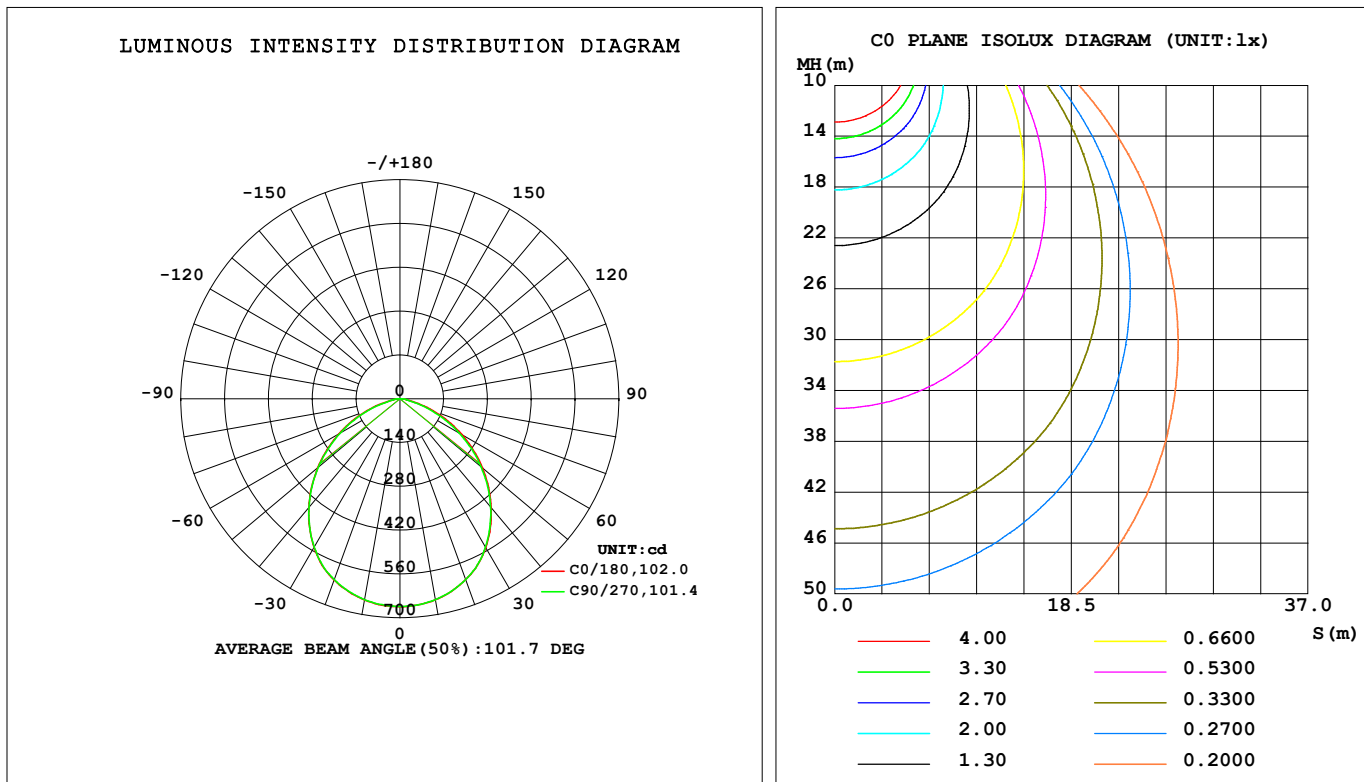


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 77.58 lm/W
MODEL	G3 160mm 3000lm 830 ADV	I _{max} (cd)	664.6	S/MH (C0/180)	1.23	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.23	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	1624.3	η UP,DN (C0-180)	0.0,50.0	
NOMINAL FLUX (lm)	1624.26	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	220.0	η down (%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Ky
 Test Date: 22 November 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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	652.3	652.3	652.2	651.8	652.9	652.0	652.1	651.8	0- 10	62.82	62.82	3.87,3.87
20	615.4	615.4	614.9	614.9	615.8	615.6	614.9	613.8	10- 20	179.6	242.4	14.9,14.9
30	549.1	548.4	547.4	547.2	548.8	548.2	547.9	547.8	20- 30	269.7	512.2	31.5,31.5
40	453.9	452.5	451.1	451.6	452.9	453.7	452.3	452.6	30- 40	314.1	826.2	50.9,50.9
50	344.6	342.0	339.0	341.0	343.1	343.4	341.1	342.5	40- 50	307.2	1133	69.8,69.8
60	227.9	224.0	218.9	222.9	226.4	225.8	221.8	225.5	50- 60	253.2	1387	85.4,85.4
70	112.7	107.2	100.8	106.3	112.1	109.4	104.1	109.4	60- 70	163.3	1550	95.4,95.4
80	24.17	23.56	23.98	23.40	23.57	24.12	24.39	24.37	70- 80	62.38	1612	99.3,99.3
90	0.6776	0.6434	0.6559	0.6528	0.6869	0.6963	0.6279	0.6683	80- 90	11.98	1624	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): 983.81 lm

%lum = 60.6%

%lamp = 60.6%

Conical surface Flux(120deg): 1386.6 lm

%lum = 85.4%

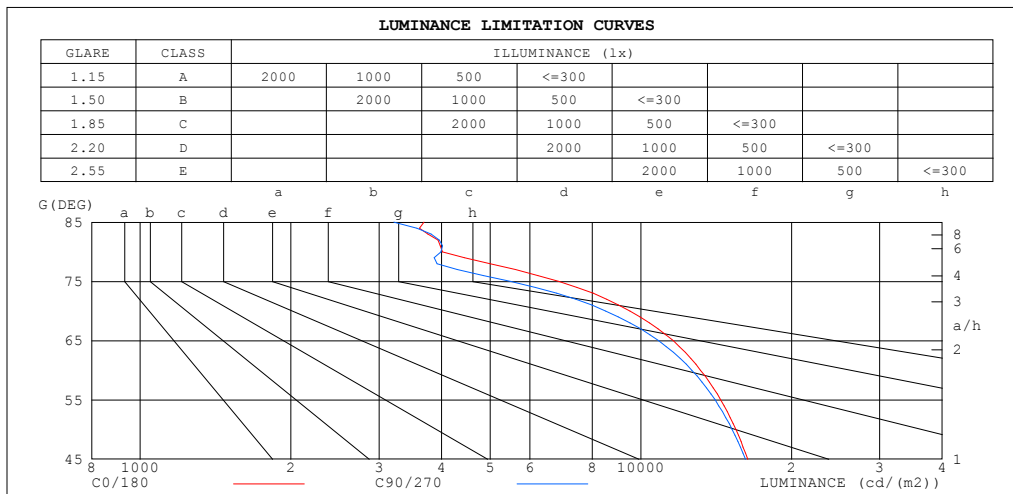
%lamp = 85.4%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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:

LUMINANCE LIMITATION CURVES

Test:U:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3688	3213
80	4020	3988
75	6852	5488
70	9517	8510
65	11602	10846
60	13164	12642
55	14444	14069
50	15481	15230
45	16355	16189

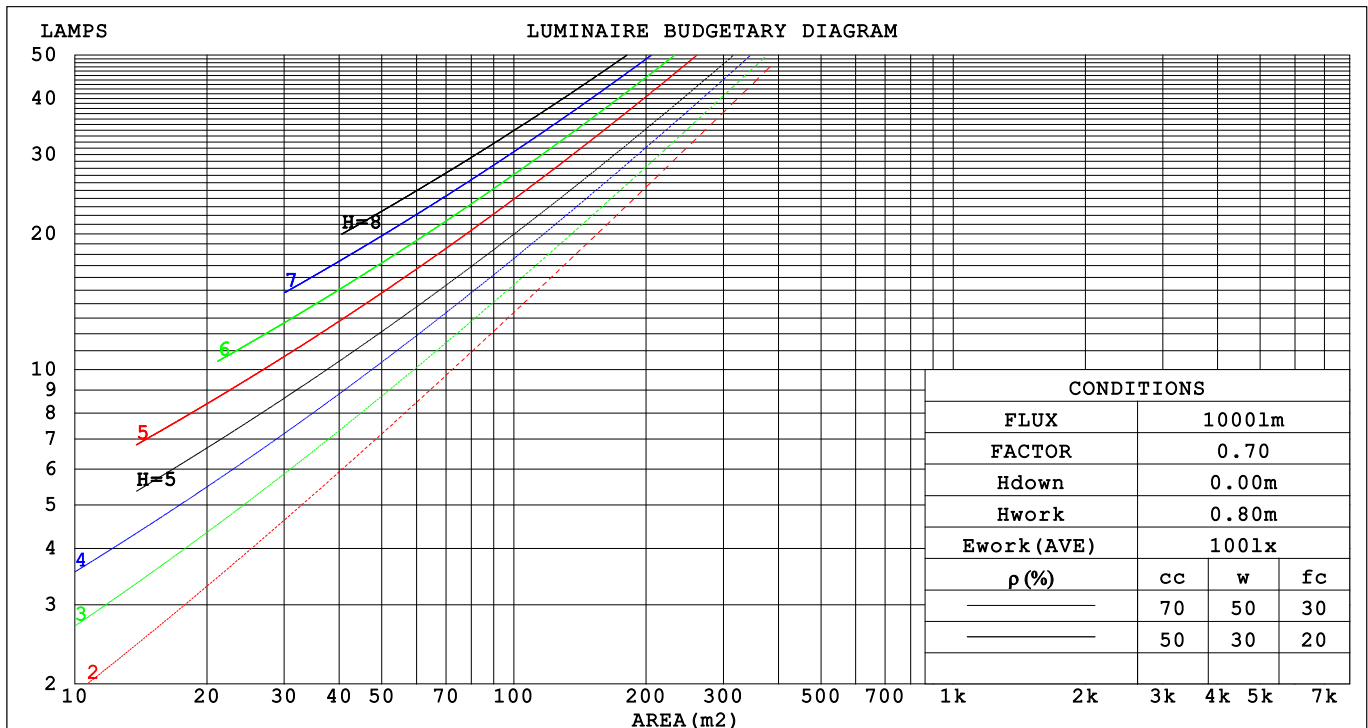
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 2017

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:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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						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	1.06	1.02	.99	1.04	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.76	.73
3.0	.83	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.69	.65	.63
4.0	.74	.65	.59	.72	.65	.59	.70	.63	.58	.68	.62	.57	.66	.61	.56	.54
5.0	.66	.58	.51	.65	.57	.51	.63	.56	.51	.61	.55	.50	.59	.54	.49	.47
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42
7.0	.54	.46	.40	.54	.46	.40	.52	.45	.40	.51	.44	.39	.49	.44	.39	.37
8.0	.50	.42	.36	.49	.41	.36	.48	.41	.36	.47	.40	.35	.45	.40	.35	.33
9.0	.46	.38	.32	.45	.38	.32	.44	.37	.32	.43	.37	.32	.42	.36	.32	.30
10.0	.42	.35	.29	.42	.34	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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	.274	.156	.049	.267	.152	.048	.254	.146	.046	.242	.139	.045	.231	.134	.043	
2.0	.264	.145	.044	.258	.142	.044	.247	.137	.043	.236	.132	.041	.226	.128	.040	
3.0	.249	.132	.040	.243	.130	.039	.233	.126	.038	.224	.123	.038	.215	.119	.037	
4.0	.233	.121	.036	.228	.119	.035	.219	.116	.035	.211	.113	.034	.203	.110	.034	
5.0	.217	.111	.032	.213	.109	.032	.205	.107	.031	.198	.104	.031	.191	.102	.031	
6.0	.203	.102	.029	.199	.101	.029	.192	.098	.029	.185	.096	.028	.179	.094	.028	
7.0	.190	.094	.027	.187	.093	.027	.180	.091	.026	.174	.089	.026	.169	.088	.026	
8.0	.178	.087	.024	.175	.086	.024	.170	.085	.024	.164	.083	.024	.159	.082	.024	
9.0	.168	.081	.023	.165	.080	.023	.160	.079	.022	.155	.078	.022	.151	.077	.022	
10.0	.158	.076	.021	.156	.075	.021	.151	.074	.021	.147	.073	.021	.143	.072	.021	

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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015		
2.0	.169	.132	.101	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012		
3.0	.160	.114	.077	.138	.098	.067	.094	.068	.047	.055	.040	.028	.018	.013	.009		
4.0	.153	.101	.061	.131	.087	.053	.090	.061	.037	.052	.035	.022	.017	.012	.007		
5.0	.146	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006		
6.0	.139	.082	.041	.119	.071	.035	.082	.049	.025	.048	.029	.015	.015	.010	.005		
7.0	.132	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004		
8.0	.126	.069	.030	.108	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004		
9.0	.120	.064	.026	.103	.055	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003		
10.0	.115	.060	.023	.099	.052	.020	.069	.036	.014	.040	.022	.009	.013	.007	.003		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm											
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
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	20.3	21.8	20.6	22.0	22.2	20.2	21.6	20.4	21.8	22.0	
	3H	21.3	22.6	21.6	22.9	23.1	21.1	22.4	21.3	22.6	22.8
	4H	21.5	22.8	21.9	23.0	23.3	21.2	22.5	21.5	22.7	23.0
	6H	21.6	22.8	21.9	23.0	23.3	21.2	22.4	21.6	22.7	22.9
	8H	21.6	22.7	21.9	23.0	23.3	21.2	22.4	21.6	22.6	22.9
	12H	21.6	22.6	21.9	22.9	23.2	21.2	22.3	21.6	22.6	22.9
4H	2H	20.7	22.0	21.1	22.2	22.5	20.6	21.9	20.9	22.1	22.4
	3H	21.9	23.0	22.2	23.2	23.5	21.6	22.7	22.0	23.0	23.3
	4H	22.2	23.2	22.5	23.5	23.8	21.9	22.8	22.2	23.2	23.5
	6H	22.3	23.1	22.6	23.5	23.8	21.9	22.8	22.3	23.1	23.5
	8H	22.3	23.1	22.7	23.4	23.8	21.9	22.7	22.3	23.1	23.5
	12H	22.3	23.0	22.7	23.4	23.8	21.9	22.7	22.4	23.1	23.5
8H	4H	22.2	23.0	22.6	23.4	23.8	21.9	22.7	22.3	23.1	23.5
	6H	22.3	23.0	22.8	23.4	23.8	22.0	22.7	22.5	23.1	23.5
	8H	22.4	23.0	22.8	23.4	23.9	22.1	22.7	22.5	23.1	23.5
	12H	22.4	22.9	22.9	23.4	23.8	22.1	22.6	22.6	23.1	23.5
12H	4H	22.2	22.9	22.6	23.3	23.7	21.9	22.6	22.3	23.0	23.4
	6H	22.3	22.9	22.8	23.3	23.8	22.0	22.6	22.5	23.0	23.5
	8H	22.4	22.9	22.9	23.3	23.8	22.1	22.6	22.6	23.0	23.5
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4					
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4					
2.0H	+ 0.5 / - 0.5					+ 0.6 / - 0.5					

CIE Pub.117, 1624 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.7)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:

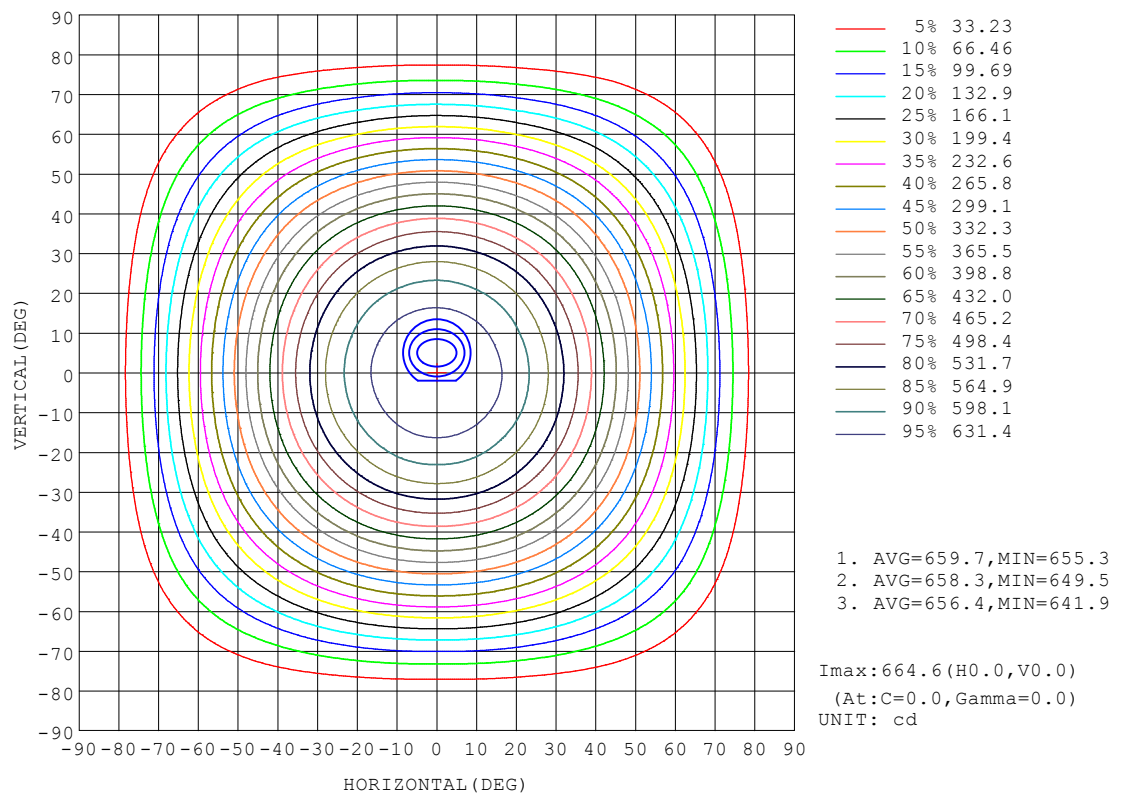
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	61	50	43	60	50	43	59	49	43	37
0.80	71	60	53	70	60	53	68	59	53	46
1.00	80	69	63	78	69	62	76	70	62	55
1.25	87	77	70	85	76	70	83	75	69	63
1.50	91	82	76	90	82	76	87	80	75	68
2.00	98	90	84	96	89	84	93	87	82	75
2.50	101	94	89	99	93	88	96	90	86	78
3.00	104	98	93	102	97	92	98	94	90	82
4.00	108	103	99	106	101	97	102	98	95	86
5.00	110	106	102	108	104	101	103	100	98	89
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:22 November 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:

ISOCANDELA DIAGRAM

Test:U:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:

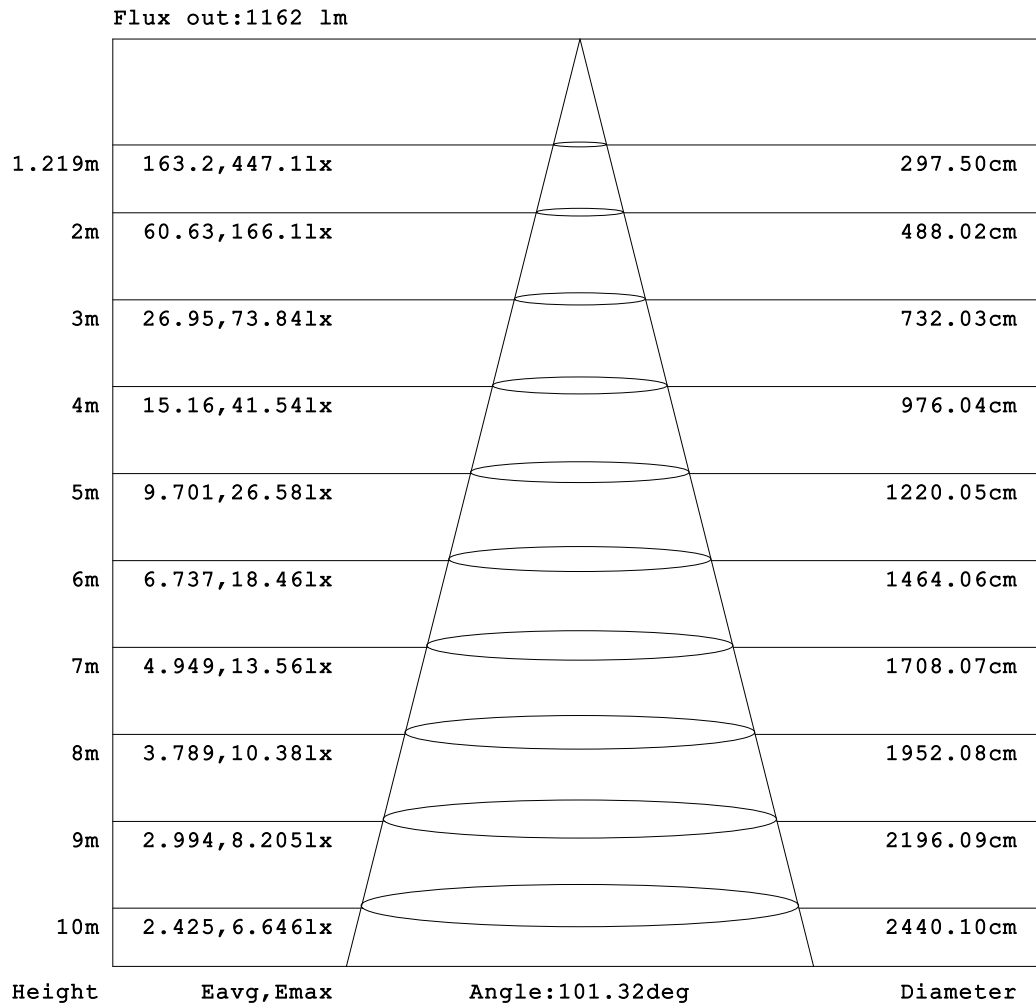


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Ky
Test Date: 22 November 2017

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:

AAI Figure

Test:U:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:



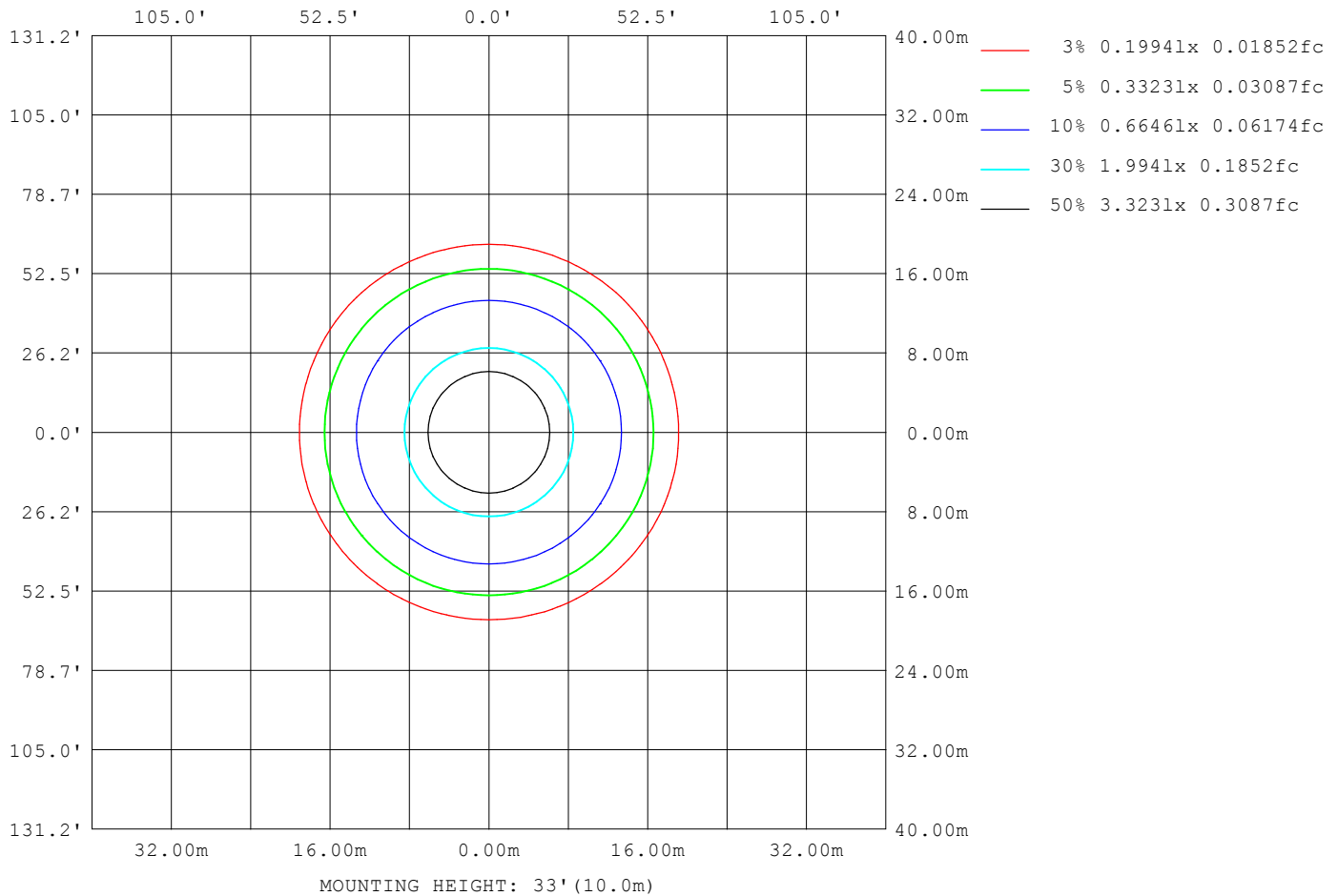
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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:239.92V I:0.0909A P:20.935W PF:0.9603 Freq:50.08Hz Lamp Flux:1624.26x1 lm		
NAME: DEEP C 210 LED_WHT_CLE160G3_500mA_3K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Darkon	SUR.:	Shielding Angle:

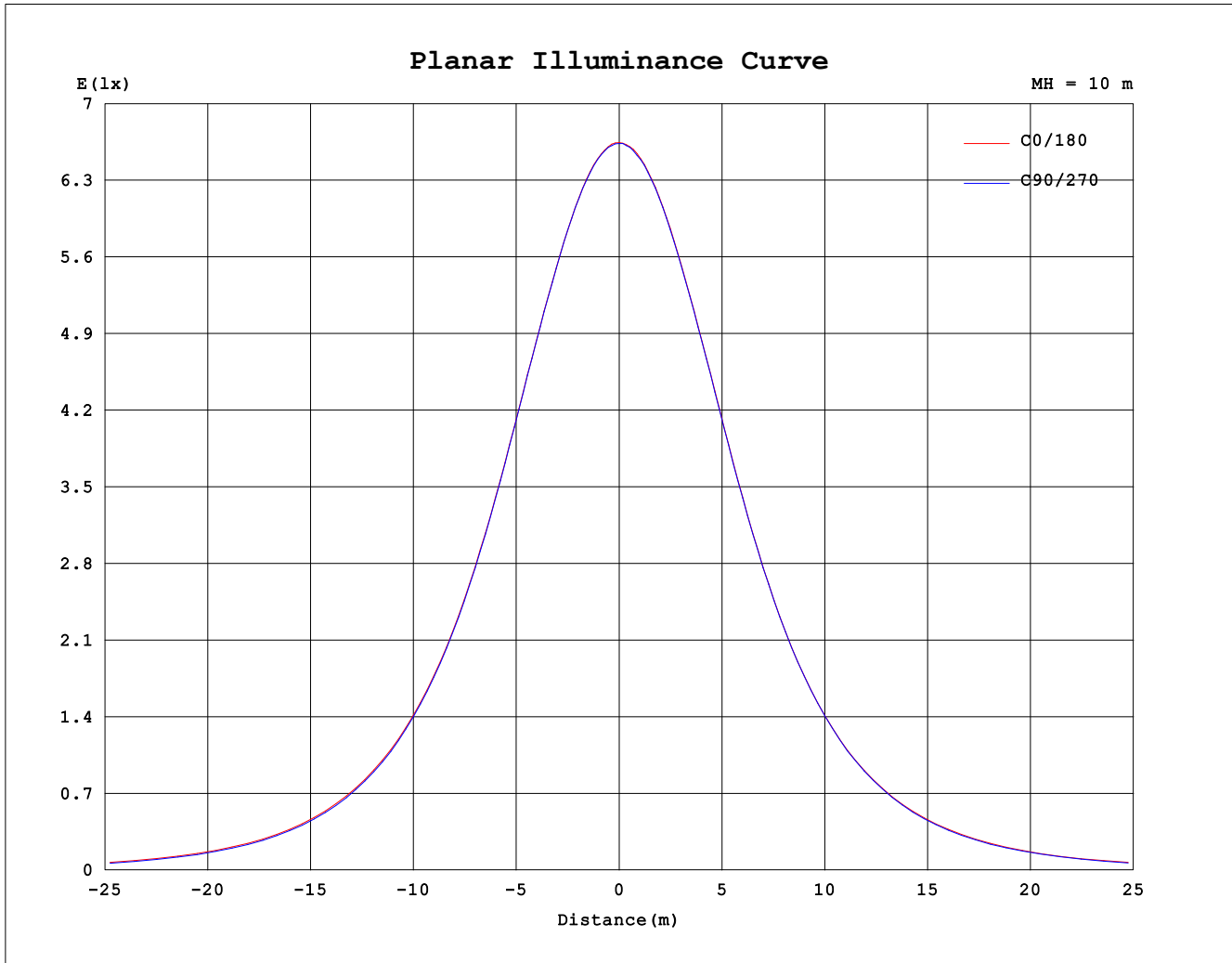
AvgL	cd/m2
L_0~180 (65) av	11559
L_0~180 (75) av	6806
L_0~180 (85) av	3618
L_90~270 (65) av	10960
L_90~270 (75) av	5623
L_90~270 (85) av	3369
L_45 (65) av	11296
L_45 (75) av	6343
L_45 (85) av	3545

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:22 November 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: 22 November 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:

