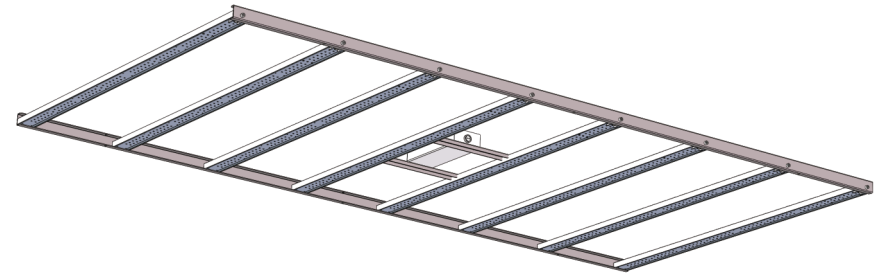




PPFD TEST REPORT -4X8_VB320 LED

Cover Area: 2.4m X 1.2m
Height fixture above canopy:30cm

PPFD valu:
320W 30CM
Average: 227 μ Mol/m²/s
Maximum: 308 μ Mol/m²/s
Minimum: 95 μ Mol/m²/s



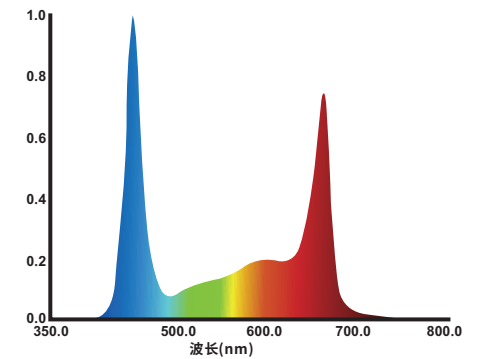
4X8_VB320

POWER:330W
PF:0.985
TEMPERATURE LED SHIP:40°C
TEMPERATURE HEATSINK:37°C

PPFD 2.4m X 1.2m 30CM

95.9	115.0	130.1	136.2	139.5	148.8	145.2	152.5	157.0	157.0	152.5	145.2	148.8	139.5	136.2	130.1	115.0	95.9
142.3	188.8	208.4	227.9	223.3	239.0	230.8	237.4	235.0	235.0	237.4	230.8	239.0	223.3	227.9	208.4	188.8	142.3
172.1	234.3	252.9	274.1	265.8	284.1	270.6	278.6	275.5	275.5	278.6	270.6	284.1	265.8	274.1	252.9	234.3	172.1
186.3	252.2	271.6	292.5	285.8	303.1	290.6	299.8	296.6	296.6	299.8	290.6	303.1	285.8	292.5	271.6	252.2	186.3
189.0	256.8	277.4	298.1	291.4	308.2	296.4	304.5	301.8	301.8	304.5	296.4	308.2	291.4	298.1	277.4	256.8	189.0
192.8	254.7	274.9	298.3	288.6	303.9	291.6	297.4	294.5	294.5	297.4	291.6	303.9	288.6	298.3	274.9	254.7	192.8
173.3	241.0	258.9	281.9	268.8	276.6	268.9	270.7	266.6	266.6	270.7	268.9	276.6	268.8	281.9	258.9	241.0	173.3
153.0	203.9	218.9	231.2	223.0	225.5	211.7	214.2	212.3	212.3	214.2	211.7	225.5	223.0	231.2	218.9	203.9	153.0
110.9	136.3	148.0	152.6	140.9	143.3	142.6	136.0	128.6	128.6	136.0	142.6	143.3	140.9	152.6	148.0	136.3	110.9

RGB ratio: R=25.8% G=66.1% B=8.1%



Color	Blue	White	Hyper-Red
(nm)	450	3000K 5000K	660



PPFD TEST REPORT -4X8_VB320 LED

POWER:330W

PF:0.985

TEMPERATURE LED SHIP:40°C

TEMPERATURE HEATSINK:37°C

Cover Area: 2.4m X 1.2m

Height fixture above canopy:60cm

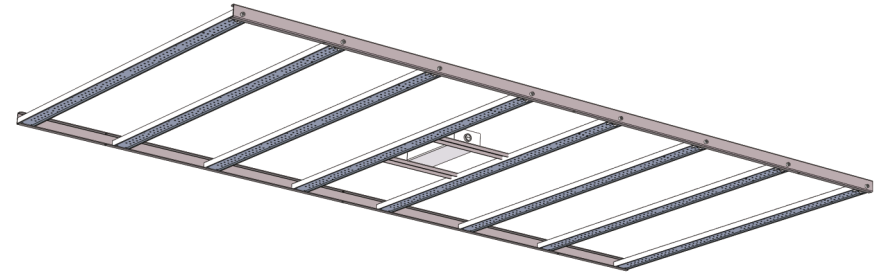
PPFD valu:

320W 60CM

Average: 167 μ Mol/m²/s

Maximun: 226 μ Mol/m²/s

Minimum: 81 μ Mol/m²/s

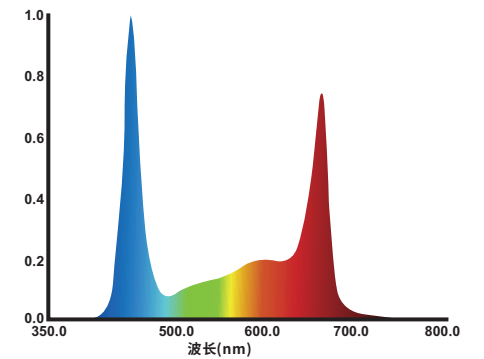


4X8_VB320

PPFD 2.4m X 1.2m 60CM

90.3	111.9	123.3	132.0	138.5	140.6	143.5	142.1	146.0	146.0	142.1	143.5	140.6	138.5	132.0	123.3	111.9	90.3
110.8	137.9	154.4	166.4	174.2	178.6	181.6	179.8	181.9	181.9	179.8	181.6	178.6	174.2	166.4	154.4	137.9	110.8
122.3	156.9	176.2	189.1	198.2	203.6	205.3	206.4	206.6	206.6	206.4	205.3	203.6	198.2	189.1	176.2	156.9	122.3
132.4	167.2	188.5	202.7	212.4	217.8	221.6	222.2	223.3	223.3	222.2	221.6	217.8	212.4	202.7	188.5	167.2	132.4
137.5	170.1	191.4	206.0	215.6	223.3	225.5	226.6	226.8	226.8	226.6	225.5	223.3	215.6	206.0	191.4	170.1	137.5
126.5	161.3	182.3	196.0	205.7	210.2	214.1	216.3	215.3	215.3	216.3	214.1	210.2	205.7	196.0	182.3	161.3	126.5
115.9	147.0	165.3	177.0	184.7	189.7	192.3	194.5	193.7	193.7	194.5	192.3	189.7	184.7	177.0	165.3	147.0	115.9
95.8	125.0	139.8	150.5	156.3	161.9	161.7	164.4	165.8	165.8	164.4	161.7	161.9	156.3	150.5	139.8	125.0	95.8
81.9	97.9	106.9	112.8	116.6	125.9	123.8	126.4	122.3	122.3	126.4	123.8	125.9	116.6	112.8	106.9	97.9	81.9

RGB ratio: R=25.8% G=66.1% B=8.1%



Color	Blue	White	Hyper-Red
(nm)	450	3000K 5000K	660

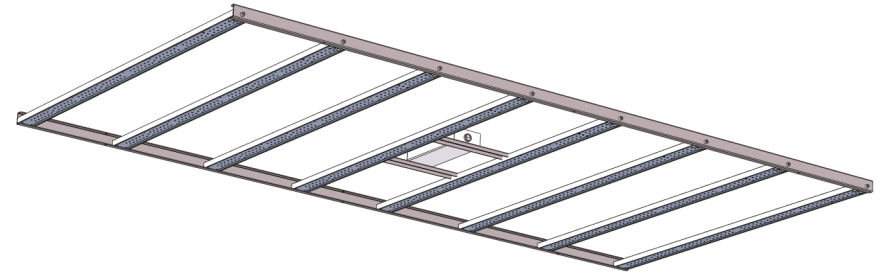


PPFD TEST REPORT -4X8_VB320 LED

POWER:330W
PF:0.985
TEMPERATURE LED SHIP:40°C
TEMPERATURE HEATSINK:37°C

Cover Area: 2.4m X 1.2m
Height fixture above canopy:90cm

PPFD valu:
320W 90CM
Average: 122μMol/m²/s
Maximun: 162μMol/m²/s
Minimum: 71μMol/m²/s

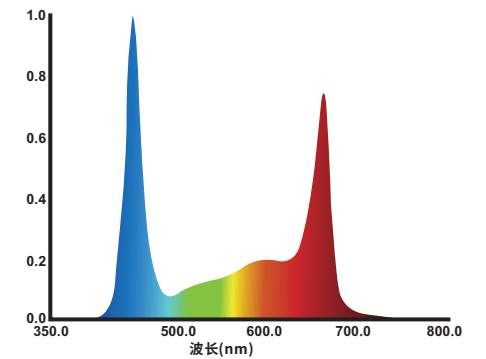


4X8_VB320

PPFD 2.4m X 1.2m 90CM

76.5	87.5	97.3	104.4	109.9	113.6	118.0	121.4	124.1	124.1	121.4	118.0	113.6	109.9	104.4	97.3	87.5	76.5
83.8	100.4	110.8	119.8	126.3	132.7	137.1	137.6	138.5	138.5	137.6	137.1	132.7	126.3	119.8	110.8	100.4	83.8
92.9	108.1	121.4	130.7	138.6	144.7	148.6	150.4	152.3	152.3	150.4	148.6	144.7	138.6	130.7	121.4	108.1	92.9
93.3	113.3	126.4	137.9	146.3	152.5	156.7	158.5	160.6	160.6	158.5	156.7	152.5	146.3	137.9	126.4	113.3	93.3
93.0	115.1	128.4	139.2	147.4	153.8	158.2	160.4	162.2	162.2	160.4	158.2	153.8	147.4	139.2	128.4	115.1	93.0
93.4	110.0	123.4	133.9	141.5	147.8	151.9	154.5	155.8	155.8	154.5	151.9	147.8	141.5	133.9	123.4	110.0	93.4
86.5	102.4	114.8	124.6	132.2	137.4	142.3	143.9	145.3	145.3	143.9	142.3	137.4	132.2	124.6	114.8	102.4	86.5
80.4	92.4	103.2	111.7	118.8	122.6	123.9	128.6	130.0	130.0	128.6	123.9	122.6	118.8	111.7	103.2	92.4	80.4
71.6	80.2	89.0	95.7	101.3	106.0	107.9	112.9	114.3	114.3	112.9	107.9	106.0	101.3	95.7	89.0	80.2	71.6

RGB ratio: R=25.8% G=66.1% B=8.1%



Color	Blue	White	Hyper-Red
(nm)	450	3000K 5000K	660



PPFD TEST REPORT -4X8_VB320 LED

POWER:330W

PF:0.985

TEMPERATURE LED SHIP:40°C

TEMPERATURE HEATSINK:37°C

Cover Area: 2.4m X 1.2m

Height fixture above canopy:150cm

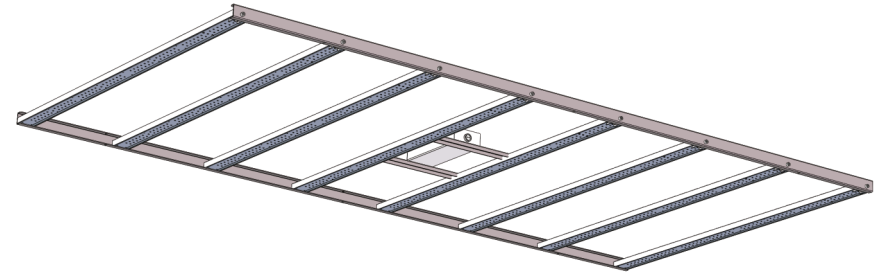
PPFD valu:

320W 150CM

Average: 74μMol/m²/s

Maximum: 90μMol/m²/s

Minimum: 52μMol/m²/s

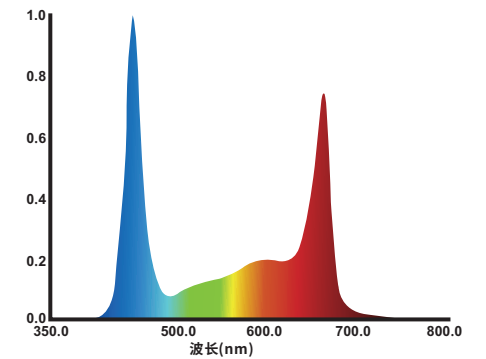


4X8_VB320

PPFD 2.4m X 1.2m 150CM

53.3	58.9	63.0	66.9	70.3	73.4	74.9	76.8	78.1	78.1	76.8	74.9	73.4	70.3	66.9	63.0	58.9	53.3
56.9	62.5	67.7	72.1	75.8	79.0	80.8	82.6	83.3	83.3	82.6	80.8	79.0	75.8	72.1	67.7	62.5	56.9
58.7	65.3	70.7	75.5	79.7	83.1	85.2	86.9	87.2	87.2	86.9	85.2	83.1	79.7	75.5	70.7	65.3	58.7
57.9	67.3	72.6	77.7	82.0	85.4	87.5	89.4	90.1	90.1	89.4	87.5	85.4	82.0	77.7	72.6	67.3	57.9
58.2	67.8	73.3	78.6	82.5	86.1	88.6	89.8	90.7	90.7	89.8	88.6	86.1	82.5	78.6	73.3	67.8	58.2
56.3	65.4	70.6	75.8	80.0	83.5	86.4	88.1	89.0	89.0	88.1	86.4	83.5	80.0	75.8	70.6	65.4	56.3
56.9	63.3	68.4	73.0	76.9	80.5	83.1	85.3	86.3	86.3	85.3	83.1	80.5	76.9	73.0	68.4	63.3	56.9
55.7	60.2	65.6	69.6	73.6	76.8	78.9	80.4	82.9	82.9	80.4	78.9	76.8	73.6	69.6	65.6	60.2	55.7
52.9	57.7	63.1	65.9	68.7	72.0	73.8	75.7	77.6	77.6	75.7	73.8	72.0	68.7	65.9	63.1	57.7	52.9

RGB ratio: R=25.8% G=66.1% B=8.1%



Color	Blue	White	Hyper-Red
(nm)	450	3000K 5000K	660



PPFD TEST REPORT -4X8_VB320 LED

POWER:330W

PF:0.985

TEMPERATURE LED SHIP:40°C

TEMPERATURE HEATSINK:37°C

Cover Area: 2.4m X 1.2m

Height fixture above canopy:200cm

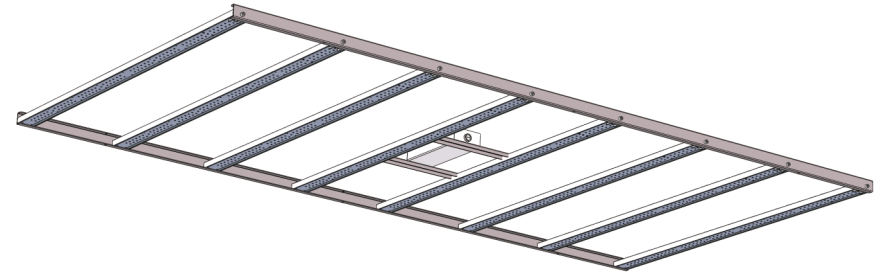
PPFD valu:

320W 200CM

Average: 52μMol/m²/s

Maximum: 62μMol/m²/s

Minimum: 39μMol/m²/s

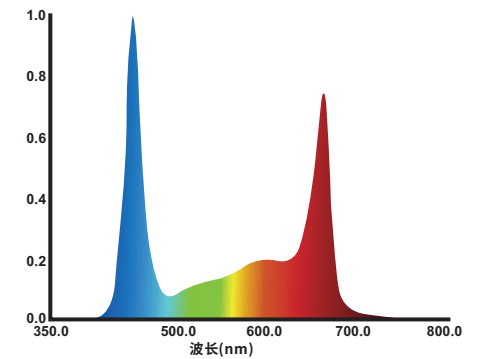


4X8_VB320

PPFD 2.4m X 1.2m 200CM

41.0	43.9	46.7	48.2	51.5	52.8	54.5	55.7	56.7	56.7	55.7	54.5	52.8	51.5	48.2	46.7	43.9	41.0
42.2	45.5	48.0	50.9	53.1	55.7	56.7	58.1	58.8	58.8	58.1	56.7	55.7	53.1	50.9	48.0	45.5	42.2
43.0	46.9	49.9	52.6	55.3	57.3	58.7	60.1	60.6	60.6	60.1	58.7	57.3	55.3	52.6	49.9	46.9	43.0
43.2	47.8	50.9	54.0	56.3	58.6	60.0	61.3	62.0	62.0	61.3	60.0	58.6	56.3	54.0	50.9	47.8	43.2
44.0	48.2	51.6	54.5	56.9	59.0	60.8	62.0	62.6	62.6	62.0	60.8	59.0	56.9	54.5	51.6	48.2	44.0
43.2	46.8	49.9	53.0	55.1	57.4	59.0	60.8	61.4	61.4	60.8	59.0	57.4	55.1	53.0	49.9	46.8	43.2
42.6	46.2	48.8	51.7	54.0	56.1	57.2	59.4	60.8	60.8	59.4	57.2	56.1	54.0	51.7	48.8	46.2	42.6
42.1	44.9	47.2	49.5	52.2	54.2	55.2	57.5	58.9	58.9	57.5	55.2	54.2	52.2	49.5	47.2	44.9	42.1
39.5	42.1	45.4	47.9	51.2	52.9	54.3	56.8	57.3	57.3	56.8	54.3	52.9	51.2	47.9	45.4	42.1	39.5

RGB ratio: R=25.8% G=66.1% B=8.1%



Color	Blue	White	Hyper-Red
(nm)	450	3000K 5000K	660