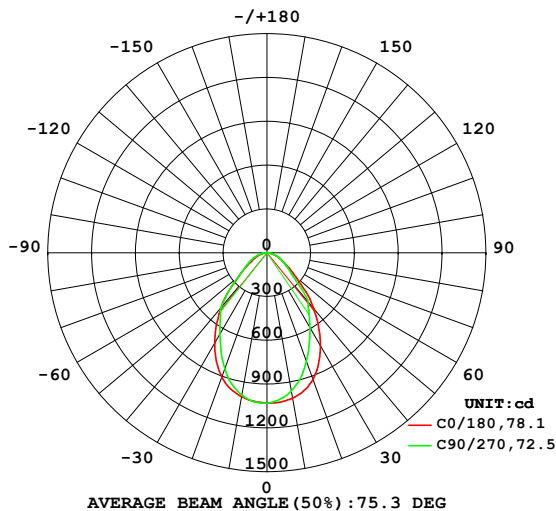


**LUMINAIRE PHOTOMETRIC TEST REPORT**

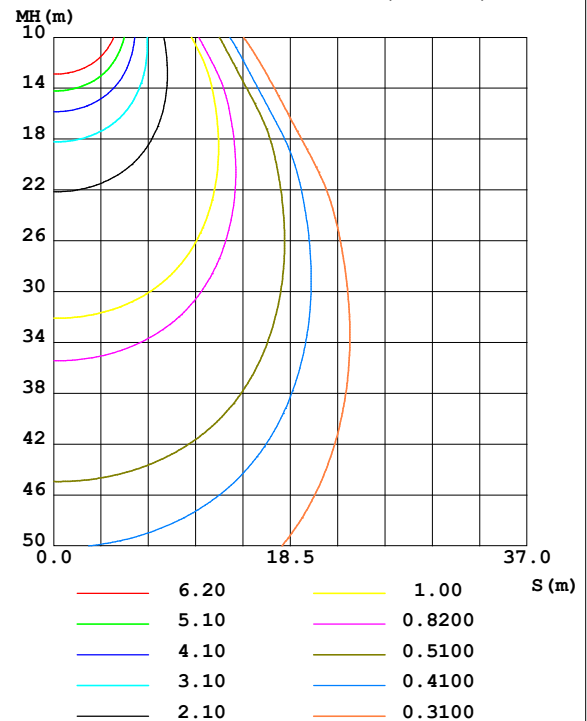
Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOVFE AIMED(DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 65.67 lm/W
LLE MODEL x280mm	1250lm 840 2T ADV	I <sub>max</sub> (cd)	1032	S/MH (C0/180)	1.08	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.99	
RATED VOLTAGE (V)	240	TOTAL FLUX (lm)	1689.6	η UP,DN (C0-180)	0.0,48.5	
NOMINAL FLUX (lm)	1689.56	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,51.5	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00	
TEST VOLTAGE (V)	240	η down (%)	100.0	CIBSE SHR MAX	1.15	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

# ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1011	972.4	962.5	987.4	1001	1011	990.3	993.4	0- 10	96.46	96.46	5.71,5.71
20	922.4	826.6	790.6	853.8	905.5	895.5	844.8	865.8	10- 20	263.2	359.6	21.3,21.3
30	733.4	622.8	590.7	652.2	717.3	702.3	645.5	670.2	20- 30	352.2	711.8	42.1,42.1
40	498.7	435.7	440.9	462.2	488.9	505.6	490.6	479.2	30- 40	354.4	1066	63.1,63.1
50	257.9	237.8	216.1	260.5	252.8	292.4	256.1	276.4	40- 50	279.5	1346	79.6,79.6
60	133.2	125.1	133.5	134.7	130.7	146.7	150.2	138.5	50- 60	167.6	1513	89.6,89.6
70	72.87	71.65	79.07	78.43	70.95	86.52	90.36	81.19	60- 70	105.9	1619	95.8,95.8
80	25.53	24.63	27.92	28.86	24.88	36.40	38.00	32.30	70- 80	56.79	1676	99.2,99.2
90	0.7053	1.028	1.315	1.381	0.6867	2.988	3.374	2.426	80- 90	13.58	1690	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): 1223 lm

%lum = 72.4%

%lamp = 72.4%

Conical surface Flux(120deg): 1513.3 lm

%lum = 89.6%

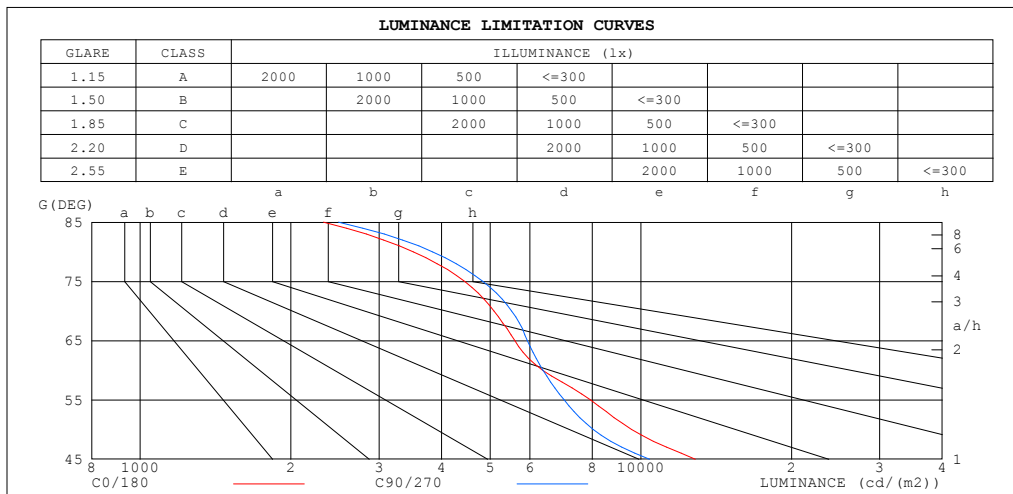
%lamp = 89.6%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOYE AMED(DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	2324	2490
80	3515	3841
75	4447	4836
70	5093	5522
65	5606	5938
60	6370	6376
55	7932	7026
50	9592	8030
45	12848	10412

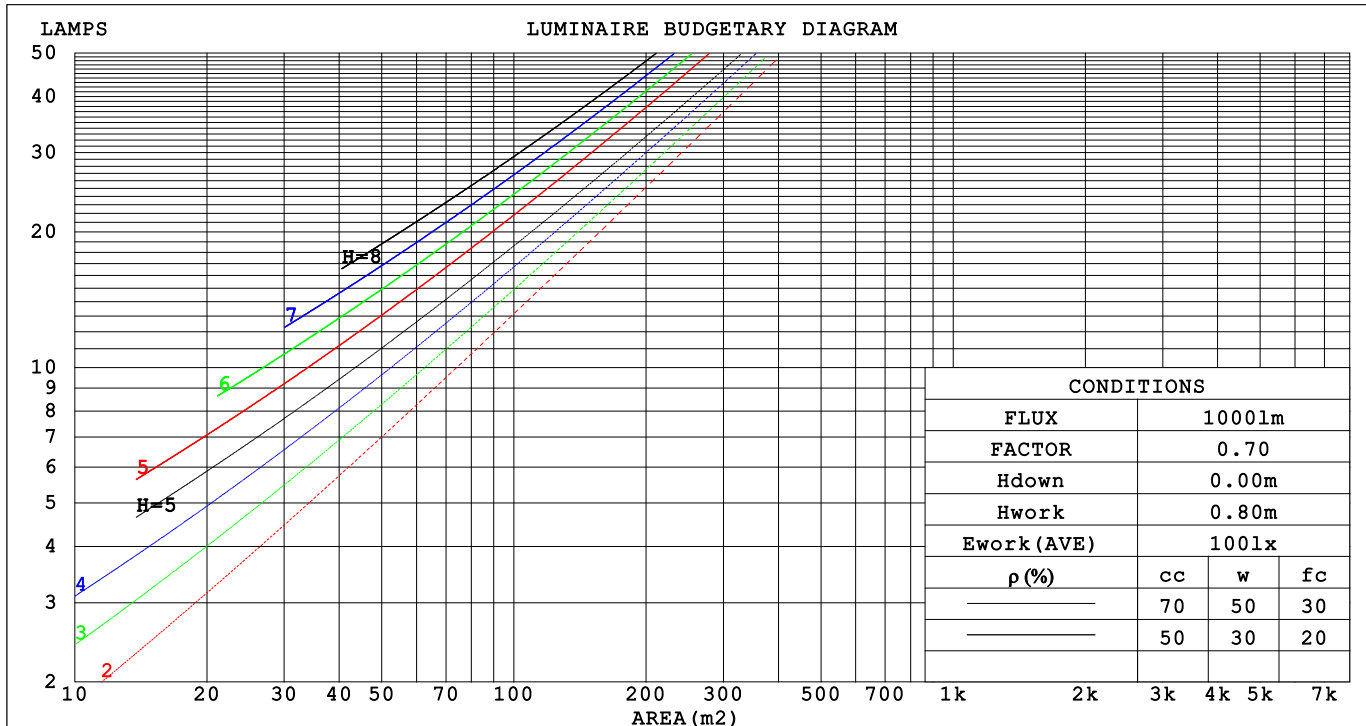
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOV7E AVE(DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding 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															



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

### WEC AND CCEC

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HO_4K (DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding 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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.249	.142	.045	.242	.138	.044	.229	.132	.042	.217	.125	.040	.206	.120	.039	
2.0	.238	.131	.040	.232	.128	.039	.221	.123	.038	.211	.118	.037	.201	.114	.036	
3.0	.224	.119	.036	.219	.117	.035	.209	.113	.034	.200	.110	.034	.192	.106	.033	
4.0	.210	.109	.032	.206	.108	.032	.197	.104	.031	.189	.101	.031	.182	.099	.030	
5.0	.197	.100	.029	.193	.099	.029	.185	.097	.028	.178	.094	.028	.172	.092	.028	
6.0	.185	.093	.027	.181	.092	.026	.175	.090	.026	.168	.088	.026	.162	.086	.025	
7.0	.174	.086	.024	.171	.085	.024	.165	.083	.024	.159	.082	.024	.154	.080	.024	
8.0	.164	.080	.023	.161	.079	.022	.156	.078	.022	.151	.076	.022	.146	.075	.022	
9.0	.155	.075	.021	.153	.074	.021	.148	.073	.021	.143	.072	.021	.139	.071	.020	
10.0	.147	.071	.020	.145	.070	.020	.141	.069	.019	.136	.068	.019	.132	.067	.019	

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						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	.093	.083	.059	.054	.048	.019	.017	.016		
2.0	.165	.132	.104	.141	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012		
3.0	.156	.114	.081	.133	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009		
4.0	.147	.100	.064	.126	.087	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008		
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006		
6.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005		
7.0	.126	.073	.037	.108	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004		
8.0	.120	.068	.031	.103	.059	.027	.072	.041	.019	.042	.024	.012	.013	.008	.004		
9.0	.115	.063	.027	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003		
10.0	.109	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm											
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOYE AIMED(DIRECT)						WEIGHT:					
SPEC.:						DIM.:		SERIAL No.:1			
MFR.: Darkon						SUR.:		Shielding 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	17.1	18.4	17.4	18.6	18.8	16.6	17.9	16.9	18.1	18.3	
3H	17.9	19.1	18.2	19.3	19.5	17.6	18.8	17.9	19.0	19.2	
4H	18.2	19.3	18.5	19.6	19.8	17.9	19.1	18.2	19.3	19.6	
6H	18.4	19.4	18.7	19.7	19.9	18.2	19.2	18.5	19.5	19.8	
8H	18.4	19.4	18.7	19.7	20.0	18.2	19.2	18.5	19.5	19.8	
12H	18.4	19.4	18.7	19.6	19.9	18.2	19.2	18.6	19.5	19.8	
4H 2H	17.4	18.5	17.7	18.7	19.0	16.9	18.1	17.2	18.3	18.5	
3H	18.3	19.3	18.7	19.6	19.9	18.1	19.0	18.4	19.3	19.6	
4H	18.7	19.6	19.1	19.9	20.3	18.5	19.4	18.9	19.7	20.1	
6H	19.0	19.8	19.4	20.1	20.5	18.9	19.7	19.3	20.0	20.4	
8H	19.1	19.8	19.5	20.1	20.5	18.9	19.7	19.4	20.0	20.4	
12H	19.1	19.7	19.5	20.1	20.5	19.0	19.6	19.4	20.0	20.4	
8H 4H	18.8	19.6	19.2	19.9	20.3	18.7	19.4	19.1	19.8	20.1	
6H	19.2	19.8	19.6	20.2	20.6	19.1	19.7	19.5	20.1	20.5	
8H	19.3	19.8	19.7	20.2	20.7	19.2	19.7	19.7	20.2	20.6	
12H	19.3	19.8	19.8	20.2	20.7	19.3	19.7	19.7	20.2	20.6	
12H 4H	18.8	19.5	19.2	19.9	20.3	18.7	19.3	19.1	19.7	20.1	
6H	19.2	19.7	19.6	20.1	20.6	19.1	19.6	19.5	20.0	20.5	
8H	19.3	19.8	19.8	20.2	20.7	19.2	19.7	19.7	20.1	20.6	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.5 / - 0.7					+ 0.6 / - 0.6					
1.5H	+ 0.6 / - 0.5					+ 0.5 / - 0.5					
2.0H	+ 1.5 / - 0.8					+ 1.0 / - 0.6					

CIE Pub.117, 1690 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.8)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80	/ HOYE AIMED(DIRECT)	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

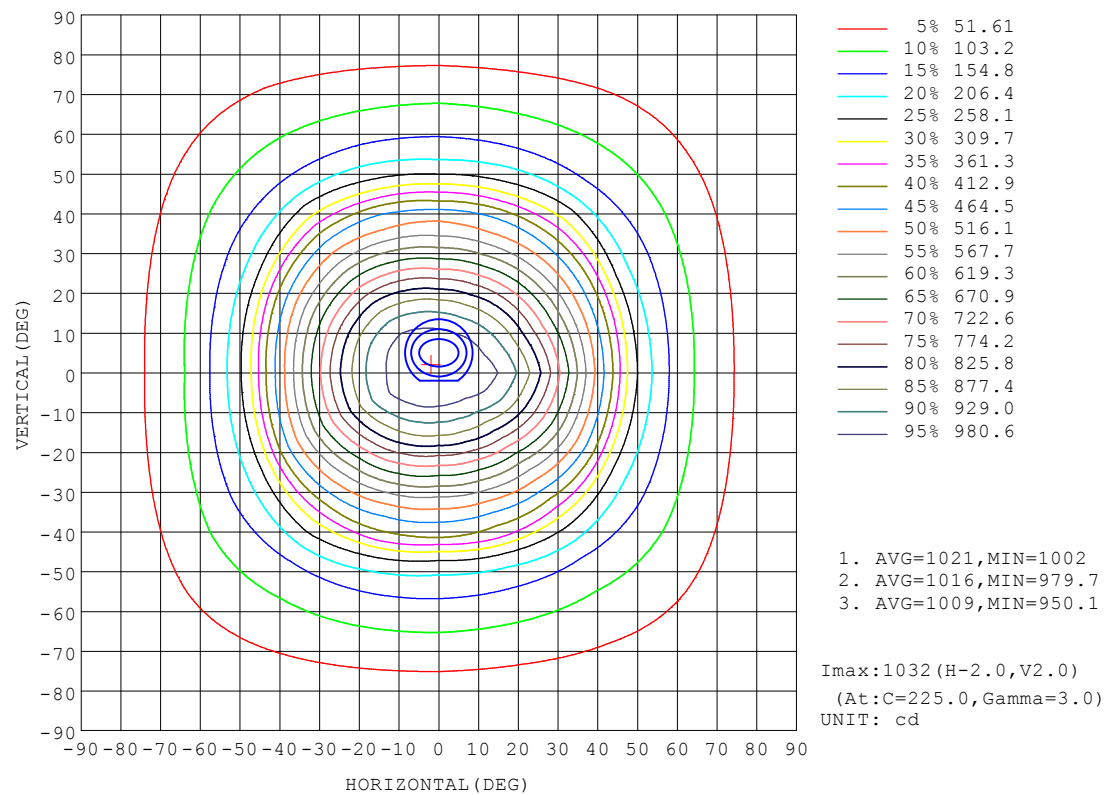
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	59	53	68	59	53	67	58	53	47
0.80	78	69	63	77	68	63	76	68	62	56
1.00	85	77	71	84	76	70	82	77	70	64
1.25	91	83	78	90	83	77	88	81	76	70
1.50	96	88	82	94	87	82	91	85	81	75
2.00	101	94	89	99	93	88	96	91	87	80
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	104	100	96	101	97	94	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	108	104	109	106	103	105	102	100	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:Ky  
Test Date:06 October 2017

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOYE AIMED(DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:



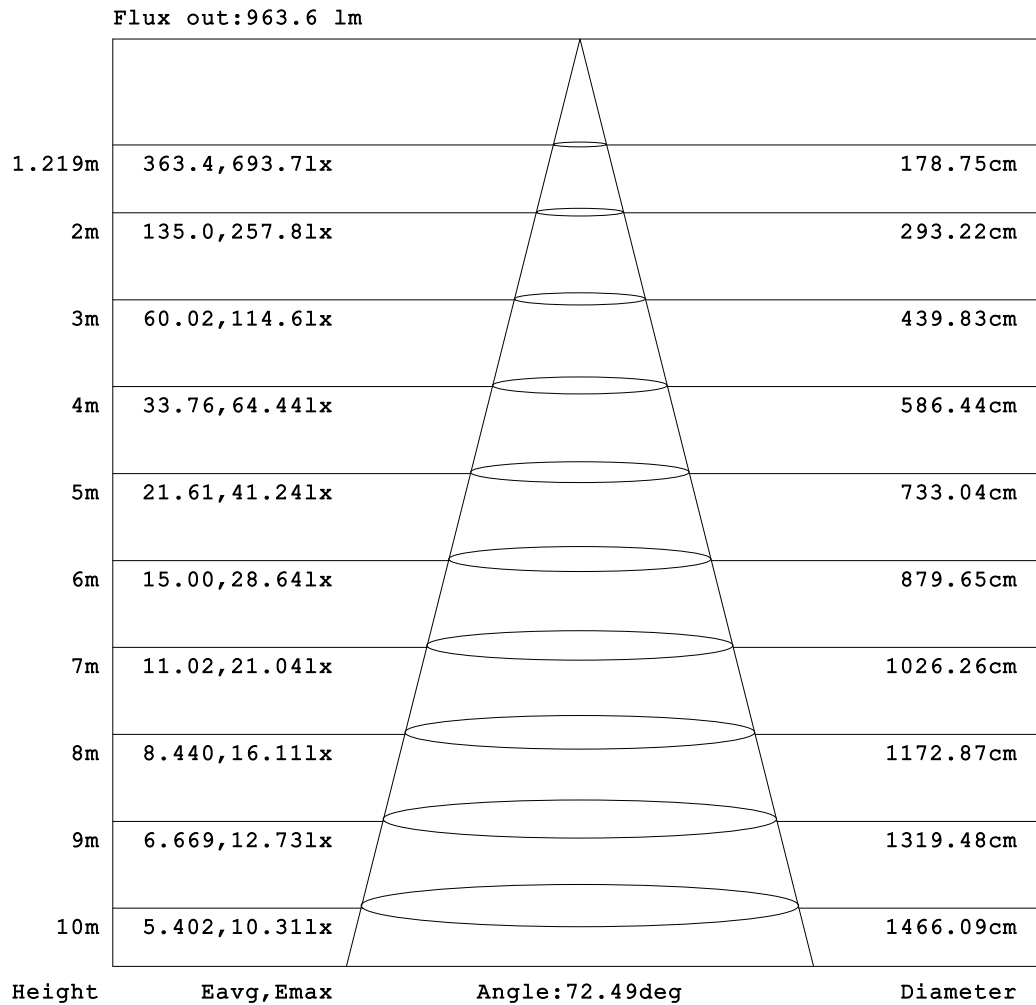
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOYE AIMED(DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:



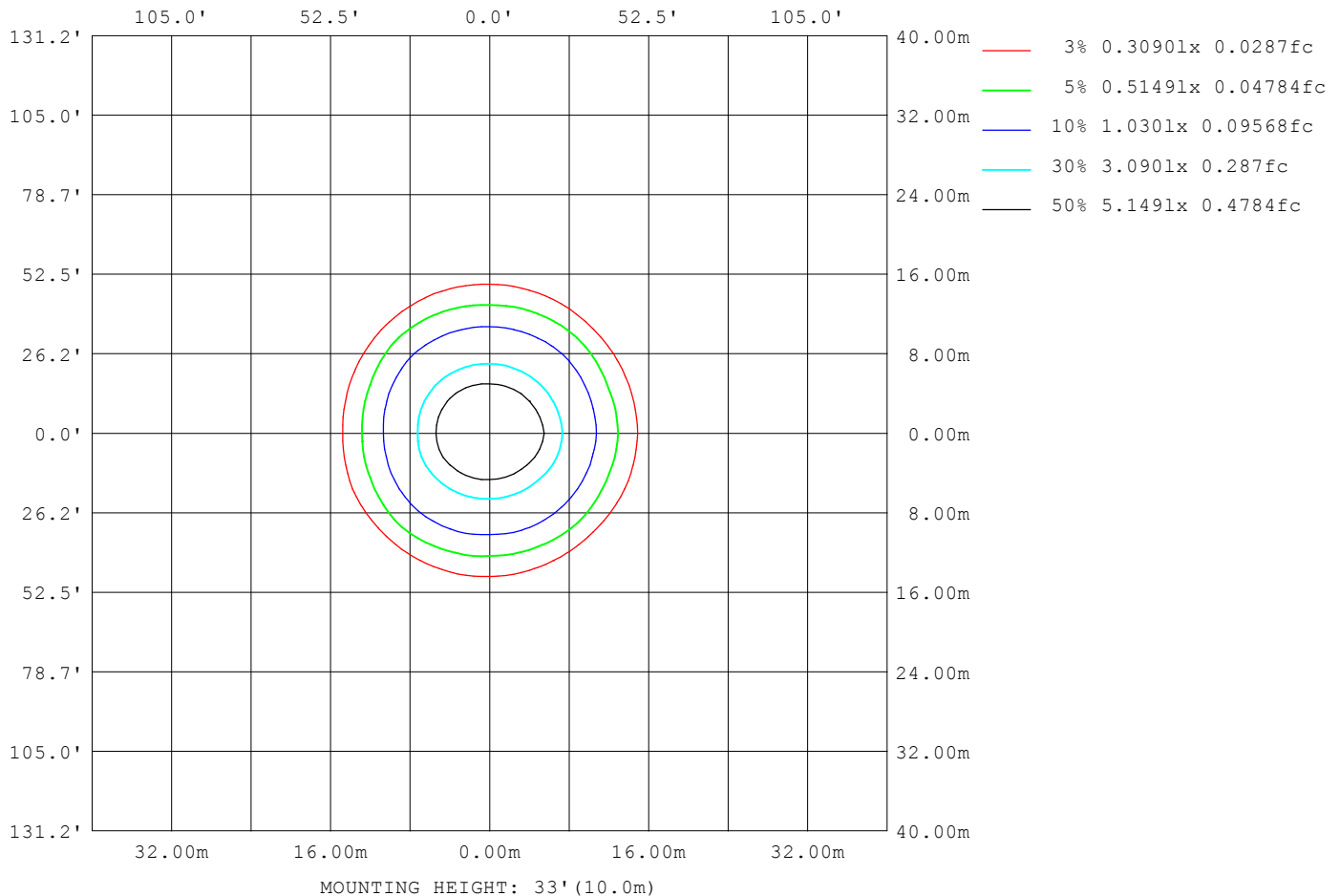
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80	/ HOYE AIMED(DIRECT)	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

**LED Avg.L Report**

Test:U:239.96V I:0.1147A P:25.727W PF:0.9349 Freq:50.09Hz Lamp Flux:1689.56x1 lm		
NAME: CAPITAL T / 465 / SM / WHT / C-DEG V2 + LT80 / HOYE 4K (DIRECT)	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

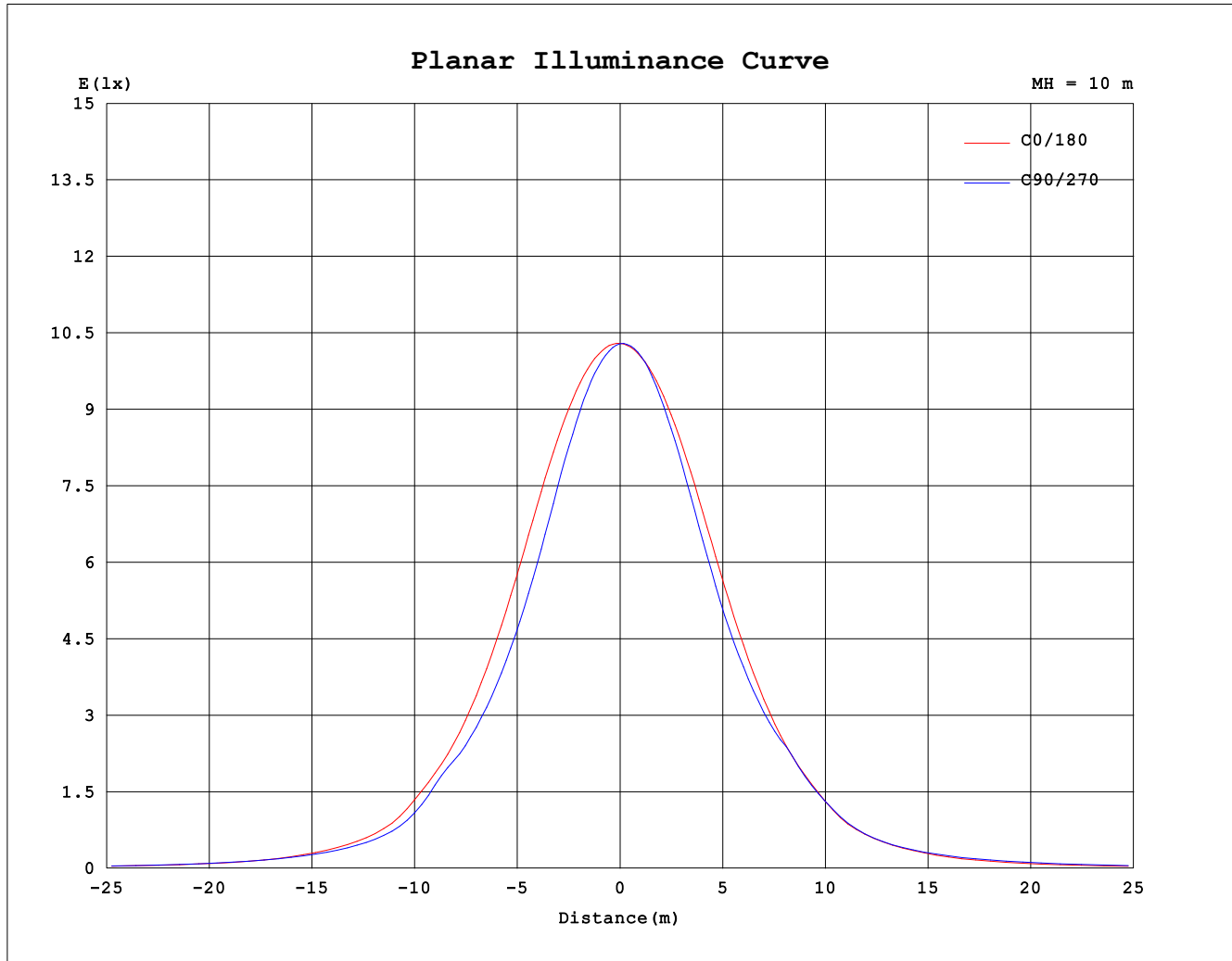
AvgL	cd/m2
L_0~180 (65) av	5544
L_0~180 (75) av	4391
L_0~180 (85) av	2299
L_90~270 (65) av	6340
L_90~270 (75) av	5341
L_90~270 (85) av	3492
L_45 (65) av	5952
L_45 (75) av	4997
L_45 (85) av	3190

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Ky  
Test Date:06 October 2017

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.220m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Ky  
Test Date: 06 October 2017

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity: 65.0%  
Test Distance: 7.220m [K=1.0000]  
Remarks:

