

## SUMMARY

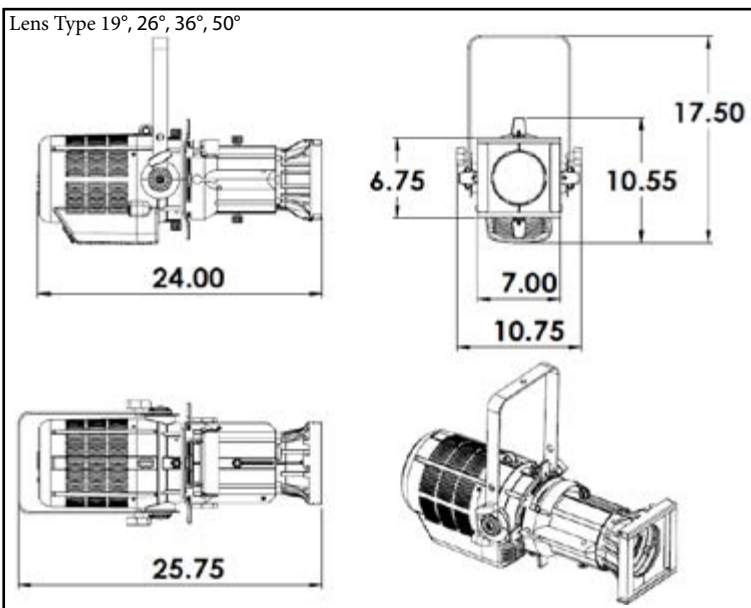
The 5°, 10°, 19°, 26°, 36° and 50° fixed focus PHX LED ellipsoidals are state of the art luminaires in function, style, and efficiency. These ellipsoidals have been designed and engineered with a number of innovative details and features enhancing versatility and efficiency without sacrificing performance.

A diverse line of LED choices are available in 250 watt RGBA, RGBW, 3000k, 5600k, and tunable white 3000k/5600k.

Fully locking shutters and a 360° rotating barrel help keep your keep the artistic part of your fixtures focus intact and easy to attain, and with virtually no light leak from the fixture itself you wont have to worry about any extra light illuminating unwanted parts of the ceiling. The aesthetic appearance and ergonomically designed function controls only add to the appeal.

These new and innovative options are what makes the PHX LED ellipsoidals ideal for theatres, Special Events, television studios, or wherever superior, energy efficient lighting performance is required.

Lens Type 19°, 26°, 36°, 50°



## FEATURES

- 360 degree rotating barrel
- Locking Shutters
- Completely enclosed accessory holder
- Heat resistant Plano-Convex lensing
- Die cast aluminum and sheet metal fabrication
- Color frame, C-Clamp, Soft Focus Pattern holder, safety cable, 5 Foot PowerCON included
- Carries standard three year Altman Warranty
- Tool free interchangeable barrels
- 26.5 lbs. (12kgs)
- ETL, cETL, & CE listed
- Assembled in the USA

## SPECIFICATIONS

### GENERAL

- 60 LED Array
- ETL listed to UL1573
- IP20 rated for indoor use
- PowerCON and DMX in/thru for easy connections
- User friendly control interface

### PHYSICAL

- Rugged die-cast, all metal housing
- Available standard in Black, White or Silver with Custom Colors available
- Positive locking double-clutch fixture body
- Pattern slot fits glass or steel gobos
- Wide accessory slot with sliding cover for motorized patten devices or optional iris
- Yoke made from rigid flat steel with dual locking handles, two mounting positions and indexed tilt angle markings

### ELECTRICAL

- 100-240VAC, 50/60HZ Universal power input
- powerCON® in/thru
- Up to 8 fixtures (20A Max) daisy chained.
- Requires power from Non-Dim power source

### CONTROL

- DMX512 in/thru via 5-pin XLR connector
- Multiple on-board control options: RGB(A/W) color fades and strobes
- Console free Master/Slave mode
- 8-bit or 16-bit virtual dimming engine provides smooth, high quality fades and minimizes color shift during dimming
- RDM - ANSI E1.20 Compliant

### ENVIRONMENTAL

- Ambient operating temperature of -14°F to 104°F (-10°C to 40°C)
- Near silent fan cooling

Included Accessories	
6-CFD	Black Color Frame, 6¼" x 6¼"
510	Malleable Iron Pipe Clamp
SC-36-BK	36" Black Safety Cable with Spring Clamp
PHX-SFLGSA	PHX Soft Focus lens with A Size Pattern Holder
PCL-PBG-12-*	5'-0" 20A powerCON with Parallel Blade U Ground (Edison)

Additional Accessories	
10-CFB	Black Color Frame, 12" x 12" (Included with PHX-10 and C10)
12-CFB	Black Color Frame, 14" x 14" (Included with PHX-5 and C5)
510-HD	Heavy Duty Malleable Iron Pipe Clamp
4.5-DN	6¼" x 6¼" Donut, Black with 2½" Hole
10-DN	12" x 12" Donut, Black
12-DN	14" x 14" Donut, Black
4.5-SN	6¼" x 6¼" Snoot, Black
10-SN	12" x 12" Snoot, Black
12-SN	14" x 14" Snoot, Black
PDII	Phoenix Drop In Iris
PCL-2P&G-12-5-*	5' 20A powerCON with 2P&G Stage Pin Connector, Male
PCL-TLG-12-5-*	5' 20A powerCON with L5-20P Twist Locking Ground Connector, Male
PCL-BARE-12-5-*	5' 20A powerCON with Bare End Lead

\*=W for White Cable, Black is standard and no suffix is required

### Available Pattern Holders

PHX-PHGSA	A Size Steel Pattern Holder (100mm OD/75mm IA)
PHX-PHGSB	B Size Steel Pattern Holder (86mm OD/64.5mm IA)
PHX-PHGSA-GLS	B Size Glass Pattern Holder (82mm OD/64.5mm IA)
PHX-PHGSA86-GLS	B Size Glass Pattern Holder (86mm OD/64.5mm IA)
PHX-PHISB	B Size Steel Pattern Holder (82mm OD/64.5mm IA) for Iris Slot
PHX-PHISA-GLS	A Size Glass Pattern Holder (100mm OD/75mm IA) for Iris Slot
PHX-PHISB-GLS	B Size Glass Pattern Holder (82mm OD/64.5mm IA) for Iris Slot
PHX-PHISA86-GLS	B Size Glass Pattern Holder (86mm OD/64.5mm IA) for Iris Slot

Additional gobo holder information available at [www.altmanlighting.com](http://www.altmanlighting.com)

## ORDERING GUIDE

Fixture	Wattage	-	LED Array	-	Lens Type	-	Finish Color
PHX	2(250)	-	RGBA	-	5°	-	B (Black)
		-	RGBW	-	10°	-	W (White)
		-	3K	-	19°	-	S (Silver)
		-	5K	-	26°	-	C (Custom)
		-	3K5K	-	36°	-	
					50°		

Example: PHX2-RGBA-19-B

**RGBA PERFORMANCE**
**5 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	754.75 (8124.05)	335.44 (3610.69)	188.69 (2031.01)	120.76 (1299.84)	83.86 (902.67)	61.61 (663.18)	47.17 (507.75)	37.27 (401.18)	30.19 (324.96)	24.95 (268.56)

**10 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	455.00 (4897.57)	202.22 (2176.70)	113.75 (1224.39)	72.80 (783.61)	50.56 (544.17)	37.14 (399.80)	28.44 (306.09)	22.47 (241.85)	18.20 (195.90)	15.04 (161.90)

**19 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	491.00 (5285.07)	218.22 (2348.92)	122.75 (1321.26)	78.56 (845.61)	54.56 (587.23)	40.08 (431.43)	30.69 (330.31)	24.25 (260.99)	19.64 (211.40)	16.23 (174.71)

**26 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	250.00 (2690.97)	111.11 (1195.98)	62.50 (672.74)	40.00 (430.55)	27.78 (298.99)	20.41 (219.67)	15.63 (168.18)	12.35 (132.88)	10.00 (107.63)	8.26 (88.95)

**36 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	156.00 (1679.16)	69.33 (746.29)	39.00 (419.79)	24.96 (268.66)	17.33 (186.57)	12.73 (137.07)	9.75 (104.94)	7.70 (82.92)	6.24 (67.16)	5.16 (55.50)

**50 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	88.00 (947.22)	39.11 (420.98)	22.00 (236.80)	14.08 (151.55)	9.78 (105.24)	7.18 (77.32)	5.50 (49.20)	4.35 (46.77)	3.52 (37.88)	2.91 (31.31)

Note: All measurements are RGBA on at full intensity

**RGBW PERFORMANCE**
**5 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	1111.25 (11961.38)	493.89 (5316.17)	277.81 (2990.34)	177.80 (1913.82)	123.47 (1329.04)	90.71 (976.43)	69.45 (747.58)	54.88 (590.68)	44.45 (478.45)	36.74 (395.41)

**10 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	629.75 (6778.56)	279.89 (3012.69)	157.44 (1694.64)	100.76 (1084.57)	69.97 (753.17)	51.41 (553.35)	39.36 (423.66)	31.10 (334.74)	25.19 (271.14)	20.82 (395.41)

**19 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	679.00 (7308.68)	301.78 (3248.30)	169.75 (1827.17)	108.64 (1169.39)	75.44 (812.07)	55.43 (596.62)	42.44 (456.79)	33.53 (360.92)	27.16 (292.34)	22.45 (241.60)

**26 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	354.00 (3810.42)	157.33 (1693.52)	88.50 (952.60)	56.64 (609.66)	39.33 (423.38)	28.90 (311.05)	22.13 (238.15)	17.48 (188.16)	14.16 (152.41)	11.70 (125.96)

**36 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	215.00 (2314.23)	95.56 (1028.55)	53.75 (578.55)	34.40 (370.27)	23.89 (257.13)	17.55 (188.91)	13.44 (144.28)	10.62 (114.28)	8.60 (92.56)	7.11 (76.50)

**50 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	120.00 (1291.66)	53.33 (574.07)	30.00 (322.91)	19.20 (206.66)	13.33 (143.51)	9.80 (105.44)	7.50 (80.72)	5.93 (63.78)	4.80 (51.66)	3.97 (42.69)

Note: All measurements are RGBW on at full intensity

**3000K PERFORMANCE**
**5 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	1657.25 (17838.47)	736.56 (7928.21)	414.31 (4459.61)	265.16 (2854.15)	184.14 (1982.05)	135.29 (1456.20)	103.58 (1114.90)	81.84 (880.91)	66.29 (713.53)	54.79 (589.70)

**10 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	826.75 (8899.05)	367.44 (3955.13)	206.69 (2224.76)	132.28 (1423.84)	91.86 (988.78)	67.49 (726.45)	51.67 (556.19)	40.83 (439.45)	33.07 (355.96)	27.33 (294.18)

**19 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	1010.00 (10871.54)	448.89 (4831.79)	252.50 (2717.88)	161.60 (1739.44)	112.22 (1207.94)	82.45 (887.47)	63.13 (679.47)	49.88 (536.86)	40.40 (434.86)	33.39 (359.38)

**26 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	515.00 (5543.40)	228.89 (2463.73)	128.75 (1385.85)	82.40 (886.94)	57.22 (615.93)	42.04 (452.52)	32.19 (346.46)	25.43 (273.74)	20.60 (221.73)	17.02 (183.25)

**36 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	320.00 (3444.44)	142.22 (1530.86)	80.00 (861.11)	51.20 (551.11)	35.56 (381.17)	26.12 (281.17)	20.00 (215.27)	15.80 (170.09)	12.80 (137.77)	10.58 (113.86)

**50 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	186.00 (2002.08)	82.67 (889.81)	46.50 (500.52)	29.76 (320.33)	20.67 (222.45)	15.18 (163.43)	11.63 (125.13)	9.19 (98.86)	7.44 (80.08)	6.15 (66.18)

5600K PERFORMANCE

5 Degree

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	1768.25 (19033.27)	785.89 (8459.22)	442.06 (4758.31)	282.92 (2114.80)	196.47 (1553.73)	144.35 (1553.73)	110.52 (1189.57)	87.32 (939.91)	70.73 (761.33)	58.45 (629.19)

10 Degree

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	1164.25 (12531.87)	517.44 (5569.72)	291.06 (3132.96)	186.28 (2005.09)	129.36 (1392.43)	95.04 (1023.01)	72.77 (783.24)	57.49 (618.85)	46.57 (501.27)	38.49 (414.27)

19 Degree

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	1268.00 (13648.63)	563.56 (6066.05)	317.00 (3412.15)	202.88 (2183.78)	140.89 (1516.51)	103.51 (1114.17)	79.25 (853.03)	62.62 (674.00)	50.72 (545.94)	41.92 (451.19)

26 Degree

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	650.00 (6996.53)	288.89 (3109.57)	162.50 (1749.13)	104.00 (1119.44)	72.22 (777.39)	53.06 (571.14)	40.63 (437.28)	32.10 (345.50)	26.00 (279.86)	21.49 (231.29)

36 Degree

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	404.00 (4348.61)	179.56 (1932.71)	101.00 (1087.15)	64.64 (695.77)	44.89 (483.17)	32.98 (354.98)	25.25 (271.78)	19.95 (217.78)	16.16 (173.94)	13.36 (143.75)

50 Degree

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	228.00 (2454.16)	101.33 (1090.74)	57.00 (613.54)	36.48 (392.66)	25.33 (272.68)	18.61 (200.34)	14.25 (153.38)	11.26 (121.19)	9.12 (98.16)	7.54 (81.12)

**TUNABLE WHITE AT FULL PERFORMANCE @ 4200K**  
 (3000K & 5600K channels @ Full intensity)

**5 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	1685.99 (18147.91)	749.33 (8065.73)	421.49 (4536.97)	269.75 (2903.66)	187.33 (2016.43)	137.63 (1481.46)	105.37 (1134.24)	83.25 (896.19)	67.43 (725.91)	55.73 (599.93)

**10 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	841.09 (9053.42)	373.81 (4023.74)	210.27 (2263.35)	134.57 (1448.54)	93.45 (1005.93)	68.66 (739.05)	52.56 (565.83)	41.53 (447.08)	33.64 (362.13)	27.80 (299.28)

**19 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	1027.52 (11060.12)	456.67 (4915.61)	256.88 (2765.03)	164.40 (1769.62)	114.16 (1228.90)	83.87 (902.86)	64.22 (691.25)	50.74 (540.25)	41.10 (442.40)	33.96 (365.62)

**26 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	537.42 (5784.73)	238.85 (2570.99)	134.35 (1446.18)	85.98 (925.55)	59.71 (642.74)	43.87 (472.22)	33.58 (361.54)	26.53 (285.66)	21.49 (231.38)	17.76 (191.23)

**36 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	338 (3638.19)	150.22 (1616.97)	84.50 (909.54)	54.08 (582.11)	37.55 (404.24)	27.59 (296.99)	21.12 (227.38)	16.69 (179.66)	13.52 (145.52)	11.17 (120.27)

**50 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	194.35 (2091.96)	86.37 (929.76)	48.58 (522.99)	31.09 (334.71)	21.59 (232.44)	15.86 (170.77)	12.14 (130.74)	9.59 (103.30)	7.77 (83.67)	6.42 (69.15)



**TUNABLE WHITE 3000K ONLY PERFORMANCE**  
**(3000K channel @full intensity 5600K channel @ zero intensity)**
**5 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	773.76 (8328.68)	343.89 (3701.63)	193.44 (2082.17)	123.80 (1332.59)	85.97 (925.40)	63.16 (679.89)	48.36 (520.54)	38.21 (411.29)	30.95 (333.14)	25.57 (275.32)

**10 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	386.00 (4154.92)	171.55 (1846.63)	96.50 (1038.73)	61.76 (664.78)	42.88 (461.65)	31.51 (339.17)	24.12 (259.68)	19.06 (205.18)	15.44 (166.19)	12.76 (137.35)

**19 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	471.56 (5075.86)	209.58 (2255.93)	117.89 (1268.96)	75.45 (812.13)	52.39 (563.98)	38.49 (414.35)	29.47 (317.24)	23.28 (250.65)	18.86 (203.03)	15.58 (167.79)

**26 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	246.64 (2654.81)	109.61 (1179.91)	61.66 (663.70)	39.46 (424.76)	27.40 (294.97)	20.13 (216.71)	15.41 (165.92)	12.17 (131.10)	9.86 (106.19)	8.15 (87.76)

**36 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	155.11 (1669.69)	68.94 (742.08)	38.77 (417.42)	24.81 (267.15)	17.23 (185.52)	12.66 (136.30)	9.69 (104.35)	7.66 (82.45)	6.20 (66.78)	5.12 (55.19)

**50 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	89.19 (960.07)	39.64 (426.69)	22.29 (240.01)	14.27 (153.61)	9.91 (106.67)	7.28 (78.37)	5.57 (60.00)	4.40 (47.41)	3.56 (38.40)	2.94 (31.73)



**TUNABLE WHITE 5600K ONLY PERFORMANCE**  
 (3000K channel @ zero intensity 5600K channel @ full intensity)

**5 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	2.40' 0.73m	3.60' 1.09m	4.80' 1.46m	6.00' 1.82m	7.20' 2.19m	8.40' 2.56m	9.60' 2.92m	10.80' 3.29m	12.00' 3.65m	13.20' 4.02m
Illuminance = fc (Illuminance = lux)	930.89 (10020.06)	413.73 (4453.35)	232.72 (2505.01)	148.94 (1603.20)	103.43 (1113.34)	75.99 (817.96)	58.18 (626.25)	45.97 (494.81)	37.23 (400.80)	30.77 (331.24)

**10 Degree**

Throw Distance (d)	20' 6m	30' 9m	40' 12.2m	50' 15.2m	60' 18.28m	70' 21.33m	80' 24.38m	90' 27.43m	100' 30.48m	110' 33.52m
Beam Size Diameter	3.00' 0.91m	4.50' 1.37m	6.00' 1.82m	7.50' 2.286m	9.00' 2.74m	10.50' 3.20m	12.00' 3.65m	13.50' 4.11m	15.00' 4.57m	16.50' 5.02m
Illuminance = fc (Illuminance = lux)	464.39 (4998.69)	206.39 (2221.64)	116.09 (1249.67)	74.30 (799.79)	51.59 (555.41)	37.90 (408.05)	29.02 (312.41)	22.93 (246.84)	18.57 (199.94)	15.35 (165.24)

**19 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	3.10' 0.94m	4.65' 1.41m	6.20' 1.88m	7.75' 2.36m	9.30' 2.83m	10.85' 3.30m	12.40' 3.77m	13.95' 4.25m	15.50' 4.72m	17.05' 5.19m
Illuminance = fc (Illuminance = lux)	567.32 (6106.65)	252.14 (2714.07)	141.83 (1526.66)	90.77 (977.06)	63.03 (678.51)	46.31 (498.50)	35.45 (381.66)	28.01 (301.56)	22.69 (244.26)	18.75 (201.87)

**26 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	4.55' 1.38m	6.83' 2.08m	9.10' 2.77m	11.38' 3.46m	13.65' 4.16m	15.93' 4.85m	18.20' 5.54m	20.48' 6.24m	22.75' 6.93m	25.03' 7.62m
Illuminance = fc (Illuminance = lux)	296.72 (3193.94)	131.87 (1419.53)	74.18 (798.48)	47.47 (511.03)	32.96 (354.88)	24.22 (260.73)	18.54 (199.62)	14.65 (157.72)	11.86 (127.75)	9.80 (105.58)

**36 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	6.10' 1.85m	9.15' 2.78m	12.20' 3.71m	15.25' 4.64m	18.30' 5.57m	21.35' 6.50m	24.40' 7.43m	27.45' 8.36m	30.50' 9.29m	33.55' 10.22m
Illuminance = fc (Illuminance = lux)	186.62 (2008.76)	82.94 (892.78)	46.65 (502.19)	29.85 (321.40)	20.73 (223.19)	15.23 (163.98)	11.66 (125.54)	9.21 (99.19)	7.46 (80.35)	6.16 (66.40)

**50 Degree**

Throw Distance (d)	10' 3m	15' 4.6m	20' 6m	25' 7.6m	30' 9m	35' 10.7m	40' 12.2m	45' 13.7m	50' 15.2m	55' 16.78m
Beam Size Diameter	7.55' 2.30m	11.33' 3.45m	15.10' 4.60m	18.88' 5.75m	22.65' 6.90m	26.43' 8.05m	30.20' 9.20m	33.98' 10.35m	37.75' 11.50m	41.53' 12.65m
Illuminance = fc (Illuminance = lux)	107.30 (1155.04)	47.69 (513.35)	26.82 (288.76)	17.16 (184.80)	11.92 (128.33)	8.75 (94.28)	6.70 (72.19)	5.29 (57.03)	4.29 (46.20)	3.54 (38.18)