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Nata

LumCAT: 3-1917-E
Luminaire: 99.02.73.181+92.76.323.00
Report No: GC2017031709
Test No: NT-0010
LampCAT: LUMILEDS LUXEON CoB 1205
Lamp flux(lm): 2435.0
Number of Lamps: 1
Length(mm): 84
Phm Type: C

Voltage(V): 36.0000
Current(A): 0.5000
Power (W): 18.0000
PF: 0.0000
Ballast type: DC
Width(mm): 84
Height(mm): 0

Photometric Results

Lumens(lm): 2255.55
Efficiency(%): 92.63%
Lumens(lm)/Power(W): 125.31
Central intensity(cd): 8166.104
Maximum intensity(cd): 8166.104
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=59.9
 [C90/270]Total=59.9
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.63%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.722%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/3/17
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

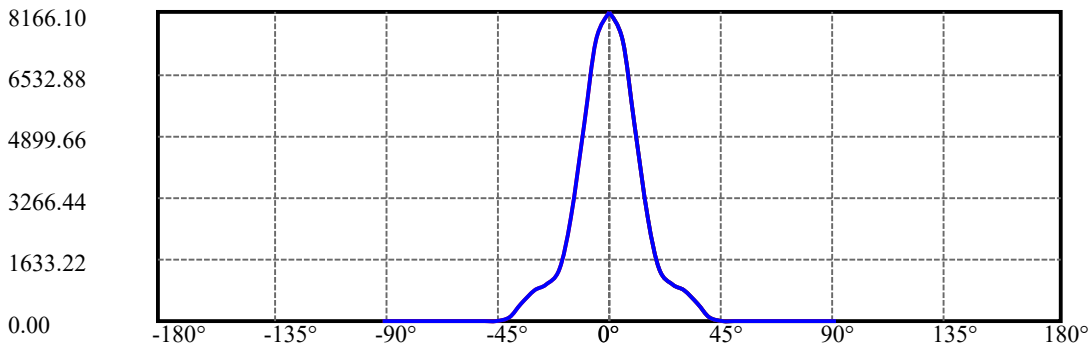
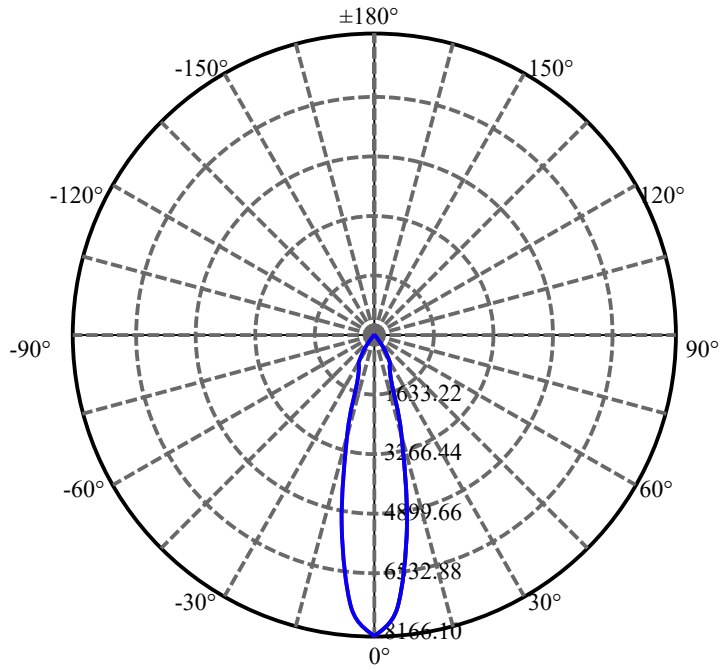
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8166.103	0.000	0	.000%	.000%
5.0	7403.228	186.127	186.127	7.644%	8.252%
10.0	5217.351	451.478	637.605	18.541%	28.268%
15.0	2735.546	471.760	1109.365	19.374%	49.184%
20.0	1387.965	339.835	1449.2	13.956%	64.250%
25.0	953.831	245.611	1694.812	10.087%	75.140%
30.0	814.539	223.789	1918.6	9.191%	85.061%
35.0	446.679	185.723	2104.324	7.627%	93.295%
40.0	86.562	88.967	2193.291	3.654%	97.240%
45.0	14.693	18.748	2212.039	.770%	98.071%
50.0	11.287	5.250	2217.289	.216%	98.304%
55.0	10.461	4.729	2222.018	.194%	98.513%
60.0	9.945	4.717	2226.734	.194%	98.722%
65.0	9.566	4.743	2231.477	.195%	98.933%
70.0	9.311	4.780	2236.257	.196%	99.145%
75.0	9.098	4.812	2241.069	.198%	99.358%
80.0	8.960	4.832	2245.901	.198%	99.572%
85.0	8.837	4.836	2250.737	.199%	99.787%
90.0	8.740	4.813	2255.55	.198%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1918.60	78.79%	85.06%
0-40	2193.29	90.07%	97.24%
0-60	2226.73	91.45%	98.72%
0-90	2250.74	92.43%	99.79%
0-120	2250.74	92.43%	99.79%
0-180	2255.55	92.63%	100.00%
60-90	28.72	1.18%	1.27%
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%
0-27.45	1804.44	74.10%	80.00%

ZONAL LUMEN SUMMARY

0-10	637.60
10-20	811.60
20-30	469.40
30-40	274.69
40-50	24.00
50-60	9.45
60-70	9.52
70-80	9.64
80-90	4.84
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: —————

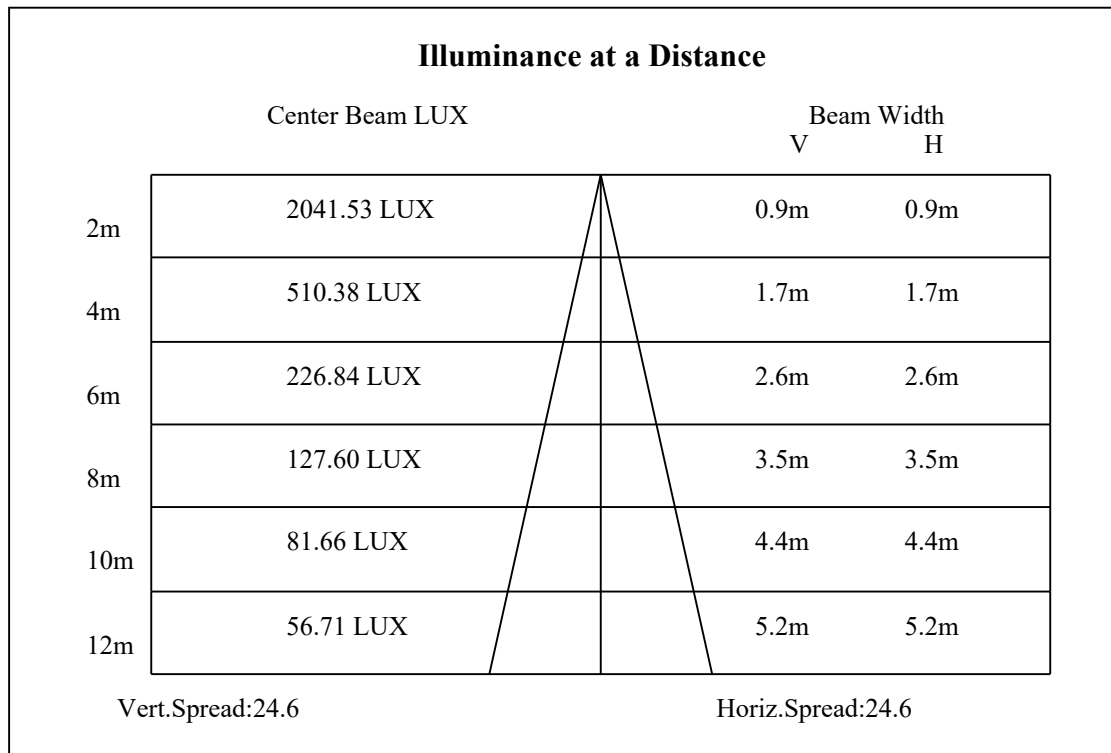
C90/C270: —————

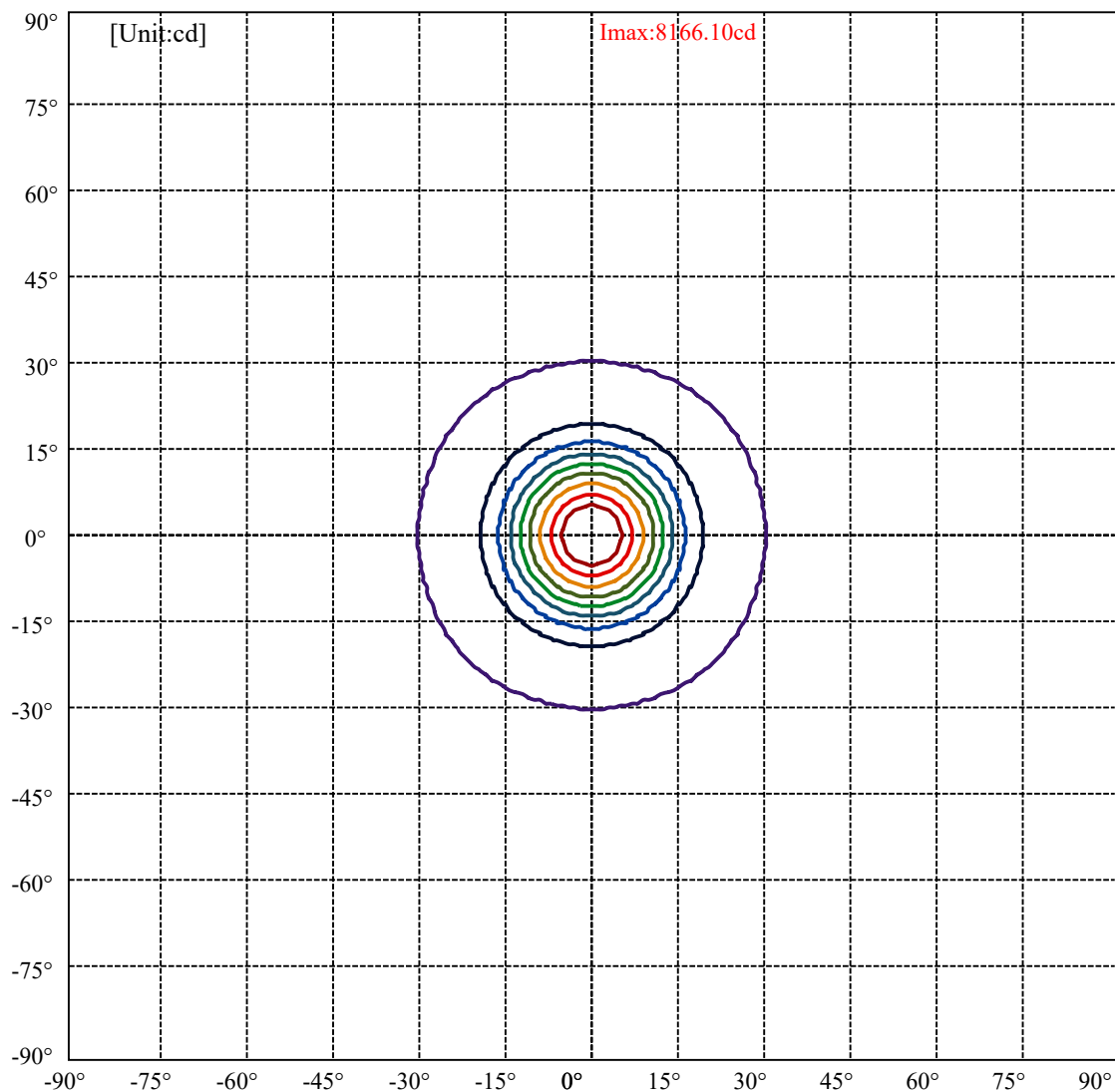
Field angle(10%Imax):C0/180Left:29.9 Right:29.9

:C90/270Left:29.9 Right:29.9

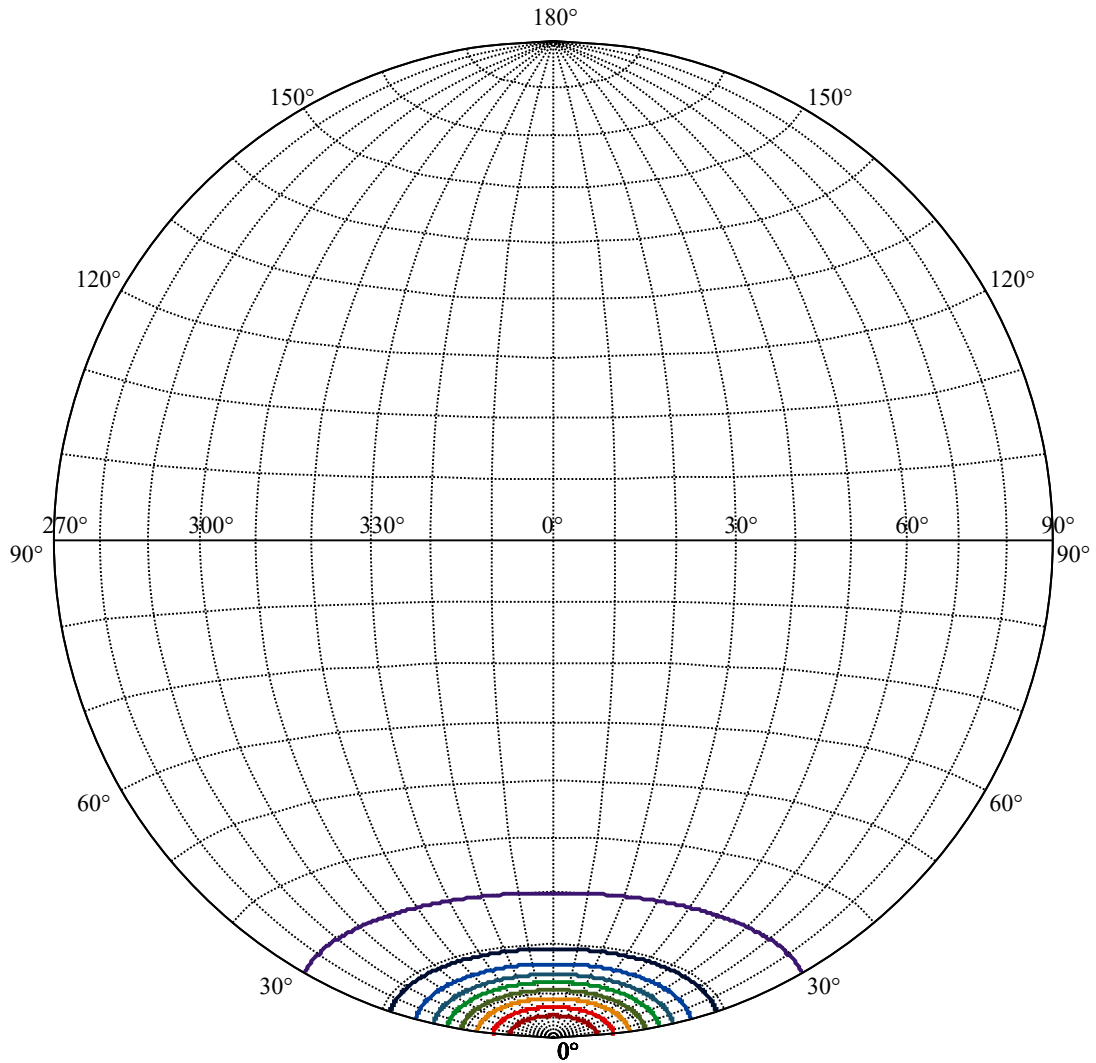
Beam Angle(50%Imax):C0/180Left:12.3 Right:12.3

:C90/270Left:12.3 Right:12.3





(10%Imax)	816.61	—
(20%Imax)	1633.22	—
(30%Imax)	2449.83	—
(40%Imax)	3266.44	—
(50%Imax)	4083.05	—
(60%Imax)	4899.66	—
(70%Imax)	5716.27	—
(80%Imax)	6532.88	—
(90%Imax)	7349.49	—



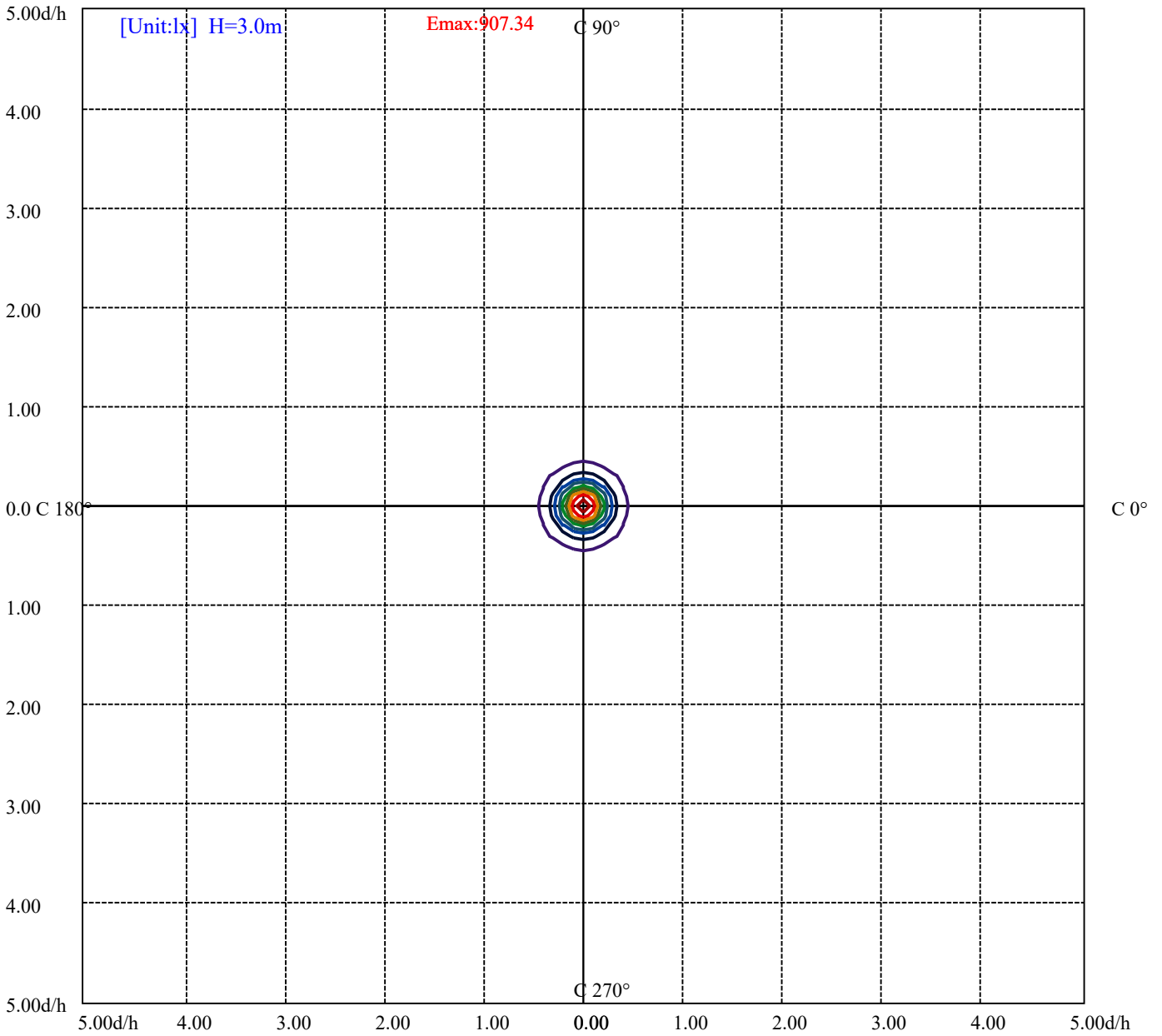
House

[Unit:cd]

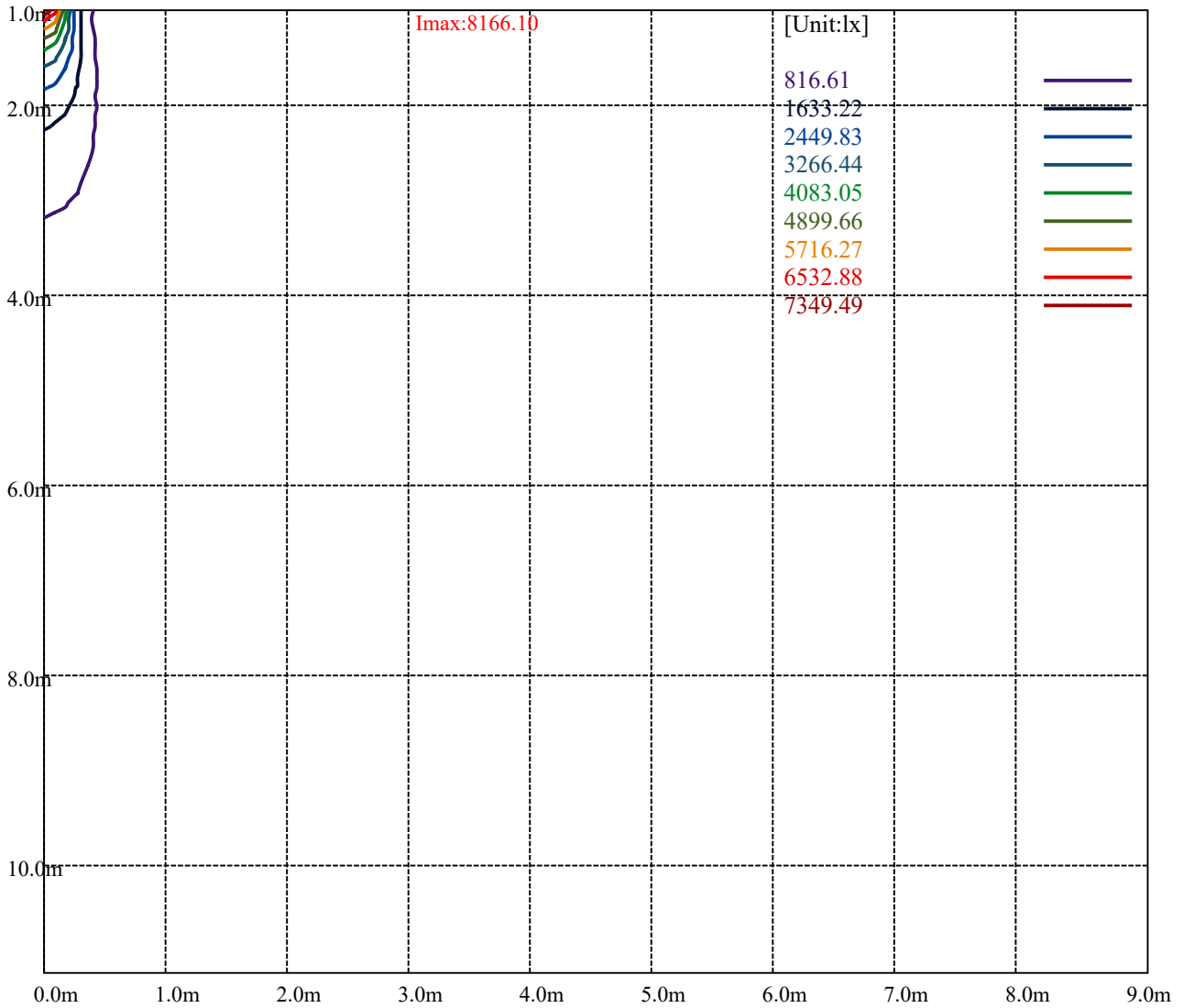
Road

Imax:8166.10

(10%Imax)	816.61	—
(20%Imax)	1633.22	—
(30%Imax)	2449.83	—
(40%Imax)	3266.44	—
(50%Imax)	4083.05	—
(60%Imax)	4899.66	—
(70%Imax)	5716.27	—
(80%Imax)	6532.88	—
(90%Imax)	7349.49	—



- (10%Emax) 90.73422
- (20%Emax) 181.4689
- (30%Emax) 272.2022
- (40%Emax) 362.9366
- (50%Emax) 453.6711
- (60%Emax) 544.4055
- (70%Emax) 635.14
- (80%Emax) 725.8733
- (90%Emax) 816.6078



Luminance Table

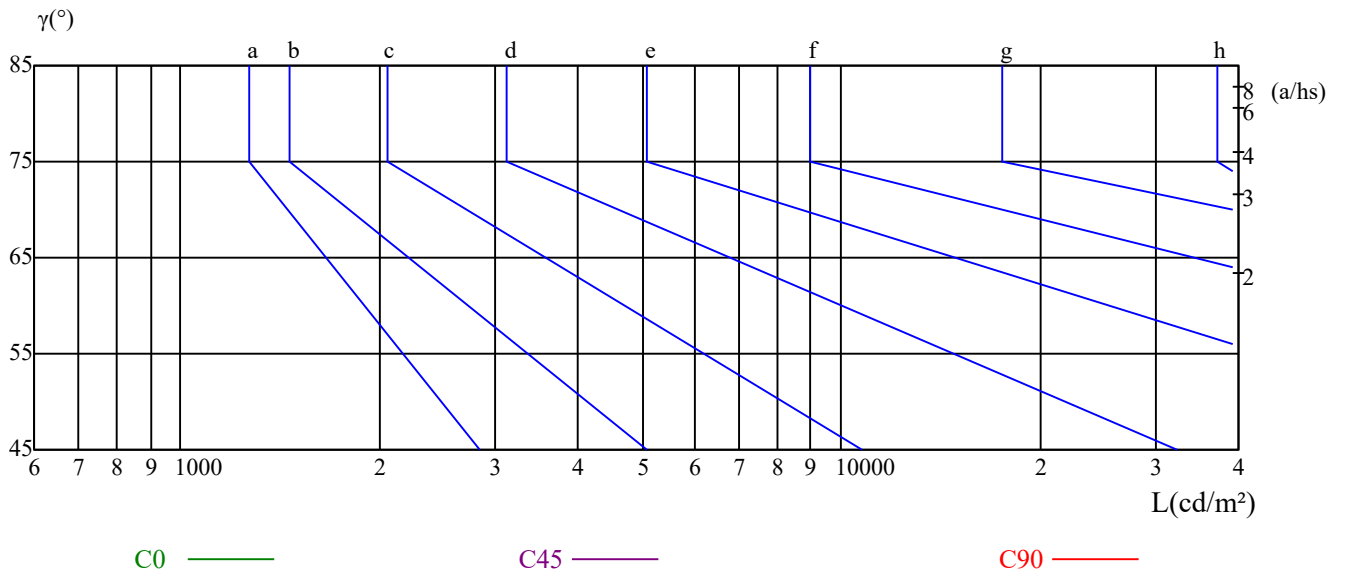
γ	45	50	55	60	65	70	75	80	85
C0	435	315	278	254	237	225	217	213	210
C45	319	230	202	184	171	162	155	151	149
C90	435	315	278	254	237	225	217	213	210

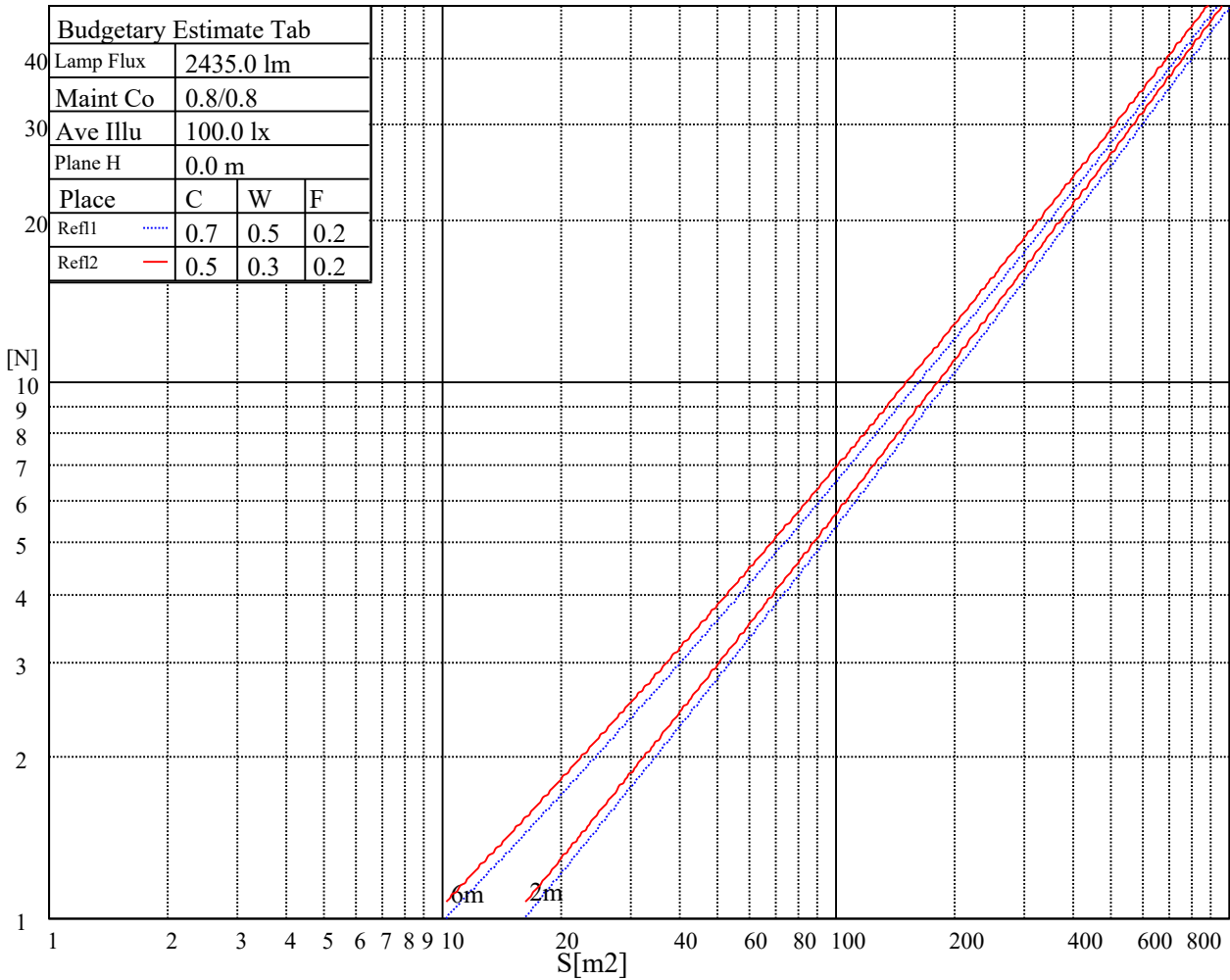
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3720	3720	3720	5778	5778	5778	16665	16665	16665

Glare Table

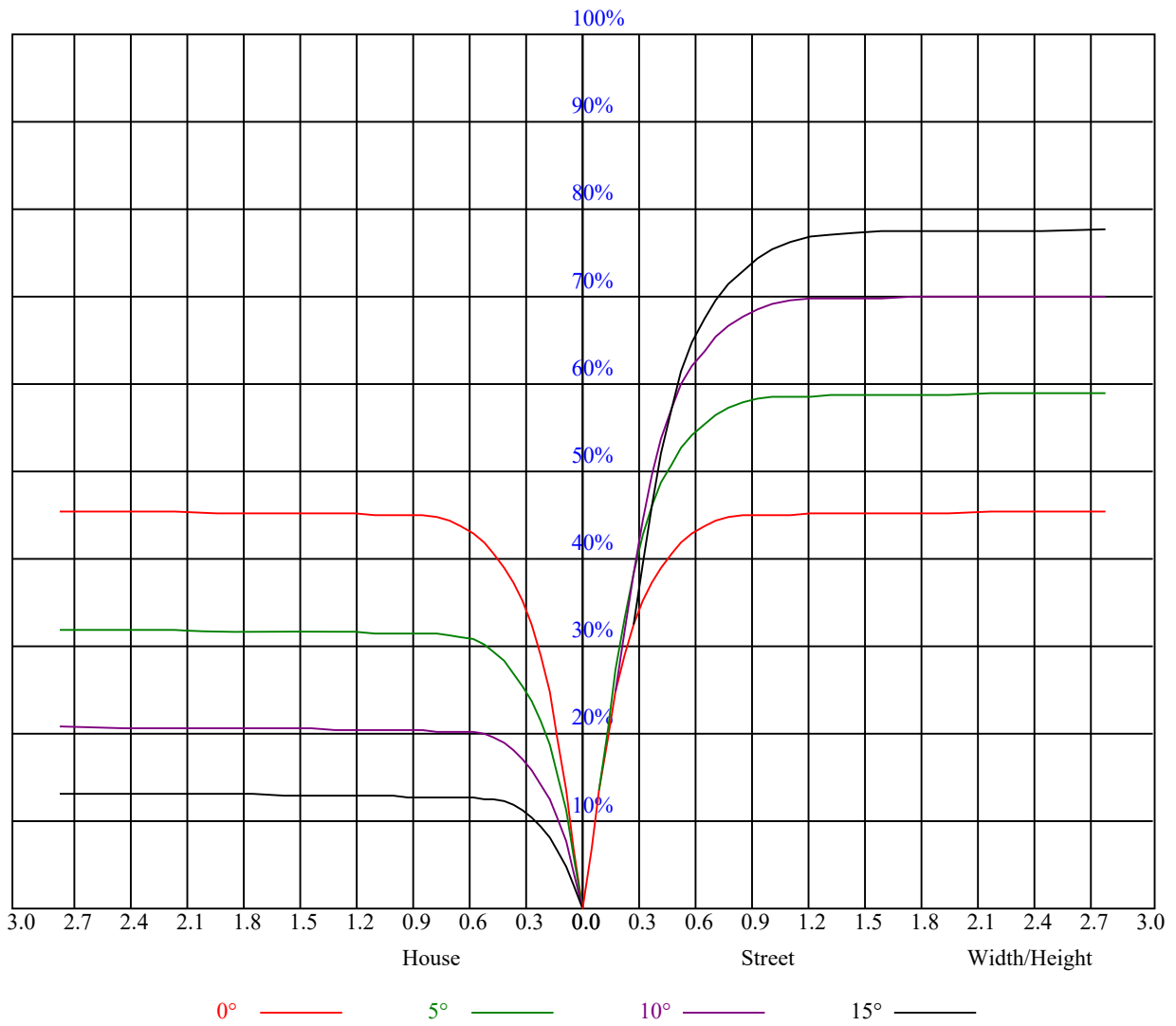
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	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	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.90	0.88
2	0.98	0.95	0.92	0.96	0.93	0.91	0.93	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	0.85	0.83	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.84	0.81	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.84	0.80	0.77	0.84	0.80	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.75	0.73
6	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.72	0.70
7	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.68
8	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.72	0.68	0.66	0.65
9	0.72	0.67	0.65	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61



Nata 3-1917-E

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	8163.76	7803.69	5894.34	3150.88	1616.46	977.25	832.45	580.29	157.30
45.0	8133.48	7989.78	6241.74	3491.13	1779.42	1012.49	842.36	650.77	296.20
90.0	8203.95	7713.40	5615.20	2972.50	1539.93	974.72	826.78	489.40	60.62
135.0	8163.21	7552.64	5704.94	3052.88	1594.43	1009.73	848.42	539.00	60.84
180.0	8163.76	7010.88	4486.55	2326.68	1084.67	904.80	786.76	308.04	29.46
225.0	8133.48	6833.60	4242.65	2143.35	1096.06	914.76	772.55	264.27	26.32
270.0	8203.95	7154.03	4786.05	2445.05	1297.13	931.00	816.49	389.25	31.00
315.0	8163.21	7167.79	4767.33	2301.91	1095.62	905.90	790.50	352.42	30.78
360.0	8163.76	7803.69	5894.34	3150.88	1616.46	977.25	832.45	580.29	157.30

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	16.19	11.56	10.63	10.08	9.63	9.36	9.08	8.97	8.81
45.0	20.10	11.84	10.85	10.24	9.80	9.47	9.30	9.08	8.92
90.0	15.97	11.34	10.57	9.97	9.58	9.30	9.25	9.08	8.86
135.0	15.47	11.34	10.46	9.97	9.52	9.30	9.08	8.92	8.86
180.0	12.22	11.07	10.30	9.80	9.47	9.25	8.97	8.86	8.75
225.0	12.17	11.12	10.35	9.91	9.52	9.30	9.08	8.97	8.92
270.0	12.99	11.07	10.30	9.86	9.52	9.30	9.03	8.92	8.81
315.0	12.44	10.96	10.24	9.74	9.47	9.19	8.97	8.86	8.75
360.0	16.19	11.56	10.63	10.08	9.63	9.36	9.08	8.97	8.81

C/γ(°)	90.0
0.0	8.75
45.0	8.81
90.0	8.70
135.0	8.64
180.0	8.70
225.0	8.86
270.0	8.75
315.0	8.70
360.0	8.75