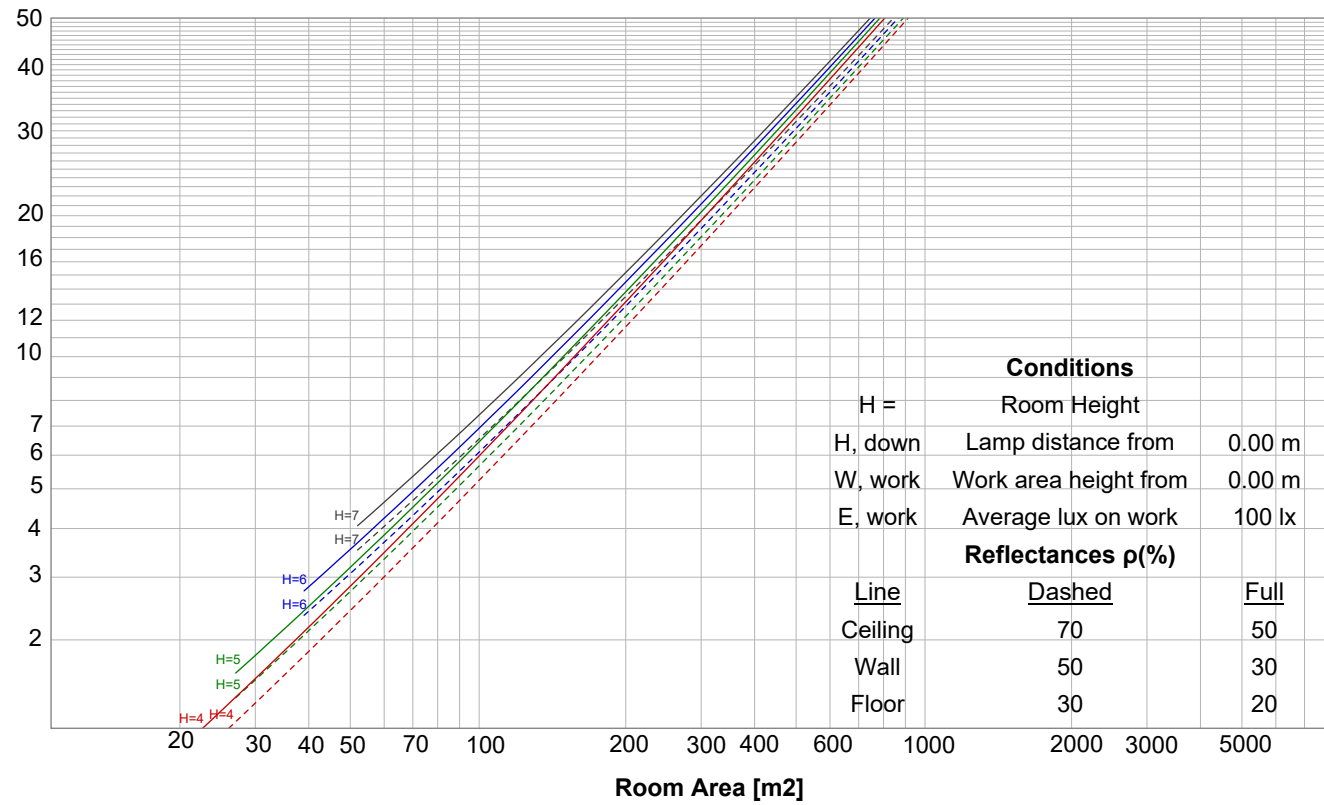
Print date 9/26/2025

Beam details

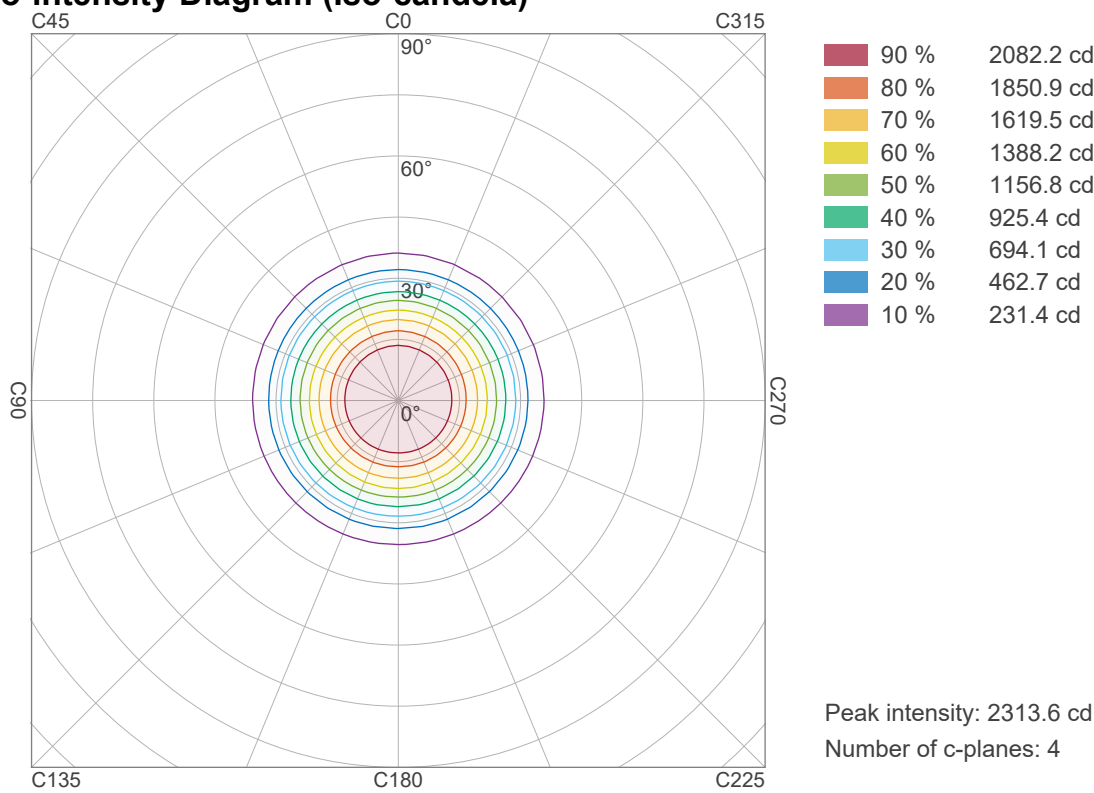


Luminaire budgetary diagram

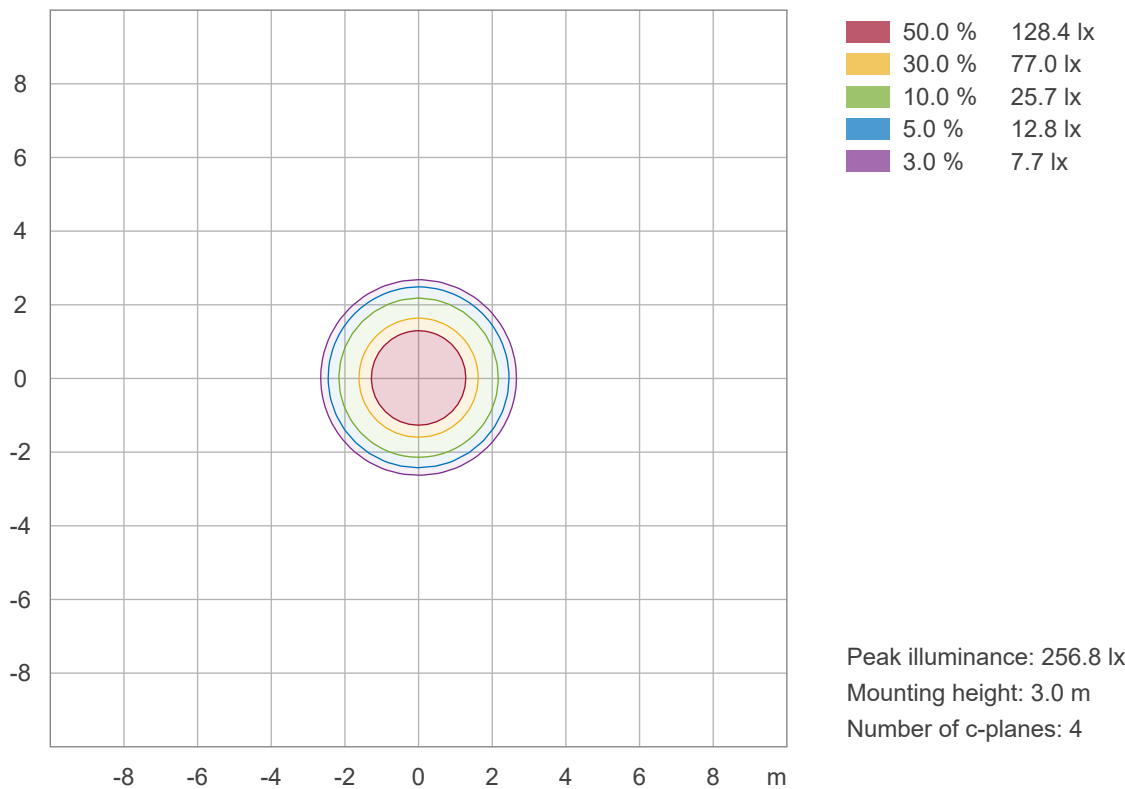
LAMPS (number of lamps)



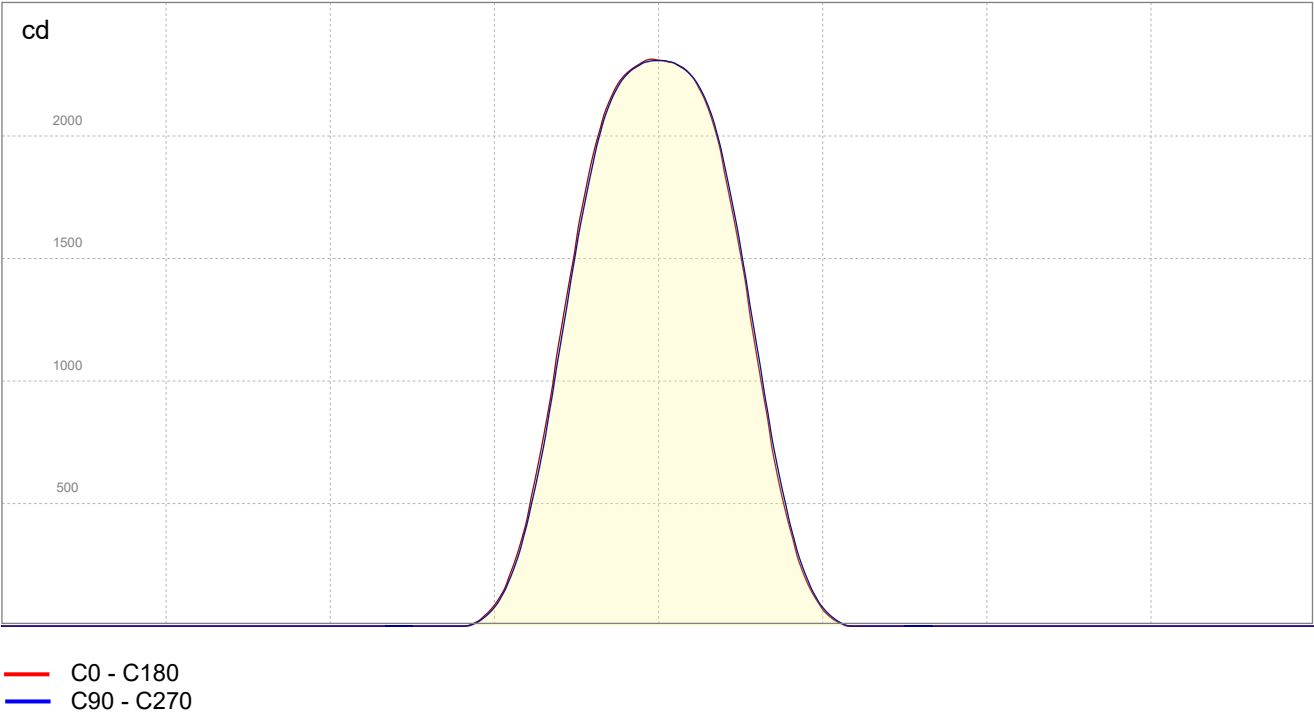
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

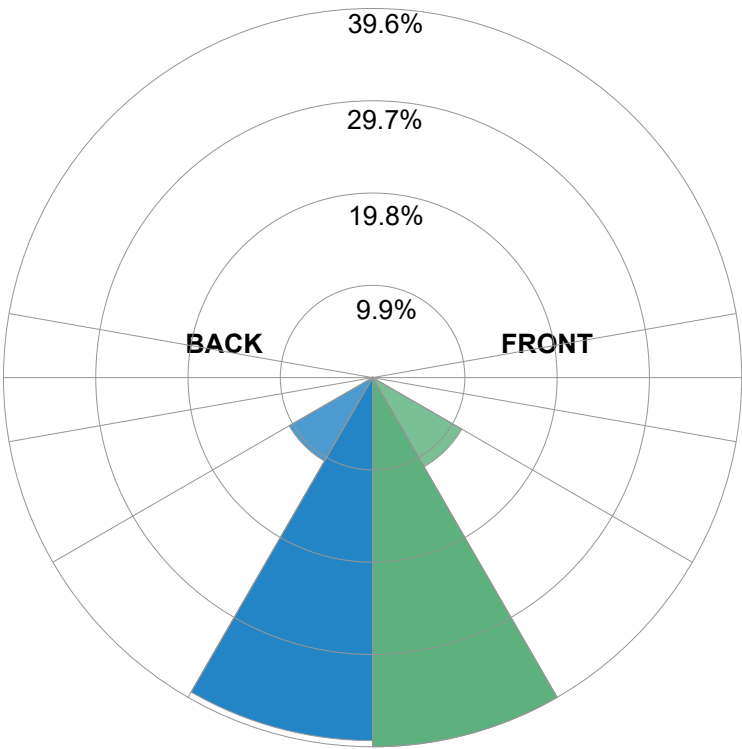


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	697.1	lm	39.6%
Medium (30-60°)	194.3	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	685.6	lm	39%
Medium (30-60°)	181.8	lm	10.3%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1759	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

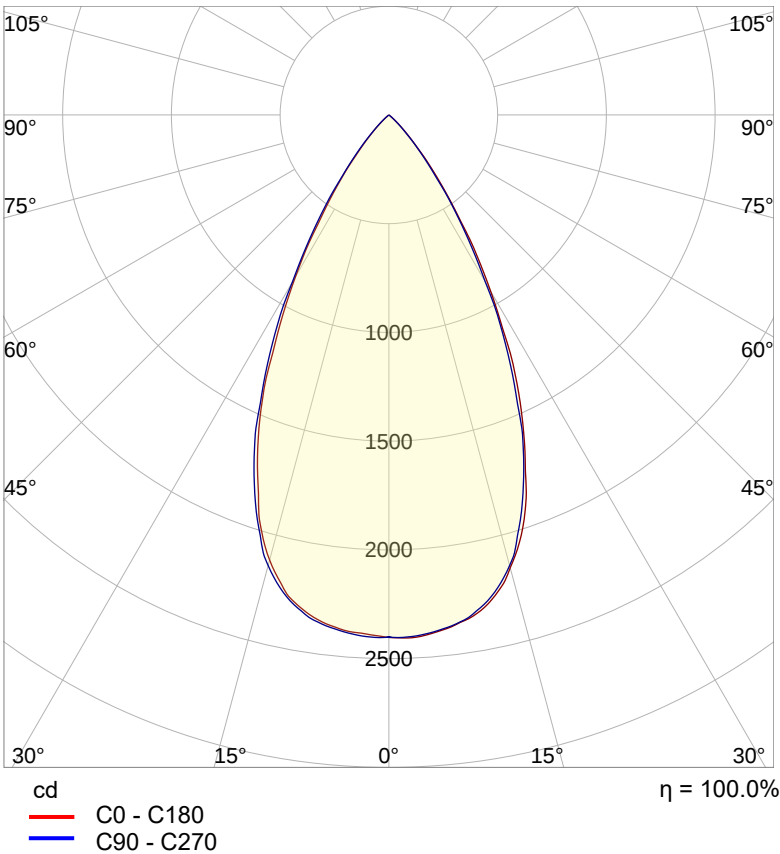
QuikSpot_OutputGain_Enabled_60D_5500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1824 lm – 0% / 100%
n/a lm/W
2407 cd
5500 K
CRI 0.0

Polar light distribution diagram

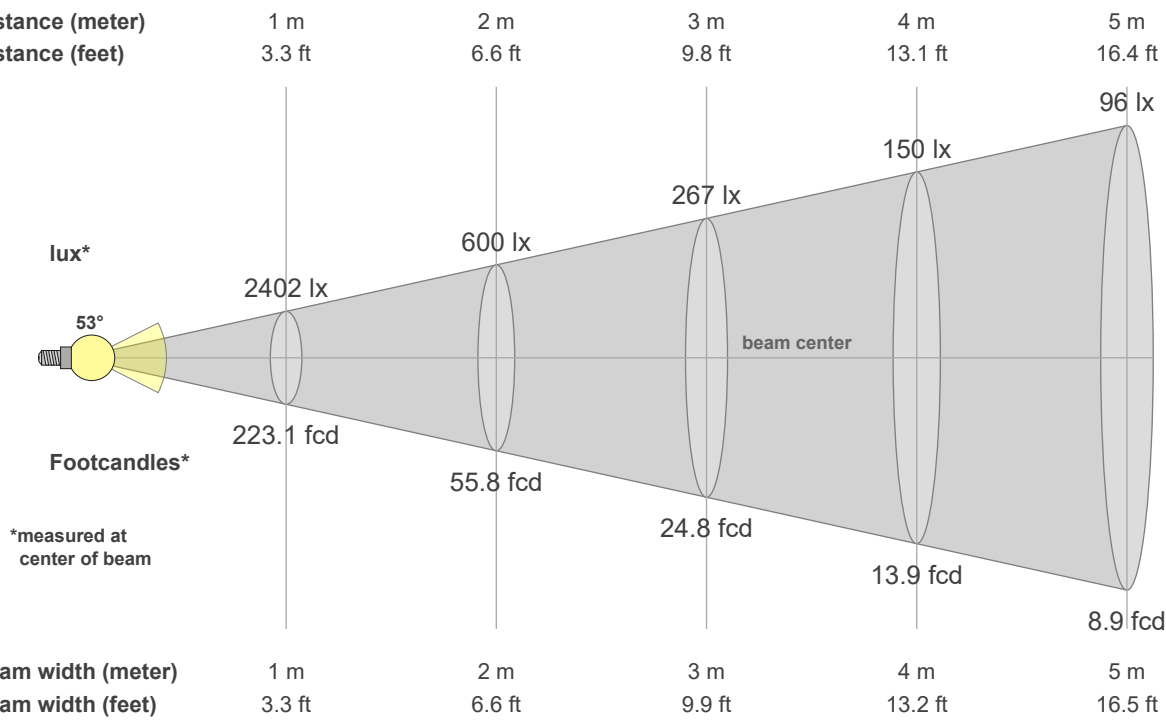


Test report

Light measurement results

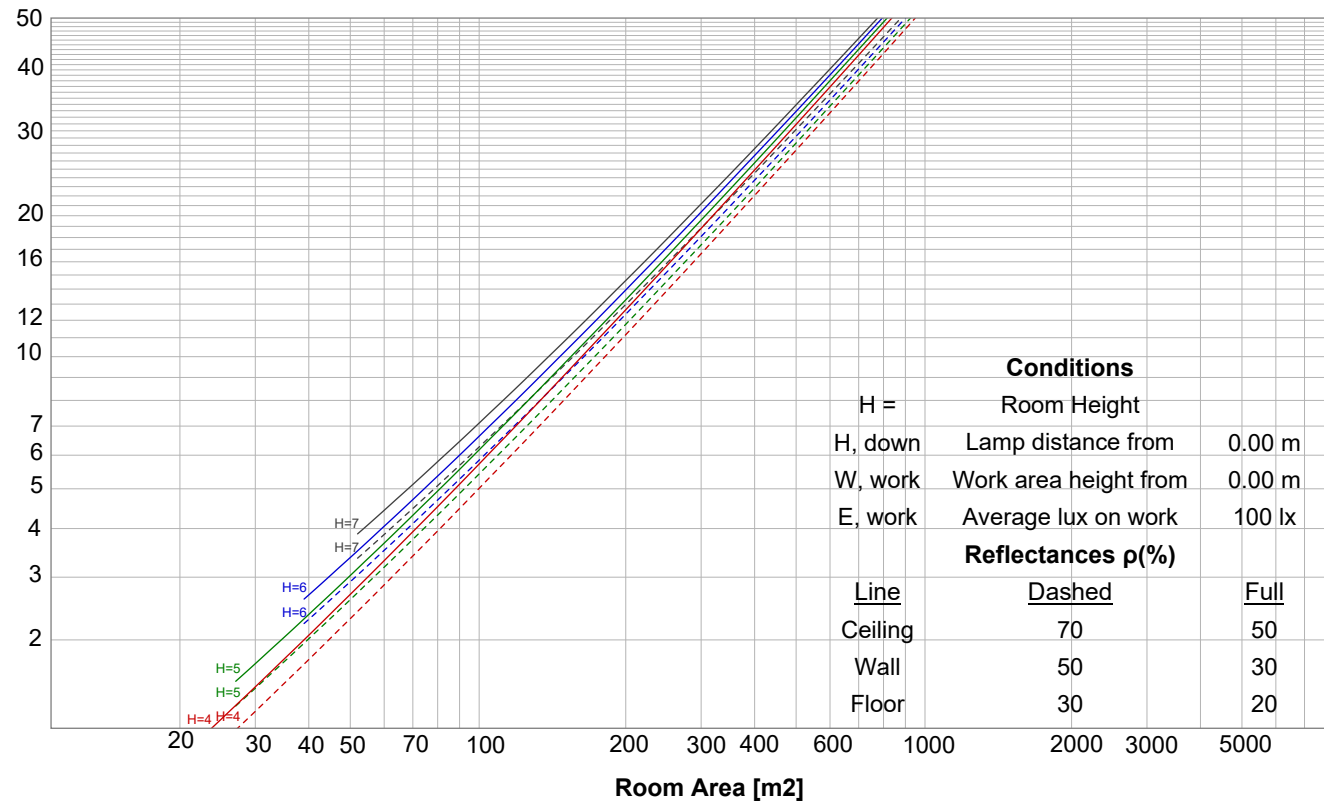
Print date 9/26/2025

Beam details

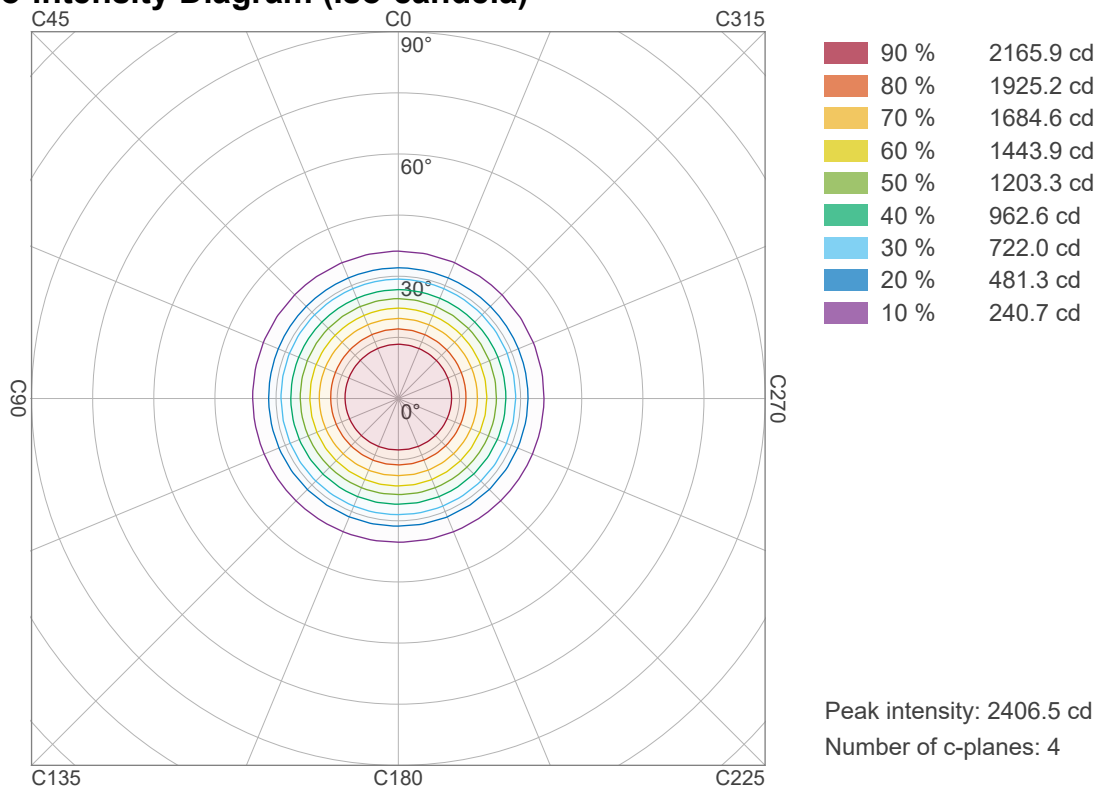


Luminaire budgetary diagram

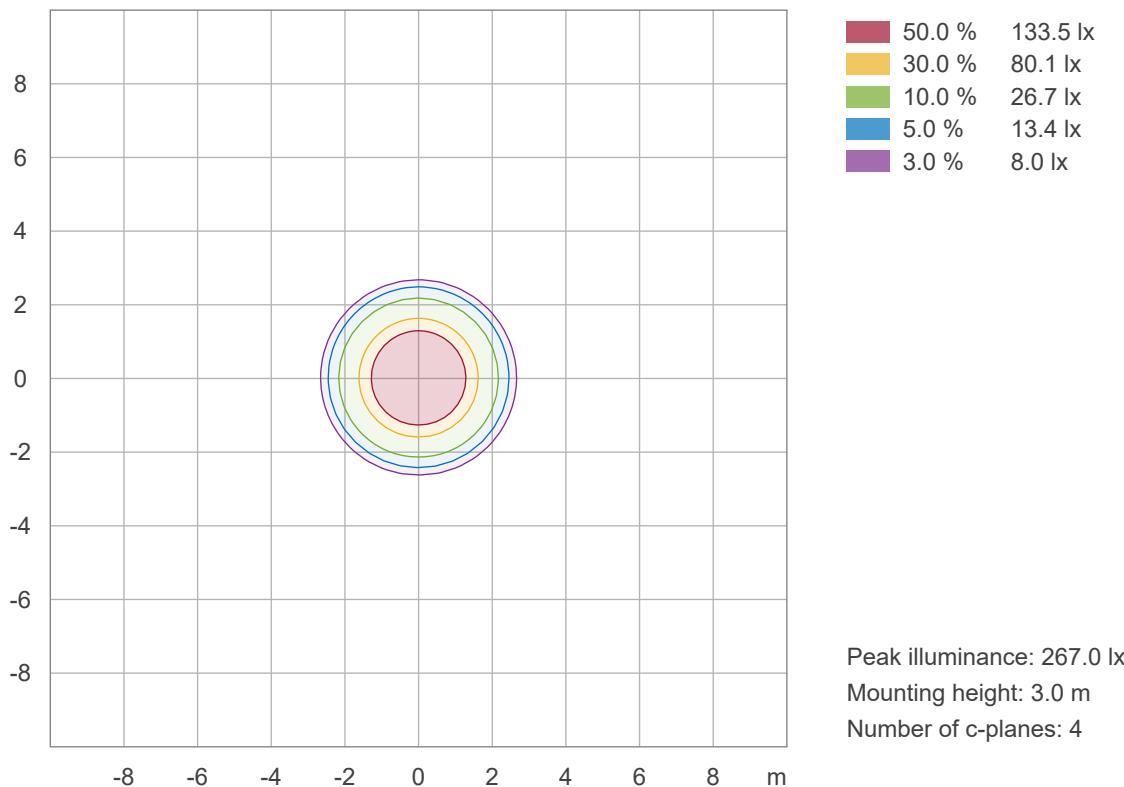
LAMPS (number of lamps)



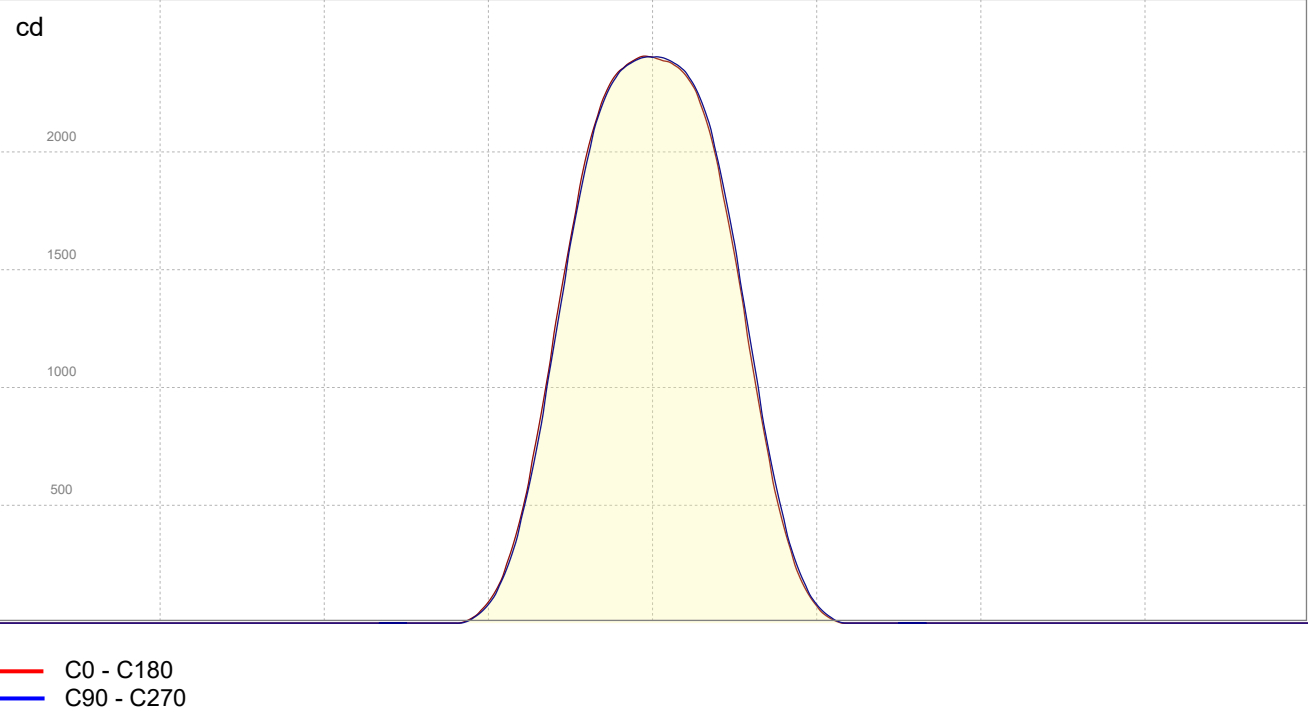
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

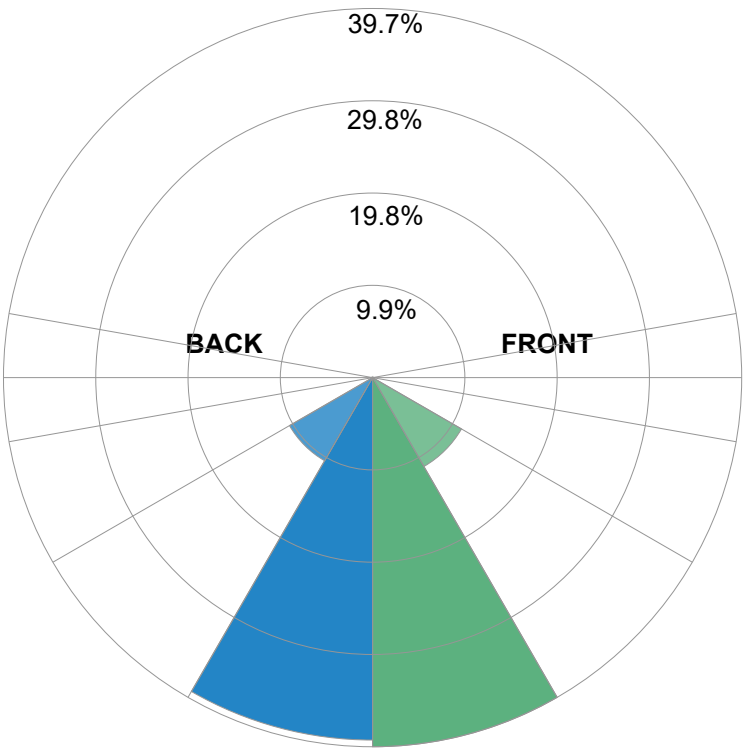


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	723.7	lm	39.7%
Medium (30-60°)	201.2	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	710.6	lm	39%
Medium (30-60°)	188.2	lm	10.3%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1824	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

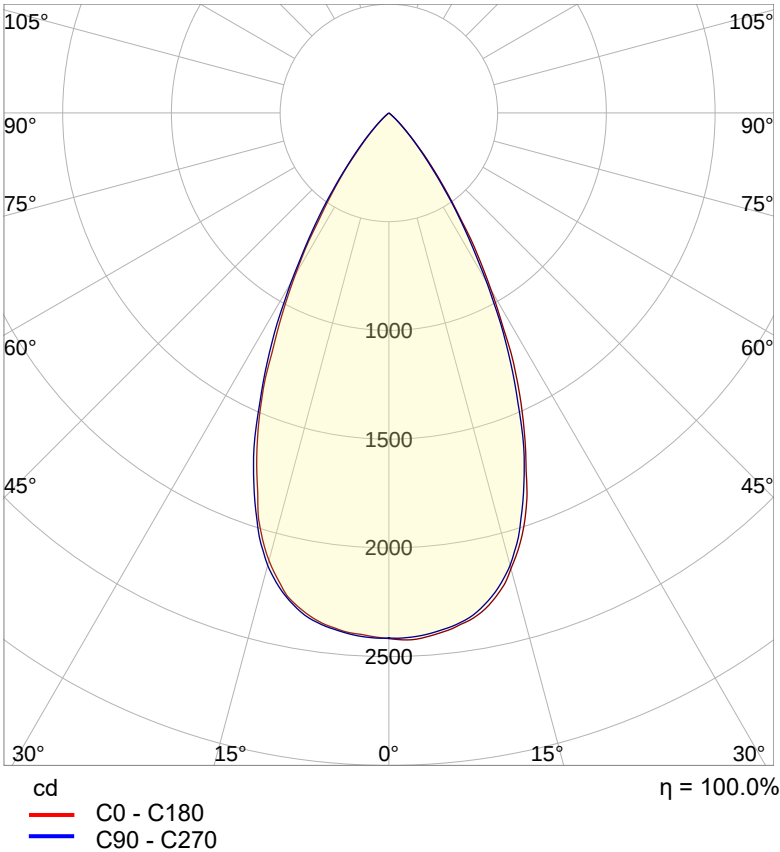
QuikSpot_OutputGain_Enabled_60D_6500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1832 lm – 0% / 100%
n/a lm/W
2425 cd
6500 K
CRI 0.0

Polar light distribution diagram

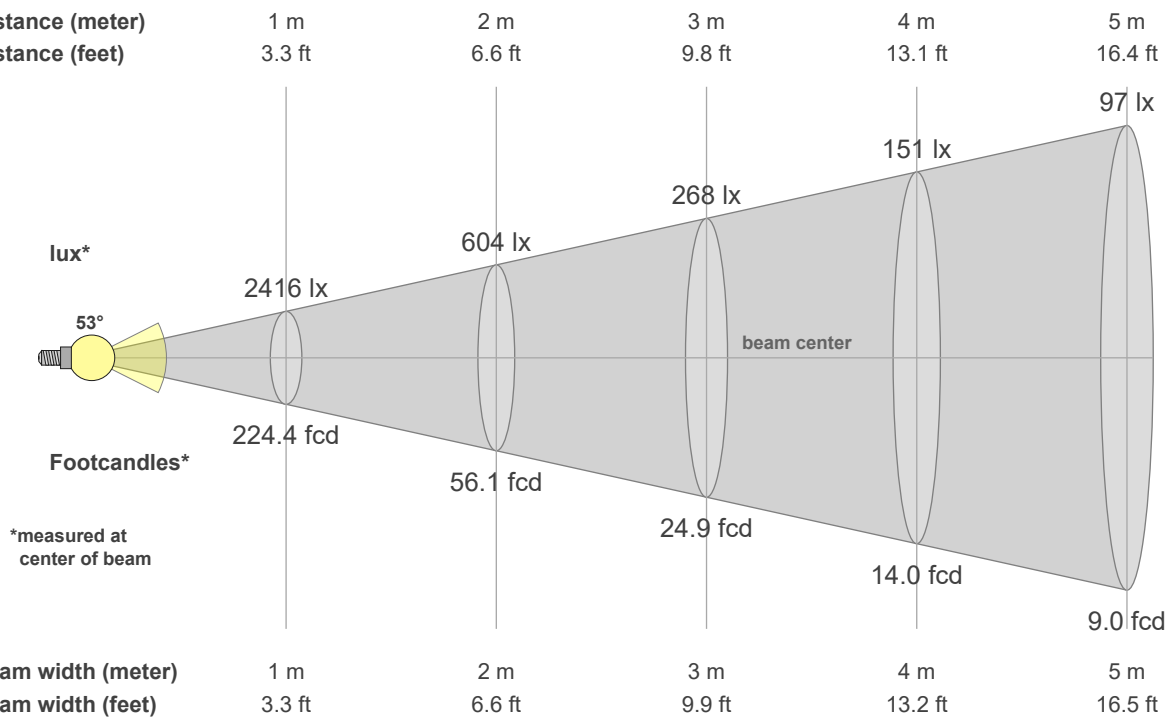


Test report

Light measurement results

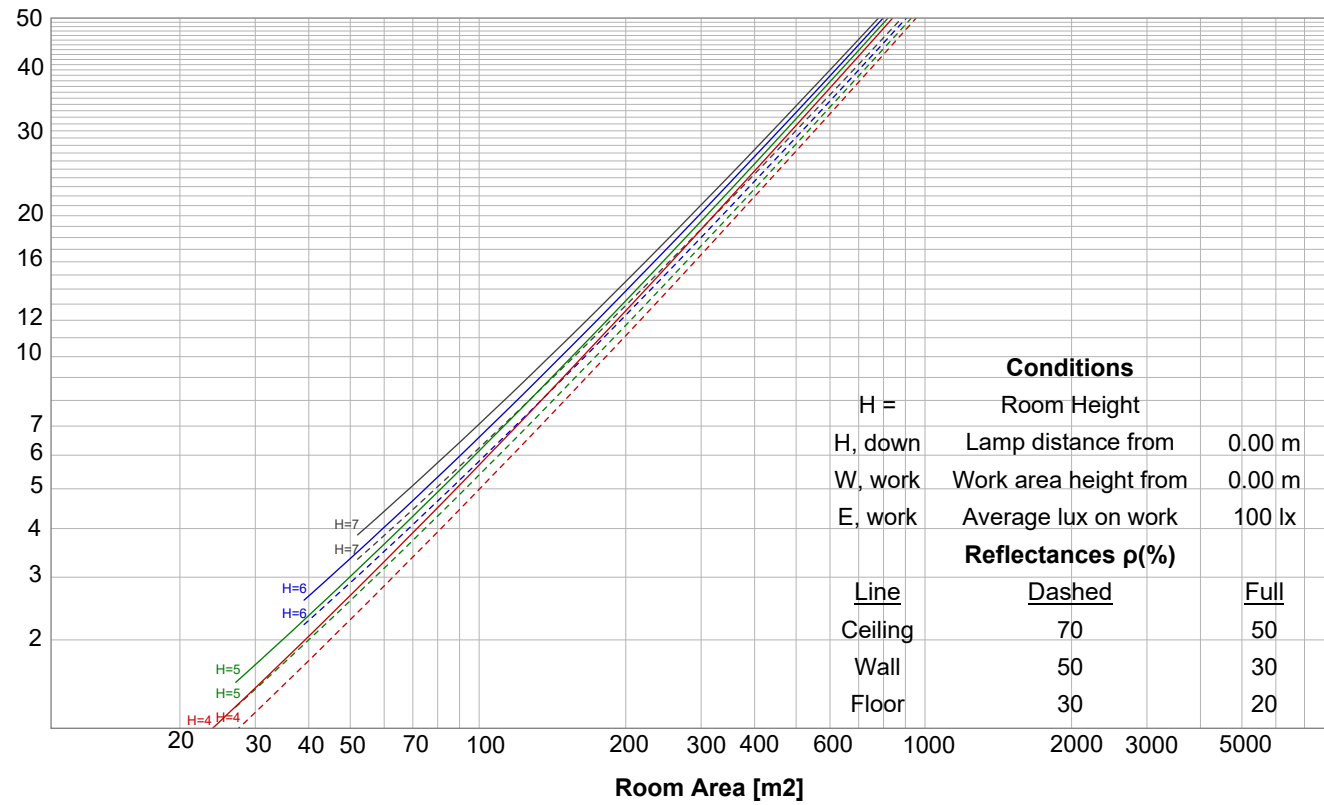
Print date 9/26/2025

Beam details

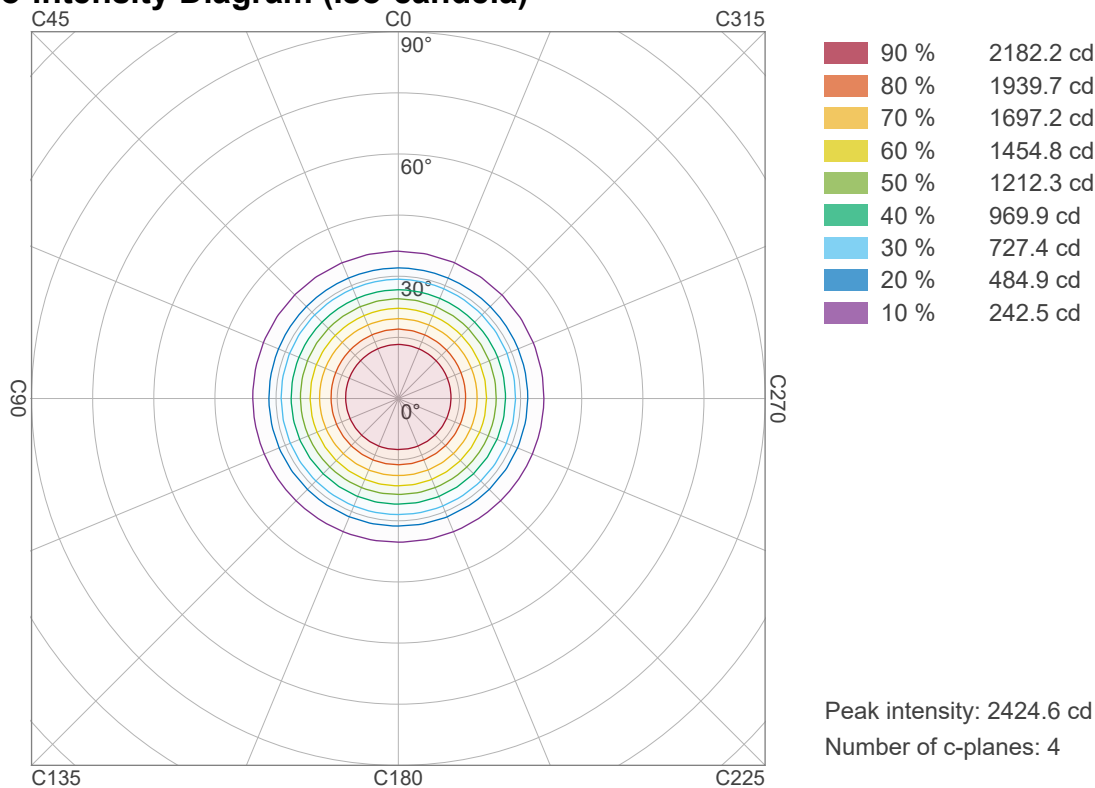


Luminaire budgetary diagram

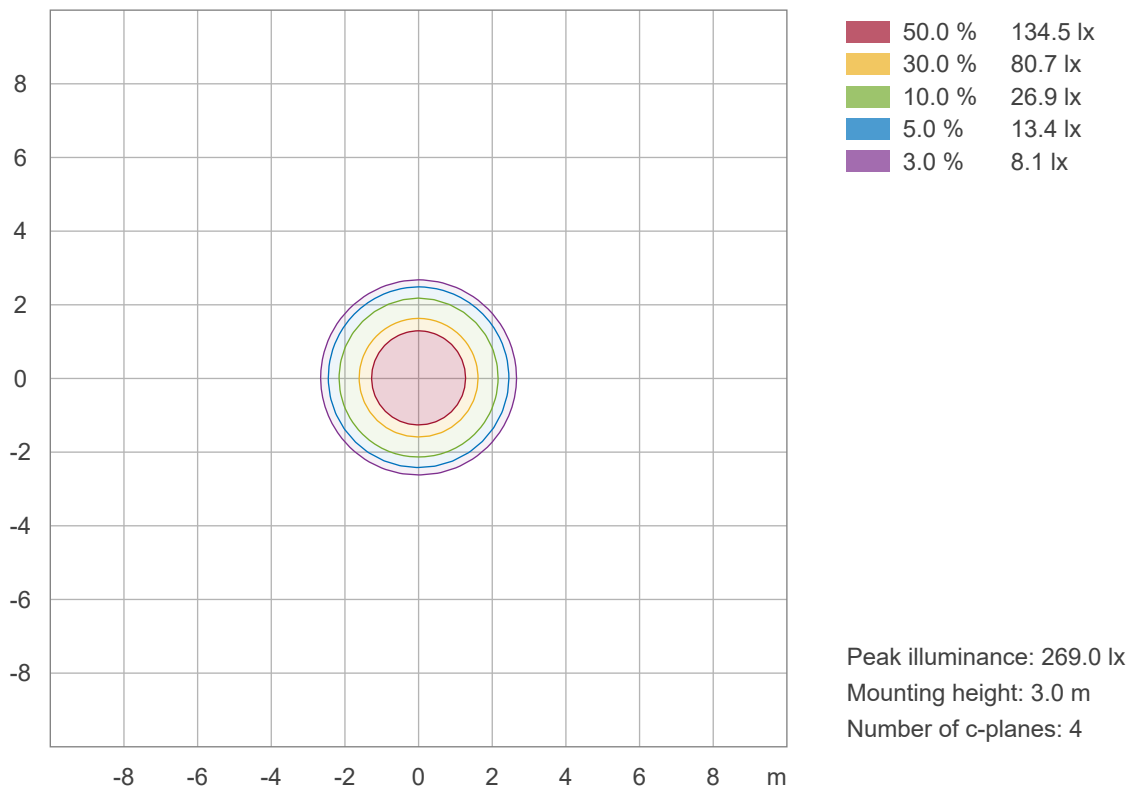
LAMPS (number of lamps)



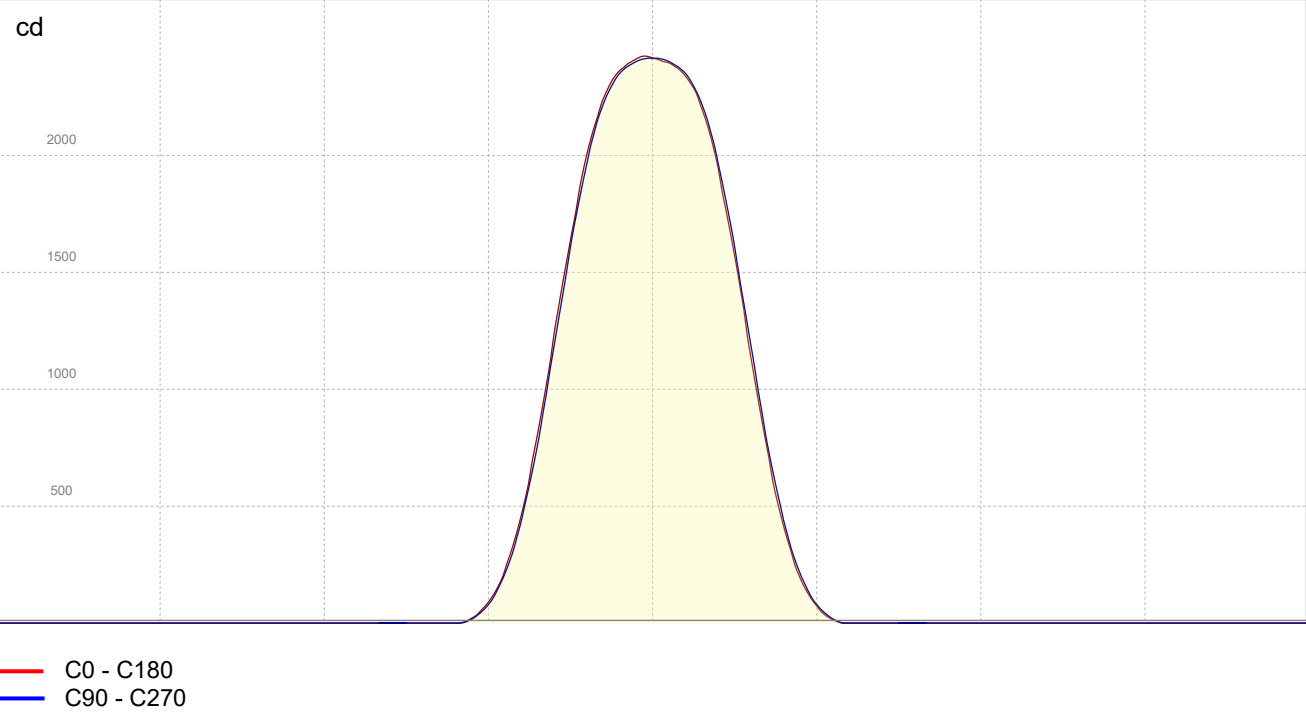
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

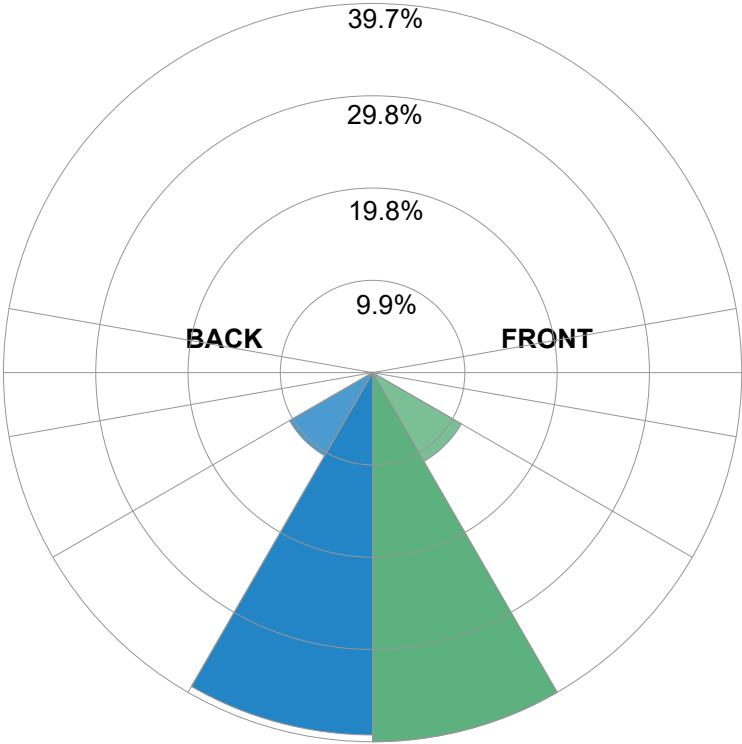


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	727.1	lm	39.7%
Medium (30-60°)	201.9	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	713.7	lm	39%
Medium (30-60°)	189	lm	10.3%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1832	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

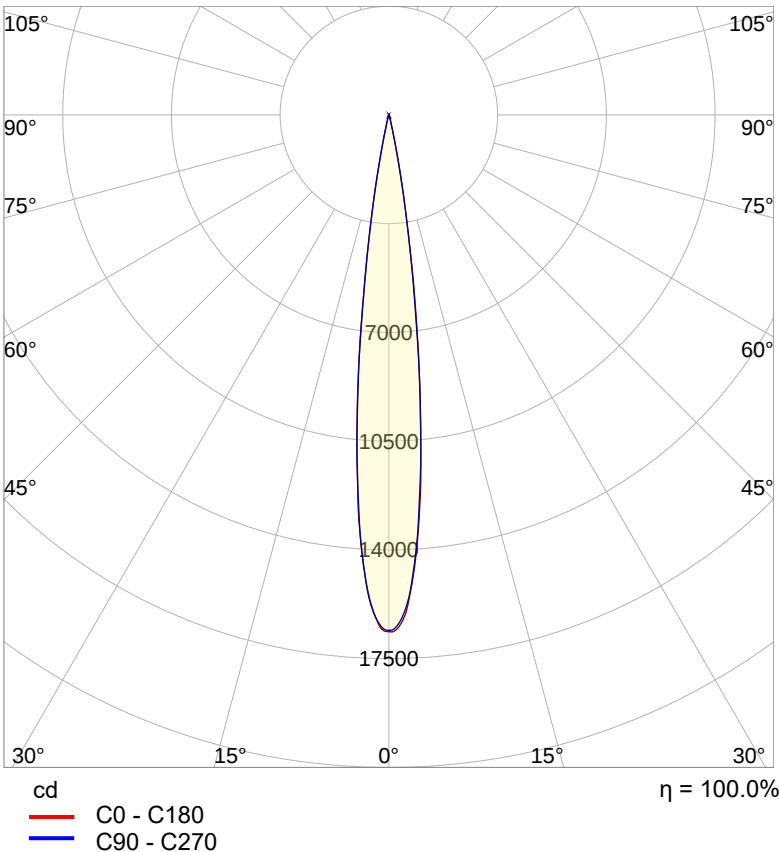
QuikSpot_OutputGain_Disabled_13D_2700K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

951 lm – 0% / 100%
n/a lm/W
16632 cd
2700 K
CRI 0.0

Polar light distribution diagram

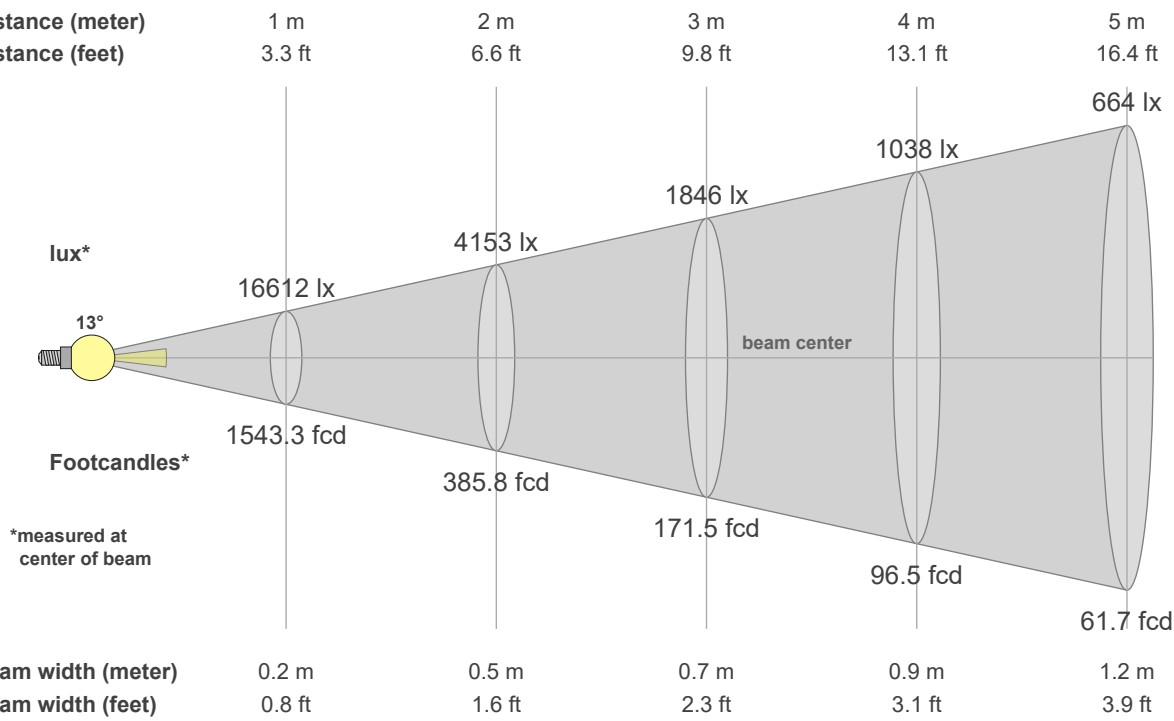


Test report

Light measurement results

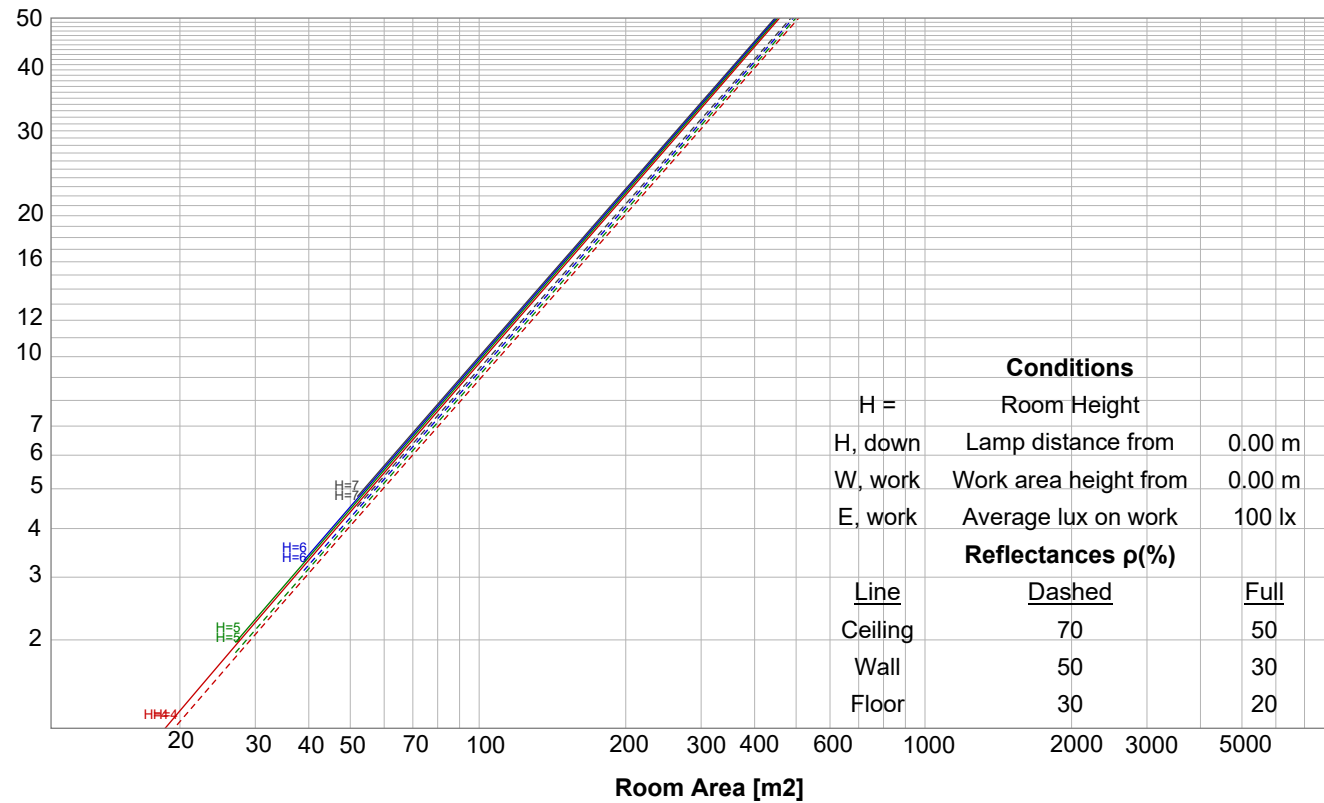
Print date 9/26/2025

Beam details

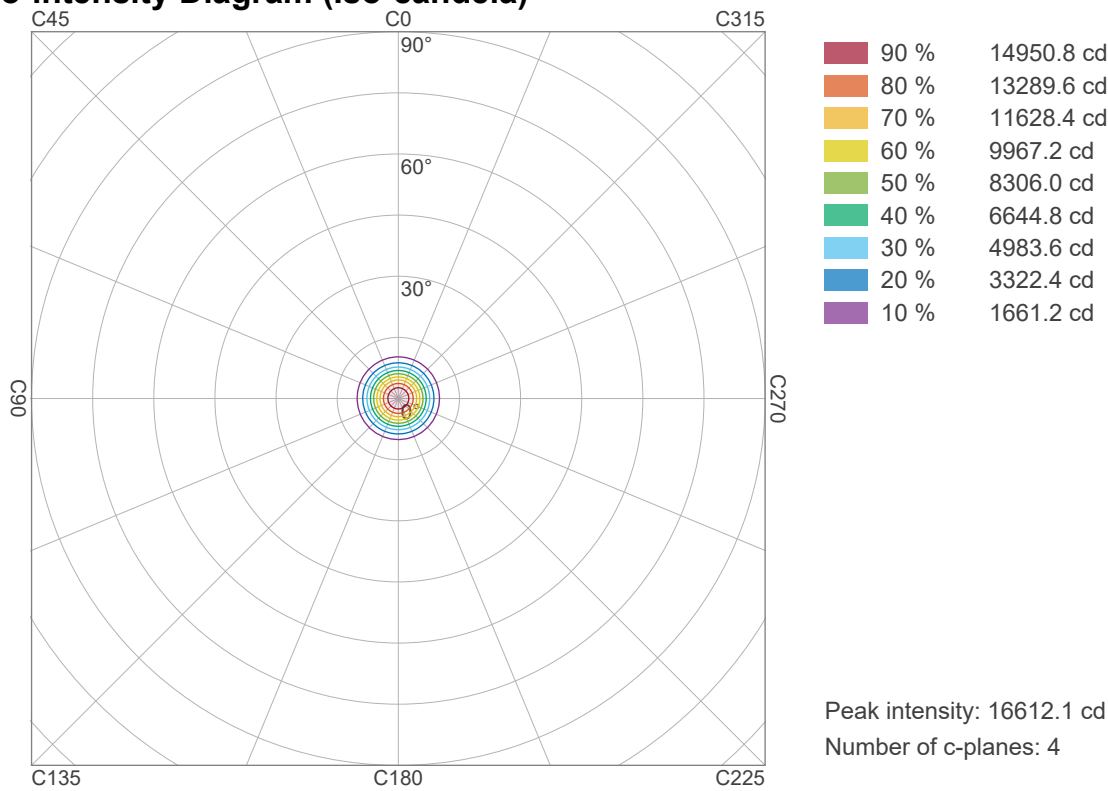


Luminaire budgetary diagram

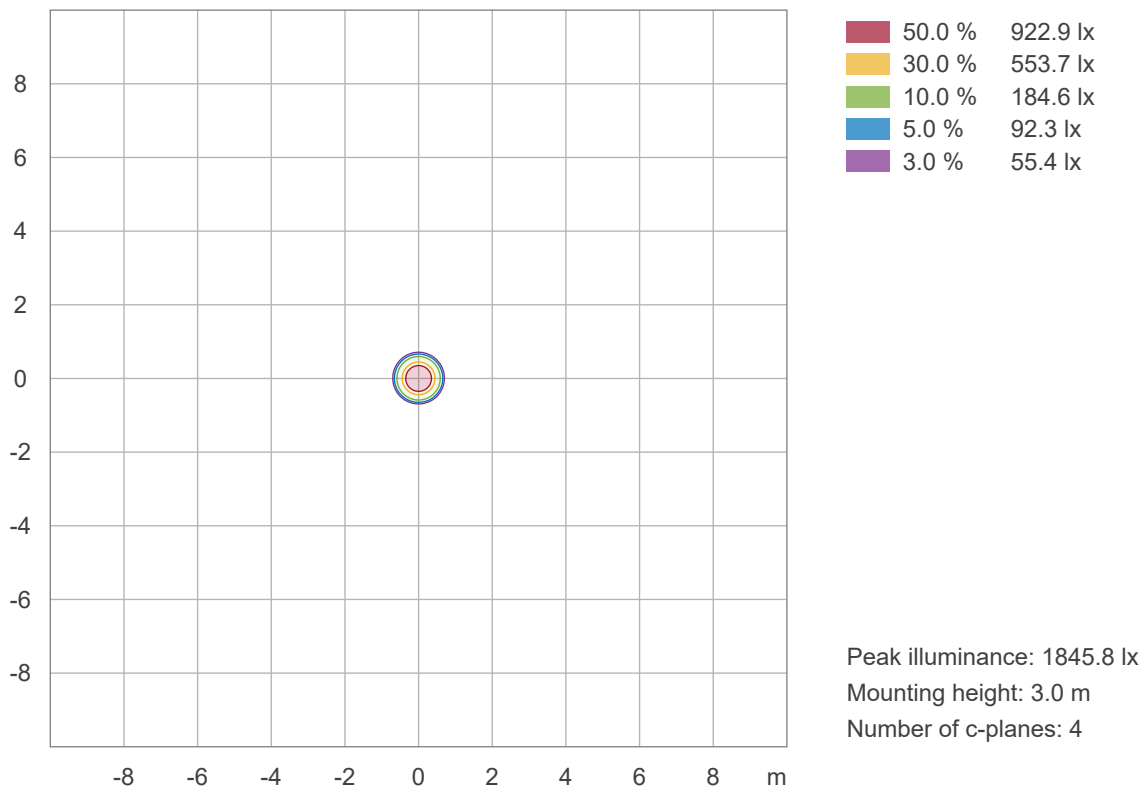
LAMPS (number of lamps)



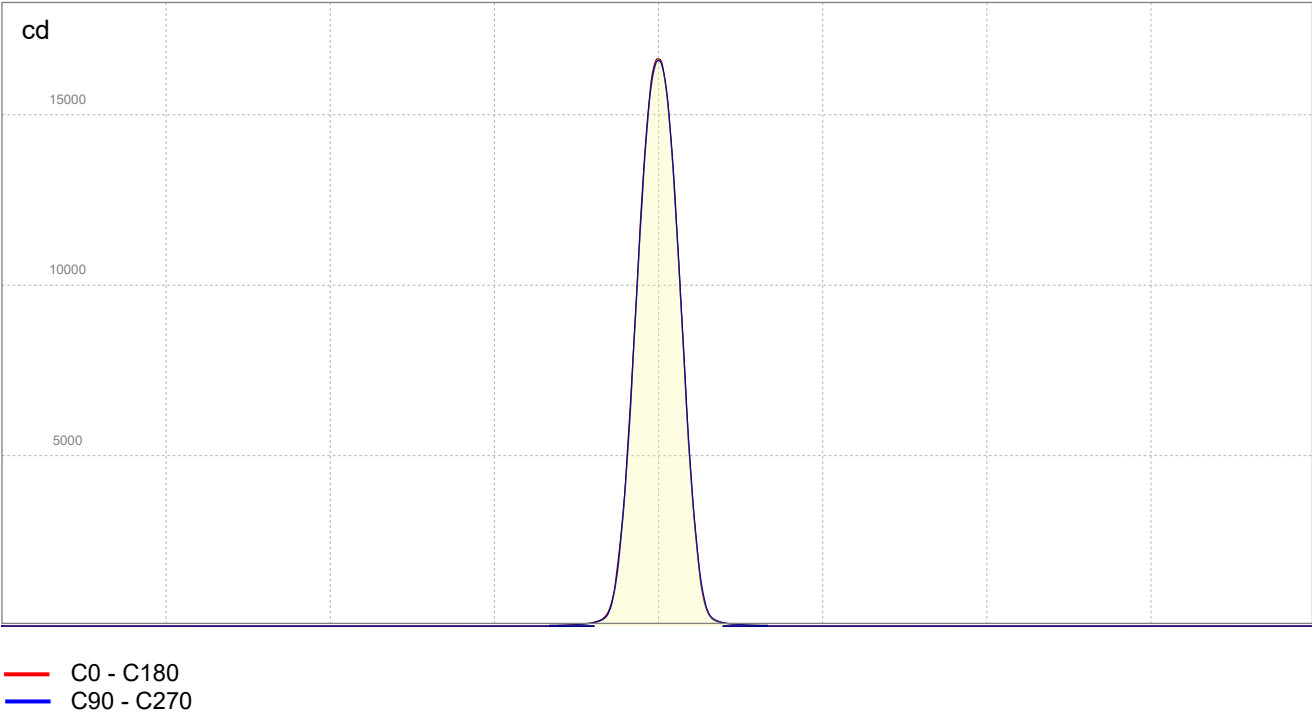
Iso-intensity Diagram (Iso-candela)



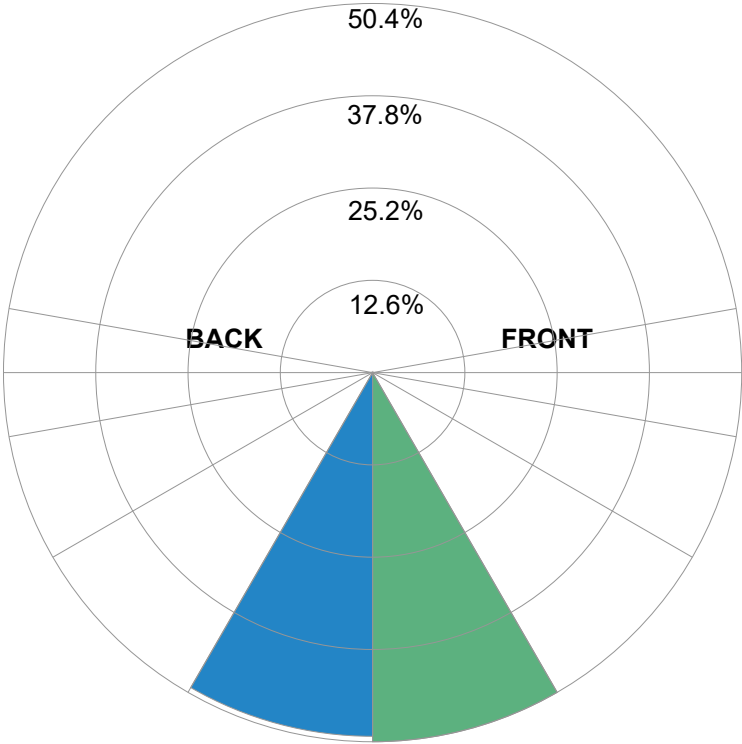
Iso-illuminance Diagram (Iso-lux)



Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires
BUG rating B1 U0 G0



Forward Light

Low (0-30°)	478.7	lm	50.4%
Medium (30-60°)	0.2	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	471.6	lm	49.6%
Medium (30-60°)	0.2	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	951	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

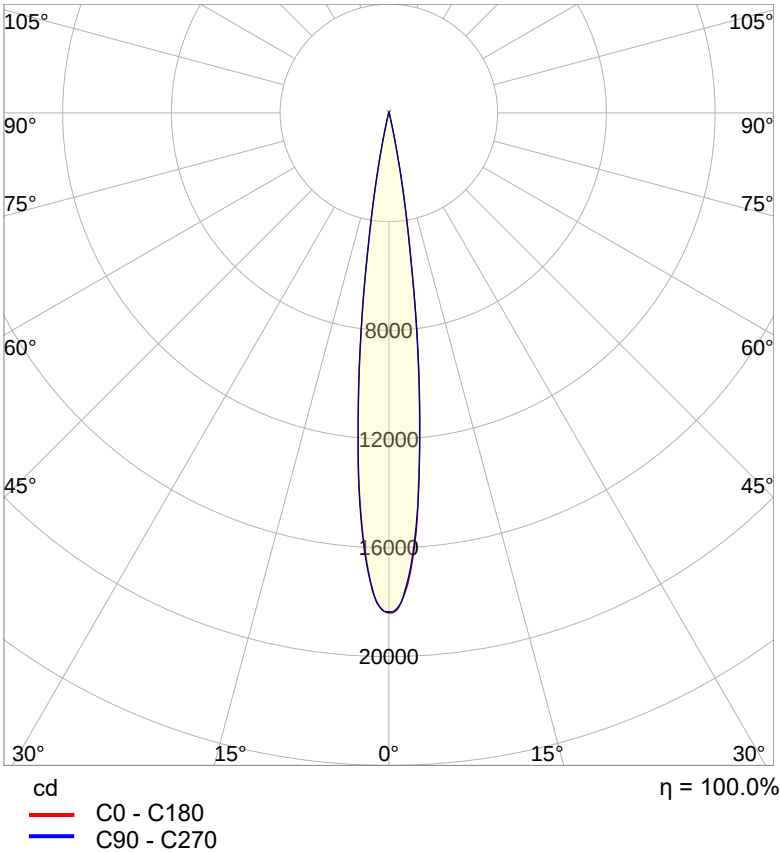
QuikSpot_OutputGain_Disabled_13D_3200K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1052 lm – 0% / 100%
n/a lm/W
18392 cd
3200 K
CRI 0.0

Polar light distribution diagram

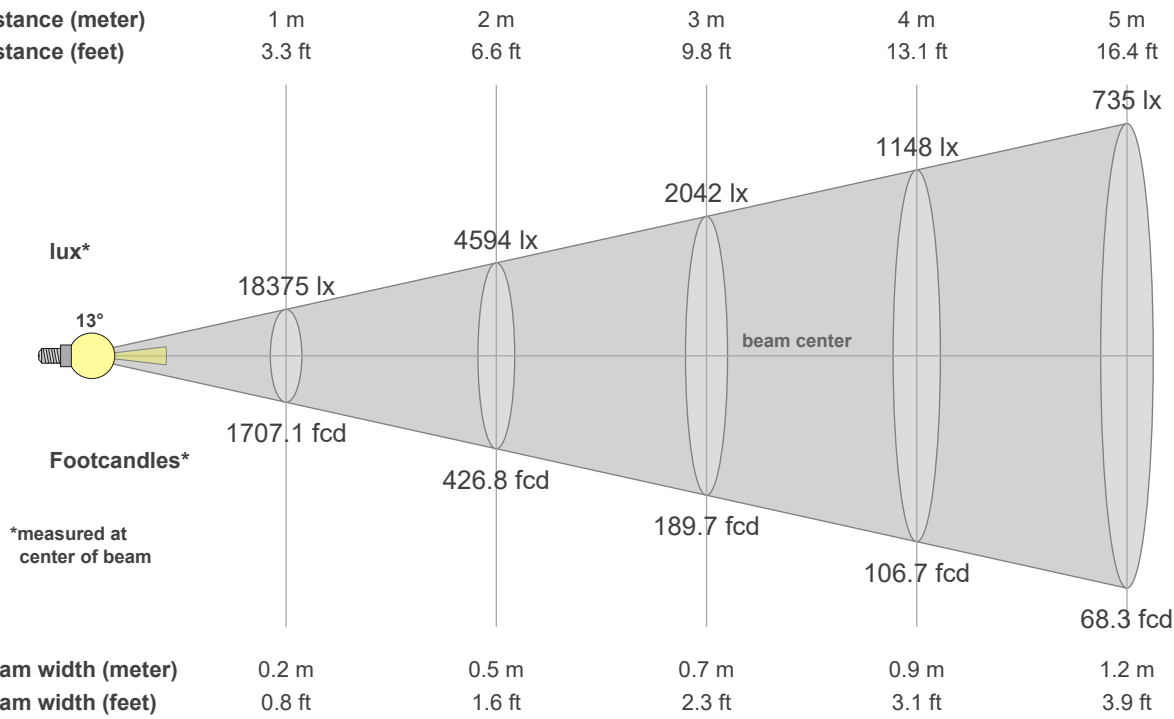


Test report

Light measurement results

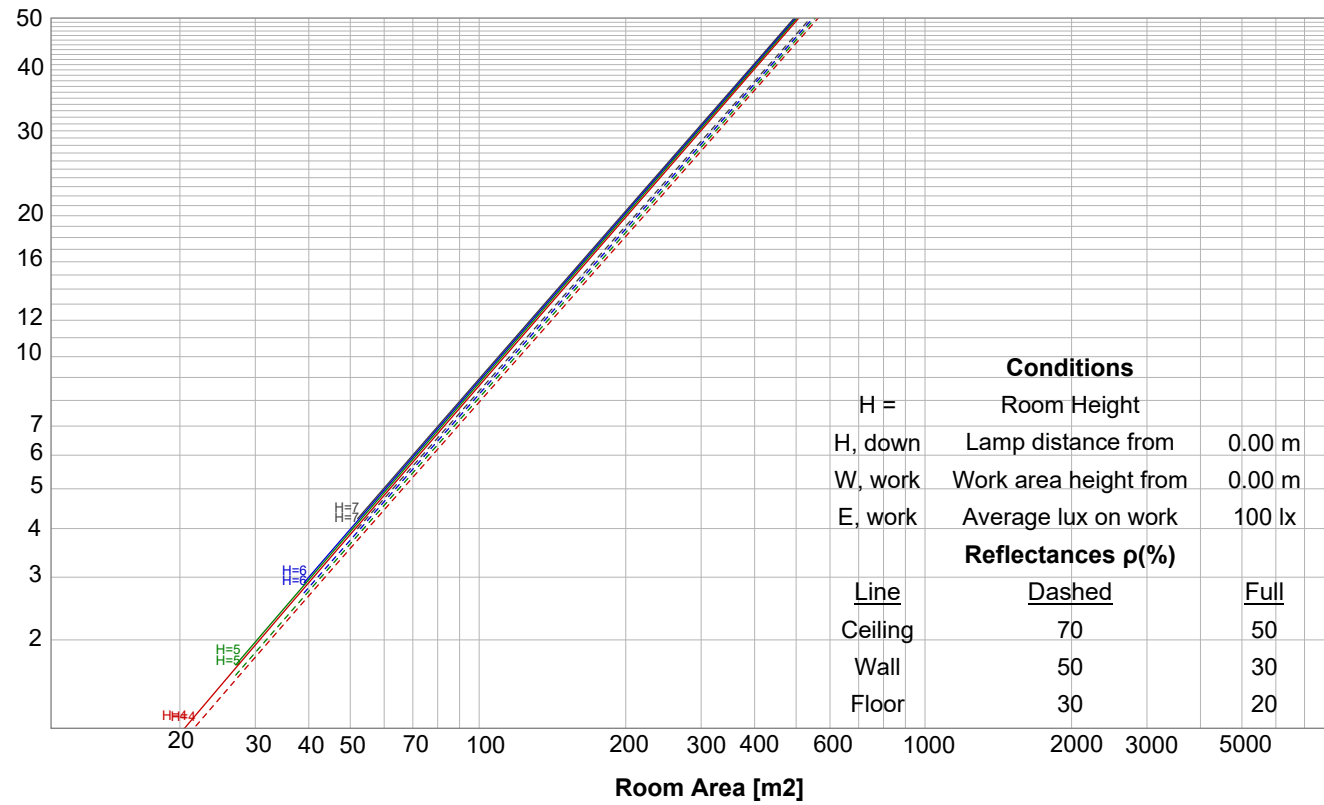
Print date 9/26/2025

Beam details

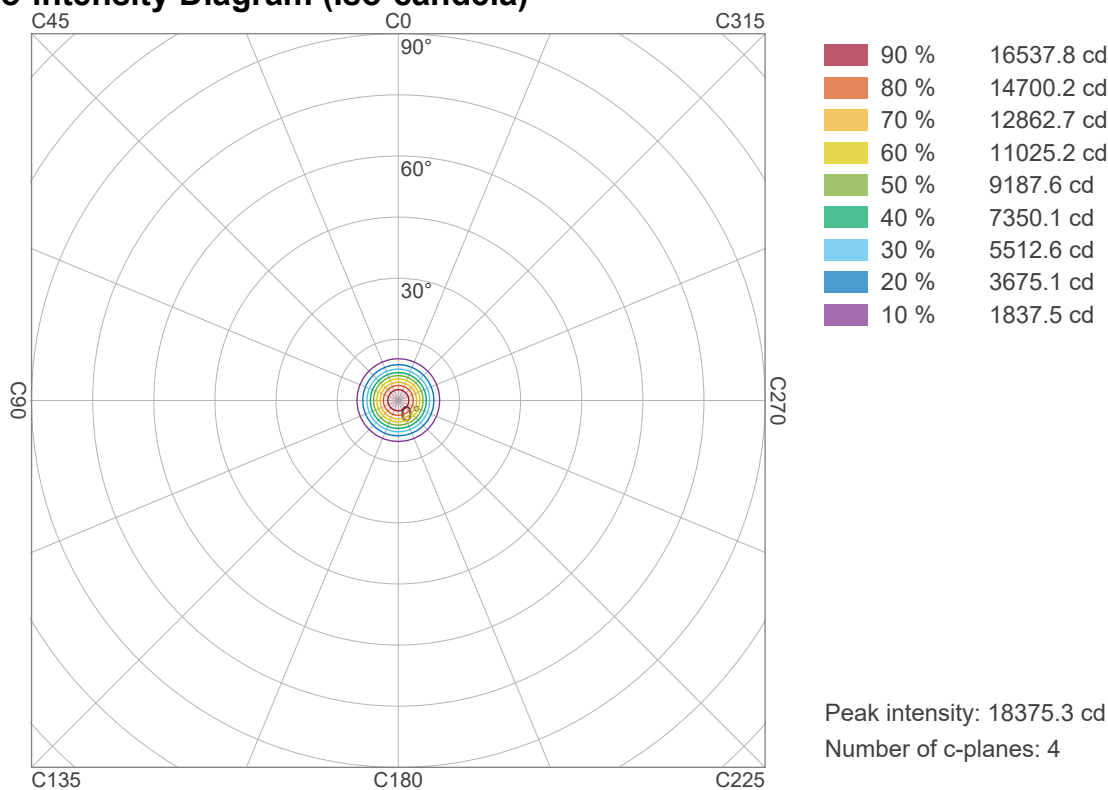


Luminaire budgetary diagram

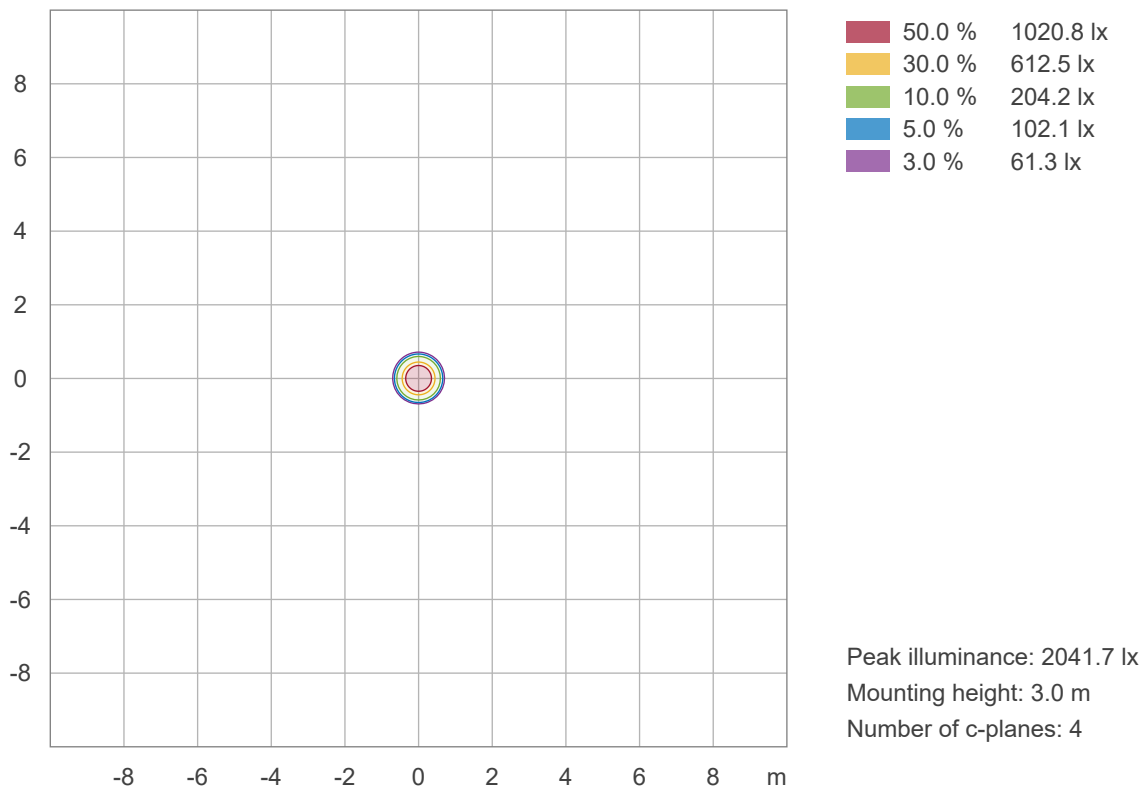
LAMPS (number of lamps)



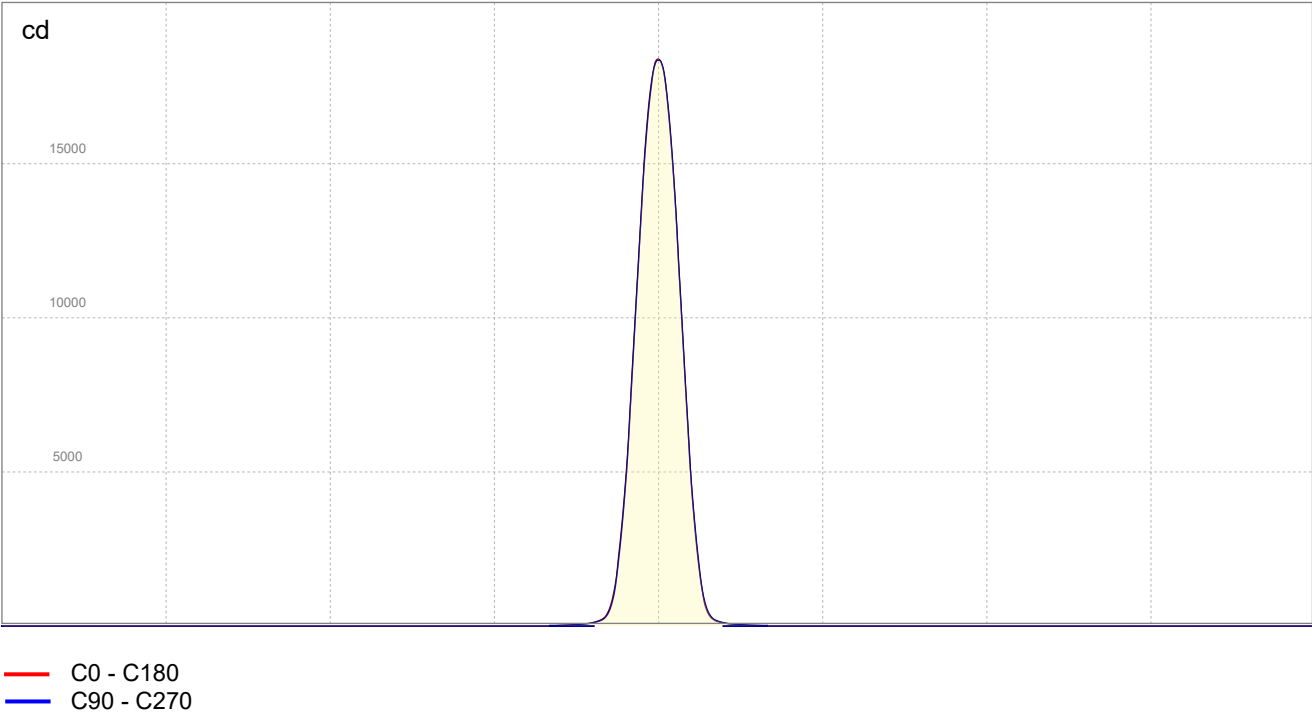
Iso-intensity Diagram (Iso-candela)



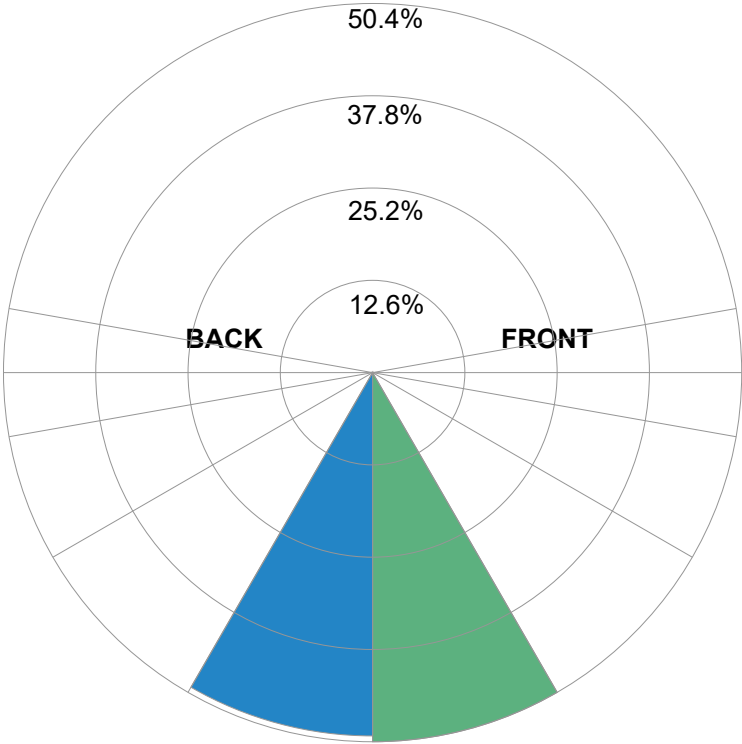
Iso-illuminance Diagram (Iso-lux)



Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires
BUG rating B2 U0 G0



Forward Light

Low (0-30°)	530	Im	50.4%
Medium (30-60°)	0.2	Im	0%
High (60-80°)	0	Im	0%
Very High	0	Im	0%

Back Light

Low (0-30°)	521.6	Im	49.6%
Medium (30-60°)	0.2	Im	0%
High (60-80°)	0	Im	0%
Very High	0	Im	0%

Uplight

Low (90-100°)	0	Im	0%
High (100-180°)	0	Im	0%

Total

Sum	1052	Im	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

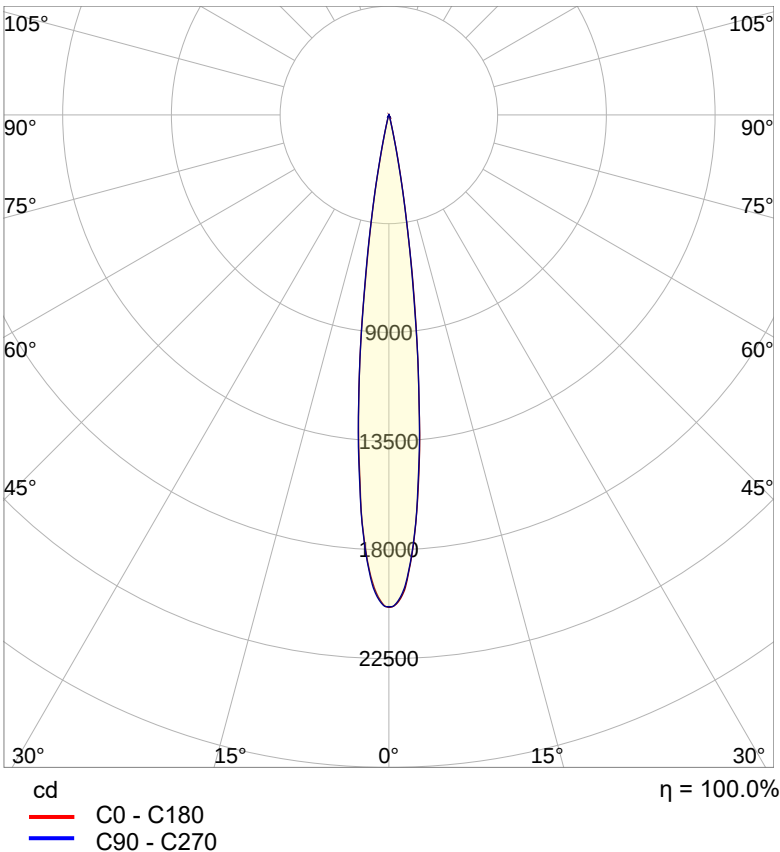
QuikSpot_OutputGain_Disabled_13D_4000K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1167 lm – 0% / 100%
n/a lm/W
20377 cd
4000 K
CRI 0.0

Polar light distribution diagram

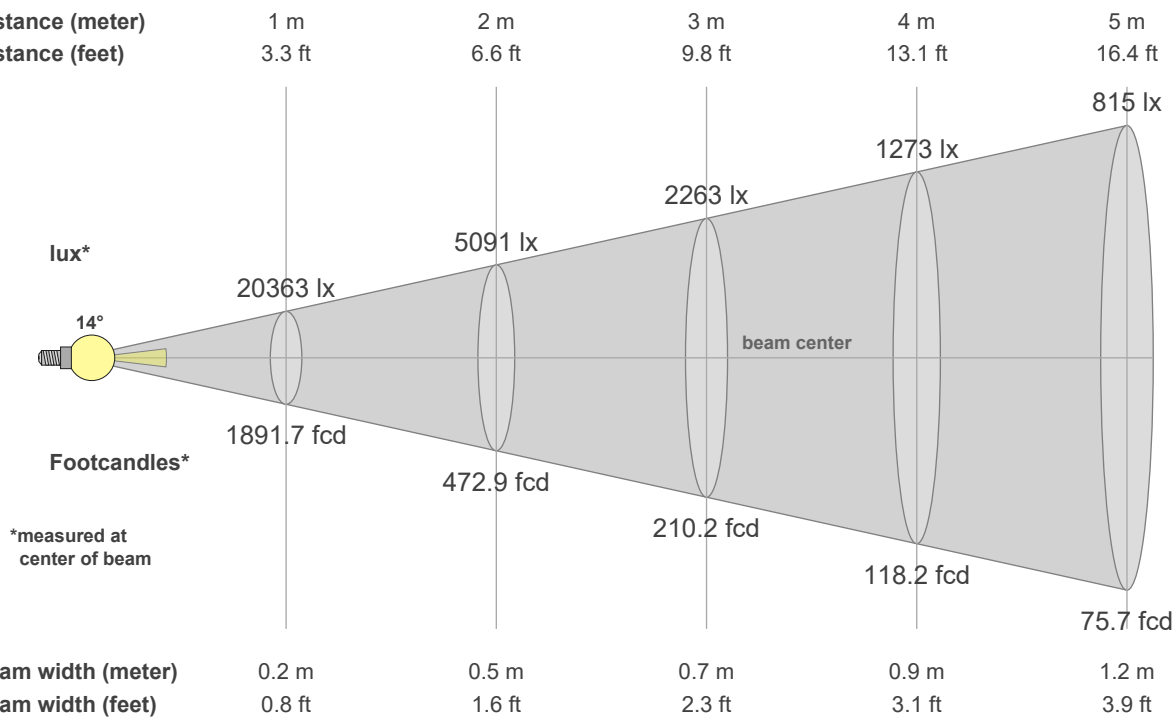


Test report

Light measurement results

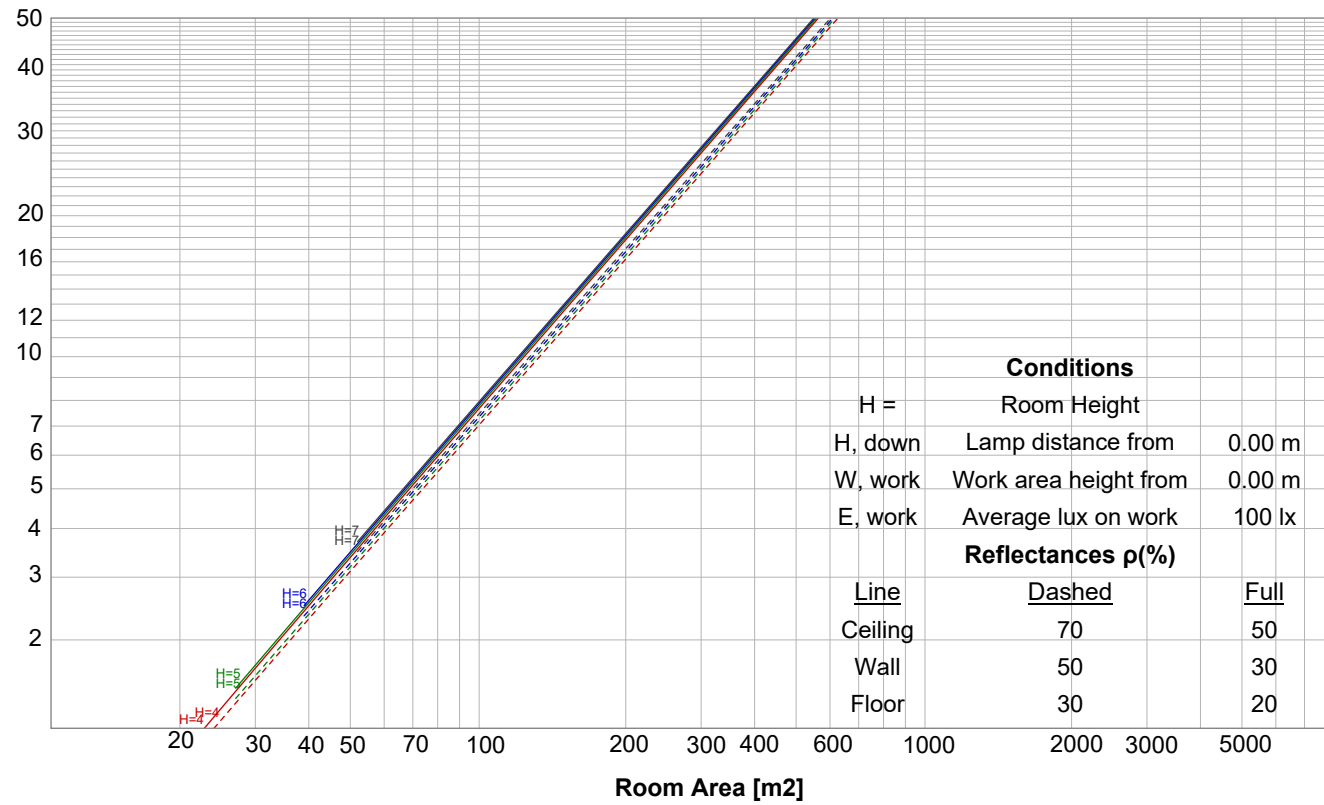
Print date 9/26/2025

Beam details

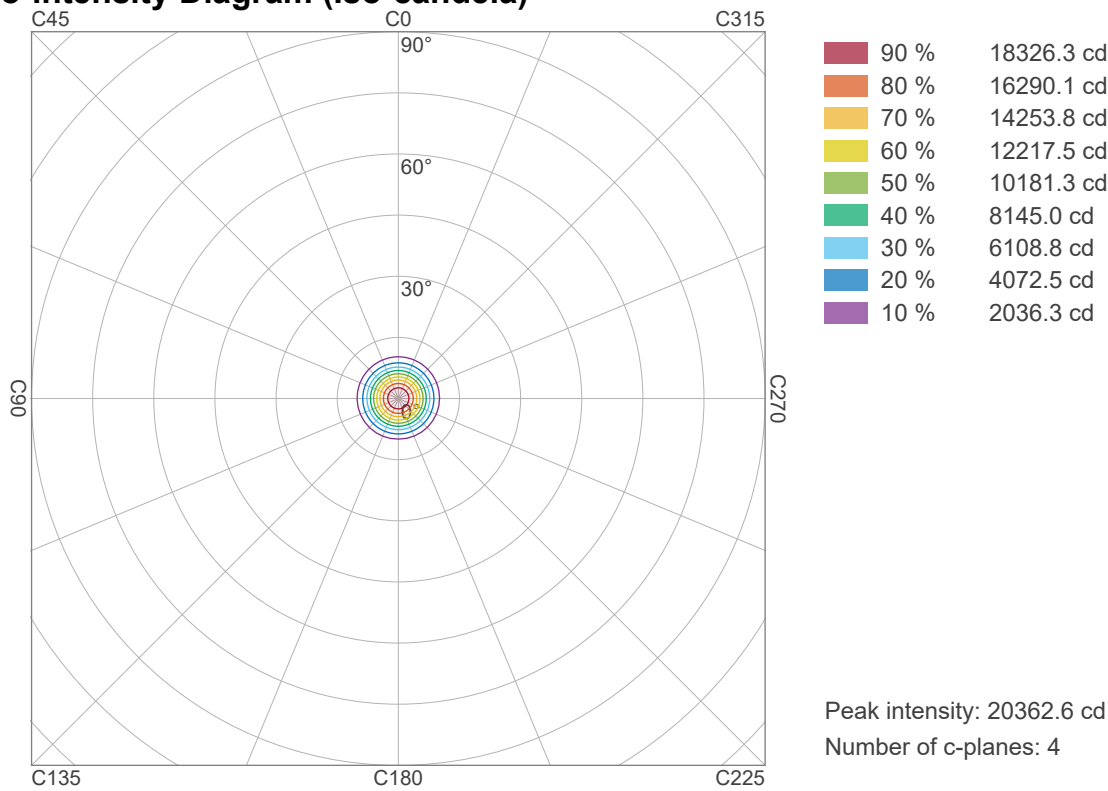


Luminaire budgetary diagram

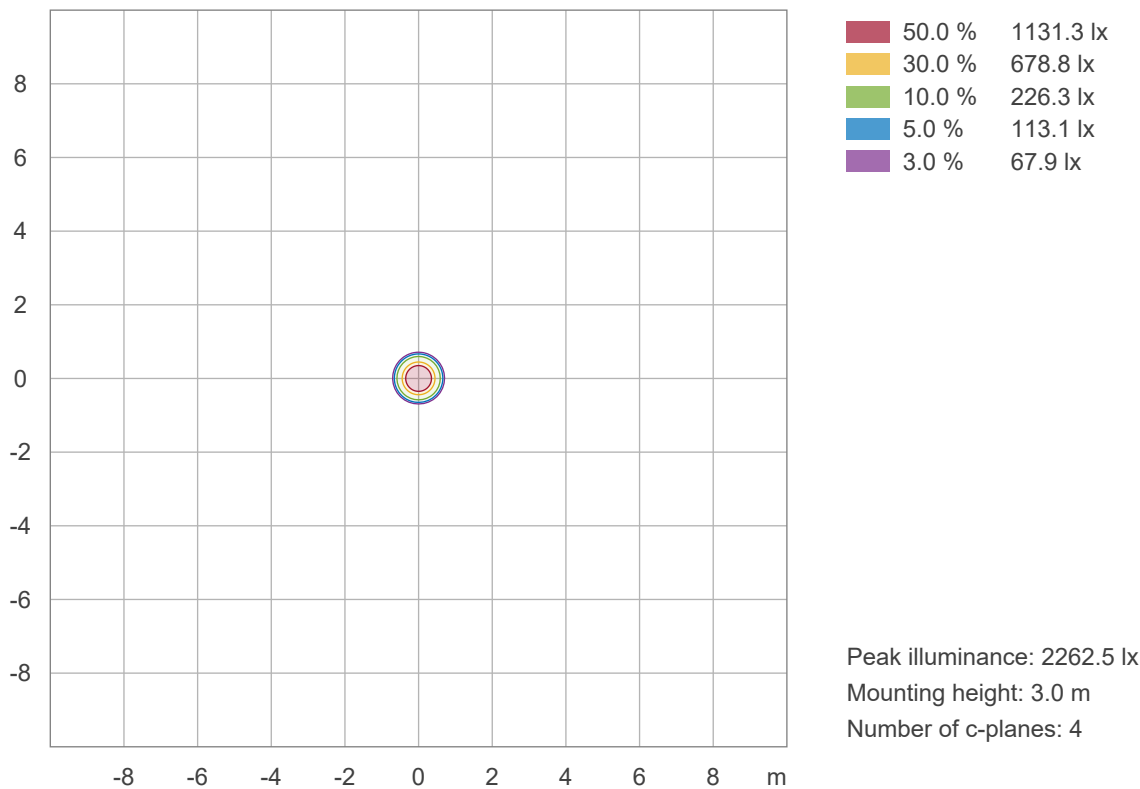
LAMPS (number of lamps)



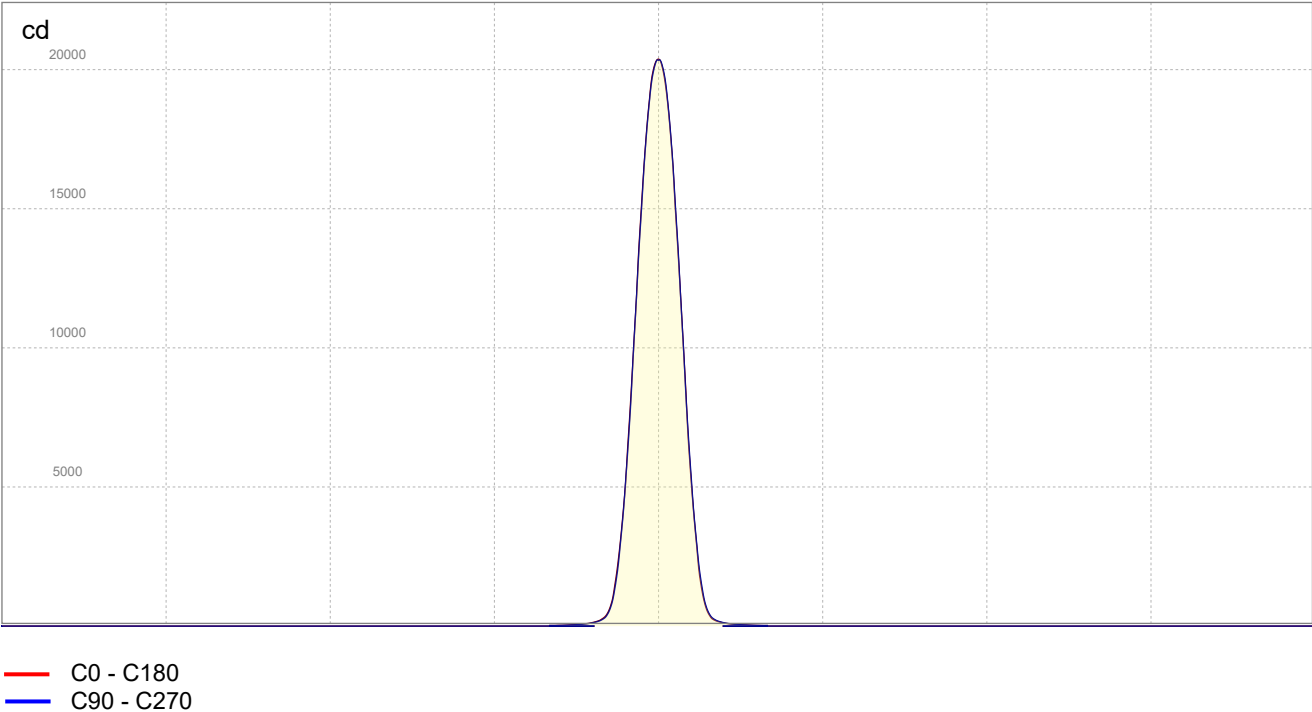
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

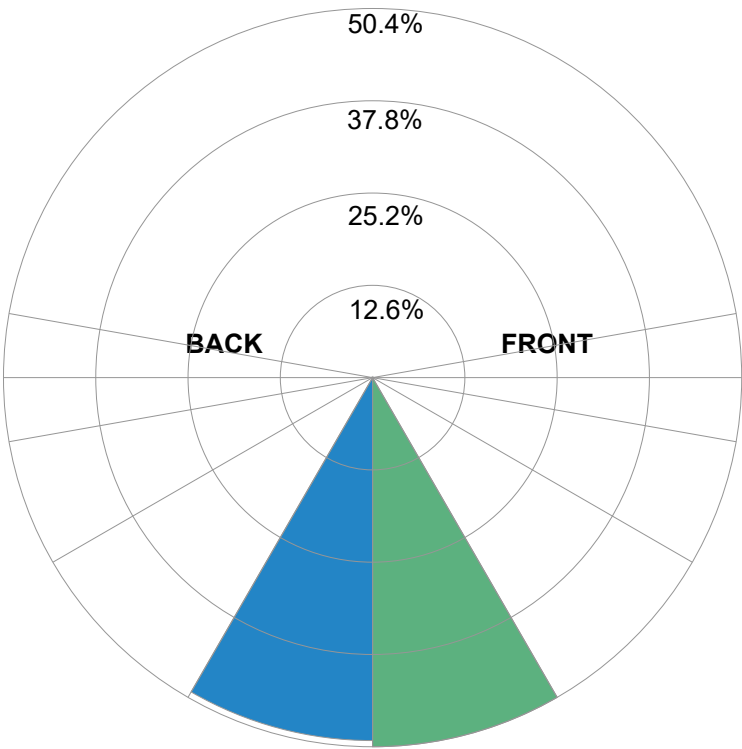


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	588	lm	50.4%
Medium (30-60°)	0.2	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	578.2	lm	49.6%
Medium (30-60°)	0.2	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1167	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

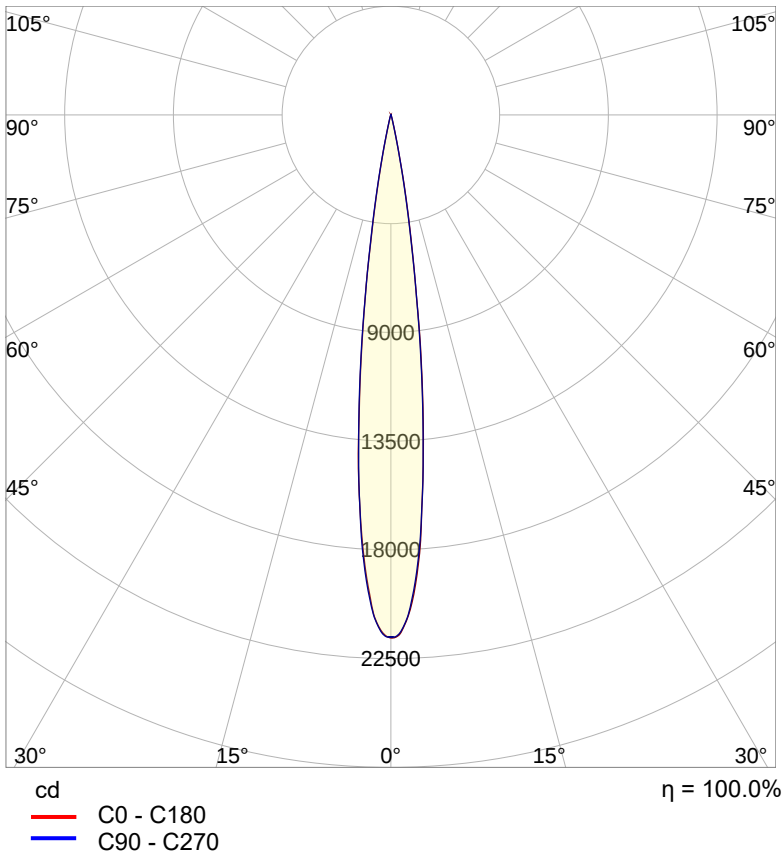
QuikSpot_OutputGain_Disabled_13D_5500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1241 lm – 0% / 100%
n/a lm/W
21644 cd
5500 K
CRI 0.0

Polar light distribution diagram

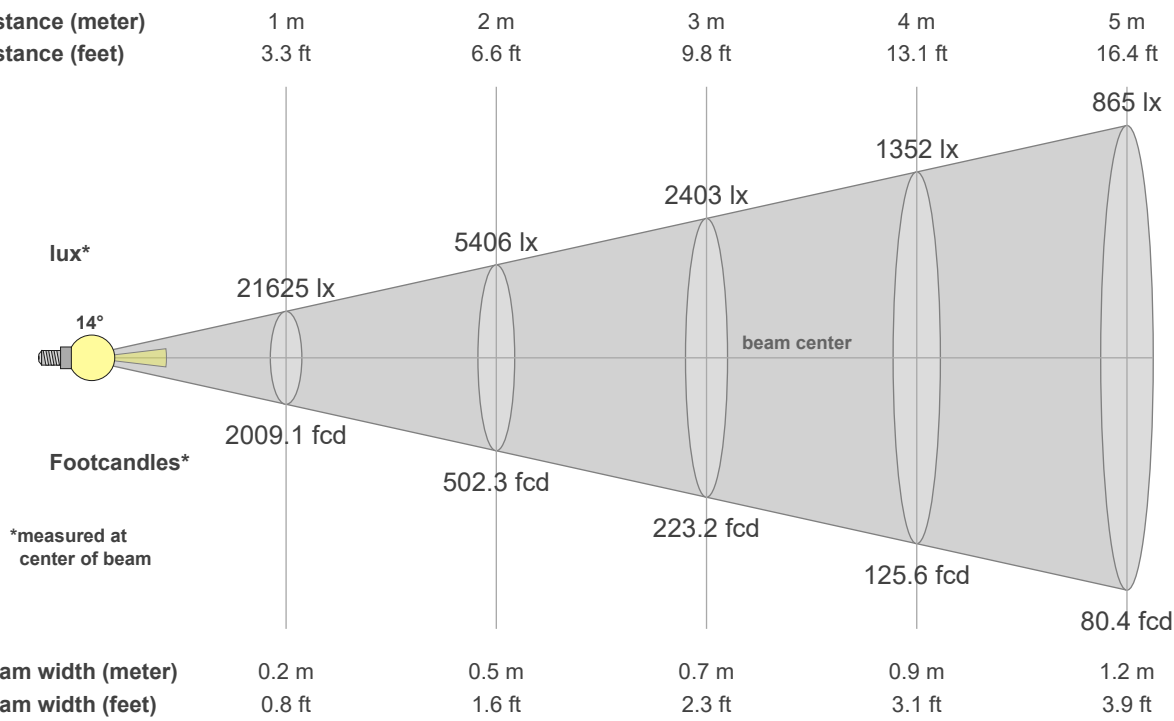


Test report

Light measurement results

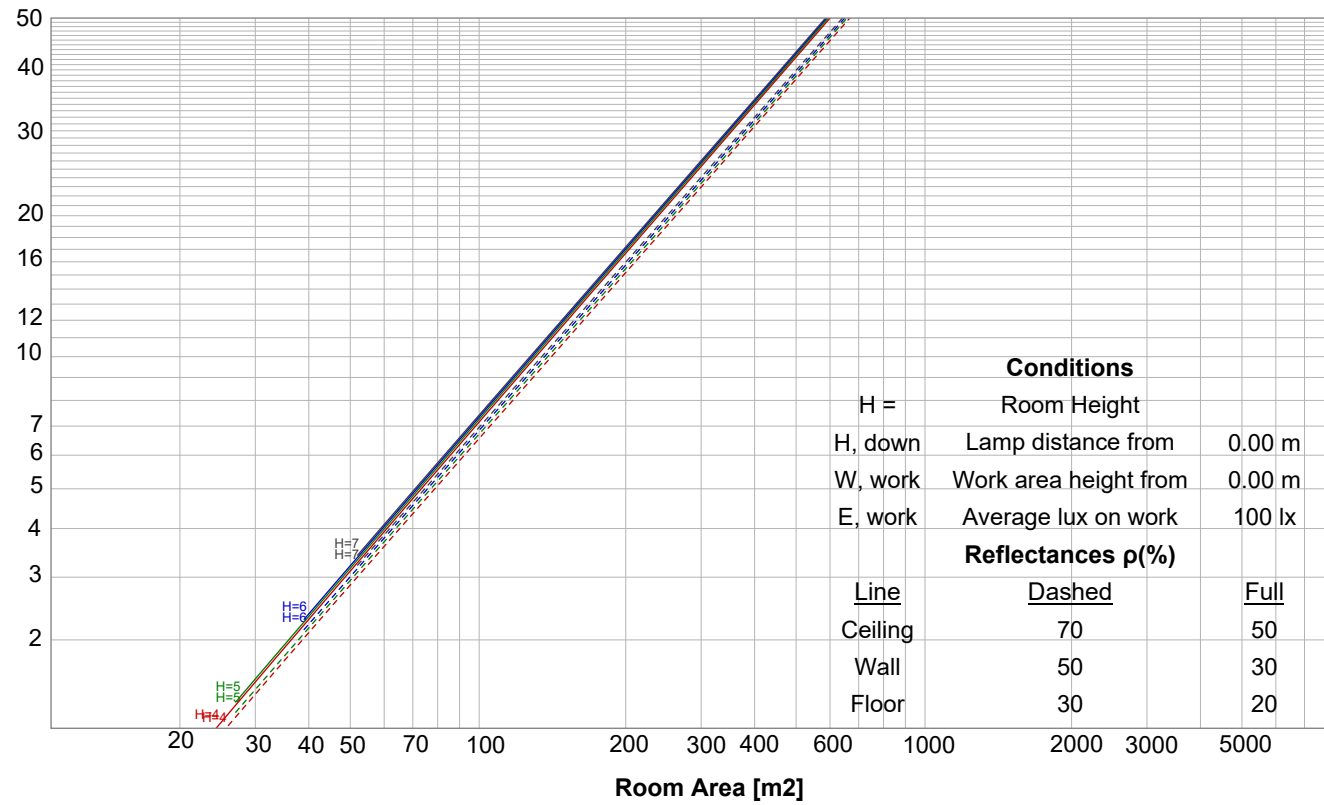
Print date 9/26/2025

Beam details

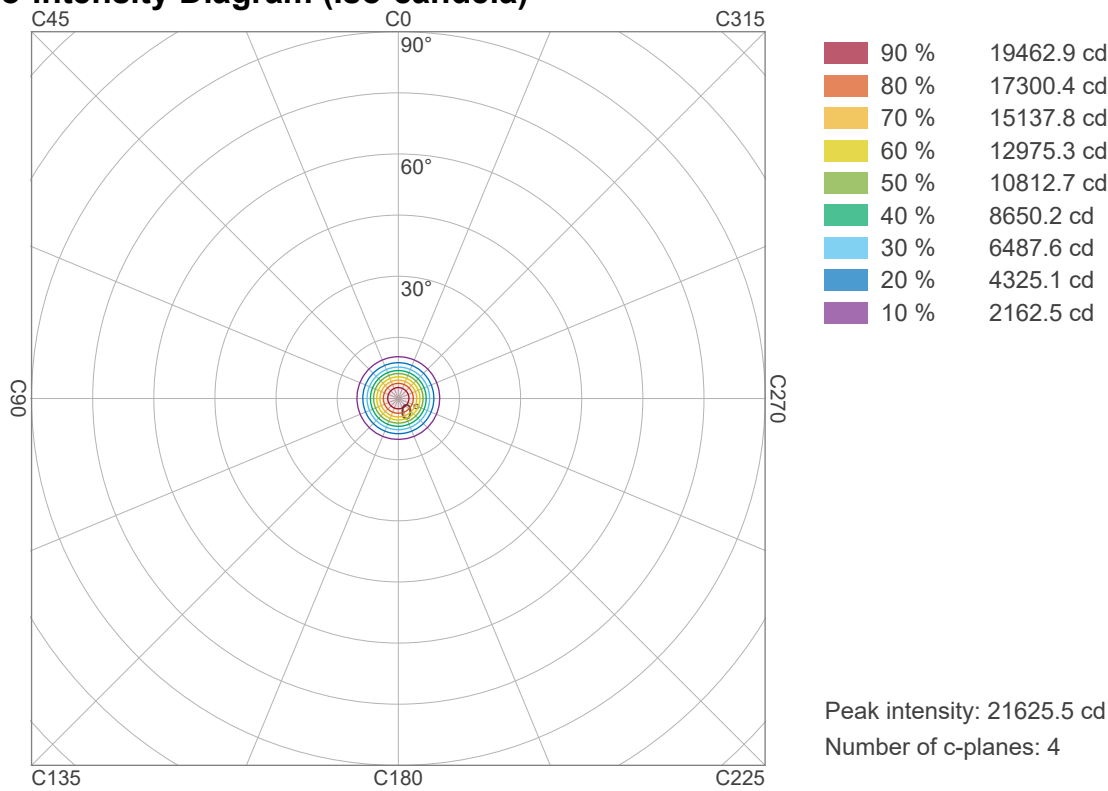


Luminaire budgetary diagram

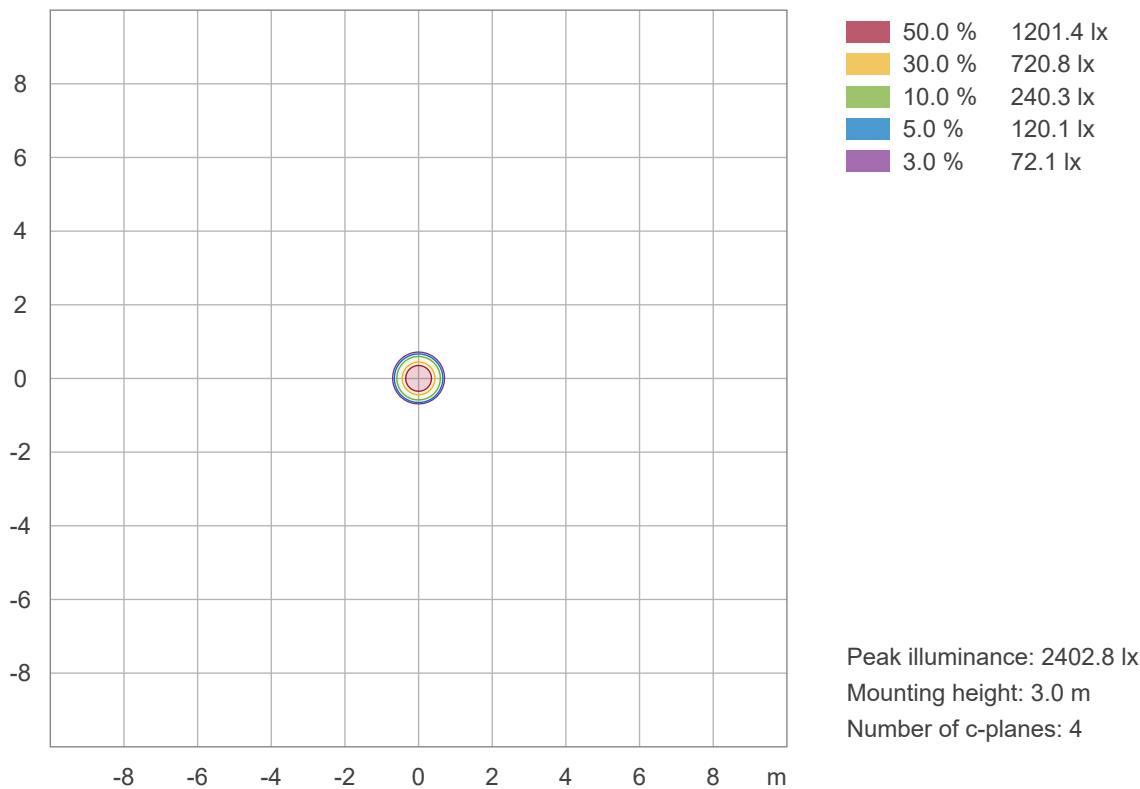
LAMPS (number of lamps)



Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

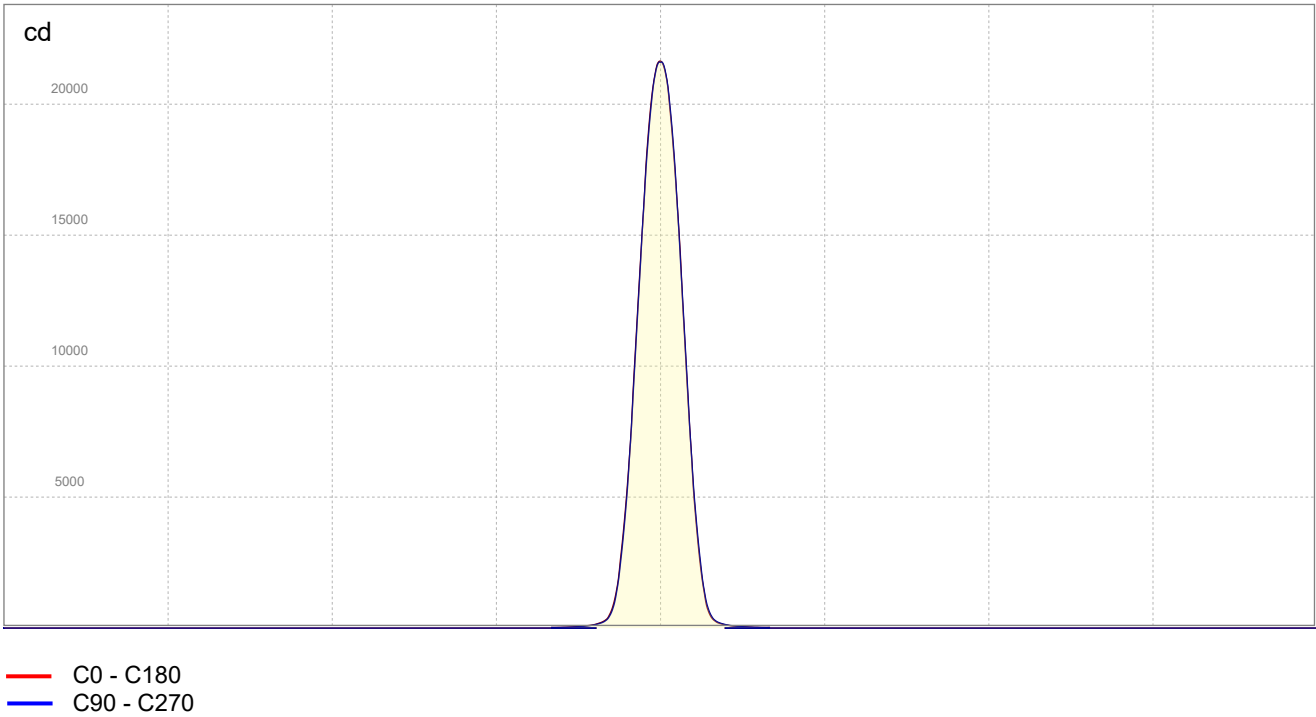


Test report

Light measurement results

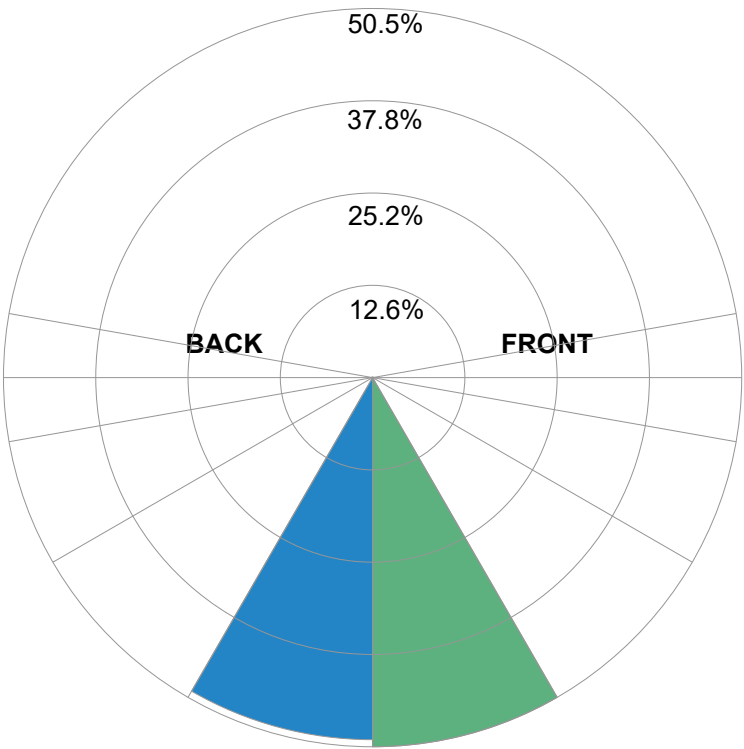
Print date 9/26/2025

Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	626.1	lm	50.5%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	614.1	lm	49.5%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1241	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

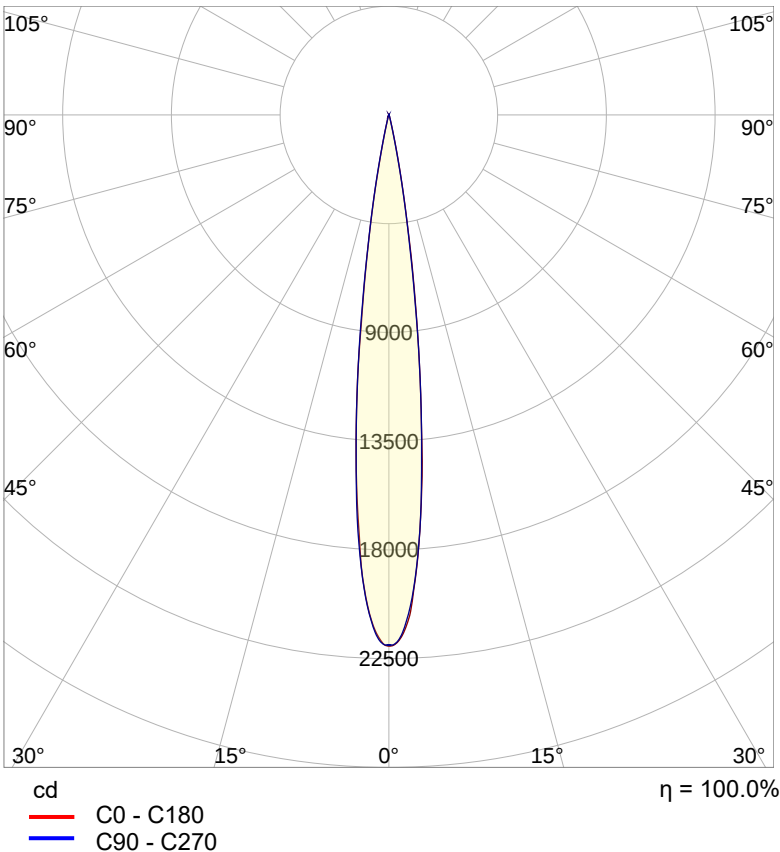
QuikSpot_OutputGain_Disabled_13D_6500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1261 lm – 0% / 100%
n/a lm/W
21982 cd
6500 K
CRI 0.0

Polar light distribution diagram

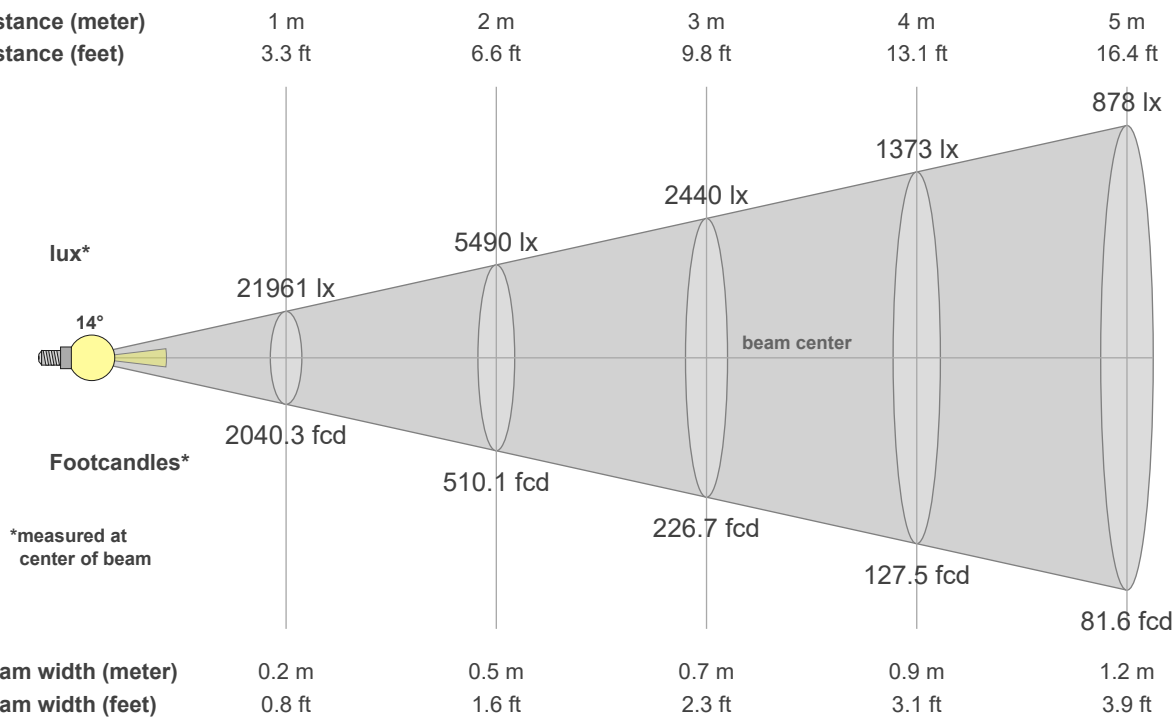


Test report

Light measurement results

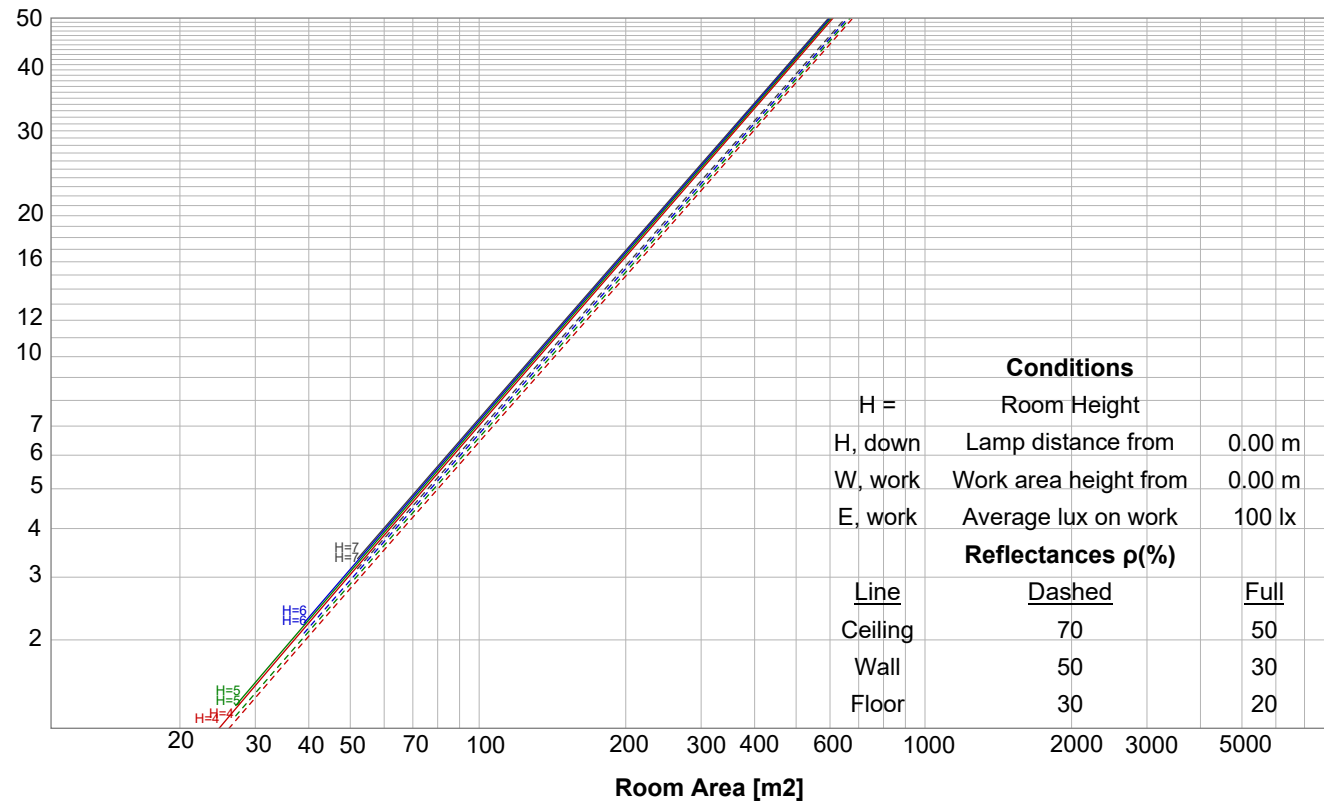
Print date 9/26/2025

Beam details

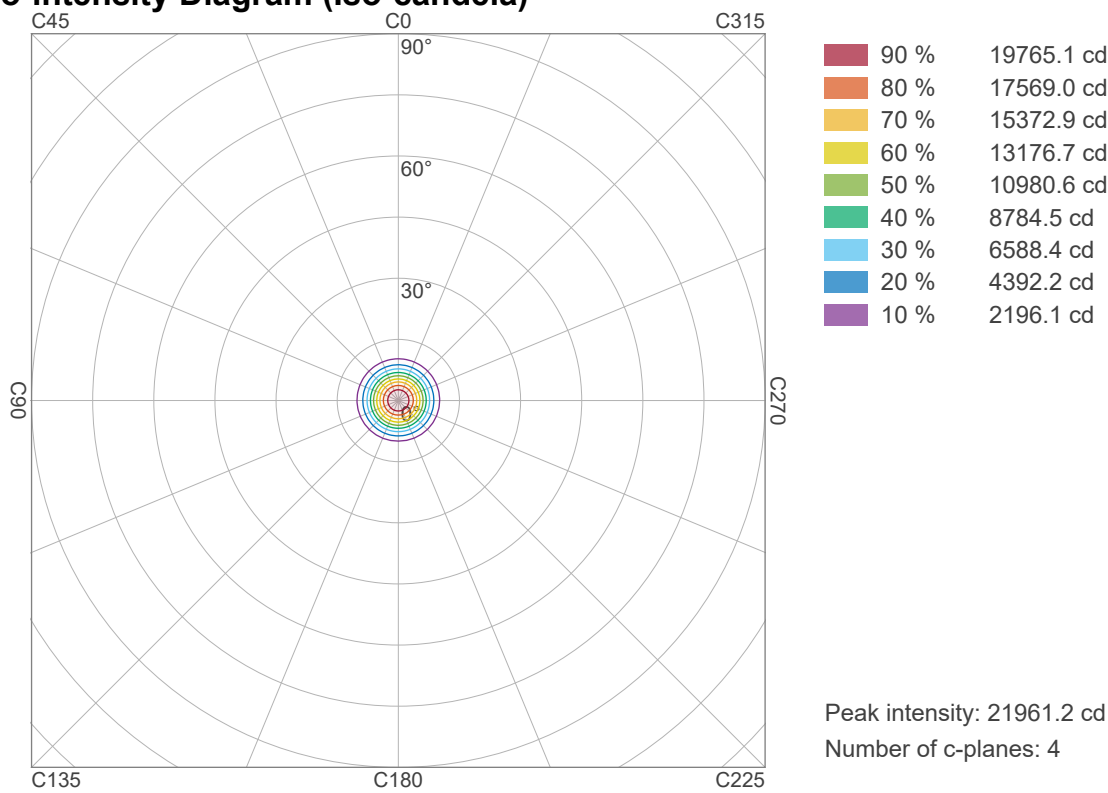


Luminaire budgetary diagram

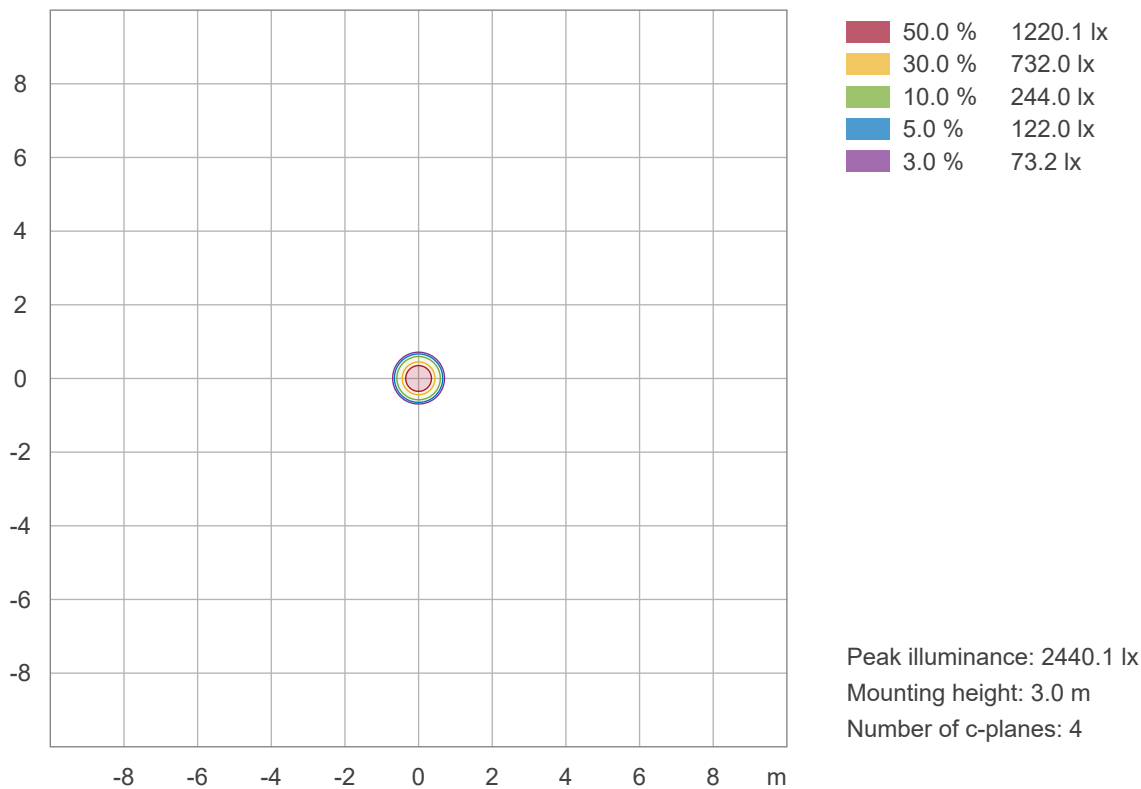
LAMPS (number of lamps)



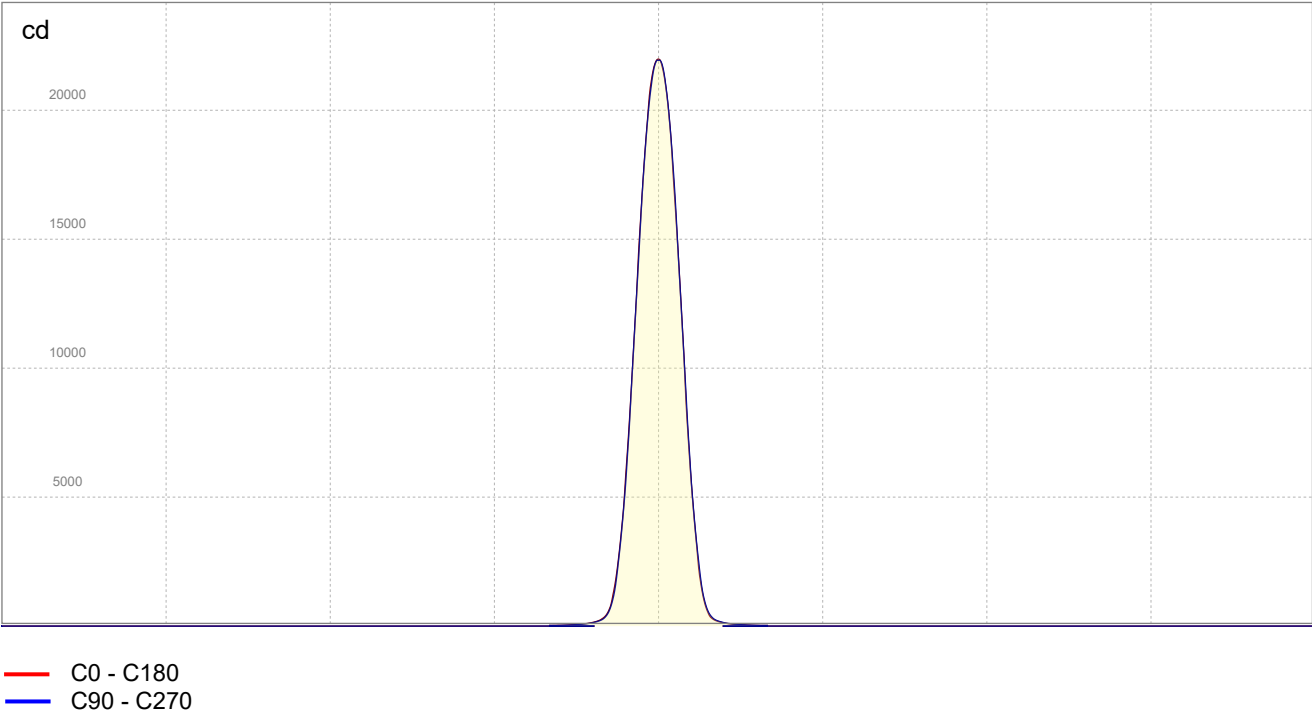
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

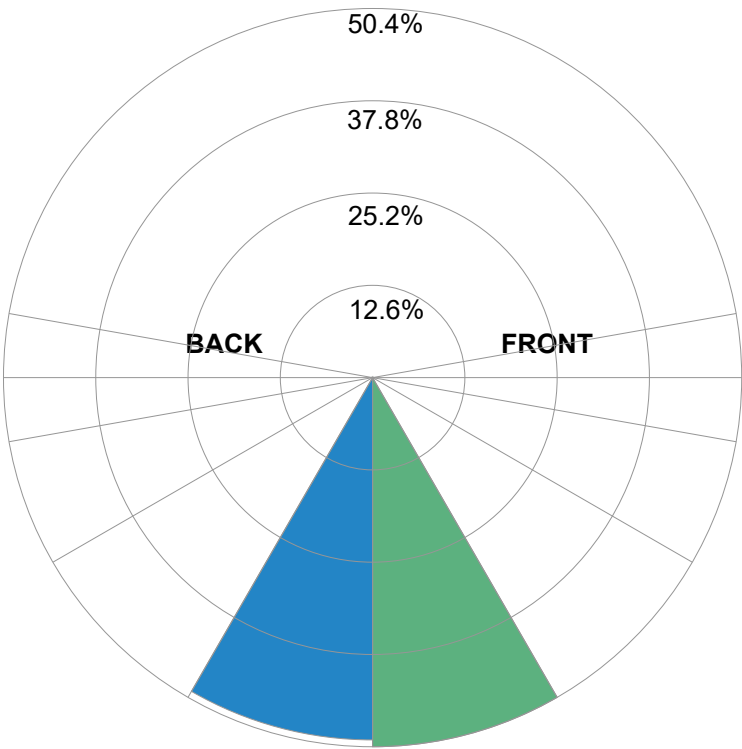


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	636	lm	50.4%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	624.2	lm	49.5%
Medium (30-60°)	0.3	lm	0%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1261	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

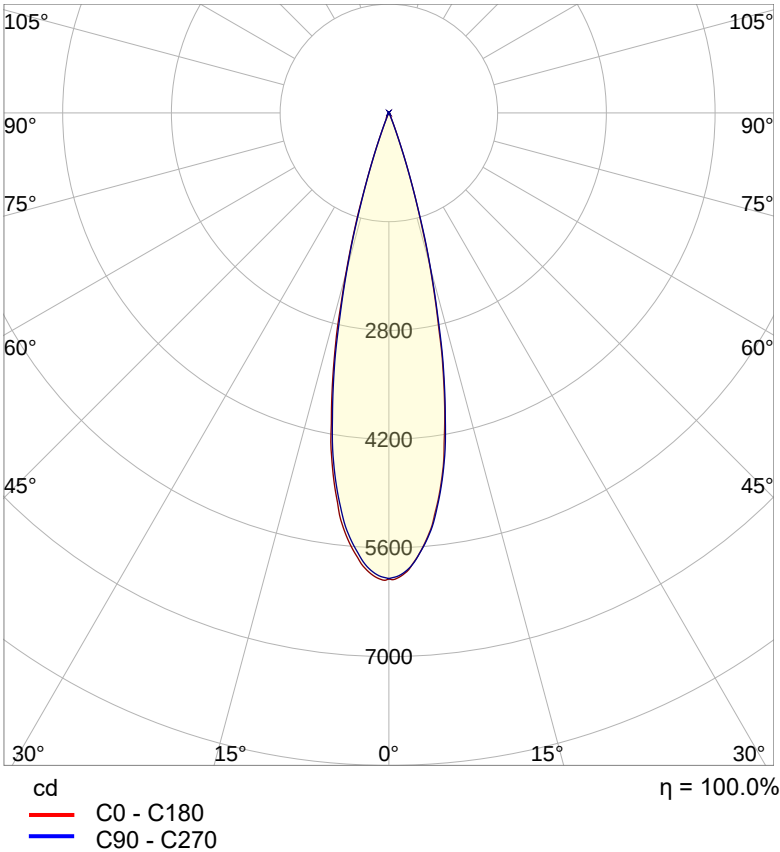
QuikSpot_OutputGain_Disabled_30D_2700K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1084 lm – 0% / 100%
n/a lm/W
6018 cd
2700 K
CRI 0.0

Polar light distribution diagram

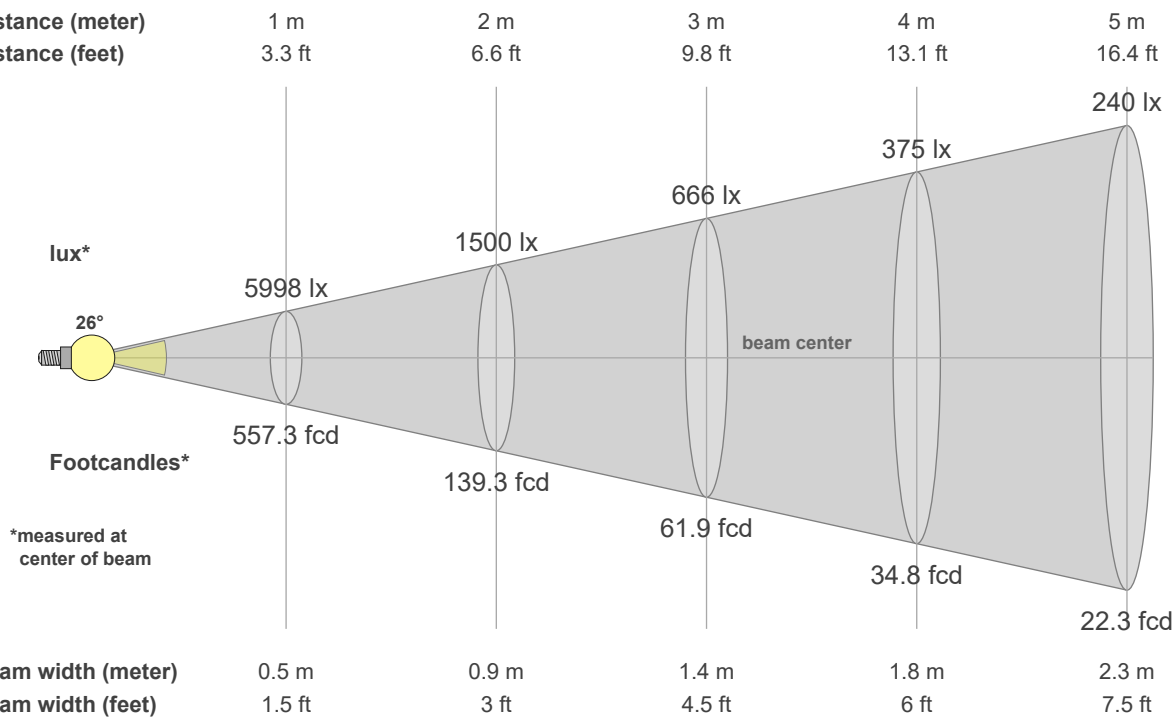


Test report

Light measurement results

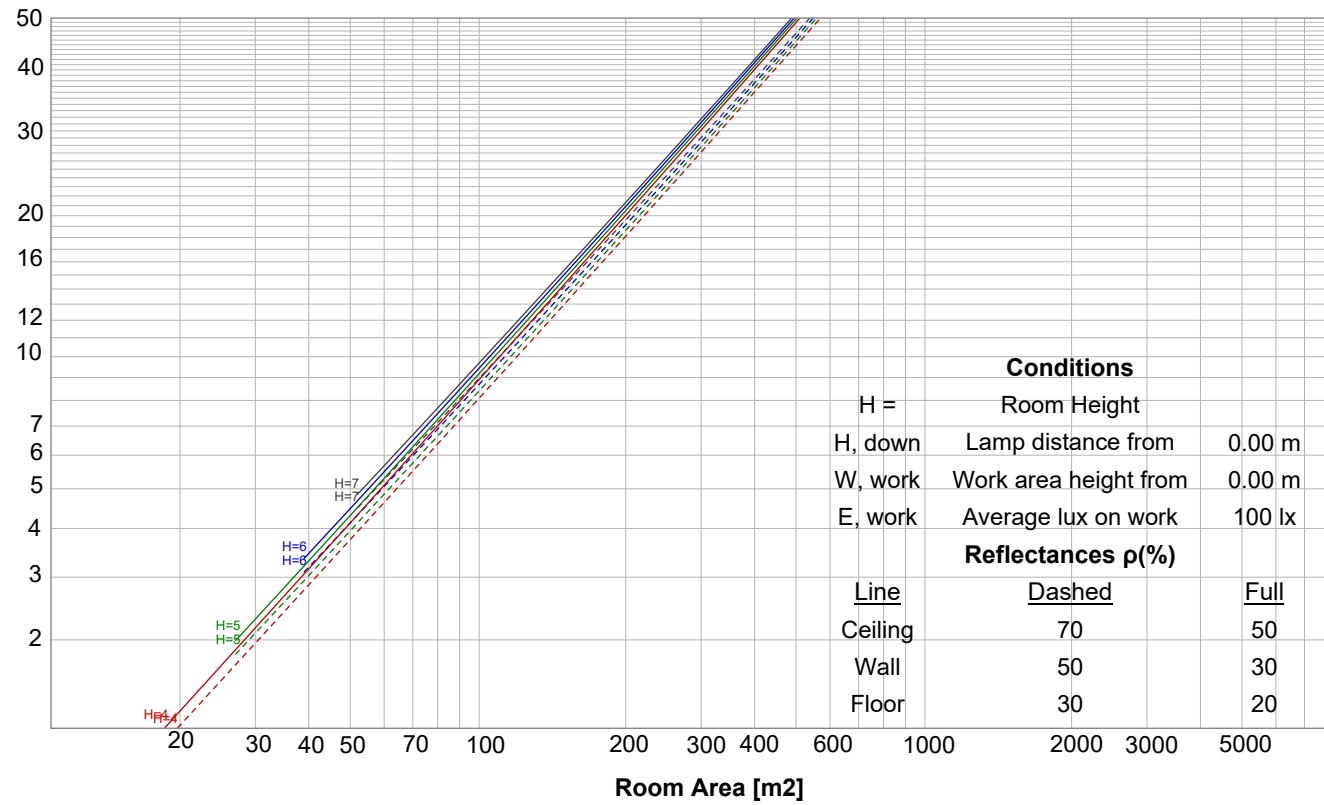
Print date 9/26/2025

Beam details

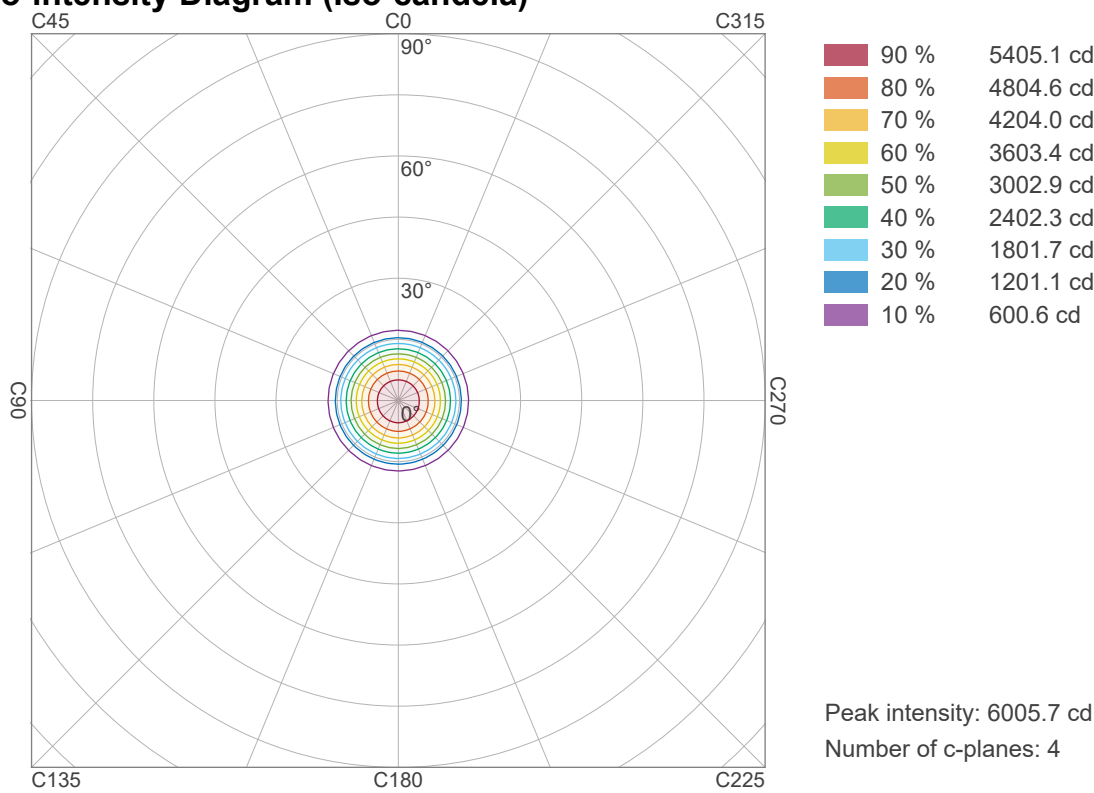


Luminaire budgetary diagram

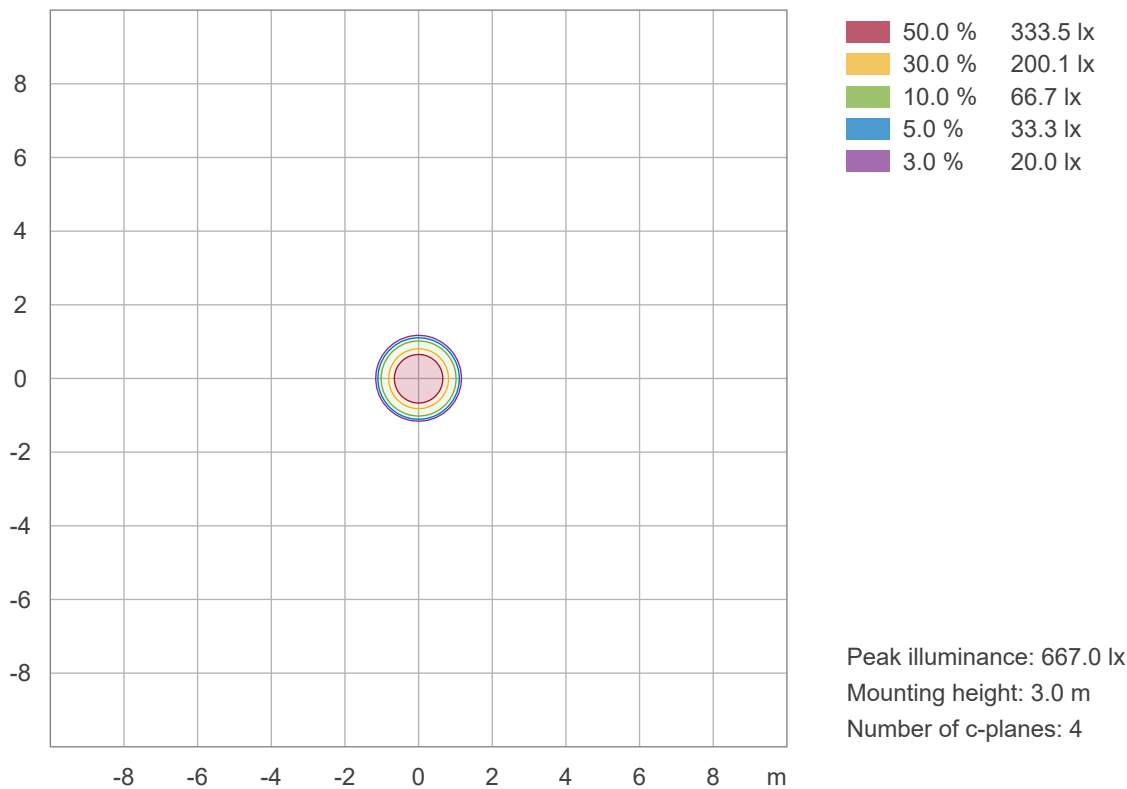
LAMPS (number of lamps)



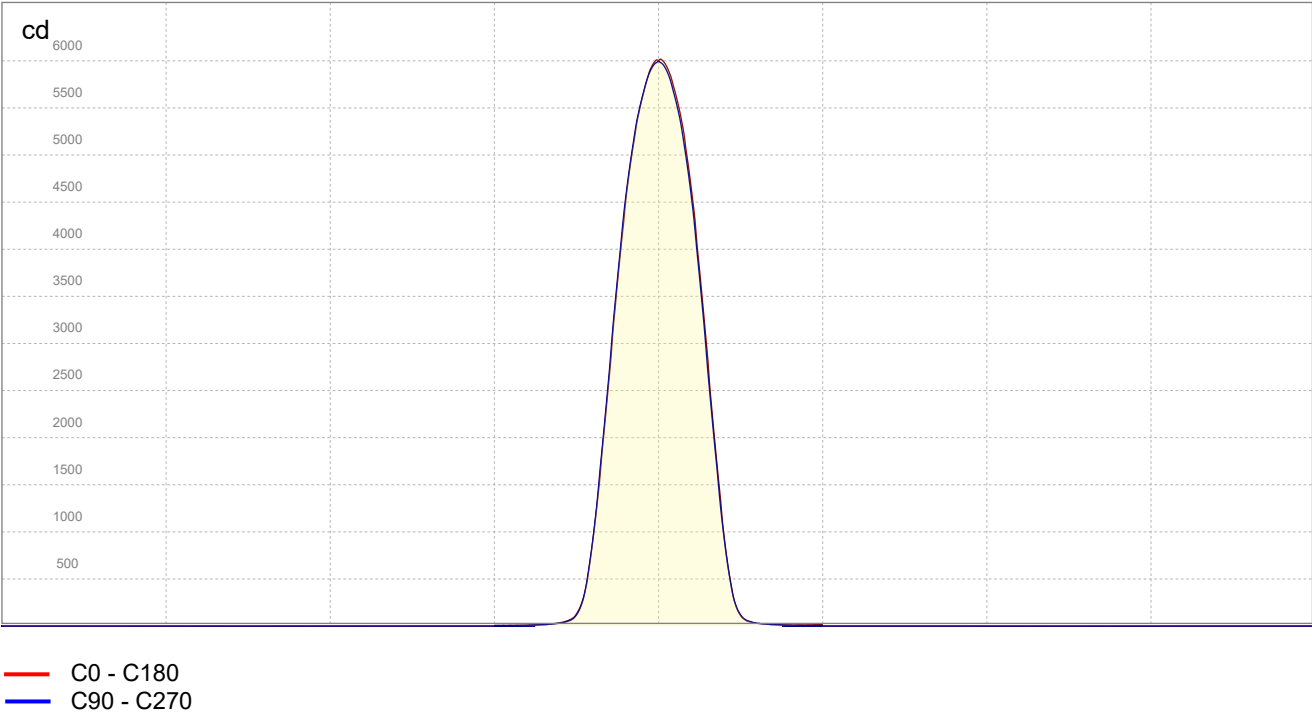
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

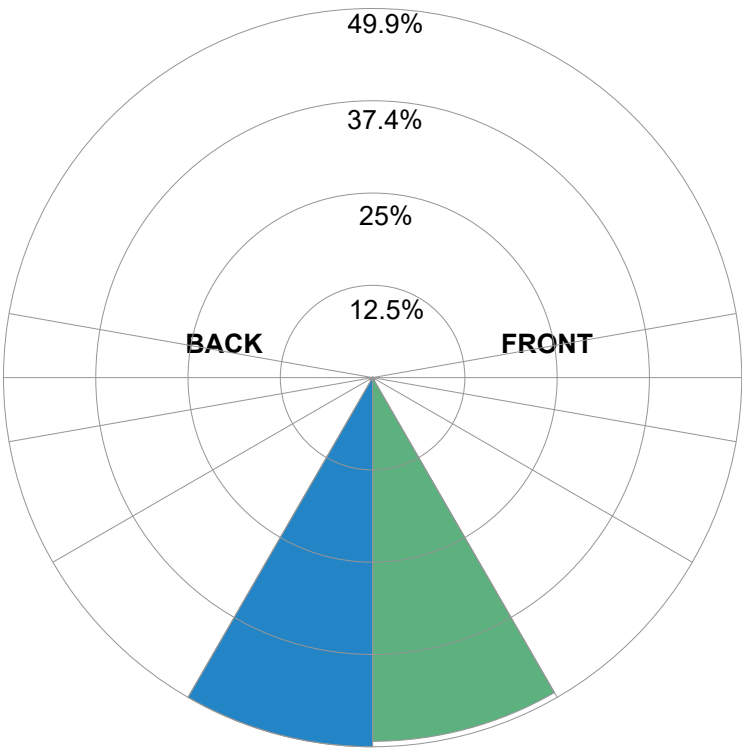


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	533.3	lm	49.2%
Medium (30-60°)	4.6	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	541.3	lm	49.9%
Medium (30-60°)	5	lm	0.5%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1084	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

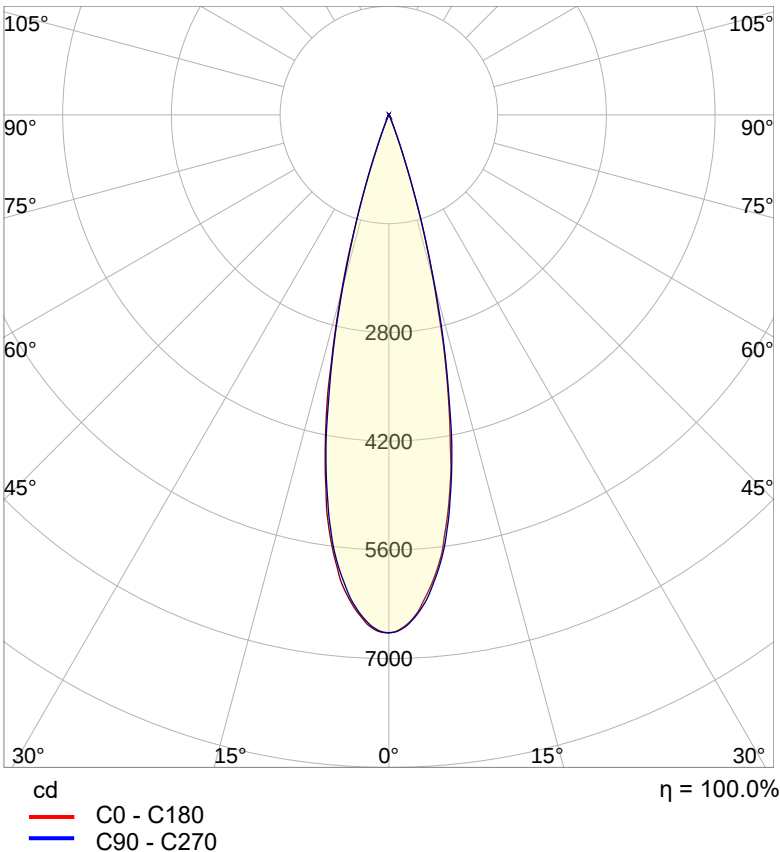
QuikSpot_OutputGain_Disabled_30D_3200K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1197 lm – 0% / 100%
n/a lm/W
6667 cd
3200 K
CRI 0.0

Polar light distribution diagram

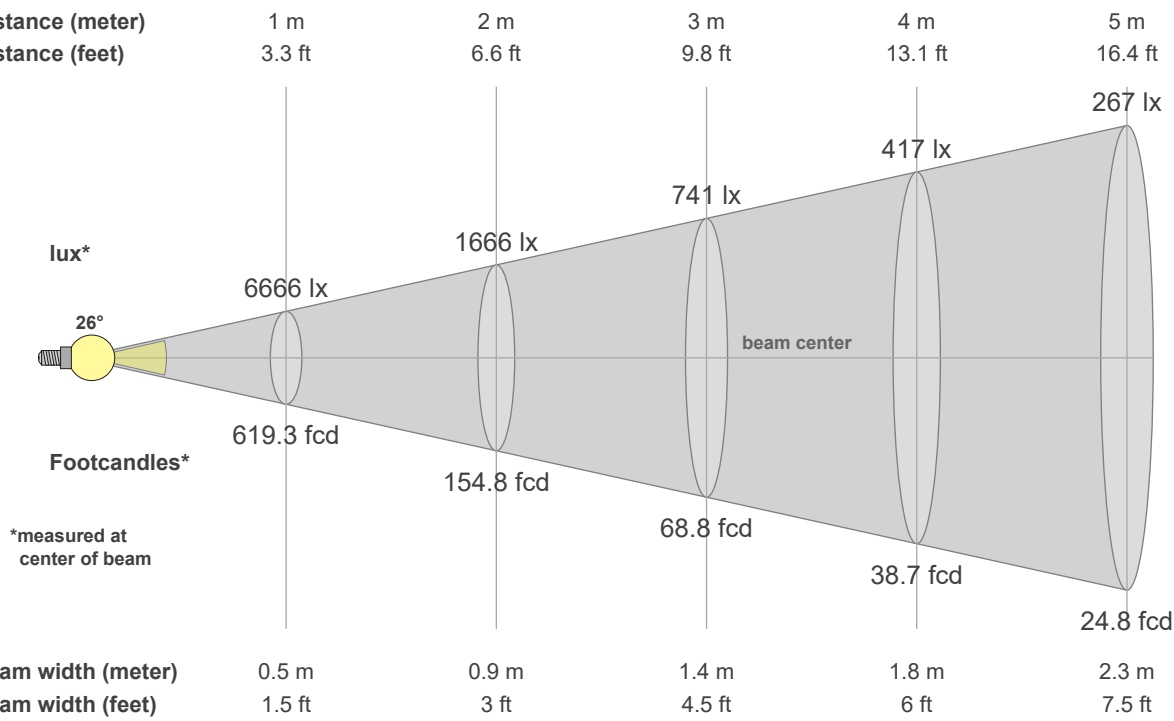


Test report

Light measurement results

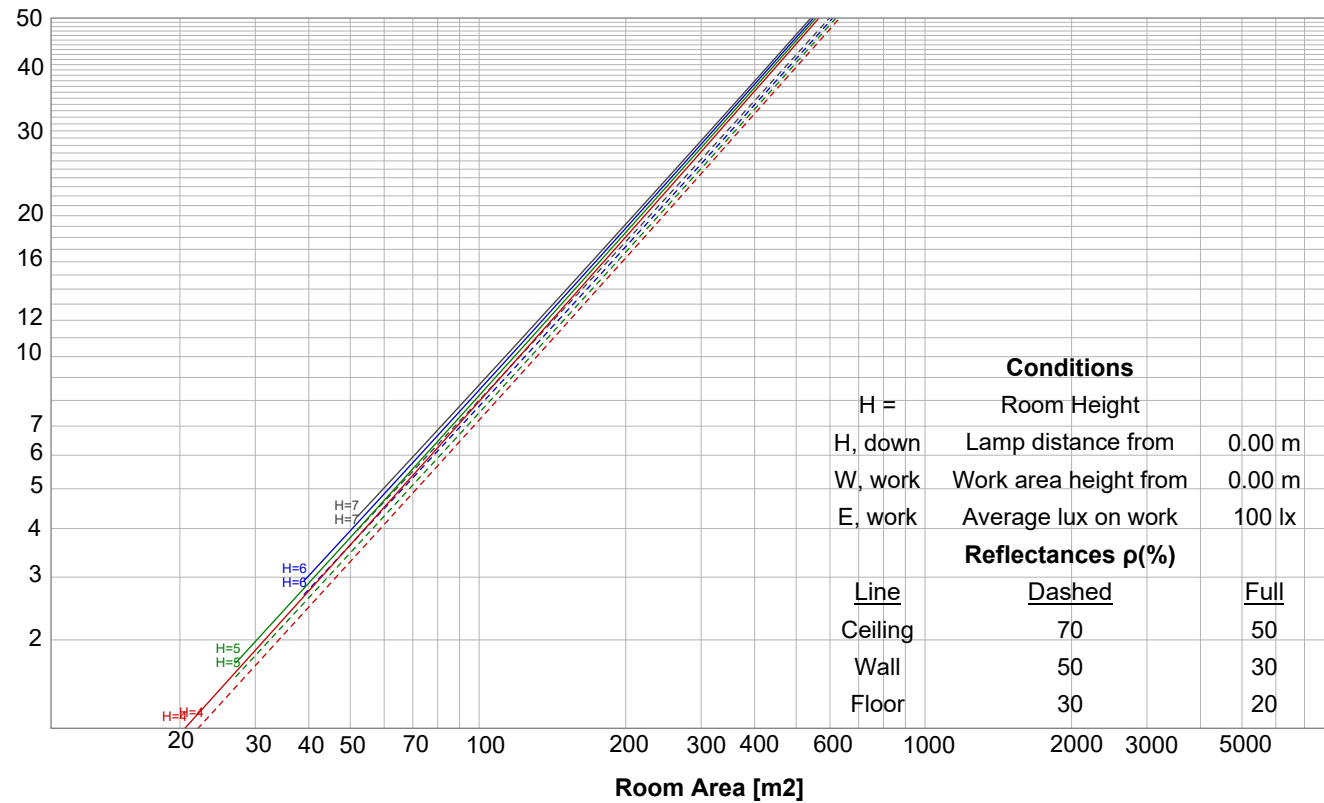
Print date 9/26/2025

Beam details

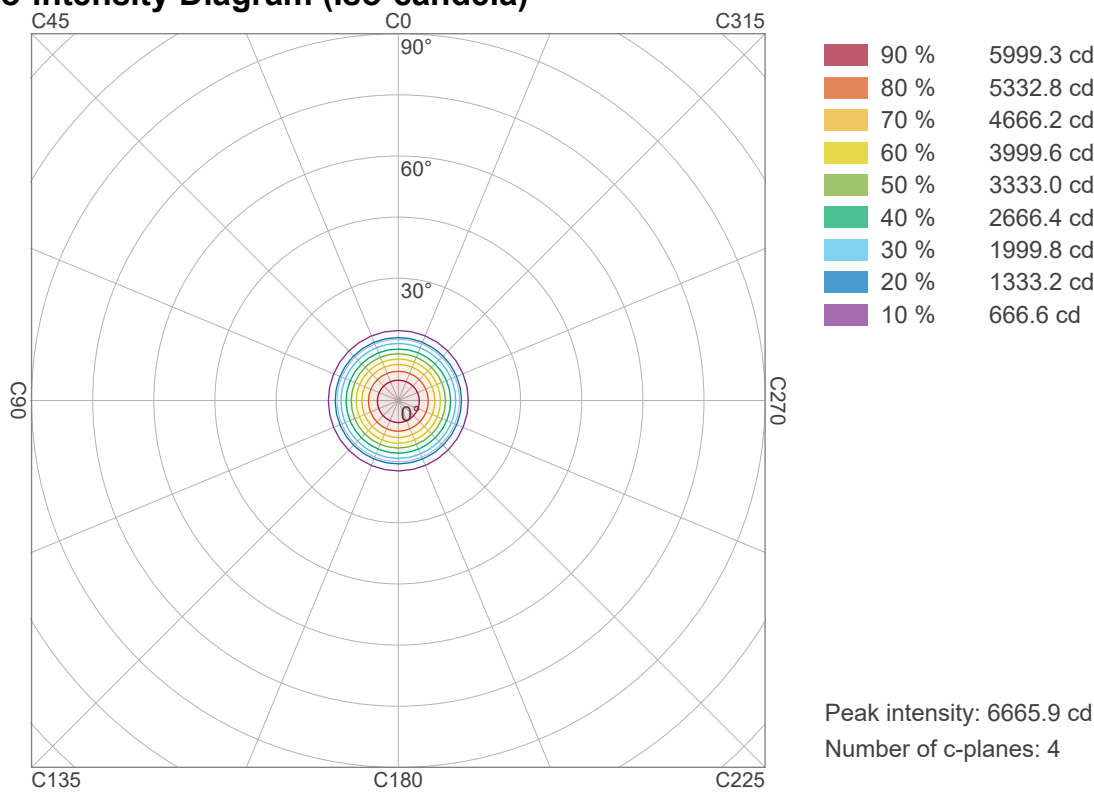


Luminaire budgetary diagram

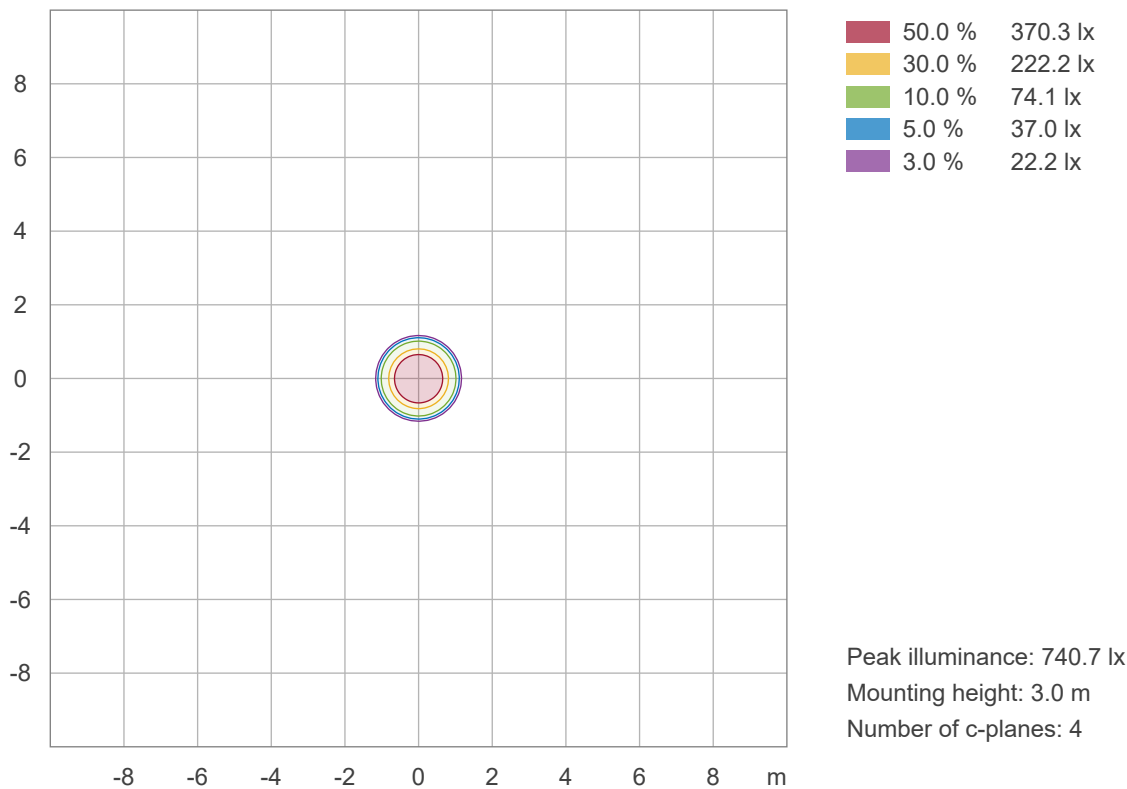
LAMPS (number of lamps)



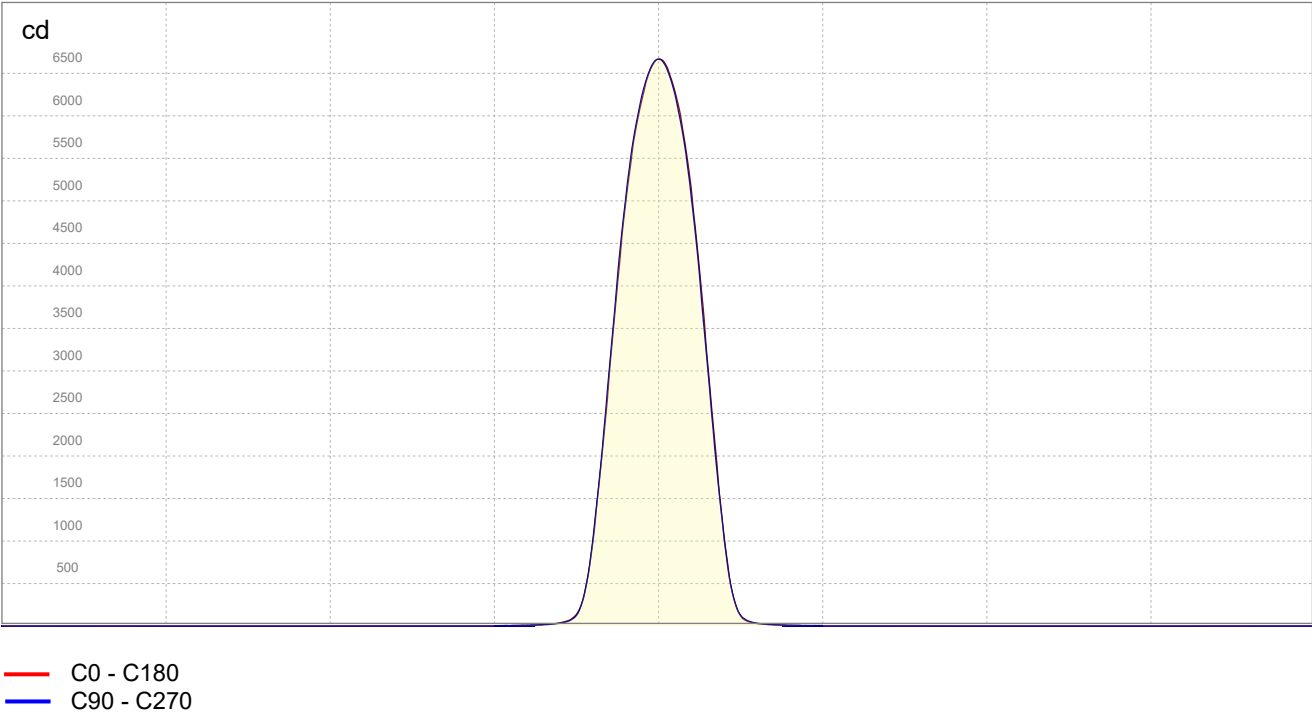
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

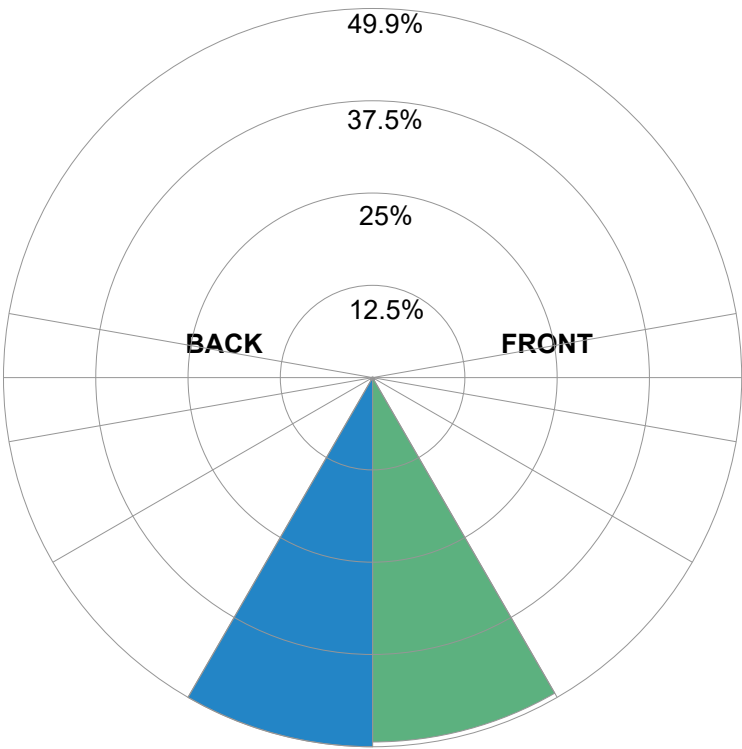


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	590	lm	49.3%
Medium (30-60°)	4.6	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	597.7	lm	49.9%
Medium (30-60°)	4.4	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1197	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

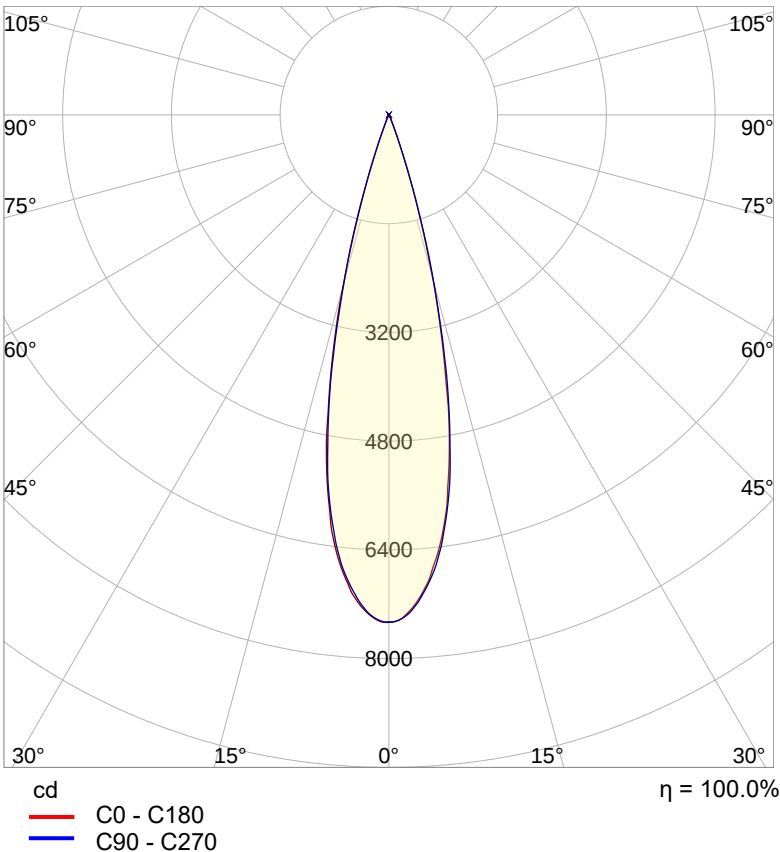
QuikSpot_OutputGain_Disabled_30D_4000K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1336 lm – 0% / 100%
n/a lm/W
7467 cd
4000 K
CRI 0.0

Polar light distribution diagram

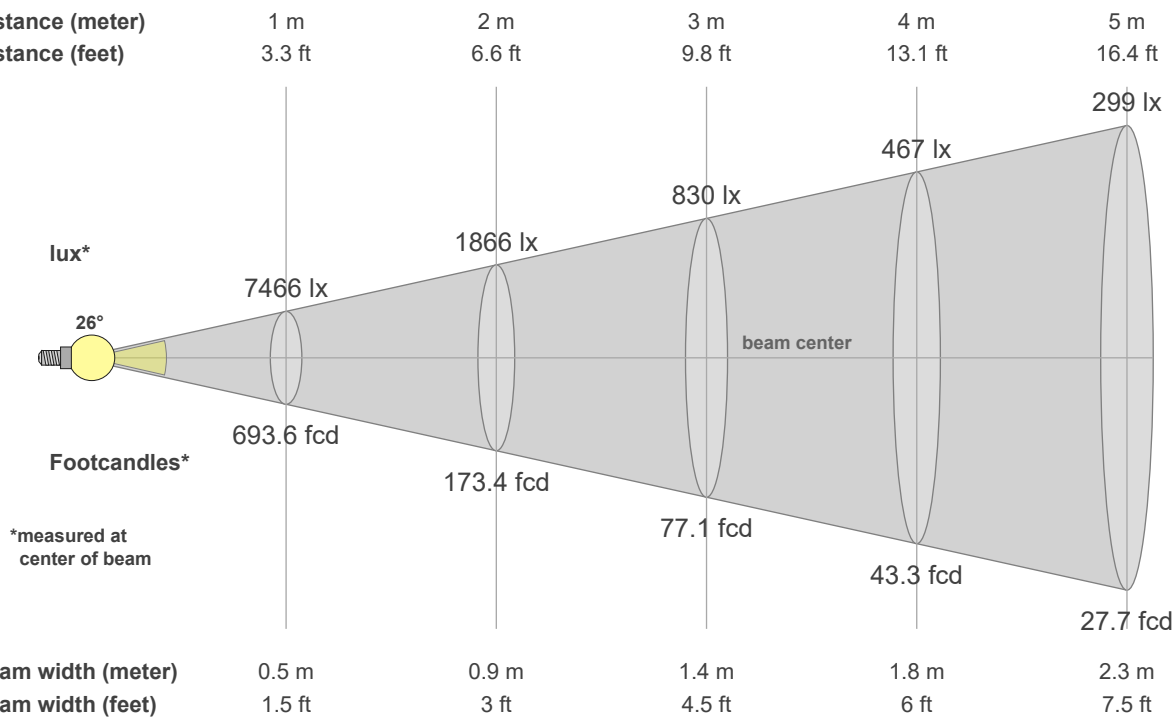


Test report

Light measurement results

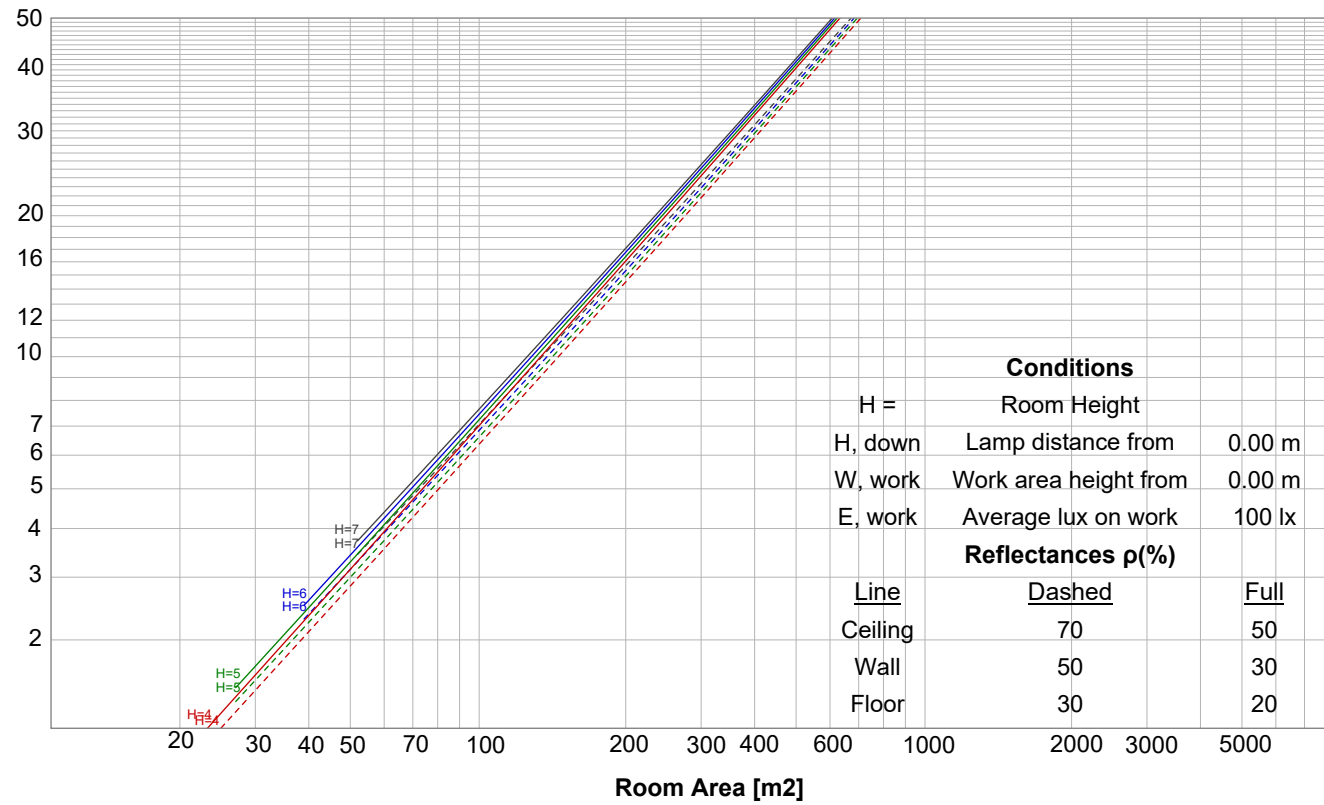
Print date 9/26/2025

Beam details

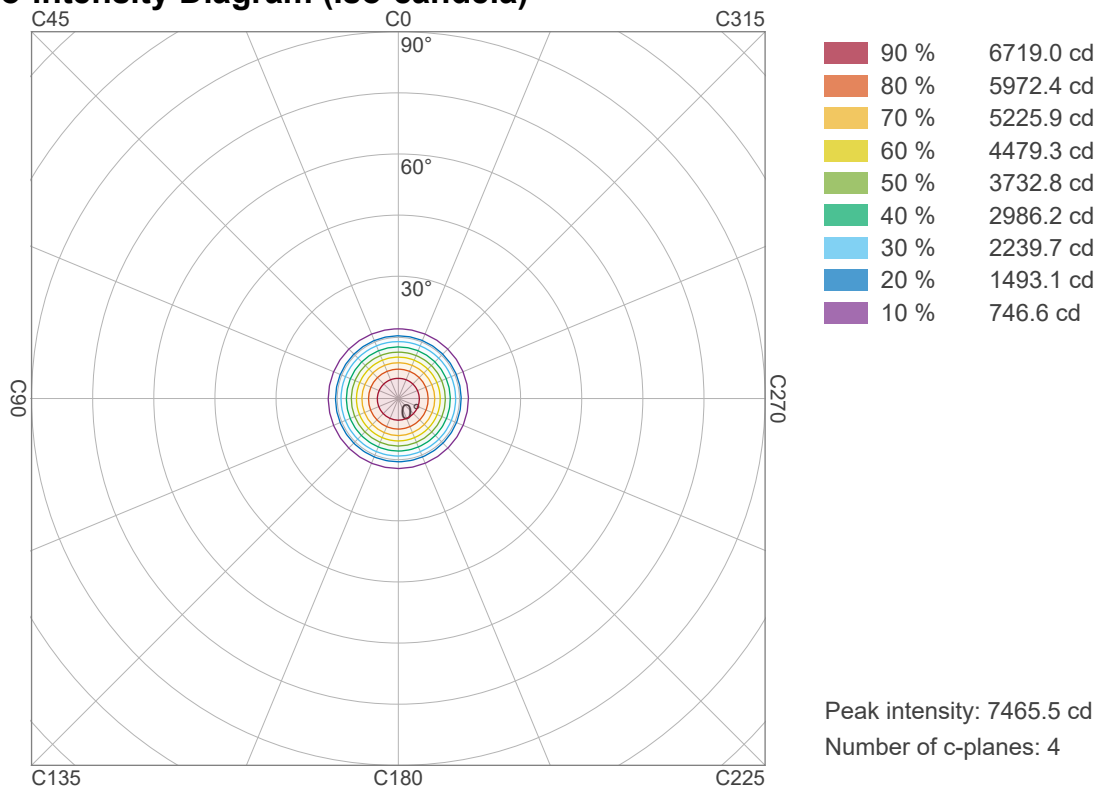


Luminaire budgetary diagram

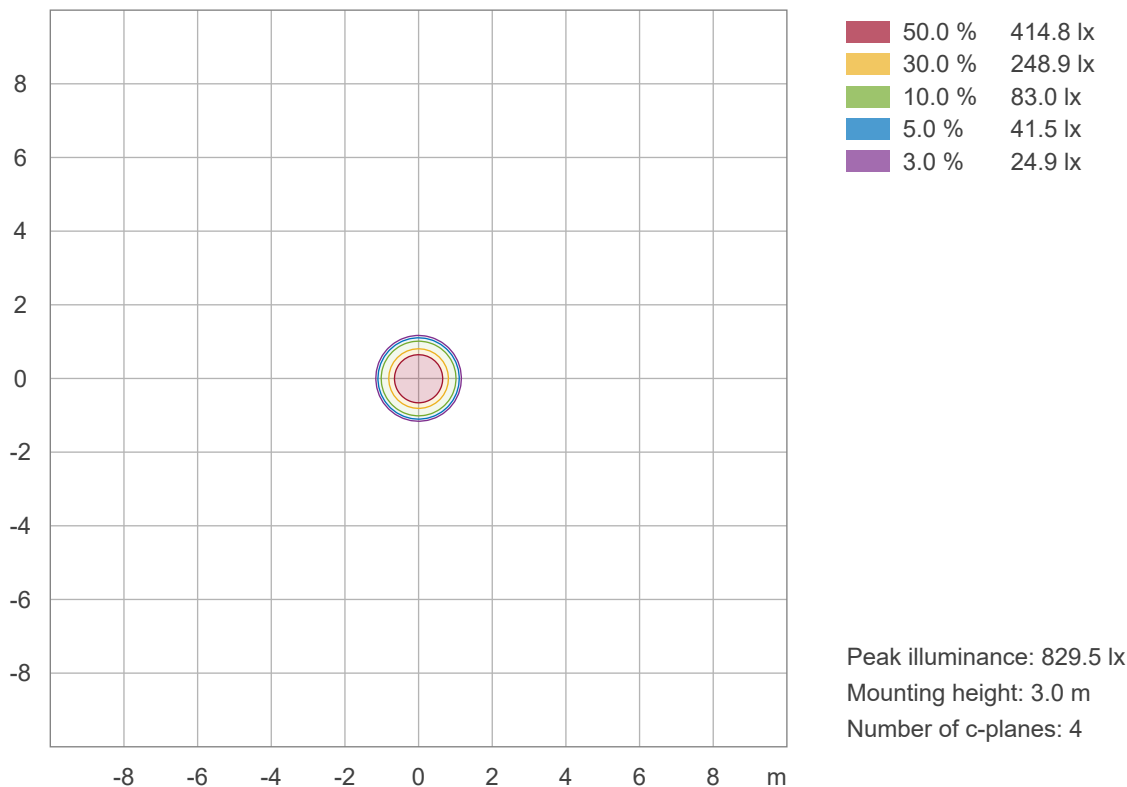
LAMPS (number of lamps)



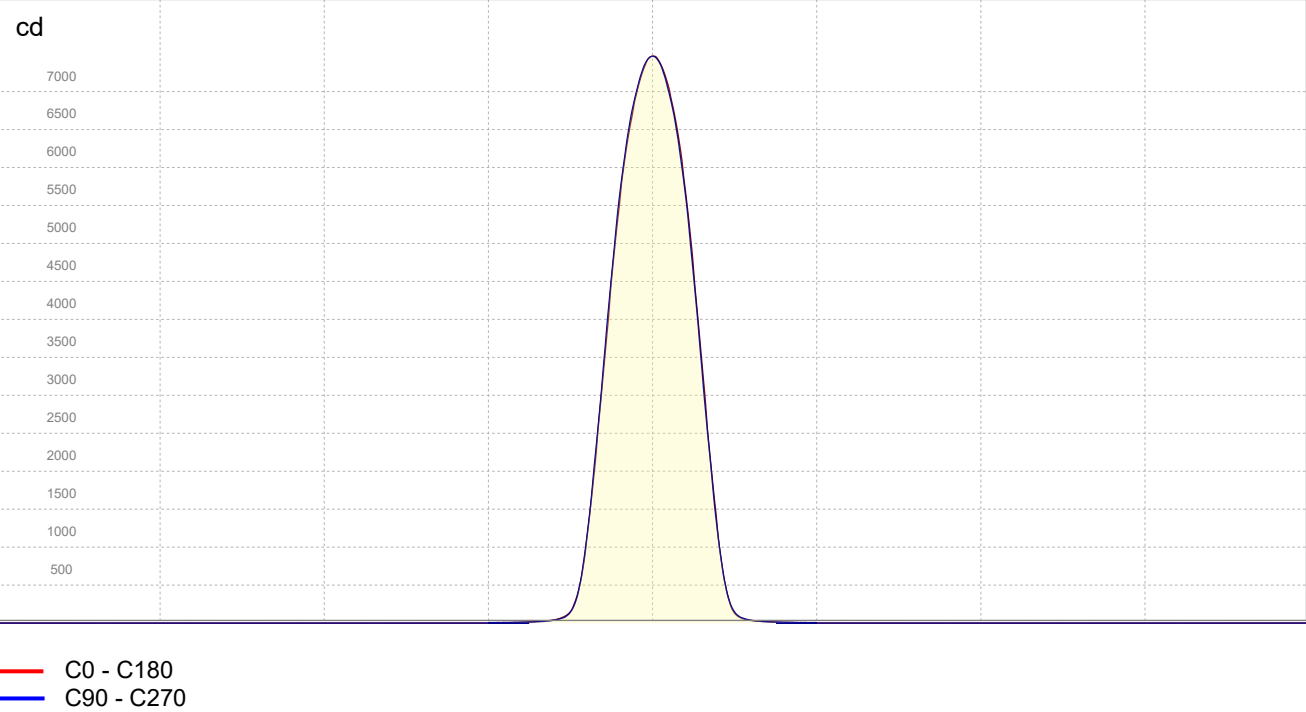
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

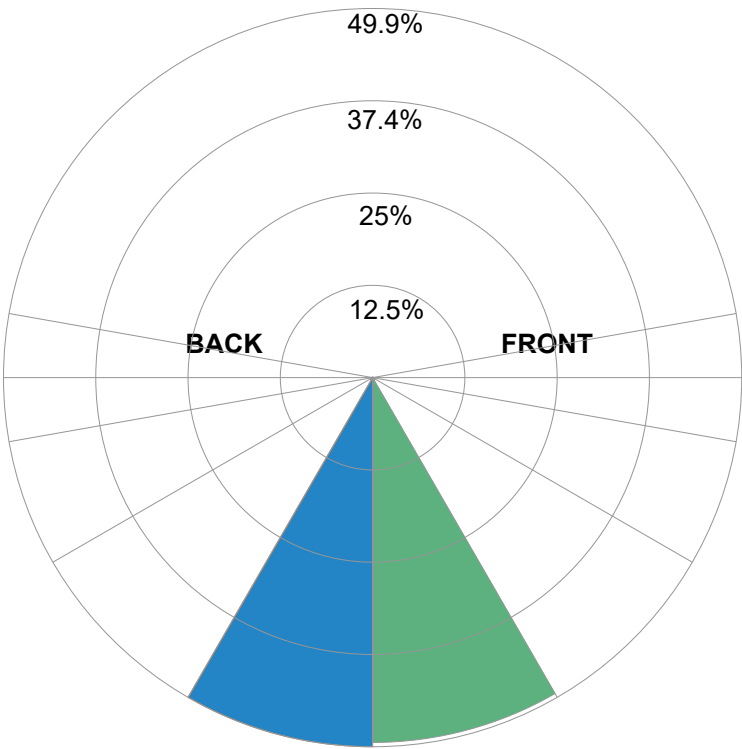


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	658.9	lm	49.3%
Medium (30-60°)	5.2	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	666.6	lm	49.9%
Medium (30-60°)	4.8	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1336	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

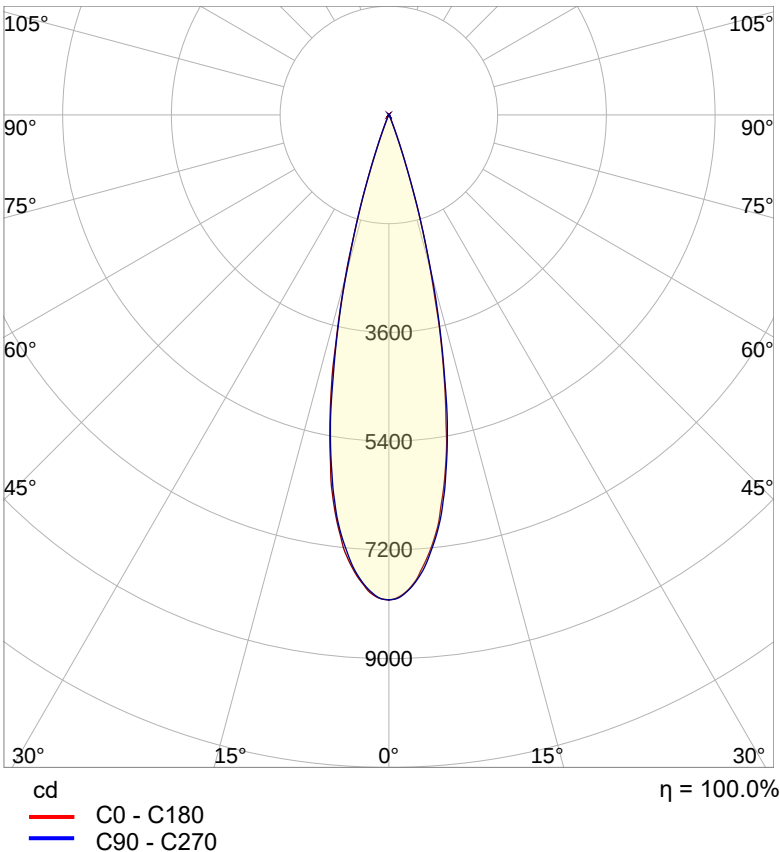
QuikSpot_OutputGain_Disabled_30D_5500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1428 lm – 0% / 100%
n/a lm/W
8027 cd
5500 K
CRI 0.0

Polar light distribution diagram

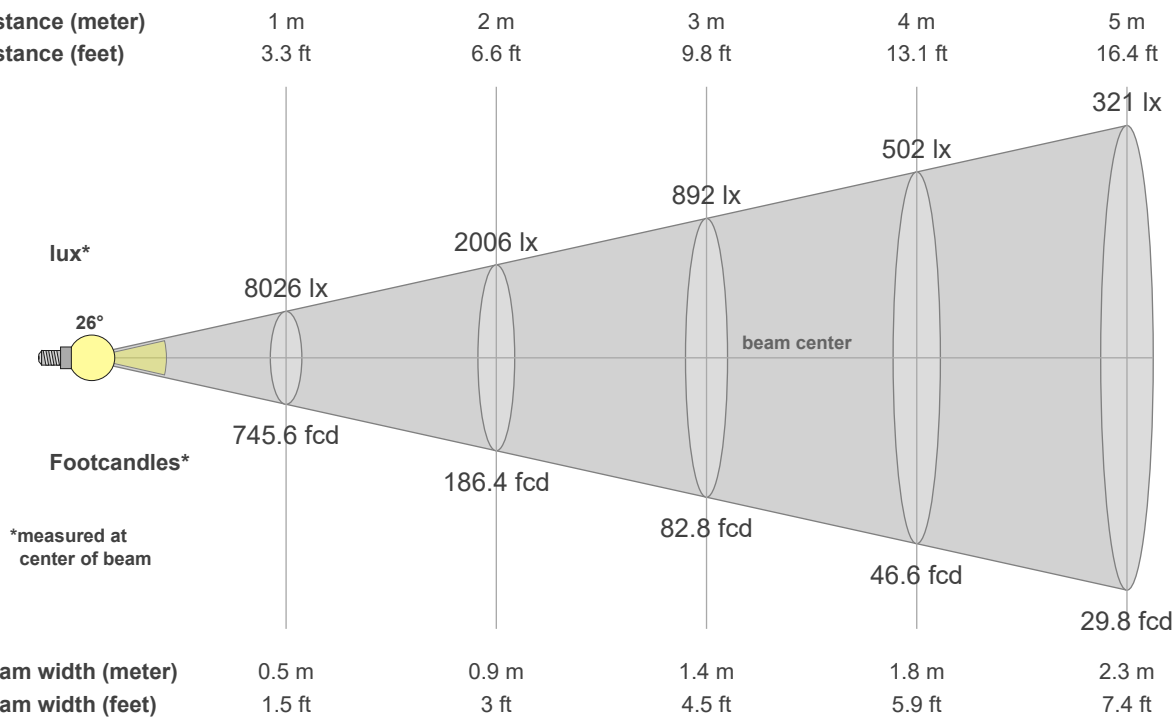


Test report

Light measurement results

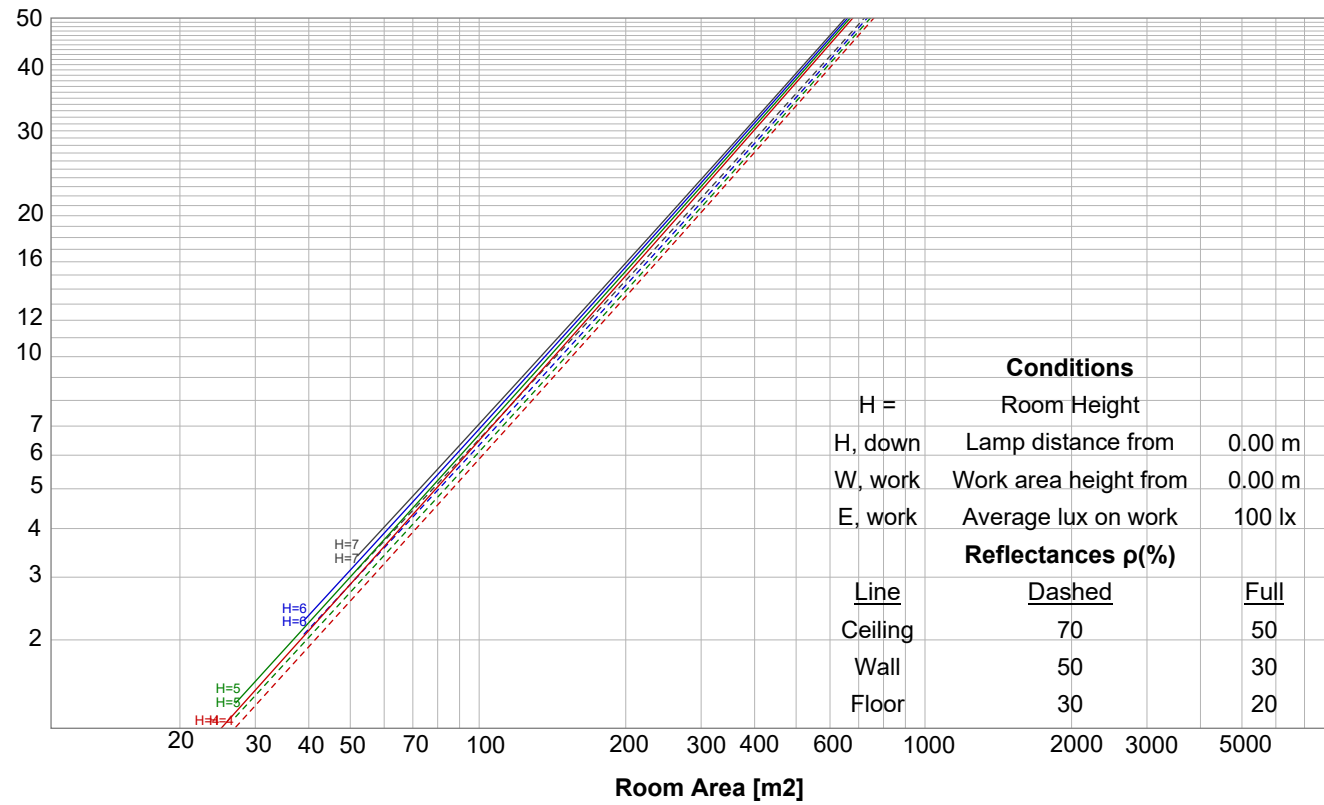
Print date 9/26/2025

Beam details

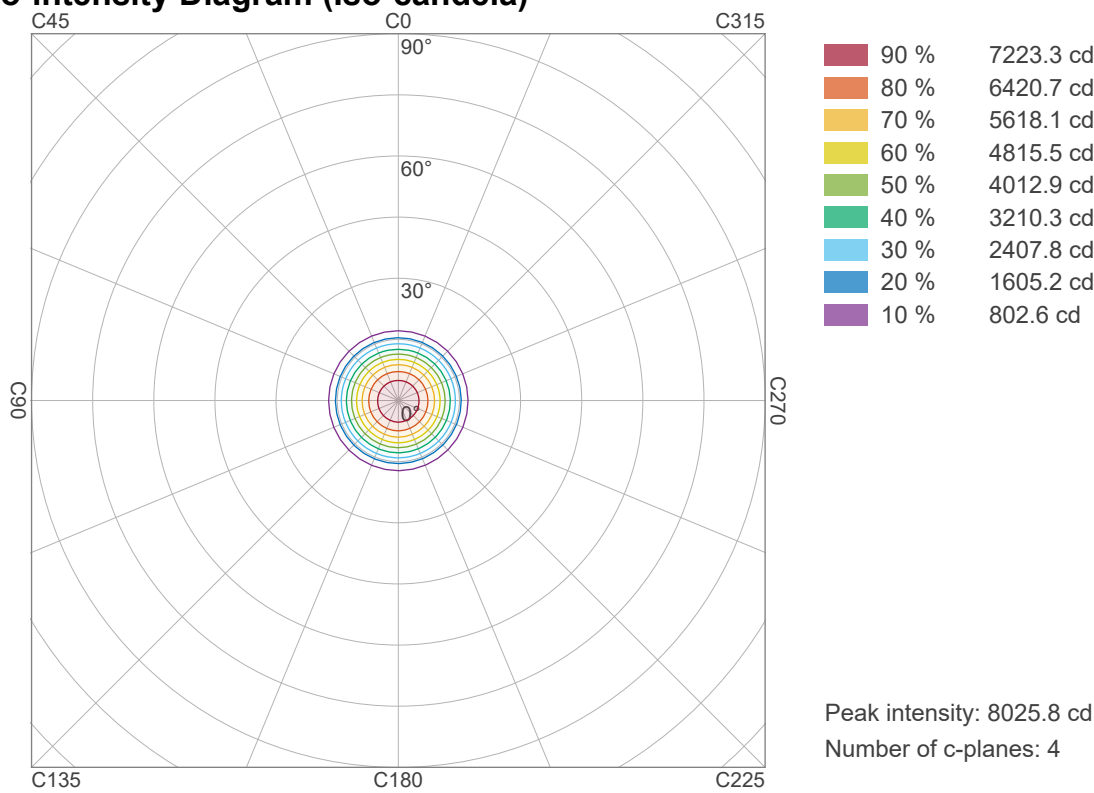


Luminaire budgetary diagram

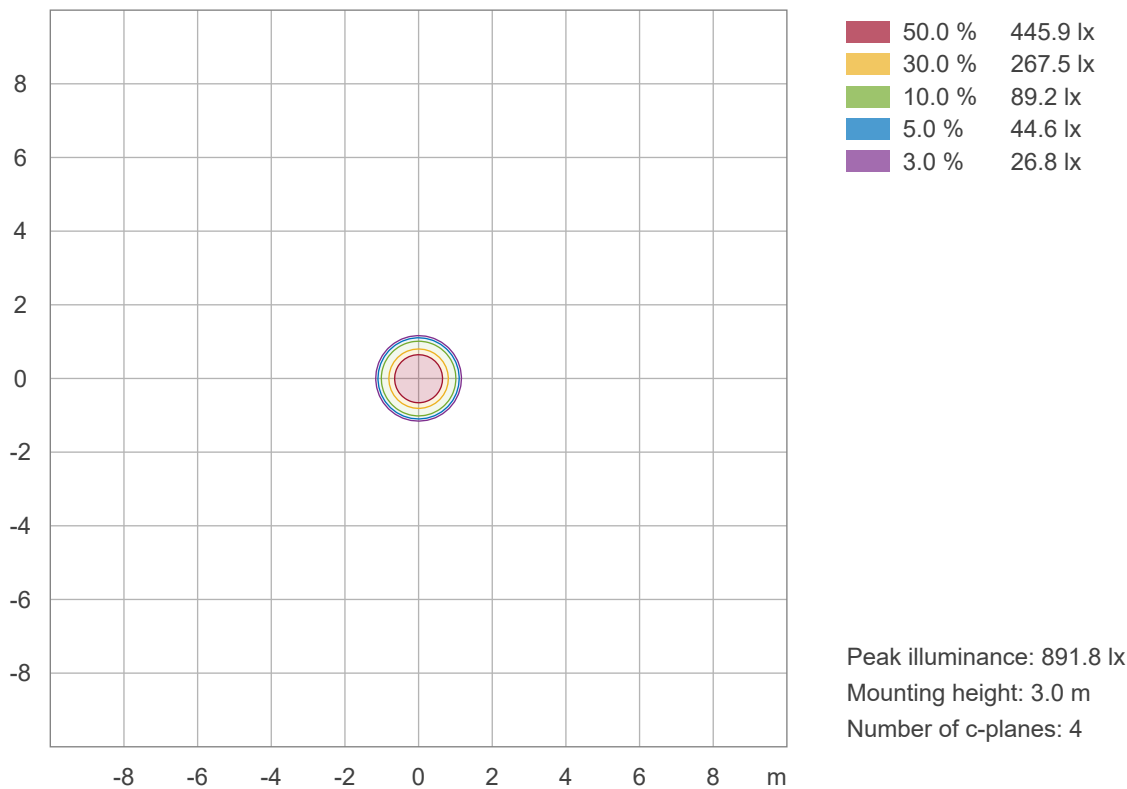
LAMPS (number of lamps)



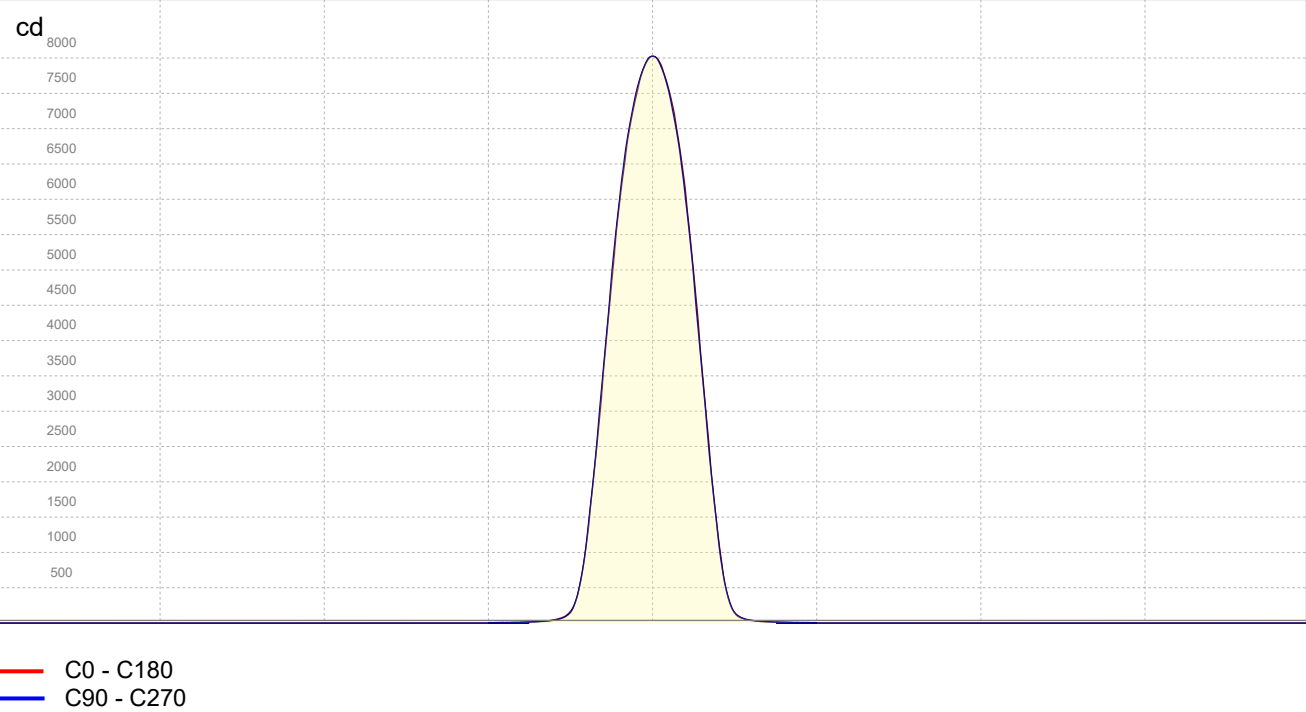
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

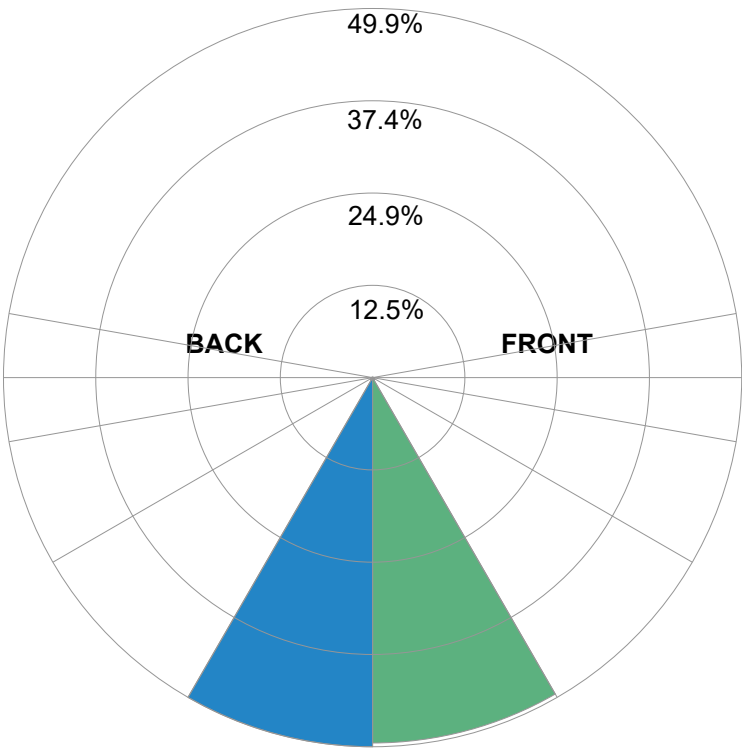


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	705	lm	49.4%
Medium (30-60°)	5.7	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	712.3	lm	49.9%
Medium (30-60°)	5.3	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1428	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
361 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

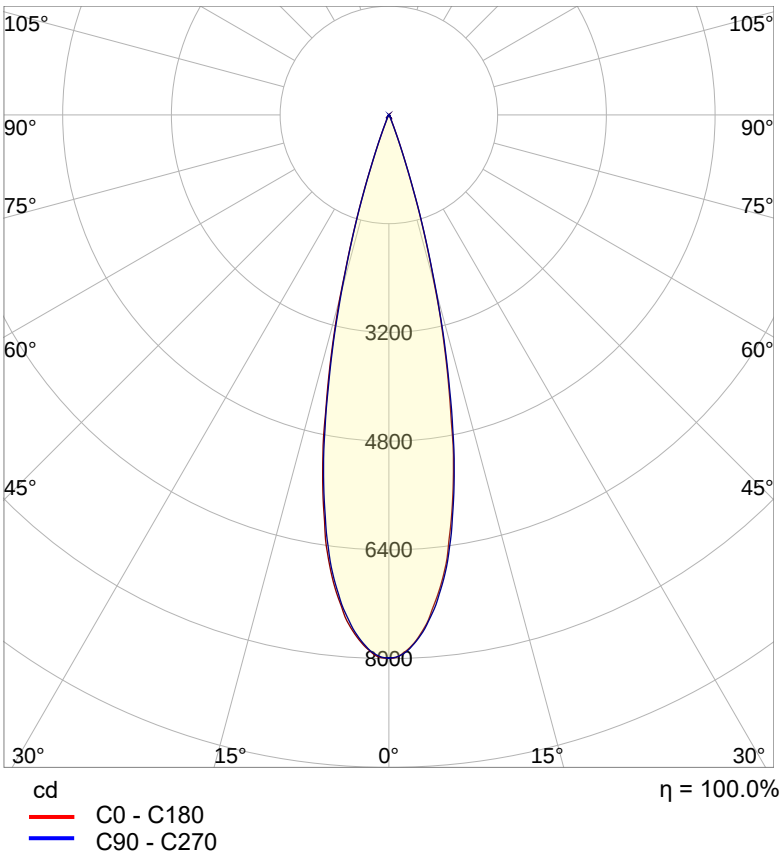
QuikSpot_OutputGain_Disabled_30D_6500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1419 lm – 0% / 100%
n/a lm/W
7994 cd
6500 K
CRI 0.0

Polar light distribution diagram

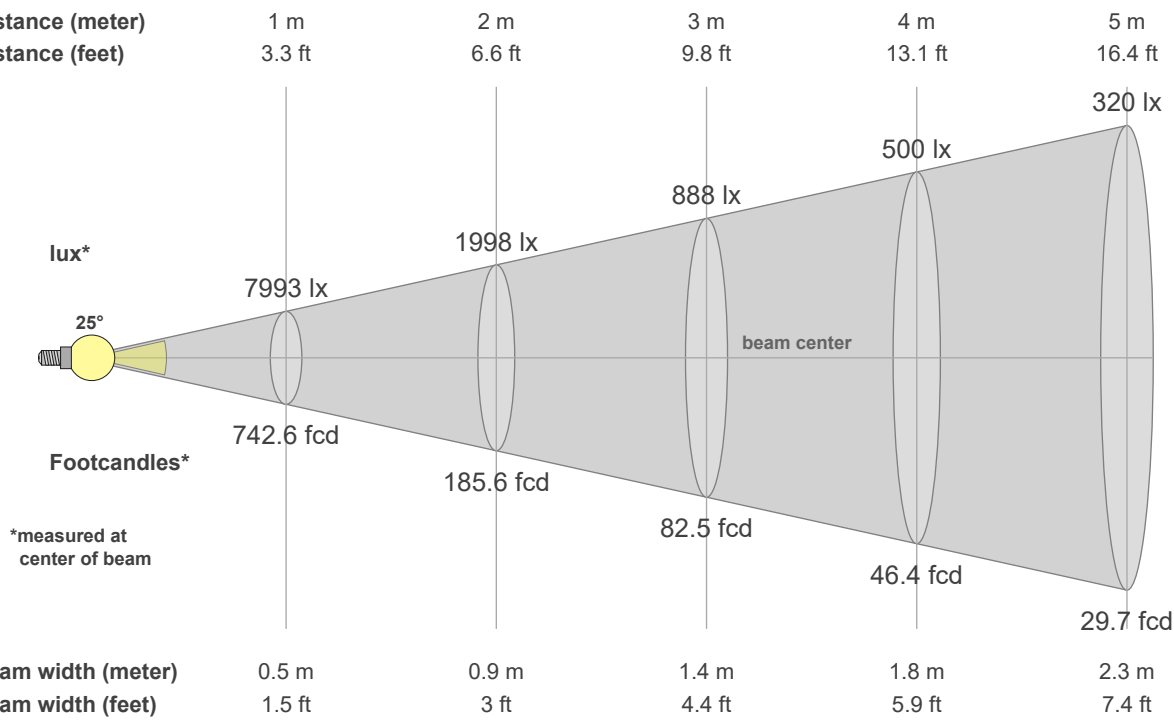


Test report

Light measurement results

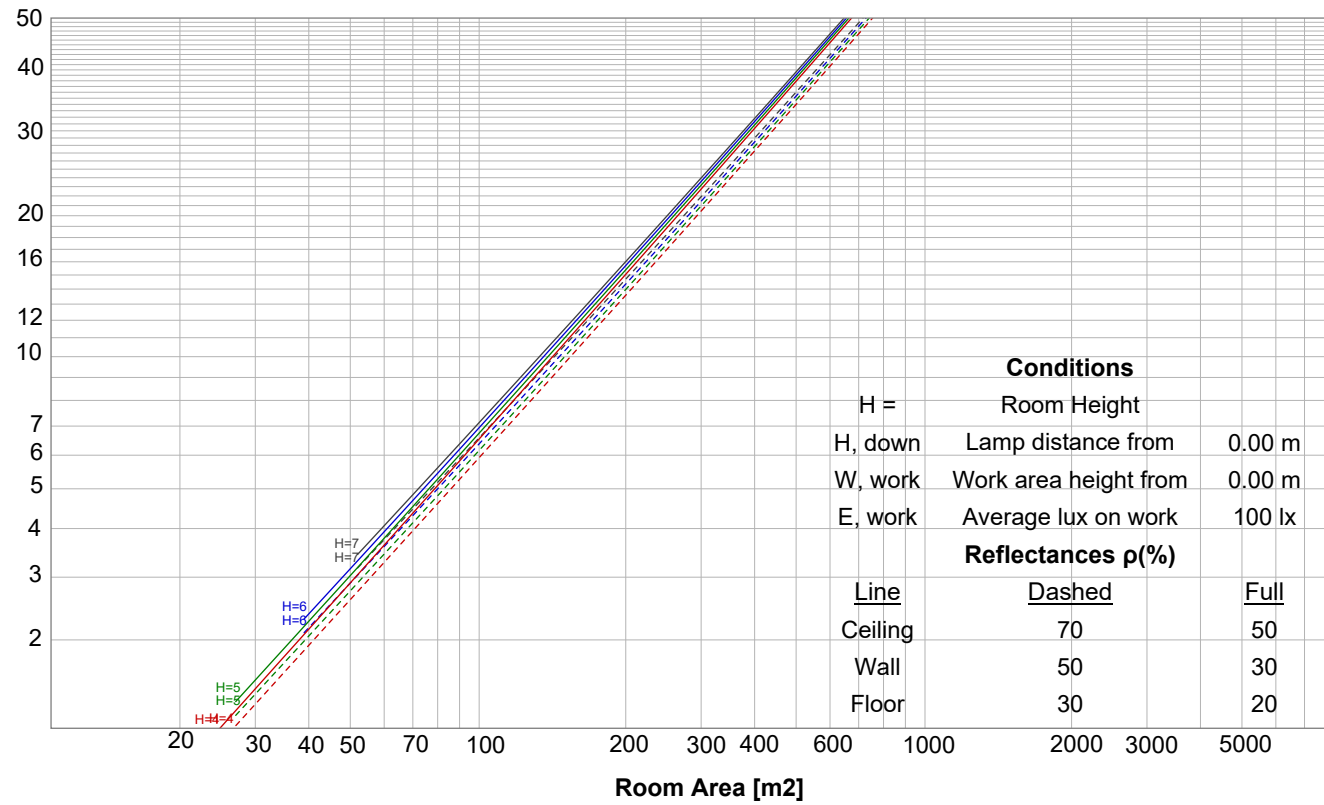
Print date 9/26/2025

Beam details

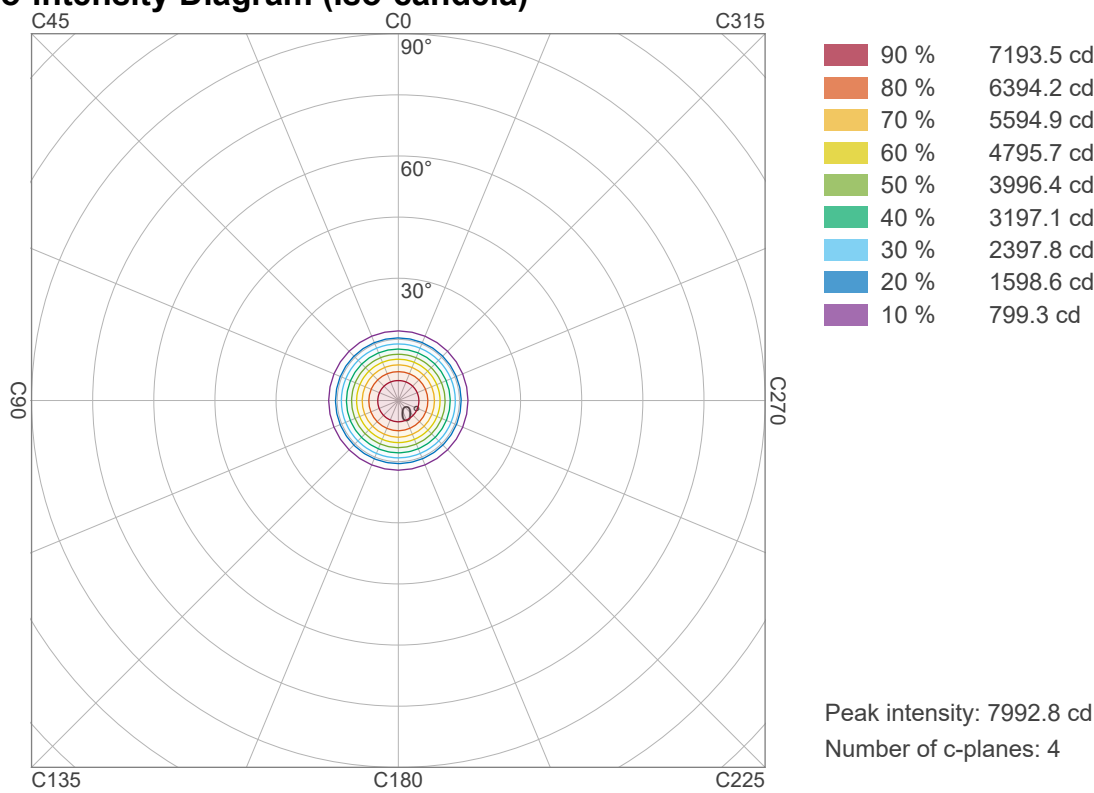


Luminaire budgetary diagram

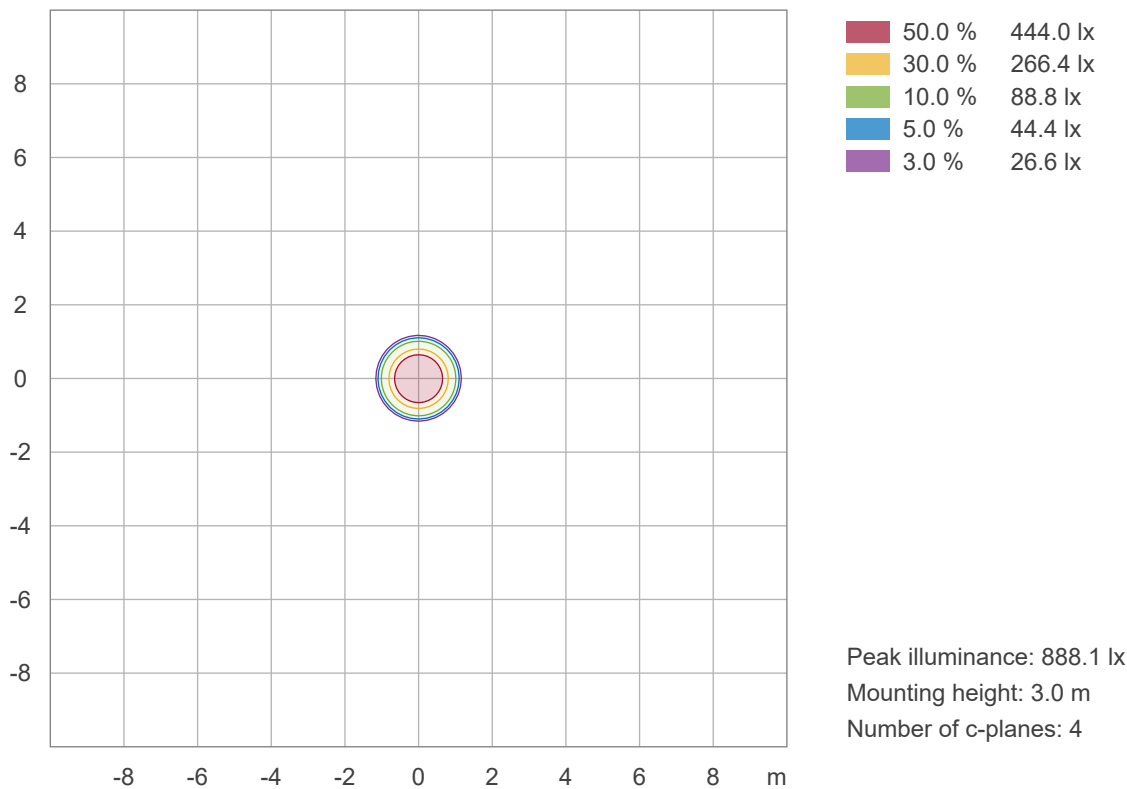
LAMPS (number of lamps)



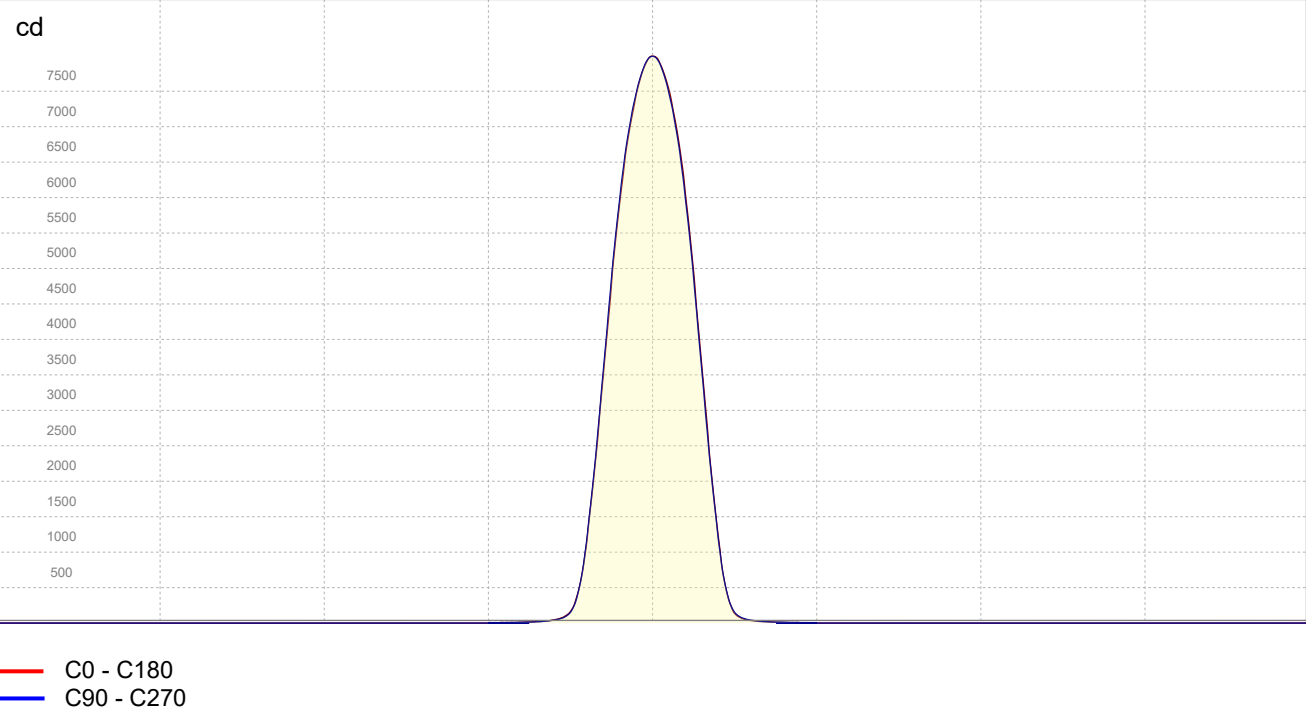
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

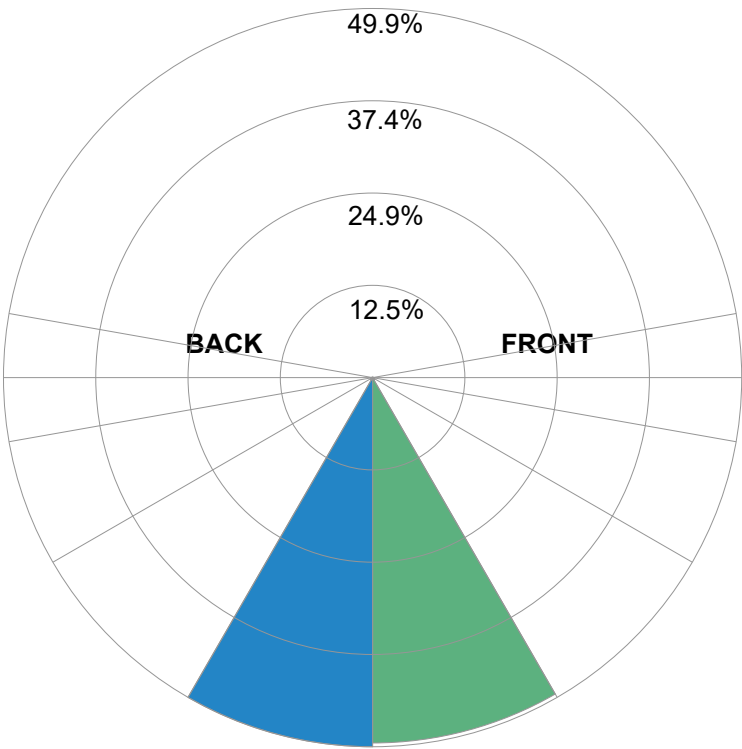


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	700.7	lm	49.4%
Medium (30-60°)	5.4	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	708	lm	49.9%
Medium (30-60°)	5	lm	0.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1419	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

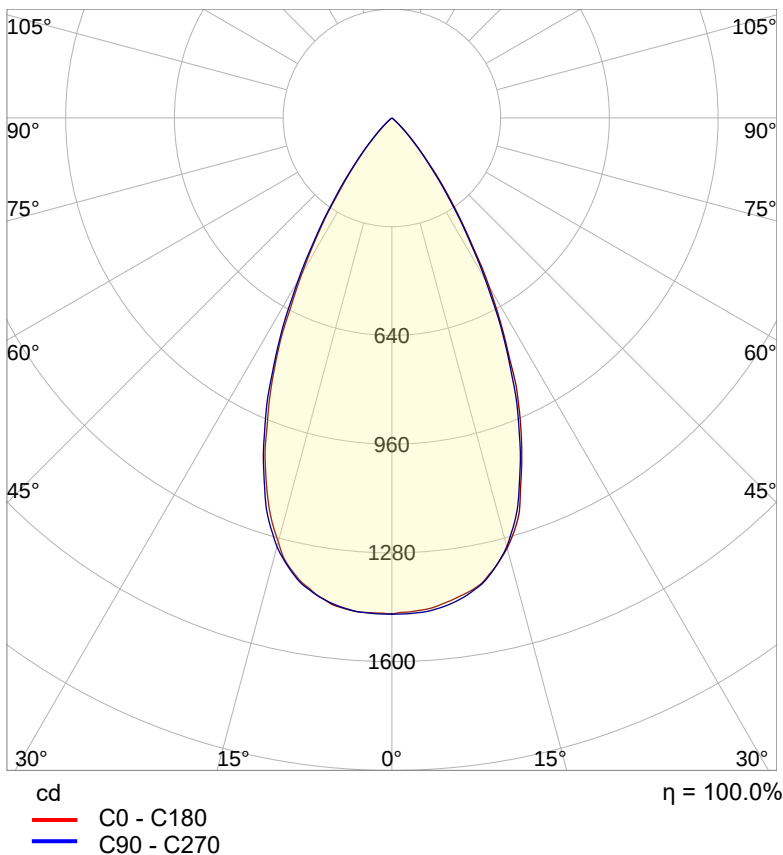
QuikSpot_OutputGain_Disabled_60D_2700K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1114 lm – 0% / 100%
n/a lm/W
1460 cd
2700 K
CRI 0.0

Polar light distribution diagram

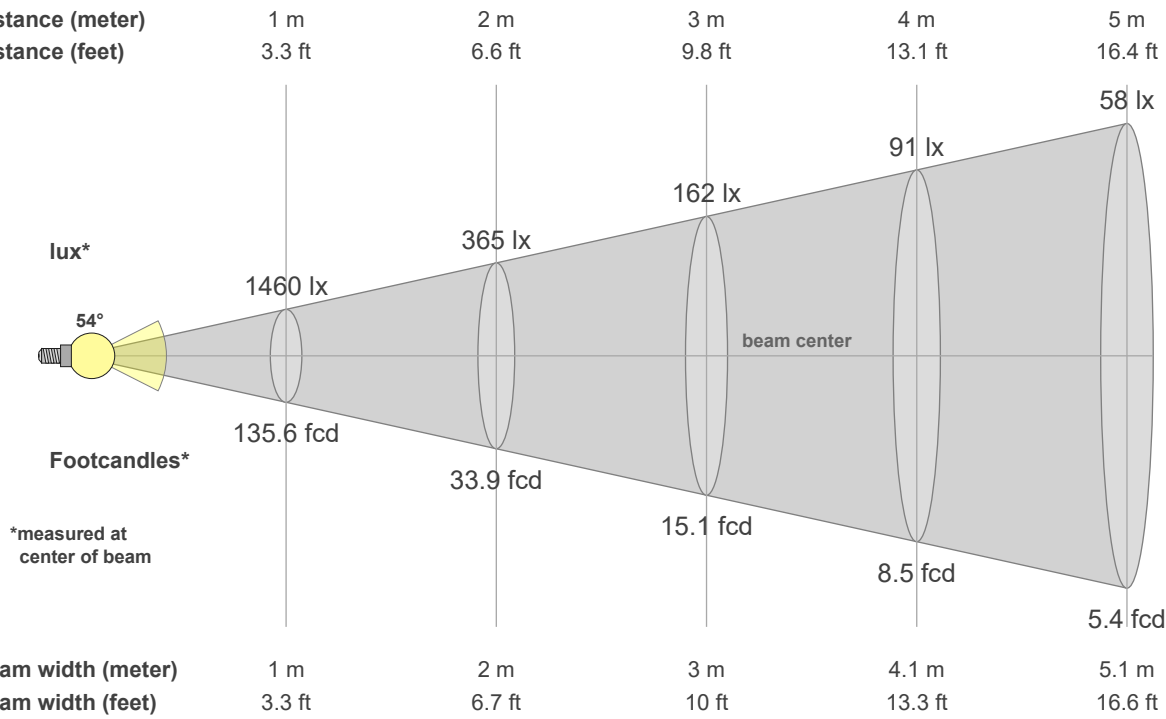


Test report

Light measurement results

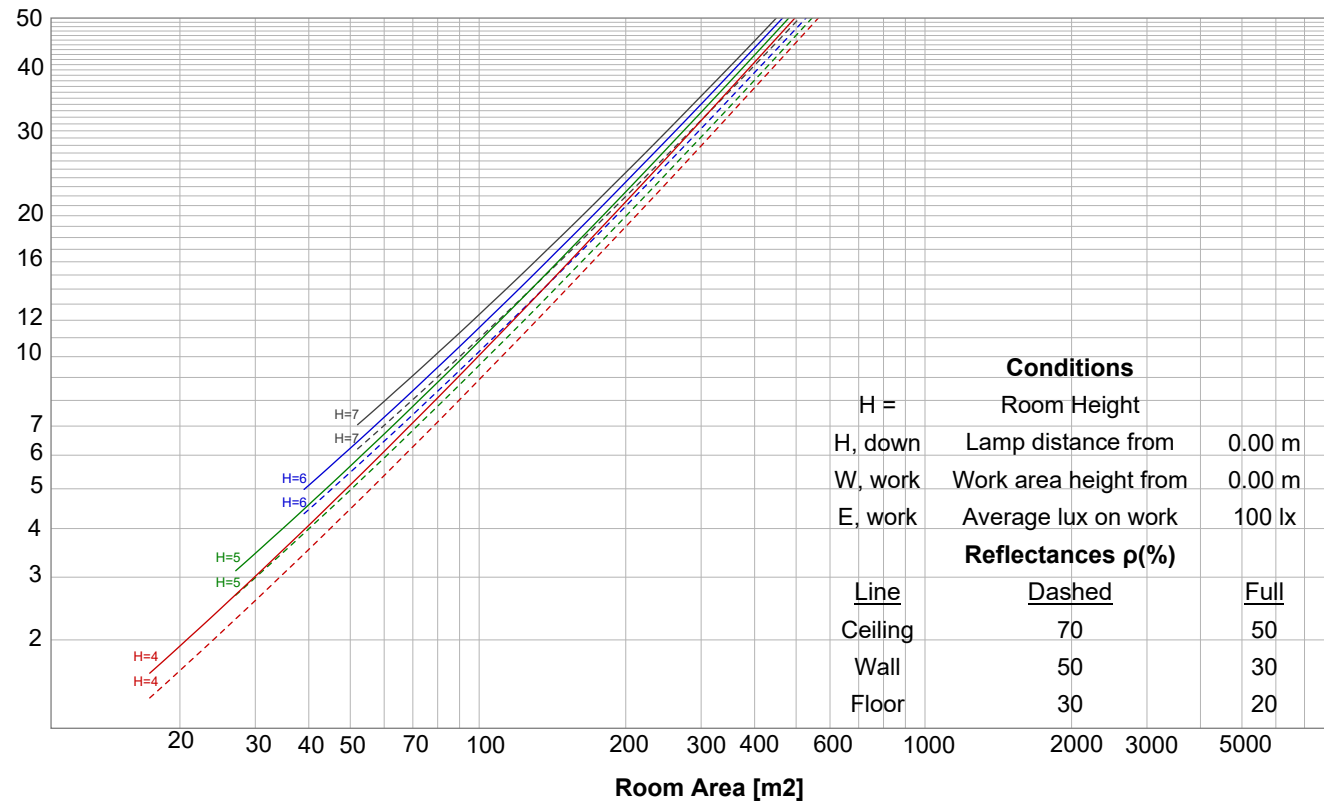
Print date 9/26/2025

Beam details

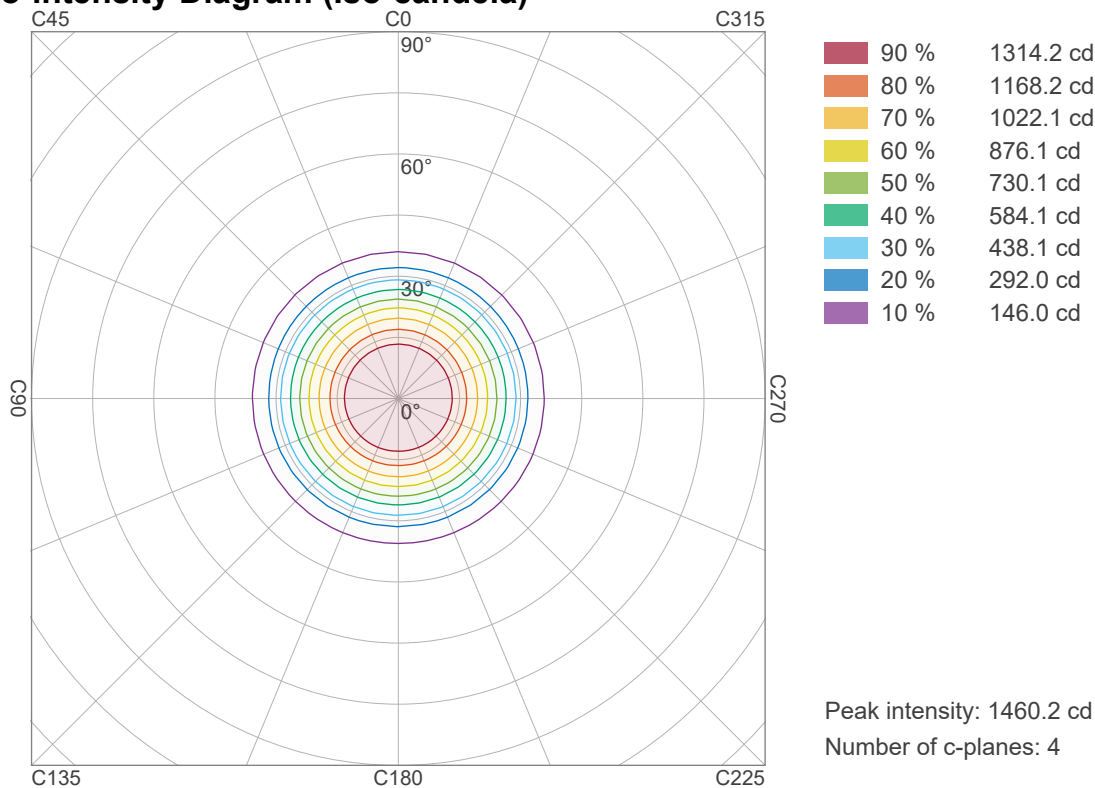


Luminaire budgetary diagram

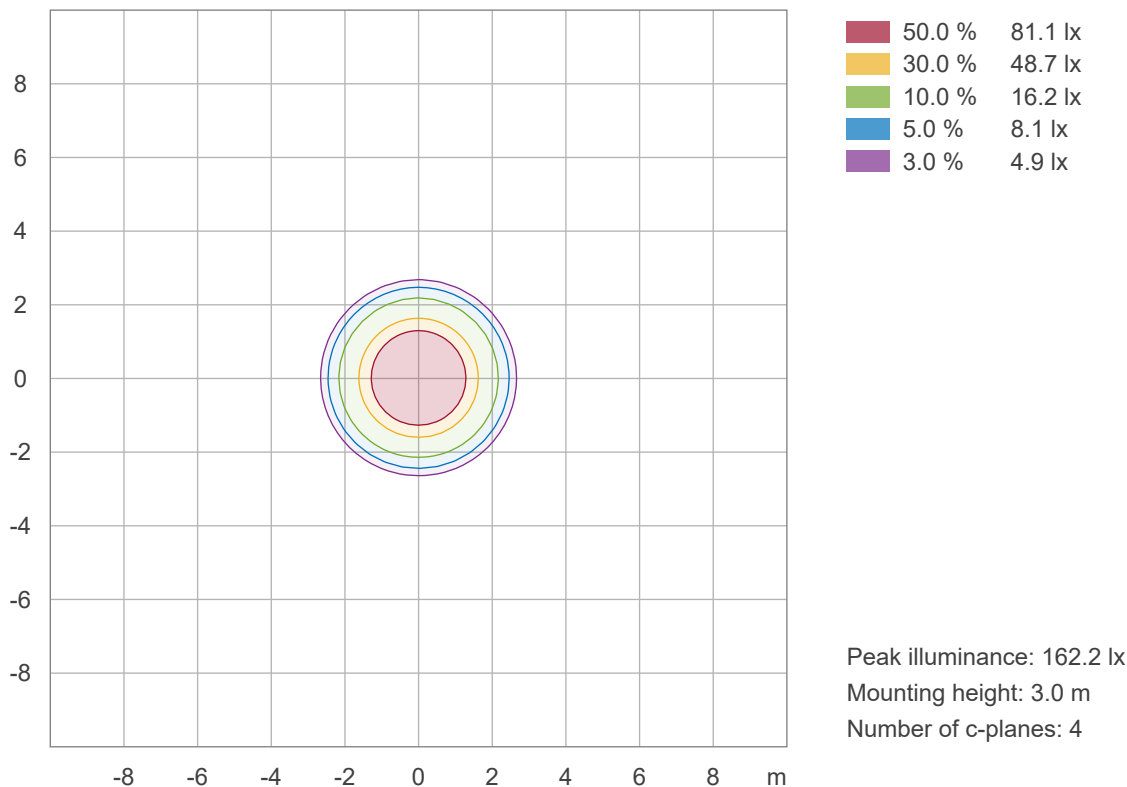
LAMPS (number of lamps)



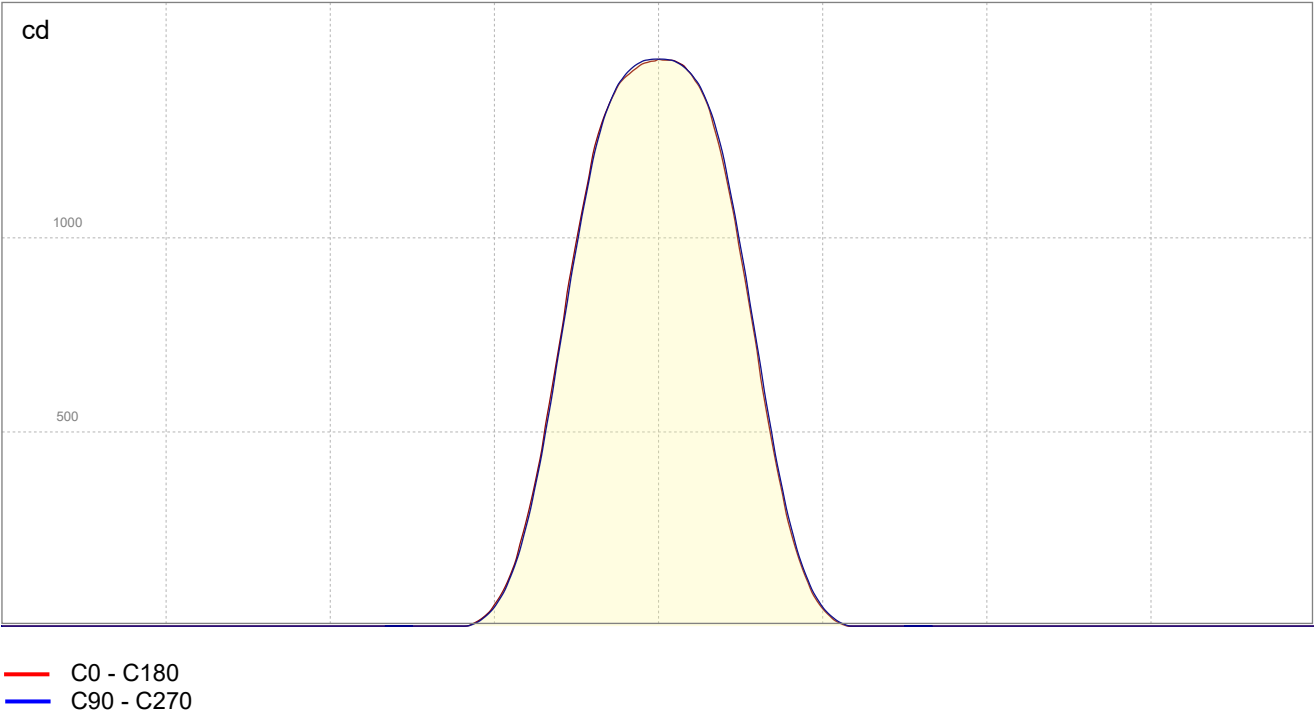
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

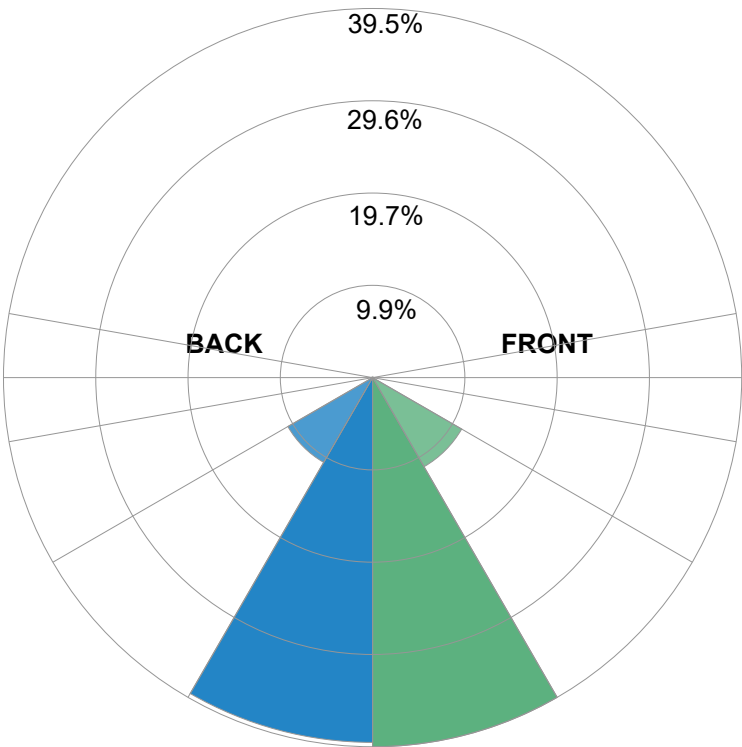


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B1 U0 G0



Forward Light

Low (0-30°)	440	lm	39.5%
Medium (30-60°)	122.6	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	434.8	lm	39%
Medium (30-60°)	116.7	lm	10.5%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1114	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

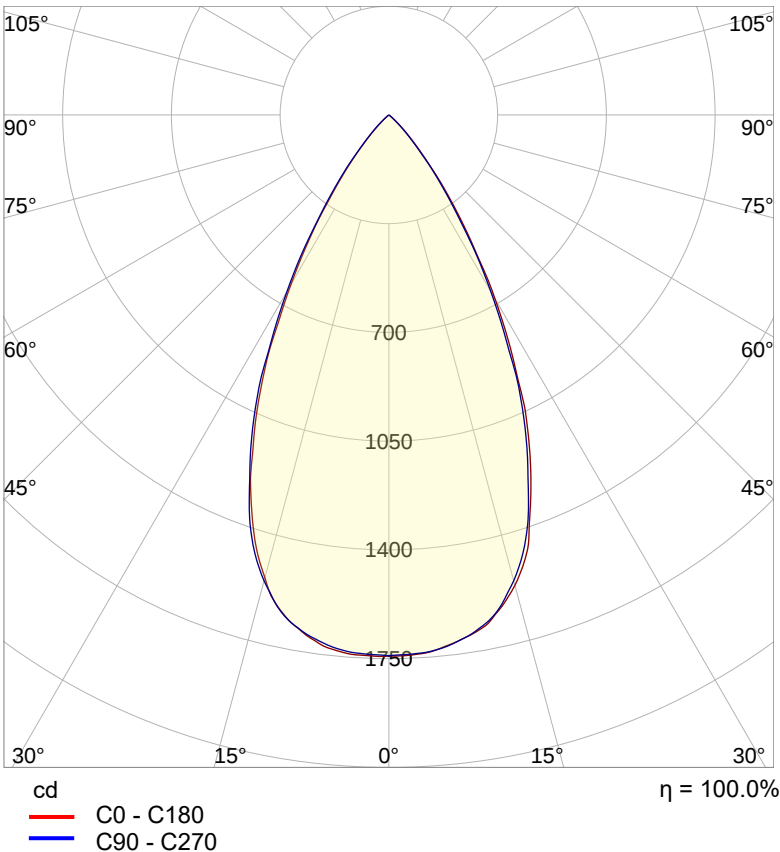
QuikSpot_OutputGain_Disabled_60D_3200K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1329 lm – 0% / 100%
n/a lm/W
1743 cd
3200 K
CRI 0.0

Polar light distribution diagram

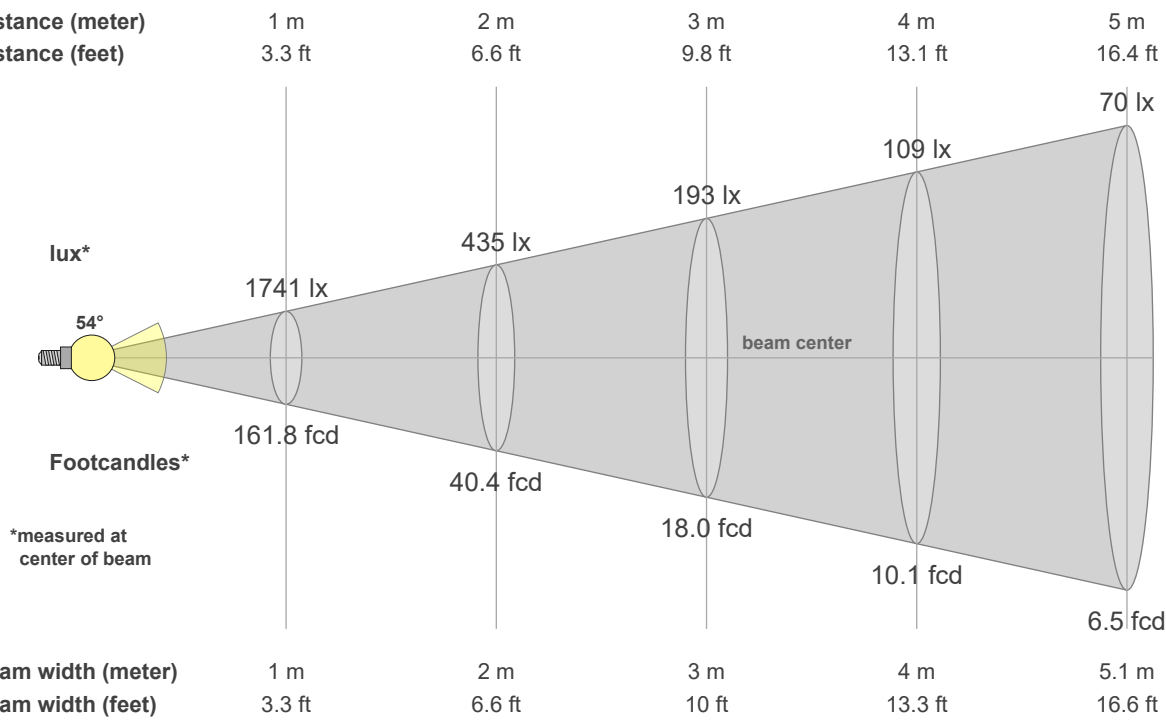


Test report

Light measurement results

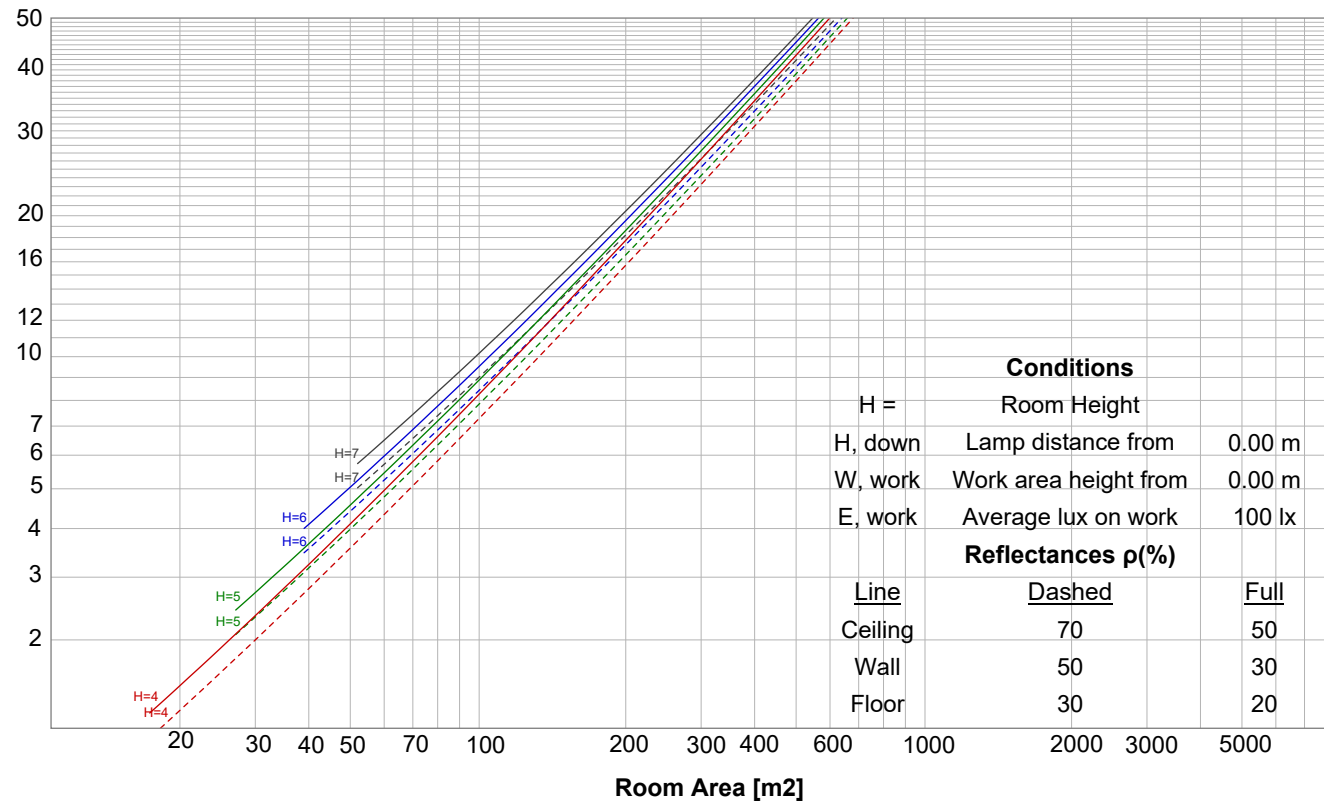
Print date 9/26/2025

Beam details

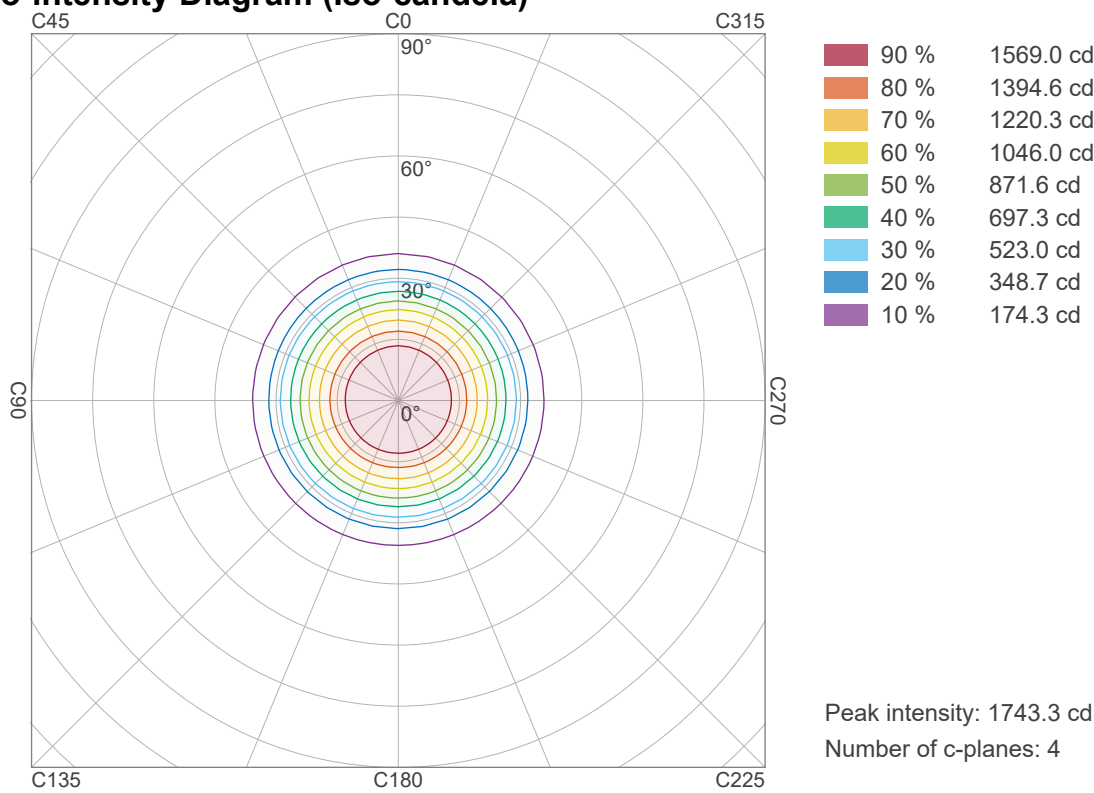


Luminaire budgetary diagram

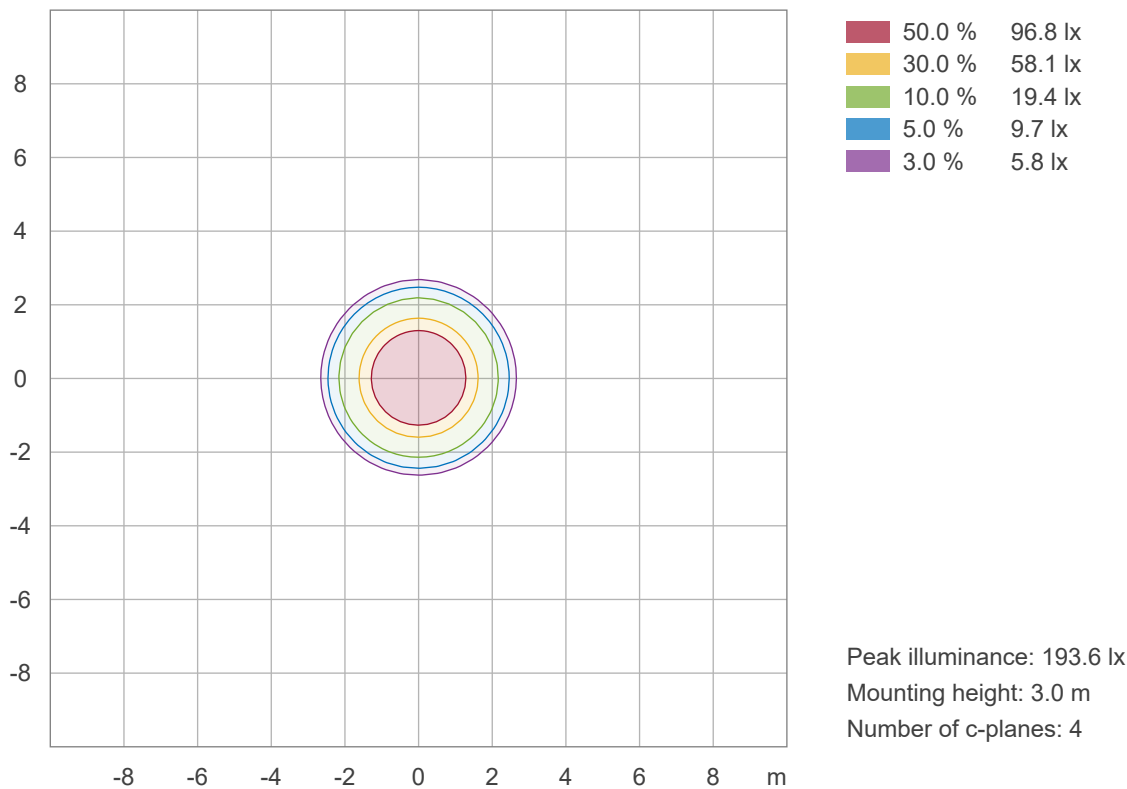
LAMPS (number of lamps)



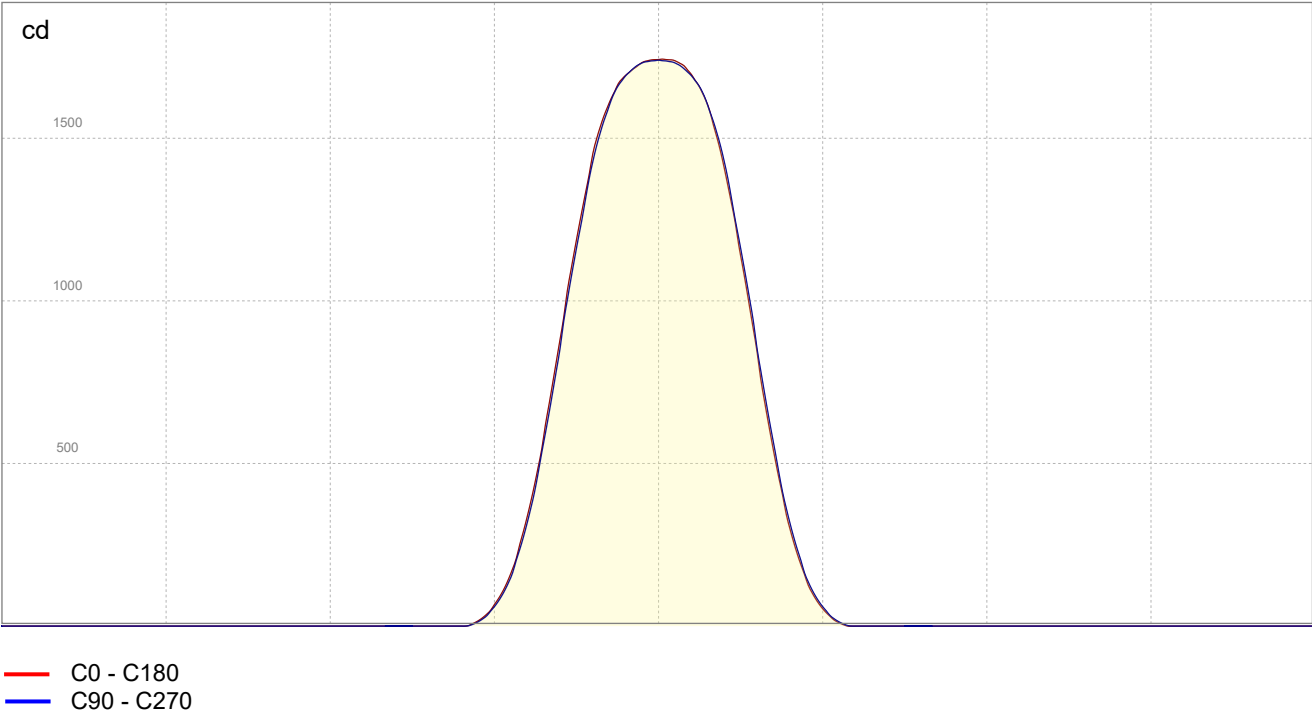
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

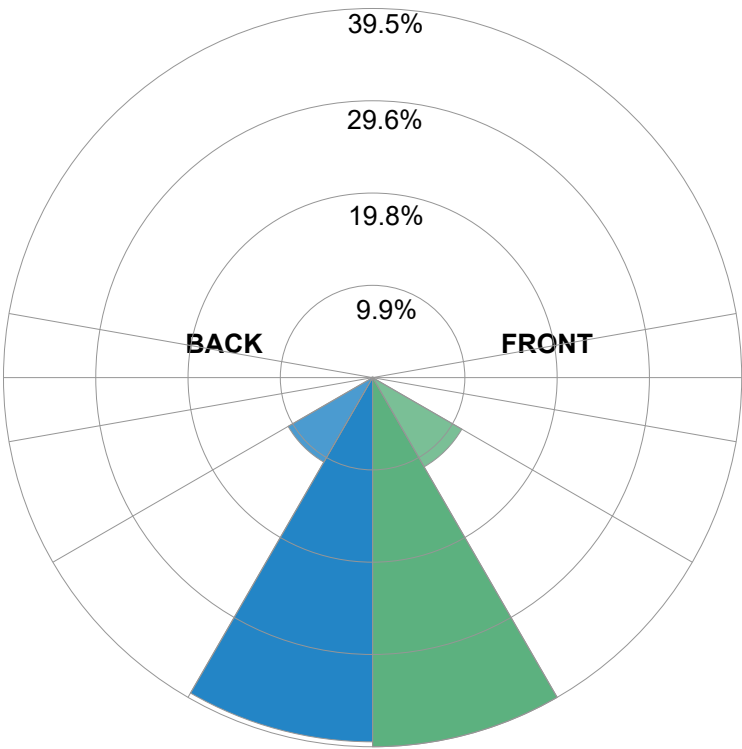


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	525.2	lm	39.5%
Medium (30-60°)	146.6	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	518.2	lm	39%
Medium (30-60°)	138.8	lm	10.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1329	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

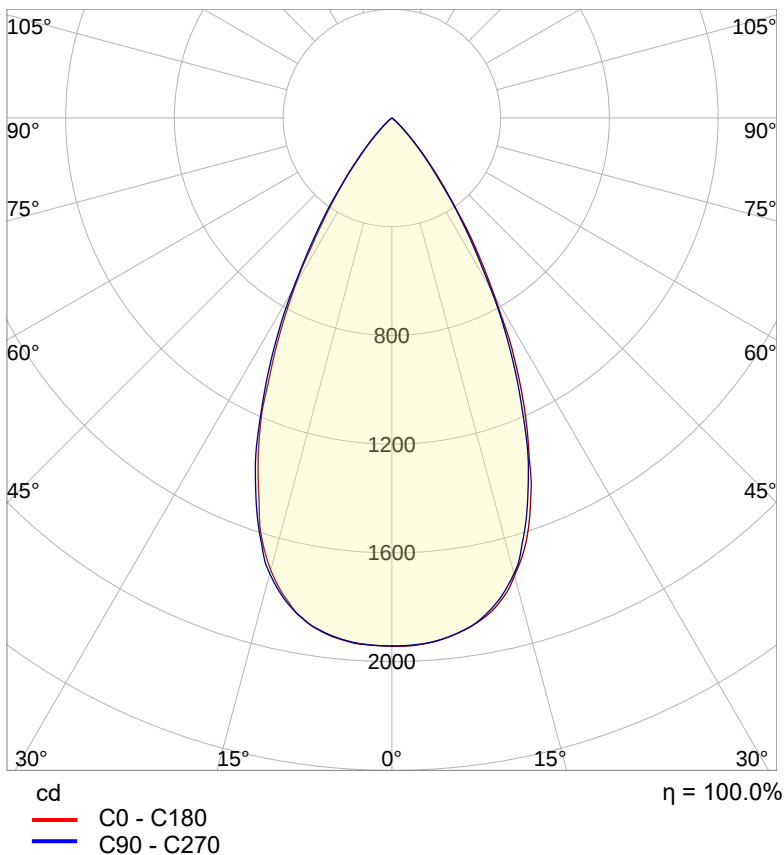
QuikSpot_OutputGain_Disabled_60D_4000K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1481 lm – 0% / 100%
n/a lm/W
1944 cd
4000 K
CRI 0.0

Polar light distribution diagram

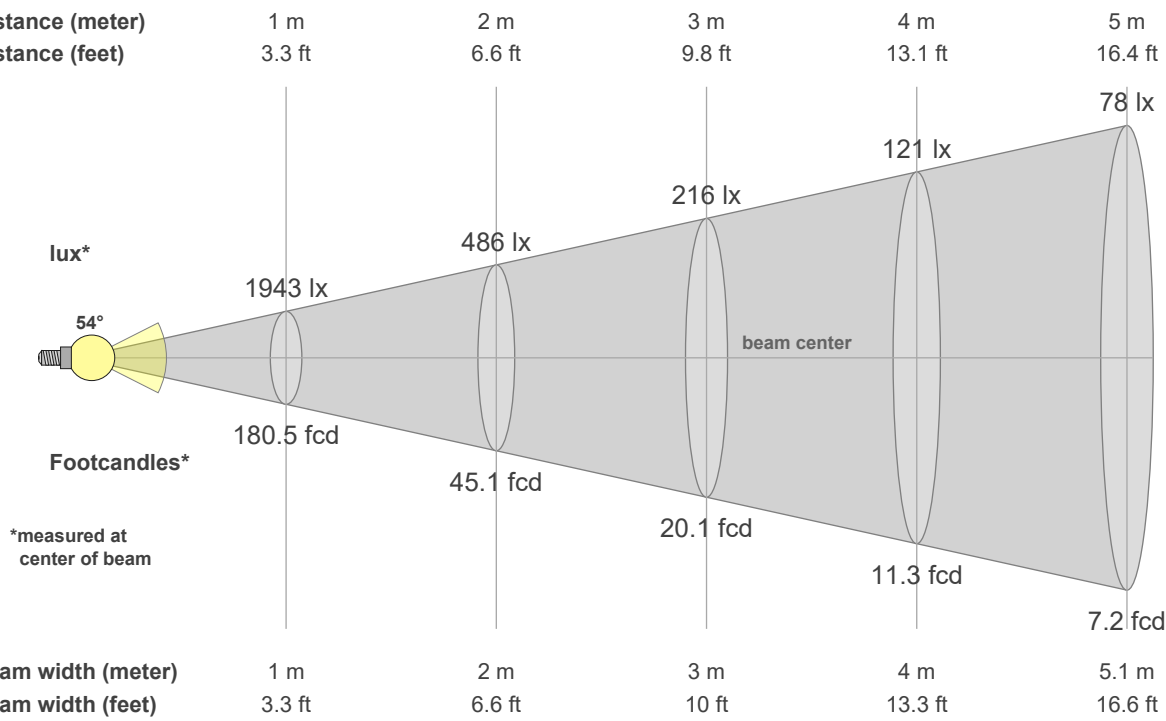


Test report

Light measurement results

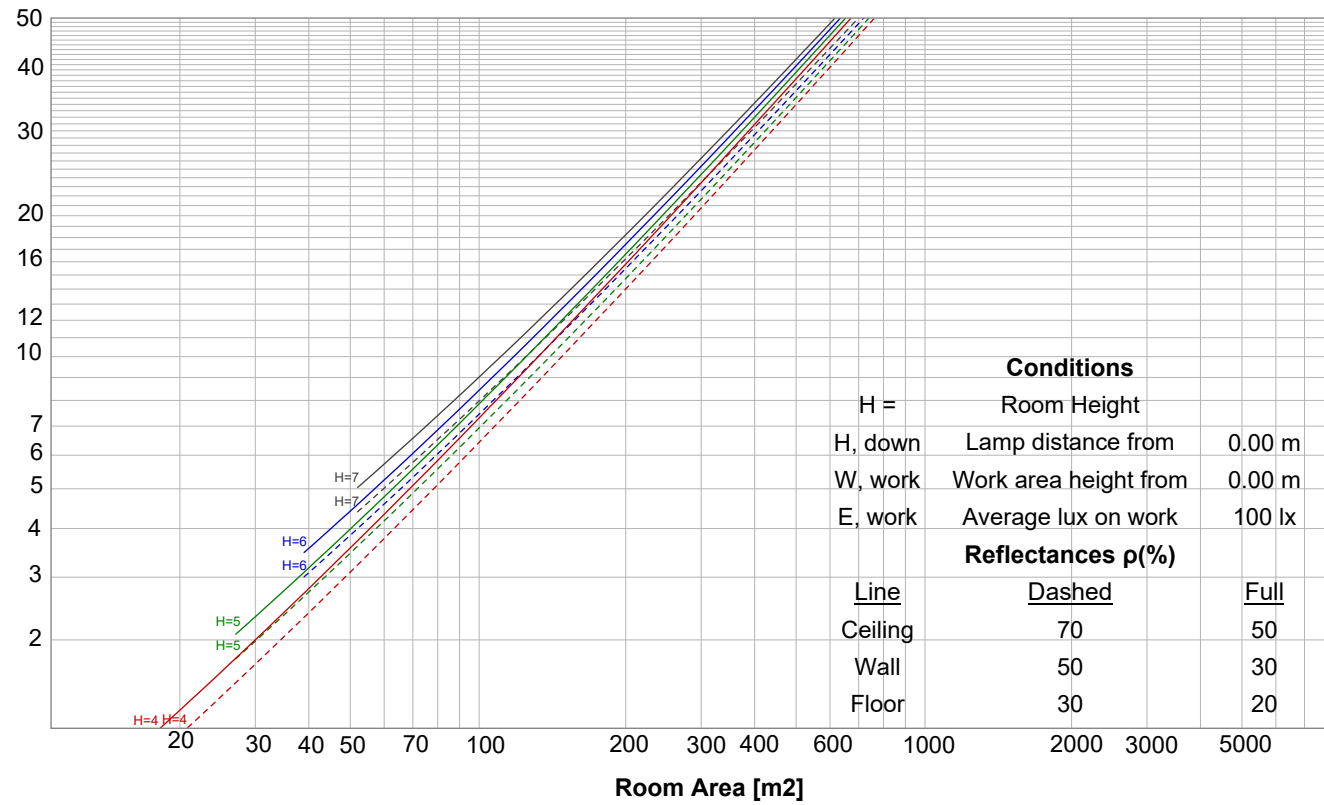
Print date 9/26/2025

Beam details

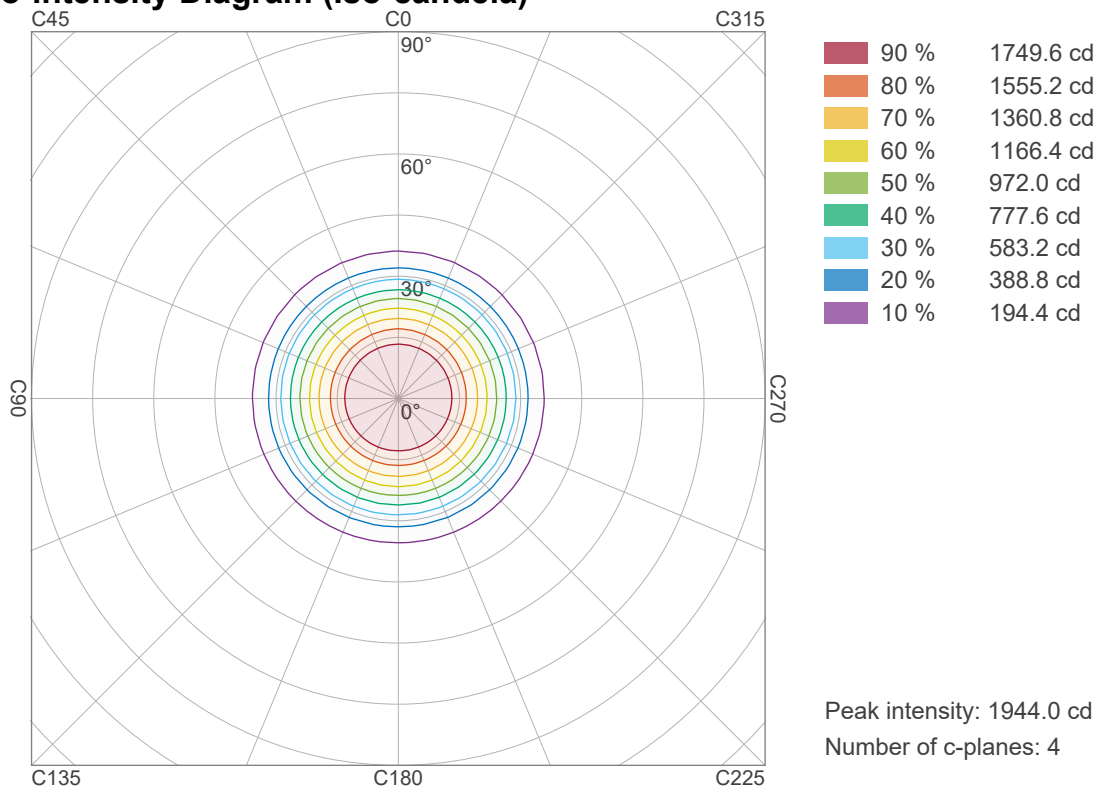


Luminaire budgetary diagram

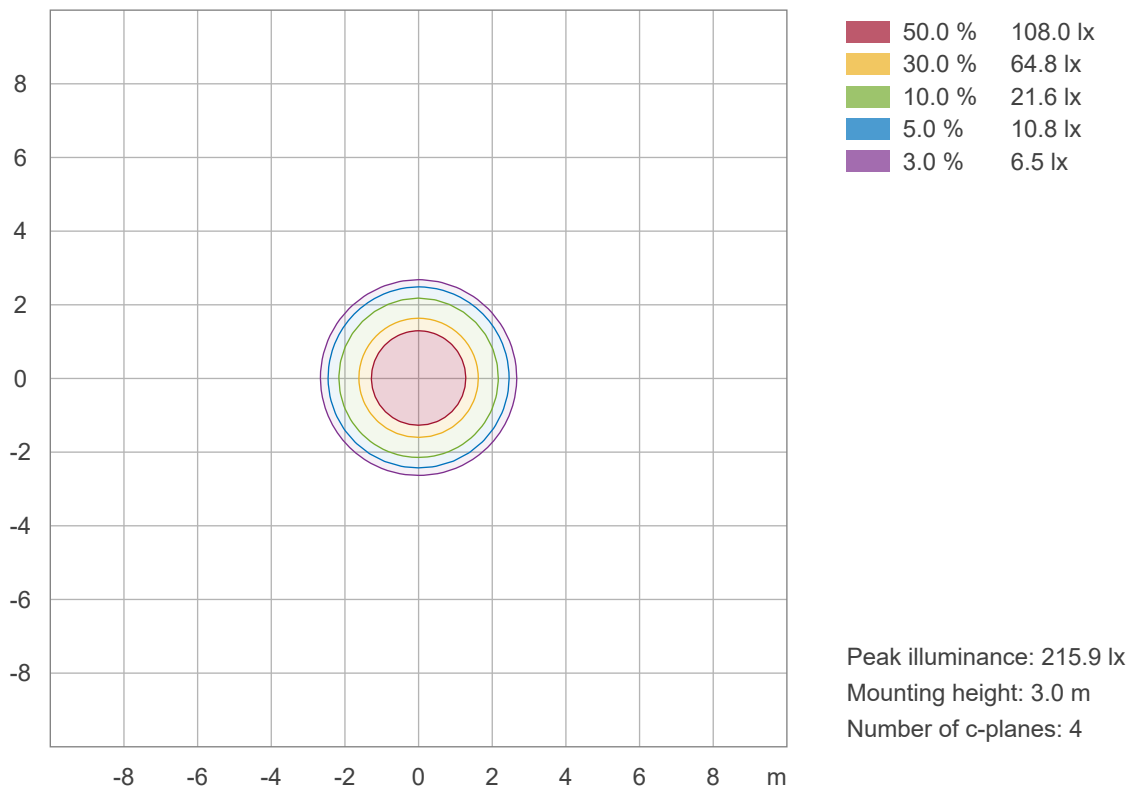
LAMPS (number of lamps)



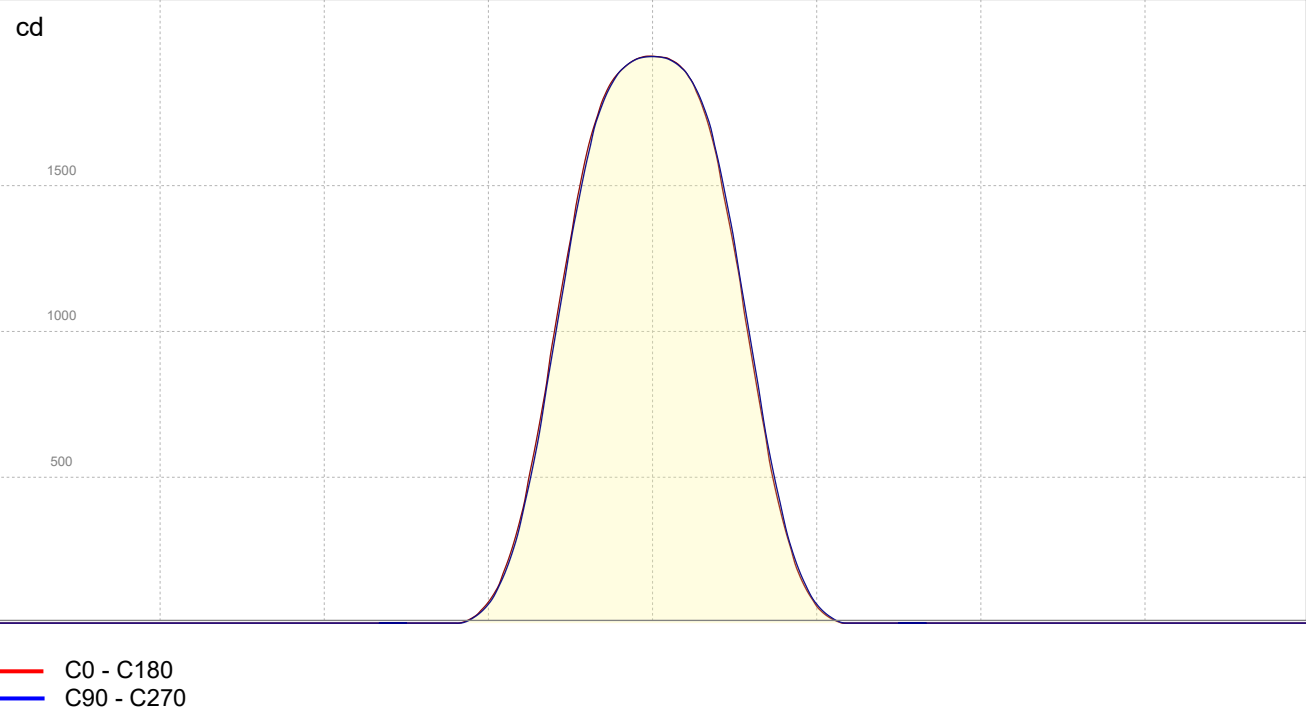
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

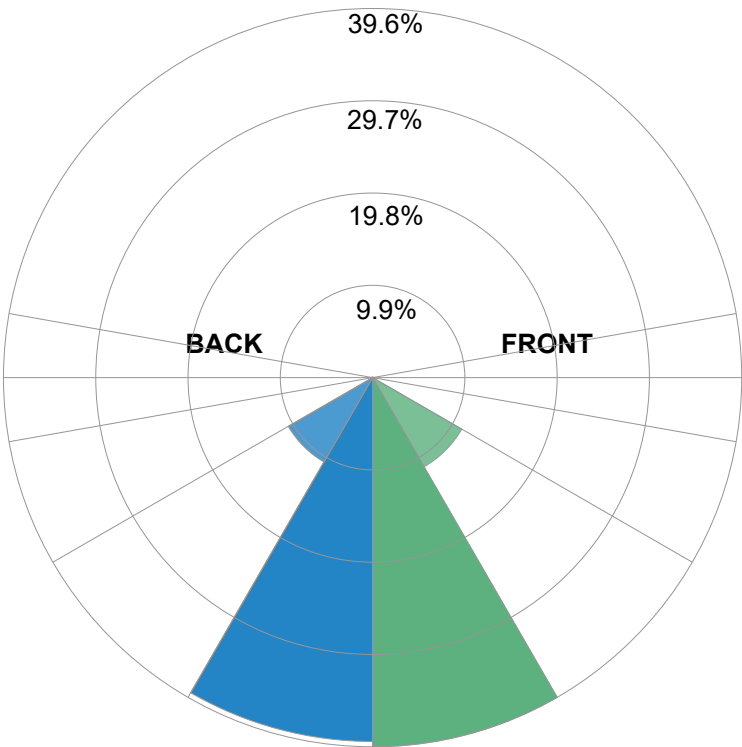


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	585.7	lm	39.6%
Medium (30-60°)	163.3	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	577.3	lm	39%
Medium (30-60°)	154.4	lm	10.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1481	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

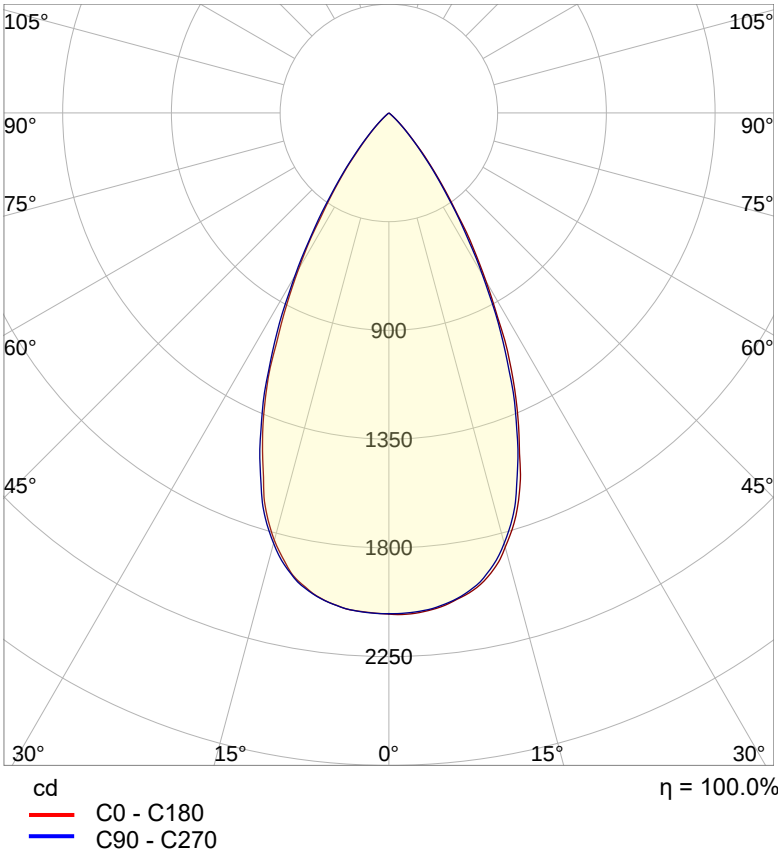
QuikSpot_OutputGain_Disabled_60D_5500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1576 lm – 0% / 100%
n/a lm/W
2076 cd
5500 K
CRI 0.0

Polar light distribution diagram

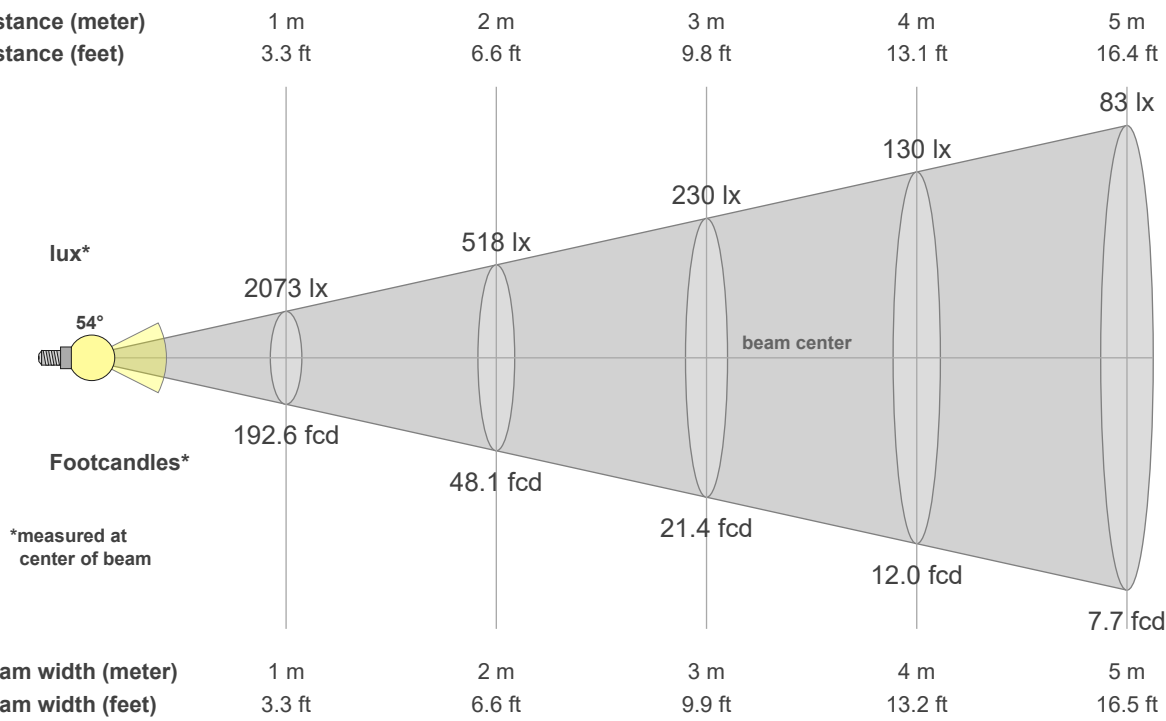


Test report

Light measurement results

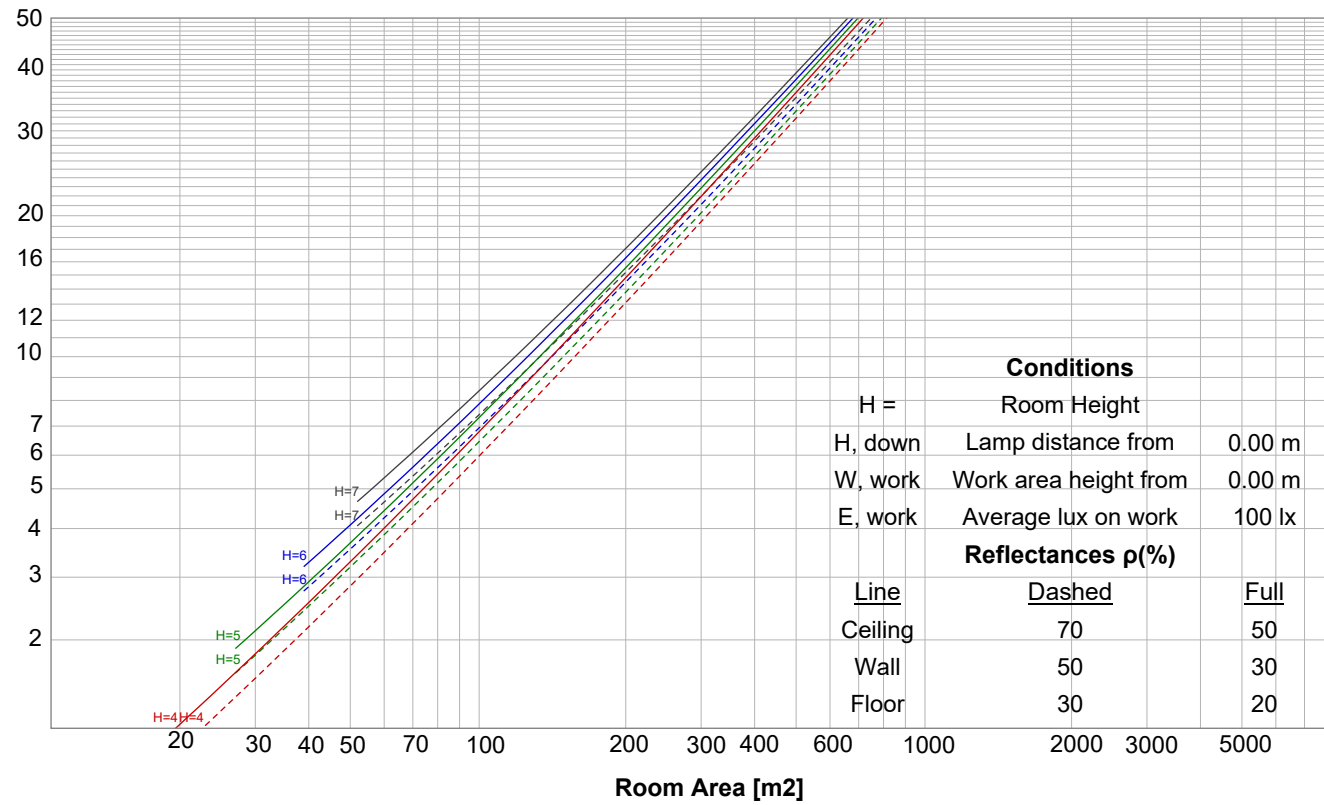
Print date 9/26/2025

Beam details

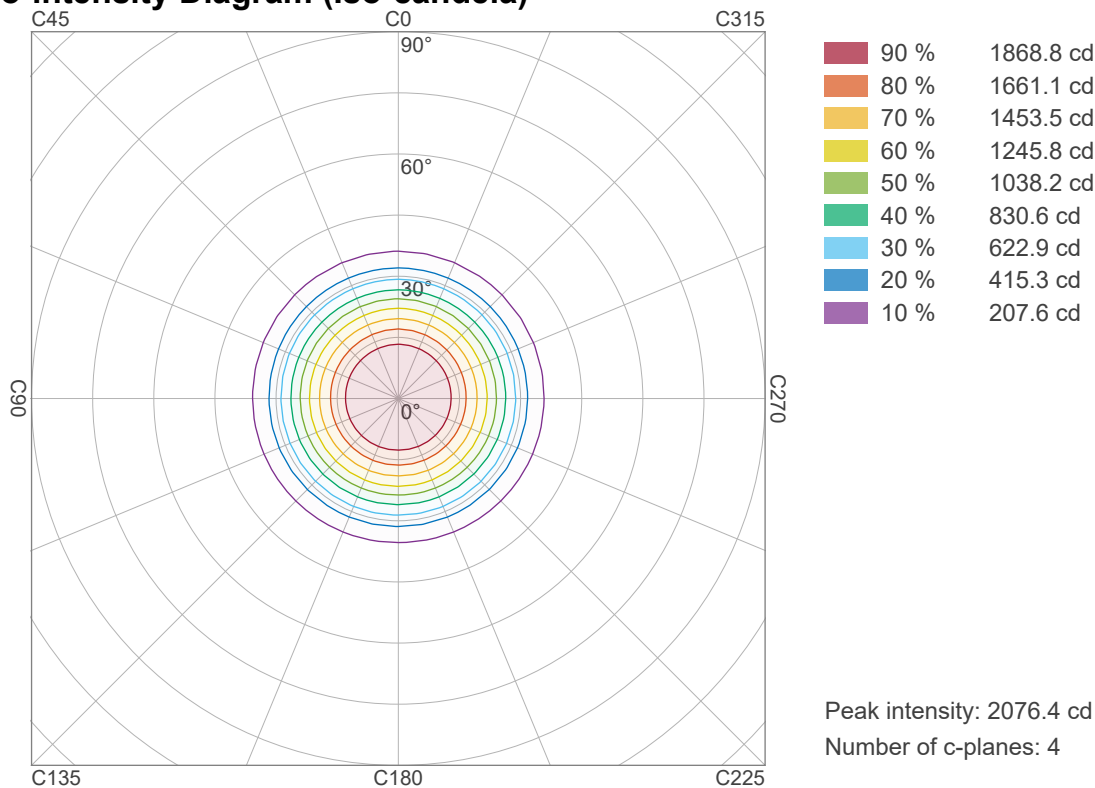


Luminaire budgetary diagram

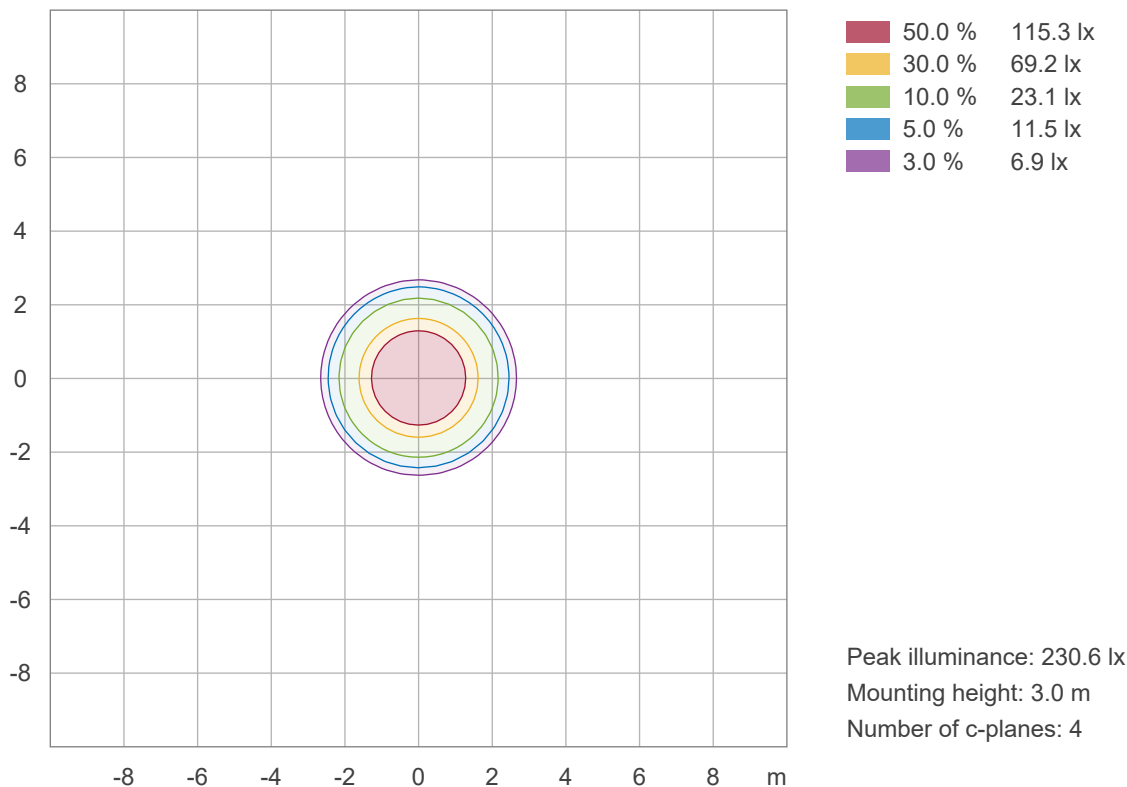
LAMPS (number of lamps)



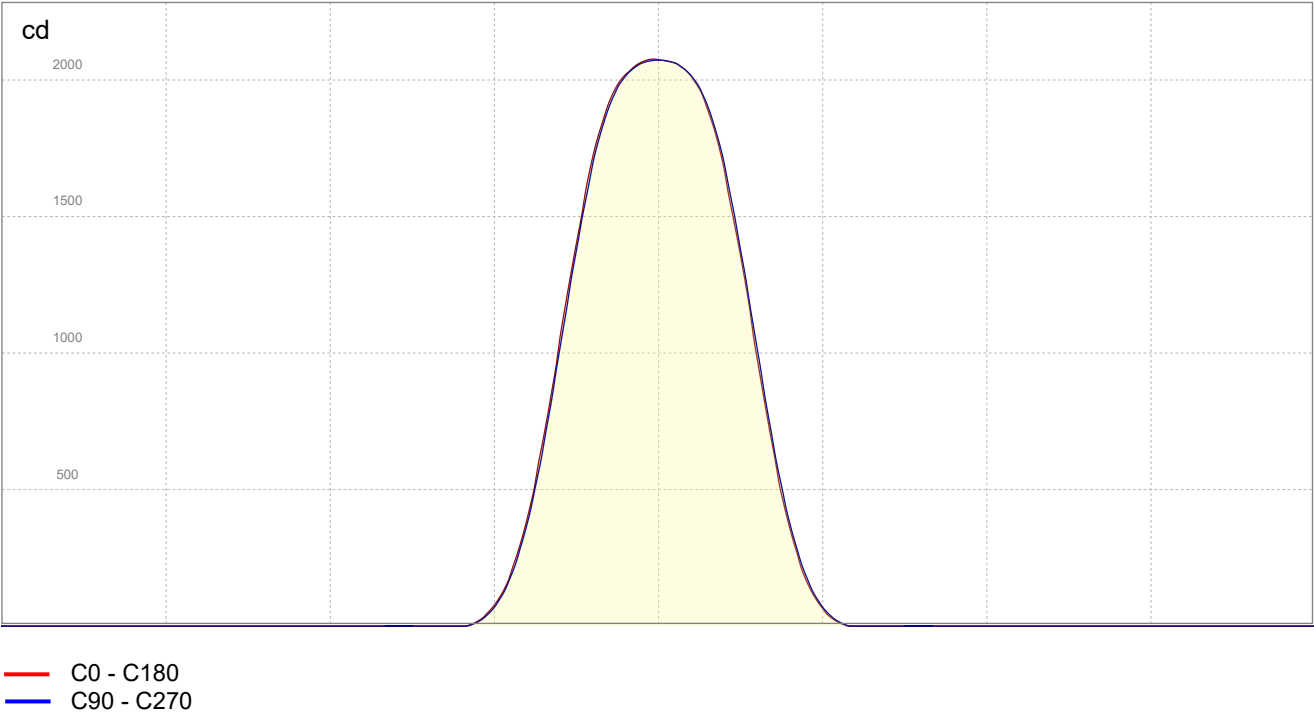
Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)

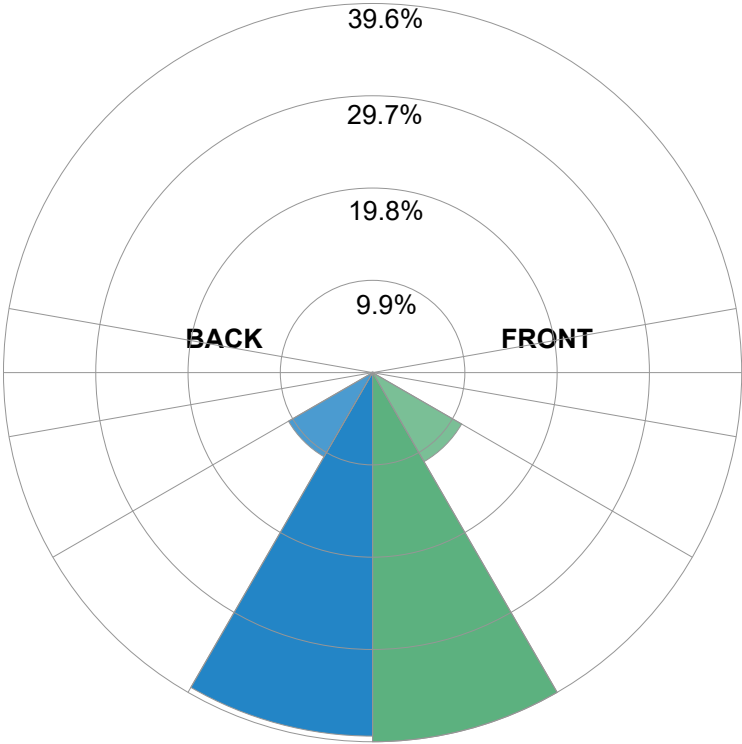


Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	623.7	lm	39.6%
Medium (30-60°)	173.7	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	614.2	lm	39%
Medium (30-60°)	164.1	lm	10.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1576	lm	100%
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Test report

Light measurement results

Print date 9/26/2025

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

n/a - serial: n/a sensor serial: n/a
n/a, n/a – n/a
9/26/2025

Measurement Conditions

Tested c-planes
Tested gamma angles
Input Power

5 – distance {C_PLANES_DIST}°
181 – {H_PLANES_DIST}°
- W

Tested Light Source
Luminaire
Basic Luminous Shape
Item No.
Manufacturer

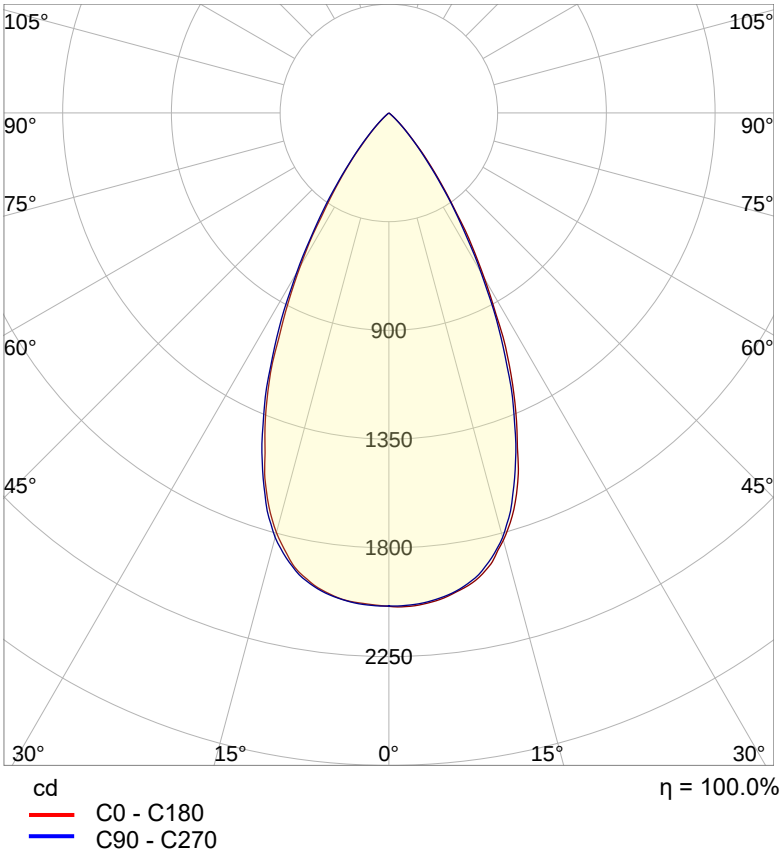
QuikSpot_OutputGain_Disabled_60D_6500K
SPOT

Astera

Main Light Measurement Results
Output – Total Lumen (Up% / Down%)
Efficiency
Peak Intensity
Correlated Color Temperature, CCT
Color Rendering Index

1549 lm – 0% / 100%
n/a lm/W
2045 cd
6500 K
CRI 0.0

Polar light distribution diagram

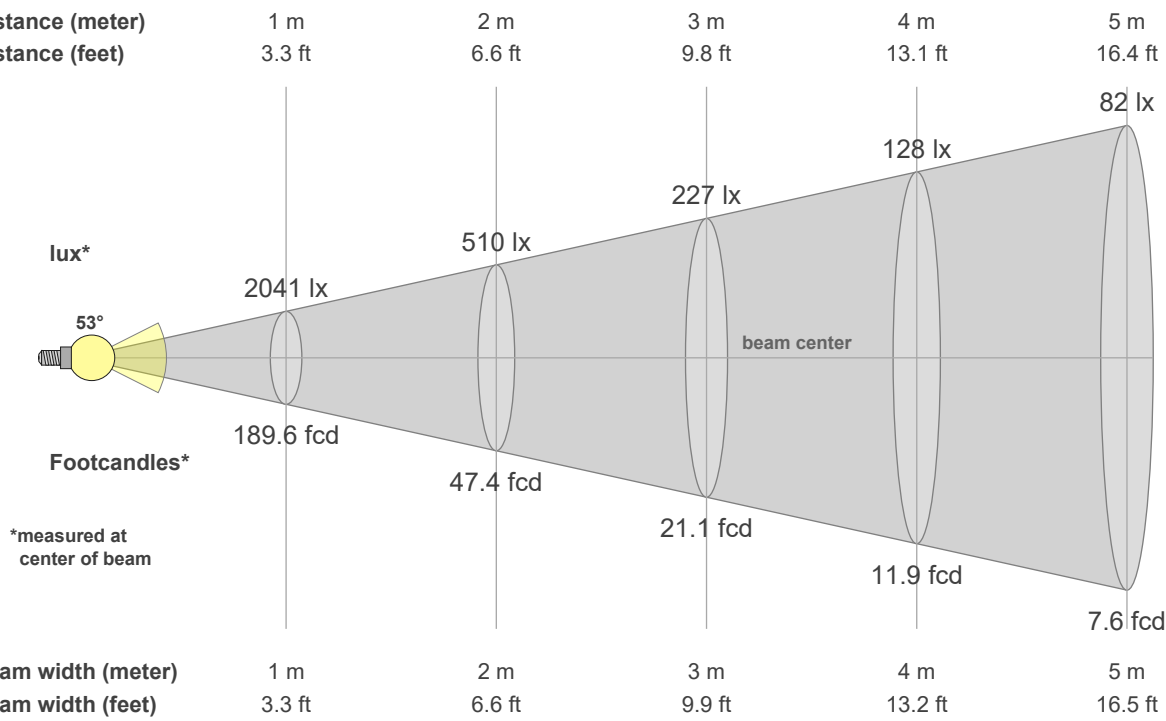


Test report

Light measurement results

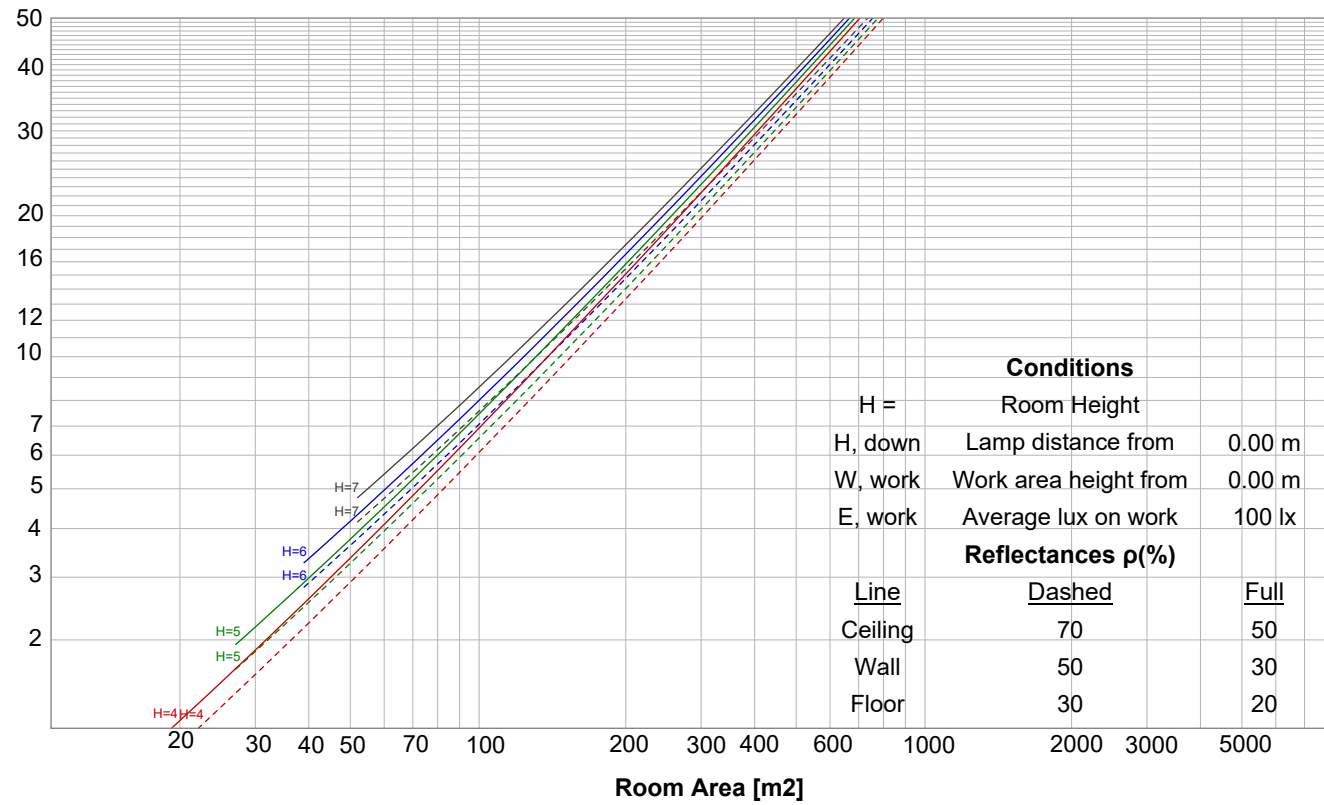
Print date 9/26/2025

Beam details

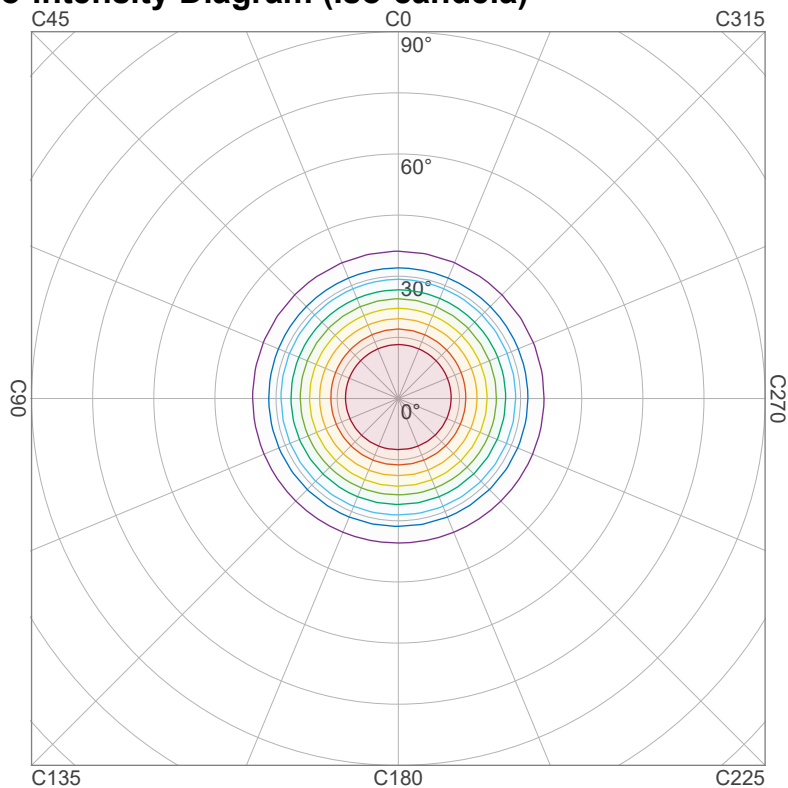


Luminaire budgetary diagram

LAMPS (number of lamps)



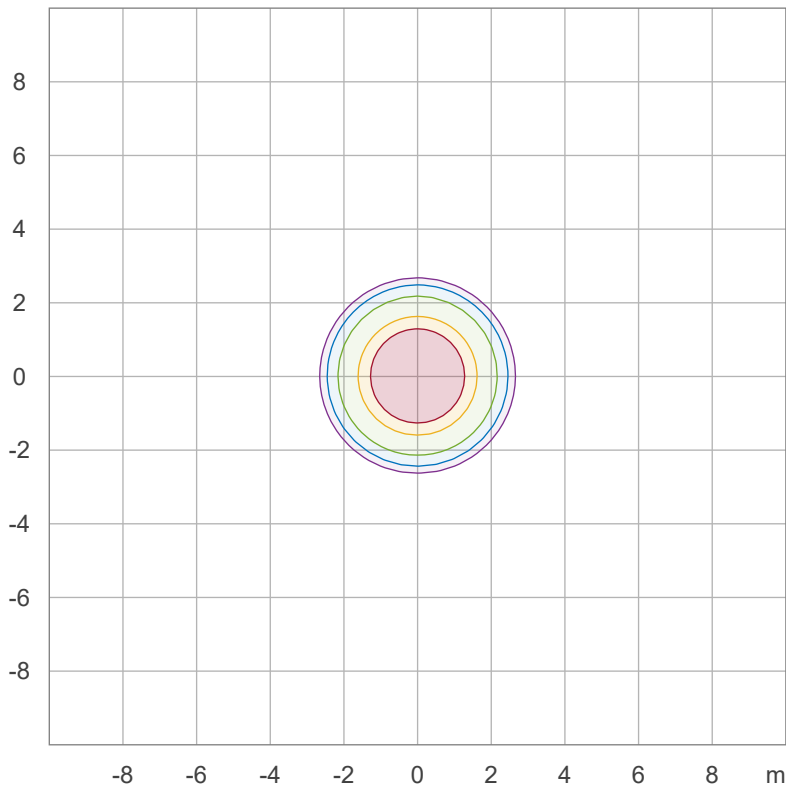
Iso-intensity Diagram (Iso-candela)



90 %	1840.3 cd
80 %	1635.8 cd
70 %	1431.3 cd
60 %	1226.8 cd
50 %	1022.4 cd
40 %	817.9 cd
30 %	613.4 cd
20 %	408.9 cd
10 %	204.5 cd

Peak intensity: 2044.7 cd
Number of c-planes: 4

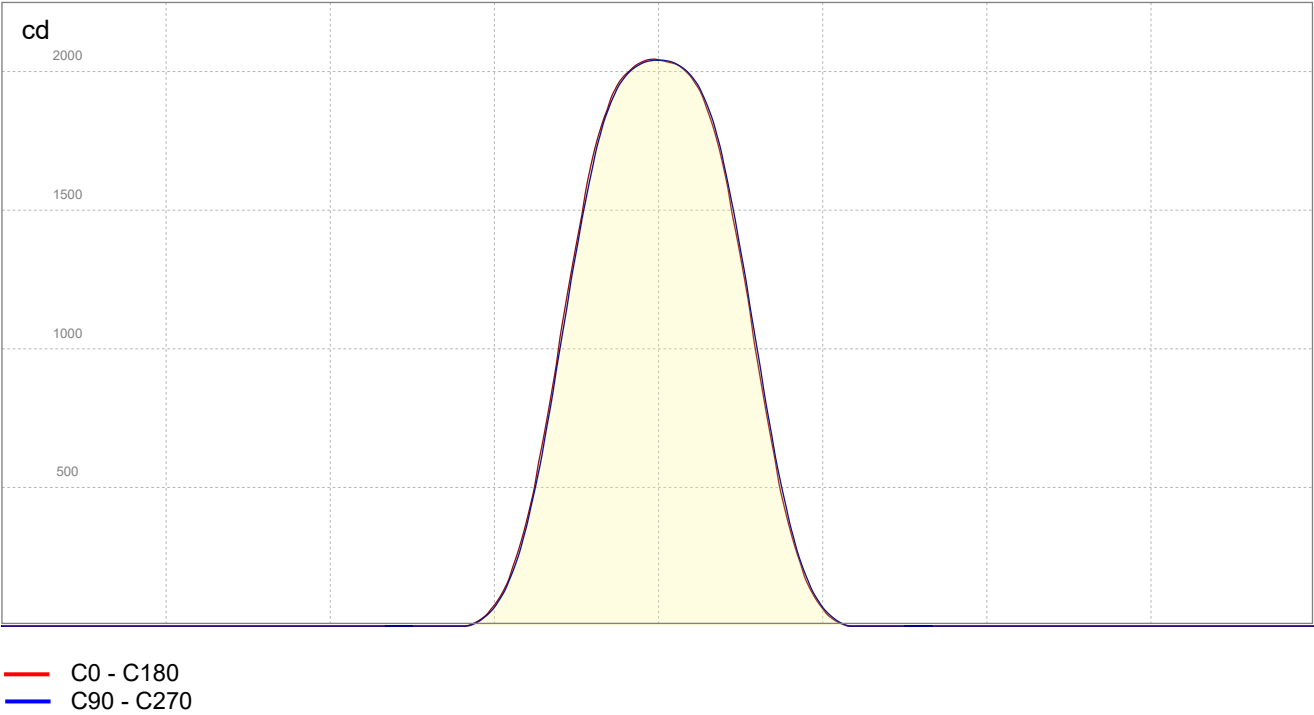
Iso-illuminance Diagram (Iso-lux)



50.0 %	113.5 lx
30.0 %	68.1 lx
10.0 %	22.7 lx
5.0 %	11.4 lx
3.0 %	6.8 lx

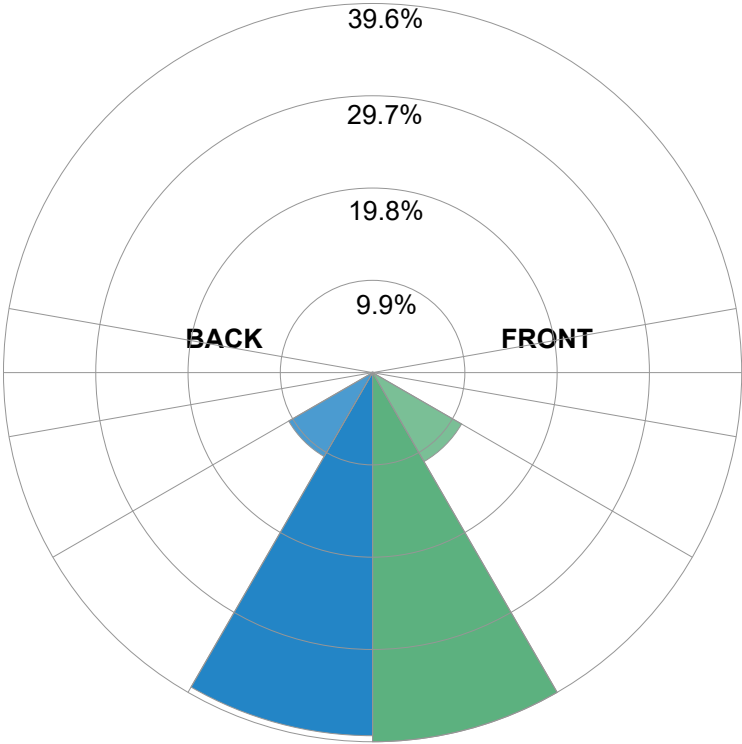
Peak illuminance: 227.1 lx
Mounting height: 3.0 m
Number of c-planes: 4

Linear intensity distribution



IESNA TM-15-07 Luminaire Classification System For Outdoor Luminaires

BUG rating B2 U0 G0



Forward Light

Low (0-30°)	613.7	lm	39.6%
Medium (30-60°)	170.8	lm	11%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Back Light

Low (0-30°)	603.6	lm	39%
Medium (30-60°)	161.1	lm	10.4%
High (60-80°)	0	lm	0%
Very High	0	lm	0%

Uplight

Low (90-100°)	0	lm	0%
High (100-180°)	0	lm	0%

Total

Sum	1549	lm	100%
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