

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

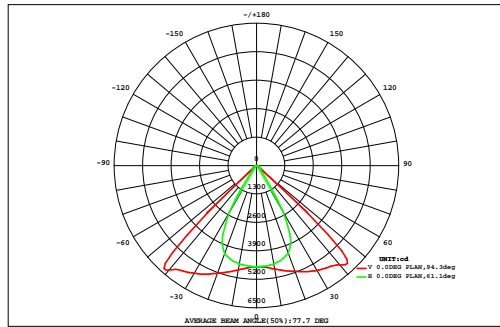
Maximum Intensity (Luminaire orientation as tested.)		769.9 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
Beam Spread	At 10% of I _{max} At 50% of I _{max} At 90% of I _{max}	76.8V x 97.5H 62.3V x 88.8H 51.8V x 84.3H
Beam Flux	Total To 10% of I _{max} To 50% of I _{max} To 90% of I _{max}	999.5 lumens per klm. 935.0 lumens per klm. 836.2 lumens per klm. 173.2 lumens per klm.
	Upward LOR Downward LOR	0.0 % 100.0 %
Luminaire Efficiency(Light Output Ratio)		99.9 %

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:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.9V I:0.3876A P:82.32W PF:0.9614 Lamp Flux:8641.5 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-80	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:105.17 lm/W	
54.0000	CSW219BT-V1-5000K-Ra70	Imax(cd)	6439
NOMINAL POWER(W)	82.32	AVAILABILITY(%)	93.5
RATED VOLTAGE(V)	276	Avai. FLUX(lm)	7820
NOMINAL FLUX(lm)	8641.5	LOR(%)	99.9
LAMPS INSIDE	1	TOTAL FLUX(lm)	8359
TEST VOLTAGE(V)	276.8	q @50%(H,V)	89,62DEG

AREA FLUX DIAGRAM																	UNIT:lm			F t	F a
72	0.17	0.35	0.60	0.92	1.22	1.77	2.44	2.53	2.51	2.53	2.54	2.37	1.69	1.22	0.92	0.61	0.35	0.17	24.9	0.00	
64	0.30	0.54	0.86	1.25	1.63	2.34	3.23	3.48	3.50	3.51	3.48	3.15	2.25	1.63	1.25	0.86	0.54	0.30	34.1	0.00	
56	0.39	0.68	1.06	1.56	2.06	3.03	4.13	4.29	4.25	4.27	4.35	4.08	2.95	2.10	1.60	1.07	0.68	0.39	42.9	0.00	
48	0.44	0.82	1.34	2.33	3.53	4.41	5.23	5.49	5.60	5.61	5.53	5.25	4.46	3.54	2.30	1.35	0.82	0.44	58.5	0.00	
40	0.48	0.95	1.75	4.38	14.1	17.1	15.1	14.5	14.2	14.3	14.8	15.7	18.0	13.5	4.01	1.71	0.96	0.48	166	123	
32	0.51	1.07	2.38	16.0	60.3	71.8	65.8	60.8	57.8	58.2	61.6	66.8	72.2	58.5	14.5	2.29	1.08	0.51	672	659	
24	0.54	1.19	3.04	38.0	95.5	102	94.9	88.0	83.4	83.3	87.4	93.4	99.2	92.2	35.8	3.15	1.20	0.55	1003	992	
	0.57	1.29	3.74	57.5	96.1	99.2	96.2	92.1	88.9	88.6	91.3	94.6	96.5	93.2	55.5	3.90	1.29	0.58	1061	1050	
	0.59	1.34	4.17	68.9	93.2	96.3	95.5	93.1	90.4	90.3	92.7	94.5	94.5	90.7	67.2	4.44	1.35	0.61	1080	1069	
	0.59	1.35	4.08	69.2	93.1	96.2	95.4	93.0	90.3	90.3	92.7	94.5	94.2	90.3	67.5	4.41	1.35	0.61	1079	1069	
	0.56	1.28	3.57	56.9	96.0	98.6	95.7	91.7	88.7	88.8	91.5	94.7	96.0	92.1	55.7	3.86	1.29	0.58	1057	1047	
	0.54	1.18	2.90	36.4	94.8	101	94.2	87.6	83.4	83.5	87.8	93.7	99.4	92.0	37.4	3.07	1.19	0.55	1001	990	
-24	0.50	1.06	2.19	14.5	61.1	74.5	69.1	63.7	60.3	60.5	64.3	70.2	76.0	61.6	16.1	2.29	1.08	0.51	700	688	
-32	0.47	0.94	1.64	3.76	14.8	20.0	17.6	16.5	15.8	15.6	16.0	16.9	19.7	15.5	4.43	1.71	0.96	0.48	183	133	
-40	0.43	0.81	1.30	2.13	2.88	3.77	4.55	4.80	4.84	4.82	4.75	4.42	3.48	2.90	2.21	1.33	0.82	0.44	50.7	0.00	
-48	0.38	0.67	1.04	1.55	2.03	2.98	4.09	4.28	4.19	4.19	4.27	4.02	2.89	2.04	1.57	1.05	0.67	0.38	42.3	0.00	
-56	0.29	0.53	0.85	1.23	1.61	2.30	3.22	3.50	3.51	3.51	3.51	3.19	2.27	1.60	1.23	0.85	0.53	0.29	34.0	0.00	
-64	0.16	0.34	0.59	0.90	1.21	1.74	2.39	2.50	2.49	2.48	2.52	2.38	1.72	1.20	0.89	0.58	0.32	0.15	24.5	0.00	
-72	-72	-64	-56	-48	-40	-32	-24	-16	HORIZONTAL(DEG)	16	24	32	40	48	56	64	72				
F t	7.91	16.4	37.1	377	735	799	769	732	704	704	731	764	787	716	370	38.5	16.5	8.02	8313	---	
F a	0.00	0.00	3.94	351	714	772	734	694	663	664	692	728	761	695	344	3.86	0.00	0.00	---	7820	

one-half-peak spread: U:10.7,D:10.5 , L:8.6,R:9.5 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:2015-08-27

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

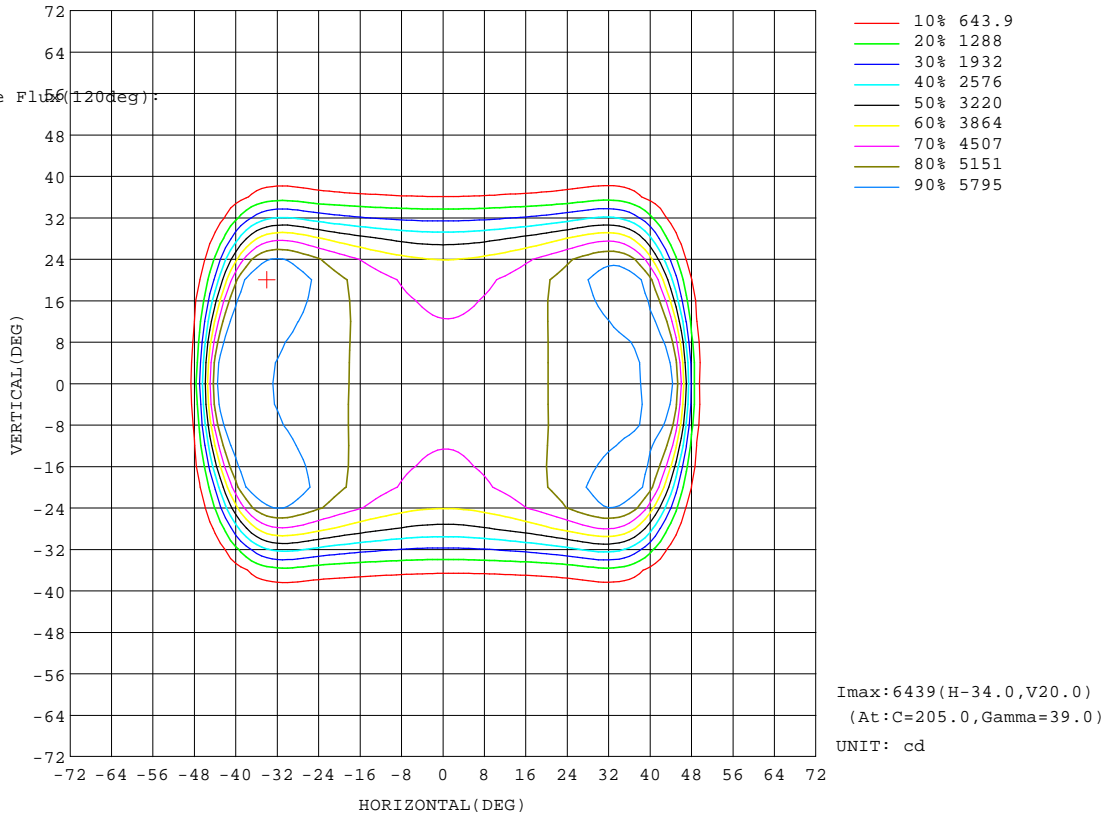
Test:U:220.9V I:0.3876A P:82.32W PF:0.9614 Lamp Flux:8641.5 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-80	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

7440.8 lm
%lum = 89.0%
%lamp = 89.0%

Conical surface Flux(120deg):

8149.8 lm
%lum = 97.5%
%lamp = 97.4%

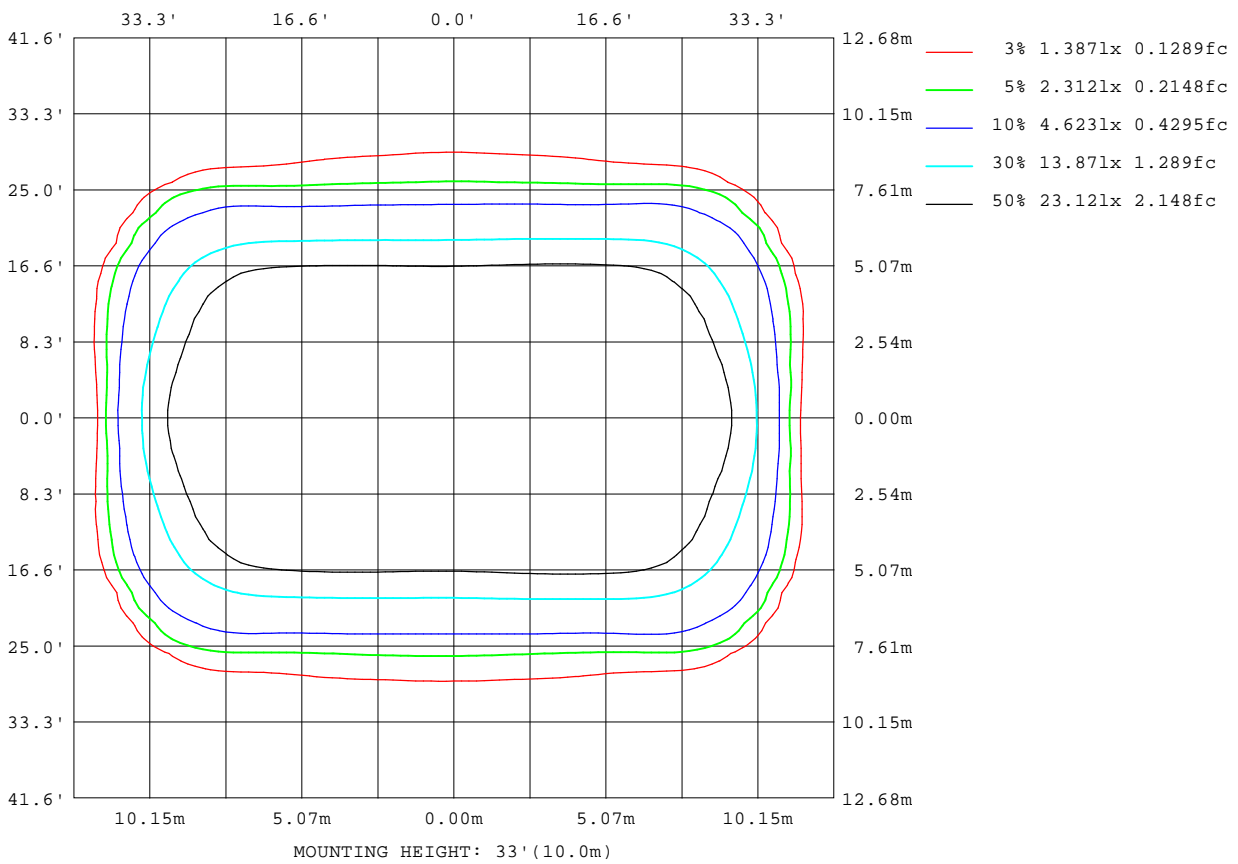


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-27

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:

ISOLUX DIAGRAM

Test:U:220.9V I:0.3876A P:82.32W PF:0.9614 Lamp Flux:8541155lm		
NAME: LED Flood Light	TYPE:YHL-FL3-80	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:



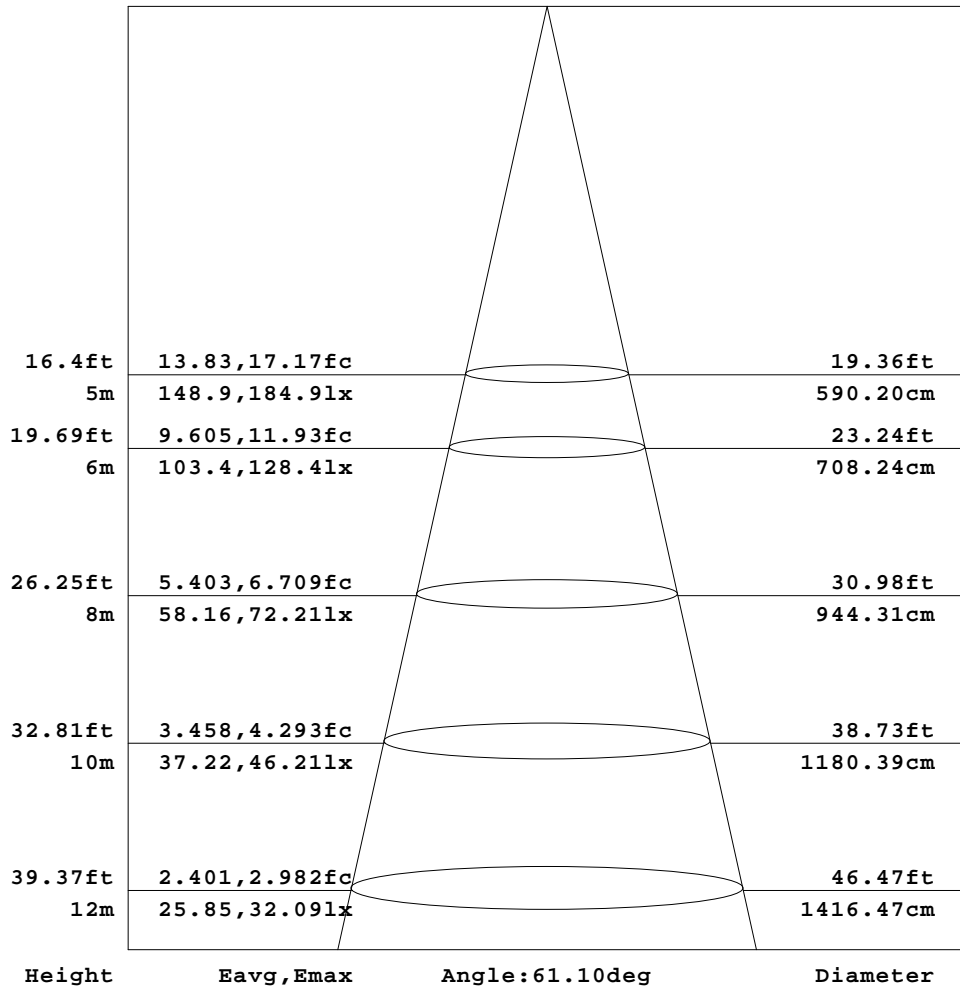
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:Ryan Chan
Test Date:2015-08-27

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:

AAI Figure

Test:U:220.9V I:0.3876A P:82.32W PF:0.9614 Lamp Flux:8641.5 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-80	WEIGHT:
SPEC.:IP65	DIM.:	SERIAL No.:20150827
MFR.:Yaham Optoelectronics Co.,Ltd.	SUR.:	PROTECTION ANGLE:

Flux out:4221 lm

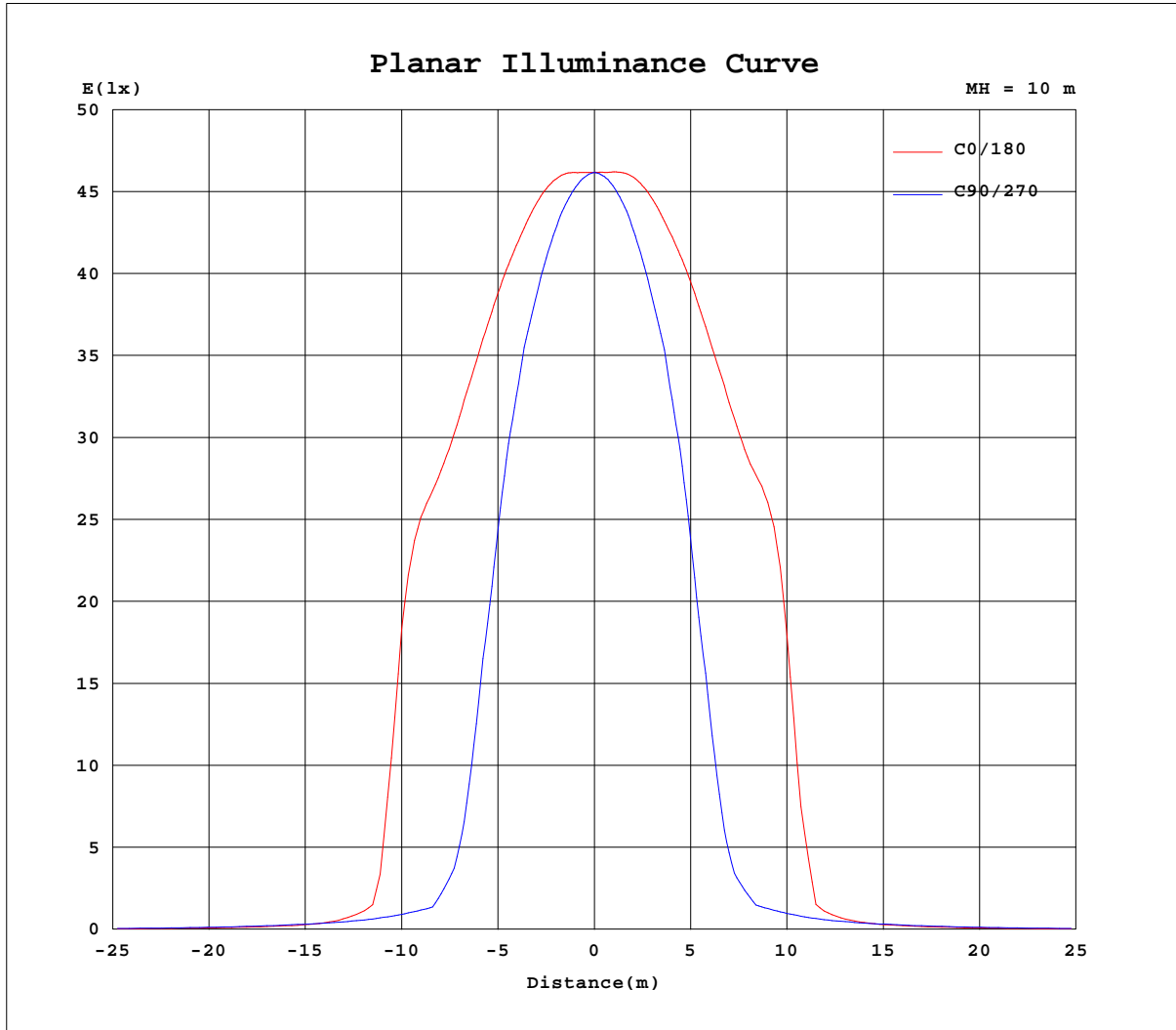


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H_(b) Range:-90 - 90DEG
H_(b) 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(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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.3876A P:82.32W PF:0.9614 Lamp Flux:8641.5 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-80	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	0.19	0.41	0.42	0.41	0.40	0.37	0.36	0.35	0.35	0.35	0.35	0.34	0.32	0.28	0.26	0.25	0.25	0.23	0.24
-85	0.19	0.42	0.53	0.64	0.75	1.12	2.26	3.81	6.73	12.1	16.0	18.5	19.5	13.7	14.5	15.9	17.3	18.5	18.8
-80	0.16	0.41	0.63	0.91	1.21	1.86	4.43	8.08	13.4	28.1	37.7	45.4	49.6	35.8	35.0	38.7	42.2	45.6	46.8
-75	0.15	0.40	0.75	1.76	5.49	9.27	13.9	19.6	26.6	39.1	48.0	55.8	62.1	64.6	69.2	71.0	72.1	73.4	72.9
-70	0.14	0.48	1.09	4.34	13.8	22.2	29.9	38.5	48.1	57.2	64.9	73.0	83.7	112	120	119	117	115	112
-65	0.13	0.51	2.06	9.49	22.4	32.9	40.3	49.2	59.7	69.3	77.2	85.6	97.5	131	144	144	146	142	138
-60	0.08	0.45	2.05	14.2	31.1	47.7	54.2	63.4	74.6	85.5	94.1	102	113	154	176	183	183	185	177
-55	0.07	0.44	4.08	18.5	36.6	54.0	61.1	70.4	82.7	96.4	107	116	130	175	200	207	202	201	195
-50	0.07	0.65	10.4	28.6	49.3	65.6	73.4	83.1	99.0	116	128	140	166	214	238	241	228	226	221
-45	0.08	0.76	12.6	31.9	51.5	69.5	80.3	93.5	112	140	170	200	228	249	267	269	259	258	255
-40	0.04	0.56	12.2	33.7	50.9	71.8	87.6	105	127	165	222	278	323	303	308	312	306	305	306
-35	0.04	0.58	14.1	36.5	53.2	73.5	93.9	115	145	213	405	949	1140	971	852	793	753	724	709
-30	0.10	1.71	20.2	42.8	60.1	82.4	107	138	204	452	1975	3430	3627	3338	3057	2841	2677	2573	2546
-25	0.07	2.21	21.7	44.8	61.9	86.0	113	152	249	1012	3517	5123	5198	4765	4352	4015	3755	3590	3544
-20	0.05	0.96	18.9	44.1	60.8	84.9	116	158	274	1379	4929	6297	6222	5728	5258	4869	4566	4361	4281
-15	0.04	1.14	19.9	45.2	62.5	87.8	121	169	326	2083	5655	6282	6077	5670	5273	4941	4676	4501	4431
-10	0.09	3.68	25.3	50.7	68.4	97.8	136	202	459	4366	6088	5967	5746	5470	5190	4943	4736	4602	4559
-5	0.08	3.98	26.1	51.8	70.6	100	139	212	483	5097	6069	5872	5680	5439	5183	4966	4772	4633	4591
0	0.03	1.60	21.5	48.6	68.3	95.2	133	194	395	4475	6230	5868	5682	5471	5229	5027	4840	4686	4620
5	0.03	1.62	21.7	48.5	67.8	94.5	131	190	394	4264	6183	5882	5703	5483	5233	5023	4828	4673	4610
10	0.09	3.89	25.8	51.1	68.9	97.5	135	204	462	4408	6111	5985	5773	5493	5210	4962	4755	4612	4563
15	0.08	3.78	25.4	50.2	67.7	95.2	131	194	436	3498	6102	6215	5950	5580	5224	4930	4692	4534	4478
20	0.03	1.29	19.6	44.6	61.8	85.2	116	162	283	1475	5038	6401	6258	5758	5274	4877	4567	4353	4264
25	0.05	1.17	18.8	43.2	60.2	82.2	110	152	252	943	3714	5615	5760	5292	4810	4420	4123	3924	3846
30	0.11	2.29	21.0	43.6	60.7	82.7	107	143	223	463	1987	3308	3470	3146	2870	2665	2519	2430	2411
35	0.11	1.97	19.6	41.4	58.7	80.0	101	129	184	312	836	1550	1619	1379	1241	1162	1107	1075	1065
40	0.06	0.75	12.8	34.5	51.6	72.7	88.2	106	132	176	239	285	308	304	316	324	322	327	332
45	0.07	0.69	10.8	31.4	49.5	69.5	81.9	96.3	117	151	194	226	249	266	285	293	286	288	290
50	0.13	0.88	11.1	30.1	50.6	66.6	74.1	83.9	100.0	116	129	141	170	217	240	243	229	230	226
55	0.15	0.78	8.39	25.6	45.2	59.9	67.1	77.0	91.2	105	116	127	150	194	215	219	214	211	206
60	0.15	0.48	2.69	15.2	32.8	48.8	54.9	64.5	75.7	86.6	95.2	103	115	155	176	183	182	184	176
65	0.16	0.43	2.01	10.5	24.5	38.3	44.5	53.9	64.3	74.8	83.0	90.8	101	136	155	159	157	158	151
70	0.18	0.44	1.16	4.86	14.1	23.7	30.5	39.8	49.2	58.9	66.0	73.3	84.2	113	124	122	119	117	115
75	0.18	0.39	0.94	3.29	9.00	15.0	20.2	27.3	35.9	47.6	57.8	65.6	73.1	82.1	89.2	89.4	88.7	88.8	87.8
80	0.18	0.28	0.57	0.87	1.21	1.77	3.91	7.70	13.4	27.5	42.6	52.2	57.8	38.5	36.2	39.9	43.3	46.6	47.5
85	0.21	0.26	0.43	0.61	0.83	1.16	2.45	4.71	8.15	16.6	25.7	31.4	34.8	23.2	21.8	24.0	26.1	28.0	28.6
90	0.24	0.22	0.21	0.21	0.26	0.25	0.25	0.24	0.24	0.26	0.26	0.25	0.26	0.29	0.26	0.25	0.25	0.24	0.25

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.3876A P:82.32W PF:0.9614 Lamp Flux:8641.5 lm		
NAME: LED Flood Light	TYPE:YHL-FL3-80	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	0.25	0.25	0.28	0.34	0.35	0.37	0.44	0.43	0.42	0.39	0.38	0.37	0.37	0.39	0.42	0.37	0.38	0.24
-85	18.5	17.2	15.6	14.0	13.9	19.5	18.9	15.0	9.48	4.64	3.17	1.86	0.89	0.69	0.62	0.48	0.37	0.21
-80	46.1	43.3	39.3	35.3	32.7	46.8	46.6	38.4	25.1	12.3	8.03	4.72	1.98	1.20	0.97	0.74	0.37	0.18
-75	73.6	73.1	71.4	69.2	63.4	61.2	56.8	48.7	37.7	26.4	20.0	14.0	9.06	5.71	2.35	0.89	0.44	0.19
-70	116	118	120	120	105	79.7	70.3	62.8	54.9	45.7	35.8	26.1	18.3	11.0	3.12	0.99	0.44	0.14
-65	143	146	145	141	123	93.0	82.9	74.9	67.0	57.4	46.8	37.1	29.5	18.9	7.37	1.50	0.44	0.13
-60	182	195	182	176	157	118	104	94.9	87.0	77.2	65.4	55.3	47.6	35.5	16.7	4.00	0.55	0.14
-55	199	208	205	199	178	136	118	108	98.5	86.3	72.4	62.3	54.7	41.4	21.1	6.51	0.61	0.14
-50	225	231	241	231	201	154	136	126	113	95.1	80.5	70.9	63.7	45.8	23.8	7.26	0.50	0.08
-45	256	259	266	258	237	212	190	165	136	110	91.0	78.2	67.4	48.3	27.7	9.34	0.52	0.08
-40	304	301	304	303	291	294	282	234	181	137	111	92.2	76.3	56.4	36.6	16.0	1.09	0.09
-35	710	725	754	796	905	1110	1025	489	241	160	122	99.0	79.9	58.0	39.2	17.7	1.51	0.10
-30	2609	2742	2930	3189	3522	3752	3313	1696	362	191	132	104	79.7	57.4	39.7	16.2	0.79	0.08
-25	3631	3830	4114	4485	4937	5300	4951	3039	700	223	142	109	82.8	59.3	41.8	17.4	0.96	0.09
-20	4343	4525	4791	5133	5554	5994	6203	5362	2147	343	170	123	94.1	65.8	47.8	24.1	3.91	0.09
-15	4484	4640	4870	5151	5484	5814	6037	5709	3021	385	181	129	96.4	67.4	49.2	24.9	4.35	0.11
-10	4619	4764	4959	5179	5416	5613	5762	5857	3391	363	177	128	94.5	65.4	47.7	21.1	2.09	0.09
-5	4651	4801	4984	5179	5398	5572	5706	5929	4075	377	183	130	96.3	67.5	48.4	21.4	2.23	0.08
0	4660	4797	4965	5140	5341	5531	5680	5912	5503	485	213	141	104	73.5	53.3	27.4	5.67	0.09
5	4649	4781	4955	5139	5353	5553	5701	5900	5232	486	209	140	103	72.6	52.9	26.9	5.54	0.12
10	4616	4756	4954	5183	5437	5667	5825	5902	3298	384	180	128	94.7	66.4	48.1	21.4	2.35	0.09
15	4538	4697	4926	5202	5521	5821	5996	5688	2413	341	173	125	91.9	64.5	46.8	20.6	2.18	0.07
20	4316	4490	4753	5097	5517	5959	6159	5302	2085	389	173	125	94.3	66.1	48.4	24.5	4.77	0.14
25	3905	4082	4350	4705	5140	5566	5518	4056	1348	294	160	118	90.3	63.9	46.5	22.9	4.14	0.18
30	2468	2586	2759	2995	3305	3546	3139	1612	369	195	133	104	79.5	57.9	40.7	17.1	1.35	0.01
35	1088	1134	1198	1301	1486	1693	1447	669	266	164	123	98.5	76.0	55.6	38.2	15.7	1.10	0.05
40	328	323	326	323	311	309	293	248	187	140	113	92.9	76.1	56.3	37.7	17.0	2.01	0.16
45	289	287	293	289	272	252	234	202	160	125	101	85.1	72.0	54.2	34.5	15.0	1.61	0.18
50	231	236	246	235	205	159	142	130	116	97.4	81.7	71.5	64.2	46.8	25.8	9.11	0.73	0.09
55	213	215	219	209	182	140	126	116	104	88.8	74.8	64.9	58.1	41.6	21.8	7.04	0.66	0.11
60	182	193	179	173	154	117	105	96.5	88.0	78.0	66.6	56.6	49.9	38.6	18.5	6.02	0.71	0.20
65	156	164	156	152	136	103	92.4	84.3	76.3	66.7	56.2	46.4	39.2	29.0	13.7	4.12	0.67	0.21
70	118	120	122	120	103	79.8	71.7	64.7	57.2	47.9	38.6	29.2	21.9	13.1	5.01	1.08	0.53	0.18
75	89.4	89.3	88.9	86.6	77.9	70.9	64.8	57.1	46.5	34.4	26.7	19.8	14.2	8.33	3.37	0.91	0.46	0.18
80	46.7	43.9	40.2	37.1	36.5	56.6	55.1	48.1	33.7	17.1	9.34	6.22	3.23	1.30	0.95	0.69	0.42	0.19
85	28.1	26.4	24.2	22.4	22.0	34.1	33.2	29.0	20.4	10.4	5.72	3.84	2.03	0.87	0.66	0.51	0.34	0.19
90	0.25	0.25	0.27	0.27	0.27	0.27	0.27	0.28	0.31	0.31	0.29	0.26	0.24	0.22	0.22	0.24	0.22	0.19

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: