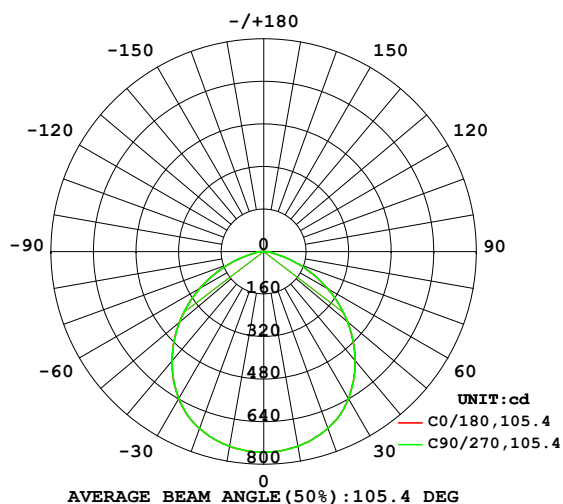


LUMINAIRE PHOTOMETRIC TEST REPORT

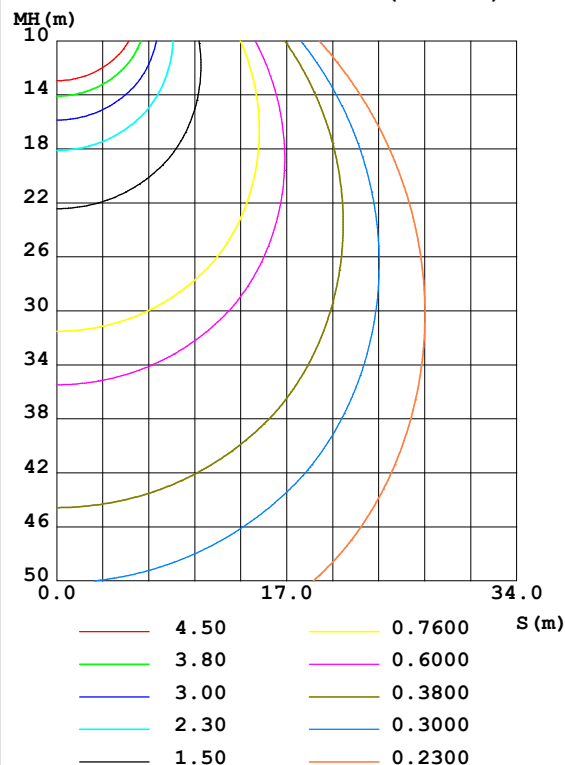
Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 92.91 lm/W			
MODEL 160mm 3000lm 940 ADV5		I _{max} (cd)	754.4	S/MH(C0/180)	1.25
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1945.7	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	1945.74	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)	230	η down(%)	100.0	CIBSE SHR MAX	1.35

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:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [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	742.8	743.0	743.0	743.0	743.3	743.2	743.3	743.4	0- 10	71.47	71.47	3.67,3.67
20	706.8	707.1	707.0	707.0	707.5	707.5	707.5	707.6	10- 20	205.6	277.1	14.2,14.2
30	637.9	638.1	638.0	638.1	639.4	639.0	638.6	639.0	20- 30	312.2	589.3	30.3,30.3
40	534.8	535.0	535.2	535.4	537.3	536.7	536.0	536.4	30- 40	368.8	958.1	49.2,49.2
50	411.6	412.1	412.3	412.3	414.4	413.8	413.2	413.2	40- 50	367.0	1325	68.1,68.1
60	276.4	276.6	277.0	276.9	279.0	278.3	277.7	278.0	50- 60	309.0	1634	84,84
70	139.9	140.0	140.2	140.2	141.5	141.1	140.8	141.2	60- 70	206.0	1840	94.6,94.6
80	35.00	35.04	35.25	35.12	35.40	35.48	35.60	35.55	70- 80	85.73	1926	99,99
90	0.4874	0.4441	0.5062	0.4372	0.4947	0.5317	0.4807	0.4845	80- 90	19.93	1946	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): 1145.4 lm

%lum = 58.9%

%lamp = 58.9%

Conical surface Flux(120deg): 1634.1 lm

%lum = 84.0%

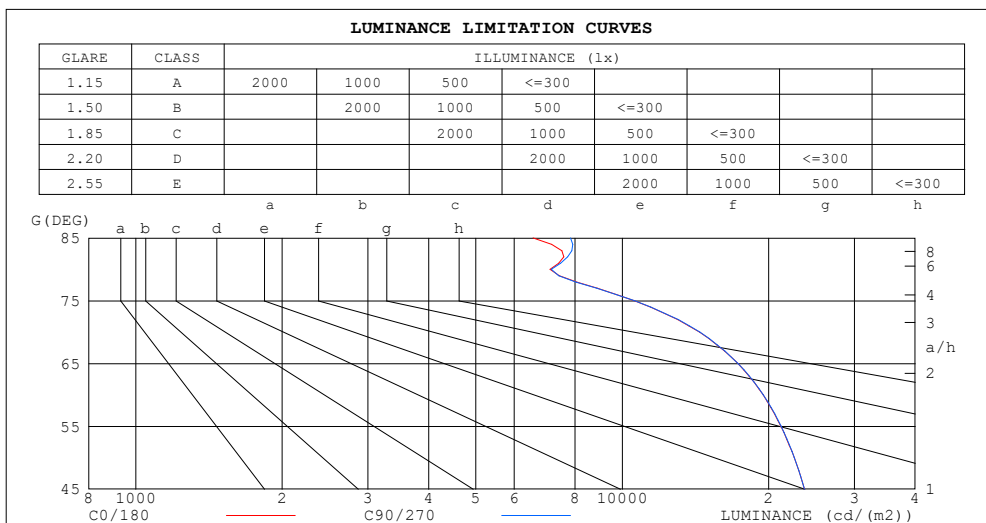
%lamp = 84.0%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6559	7832
80	7104	7147
75	10590	10594
70	14414	14433
65	17288	17302
60	19486	19505
55	21197	21220
50	22571	22581
45	23690	23686

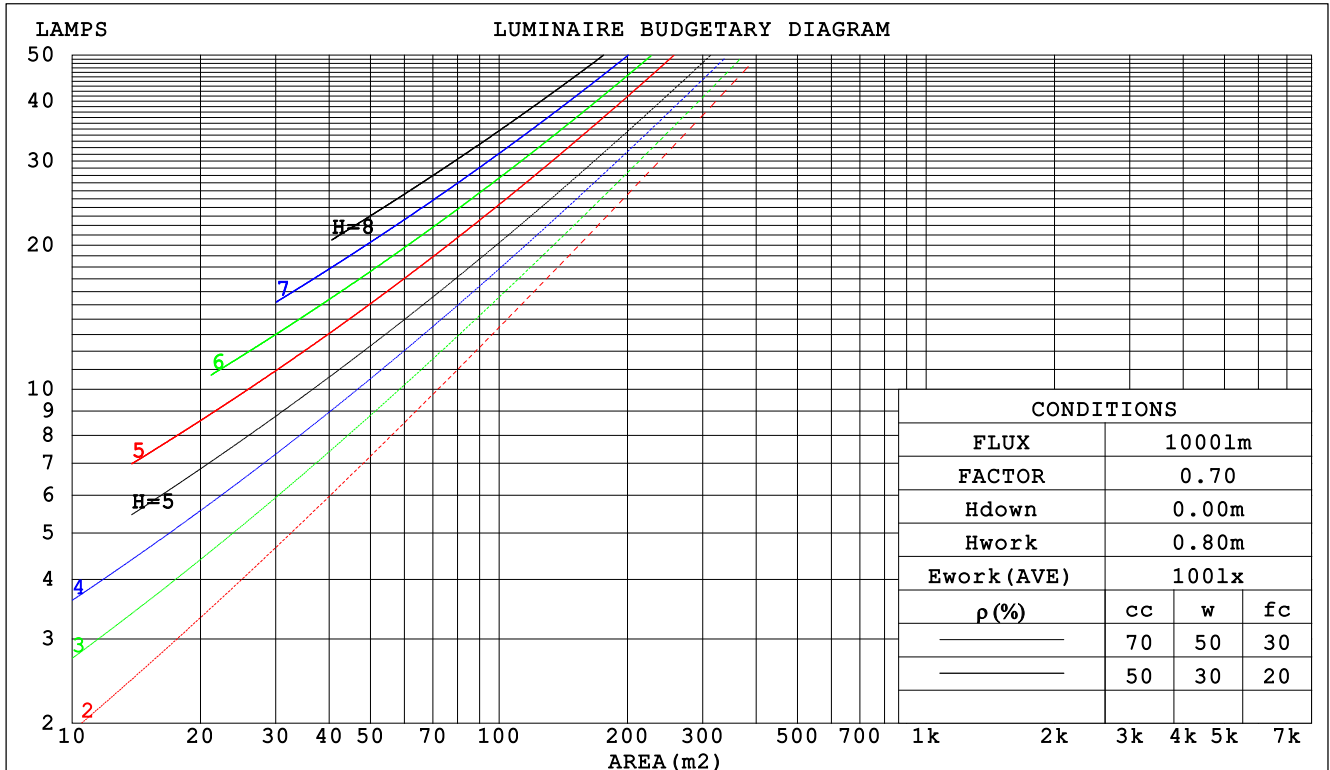
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		

