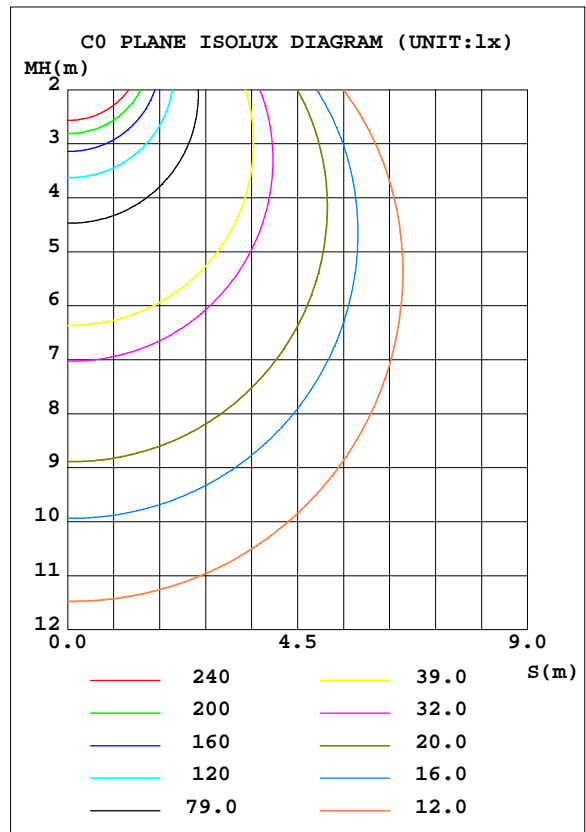
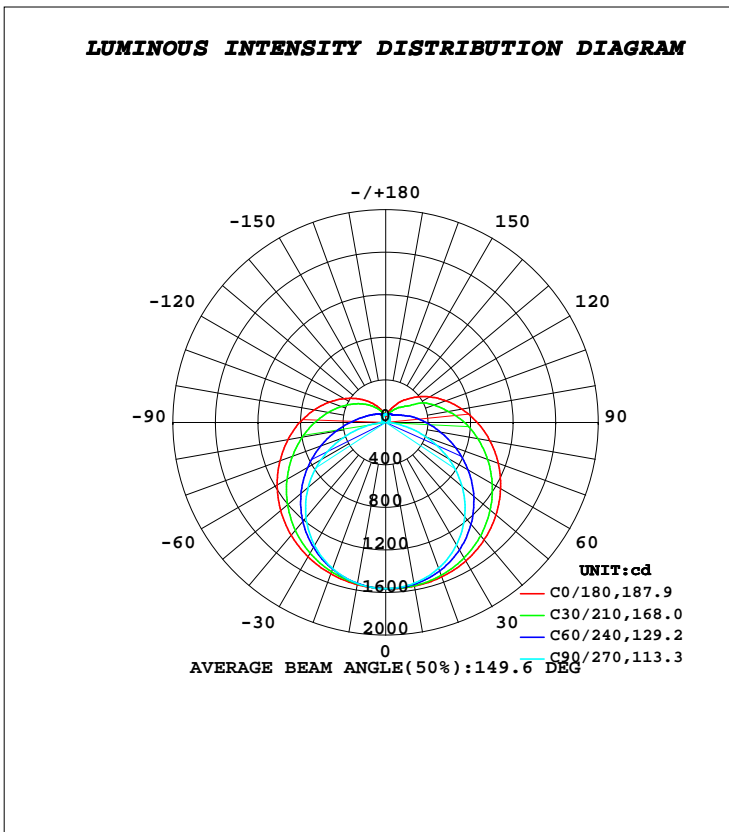


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 146.79 lm/W			
MODEL		I _{max} (cd)	1566	S/MH(C0/180)	1.45
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	7985.3	η UP, DN(C0-180)	10.6,39.4
NOMINAL FLUX(lm)	7985.28	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	10.7,39.4
LAMPS INSIDE	1	η up(%)	21.2	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220	η down(%)	78.8	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

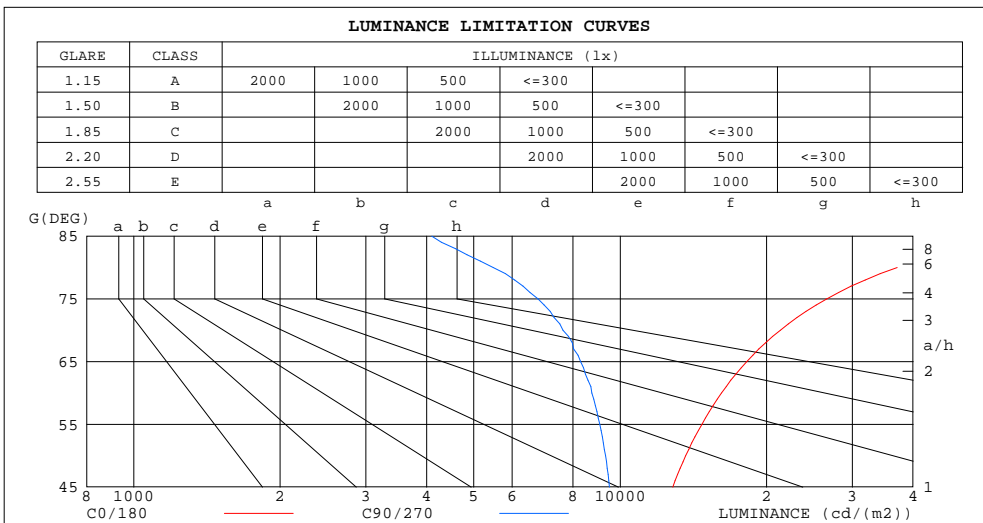
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1563	1553	1536	1536	1548	1538	1537	1557	0- 10	148.4	148.4	1.86,1.86
20	1545	1508	1459	1477	1514	1480	1462	1518	10- 20	431.1	579.5	7.26,7.26
30	1505	1429	1331	1386	1460	1389	1338	1447	20- 30	672.8	1252	15.7,15.7
40	1441	1320	1157	1267	1384	1268	1166	1346	30- 40	850.6	2103	26.3,26.3
50	1354	1183	938.4	1124	1290	1124	952.5	1219	40- 50	948.2	3051	38.2,38.2
60	1247	1027	684.5	965.2	1178	959.6	702.2	1068	50- 60	960.3	4011	50.2,50.2
70	1127	861.6	408.2	803.6	1058	792.3	431.0	902.3	60- 70	893.2	4905	61.4,61.4
80	995.2	701.5	149.1	651.6	933.8	634.5	168.7	728.3	70- 80	766.7	5671	71,71
90	861.7	562.2	21.02	520.1	809.1	502.0	27.27	569.7	80- 90	618.6	6290	78.8,78.8
100	729.1	439.3	23.20	413.6	684.5	397.0	28.49	493.7	90-100	499.6	6789	85,85
110	601.5	338.4	28.08	327.4	564.3	314.7	32.87	386.4	100-110	392.8	7182	89.9,89.9
120	483.0	253.8	34.65	258.6	450.7	249.7	39.01	299.7	110-120	293.7	7476	93.6,93.6
130	374.3	176.5	41.48	202.4	350.1	196.8	45.05	200.9	120-130	204.8	7681	96.2,96.2
140	279.8	140.2	51.12	157.0	260.8	153.7	53.26	149.7	130-140	135.3	7816	97.9,97.9
150	192.8	110.9	60.60	120.9	185.9	120.1	62.06	122.3	140-150	86.64	7903	99,99
160	126.7	91.03	69.20	95.42	127.6	95.61	69.95	94.70	150-160	50.11	7953	99.6,99.6
170	72.52	81.07	76.08	80.95	82.41	81.03	76.25	83.34	160-170	25.04	7978	99.9,99.9
180	61.71	77.66	79.99	78.69	61.96	77.57	79.89	78.74	170-180	7.394	7985	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	69004	4100
80	37124	5486
75	26593	6784
70	21339	7626
65	18215	8298
60	16161	8747
55	14716	9082
50	13641	9327
45	12824	9511

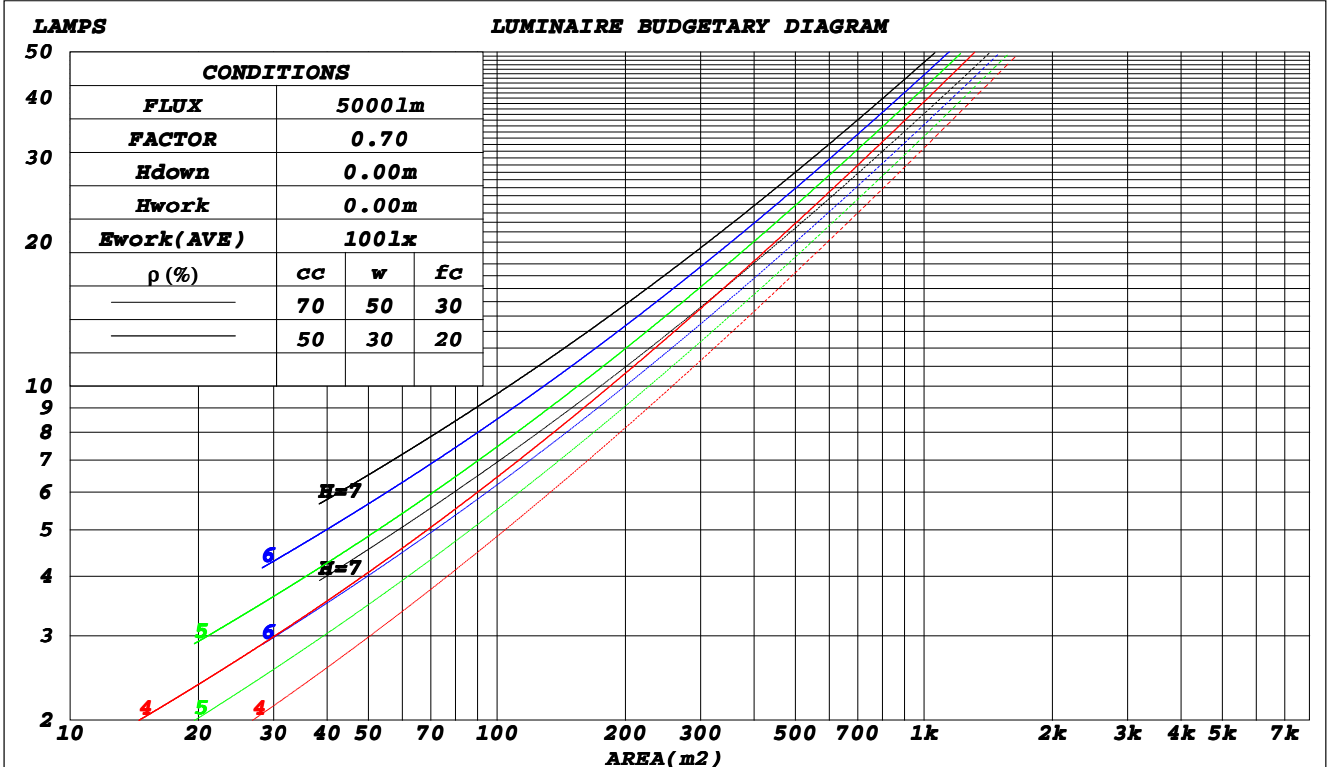
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.14	1.14	1.14	1.09	1.09	1.09	.99	.99	.99	.91	.91	.91	.83	.83	.83	.79
1.0	.95	.89	.84	.90	.85	.81	.82	.78	.74	.74	.71	.68	.67	.65	.63	.59
2.0	.81	.73	.66	.77	.70	.64	.70	.64	.59	.63	.59	.54	.57	.54	.50	.47
3.0	.70	.61	.54	.67	.58	.52	.61	.54	.48	.55	.49	.45	.50	.45	.41	.38
4.0	.61	.52	.45	.58	.50	.43	.53	.46	.40	.48	.42	.37	.44	.39	.35	.32
5.0	.54	.45	.38	.52	.43	.37	.47	.40	.34	.43	.37	.32	.39	.34	.30	.27
6.0	.49	.39	.32	.46	.38	.31	.42	.35	.30	.39	.32	.28	.35	.30	.26	.23
7.0	.44	.35	.28	.42	.33	.27	.38	.31	.26	.35	.29	.24	.32	.27	.23	.20
8.0	.40	.31	.25	.38	.30	.24	.35	.28	.23	.32	.26	.21	.29	.24	.20	.18
9.0	.36	.28	.22	.35	.27	.22	.32	.25	.20	.30	.23	.19	.27	.22	.18	.16
10.0	.33	.25	.20	.32	.24	.19	.30	.23	.18	.27	.21	.17	.25	.20	.16	.14



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

WEC AND CCEC

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.390	.222	.070	.376	.214	.068	.350	.201	.064	.327	.188	.060	.305	.177	.057	
2.0	.336	.184	.056	.323	.178	.055	.300	.167	.052	.279	.156	.049	.259	.146	.046	
3.0	.298	.158	.047	.286	.153	.046	.265	.144	.044	.246	.135	.041	.228	.126	.039	
4.0	.267	.139	.041	.257	.135	.040	.238	.126	.038	.220	.118	.036	.204	.111	.034	
5.0	.243	.124	.036	.234	.120	.035	.216	.113	.033	.200	.106	.031	.185	.099	.030	
6.0	.222	.111	.032	.214	.108	.031	.198	.101	.030	.183	.095	.028	.169	.089	.026	
7.0	.205	.101	.029	.197	.098	.028	.183	.092	.027	.169	.087	.025	.156	.081	.024	
8.0	.190	.093	.026	.183	.090	.025	.169	.085	.024	.157	.079	.023	.145	.074	.022	
9.0	.177	.086	.024	.170	.083	.023	.158	.078	.022	.146	.073	.021	.135	.069	.020	
10.0	.165	.079	.022	.160	.077	.021	.148	.073	.020	.137	.068	.019	.127	.064	.018	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.352	.352	.352	.301	.301	.301	.205	.205	.205	.118	.118	.118	.038	.038	.038	
1.0	.349	.319	.291	.299	.273	.251	.204	.188	.173	.118	.109	.101	.038	.035	.033	
2.0	.342	.296	.257	.293	.255	.222	.201	.176	.155	.116	.103	.091	.037	.033	.030	
3.0	.335	.280	.235	.287	.241	.204	.197	.168	.143	.114	.098	.084	.037	.032	.028	
4.0	.327	.267	.221	.281	.231	.192	.193	.161	.135	.112	.094	.080	.036	.031	.026	
5.0	.319	.257	.212	.274	.223	.184	.189	.156	.130	.109	.091	.077	.035	.030	.025	
6.0	.312	.250	.205	.268	.216	.178	.185	.151	.126	.107	.089	.075	.035	.029	.025	
7.0	.305	.243	.200	.262	.211	.174	.181	.148	.123	.105	.087	.073	.034	.028	.024	
8.0	.298	.238	.196	.257	.206	.171	.178	.145	.121	.103	.085	.072	.033	.028	.024	
9.0	.292	.233	.193	.252	.202	.168	.174	.142	.119	.102	.084	.071	.033	.028	.024	
10.0	.286	.229	.190	.247	.199	.166	.171	.140	.118	.100	.083	.070	.032	.027	.023	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

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	21.5	22.8	22.0	23.4	24.0	19.1	20.5	19.7	21.0	21.6
3H	24.2	25.5	24.8	26.1	26.7	20.6	21.9	21.2	22.5	23.1
4H	25.8	27.0	26.4	27.6	28.3	21.3	22.4	21.9	23.0	23.7
6H	27.5	28.6	28.1	29.3	30.0	21.7	22.8	22.3	23.4	24.1
8H	28.5	29.6	29.1	30.2	30.9	21.8	22.8	22.4	23.5	24.2
12H	29.6	30.6	30.2	31.3	32.0	21.8	22.9	22.5	23.5	24.2
4H 2H	22.0	23.2	22.6	23.8	24.5	20.4	21.5	20.9	22.1	22.8
3H	25.1	26.1	25.7	26.7	27.5	22.2	23.2	22.8	23.9	24.6
4H	26.8	27.8	27.5	28.4	29.2	23.0	24.0	23.7	24.6	25.4
6H	28.8	29.6	29.4	30.3	31.1	23.7	24.5	24.4	25.2	26.0
8H	29.8	30.6	30.5	31.3	32.2	23.9	24.7	24.6	25.4	26.2
12H	31.1	31.8	31.8	32.5	33.4	24.0	24.8	24.8	25.5	26.3
8H 4H	27.2	28.0	27.9	28.7	29.5	24.2	25.0	24.9	25.7	26.5
6H	29.4	30.1	30.2	30.8	31.7	25.3	26.0	26.0	26.7	27.5
8H	30.7	31.3	31.5	32.1	33.0	25.8	26.4	26.5	27.1	28.0
12H	32.2	32.8	33.0	33.5	34.4	26.1	26.7	26.9	27.4	28.3
12H 4H	27.2	27.9	27.9	28.6	29.5	24.6	25.3	25.3	26.1	26.9
6H	29.5	30.2	30.3	30.9	31.8	25.9	26.5	26.7	27.3	28.2
8H	31.0	31.5	31.7	32.3	33.2	26.6	27.1	27.4	27.9	28.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.4				

CIE Pub.117, 7985 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 7.2)
 Area: 0.156 m2

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

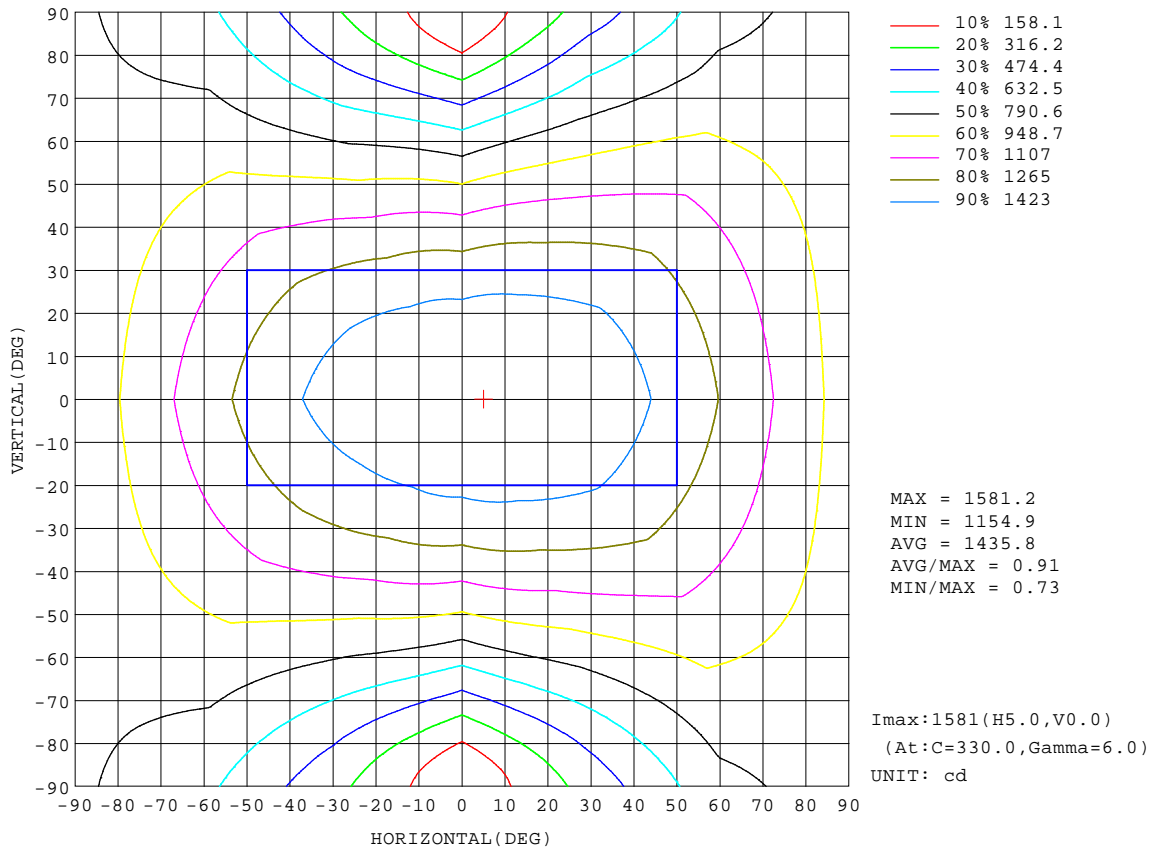
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	46	34	27	45	33	26	43	32	26	19
0.80	55	42	34	54	41	34	51	40	33	25
1.00	63	50	41	61	49	41	57	49	39	30
1.25	70	57	48	67	56	47	63	53	46	36
1.50	75	63	54	72	61	53	67	58	50	40
2.00	82	71	63	79	69	61	73	65	58	46
2.50	87	77	68	83	74	67	77	69	63	49
3.00	91	81	74	87	78	71	80	73	67	53
4.00	96	87	81	91	84	78	84	78	73	58
5.00	99	92	86	94	88	83	86	81	77	61
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	



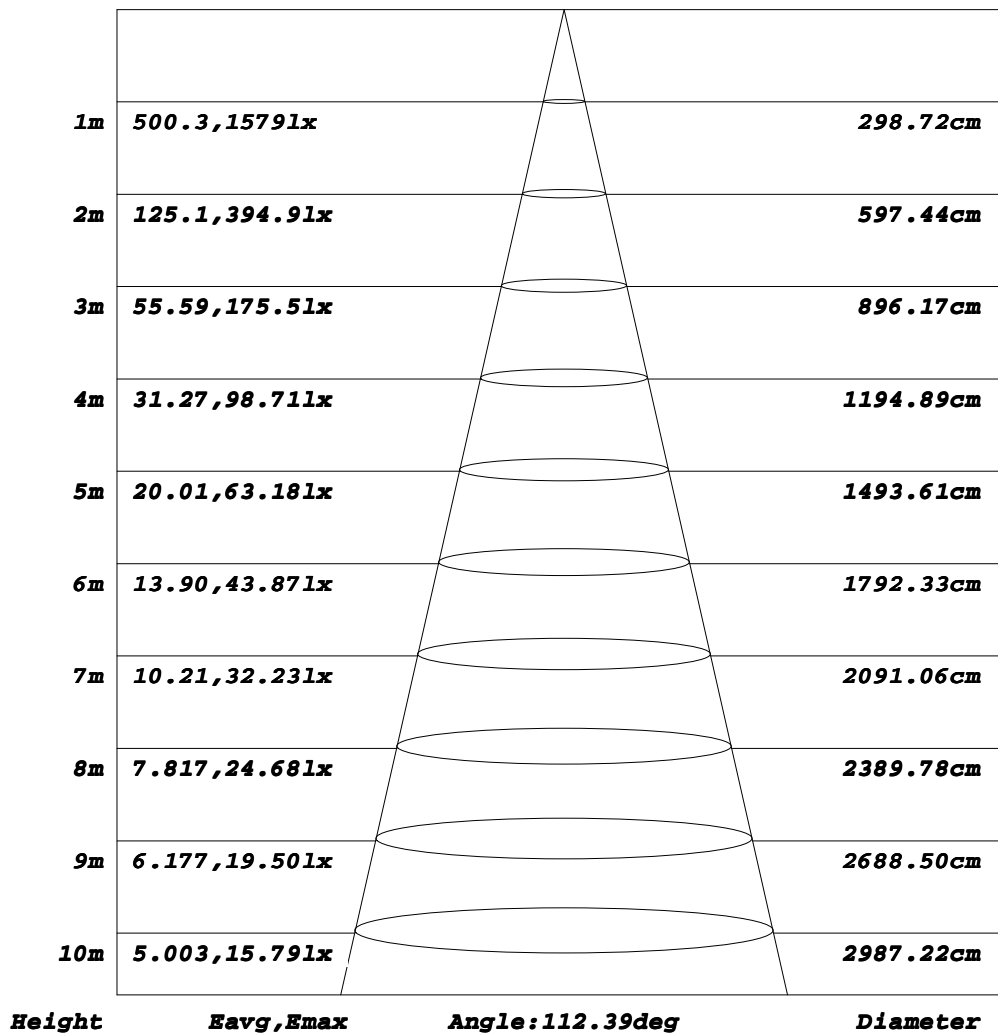
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity:65.0%
Test Distance:8.000m [K=0.7063]
Remarks:

AAI Figure

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

Flux out:3727 lm



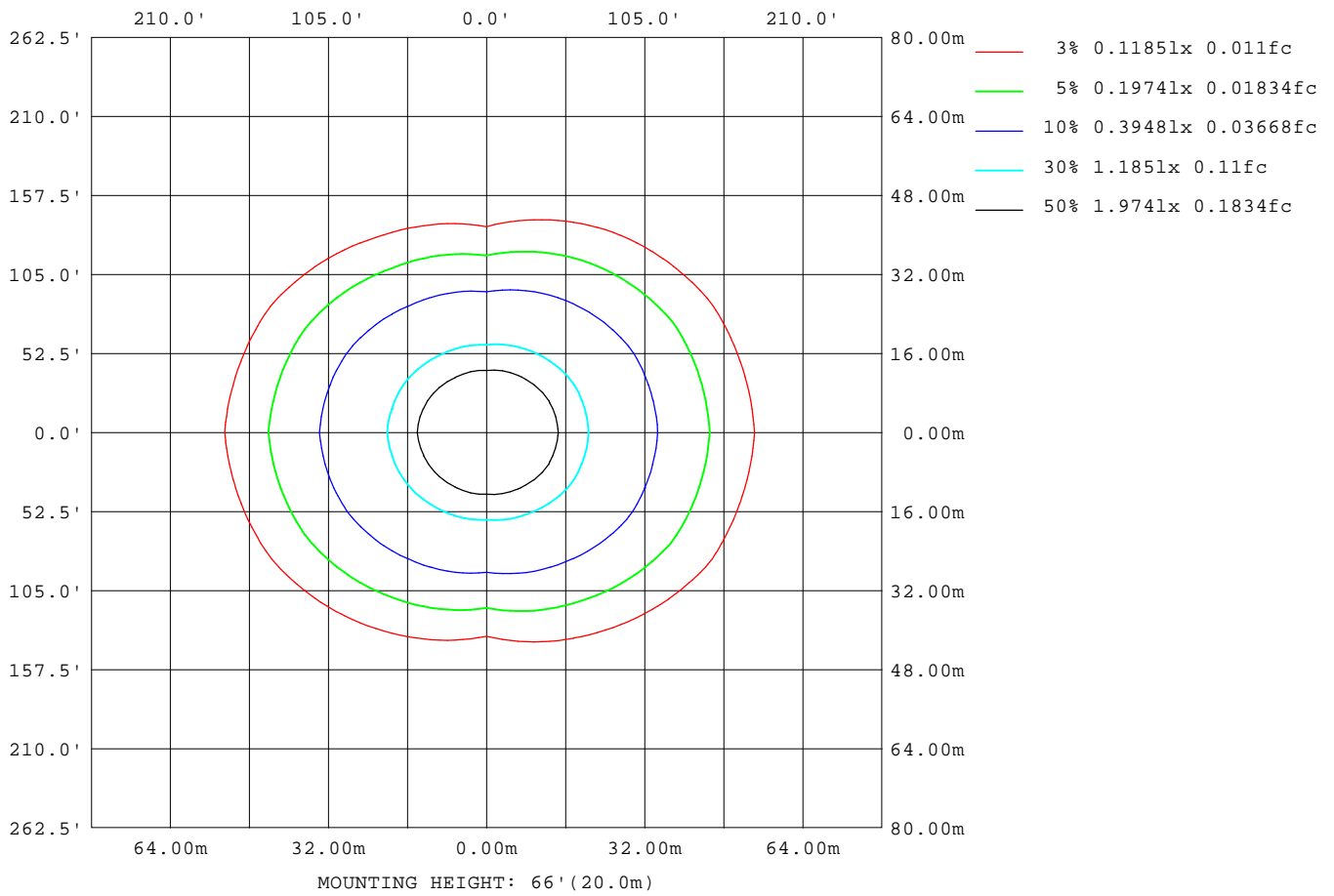
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

ISOLUX DIAGRAM

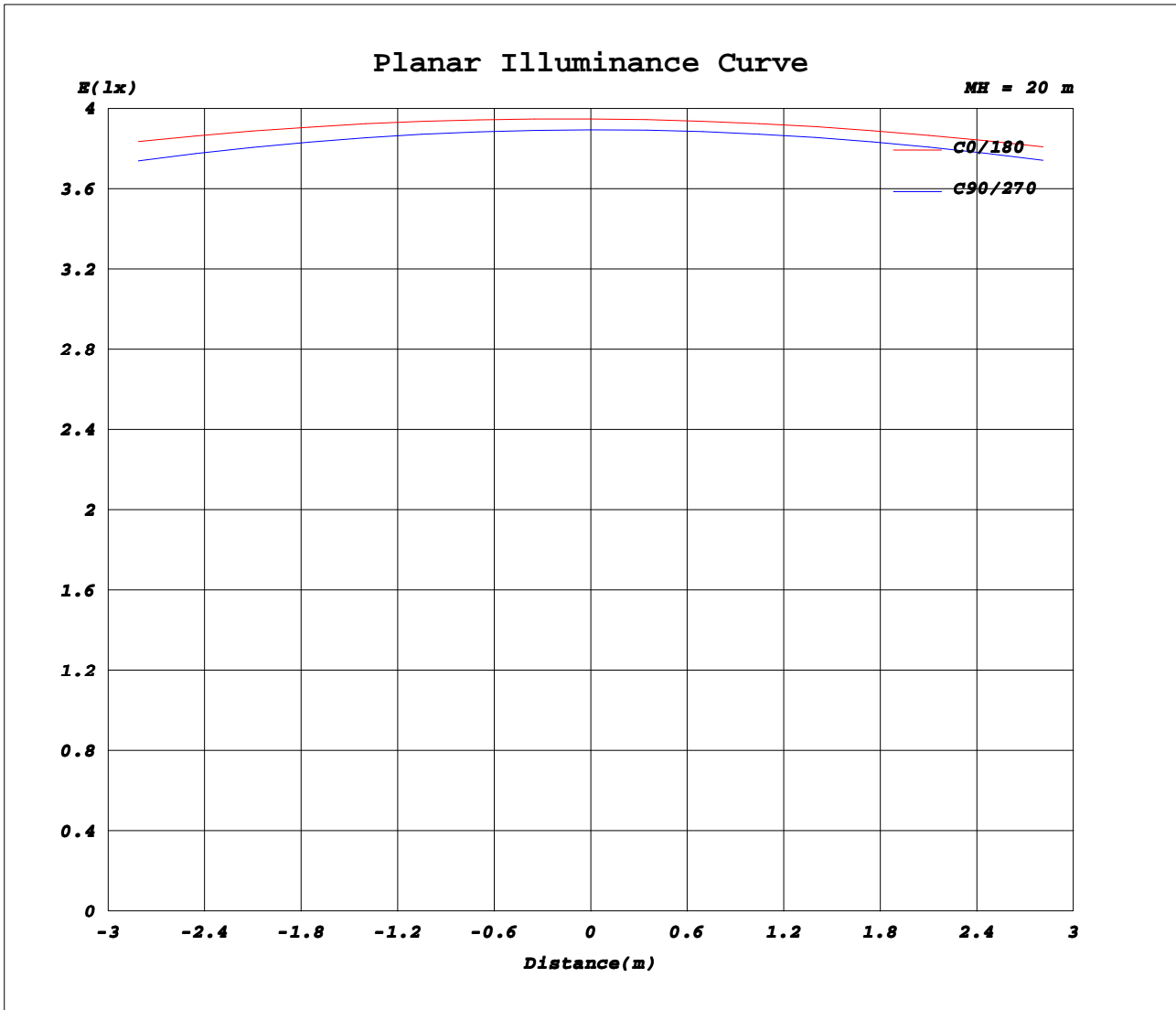
Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz		
Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.30V I:0.2510A P:54.400W PF:0.9810 Freq:50.00Hz Lamp Flux:7985.28x1 lm		
Name: G-1.5M-60W	Type: LED	
MFR.:	DIM.: 1500mm	

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563							
5	1565	1564	1560	1556	1553	1553	1558	1555	1555	1557	1562	1566							
10	1563	1559	1546	1536	1533	1538	1548	1540	1536	1537	1550	1564							
15	1557	1548	1521	1504	1503	1517	1534	1520	1507	1506	1528	1554							
20	1545	1529	1486	1459	1463	1490	1514	1493	1467	1462	1497	1539							
25	1528	1504	1441	1401	1413	1456	1489	1460	1417	1406	1455	1518							
30	1505	1473	1386	1331	1355	1417	1460	1421	1358	1338	1404	1490							
35	1476	1435	1322	1249	1288	1372	1425	1375	1290	1257	1345	1456							
40	1441	1391	1249	1157	1213	1321	1384	1323	1213	1166	1277	1415							
45	1400	1339	1169	1053	1131	1264	1339	1266	1131	1064	1203	1367							
50	1354	1283	1083	938	1044	1203	1290	1205	1042	952	1125	1314							
55	1303	1222	991	815	952	1140	1235	1139	945	831	1037	1255							
60	1247	1157	896	685	857	1073	1178	1072	847	702	947	1190							
65	1188	1090	799	549	763	1006	1119	1003	748	569	855	1120							
70	1127	1020	702	408	670	938	1058	933	651	431	762	1043							
75	1063	950	609	275	581	870	996	864	558	295	671	957							
80	995	880	522	149	499	804	934	796	472	169	580	877							
85	928	810	446	55.9	428	738	870	731	397	71.8	488	804							
90	862	742	381	21.0	366	674	809	667	336	27.3	399	741							
95	795	673	326	21.3	315	613	746	607	284	26.1	373	704							
100	729	600	278	23.2	272	555	685	549	244	28.5	333	654							
105	664	539	236	25.6	237	499	623	495	211	30.2	287	594							
110	602	484	192	28.1	209	446	564	443	186	32.9	235	538							
115	541	431	165	31.3	185	398	506	396	165	35.9	196	484							
120	483	363	144	34.7	165	353	451	351	148	39.0	169	430							
125	427	283	127	38.0	148	311	399	310	134	42.0	147	346							
130	374	239	114	41.5	133	272	350	271	122	45.0	130	271							
135	322	204	103	45.7	121	237	304	236	112	48.8	117	225							
140	280	183	97.5	51.1	110	204	261	204	103	53.3	108	192							
145	238	154	94.6	55.9	101	175	221	176	95.6	57.7	103	172							
150	193	130	91.2	60.6	93.1	149	186	150	89.6	62.1	98.7	146							
155	159	111	88.0	65.0	87.3	126	155	128	85.0	66.1	94.1	119							
160	127	97.0	85.1	69.2	82.7	108	128	110	81.2	69.9	89.6	99.8							
165	103	87.7	82.6	72.9	79.1	94.1	105	95.5	78.3	73.4	85.9	90.2							
170	72.5	81.2	81.0	76.1	77.9	84.1	82.4	84.6	77.4	76.3	82.9	83.8							
175	62.1	77.0	79.9	78.5	78.0	78.5	67.9	77.8	77.7	78.4	80.7	79.3							
180	61.7	76.2	79.1	80.0	79.6	77.8	62.0	76.0	79.2	79.9	79.7	77.8							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-03-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.443
Humidity: 65.0%
Test Distance: 8.000m [K=0.7063]
Remarks: