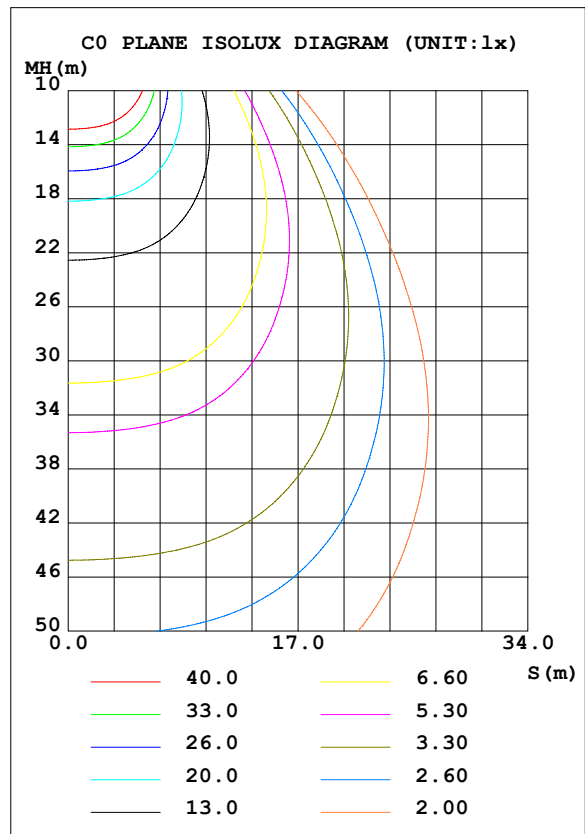
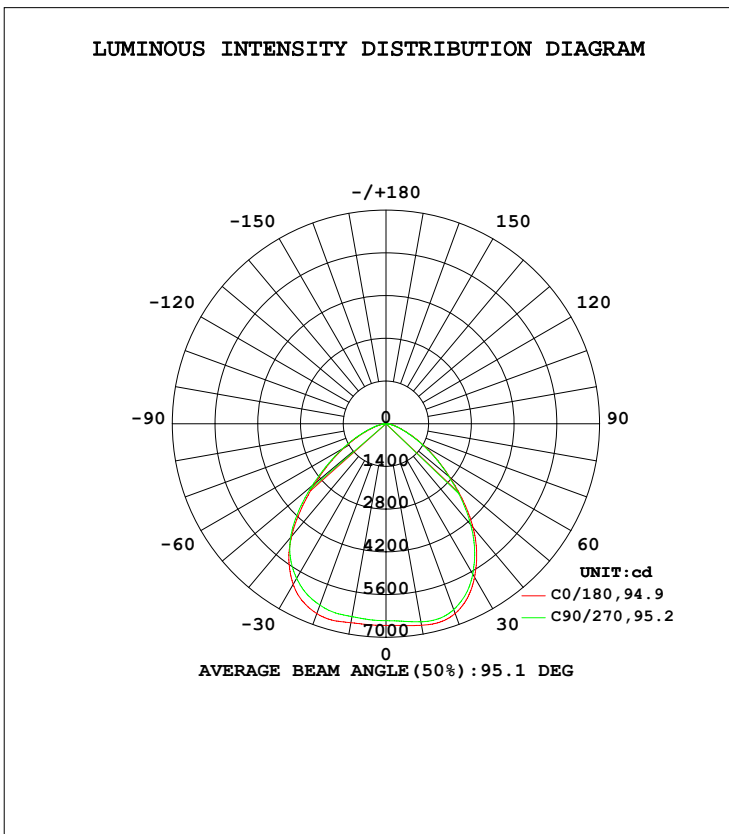


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:219.7V I:0.4600A P:99.39W PF:0.9835 Freq:49.99Hz Lamp Flux:14917.8x1 lm		
NAME: 100W LED HIGH BAY LIGHT 90°	TYPE:UFO	WEIGHT:
SPEC.:PHILIPS 3030	DIM.: φ260mm	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:φ160mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 150.10 lm/W			
MODEL	QH-HBUFO-100W	I _{max} (cd)	6741	S/MH (C0/180)	1.33
NOMINAL POWER (W)	100	LOR (%)	100.0	S/MH (C90/270)	1.33
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	14918	η UP, DN (C0-180)	0.0, 48.7
NOMINAL FLUX (lm)	14917.8	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [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
10	6706	6644	6590	6482	6621	6477	6419	6409	0- 10	620.9	620.9	4.16,4.16
20	6621	6560	6483	6408	6623	6415	6327	6321	10- 20	1849	2470	16.6,16.6
30	5804	5694	5688	5811	6081	5960	5853	5753	20- 30	2854	5324	35.7,35.7
40	4438	4263	4319	4543	4815	4896	4860	4657	30- 40	3286	8610	57.7,57.7
50	2733	2614	2697	2844	3035	3225	3155	2947	40- 50	2891	11501	77.1,77.1
60	1430	1366	1396	1470	1602	1725	1654	1522	50- 60	1939	13440	90.1,90.1
70	584.1	563.2	557.9	592.5	620.2	680.2	675.9	652.6	60- 70	1013	14453	96.9,96.9
80	188.8	183.3	176.5	170.6	170.4	180.0	182.3	195.9	70- 80	388.3	14841	99.5,99.5
90	1.699	2.096	2.246	2.057	1.575	1.250	1.185	1.308	80- 90	76.68	14918	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 10158 lm

%lum = 68.1%
 %lamp = 68.1%

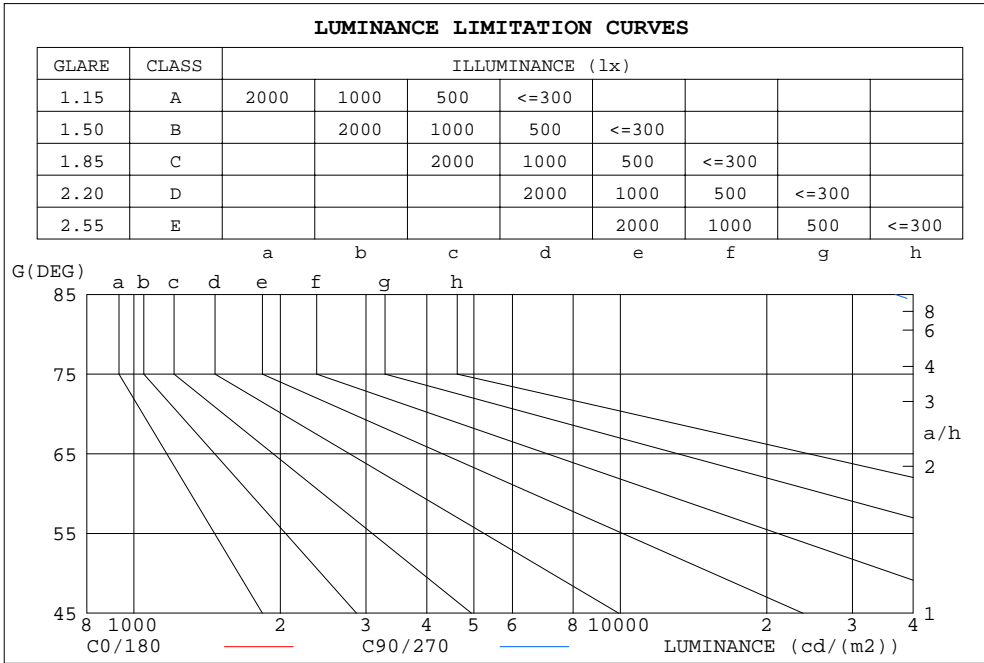
Conical surface Flux(120deg): 13440 lm

%lum = 90.1%
 %lamp = 90.1%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1
 Test Date:2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:9.850m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



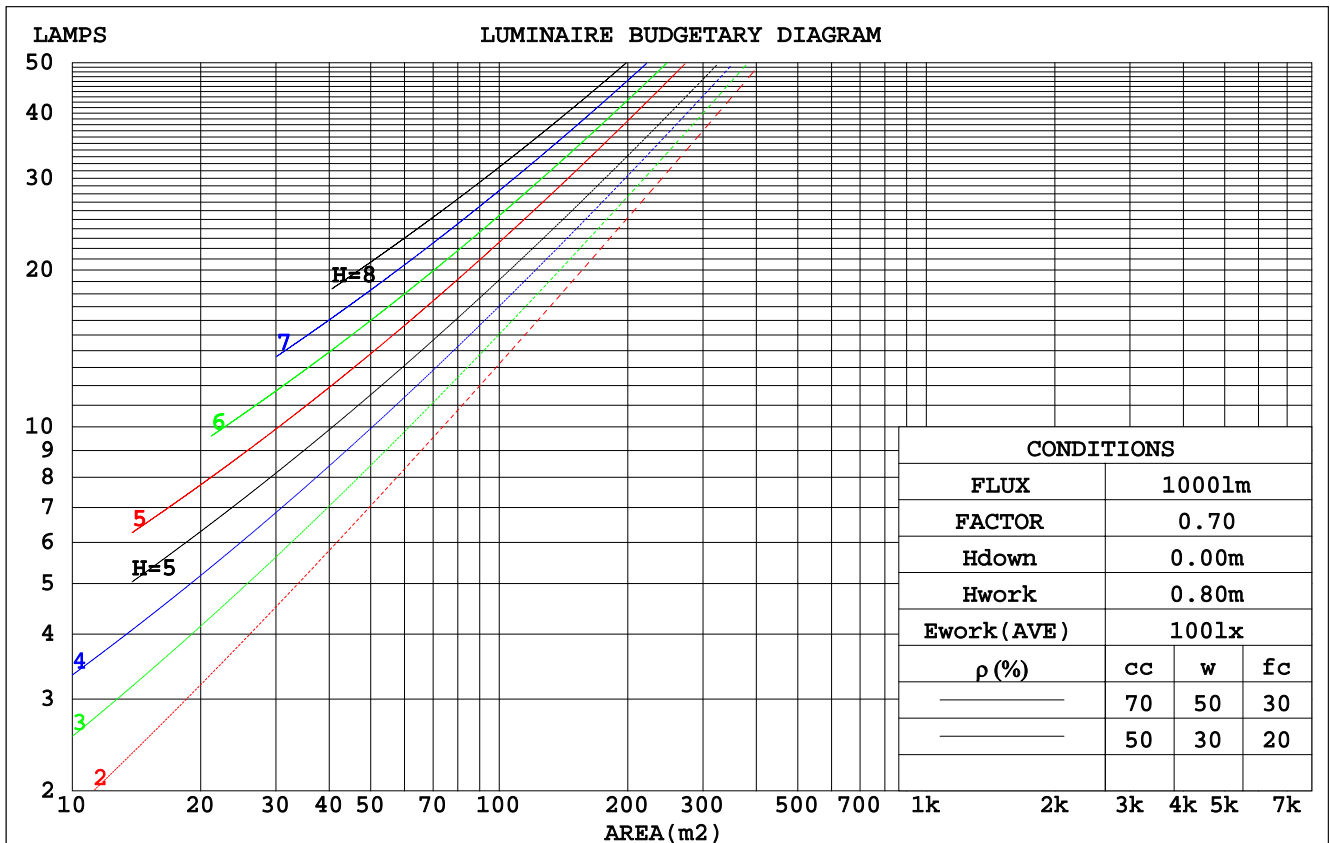
LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	37861	36732
80	54092	50556
75	67136	63243
70	84962	81151
65	110413	106963
60	142269	138922
55	176119	173450
50	211554	208708
45	251416	245824

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [K=1.0000]
 Remarks:

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	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	1.00
1.0	1.07	1.03	1.00	1.05	1.01	.99	1.00	.98	.95	.97	.95	.93	.93	.91	.90	.88
2.0	.95	.90	.85	.93	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3.0	.85	.78	.73	.84	.77	.72	.81	.75	.71	.78	.73	.69	.76	.72	.68	.66
4.0	.77	.69	.63	.75	.68	.62	.73	.67	.62	.71	.65	.61	.69	.64	.60	.58
5.0	.69	.61	.55	.68	.61	.55	.66	.59	.54	.64	.58	.54	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.59	.52	.48	.57	.52	.47	.46
7.0	.57	.49	.44	.57	.49	.43	.55	.48	.43	.54	.48	.43	.52	.47	.43	.41
8.0	.53	.45	.39	.52	.44	.39	.51	.44	.39	.49	.43	.39	.48	.43	.39	.37
9.0	.48	.41	.36	.48	.41	.36	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
10.0	.45	.37	.32	.44	.37	.32	.43	.37	.32	.42	.36	.32	.42	.36	.32	.30



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [K=1.0000]
 Remarks:

WEC AND CCEC

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	.253	.144	.046	.246	.140	.045	.233	.134	.043	.221	.128	.041	.210	.122	.039	
2.0	.245	.134	.041	.239	.132	.041	.228	.127	.039	.218	.122	.038	.208	.118	.037	
3.0	.232	.124	.037	.227	.122	.037	.217	.118	.036	.208	.114	.035	.200	.110	.034	
4.0	.219	.114	.033	.214	.112	.033	.205	.109	.033	.197	.106	.032	.190	.103	.031	
5.0	.205	.105	.030	.201	.103	.030	.194	.101	.030	.186	.098	.029	.180	.096	.029	
6.0	.193	.097	.028	.190	.096	.028	.183	.094	.027	.176	.092	.027	.170	.090	.027	
7.0	.182	.090	.025	.179	.089	.025	.172	.087	.025	.167	.085	.025	.161	.084	.025	
8.0	.171	.084	.024	.169	.083	.023	.163	.081	.023	.158	.080	.023	.153	.078	.023	
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.150	.075	.021	.145	.074	.021	
10.0	.153	.074	.020	.151	.073	.020	.146	.072	.020	.142	.071	.020	.138	.070	.020	

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	.176	.157	.139	.151	.134	.120	.103	.092	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.062	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.135	.098	.069	.093	.068	.048	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.027	.101	.055	.023	.070	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [K=1.0000]
 Remarks:

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	20.6	22.0	20.9	22.2	22.4	20.6	21.9	20.8	22.1	22.3
3H	21.1	22.4	21.4	22.6	22.8	21.0	22.3	21.3	22.5	22.7
4H	21.2	22.4	21.5	22.7	22.9	21.1	22.3	21.4	22.5	22.8
6H	21.3	22.4	21.6	22.7	22.9	21.2	22.3	21.5	22.5	22.8
8H	21.3	22.4	21.6	22.6	22.9	21.2	22.2	21.5	22.5	22.8
12H	21.3	22.3	21.6	22.6	22.9	21.1	22.2	21.5	22.4	22.7
4H 2H	20.8	22.0	21.1	22.3	22.5	20.8	21.9	21.1	22.2	22.4
3H	21.4	22.4	21.8	22.7	23.0	21.3	22.3	21.7	22.6	22.9
4H	21.6	22.6	22.0	22.9	23.2	21.5	22.4	21.9	22.7	23.1
6H	21.8	22.6	22.2	22.9	23.3	21.6	22.4	22.0	22.8	23.1
8H	21.8	22.6	22.2	22.9	23.3	21.6	22.4	22.1	22.8	23.1
12H	21.8	22.5	22.2	22.9	23.3	21.6	22.3	22.1	22.7	23.1
8H 4H	21.6	22.4	22.1	22.8	23.1	21.5	22.3	21.9	22.6	23.0
6H	21.9	22.5	22.3	22.9	23.3	21.7	22.3	22.1	22.7	23.2
8H	21.9	22.5	22.4	22.9	23.3	21.8	22.3	22.2	22.7	23.2
12H	22.0	22.4	22.4	22.9	23.3	21.8	22.3	22.3	22.7	23.2
12H 4H	21.6	22.3	22.0	22.7	23.1	21.5	22.2	21.9	22.6	23.0
6H	21.8	22.4	22.3	22.8	23.3	21.7	22.2	22.2	22.7	23.1
8H	21.9	22.4	22.4	22.8	23.3	21.8	22.2	22.3	22.7	23.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.6 / - 0.8					+ 0.6 / - 0.8				
1.5H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				
2.0H	+ 1.3 / - 1.3					+ 1.2 / - 1.3				

CIE Pub.117, 14918 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 9.4)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [K=1.0000]
 Remarks:

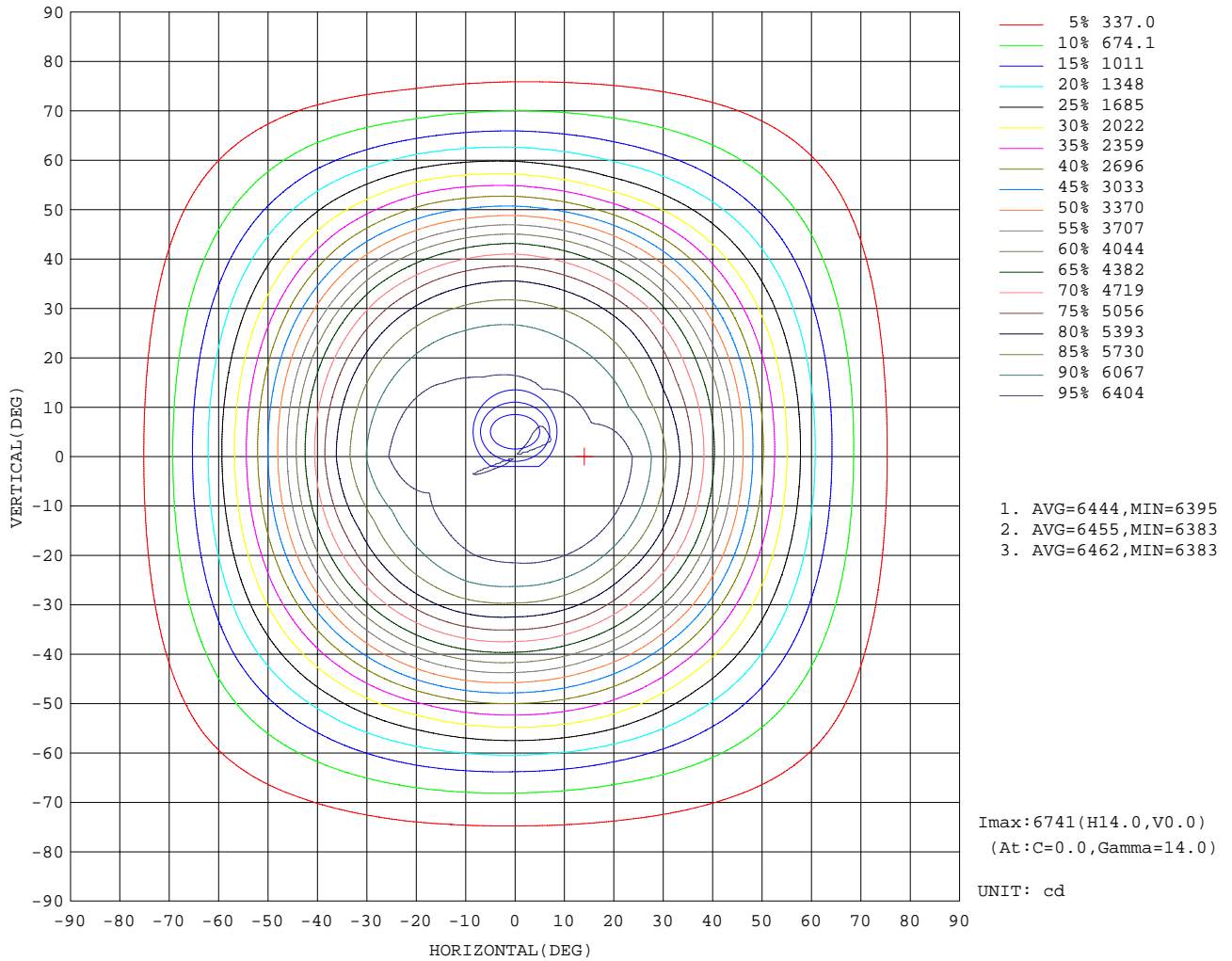
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
k = 0.60	65	55	48	64	54	48	63	54	48	42
0.80	75	65	59	74	65	58	72	64	58	52
1.00	83	74	68	82	73	67	80	74	67	61
1.25	90	81	75	89	80	75	86	79	74	68
1.50	94	86	80	93	85	80	90	84	79	72
2.00	100	93	88	98	92	87	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1
 Test Date:2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:9.850m [K=1.0000]
 Remarks:

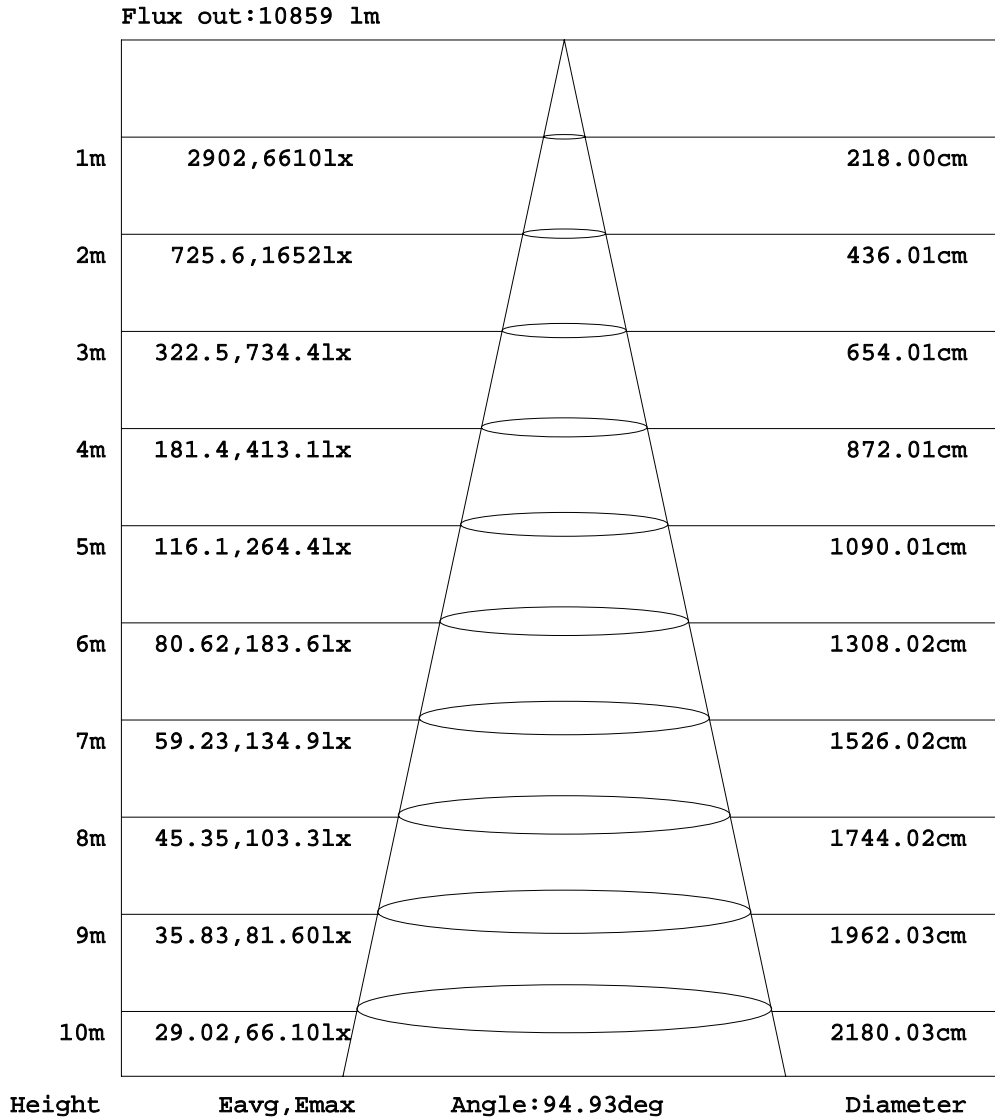
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1
 Test Date:2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:9.850m [K=1.0000]
 Remarks:

AAI Figure

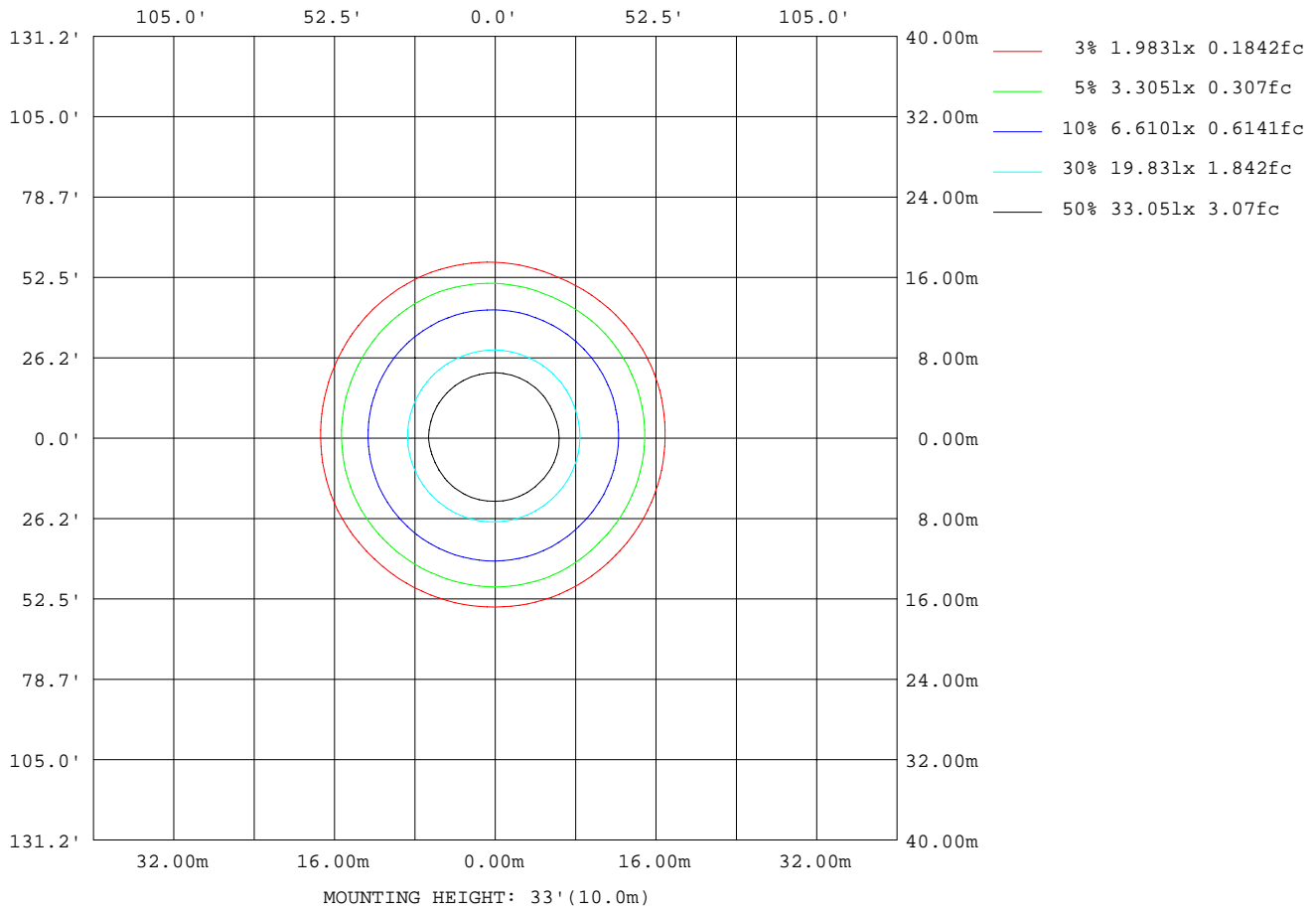


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1
 Test Date:2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity:65.0%
 Test Distance:9.850m [K=1.0000]
 Remarks:

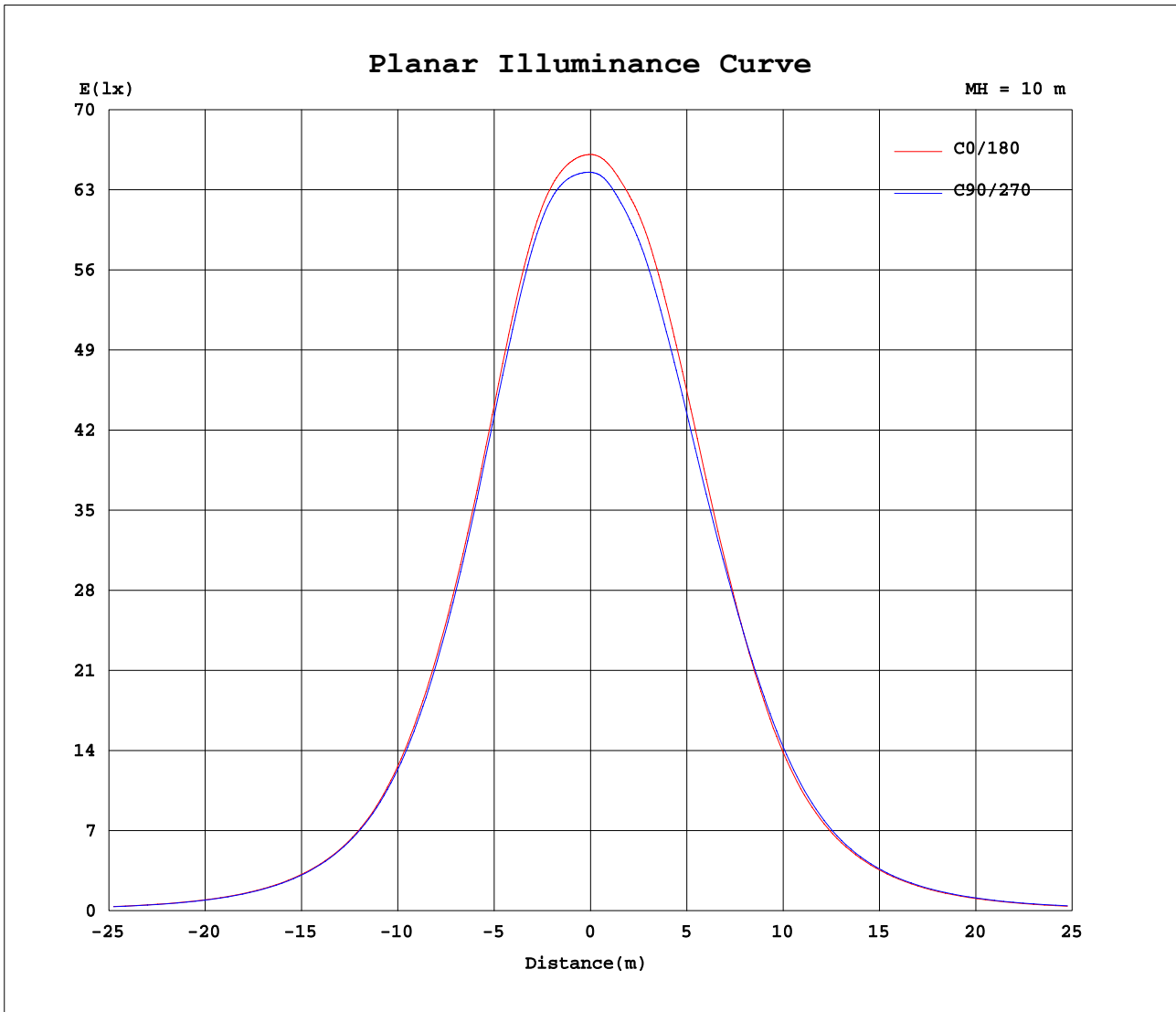
ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2019-01-21

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.354
 Humidity: 65.0%
 Test Distance: 9.850m [K=1.0000]
 Remarks:

