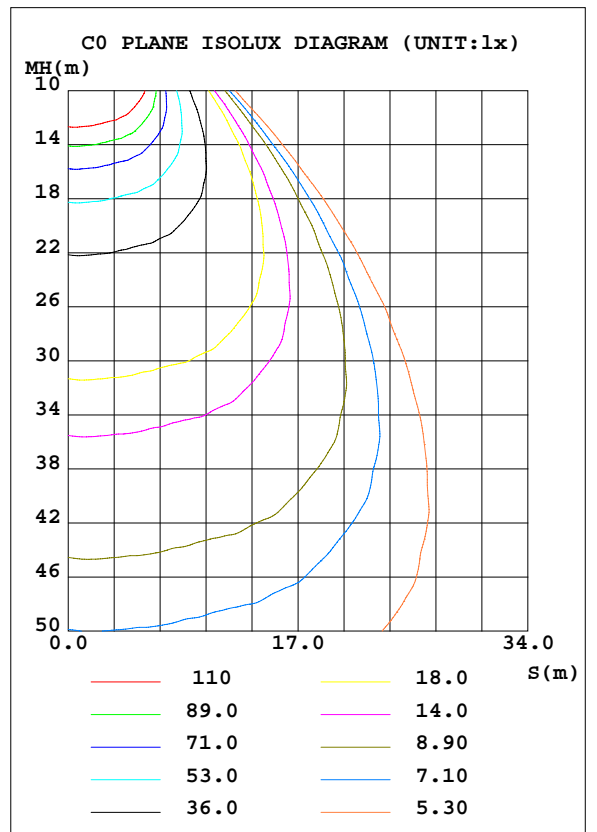
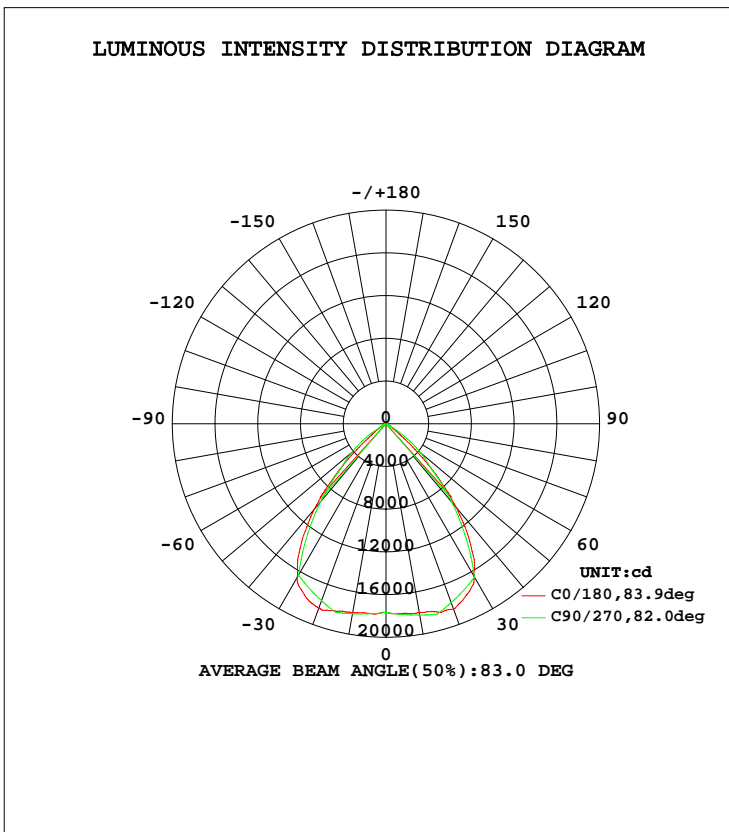


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.15 lm/W			
MODEL	QH-FLXH06-300W	I <sub>max</sub> (cd)	18635	S/MH(C0/180)	1.21
NOMINAL POWER(W)	300	LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	29585	η UP, DN(C0-180)	0.0, 50.1
NOMINAL FLUX(lm)	29585.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.2	η down(%)	100.0	CIBSE SHR MAX	1.25



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	1784	1797	1793	1800	1781	1797	1787	1792	0- 5	426.8	426.8	1.44,1.44
10	1794	1816	1819	1818	1797	1805	1807	1811	5- 10	1289	1716	5.8,5.8
15	1823	1825	1846	1844	1817	1826	1827	1829	10- 15	2159	3875	13.1,13.1
20	1847	1827	1783	1855	1836	1816	1764	1831	15- 20	3004	6879	23.3,23.3
25	1774	1718	1721	1747	1784	1706	1700	1714	20- 25	3719	10597	35.8,35.8
30	1651	1539	1658	1566	1661	1529	1637	1539	25- 30	4230	14827	50.1,50.1
35	1384	1301	1308	1324	1391	1296	1294	1307	30- 35	4345	19172	64.8,64.8
40	1026	993.0	958.9	1024	1045	999.2	950.5	1014	35- 40	3864	23036	77.9,77.9
45	623.8	627.5	609.2	647.6	639.1	632.4	607.3	647.1	40- 45	2941	25976	87.8,87.8
50	267.0	323.5	421.3	335.5	272.9	329.2	419.9	334.8	45- 50	1831	27807	94,94
55	93.37	91.49	233.3	94.32	97.96	97.17	232.5	91.84	50- 55	965.3	28772	97.3,97.3
60	46.54	51.09	45.30	50.66	45.58	54.56	45.14	49.77	55- 60	452.0	29224	98.8,98.8
65	28.48	30.06	31.01	28.00	28.19	30.36	30.66	26.29	60- 65	195.6	29420	99.4,99.4
70	12.28	15.84	16.72	13.98	12.17	15.83	16.17	12.65	65- 70	108.8	29529	99.8,99.8
75	2.283	7.174	2.435	6.400	2.254	7.107	1.684	5.631	70- 75	46.73	29575	100,100
80	0.4240	0.6568	0	0.5996	0.4336	0.4321	0	0.3339	75- 80	8.941	29584	100,100
85	0.1059	0	0	0	0.1137	0	0	0	80- 85	0.8948	29585	100,100
90	0.0599	0	0	0	0.0903	0	0	0	85- 90	0.1087	29585	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

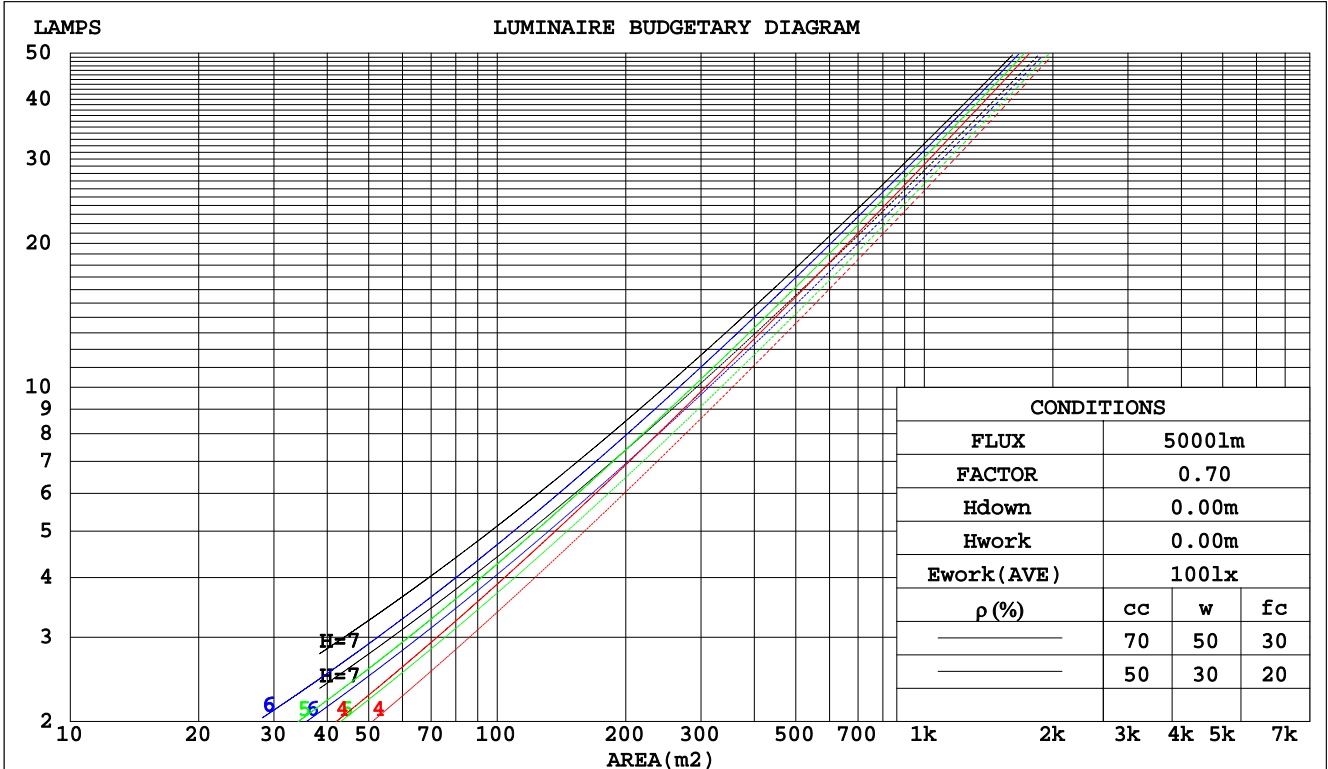
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.95	.93	.92
2.0	1.00	.95	.92	.98	.94	.90	.95	.92	.88	.92	.89	.87	.89	.87	.85	.83
3.0	.92	.86	.81	.90	.85	.81	.88	.83	.79	.85	.81	.78	.83	.79	.77	.75
4.0	.84	.78	.73	.83	.77	.72	.81	.75	.71	.79	.74	.70	.77	.73	.70	.68
5.0	.77	.70	.65	.76	.70	.65	.74	.69	.64	.73	.68	.64	.71	.67	.63	.62
6.0	.71	.64	.59	.70	.64	.59	.69	.63	.59	.67	.62	.58	.66	.61	.58	.56
7.0	.66	.59	.54	.65	.58	.54	.64	.58	.53	.62	.57	.53	.61	.56	.53	.51
8.0	.61	.54	.49	.60	.54	.49	.59	.53	.49	.58	.53	.49	.57	.52	.48	.47
9.0	.57	.50	.45	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.48	.45	.43
10.0	.53	.46	.42	.52	.46	.42	.51	.46	.41	.51	.45	.41	.50	.45	.41	.40



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm								
NAME: LED FLOOD LIGHT			TYPE:IP65			WEIGHT:4		
SPEC.:PHILIPS 3030			DIM.:			SERIAL No.:		
MFR.: QINHAN LIGHTING			SUR.:			PROTECTION ANGLE:		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.204	.116	.037	.197	.112	.036	.184	.106	.034	.172	.099	.032	.162	.094	.030	
2.0	.199	.109	.033	.193	.106	.033	.182	.101	.031	.172	.097	.030	.163	.092	.029	
3.0	.191	.102	.030	.186	.100	.030	.177	.096	.029	.168	.092	.028	.160	.089	.027	
4.0	.183	.095	.028	.178	.093	.028	.170	.090	.027	.162	.087	.026	.155	.084	.026	
5.0	.174	.089	.026	.170	.088	.025	.163	.085	.025	.156	.083	.025	.150	.080	.024	
6.0	.166	.083	.024	.163	.082	.024	.156	.080	.023	.150	.078	.023	.145	.076	.023	
7.0	.158	.078	.022	.155	.077	.022	.150	.076	.022	.144	.074	.022	.139	.072	.021	
8.0	.151	.074	.021	.148	.073	.021	.143	.072	.020	.138	.070	.020	.134	.069	.020	
9.0	.144	.070	.019	.142	.069	.019	.137	.068	.019	.133	.067	.019	.129	.065	.019	
10.0	.138	.066	.018	.136	.066	.018	.131	.064	.018	.127	.063	.018	.124	.062	.018	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.094	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.149	.114	.085	.128	.098	.074	.088	.068	.052	.051	.040	.031	.016	.013	.010	
4.0	.140	.100	.068	.121	.086	.059	.083	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.133	.088	.056	.114	.076	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.126	.079	.046	.108	.069	.040	.075	.048	.028	.043	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.103	.063	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.115	.066	.033	.099	.058	.029	.068	.040	.020	.040	.024	.012	.013	.008	.004	
9.0	.110	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.105	.057	.025	.091	.050	.022	.063	.035	.016	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm										
NAME: LED FLOOD LIGHT					TYPE:IP65			WEIGHT:4		
SPEC.:PHILIPS 3030					DIM.:			SERIAL No.:		
MFR.: QINHAN LIGHTING					SUR.:			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	32.2	33.3	32.4	33.5	33.7	32.8	34.0	33.1	34.1	34.3
3H	32.0	33.0	32.3	33.3	33.5	32.7	33.7	32.9	33.9	34.1
4H	31.9	32.9	32.2	33.1	33.4	32.6	33.6	32.9	33.8	34.0
6H	31.8	32.7	32.1	33.0	33.2	32.5	33.4	32.8	33.6	33.9
8H	31.8	32.7	32.1	32.9	33.2	32.4	33.3	32.7	33.6	33.8
12H	31.7	32.6	32.1	32.8	33.1	32.4	33.2	32.7	33.5	33.8
4H 2H	31.9	32.9	32.2	33.2	33.4	32.6	33.6	32.9	33.8	34.0
3H	31.8	32.6	32.1	32.9	33.2	32.4	33.3	32.8	33.6	33.8
4H	31.7	32.5	32.1	32.8	33.1	32.3	33.1	32.7	33.4	33.7
6H	31.6	32.3	32.0	32.6	33.0	32.3	32.9	32.6	33.3	33.6
8H	31.6	32.2	32.0	32.5	32.9	32.2	32.8	32.6	33.2	33.5
12H	31.5	32.1	31.9	32.4	32.8	32.2	32.7	32.6	33.1	33.5
8H 4H	31.6	32.2	32.0	32.5	32.9	32.2	32.8	32.6	33.2	33.5
6H	31.5	32.0	31.9	32.4	32.8	32.1	32.6	32.5	33.0	33.4
8H	31.4	31.9	31.9	32.3	32.7	32.1	32.5	32.5	32.9	33.4
12H	31.4	31.8	31.8	32.2	32.7	32.0	32.4	32.5	32.8	33.3
12H 4H	31.5	32.1	31.9	32.5	32.8	32.2	32.7	32.6	33.1	33.5
6H	31.4	31.9	31.9	32.3	32.7	32.1	32.5	32.5	32.9	33.4
8H	31.4	31.8	31.8	32.2	32.7	32.0	32.4	32.5	32.8	33.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.5 / -10.0					+ 2.1 / - 4.9				
1.5H	+ 3.5 / - 6.6					+ 2.7 / - 4.8				
2.0H	+ 6.5 / - 8.0					+ 4.8 / - 9.1				

CIE Pub.117 Corrected 29585 lm Total Lamp Luminous Flux.(8log(F/F0) = 11.8)

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	77	69	64	77	69	64	76	69	64	60
0.80	86	79	74	86	78	74	84	78	73	69
1.00	93	86	81	92	85	81	90	86	81	76
1.25	98	92	87	97	91	87	95	90	86	81
1.50	102	96	92	100	95	91	98	94	90	85
2.00	106	101	97	104	100	96	101	98	95	89
2.50	108	103	100	106	102	99	103	100	97	90
3.00	110	106	102	108	104	101	104	102	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	113	111	108	111	109	107	107	105	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

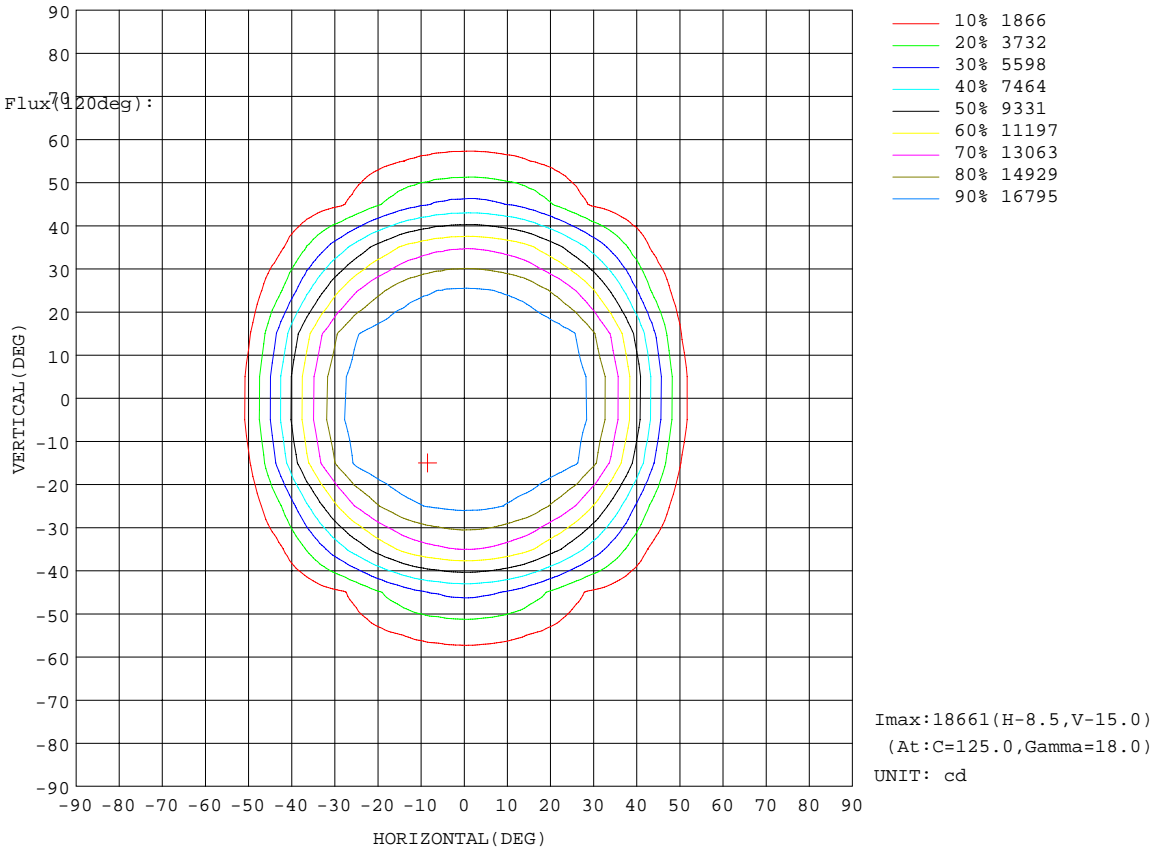
Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

25976 lm  
 %lum = 87.8%  
 %lamp = 87.8%

Conical surface Flux(70deg):

29224 lm  
 %lum = 98.8%  
 %lamp = 98.8%

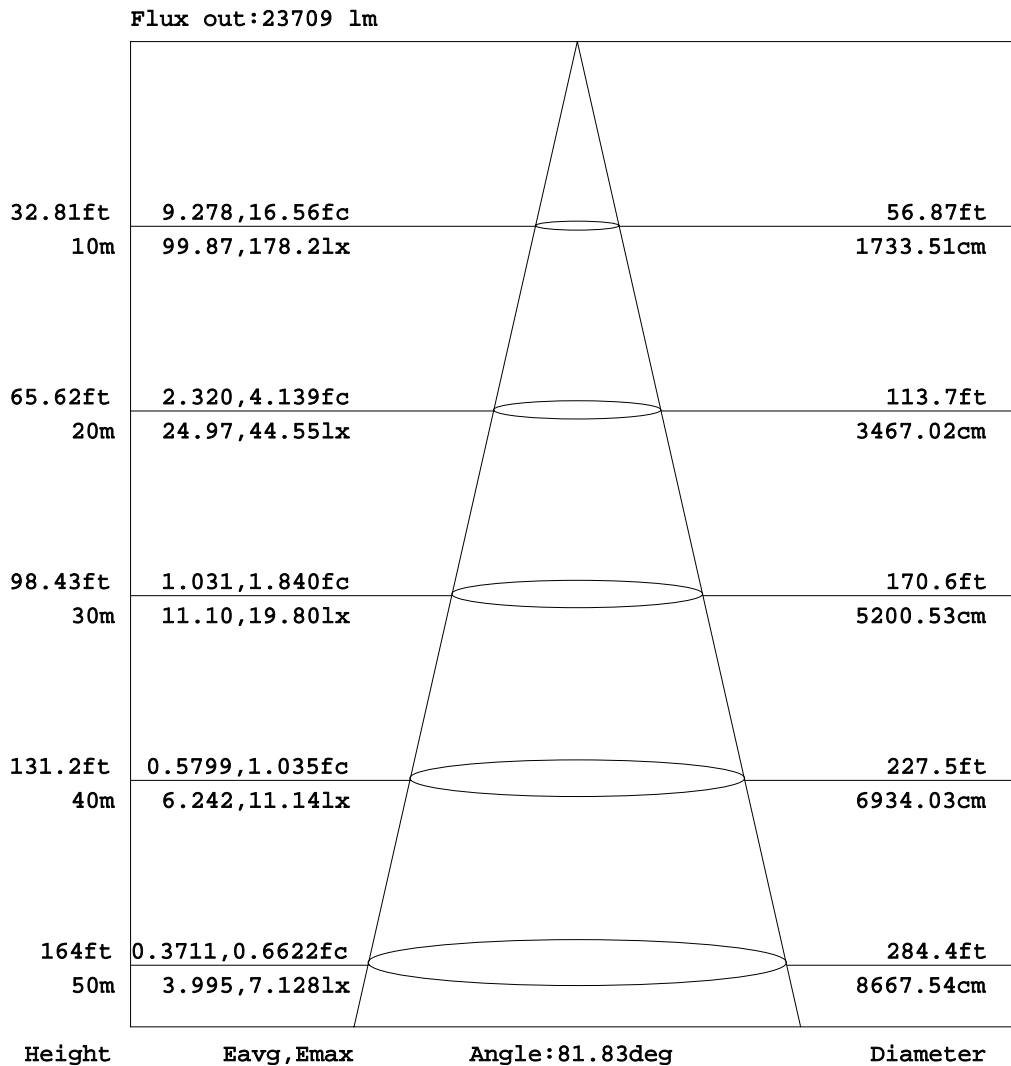


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



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

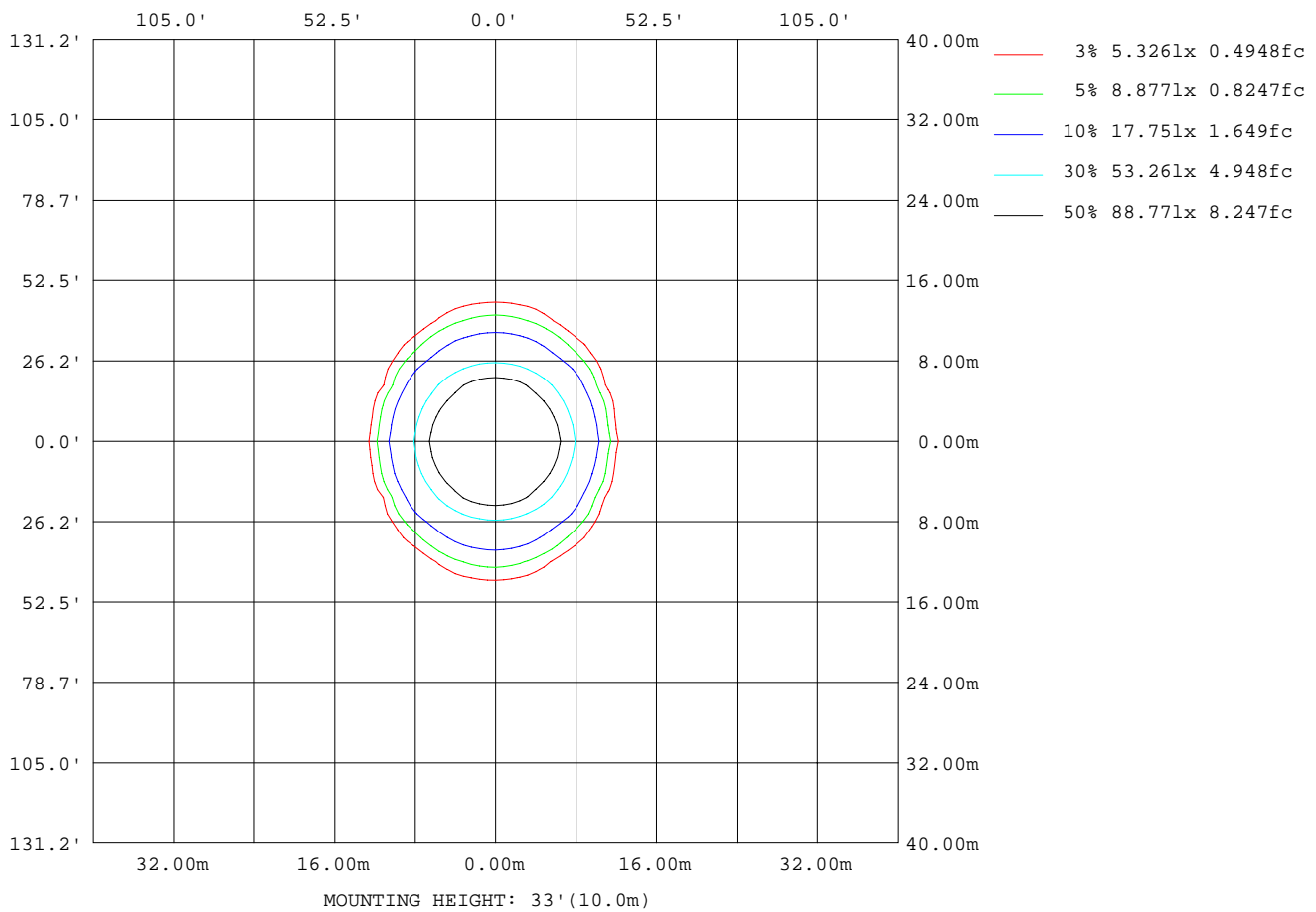
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

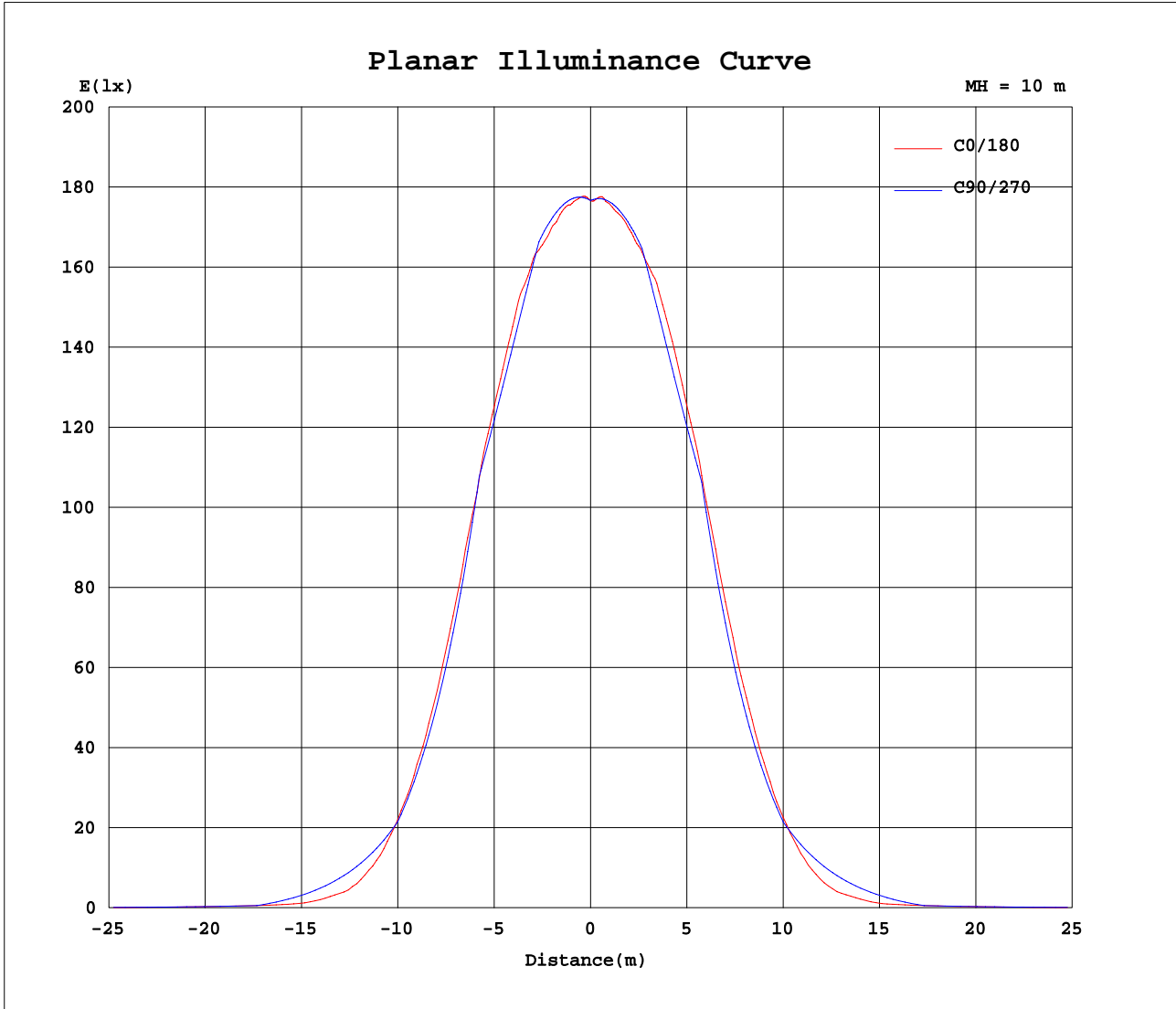
Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0000]  
 Remarks:





LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:1.397A P:298.4W PF:0.9710 Lamp Flux:29585.3x1 lm		
NAME: LED FLOOD LIGHT	TYPE:IP65	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: x10cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766	1766
5	1784	1786	1787	1789	1791	1793	1795	1797	1797	1796	1795	1793	1790	1788	1786	1786	1787	1788	1790
10	1801	1802	1803	1803	1803	1803	1803	1805	1807	1809	1812	1813	1814	1813	1810	1807	1807	1806	1809
15	1815	1814	1812	1812	1816	1821	1825	1826	1824	1820	1821	1825	1831	1830	1831	1828	1827	1823	1827
20	1819	1813	1808	1802	1805	1809	1809	1816	1820	1806	1790	1774	1771	1770	1767	1764	1764	1762	1763
25	1757	1750	1746	1744	1744	1749	1719	1706	1697	1690	1691	1690	1688	1691	1697	1698	1700	1697	1693
30	1622	1610	1610	1621	1620	1572	1545	1529	1525	1541	1559	1575	1594	1611	1623	1630	1637	1630	1622
35	1341	1349	1361	1353	1328	1302	1298	1296	1323	1348	1341	1334	1313	1305	1293	1293	1294	1294	1297
40	994	1006	1022	987	973	969	980	999	986	986	971	969	961	952	952	950	950	951	952
45	605	635	613	604	605	617	631	632	624	612	608	602	606	604	607	608	607	608	606
50	259	281	284	268	271	317	337	329	291	264	293	339	373	394	410	417	420	419	411
55	96.3	104	94.7	101	118	132	122	97.2	121	143	175	202	220	227	230	232	233	233	232
60	46.3	46.5	47.2	47.9	55.0	49.7	48.7	54.6	71.0	75.4	84.4	87.2	80.3	69.0	57.0	48.3	45.1	48.2	56.6
65	28.2	28.9	28.7	29.5	31.0	30.6	30.1	30.4	32.5	30.2	30.7	30.8	31.0	30.8	30.9	30.7	30.7	30.5	30.2
70	12.3	12.5	12.9	13.7	14.3	13.9	13.6	15.8	17.3	18.0	17.9	17.7	17.2	16.8	16.5	16.3	16.2	16.1	16.1
75	2.42	2.40	3.54	3.23	2.87	4.89	6.44	7.11	7.14	6.58	5.63	4.62	3.65	2.84	2.21	1.87	1.68	1.72	2.06
80	0.43	0.48	0.46	0.60	0.86	1.09	0.66	0.43	0.40	0.35	0.29	0.23	0.16	0.10	0.05	0.01	0.00	0.01	0.04
85	0.11	0.12	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2016-03-14

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.287  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

