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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

Client:
LumCAT: 2-1103-E
Luminaire: 99.02.73.171

Report No:	Voltage(V): 34.2900
Test No: GC2019083006	Current(A): 0.3550
LampCAT: XICATO XOB LES 9.8MM	Power (W): 12.1700
Lamp flux(lm): 1120.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 35	Width(mm): 35
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 989.85, Efficiency(%): 88.38% , Luminous Efficacy(lm/W): 81.34
Central intensity(cd): 3062.812, Maximum intensity(cd): 3062.812
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=24.6
[C90/270]Total=24.6
Field angle(10%Imax): [C0/180]Total=70.6
[C90/270]Total=70.6
Maximum s/h(1/2): C0_180=0.41 C90_270=0.41
Maximum s/h(1/4): C0_180=0.43 C90_270=0.43
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.38%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.567%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3062.813	0.000	0	.000%	.000%
1.0	3050.086	2.925	2.925	.261%	.295%
2.0	3012.750	8.702	11.627	.777%	1.175%
3.0	2941.945	14.242	25.869	1.272%	2.613%
4.0	2850.750	19.390	45.259	1.731%	4.572%
5.0	2736.352	24.035	69.294	2.146%	7.000%
6.0	2601.000	28.049	97.343	2.504%	9.834%
7.0	2443.148	31.309	128.652	2.795%	12.997%
8.0	2285.508	33.842	162.494	3.022%	16.416%
9.0	2098.406	35.529	198.023	3.172%	20.005%
10.0	1920.938	36.374	234.397	3.248%	23.680%
11.0	1751.695	36.697	271.094	3.277%	27.387%
12.0	1578.164	36.400	307.494	3.250%	31.065%
13.0	1395.492	35.290	342.784	3.151%	34.630%
14.0	1227.066	33.569	376.353	2.997%	38.021%
15.0	1099.245	31.937	408.289	2.851%	41.247%
16.0	960.891	30.187	438.476	2.695%	44.297%
17.0	855.330	28.283	466.759	2.525%	47.154%
18.0	755.824	26.564	493.324	2.372%	49.838%
19.0	682.284	25.020	518.344	2.234%	52.366%
20.0	619.523	23.827	542.171	2.127%	54.773%
21.0	572.646	22.892	565.063	2.044%	57.085%
22.0	538.059	22.320	587.383	1.993%	59.340%
23.0	511.453	22.022	609.404	1.966%	61.565%
24.0	489.776	21.890	631.295	1.955%	63.777%
25.0	470.728	21.840	653.135	1.950%	65.983%
26.0	455.963	21.875	675.009	1.953%	68.193%
27.0	441.654	21.960	696.97	1.961%	70.411%
28.0	428.372	22.027	718.997	1.967%	72.637%
29.0	415.167	22.069	741.066	1.970%	74.866%
30.0	403.629	22.107	763.174	1.974%	77.100%
31.0	391.598	22.130	785.304	1.976%	79.335%
32.0	380.820	22.129	807.433	1.976%	81.571%
33.0	367.833	22.056	829.488	1.969%	83.799%
34.0	345.136	21.577	851.065	1.926%	85.979%
35.0	318.234	20.602	871.666	1.839%	88.060%
36.0	279.956	19.047	890.713	1.701%	89.984%
37.0	238.915	16.923	907.636	1.511%	91.694%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	187.376	14.229	921.865	1.270%	93.131%
39.0	139.430	11.155	933.019	.996%	94.258%
40.0	92.243	8.080	941.099	.721%	95.074%
41.0	58.950	5.384	946.483	.481%	95.618%
42.0	35.156	3.419	949.902	.305%	95.964%
43.0	22.753	2.145	952.047	.192%	96.181%
44.0	18.070	1.541	953.588	.138%	96.336%
45.0	14.864	1.266	954.854	.113%	96.464%
46.0	11.081	1.015	955.869	.091%	96.567%
47.0	9.563	0.821	956.69	.073%	96.649%
48.0	9.218	0.759	957.449	.068%	96.726%
49.0	8.873	0.743	958.192	.066%	96.801%
50.0	8.599	0.728	958.92	.065%	96.875%
51.0	8.381	0.718	959.639	.064%	96.947%
52.0	8.156	0.710	960.348	.063%	97.019%
53.0	7.966	0.701	961.05	.063%	97.090%
54.0	7.791	0.695	961.744	.062%	97.160%
55.0	7.622	0.688	962.432	.061%	97.230%
56.0	7.446	0.681	963.113	.061%	97.298%
57.0	7.305	0.674	963.787	.060%	97.367%
58.0	7.151	0.669	964.456	.060%	97.434%
59.0	6.996	0.661	965.117	.059%	97.501%
60.0	6.863	0.655	965.772	.058%	97.567%
61.0	6.736	0.649	966.421	.058%	97.633%
62.0	6.645	0.645	967.066	.058%	97.698%
63.0	6.539	0.641	967.707	.057%	97.763%
64.0	6.476	0.639	968.346	.057%	97.827%
65.0	6.680	0.651	968.997	.058%	97.893%
66.0	7.334	0.699	969.696	.062%	97.963%
67.0	8.902	0.816	970.512	.073%	98.046%
68.0	10.188	0.967	971.479	.086%	98.144%
69.0	10.582	1.060	972.539	.095%	98.251%
70.0	10.772	1.097	973.636	.098%	98.361%
71.0	10.723	1.111	974.746	.099%	98.474%
72.0	10.540	1.106	975.852	.099%	98.585%
73.0	10.308	1.090	976.942	.097%	98.696%
74.0	10.076	1.072	978.014	.096%	98.804%
75.0	9.745	1.047	979.061	.094%	98.910%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.288	1.010	980.072	.090%	99.012%
77.0	8.677	0.958	981.029	.086%	99.108%
78.0	7.924	0.889	981.918	.079%	99.198%
79.0	7.172	0.811	982.729	.072%	99.280%
80.0	6.806	0.754	983.483	.067%	99.356%
81.0	6.757	0.733	984.216	.065%	99.430%
82.0	6.729	0.731	984.947	.065%	99.504%
83.0	6.673	0.729	985.676	.065%	99.578%
84.0	6.574	0.722	986.398	.064%	99.651%
85.0	6.441	0.710	987.108	.063%	99.722%
86.0	5.970	0.678	987.786	.061%	99.791%
87.0	4.823	0.591	988.377	.053%	99.851%
88.0	4.507	0.511	988.888	.046%	99.902%
89.0	4.402	0.488	989.376	.044%	99.952%
90.0	4.324	0.478	989.855	.043%	100.000%

Zonal flux distribution table

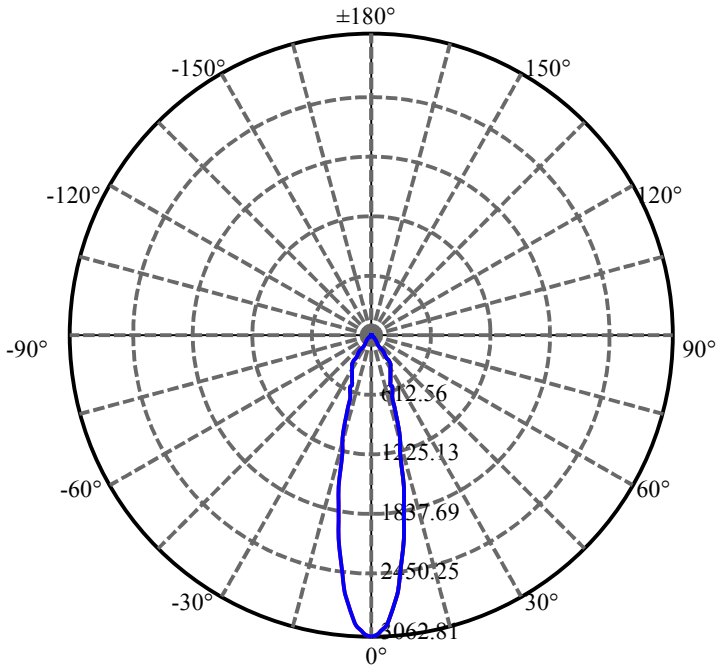
ZONAL LUMEN SUMMARY

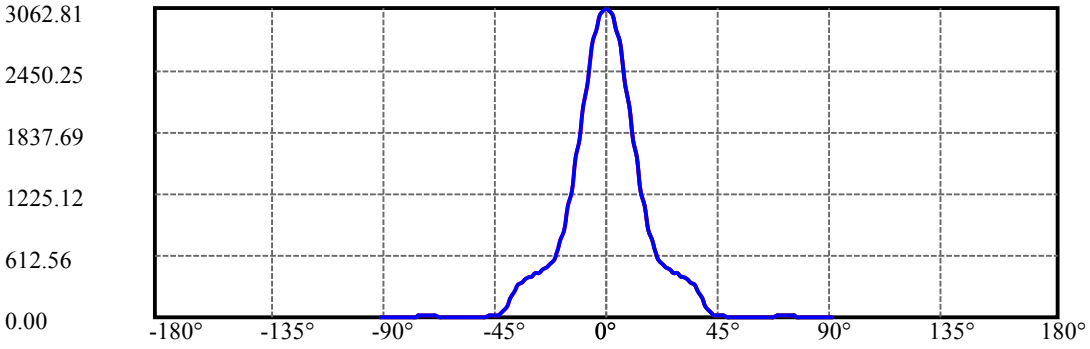
Zone	Lumens	%Lamp	%Fixt
0-30	763.17	68.14%	77.10%
0-40	941.10	84.03%	95.07%
0-60	965.77	86.23%	97.57%
0-90	989.38	88.34%	99.95%
0-120	989.38	88.34%	99.95%
0-180	989.85	88.38%	100.00%
60-90	24.26	2.17%	2.45%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.30	791.88	70.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	234.40
10-20	307.77
20-30	221.00
30-40	177.93
40-50	17.82
50-60	6.85
60-70	7.86
70-80	9.85
80-90	5.89
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):

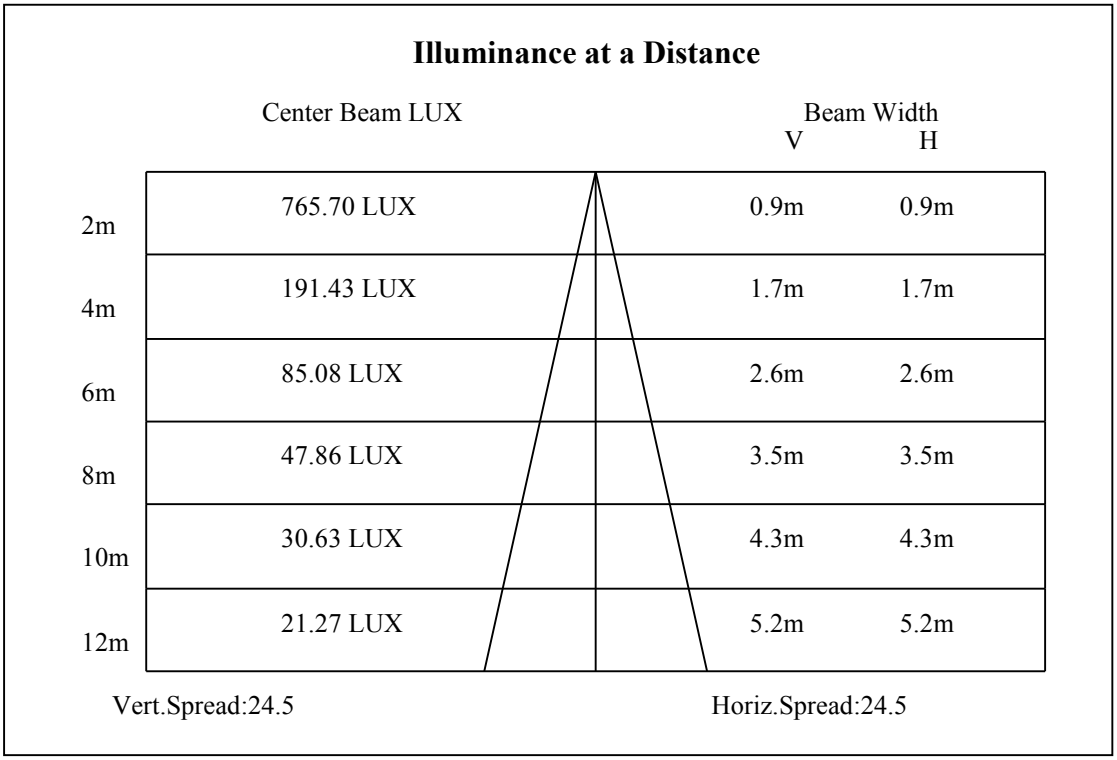
C0/C180:

C90/C270:

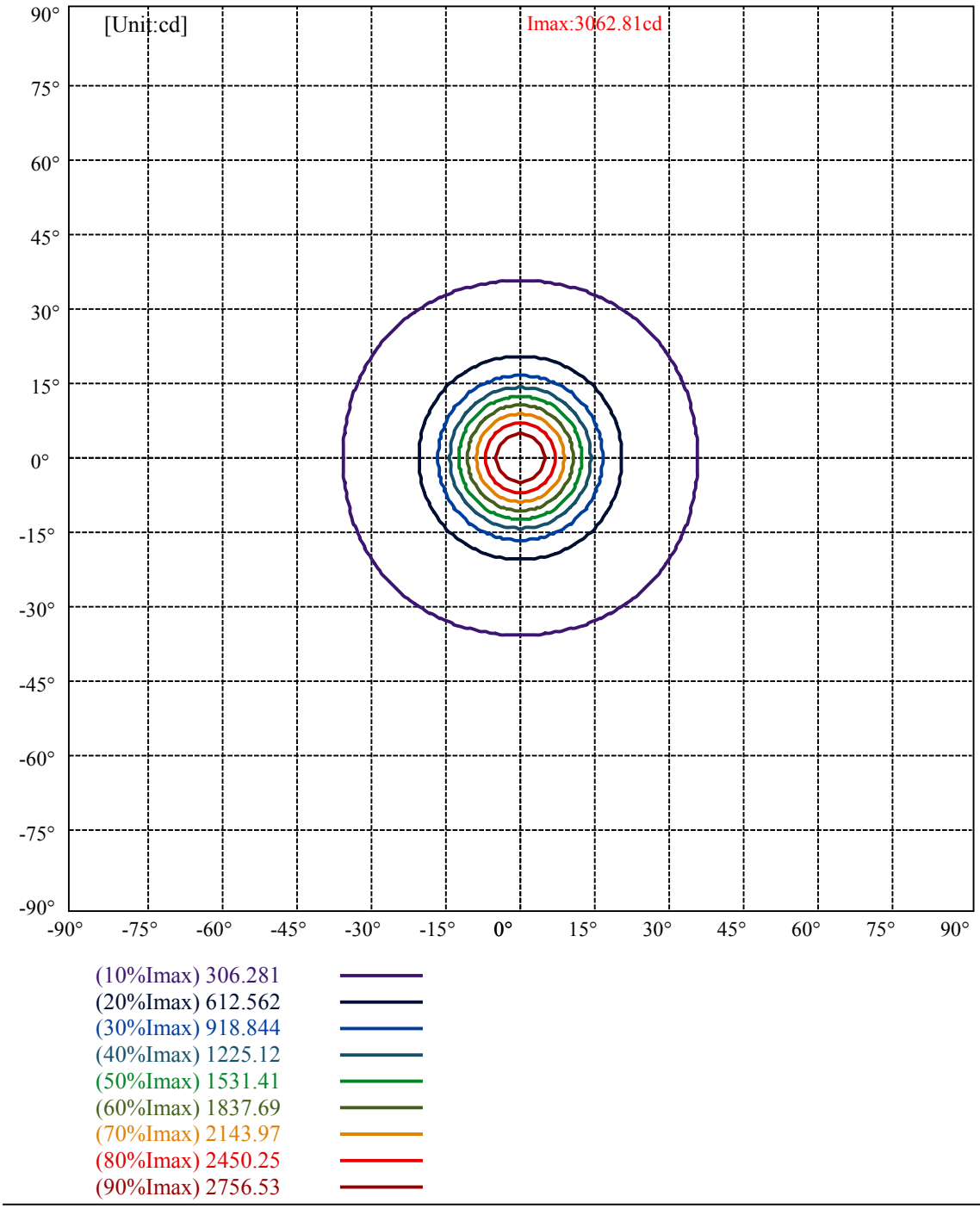
Field angle(10%Imax):C0/180Left:35.3 Right:35.3
:C90/270Left:35.3 Right:35.3

Beam Angle(50%Imax):C0/180Left:12.3 Right:12.3
:C90/270Left:12.3 Right:12.3

Lux distance Curve



ISO-Intensity(V-H)

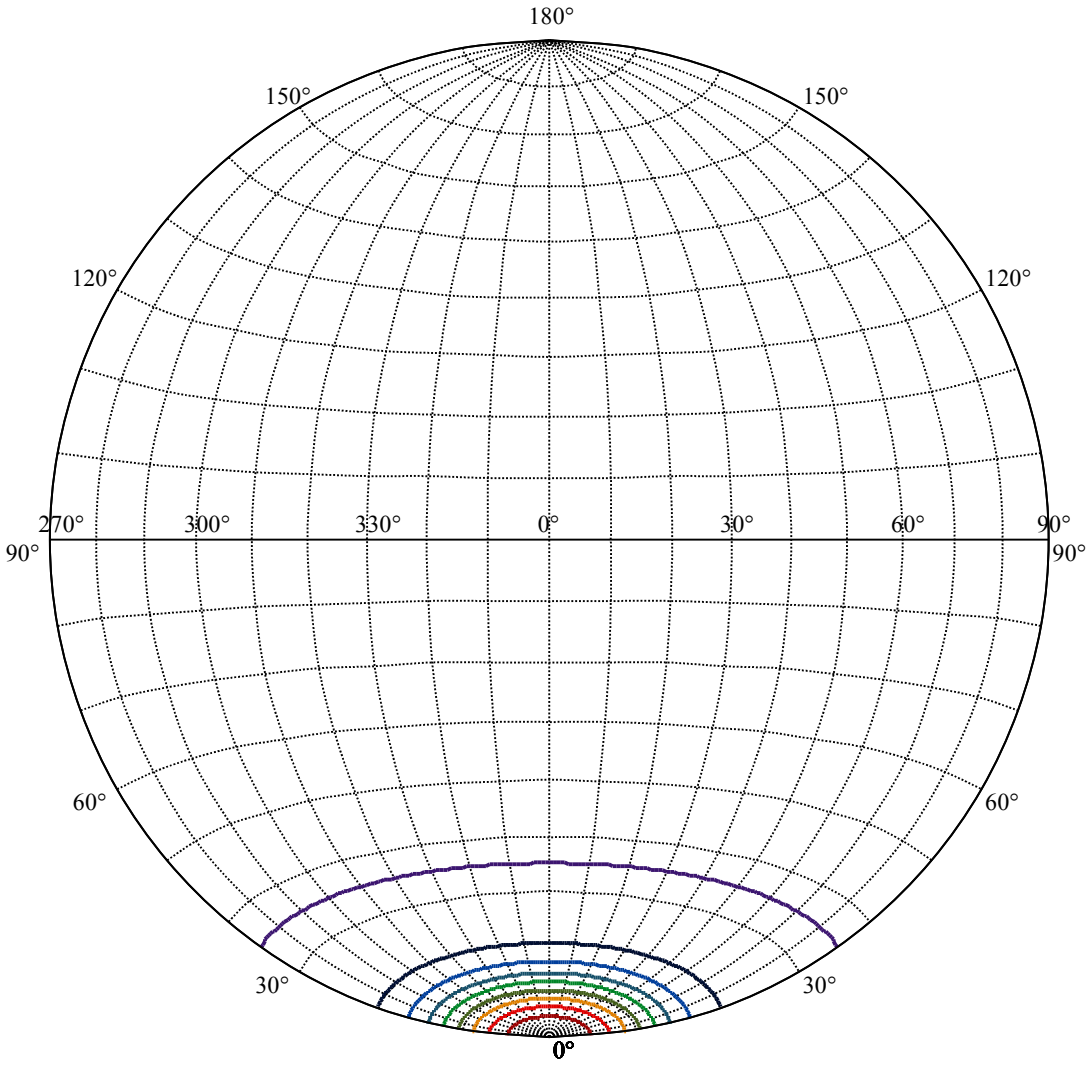


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/8/30
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



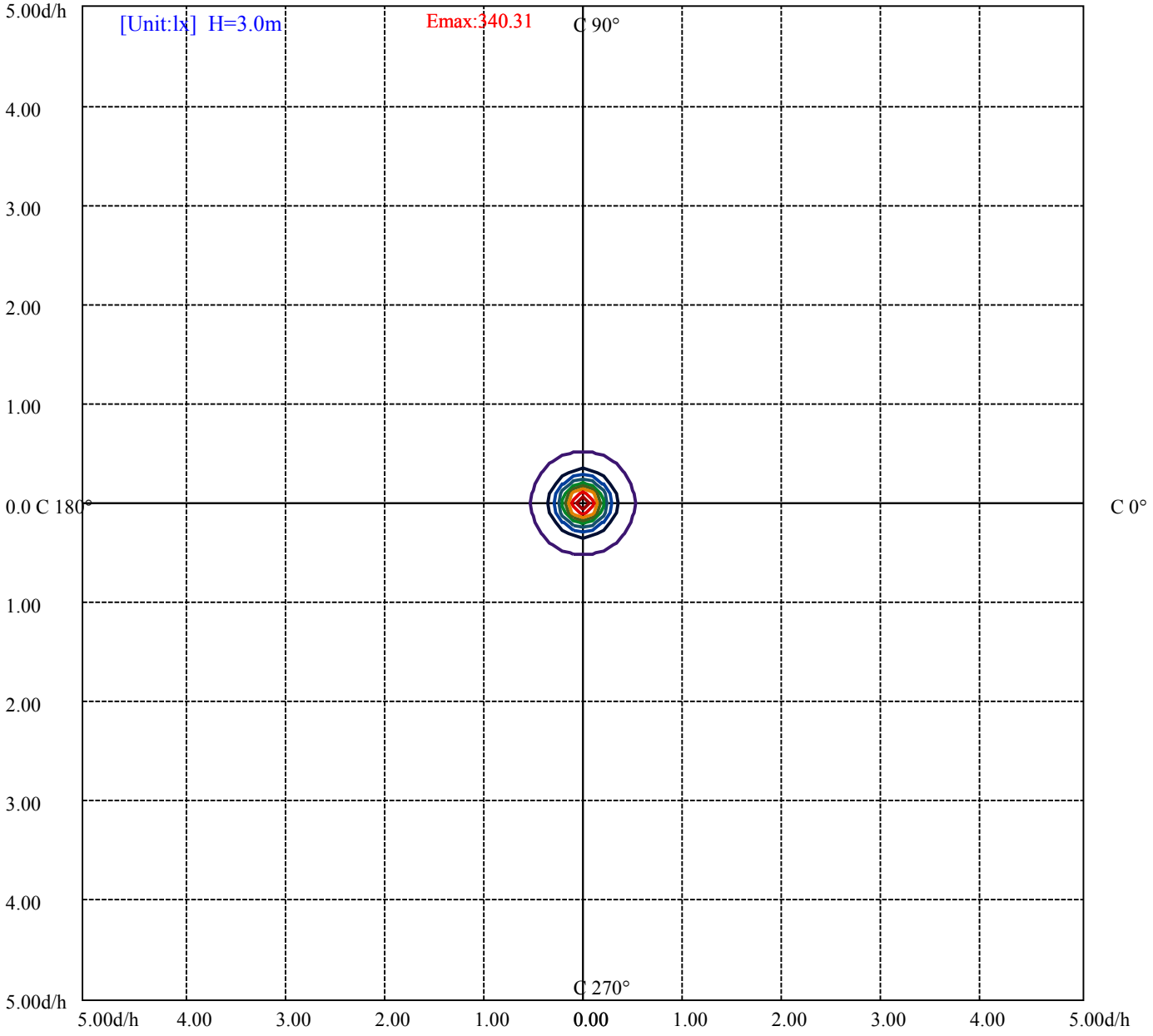
House [Unit:cd] Road

Imax:3062.81

(10%Imax) 306.281
(20%Imax) 612.562
(30%Imax) 918.844
(40%Imax) 1225.12
(50%Imax) 1531.41
(60%Imax) 1837.69
(70%Imax) 2143.97
(80%Imax) 2450.25
(90%Imax) 2756.53

Equipment: GMS1980 Date: 2019/8/30 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

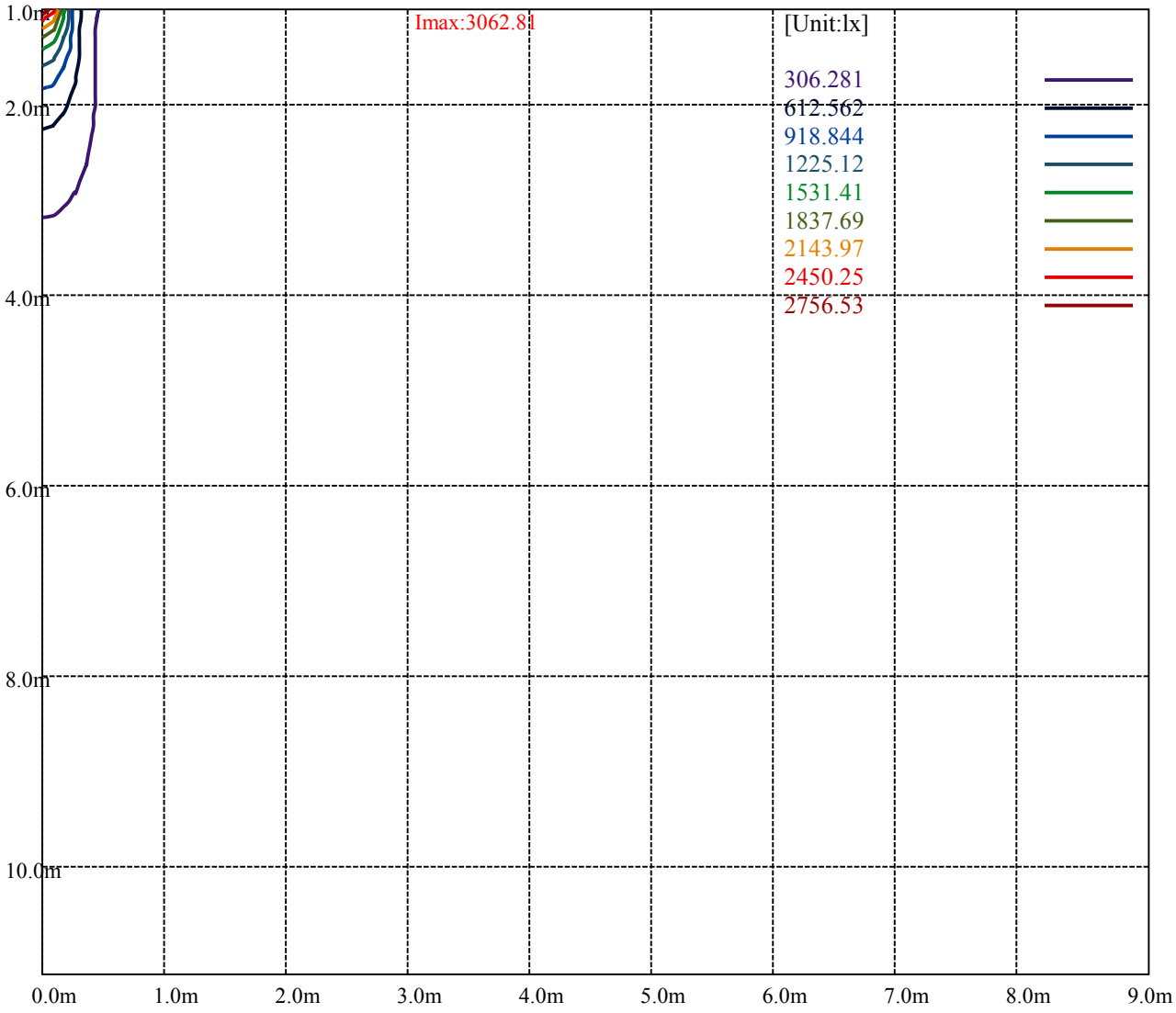
ISO illuminance diagram



(10%Emax) 34.03122
(20%Emax) 68.06245
(30%Emax) 102.0937
(40%Emax) 136.1245
(50%Emax) 170.1567
(60%Emax) 204.1878
(70%Emax) 238.2189
(80%Emax) 272.25
(90%Emax) 306.2811

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2019/8/30
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/8/30
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

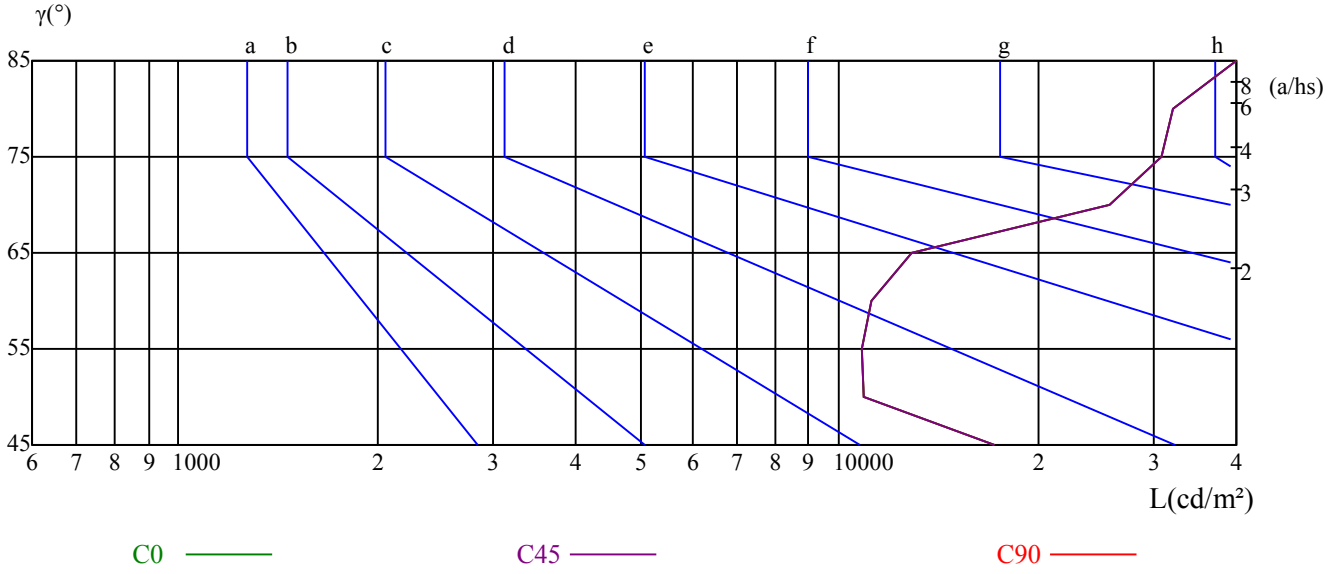
γ	45	50	55	60	65	70	75	80	85
C0	17160	10921	10848	11204	12902	25710	30737	31996	60325
C45	17160	10921	10848	11204	12902	25710	30737	31996	60325
C90	17160	10921	10848	11204	12902	25710	30737	31996	60325

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
12902	12902	12902	30737	30737	30737	60325	60325	60325

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

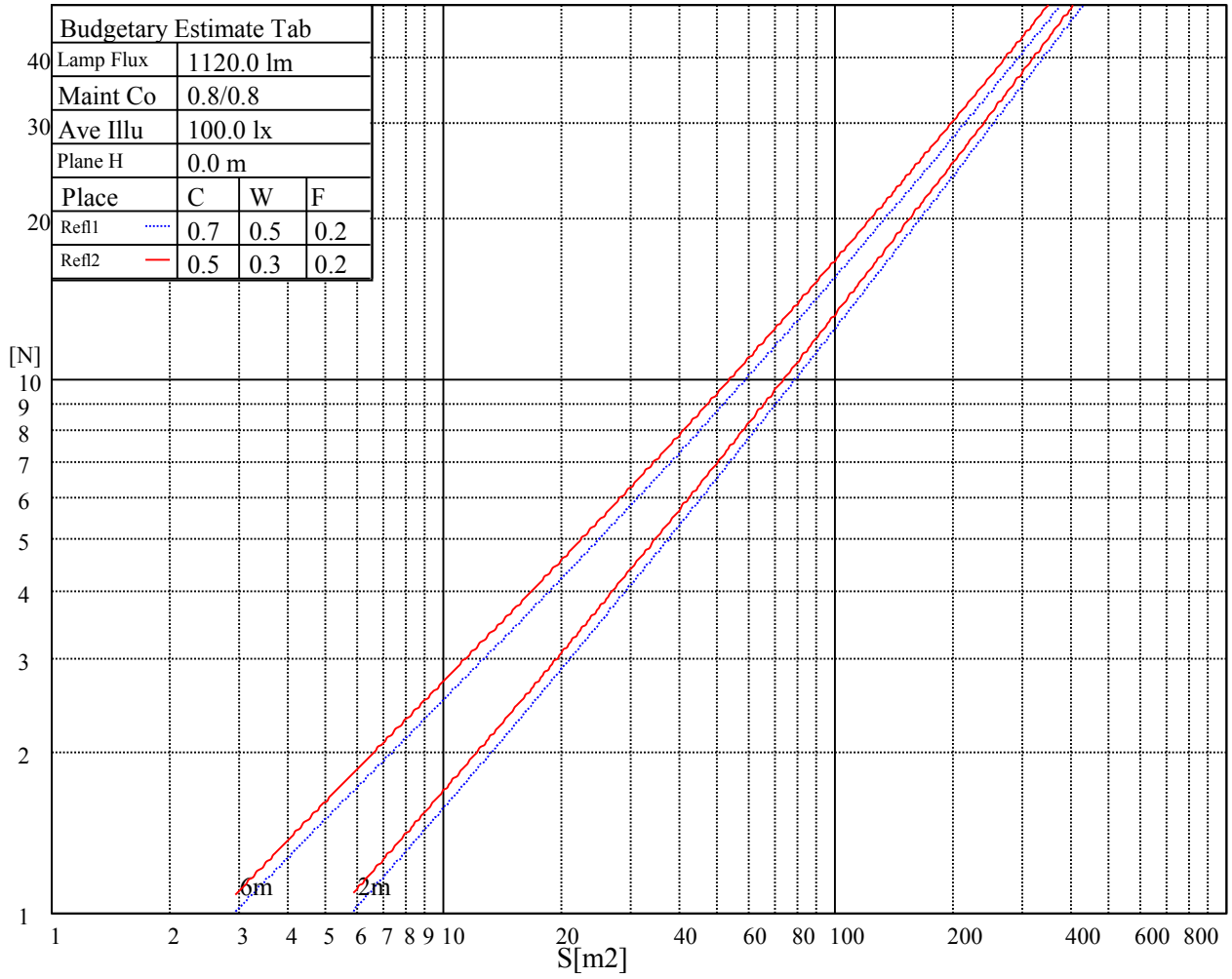


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/8/30
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Budgetary Estimate Table

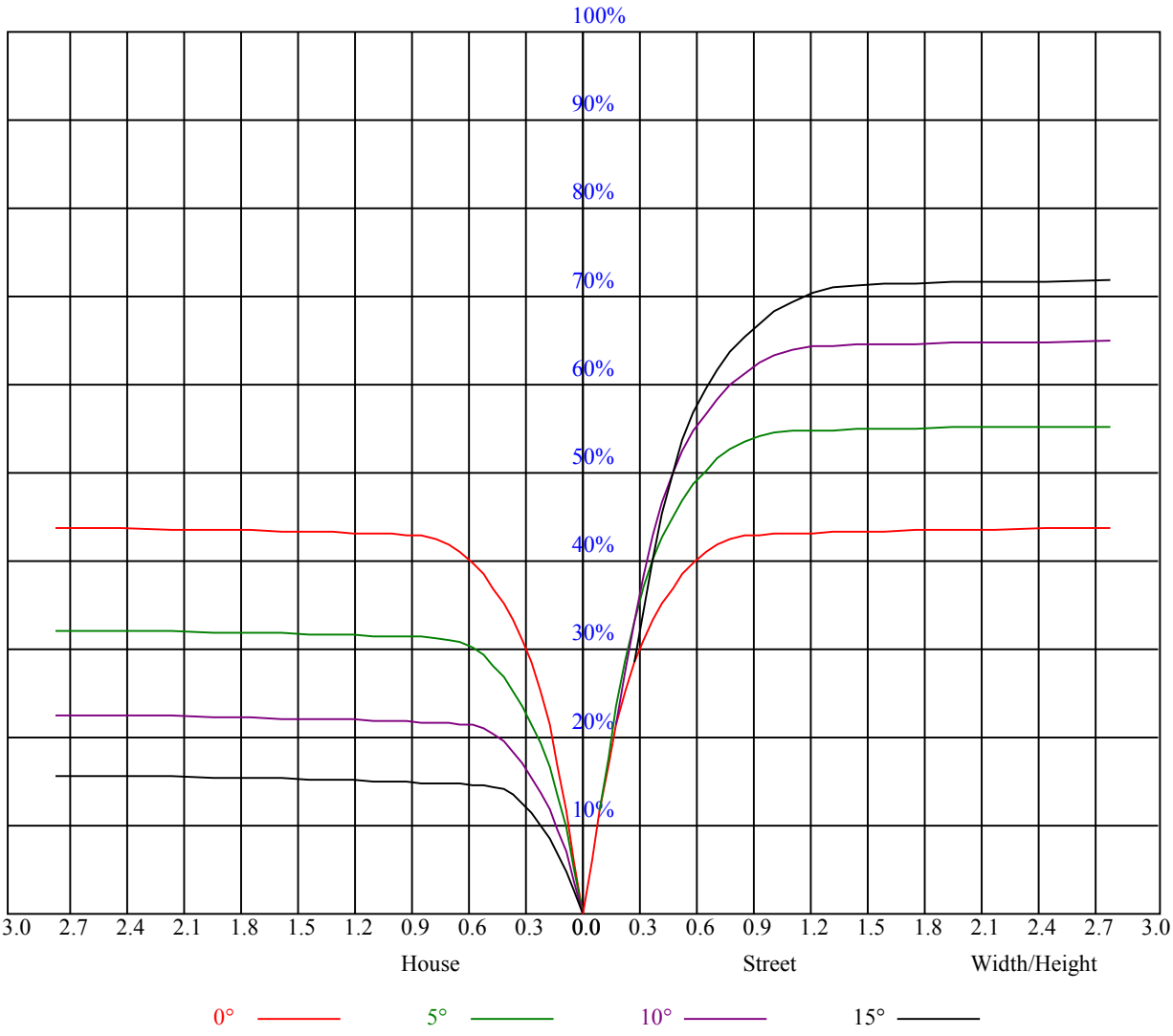


Equipment: GMS1980 Date: 2019/8/30 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

Utilization factor table for indoor luminaire

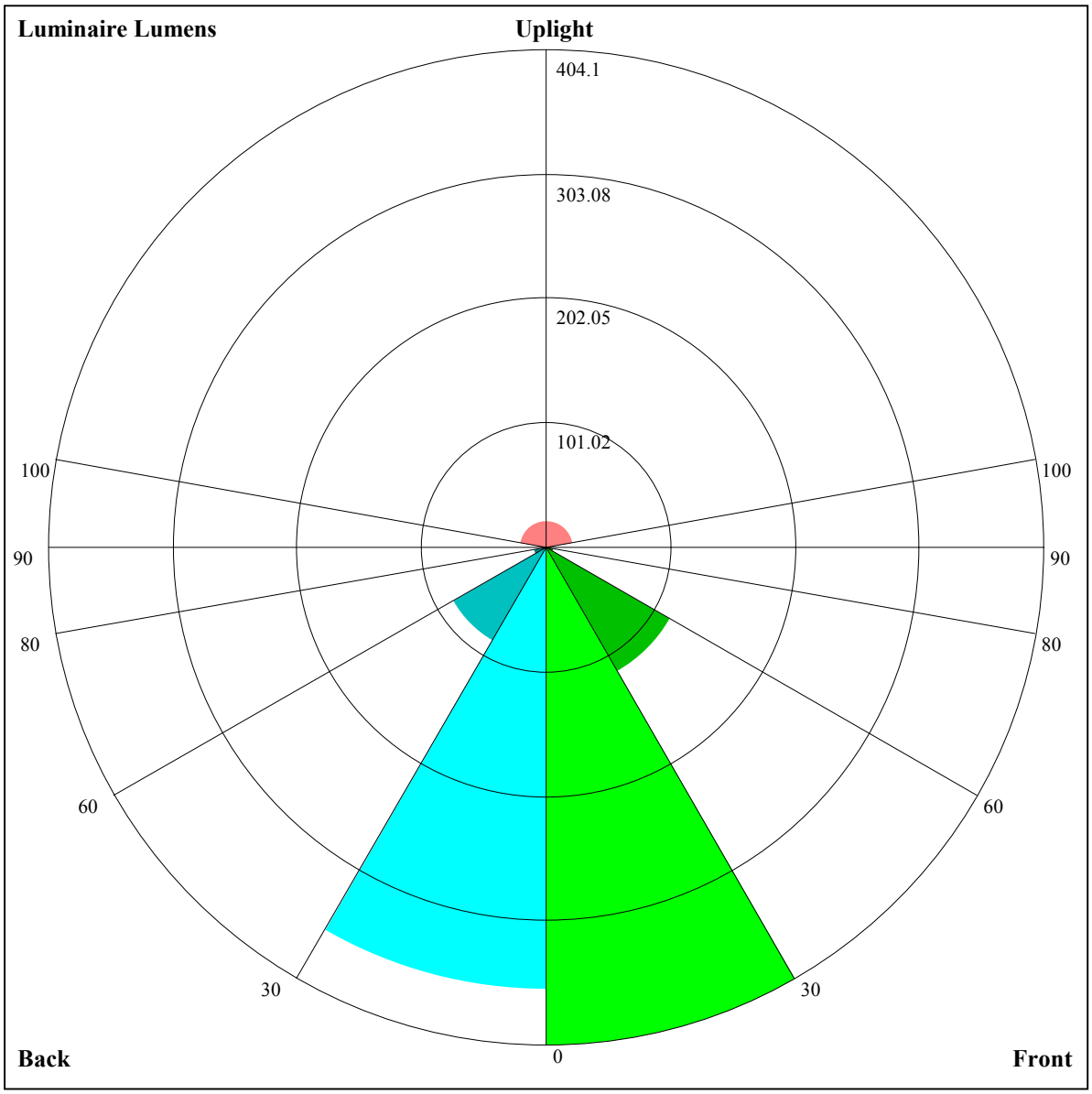
RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.98	0.96	0.94	0.96	0.94	0.93	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.85	0.83
2	0.92	0.89	0.86	0.91	0.88	0.85	0.88	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.80	0.78
3	0.87	0.83	0.79	0.86	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.76	0.79	0.77	0.75	0.74
4	0.82	0.78	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.76	0.73	0.71	0.70
5	0.78	0.73	0.70	0.77	0.73	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
6	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
7	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60
8	0.67	0.63	0.60	0.67	0.63	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.58
9	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
10	0.62	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.57	0.54	0.60	0.56	0.54	0.53

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/8/30	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

LCS Graph



Luminaire Lumens:

FL=404.1,FM=116.42,FH=5.96,FVH=2.75

BL=359.02,BM=87.85,BH=10.91,BVH=3.55

UL=4.72,UH=22.45

BUG Rating:B1-U2-G0

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	3045.38	3160.13	3251.25	3288.94	3272.06	3202.88	3098.25	2945.81	2783.81
45.0	3023.44	3090.38	3128.06	3133.69	3097.13	3026.81	2935.13	2807.44	2640.94
90.0	3061.13	3026.81	2967.19	2869.31	2771.44	2660.63	2519.44	2366.44	2213.44
135.0	3114.00	3015.00	2893.50	2774.25	2633.06	2482.88	2346.75	2190.38	2049.19
180.0	3060.00	2932.88	2806.88	2649.94	2490.75	2346.19	2202.75	2024.44	1893.38
225.0	3023.44	2931.19	2827.69	2676.94	2547.00	2398.50	2224.69	2052.00	1901.81
270.0	3061.13	3069.00	3027.94	2966.06	2865.94	2736.00	2597.63	2427.19	2253.94
315.0	3114.00	3175.31	3199.50	3176.44	3128.63	3036.94	2883.38	2731.50	2547.56
360.0	3045.38	3160.13	3251.25	3288.94	3272.06	3202.88	3098.25	2945.81	2783.81

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2547.00	2338.88	2120.06	1901.81	1639.13	1439.44	1261.13	1065.94	937.13
45.0	2454.19	2278.69	2057.06	1863.00	1628.44	1418.63	1252.69	1078.88	948.38
90.0	2038.50	1866.38	1716.19	1549.69	1405.13	1203.19	1078.37	975.60	871.99
135.0	1900.69	1758.94	1632.38	1500.19	1338.75	1213.88	1093.50	952.31	854.44
180.0	1762.88	1609.31	1492.31	1380.38	1254.94	1109.19	1013.34	900.56	808.59
225.0	1729.13	1577.81	1446.19	1296.00	1121.63	1034.27	921.43	827.21	737.72
270.0	2057.06	1851.75	1679.63	1515.94	1320.19	1180.69	1056.94	916.31	822.94
315.0	2297.81	2085.75	1869.75	1618.31	1455.75	1217.25	1116.56	970.31	861.47
360.0	2547.00	2338.88	2120.06	1901.81	1639.13	1439.44	1261.13	1065.94	937.13

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	832.50	742.50	675.00	631.13	592.88	568.13	545.63	524.81	508.50
45.0	829.69	743.06	632.81	573.75	542.81	502.88	477.00	460.69	443.81
90.0	753.24	691.26	632.87	579.26	545.63	520.54	496.74	475.03	458.89
135.0	766.69	686.81	624.38	578.25	536.63	505.69	482.06	457.88	437.63
180.0	719.83	646.76	596.48	550.63	513.62	488.81	467.61	443.81	426.60
225.0	640.97	578.03	527.34	479.76	451.13	430.20	415.18	409.16	408.77
270.0	748.69	680.63	624.94	588.94	556.88	534.94	512.44	494.44	479.25
315.0	754.99	689.23	642.38	599.46	564.92	540.45	521.55	500.01	484.26
360.0	832.50	742.50	675.00	631.13	592.88	568.13	545.63	524.81	508.50

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	492.19	475.31	462.94	451.13	435.94	426.38	416.81	403.31	388.13
45.0	433.13	428.06	411.75	397.13	384.75	374.06	366.75	358.31	345.38
90.0	442.86	428.79	415.01	402.36	391.78	381.49	371.36	359.55	336.99
135.0	420.75	406.13	394.88	385.88	372.94	362.81	353.25	322.88	286.31
180.0	411.41	398.03	385.26	375.24	364.56	353.64	329.29	278.72	227.64
225.0	399.88	386.04	373.73	362.59	352.91	339.69	314.94	275.06	226.91
270.0	462.38	449.44	436.50	424.69	411.75	401.63	391.50	378.00	360.00
315.0	470.64	455.18	441.28	430.03	418.16	406.86	398.76	385.26	374.51
360.0	492.19	475.31	462.94	451.13	435.94	426.38	416.81	403.31	388.13

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	378.00	355.50	307.69	288.56	185.34	129.66	74.98	41.23	31.33
45.0	333.00	308.25	285.19	204.64	152.94	100.18	58.11	36.68	26.89
90.0	286.59	236.42	181.13	121.50	69.75	36.06	21.60	16.26	11.98
135.0	227.08	167.57	109.80	65.81	31.33	20.08	15.24	10.97	9.56
180.0	166.95	108.90	63.96	31.78	21.99	17.89	14.06	12.21	11.81
225.0	163.35	115.20	72.51	37.18	27.23	22.33	17.38	15.02	14.06
270.0	325.69	296.44	203.46	146.48	101.08	48.99	24.81	20.53	14.91
315.0	358.99	323.04	275.29	219.49	148.28	96.41	55.07	29.14	24.02
360.0	378.00	355.50	307.69	288.56	185.34	129.66	74.98	41.23	31.33

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	24.75	13.28	8.72	8.33	7.88	7.65	7.43	7.26	7.09
45.0	20.93	16.76	11.87	11.03	10.35	9.79	9.39	8.94	8.49
90.0	9.90	9.23	8.94	8.72	8.49	8.33	8.21	8.04	7.93
135.0	9.06	8.78	8.55	8.44	8.38	8.33	8.27	8.16	8.10
180.0	11.36	10.97	10.74	10.63	10.41	10.24	10.13	10.01	9.90
225.0	13.22	12.60	11.98	11.48	10.80	10.18	9.62	9.11	8.78
270.0	11.53	9.56	8.83	8.49	8.21	7.99	7.76	7.59	7.43
315.0	18.17	7.48	6.86	6.64	6.47	6.30	6.24	6.13	6.02
360.0	24.75	13.28	8.72	8.33	7.88	7.65	7.43	7.26	7.09

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	6.92	6.75	6.53	6.36	6.19	6.08	5.91	5.79	5.68
45.0	8.21	7.88	7.65	7.54	7.26	7.03	6.92	6.69	6.58
90.0	7.76	7.59	7.43	7.26	7.14	6.98	6.86	6.75	6.64
135.0	8.04	7.99	7.88	7.82	7.76	7.65	7.59	7.48	7.43
180.0	9.73	9.51	9.39	9.23	9.11	9.00	8.89	8.78	8.72
225.0	8.49	8.33	8.10	7.82	7.54	7.31	7.03	6.92	6.81
270.0	7.26	7.09	6.86	6.75	6.58	6.41	6.24	6.13	6.02
315.0	5.91	5.85	5.74	5.68	5.63	5.51	5.46	5.34	5.29
360.0	6.92	6.75	6.53	6.36	6.19	6.08	5.91	5.79	5.68

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.57	5.46	5.40	5.29	5.23	5.18	5.06	5.01	4.95
45.0	6.41	6.30	6.13	6.02	5.91	5.79	5.68	5.63	5.57
90.0	6.58	6.47	6.41	6.30	6.24	6.24	6.47	8.21	8.72
135.0	7.37	7.37	7.37	7.65	12.66	19.91	22.50	22.95	22.84
180.0	8.66	8.72	10.91	16.48	24.24	27.68	28.35	28.01	27.34
225.0	6.58	6.47	6.30	6.13	6.24	6.13	6.02	5.85	5.79
270.0	5.91	5.85	5.74	5.68	5.63	5.57	5.57	5.51	5.63
315.0	5.23	5.18	5.18	5.12	5.06	5.01	5.01	5.01	4.95
360.0	5.57	5.46	5.40	5.29	5.23	5.18	5.06	5.01	4.95

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.95	4.84	4.84	4.78	4.78	4.73	4.73	4.73	4.67
45.0	5.51	5.51	5.51	5.46	5.51	5.51	5.51	5.46	5.40
90.0	8.61	8.55	8.49	8.38	7.99	7.65	7.31	7.03	6.86
135.0	22.39	21.71	20.64	19.52	18.06	16.20	13.73	11.31	9.56
180.0	26.04	24.69	23.29	21.71	19.18	16.54	13.50	10.69	10.01
225.0	6.24	6.58	7.14	7.37	8.04	8.04	7.99	7.65	7.48
270.0	5.68	5.74	5.85	5.91	5.91	5.91	5.85	5.79	5.74
315.0	4.89	4.84	4.84	4.84	4.84	4.84	4.78	4.73	4.73
360.0	4.95	4.84	4.84	4.78	4.78	4.73	4.73	4.73	4.67

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.67	4.61	4.61	4.61	4.61	4.56	4.56	4.50	4.44
45.0	5.34	5.29	5.29	5.18	5.18	5.12	4.89	4.73	4.56
90.0	6.81	6.75	6.64	6.53	6.47	6.36	5.40	4.50	4.39
135.0	9.39	9.39	9.34	9.28	9.11	8.94	5.01	4.56	4.44
180.0	10.01	10.07	10.07	9.96	9.79	7.82	4.95	4.50	4.33
225.0	7.48	7.43	7.26	6.98	6.36	5.06	4.56	4.39	4.28
270.0	5.68	5.63	5.57	5.46	5.40	5.34	4.67	4.44	4.39
315.0	4.67	4.67	4.61	4.61	4.61	4.56	4.56	4.44	4.39
360.0	4.67	4.61	4.61	4.61	4.61	4.56	4.56	4.50	4.44

Intensity data(cd)

C/γ(°)	90.0
0.0	4.39
45.0	4.33
90.0	4.33
135.0	4.33
180.0	4.28
225.0	4.28
270.0	4.33
315.0	4.33
360.0	4.39