

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

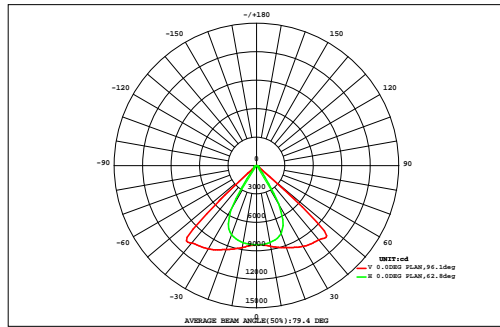
Maximum Intensity (Luminaire orientation as tested.)		736.6 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
Beam Spread	At 10% of I _{max} At 50% of I _{max} At 90% of I _{max}	77.7V x 99.1H 63.8V x 91.3H 52.8V x 86.5H
Beam Flux	Total To 10% of I _{max} To 50% of I _{max} To 90% of I _{max}	999.7 lumens per klm. 941.9 lumens per klm. 849.2 lumens per klm. 159.7 lumens per klm.
	Upward LOR Downward LOR	0.0 % 100.0 %
Luminaire Efficiency(Light Output Ratio)		100.0 %

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-28

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:0.7284A P:152.3W PF:0.9464 Lamp Flux:15991.5x1 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-150	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150828
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:105.21lm/W	
90mmCSW219BT-V1-5000K-Ra70	Imax(cd)	11322	
NOMINAL POWER(W)	152.3	AVAILABILITY(%)	94.5
RATED VOLTAGE(V)	276	Avai. FLUX(lm)	14527
NOMINAL FLUX(lm)	15991.5	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	15991.5
TEST VOLTAGE(V)	276.9	q @50%(H,V)	91,64DEG

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	
72	0.27	0.56	0.98	1.49	2.00	2.97	4.20	4.36	4.31	4.32	4.35	4.08	2.81	2.02	1.52	1.00	0.58	0.28	42.1	0.00
64	0.46	0.86	1.37	2.02	2.65	3.90	5.51	5.79	5.84	5.84	5.81	5.41	3.78	2.66	2.03	1.40	0.89	0.50	56.7	0.00
56	0.60	1.09	1.73	2.60	3.42	5.14	7.15	7.31	7.21	7.23	7.44	7.10	5.03	3.46	2.62	1.73	1.11	0.63	72.6	0.00
48	0.68	1.33	2.29	4.12	6.25	7.85	9.31	9.67	9.72	9.78	9.83	9.48	8.14	6.29	3.95	2.22	1.33	0.71	103	0.00
40	0.75	1.57	3.14	9.68	29.2	32.9	31.1	31.0	30.8	31.1	31.8	32.4	34.2	27.0	7.86	2.90	1.55	0.77	339	288
32	0.81	1.78	4.55	40.3	112	127	120	112	108	108	113	120	125	107	32.9	4.18	1.76	0.82	1238	1218
24	0.87	1.99	7.37	86.4	170	177	166	156	149	149	156	165	174	165	76.7	6.47	1.97	0.88	1809	1793
	0.92	2.14	10.7	117	171	176	171	165	160	160	164	170	173	167	108	9.25	2.14	0.93	1929	1914
	0.96	2.22	14.5	134	165	172	171	168	163	163	167	170	169	161	126	11.5	2.22	0.97	1962	1947
	0.96	2.22	13.8	136	163	170	171	168	163	163	167	169	167	159	127	11.8	2.20	0.96	1955	1941
	0.92	2.13	8.53	118	163	170	169	164	160	161	165	168	168	159	108	8.31	2.09	0.92	1895	1880
-24	0.87	1.96	5.71	79.5	166	173	166	157	151	152	159	167	172	159	70.9	5.65	1.92	0.87	1790	1774
-32	0.81	1.76	3.78	35.2	129	151	140	129	122	123	131	142	152	119	32.7	3.88	1.72	0.82	1419	1402
-40	0.77	1.55	2.80	7.66	35.6	47.5	42.1	39.0	37.1	37.2	39.4	42.7	48.5	35.5	9.11	2.77	1.51	0.78	431	369
-48	0.71	1.30	2.15	3.67	5.40	7.11	7.98	8.26	8.39	8.30	8.08	7.63	7.03	5.31	3.68	2.08	1.28	0.73	89.1	0.00
-56	0.62	1.05	1.67	2.53	3.39	5.55	7.46	7.60	7.33	7.36	7.63	7.20	4.96	3.29	2.45	1.61	1.04	0.62	73.4	0.00
-64	0.46	0.82	1.34	1.95	2.57	4.09	5.67	5.93	5.88	5.92	5.94	5.52	3.78	2.46	1.90	1.30	0.81	0.44	56.8	0.00
-72	0.24	0.51	0.92	1.41	1.89	2.84	3.85	4.02	3.93	3.91	3.94	3.60	2.60	1.81	1.33	0.87	0.48	0.22	38.4	0.00
	-72	-64	-56	-48	-40	-32	-24	-16	HORIZONTAL(DEG)	16	24	32	40	48	56	64	72			
F t	12.7	26.8	87.3	783	1331	1437	1398	1342	1298	1301	1346	1395	1421	1284	718	79.0	26.6	12.8	15299	---
F a	0.00	0.00	36.8	745	1298	1393	1341	1280	1236	1238	1284	1338	1378	1251	680	28.3	0.00	0.00	---	14527

