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Nata

LumCAT: 4-1761-E
Luminaire: TE 2213382-2+92.76.233.00
Report No: GC2017072202
Test No:
LampCAT: NICHIA NFCLJ060B
Lamp flux(lm): 2235.0
Number of Lamps: 1
Length(mm): 100
Phm Type: C

Voltage(V): 36.2000
Current(A): 0.4600
Power (W): 16.6520
PF: 0.0000
Ballast type: DC
Width(mm): 100
Height(mm): 0

Photometric Results

Lumens(lm): 2150.55
Efficiency(%): 96.22%
Lumens(lm)/Power(W): 129.15
Central intensity(cd): 27661.880
Maximum intensity(cd): 27661.880
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=9.9
 [C90/270]Total=9.9
Field angle(10%Imax): [C0/180]Total=21.0
 [C90/270]Total=21.0
Maximum s/h(1/2): C0_180=0.17 C90_270=0.17
Maximum s/h(1/4): C0_180=0.20 C90_270=0.20
Up flux rate of lamp(%): 1.00%
Down flux rate of lamp(%): 95.22%
Up flux rate of LUM(%): 1.04%
Down flux rate of LUM(%): 98.96%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.431%

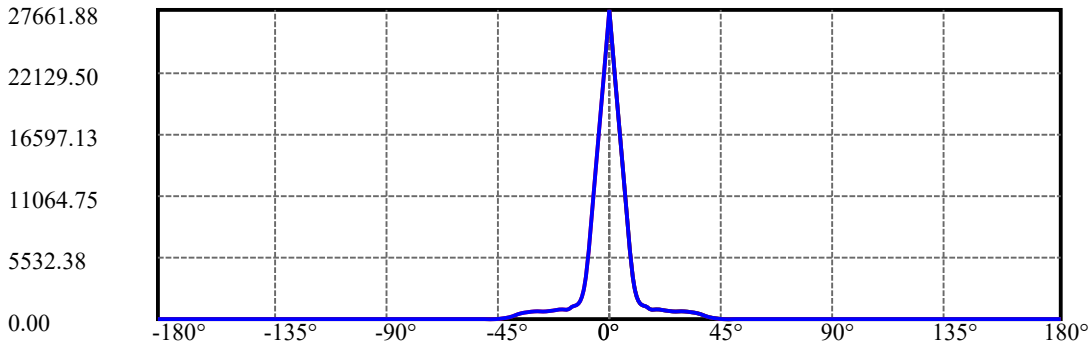
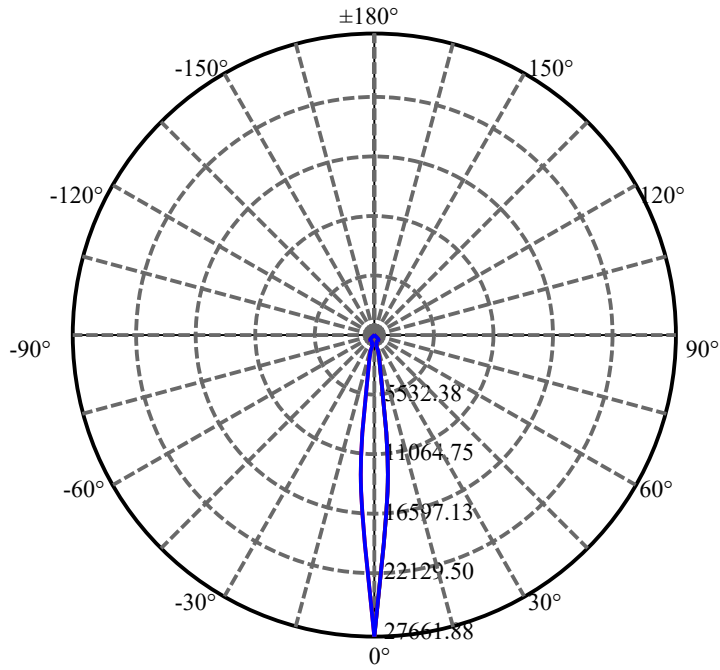
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	27661.879	0.000	0	.000%	.000%
5.0	13635.112	493.694	493.694	22.089%	22.957%
10.0	2961.063	593.697	1087.391	26.564%	50.563%
15.0	999.162	234.918	1322.309	10.511%	61.487%
20.0	826.164	150.432	1472.742	6.731%	68.482%
25.0	767.695	167.166	1639.908	7.479%	76.255%
30.0	690.036	184.477	1824.385	8.254%	84.834%
35.0	484.866	173.013	1997.398	7.741%	92.879%
40.0	93.717	96.532	2093.93	4.319%	97.367%
45.0	5.147	18.306	2112.236	.819%	98.218%
50.0	3.413	1.730	2113.965	.077%	98.299%
55.0	3.133	1.423	2115.389	.064%	98.365%
60.0	2.965	1.410	2116.798	.063%	98.431%
65.0	2.853	1.415	2118.213	.063%	98.496%
70.0	2.798	1.431	2119.644	.064%	98.563%
75.0	4.364	1.872	2121.516	.084%	98.650%
80.0	4.868	2.470	2123.986	.111%	98.765%
85.0	3.637	2.311	2126.297	.103%	98.872%
90.0	3.133	1.854	2128.15	.083%	98.959%
95.0	2.574	1.563	2129.713	.070%	99.031%
100.0	2.686	1.429	2131.142	.064%	99.098%
105.0	2.686	1.437	2132.579	.064%	99.164%
110.0	2.742	1.419	2133.998	.063%	99.230%
115.0	2.630	1.360	2135.358	.061%	99.294%
120.0	2.574	1.265	2136.623	.057%	99.352%
125.0	2.574	1.190	2137.813	.053%	99.408%
130.0	2.630	1.131	2138.944	.051%	99.460%
135.0	2.686	1.074	2140.018	.048%	99.510%
140.0	2.742	1.005	2141.023	.045%	99.557%
145.0	3.245	0.999	2142.022	.045%	99.604%
150.0	4.812	1.186	2143.208	.053%	99.659%
155.0	7.497	1.558	2144.766	.070%	99.731%
160.0	10.798	1.919	2146.685	.086%	99.820%
165.0	11.022	1.798	2148.483	.080%	99.904%
170.0	9.400	1.211	2149.695	.054%	99.960%
175.0	8.728	0.648	2150.343	.029%	99.990%
180.0	8.393	0.205	2150.548	.009%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1824.39	81.63%	84.83%
0-40	2093.93	93.69%	97.37%
0-60	2116.80	94.71%	98.43%
0-90	2128.15	95.22%	98.96%
0-120	2136.62	95.60%	99.35%
0-180	2150.55	96.22%	100.00%
60-90	12.76	0.57%	0.59%
90-120	10.33	0.46%	0.48%
90-130	12.65	0.57%	0.59%
90-150	16.91	0.76%	0.79%
90-180	24.05	1.08%	1.12%
0-27.18	1720.44	76.98%	80.00%

ZONAL LUMEN SUMMARY

0-10	1087.39
10-20	385.35
20-30	351.64
30-40	269.54
40-50	20.04
50-60	2.83
60-70	2.85
70-80	4.34
80-90	4.16
90-100	2.99
100-110	2.86
110-120	2.62
120-130	2.32
130-140	2.08
140-150	2.19
150-160	3.48
160-170	3.01
170-180	0.65



C0(Max): —————

C0/C180: —————

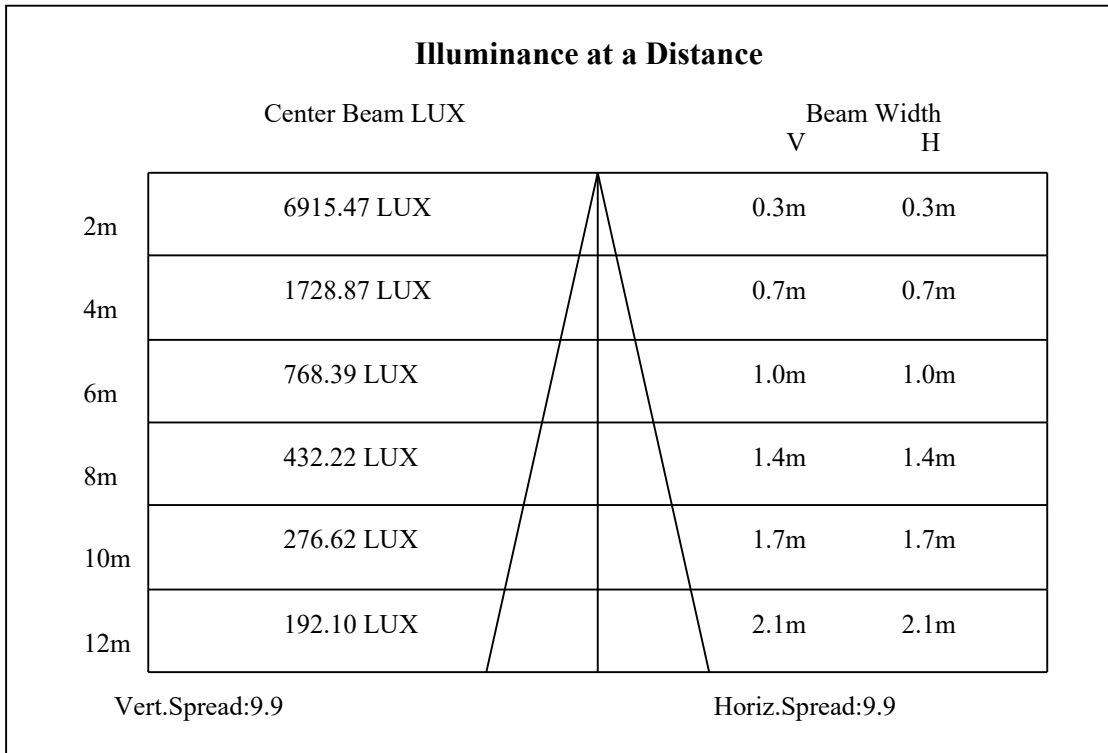
C90/C270: —————

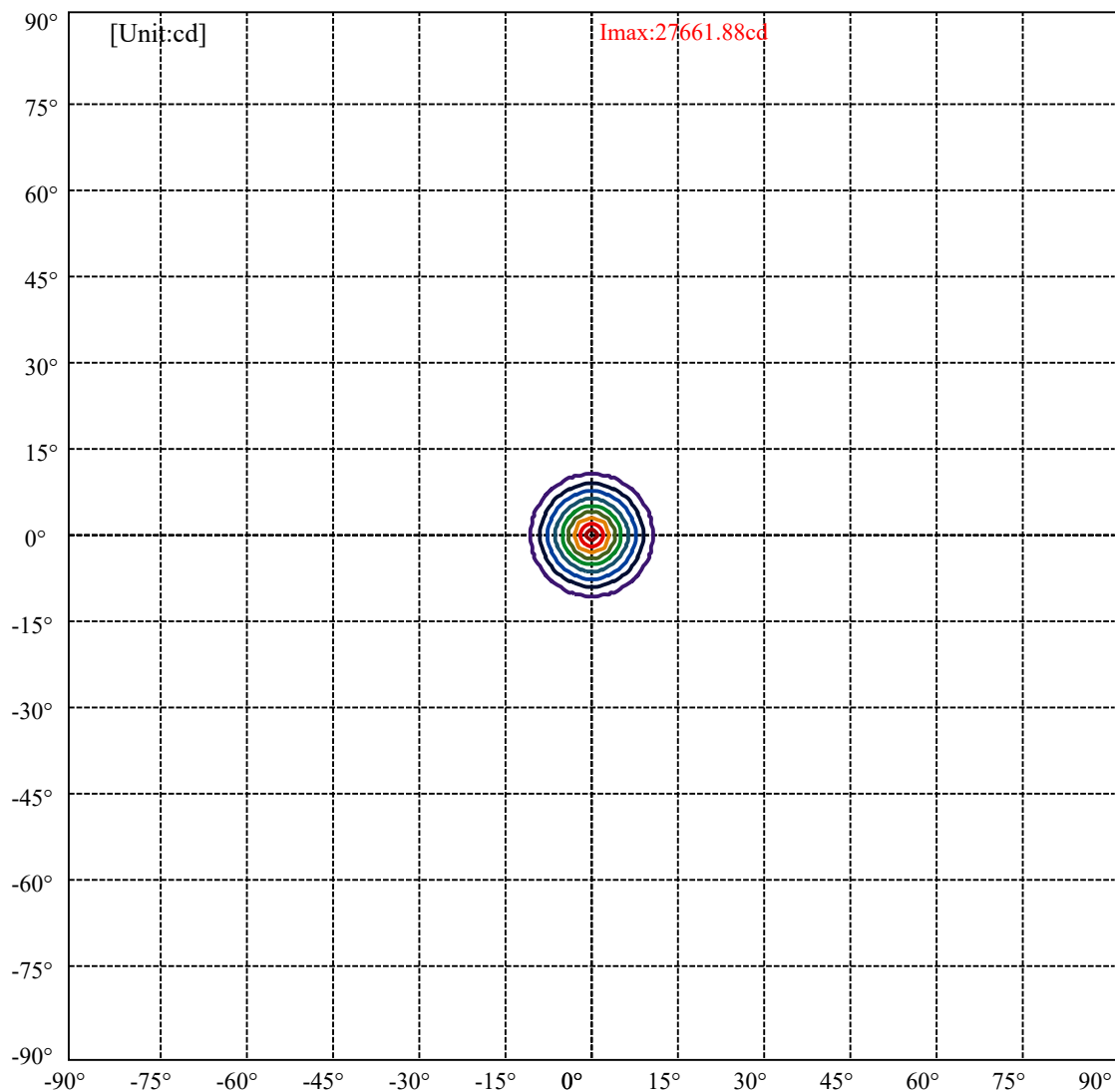
Field angle(10%Imax):C0/180Left:10.5 Right:10.5

:C90/270Left:10.5 Right:10.5

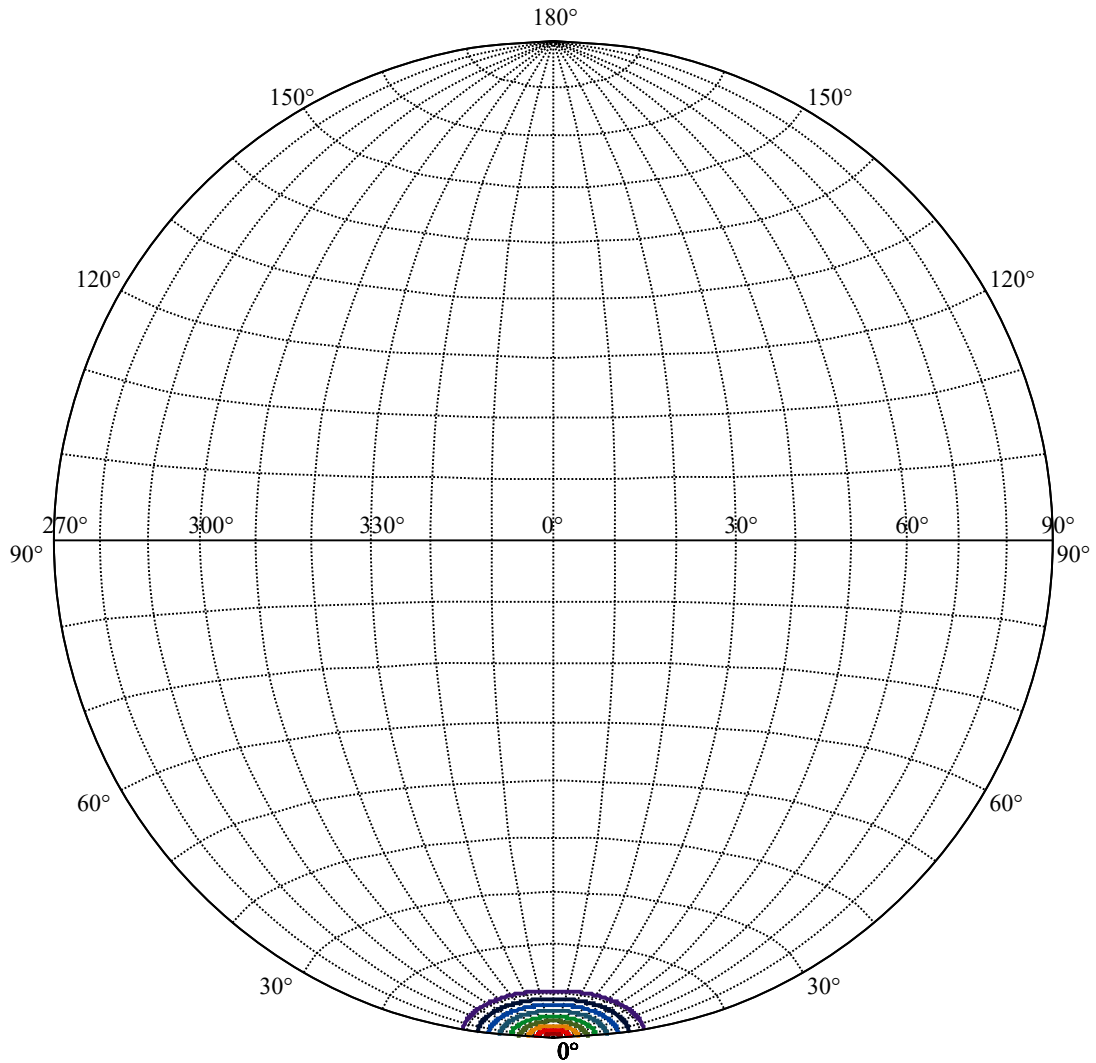
Beam Angle(50%Imax):C0/180Left:4.9 Right:4.9

:C90/270Left:4.9 Right:4.9





(10%Imax) 2766.19	—
(20%Imax) 5532.38	—
(30%Imax) 8298.56	—
(40%Imax) 11064.8	—
(50%Imax) 13830.9	—
(60%Imax) 16597.1	—
(70%Imax) 19363.3	—
(80%Imax) 22129.5	—
(90%Imax) 24895.7	—



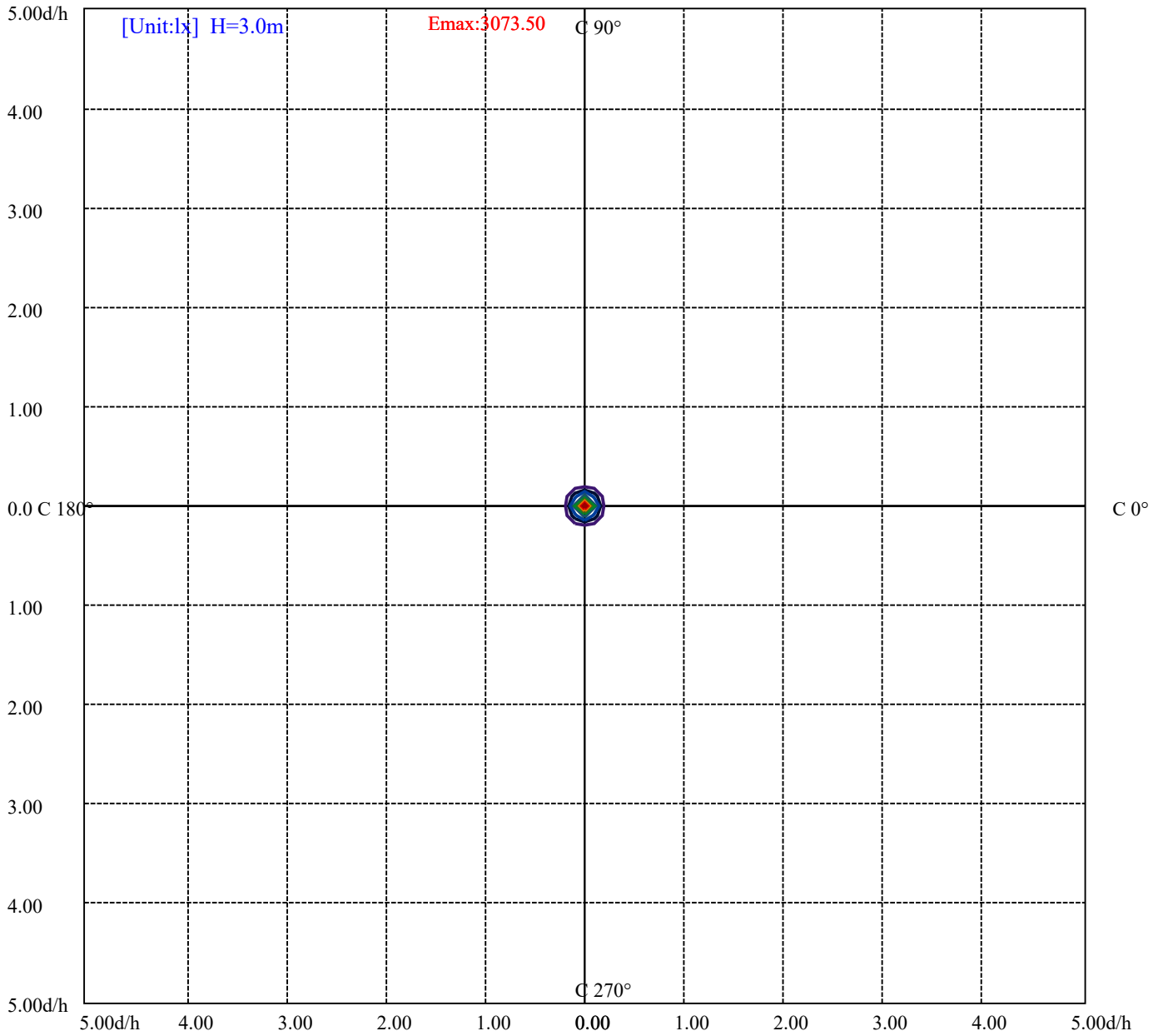
House

[Unit:cd]

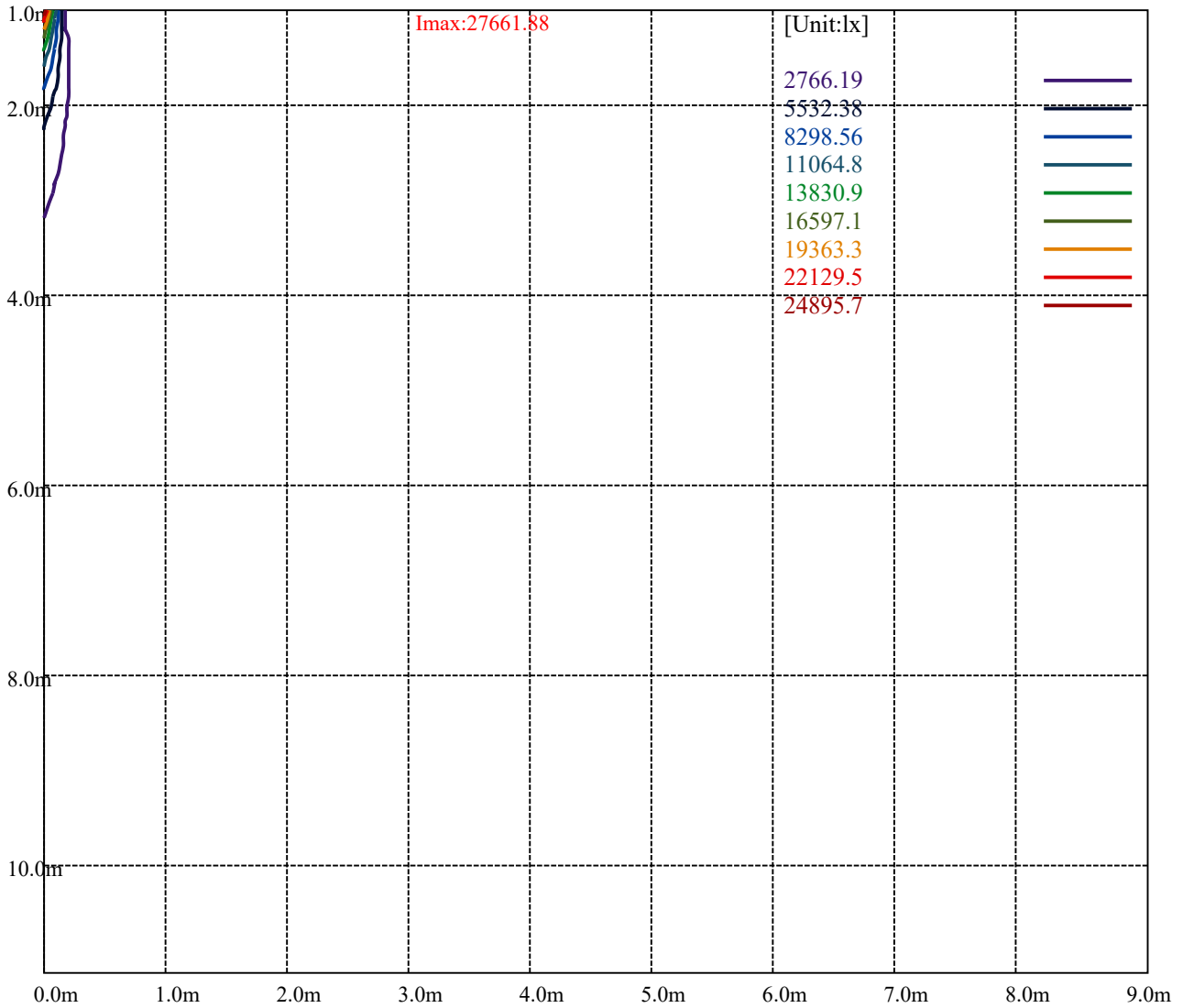
Road

Imax:27661.88

(10%Imax)	2766.19	—
(20%Imax)	5532.38	—
(30%Imax)	8298.56	—
(40%Imax)	11064.8	—
(50%Imax)	13830.9	—
(60%Imax)	16597.1	—
(70%Imax)	19363.3	—
(80%Imax)	22129.5	—
(90%Imax)	24895.7	—



- (10%Emax) 307.35
- (20%Emax) 614.6989
- (30%Emax) 922.049
- (40%Emax) 1229.4
- (50%Emax) 1536.745
- (60%Emax) 1844.1
- (70%Emax) 2151.444
- (80%Emax) 2458.8
- (90%Emax) 2766.145



Luminance Table

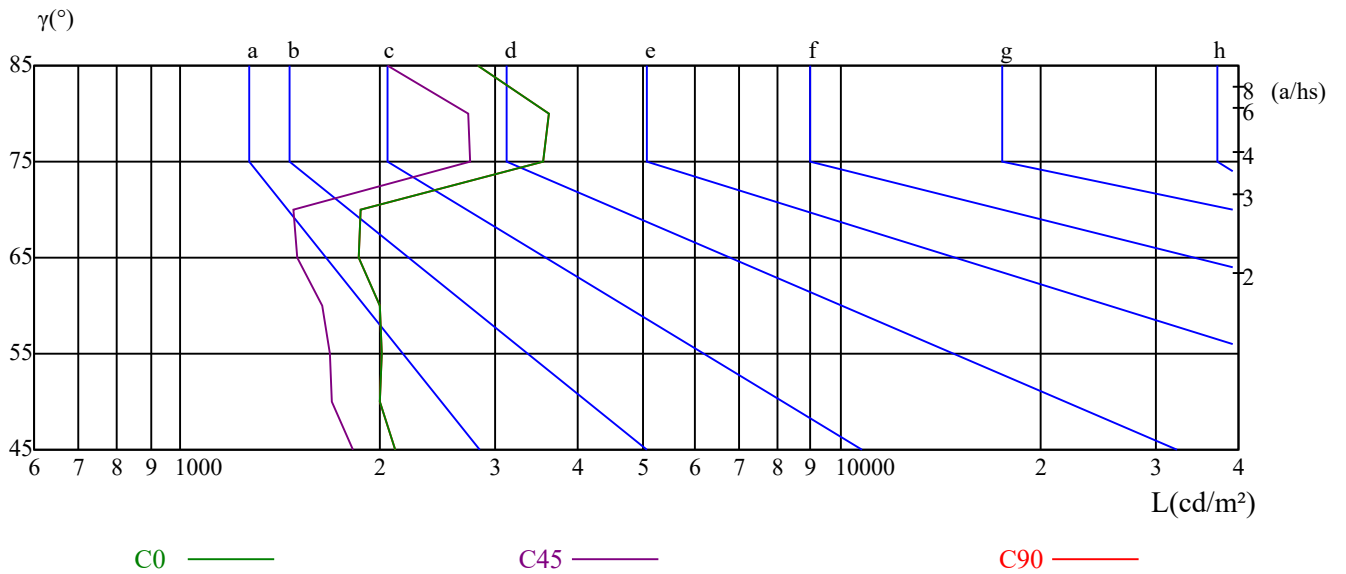
γ	45	50	55	60	65	70	75	80	85
C0	2115	2002	2021	2005	1860	1873	3546	3607	2817
C45	1818	1696	1685	1644	1499	1480	2742	2721	2064
C90	2115	2002	2021	2005	1860	1873	3546	3607	2817

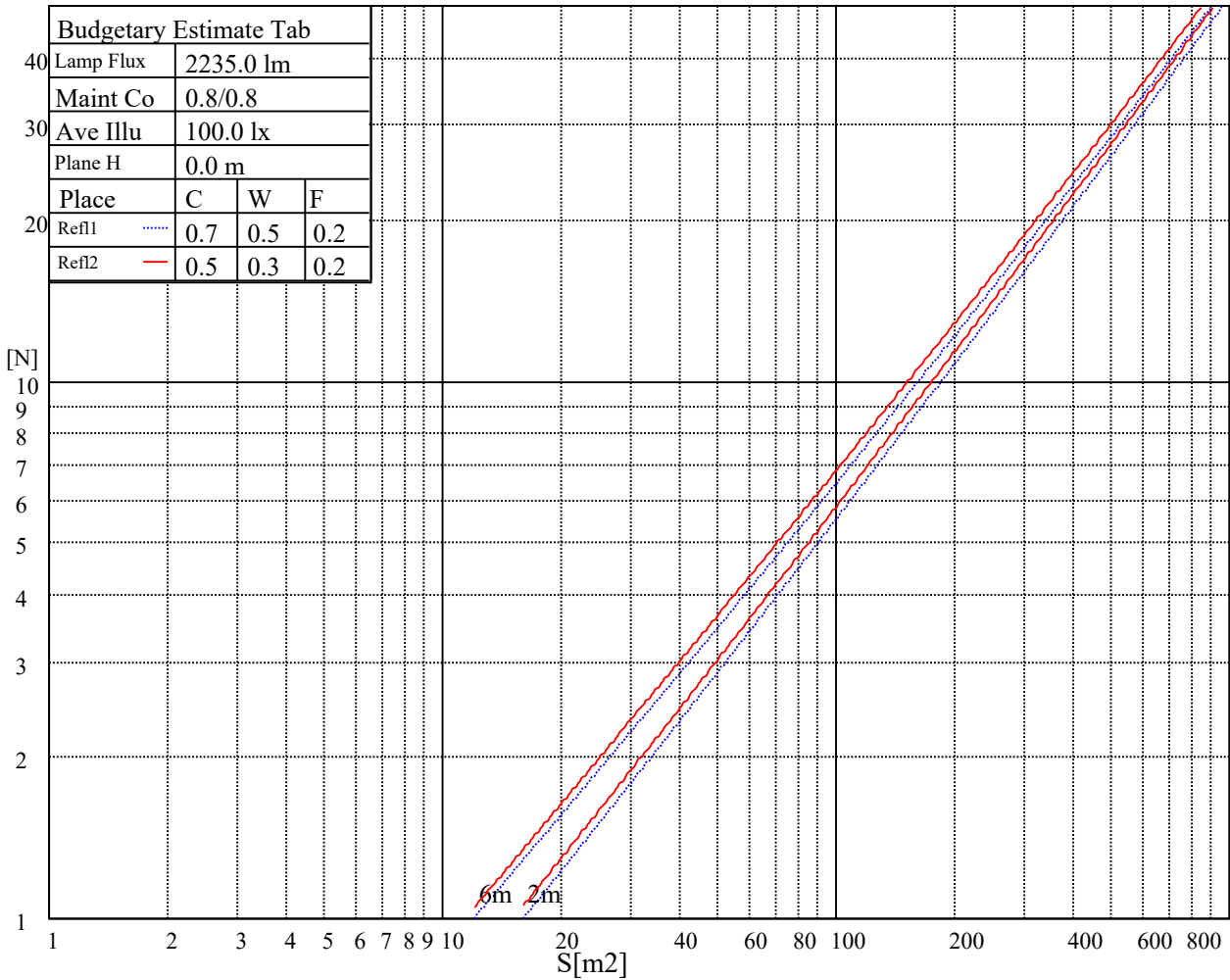
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4453	4453	4453	12149	12149	12149	23745	23745	23745

Glare Table

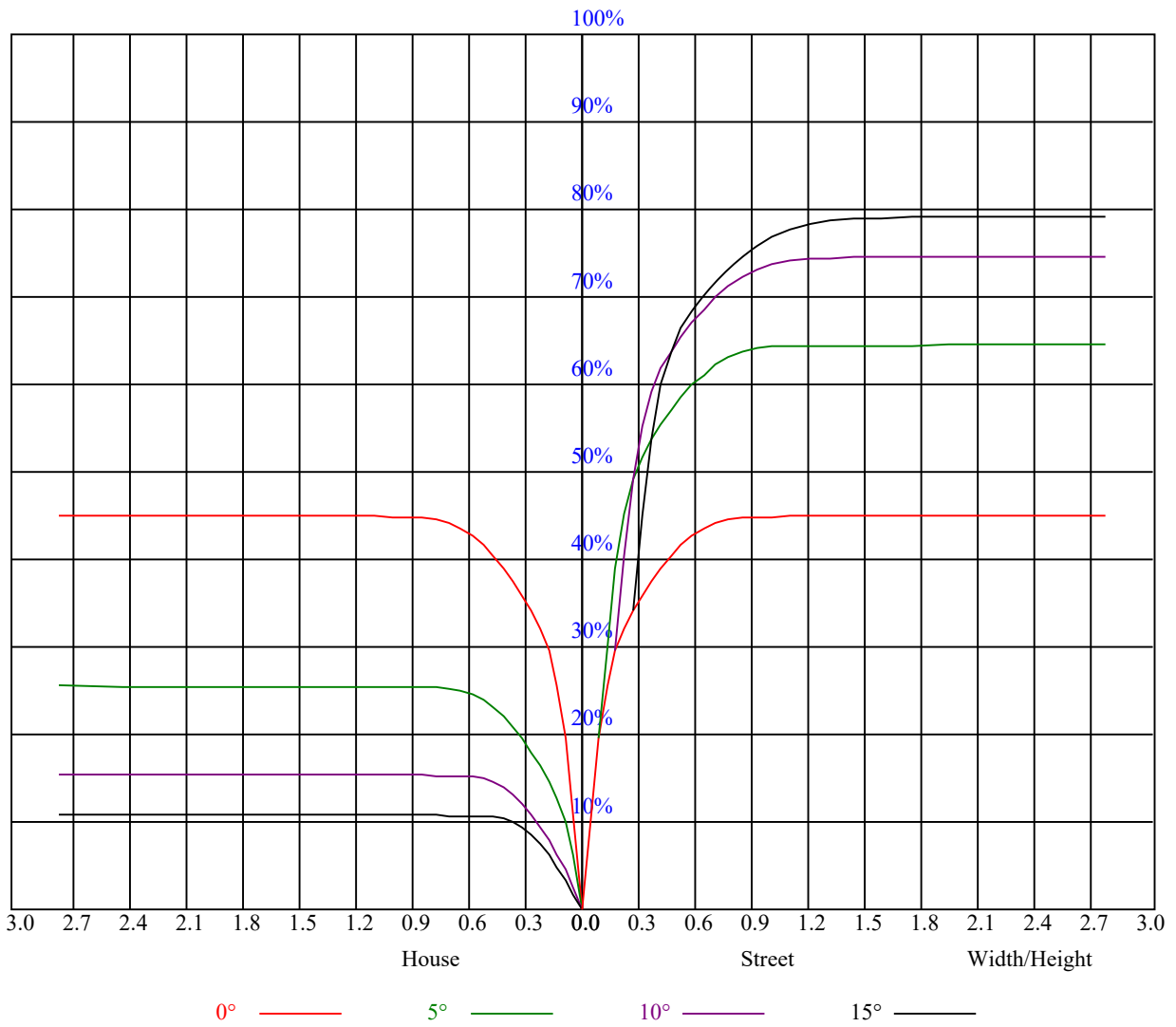
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.14	1.14	1.14	1.12	1.12	1.12	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.95
1	1.08	1.06	1.05	1.06	1.04	1.03	1.02	1.01	1.00	0.98	0.97	0.97	0.95	0.94	0.94	0.92
2	1.03	1.00	0.98	1.01	0.99	0.97	0.98	0.96	0.94	0.95	0.94	0.92	0.93	0.91	0.90	0.89
3	0.99	0.95	0.92	0.97	0.94	0.92	0.95	0.92	0.90	0.92	0.90	0.89	0.90	0.89	0.87	0.86
4	0.95	0.91	0.88	0.94	0.90	0.87	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.86	0.84	0.83
5	0.91	0.87	0.84	0.90	0.87	0.84	0.89	0.86	0.83	0.87	0.85	0.82	0.86	0.83	0.82	0.81
6	0.88	0.84	0.81	0.88	0.84	0.81	0.86	0.83	0.80	0.85	0.82	0.80	0.84	0.81	0.79	0.78
7	0.85	0.81	0.79	0.85	0.81	0.78	0.84	0.80	0.78	0.83	0.80	0.78	0.82	0.79	0.77	0.76
8	0.83	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.74
9	0.81	0.77	0.74	0.80	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
10	0.79	0.75	0.72	0.78	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.72	0.76	0.74	0.72	0.71



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	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
45.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
90.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
135.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
180.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
225.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
270.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
315.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
360.0	27661.88	13635.11	2961.06	999.16	826.16	767.70	690.04	484.87	93.72	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
45.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
90.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
135.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
180.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
225.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
270.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
315.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
360.0	5.15	3.41	3.13	2.97	2.85	2.80	4.36	4.87	3.64	
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0	
0.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
45.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
90.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
135.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
180.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
225.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
270.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
315.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
360.0	3.13	2.57	2.69	2.69	2.74	2.63	2.57	2.57	2.63	
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0	
0.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
45.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
90.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
135.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
180.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
225.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
270.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
315.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
360.0	2.69	2.74	3.25	4.81	7.50	10.80	11.02	9.40	8.73	
C/γ(°)	180.0									
0.0	8.39									
45.0	8.39									
90.0	8.39									
135.0	8.39									
180.0	8.39									
225.0	8.39									
270.0	8.39									
315.0	8.39									
360.0	8.39									