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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	1.05	1.01	.98	1.03	.90	.96	.99	.96	.93	.95	.93	.90	.91	.90	.88	.86
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.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	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5.0	.65	.57	.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	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.38	.48	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.34	.45	.39	.34	.32
9.0	.45	.37	.31	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm											
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90											
MFR.: DARKON											

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	.282	.160	.051	.275	.157	.050	.262	.150	.048	.250	.144	.046	.239	.138	.045	
2.0	.271	.148	.045	.264	.146	.045	.253	.141	.044	.242	.136	.043	.232	.132	.041	
3.0	.254	.135	.040	.248	.133	.040	.238	.129	.039	.229	.125	.038	.220	.122	.038	
4.0	.237	.123	.036	.232	.121	.036	.223	.118	.035	.214	.115	.035	.207	.112	.034	
5.0	.220	.112	.033	.216	.111	.032	.208	.108	.032	.201	.106	.032	.194	.104	.031	
6.0	.206	.103	.030	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028	
7.0	.192	.095	.027	.189	.094	.027	.183	.092	.027	.177	.091	.026	.171	.089	.026	
8.0	.180	.088	.025	.177	.087	.025	.172	.086	.024	.166	.084	.024	.161	.083	.024	
9.0	.169	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.023	.152	.077	.022	
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.073	.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	.153	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm										
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90										
MFR.: DARKON										
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	23.4	24.8	23.6	25.0	25.2	23.4	24.8	23.6	25.0	25.2
3H	24.4	25.7	24.7	26.0	26.2	24.4	25.8	24.7	26.0	26.2
4H	24.7	25.9	25.0	26.2	26.4	24.7	25.9	25.0	26.2	26.4
6H	24.7	25.9	25.1	26.2	26.5	24.7	25.9	25.1	26.2	26.5
8H	24.8	25.9	25.1	26.2	26.5	24.8	25.9	25.1	26.2	26.5
12H	24.8	25.9	25.1	26.2	26.5	24.8	25.9	25.1	26.2	26.5
4H 2H	23.8	25.1	24.1	25.4	25.6	23.8	25.1	24.2	25.4	25.6
3H	25.0	26.1	25.4	26.4	26.7	25.0	26.1	25.4	26.4	26.7
4H	25.3	26.4	25.7	26.7	27.0	25.4	26.4	25.7	26.7	27.0
6H	25.5	26.4	25.9	26.7	27.1	25.5	26.4	25.9	26.7	27.1
8H	25.5	26.4	25.9	26.7	27.1	25.5	26.4	26.0	26.7	27.1
12H	25.6	26.3	26.0	26.7	27.1	25.6	26.3	26.0	26.7	27.1
8H 4H	25.4	26.3	25.8	26.6	27.0	25.4	26.3	25.8	26.6	27.0
6H	25.6	26.3	26.1	26.7	27.1	25.6	26.3	26.1	26.7	27.1
8H	25.7	26.3	26.2	26.8	27.2	25.7	26.3	26.2	26.8	27.2
12H	25.8	26.3	26.3	26.8	27.2	25.9	26.4	26.3	26.8	27.3
12H 4H	25.4	26.2	25.8	26.5	26.9	25.4	26.2	25.8	26.5	26.9
6H	25.6	26.2	26.1	26.7	27.1	25.6	26.2	26.1	26.7	27.1
8H	25.8	26.3	26.2	26.7	27.2	25.8	26.3	26.2	26.7	27.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4				

CIE Pub.117 Corrected 1946 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.3)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		

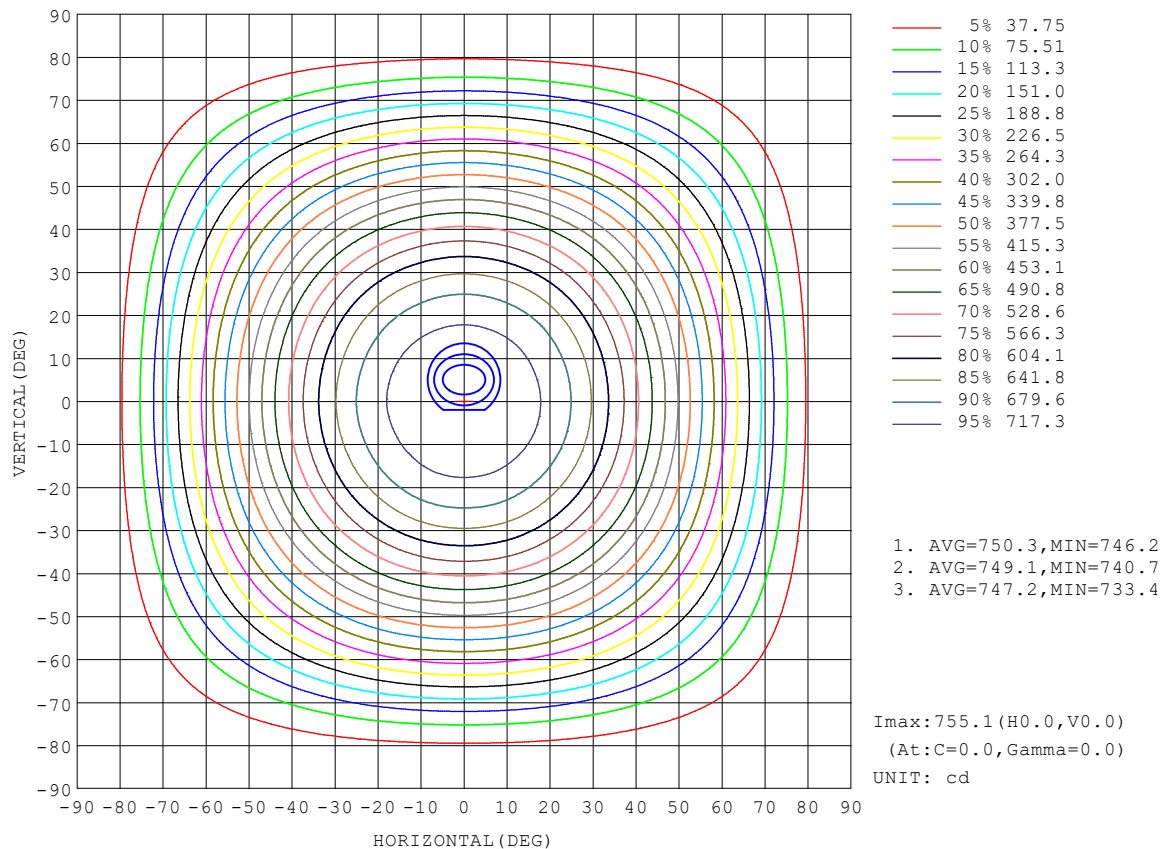
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	42	59	49	42	58	48	42	36
0.80	70	59	52	69	59	52	67	58	52	45
1.00	79	68	61	78	68	61	75	69	61	54
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	81	75	89	81	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	77
3.00	104	98	93	102	96	91	98	93	89	81
4.00	108	102	98	105	101	97	101	97	94	86
5.00	110	105	102	107	103	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: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: JEFF
 Test Date: 20 April 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 7.995m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		

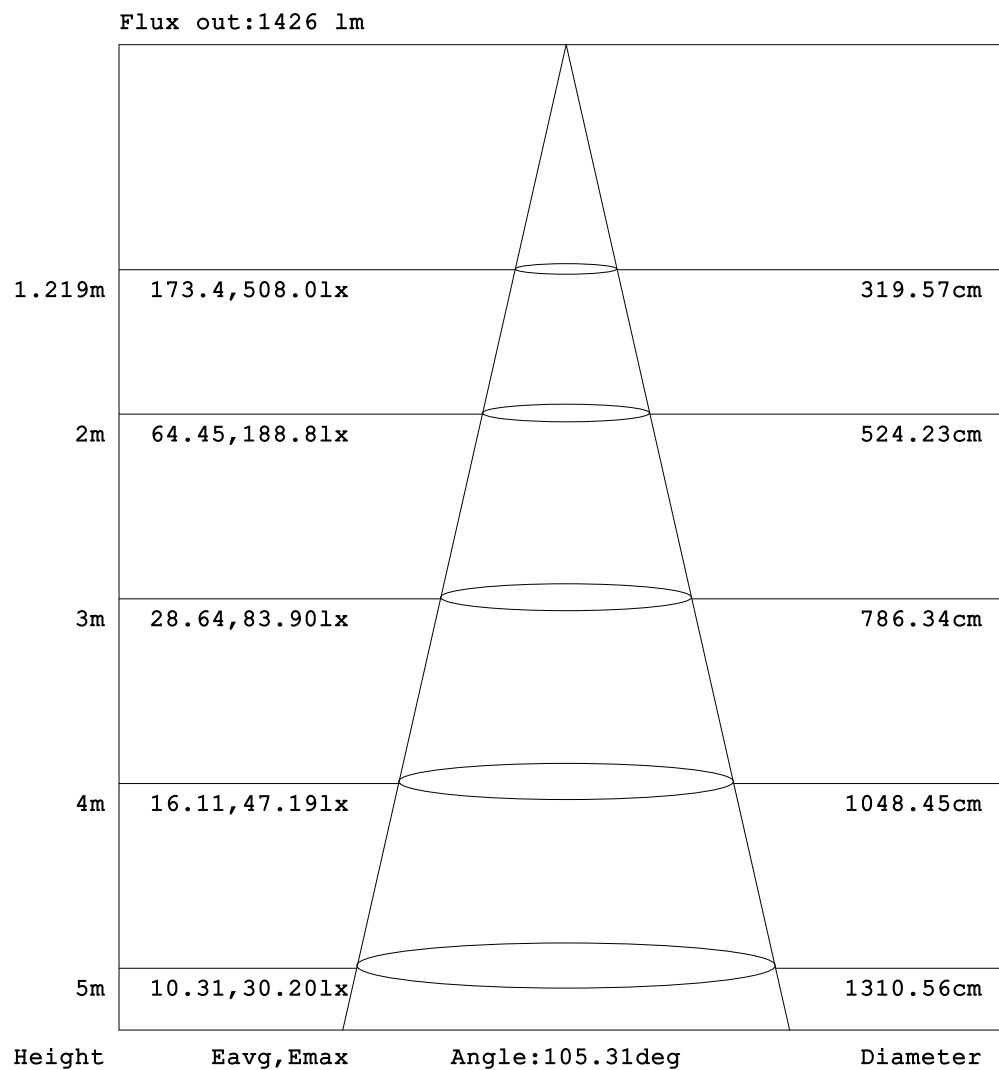


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		



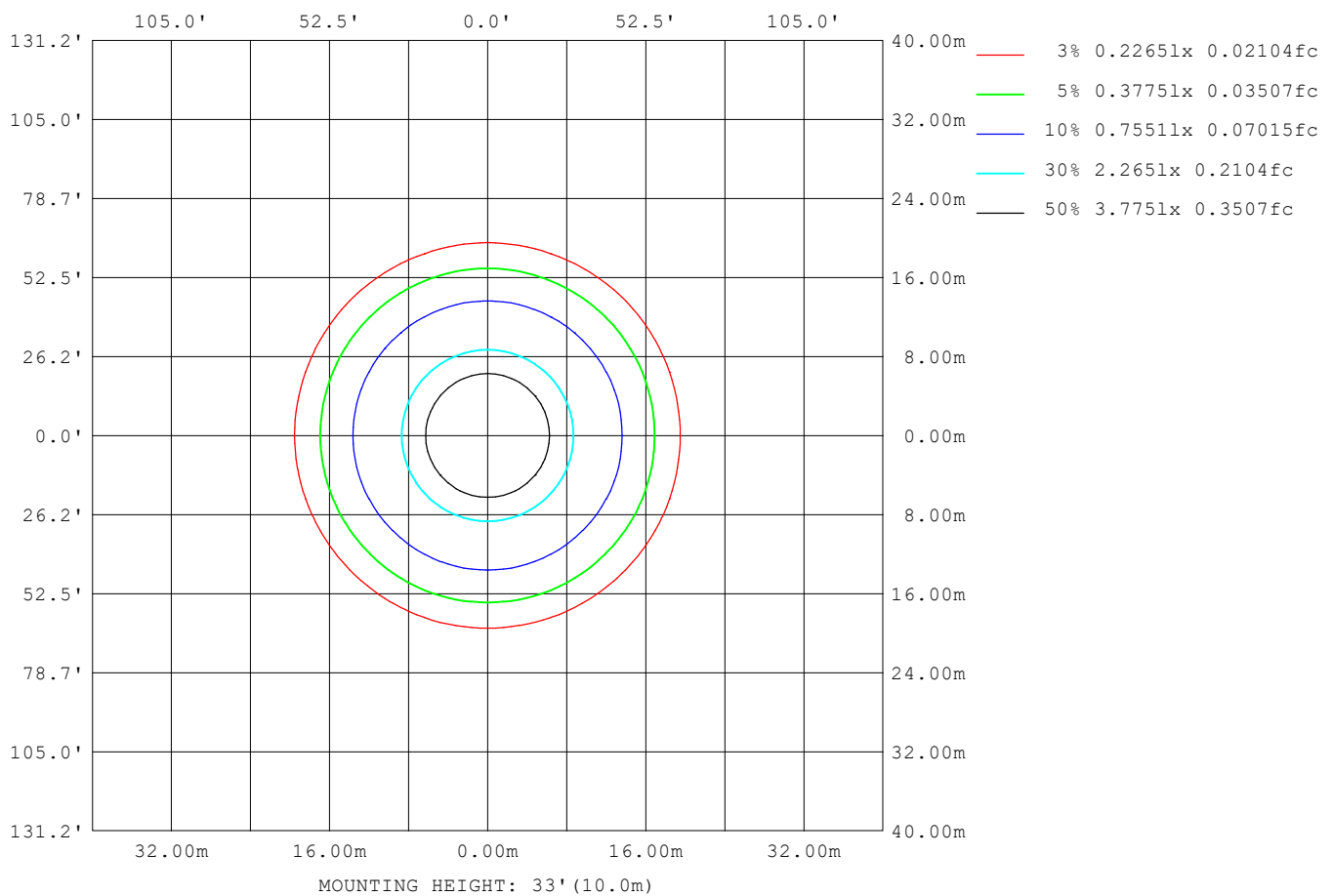
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:240.0V I:0.0936A P:20.94W PF:0.9322 Lamp Flux:1945.74x1 lm		
NAME: DEEP C 210_NA_WHT_500mA_4000K CRI90		
MFR.: DARKON		

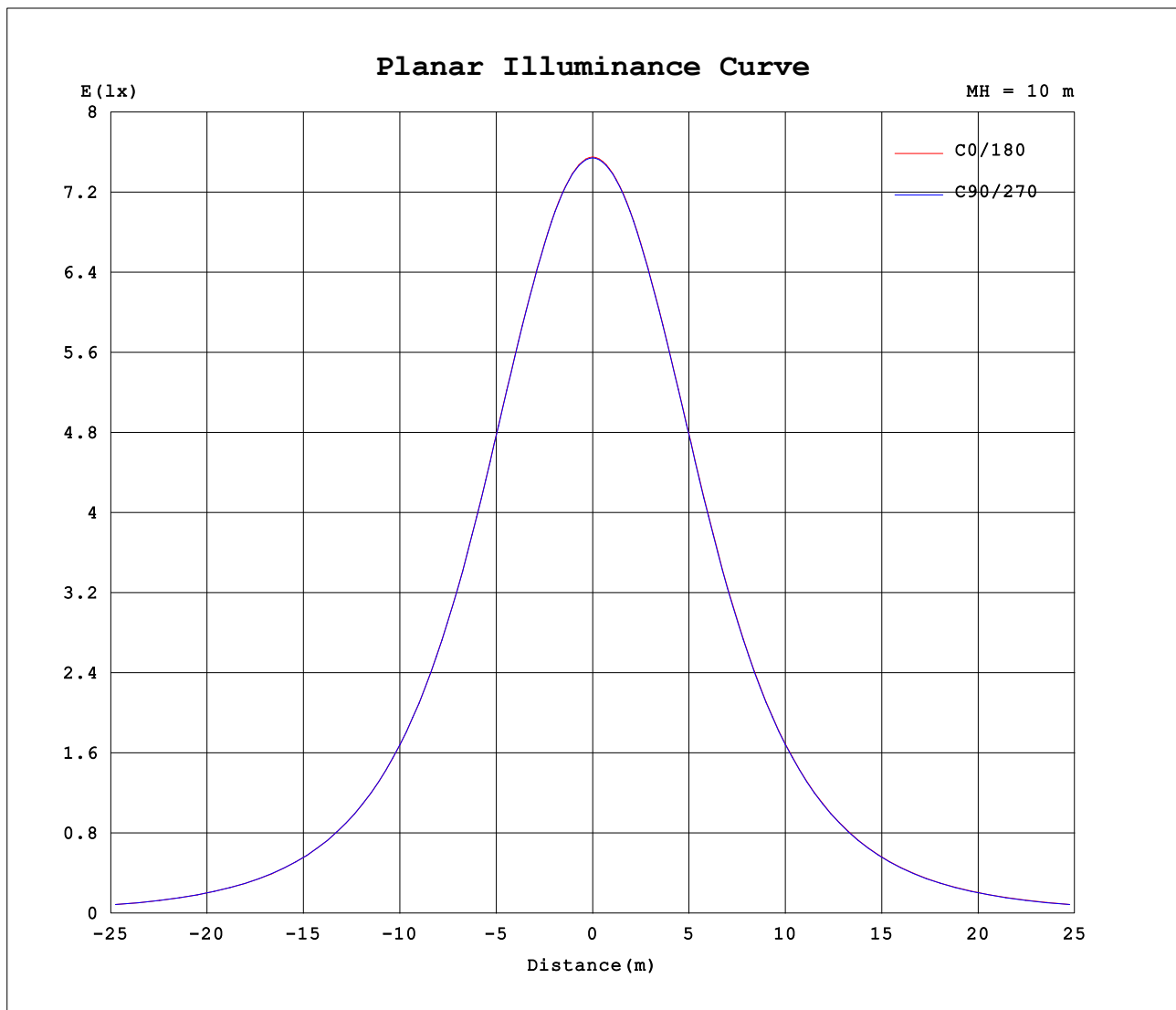
AvgL	cd/m2
L_0~180 (65) av	17349
L_0~180 (75) av	10677
L_0~180 (85) av	6538
L_90~270 (65) av	17319
L_90~270 (75) av	10684
L_90~270 (85) av	7966
L_45 (65) av	17331
L_45 (75) av	10679
L_45 (85) av	7452

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 April 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 20 April 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

