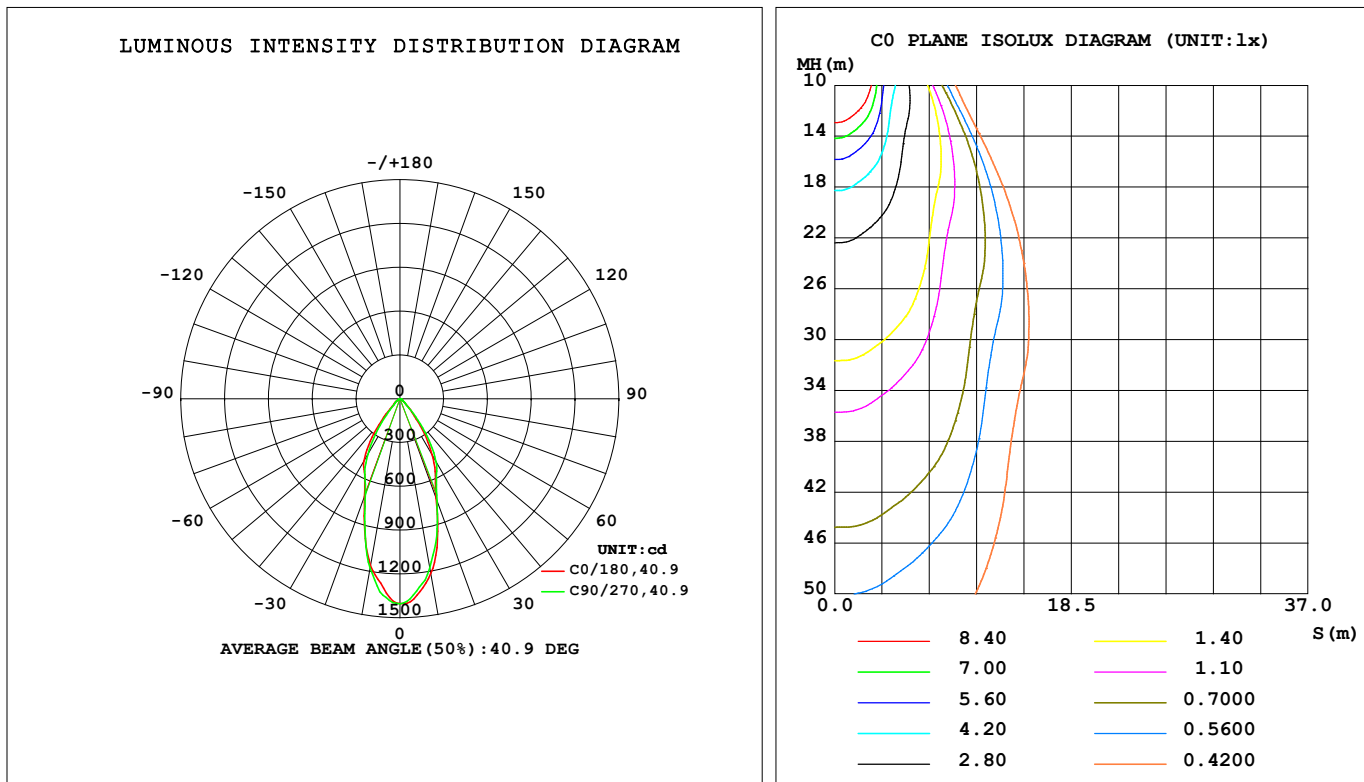


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 92.53 lm/W
MODEL G7 09mm 1200lm 840 R ADV		I <sub>max</sub> (cd)	1407	S/MH (C0/180)		0.64
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)		0.63
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	963.16	η UP,DN (C0-180)		0.0,51.2
NOMINAL FLUX (lm)	963.156	CIE CLASS	DIRECT	η UP,DN (C180-360)		0.0,48.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.75
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX		0.75



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	1215	1186	1178	1181	1162	1159	1179	1235	0- 10	122.6	122.6	12.7,12.7
20	728.9	747.2	744.3	731.2	711.7	697.5	695.2	710.1	10- 20	264.6	387.2	40.2,40.2
30	440.1	469.4	493.6	506.3	496.1	472.5	440.8	434.2	20- 30	267.4	654.7	68,68
40	156.2	171.7	192.6	207.9	200.9	171.8	146.1	149.8	30- 40	198.6	853.2	88.6,88.6
50	47.83	48.80	46.10	50.19	49.03	45.97	40.66	45.83	40- 50	68.48	921.7	95.7,95.7
60	18.70	18.52	15.39	19.37	20.00	16.99	12.73	16.66	50- 60	27.39	949.1	98.5,98.5
70	5.135	5.038	5.098	5.047	5.082	4.938	5.001	4.973	60- 70	8.471	957.6	99.4,99.4
80	2.990	3.057	2.840	3.048	3.145	2.799	2.522	2.886	70- 80	4.437	962.0	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	1.142	963.2	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): 897.91 lm

%lum = 93.2%

%lamp = 93.2%

Conical surface Flux(120deg): 949.11 lm

%lum = 98.5%

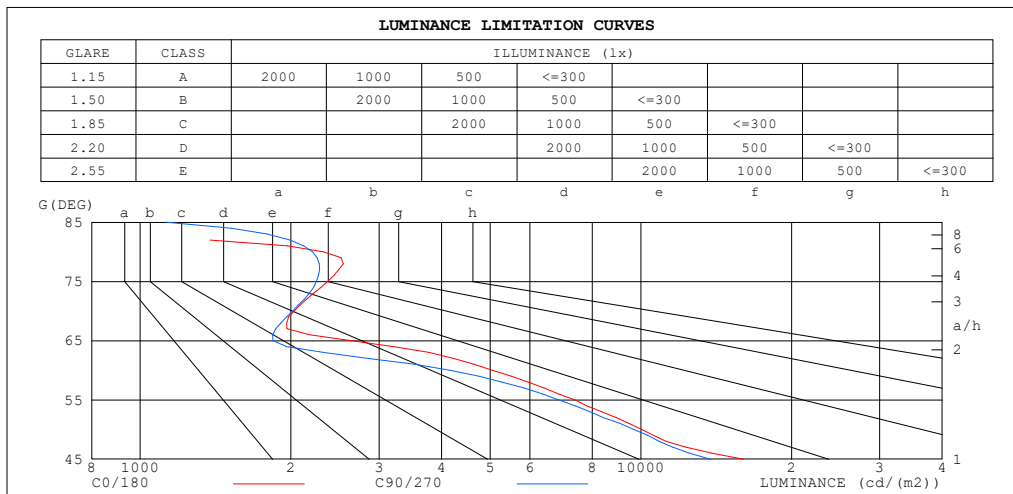
%lamp = 98.5%

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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	840	1124
80	2327	2210
75	2368	2250
70	2029	2014
65	2629	1841
60	5053	4160
55	7378	6847
50	10056	9691
45	16078	13798

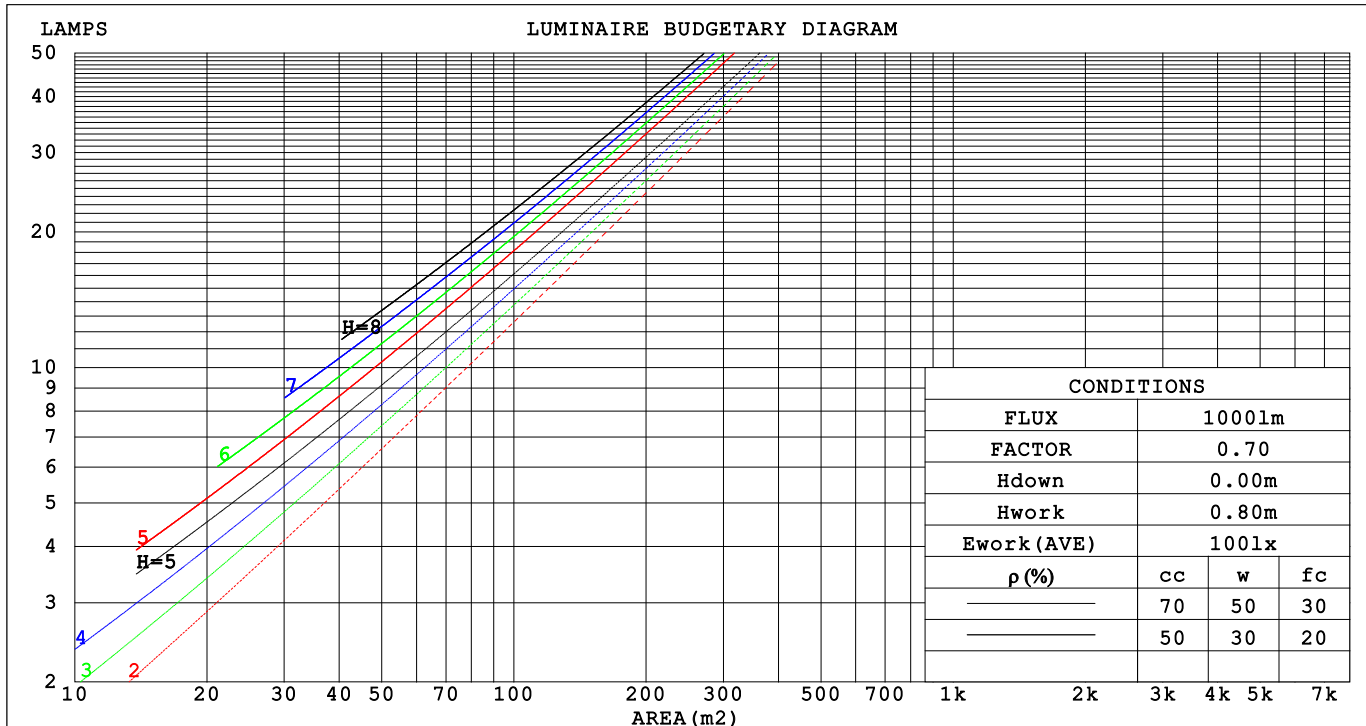
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 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	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	1.10	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.98	.95	1.01	.97	.94	.98	.94	.92	.95	.92	.90	.92	.90	.88	.86
3.0	.95	.90	.86	.94	.89	.86	.91	.87	.84	.89	.86	.83	.87	.84	.82	.80
4.0	.89	.83	.79	.88	.83	.79	.86	.81	.78	.84	.80	.77	.82	.79	.76	.74
5.0	.83	.77	.73	.82	.77	.73	.81	.76	.72	.79	.75	.71	.77	.74	.71	.69
6.0	.78	.72	.68	.77	.72	.68	.76	.71	.67	.74	.70	.67	.73	.69	.66	.65
7.0	.74	.67	.63	.73	.67	.63	.72	.66	.63	.70	.66	.62	.69	.65	.62	.61
8.0	.69	.63	.59	.69	.63	.59	.68	.62	.59	.67	.62	.59	.66	.61	.58	.57
9.0	.66	.60	.56	.65	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.54
10.0	.62	.56	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.59	.55	.52	.51



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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 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	.183	.104	.033	.177	.101	.032	.164	.094	.030	.153	.088	.028	.142	.082	.027	
2.0	.176	.096	.030	.170	.094	.029	.159	.089	.028	.150	.084	.026	.141	.080	.025	
3.0	.167	.089	.027	.162	.087	.026	.153	.083	.025	.145	.079	.024	.137	.076	.023	
4.0	.159	.083	.024	.155	.081	.024	.147	.078	.023	.140	.075	.023	.133	.072	.022	
5.0	.151	.077	.022	.147	.076	.022	.141	.073	.022	.134	.071	.021	.128	.069	.021	
6.0	.144	.072	.021	.141	.071	.020	.135	.069	.020	.129	.067	.020	.124	.065	.019	
7.0	.137	.068	.019	.134	.067	.019	.129	.065	.019	.124	.064	.018	.119	.062	.018	
8.0	.131	.064	.018	.128	.063	.018	.124	.062	.018	.119	.060	.017	.115	.059	.017	
9.0	.125	.061	.017	.123	.060	.017	.119	.059	.017	.115	.057	.016	.111	.056	.016	
10.0	.120	.057	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.107	.054	.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	.172	.157	.144	.147	.135	.124	.100	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.145	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.135	.099	.072	.115	.086	.062	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.126	.087	.059	.108	.076	.051	.075	.053	.036	.043	.031	.021	.014	.010	.007	
6.0	.119	.078	.049	.102	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.112	.071	.042	.096	.061	.036	.067	.043	.026	.039	.025	.015	.013	.008	.005	
8.0	.106	.064	.036	.092	.056	.031	.063	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.101	.059	.031	.087	.051	.027	.060	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.097	.055	.027	.083	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm											
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 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	18.2	19.2	18.4	19.3	19.5	18.5	19.4	18.7	19.6	19.8	
3H	18.1	19.0	18.4	19.2	19.4	18.3	19.2	18.6	19.4	19.6	
4H	18.1	18.9	18.3	19.1	19.3	18.3	19.1	18.6	19.4	19.6	
6H	18.0	18.8	18.3	19.1	19.3	18.3	19.0	18.6	19.3	19.5	
8H	18.0	18.8	18.3	19.0	19.3	18.2	19.0	18.5	19.2	19.5	
12H	18.0	18.7	18.3	19.0	19.2	18.2	18.9	18.5	19.2	19.5	
4H 2H	18.0	18.9	18.3	19.1	19.3	18.3	19.1	18.6	19.4	19.6	
3H	17.9	18.7	18.3	18.9	19.2	18.2	18.9	18.5	19.2	19.5	
4H	17.9	18.6	18.3	18.9	19.2	18.2	18.8	18.5	19.1	19.4	
6H	18.0	18.5	18.3	18.9	19.2	18.2	18.7	18.5	19.1	19.4	
8H	17.9	18.5	18.3	18.8	19.2	18.1	18.7	18.5	19.0	19.4	
12H	17.9	18.4	18.3	18.8	19.2	18.1	18.6	18.5	19.0	19.4	
8H 4H	17.8	18.4	18.2	18.7	19.1	18.1	18.6	18.5	19.0	19.3	
6H	17.9	18.3	18.3	18.7	19.2	18.1	18.5	18.5	18.9	19.3	
8H	17.9	18.3	18.3	18.7	19.1	18.1	18.5	18.5	18.9	19.3	
12H	17.9	18.2	18.3	18.7	19.1	18.1	18.4	18.5	18.8	19.3	
12H 4H	17.8	18.3	18.2	18.7	19.1	18.0	18.5	18.4	18.9	19.3	
6H	17.9	18.3	18.3	18.7	19.1	18.1	18.4	18.5	18.9	19.3	
8H	17.9	18.2	18.3	18.7	19.1	18.1	18.4	18.5	18.8	19.3	
Variations with the observer position at spacings:											
S = 1.0H	+ 2.2 / - 4.1					+ 2.9 / - 5.0					
1.5H	+ 3.8 / - 2.9					+ 4.8 / - 3.4					
2.0H	+ 3.3 / - 3.0					+ 2.9 / - 3.9					

CIE Pub.117, 963.2 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.1$ )

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:

**UTILIZATION FACTORS TABLE**

Test:U:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

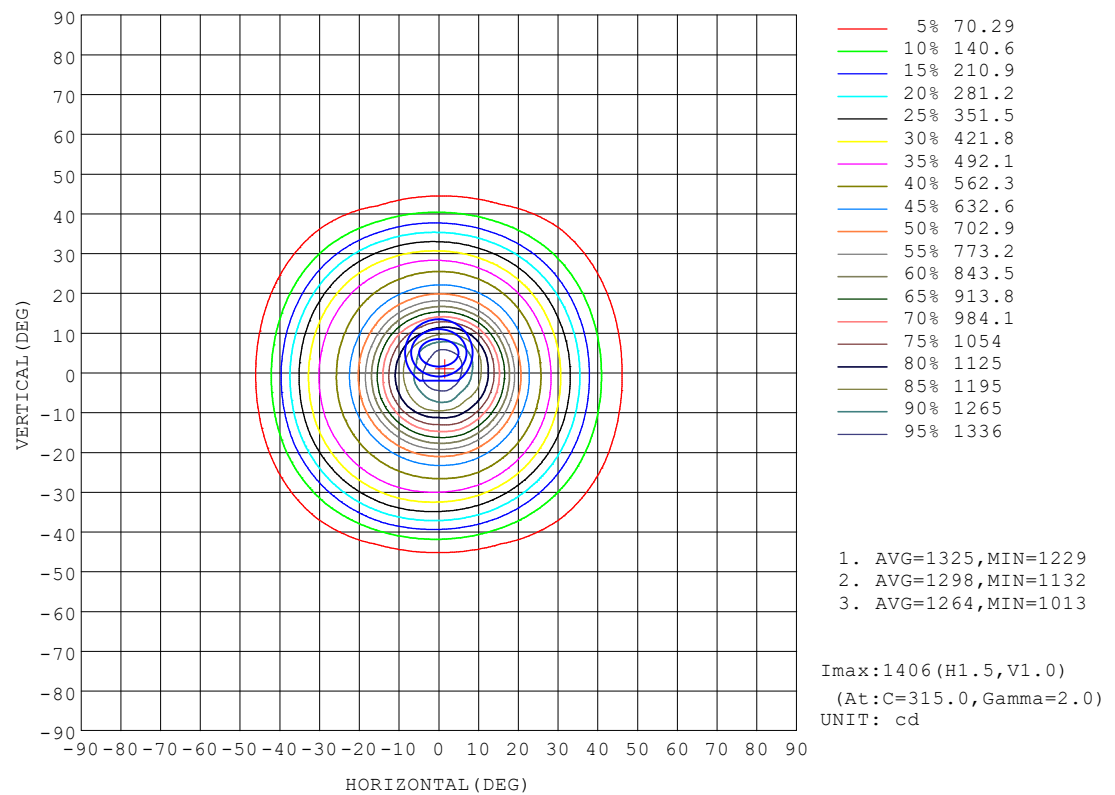
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	84	77	73	83	77	73	69
0.80	92	86	82	91	85	82	90	85	81	77
1.00	97	91	87	96	91	87	95	91	86	82
1.25	102	96	92	101	95	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	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	105	109	106	103	106	103	101	95
4.00	113	110	108	111	109	106	107	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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



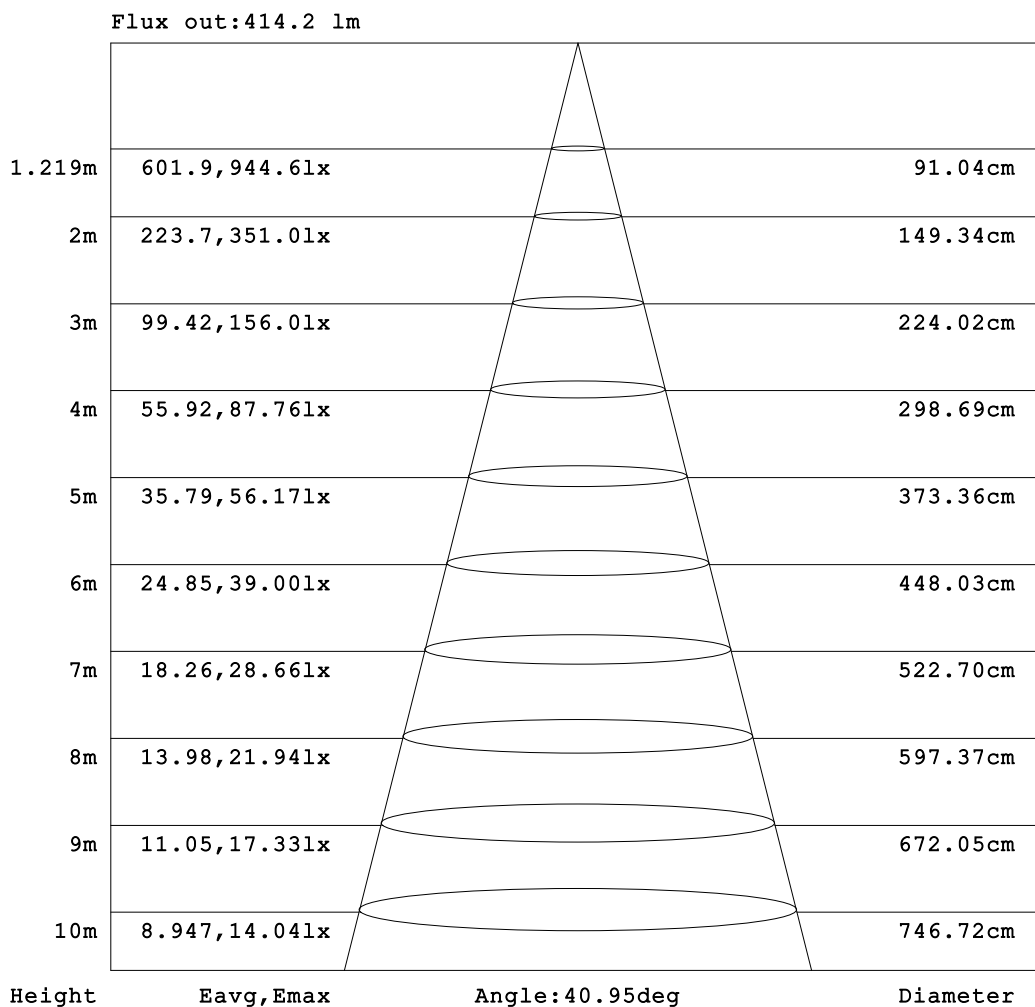
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:12 November 2020

$\gamma$  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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



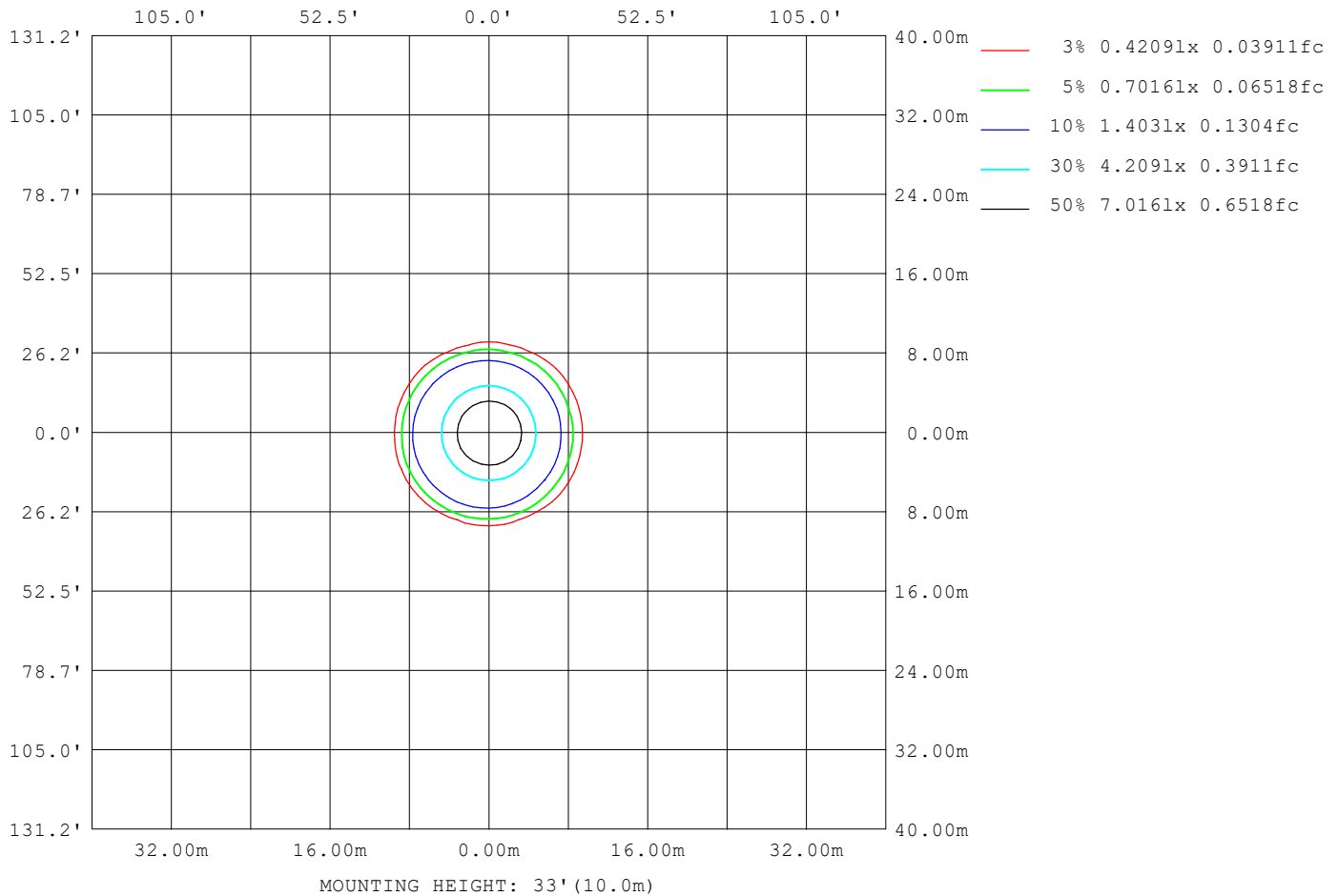
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 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:240.01V I:0.0492A P:10.409W PF:0.8807 Freq:50.09Hz Lamp Flux:963.156x1 lm		
NAME: DEEP DOWN IP44_WHT_SLE G7 09mm_250mA_4K_32 DEG	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

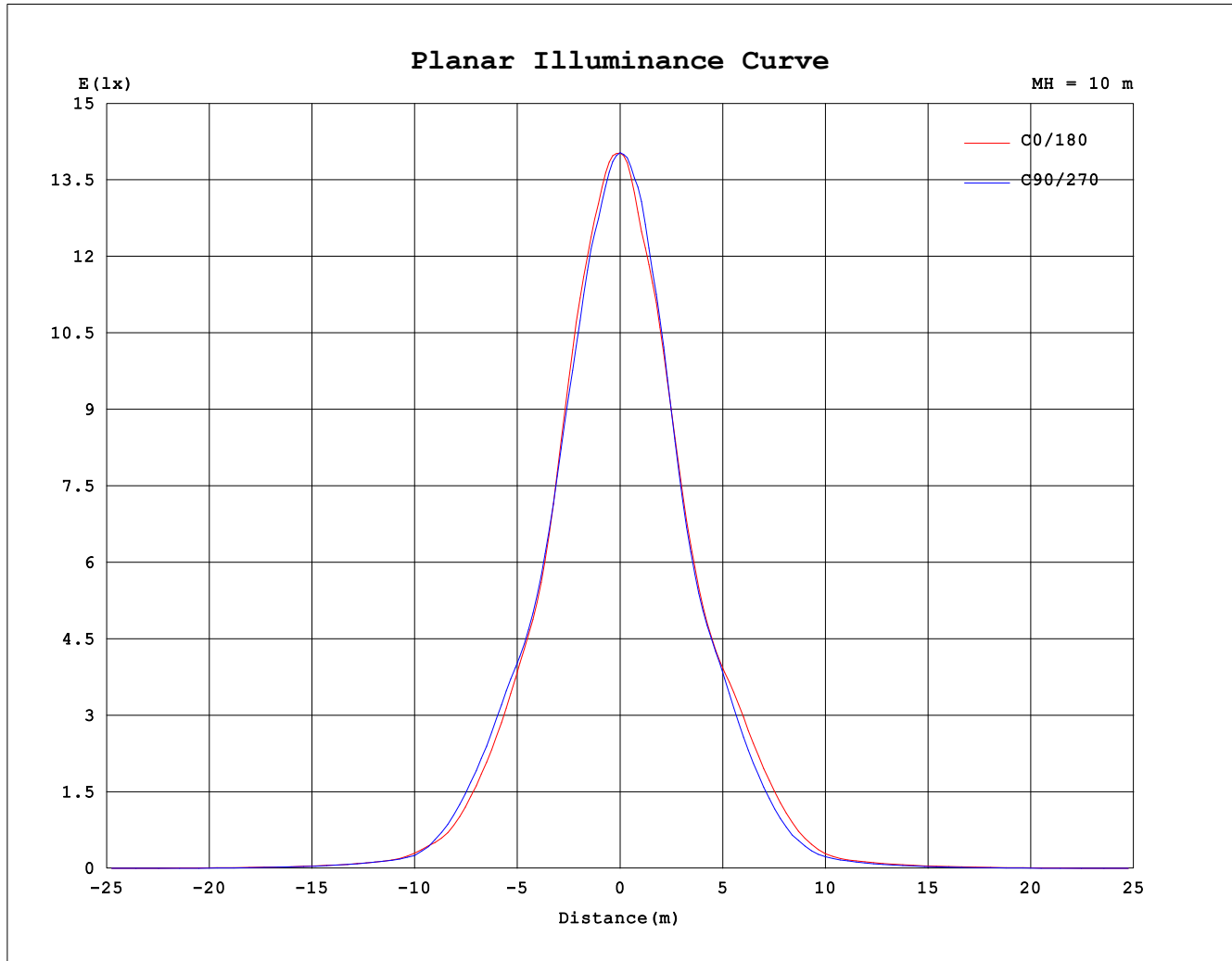
AvgL	cd/m2
L_0~180 (65) av	2596
L_0~180 (75) av	2356
L_0~180 (85) av	795
L_90~270 (65) av	1813
L_90~270 (75) av	2193
L_90~270 (85) av	854
L_45 (65) av	2286
L_45 (75) av	2239
L_45 (85) av	1458

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:

```