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## Nata

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LumCAT: 2977-E	
Luminaire: 92.76.233.00	
Report No: NT2017010702	Voltage(V): 219.7000
Test No: GC2017010702	Current(A): 0.0760
LampCAT: PL-CORE-AC-2000-G2	Power (W): 16.6000
Lamp flux(lm): 1733.0	PF: 0.9970
Number of Lamps: 1	Ballast type: AC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 1616.11  
Efficiency(%): 93.26%  
Lumens(lm)/Power(W): 97.36  
Central intensity(cd): 5375.019  
Maximum intensity(cd): 5375.019  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=24.9  
                                  [C90/270]Total=24.9  
Field angle(10%Imax): [C0/180]Total=63.3  
                                  [C90/270]Total=63.3  
Maximum s/h(1/2): C0\_180=0.42 C90\_270=0.42  
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(%): 93.26%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.648%

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Equipment: gms1980  
Temperature(°C): 25.0

Date: 2017/1/7  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.42

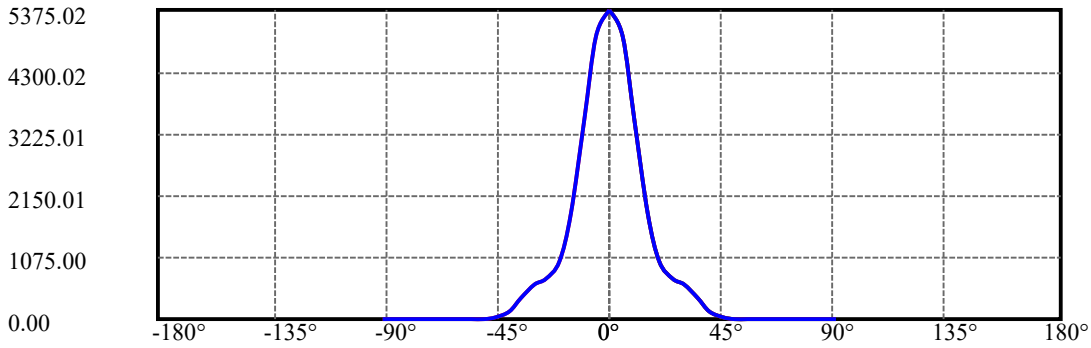
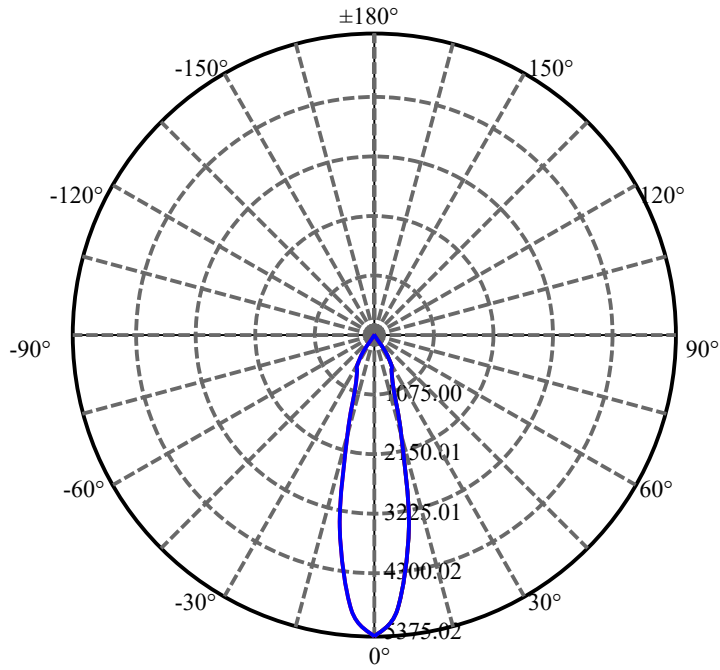
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5375.019	0.000	0	.000%	.000%
5.0	4897.955	122.810	122.81	7.087%	7.599%
10.0	3482.661	299.801	422.612	17.300%	26.150%
15.0	1845.835	316.083	738.694	18.239%	45.708%
20.0	1003.437	234.820	973.514	13.550%	60.238%
25.0	713.703	180.096	1153.611	10.392%	71.382%
30.0	613.115	167.910	1321.521	9.689%	81.772%
35.0	381.816	146.511	1468.031	8.454%	90.837%
40.0	129.155	85.252	1553.283	4.919%	96.113%
45.0	22.477	28.076	1581.359	1.620%	97.850%
50.0	7.901	6.138	1587.497	.354%	98.230%
55.0	7.501	3.349	1590.846	.193%	98.437%
60.0	7.261	3.412	1594.258	.197%	98.648%
65.0	7.150	3.503	1597.761	.202%	98.865%
70.0	7.033	3.591	1601.353	.207%	99.087%
75.0	6.951	3.655	1605.008	.211%	99.313%
80.0	6.875	3.699	1608.708	.213%	99.542%
85.0	6.834	3.725	1612.433	.215%	99.773%
90.0	6.593	3.676	1616.109	.212%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1321.52	76.26%	81.77%
0-40	1553.28	89.63%	96.11%
0-60	1594.26	91.99%	98.65%
0-90	1612.43	93.04%	99.77%
0-120	1612.43	93.04%	99.77%
0-180	1616.11	93.26%	100.00%
60-90	21.59	1.25%	1.34%
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%
0-29.15	1292.89	74.60%	80.00%

ZONAL LUMEN SUMMARY

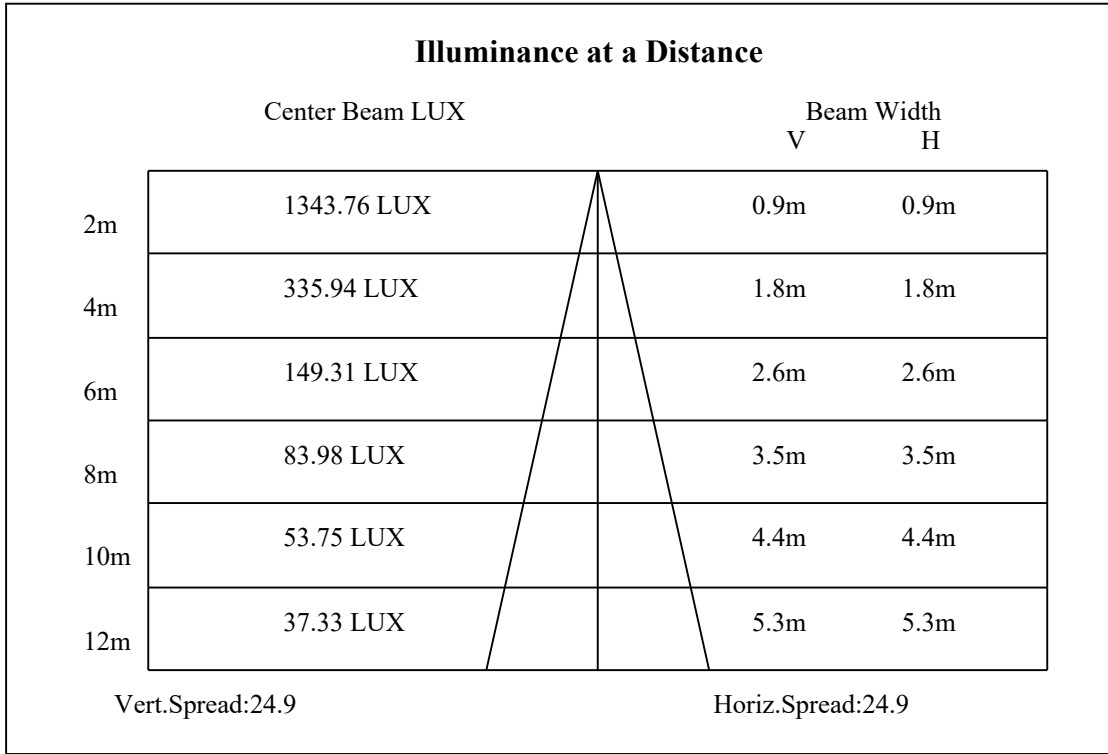
0-10	422.61
10-20	550.90
20-30	348.01
30-40	231.76
40-50	34.21
50-60	6.76
60-70	7.09
70-80	7.35
80-90	3.73
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

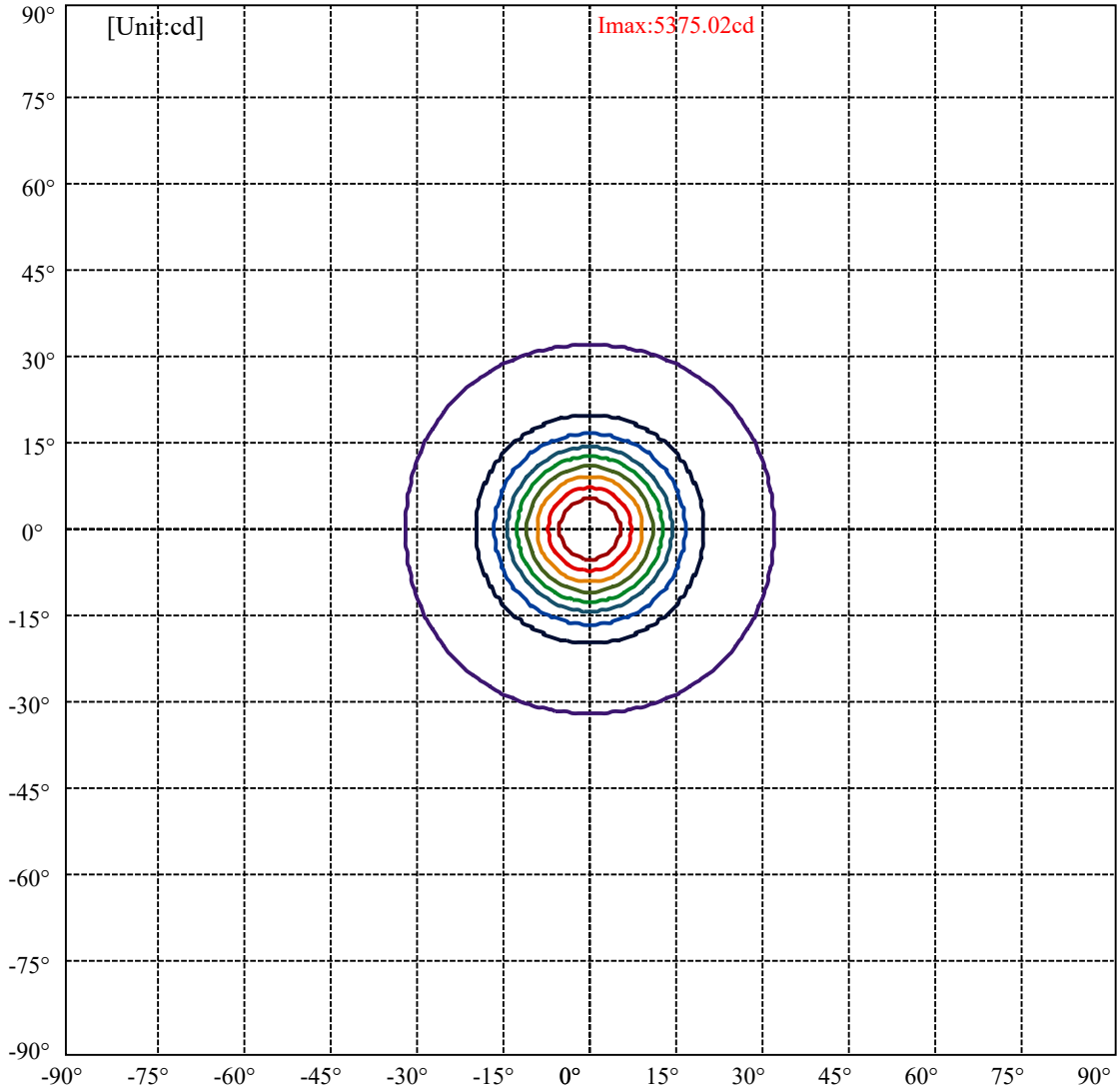


C0(Max): ———  
C0/C180: ———  
C90/C270: ———

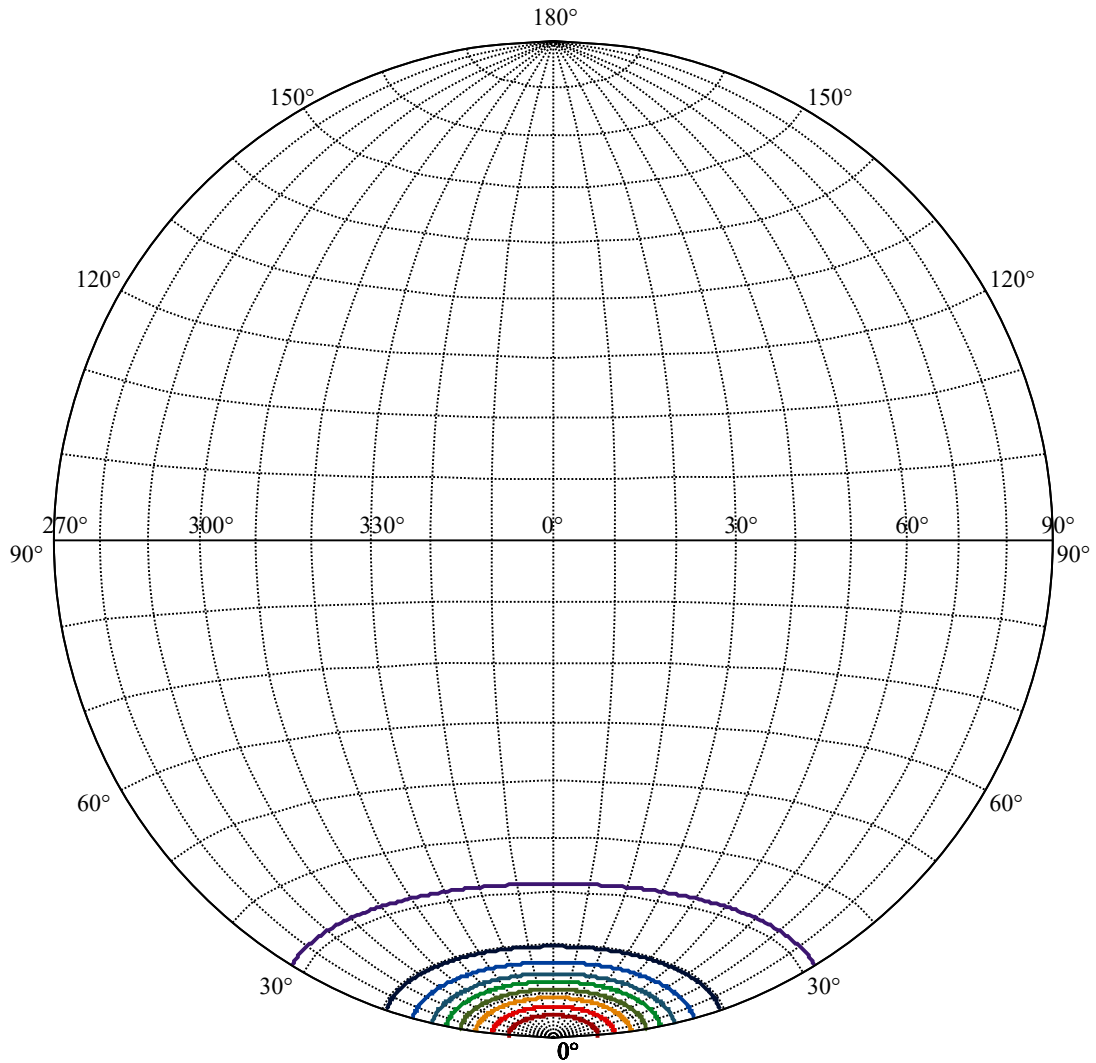
Field angle(10%Imax):C0/180Left:31.6 Right:31.6  
:C90/270Left:31.6 Right:31.6

Beam Angle(50%Imax):C0/180Left:12.4 Right:12.4  
:C90/270Left:12.4 Right:12.4





(10%I <sub>max</sub> ) 537.502	—
(20%I <sub>max</sub> ) 1075	—
(30%I <sub>max</sub> ) 1612.51	—
(40%I <sub>max</sub> ) 2150.01	—
(50%I <sub>max</sub> ) 2687.51	—
(60%I <sub>max</sub> ) 3225.01	—
(70%I <sub>max</sub> ) 3762.51	—
(80%I <sub>max</sub> ) 4300.02	—
(90%I <sub>max</sub> ) 4837.52	—



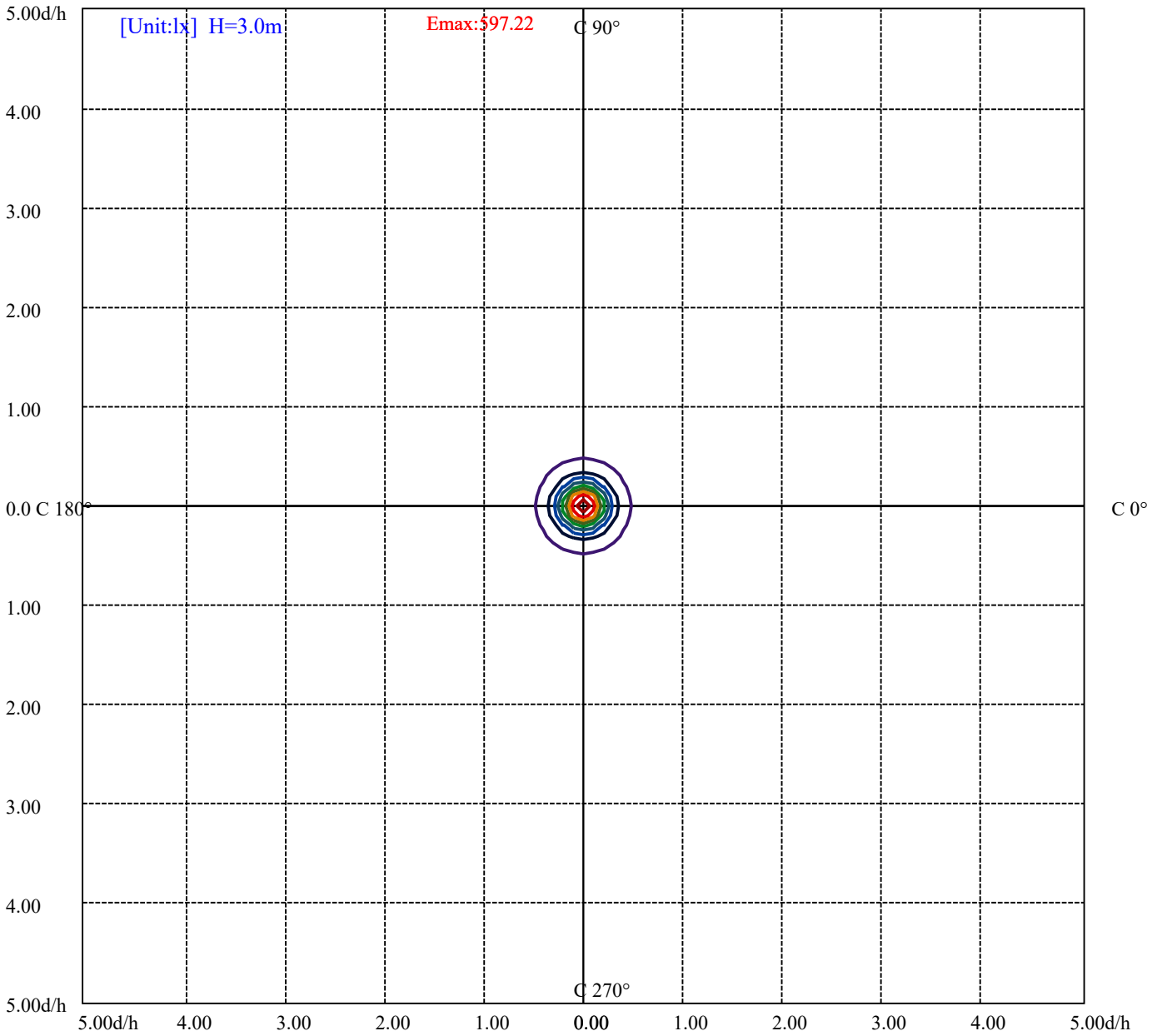
House

[Unit:cd]

Road

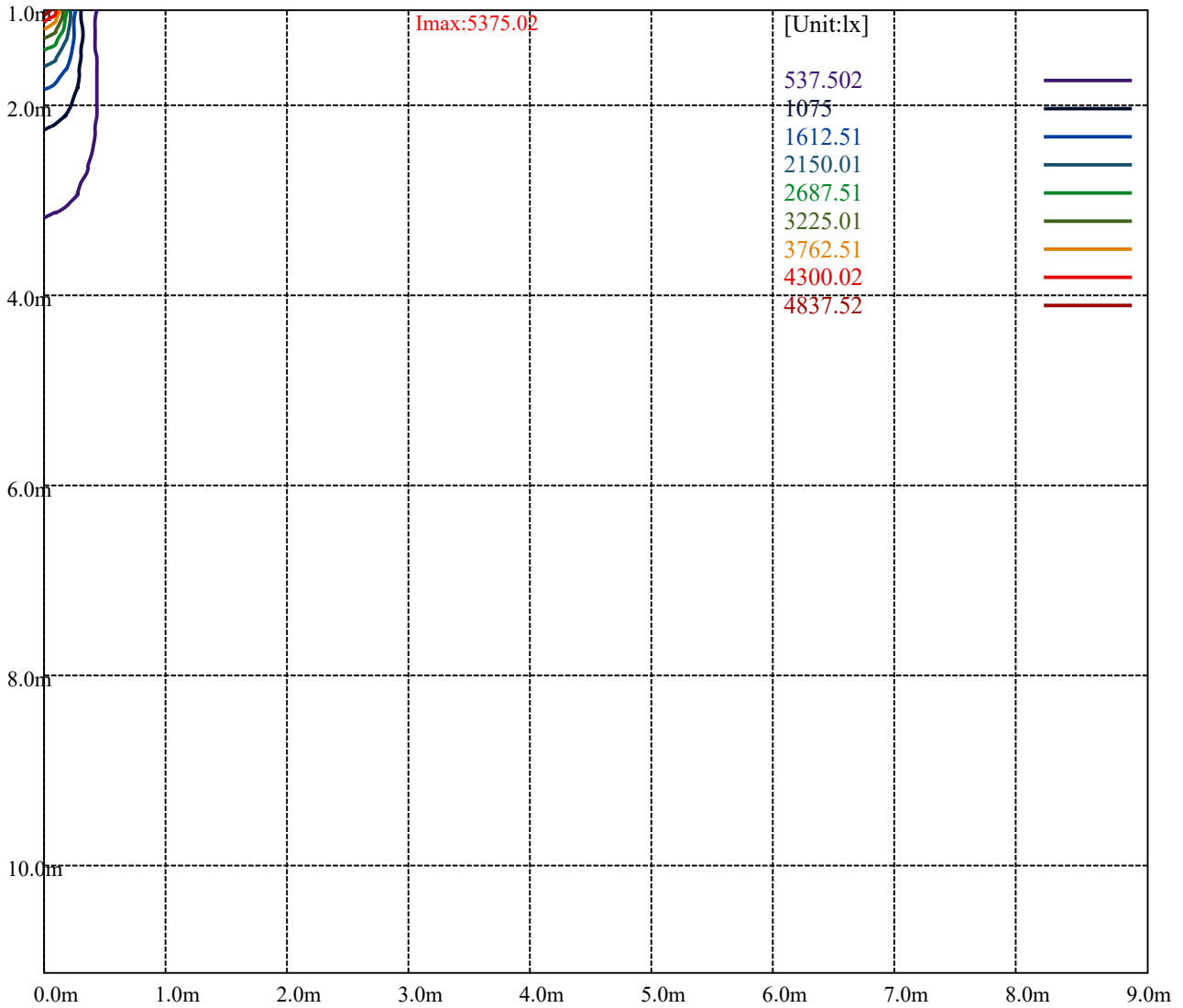
Imax:5375.02

(10%Imax) 537.502	—
(20%Imax) 1075	—
(30%Imax) 1612.51	—
(40%Imax) 2150.01	—
(50%Imax) 2687.51	—
(60%Imax) 3225.01	—
(70%Imax) 3762.51	—
(80%Imax) 4300.02	—
(90%Imax) 4837.52	—



- (10%Emax) 59.72222
- (20%Emax) 119.4444
- (30%Emax) 179.1667
- (40%Emax) 238.8889
- (50%Emax) 298.6111
- (60%Emax) 358.3333
- (70%Emax) 418.0555
- (80%Emax) 477.7778
- (90%Emax) 537.5





Luminance Table

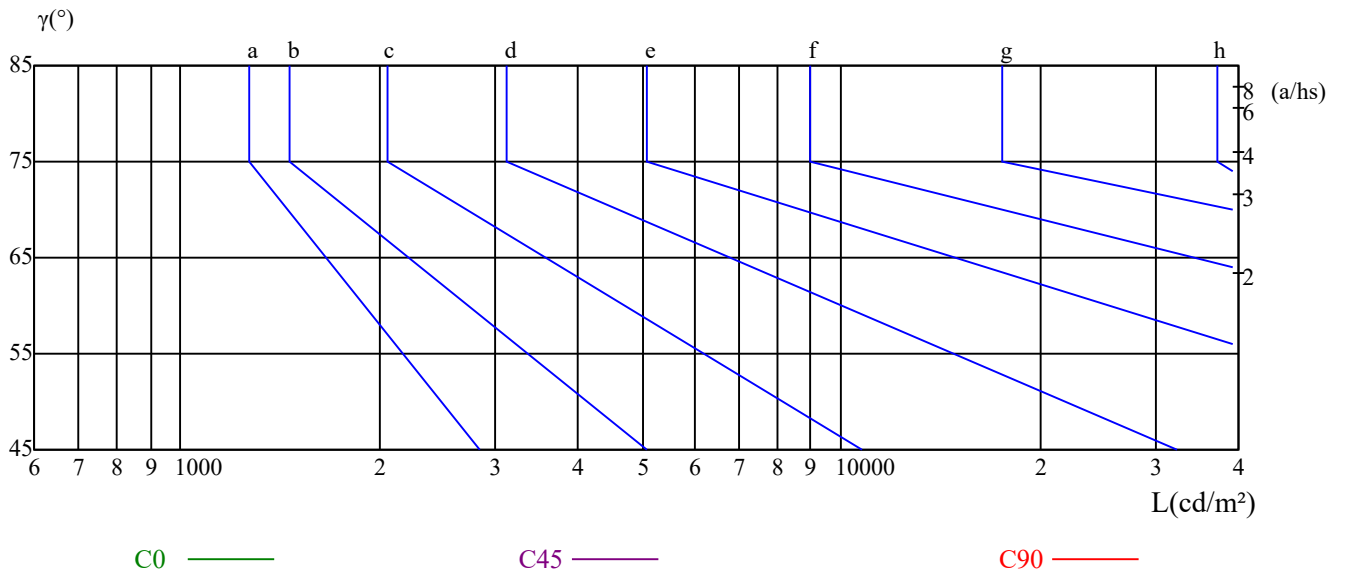
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

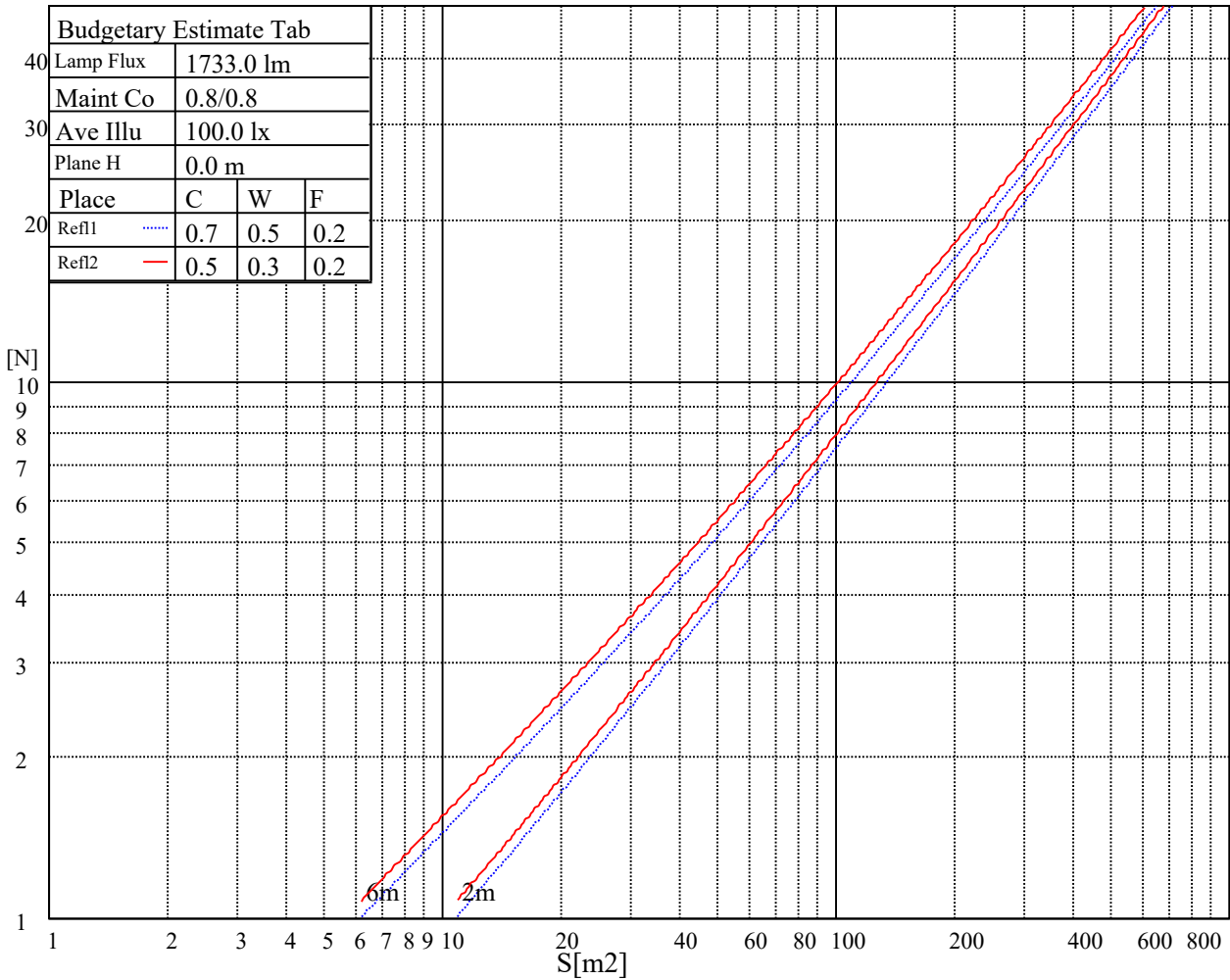
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

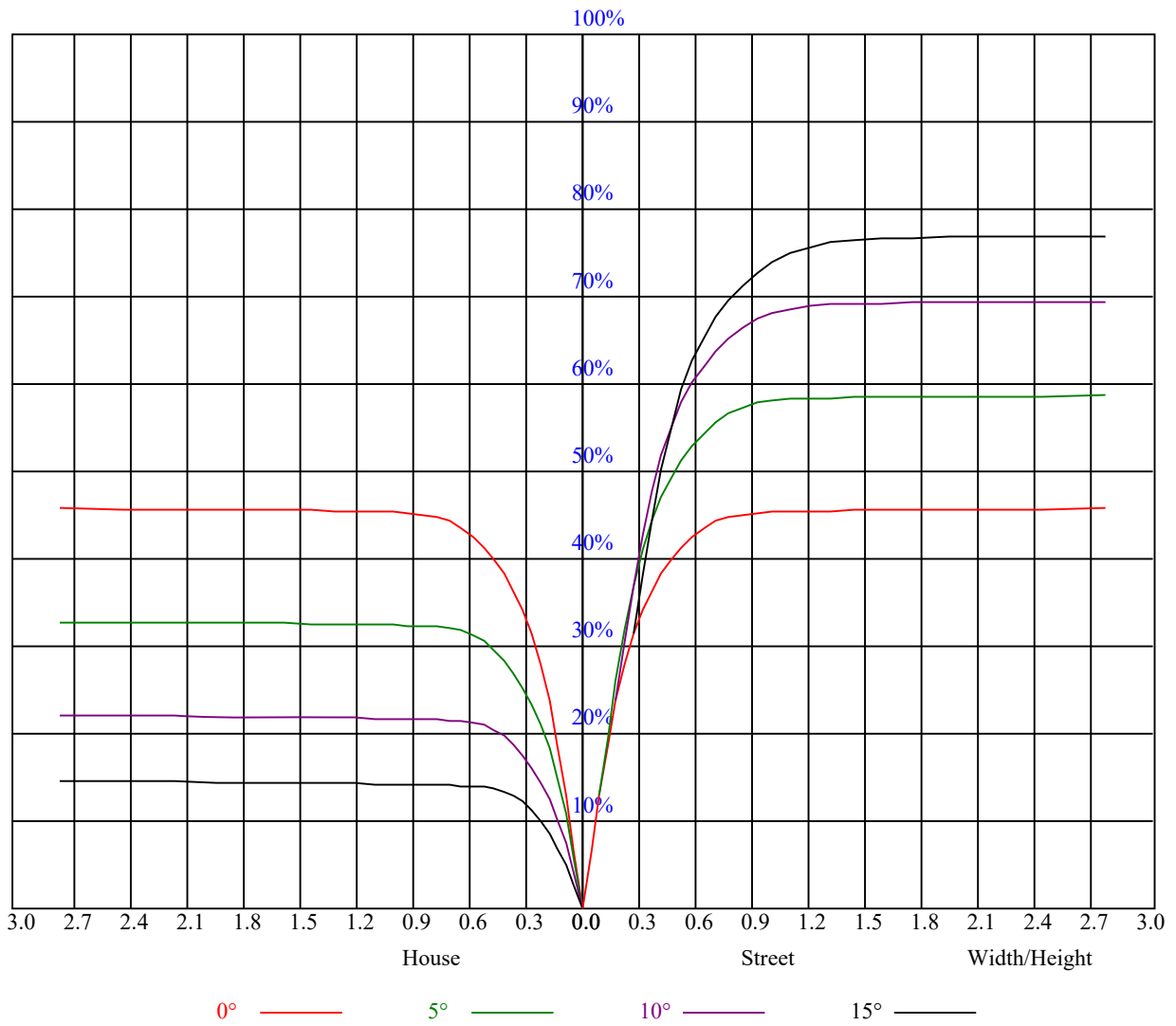
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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 RHOF=20 CU															
0	1.11	1.11	1.11	1.08	1.08	1.08	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.88
2	0.98	0.95	0.92	0.96	0.93	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.88	0.87	0.85	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.85	0.83	0.81	0.80
4	0.88	0.84	0.80	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.82	0.79	0.77	0.76
5	0.84	0.79	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
7	0.77	0.72	0.69	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.66	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
9	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61
10	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.59



Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	5374.61	4928.65	3719.06	2037.64	1051.58	728.40	621.59	377.69	109.23
<b>45.0</b>	5396.08	4841.66	3427.26	1832.83	966.24	698.67	596.81	338.05	98.17
<b>90.0</b>	5359.74	4593.91	2996.17	1489.83	900.67	673.89	568.02	303.53	58.41
<b>135.0</b>	5369.65	4901.67	3430.01	1855.95	980.55	715.73	624.89	405.22	115.84
<b>180.0</b>	5374.61	4826.24	3312.19	1625.82	927.65	696.63	610.74	391.78	125.86
<b>225.0</b>	5396.08	5029.95	3556.64	1861.46	1018.65	716.28	632.93	415.13	139.46
<b>270.0</b>	5359.74	5176.40	3955.25	2243.55	1158.39	769.14	645.26	464.68	286.84
<b>315.0</b>	5369.65	4885.15	3464.70	1819.61	1023.77	710.89	604.68	358.47	99.43
<b>360.0</b>	5374.61	4928.65	3719.06	2037.64	1051.58	728.40	621.59	377.69	109.23
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	19.60	8.04	7.60	7.38	7.21	7.16	6.99	6.94	6.88
<b>45.0</b>	23.45	7.98	7.60	7.38	7.21	7.10	6.99	6.94	6.83
<b>90.0</b>	16.19	7.76	7.43	7.27	7.16	7.10	6.99	6.94	6.88
<b>135.0</b>	18.94	7.82	7.49	7.27	7.16	7.05	6.99	6.88	6.83
<b>180.0</b>	27.47	7.76	7.38	7.16	7.10	6.94	6.94	6.72	6.77
<b>225.0</b>	25.66	7.98	7.49	7.21	7.10	6.94	6.88	6.83	6.77
<b>270.0</b>	28.13	8.04	7.54	7.21	7.16	6.99	6.94	6.88	6.88
<b>315.0</b>	20.37	7.82	7.49	7.21	7.10	6.99	6.88	6.88	6.83
<b>360.0</b>	19.60	8.04	7.60	7.38	7.21	7.16	6.99	6.94	6.88
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	6.61								
<b>45.0</b>	6.50								
<b>90.0</b>	6.61								
<b>135.0</b>	6.61								
<b>180.0</b>	6.61								
<b>225.0</b>	6.61								
<b>270.0</b>	6.61								
<b>315.0</b>	6.61								
<b>360.0</b>	6.61								