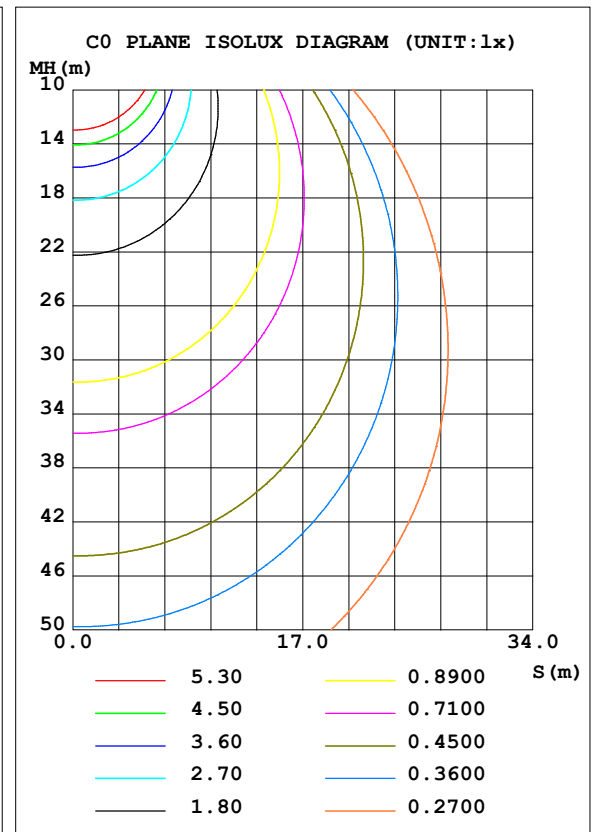
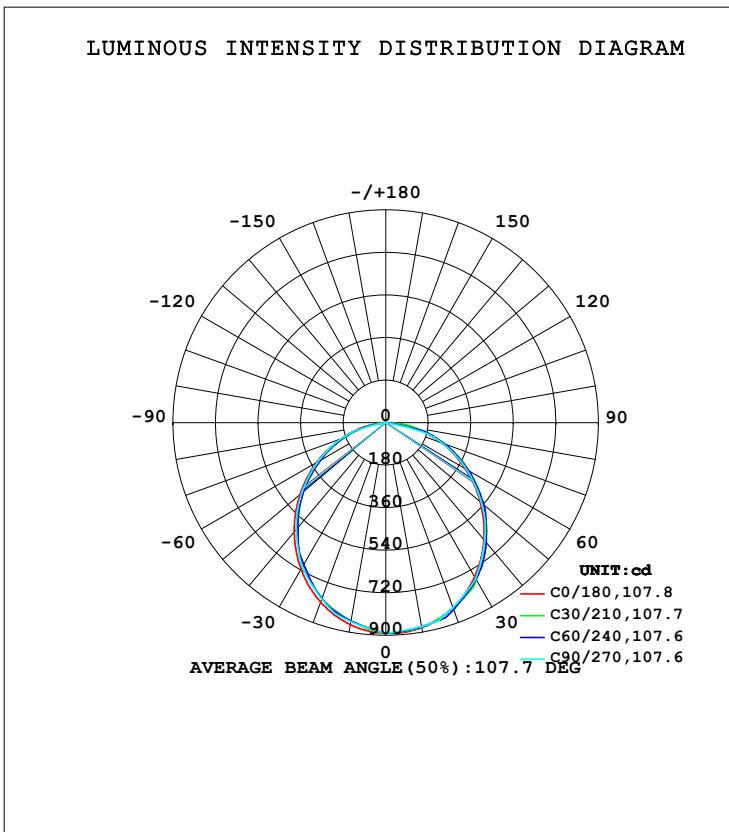


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.34 lm/W			
MODEL		I _{max} (cd)	891.8	S/MH (C0/180)	1.20
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.19
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	2390.0	η UP, DN (C0-180)	0.0, 52.0
NOMINAL FLUX (lm)	2390	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.35



H(β) Range: -90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 23 Aug 2023

V(B) Range: -75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 7.500m [K=1.1333]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	880.8	876.8	875.5	865.2	867.8	850.6	854.8	862.2	0- 10	83.58	83.58	3.5,3.5
20	833.4	846.0	832.6	819.9	807.6	792.0	793.5	817.1	10- 20	238.4	322.0	13.5,13.5
30	752.6	761.3	762.6	730.6	717.0	693.7	707.6	722.8	20- 30	357.0	679.0	28.4,28.4
40	646.1	663.1	651.7	629.8	602.8	585.8	589.7	617.2	30- 40	423.8	1103	46.1,46.1
50	521.9	535.2	529.1	500.9	474.0	455.6	464.5	487.6	40- 50	431.7	1535	64.2,64.2
60	387.3	402.5	394.9	365.3	338.2	321.9	332.1	356.2	50- 60	383.7	1918	80.3,80.3
70	250.2	267.2	254.8	226.7	202.4	188.7	200.6	225.1	60- 70	290.8	2209	92.4,92.4
80	118.6	113.0	0	83.12	75.74	58.50	0	84.64	70- 80	162.2	2371	99.2,99.2
90	0	0	0	0	0	0	0	0	80- 90	18.85	2390	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): 1321.2 lm

%lum = 55.3%

%lamp = 55.3%

Conical surface Flux(120deg): 1918.2 lm

%lum = 80.3%

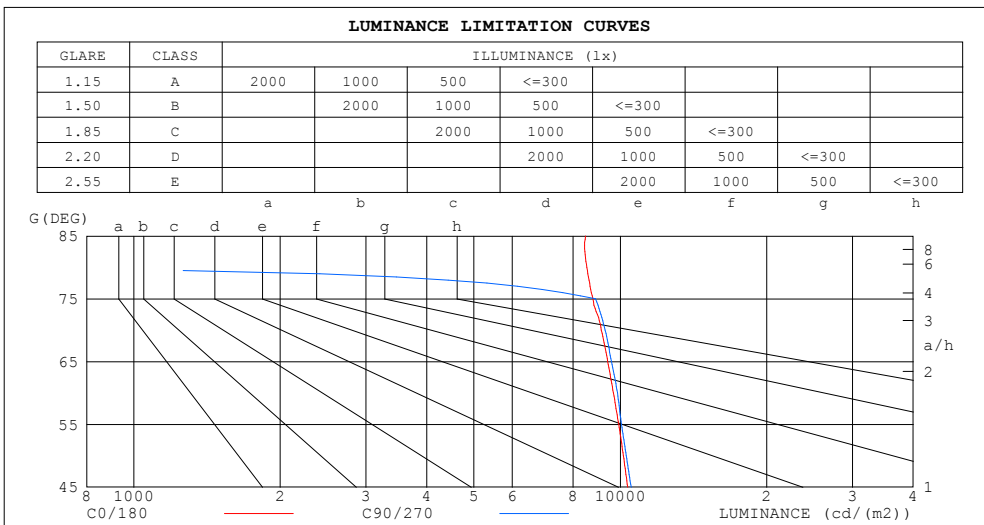
%lamp = 80.3%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8488	0
80	8539	0
75	8784	8898
70	9144	9311
65	9425	9590
60	9682	9873
55	9925	10055
50	10150	10289
45	10356	10529

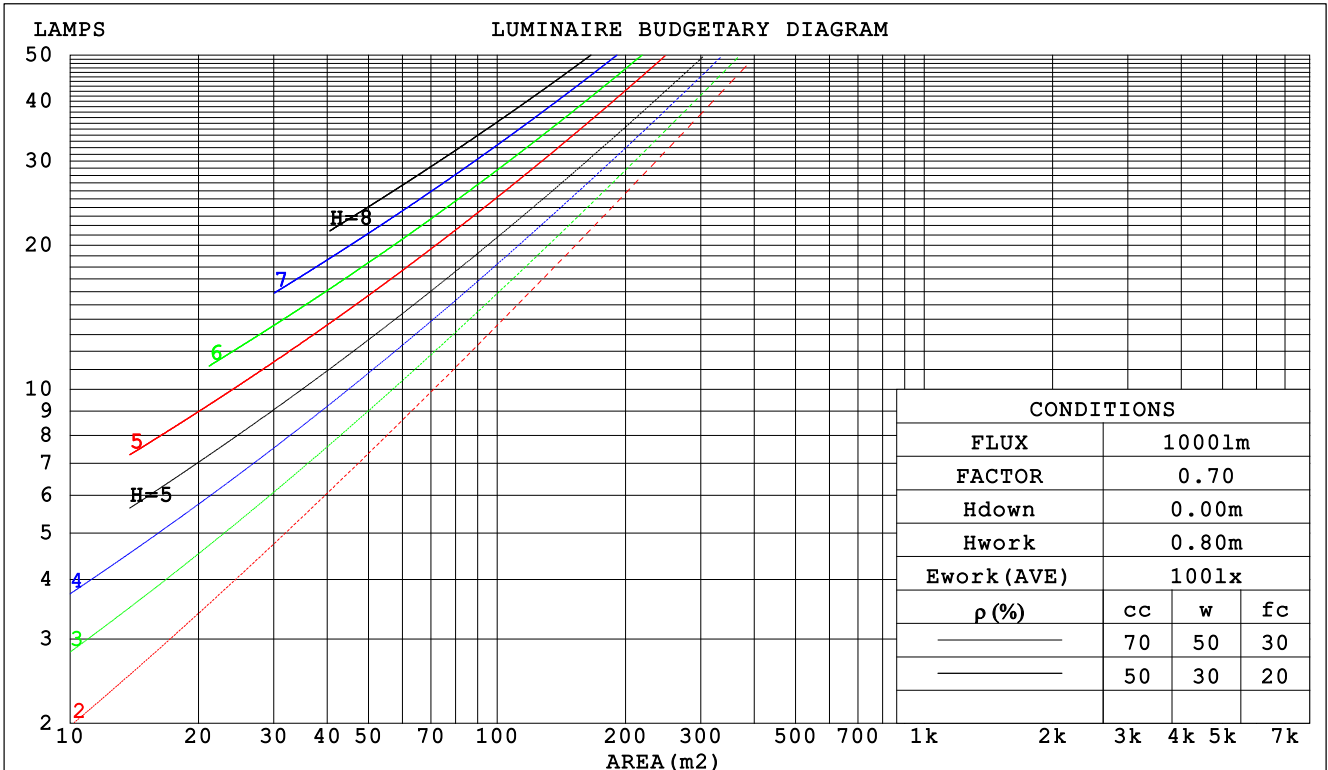
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

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	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	1.05	1.00	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.89	.91	.89	.87	.85
2.0	.91	.85	.79	.89	.83	.78	.86	.81	.76	.83	.78	.74	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.67	.63	.70	.66	.62	.60
4.0	.71	.62	.56	.70	.62	.55	.67	.60	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.64	.55	.48	.62	.54	.48	.60	.53	.47	.58	.52	.47	.57	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.55	.47	.41	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.38	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

WEC AND CCEC

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

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	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.296	.168	.053	.289	.165	.052	.276	.158	.051	.264	.152	.049	.253	.146	.047	
2.0	.284	.155	.048	.277	.153	.047	.266	.148	.046	.255	.143	.045	.245	.139	.044	
3.0	.264	.141	.042	.259	.139	.042	.249	.135	.041	.239	.131	.040	.230	.128	.039	
4.0	.245	.127	.037	.240	.126	.037	.231	.123	.037	.223	.120	.036	.215	.117	.036	
5.0	.227	.116	.034	.223	.114	.033	.215	.112	.033	.207	.109	.033	.200	.107	.032	
6.0	.211	.106	.030	.207	.105	.030	.200	.102	.030	.193	.100	.030	.187	.098	.029	
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.170	.086	.025	.165	.084	.025	
9.0	.172	.083	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021	

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	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	.179	.156	.135	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm										
NAME: GLM-DOR320D-20W(3000K)					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:1		
MFR.: EVERFINE					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	21.2	22.7	21.5	22.9	23.1	21.3	22.8	21.5	23.0	23.2
3H	22.8	24.2	23.1	24.5	24.7	22.9	24.3	23.2	24.5	24.7
4H	23.5	24.9	23.9	25.1	25.4	23.5	24.9	23.9	25.1	25.4
6H	24.1	25.4	24.4	25.6	25.9	23.6	24.9	23.9	25.1	25.4
8H	24.3	25.5	24.7	25.8	26.1	23.6	24.8	23.9	25.0	25.3
12H	24.5	25.6	24.8	25.9	26.2	23.5	24.7	23.9	25.0	25.3
4H 2H	21.9	23.2	22.2	23.5	23.7	21.9	23.2	22.2	23.5	23.7
3H	23.7	24.9	24.1	25.2	25.5	23.7	24.9	24.1	25.2	25.5
4H	24.6	25.6	24.9	25.9	26.3	24.6	25.6	24.9	25.9	26.3
6H	25.3	26.2	25.7	26.6	26.9	24.7	25.6	25.1	26.0	26.3
8H	25.6	26.4	26.0	26.8	27.2	24.6	25.5	25.0	25.9	26.2
12H	25.8	26.6	26.2	27.0	27.4	24.6	25.4	25.0	25.8	26.2
8H 4H	24.9	25.8	25.3	26.1	26.5	24.9	25.8	25.3	26.1	26.5
6H	25.8	26.5	26.3	26.9	27.4	25.1	25.8	25.5	26.2	26.6
8H	26.2	26.9	26.7	27.3	27.7	25.0	25.7	25.5	26.1	26.5
12H	26.6	27.1	27.0	27.6	28.0	25.0	25.5	25.5	26.0	26.5
12H 4H	24.9	25.7	25.3	26.1	26.5	24.9	25.7	25.4	26.1	26.5
6H	25.8	26.5	26.3	26.9	27.3	25.1	25.8	25.6	26.2	26.6
8H	26.2	26.8	26.7	27.2	27.7	25.1	25.6	25.6	26.1	26.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.3 / - 0.4					+ 0.1 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				

CIE Pub.117, 2390 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.0)

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

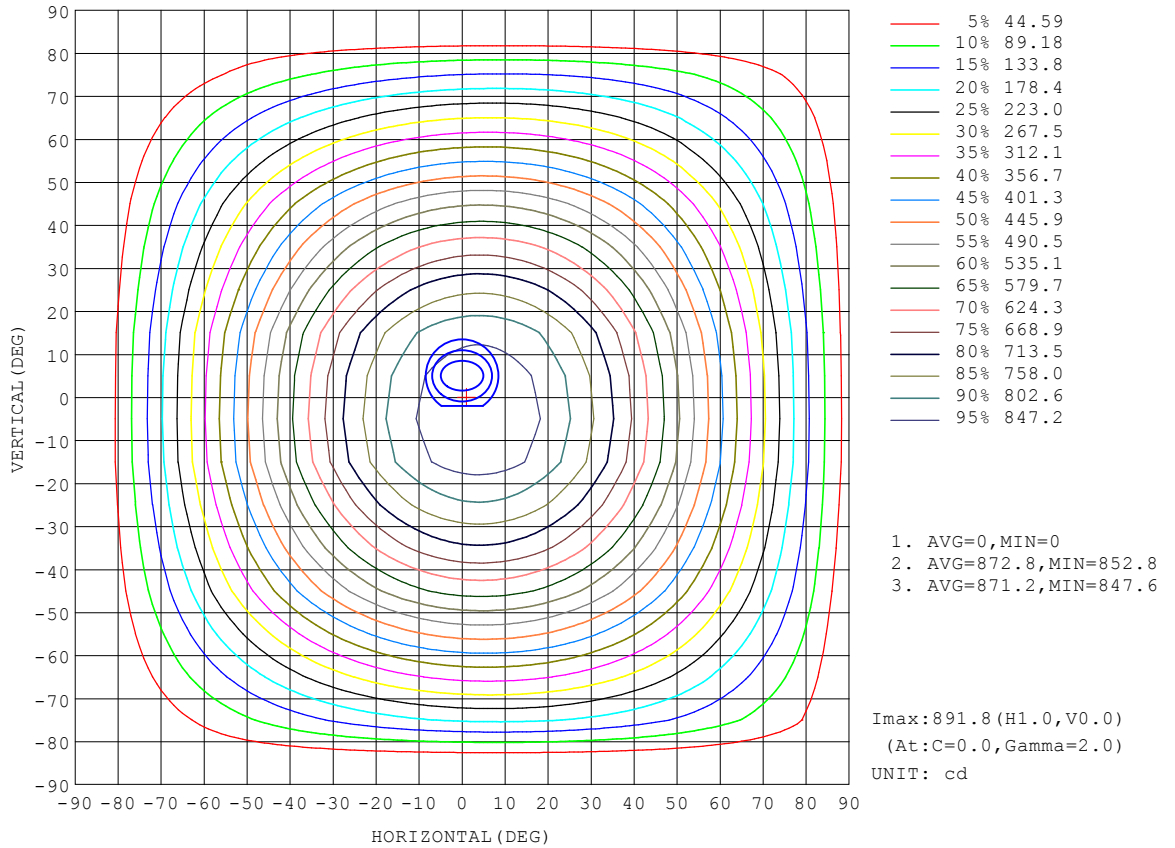
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	58	47	40	58	47	40	56	46	40	33
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	65	59	73	67	58	51
1.25	84	74	67	83	73	66	80	72	65	58
1.50	89	79	72	87	78	72	84	77	71	63
2.00	96	87	81	94	86	80	90	84	79	71
2.50	100	92	86	98	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

ISOCANDELA DIAGRAM

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

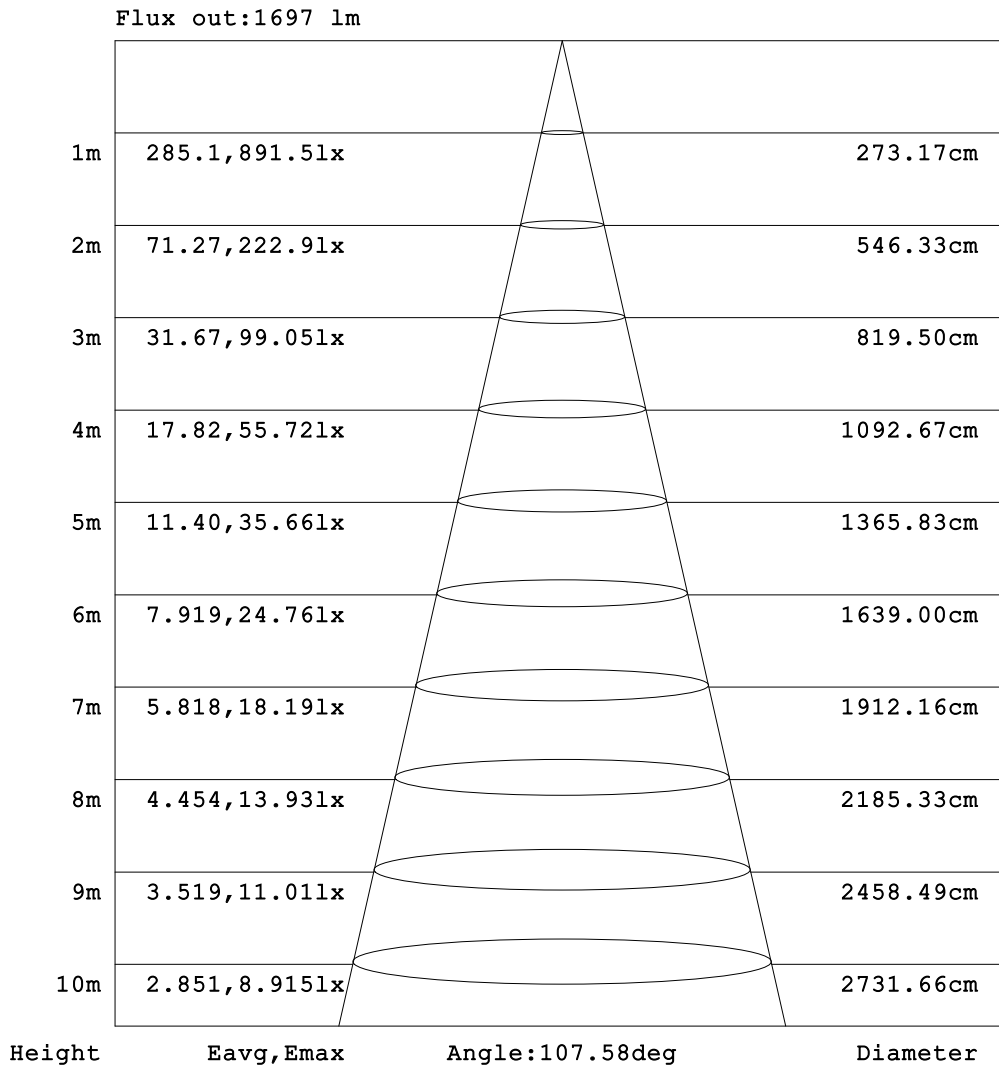


H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:7.500m [K=1.1333]
 Remarks:

AAI Figure

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



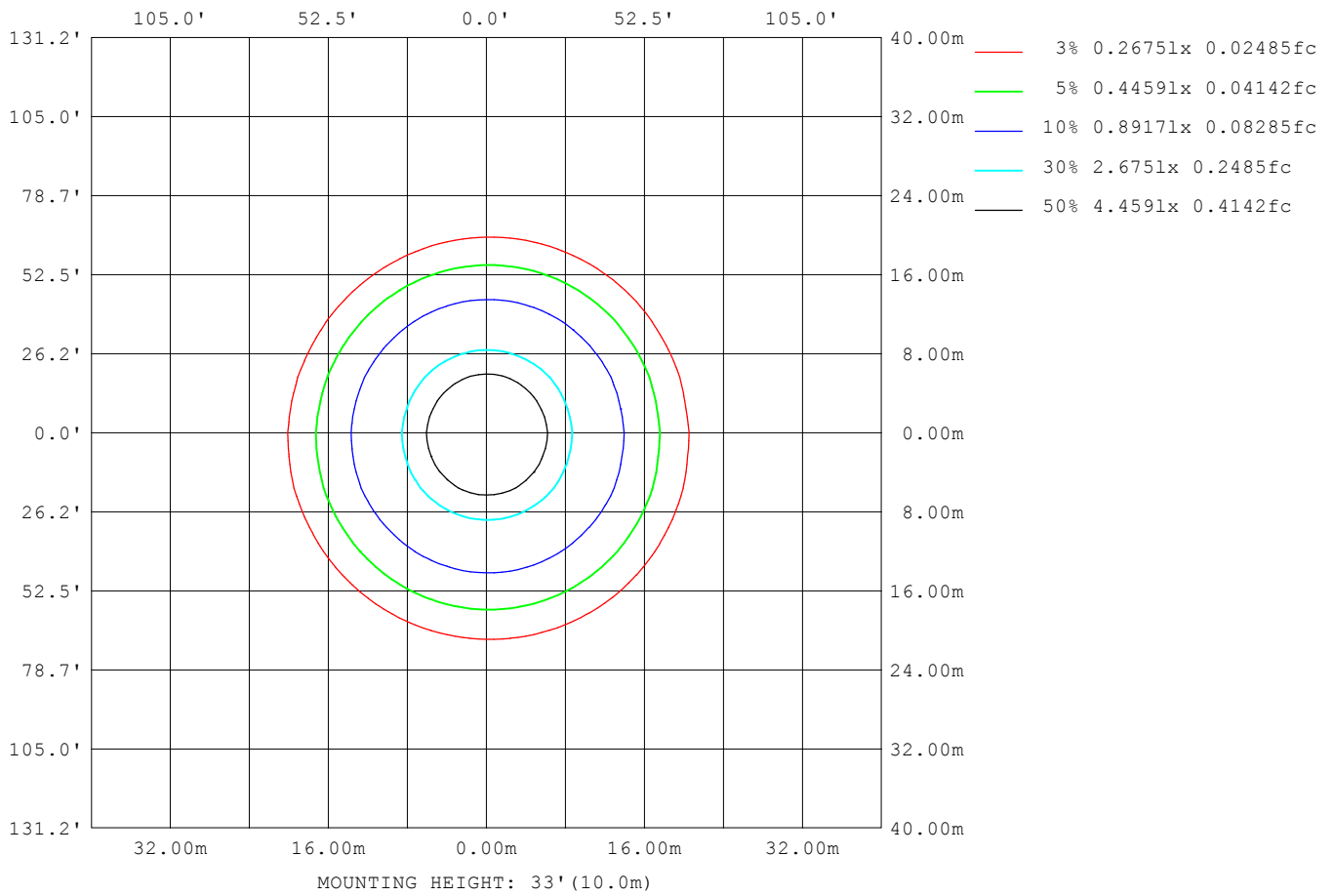
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

ISOLUX DIAGRAM

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

LED Avg.L Report

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

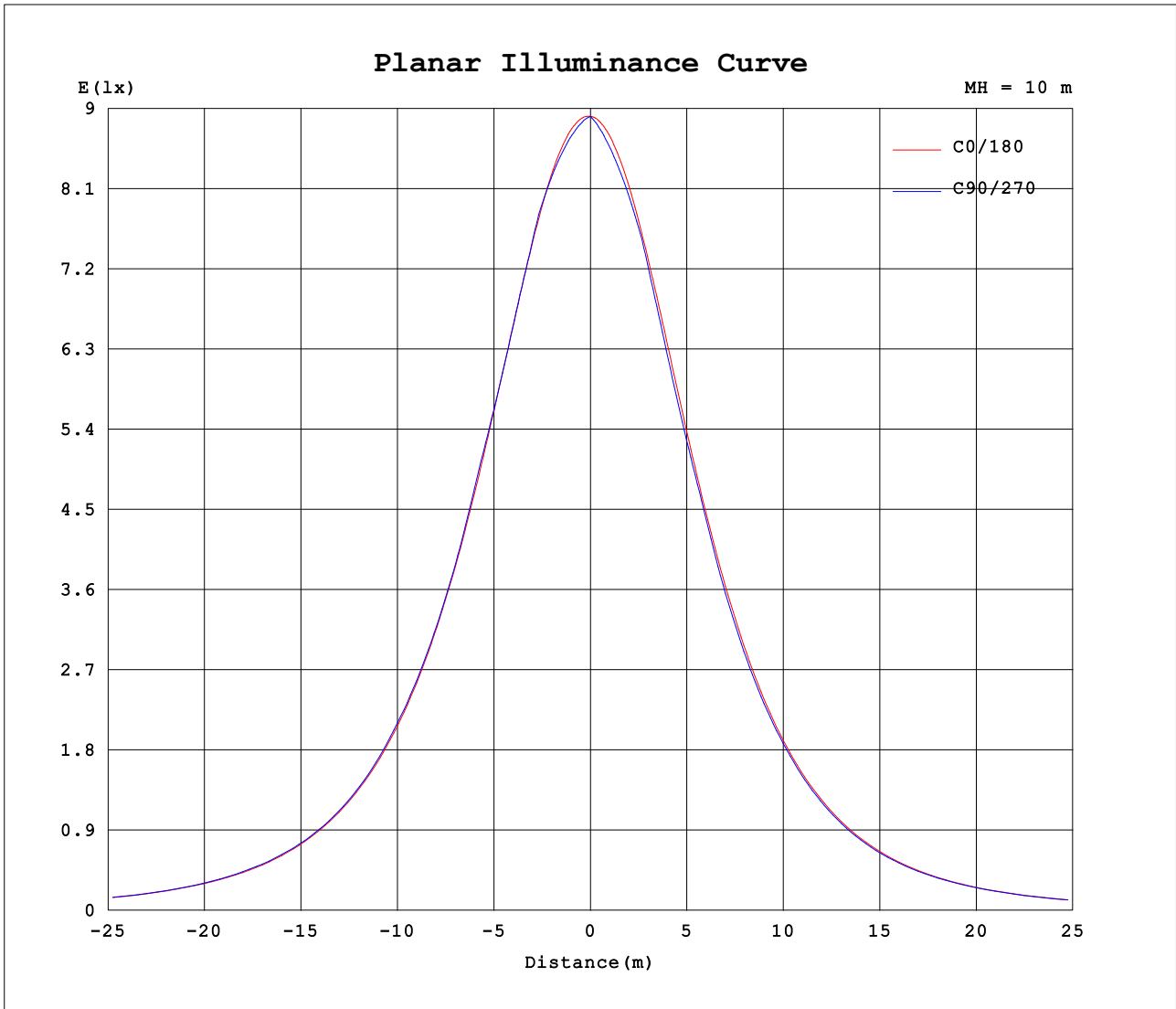
AvgL	cd/m2
L_0~180 (65) av	8703
L_0~180 (75) av	7717
L_0~180 (85) av	5606
L_90~270 (65) av	8727
L_90~270 (75) av	7698
L_90~270 (85) av	0
L_45 (65) av	8680
L_45 (75) av	7786
L_45 (85) av	0

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.54V I:0.0925A P:19.378W PF:0.9636 Freq:49.99Hz Lamp Flux:2390x1 lm		
NAME: GLM-DOR320D-20W(3000K)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

Table--4

UNIT: cd

C (DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	891	891	891	891	891	891	891	891	891	891	891	891	891	891	891				
5	874	874	875	876	877	878	879	880	881	882	883	884	886	887	889				
10	856	857	858	859	860	861	862	864	866	868	869	871	873	876	878				
15	839	839	839	840	840	840	840	840	842	844	847	851	853	855	858				
20	798	800	803	806	810	815	817	816	814	814	816	819	824	827	830				
25	756	758	760	761	763	766	771	778	785	782	779	780	785	792	793				
30	712	713	715	717	720	722	723	724	730	739	742	737	739	747	750				
35	656	659	662	665	669	671	674	677	677	679	690	693	687	695	701				
40	596	599	602	607	611	614	617	620	625	625	625	639	637	636	647				
45	538	540	541	543	546	551	558	560	562	568	569	570	584	573	589				
50	472	475	479	484	487	487	488	494	502	502	508	508	515	515	523				
55	406	409	412	414	417	422	430	429	429	440	440	447	441	456	455				
60	339	342	345	349	353	355	356	362	370	366	375	375	383	386	383				
65	274	277	279	282	284	287	292	296	295	302	304	310	310	309	313				
70	207	210	213	216	220	223	225	226	230	234	234	241	248	252	254				
75	142	145	148	150	153	156	159	163	166	166	170	172	180	181	183				
80	9.35	16.7	26.2	37.8	51.5	67.1	84.6	100.0	102	103	108	110	115	120	123				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.1	46.9	51.6	56.0	62.7				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:23 Aug 2023

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.500m [K=1.1333]
Remarks: