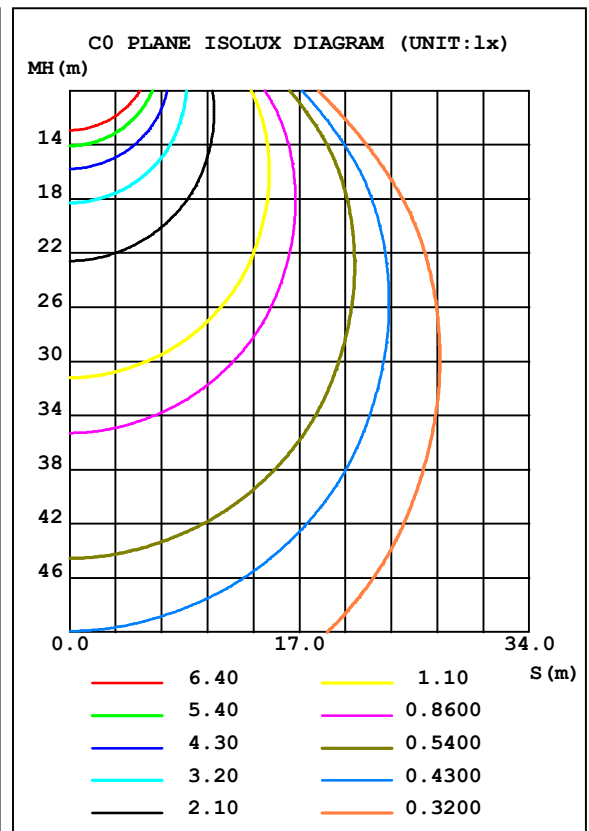
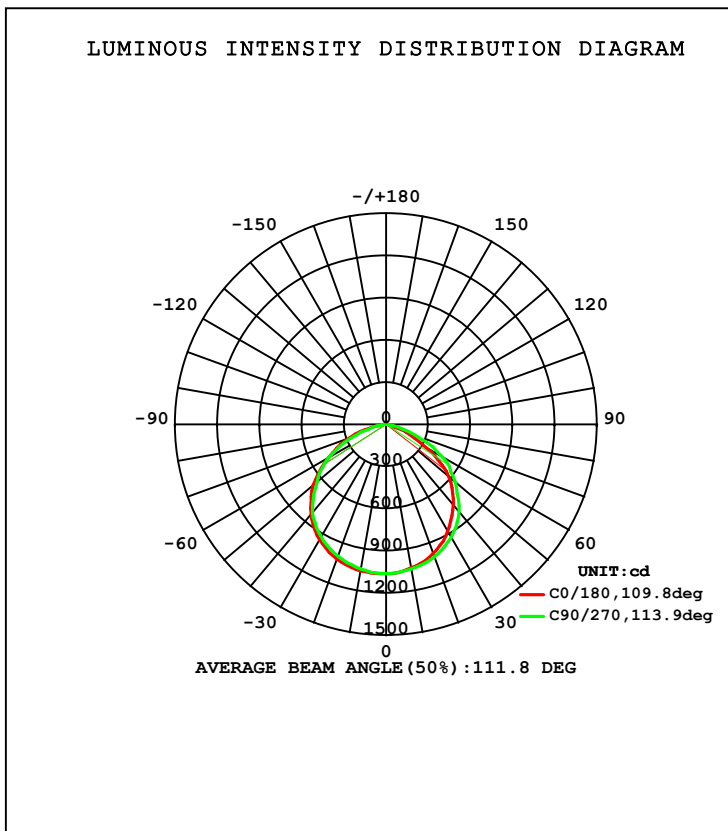


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002,BT61-03032,BT61-03052,BT61-03032	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	SH-LF03IG-30/765	I _{max} (cd)	1063	S/MH (C0/180)	1.23
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	1.30
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2858.2	η UP, DN (C0-180)	0.1, 47.3
NOMINAL FLUX (lm)	2858.2	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 52.5
LAMPS INSIDE	1	η up (%)	0.2	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.8	η down (%)	99.8	CIBSE SHR MAX	1.35



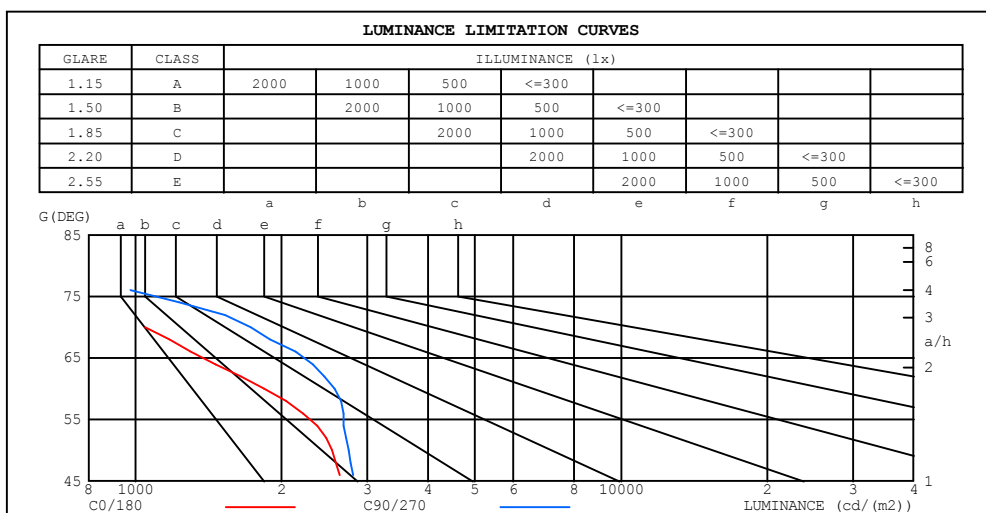
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum,lamp
10	1038	1045	1057	1044				0- 10	100.6	100.6	3.52,3.52
20	979.0	1005	1021	1001				10- 20	290.4	391.0	13.7,13.7
30	880.3	928.6	948.1	926.0				20- 30	445.0	836.0	29.2,29.2
40	745.4	812.5	832.2	817.0				30- 40	541.2	1377	48.2,48.2
50	582.0	641.3	677.7	644.6				40- 50	556.1	1933	67.6,67.6
60	328.6	466.3	472.0	469.7				50- 60	482.7	2416	84.5,84.5
70	127.9	214.6	279.5	229.0				60- 70	316.5	2733	95.6,95.6
80	1.483	29.74	57.96	35.24				70- 80	113.9	2846	99.6,99.6
90	0	0	0.5035	0.0016				80- 90	6.940	2853	99.8,99.8
100	0	0.1122	0.0000	0				90-100	0.0243	2853	99.8,99.8
110	0.3519	0.4033	0.2201	0.2684				100-110	0.1755	2854	99.8,99.8
120	0.7916	0.7837	0.5942	0.7164				110-120	0.4953	2854	99.9,99.9
130	1.122	1.142	0.9470	1.007				120-130	0.7799	2855	99.9,99.9
140	1.408	1.410	1.276	1.321				130-140	0.9224	2856	99.9,99.9
150	1.694	1.657	1.540	1.589				140-150	0.9372	2857	99.9,99.9
160	1.870	1.836	1.761	1.813				150-160	0.7966	2857	100,100
170	2.002	1.992	1.958	1.947				160-170	0.5350	2858	100,100
180	2.090	2.037	2.068	2.015				170-180	0.1918	2858	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	19	103
80	24	472
75	482	1307
70	1048	1728
65	1517	2406
60	1841	2568
55	2427	2750
50	2537	2748
45	2709	2895

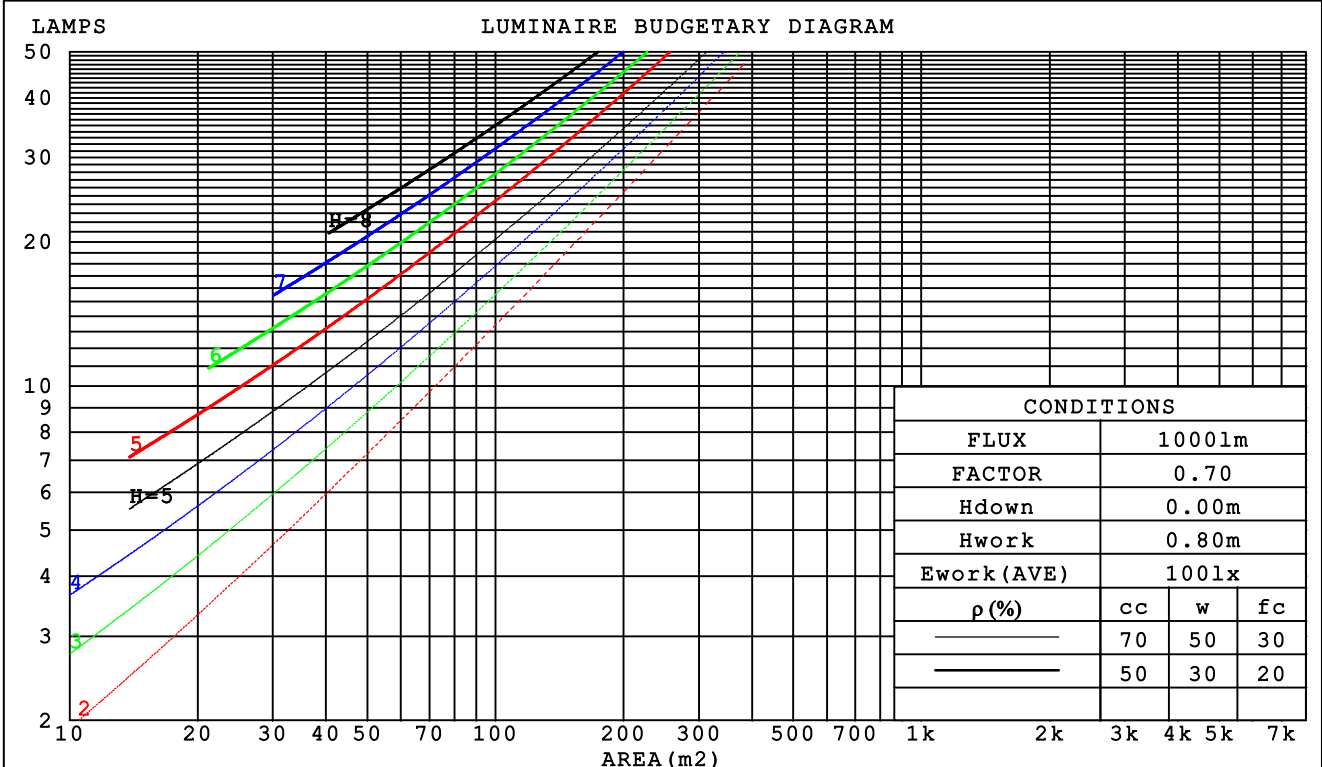
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002,BT61-03032,BT61-03052,BT61-03032	DIM.:	SERIAL No.:
MFR.:	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	1.06	1.02	.98	1.03	.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.87	.83	.78	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.75	.69	.65	.72	.68	.64	.62
4.0	.73	.64	.58	.71	.64	.58	.69	.62	.57	.67	.61	.56	.65	.59	.55	.53
5.0	.65	.56	.50	.64	.56	.50	.62	.55	.49	.60	.54	.49	.58	.53	.48	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.53	.47	.42	.40
7.0	.53	.45	.39	.52	.44	.38	.51	.44	.38	.49	.43	.38	.48	.42	.38	.36
8.0	.49	.40	.34	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.45	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.29
10.0	.41	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

WEC AND CCEC

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.275	.156	.050	.268	.153	.049	.255	.146	.047	.243	.140	.045	.231	.134	.043	
2.0	.268	.147	.045	.262	.144	.044	.250	.139	.043	.240	.134	.042	.230	.130	.041	
3.0	.253	.135	.040	.248	.133	.040	.237	.129	.039	.228	.125	.038	.219	.121	.038	
4.0	.237	.123	.036	.232	.121	.036	.223	.118	.035	.214	.115	.035	.207	.112	.034	
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.201	.106	.032	.194	.104	.031	
6.0	.206	.103	.030	.203	.102	.029	.195	.100	.029	.189	.098	.029	.182	.096	.029	
7.0	.193	.095	.027	.190	.095	.027	.183	.093	.027	.177	.091	.026	.172	.089	.026	
8.0	.181	.089	.025	.178	.088	.025	.172	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.170	.082	.023	.168	.082	.023	.162	.080	.023	.158	.079	.023	.153	.078	.022	
10.0	.161	.077	.021	.158	.076	.021	.153	.075	.021	.149	.074	.021	.145	.073	.021	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.179	.158	.138	.153	.135	.119	.105	.093	.082	.060	.054	.048	.019	.017	.015	
2.0	.170	.133	.102	.146	.115	.088	.100	.079	.062	.058	.046	.036	.019	.015	.012	
3.0	.163	.116	.078	.139	.100	.068	.096	.069	.047	.055	.040	.028	.018	.013	.009	
4.0	.155	.102	.061	.133	.088	.053	.092	.061	.038	.053	.036	.022	.017	.012	.007	
5.0	.148	.092	.050	.127	.079	.043	.088	.055	.031	.051	.032	.018	.016	.011	.006	
6.0	.141	.083	.042	.121	.072	.036	.084	.050	.026	.049	.030	.015	.016	.010	.005	
7.0	.135	.076	.035	.116	.066	.031	.080	.046	.022	.046	.027	.013	.015	.009	.004	
8.0	.128	.070	.031	.111	.061	.027	.076	.043	.019	.044	.025	.011	.014	.008	.004	
9.0	.123	.066	.027	.106	.057	.024	.073	.040	.017	.043	.024	.010	.014	.008	.003	
10.0	.117	.061	.024	.101	.053	.021	.070	.037	.015	.041	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

Uncorrected UGR Table

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm										
NAME:30W SMD LED FLOODLIGHT					TYPE:FLOODLED-PL			WEIGHT:		
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032					DIM.:			SERIAL No.:		
MFR.:					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	15.3	16.8	15.6	17.0	17.2	16.2	17.7	16.5	17.9	18.1
3H	15.8	17.2	16.1	17.4	17.7	17.2	18.5	17.5	18.7	19.0
4H	15.8	17.1	16.1	17.3	17.6	17.3	18.6	17.6	18.8	19.1
6H	15.7	16.9	16.0	17.2	17.5	17.3	18.5	17.6	18.8	19.0
8H	15.7	16.8	16.0	17.1	17.4	17.2	18.4	17.6	18.7	19.0
12H	15.6	16.7	16.0	17.0	17.3	17.2	18.3	17.5	18.6	18.9
4H 2H	15.8	17.1	16.1	17.3	17.6	16.5	17.8	16.8	18.1	18.3
3H	16.4	17.5	16.8	17.8	18.1	17.6	18.7	17.9	19.0	19.3
4H	16.4	17.4	16.8	17.7	18.1	17.8	18.8	18.1	19.1	19.4
6H	16.3	17.2	16.7	17.6	17.9	17.8	18.6	18.2	19.0	19.4
8H	16.3	17.1	16.7	17.5	17.9	17.7	18.5	18.1	18.9	19.3
12H	16.2	17.0	16.7	17.4	17.8	17.7	18.4	18.1	18.8	19.2
8H 4H	16.4	17.2	16.8	17.6	18.0	17.7	18.5	18.1	18.9	19.3
6H	16.3	17.0	16.8	17.4	17.8	17.7	18.4	18.2	18.8	19.2
8H	16.3	16.9	16.8	17.3	17.8	17.7	18.3	18.1	18.7	19.2
12H	16.3	16.8	16.7	17.2	17.7	17.6	18.2	18.1	18.6	19.1
12H 4H	16.4	17.1	16.8	17.5	17.9	17.7	18.4	18.1	18.8	19.2
6H	16.3	16.9	16.8	17.3	17.8	17.7	18.3	18.1	18.7	19.1
8H	16.3	16.8	16.7	17.2	17.7	17.6	18.2	18.1	18.6	19.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.5 / - 0.8					+ 0.3 / - 0.5				
2.0H	+ 0.9 / - 1.1					+ 0.6 / - 0.7				

CIE Pub.117 Corrected 2858 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.6)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

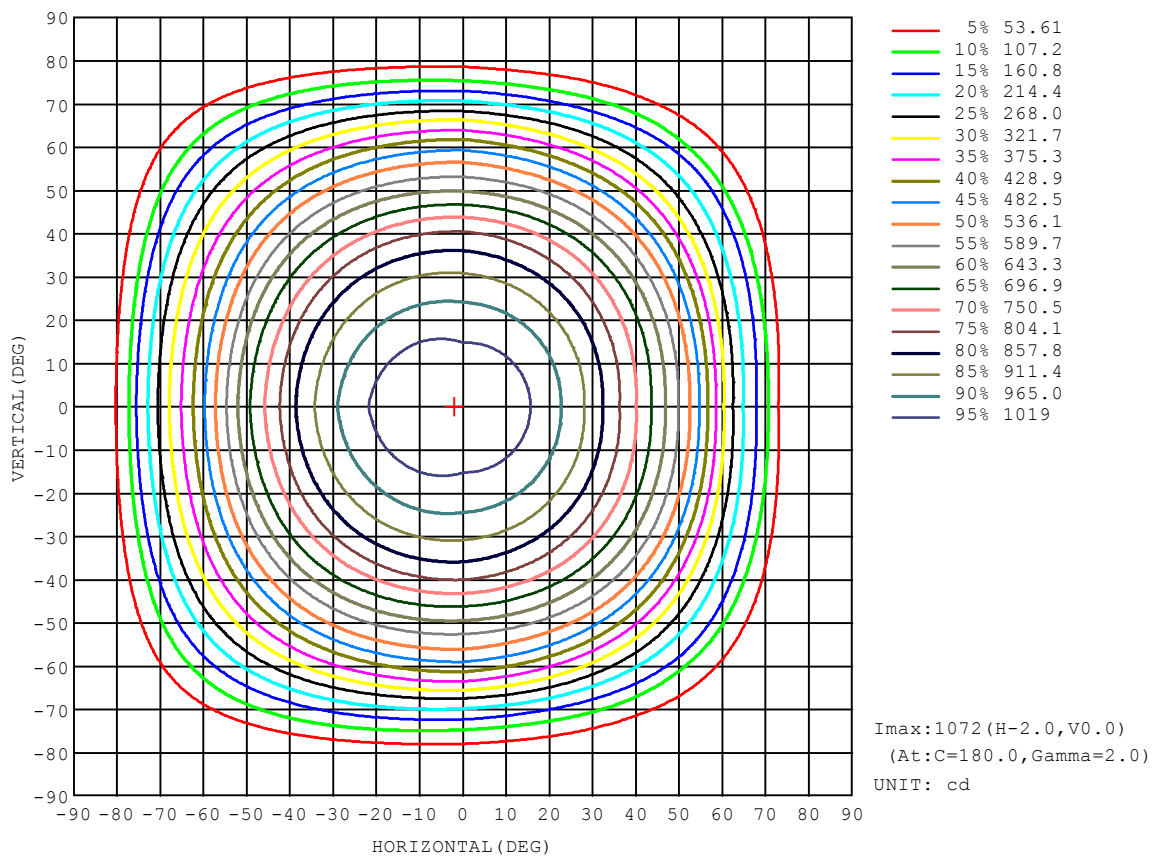
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	59	48	41	58	48	41	57	47	41	34
0.80	70	58	51	69	58	51	67	57	51	44
1.00	78	68	61	77	67	61	75	68	60	53
1.25	86	76	69	84	75	69	82	74	68	61
1.50	90	81	75	89	80	74	86	79	73	66
2.00	97	89	83	95	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	78
3.00	104	98	93	102	96	92	98	93	90	81
4.00	108	103	98	105	101	97	101	98	94	86
5.00	110	106	102	108	104	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032	MFR.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

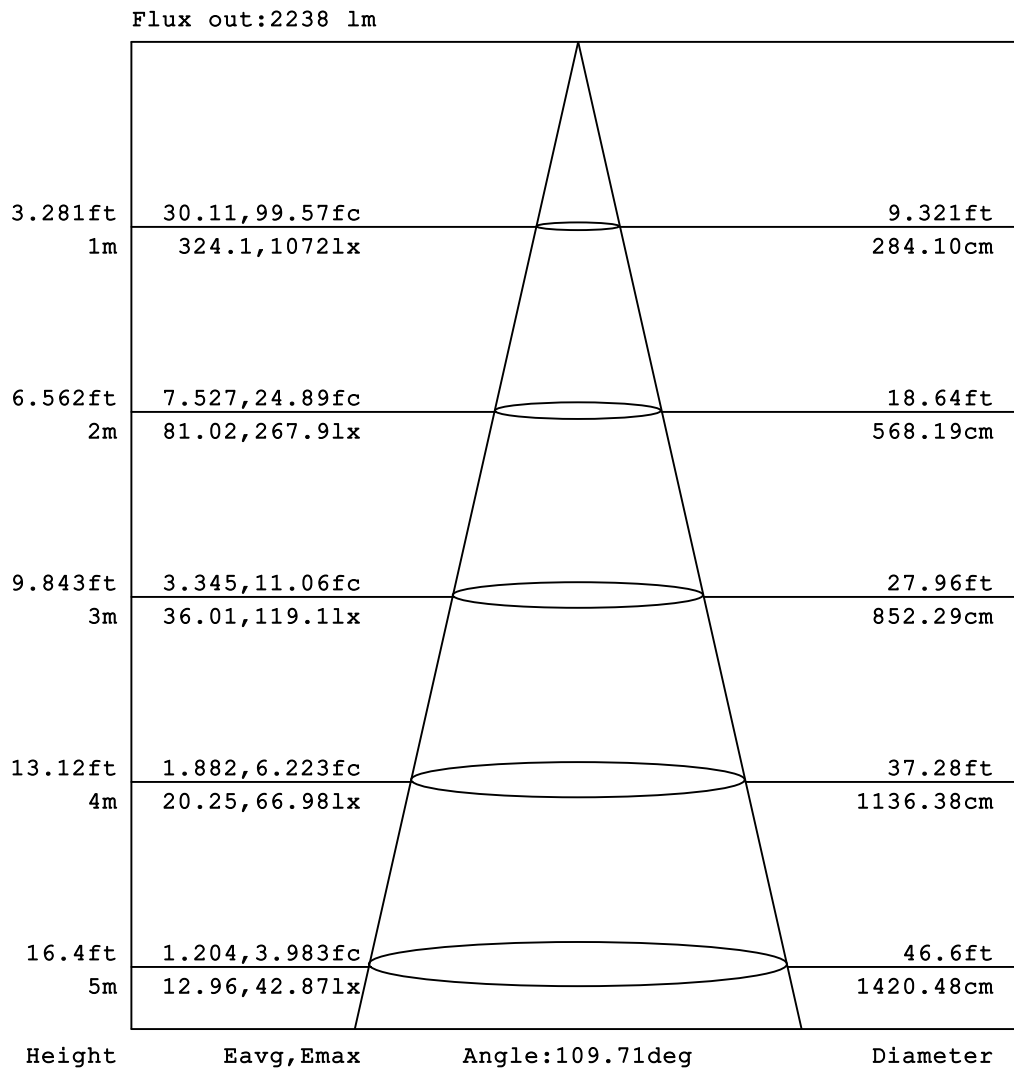


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2017-03-09

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
Humidity:65.0%
Test Distance:18.825m [K=1.0000]
Remarks: 17.6-18.2V 125-131LM 455-457.5NM

AAI Figure

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



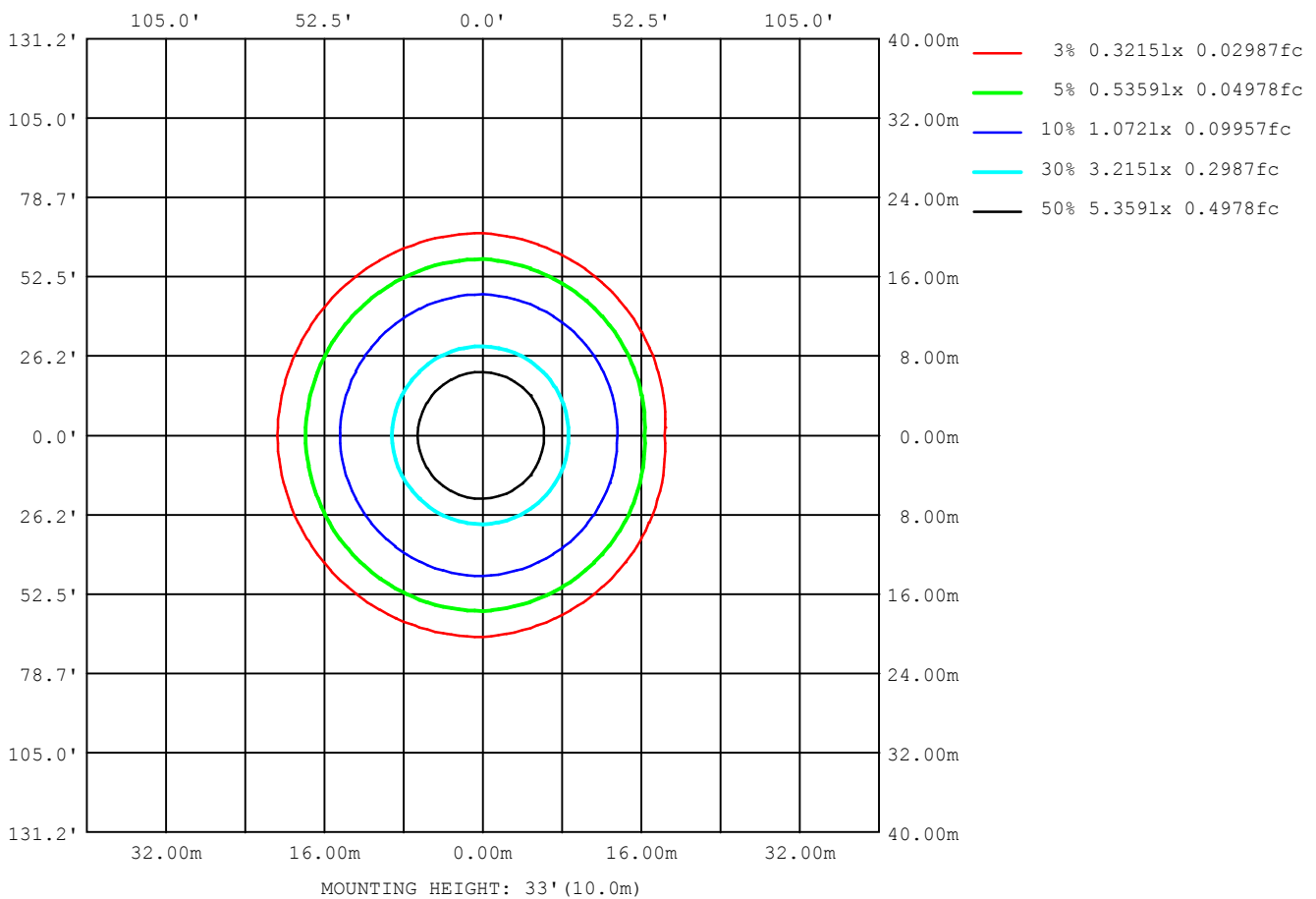
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

ISOLUX DIAGRAM

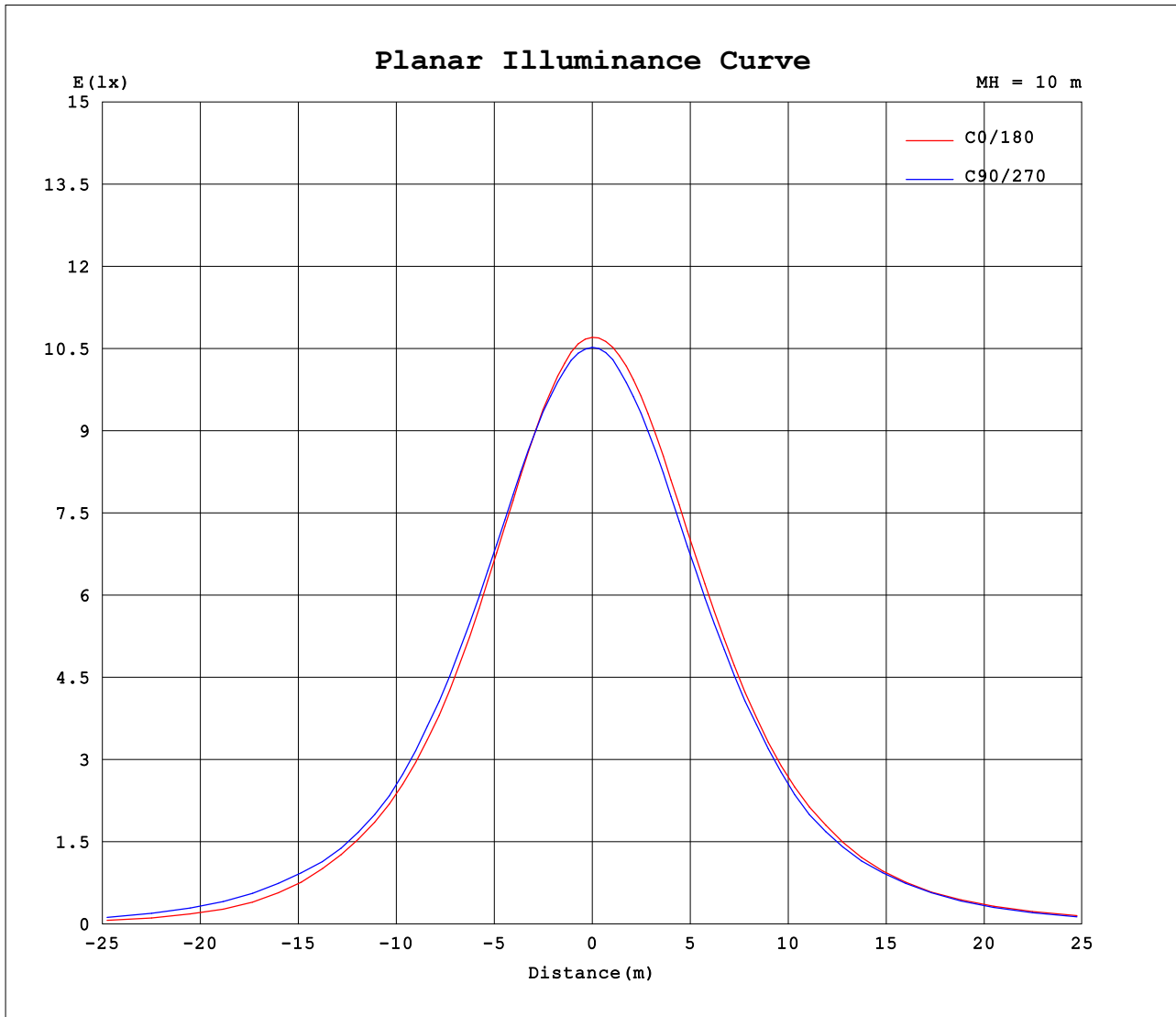
Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
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 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.8V I:0.1333A P:29.32W PF:0.9961 Lamp Flux:2858.2x1 lm		
NAME:30W SMD LED FLOODLIGHT	TYPE:FLOODLED-PL	WEIGHT:
SPEC.:BT61-03002, BT61-03032, BT61-03052, BT61-03032	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1063	1063	1063	1063															
5	1058	1059	1063	1060															
10	1038	1045	1057	1044															
15	1020	1033	1047	1030															
20	979	1005	1021	1001															
25	945	977	996	974															
30	880	929	948	926															
35	828	887	907	887															
40	745	813	832	817															
45	684	743	772	752															
50	582	641	678	645															
55	497	573	598	579															
60	329	466	472	470															
65	229	369	393	374															
70	128	215	279	229															
75	44.5	123	189	134															
80	1.48	29.7	58.0	35.2															
85	0.59	3.27	4.22	2.81															
90	0.00	0.00	0.50	0.00															
95	0.00	0.02	0.00	0.00															
100	0.00	0.11	0.00	0.00															
105	0.11	0.25	0.09	0.11															
110	0.35	0.40	0.22	0.27															
115	0.48	0.56	0.35	0.45															
120	0.79	0.78	0.59	0.72															
125	0.86	0.92	0.70	0.83															
130	1.12	1.14	0.95	1.01															
135	1.19	1.21	1.06	1.16															
140	1.41	1.41	1.28	1.32															
145	1.54	1.52	1.39	1.48															
150	1.69	1.66	1.54	1.59															
155	1.80	1.75	1.65	1.68															
160	1.87	1.84	1.76	1.81															
165	1.94	1.90	1.83	1.84															
170	2.00	1.99	1.96	1.95															
175	2.07	1.99	2.02	1.97															
180	2.09	2.04	2.07	2.01															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2017-03-09

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:18.825m [K=1.0000]
 Remarks: 17.6-18.2V 125-131LM 455-457.5NM