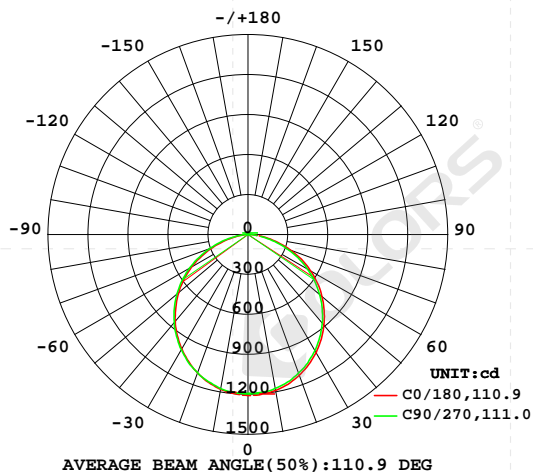


## LUMINAIRE PHOTOMETRIC TEST REPORT

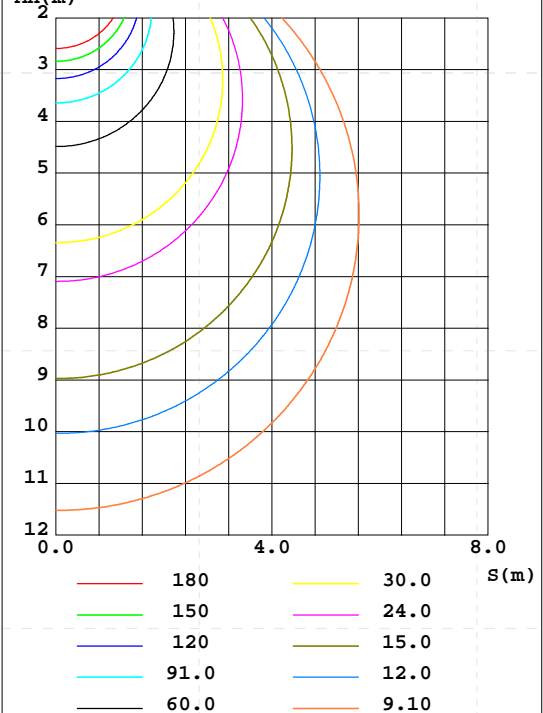
Test:U:220.0V I:0.1590A P:32.90W PF:0.9000 Freq:0Hz Lamp Flux:3392.44x1 lm		
NAME: LLS-LS40FDFWS1200(T)-T34WWW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: COLORS	SUR.:1192*38mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 103.11 lm/W			
MODEL		I <sub>max</sub> (cd)	1208	S/MH(C0/180)	1.26
NOMINAL POWER(W)	32.9	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	3392.4	h UP,DN(C0-180)	0.7,49.5
NOMINAL FLUX(lm)	3392.44	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.6,49.2
LAMPS INSIDE	1	h up(%)	1.3	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	h down(%)	98.7	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-05-18

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:

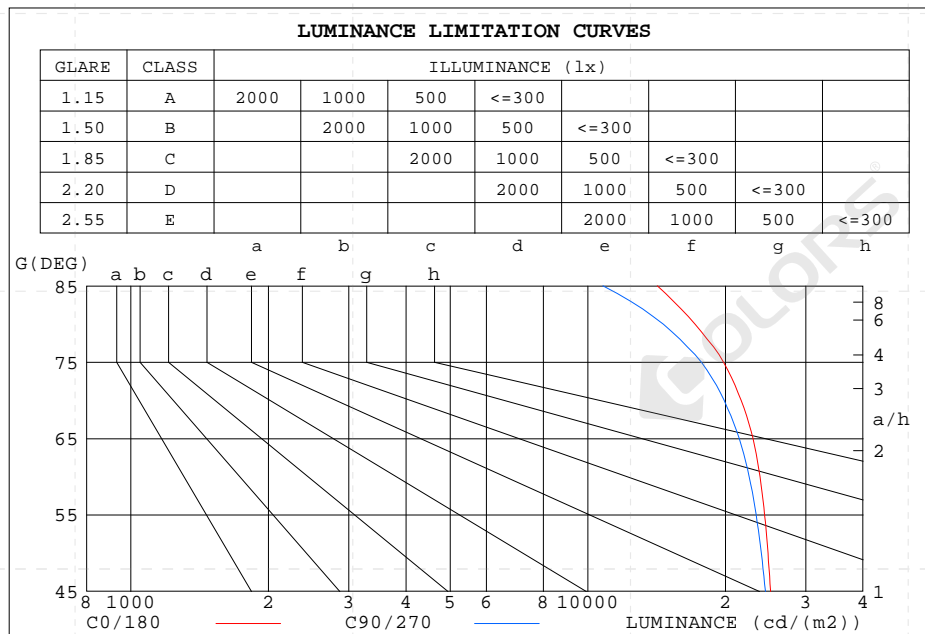
**ZONAL FLUX DIAGRAM**
**ZONAL FLUX DIAGRAM:**

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1189	1189	1175	1162	1180	1173	1175	1189	0- 10	113.5	113.5	3.35,3.35
20	1125	1130	1108	1083	1107	1097	1105	1134	10- 20	324.6	438.1	12.9,12.9
30	1023	1031	1006	967.0	993.2	984.1	1000	1040	20- 30	489.8	927.9	27.4,27.4
40	887.5	898.3	868.3	820.7	850.0	839.1	861.5	909.8	30- 40	587.9	1516	44.7,44.7
50	726.6	737.6	702.5	647.4	679.3	667.5	696.1	753.7	40- 50	607.0	2123	62.6,62.6
60	542.7	553.5	514.2	453.9	488.8	475.5	507.4	571.8	50- 60	544.7	2668	78.6,78.6
70	337.9	348.9	310.0	245.8	277.4	272.2	301.3	373.0	60- 70	407.2	3075	90.6,90.6
80	136.0	148.7	115.8	65.14	87.90	84.39	112.0	171.3	70- 80	220.1	3295	97.1,97.1
90	7.001	10.42	3.172	2.518	1.296	1.311	0.9428	21.92	80- 90	53.47	3348	98.7,98.7
100	3.495	2.954	2.658	3.340	2.799	2.415	2.040	2.310	90-100	2.987	3351	98.8,98.8
110	5.508	4.566	4.429	4.937	4.762	4.015	4.543	3.985	100-110	3.801	3355	98.9,98.9
120	7.868	6.785	7.039	6.649	6.757	5.821	6.728	6.049	110-120	5.625	3361	99.1,99.1
130	9.996	8.654	8.907	8.386	8.573	7.660	8.144	7.672	120-130	6.836	3368	99.3,99.3
140	11.63	9.953	10.28	10.24	10.12	9.662	9.233	8.843	130-140	7.160	3375	99.5,99.5
150	12.50	10.86	11.49	12.59	11.00	12.04	10.61	9.912	140-150	6.682	3381	99.7,99.7
160	13.79	12.14	13.30	14.93	12.75	14.53	12.85	10.87	150-160	5.654	3387	99.8,99.8
170	15.24	14.50	14.84	15.95	15.12	16.32	14.90	13.04	160-170	3.958	3391	100,100
180	16.28	17.24	16.32	16.00	16.29	17.27	16.36	16.02	170-180	1.480	3392	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:2023-05-18

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



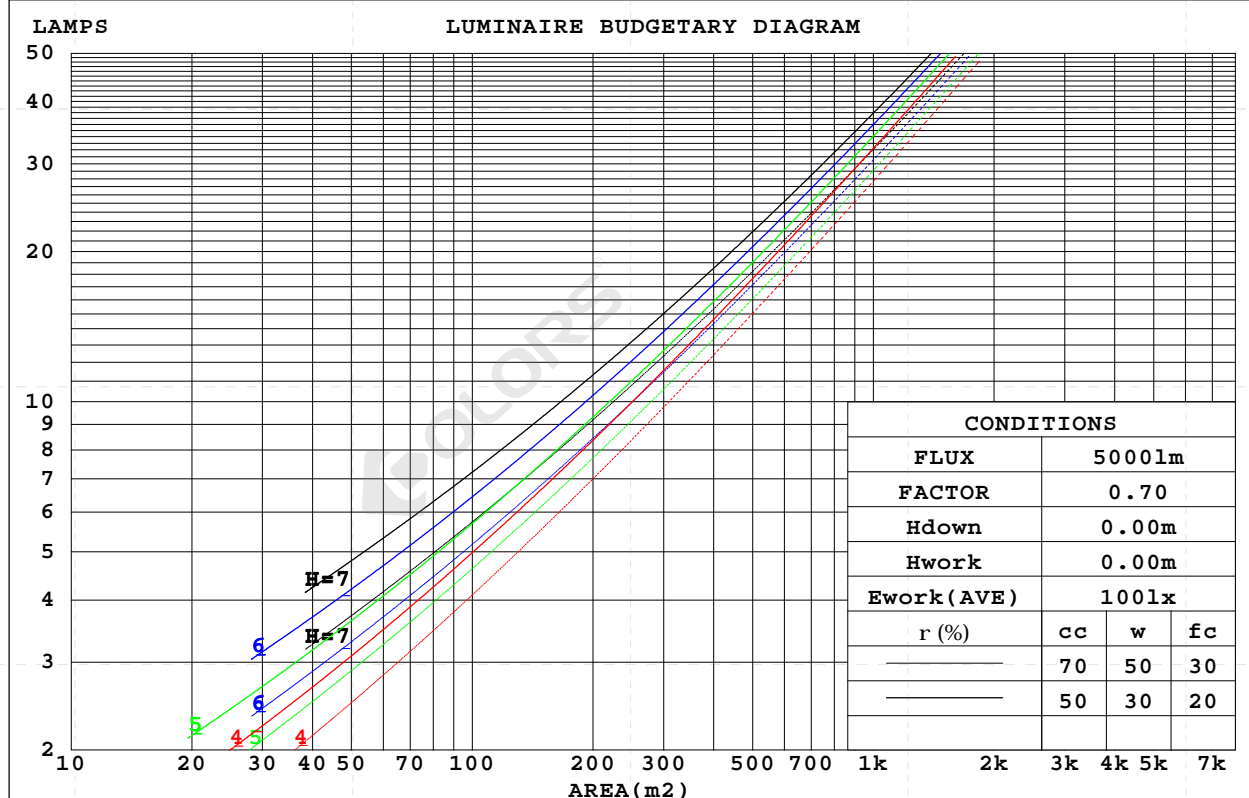
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14202	10792
80	17170	14626
75	19811	17720
70	21665	19879
65	22981	21438
60	23804	22551
55	24377	23357
50	24789	23968
45	25108	24470

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2023-05-18

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
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	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.04	.00	.96	1.01	.98	.94	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.91	.84	.78	.89	.82	.77	.85	.80	.75	.81	.77	.73	.78	.75	.71	.69
3.0	.80	.71	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.64	.61	.58
4.0	.70	.62	.55	.69	.61	.55	.66	.59	.54	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.59	.52	.46	.57	.51	.46	.55	.50	.45	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.33	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.35	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.27	.39	.32	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2023-05-18

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	.173	.055	.296	.169	.054	.282	.162	.052	.269	.155	.050	.257	.149	.048	
2.0	.287	.157	.048	.281	.155	.048	.268	.149	.046	.257	.144	.045	.246	.139	.044	
3.0	.267	.142	.042	.261	.140	.042	.250	.135	.041	.240	.131	.040	.230	.128	.039	
4.0	.247	.128	.038	.241	.126	.037	.232	.123	.037	.223	.120	.036	.214	.116	.035	
5.0	.228	.116	.034	.224	.115	.033	.215	.112	.033	.207	.109	.032	.199	.107	.032	
6.0	.212	.106	.030	.208	.105	.030	.200	.103	.030	.193	.100	.029	.186	.098	.029	
7.0	.197	.098	.028	.194	.097	.028	.187	.094	.027	.180	.092	.027	.174	.090	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.024	
9.0	.173	.084	.023	.170	.083	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.163	.078	.022	.160	.077	.022	.155	.076	.021	.150	.075	.021	.146	.073	.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	.200	.200	.200	.171	.171	.171	.117	.117	.117	.067	.067	.067	.021	.021	.021		
1.0	.190	.166	.145	.162	.143	.125	.111	.098	.086	.064	.057	.050	.020	.018	.016		
2.0	.182	.142	.109	.156	.122	.094	.107	.085	.066	.061	.049	.038	.020	.016	.013		
3.0	.174	.124	.085	.149	.107	.074	.102	.075	.052	.059	.044	.030	.019	.014	.010		
4.0	.166	.111	.069	.143	.096	.060	.098	.067	.042	.057	.039	.025	.018	.013	.008		
5.0	.159	.101	.058	.137	.087	.050	.094	.061	.035	.054	.036	.021	.018	.012	.007		
6.0	.152	.092	.050	.131	.080	.043	.090	.056	.031	.052	.033	.018	.017	.011	.006		
7.0	.145	.085	.044	.125	.074	.038	.086	.052	.027	.050	.031	.016	.016	.010	.005		
8.0	.139	.080	.039	.119	.069	.034	.083	.049	.024	.048	.029	.014	.016	.009	.005		
9.0	.133	.075	.036	.114	.065	.031	.079	.046	.022	.046	.027	.013	.015	.009	.004		
10.0	.127	.070	.033	.110	.061	.029	.076	.043	.020	.044	.025	.012	.014	.008	.004		

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-05-18

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	19.9	21.4	20.2	21.6	21.8	19.7	21.2	20.0	21.4	21.6	
	3H	21.4	22.8	21.7	23.0	23.3	21.1	22.5	21.5	22.8	23.0
	4H	22.0	23.3	22.3	23.6	23.9	21.7	23.0	22.0	23.3	23.5
	6H	22.4	23.6	22.8	23.9	24.2	22.0	23.2	22.4	23.5	23.8
	8H	22.5	23.7	22.9	24.0	24.3	22.1	23.3	22.5	23.6	23.9
	12H	22.6	23.7	23.0	24.0	24.4	22.1	23.3	22.5	23.6	23.9
4H	2H	20.5	21.8	20.8	22.1	22.4	20.4	21.7	20.7	22.0	22.2
	3H	22.2	23.4	22.6	23.7	24.0	22.0	23.2	22.4	23.5	23.8
	4H	22.9	24.0	23.3	24.3	24.7	22.7	23.7	23.1	24.1	24.4
	6H	23.5	24.4	23.9	24.8	25.2	23.1	24.0	23.5	24.4	24.8
	8H	23.6	24.5	24.1	24.9	25.3	23.2	24.1	23.7	24.5	24.9
	12H	23.7	24.5	24.2	24.9	25.4	23.3	24.1	23.8	24.5	24.9
8H	4H	23.2	24.1	23.7	24.5	24.9	23.0	23.8	23.4	24.2	24.6
	6H	23.9	24.6	24.4	25.0	25.5	23.6	24.3	24.0	24.7	25.2
	8H	24.1	24.8	24.6	25.2	25.7	23.8	24.4	24.3	24.9	25.3
	12H	24.3	24.9	24.8	25.3	25.8	23.9	24.5	24.4	24.9	25.4
12H	4H	23.2	24.0	23.7	24.4	24.9	23.0	23.8	23.4	24.2	24.6
	6H	23.9	24.6	24.4	25.0	25.5	23.6	24.3	24.1	24.7	25.2
	8H	24.2	24.8	24.7	25.3	25.8	23.9	24.4	24.4	24.9	25.4
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 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117, 3392 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 4.2$ )

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-05-18

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:

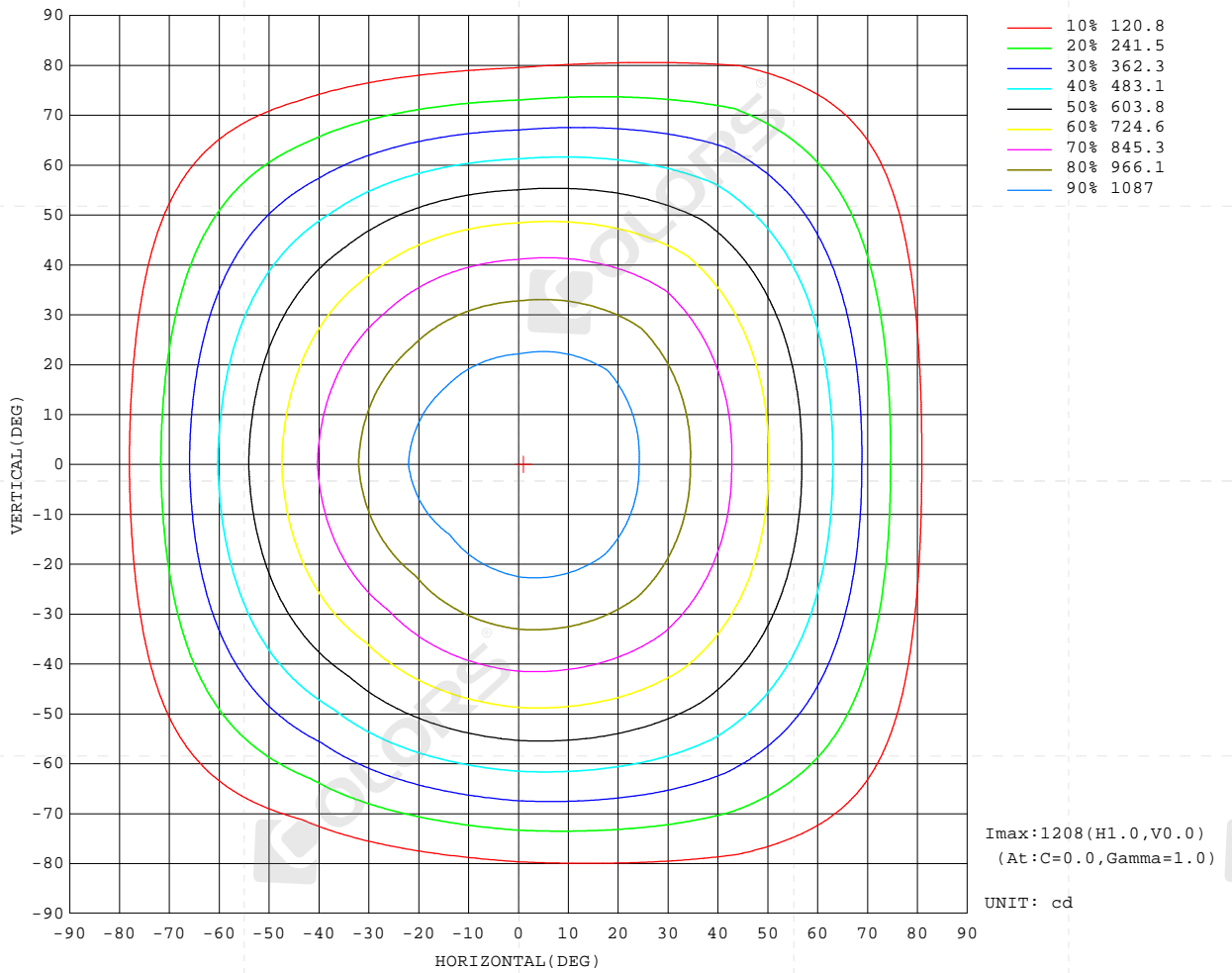
**UTILIZATION FACTORS TABLE**

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) $k(RI) \times RCR = 5$									
$k = 0.60$	57	46	39	57	46	39	55	45	39	32
0.80	68	56	49	66	56	48	65	55	48	41
1.00	76	65	58	75	64	57	72	66	57	50
1.25	83	73	66	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	75	70	62
2.00	95	86	80	93	85	79	89	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	86	78
4.00	106	101	96	104	99	94	99	95	92	82
5.00	109	104	100	106	102	98	101	98	95	85
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: 2023-05-18

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

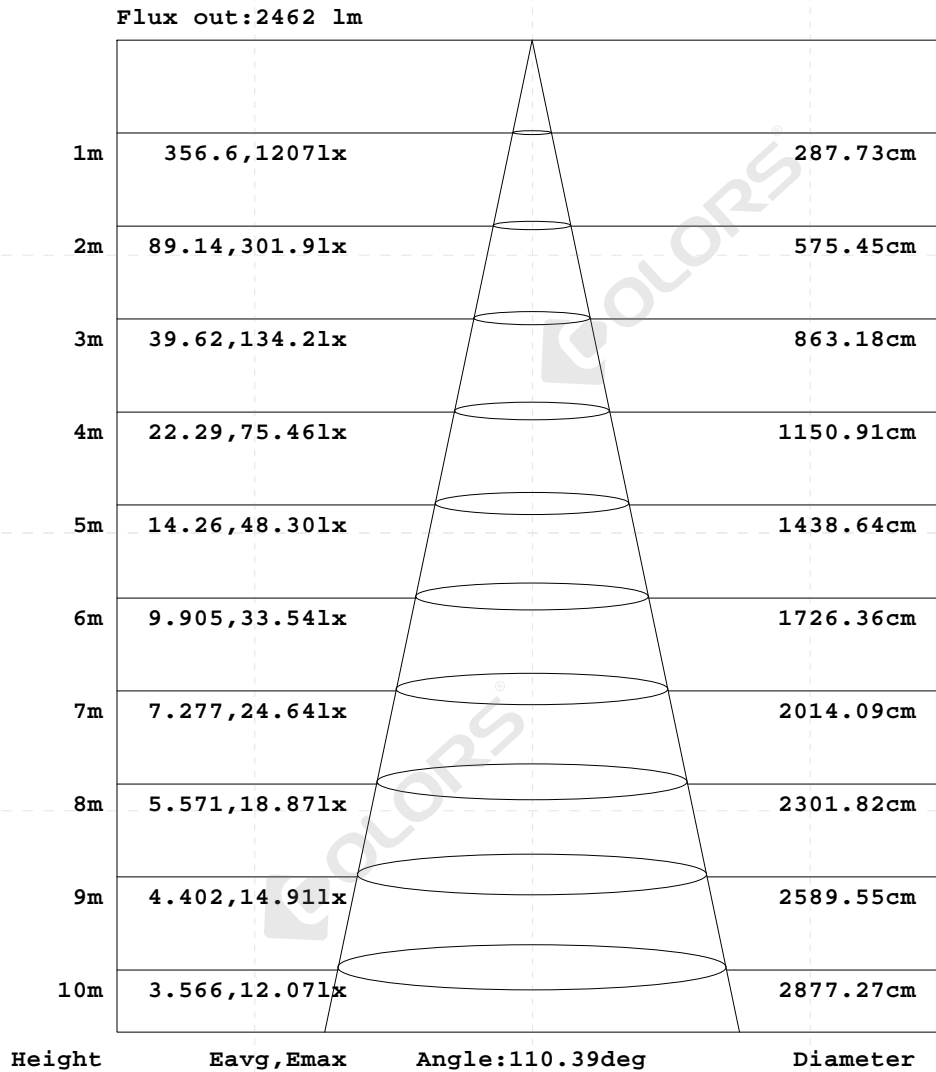


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-05-18

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

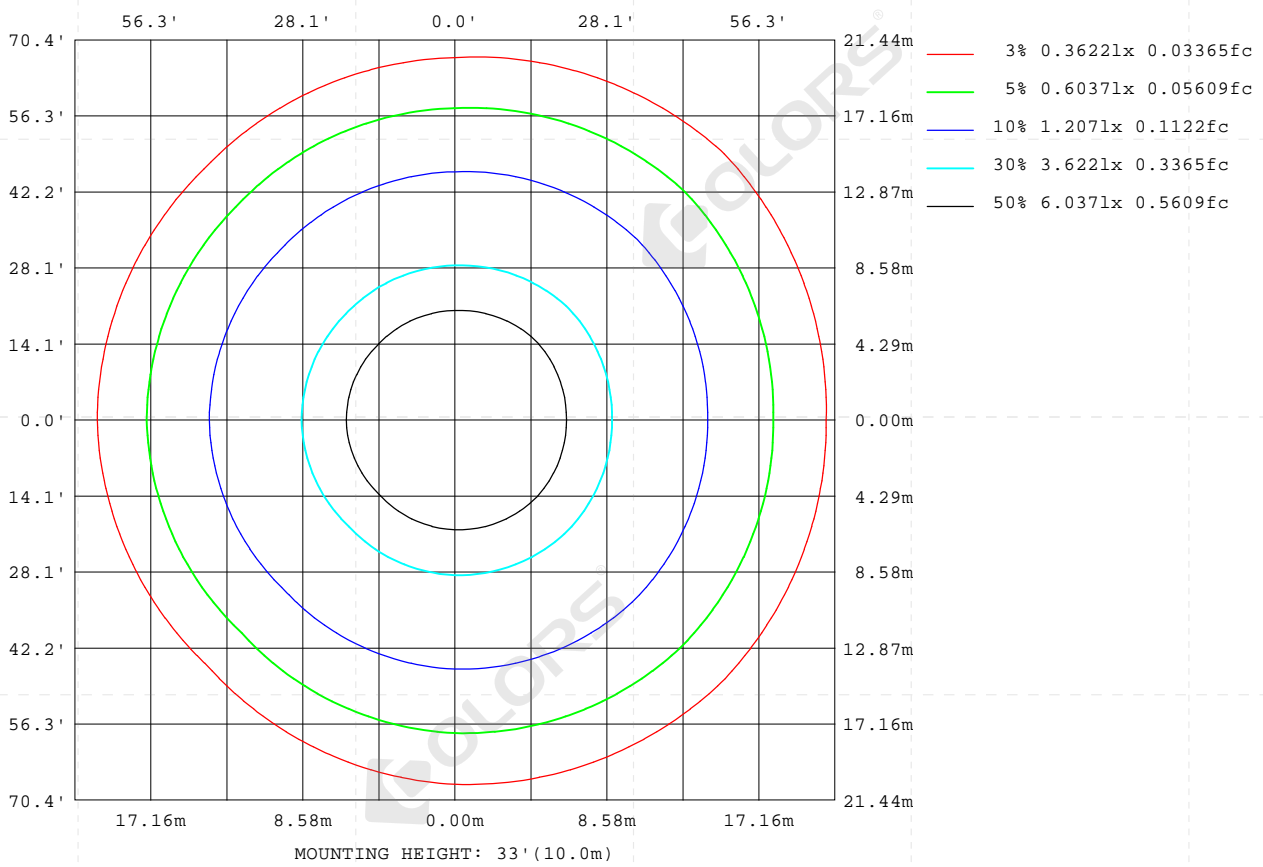


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-05-18

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:

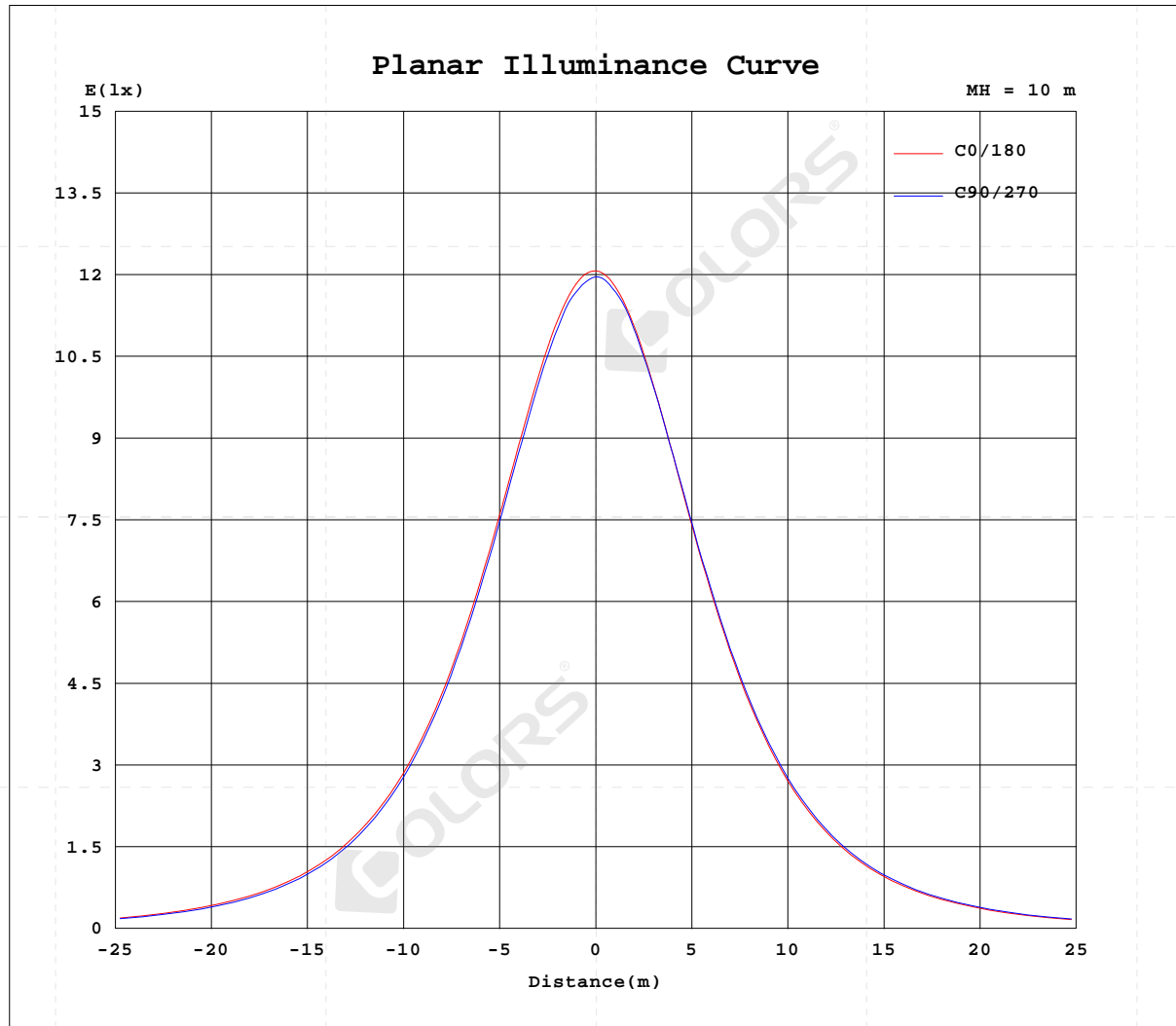
ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2023-05-18

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: 2023-05-18

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	1207	1204	1197	1199	1207	1204	1197	1199										
5	1204	1199	1188	1184	1199	1193	1189	1200										
10	1189	1189	1175	1162	1180	1173	1175	1189										
15	1163	1164	1148	1128	1148	1139	1144	1170										
20	1125	1130	1108	1083	1107	1097	1105	1134										
25	1078	1085	1062	1030	1054	1044	1060	1093										
30	1023	1031	1006	967	993	984	1000	1040										
35	959	968	941	897	925	913	935	980										
40	888	898	868	821	850	839	862	910										
45	810	821	789	737	767	757	782	836										
50	727	738	703	647	679	667	696	754										
55	638	648	611	552	587	574	604	664										
60	543	554	514	454	489	476	507	572										
65	443	454	413	349	382	374	404	474										
70	338	349	310	246	277	272	301	373										
75	234	246	209	148	176	171	202	272										
80	136	149	116	65.1	87.9	84.4	112	171										
85	56.4	65.9	42.9	10.1	23.3	21.4	41.1	84.9										
90	7.00	10.4	3.17	2.52	1.30	1.31	0.94	21.9										
95	2.86	2.77	2.78	2.77	1.88	1.65	1.24	1.95										
100	3.50	2.95	2.66	3.34	2.80	2.41	2.04	2.31										
105	4.41	3.59	3.17	4.07	3.76	3.18	3.26	3.09										
110	5.51	4.57	4.43	4.94	4.76	4.01	4.54	3.98										
115	6.70	5.73	5.82	5.79	5.79	4.90	5.80	5.04										
120	7.87	6.78	7.04	6.65	6.76	5.82	6.73	6.05										
125	8.96	7.81	8.07	7.51	7.67	6.72	7.50	7.03										
130	10.00	8.65	8.91	8.39	8.57	7.66	8.14	7.67										
135	10.9	9.39	9.66	9.30	9.42	8.61	8.69	8.23										
140	11.6	9.95	10.3	10.2	10.1	9.66	9.23	8.84										
145	12.1	10.4	10.9	11.3	10.6	10.8	9.71	9.54										
150	12.5	10.9	11.5	12.6	11.0	12.0	10.6	9.91										
155	13.3	11.5	12.5	13.9	11.8	13.3	11.7	10.4										
160	13.8	12.1	13.3	14.9	12.7	14.5	12.8	10.9										
165	14.4	13.2	14.1	15.6	13.9	15.6	14.0	11.9										
170	15.2	14.5	14.8	16.0	15.1	16.3	14.9	13.0										
175	15.9	15.7	15.7	16.1	15.1	17.1	15.8	14.4										
180	16.3	17.2	16.3	16.0	16.3	17.3	16.4	16.0										

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2023-05-18

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: