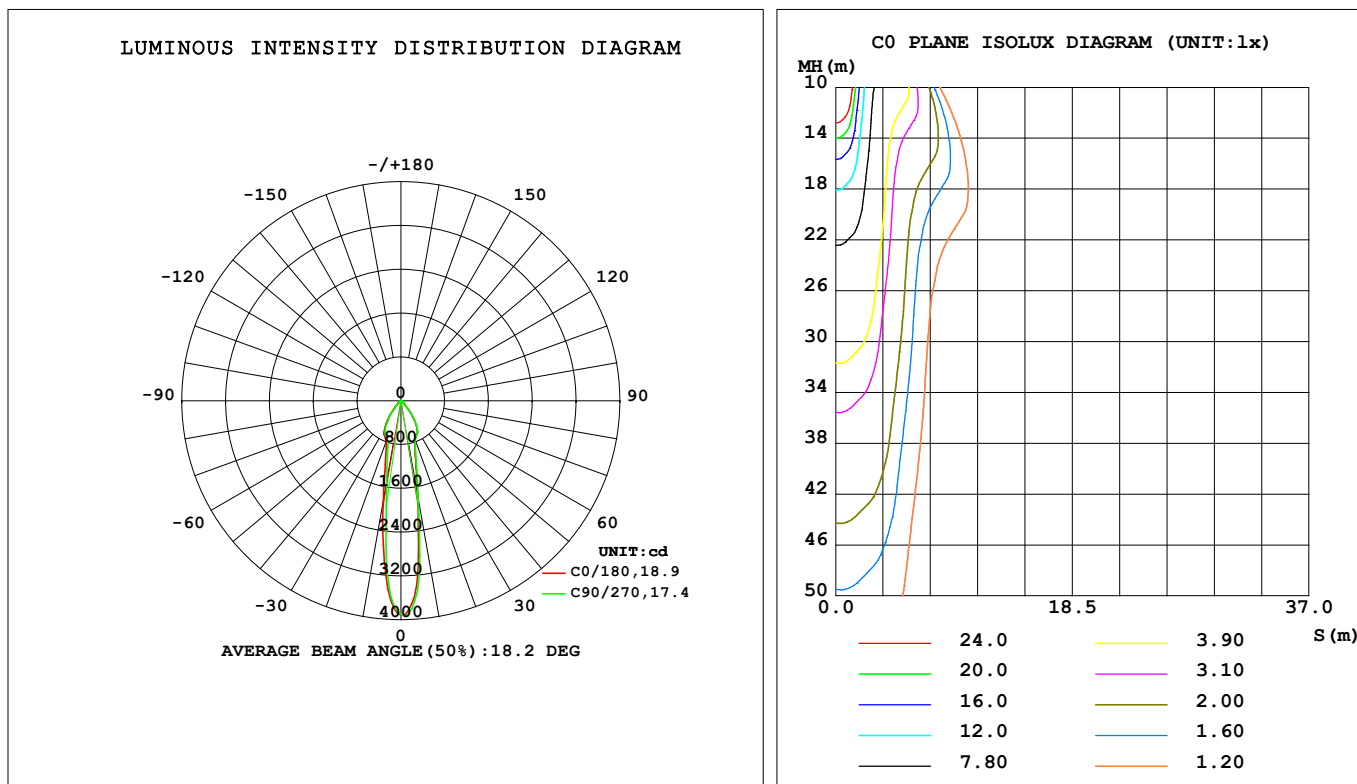


## LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL:G7 09mm 1200lm 840 R ADV		Eff: 89.63 lm/W			
NOMINAL POWER(W)		I <sub>max</sub> (cd)	3946	S/MH (C0/180)	0.33
RATED VOLTAGE (V)	220.0	LOR (%)	100.0	S/MH (C90/270)	0.27
NOMINAL FLUX (lm)	1271.9	TOTAL FLUX (lm)	1271.9	η UP,DN (C0-180)	0.0,51.7
LAMPS INSIDE	1	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,48.3
TEST VOLTAGE (V)	230	η up (%)	0.0	CIBSE SHR NOM	0.00
		η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JEFF  
 Test Date: 12 November 2020

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 7.250m [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	1788	1845	1849	1904	1880	1682	1521	1614	0- 10	256.7	256.7	20.2,20.2
20	759.8	774.8	770.1	797.6	797.6	766.1	737.6	743.9	10- 20	301.3	558.0	43.9,43.9
30	595.1	607.9	602.6	605.7	601.2	581.6	562.1	575.9	20- 30	315.2	873.2	68.7,68.7
40	224.6	244.3	249.2	248.3	240.0	215.3	196.0	207.6	30- 40	256.4	1130	88.8,88.8
50	65.18	64.34	59.40	64.97	65.92	59.77	53.85	60.08	40- 50	88.19	1218	95.7,95.7
60	25.41	24.29	19.93	24.80	26.22	22.08	16.85	22.10	50- 60	35.58	1253	98.5,98.5
70	6.990	6.759	6.709	6.536	6.621	6.503	6.672	6.720	60- 70	11.28	1265	99.4,99.4
80	3.913	3.946	3.574	3.879	3.952	3.637	3.219	3.755	70- 80	5.830	1270	99.9,99.9
90	0.0125	0.0063	0	0.0157	0.0188	0.0031	0	0	80- 90	1.431	1272	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): 1186.5 lm

%lum = 93.3%

%lamp = 93.3%

Conical surface Flux(120deg): 1253.4 lm

%lum = 98.5%

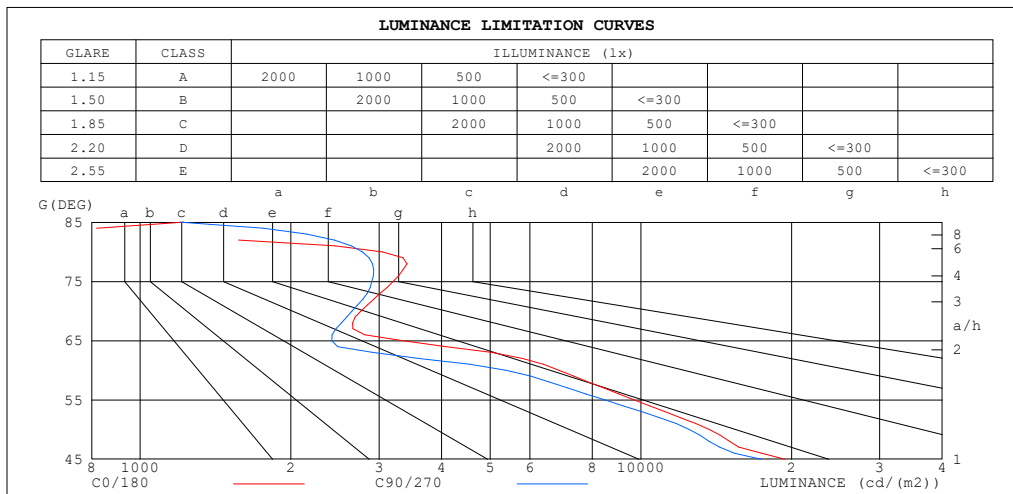
%lamp = 98.5%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1222	1202
80	3045	2781
75	3204	2904
70	2762	2651
65	3335	2413
60	6868	5387
55	9691	8460
50	13703	12489
45	19406	17398

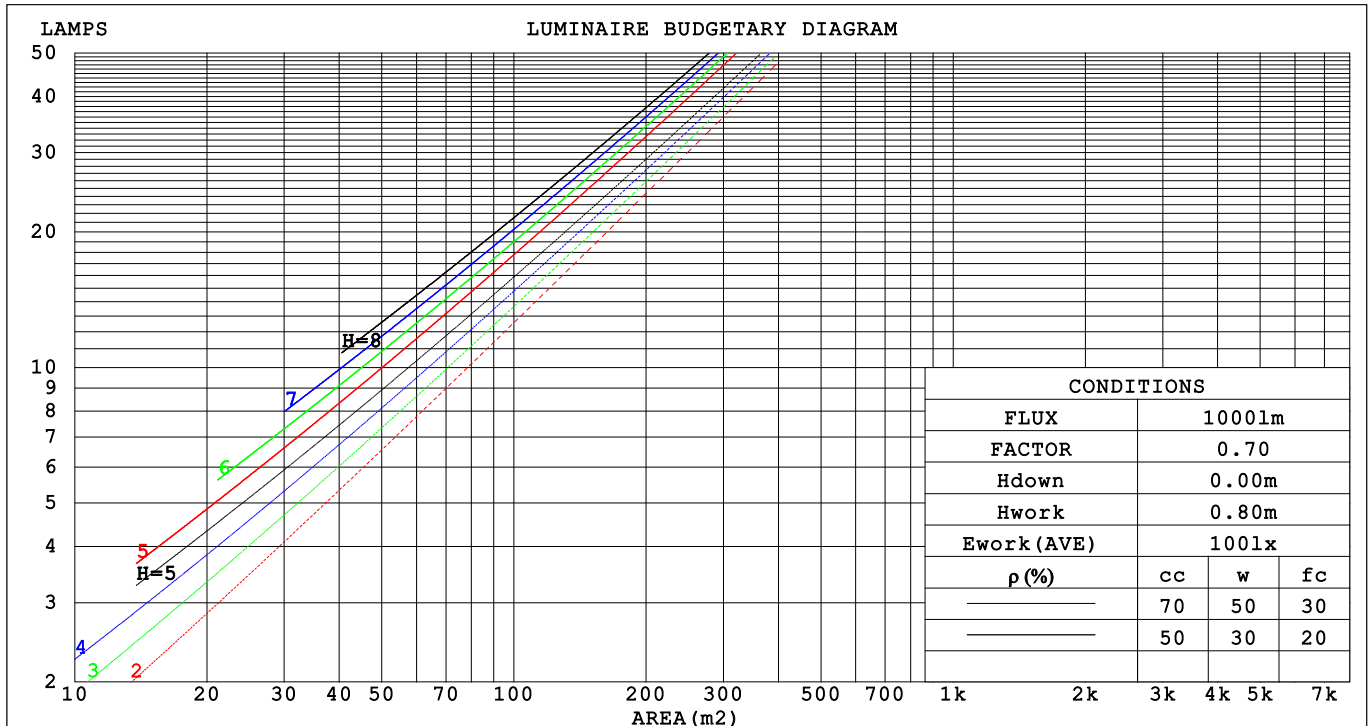
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.94
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.92	.90	.89	.87
3.0	.96	.91	.88	.95	.90	.87	.92	.89	.85	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.77	.74	.80	.76	.73	.79	.75	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.66	.74	.69	.65	.73	.68	.65	.71	.68	.65	.63
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.60
9.0	.68	.63	.59	.68	.62	.59	.67	.62	.58	.66	.61	.58	.65	.61	.58	.57
10.0	.65	.59	.56	.65	.59	.56	.64	.59	.56	.63	.59	.55	.62	.58	.55	.54



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	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	.178	.101	.032	.171	.098	.031	.158	.091	.029	.147	.085	.027	.136	.079	.025	
2.0	.170	.093	.029	.164	.090	.028	.154	.085	.027	.144	.081	.025	.135	.076	.024	
3.0	.161	.086	.026	.156	.084	.025	.147	.080	.024	.139	.076	.023	.131	.073	.022	
4.0	.153	.079	.023	.149	.078	.023	.141	.075	.022	.134	.072	.022	.127	.069	.021	
5.0	.145	.074	.021	.142	.073	.021	.135	.070	.021	.128	.068	.020	.123	.065	.020	
6.0	.138	.069	.020	.135	.068	.020	.129	.066	.019	.123	.064	.019	.118	.062	.018	
7.0	.131	.065	.018	.128	.064	.018	.123	.062	.018	.118	.061	.018	.114	.059	.017	
8.0	.125	.061	.017	.123	.060	.017	.118	.059	.017	.114	.058	.017	.109	.056	.016	
9.0	.119	.058	.016	.117	.057	.016	.113	.056	.016	.109	.055	.016	.105	.054	.015	
10.0	.114	.055	.015	.112	.054	.015	.108	.053	.015	.105	.052	.015	.102	.051	.015	

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm											
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG TYPE:LED								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	2H	18.4	19.4	18.7	19.5	19.7	18.3	19.3	18.6	19.4	19.6
	3H	18.3	19.2	18.6	19.4	19.6	18.2	19.1	18.5	19.3	19.5
	4H	18.3	19.1	18.6	19.3	19.5	18.2	19.0	18.4	19.2	19.4
	6H	18.3	19.0	18.6	19.3	19.5	18.1	18.9	18.4	19.1	19.4
	8H	18.2	19.0	18.5	19.2	19.5	18.1	18.8	18.4	19.1	19.4
	12H	18.2	18.9	18.5	19.2	19.4	18.1	18.8	18.4	19.0	19.3
4H	2H	18.3	19.1	18.5	19.3	19.5	18.2	19.0	18.4	19.2	19.4
	3H	18.2	18.9	18.5	19.1	19.4	18.1	18.8	18.4	19.0	19.3
	4H	18.2	18.8	18.5	19.1	19.4	18.0	18.7	18.4	19.0	19.3
	6H	18.2	18.7	18.6	19.1	19.4	18.0	18.6	18.4	18.9	19.3
	8H	18.1	18.7	18.5	19.0	19.4	18.0	18.5	18.4	18.9	19.3
	12H	18.1	18.6	18.5	19.0	19.3	18.0	18.5	18.4	18.8	19.2
8H	4H	18.1	18.6	18.5	18.9	19.3	17.9	18.5	18.3	18.8	19.2
	6H	18.1	18.5	18.5	18.9	19.3	18.0	18.4	18.4	18.8	19.2
	8H	18.1	18.5	18.6	18.9	19.3	18.0	18.3	18.4	18.8	19.2
	12H	18.1	18.4	18.5	18.8	19.3	17.9	18.3	18.4	18.7	19.2
12H	4H	18.0	18.5	18.4	18.9	19.3	17.9	18.4	18.3	18.8	19.1
	6H	18.1	18.5	18.5	18.9	19.3	17.9	18.3	18.4	18.7	19.2
	8H	18.1	18.4	18.5	18.8	19.3	17.9	18.3	18.4	18.7	19.2
Variations with the observer position at spacings:											
S = 1.0H	+ 2.4 / - 4.4					+ 2.7 / - 5.2					
1.5H	+ 4.2 / - 3.2					+ 4.6 / - 3.6					
2.0H	+ 2.8 / - 3.0					+ 2.8 / - 3.9					

CIE Pub.117, 1272 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.8)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

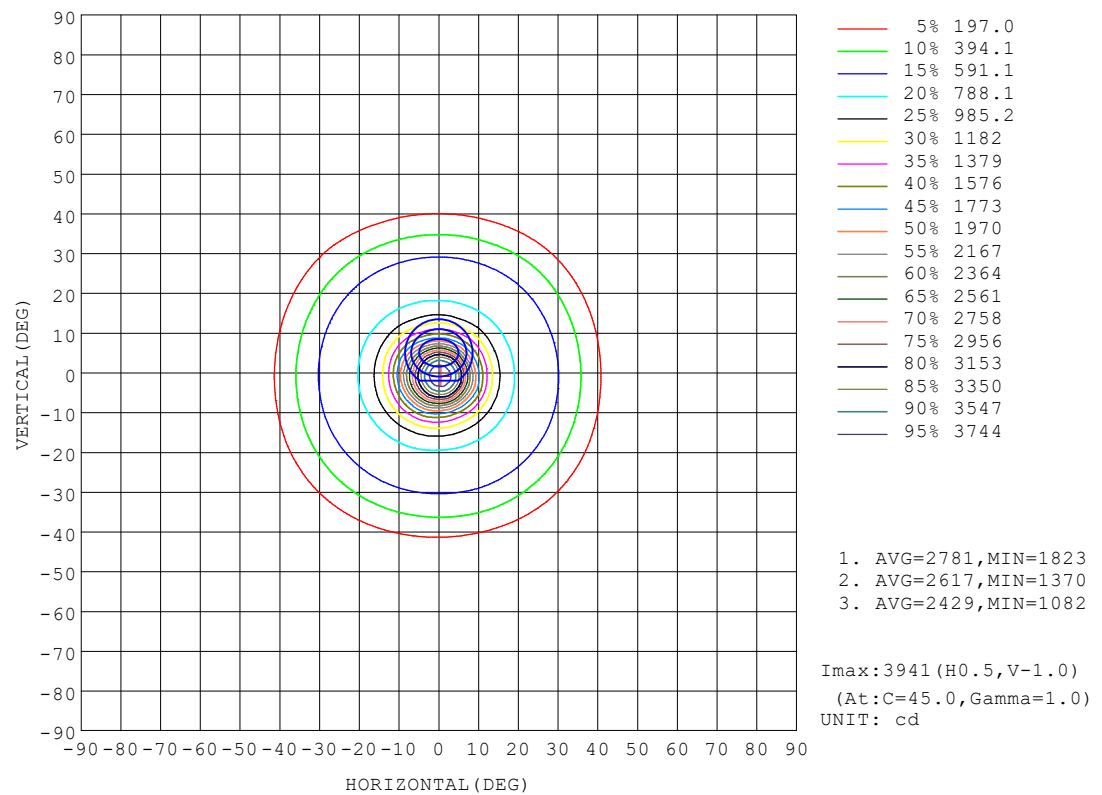
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	78	73	84	77	73	83	77	73	69
0.80	92	86	82	92	86	82	90	85	81	77
1.00	97	91	87	96	91	87	95	91	87	82
1.25	102	96	92	101	96	92	99	94	91	87
1.50	105	99	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	103	106	103	101	95
4.00	113	110	108	111	109	107	108	105	104	97
5.00	115	112	110	112	110	108	108	107	105	98
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:12 November 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



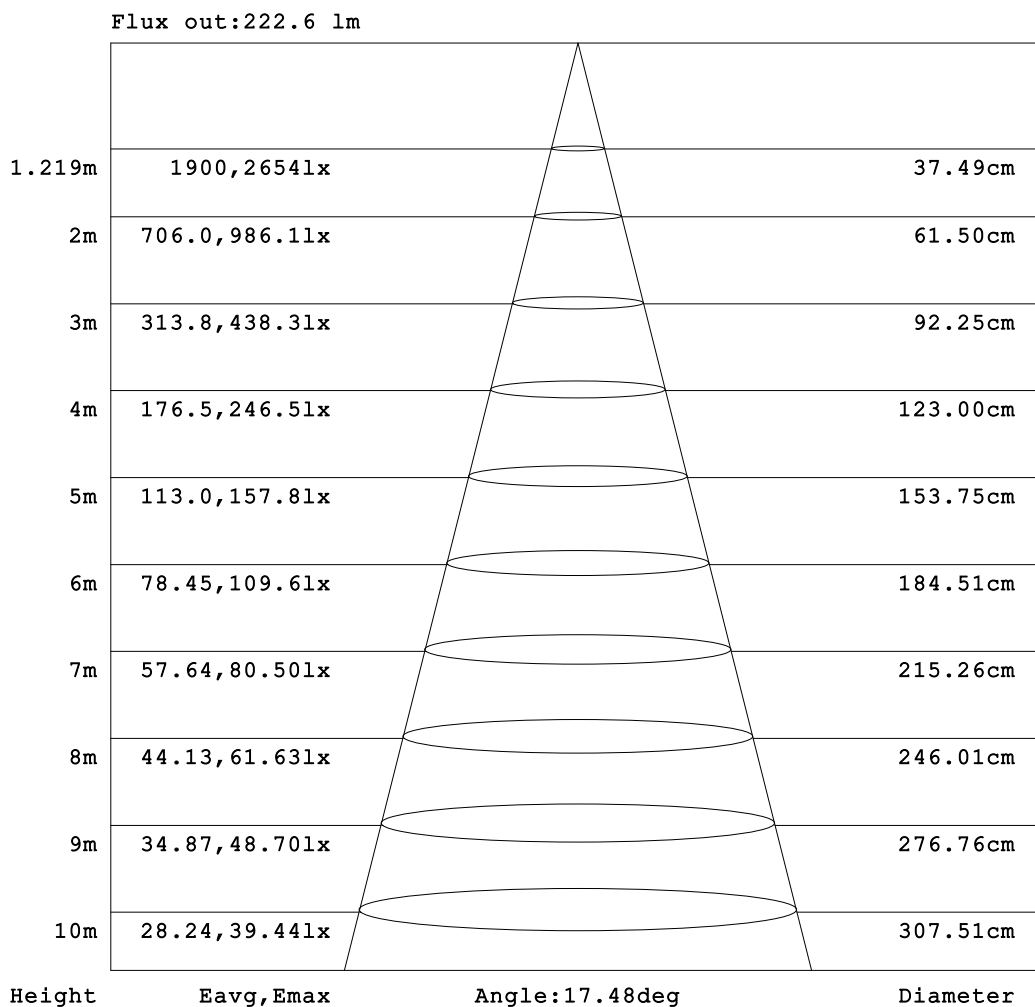
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



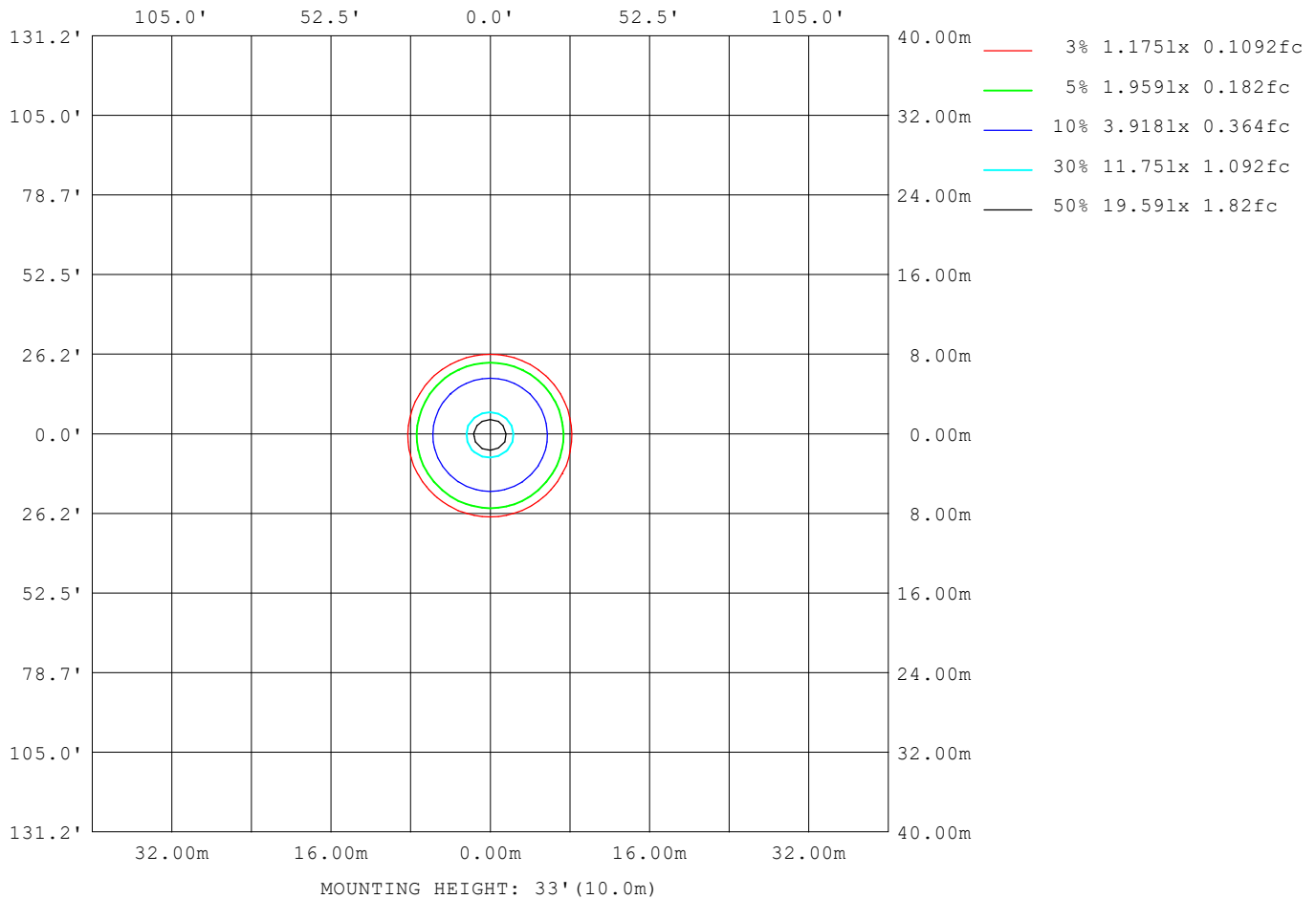
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	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:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**LED Avg.L Report**

Test:U:239.94V I:0.0641A P:14.191W PF:0.9231 Freq:50.09Hz Lamp Flux:1271.9x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_350mA_4K_24 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

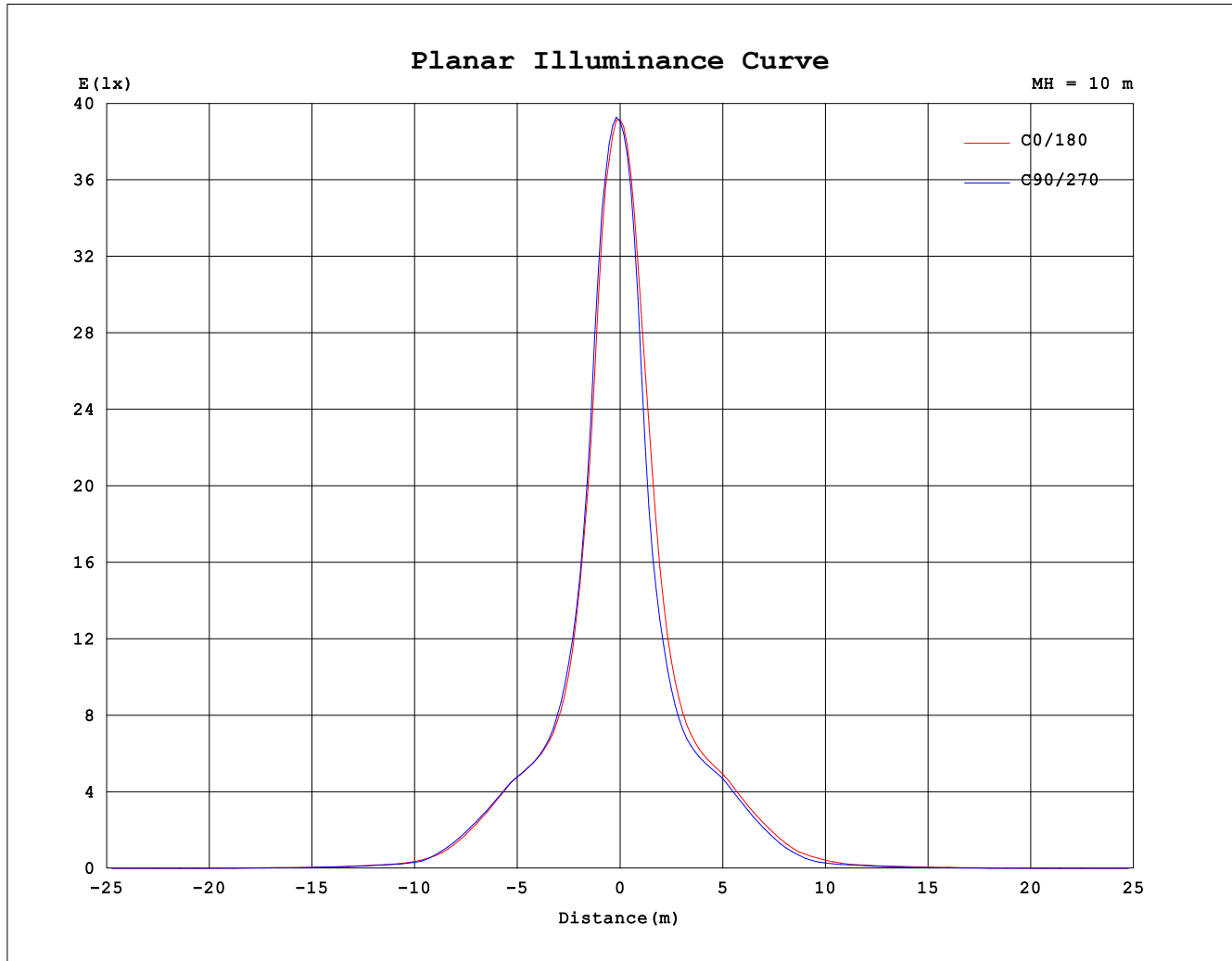
AvgL	cd/m2
L_0~180 (65) av	3576
L_0~180 (75) av	3129
L_0~180 (85) av	1185
L_90~270 (65) av	2396
L_90~270 (75) av	2851
L_90~270 (85) av	883
L_45 (65) av	2996
L_45 (75) av	2940
L_45 (85) av	1673

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [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: 12 November 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity: 65.0%  
Test Distance: 7.250m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

```