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Nata

Client:
LumCAT: 2-1682-M3
Luminaire: 92.70.125.00+92.70.152.00

Report No: 200915-B019	Voltage(V): 18.1000
Test No: 200914-C019	Current(A): 0.3430
LampCAT: Vesta DW LES6 Gen2 PD	Power (W): 6.2080
Lamp flux(lm): 573.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 482.67, Efficiency(%): 84.26% , Luminous Efficacy(lm/W): 77.75
Central intensity(cd): 862.650, Maximum intensity(cd): 862.650
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=39.6
[C90/270]Total=39.6
Field angle(10%Imax): [C0/180]Total=75.0
[C90/270]Total=75.0
Maximum s/h(1/2): C0_180=0.63 C90_270=0.63
Maximum s/h(1/4): C0_180=0.68 C90_270=0.68
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 84.26%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.541%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	862.650	0.000	0	.000%	.000%
5.0	818.691	20.100	20.1	3.509%	4.164%
10.0	704.820	54.501	74.601	9.515%	15.456%
15.0	564.230	75.279	149.88	13.142%	31.053%
20.0	424.610	81.494	231.374	14.227%	47.937%
25.0	309.080	76.951	308.325	13.434%	63.880%
30.0	218.102	66.715	375.04	11.647%	77.702%
35.0	121.141	49.956	424.996	8.721%	88.052%
40.0	50.871	28.699	453.695	5.010%	93.998%
45.0	19.673	13.062	466.757	2.280%	96.704%
50.0	7.165	5.423	472.18	.947%	97.827%
55.0	2.960	2.202	474.381	.384%	98.284%
60.0	2.405	1.240	475.622	.216%	98.541%
65.0	2.271	1.137	476.758	.198%	98.776%
70.0	2.243	1.143	477.901	.200%	99.013%
75.0	2.222	1.167	479.068	.204%	99.255%
80.0	2.243	1.195	480.263	.209%	99.502%
85.0	2.201	1.207	481.47	.211%	99.752%
90.0	2.166	1.196	482.666	.209%	100.000%

Zonal flux distribution table

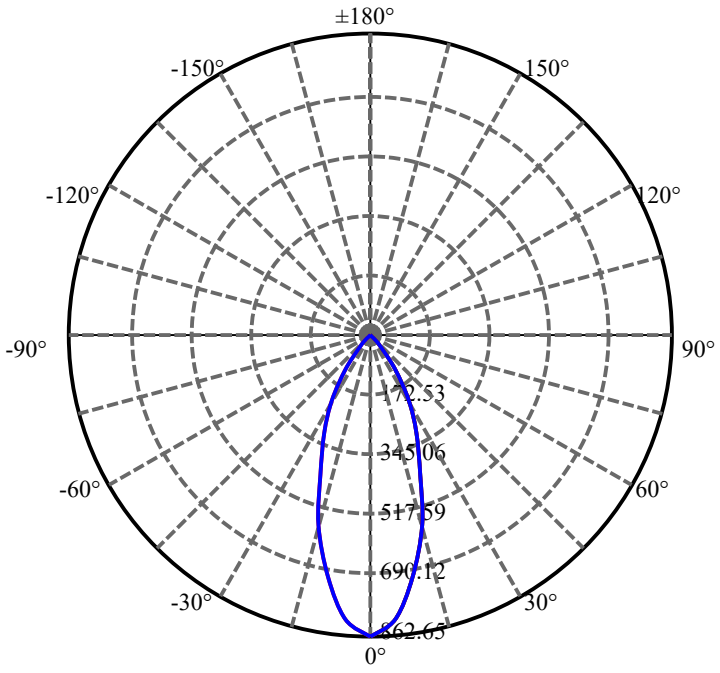
ZONAL LUMEN SUMMARY

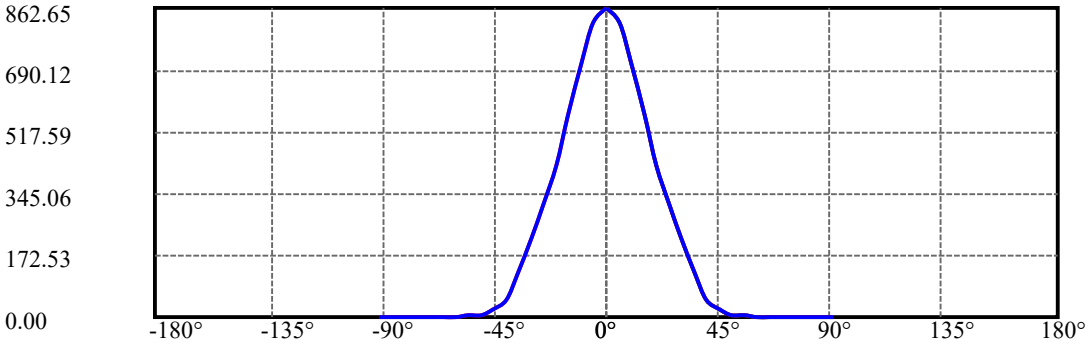
Zone	Lumens	%Lamp	%Fixt
0-30	375.04	65.45%	77.70%
0-40	453.69	79.18%	94.00%
0-60	475.62	83.01%	98.54%
0-90	481.47	84.03%	99.75%
0-120	481.47	84.03%	99.75%
0-180	482.67	84.23%	100.00%
60-90	7.09	1.24%	1.47%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.11	386.13	67.39%	80.00%

ZONAL LUMEN SUMMARY

0-10	74.60
10-20	156.77
20-30	143.67
30-40	78.66
40-50	18.48
50-60	3.44
60-70	2.28
70-80	2.36
80-90	1.21
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:

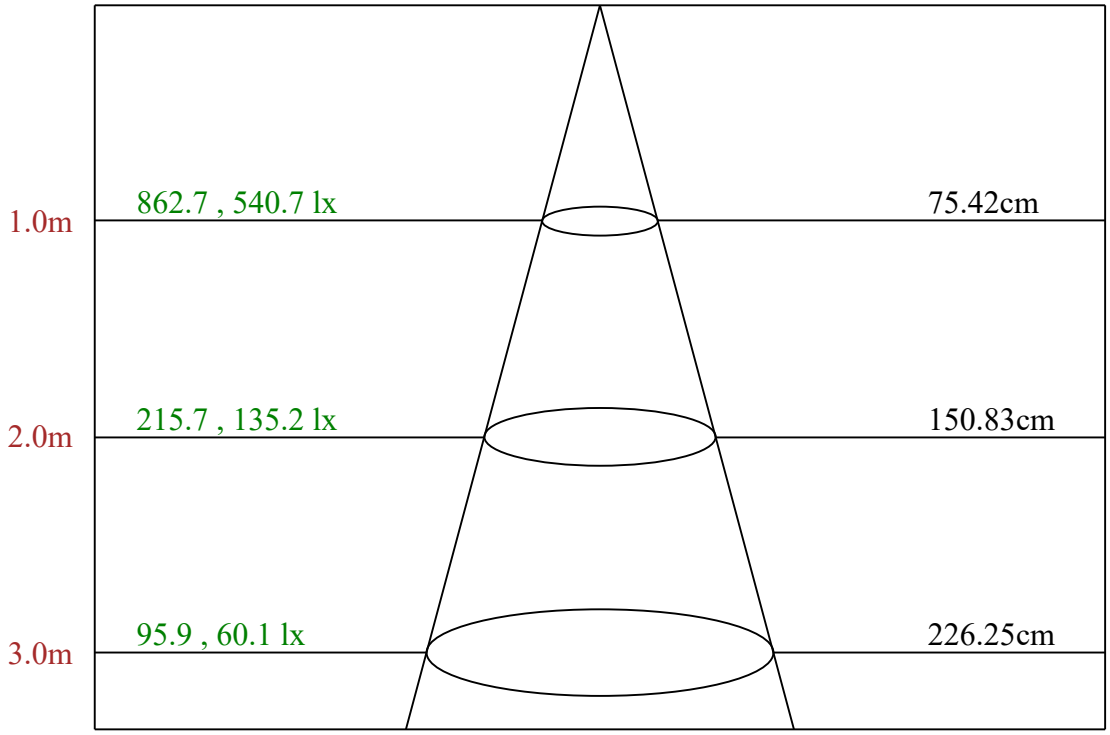
C90/C270:

Field angle(10%Imax):C0/180Left:37.5 Right:37.5
:C90/270Left:37.5 Right:37.5

Beam Angle(50%Imax):C0/180Left:19.8 Right:19.8
:C90/270Left:19.8 Right:19.8

Equipment: GMS1980	Date: 2020/9/14	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

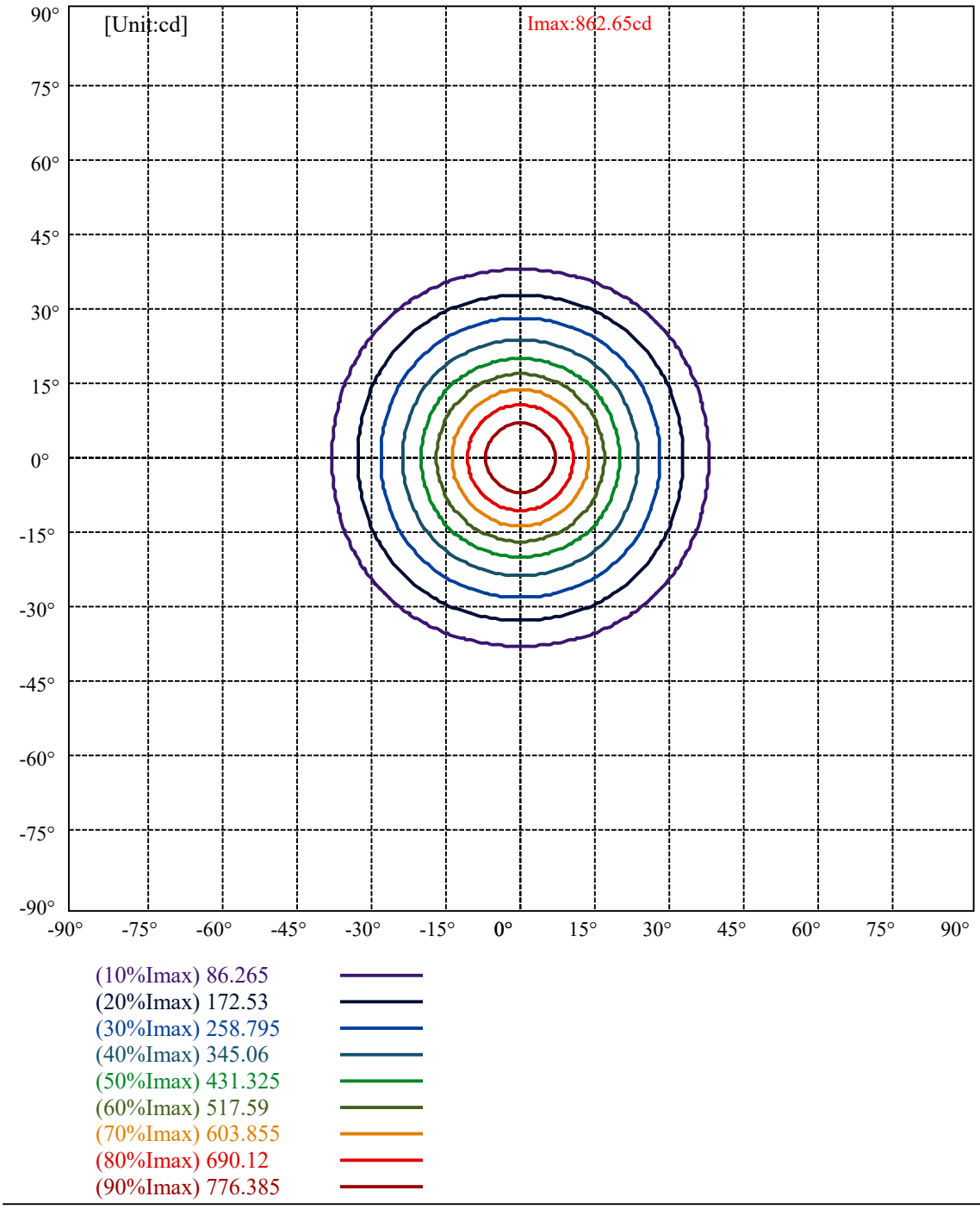
Lux distance Curve



Max , Ave

Beam angle of C0 plane 41.32

ISO-Intensity(V-H)

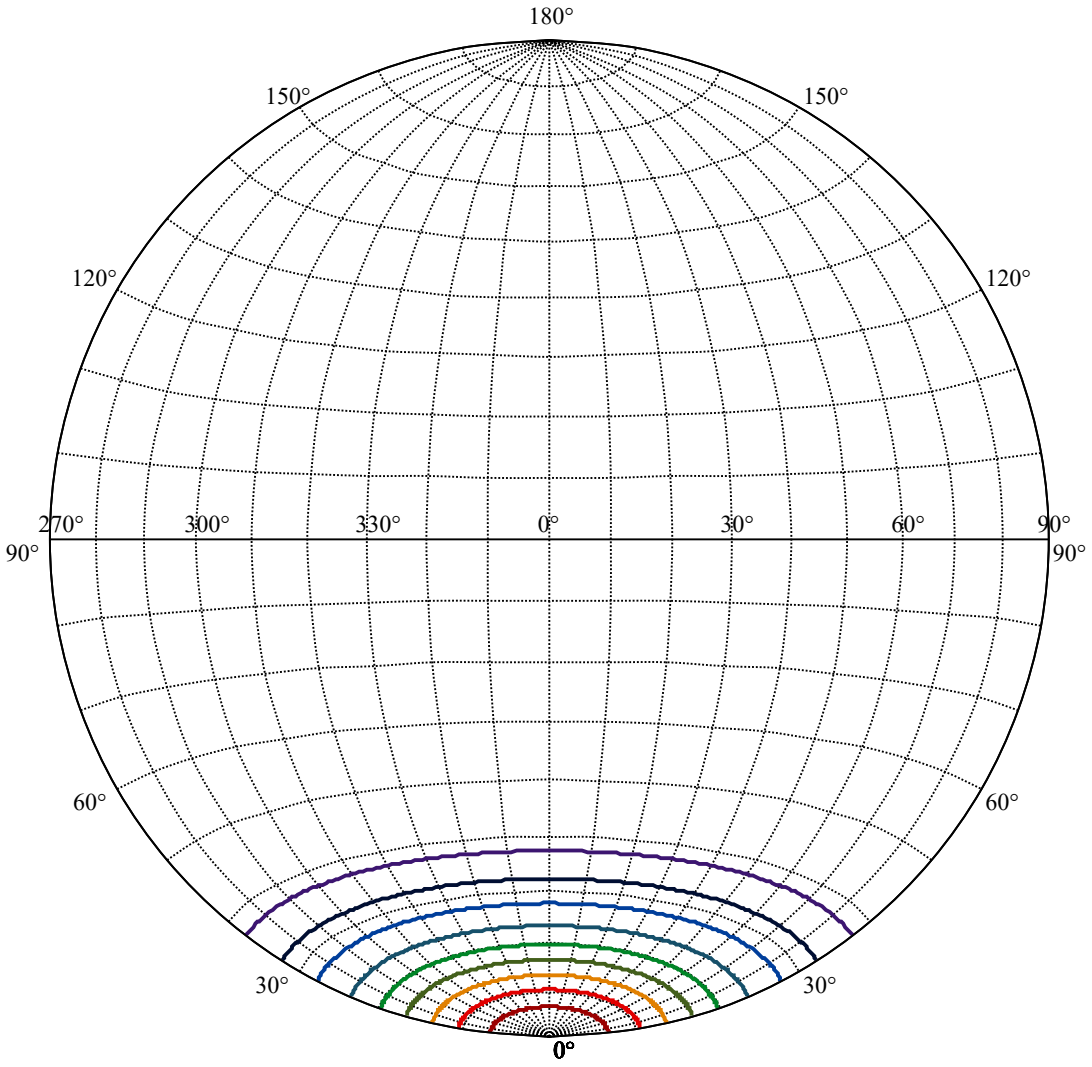


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/9/14
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

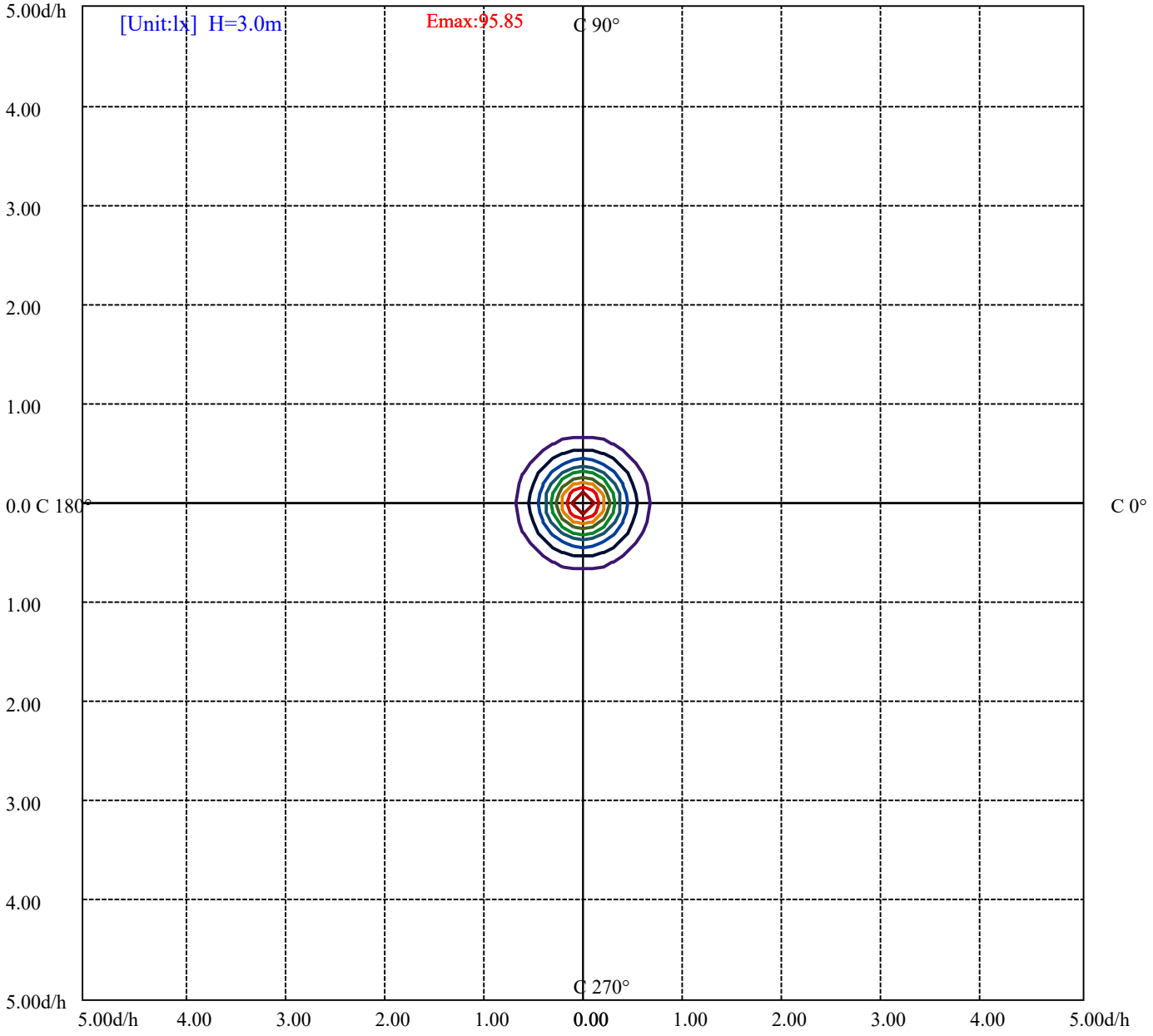
Imax:862.65

(10%Imax) 86.265
(20%Imax) 172.53
(30%Imax) 258.795
(40%Imax) 345.06
(50%Imax) 431.325
(60%Imax) 517.59
(70%Imax) 603.855
(80%Imax) 690.12
(90%Imax) 776.385

Equipment: GMS1980 Date: 2020/9/14 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

Nata 2-1682-M3

ISO illuminance diagram



(10%Emax) 9.584989
(20%Emax) 19.17
(30%Emax) 28.755
(40%Emax) 38.33989
(50%Emax) 47.92489
(60%Emax) 57.50989
(70%Emax) 67.09489
(80%Emax) 76.67989
(90%Emax) 86.26488

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/9/14
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

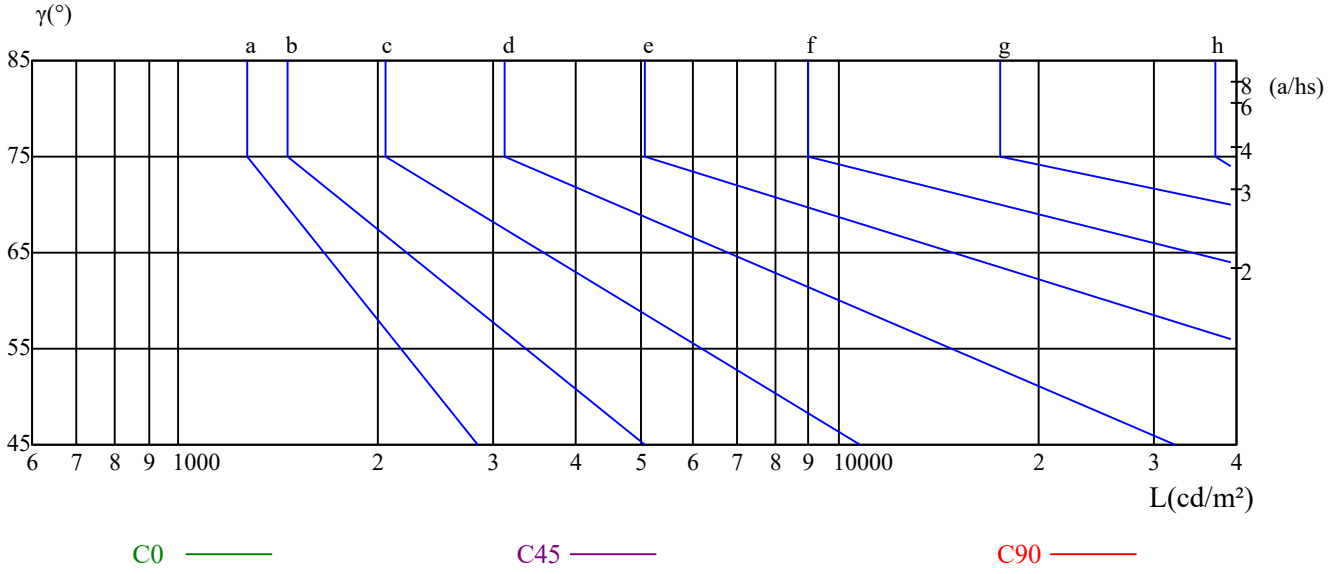
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

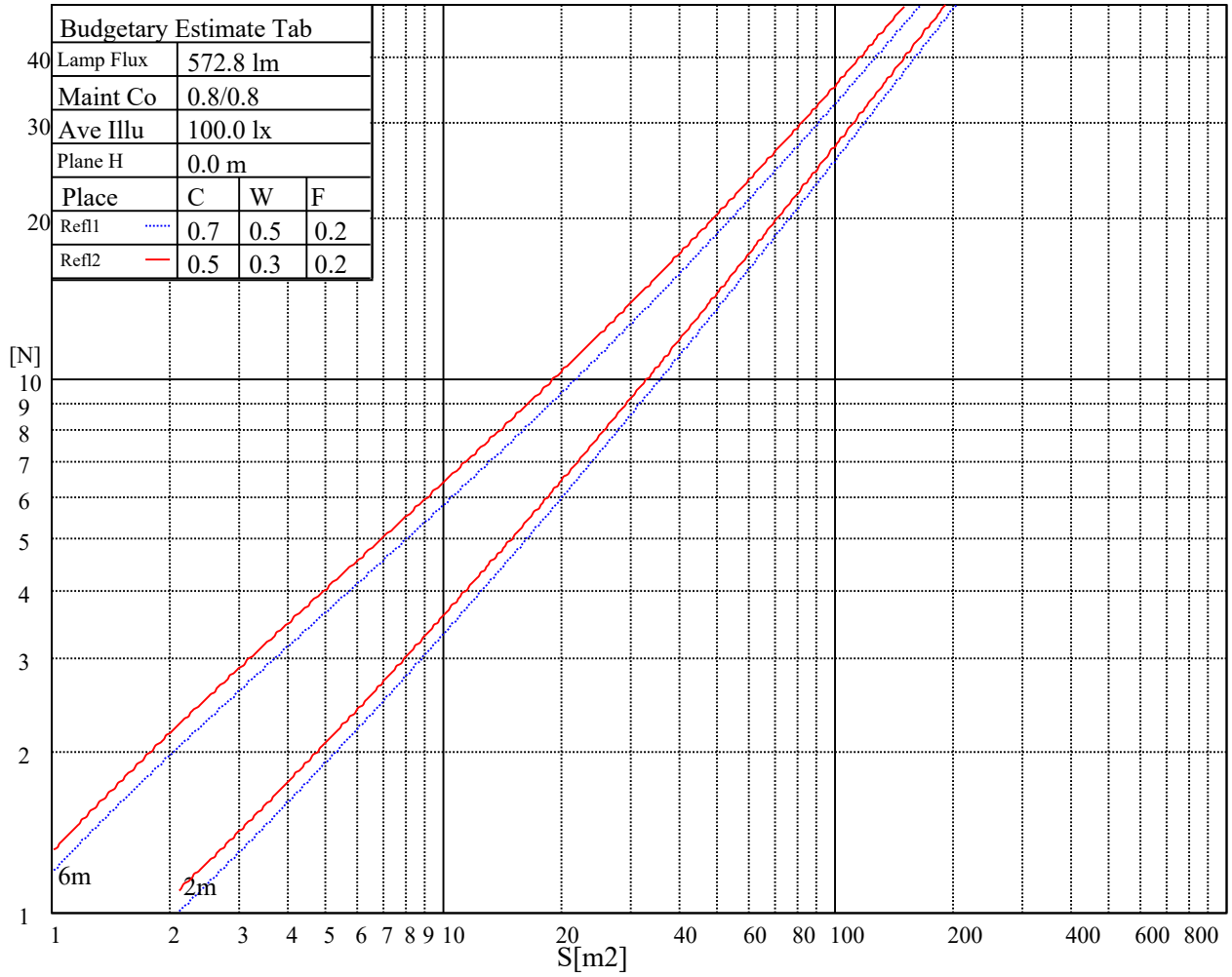
Glare Table

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



Budgetary Estimate Table



Equipment: GMS1980 Date: 2020/9/14 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	1.00	1.00	1.00	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.84
1	0.93	0.91	0.90	0.92	0.90	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.79
2	0.87	0.84	0.81	0.86	0.83	0.80	0.83	0.81	0.79	0.81	0.79	0.77	0.78	0.77	0.75	0.74
3	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.70
4	0.77	0.73	0.69	0.76	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.67	0.71	0.69	0.67	0.65
5	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.62
6	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
7	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
8	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.56	0.53	0.52
9	0.59	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.50
10	0.56	0.52	0.49	0.56	0.51	0.49	0.55	0.51	0.48	0.55	0.51	0.48	0.54	0.51	0.48	0.47

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	857.93	864.28	771.41	629.38	477.51	349.99	261.79	171.96	74.53
45.0	860.74	848.70	738.96	600.02	438.36	322.82	234.51	133.88	57.88
90.0	864.39	794.81	672.30	532.24	386.66	282.15	183.38	93.54	37.58
135.0	867.54	797.46	665.94	520.48	392.85	284.74	191.42	94.33	38.48
180.0	857.93	768.83	635.63	493.65	372.54	270.68	176.40	79.54	34.31
225.0	860.74	786.99	664.82	532.29	396.90	292.05	206.21	100.97	40.05
270.0	864.39	838.97	737.83	600.58	469.29	335.64	245.76	144.62	61.26
315.0	867.54	849.49	751.67	605.19	462.77	334.58	245.36	150.30	62.89
360.0	857.93	864.28	771.41	629.38	477.51	349.99	261.79	171.96	74.53

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	28.52	11.19	3.71	2.48	2.31	2.25	2.19	2.19	2.19
45.0	22.22	8.21	3.15	2.48	2.31	2.31	2.31	2.36	2.31
90.0	14.91	5.51	2.64	2.36	2.25	2.25	2.19	2.19	2.19
135.0	15.24	5.40	2.64	2.36	2.25	2.25	2.19	2.25	2.19
180.0	12.94	4.11	2.53	2.36	2.25	2.25	2.25	2.25	2.14
225.0	15.64	5.46	2.64	2.36	2.25	2.25	2.25	2.31	2.14
270.0	24.13	8.49	3.21	2.42	2.31	2.19	2.19	2.19	2.25
315.0	23.79	8.94	3.15	2.42	2.25	2.19	2.19	2.19	2.19
360.0	28.52	11.19	3.71	2.48	2.31	2.25	2.19	2.19	2.19

C/γ(°)	90.0
0.0	2.19
45.0	2.14
90.0	2.19
135.0	2.19
180.0	2.19
225.0	2.14
270.0	2.14
315.0	2.14
360.0	2.19