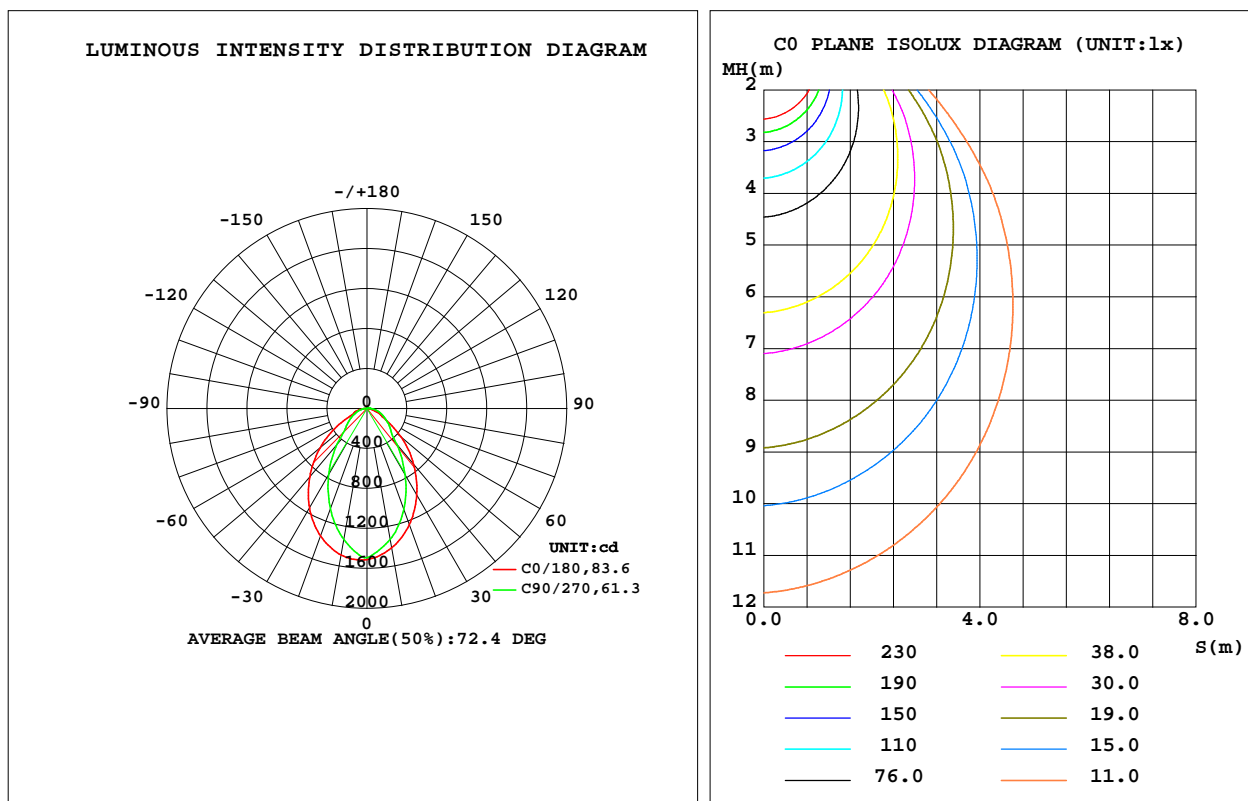


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXBX1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXBX1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 62.88 lm/W			
MODEL	LLS-M60BDXBX1200	I _{max} (cd)	1517	S/MH(C0/180)	1.03
NOMINAL POWER(W)	37	LOR(%)	100.0	S/MH(C90/270)	0.87
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	2414.4	h UP,DN(C0-180)	1.6,47.8
NOMINAL FLUX(lm)	2414.45	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.6,50.0
LAMPS INSIDE	1	h up(%)	2.2	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220	h down(%)	97.8	CIBSE SHR MAX	1.05



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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:

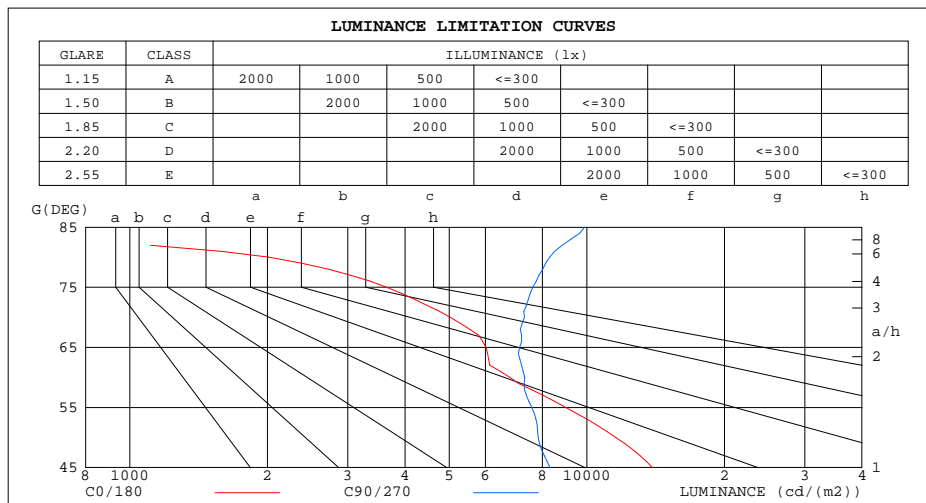
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1418	1369	1332	1360	1489	1381	1332	1356	0- 10	136.5	136.5	5.66,5.66
20	1239	1149	1077	1143	1358	1154	1071	1126	10- 20	359.2	495.7	20.5,20.5
30	996.8	871.4	763.8	870.8	1152	880.9	769.1	850.0	20- 30	474.0	969.7	40.2,40.2
40	726.6	584.9	463.7	587.3	890.9	603.8	468.1	573.2	30- 40	469.1	1439	59.6,59.6
50	447.0	340.6	301.9	349.0	612.4	359.1	268.4	330.2	40- 50	374.2	1813	75.1,75.1
60	203.7	207.7	219.3	213.3	325.4	206.9	182.2	193.3	50- 60	259.4	2072	85.8,85.8
70	103.1	116.2	150.0	122.8	138.5	119.5	112.6	109.7	60- 70	164.3	2237	92.6,92.6
80	20.97	49.52	86.43	57.48	72.64	53.38	56.71	46.13	70- 80	93.30	2330	96.5,96.5
90	1.432	15.00	37.86	15.34	3.662	3.470	14.32	2.066	80- 90	31.13	2361	97.8,97.8
100	1.968	13.17	34.11	13.74	0.7780	1.054	1.338	1.133	90-100	10.43	2372	98.2,98.2
110	3.215	12.20	10.98	11.97	1.958	1.856	2.139	1.888	100-110	6.898	2378	98.5,98.5
120	6.058	11.39	9.013	10.78	3.429	2.856	2.860	2.958	110-120	5.881	2384	98.8,98.8
130	9.304	11.29	8.739	10.13	5.883	4.273	3.587	4.275	120-130	5.938	2390	99,99
140	12.50	11.41	10.76	9.805	8.495	6.437	4.647	5.787	130-140	6.087	2396	99.3,99.3
150	15.42	13.51	13.63	10.11	11.45	9.263	6.235	6.698	140-150	6.023	2402	99.5,99.5
160	18.51	17.74	17.33	14.26	15.19	12.77	9.951	7.973	150-160	5.700	2408	99.7,99.7
170	21.23	21.86	19.86	17.82	19.60	17.25	15.07	13.03	160-170	4.518	2413	99.9,99.9
180	22.71	22.77	20.38	19.18	22.94	22.62	20.49	19.12	170-180	1.855	2414	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:2020-09-15

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:

LUMINANCE LIMITATION CURVES

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXBX1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXBX1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	515	9883
80	2013	8296
75	3643	7619
70	5025	7308
65	6019	7126
60	6789	7311
55	9008	7577
50	11591	7828
45	13924	8304

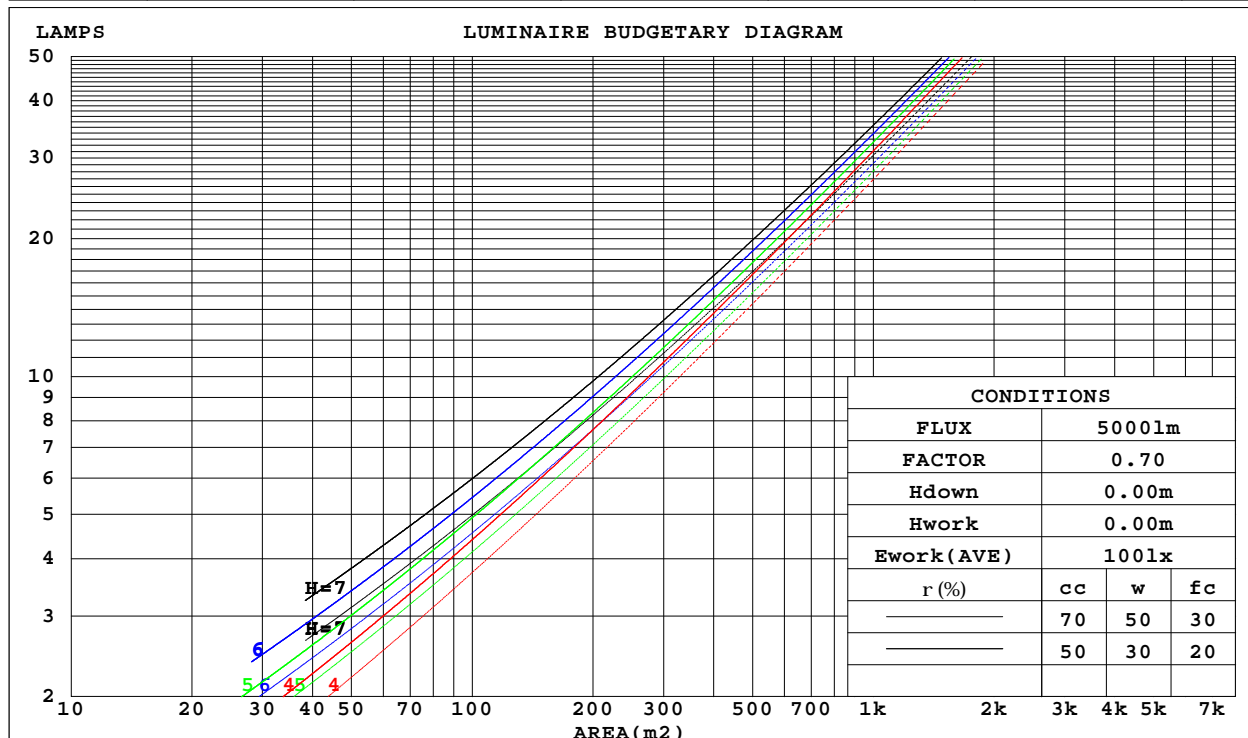
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXB1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXB1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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:

WEC AND CCEC

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXB1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXB1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:

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	.260	.148	.047	.253	.144	.046	.238	.137	.044	.225	.130	.042	.213	.124	.040	
2.0	.246	.135	.041	.240	.132	.041	.227	.126	.039	.216	.121	.038	.205	.116	.037	
3.0	.230	.123	.037	.224	.120	.036	.214	.116	.035	.203	.111	.034	.194	.107	.033	
4.0	.215	.112	.033	.210	.110	.032	.200	.106	.032	.191	.103	.031	.183	.099	.030	
5.0	.201	.102	.030	.196	.101	.029	.188	.098	.029	.180	.095	.028	.172	.092	.028	
6.0	.188	.094	.027	.184	.093	.027	.176	.090	.026	.169	.088	.026	.162	.085	.025	
7.0	.176	.087	.025	.173	.086	.025	.166	.084	.024	.159	.082	.024	.153	.080	.023	
8.0	.166	.081	.023	.163	.080	.023	.157	.078	.022	.151	.076	.022	.145	.075	.022	
9.0	.157	.076	.021	.154	.075	.021	.148	.073	.021	.143	.072	.021	.138	.070	.020	
10.0	.148	.071	.020	.146	.070	.020	.141	.069	.019	.136	.067	.019	.131	.066	.019	

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	.207	.207	.207	.177	.177	.177	.121	.121	.121	.069	.069	.069	.022	.022	.022	
1.0	.194	.174	.155	.166	.149	.134	.113	.102	.092	.065	.059	.054	.021	.019	.017	
2.0	.183	.149	.121	.157	.128	.104	.108	.089	.073	.062	.052	.043	.020	.017	.014	
3.0	.174	.131	.097	.149	.113	.084	.102	.079	.059	.059	.046	.035	.019	.015	.011	
4.0	.166	.117	.081	.142	.102	.070	.098	.071	.049	.057	.041	.029	.018	.013	.010	
5.0	.158	.107	.069	.136	.092	.060	.093	.065	.042	.054	.038	.025	.017	.012	.008	
6.0	.151	.098	.060	.130	.085	.052	.089	.059	.037	.052	.035	.022	.017	.011	.007	
7.0	.144	.091	.054	.124	.079	.047	.086	.055	.033	.050	.033	.020	.016	.011	.007	
8.0	.138	.085	.049	.119	.074	.042	.082	.052	.030	.048	.031	.018	.016	.010	.006	
9.0	.133	.080	.045	.114	.070	.039	.079	.049	.028	.046	.029	.017	.015	.009	.005	
10.0	.127	.076	.042	.110	.066	.036	.076	.046	.026	.044	.027	.015	.014	.009	.005	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm											
NAME: LLS-M60BDXBX1200						TYPE:		WEIGHT:			
SPEC.:LLS-M60BDXBX1200-T37NW8B-DC						DIM.: 1200*50*45mm		SERIAL No.:			
MFR.: COLORS						SUR.:1200*50mm		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	16.2	17.5	16.5	17.8	18.0	15.5	16.8	15.8	17.0	17.2	
	3H	16.9	18.1	17.3	18.4	18.7	16.9	18.1	17.2	18.3	18.6
	4H	17.1	18.3	17.5	18.5	18.8	17.6	18.7	17.9	19.0	19.3
	6H	17.2	18.2	17.5	18.5	18.8	18.3	19.3	18.6	19.6	20.0
	8H	17.1	18.2	17.5	18.5	18.8	18.6	19.6	19.0	19.9	20.3
	12H	17.1	18.1	17.5	18.4	18.7	18.9	19.9	19.3	20.2	20.6
4H	2H	16.5	17.6	16.8	17.9	18.2	15.9	17.0	16.2	17.3	17.6
	3H	17.4	18.4	17.8	18.7	19.1	17.5	18.4	17.8	18.8	19.1
	4H	17.7	18.6	18.1	19.0	19.3	18.3	19.2	18.7	19.6	19.9
	6H	17.8	18.6	18.3	19.0	19.4	19.2	20.0	19.6	20.3	20.7
	8H	17.8	18.6	18.3	19.0	19.4	19.6	20.3	20.0	20.7	21.1
	12H	17.8	18.5	18.2	18.9	19.3	20.0	20.6	20.4	21.1	21.5
8H	4H	17.9	18.6	18.3	19.0	19.5	18.5	19.2	18.9	19.6	20.0
	6H	18.1	18.7	18.6	19.2	19.7	19.5	20.1	19.9	20.5	21.0
	8H	18.2	18.7	18.6	19.2	19.6	20.0	20.5	20.5	21.0	21.5
	12H	18.1	18.6	18.6	19.1	19.6	20.5	20.9	21.0	21.4	21.9
12H	4H	17.9	18.6	18.4	19.0	19.5	18.4	19.1	18.9	19.5	20.0
	6H	18.2	18.7	18.7	19.2	19.7	19.5	20.0	20.0	20.5	21.0
	8H	18.2	18.7	18.8	19.2	19.7	20.0	20.5	20.5	21.0	21.5
Variations with the observer position at spacings:											
S = 1.0H	+ 0.4 / - 0.5					+ 0.3 / - 0.3					
1.5H	+ 0.5 / - 0.5					+ 0.1 / - 0.2					
2.0H	+ 1.5 / - 1.0					+ 0.2 / - 0.2					

CIE Pub.117, 2414 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.1)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXBX1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXBX1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:

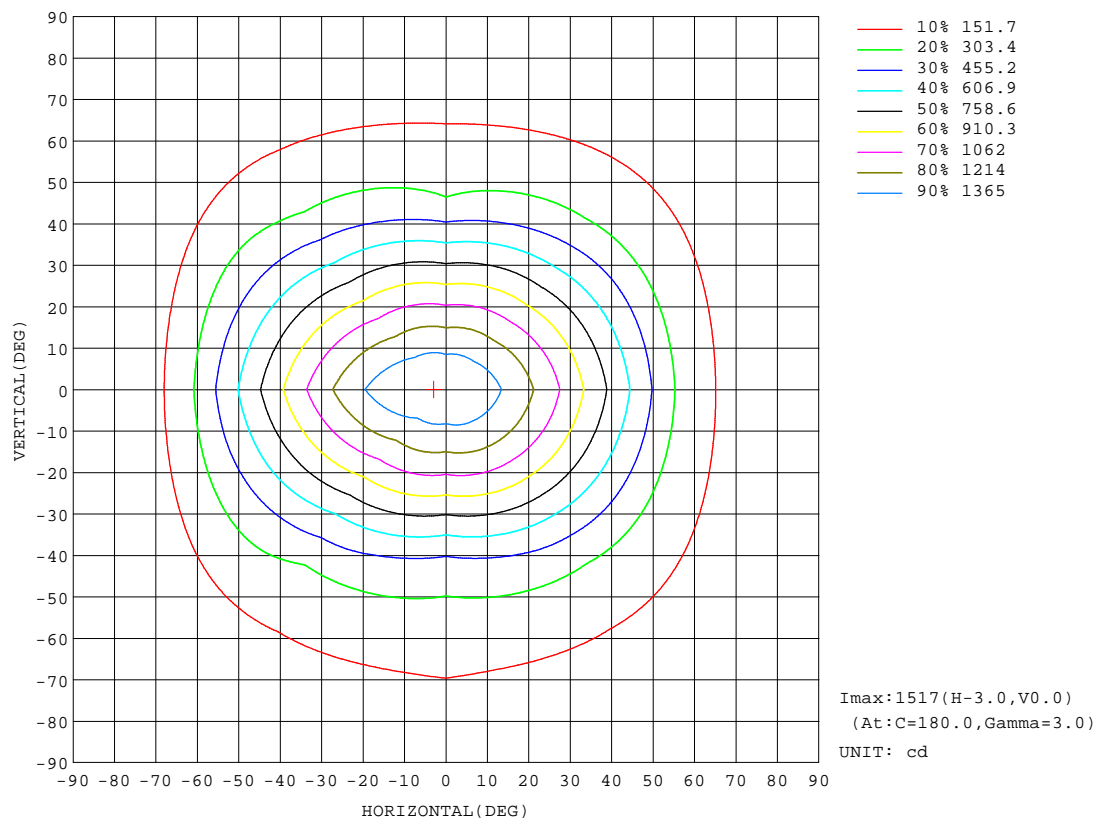
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	56	51	66	56	50	65	56	50	45
0.80	76	66	60	75	66	60	73	65	59	53
1.00	83	74	68	82	73	68	80	74	67	61
1.25	89	81	75	88	80	74	85	78	73	67
1.50	94	86	80	92	85	79	89	83	78	71
2.00	99	92	87	97	91	86	94	89	84	77
2.50	102	96	91	100	94	90	96	92	88	80
3.00	105	99	95	103	98	93	99	95	91	83
4.00	108	103	100	106	102	98	101	98	95	86
5.00	110	106	103	108	104	101	103	100	98	88
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:2020-09-15

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

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXB1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXB1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:

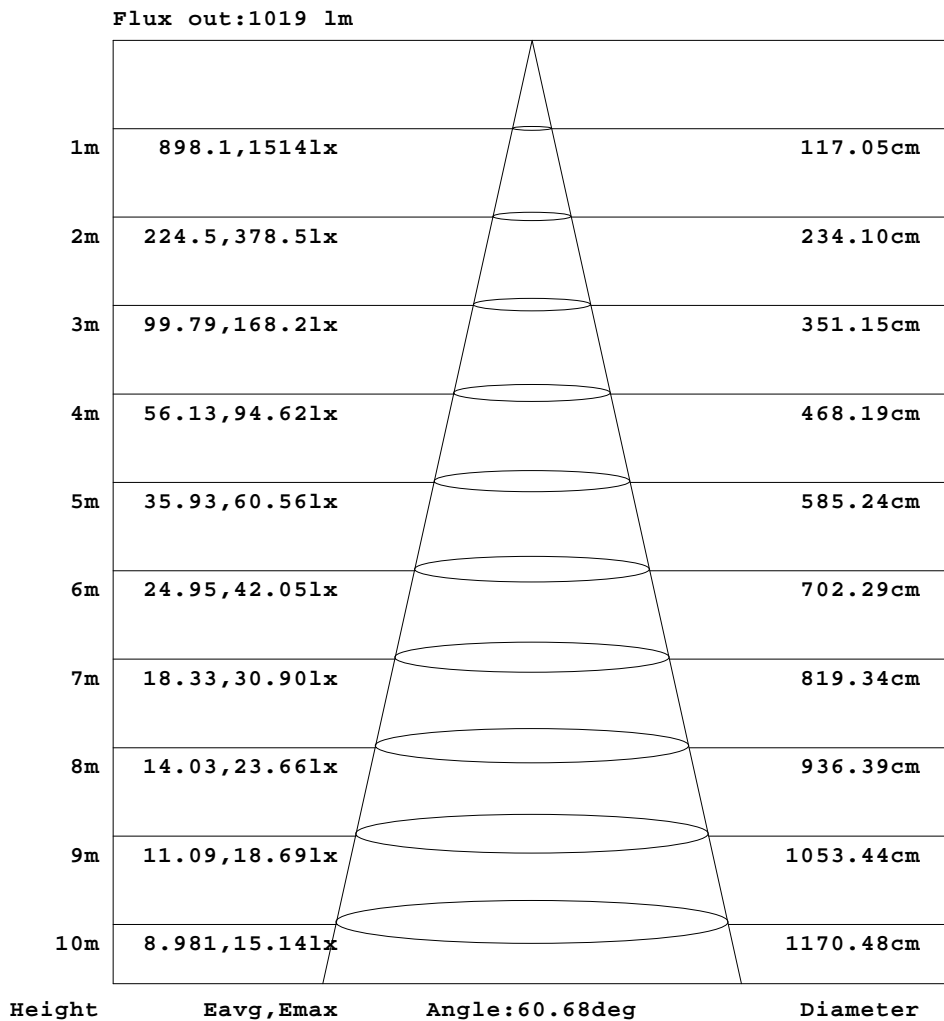


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

deg 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

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXB1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXB1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:



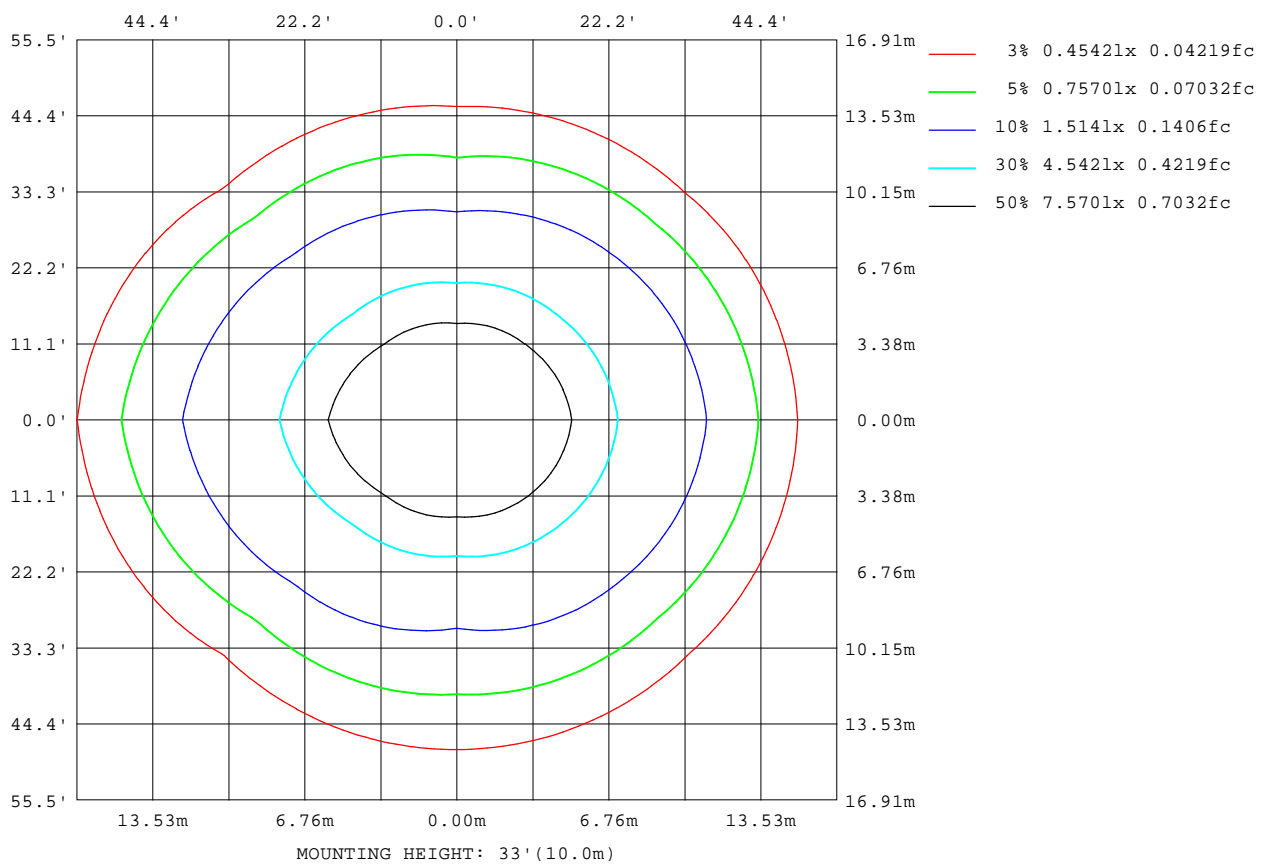
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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

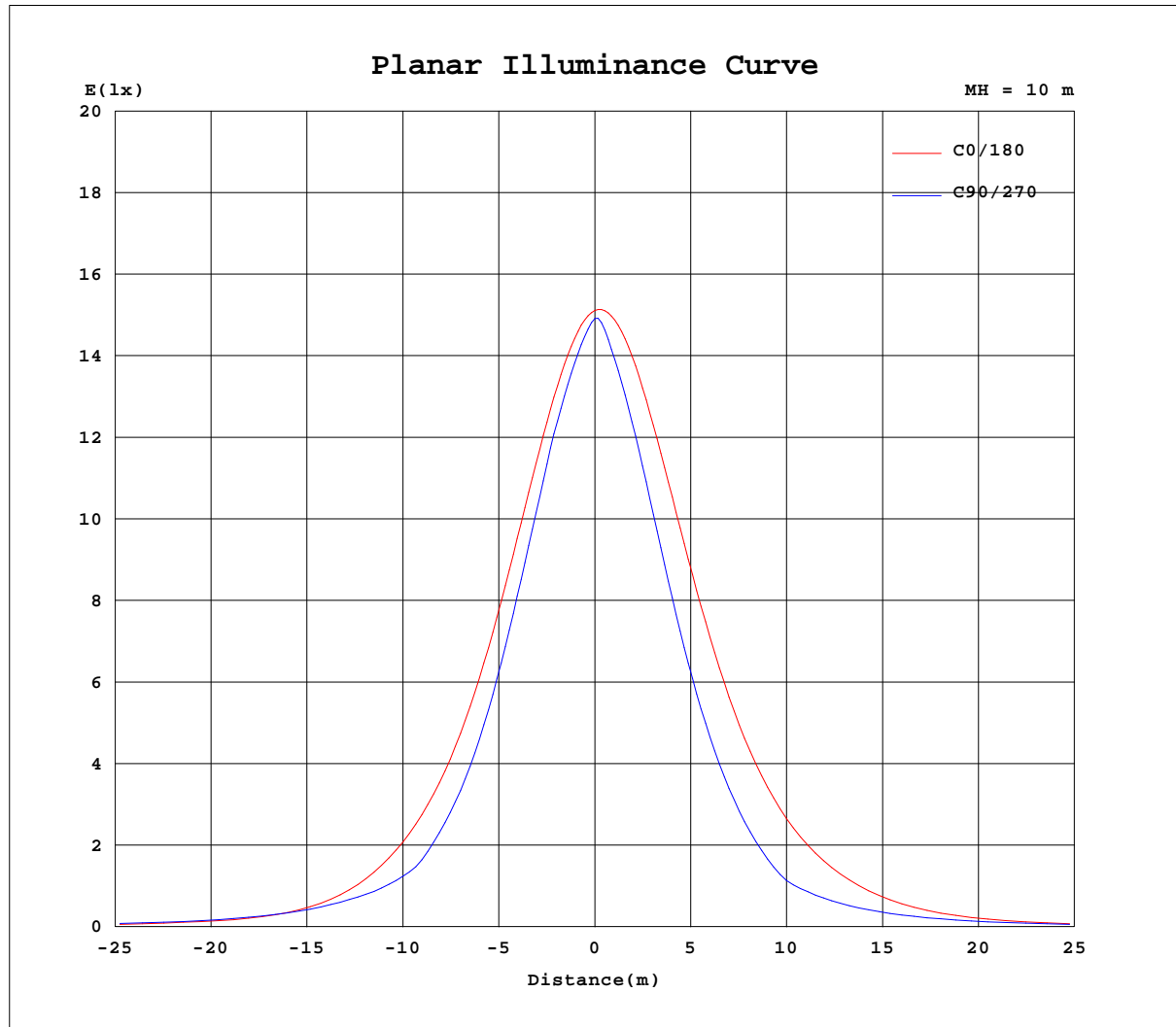
Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXBX1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXBX1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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: 2020-09-15

deg Range: 0 - 180DEG
deg 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

Test:U:220.0V I:0.1800A P:38.40W PF:0.9277 Freq:49.99Hz Lamp Flux:2414.45x1 lm		
NAME: LLS-M60BDXB1200	TYPE:	WEIGHT:
SPEC.:LLS-M60BDXB1200-T37NW8B-DC	DIM.: 1200*50*45mm	SERIAL No.:
MFR.: COLORS	SUR.:1200*50mm	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	1512	1505	1492	1490	1512	1505	1492	1490										
5	1477	1450	1422	1438	1515	1467	1433	1445										
10	1418	1369	1332	1360	1489	1381	1332	1356										
15	1337	1271	1214	1261	1434	1276	1211	1249										
20	1239	1149	1077	1143	1358	1154	1071	1126										
25	1124	1014	924	1011	1263	1021	921	991										
30	997	871	764	871	1152	881	769	850										
35	863	726	609	728	1026	740	618	709										
40	727	585	464	587	891	604	468	573										
45	591	454	352	464	752	475	323	446										
50	447	341	302	349	612	359	268	330										
55	310	262	261	265	472	261	223	242										
60	204	208	219	213	325	207	182	193										
65	153	158	181	165	205	160	145	149										
70	103	116	150	123	139	119	113	110										
75	56.6	81.8	118	88.6	122	84.3	83.2	75.8										
80	21.0	49.5	86.4	57.5	72.6	53.4	56.7	46.1										
85	2.69	21.1	51.7	27.5	33.7	25.6	32.4	19.6										
90	1.43	15.0	37.9	15.3	3.66	3.47	14.3	2.07										
95	1.51	14.2	37.5	14.5	0.44	0.90	1.40	0.87										
100	1.97	13.2	34.1	13.7	0.78	1.05	1.34	1.13										
105	2.56	12.5	12.7	12.8	1.32	1.45	1.77	1.46										
110	3.22	12.2	11.0	12.0	1.96	1.86	2.14	1.89										
115	4.52	11.7	9.78	11.3	2.57	2.33	2.52	2.43										
120	6.06	11.4	9.01	10.8	3.43	2.86	2.86	2.96										
125	7.70	11.3	8.69	10.4	4.61	3.47	3.20	3.52										
130	9.30	11.3	8.74	10.1	5.88	4.27	3.59	4.27										
135	10.9	11.1	9.26	9.91	7.16	5.30	4.02	5.09										
140	12.5	11.4	10.8	9.81	8.49	6.44	4.65	5.79										
145	13.9	12.1	12.5	8.99	9.95	7.76	5.43	6.34										
150	15.4	13.5	13.6	10.1	11.4	9.26	6.23	6.70										
155	17.1	15.5	15.5	11.9	13.2	10.9	7.68	7.04										
160	18.5	17.7	17.3	14.3	15.2	12.8	9.95	7.97										
165	19.7	19.9	18.9	15.9	17.3	14.9	12.4	9.85										
170	21.2	21.9	19.9	17.8	19.6	17.3	15.1	13.0										
175	22.5	23.0	20.4	18.8	21.5	20.0	17.8	16.4										
180	22.7	22.8	20.4	19.2	22.9	22.6	20.5	19.1										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-09-15

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: