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NATA

LumCAT: 2-1259-N	
Luminaire: 92.70.045.00+92.70.059.00	
Report No: NATA0100	Voltage(V): 35.2000
Test No: GC2018102003	Current(A): 0.7100
LampCAT: PHILIPS 1208 G7	Power (W): 24.9920
Lamp flux(lm): 3673.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 38

Photometric Results

Lumens(lm): 2740.07
Efficiency(%): 74.60%
Lumens(lm)/Power(W): 110.85
Central intensity(cd): 5511.796
Maximum intensity(cd): 5511.796
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=36.8
[C90/270]Total=36.8
Field angle(10%Imax): [C0/180]Total=68.2
[C90/270]Total=68.2
Maximum s/h(1/2): C0_180=0.61 C90_270=0.61
Maximum s/h(1/4): C0_180=0.60 C90_270=0.60
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 75.43%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.464%

Equipment:
Temperature(°C): 25.0

Date: 2018/10/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50

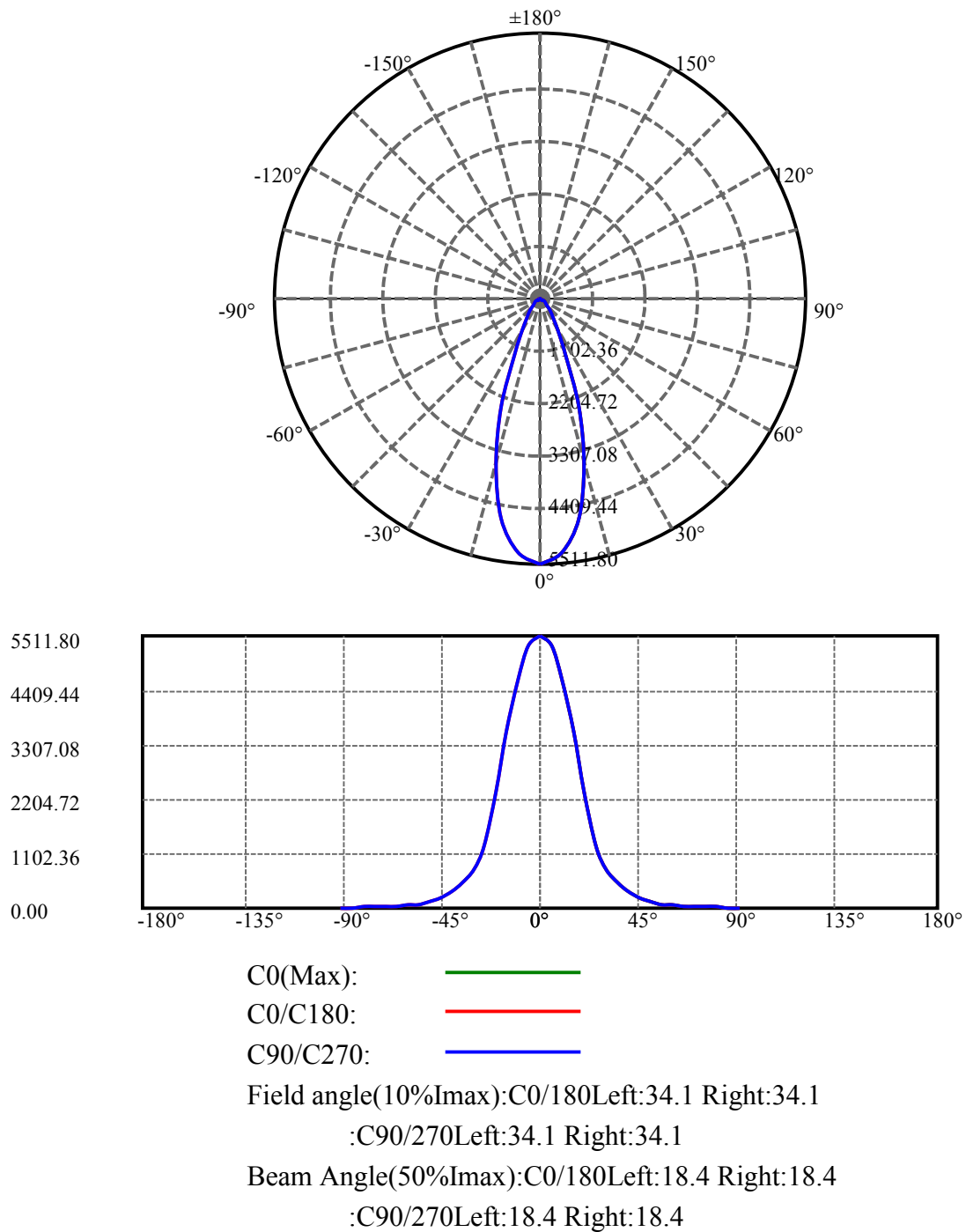
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5511.797	32.962	32.962	.897%	1.203%
5.0	5292.984	252.863	285.825	6.884%	10.431%
10.0	4623.680	440.096	725.921	11.982%	26.493%
15.0	3573.984	507.035	1232.956	13.804%	44.997%
20.0	2377.477	445.715	1678.672	12.135%	61.264%
25.0	1281.797	296.932	1975.604	8.084%	72.101%
30.0	796.753	218.365	2193.969	5.945%	80.070%
35.0	497.489	156.410	2350.379	4.258%	85.778%
40.0	338.077	119.117	2469.495	3.243%	90.125%
45.0	213.968	82.932	2552.427	2.258%	93.152%
50.0	133.692	56.137	2608.564	1.528%	95.201%
55.0	83.749	37.604	2646.168	1.024%	96.573%
60.0	55.371	26.285	2672.453	.716%	97.532%
65.0	37.188	18.474	2690.927	.503%	98.207%
70.0	29.869	15.385	2706.312	.419%	98.768%
75.0	24.047	12.732	2719.044	.347%	99.233%
80.0	19.005	10.259	2729.303	.279%	99.607%
85.0	14.140	7.721	2737.025	.210%	99.889%
90.0	11.095	3.041	2740.065	.083%	100.000%

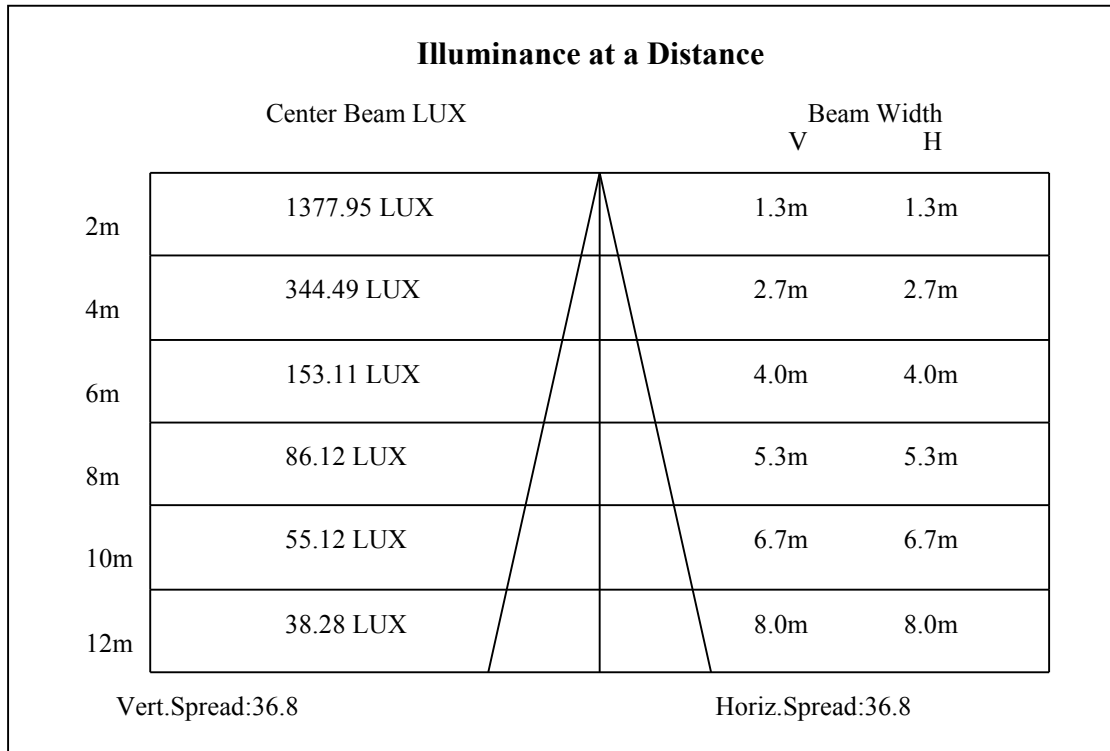
ZONAL LUMEN SUMMARY

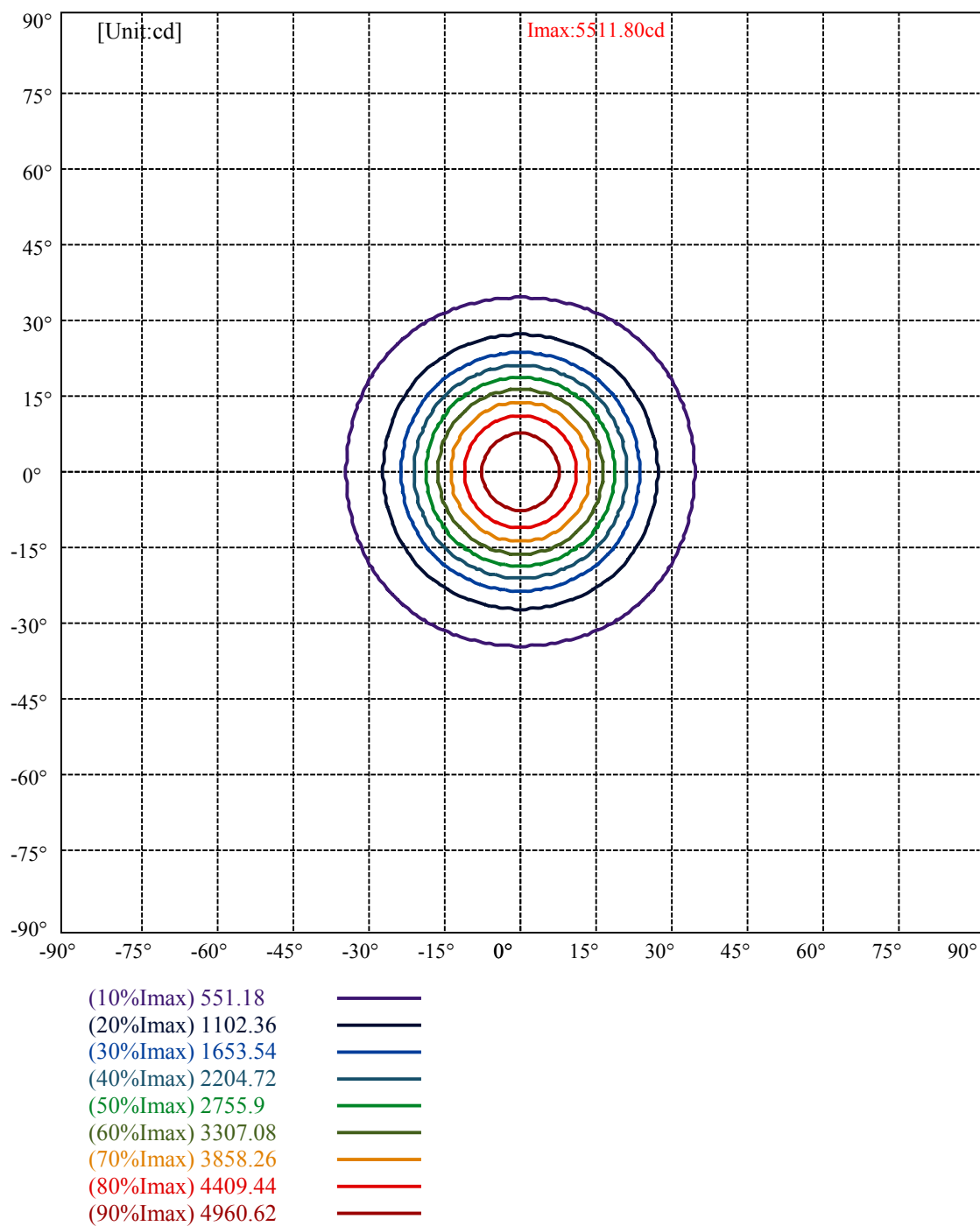
Zone	Lumens	%Lamp	%Fixt
0-30	2193.97	59.73%	80.07%
0-40	2469.50	67.23%	90.13%
0-60	2672.45	72.76%	97.53%
0-90	2737.02	74.52%	99.89%
0-120	2737.02	74.52%	99.89%
0-180	2740.07	74.60%	100.00%
60-90	90.86	2.47%	3.32%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-29.96	2192.05	59.68%	80.00%

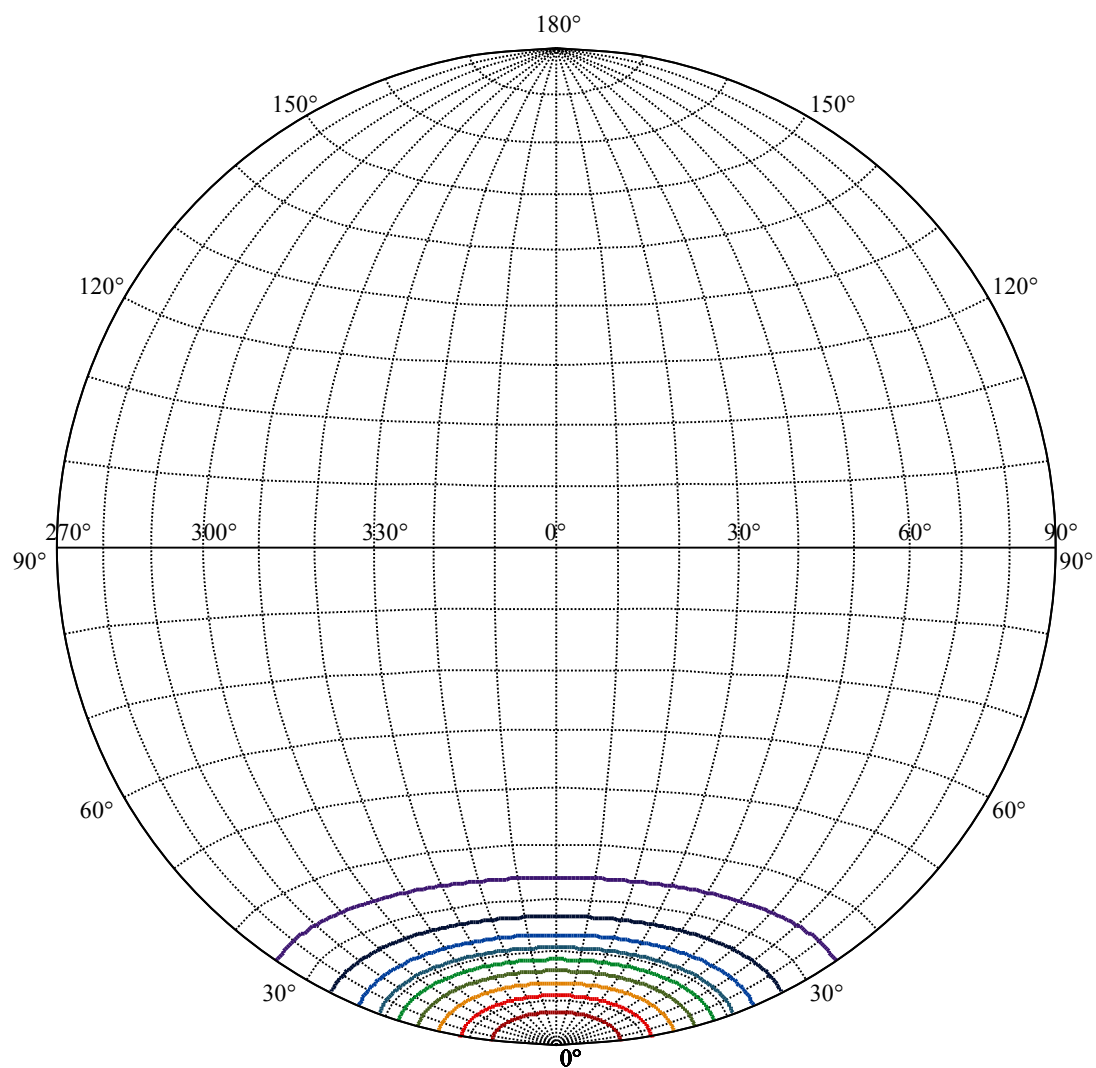
ZONAL LUMEN SUMMARY

0-10	725.92
10-20	952.75
20-30	515.30
30-40	275.53
40-50	139.07
50-60	63.89
60-70	33.86
70-80	22.99
80-90	7.72
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









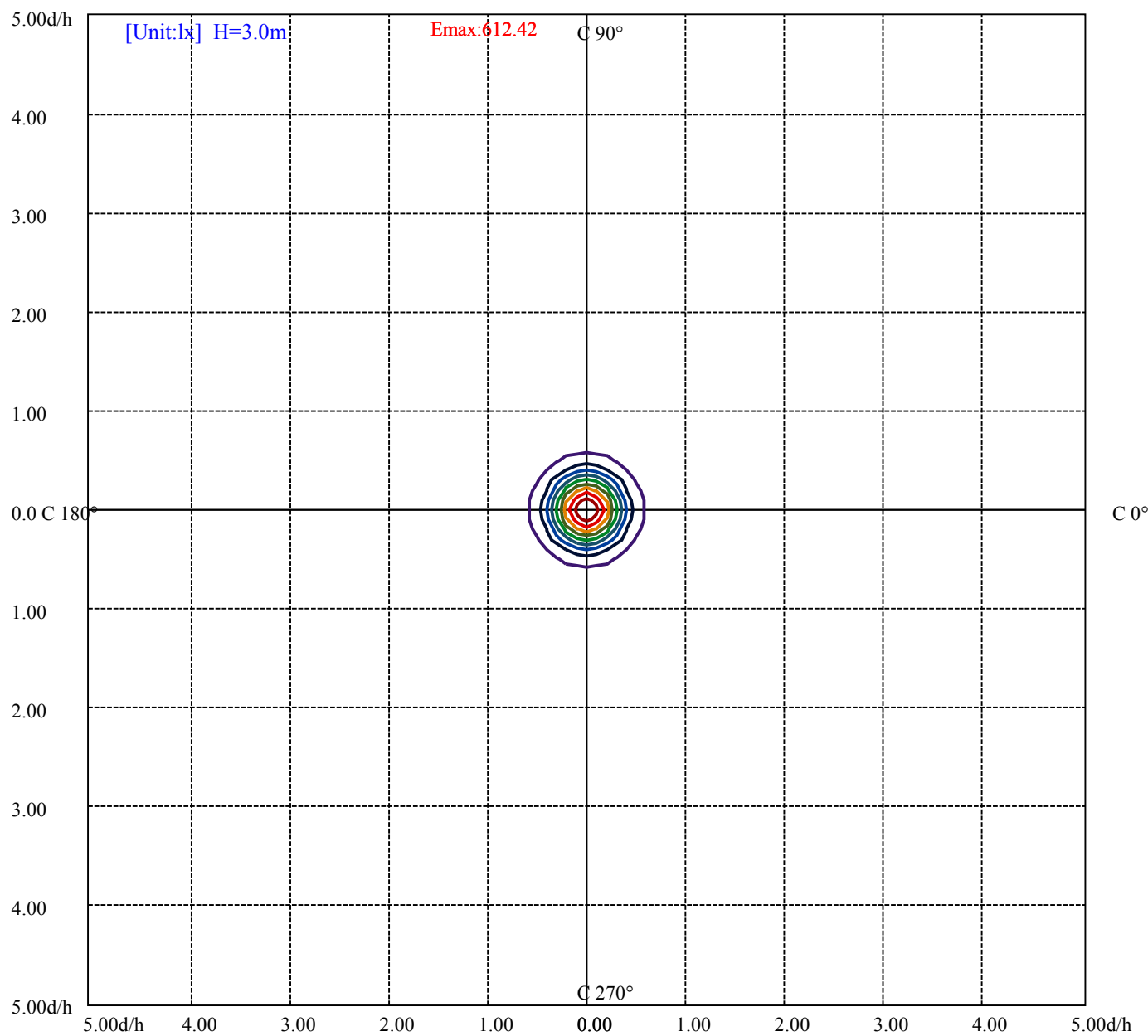
House

[Unit:cd]

Road

Imax:5511.80

(10%Imax)	551.18	—
(20%Imax)	1102.36	—
(30%Imax)	1653.54	—
(40%Imax)	2204.72	—
(50%Imax)	2755.9	—
(60%Imax)	3307.08	—
(70%Imax)	3858.26	—
(80%Imax)	4409.44	—
(90%Imax)	4960.62	—



(10%Emax) 61.24211

(20%Emax) 122.4844

(30%Emax) 183.7267

(40%Emax) 244.9689

(50%Emax) 306.21

(60%Emax) 367.4522

(70%Emax) 428.6945

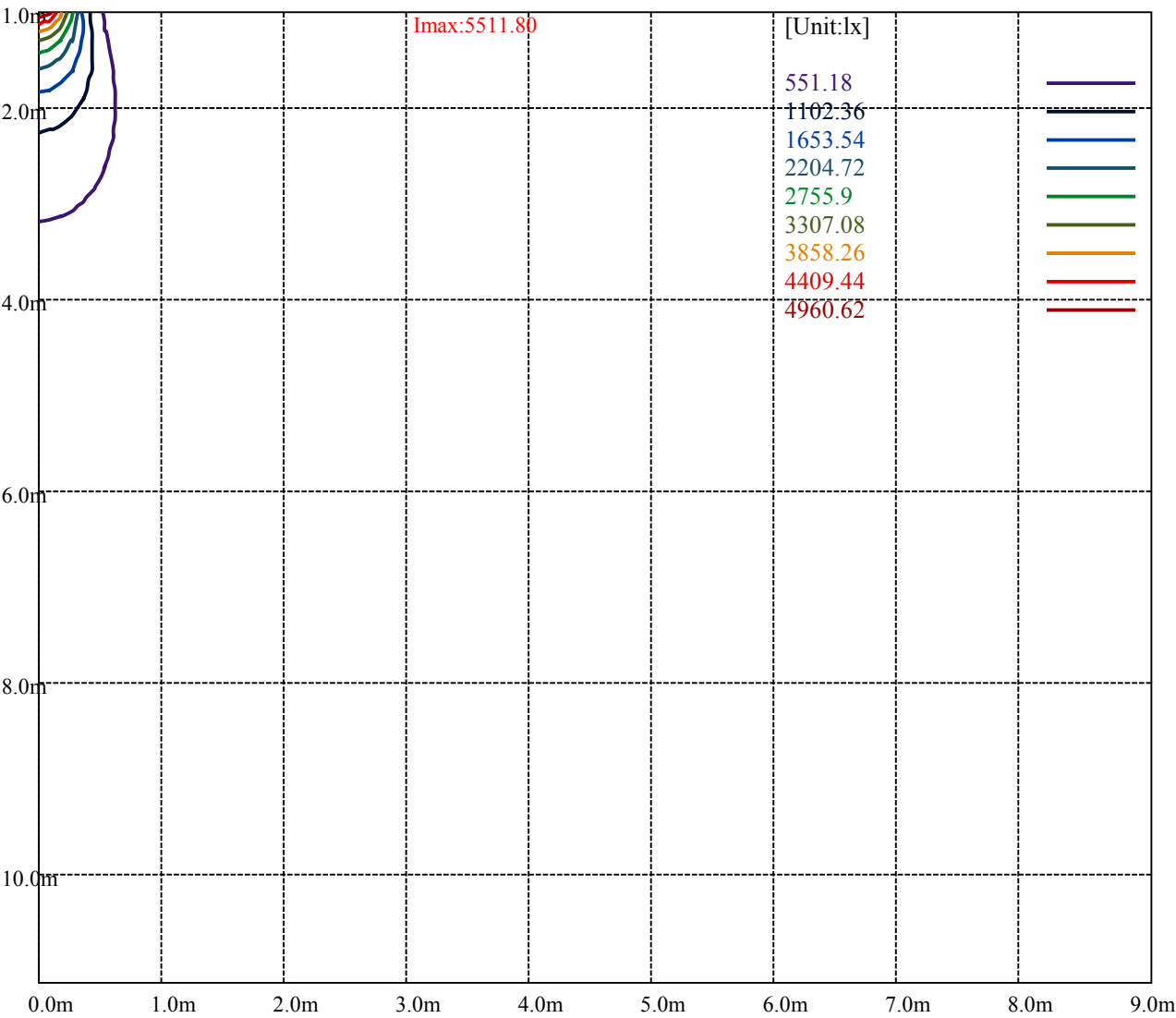
(80%Emax) 489.9367

(90%Emax) 551.1789

Equipment:
Temperature(°C): 25.0

Date: 2018/10/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50



Luminance Table

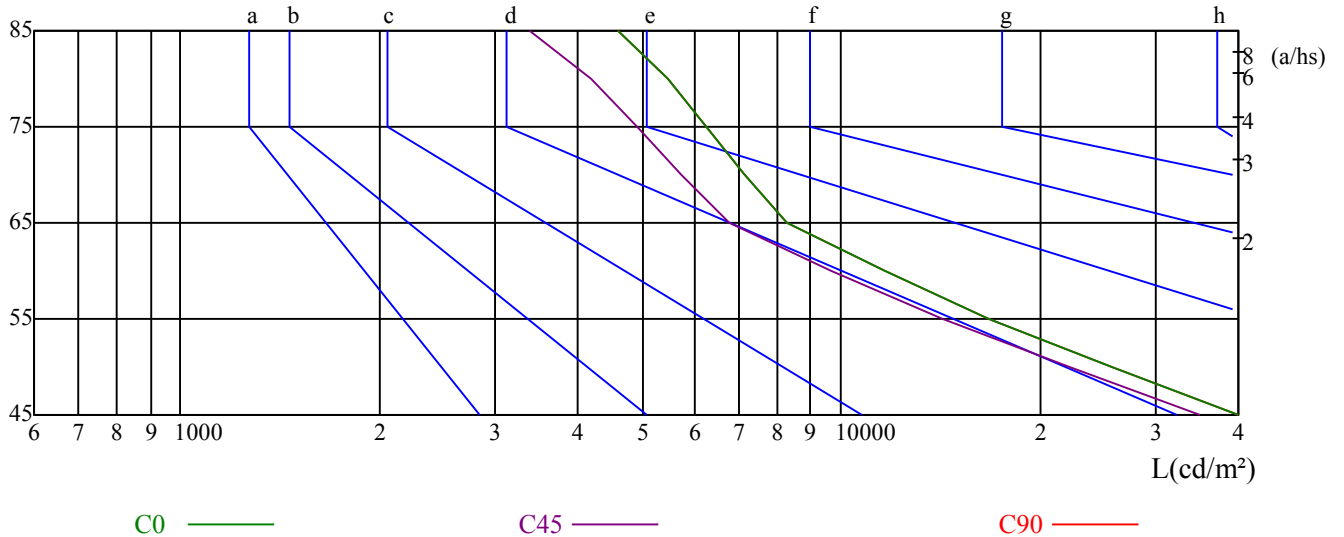
γ	45	50	55	60	65	70	75	80	85
C0	40026	25773	16785	11648	8298	7153	6266	5476	4595
C45	34935	22166	14214	9701	6786	5732	4906	4172	3387
C90	40026	25773	16785	11648	8298	7153	6266	5476	4595

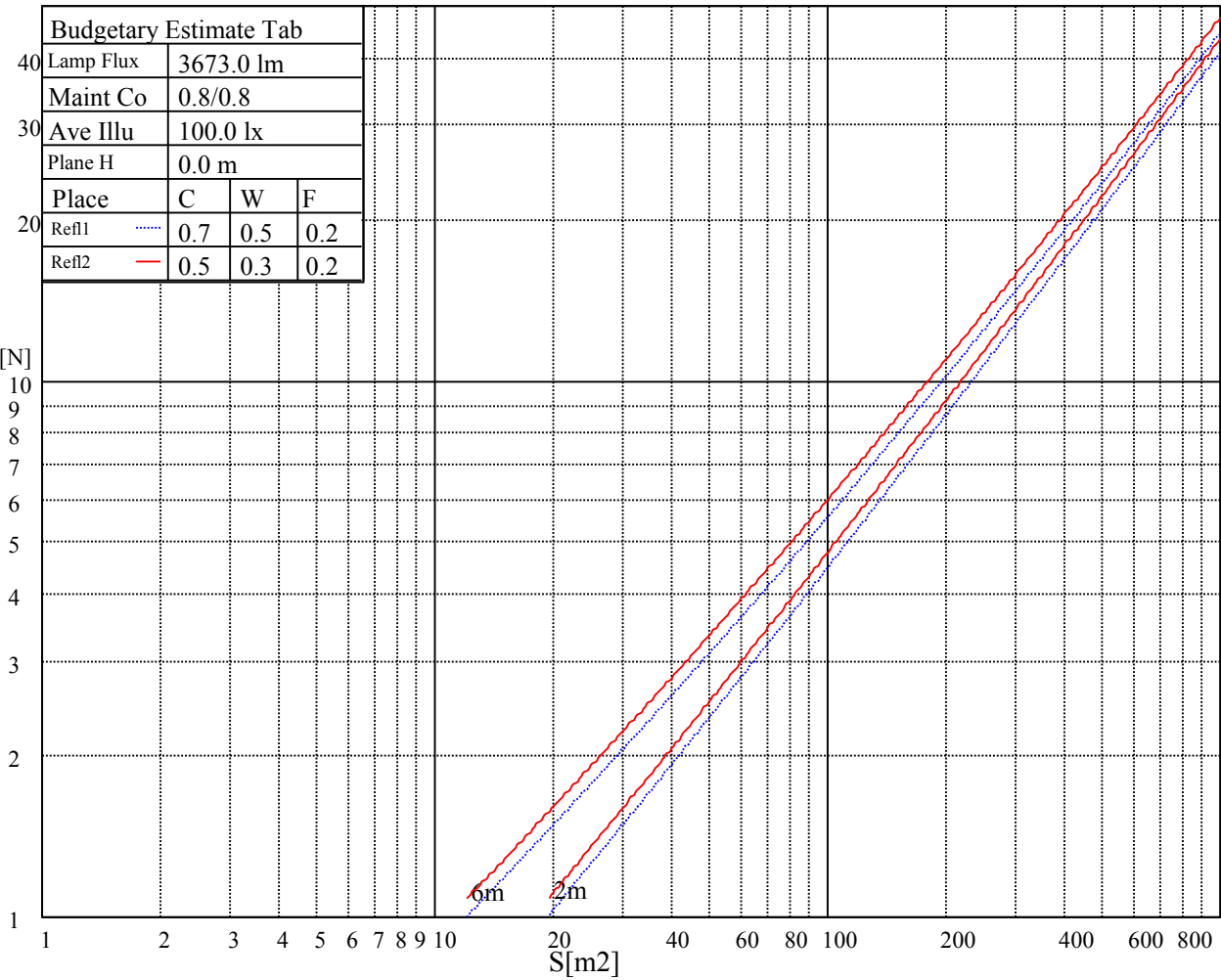
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
17958	17958	17958	18961	18961	18961	33109	33109	33109

Glare Table

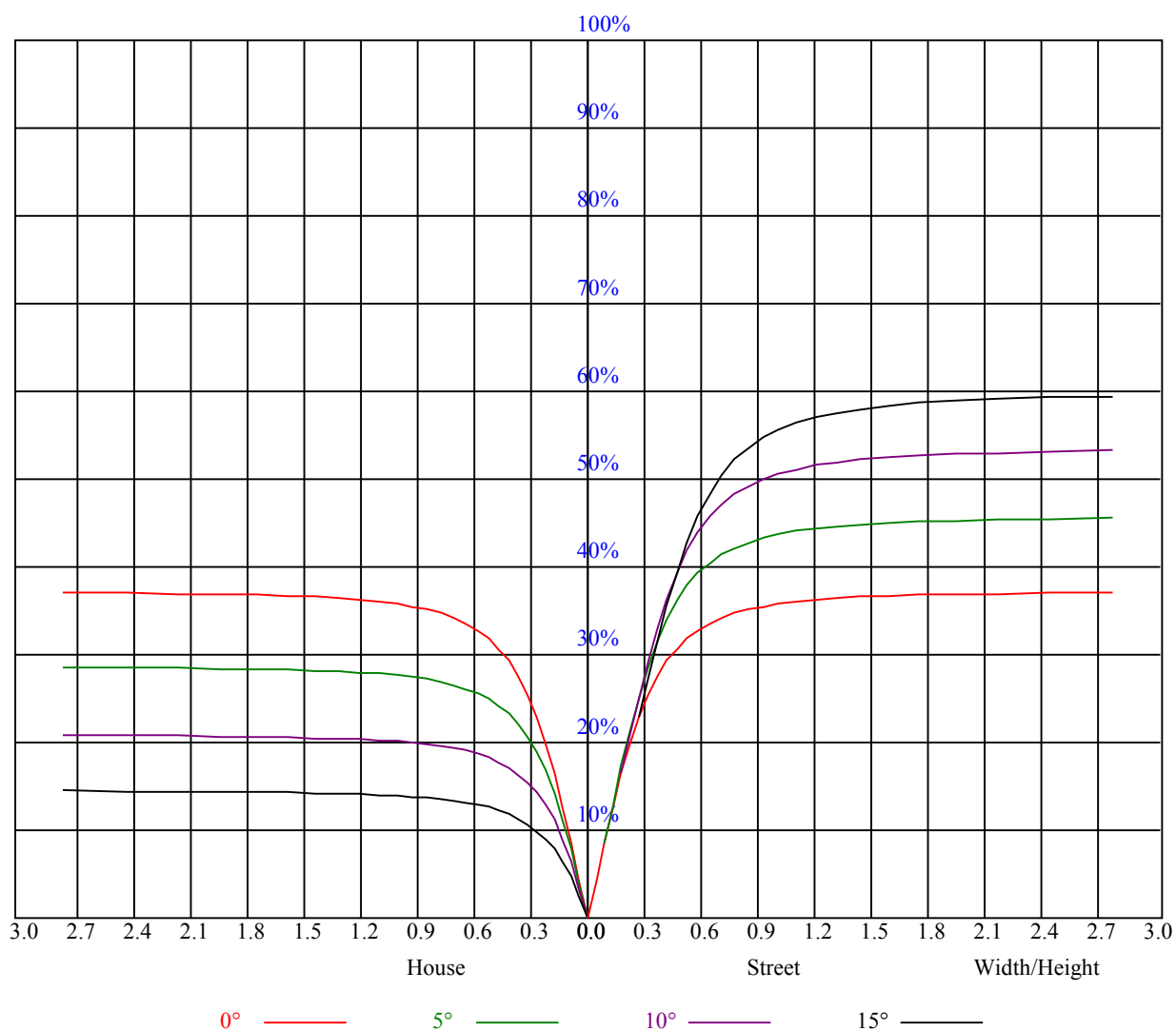
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

 $\gamma(^{\circ})$ 



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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	0.90	0.90	0.90	0.88	0.88	0.88	0.84	0.84	0.84	0.80	0.80	0.80	0.77	0.77	0.77	0.75
1	0.83	0.81	0.79	0.81	0.79	0.78	0.78	0.77	0.75	0.75	0.74	0.73	0.73	0.72	0.71	0.69
2	0.78	0.75	0.72	0.76	0.74	0.71	0.74	0.72	0.70	0.72	0.70	0.68	0.70	0.68	0.67	0.65
3	0.73	0.70	0.67	0.72	0.69	0.66	0.70	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.63	0.62
4	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.61	0.65	0.63	0.61	0.64	0.62	0.60	0.59
5	0.66	0.62	0.59	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.61	0.59	0.57	0.56
6	0.63	0.59	0.56	0.62	0.58	0.55	0.61	0.58	0.55	0.60	0.57	0.55	0.59	0.56	0.54	0.53
7	0.60	0.56	0.53	0.59	0.56	0.53	0.58	0.55	0.53	0.58	0.55	0.52	0.57	0.54	0.52	0.51
8	0.57	0.53	0.51	0.57	0.53	0.51	0.56	0.53	0.50	0.55	0.52	0.50	0.55	0.52	0.50	0.49
9	0.55	0.51	0.49	0.55	0.51	0.48	0.54	0.51	0.48	0.53	0.50	0.48	0.53	0.50	0.48	0.47
10	0.53	0.49	0.47	0.53	0.49	0.47	0.52	0.49	0.46	0.52	0.49	0.46	0.51	0.48	0.46	0.45



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Intensity data(cd)									
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	5506.88	5364.00	4696.88	3758.06	2526.75	1496.25	876.94	536.06	354.94
45.0	5513.63	5284.69	4546.13	3426.19	2311.31	1293.75	772.31	496.13	329.06
90.0	5504.06	5141.81	4386.94	3222.56	2018.81	1089.84	689.57	443.03	297.56
135.0	5522.63	5293.13	4622.06	3618.00	2347.88	1305.56	767.25	491.06	331.31
180.0	5506.88	5226.19	4537.69	3405.38	2206.13	1103.18	734.91	457.03	312.81
225.0	5513.63	5326.31	4721.06	3650.06	2531.81	1300.50	827.66	513.45	351.51
270.0	5504.06	5397.19	4846.50	3901.50	2727.56	1545.75	909.00	554.63	380.81
315.0	5522.63	5310.56	4632.19	3610.13	2349.56	1119.54	796.39	488.53	346.61
360.0	5506.88	5364.00	4696.88	3758.06	2526.75	1496.25	876.94	536.06	354.94
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	222.24	140.91	88.76	59.34	38.42	30.49	24.30	19.46	14.34
45.0	198.34	129.26	80.21	51.81	36.56	29.19	23.34	18.17	13.28
90.0	181.80	116.21	72.39	48.04	34.31	27.79	22.67	17.55	13.05
135.0	199.52	130.95	81.68	52.82	36.51	29.70	24.08	19.46	13.95
180.0	194.63	126.00	77.23	52.48	35.72	28.97	23.46	18.23	13.84
225.0	214.65	140.74	88.26	57.15	37.69	30.43	24.41	19.29	14.74
270.0	290.25	151.93	95.29	64.91	40.56	31.78	25.54	20.42	15.24
315.0	210.32	133.54	86.18	56.42	37.74	30.60	24.58	19.46	14.68
360.0	222.24	140.91	88.76	59.34	38.42	30.49	24.30	19.46	14.34
C/γ(°)	90.0								
0.0	11.08								
45.0	11.03								
90.0	11.08								
135.0	11.03								
180.0	11.03								
225.0	11.14								
270.0	11.36								
315.0	11.03								
360.0	11.08								

Equipment:
Temperature(°C): 25.0

Date: 2018/10/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50