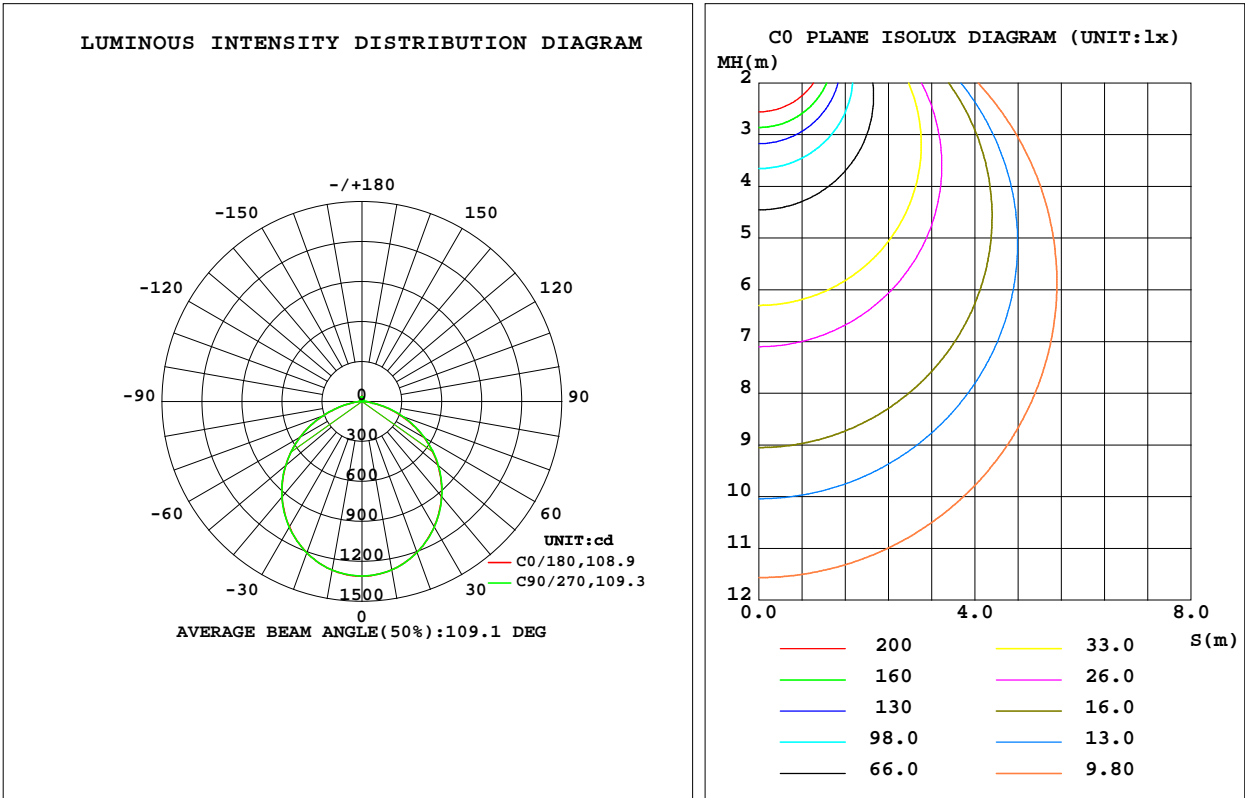


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.0V I:0.1303A P:26.97W PF:0.9366 Freq:49.99Hz Lamp Flux:3729.42x1 lm		
NAME: LLS-LS40FDXWS1200(H)-T28NW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.: 1200*38mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*38mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 138.13 lm/W			
MODEL		Imax(cd)	1311	S/MH(C0/180)	1.24
NOMINAL POWER(W)	28	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	3729.4	h UP,DN(C0-180)	1.6,48.6
NOMINAL FLUX(lm)	3729.42	CIE CLASS	DIRECT	h UP,DN(C180-360)	1.5,48.3
LAMPS INSIDE	1	h up(%)	3.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	h down(%)	96.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2025-04-18

g Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [K=1.0000]  
Remarks:

ZONAL FLUX DIAGRAM

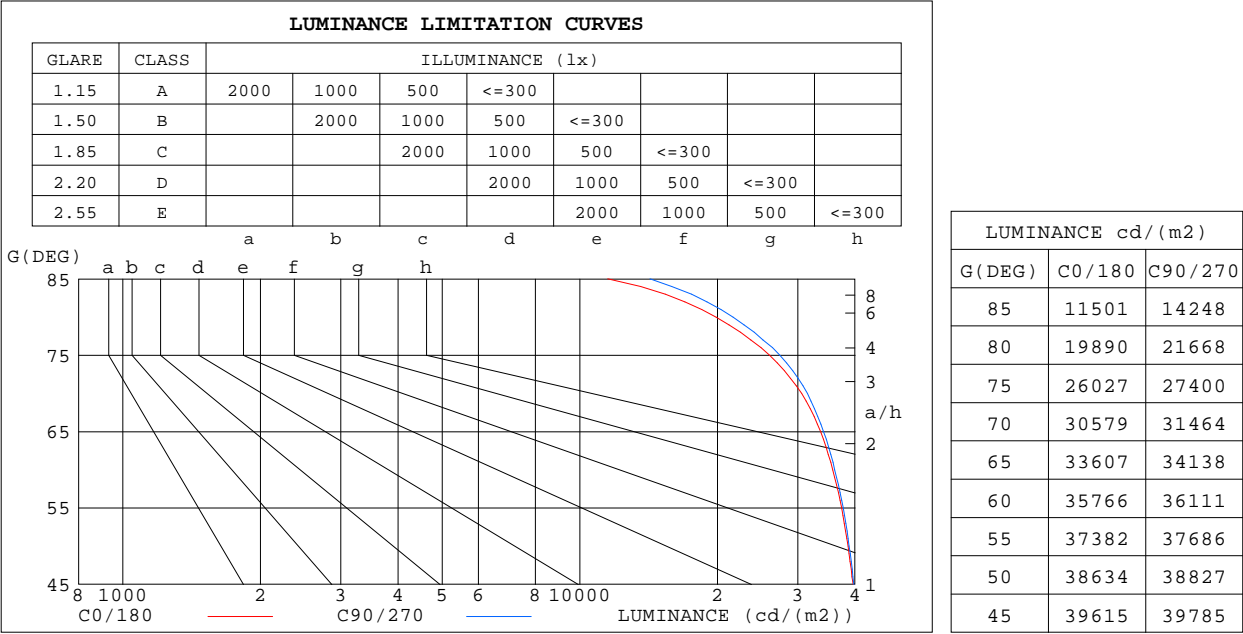
ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1283	1283	1283	1282	1285	1285	1285	1284	0~ 10	123.8	123.8	3.38,3.38
20	1206	1206	1206	1205	1209	1210	1209	1209	10~ 20	353.2	476.9	13,13
30	1085	1087	1086	1085	1089	1091	1090	1091	20~ 30	531.1	1008	27.5,27.5
40	929.5	932.7	932.2	931.5	932.9	936.1	935.1	935.4	30~ 40	634.7	1643	44.8,44.8
50	745.0	748.7	748.7	748.0	746.9	749.4	748.5	749.1	40~ 50	650.7	2293	62.6,62.6
60	536.5	541.6	541.7	540.7	536.3	538.0	537.5	538.1	50~ 60	577.1	2870	78.3,78.3
70	313.8	320.1	322.8	319.7	306.2	311.9	308.8	312.3	60~ 70	423.1	3294	89.9,89.9
80	103.6	112.7	112.9	112.3	98.90	100.8	100.3	101.3	70~ 80	216.6	3510	95.8,95.8
90	5.468	5.962	5.967	5.949	4.391	4.517	4.492	4.511	80~ 90	42.83	3553	96.9,96.9
100	8.660	8.924	8.883	8.923	7.169	7.230	7.255	7.229	90~100	6.981	3560	97.1,97.1
110	12.71	13.01	12.95	13.00	10.88	11.00	11.01	10.98	100~110	10.51	3571	97.4,97.4
120	17.11	17.48	17.43	17.49	15.06	15.25	15.26	15.22	110~120	13.94	3584	97.8,97.8
130	21.73	22.24	22.19	22.23	19.75	20.02	20.03	20.00	120~130	16.67	3601	98.2,98.2
140	26.20	26.77	26.70	26.77	24.72	25.03	25.04	25.00	130~140	18.09	3619	98.7,98.7
150	30.38	31.03	30.96	31.02	29.45	29.72	29.72	29.69	140~150	17.56	3637	99.2,99.2
160	34.42	34.77	34.69	34.73	33.77	33.77	33.79	33.73	150~160	14.89	3652	99.6,99.6
170	37.77	37.58	37.50	37.54	37.36	36.92	36.95	36.90	160~170	10.12	3662	99.9,99.9
180	39.30	38.85	38.79	38.80	39.32	38.82	38.82	38.75	170~180	3.627	3665	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:2025-04-18

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [K=1.0000]  
Remarks:

LUMINANCE LIMITATION CURVES

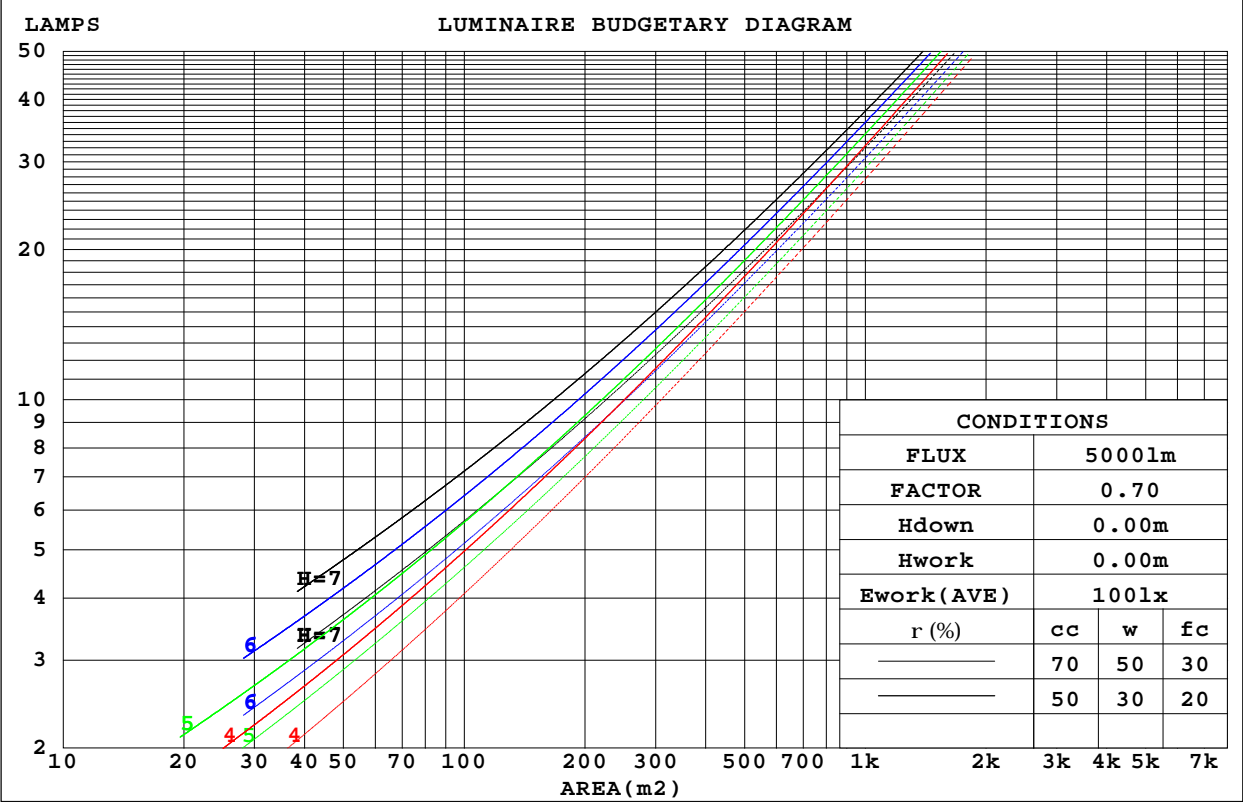


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2025-04-18

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [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	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.04	.90	.96	1.01	.98	.94	.97	.93	.91	.92	.90	.87	.88	.86	.84	.82
2.0	.91	.84	.79	.89	.83	.77	.85	.80	.75	.81	.77	.73	.77	.74	.71	.69
3.0	.80	.72	.65	.78	.71	.65	.75	.68	.63	.71	.66	.62	.69	.64	.60	.58
4.0	.71	.62	.56	.69	.61	.55	.66	.59	.54	.64	.58	.53	.61	.56	.52	.50
5.0	.63	.54	.48	.62	.54	.47	.60	.52	.47	.57	.51	.46	.55	.50	.45	.43
6.0	.57	.48	.42	.56	.48	.42	.54	.46	.41	.52	.45	.40	.50	.44	.40	.38
7.0	.52	.43	.37	.51	.43	.37	.49	.42	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.39	.33	.46	.38	.33	.45	.38	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.30	.43	.35	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.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:2025-04-18

g Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [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	.295	.168	.053	.288	.164	.052	.273	.156	.050	.259	.149	.048	.246	.143	.046	
2.0	.281	.154	.047	.274	.151	.047	.261	.145	.045	.249	.140	.044	.238	.134	.042	
3.0	.262	.140	.042	.256	.137	.041	.244	.132	.040	.233	.128	.039	.223	.124	.038	
4.0	.243	.126	.037	.237	.124	.037	.227	.120	.036	.217	.117	.035	.208	.113	.034	
5.0	.225	.115	.033	.220	.113	.033	.211	.110	.032	.202	.107	.032	.194	.104	.031	
6.0	.210	.105	.030	.205	.104	.030	.197	.101	.029	.189	.098	.029	.181	.096	.028	
7.0	.195	.097	.027	.191	.095	.027	.184	.093	.027	.177	.091	.026	.170	.088	.026	
8.0	.183	.089	.025	.179	.088	.025	.172	.086	.025	.166	.084	.024	.160	.082	.024	
9.0	.172	.083	.023	.168	.082	.023	.162	.080	.023	.156	.078	.022	.151	.077	.022	
10.0	.161	.077	.021	.158	.077	.021	.153	.075	.021	.148	.073	.021	.143	.072	.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	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023		
1.0	.203	.180	.159	.174	.154	.137	.119	.106	.095	.068	.061	.055	.022	.020	.018		
2.0	.195	.156	.123	.167	.134	.106	.114	.093	.074	.066	.054	.043	.021	.017	.014		
3.0	.187	.138	.099	.160	.119	.086	.110	.083	.060	.064	.048	.036	.020	.016	.012		
4.0	.179	.125	.083	.154	.108	.072	.106	.075	.051	.061	.044	.030	.020	.014	.010		
5.0	.172	.114	.072	.148	.099	.063	.102	.069	.044	.059	.041	.026	.019	.013	.009		
6.0	.165	.106	.064	.142	.092	.056	.098	.064	.039	.057	.038	.023	.018	.012	.008		
7.0	.158	.099	.058	.136	.086	.050	.094	.060	.036	.055	.036	.021	.018	.012	.007		
8.0	.152	.093	.053	.131	.081	.046	.091	.057	.033	.053	.034	.020	.017	.011	.007		
9.0	.146	.089	.050	.126	.077	.043	.087	.054	.031	.051	.032	.018	.016	.010	.006		
10.0	.140	.084	.047	.121	.073	.041	.084	.052	.029	.049	.030	.017	.016	.010	.006		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2025-04-18

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 10.375m [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	20.8	22.2	21.1	22.5	22.7	20.8	22.3	21.1	22.5	22.8
3H	22.1	23.5	22.5	23.8	24.1	22.2	23.5	22.5	23.8	24.1
4H	22.6	23.9	23.0	24.2	24.5	22.7	24.0	23.1	24.3	24.6
6H	22.8	24.0	23.2	24.4	24.7	23.0	24.2	23.4	24.5	24.8
8H	22.9	24.0	23.3	24.4	24.7	23.0	24.2	23.4	24.5	24.9
12H	22.9	24.0	23.3	24.3	24.7	23.0	24.1	23.4	24.5	24.9
4H 2H	21.3	22.6	21.7	22.9	23.2	21.4	22.6	21.7	22.9	23.3
3H	22.9	24.0	23.3	24.3	24.7	22.9	24.0	23.3	24.4	24.8
4H	23.4	24.4	23.9	24.8	25.2	23.5	24.5	24.0	24.9	25.3
6H	23.8	24.7	24.2	25.1	25.5	23.9	24.8	24.4	25.2	25.6
8H	23.9	24.7	24.3	25.1	25.6	24.0	24.8	24.5	25.3	25.7
12H	23.9	24.6	24.4	25.1	25.5	24.0	24.8	24.5	25.2	25.7
8H 4H	23.6	24.5	24.1	24.9	25.3	23.7	24.6	24.2	25.0	25.4
6H	24.1	24.8	24.6	25.2	25.7	24.2	24.9	24.7	25.4	25.9
8H	24.2	24.8	24.7	25.3	25.8	24.4	25.0	24.9	25.5	26.0
12H	24.3	24.8	24.8	25.3	25.8	24.4	25.0	25.0	25.5	26.0
12H 4H	23.6	24.4	24.1	24.8	25.3	23.7	24.5	24.2	24.9	25.4
6H	24.1	24.7	24.6	25.2	25.7	24.2	24.8	24.7	25.3	25.8
8H	24.3	24.8	24.8	25.3	25.8	24.4	24.9	24.9	25.4	26.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 3665 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 4.5$ )

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JYH  
 Test Date: 2025-04-18

g Range: 0 - 180DEG  
 g Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 65.0%  
 Test Distance: 10.375m [K=1.0000]  
 Remarks:

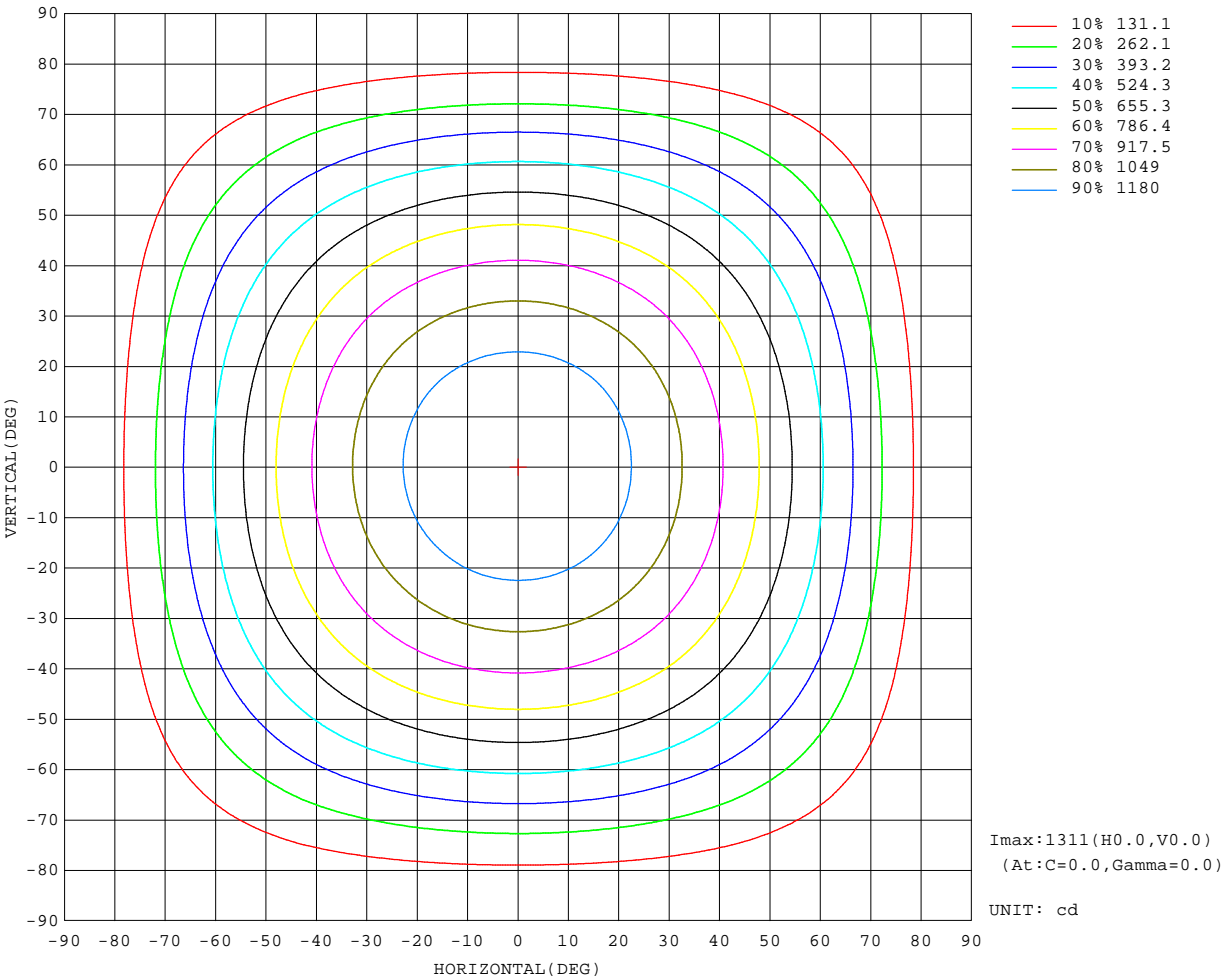
## UTILIZATION FACTORS TABLE

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	49	64	55	48	41
1.00	76	65	58	75	64	58	72	65	57	50
1.25	83	73	66	81	72	65	78	70	64	57
1.50	88	78	72	86	77	71	83	75	70	62
2.00	95	87	80	93	85	79	89	83	77	69
2.50	99	91	85	96	90	84	92	87	82	73
3.00	102	95	90	100	94	89	95	90	86	77
4.00	106	100	96	103	98	94	99	95	91	82
5.00	108	104	100	106	101	98	101	97	94	84
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:2025-04-18

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

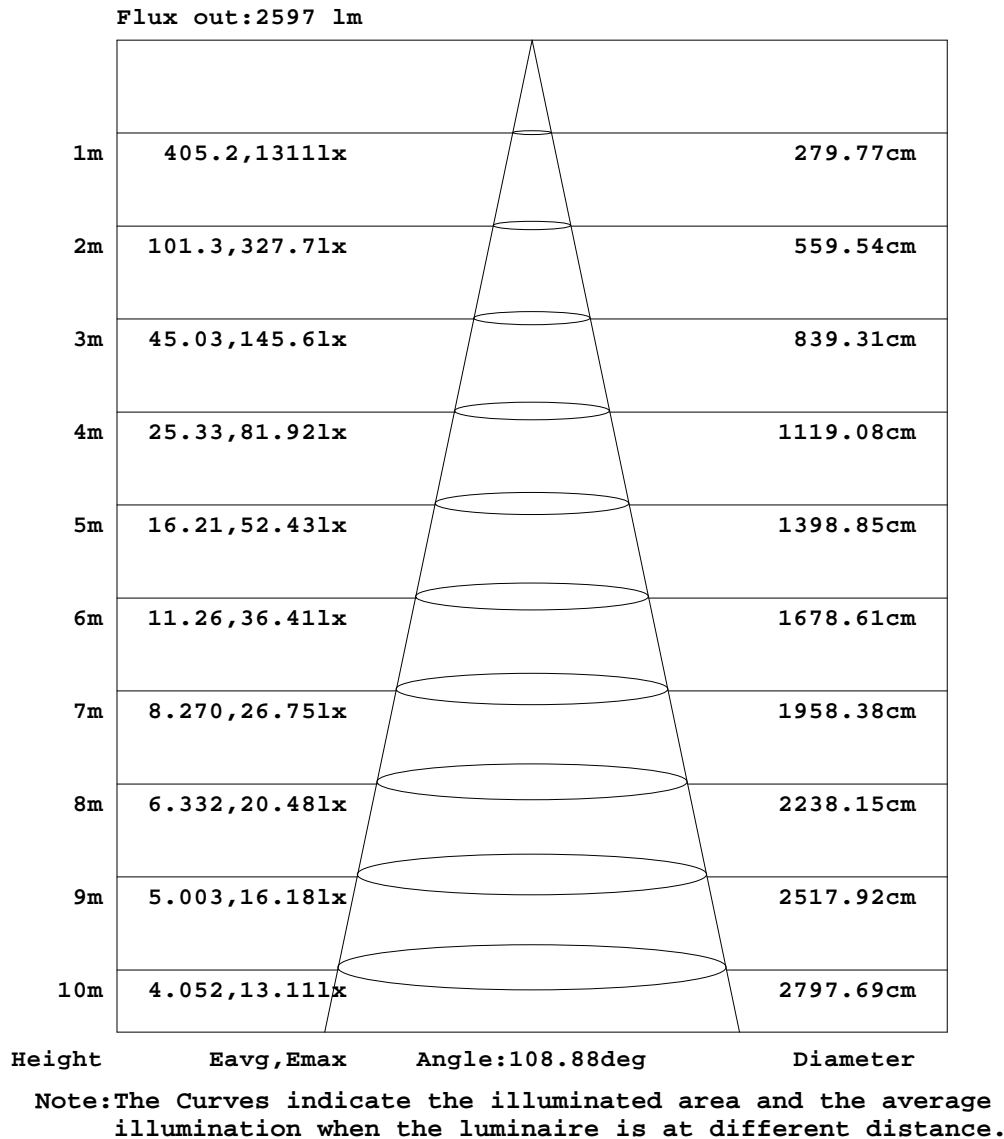


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2025-04-18

deg Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [K=1.0000]  
Remarks:



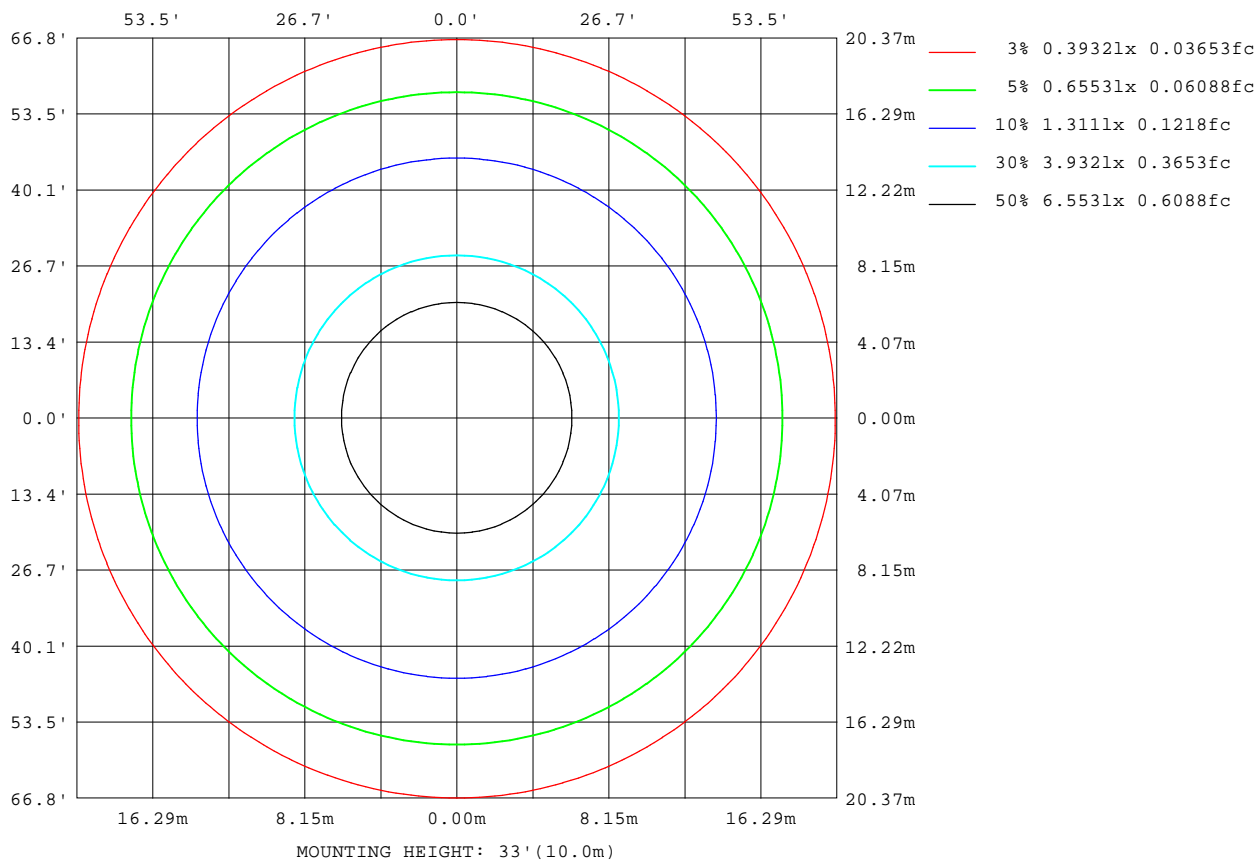
## AAI Figure



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JYH  
Test Date: 2025-04-18

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 10.375m [K=1.0000]  
Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2025-04-18

g Range: 0 - 180DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:221.0V I:0.1303A P:26.97W PF:0.9366 Freq:49.99Hz Lamp Flux:3729.42x1 lm		
NAME: LLS-LS40FDXWS1200(H)-T28NW8N-DC	TYPE:	WEIGHT:
SPEC.:	DIM.: 1200*38mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*38mm	Shielding Angle:

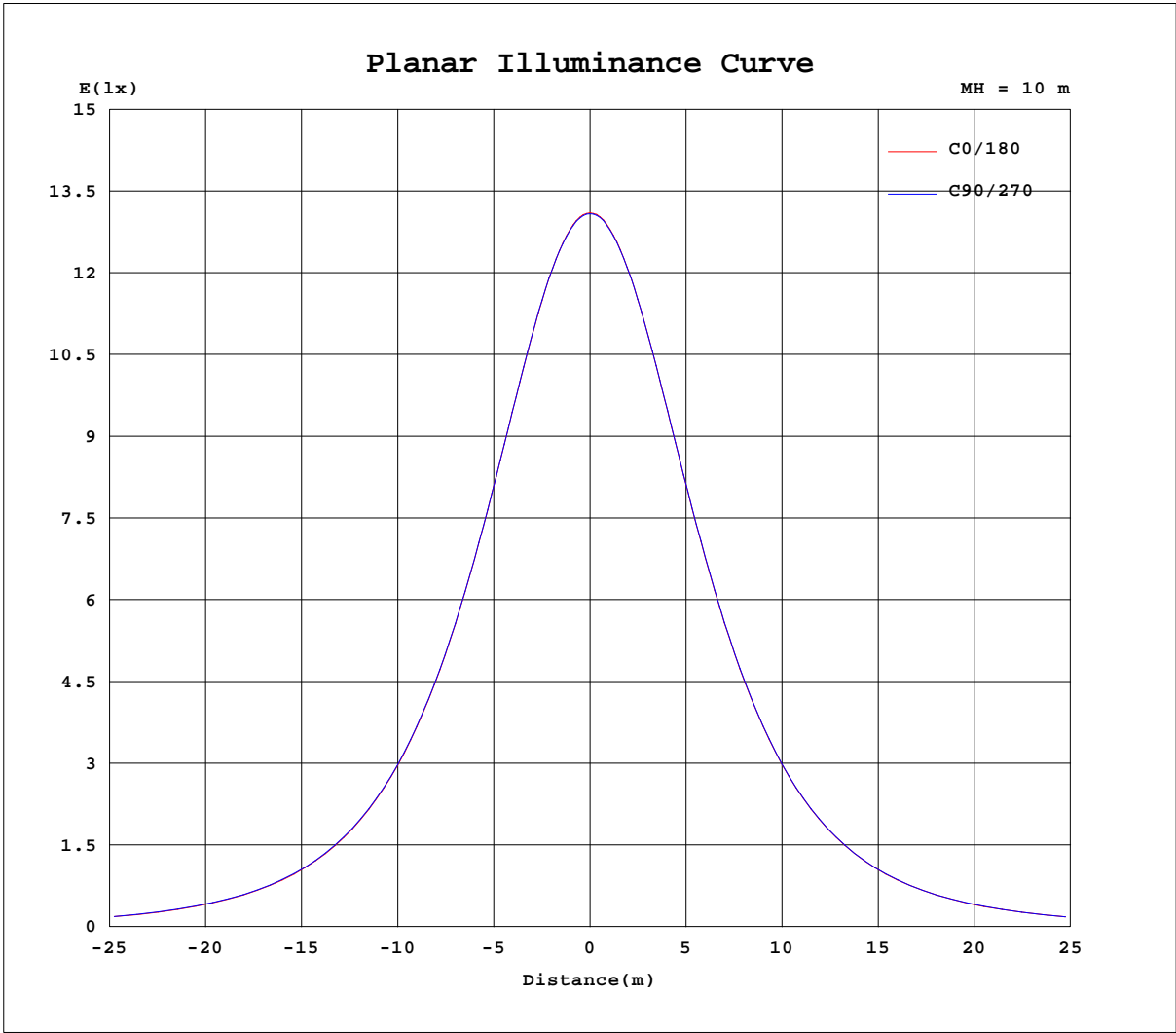
AvgL	cd/m2
L_0~180(65)av	33544
L_0~180(75)av	25571
L_0~180(85)av	10791
L_90~270(65)av	33845
L_90~270(75)av	26414
L_90~270(85)av	12347
L_45(65)av	33863
L_45(75)av	26432
L_45(85)av	12379

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JYH  
Test Date:2025-04-18

g Range: 0 - 180DEG  
g Interval: 1.0DEG  
g Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.375m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG	C Range: 0 - 180DEG
C Interval: 45.0DEG	C Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Temperature:25.3DEG	Humidity:65.0%
Operators:JYH	Test Distance:10.375m [K=1.0000]
Test Date:2025-04-18	Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	1311	1310	1309	1308	1311	1310	1309	1308										
5	1303	1302	1302	1301	1305	1304	1303	1303										
10	1283	1283	1283	1282	1285	1285	1285	1284										
15	1251	1253	1251	1251	1253	1254	1253	1253										
20	1206	1206	1206	1205	1209	1210	1209	1209										
25	1150	1151	1151	1150	1154	1156	1155	1155										
30	1085	1087	1086	1085	1089	1091	1090	1091										
35	1011	1014	1013	1013	1015	1018	1017	1017										
40	929	933	932	931	933	936	935	935										
45	840	844	844	843	844	846	845	846										
50	745	749	749	748	747	749	749	749										
55	643	649	648	648	644	646	646	646										
60	536	542	542	541	536	538	538	538										
65	426	433	433	432	424	426	425	426										
70	314	320	323	320	306	312	309	312										
75	202	211	213	210	195	200	197	200										
80	104	113	113	112	98.9	101	100	101										
85	30.1	37.1	37.3	36.9	26.4	27.6	27.3	27.9										
90	5.47	5.96	5.97	5.95	4.39	4.52	4.49	4.51										
95	6.90	7.12	7.08	7.12	5.56	5.62	5.63	5.61										
100	8.66	8.92	8.88	8.92	7.17	7.23	7.26	7.23										
105	10.6	10.9	10.9	10.9	8.97	9.07	9.08	9.04										
110	12.7	13.0	12.9	13.0	10.9	11.0	11.0	11.0										
115	14.9	15.2	15.1	15.2	12.9	13.0	13.1	13.0										
120	17.1	17.5	17.4	17.5	15.1	15.2	15.3	15.2										
125	19.4	19.8	19.8	19.8	17.3	17.6	17.6	17.5										
130	21.7	22.2	22.2	22.2	19.7	20.0	20.0	20.0										
135	24.0	24.6	24.5	24.6	22.3	22.6	22.6	22.5										
140	26.2	26.8	26.7	26.8	24.7	25.0	25.0	25.0										
145	28.3	29.0	28.9	28.9	27.1	27.5	27.5	27.4										
150	30.4	31.0	31.0	31.0	29.5	29.7	29.7	29.7										
155	32.5	33.0	32.9	33.0	31.7	31.8	31.8	31.8										
160	34.4	34.8	34.7	34.7	33.8	33.8	33.8	33.7										
165	36.3	36.3	36.2	36.2	35.7	35.5	35.5	35.5										
170	37.8	37.6	37.5	37.5	37.4	36.9	36.9	36.9										
175	38.7	38.4	38.3	38.4	38.6	38.1	38.1	38.0										
180	39.3	38.9	38.8	38.8	39.3	38.8	38.8	38.8										

C Range: 0 - 360DEGC Interval: 45.0DEGTest Speed: HIGHTemperature:25.3DEGOperators:JYHTest Date:2025-04-18

g Range: 0 - 180DEGInterval: 1.0DEGTest System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362Humidity:65.0%Test Distance:10.375m [K=1.0000]Remarks: