



HTM HORTICULTURE TOP LIGHT FLEXIBILITY IN APPLICATION

Traditional LED Setup: Fixed 6 Bar System

30	49	76	102	119	128	131	124	112	92	75	74	87	108	122	130	130	123	108	84	56	35
42	73	123	174	201	215	217	208	185	143	109	105	133	176	203	215	217	206	183	137	85	49
53	95	165	237	274	293	294	279	248	189	139	134	175	237	276	291	296	280	250	184	110	62
60	110	189	271	315	336	336	320	284	215	159	153	200	269	316	334	339	321	286	210	127	70
64	117	201	287	333	356	356	340	300	228	170	164	213	285	332	353	353	340	302	222	134	75
65	118	200	285	335	358	358	341	301	230	171	165	213	287	334	355	361	342	300	222	135	76
62	112	193	275	319	344	344	327	290	220	164	158	204	277	322	342	347	329	290	213	128	72
46	100	172	247	286	308	309	293	260	198	147	141	183	248	289	306	310	292	260	191	115	64
46	81	136	198	222	239	240	229	204	156	118	114	146	195	225	239	241	226	202	149	91	52
34	56	88	120	139	150	151	144	129	104	84	82	99	124	142	150	151	142	126	96	63	39

NOTE: The above scenario is depicting a generic 6 bar LED horticulture unit. Modified TCP IES files are used to generate data. This is not a representation of any specific company LED product.

(2) 640W units required,
1280W total
Light Output = 71%
PPF Per Light = 1720 $\mu\text{mol/s}$
PPFD Avg. = 180 $\mu\text{mol/s/m}^2$
PPFD Max. = 361 $\mu\text{mol/s/m}^2$
PPFD Min. = 19 $\mu\text{mol/s/m}^2$

Flexible Setup: TCP Quick Connect System

40	64	93	110	104	94	96	112	122	112	98	98	112	122	113	97	94	105	111	95	65	41
57	101	160	194	171	142	147	185	210	183	148	147	183	210	185	148	142	171	195	162	103	59
73	134	219	267	231	185	191	250	287	246	192	193	246	287	249	191	187	232	268	220	136	75
84	154	250	304	264	213	220	281	326	281	221	221	281	326	281	220	214	266	305	251	156	86
90	164	264	321	280	227	235	299	344	297	236	236	298	344	297	235	228	282	323	265	165	92
91	163	263	322	282	229	237	300	341	296	237	237	299	341	300	237	229	282	323	264	164	92
84	157	254	308	271	219	225	290	330	285	227	227	286	330	289	227	220	272	309	254	158	88
77	140	228	277	242	195	200	260	297	256	202	203	256	297	259	200	195	243	278	229	141	78
62	110	177	214	188	154	159	203	231	199	160	161	201	231	202	158	155	189	215	176	110	63
45	73	109	129	120	105	109	129	141	128	110	111	128	141	128	108	105	120	129	109	74	45

(4) 236W units required,
944W total
Light Output = 98%
PPF Per Light = 612 $\mu\text{mol/s}$
PPFD Avg. = 180 $\mu\text{mol/s/m}^2$
PPFD Max. = 344 $\mu\text{mol/s/m}^2$
PPFD Min. = 24 $\mu\text{mol/s/m}^2$

Why Choose TCP?

- Reduction in total wattage per area requirements by ~330W per typical grow bed.¹
- Flexibility of arrangement allows for creative applications and perfected uniformity.
- Use what you pay for! No need to dim lights down to maintain a smooth PPFD over canopy.
- Quick connect system allows for fast and easy daisy chain installation.
- SmartStuff Compatible – schedule photoperiods, dimming schedules, and more.

1. Based on the scenario depicted above. Results will vary based on application/setup. Scenario Details: 11' X 5' grow area, 16" between lights and plant canopy.