one-half-peak spread: U:12.0,D:10.8 , L:9.5,R:10.0 NEMA Beam Type: Type 5

H(B) Range:-90 - 90DEG
H(B) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-28

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

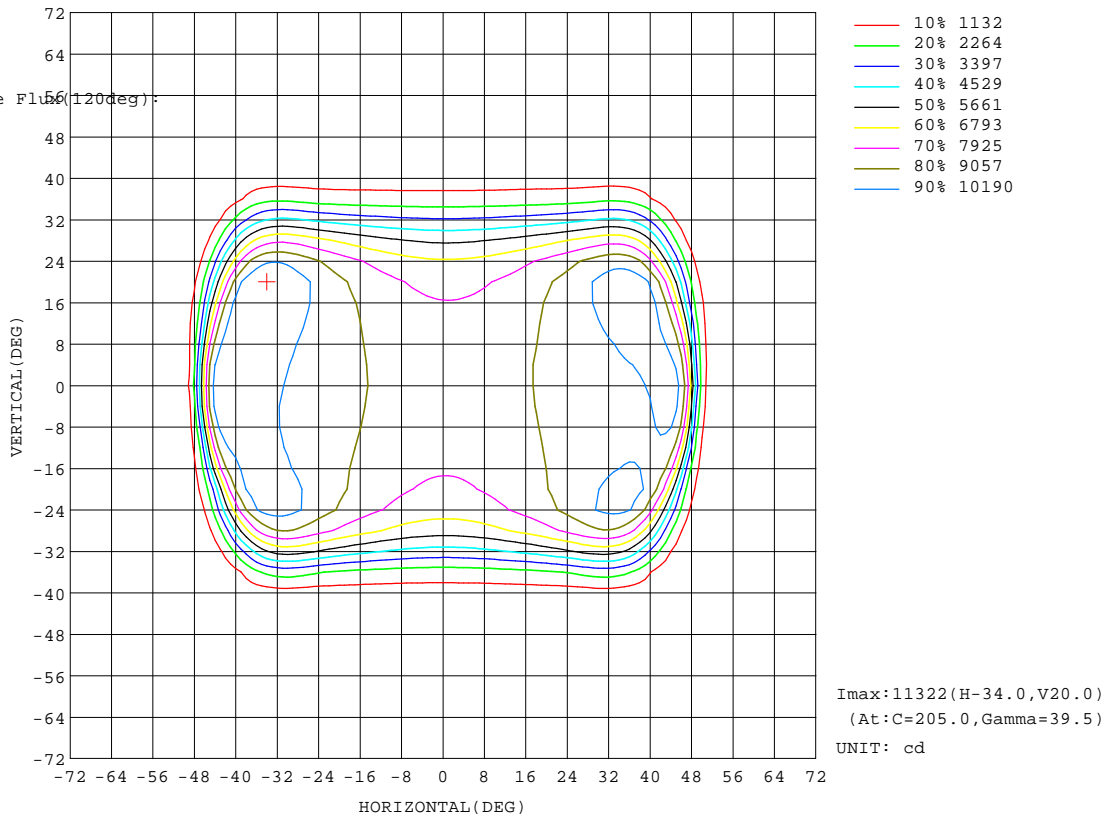
Test:U:220.9V I:0.7284A P:152.3W PF:0.9464 Lamp Flux:15991.5x1 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-150	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150828
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

13529 lm
 %lum = 88.0%
 %lamp = 88.0%

Conical surface Flux(120deg):

15019 lm
 %lum = 97.7%
 %lamp = 97.7%

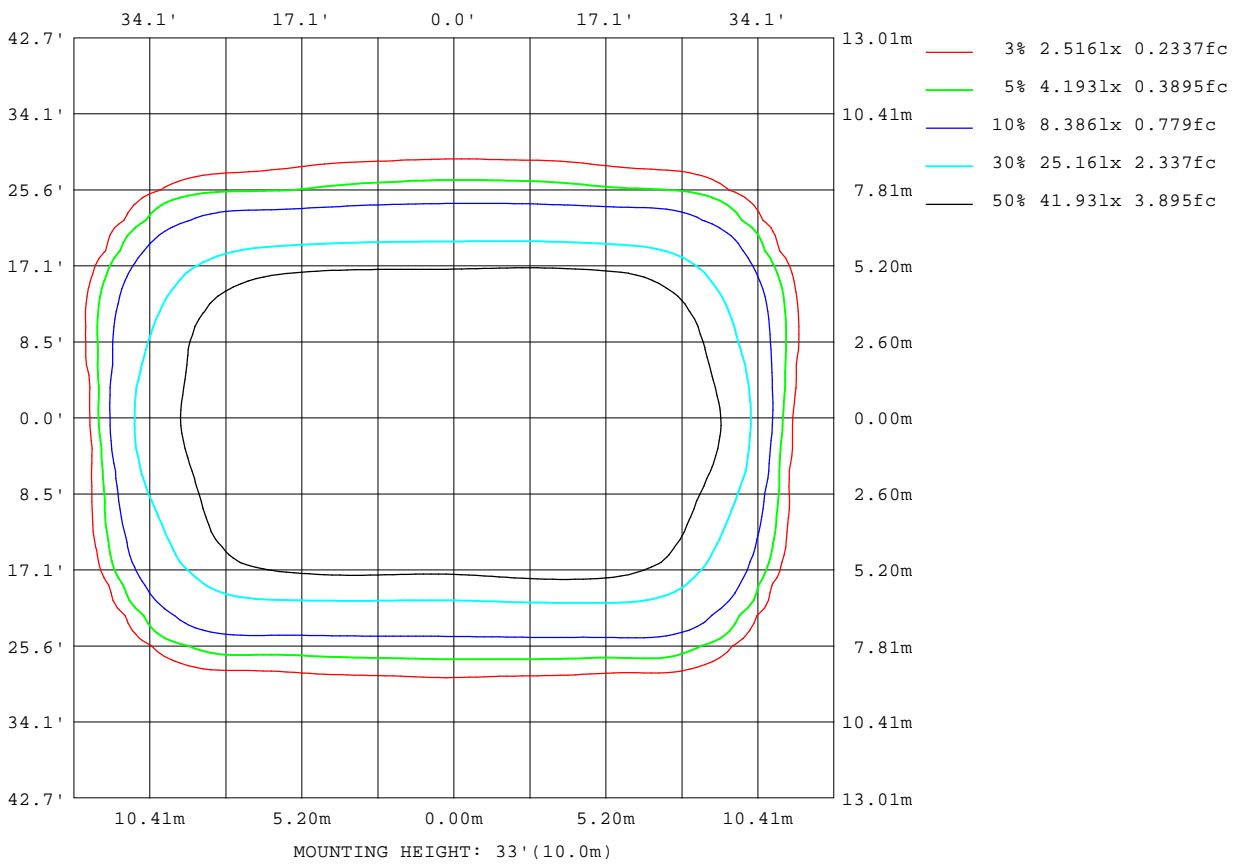


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ISOLUX DIAGRAM

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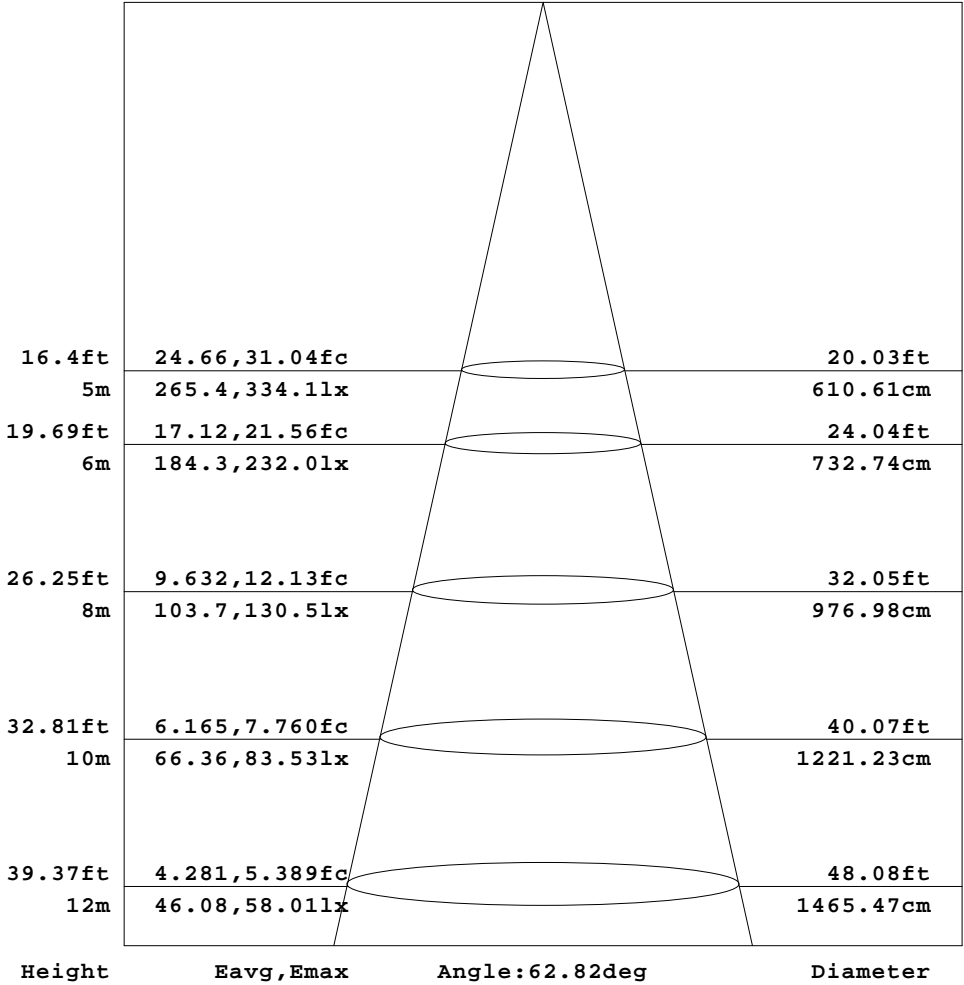
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-28

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:0.7284A P:152.3W PF:0.9464 Lamp Flux:15991.5x1 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-150	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150828
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Flux out:7828 lm

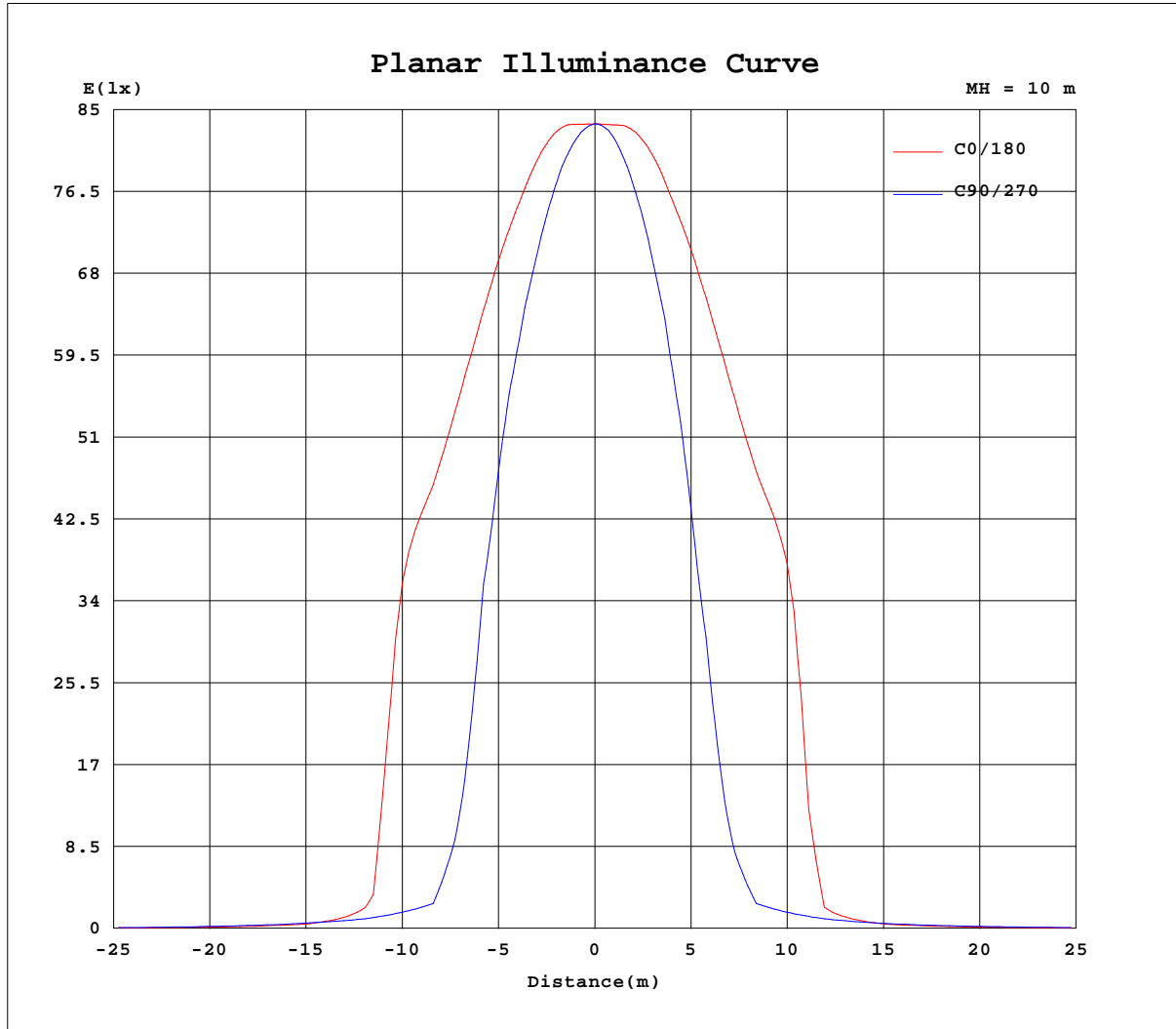


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-28

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



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V(B) Range:-90 - 90DEG
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 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.266
 Humidity:65.0%
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LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.7284A P:152.3W PF:0.9464 Lamp Flux:15991.5x1 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-150	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150828
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

H(DEG) V(DEG)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-90	0.07	0.10	0.10	0.09	0.09	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.08
-85	0.07	0.10	0.12	0.13	0.14	0.21	0.39	0.62	0.96	1.88	3.08	3.85	3.76	2.28	2.48	2.74	2.99	3.15	3.15
-80	0.05	0.10	0.13	0.17	0.21	0.31	0.66	1.21	1.84	3.48	6.39	8.88	9.84	6.60	5.82	6.50	7.11	7.67	7.79
-75	0.05	0.10	0.15	0.30	0.80	1.35	2.01	2.94	3.94	5.50	7.76	9.69	10.9	10.6	10.9	11.5	11.6	11.7	11.6
-70	0.06	0.12	0.22	0.89	2.19	3.31	4.60	6.13	7.70	9.06	10.3	11.4	13.9	17.7	18.8	18.8	18.1	17.6	17.4
-65	0.06	0.12	0.44	1.71	3.78	4.96	6.28	7.85	9.56	11.0	12.3	13.6	17.2	22.2	23.9	23.8	23.6	22.7	22.4
-60	0.05	0.10	0.31	1.93	4.82	7.21	8.18	9.77	11.6	13.3	14.7	16.1	18.9	27.0	31.0	31.9	30.8	31.0	30.0
-55	0.05	0.10	0.52	2.56	5.74	8.30	9.30	10.9	12.9	15.3	17.1	18.9	22.5	31.4	35.8	36.8	35.1	34.6	33.6
-50	0.05	0.16	1.79	4.75	8.64	10.3	11.6	13.4	16.5	19.4	21.7	24.1	32.4	40.4	44.0	43.3	40.4	39.7	39.0
-45	0.05	0.20	2.17	5.22	9.00	11.2	13.0	15.4	19.2	24.9	31.3	39.5	45.3	47.5	49.9	48.9	46.7	46.6	46.4
-40	0.04	0.10	1.45	4.78	7.93	11.6	14.0	17.0	21.0	28.5	40.8	54.7	68.8	59.1	57.9	58.0	56.6	56.7	57.7
-35	0.04	0.10	1.73	5.20	8.27	11.8	15.2	18.7	24.1	37.9	84.9	230	277	243	211	195	184	176	173
-30	0.05	0.46	3.44	6.94	10.0	14.1	18.3	24.2	38.2	137	506	773	801	737	675	622	581	556	552
-25	0.05	0.55	3.72	7.27	10.3	14.7	19.4	27.1	50.8	298	803	1008	984	898	822	761	715	688	683
-20	0.04	0.14	2.54	6.48	9.42	13.4	18.7	25.8	47.3	265	916	1075	1052	989	924	868	821	789	776
-15	0.04	0.15	2.67	6.69	9.68	13.9	19.5	27.2	55.7	437	1000	1051	1026	978	925	879	839	812	801
-10	0.05	0.86	4.32	8.23	11.2	16.7	23.3	38.1	137	1014	1039	1027	999	959	919	882	850	830	826
-5	0.05	0.91	4.41	8.37	11.5	17.0	23.6	40.7	175	1063	1043	1026	997	959	923	889	858	836	831
0	0.04	0.20	2.87	7.17	10.4	15.0	21.0	30.6	69.3	949	1067	1039	1015	980	941	909	877	848	836
5	0.04	0.21	2.89	7.16	10.4	14.9	20.7	30.5	71.1	908	1065	1046	1021	985	943	908	874	847	835
10	0.06	0.88	4.32	8.22	11.2	16.6	23.2	39.4	179	979	1078	1062	1022	972	926	884	851	829	824
15	0.05	0.84	4.24	8.06	11.0	16.2	22.5	37.1	149	870	1111	1103	1045	981	924	877	839	815	809
20	0.04	0.18	2.59	6.49	9.47	13.4	18.7	26.2	51.8	362	945	1128	1095	1008	927	863	813	779	763
25	0.04	0.16	2.45	6.21	9.21	12.9	17.8	24.6	45.4	231	719	989	1001	927	851	787	738	705	691
30	0.06	0.55	3.44	6.93	9.90	13.8	18.4	25.7	45.5	154	462	616	619	576	538	507	483	469	466
35	0.05	0.47	3.20	6.58	9.57	13.2	17.2	22.8	36.0	74.3	212	310	300	270	253	244	237	233	232
40	0.04	0.13	1.58	4.77	7.66	11.0	14.0	17.4	22.3	31.0	41.5	50.4	56.4	55.0	56.8	58.3	57.2	57.2	57.8
45	0.04	0.12	1.33	4.29	7.19	10.5	13.0	15.6	19.6	26.0	33.3	39.3	44.3	47.2	50.5	52.0	50.3	49.9	50.0
50	0.05	0.21	1.89	4.65	7.80	10.7	11.9	13.7	17.0	19.6	21.7	23.6	29.5	38.2	42.2	41.6	39.1	39.0	38.5
55	0.06	0.18	1.47	3.99	7.04	9.63	10.8	12.5	15.2	17.5	19.4	21.1	25.9	34.0	37.5	37.1	35.8	35.5	34.7
60	0.05	0.10	0.35	2.07	4.47	7.42	8.58	10.0	11.8	13.6	15.2	16.7	18.4	25.3	29.7	30.9	29.9	31.0	29.1
65	0.05	0.09	0.28	1.46	3.40	5.90	6.96	8.41	10.1	11.9	13.4	14.7	16.3	22.3	26.3	27.2	26.3	26.8	25.5
70	0.06	0.10	0.23	0.97	2.56	4.00	5.06	6.64	8.30	9.79	11.0	12.2	14.2	19.7	21.6	21.4	20.6	20.3	20.0
75	0.06	0.09	0.19	0.65	1.63	2.59	3.46	4.67	6.02	7.94	10.1	12.0	13.3	14.6	15.9	16.1	15.9	16.0	15.8
80	0.06	0.06	0.11	0.16	0.21	0.34	0.81	1.43	2.15	4.01	7.34	10.8	12.5	8.71	6.99	7.81	8.55	9.37	9.67
85	0.06	0.06	0.09	0.12	0.15	0.23	0.51	0.89	1.32	2.44	4.43	6.48	7.51	5.26	4.23	4.72	5.18	5.67	5.86
90	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.11	0.12	0.13	0.13

H(h) Range:-90 - 90DEG
H(h) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-28

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

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NAME: LED Flood Light	TYPE:YHL-FL3-150	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150828
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

H(DEG) V(DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
-90	0.08	0.08	0.08	0.09	0.09	0.10	0.10	0.10	0.09	0.09	0.09	0.08	0.07	0.08	0.09	0.09	0.10	0.06
-85	3.05	2.78	2.46	2.14	2.39	3.47	3.25	2.58	1.47	0.66	0.41	0.20	0.14	0.13	0.12	0.10	0.10	0.06
-80	7.65	7.14	6.35	5.55	4.98	8.06	8.26	7.00	4.56	2.12	1.12	0.56	0.26	0.22	0.18	0.13	0.09	0.06
-75	11.6	11.4	11.0	10.3	9.28	9.74	9.30	8.10	6.14	4.12	2.94	2.03	1.35	0.90	0.35	0.16	0.10	0.06
-70	17.6	18.0	17.9	16.7	14.6	11.6	10.4	9.32	7.96	6.58	5.05	3.73	2.54	1.38	0.32	0.16	0.08	0.04
-65	23.1	23.2	23.5	22.0	18.8	13.9	12.4	11.3	9.99	8.47	6.85	5.50	4.33	2.65	0.92	0.19	0.08	0.03
-60	30.7	31.9	31.4	30.9	27.6	19.6	16.1	14.6	13.6	12.0	10.2	8.67	7.38	5.80	2.55	0.65	0.11	0.04
-55	34.3	35.4	36.2	35.6	31.8	23.2	18.7	17.0	15.4	13.4	11.3	9.80	8.54	6.99	3.48	1.11	0.12	0.04
-50	39.9	41.8	43.7	41.3	35.1	24.9	21.7	19.6	17.3	14.2	12.3	10.8	9.98	7.39	3.47	0.77	0.08	0.02
-45	46.3	47.4	49.1	47.6	45.2	43.2	33.5	27.2	21.1	16.5	13.9	11.9	10.6	7.77	4.12	1.10	0.08	0.02
-40	56.6	55.7	56.6	57.7	57.9	69.0	59.2	43.2	31.2	22.2	17.6	14.6	12.6	9.75	6.38	2.81	0.24	0.03
-35	176	185	197	212	239	277	249	118	43.4	26.8	19.7	15.9	13.1	9.80	6.76	3.16	0.31	0.04
-30	569	605	653	713	779	804	651	300	56.3	29.8	20.6	16.0	12.3	8.96	6.21	2.27	0.10	0.02
-25	702	741	794	862	942	999	919	527	111	35.0	22.3	16.8	12.5	9.21	6.51	2.46	0.11	0.02
-20	785	814	854	902	959	1017	1054	978	476	66.2	29.6	20.3	15.2	10.9	8.05	4.36	0.79	0.03
-15	809	832	866	906	951	993	1022	1003	693	85.2	31.9	21.4	15.7	11.1	8.25	4.51	0.92	0.03
-10	838	863	894	927	963	988	1004	1022	647	59.0	28.0	20.0	14.3	10.2	7.40	3.08	0.19	0.02
-5	844	871	899	928	962	988	1005	1032	766	62.8	28.9	20.4	14.6	10.4	7.49	3.12	0.23	0.02
0	841	864	892	920	952	984	1007	1022	1044	181	41.4	23.8	17.2	12.0	8.81	4.93	1.18	0.03
5	840	862	891	922	957	991	1014	1024	1012	183	40.8	23.7	17.0	11.9	8.74	4.86	1.16	0.04
10	835	861	894	933	978	1019	1044	1025	648	70.2	29.8	20.3	14.5	10.3	7.42	3.13	0.26	0.02
15	821	850	889	937	992	1047	1077	1004	489	63.7	28.4	19.8	14.1	10.0	7.24	3.04	0.25	0.00
20	770	796	838	892	959	1038	1091	1006	564	94.2	32.5	21.0	15.6	11.0	8.11	4.42	0.99	0.06
25	698	725	766	820	885	955	976	813	383	66.7	29.1	19.9	14.9	10.6	7.80	4.18	0.88	0.06
30	475	493	518	549	586	620	568	327	72.1	33.7	21.3	16.4	12.3	9.04	6.26	2.48	0.19	0.00
35	236	244	253	265	286	314	278	137	48.0	27.6	19.7	15.5	11.8	8.67	5.87	2.26	0.18	0.00
40	58.0	57.8	59.2	59.6	57.0	57.7	56.1	44.8	34.2	24.0	18.8	15.3	12.5	9.37	6.40	3.11	0.47	0.06
45	50.5	50.5	52.4	52.6	49.3	46.2	43.3	35.7	28.4	21.2	16.8	14.0	11.9	8.97	5.88	2.73	0.38	0.06
50	39.3	40.5	42.9	40.8	34.9	26.1	23.2	21.2	18.8	15.5	13.0	11.6	10.2	6.99	3.93	1.18	0.14	0.01
55	36.0	36.3	38.0	36.2	30.8	23.0	20.6	18.8	16.8	14.1	11.9	10.5	9.34	6.21	3.30	0.90	0.13	0.02
60	30.2	30.8	30.3	30.0	27.0	19.9	17.4	15.9	14.5	12.8	10.9	9.36	8.44	6.57	3.33	1.09	0.17	0.06
65	26.2	26.7	26.7	26.4	23.7	17.5	15.3	14.0	12.6	11.1	9.32	7.73	6.72	4.98	2.47	0.76	0.16	0.06
70	20.4	20.8	21.4	20.5	16.9	13.0	11.8	10.7	9.35	7.83	6.28	4.74	3.69	2.04	0.68	0.20	0.11	0.03
75	16.0	15.9	15.9	15.1	13.5	12.6	11.6	9.95	7.74	5.74	4.45	3.27	2.40	1.32	0.48	0.17	0.10	0.04
80	9.52	8.88	8.04	7.34	7.08	11.2	11.5	10.1	6.64	3.46	1.97	1.34	0.69	0.28	0.20	0.16	0.10	0.06
85	5.76	5.38	4.88	4.45	4.29	6.75	6.97	6.09	4.02	2.11	1.22	0.84	0.45	0.20	0.15	0.12	0.09	0.06
90	0.13	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.06

H(h) Range:-90 - 90DEG
H(h) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-28

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: