

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

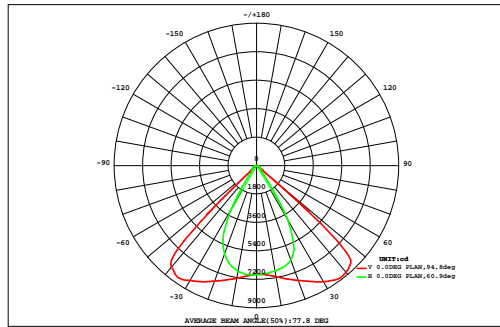
Maximum Intensity (Luminaire orientation as tested.)		744.7 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
Beam Spread	At 10% of I <sub>max</sub> At 50% of I <sub>max</sub> At 90% of I <sub>max</sub>	76.3V x 99.6H 61.8V x 92.2H 48.8V x 88.0H
Beam Flux	Total To 10% of I <sub>max</sub> To 50% of I <sub>max</sub> To 90% of I <sub>max</sub>	999.3 lumens per klm. 935.7 lumens per klm. 836.3 lumens per klm. 226.1 lumens per klm.
	Upward LOR Downward LOR	0.0 % 99.9 %
Luminaire Efficiency(Light Output Ratio)		100.3 %

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:Ryan Chan  
Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
Humidity:65.0%  
Test Distance:10.000m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.9V I:0.6019A P:123.8W PF:0.9311 Lamp Flux:12299 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-120	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:105.1lm/W	
72mm DC ENCSW219BT-5000K-Ra70	Imax(cd)	9144	
NOMINAL POWER(W)	123.8	AVAILABILITY(%)	94.3
RATED VOLTAGE(V)	276	Avai. FLUX(lm)	11581
NOMINAL FLUX(lm)	12299	LOR(%)	100.3
LAMPS INSIDE	1	TOTAL FLUX(lm)	12299
TEST VOLTAGE(V)	276.9	q @50%(H,V)	92,62DEG

VERTICAL( DEG )	AREA FLUX DIAGRAM																UNIT:lm		F t	F a
	72	64	56	48	40	32	24	16	8	0	8	16	24	32	40	48	56	64		
72	0.22	0.46	0.85	1.33	1.82	2.70	3.60	3.81	3.74	3.73	3.65	3.41	2.54	1.82	1.36	0.89	0.51	0.22	36.6	0.00
64	0.39	0.74	1.23	1.80	2.40	3.51	4.83	5.31	5.36	5.35	5.21	4.71	3.41	2.36	1.81	1.26	0.80	0.42	50.9	0.00
56	0.53	0.95	1.55	2.33	3.10	4.49	6.08	6.43	6.37	6.36	6.50	6.04	4.43	3.04	2.28	1.54	1.00	0.57	63.6	0.00
48	0.62	1.18	2.03	3.56	5.89	7.32	7.69	7.97	8.02	8.00	7.96	7.60	6.66	4.92	3.12	1.91	1.19	0.66	86.3	0.00
40	0.69	1.41	2.70	8.76	28.4	34.1	28.9	26.1	24.4	24.0	24.8	27.0	30.4	18.7	5.07	2.36	1.39	0.72	290	242
32	0.74	1.62	3.89	31.6	94.6	117	107	97.1	91.3	91.9	98.4	109	116	83.9	18.8	3.13	1.54	0.75	1068	1052
24	0.79	1.80	6.37	61.1	130	146	139	130	125	125	132	142	151	132	48.5	4.40	1.71	0.80	1478	1465
16	0.84	1.96	10.4	85.3	132	140	139	135	131	132	137	142	145	138	77.5	6.45	1.86	0.84	1556	1544
8	0.88	2.07	15.9	98.0	133	139	139	137	134	135	139	143	144	138	94.8	9.30	1.95	0.88	1605	1594
0	0.88	2.08	16.3	98.9	136	142	141	138	135	136	141	146	148	139	95.3	10.7	1.95	0.88	1628	1617
-8	0.84	1.98	11.7	87.5	137	143	139	134	130	132	137	144	150	140	81.5	8.54	1.87	0.84	1581	1570
-16	0.79	1.82	6.98	62.0	126	135	127	120	116	117	123	132	141	126	58.2	5.84	1.73	0.80	1401	1389
-24	0.73	1.61	3.74	28.2	80.3	94.3	89.6	84.3	80.7	80.6	83.9	89.2	93.5	75.6	28.1	3.70	1.56	0.74	920	907
-32	0.66	1.40	2.64	6.79	21.0	27.3	25.6	24.5	23.6	23.0	22.9	22.9	24.2	20.3	7.99	2.59	1.39	0.69	259	203
-40	0.60	1.18	2.03	3.26	4.49	5.98	7.15	7.56	7.66	7.63	7.48	6.87	5.48	4.52	3.24	1.96	1.21	0.63	78.9	0.00
-48	0.51	0.97	1.57	2.35	3.10	4.46	6.00	6.38	6.30	6.32	6.31	5.89	4.26	3.02	2.31	1.57	1.02	0.55	62.9	0.00
-56	0.38	0.76	1.25	1.85	2.46	3.42	4.66	5.15	5.26	5.30	5.08	4.64	3.39	2.40	1.84	1.28	0.80	0.41	50.3	0.00
-64	0.21	0.47	0.86	1.36	1.88	2.68	3.56	3.72	3.78	3.74	3.71	3.56	2.68	1.87	1.36	0.85	0.47	0.21	36.9	0.00
-72	-72	-64	-56	-48	-40	-32	-24	-16	HORIZONTAL( DEG )	16	24	32	40	48	56	64	72			
F t	11.3	24.5	91.9	586	1043	1152	1119	1072	1038	1043	1085	1140	1175	1035	533	68.3	23.9	11.6	12252	---
F a	0.00	0.00	52.7	555	1013	1112	1068	1019	983	987	1031	1091	1136	1004	502	27.9	0.00	0.00	---	11581

one-half-peak spread: U:15.6,D:11.7 , L:10.6,R:10.8 NEMA Beam Type: Type 5

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:Ryan Chan  
Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
Humidity:65.0%  
Test Distance:10.000m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

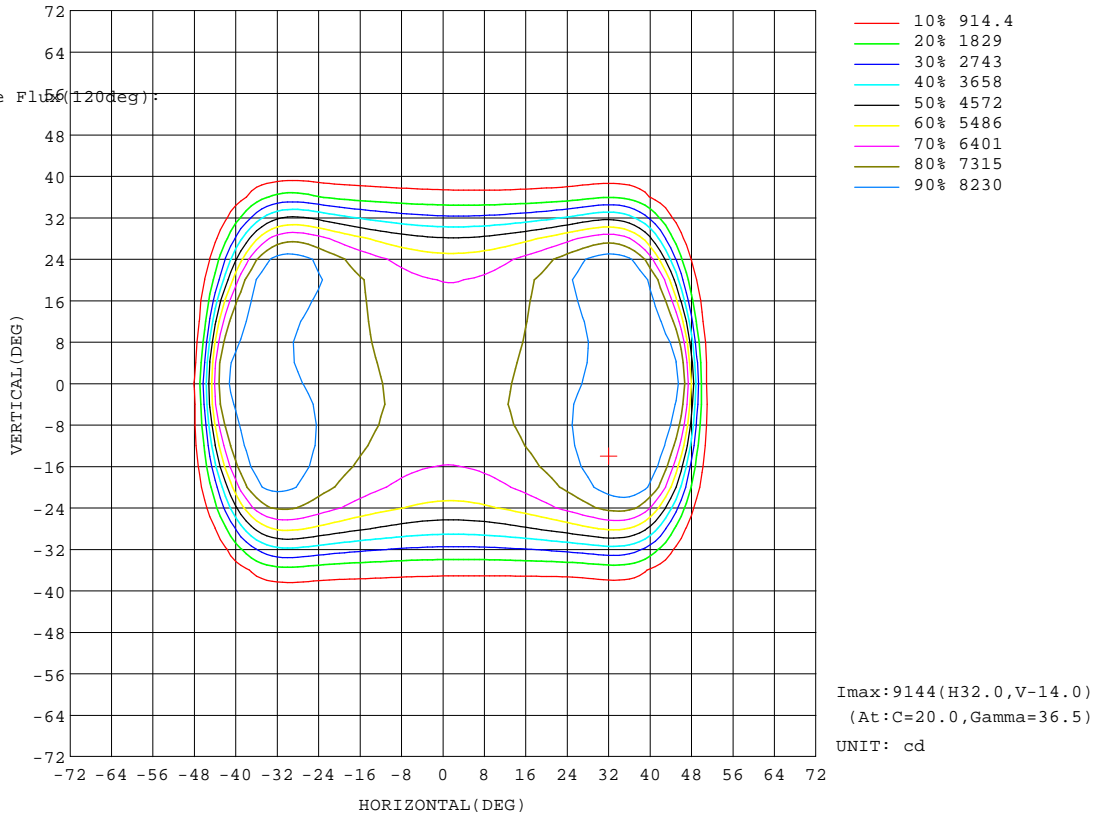
Test:U:220.9V I:0.6019A P:123.8W PF:0.9311 Lamp Flux:12299 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-120	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

10883 lm  
 %lum = 88.7%  
 %lamp = 88.6%

Conical surface Flux(120deg):

11959 lm  
 %lum = 97.5%  
 %lamp = 97.4%

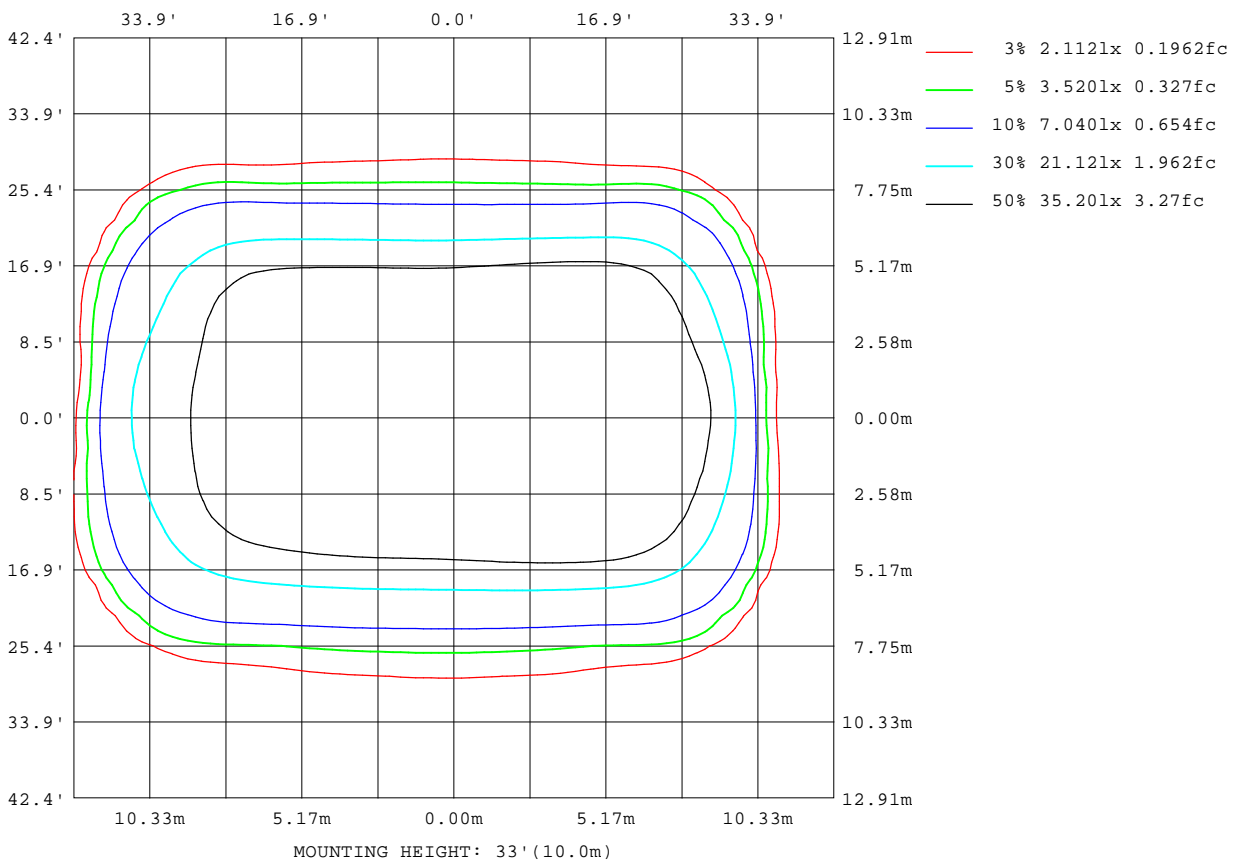


H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
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 Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
 V(B) Interval: 2.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
 Humidity:65.0%  
 Test Distance:10.000m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:220.9V I:0.6019A P:123.8W PF:0.9311 Lamp Flux:12299 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-120	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:



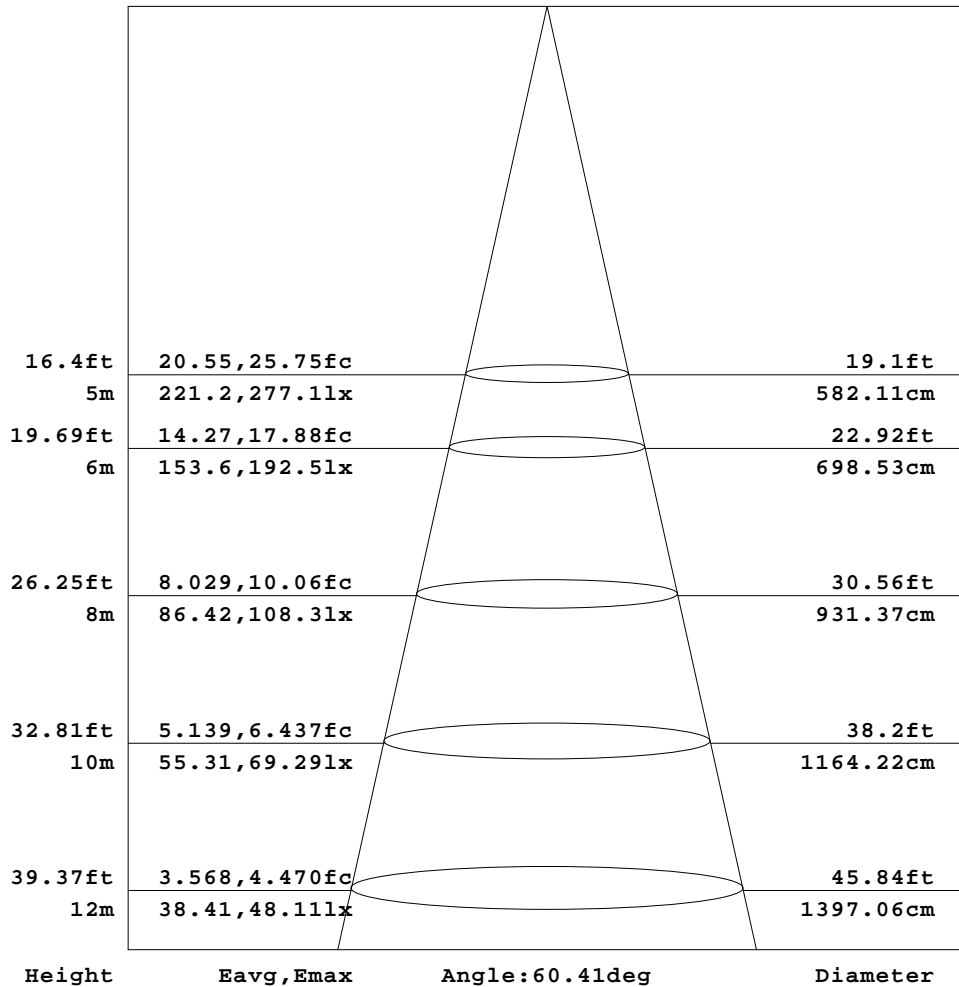
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:Ryan Chan  
Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
Humidity:65.0%  
Test Distance:10.000m [K=1.0000]  
Remarks:

**AAI Figure**

Test:U:220.9V I:0.6019A P:123.8W PF:0.9311 Lamp Flux:12299 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-120	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Flux out:6029 lm

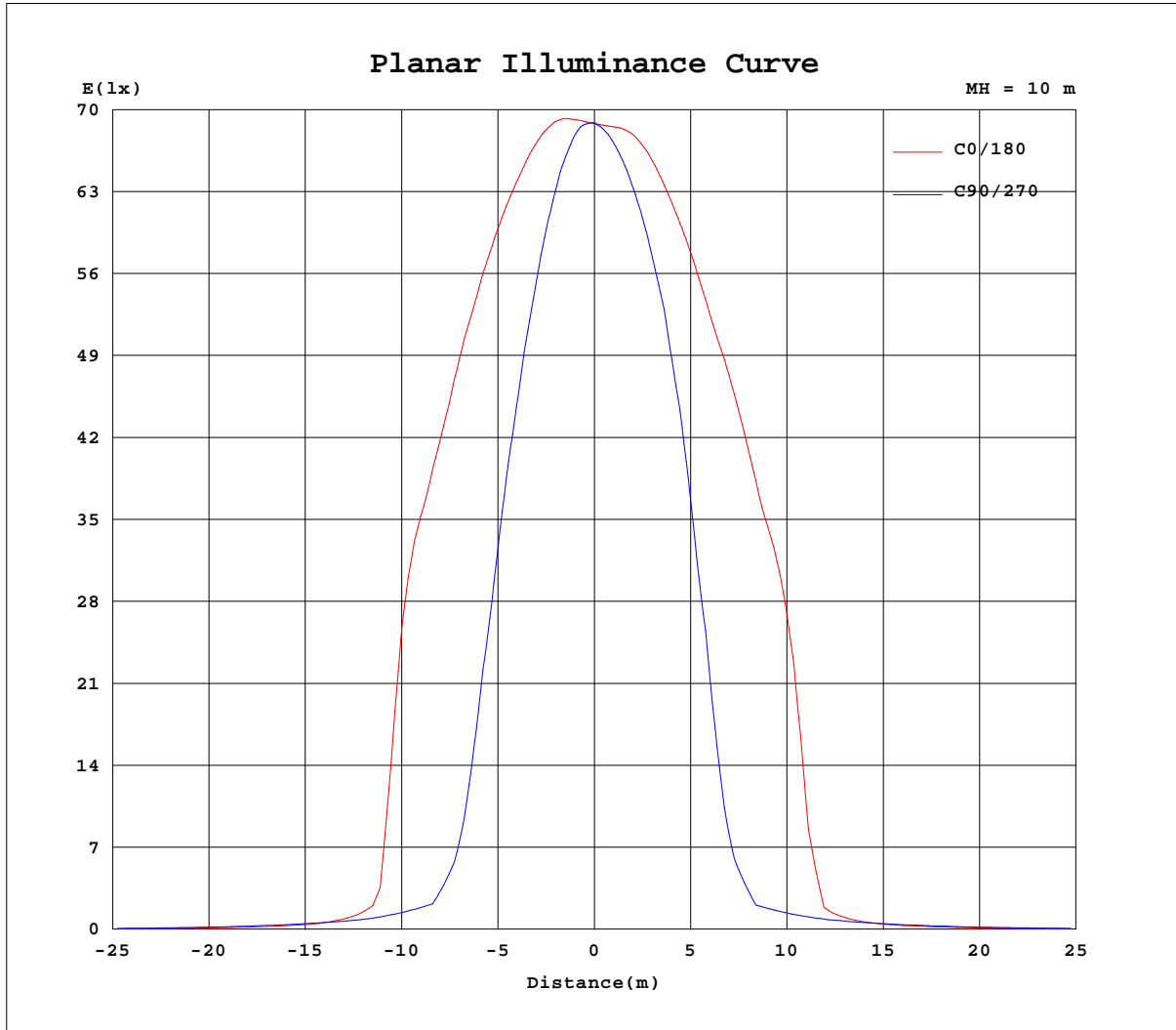


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H<sub>(b)</sub> Range:-90 - 90DEG  
H<sub>(b)</sub> Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:Ryan Chan  
Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
Humidity:65.0%  
Test Distance:10.000m [K=1.0000]  
Remarks:

Planar Illuminance Curve



H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:Ryan Chan  
 Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
 V(B) Interval: 2.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
 Humidity:65.0%  
 Test Distance:10.000m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.6019A P:123.8W PF:0.9311 Lamp Flux:12299 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-120	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

H( DEG) V( DEG)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-90	0.49	0.63	0.67	0.70	0.68	0.64	0.64	0.64	0.68	0.70	0.70	0.70	0.68	0.66	0.62	0.58	0.52	0.48	0.52
-85	0.49	0.69	0.92	1.07	1.22	1.98	3.79	6.09	10.1	19.0	28.7	35.8	33.4	21.1	23.0	25.2	27.4	28.7	28.7
-80	0.25	0.58	0.87	1.36	1.71	2.19	4.74	9.55	15.7	28.2	52.2	74.4	89.9	74.5	51.8	57.8	63.1	68.6	71.3
-75	0.25	0.55	0.97	1.80	5.36	11.8	16.7	24.7	34.4	48.9	68.9	86.9	103	105	104	107	109	112	111
-70	0.42	1.00	1.94	8.60	23.3	33.2	44.4	59.2	76.4	91.4	103	119	143	180	182	177	179	172	170
-65	0.41	1.08	4.65	16.7	35.6	48.0	60.2	76.1	93.2	109	122	137	163	205	215	212	223	211	209
-60	0.21	0.54	1.48	12.3	32.7	58.3	72.5	87.4	105	122	139	152	167	205	249	265	263	289	265
-55	0.17	0.53	2.39	17.8	39.5	67.0	83.3	98.1	118	140	159	174	191	237	285	304	298	308	293
-50	0.34	1.96	20.9	44.3	74.1	96.8	111	131	162	184	202	221	270	331	360	353	338	338	336
-45	0.36	2.88	24.2	49.1	78.9	104	124	151	190	237	281	325	351	390	415	409	397	398	397
-40	0.05	0.56	7.91	34.7	61.5	92.0	120	150	190	248	333	416	489	471	482	496	490	487	489
-35	0.11	0.54	9.95	38.2	65.9	95.2	129	165	216	315	547	1265	1572	1421	1281	1209	1158	1112	1087
-30	0.42	7.43	35.9	65.6	93.9	133	177	248	409	1511	3706	4642	4513	4196	3924	3703	3536	3439	3424
-25	0.40	8.86	38.2	68.9	98.0	140	189	280	618	2977	5818	6686	6403	5907	5482	5144	4896	4759	4756
-20	0.06	0.62	16.1	48.5	78.8	112	160	221	372	1682	6001	8211	8383	7822	7210	6721	6341	6074	5950
-15	0.15	0.60	17.5	50.6	81.0	117	166	232	423	2376	7155	8619	8667	8134	7576	7116	6753	6498	6384
-10	0.44	12.3	44.8	77.8	110	162	227	398	2161	7652	8652	8745	8379	7928	7522	7180	6917	6785	6807
-5	0.40	12.9	46.2	80.1	114	165	230	418	2692	8022	8655	8656	8335	7939	7589	7282	7027	6892	6915
0	0.01	0.82	19.3	54.9	88.4	126	179	252	493	4977	8371	8642	8399	8106	7778	7493	7235	7005	6886
5	0.06	0.83	19.4	54.8	87.8	125	178	247	481	4621	8312	8583	8306	8026	7711	7434	7180	6958	6844
10	0.60	12.8	45.8	78.7	110	161	223	374	1819	7796	8481	8406	8066	7743	7424	7134	6898	6766	6779
15	0.58	12.3	44.9	77.2	108	157	216	353	1407	7077	8465	8576	8195	7804	7416	7077	6815	6672	6687
20	0.00	0.90	16.7	49.4	79.3	112	158	216	345	1409	6052	8531	8923	8440	7828	7290	6859	6538	6380
25	0.01	0.85	15.7	47.5	76.9	108	151	204	314	928	4465	7721	8621	8202	7466	6827	6340	5989	5820
30	0.60	8.60	37.6	66.6	95.6	133	174	242	382	1509	4235	5946	5993	5397	4845	4431	4129	3960	3937
35	0.57	7.64	35.3	63.3	93.4	127	161	211	313	691	2139	3171	3095	2634	2324	2116	1957	1861	1827
40	0.03	0.78	9.44	36.0	63.3	96.7	120	147	184	243	331	426	592	530	469	471	458	456	463
45	0.12	0.74	7.75	32.6	59.4	91.0	111	133	163	210	272	337	445	434	418	428	417	410	413
50	0.53	2.90	22.8	46.7	77.9	93.9	108	127	156	180	199	218	274	334	363	359	341	338	338
55	0.54	2.33	17.7	40.5	69.0	83.1	97.6	116	140	160	177	195	243	300	327	325	322	312	311
60	0.25	0.68	1.96	13.9	35.8	58.5	69.4	85.5	102	119	133	147	164	211	257	275	275	290	271
65	0.32	0.64	1.64	9.56	26.3	45.8	55.1	69.9	85.7	103	117	130	145	186	226	238	237	245	230
70	0.49	0.99	2.28	9.67	24.7	31.7	43.6	57.7	74.9	89.3	101	114	140	176	182	180	178	170	167
75	0.49	0.91	1.84	6.43	15.6	20.5	29.2	39.8	53.2	67.6	83.9	98.0	116	128	134	136	137	133	131
80	0.44	0.50	0.87	1.27	1.64	2.13	4.51	8.56	14.3	23.0	39.7	63.0	76.3	73.0	56.4	64.2	71.2	76.5	78.2
85	0.50	0.47	0.68	0.93	1.15	1.47	2.90	5.33	8.77	14.0	24.0	38.0	46.0	44.0	34.0	38.7	42.9	46.1	47.1
90	0.43	0.42	0.42	0.43	0.46	0.48	0.47	0.51	0.53	0.52	0.52	0.51	0.49	0.46	0.43	0.40	0.38	0.36	0.35

H<sub>(h)</sub> Range:-90 - 90DEG  
H<sub>(h)</sub> Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:Ryan Chan  
Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
Humidity:65.0%  
Test Distance:10.000m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.6019A P:123.8W PF:0.9311 Lamp Flux:12299 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-120	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

H( DEG) V( DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
-90	0.59	0.70	0.73	0.80	0.88	0.89	0.92	0.88	0.82	0.74	0.68	0.64	0.63	0.62	0.64	0.61	0.61	0.36
-85	27.4	24.7	21.8	19.4	23.1	32.1	27.9	22.6	13.2	5.95	3.24	1.66	1.31	1.17	1.02	0.68	0.59	0.30
-80	70.7	66.4	59.3	52.2	46.2	63.8	77.9	65.4	50.4	27.7	12.1	6.09	2.83	2.26	1.94	1.43	0.69	0.50
-75	111	110	105	103	98.8	95.3	94.1	81.0	67.0	46.6	30.2	20.9	14.4	9.48	3.92	1.78	0.92	0.49
-70	176	173	178	181	151	121	107	94.7	78.5	60.7	45.5	33.5	22.8	9.36	2.52	1.52	0.53	0.20
-65	222	208	212	207	172	138	124	111	96.7	79.1	63.5	51.3	38.8	19.7	6.22	1.66	0.53	0.19
-60	270	290	262	261	239	191	159	146	134	121	103	87.8	75.6	57.6	30.4	7.92	1.57	0.38
-55	297	309	297	298	273	219	179	164	150	134	114	98.1	86.0	66.2	37.7	13.1	1.75	0.39
-50	336	347	358	331	274	215	194	177	159	134	116	103	84.5	54.7	26.8	3.14	0.64	0.10
-45	394	400	407	381	343	304	265	226	184	151	129	111	88.8	60.0	31.7	5.15	0.65	0.10
-40	488	479	480	479	454	448	424	358	282	211	170	142	118	89.1	62.1	32.1	4.02	0.40
-35	1079	1082	1097	1110	1161	1295	1343	831	393	261	189	152	124	91.7	65.8	35.4	5.31	0.44
-30	3490	3633	3831	4083	4371	4451	3578	1440	412	247	177	138	102	76.0	49.3	14.2	0.74	0.19
-25	4889	5144	5500	5951	6476	6770	5871	2976	575	280	188	144	105	78.9	52.2	15.9	0.80	0.16
-20	5998	6204	6550	7022	7636	8353	8829	8092	4571	747	292	193	145	105	78.3	48.0	12.0	0.47
-15	6440	6651	6994	7447	8019	8654	9086	8652	5938	986	314	202	149	107	80.3	49.4	13.1	0.50
-10	6981	7281	7667	8131	8632	8999	8959	8101	2323	402	227	166	119	88.4	61.2	21.9	0.93	0.17
-5	7091	7386	7739	8145	8590	8909	8880	8350	2849	413	232	169	121	90.4	62.1	22.2	1.04	0.13
0	6931	7131	7417	7731	8083	8477	8793	8801	8418	1624	374	222	162	117	87.5	54.7	16.0	0.60
5	6889	7079	7356	7666	8012	8401	8738	8753	8257	1571	360	220	160	115	86.8	54.0	15.8	0.68
10	6928	7195	7526	7899	8311	8684	8719	8042	1970	390	228	167	120	89.5	62.3	22.5	1.36	0.09
15	6847	7138	7517	7972	8462	8839	8682	7188	1483	355	220	162	117	87.4	60.4	21.5	1.39	0.02
20	6425	6660	7055	7580	8227	8871	9089	8052	4195	639	276	192	147	106	79.3	49.6	13.5	0.84
25	5862	6108	6534	7126	7856	8535	8514	6728	2705	477	254	182	141	103	76.4	46.8	12.1	0.86
30	4059	4314	4672	5154	5693	5675	4120	1342	367	232	175	141	105	77.4	51.7	16.4	1.21	0.00
35	1853	1939	2071	2306	2702	2779	1823	623	294	204	164	136	104	74.2	47.6	14.0	1.18	0.00
40	462	456	461	468	449	456	441	359	275	205	168	142	120	95.9	64.6	34.5	5.91	0.73
45	413	411	420	425	402	383	351	294	236	184	152	130	112	92.0	60.0	30.3	4.71	0.71
50	342	356	365	341	288	222	199	180	159	132	115	102	89.4	59.7	29.5	4.82	0.96	0.00
55	323	320	327	305	256	198	178	162	144	122	105	91.8	79.6	51.8	23.7	3.83	0.89	0.02
60	273	296	268	268	246	197	157	143	132	119	102	87.6	73.8	61.0	34.4	10.8	1.93	0.59
65	231	246	229	229	214	172	140	127	116	103	86.6	72.4	58.8	46.3	24.6	7.52	1.73	0.56
70	172	171	172	168	143	117	105	93.4	80.5	66.0	52.3	38.6	26.6	12.7	2.91	1.63	0.67	0.23
75	133	129	128	123	111	99.7	88.4	76.2	61.5	46.4	35.4	24.9	17.0	8.42	2.40	1.38	0.58	0.28
80	77.1	73.0	66.1	60.4	54.4	68.2	72.5	60.7	46.7	29.0	15.3	8.76	3.78	2.38	1.93	1.56	0.85	0.40
85	46.4	44.0	39.8	36.4	32.8	41.1	43.8	36.6	28.3	17.7	9.42	5.47	2.45	1.59	1.32	1.09	0.66	0.38
90	0.38	0.42	0.48	0.51	0.57	0.61	0.62	0.66	0.59	0.63	0.55	0.48	0.42	0.40	0.39	0.38	0.36	0.34

H(h) Range:-90 - 90DEG  
H(h) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:Ryan Chan  
Test Date:2015-08-27

V(B) Range:-90 - 90DEG  
V(B) Interval: 2.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.266  
Humidity:65.0%  
Test Distance:10.000m [K=1.0000]  
Remarks: