NATA LIGHTING CO.,LTD.
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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

LumCAT: 6740-A2
Luminaire:
Report No: NATA0100
Test No:
LampCAT: PHILIPS DLM 2000LM
Lamp flux(lm): 1598.0
Number of Lamps: 1
Length(mm): 160
Phm Type: C

Voltage(V): 217.5000
Current(A): 0.1380
Power (W): 29.7000
PF: 0.9860
Ballast type:
Width(mm): 160
Height(mm): 0

Photometric Results

Lumens(lm): 1447.58
Efficiency(%): 90.59%
Lumens(lm)/Power(W): 48.75
Central intensity(cd): 1255.102
Maximum intensity(cd): 1255.102
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=62.4
[C90/270]Total=62.4
Field angle(10%Imax): [C0/180]Total=102.7
[C90/270]Total=102.7
Maximum s/h(1/2): C0_180=0.92 C90_270=0.92
Maximum s/h(1/4): C0_180=0.96 C90_270=0.96
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.60%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.572%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1255.102	0.300	0.3	.019%	.021%
1.0	1254.644	2.401	2.701	.150%	.187%
2.0	1253.175	4.796	7.498	.300%	.518%
3.0	1250.790	7.179	14.676	.449%	1.014%
4.0	1247.303	9.541	24.217	.597%	1.673%
5.0	1242.944	11.880	36.097	.743%	2.494%
6.0	1237.071	14.180	50.277	.887%	3.473%
7.0	1230.694	16.447	66.724	1.029%	4.609%
8.0	1223.216	18.669	85.393	1.168%	5.899%
9.0	1214.223	20.830	106.223	1.303%	7.338%
10.0	1203.625	22.920	129.143	1.434%	8.921%
11.0	1192.338	24.949	154.091	1.561%	10.645%
12.0	1179.537	26.893	180.985	1.683%	12.503%
13.0	1163.525	28.702	209.687	1.796%	14.485%
14.0	1147.421	30.440	240.127	1.905%	16.588%
15.0	1127.000	31.987	272.114	2.002%	18.798%
16.0	1107.281	33.469	305.583	2.094%	21.110%
17.0	1084.001	34.755	340.338	2.175%	23.511%
18.0	1060.795	35.947	376.286	2.250%	25.994%
19.0	1034.927	36.949	413.235	2.312%	28.547%
20.0	1005.353	37.707	450.942	2.360%	31.151%
21.0	973.319	38.250	489.192	2.394%	33.794%
22.0	941.125	38.661	527.853	2.419%	36.465%
23.0	907.724	38.894	566.747	2.434%	39.151%
24.0	867.905	38.711	605.458	2.422%	41.826%
25.0	832.200	38.568	644.027	2.414%	44.490%
26.0	797.033	38.315	682.342	2.398%	47.137%
27.0	761.985	37.935	720.277	2.374%	49.757%
28.0	724.877	37.319	757.596	2.335%	52.335%
29.0	692.903	36.838	794.434	2.305%	54.880%
30.0	662.576	36.329	830.763	2.273%	57.390%
31.0	633.052	35.754	866.517	2.237%	59.860%
32.0	605.896	35.209	901.727	2.203%	62.292%
33.0	580.772	34.687	936.414	2.171%	64.688%
34.0	558.914	34.274	970.687	2.145%	67.056%
35.0	535.639	33.691	1004.378	2.108%	69.383%
36.0	516.108	33.267	1037.645	2.082%	71.682%
37.0	497.246	32.816	1070.461	2.054%	73.948%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	476.559	32.174	1102.636	2.013%	76.171%
39.0	451.155	31.135	1133.771	1.948%	78.322%
40.0	427.462	30.131	1163.902	1.886%	80.403%
41.0	402.907	28.987	1192.889	1.814%	82.406%
42.0	376.200	27.605	1220.493	1.727%	84.313%
43.0	348.718	26.080	1246.574	1.632%	86.114%
44.0	322.369	24.557	1271.131	1.537%	87.811%
45.0	296.653	23.003	1294.134	1.439%	89.400%
46.0	270.033	21.301	1315.435	1.333%	90.871%
47.0	243.005	19.489	1334.924	1.220%	92.218%
48.0	213.454	17.395	1352.319	1.089%	93.419%
49.0	186.829	15.462	1367.782	.968%	94.488%
50.0	158.851	13.344	1381.126	.835%	95.409%
51.0	134.255	11.442	1392.567	.716%	96.200%
52.0	110.530	9.551	1402.119	.598%	96.860%
53.0	86.851	7.606	1409.725	.476%	97.385%
54.0	65.072	5.773	1415.498	.361%	97.784%
55.0	46.669	4.192	1419.691	.262%	98.074%
56.0	31.167	2.833	1422.524	.177%	98.269%
57.0	18.068	1.662	1424.186	.104%	98.384%
58.0	11.878	1.105	1425.29	.069%	98.460%
59.0	10.075	0.947	1426.237	.059%	98.526%
60.0	9.516	0.904	1427.141	.057%	98.588%
61.0	9.066	0.870	1428.011	.054%	98.648%
62.0	8.699	0.842	1428.853	.053%	98.706%
63.0	8.382	0.819	1429.672	.051%	98.763%
64.0	8.066	0.795	1430.467	.050%	98.818%
65.0	7.813	0.777	1431.243	.049%	98.872%
66.0	7.593	0.761	1432.004	.048%	98.924%
67.0	7.405	0.747	1432.752	.047%	98.976%
68.0	7.185	0.731	1433.482	.046%	99.026%
69.0	7.020	0.719	1434.201	.045%	99.076%
70.0	6.877	0.709	1434.909	.044%	99.125%
71.0	6.740	0.699	1435.608	.044%	99.173%
72.0	6.621	0.690	1436.299	.043%	99.221%
73.0	6.515	0.683	1436.982	.043%	99.268%
74.0	6.423	0.677	1437.659	.042%	99.315%
75.0	6.313	0.669	1438.328	.042%	99.361%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.244	0.664	1438.992	.042%	99.407%
77.0	6.180	0.660	1439.653	.041%	99.453%
78.0	6.120	0.657	1440.309	.041%	99.498%
79.0	6.047	0.651	1440.96	.041%	99.543%
80.0	5.997	0.648	1441.608	.041%	99.588%
81.0	5.951	0.645	1442.252	.040%	99.632%
82.0	5.896	0.640	1442.892	.040%	99.676%
83.0	5.854	0.637	1443.53	.040%	99.720%
84.0	5.799	0.632	1444.162	.040%	99.764%
85.0	5.758	0.629	1444.791	.039%	99.808%
86.0	5.717	0.625	1445.416	.039%	99.851%
87.0	5.675	0.622	1446.038	.039%	99.894%
88.0	5.643	0.618	1446.656	.039%	99.936%
89.0	5.607	0.615	1447.271	.038%	99.979%
90.0	5.584	0.306	1447.577	.019%	100.000%

Zonal flux distribution table

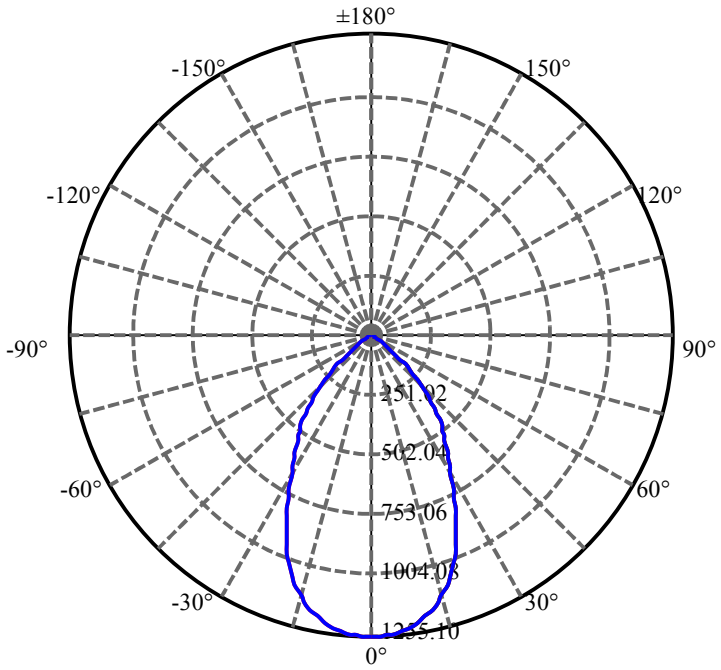
ZONAL LUMEN SUMMARY

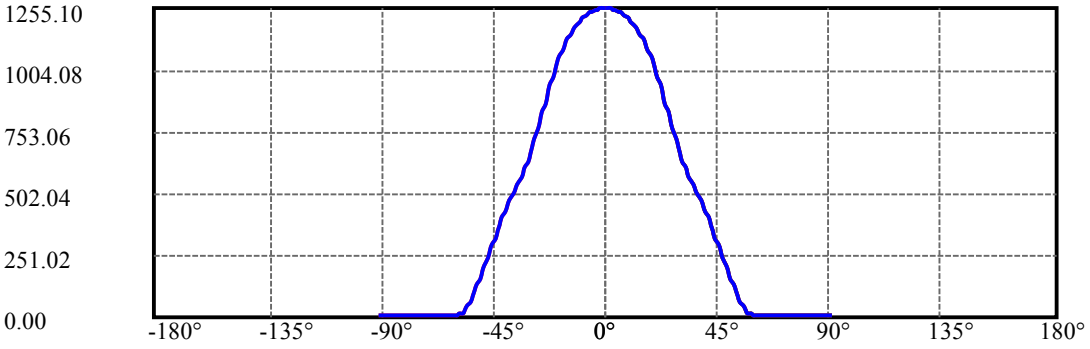
Zone	Lumens	%Lamp	%Fixt
0-30	830.76	51.99%	57.39%
0-40	1163.90	72.83%	80.40%
0-60	1427.14	89.31%	98.59%
0-90	1447.27	90.57%	99.98%
0-120	1447.27	90.57%	99.98%
0-180	1447.58	90.59%	100.00%
60-90	21.03	1.32%	1.45%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-39.81	1158.06	72.47%	80.00%

ZONAL LUMEN SUMMARY

0-10	129.14
10-20	321.80
20-30	379.82
30-40	333.14
40-50	217.22
50-60	46.02
60-70	7.77
70-80	6.70
80-90	5.66
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

Light Distribution Curve [Unit:cd]





C0(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:51.4 Right:51.4
:C90/270Left:51.4 Right:51.4

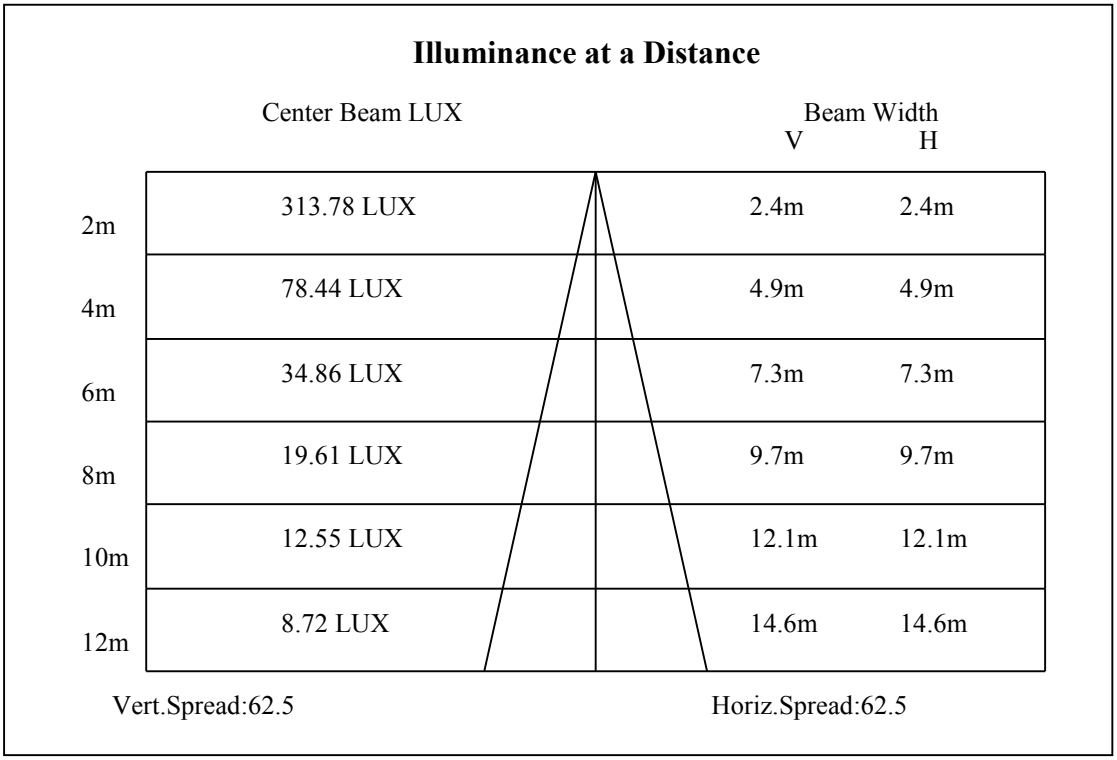
Beam Angle(50%Imax):C0/180Left:31.2 Right:31.2
:C90/270Left:31.2 Right:31.2

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/3/28
Humidity(%): 60.0%

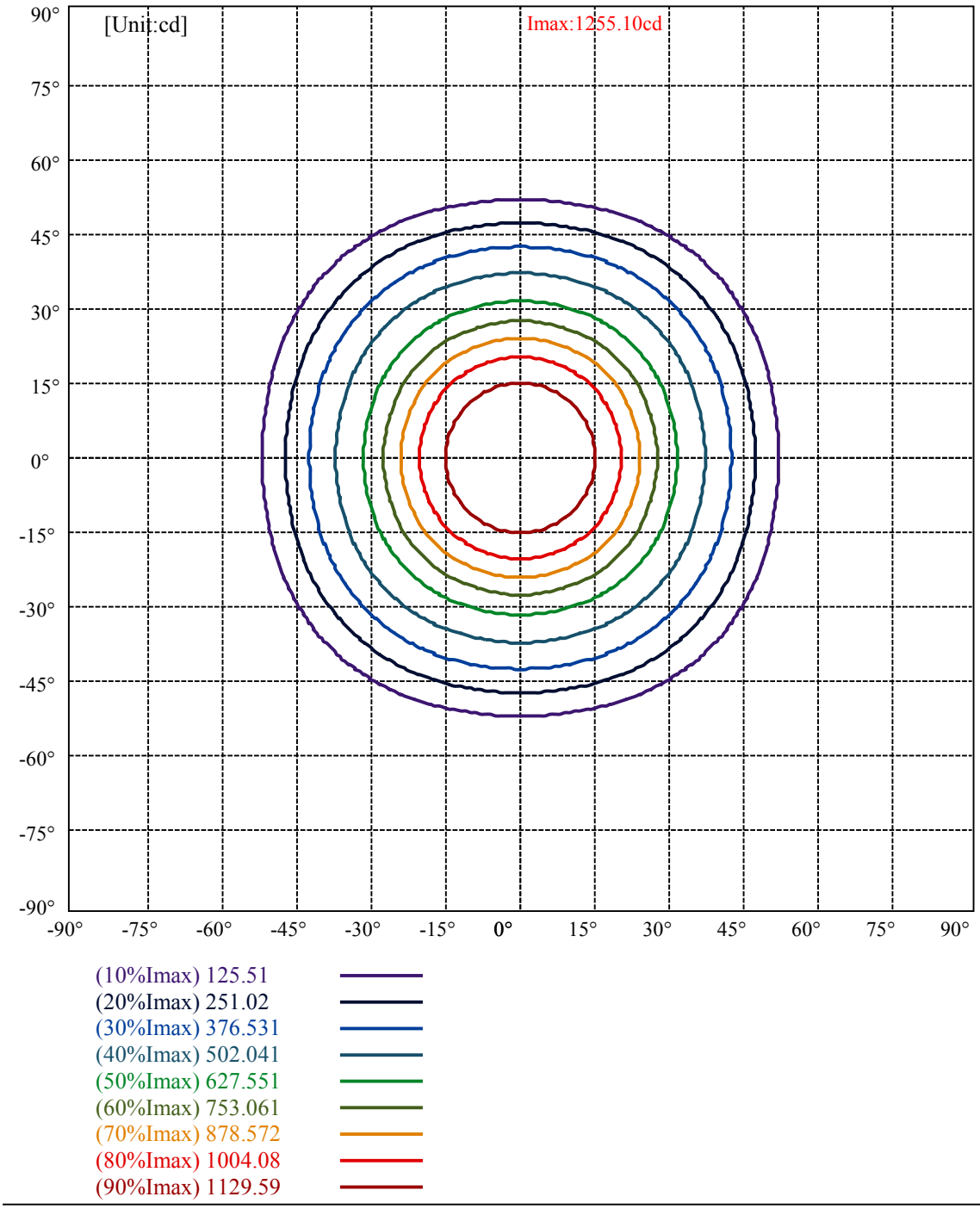
Operator: NT07
Distance(m): 7.42

Lux distance Curve



Equipment: gms1980 Date: 2017/3/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

ISO-Intensity(V-H)



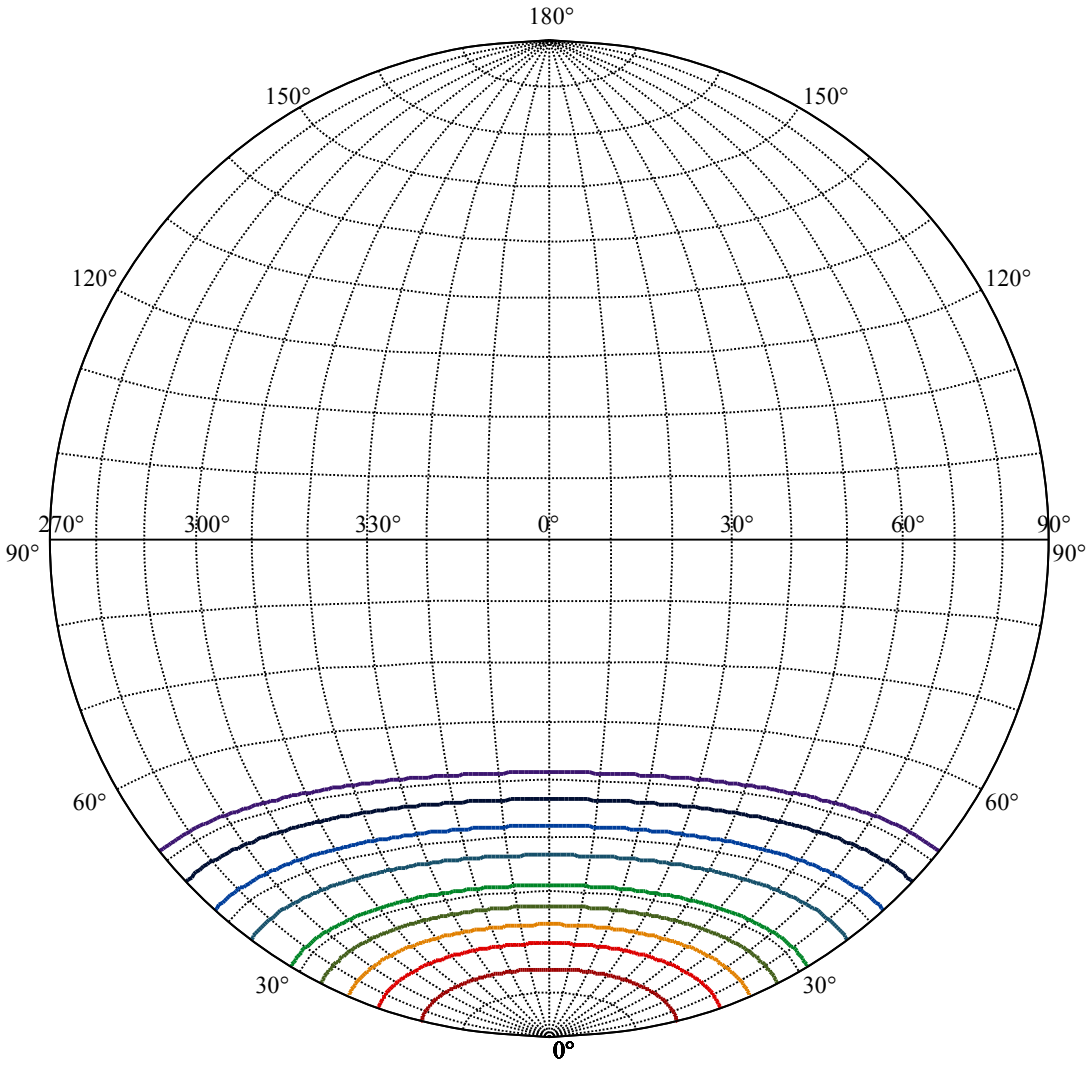
(10%Imax) 125.51
(20%Imax) 251.02
(30%Imax) 376.531
(40%Imax) 502.041
(50%Imax) 627.551
(60%Imax) 753.061
(70%Imax) 878.572
(80%Imax) 1004.08
(90%Imax) 1129.59

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/3/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

ISO candela diagram on circular web



House [Unit:cd] Road

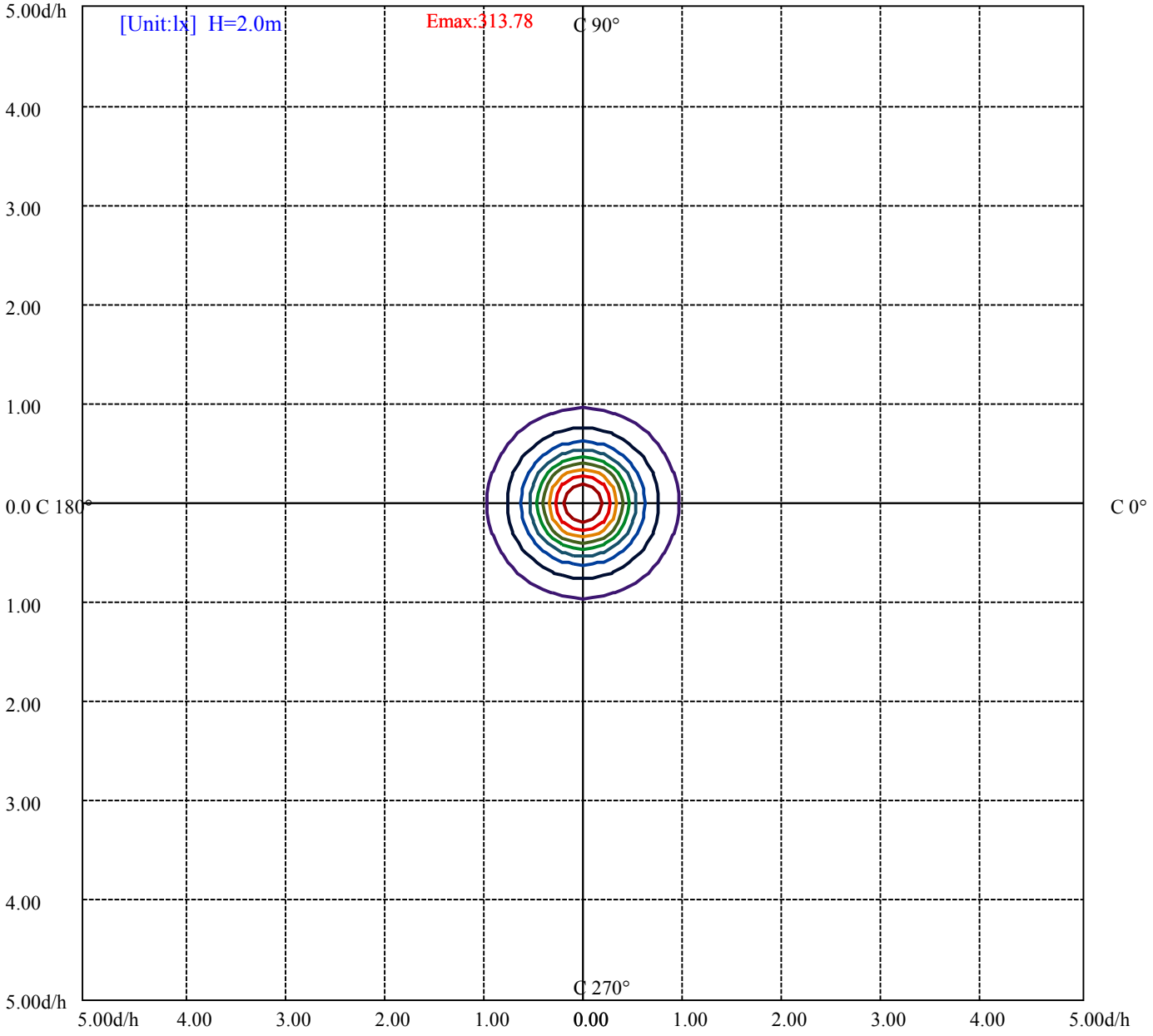
Imax:1255.10

(10%Imax) 125.51
(20%Imax) 251.02
(30%Imax) 376.531
(40%Imax) 502.041
(50%Imax) 627.551
(60%Imax) 753.061
(70%Imax) 878.572
(80%Imax) 1004.08
(90%Imax) 1129.59

Equipment: gms1980 Date: 2017/3/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

6740-A2

ISO illuminance diagram

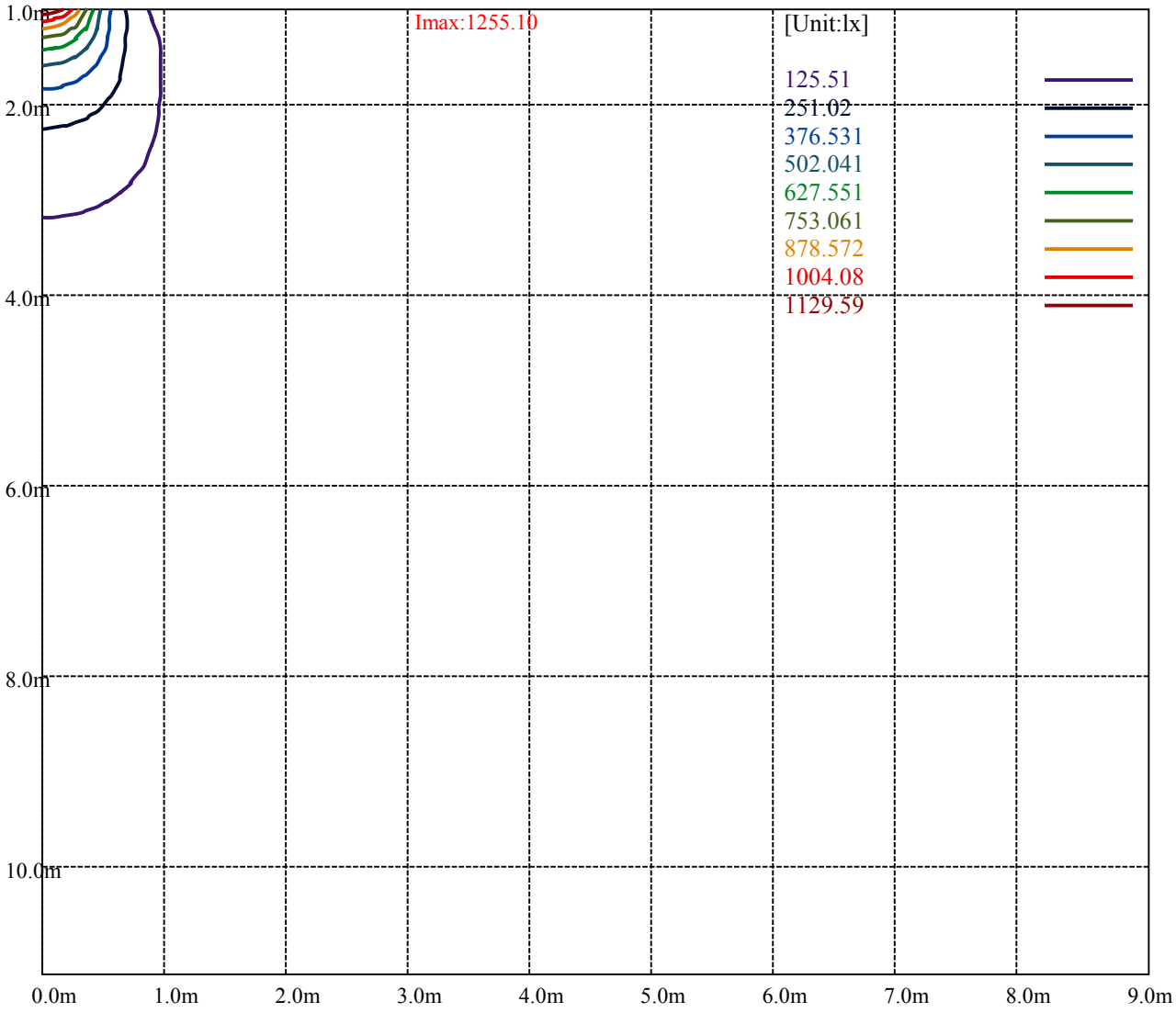


Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/3/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Space ISO Lux diagram



Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/3/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Luminance Limitting Curve(no luminous side)

Luminance Table

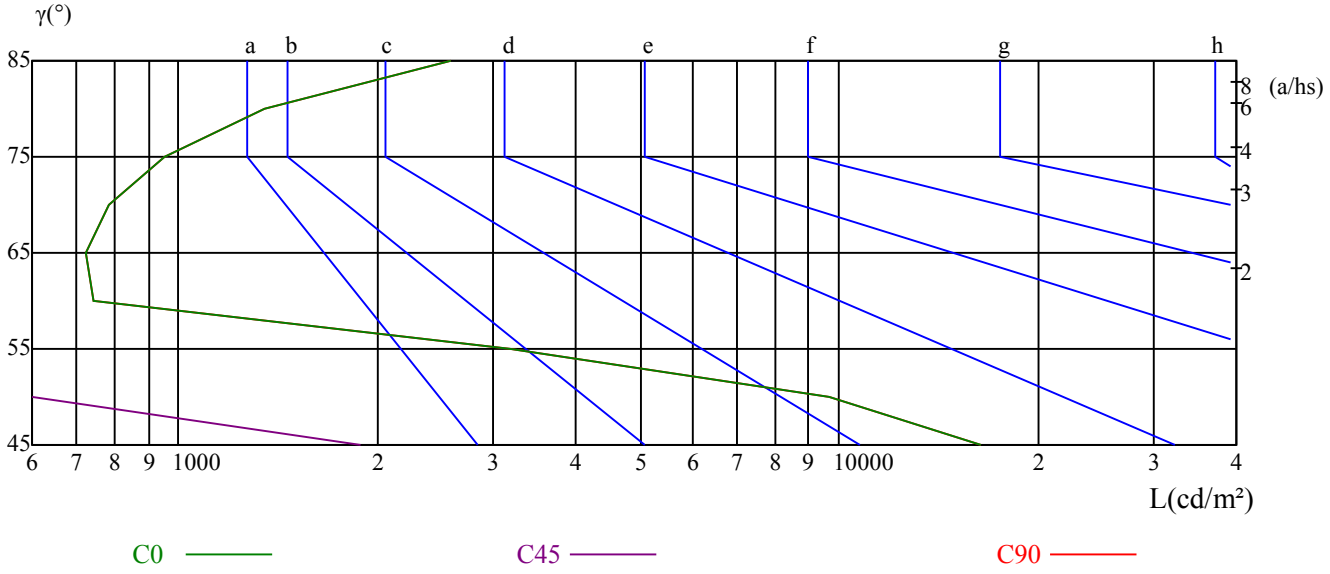
γ	45	50	55	60	65	70	75	80	85
C0	16388	9653	3178	743	722	785	953	1349	2581
C45	1892	593	621	689	819	1082	1467	1993	3664
C90	16388	9653	3178	743	722	785	953	1349	2581

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
722	722	819	953	953	1467	2581	2581	3664

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

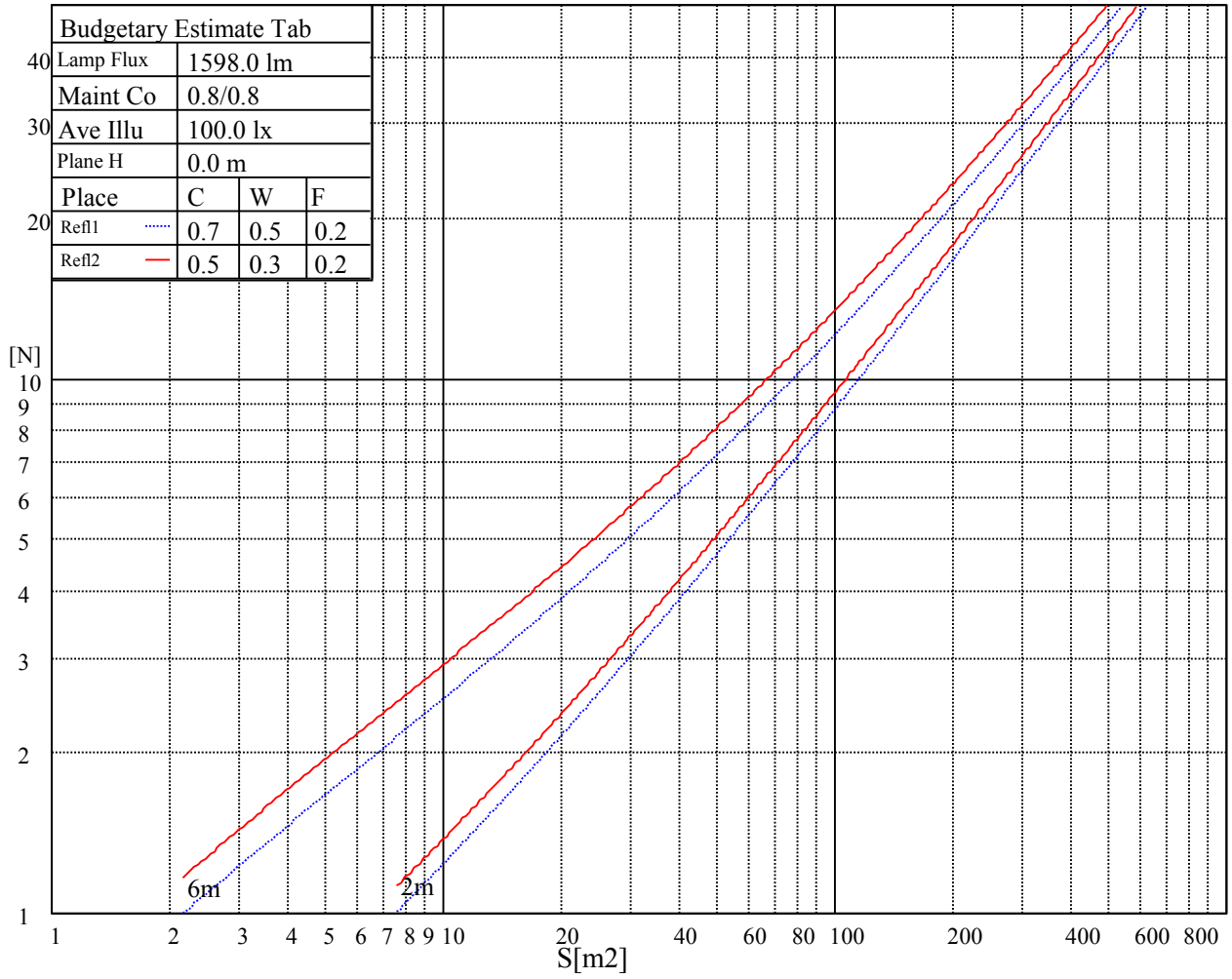
Luminance Limitting Curve



Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	6.17	7.33	6.54	7.64	7.95	6.28	7.43	6.64	7.74	8.06
	3H	6.46	7.47	6.84	7.80	8.17	6.55	7.56	6.93	7.89	8.25
	4H	6.75	7.69	7.16	8.04	8.43	6.81	7.75	7.22	8.10	8.48
	6H	7.27	8.12	7.69	8.50	8.89	7.27	8.12	7.69	8.50	8.89
	8H	7.65	8.46	8.09	8.85	9.26	7.61	8.42	8.05	8.81	9.22
	12H	8.47	9.24	8.90	9.62	10.05	8.35	9.12	8.79	9.51	9.94
4H	2H	6.06	7.00	6.47	7.35	7.73	6.16	7.09	6.56	7.45	7.83
	3H	6.54	7.30	6.96	7.70	8.11	6.62	7.38	7.04	7.78	8.19
	4H	7.02	7.69	7.46	8.11	8.56	7.06	7.73	7.49	8.15	8.60
	6H	7.79	8.37	8.26	8.82	9.29	7.77	8.35	8.24	8.80	9.27
	8H	8.36	8.90	8.84	9.35	9.83	8.29	8.83	8.77	9.28	9.76
	12H	9.34	9.81	9.82	10.29	10.77	9.19	9.66	9.68	10.15	10.62
8H	4H	7.19	7.73	7.67	8.18	8.66	7.23	7.77	7.70	8.22	8.69
	6H	8.25	8.69	8.76	9.19	9.67	8.21	8.65	8.72	9.15	9.64
	8H	9.04	9.43	9.57	9.95	10.45	8.95	9.35	9.48	9.86	10.36
	12H	10.29	10.64	10.81	11.13	11.71	10.13	10.48	10.65	10.97	11.55
12H	4H	7.24	7.71	7.73	8.20	8.67	7.28	7.75	7.77	8.23	8.71
	6H	8.82	8.80	8.93	9.27	9.81	8.79	8.77	8.90	9.24	9.78
	8H	9.32	9.67	9.84	10.16	10.74	9.23	9.58	9.75	10.08	10.66

Variation with the observer position at spacings:		
S = 1.0H	1.7/-7.8	1.7/-7.8
S = 1.5H	3.8/-10.5	3.8/-10.5
S = 2.0H	5.7/-9.1	5.7/-9.1
Standard tables:	BK0	BK0
Uncorrected UGR	-0.5	-0.5

Budgetary Estimate Table



Equipment: gms1980
Temperature(°C): 25.0

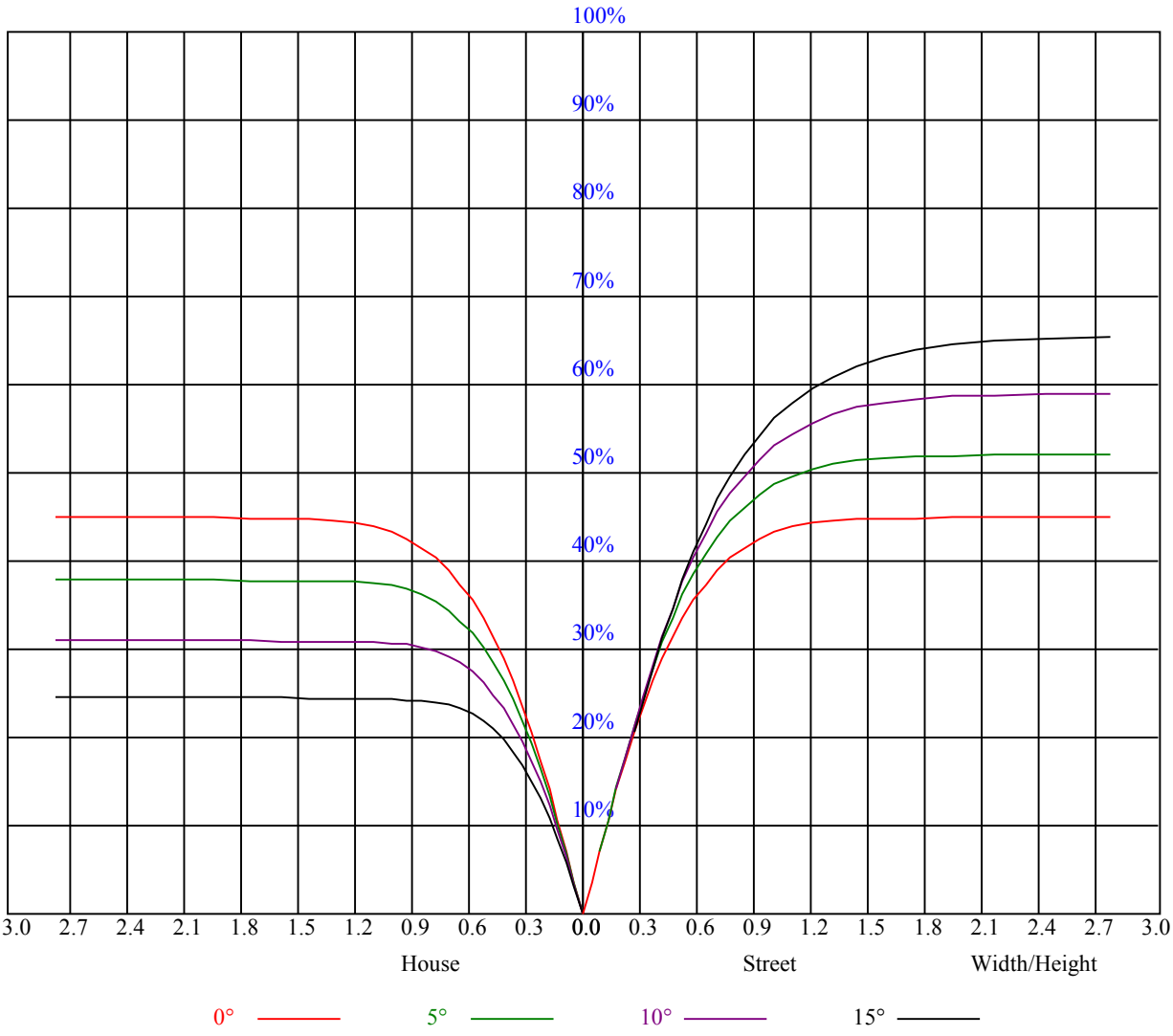
Date: 2017/3/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Utilization factor table for indoor luminaire

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.91
1	0.99	0.97	0.95	0.97	0.95	0.93	0.94	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.83
2	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.81	0.84	0.82	0.79	0.82	0.80	0.78	0.76
3	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.73	0.78	0.75	0.72	0.76	0.74	0.71	0.70
4	0.78	0.72	0.68	0.77	0.72	0.68	0.75	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.64
5	0.72	0.66	0.62	0.71	0.66	0.62	0.70	0.65	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.59
6	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.56	0.64	0.59	0.56	0.62	0.58	0.55	0.54
7	0.63	0.56	0.52	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.58	0.54	0.51	0.50
8	0.58	0.52	0.48	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.46
9	0.55	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.44	0.52	0.47	0.44	0.43
10	0.51	0.46	0.42	0.51	0.45	0.42	0.50	0.45	0.42	0.49	0.45	0.41	0.49	0.44	0.41	0.40

Coefficient Utilization Curve



Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/3/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	1249.78	1249.23	1248.13	1245.93	1242.62	1237.67	1232.16	1226.11	1218.40
30.0	1261.89	1261.34	1259.14	1256.39	1252.53	1248.13	1241.52	1234.36	1226.66
60.0	1258.59	1257.49	1255.84	1253.08	1248.68	1244.27	1238.22	1231.06	1223.35
90.0	1255.84	1255.29	1254.74	1252.53	1249.78	1245.93	1240.97	1234.36	1227.76
120.0	1253.63	1253.63	1251.98	1249.78	1246.48	1242.62	1236.57	1230.51	1223.90
150.0	1250.88	1251.43	1250.33	1249.23	1246.48	1242.62	1237.67	1232.16	1225.00
180.0	1249.78	1249.23	1248.13	1245.38	1242.07	1237.67	1232.16	1226.11	1217.85
210.0	1261.89	1261.89	1261.34	1259.69	1255.84	1253.08	1247.58	1240.97	1235.47
240.0	1258.59	1258.04	1256.94	1255.29	1252.53	1248.68	1242.62	1237.12	1230.51
270.0	1255.84	1254.74	1253.08	1249.78	1245.93	1240.97	1233.81	1227.76	1220.05
300.0	1253.63	1253.08	1250.88	1248.13	1244.27	1239.32	1233.26	1226.11	1218.40
330.0	1250.88	1250.33	1247.58	1244.27	1240.42	1234.36	1228.31	1221.70	1211.24
360.0	1249.78	1249.23	1248.13	1245.93	1242.62	1237.67	1232.16	1226.11	1218.40

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1209.04	1199.68	1187.57	1175.45	1160.04	1142.97	1125.35	1107.18	1080.76
30.0	1216.20	1205.74	1194.17	1179.31	1162.24	1146.27	1125.90	1106.63	1081.86
60.0	1214.54	1201.88	1190.32	1177.66	1158.94	1142.97	1125.35	1096.56	1074.26
90.0	1219.50	1209.04	1198.58	1187.02	1169.95	1155.63	1139.12	1119.85	1097.27
120.0	1214.54	1204.08	1193.62	1180.41	1164.99	1150.13	1131.41	1096.34	1085.71
150.0	1216.75	1207.94	1196.93	1185.36	1171.05	1155.63	1139.67	1123.15	1099.48
180.0	1209.59	1199.13	1187.02	1175.45	1160.04	1143.52	1127.00	1097.60	1079.33
210.0	1228.31	1216.20	1207.39	1196.38	1182.06	1166.09	1150.68	1133.61	1097.60
240.0	1221.15	1212.34	1202.43	1189.22	1174.90	1160.59	1142.42	1124.25	1102.78
270.0	1209.04	1198.03	1187.02	1169.95	1155.08	1139.12	1098.04	1095.51	1071.12
300.0	1208.49	1197.48	1186.47	1173.80	1155.63	1139.67	1122.60	1100.58	1076.90
330.0	1203.53	1191.97	1176.56	1164.44	1147.38	1126.45	1096.45	1086.10	1060.94
360.0	1209.04	1199.68	1187.57	1175.45	1160.04	1142.97	1125.35	1107.18	1080.76

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1057.63	1032.86	999.27	970.64	940.36	908.43	866.59	833.00	798.87
30.0	1054.33	1027.90	995.97	960.73	928.25	894.67	851.72	817.04	782.35
60.0	1049.65	1019.81	991.13	956.60	920.21	887.01	848.31	809.82	776.46
90.0	1074.70	1046.62	1016.89	987.71	952.48	919.44	880.90	840.71	804.37
120.0	1059.89	1034.95	1007.97	971.36	940.25	907.66	864.77	829.87	795.07
150.0	1078.00	1054.88	1022.95	995.42	965.14	929.35	891.91	856.13	817.59
180.0	1056.70	1032.31	1002.52	970.42	940.20	904.69	867.36	833.72	796.01
210.0	1084.39	1061.65	1033.63	1003.35	974.39	939.32	902.26	868.79	831.19
240.0	1079.11	1055.43	1027.35	996.52	967.34	937.06	895.22	862.18	828.05
270.0	1048.00	1019.70	992.39	959.47	924.45	891.31	852.88	814.61	781.36
300.0	1053.23	1025.15	994.32	965.14	929.90	896.87	858.88	820.34	785.65
330.0	1033.90	1007.86	979.84	942.46	910.52	876.88	834.05	800.19	767.43
360.0	1057.63	1032.86	999.27	970.64	940.36	908.43	866.59	833.00	798.87

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	760.88	724.54	694.81	663.43	633.15	608.37	582.50	560.47	538.45
30.0	746.01	714.08	682.15	650.22	621.59	599.56	572.04	551.67	529.64
60.0	744.09	704.67	674.61	646.36	616.96	589.65	567.19	543.96	522.60
90.0	770.79	731.15	697.01	666.73	633.15	607.82	581.95	558.27	535.15
120.0	752.79	719.64	687.76	650.55	626.38	597.58	568.57	550.01	527.83
150.0	783.45	746.56	709.13	678.29	646.91	617.73	591.31	568.18	543.41
180.0	763.36	727.18	692.33	663.26	635.96	604.30	581.01	559.59	534.60
210.0	797.49	760.38	725.59	696.08	667.94	635.02	610.69	587.62	560.64
240.0	793.36	752.62	721.24	692.06	657.92	632.05	605.07	582.50	559.37
270.0	748.66	709.24	680.06	652.42	623.13	596.04	573.63	549.96	527.83
300.0	751.52	711.88	682.15	654.07	621.59	597.36	574.79	554.97	530.19
330.0	731.42	696.57	668.00	637.44	611.95	585.25	560.53	539.77	517.97
360.0	760.88	724.54	694.81	663.43	633.15	608.37	582.50	560.47	538.45

Intensity data(cd)

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	517.53	498.81	478.44	449.81	426.69	406.32	373.28	348.51	323.18
30.0	509.27	488.90	467.43	438.80	414.02	389.25	357.87	331.99	306.66
60.0	504.87	483.51	462.31	436.71	409.62	385.12	360.34	328.85	303.42
90.0	516.43	496.61	478.44	455.32	429.44	405.77	378.79	351.26	325.93
120.0	505.20	490.50	472.27	444.31	424.87	401.64	375.10	347.79	323.46
150.0	524.14	505.97	486.15	463.57	442.10	416.78	389.25	364.47	336.39
180.0	516.10	498.37	473.65	452.07	429.16	399.16	377.52	349.00	317.23
210.0	540.54	522.21	501.34	477.17	454.66	428.28	403.95	375.65	347.08
240.0	539.55	519.18	499.91	475.69	449.81	426.14	399.16	371.08	346.30
270.0	509.71	489.84	469.41	444.14	418.21	394.64	370.91	340.41	315.64
300.0	512.02	494.41	471.83	447.06	424.48	398.61	372.18	347.41	319.88
330.0	497.93	478.66	457.52	429.22	406.48	383.19	356.05	328.19	303.25
360.0	517.53	498.81	478.44	449.81	426.69	406.32	373.28	348.51	323.18

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	295.10	279.69	239.55	211.47	186.42	158.40	131.47	109.01	85.56
30.0	278.03	247.09	221.55	193.03	165.28	141.44	115.29	92.99	69.70
60.0	277.98	246.49	221.49	196.50	171.78	141.99	118.65	93.38	72.67
90.0	301.71	280.24	242.74	217.53	189.72	162.53	138.52	112.26	87.59
120.0	295.54	267.79	242.74	214.66	189.89	162.69	135.66	112.20	90.35
150.0	312.17	284.64	278.03	227.93	199.74	172.33	148.38	125.20	96.46
180.0	295.10	267.02	235.59	213.67	188.84	155.70	134.89	111.60	87.04
210.0	321.58	292.51	263.00	237.07	211.64	179.76	155.04	131.75	106.81
240.0	321.53	290.15	280.24	235.70	203.93	178.55	154.05	127.79	102.85
270.0	290.37	258.49	232.94	208.11	180.81	153.66	129.93	104.94	84.07
300.0	295.65	279.69	236.69	211.80	184.11	156.36	132.47	109.95	83.85
330.0	275.06	246.60	221.49	193.96	169.79	142.82	116.72	95.30	75.26
360.0	295.10	279.69	239.55	211.47	186.42	158.40	131.47	109.01	85.56

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	63.70	46.08	31.00	17.07	11.40	10.13	9.47	9.08	8.70
30.0	49.17	33.25	20.70	11.95	10.63	10.08	9.58	9.19	8.81
60.0	51.75	33.69	20.92	12.11	10.35	9.80	9.41	8.92	8.59
90.0	67.39	47.02	31.44	17.89	10.85	9.74	9.30	8.86	8.53
120.0	65.13	47.24	31.71	17.01	10.68	9.47	9.08	8.59	8.31
150.0	75.48	56.43	39.53	22.57	13.38	9.97	9.19	8.81	8.48
180.0	64.58	46.85	29.73	17.07	11.12	9.97	9.52	9.03	8.59
210.0	82.75	62.93	43.38	27.14	16.57	11.56	10.79	10.19	9.69
240.0	81.65	59.85	43.00	27.14	15.69	11.29	10.35	9.80	9.41
270.0	62.16	42.83	28.52	16.41	10.63	9.80	9.36	8.92	8.53
300.0	64.58	47.40	30.78	18.00	11.34	9.74	9.19	8.86	8.48
330.0	52.52	36.45	23.29	12.44	9.91	9.36	8.92	8.53	8.26
360.0	63.70	46.08	31.00	17.07	11.40	10.13	9.47	9.08	8.70

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	8.31	7.98	7.76	7.54	7.32	7.10	6.88	6.72	6.55
30.0	8.53	8.15	7.93	7.65	7.43	7.32	7.16	7.05	6.88
60.0	8.31	8.04	7.82	7.60	7.43	7.16	7.05	6.88	6.83
90.0	8.26	7.93	7.71	7.54	7.38	7.16	6.99	6.88	6.77
120.0	8.04	7.76	7.54	7.38	7.21	6.99	6.88	6.77	6.66
150.0	8.15	7.87	7.60	7.38	7.21	7.05	6.88	6.72	6.61
180.0	8.26	7.98	7.71	7.49	7.27	6.99	6.88	6.72	6.55
210.0	9.30	8.92	8.53	8.26	8.04	7.76	7.54	7.38	7.21
240.0	9.03	8.64	8.31	8.09	7.82	7.60	7.38	7.16	6.99
270.0	8.26	7.93	7.71	7.49	7.27	7.10	6.94	6.83	6.66
300.0	8.20	7.93	7.71	7.49	7.38	7.10	6.94	6.83	6.72
330.0	7.93	7.65	7.43	7.21	7.10	6.88	6.72	6.61	6.44
360.0	8.31	7.98	7.76	7.54	7.32	7.10	6.88	6.72	6.55

Intensity data(cd)

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	6.44	6.33	6.22	6.06	6.00	5.95	5.84	5.84	5.73
30.0	6.72	6.61	6.55	6.44	6.33	6.28	6.22	6.17	6.11
60.0	6.66	6.61	6.50	6.39	6.39	6.33	6.28	6.22	6.17
90.0	6.66	6.55	6.50	6.39	6.33	6.28	6.22	6.11	6.11
120.0	6.55	6.50	6.44	6.39	6.33	6.28	6.28	6.17	6.17
150.0	6.50	6.39	6.28	6.17	6.11	6.00	6.00	5.95	5.89
180.0	6.39	6.33	6.17	6.06	6.00	5.89	5.84	5.73	5.67
210.0	7.05	6.88	6.77	6.61	6.50	6.44	6.33	6.22	6.17
240.0	6.88	6.77	6.66	6.55	6.44	6.39	6.28	6.22	6.17
270.0	6.55	6.44	6.33	6.28	6.17	6.11	6.06	5.95	5.95
300.0	6.66	6.50	6.44	6.33	6.28	6.22	6.17	6.11	6.06
330.0	6.39	6.28	6.22	6.11	6.06	6.00	5.95	5.89	5.78
360.0	6.44	6.33	6.22	6.06	6.00	5.95	5.84	5.84	5.73

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.67	5.62	5.56	5.51	5.45	5.40	5.40	5.40	5.34
30.0	6.11	6.00	6.00	5.89	5.84	5.78	5.73	5.73	5.67
60.0	6.11	6.06	6.00	5.95	5.95	5.89	5.78	5.78	5.67
90.0	6.06	6.00	5.95	5.89	5.84	5.78	5.73	5.73	5.67
120.0	6.11	6.06	6.06	6.00	5.95	5.95	5.89	5.84	5.84
150.0	5.84	5.78	5.78	5.73	5.67	5.67	5.62	5.62	5.62
180.0	5.62	5.62	5.56	5.51	5.45	5.45	5.45	5.40	5.40
210.0	6.11	6.00	6.00	5.95	5.89	5.78	5.78	5.73	5.67
240.0	6.11	6.06	6.00	5.95	5.89	5.89	5.78	5.73	5.67
270.0	5.89	5.84	5.78	5.73	5.73	5.67	5.62	5.56	5.56
300.0	6.00	6.00	5.89	5.84	5.84	5.78	5.78	5.73	5.67
330.0	5.78	5.73	5.67	5.67	5.62	5.56	5.56	5.51	5.51
360.0	5.67	5.62	5.56	5.51	5.45	5.40	5.40	5.40	5.34

C/γ(°)	90.0
0.0	5.40
30.0	5.67
60.0	5.67
90.0	5.62
120.0	5.78
150.0	5.62
180.0	5.34
210.0	5.67
240.0	5.62
270.0	5.51
300.0	5.62
330.0	5.51
360.0	5.40