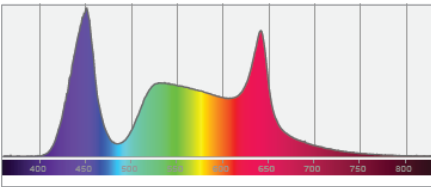
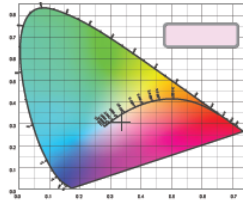


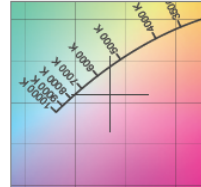
Spectral distribution



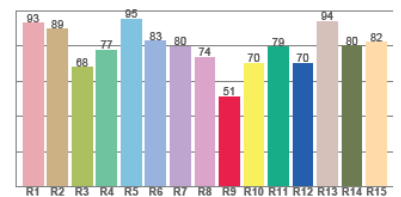
Color coordinates



Zoom color point



CRI R values



# Photometric Test Report

\*Due to additional product enhancements, an updated version of this report may be available online. Please check [www.adj.com](http://www.adj.com) for the latest revision/update of this report.

# Par Z120 RGBW



## Light Efficiency:

11 Lumen/Watt

## Dominant Wavelength:

453 nm

## Output:

1067 lm

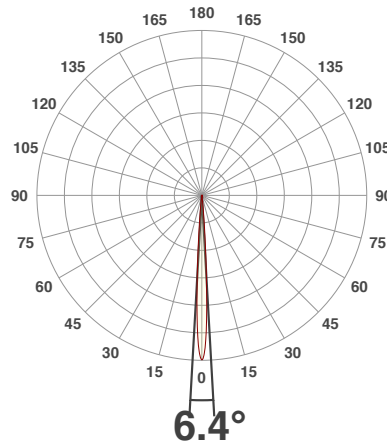
## Power:

93.1 W

## Peak:

78081 cd

## Beam Angle



## Test:

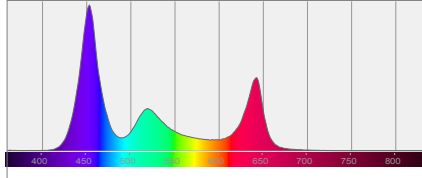
7deg Full On

## Date:

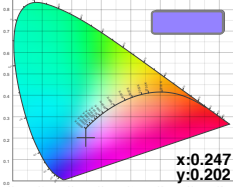
8/17/2018

## Note:

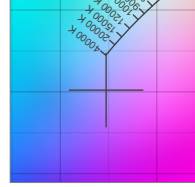
## Spectral Distribution



## Color Coordinates



## Zoom Color Point



Distance (meter)

1

Distance (feet)

3.3

3

9.8

5

16.4

7

22.9

10

32.8

Lux\*

6.4°

Foot Candles\*

\*measured at  
center of beam

Beam Width (meter)

Beam Width (feet)

0.1

0.4

0.3

1.1

0.6

1.8

0.8

2.6

1.1

3.7

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
6.4°	11.3°	14.3°	99.9%	99.8%

## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	77890	19473	8654	4868	3116	2164	1590	1217	962	779	644	541	461	397	346	304	270	240	216	195
fcd	7236.2	1809.1	804	452.3	289.4	201	147.7	113.1	89.3	72.4	59.8	50.3	42.8	36.9	32.2	28.3	25	22.3	20	18.1

# Par Z120 RGBW



## Light Efficiency:

12 Lumen/Watt

## Dominant Wavelength:

440 nm

## Output:

1135 lm

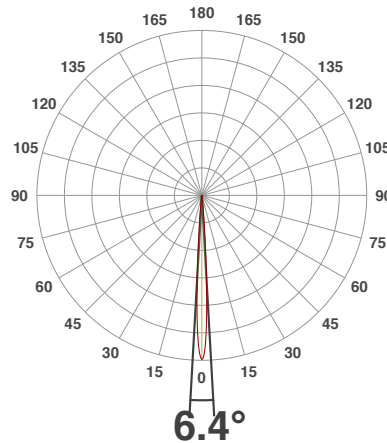
## Power:

94.1 W

## Peak:

83576 cd

## Beam Angle



Test:

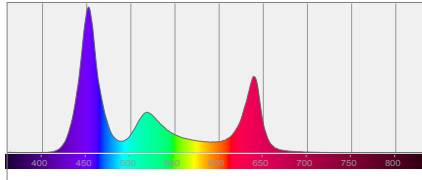
7deg Full On

Date:

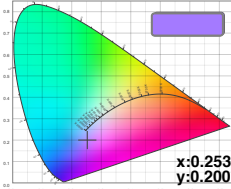
8/16/2018

Note:

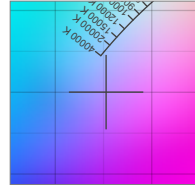
## Spectral Distribution



## Color Coordinates



## Zoom Color Point



Distance (meter)

1

Distance (feet)

3.3

3

9.8

5

16.4

7

22.9

10

32.8

Lux\*

6.4°

Foot Candles\*

\*measured at  
center of beam

Beam Width (meter)

Beam Width (feet)

0.1

0.4

0.3

1.1

0.6

1.8

0.8

2.6

1.1

3.7

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
6.4°	11.2°	14.3°	99.9%	99.9%

## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	83549	20887	9283	5222	3342	2321	1705	1305	1031	835	690	580	494	426	371	326	289	258	231	209
fcd	7762	1940.5	862.4	485.1	310.5	215.6	158.4	121.3	95.8	77.6	64.1	53.9	45.9	39.6	34.5	30.3	26.9	24	21.5	19.4

# Par Z120 RGBW



## Light Efficiency:

11 Lumen/Watt

## Dominant Wavelength:

626 nm

## Output:

317 lm

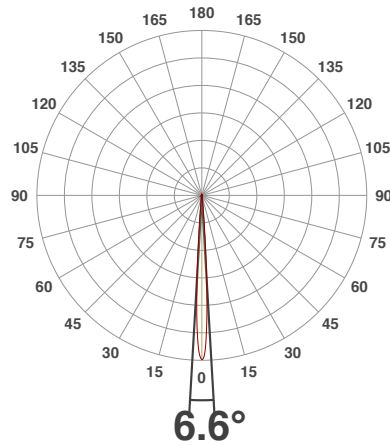
## Power:

29.0 W

## Peak:

22169 cd

## Beam Angle



## Test:

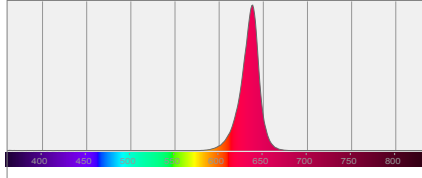
7deg Red

## Date:

8/15/2018

## Note:

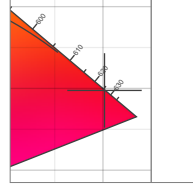
## Spectral Distribution



## Color Coordinates



## Zoom Color Point



Distance (meter)

1

Distance (feet)

3.3

3

9.8

5

16.4

7

22.9

10

32.8

Lux\*

6.6°

Foot Candles\*

\*measured at  
center of beam

22162 lx

2059 fcd

0.1

0.4

2462 lx

229 fcd

0.3

1.1

886 lx

82 fcd

0.6

1.9

1385 lx

42 fcd

0.8

2.6

886 lx

21 fcd

1.2

3.8

Beam center

Beam Width (meter)

Beam Width (feet)

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
6.6°	11.2°	14.5°	99.1%	99.0%

## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	22162	5540	2462	1385	886	616	452	346	274	222	183	154	131	113	98	87	77	68	61	55
fcd	2058.9	514.7	228.8	128.7	82.4	57.2	42	32.2	25.4	20.6	17	14.3	12.2	10.5	9.2	8	7.1	6.4	5.7	5.1

# Par Z120 RGBW



Light Efficiency:

23 Lumen/Watt

Dominant Wavelength:

523 nm

Output:

611 lm

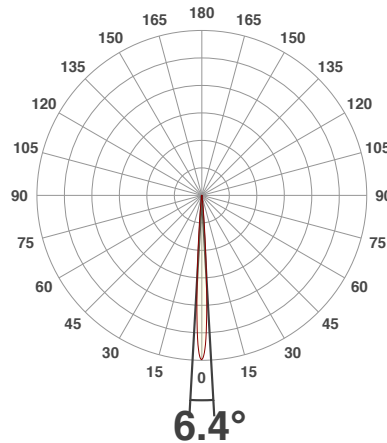
Power:

27.0 W

Peak:

43099 cd

Beam Angle



Test:

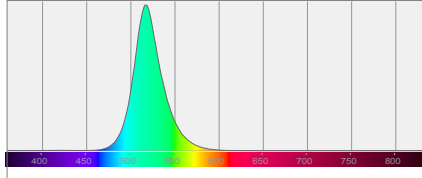
7deg Green

Date:

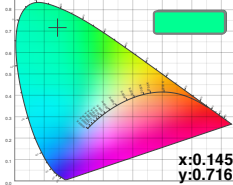
8/15/2018

Note:

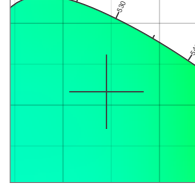
Spectral Distribution



Color Coordinates



Zoom Color Point



Distance (meter)

1

Distance (feet)

3.3

3

9.8

5

16.4

7

22.9

10

32.8

Lux\*

6.4°

Foot Candles\*

\*measured at  
center of beam

Beam Width (meter)

Beam Width (feet)

0.1

0.4

0.3

1.1

0.6

1.8

0.8

2.6

1.1

3.7

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
6.4°	11.3°	14.8°	99.9%	99.9%

Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	43034	10758	4782	2690	1721	1195	878	672	531	430	356	299	255	220	191	168	149	133	119	108
fcd	3998	999.5	444.2	249.9	159.9	111.1	81.6	62.5	49.4	40	33	27.8	23.7	20.4	17.8	15.6	13.8	12.3	11.1	10

# Par Z120 RGBW



## Light Efficiency:

8 Lumen/Watt

## Dominant Wavelength:

456 nm

## Output:

143 lm

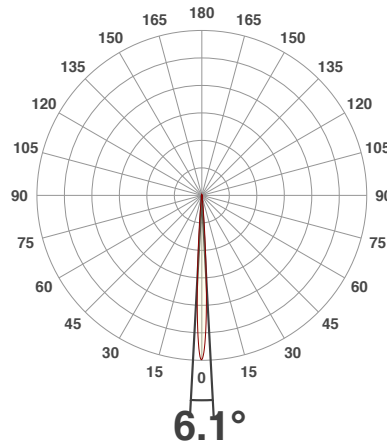
## Power:

19.0 W

## Peak:

10545 cd

## Beam Angle



Test:

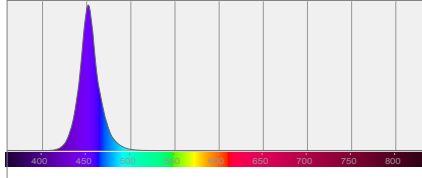
7deg Blue

Date:

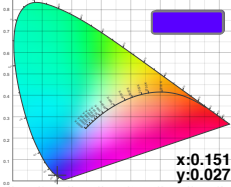
8/15/2018

Note:

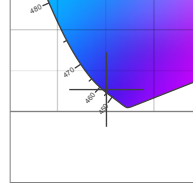
## Spectral Distribution



## Color Coordinates



## Zoom Color Point



Distance (meter)

1

Distance (feet)

3.3

3

9.8

5

16.4

7

22.9

10

32.8

Lux\*

6.1°

Foot Candles\*

\*measured at  
center of beam

10542 lx

979 fcd

1171 lx

109 fcd

422 lx

39 fcd

659 lx

20 fcd

422 lx

10 fcd

Beam center

Beam Width (meter)

0.1

Beam Width (feet)

0.4

0.3

1.1

0.5

1.8

0.8

2.5

1.1

3.5

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
6.1°	11.1°	14.7°	99.0%	98.8%

## Beam Intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	10542	2635	1171	659	422	293	215	165	130	105	87	73	62	54	47	41	36	33	29	26
fcd	979.3	244.8	108.8	61.2	39.2	27.2	20	15.3	12.1	9.8	8.1	6.8	5.8	5	4.4	3.8	3.4	3	2.7	2.4

# Par Z120 RGBW



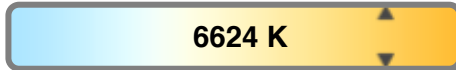
Light Efficiency:



Light Quality:



Color Temperature:



Output: 721 lm

Peak: 53444 cd

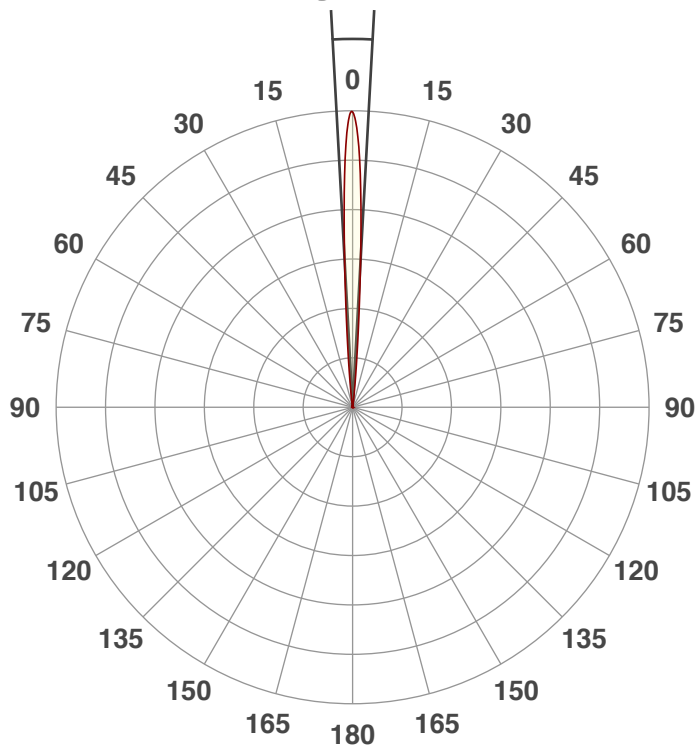
Power: 35.9 W

PF: 0.61



Beam Angle

6.2°



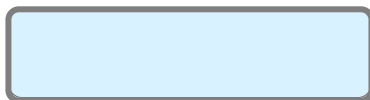
Test:

7deg White

Date:

8/15/2018

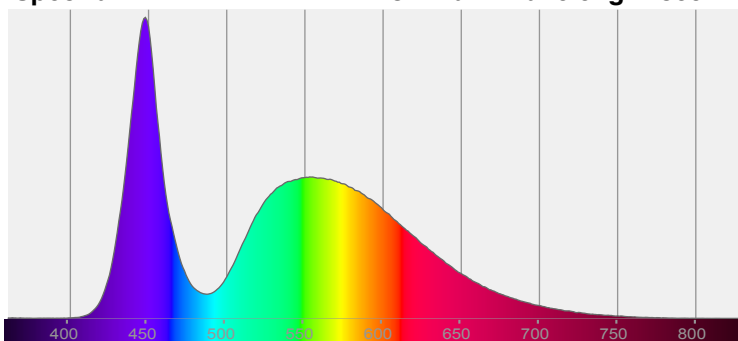
Note:



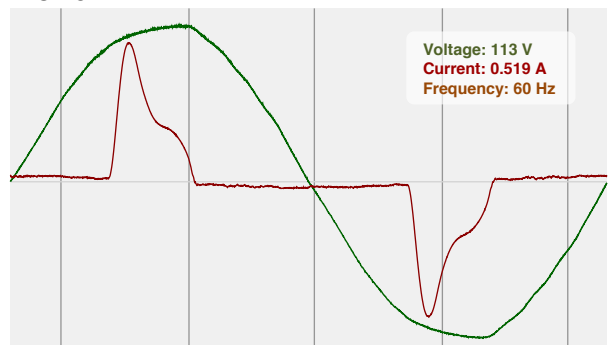
CIE 1931  
x: 0.313  
y: 0.317

Spectra

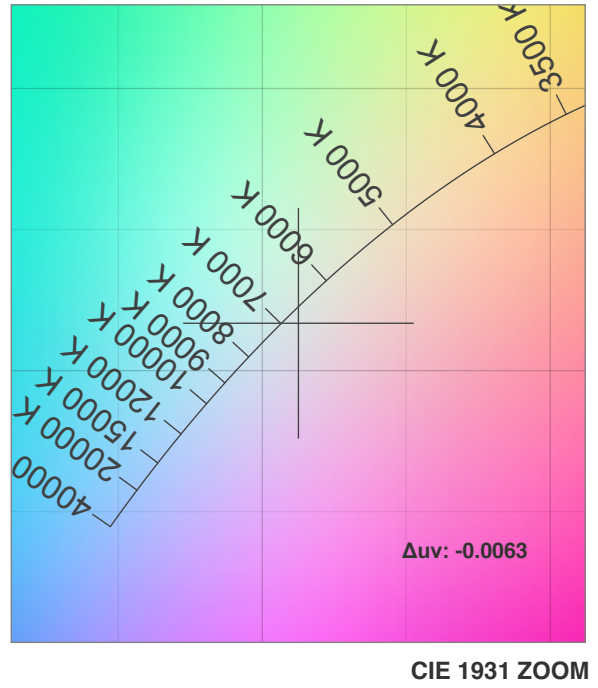
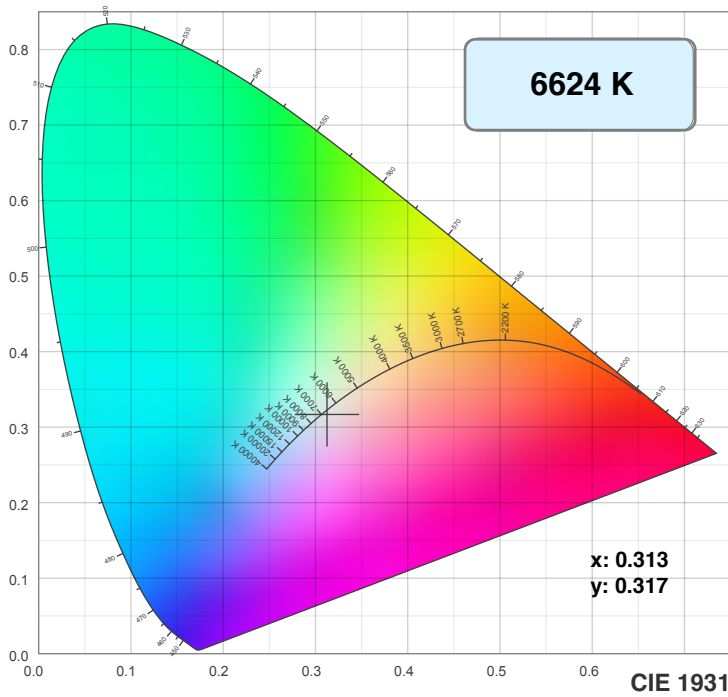
Dominant Wavelength: 360nm



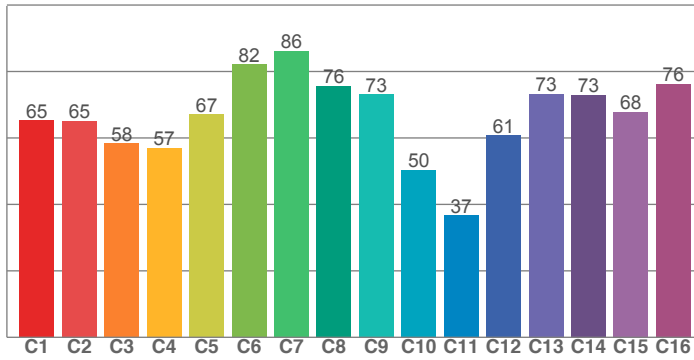
Power



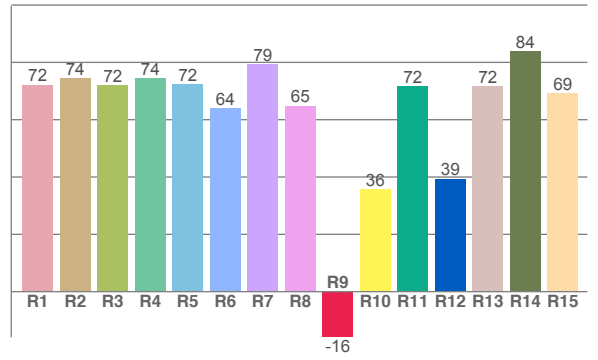
## Color Details



TM30: 66.1



CRI: 71.7 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
72.2	74.5	72.0	74.5	72.3	63.9	79.4	64.9	-15.9	35.6	71.7	39.3	71.6	83.8	69.2

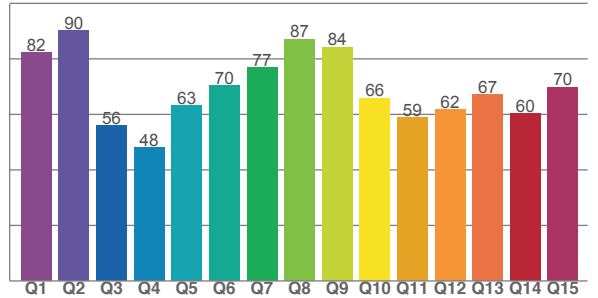
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
65.2	65.1	58.3	57.0	67.0	82.1	86.2	75.7	73.2	50.4	36.7	60.8	73.3	72.9	67.9	76.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.3	90.2	56.0	48.0	63.2	70.4	76.8	87.0	84.2	65.9	58.8	61.7	67.1	60.2	69.8

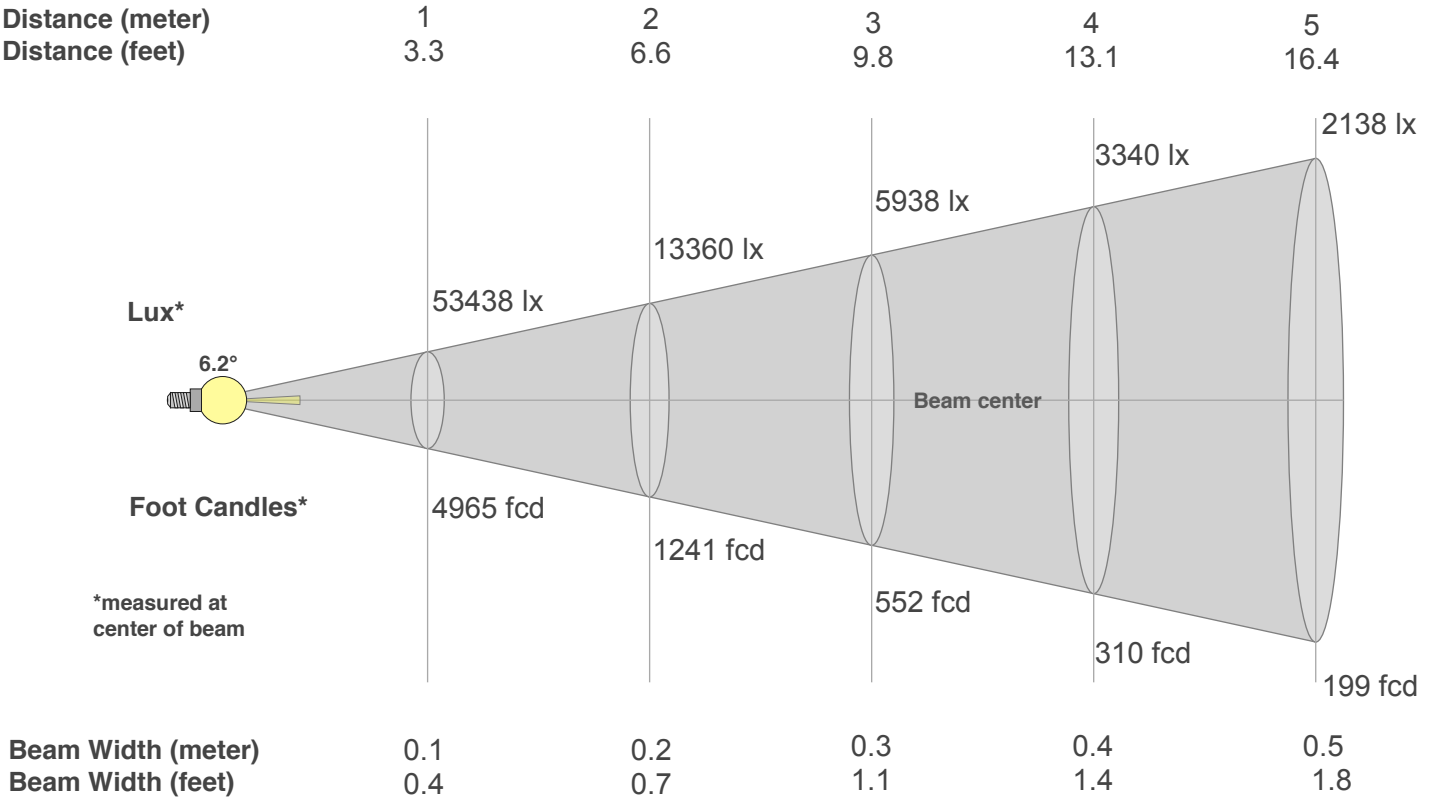
CQS: 67.2



## Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate	Color Coordinate	Color Deviation from Black Body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	$\Delta uv$
6624 K	71.7	-15.9	66.1	95.4	67.2	0.313	0.317	0.202	0.308	-0.0063

Beam Details



Beam Intensities from 1-20m																				
m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lx	53438	13360	5938	3340	2138	1484	1091	835	660	534	442	371	316	273	238	209	185	165	148	134
fcd	4964.6	1241.1	551.6	310.3	198.6	137.9	101.3	77.6	61.3	49.6	41	34.5	29.4	25.3	22.1	19.4	17.2	15.3	13.8	12.4

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°	
53.4K	51.0K	41.8K	28.2K	16.2K	8.4K	4.0K	1.8K	0.8K	0.3K	0.1K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	
100%	95%	78%	53%	30%	16%	7%	3%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

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°
53.4K	51.0K	41.8K	28.2K	16.2K	8.4K	4.0K	1.8K	0.8K	0.3K	0.1K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K
100%	95%	78%	53%	30%	16%	7%	3%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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°
53.4K	49.7K	40.9K	28.2K	16.3K	8.4K	3.9K	1.8K	0.8K	0.4K	0.1K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K
100%	93%	76%	53%	31%	16%	7%	3%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

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°
53.4K	49.7K	40.9K	28.2K	16.3K	8.4K	3.9K	1.8K	0.8K	0.4K	0.1K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K	0.0K
100%	93%	76%	53%	31%	16%	7%	3%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam Angle 50%	Field Angle 10%	Cutoff Angle 2,5%	Intensity Ratio in 120° Cone	Intensity Ratio in 90° Cone
6.2°	11.2°	14.7°	99.9%	99.9%