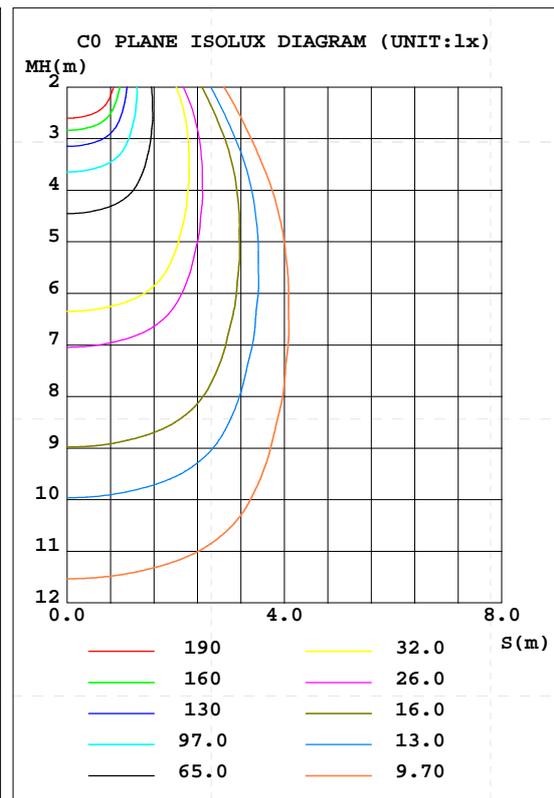
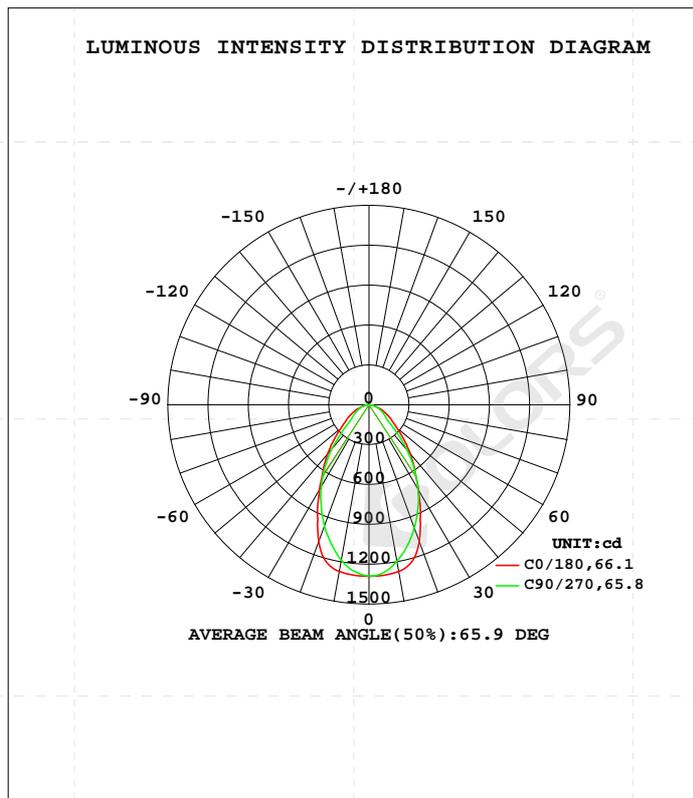


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:220.0V I:0.1290A P:27.60W PF:0.9000 Freq:50.00Hz Lamp Flux:1787.21x1 lm		
NAME: LLS-LE40BDFWS1200(N)-T28NW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: COLORS	SUR.:1192*38mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.75 lm/W
MODEL		I <sub>max</sub> (cd)	1290	S/MH(C0/180)		0.97
NOMINAL POWER(W)	27.6	LOR(%)	100.0	S/MH(C90/270)		0.92
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	1787.2	h UP, DN(C0-180)		0.0,50.4
NOMINAL FLUX(lm)	1787.21	CIE CLASS	DIRECT	h UP, DN(C180-360)		0.0,49.6
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM		1.00
TEST VOLTAGE(V)	220	h down(%)	100.0	CIBSE SHR MAX		1.00



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

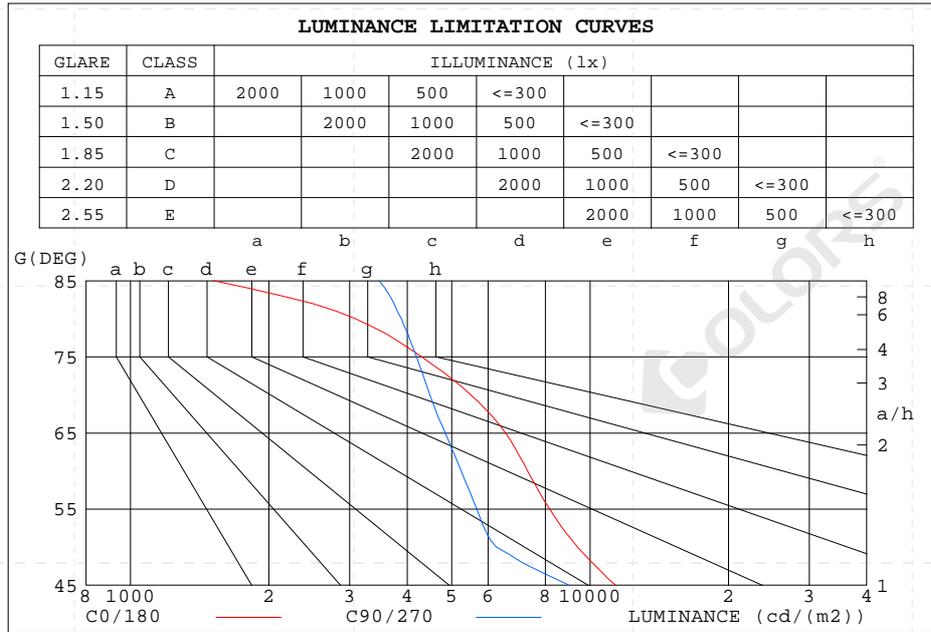
ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1274	1241	1198	1241	1274	1230	1189	1230	0- 10	120.4	120.4	6.74,6.74
20	1095	1073	989.1	1073	1095	1060	971.1	1060	10- 20	325.2	445.7	24.9,24.9
30	739.9	725.2	733.4	725.2	739.9	708.3	713.4	708.3	20- 30	408.0	853.7	47.8,47.8
40	478.5	433.2	441.6	433.2	478.5	421.0	427.2	421.0	30- 40	359.1	1213	67.9,67.9
50	275.5	235.0	183.5	235.0	275.5	230.2	179.0	230.2	40- 50	250.2	1463	81.9,81.9
60	166.9	126.0	119.6	126.0	166.9	123.1	116.4	123.1	50- 60	158.2	1621	90.7,90.7
70	85.83	73.22	69.87	73.22	85.83	71.65	68.24	71.65	60- 70	102.3	1723	96.4,96.4
80	24.49	26.98	30.81	26.98	24.49	26.35	29.81	26.35	70- 80	52.46	1776	99.4,99.4
90	0	0	0	0	0	0	0	0	80- 90	11.34	1787	100,100
100	0	0	0	0	0	0	0	0	90-100	0	1787	100,100
110	0	0	0	0	0	0	0	0	100-110	0	1787	100,100
120	0	0	0	0	0	0	0	0	110-120	0	1787	100,100
130	0	0	0	0	0	0	0	0	120-130	0	1787	100,100
140	0	0	0	0	0	0	0	0	130-140	0	1787	100,100
150	0	0	0	0	0	0	0	0	140-150	0	1787	100,100
160	0	0	0	0	0	0	0	0	150-160	0	1787	100,100
170	0	0	0	0	0	0	0	0	160-170	0	1787	100,100
180	0	0	0	0	0	0	0	0	170-180	0	1787	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

g Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**



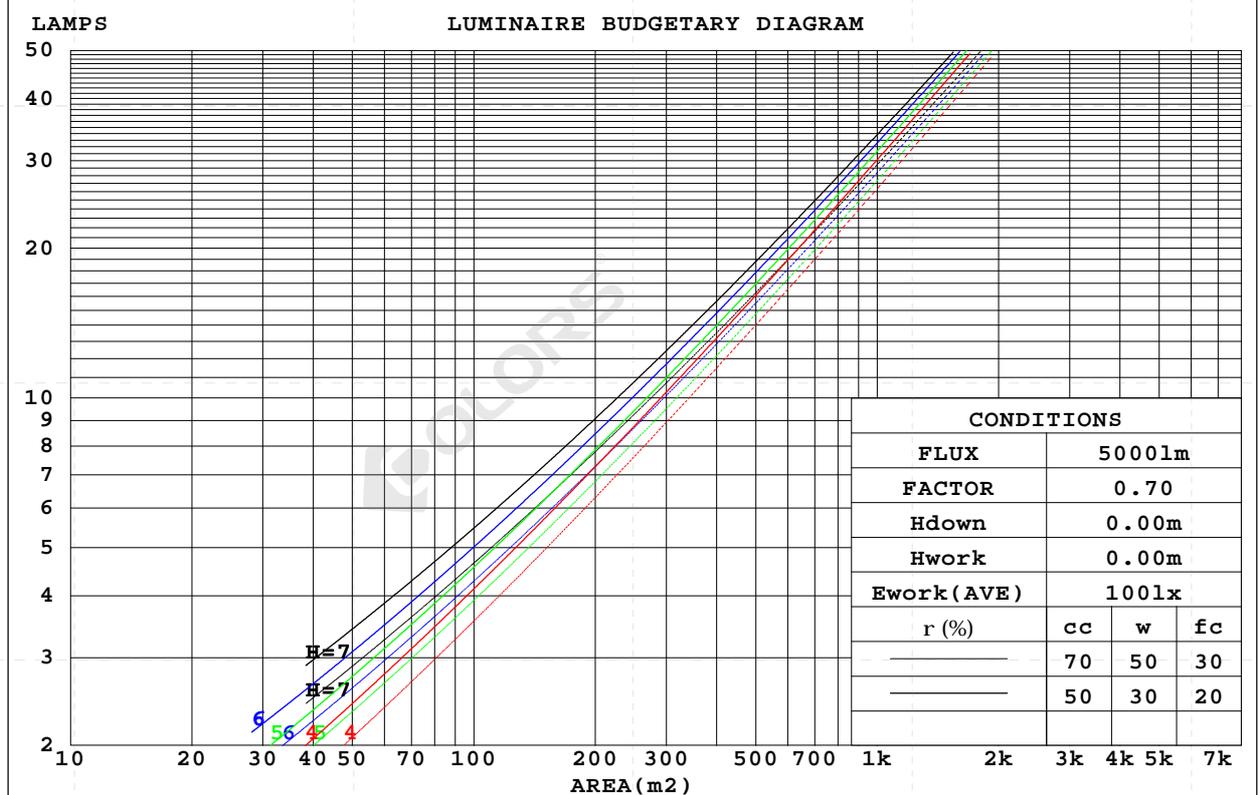
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1513	3471
80	3093	3891
75	4301	4195
70	5503	4480
65	6543	4842
60	7321	5244
55	8173	5666
50	9400	6260
45	11373	9021

**C Range:** 0 - 360DEG  
**C Interval:** 45.0DEG  
**Test Speed:** HIGH  
**Temperature:** 25.3DEG  
**Operators:** JYH  
**Test Date:** 2023-05-12

**G Range:** 0 - 180DEG  
**G Interval:** 1.0DEG  
**Test System:** EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
**Humidity:** 65.0%  
**Test Distance:** 10.950m [K=1.0000]  
**Remarks:**

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

rcc	80%			70%			50%			30%			10%			0
r <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r <sub>fc</sub>	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	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.97	.97	.95	.94	.94	.92	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.81	.79
3.0	.88	.82	.76	.87	.81	.76	.84	.79	.74	.81	.77	.73	.79	.75	.72	.70
4.0	.80	.73	.68	.79	.72	.67	.77	.71	.66	.74	.70	.66	.72	.68	.65	.63
5.0	.73	.66	.61	.72	.65	.60	.70	.64	.60	.69	.63	.59	.67	.62	.59	.57
6.0	.68	.60	.55	.67	.60	.55	.65	.59	.54	.64	.58	.54	.62	.57	.53	.52
7.0	.63	.55	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.58	.53	.49	.47
8.0	.58	.51	.46	.57	.50	.46	.56	.50	.45	.55	.49	.45	.54	.49	.45	.43
9.0	.54	.47	.42	.54	.47	.42	.53	.46	.42	.52	.46	.42	.51	.45	.42	.40
10.0	.51	.44	.39	.50	.44	.39	.49	.43	.39	.48	.43	.39	.48	.42	.39	.37



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 10.950m [K=1.0000]  
 Remarks:

WEC AND CCEC

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.238	.135	.043	.231	.132	.042	.218	.125	.040	.206	.119	.038	.195	.113	.037	
2.0	.228	.125	.038	.222	.122	.038	.211	.117	.036	.200	.112	.035	.191	.108	.034	
3.0	.214	.114	.034	.209	.112	.034	.200	.108	.033	.191	.104	.032	.182	.101	.031	
4.0	.201	.105	.031	.197	.103	.030	.188	.100	.030	.180	.097	.029	.173	.094	.029	
5.0	.189	.096	.028	.185	.095	.028	.177	.092	.027	.170	.090	.027	.164	.088	.026	
6.0	.178	.089	.025	.174	.088	.025	.168	.086	.025	.161	.084	.025	.156	.082	.024	
7.0	.167	.083	.023	.164	.082	.023	.158	.080	.023	.153	.078	.023	.148	.077	.023	
8.0	.158	.077	.022	.155	.077	.022	.150	.075	.021	.145	.074	.021	.140	.072	.021	
9.0	.150	.072	.020	.147	.072	.020	.143	.070	.020	.138	.069	.020	.134	.068	.020	
10.0	.142	.068	.019	.140	.068	.019	.136	.066	.019	.132	.065	.019	.128	.064	.018	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	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	.175	.157	.140	.150	.135	.121	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.091	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.145	.100	.065	.124	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.137	.089	.053	.118	.077	.046	.081	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.130	.080	.044	.112	.069	.039	.077	.049	.027	.045	.029	.016	.014	.009	.005	
7.0	.124	.073	.037	.106	.063	.033	.073	.044	.023	.043	.026	.014	.014	.009	.005	
8.0	.118	.067	.032	.101	.058	.028	.070	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.112	.062	.028	.097	.054	.024	.067	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.107	.058	.025	.092	.050	.022	.064	.035	.015	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

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	16.8	18.1	17.1	18.2	18.4	15.8	17.0	16.0	17.2	17.4
3H	17.7	18.9	18.0	19.1	19.3	16.6	17.7	16.9	18.0	18.2
4H	18.0	19.1	18.3	19.3	19.6	17.0	18.0	17.3	18.3	18.5
6H	18.1	19.2	18.5	19.4	19.7	17.3	18.3	17.6	18.5	18.8
8H	18.2	19.1	18.5	19.4	19.7	17.4	18.3	17.7	18.6	18.9
12H	18.1	19.1	18.5	19.3	19.6	17.4	18.3	17.7	18.6	18.9
4H 2H	17.0	18.1	17.3	18.3	18.6	16.1	17.2	16.4	17.4	17.7
3H	18.1	19.0	18.4	19.3	19.6	17.2	18.1	17.5	18.4	18.7
4H	18.5	19.3	18.9	19.7	20.0	17.7	18.5	18.0	18.8	19.1
6H	18.7	19.5	19.1	19.8	20.2	18.1	18.8	18.4	19.1	19.5
8H	18.8	19.5	19.2	19.8	20.2	18.2	18.9	18.6	19.3	19.6
12H	18.7	19.4	19.2	19.8	20.2	18.3	18.9	18.7	19.3	19.7
8H 4H	18.6	19.3	19.0	19.6	20.0	17.8	18.5	18.2	18.9	19.2
6H	18.9	19.5	19.3	19.9	20.3	18.3	18.9	18.8	19.3	19.7
8H	19.0	19.5	19.4	19.9	20.4	18.5	19.0	19.0	19.5	19.9
12H	19.0	19.4	19.5	19.9	20.3	18.7	19.1	19.1	19.6	20.0
12H 4H	18.6	19.2	19.0	19.6	20.0	17.8	18.4	18.2	18.8	19.2
6H	18.9	19.4	19.4	19.8	20.3	18.3	18.8	18.8	19.3	19.7
8H	19.0	19.4	19.5	19.9	20.4	18.6	19.0	19.0	19.4	19.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.7				
1.5H	+ 0.5 / - 0.4					+ 0.7 / - 0.7				
2.0H	+ 1.1 / - 0.8					+ 0.9 / - 0.6				

CIE Pub.117, 1787 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.0)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

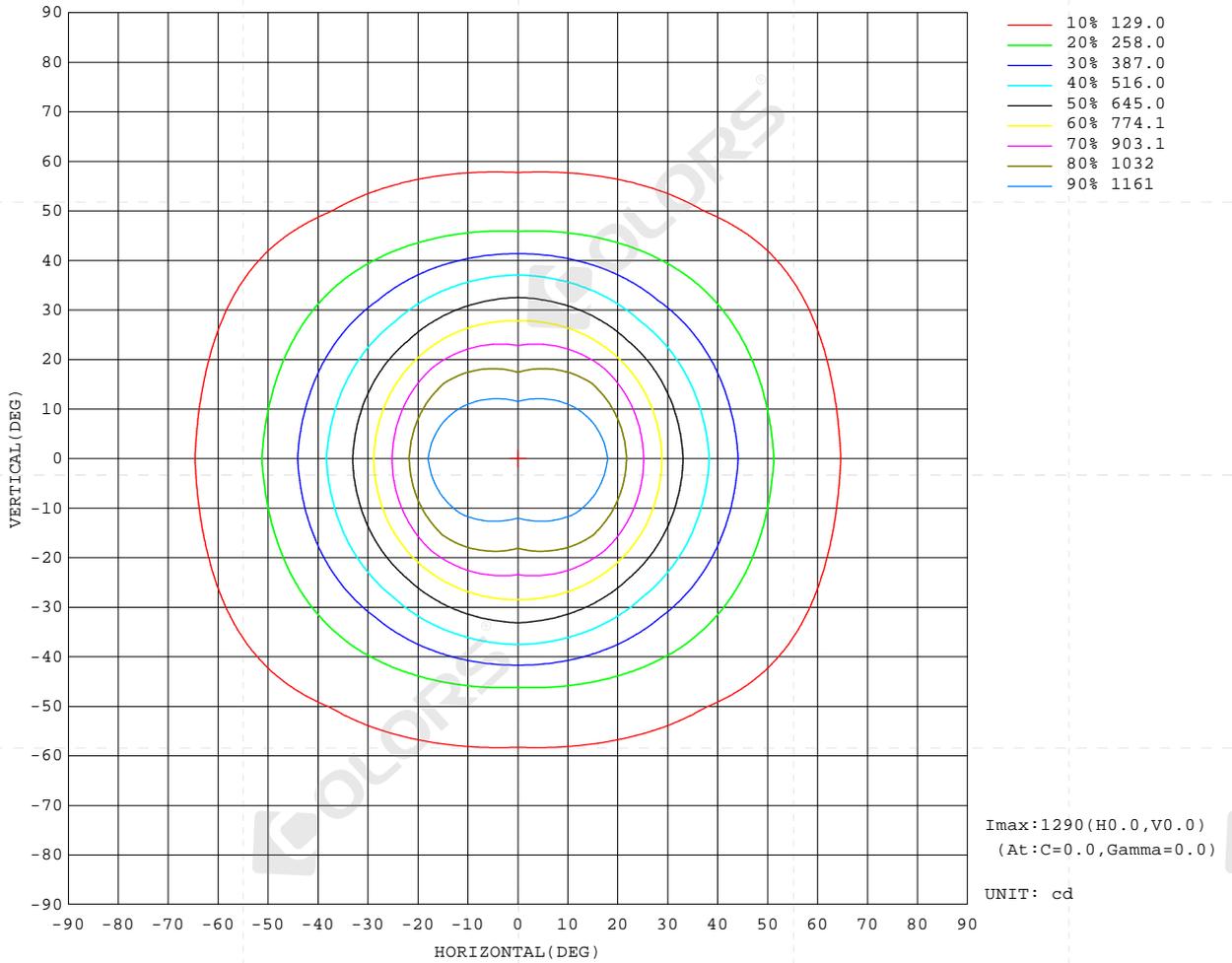
UTILIZATION FACTORS TABLE

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	72	62	57	71	62	57	70	62	57	52	
0.80	81	72	66	80	71	66	78	71	66	60	
1.00	88	79	74	86	79	73	85	79	73	67	
1.25	93	85	80	92	85	80	90	83	79	73	
1.50	97	90	85	96	89	84	93	87	83	77	
2.00	102	96	91	100	95	90	97	93	89	82	
2.50	105	99	95	103	98	94	100	95	92	85	
3.00	107	102	98	105	101	97	102	98	95	87	
4.00	110	106	103	108	104	101	104	101	99	91	
5.00	112	108	106	110	107	104	105	103	101	93	
ROOM INDEX	UF(total)									Direct	
According to DIN EN 13032-2 2004				Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 10.950m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

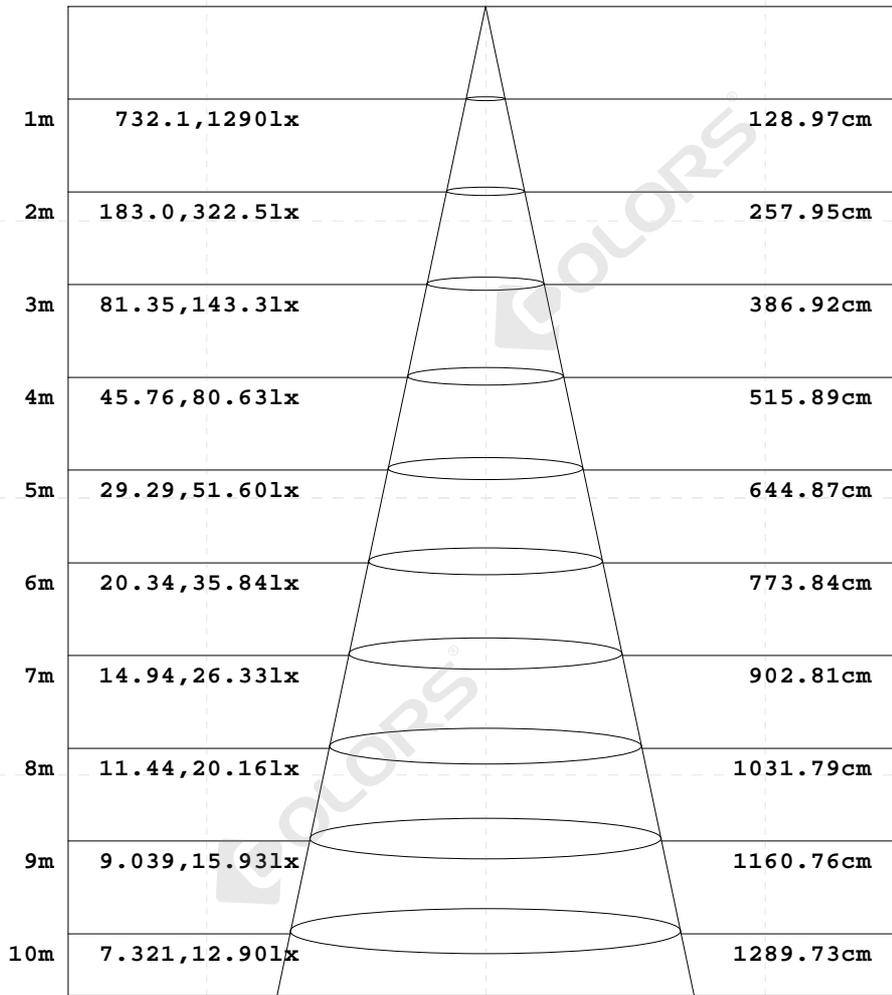


C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

Phi Range: 0 - 180DEG  
 Phi Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

AAI Figure

Flux out:970.0 lm



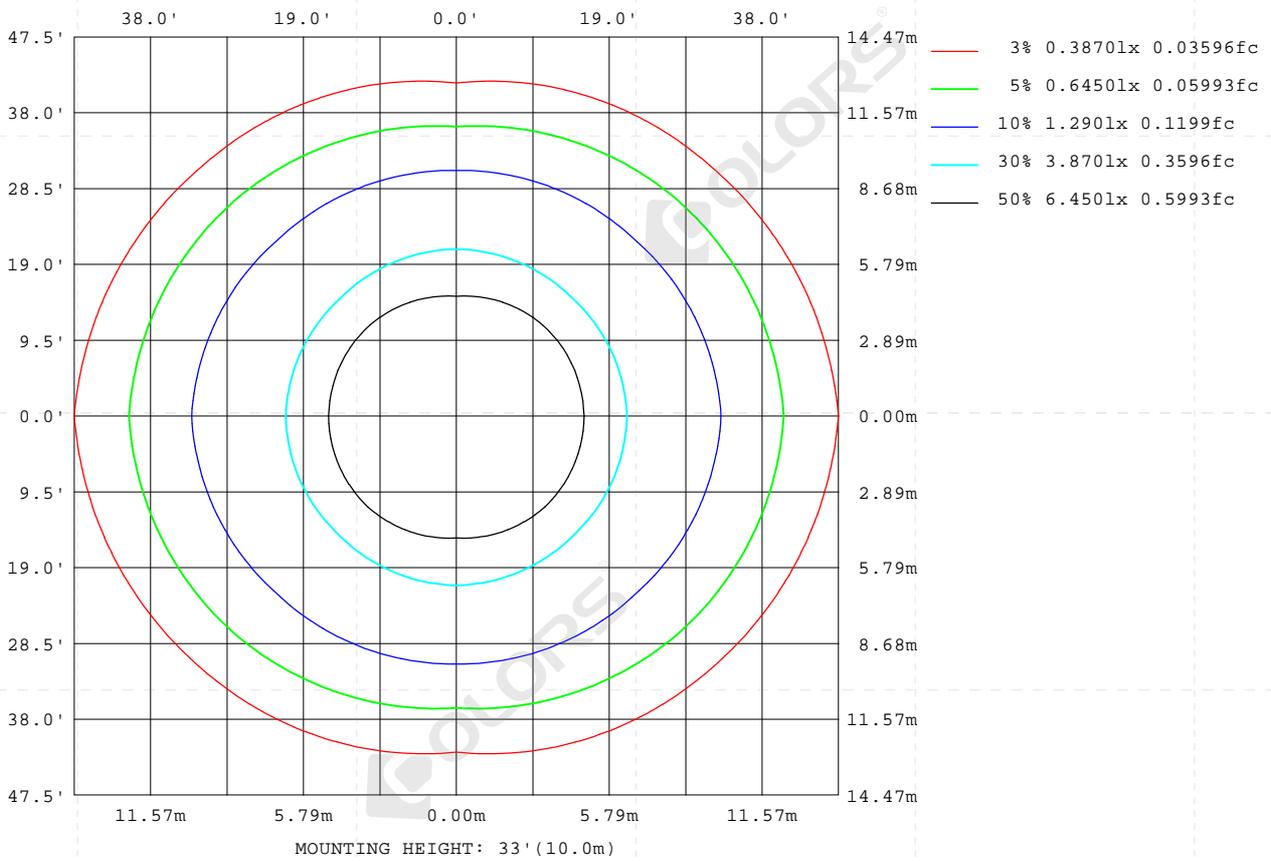
Height                      Eavg, Emax                      Angle:65.63deg                      Diameter

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

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2023-05-12

Page Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 10.950m [K=1.0000]  
 Remarks:

LED Avg.L Report

Test:U:220.0V I:0.1290A P:27.60W PF:0.9000 Freq:50.00Hz Lamp Flux:1787.21x1 lm		
NAME: LLS-LE40BDFWS1200(N)-T28NW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: COLORS	SUR.:1192*38mm	Shielding Angle:

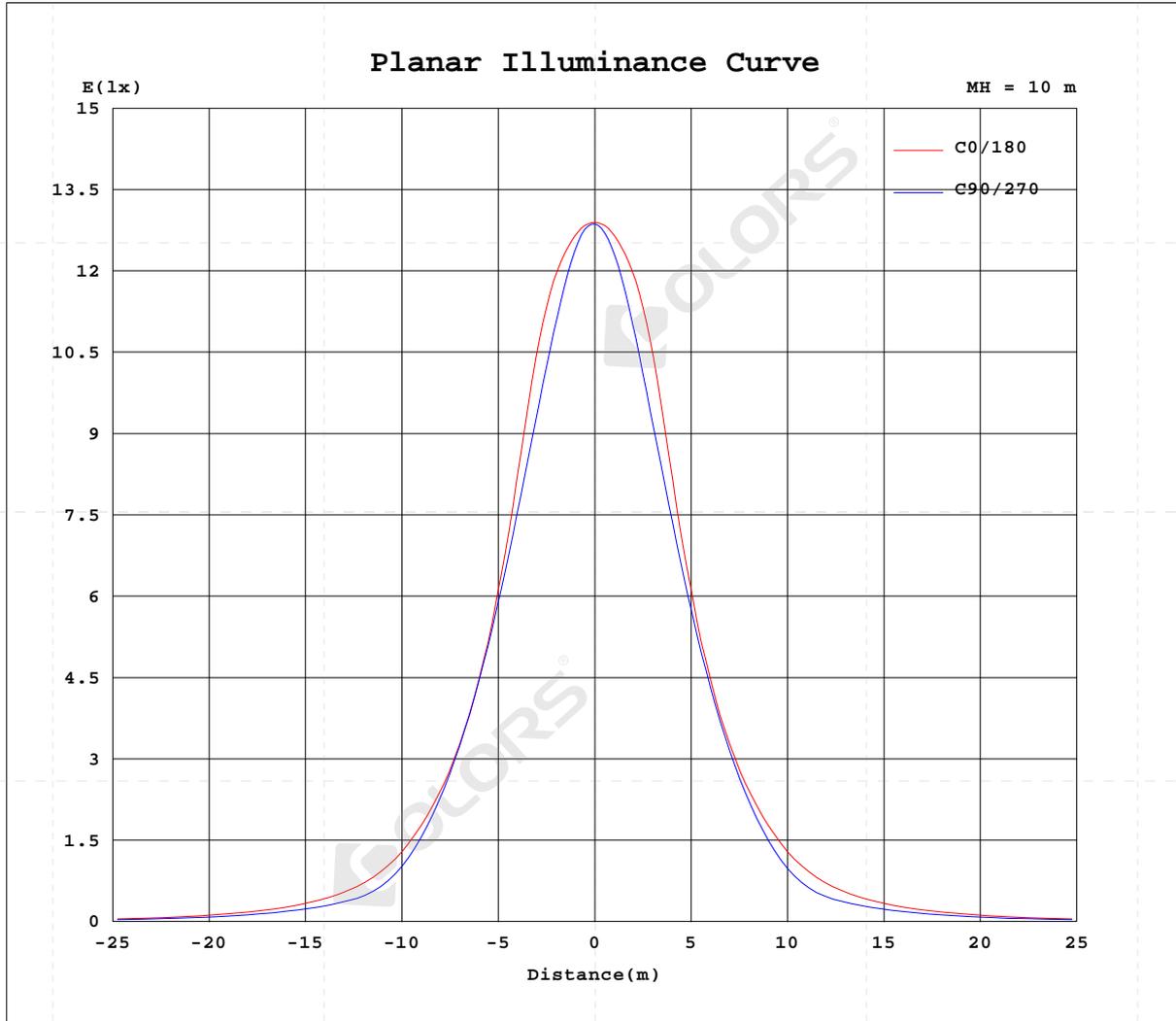
AvgL	cd/m2
L_0~180(65)av	6543
L_0~180(75)av	4301
L_0~180(85)av	1513
L_90~270(65)av	4779
L_90~270(75)av	4142
L_90~270(85)av	3402
L_45(65)av	5044
L_45(75)av	4096
L_45(85)av	1935

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2023-05-12

Page Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 10.950m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	1290	1289	1287	1289	1290	1289	1287	1289										
5	1287	1280	1267	1280	1287	1272	1259	1272										
10	1274	1241	1198	1241	1274	1230	1189	1230										
15	1227	1175	1102	1175	1227	1161	1086	1161										
20	1095	1073	989	1073	1095	1060	971	1060										
25	909	912	865	912	909	898	846	898										
30	740	725	733	725	740	708	713	708										
35	597	567	593	567	597	552	574	552										
40	478	433	442	433	478	421	427	421										
45	367	319	291	319	367	312	279	312										
50	276	235	183	235	276	230	179	230										
55	214	172	148	172	214	168	144	168										
60	167	126	120	126	167	123	116	123										
65	126	98.3	93.3	98.3	126	96.1	90.9	96.1										
70	85.8	73.2	69.9	73.2	85.8	71.7	68.2	71.7										
75	50.8	48.9	49.5	48.9	50.8	47.8	48.2	47.8										
80	24.5	27.0	30.8	27.0	24.5	26.3	29.8	26.3										
85	6.01	7.94	13.8	7.94	6.01	7.44	13.2	7.44										
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:JYH  
 Test Date:2023-05-12

g Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.950m [K=1.0000]  
 Remarks: