

LuxEOS 9 Inground TUNABLE WHITE

LED INGROUND FLOOD FOR ARCHITECTURAL LIGHTING



LuxEOS 9 Inground TW (1700-5700K)
10° 20° 40° 80° 10x60° 60x10°

Tested By
DW Windsor Group Laboratory
Hoddesdon
UK

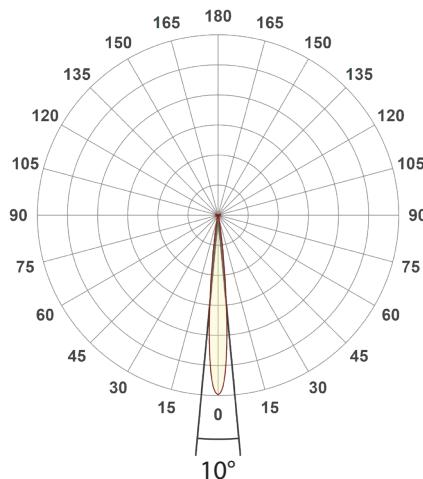
Date
Sept 2021

Dimensions
295mm (dia) x 77mm (D)

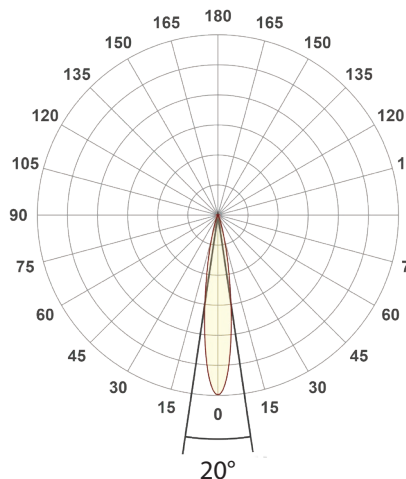
Weight
3.9 kgs (lbs)

Polar Distribution

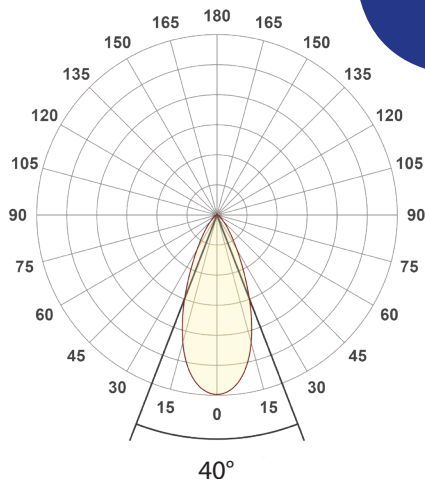
10° Conical Beam (Native)



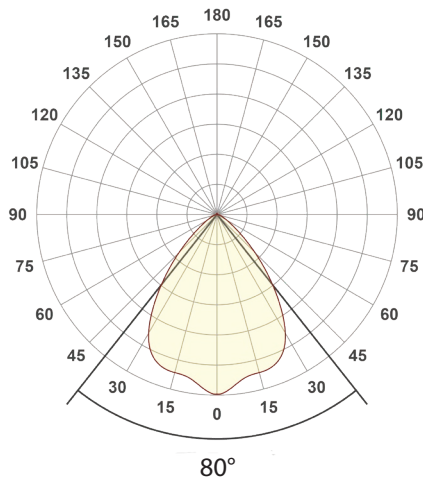
20° Conical Beam (With HBS)



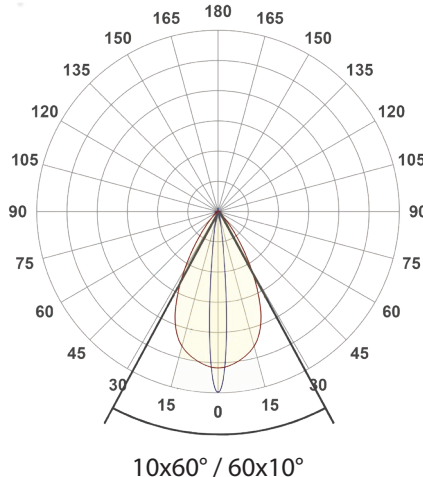
40° Conical Beam (With HBS)



80° Conical Beam (With HBS)

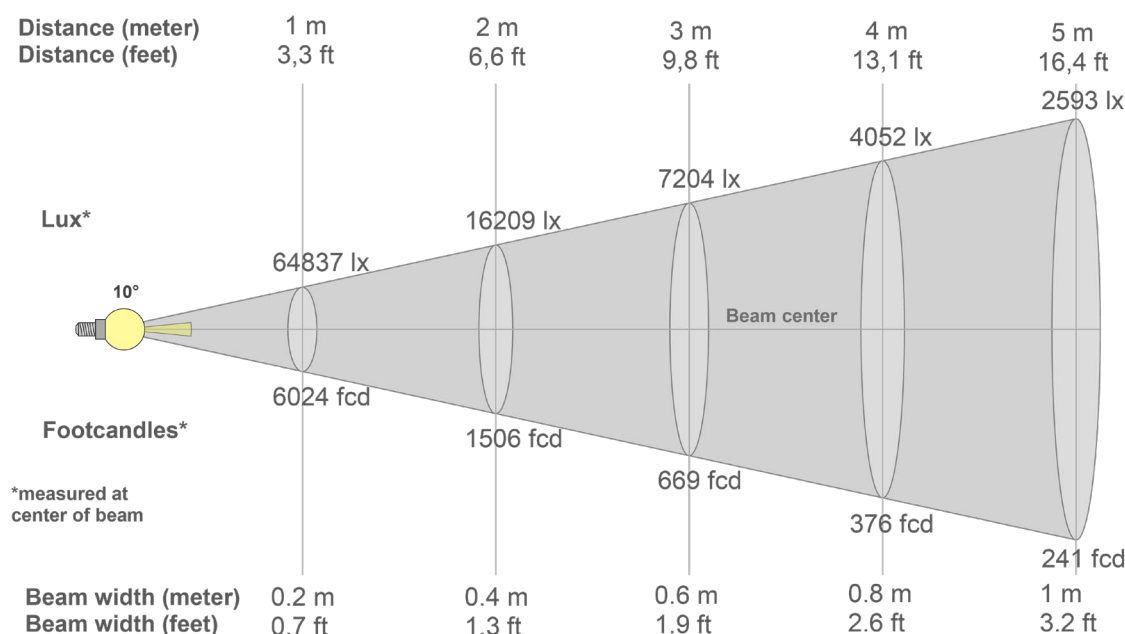


10x60° / 60x10° Elliptical Beam (With HBS)



LuxEOS 9 Inground - TW (1700-5700K)

Intensities at Distance with native 10° Optics



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
64837lx	16209lx	7204lx	4052lx	2593lx	1801lx	1323lx	1013lx	800lx	648lx	536lx	450lx	384lx	331lx	288lx	253lx	224lx	200lx	180lx	162lx
6023.6fc	1505.9fc	669.3fc	376.5fc	240.9fc	167.3fc	122.9fc	94.1fc	74.4fc	60.2fc	49.8fc	41.8fc	35.6fc	30.7fc	26.8fc	23.5fc	20.8fc	18.6fc	16.7fc	15.1fc

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
64.8K	63.9K	61.5K	57.0K	49.5K	39.2K	28.5K	19.3K	12.3K	7.8K	5.1K	3.5K	2.7K	2.2K	1.8K	1.5K	1.3K	1.0K	0.9K	0.7K
100%	99%	95%	88%	76%	61%	44%	30%	19%	12%	8%	5%	4%	3%	3%	2%	2%	2%	1%	1%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
64.8K	63.9K	61.5K	57.0K	49.5K	39.2K	28.5K	19.3K	12.3K	7.8K	5.1K	3.5K	2.7K	2.2K	1.8K	1.5K	1.3K	1.0K	0.9K	0.7K
100%	99%	95%	88%	76%	61%	44%	30%	19%	12%	8%	5%	4%	3%	3%	2%	2%	2%	1%	1%

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
64.8K	63.9K	61.5K	57.0K	49.5K	39.2K	28.5K	19.3K	12.3K	7.8K	5.1K	3.5K	2.7K	2.2K	1.8K	1.5K	1.3K	1.0K	0.9K	0.7K
100%	99%	95%	88%	76%	61%	44%	30%	19%	12%	8%	5%	4%	3%	3%	2%	2%	2%	1%	1%

Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
64.8K	63.9K	61.5K	57.0K	49.5K	39.2K	28.5K	19.3K	12.3K	7.8K	5.1K	3.5K	2.7K	2.2K	1.8K	1.5K	1.3K	1.0K	0.9K	0.7K
100%	99%	95%	88%	76%	61%	44%	30%	19%	12%	8%	5%	4%	3%	3%	2%	2%	2%	1%	1%

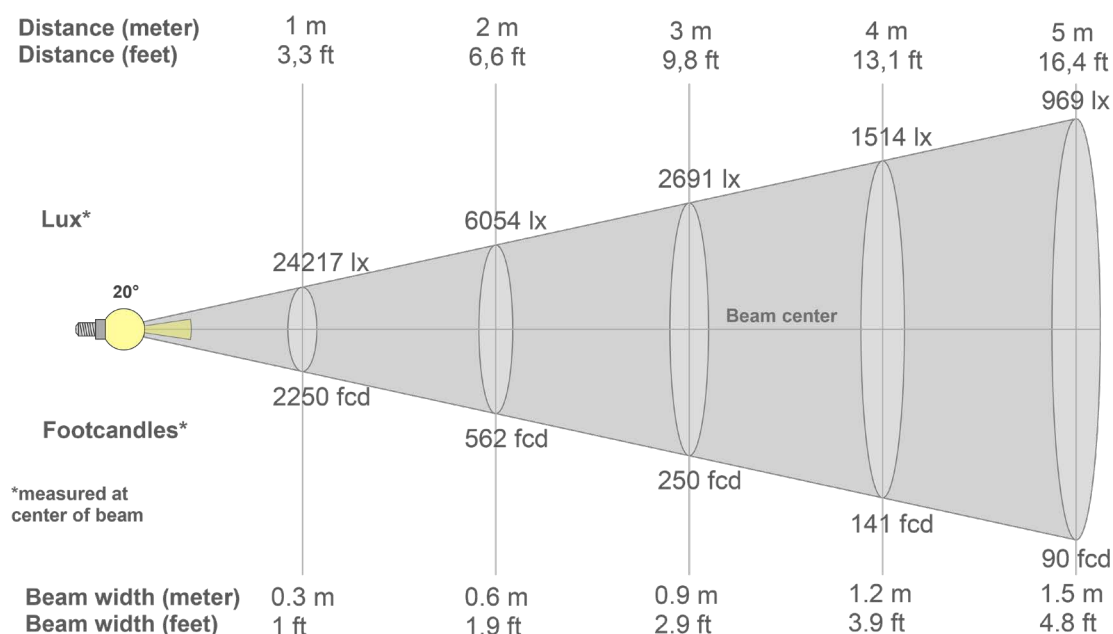
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11.3°	18.8°	29.4°	97.5%	96.0%

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LuxEOS 9 Inground - TW (1700-5700K)

Intensities at Distance with 20° Optics



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
24217lx	6054lx	2691lx	1514lx	969lx	673lx	494lx	378lx	299lx	242lx	200lx	168lx	143lx	124lx	108lx	95lx	84lx	75lx	67lx	61lx
2249.8fc	562.5fc	250fc	140.6fc	90fc	62.5fc	45.9fc	35.2fc	27.8fc	22.5fc	18.6fc	15.6fc	13.3fc	11.5fc	10fc	8.8fc	7.8fc	6.9fc	6.2fc	5.6fc

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
24.2K	24.0K	23.3K	22.1K	20.6K	18.8K	16.8K	14.8K	12.8K	10.9K	9.2K	7.6K	6.3K	5.1K	4.2K	3.4K	2.7K	2.2K	1.8K	1.5K
100%	99%	96%	91%	85%	78%	70%	61%	53%	45%	38%	32%	26%	21%	17%	14%	11%	9%	7%	6%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
24.2K	24.0K	23.3K	22.1K	20.6K	18.8K	16.8K	14.8K	12.8K	10.9K	9.2K	7.6K	6.3K	5.1K	4.2K	3.4K	2.7K	2.2K	1.8K	1.5K
100%	99%	96%	91%	85%	78%	70%	61%	53%	45%	38%	32%	26%	21%	17%	14%	11%	9%	7%	6%

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
24.2K	24.0K	23.3K	22.1K	20.6K	18.8K	16.8K	14.8K	12.8K	10.9K	9.2K	7.6K	6.3K	5.1K	4.2K	3.4K	2.7K	2.2K	1.8K	1.5K
100%	99%	96%	91%	85%	78%	70%	61%	53%	45%	38%	32%	26%	21%	17%	14%	11%	9%	7%	6%

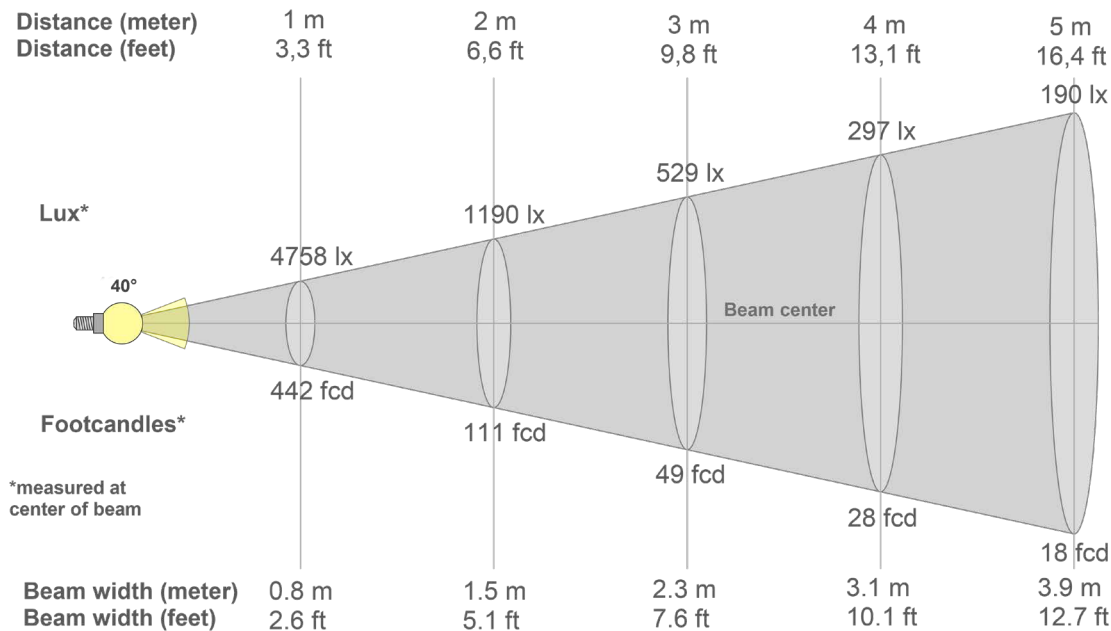
Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
24.2K	24.0K	23.3K	22.1K	20.6K	18.8K	16.8K	14.8K	12.8K	10.9K	9.2K	7.6K	6.3K	5.1K	4.2K	3.4K	2.7K	2.2K	1.8K	1.5K
100%	99%	96%	91%	85%	78%	70%	61%	53%	45%	38%	32%	26%	21%	17%	14%	11%	9%	7%	6%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16.8°	33.1°	47.6°	97.0%	94.9%

LuxEOS 9 Inground - TW (1700-5700K)

Intensities at Distance with 40° Optics



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
4758lx	1190lx	529lx	297lx	190lx	132lx	97lx	74lx	59lx	48lx	39lx	33lx	28lx	24lx	21lx	19lx	16lx	15lx	13lx	12lx
442.1fc	110.5fc	49.1fc	27.6fc	17.7fc	12.3fc	9fc	6.9fc	5.5fc	4.4fc	3.7fc	3.1fc	2.6fc	2.3fc	2fc	1.7fc	1.5fc	1.4fc	1.2fc	1.1fc

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4758	4739	4674	4566	4411	4209	3960	3665	3332	2971	2594	2221	1869	1553	1281	1054	869	717	593	490
100%	100%	98%	96%	93%	88%	83%	77%	70%	62%	55%	47%	39%	33%	27%	22%	18%	15%	12%	10%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4758	4739	4674	4566	4411	4209	3960	3665	3332	2971	2594	2221	1869	1553	1281	1054	869	717	593	490
100%	100%	98%	96%	93%	88%	83%	77%	70%	62%	55%	47%	39%	33%	27%	22%	18%	15%	12%	10%

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4758	4739	4674	4566	4411	4209	3960	3665	3332	2971	2594	2221	1869	1553	1281	1054	869	717	593	490
100%	100%	98%	96%	93%	88%	83%	77%	70%	62%	55%	47%	39%	33%	27%	22%	18%	15%	12%	10%

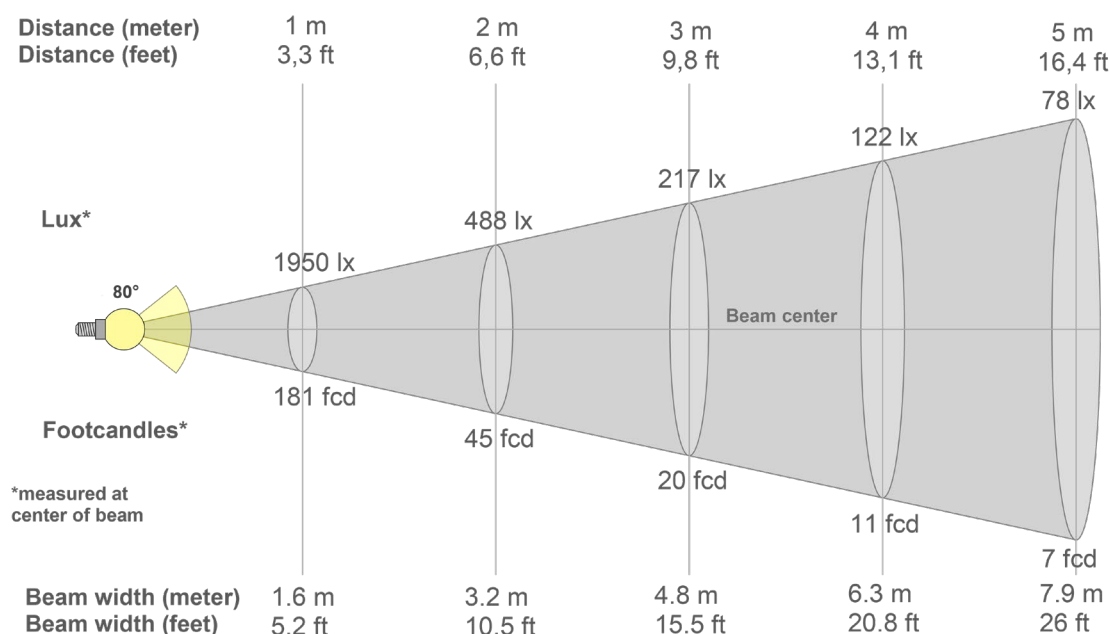
Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4758	4739	4674	4566	4411	4209	3960	3665	3332	2971	2594	2221	1869	1553	1281	1054	869	717	593	490
100%	100%	98%	96%	93%	88%	83%	77%	70%	62%	55%	47%	39%	33%	27%	22%	18%	15%	12%	10%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
42.3°	76.6°	105.5°	96.7%	90.9%

LuxEOS 9 Inground - TW (1700-5700K)

Intensities at Distance with 80° Optics



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
1950lx	488lx	217lx	122lx	78lx	54lx	40lx	30lx	24lx	20lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	5lx	5lx
181.2fcd	45.3fcd	20.1fcd	11.3fcd	7.2fcd	5fcd	3.7fcd	2.8fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.5fcd

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°
1950	1886	1797	1778	1759	1676	1487	1194	875	584	352	204	122	77	50	30	15	4	1	0
100%	97%	92%	91%	90%	86%	76%	61%	45%	30%	18%	10%	6%	4%	3%	2%	1%	0%	0%	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°
1950	1886	1797	1778	1759	1676	1487	1194	875	584	352	204	122	77	50	30	15	4	1	0
100%	97%	92%	91%	90%	86%	76%	61%	45%	30%	18%	10%	6%	4%	3%	2%	1%	0%	0%	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°
1950	1886	1797	1778	1759	1676	1487	1194	875	584	352	204	122	77	50	30	15	4	1	0
100%	97%	92%	91%	90%	86%	76%	61%	45%	30%	18%	10%	6%	4%	3%	2%	1%	0%	0%	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°
1950	1886	1797	1778	1759	1676	1487	1194	875	584	352	204	122	77	50	30	15	4	1	0
100%	97%	92%	91%	90%	86%	76%	61%	45%	30%	18%	10%	6%	4%	3%	2%	1%	0%	0%	0%

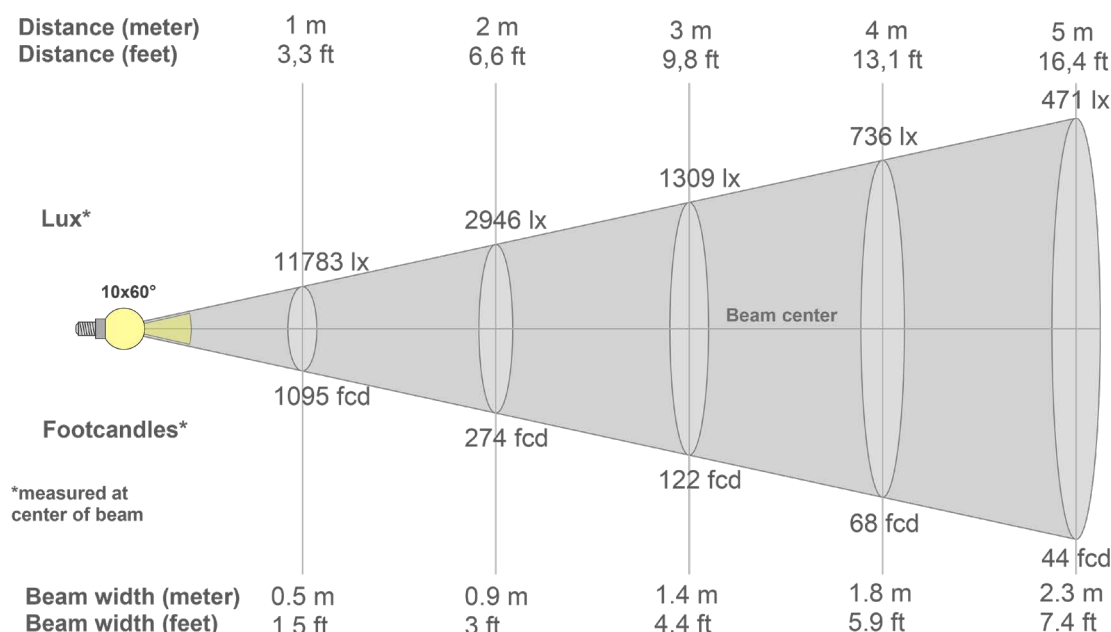
Beam angle 50%	Field angle 10%	Cutoff angle 2.5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
76.8°	110.8°	140.5°	95.0%	82.4%

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LuxEOS 9 Inground - TW (1700-5700K)

Intensities at Distance with 10x60° & 60x10° Optics



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
11783lx	2946lx	1309lx	736lx	471lx	327lx	240lx	184lx	145lx	118lx	97lx	82lx	70lx	60lx	52lx	46lx	41lx	36lx	33lx	29lx
1094.7fc	273.7fc	121.6fc	68.4fc	43.8fc	30.4fc	22.3fc	17.1fc	13.5fc	10.9fc	9fc	7.6fc	6.5fc	5.6fc	4.9fc	4.3fc	3.8fc	3.4fc	3fc	2.7fc

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
11.8K	11.1K	11.0K	10.8K	10.7K	10.5K	10.3K	10.0K	9.7K	9.3K	8.8K	8.1K	7.4K	6.5K	5.6K	4.7K	3.9K	3.1K	2.4K	1.9K
100%	94%	93%	92%	91%	89%	87%	85%	82%	79%	74%	69%	62%	55%	48%	40%	33%	27%	21%	16%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
11.8K	11.7K	8.6K	5.2K	2.8K	1.6K	1.1K	0.8K	0.6K	0.4K	0.3K	0.2K	0.2K	0.2K	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
100%	99%	73%	44%	24%	14%	9%	7%	5%	3%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
11.8K	11.1K	11.0K	10.8K	10.7K	10.5K	10.3K	10.0K	9.7K	9.3K	8.8K	8.1K	7.4K	6.5K	5.6K	4.7K	3.9K	3.1K	2.4K	1.9K
100%	94%	93%	92%	91%	89%	87%	85%	82%	79%	74%	69%	62%	55%	48%	40%	33%	27%	21%	16%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
11.8K	11.7K	8.6K	5.2K	2.8K	1.6K	1.1K	0.8K	0.6K	0.4K	0.3K	0.2K	0.2K	0.2K	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
100%	99%	73%	44%	24%	14%	9%	7%	5%	3%	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%

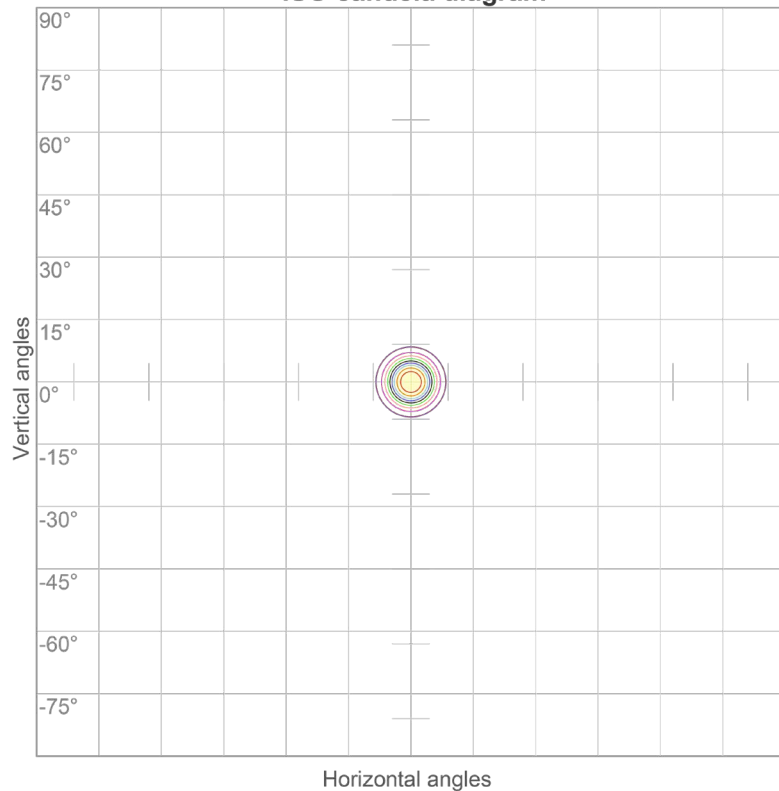
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
25.5°	45.7°	66.1°	97.5%	94.0%

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ISO candela diagram



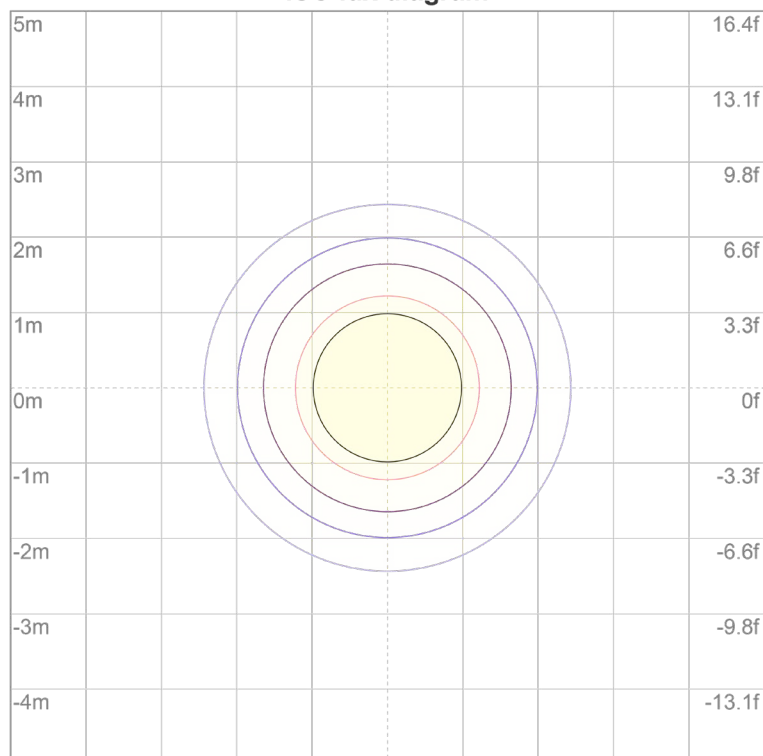
10%	6484 cd
20%	12967 cd
30%	19451 cd
40%	25935 cd
50%	32419 cd
60%	38902 cd
70%	45386 cd
80%	51870 cd
90%	58353 cd

Conditions:

Number of c-planes: 72

Candela at center: 64837 cd

ISO lux diagram



3%	19.5 lx
5%	32.4 lx
10%	64.8 lx
30%	195 lx
50%	324 lx

Conditions:

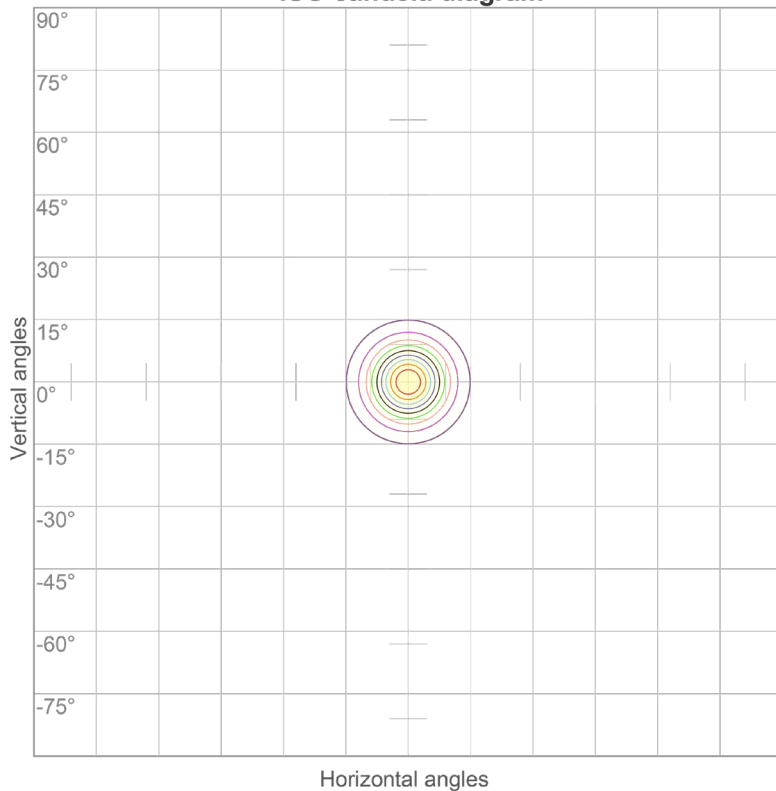
Number of c-planes: 72

Lux at center: 648 lx

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



ISO candela diagram



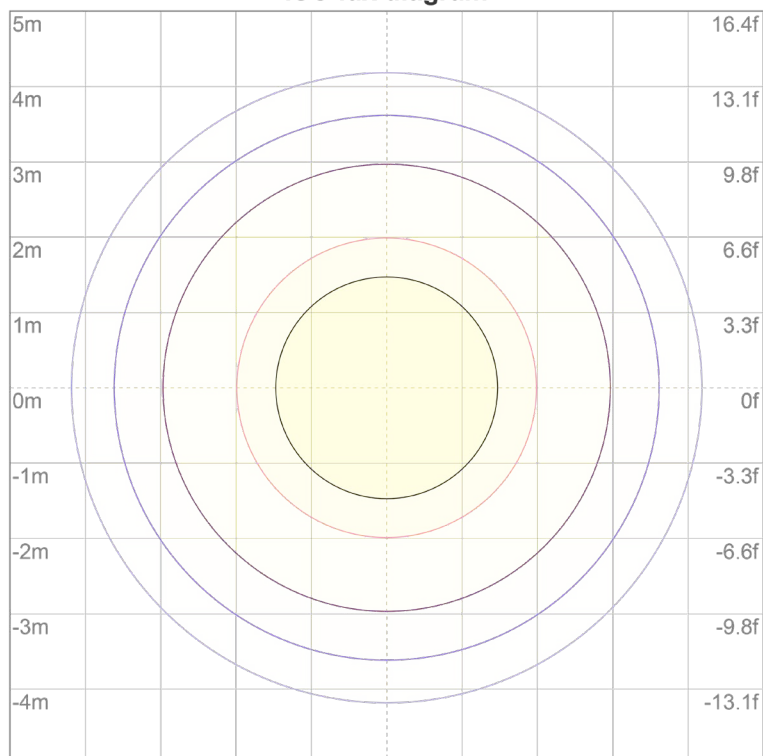
10%	2422 cd
20%	4843 cd
30%	7265 cd
40%	9687 cd
50%	12108 cd
60%	14530 cd
70%	16952 cd
80%	19374 cd
90%	21795 cd

Conditions:

Number of c-planes: 72

Candela at center: 24217 cd

ISO lux diagram



3%	7.27 lx
5%	12.1 lx
10%	24.2 lx
30%	72.7 lx
50%	121 lx

Conditions:

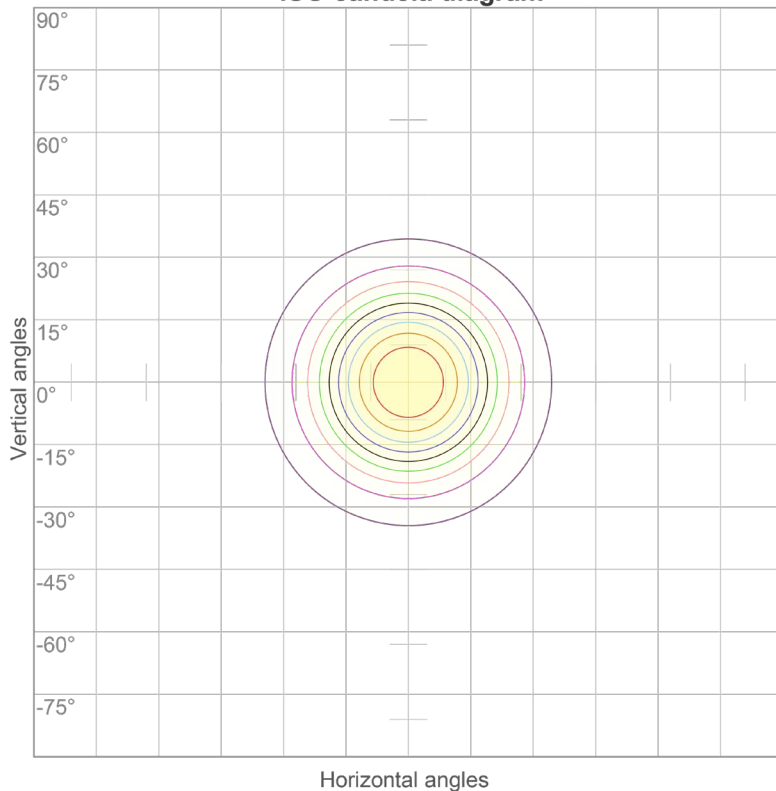
Number of c-planes: 72

Lux at center: 242 lx

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



ISO candela diagram



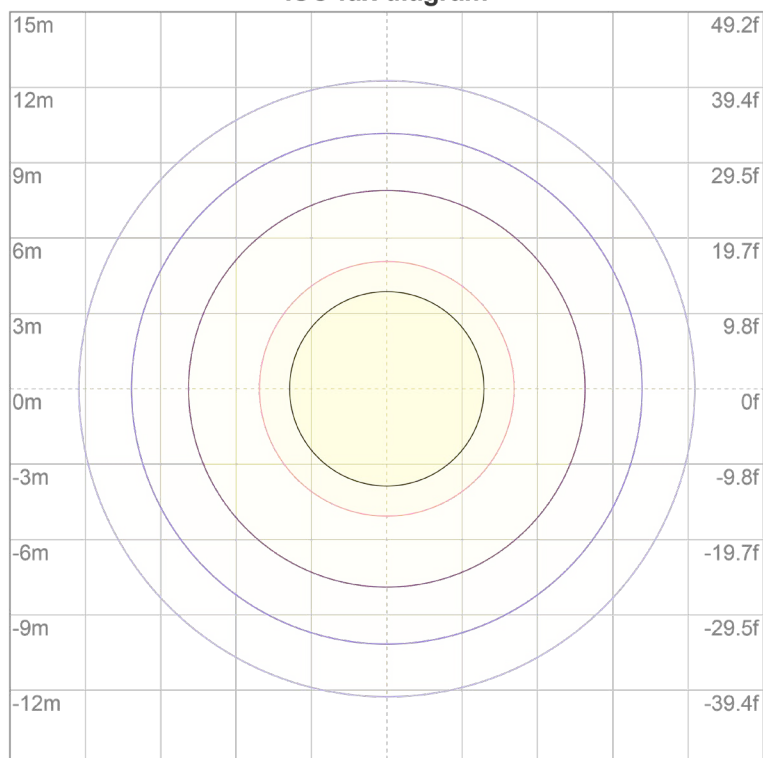
10%	476 cd
20%	952 cd
30%	1427 cd
40%	1903 cd
50%	2379 cd
60%	2855 cd
70%	3331 cd
80%	3807 cd
90%	4282 cd

Conditions:

Number of c-planes: 72

Candela at center: 4758 cd

ISO lux diagram



3%	1.43 lx
5%	2.38 lx
10%	4.76 lx
30%	14.3 lx
50%	23.8 lx

Conditions:

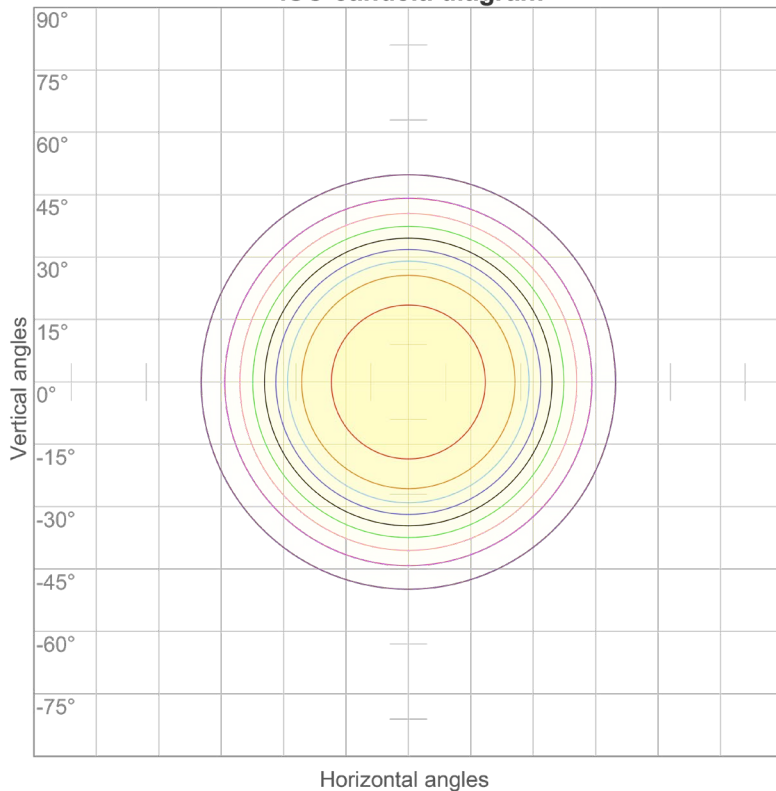
Number of c-planes: 72

Lux at center: 47.6 lx

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



ISO candela diagram



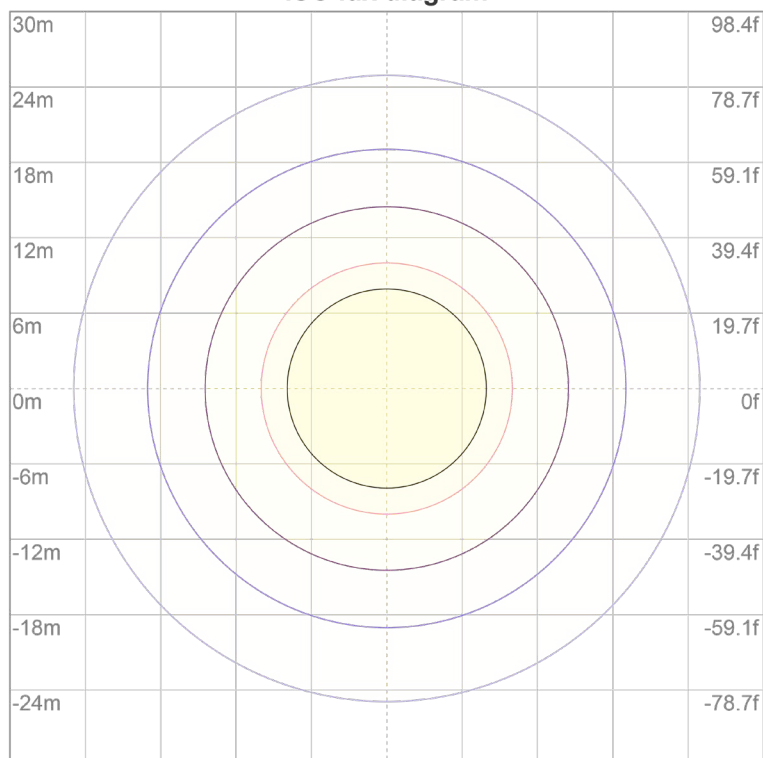
10%	195 cd
20%	390 cd
30%	585 cd
40%	780 cd
50%	975 cd
60%	1170 cd
70%	1365 cd
80%	1560 cd
90%	1755 cd

Conditions:

Number of c-planes: 72

Candela at center: 1950 cd

ISO lux diagram



3%	0.585 lx
5%	0.975 lx
10%	1.95 lx
30%	5.85 lx
50%	9.75 lx

Conditions:

Number of c-planes: 72

Lux at center: 19.5 lx

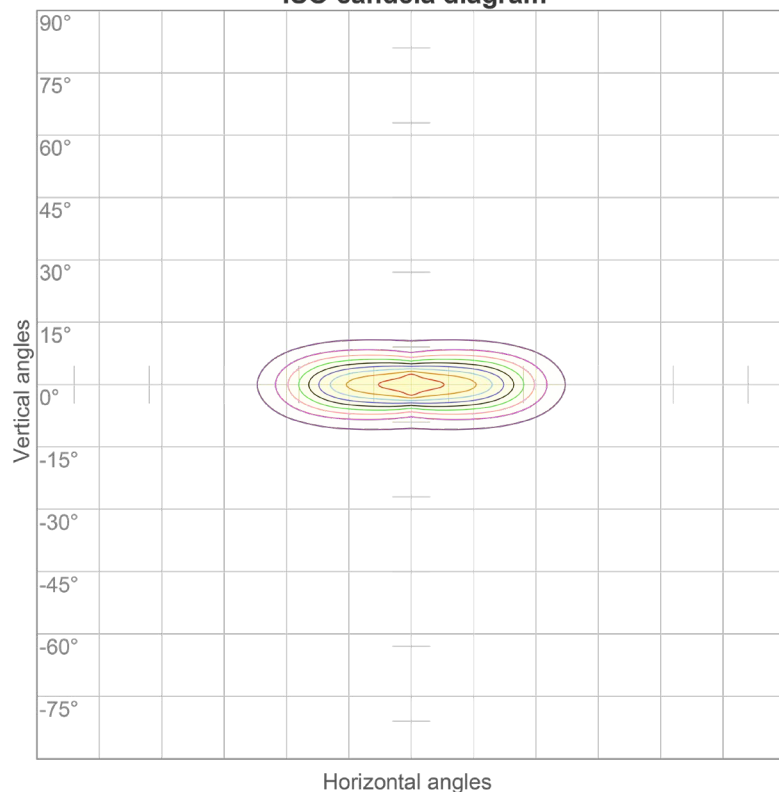
*Lux distribution on a surface
when lamp is mounted at 10
meters from the surface.*

LuxEOS 9 Inground - TW (1700-5700K)

ISO Candela & ISO Lux diagrams with 10x60° & 60x10° Optics



ISO candela diagram



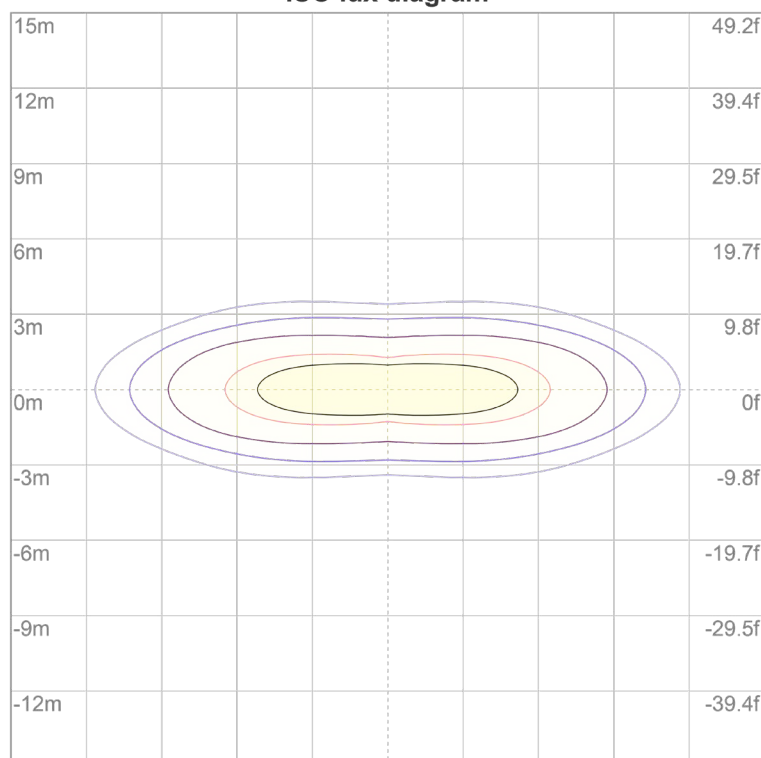
10%	1178 cd
20%	2357 cd
30%	3535 cd
40%	4713 cd
50%	5892 cd
60%	7070 cd
70%	8248 cd
80%	9427 cd
90%	10605 cd

Conditions:

Number of c-planes: 72

Candela at center: 11783 cd

ISO lux diagram



3%	3.53 lx
5%	5.89 lx
10%	11.8 lx
30%	35.3 lx
50%	58.9 lx

Conditions:

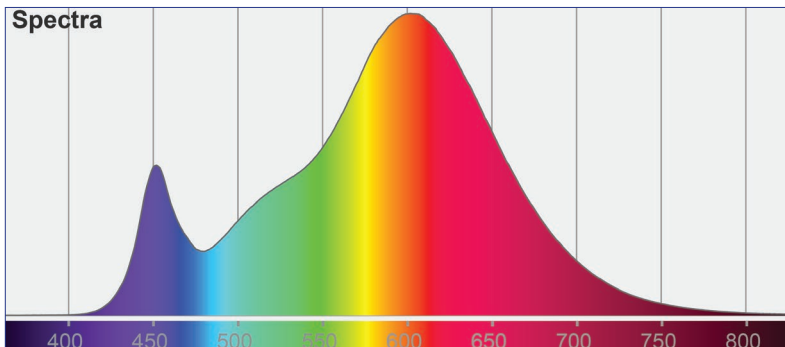
Number of c-planes: 72

Lux at center: 118 lx

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

LuxEOS 9 Inground - TW (1700-5700K)

Colormetrics **1700K, 2700K, 5700K** (All channels on)



Total Lumen Output (Native) : 3155 lm

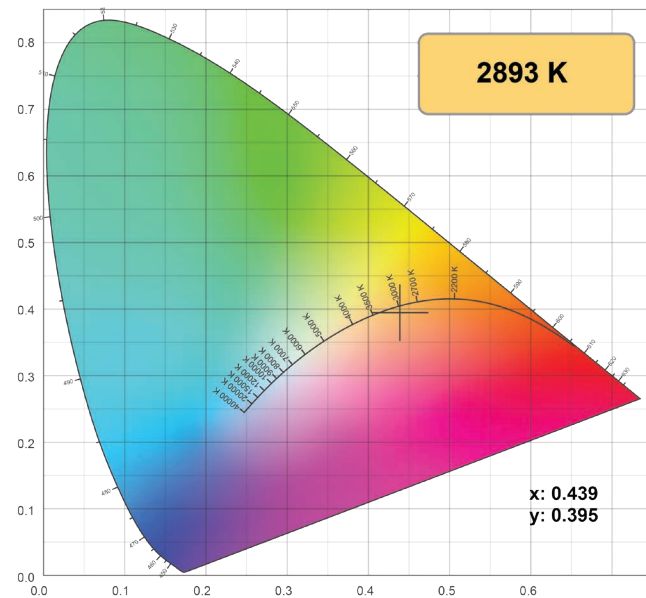
Efficacy : 63 lm/W

Voltage : 240V

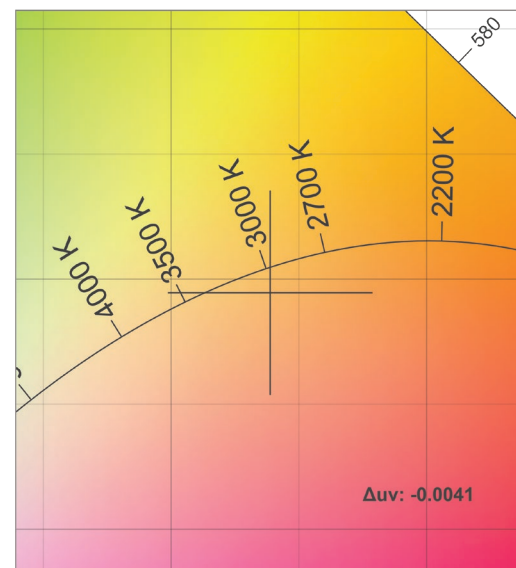
Supply Power : 50W

Supply Power Factor : 0.97

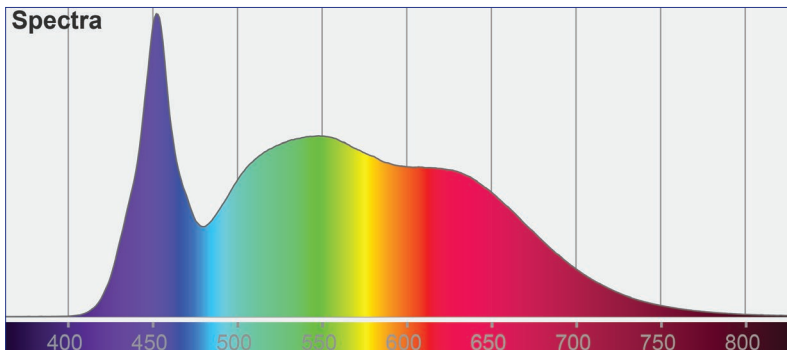
CIE 1931



CIE 1931 Zoom

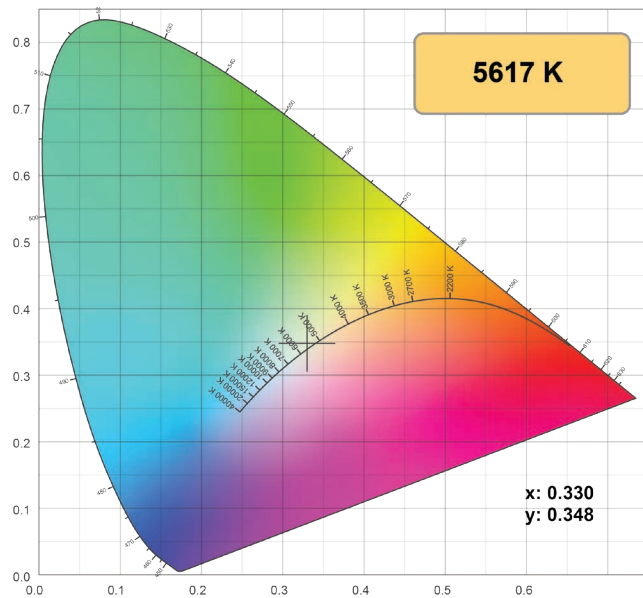


LuxEOS 9 Inground - TW (1700-5700K) Colormetrics **5700K**

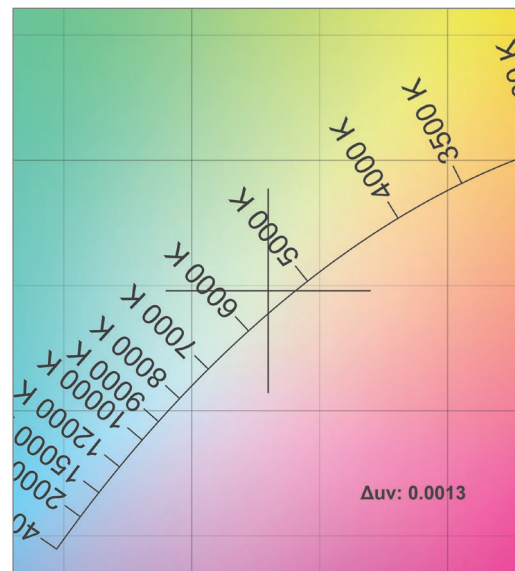


White 5700K Lumen Output : 1444 lm
CRI: 90

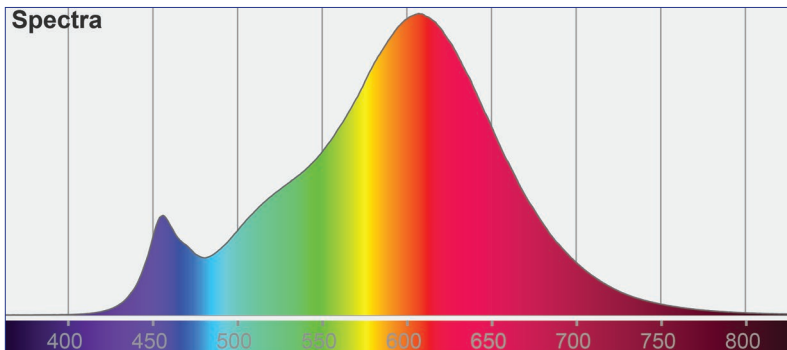
CIE 1931



CIE 1931 Zoom

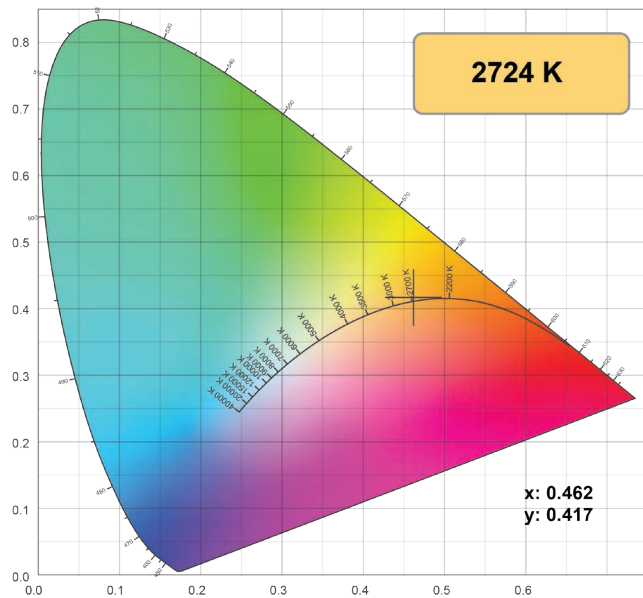


LuxEOS 9 Inground - TW (1700-5700K) Colormetrics **2700K**

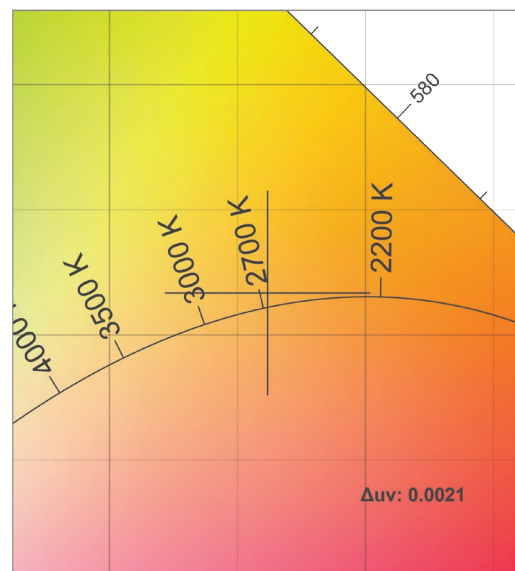


White 2700K Lumen Output : 1919 lm
CRI: 80

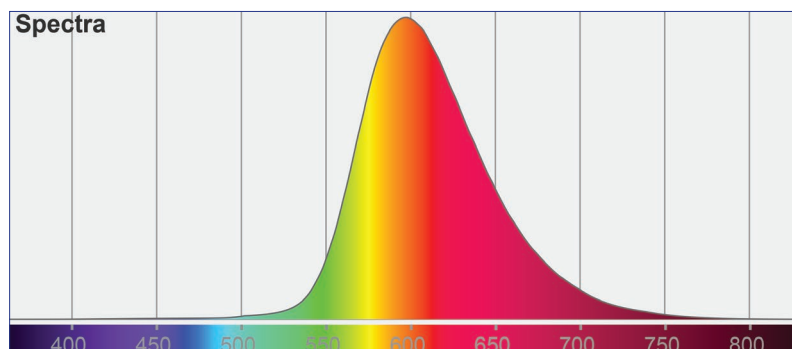
CIE 1931



CIE 1931 Zoom

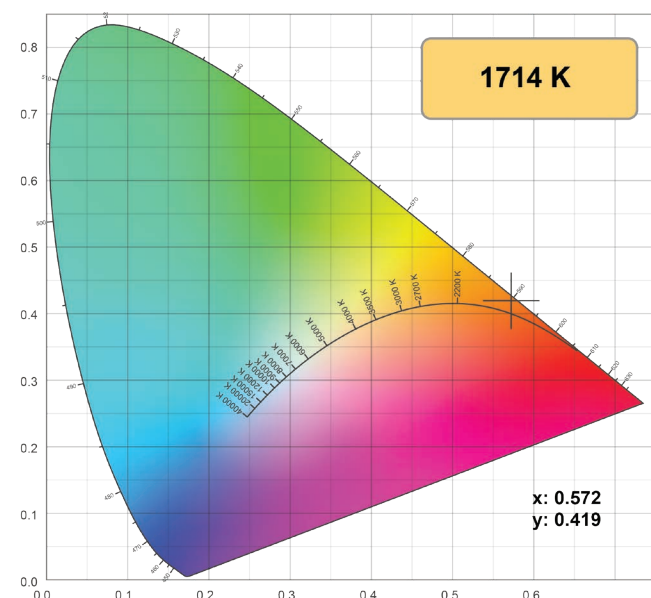


LuxEOS 9 Inground - TW (1700-5700K) Colormetrics **1700K**

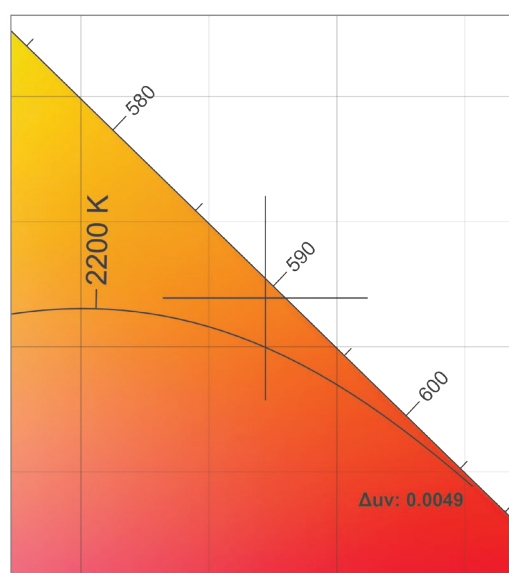


Amber 1700K Lumen Output : 911 lm

CIE 1931



CIE 1931 Zoom



Should further photometric variations be required, please contact our Head Office.

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PULSAR

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