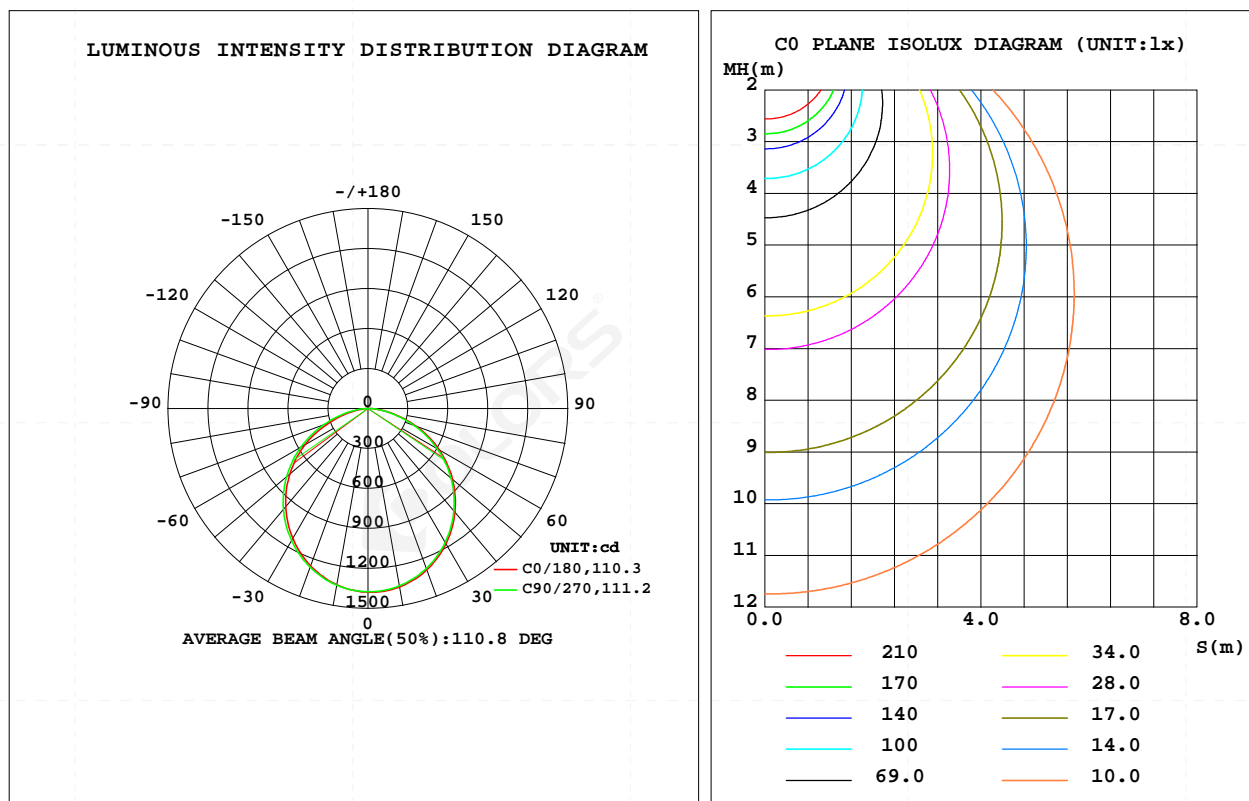


## LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.0V I:0.1600A P:34.00W PF:0.9660 Freq:50.00Hz Lamp Flux:3826.39x1 lm		
NAME: LLS-LS40FDFWS1200(P)-T34NW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: COLORS	SUR.:1192*38mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.54 lm/W			
MODEL		I <sub>max</sub> (cd)	1381	S/MH(C0/180)	1.26
NOMINAL POWER(W)	34	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	3826.4	h UP,DN(C0-180)	0.0,50.7
NOMINAL FLUX(lm)	3826.39	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,49.3
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	h down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-03-28

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

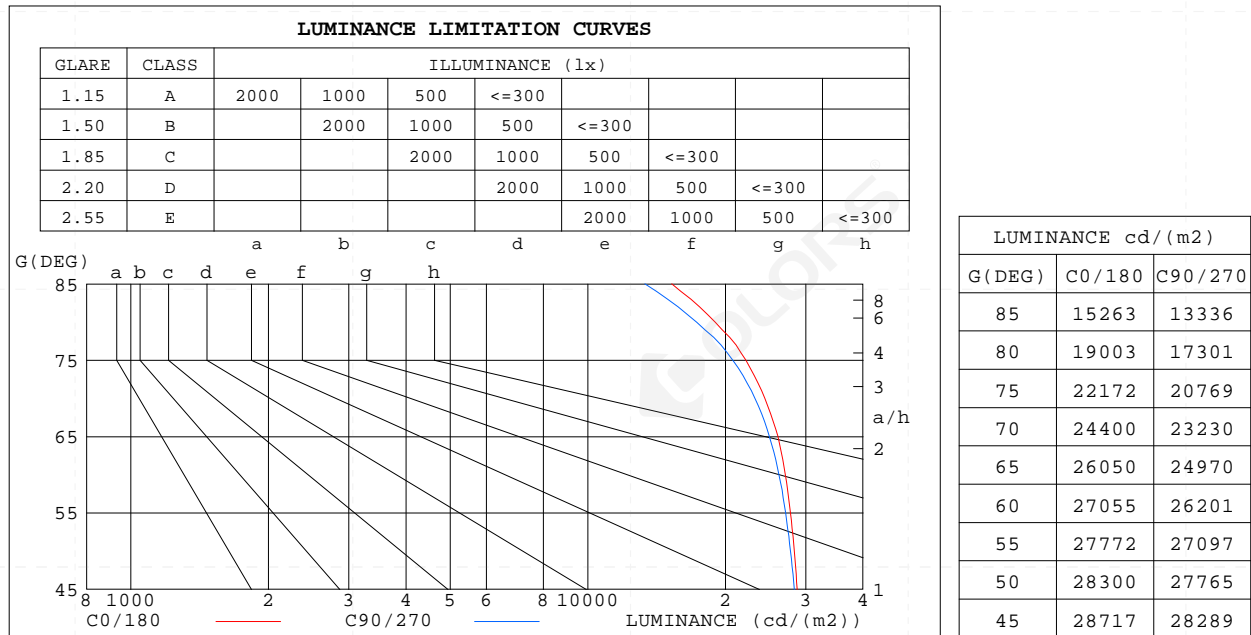
### ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1360	1368	1352	1339	1344	1339	1347	1365	0- 10	130.3	130.3	3.4,3.4
20	1289	1304	1278	1250	1258	1248	1268	1298	10- 20	372.1	502.4	13.1,13.1
30	1172	1193	1160	1118	1128	1115	1147	1187	20- 30	561.4	1064	27.8,27.8
40	1016	1043	1003	949.8	961.3	946.4	987.6	1035	30- 40	673.4	1737	45.4,45.4
50	829.5	858.9	813.8	751.6	766.2	749.3	798.3	851.9	40- 50	694.8	2432	63.6,63.6
60	616.9	647.0	597.4	529.4	546.6	528.8	582.8	641.4	50- 60	622.7	3055	79.8,79.8
70	380.5	414.1	362.3	290.4	304.8	295.8	347.9	412.1	60- 70	464.7	3519	92,92
80	150.5	177.9	137.0	78.28	90.72	83.66	130.0	181.7	70- 80	249.0	3768	98.5,98.5
90	0	0	0	0	0	0	0	0	80- 90	58.09	3826	100,100
100	0	0	0	0	0	0	0	0	90-100	0	3826	100,100
110	0	0	0	0	0	0	0	0	100-110	0	3826	100,100
120	0	0	0	0	0	0	0	0	110-120	0	3826	100,100
130	0	0	0	0	0	0	0	0	120-130	0	3826	100,100
140	0	0	0	0	0	0	0	0	130-140	0	3826	100,100
150	0	0	0	0	0	0	0	0	140-150	0	3826	100,100
160	0	0	0	0	0	0	0	0	150-160	0	3826	100,100
170	0	0	0	0	0	0	0	0	160-170	0	3826	100,100
180	0	0	0	0	0	0	0	0	170-180	0	3826	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:2023-03-28

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

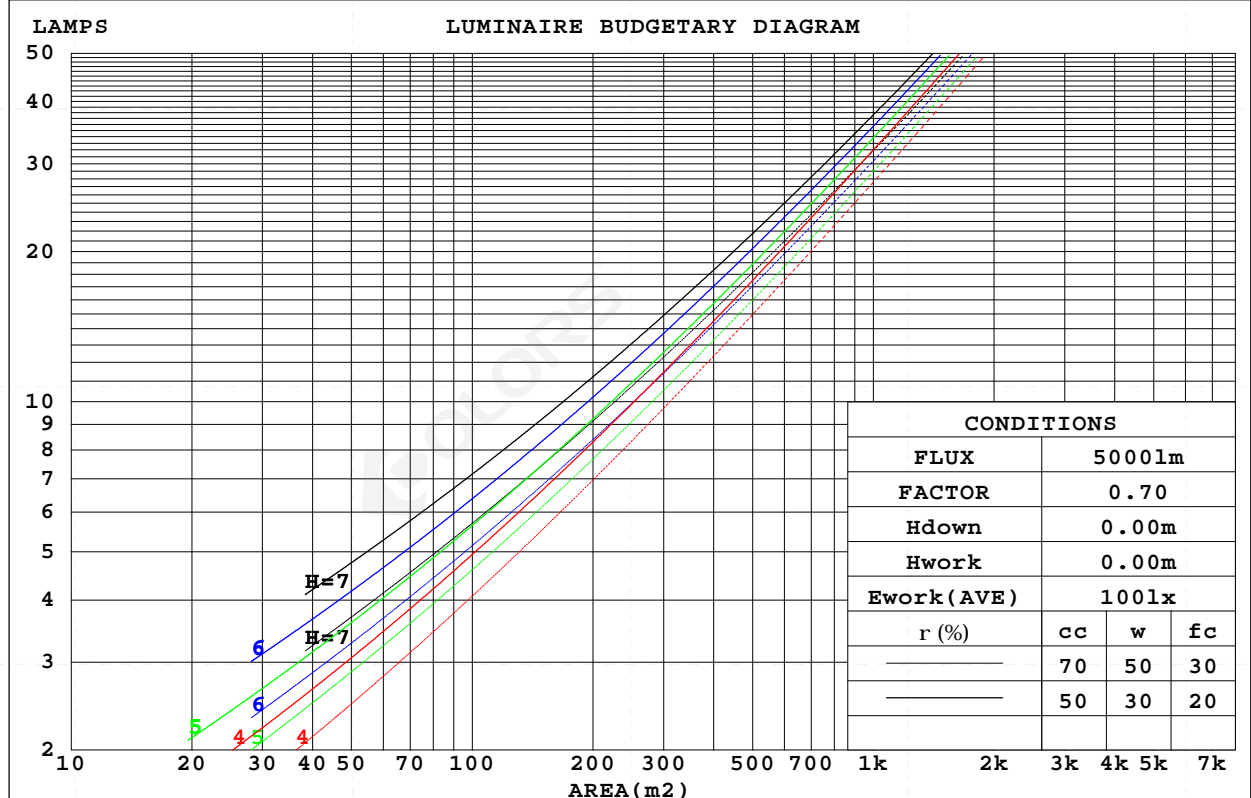


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2023-03-28

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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      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	1.04	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.78	.85	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.65	.58	.53	.62	.57	.53	.51
5.0	.63	.54	.48	.62	.54	.47	.60	.53	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.42	.56	.48	.41	.54	.47	.41	.52	.46	.41	.51	.45	.40	.38
7.0	.52	.43	.37	.51	.42	.37	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.29	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.37	.31	.26	.25



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2023-03-28

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:

## 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	.303	.172	.055	.296	.169	.054	.283	.162	.052	.270	.156	.050	.259	.150	.048		
2.0	.287	.157	.048	.281	.155	.048	.269	.150	.046	.258	.145	.045	.249	.141	.044		
3.0	.267	.142	.043	.261	.140	.042	.251	.136	.041	.241	.132	.041	.233	.129	.040		
4.0	.247	.128	.038	.242	.127	.037	.233	.123	.037	.224	.120	.036	.216	.118	.036		
5.0	.228	.116	.034	.224	.115	.034	.216	.113	.033	.209	.110	.033	.201	.108	.032		
6.0	.212	.106	.030	.208	.105	.030	.201	.103	.030	.194	.101	.030	.188	.099	.029		
7.0	.198	.098	.028	.194	.097	.028	.188	.095	.027	.182	.093	.027	.176	.091	.027		
8.0	.185	.090	.025	.182	.089	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.173	.084	.023	.171	.083	.023	.165	.082	.023	.160	.080	.023	.156	.079	.023		
10.0	.163	.078	.022	.160	.078	.022	.156	.076	.021	.151	.075	.021	.147	.074	.021		

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	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.045	.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	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.064	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-03-28

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:

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	20.0	21.6	20.3	21.8	22.0	19.9	21.4	20.2	21.6	21.9
3H	21.6	23.0	21.9	23.2	23.4	21.4	22.8	21.7	23.0	23.3
4H	22.1	23.5	22.5	23.7	24.0	21.9	23.3	22.3	23.5	23.8
6H	22.5	23.8	22.9	24.0	24.3	22.3	23.5	22.6	23.8	24.1
8H	22.6	23.8	23.0	24.1	24.4	22.4	23.6	22.7	23.9	24.2
12H	22.7	23.8	23.0	24.1	24.4	22.4	23.6	22.8	23.9	24.2
4H 2H	20.7	22.0	21.0	22.3	22.5	20.6	22.0	20.9	22.2	22.5
3H	22.4	23.6	22.8	23.9	24.2	22.3	23.4	22.6	23.7	24.0
4H	23.1	24.2	23.5	24.5	24.8	23.0	24.0	23.3	24.3	24.7
6H	23.6	24.6	24.0	24.9	25.3	23.4	24.4	23.8	24.7	25.1
8H	23.8	24.7	24.2	25.0	25.4	23.6	24.4	24.0	24.8	25.2
12H	23.9	24.7	24.3	25.1	25.5	23.6	24.4	24.1	24.8	25.2
8H 4H	23.4	24.3	23.8	24.7	25.0	23.3	24.2	23.7	24.5	24.9
6H	24.1	24.8	24.5	25.2	25.6	23.9	24.6	24.3	25.0	25.5
8H	24.3	25.0	24.8	25.4	25.8	24.1	24.8	24.6	25.2	25.6
12H	24.5	25.1	25.0	25.5	26.0	24.3	24.8	24.8	25.3	25.8
12H 4H	23.4	24.2	23.9	24.6	25.0	23.3	24.1	23.7	24.5	24.9
6H	24.2	24.8	24.6	25.2	25.7	24.0	24.6	24.4	25.0	25.5
8H	24.4	25.0	24.9	25.4	25.9	24.2	24.8	24.7	25.2	25.7
Variations with the observer position at spacings:										
S = 1.0H		+ 0.2 / - 0.2					+ 0.2 / - 0.2			
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.4			
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.4			

CIE Pub.117, 3826 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 4.7$ )

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-03-28

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:

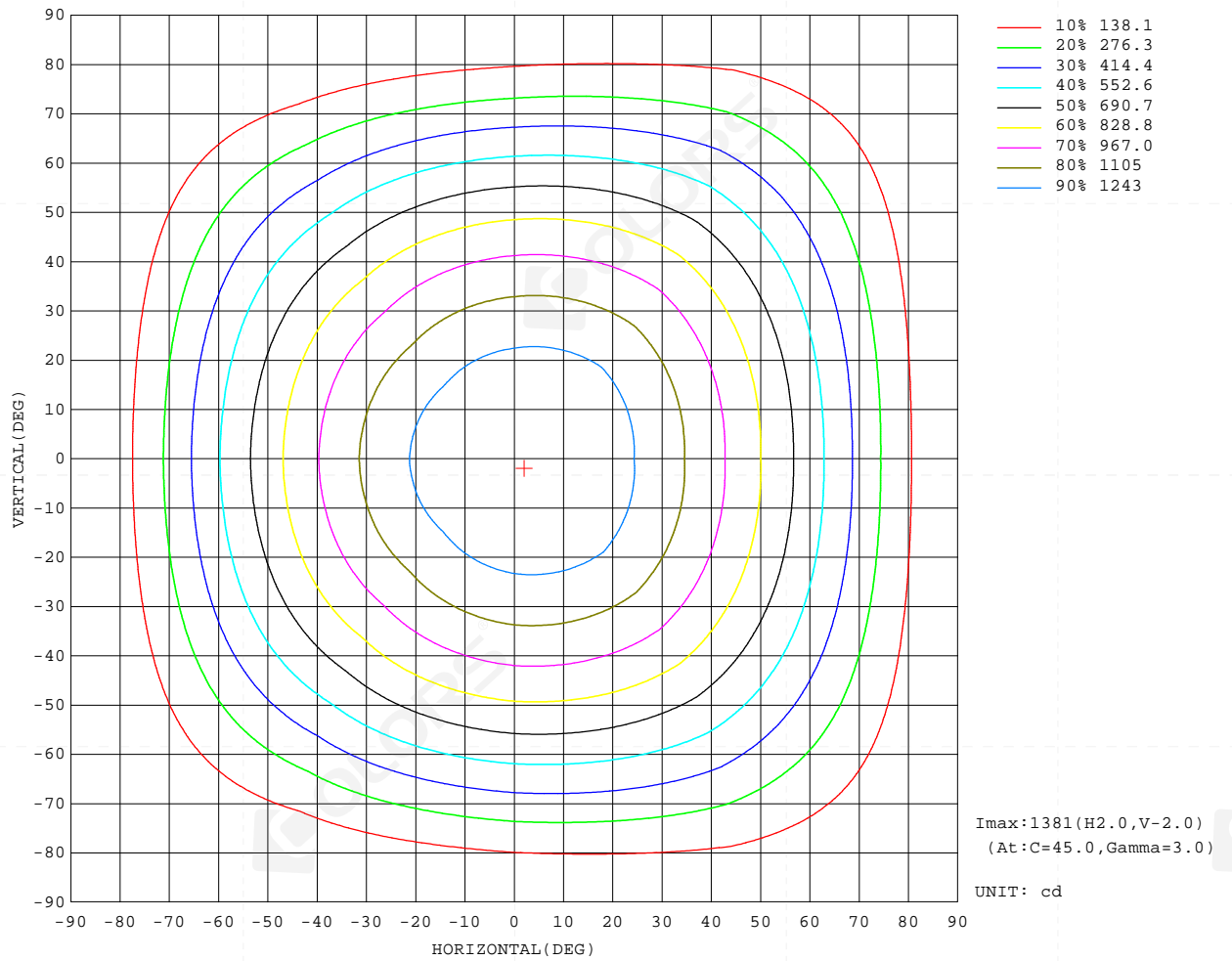
### UTILIZATION FACTORS TABLE

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	58	46	39	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	49	42
1.00	76	65	58	75	65	58	73	66	57	50
1.25	84	73	66	82	72	66	79	71	65	58
1.50	89	79	72	87	78	71	84	76	70	63
2.00	95	87	81	94	86	80	90	84	78	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	107	101	96	104	99	95	100	96	92	84
5.00	109	104	100	107	102	99	102	99	96	87
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: 2023-03-28

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:

ISOCANDELA DIAGRAM

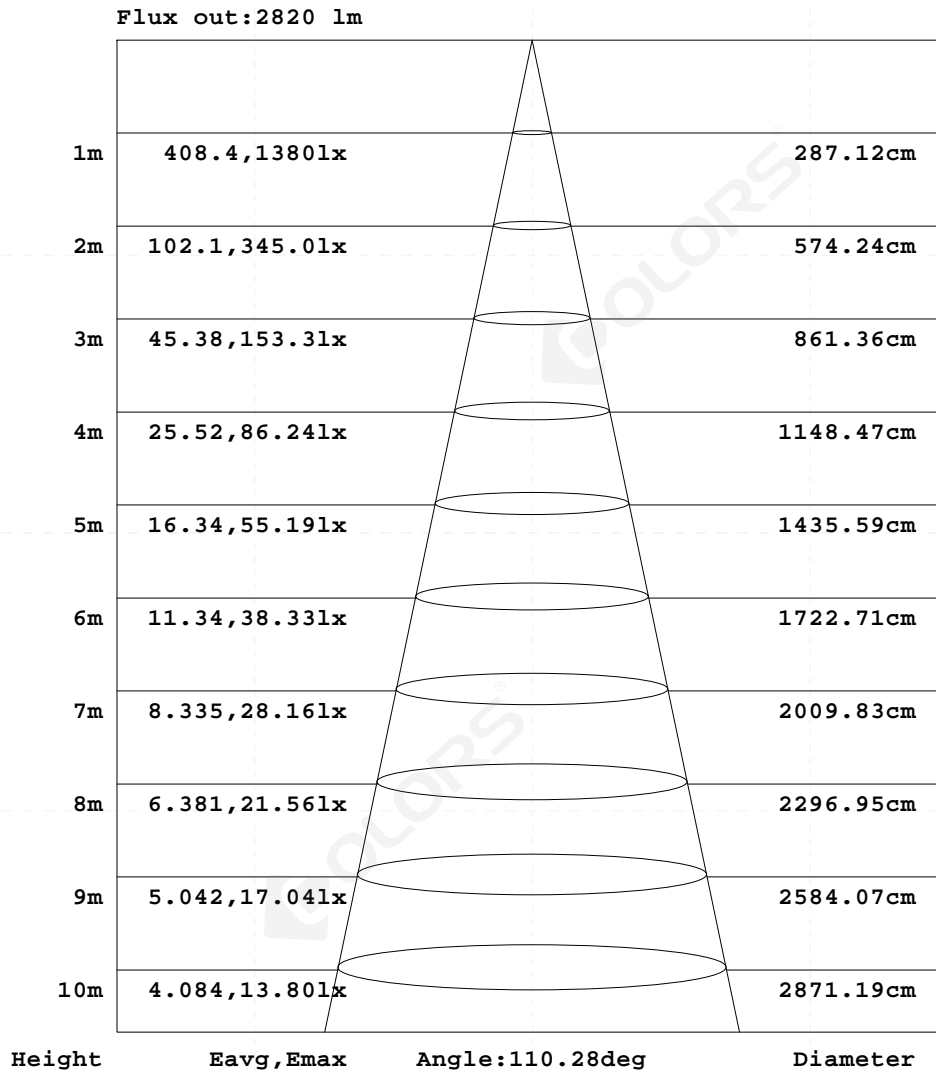


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-03-28

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:



AAI Figure

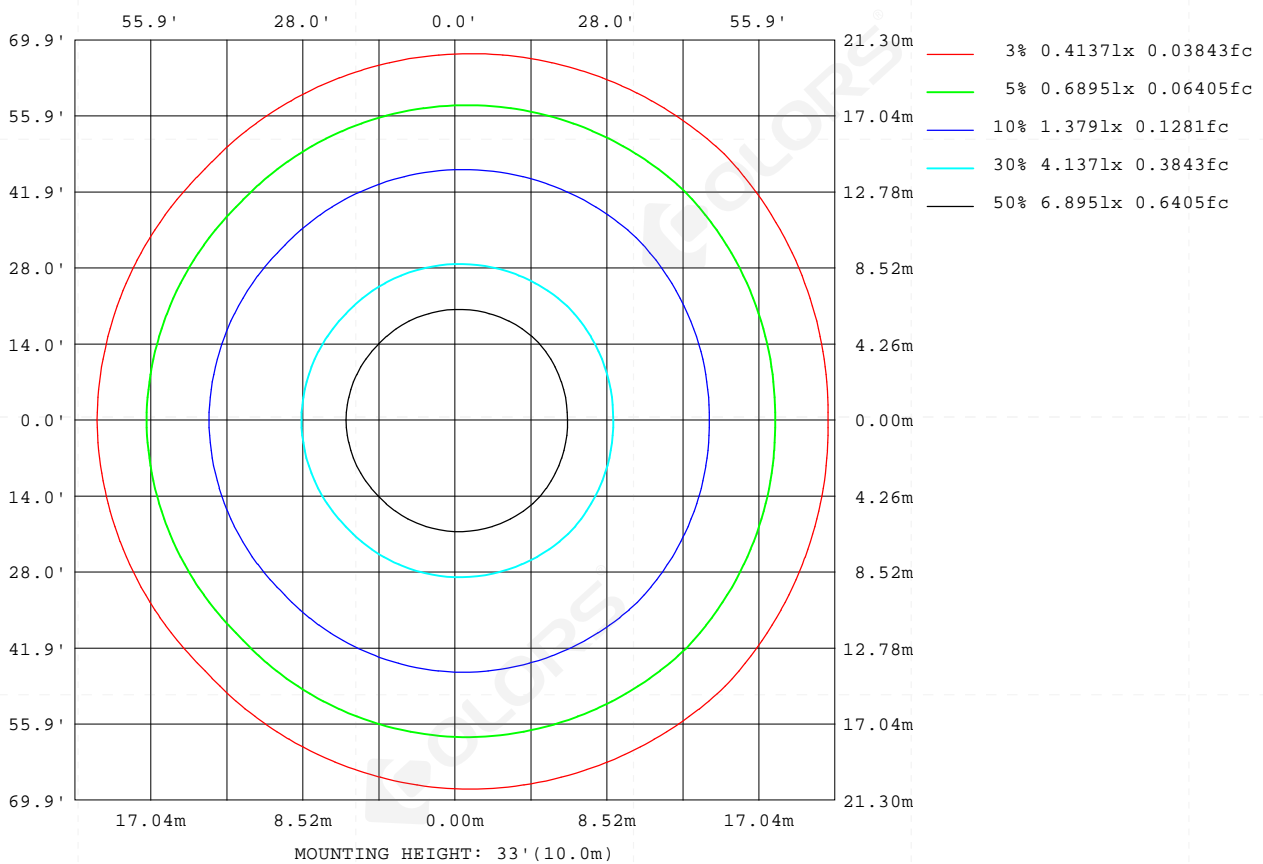


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2023-03-28

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:

ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2023-03-28

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:0.1600A P:34.00W PF:0.9660 Freq:50.00Hz Lamp Flux:3826.39x1 lm		
NAME: LLS-LS40FDFWS1200(P)-T34NW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: COLORS	SUR.:1192*38mm	Shielding Angle:

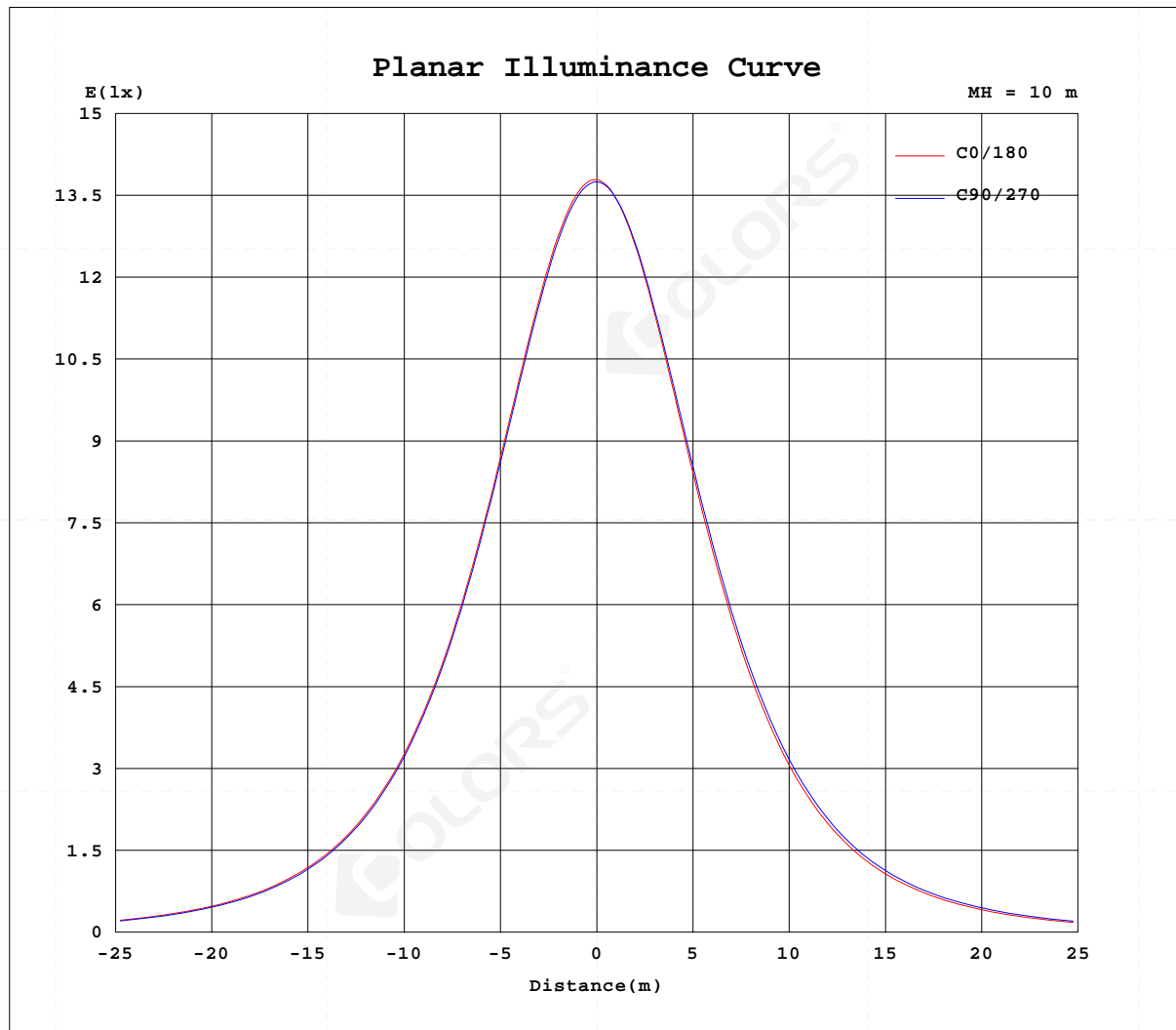
AvgL	cd/m2
L_0~180(65)av	24125
L_0~180(75)av	19139
L_0~180(85)av	10094
L_90~270(65)av	24613
L_90~270(75)av	20305
L_90~270(85)av	12681
L_45(65)av	24439
L_45(75)av	20012
L_45(85)av	12040

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-03-28

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:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2023-03-28

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	1379	1379	1375	1377	1379	1379	1375	1377										
5	1376	1380	1370	1365	1368	1365	1367	1378										
10	1360	1368	1352	1339	1344	1339	1347	1365										
15	1331	1342	1321	1300	1307	1299	1313	1338										
20	1289	1304	1278	1250	1258	1248	1268	1298										
25	1236	1254	1224	1189	1198	1186	1212	1248										
30	1172	1193	1160	1118	1128	1115	1147	1187										
35	1098	1123	1086	1038	1048	1035	1071	1116										
40	1016	1043	1003	950	961	946	988	1035										
45	926	954	912	854	867	851	896	948										
50	829	859	814	752	766	749	798	852										
55	726	755	709	643	659	641	693	750										
60	617	647	597	529	547	529	583	641										
65	502	533	481	410	428	413	467	529										
70	381	414	362	290	305	296	348	412										
75	262	292	245	175	190	182	234	295										
80	150	178	137	78.3	90.7	83.7	130	182										
85	60.7	80.7	53.0	12.0	19.6	14.8	47.8	83.9										
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:2023-03-28

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: