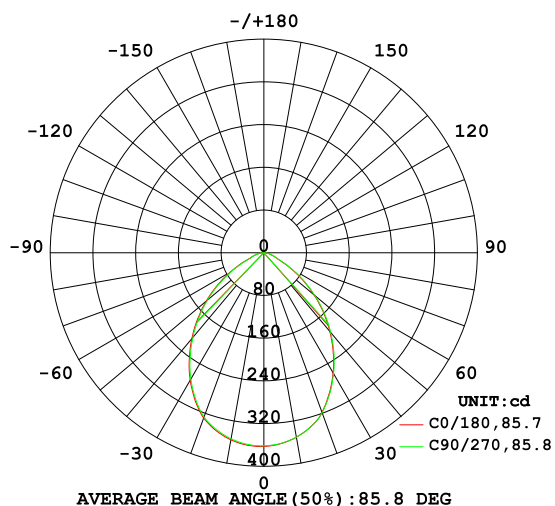




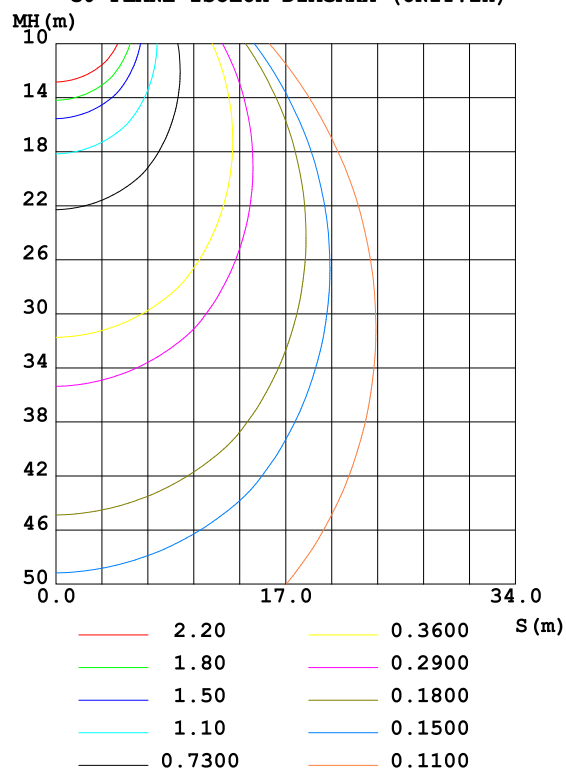
LUMINAIRE PHOTOMETRIC TEST REPORT

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 74.63 lm/W
MODEL	Philips 3030 2D	Imax(cd)	362.9	S/MH (C0/180)	1.15	
NOMINAL POWER(W)	9.3	LOR(%)	66.2	S/MH (C90/270)	1.14	
RATED VOLTAGE(V)	18.7	TOTAL FLUX(lm)	694.03	η UP,DN(C0-180)	0.0,32.1	
NOMINAL FLUX(lm)	1048.7	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,34.1	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	18.7	η down(%)	66.2	CIBSE SHR MAX	1.25	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Rinno
Test Date:2018-12-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.954m [K=1.0000]
Remarks: White



ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	350.8	350.4	350.8	352.5	355.7	355.3	353.8	351.2	0- 10	34.10	34.10	4.91,3.25
20	318.2	320.3	318.9	325.2	329.6	330.0	327.6	323.1	10- 20	95.97	130.1	18.7,12.4
30	259.4	266.4	261.3	275.7	276.0	283.7	273.3	272.7	20- 30	137.9	268.0	38.6,25.6
40	192.5	193.5	194.8	204.3	210.0	214.0	206.9	201.9	30- 40	148.0	416.0	59.9,39.7
50	122.3	122.6	124.9	132.9	140.9	141.7	137.7	130.0	40- 50	128.4	544.4	78.4,51.9
60	57.37	60.70	59.12	68.94	73.41	75.60	70.48	66.15	50- 60	87.45	631.9	91,60.3
70	20.95	21.58	21.59	25.19	25.22	28.38	24.45	23.88	60- 70	41.21	673.1	97,64.2
80	7.671	7.593	7.961	9.149	10.38	10.44	9.997	8.785	70- 80	16.55	689.7	99.4,65.8
90	0	0	0	0	0	0	0	0	80- 90	4.372	694.0	100,66.2
100	0	0	0	0	0	0	0	0	90-100	0	694.0	100,66.2
110	0	0	0	0	0	0	0	0	100-110	0	694.0	100,66.2
120	0	0	0	0	0	0	0	0	110-120	0	694.0	100,66.2
130	0	0	0	0	0	0	0	0	120-130	0	694.0	100,66.2
140	0	0	0	0	0	0	0	0	130-140	0	694.0	100,66.2
150	0	0	0	0	0	0	0	0	140-150	0	694.0	100,66.2
160	0	0	0	0	0	0	0	0	150-160	0	694.0	100,66.2
170	0	0	0	0	0	0	0	0	160-170	0	694.0	100,66.2
180	0	0	0	0	0	0	0	0	170-180	0	694.0	100,66.2
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 484.24 lm

%lum = 69.8%

%lamp = 46.2%

Conical surface Flux(120deg): 631.89 lm

%lum = 91.0%

%lamp = 60.3%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Rinno
 Test Date:2018-12-27

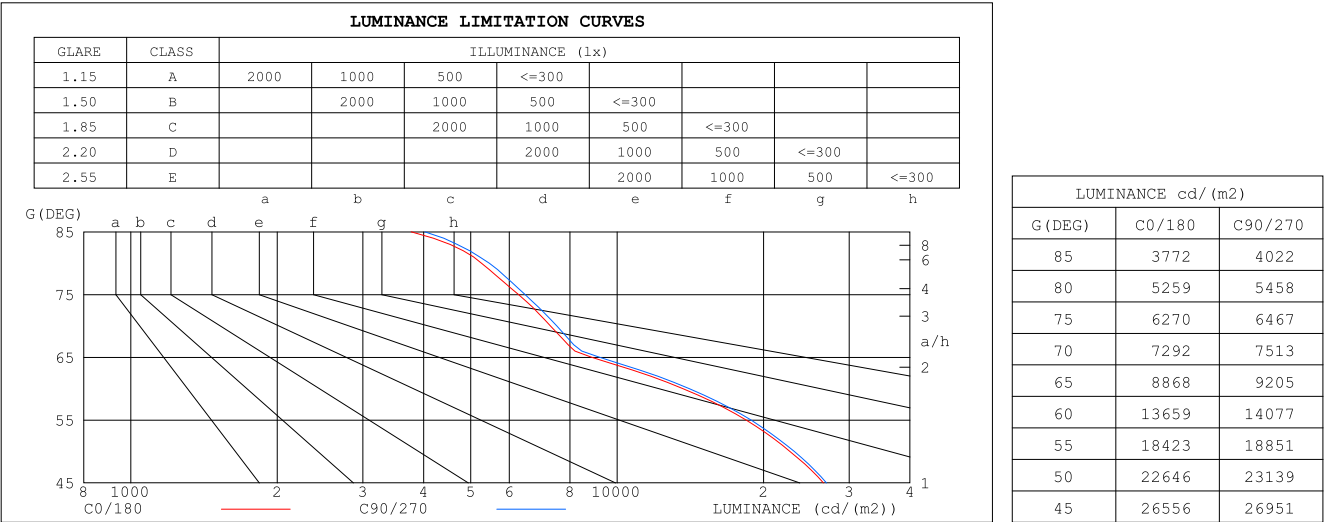
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.954m [K=1.0000]
 Remarks: White



IDEA

/BOJ (06.79.0112.____)

LUMINANCE LIMITATION CURVES



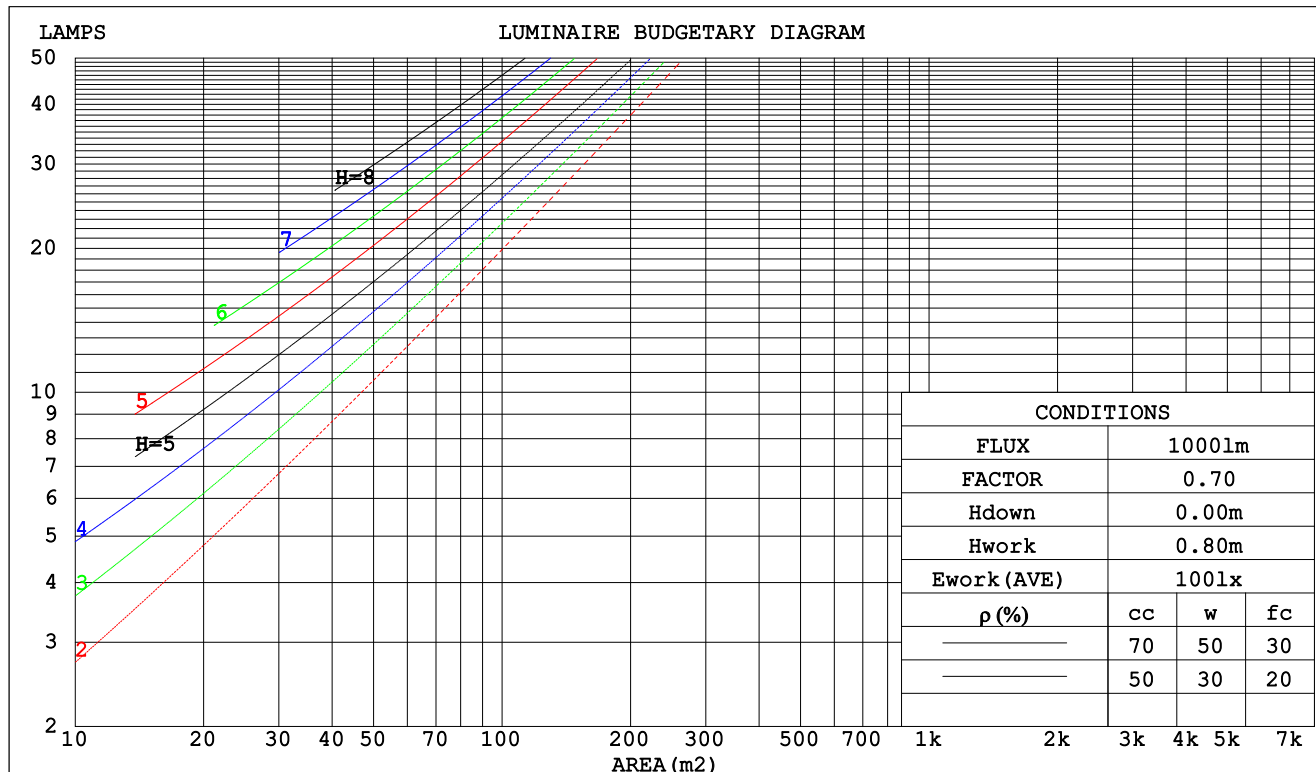
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Rinno
Test Date:2018-12-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.954m [K=1.0000]
Remarks: White



CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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						Coefficients of Utilization(CU)									
0.0	.79	.79	.79	.77	.77	.77	.74	.74	.74	.70	.70	.70	.68	.68	.68	.66
1.0	.71	.69	.67	.69	.67	.65	.67	.65	.63	.64	.63	.62	.62	.61	.60	.58
2.0	.63	.60	.57	.62	.59	.56	.60	.57	.55	.58	.56	.53	.56	.54	.52	.51
3.0	.57	.52	.49	.56	.52	.48	.54	.50	.47	.52	.49	.47	.51	.48	.46	.45
4.0	.51	.46	.43	.51	.46	.42	.49	.45	.42	.48	.44	.41	.46	.43	.41	.39
5.0	.47	.41	.37	.46	.41	.37	.45	.40	.37	.43	.40	.37	.42	.39	.36	.35
6.0	.42	.37	.33	.42	.37	.33	.41	.36	.33	.40	.36	.33	.39	.35	.32	.31
7.0	.39	.34	.30	.38	.33	.30	.37	.33	.30	.36	.32	.29	.36	.32	.29	.28
8.0	.36	.31	.27	.35	.30	.27	.34	.30	.27	.34	.30	.27	.33	.29	.27	.25
9.0	.33	.28	.25	.33	.28	.25	.32	.28	.25	.31	.27	.24	.31	.27	.24	.23
10.0	.31	.26	.23	.30	.26	.23	.30	.25	.22	.29	.25	.22	.29	.25	.22	.21



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Rinno
 Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.954m [K=1.0000]
 Remarks: White



WEC AND CCEC

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	.164	.093	.030	.160	.091	.029	.151	.087	.028	.143	.083	.026	.136	.079	.025		
2.0	.159	.087	.027	.155	.085	.026	.147	.082	.025	.140	.079	.025	.134	.076	.024		
3.0	.150	.080	.024	.147	.079	.024	.140	.076	.023	.134	.074	.023	.129	.071	.022		
4.0	.141	.073	.022	.138	.072	.021	.133	.070	.021	.127	.068	.021	.122	.066	.020		
5.0	.133	.068	.020	.130	.067	.019	.125	.065	.019	.120	.064	.019	.116	.062	.019		
6.0	.125	.063	.018	.123	.062	.018	.118	.061	.018	.114	.059	.017	.110	.058	.017		
7.0	.118	.058	.017	.116	.058	.016	.112	.056	.016	.108	.055	.016	.104	.054	.016		
8.0	.111	.054	.015	.109	.054	.015	.106	.053	.015	.102	.052	.015	.099	.051	.015		
9.0	.105	.051	.014	.103	.050	.014	.100	.050	.014	.097	.049	.014	.094	.048	.014		
10.0	.100	.048	.013	.098	.047	.013	.095	.047	.013	.092	.046	.013	.090	.045	.013		

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	.126	.126	.126	.108	.108	.108	.074	.074	.074	.042	.042	.042	.014	.014	.014	
1.0	.116	.104	.092	.100	.089	.079	.068	.061	.055	.039	.035	.032	.013	.011	.010	
2.0	.109	.087	.069	.094	.075	.060	.064	.052	.042	.037	.030	.024	.012	.010	.008	
3.0	.103	.075	.053	.089	.065	.046	.061	.045	.032	.035	.026	.019	.011	.009	.006	
4.0	.098	.066	.042	.084	.057	.037	.058	.040	.026	.033	.023	.015	.011	.008	.005	
5.0	.093	.059	.034	.080	.051	.030	.055	.036	.021	.032	.021	.012	.010	.007	.004	
6.0	.089	.053	.028	.076	.046	.025	.053	.032	.017	.030	.019	.010	.010	.006	.003	
7.0	.084	.049	.024	.073	.042	.021	.050	.030	.015	.029	.017	.009	.009	.006	.003	
8.0	.081	.045	.020	.069	.039	.018	.048	.027	.013	.028	.016	.008	.009	.005	.002	
9.0	.077	.042	.018	.066	.036	.016	.046	.025	.011	.027	.015	.007	.009	.005	.002	
10.0	.073	.039	.016	.063	.034	.014	.044	.024	.010	.026	.014	.006	.008	.005	.002	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Rinno
 Test Date:2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.954m [K=1.0000]
 Remarks: White



UGR(Unified Glare Rating) Table

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	21.9	23.2	22.1	23.4	23.6	21.9	23.3	22.2	23.5	23.6
3H	22.1	23.3	22.4	23.5	23.8	22.2	23.4	22.5	23.6	23.9
4H	22.2	23.3	22.5	23.6	23.8	22.3	23.4	22.6	23.7	23.9
6H	22.2	23.3	22.6	23.6	23.8	22.3	23.4	22.7	23.7	23.9
8H	22.2	23.3	22.6	23.5	23.8	22.3	23.4	22.7	23.6	23.9
12H	22.2	23.2	22.6	23.5	23.8	22.3	23.3	22.7	23.6	23.9
4H 2H	22.0	23.2	22.3	23.4	23.6	22.1	23.2	22.4	23.5	23.7
3H	22.4	23.4	22.7	23.6	23.9	22.5	23.4	22.8	23.7	24.0
4H	22.5	23.4	22.9	23.7	24.1	22.6	23.5	23.0	23.8	24.2
6H	22.6	23.4	23.0	23.8	24.1	22.7	23.5	23.1	23.9	24.2
8H	22.7	23.4	23.1	23.8	24.1	22.8	23.5	23.2	23.9	24.2
12H	22.7	23.3	23.1	23.7	24.1	22.8	23.4	23.2	23.8	24.2
8H 4H	22.5	23.3	22.9	23.6	24.0	22.6	23.3	23.0	23.7	24.1
6H	22.7	23.3	23.1	23.7	24.1	22.8	23.4	23.2	23.8	24.2
8H	22.8	23.3	23.2	23.7	24.2	22.9	23.4	23.3	23.8	24.3
12H	22.8	23.3	23.3	23.7	24.2	22.9	23.4	23.4	23.8	24.3
12H 4H	22.5	23.2	22.9	23.6	24.0	22.6	23.3	23.0	23.6	24.0
6H	22.7	23.2	23.2	23.7	24.1	22.8	23.3	23.2	23.7	24.2
8H	22.8	23.2	23.3	23.7	24.1	22.9	23.3	23.3	23.8	24.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.9					+ 0.7 / - 0.8				
1.5H	+ 0.3 / - 0.4					+ 0.3 / - 0.5				
2.0H	+ 1.4 / - 1.8					+ 1.4 / - 1.8				

CIE Pub.117, 1049 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.2$)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Rinno
 Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.954m [K=1.0000]
 Remarks: White



UTILIZATION FACTORS TABLE

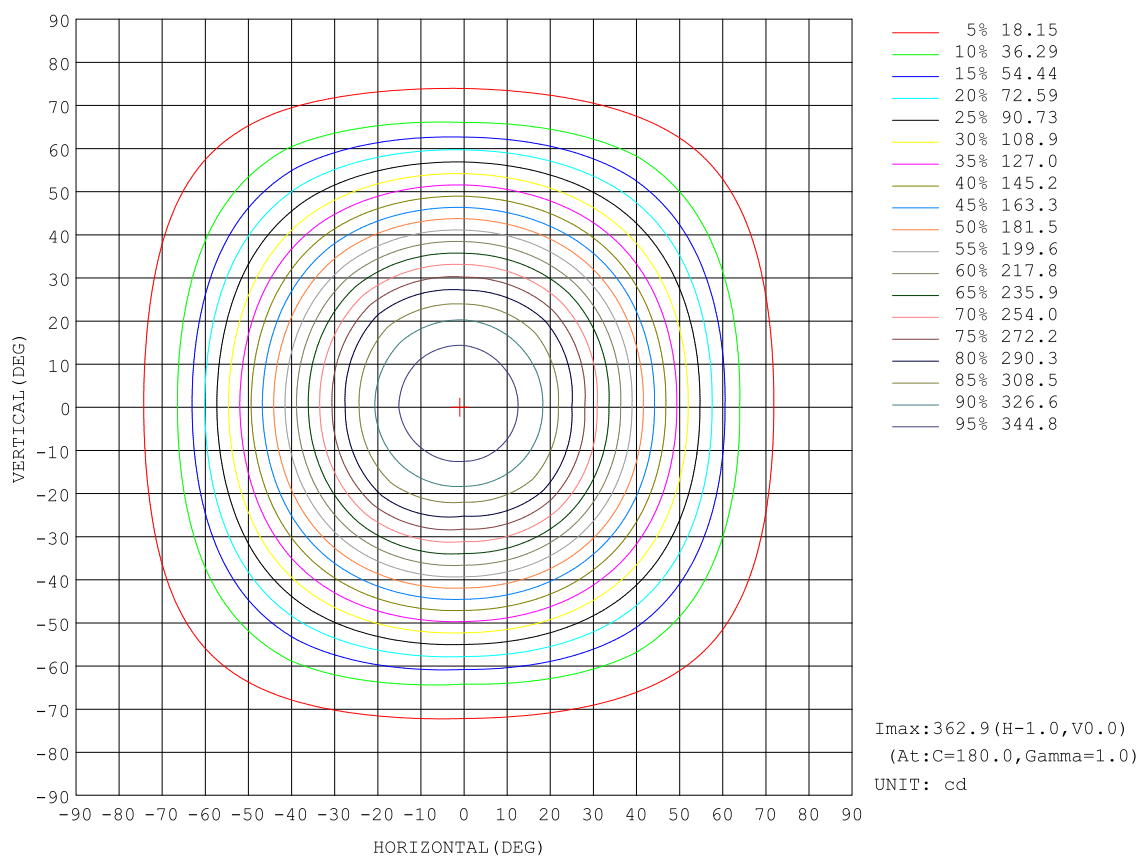
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	44	37	33	43	37	33	43	37	33	29
0.80	50	44	40	50	44	40	49	43	39	36
1.00	56	50	46	55	49	46	54	50	45	41
1.25	60	54	51	59	54	50	58	53	50	46
1.50	63	58	54	62	57	54	60	56	53	49
2.00	67	62	59	66	61	58	63	60	57	53
2.50	69	65	61	67	64	61	65	62	60	55
3.00	70	67	64	69	66	63	67	64	62	57
4.00	72	69	67	71	68	66	68	66	64	59
5.00	74	71	69	72	70	68	69	67	66	60
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Rinno
 Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.954m [K=1.0000]
 Remarks: White



ISOCANDELA DIAGRAM

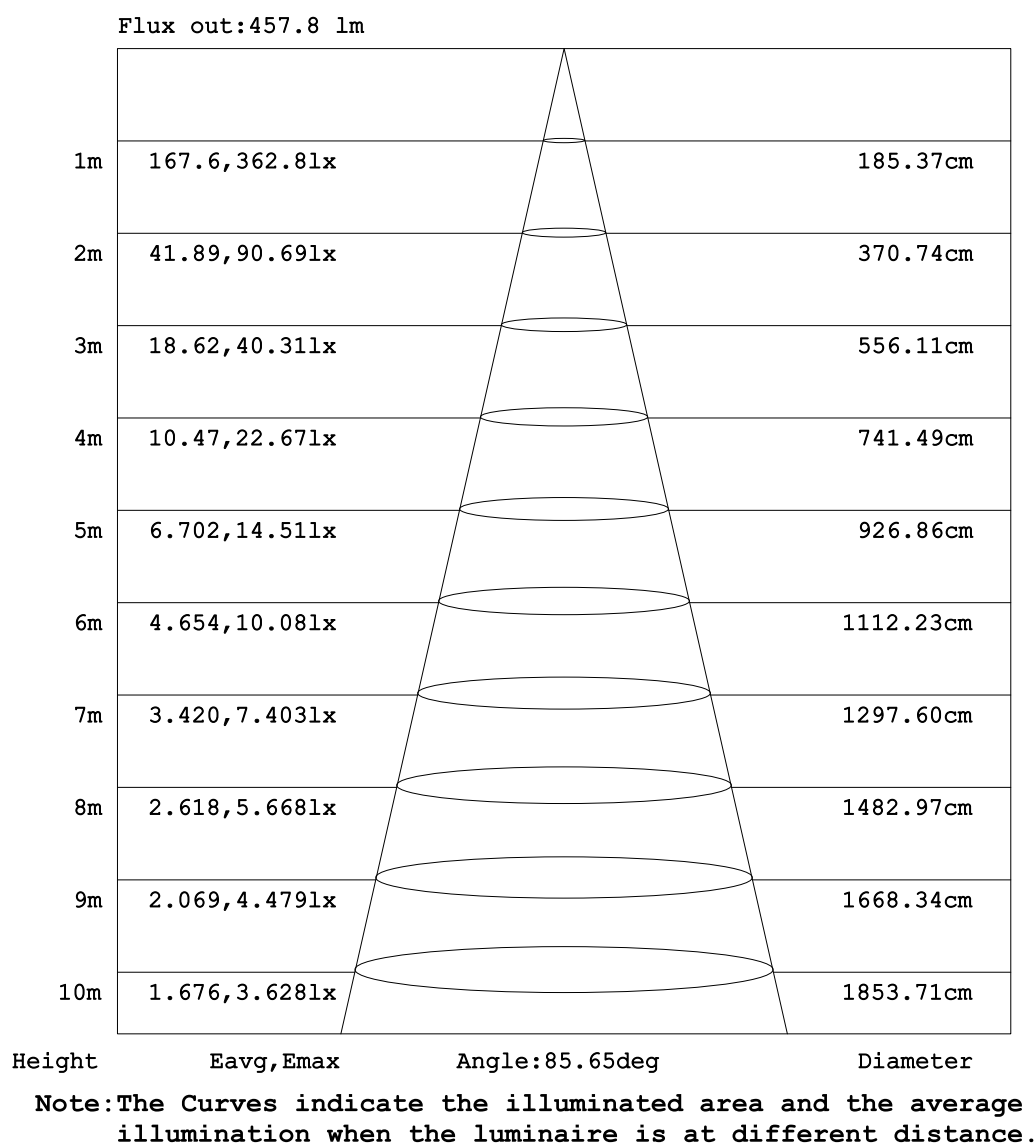


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Rinno
Test Date: 2018-12-27

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.954m [K=1.0000]
Remarks: White



AAI Figure

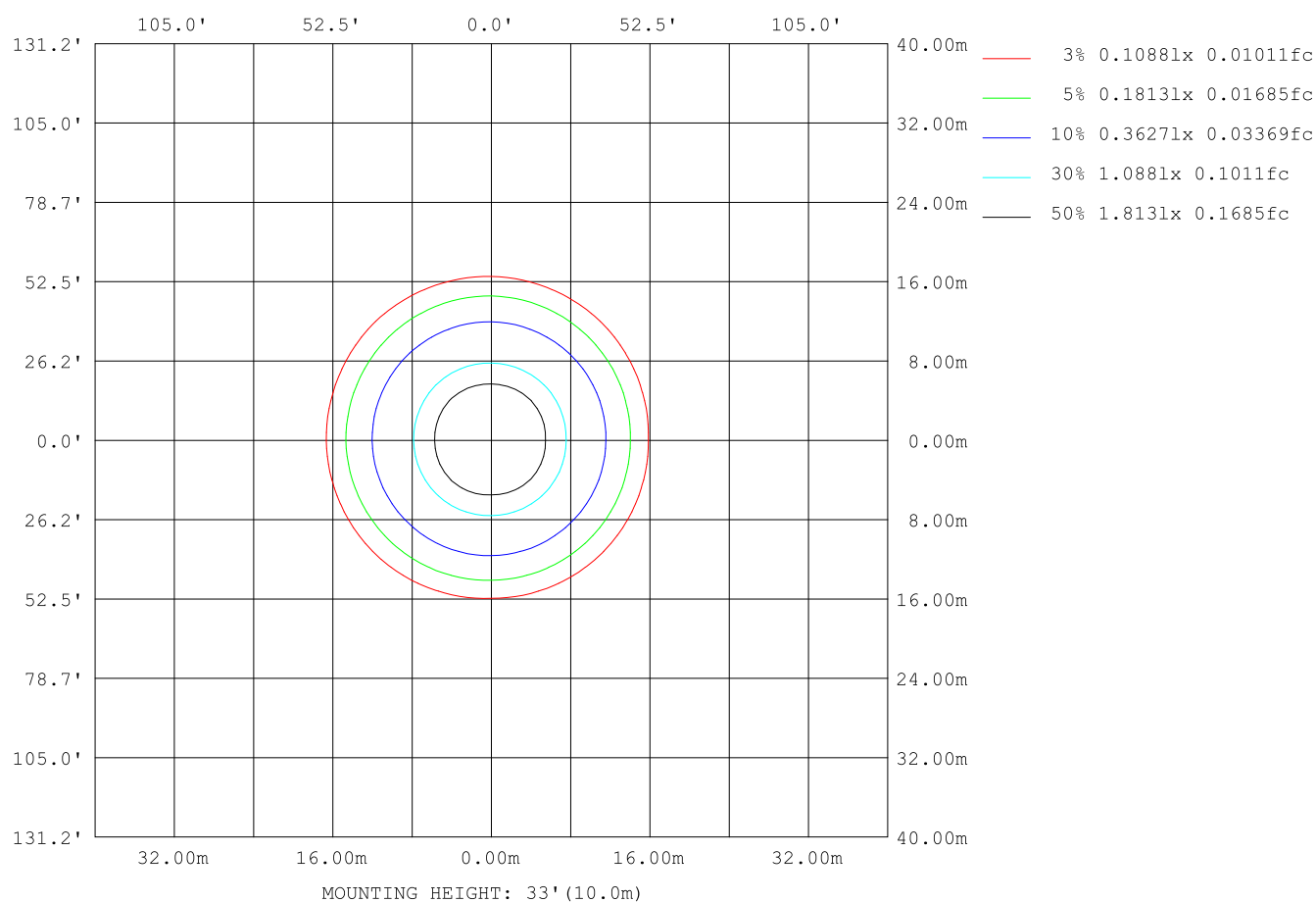


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Rinno
 Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.954m [K=1.0000]
 Remarks: White



ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Rinno
 Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.954m [K=1.0000]
 Remarks: White



LED Avg.L Report

AvgL	cd/m2
L_0~180 (65) av	10587
L_0~180 (75) av	7067
L_0~180 (85) av	5245
L_90~270 (65) av	10432
L_90~270 (75) av	7040
L_90~270 (85) av	5208
L_45 (65) av	12011
L_45 (75) av	7090
L_45 (85) av	5151

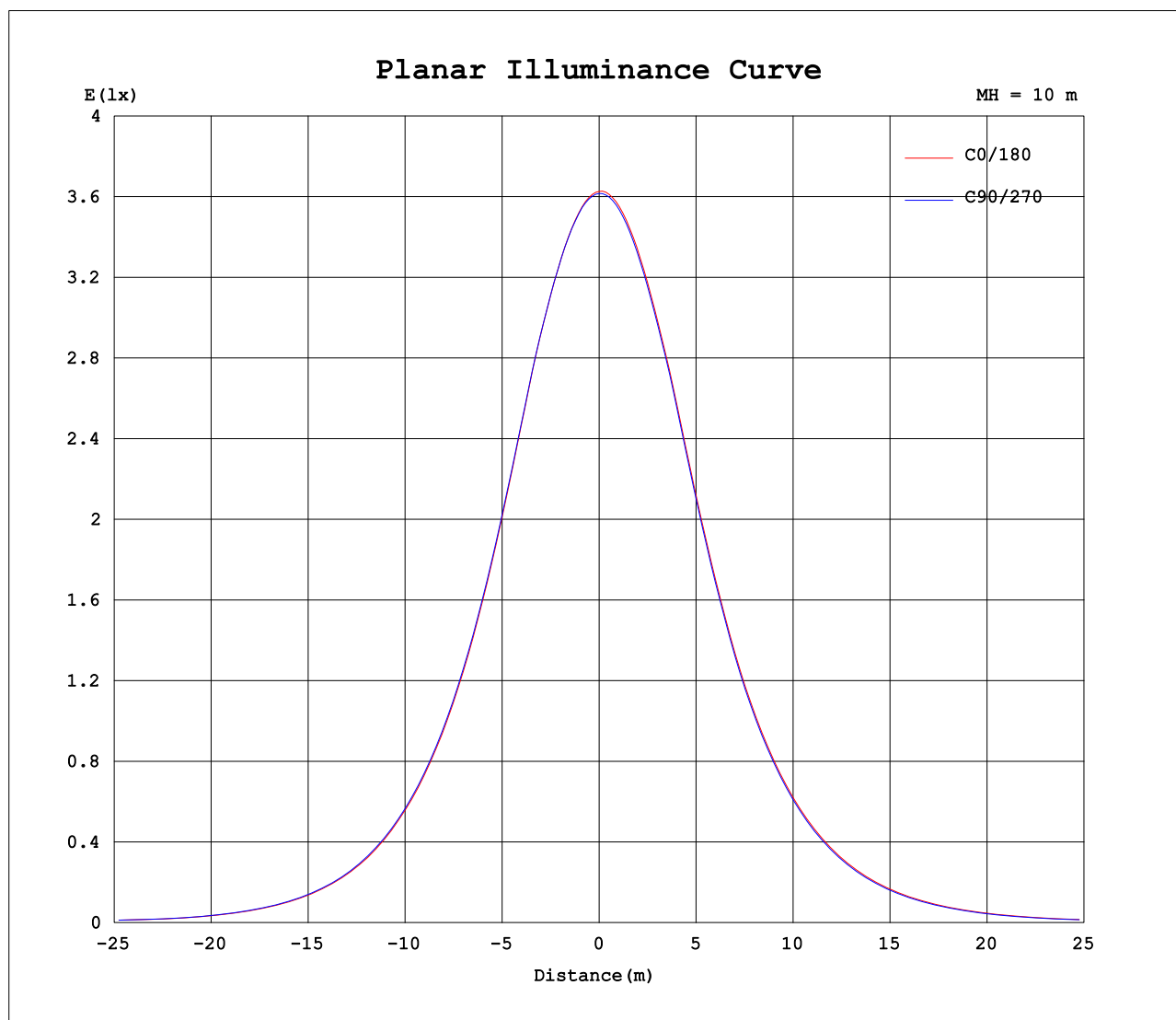
Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Rinno
Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.954m [K=1.0000]
Remarks: White



Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Rinno
Test Date: 2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.954m [K=1.0000]
Remarks: White



LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	363	362	362	361	363	362	362	361										
5	359	359	359	359	362	361	360	358										
10	351	350	351	353	356	355	354	351										
15	338	338	338	341	345	345	343	339										
20	318	320	319	325	330	330	328	323										
25	290	298	292	305	305	311	303	302										
30	259	266	261	276	276	284	273	273										
35	227	230	229	240	243	250	241	238										
40	192	194	195	204	210	214	207	202										
45	158	157	160	168	176	178	172	165										
50	122	123	125	133	141	142	138	130										
55	88.8	89.7	90.8	99.2	106	107	103	96.1										
60	57.4	60.7	59.1	68.9	73.4	75.6	70.5	66.1										
65	31.5	37.2	32.7	43.5	43.7	48.7	41.4	41.2										
70	21.0	21.6	21.6	25.2	25.2	28.4	24.4	23.9										
75	13.6	13.7	14.1	15.6	17.1	17.3	16.6	15.0										
80	7.67	7.59	7.96	9.15	10.4	10.4	10.00	8.78										
85	2.76	2.62	2.94	3.86	4.92	4.94	4.68	3.66										
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Rinno
 Test Date:2018-12-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.954m [K=1.0000]
 Remarks: White