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Nata

LumCAT: 3-2117-N	
Luminaire: 92.70.131.00	
Report No: NATA0100	Voltage(V): 34.3600
Test No: GC2020010624	Current(A): 0.6000
LampCAT: LUMINUS CXM-14-AC40	Power (W): 20.6000
Lamp flux(lm): 2579.0	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): 2089.72
Efficiency(%): 81.03%
Lumens(lm)/Power(W): 101.44
Central intensity(cd): 5164.031
Maximum intensity(cd): 5164.031
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=35.8
 [C90/270]Total=35.8
Field angle(10%Imax): [C0/180]Total=59.7
 [C90/270]Total=59.7
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
Maximum s/h(1/4): C0_180=0.57 C90_270=0.57
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.03%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.857%

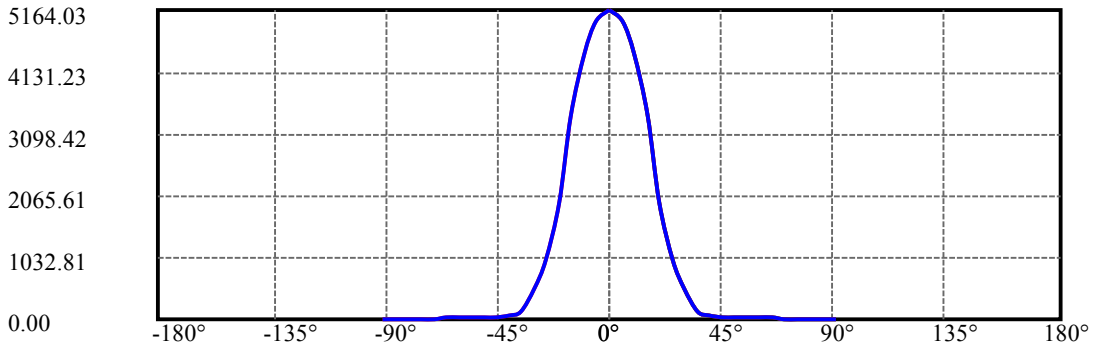
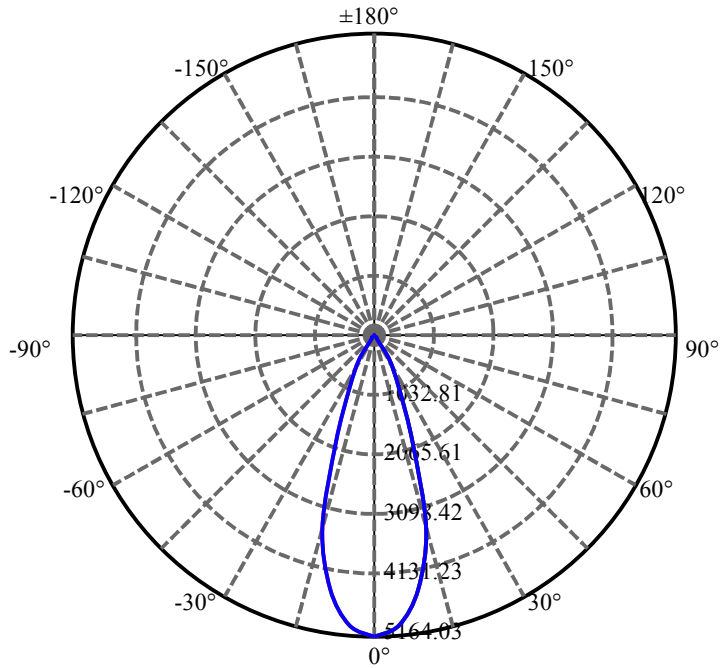
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5164.031	0.000	0	.000%	.000%
5.0	4972.008	121.173	121.173	4.698%	5.799%
10.0	4419.211	335.953	457.127	13.027%	21.875%
15.0	3412.688	464.583	921.71	18.014%	44.107%
20.0	1969.798	443.592	1365.302	17.200%	65.334%
25.0	1007.620	312.276	1677.578	12.108%	80.278%
30.0	500.168	190.812	1868.39	7.399%	89.409%
35.0	134.803	93.504	1961.894	3.626%	93.883%
40.0	54.211	31.536	1993.43	1.223%	95.392%
45.0	37.139	16.914	2010.344	.656%	96.201%
50.0	28.505	13.264	2023.608	.514%	96.836%
55.0	23.344	11.274	2034.882	.437%	97.376%
60.0	20.208	10.067	2044.949	.390%	97.857%
65.0	17.789	9.237	2054.186	.358%	98.299%
70.0	15.919	8.535	2062.721	.331%	98.708%
75.0	14.133	7.855	2070.576	.305%	99.084%
80.0	12.502	7.127	2077.702	.276%	99.425%
85.0	10.884	6.355	2084.057	.246%	99.729%
90.0	9.809	5.666	2089.723	.220%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1868.39	72.45%	89.41%
0-40	1993.43	77.29%	95.39%
0-60	2044.95	79.29%	97.86%
0-90	2084.06	80.81%	99.73%
0-120	2084.06	80.81%	99.73%
0-180	2089.72	81.03%	100.00%
60-90	49.18	1.91%	2.35%
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%
0-24.91	1671.78	64.82%	80.00%

ZONAL LUMEN SUMMARY

0-10	457.13
10-20	908.18
20-30	503.09
30-40	125.04
40-50	30.18
50-60	21.34
60-70	17.77
70-80	14.98
80-90	6.35
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: —————

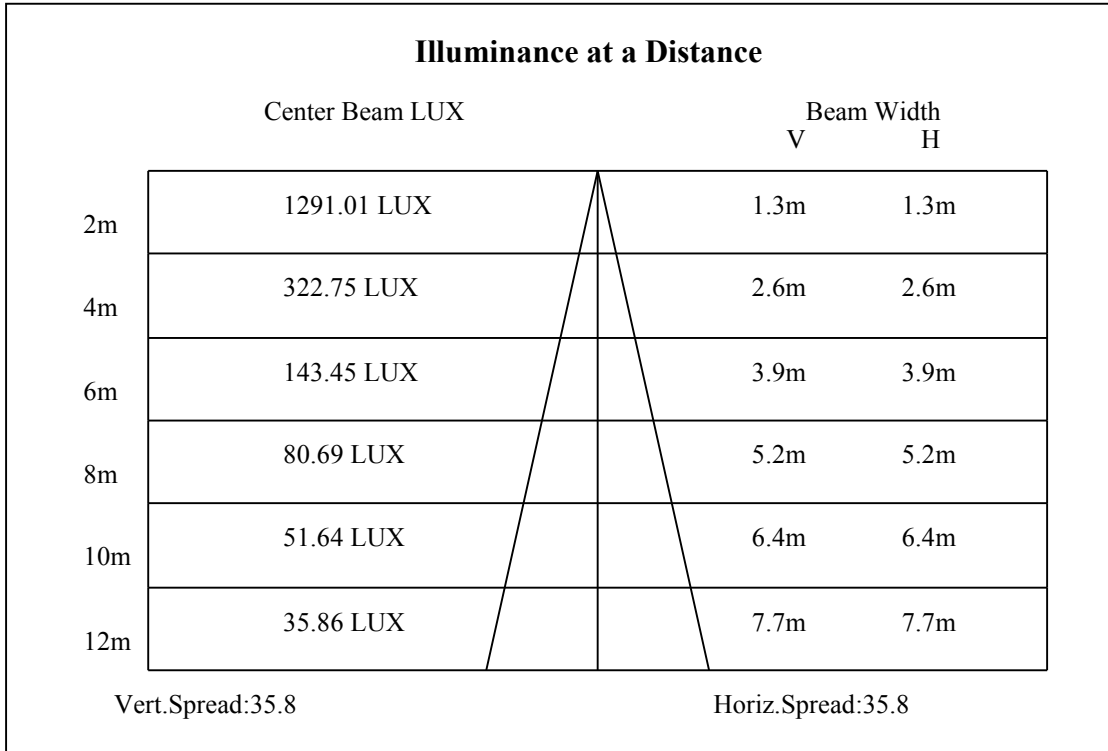
C90/C270: —————

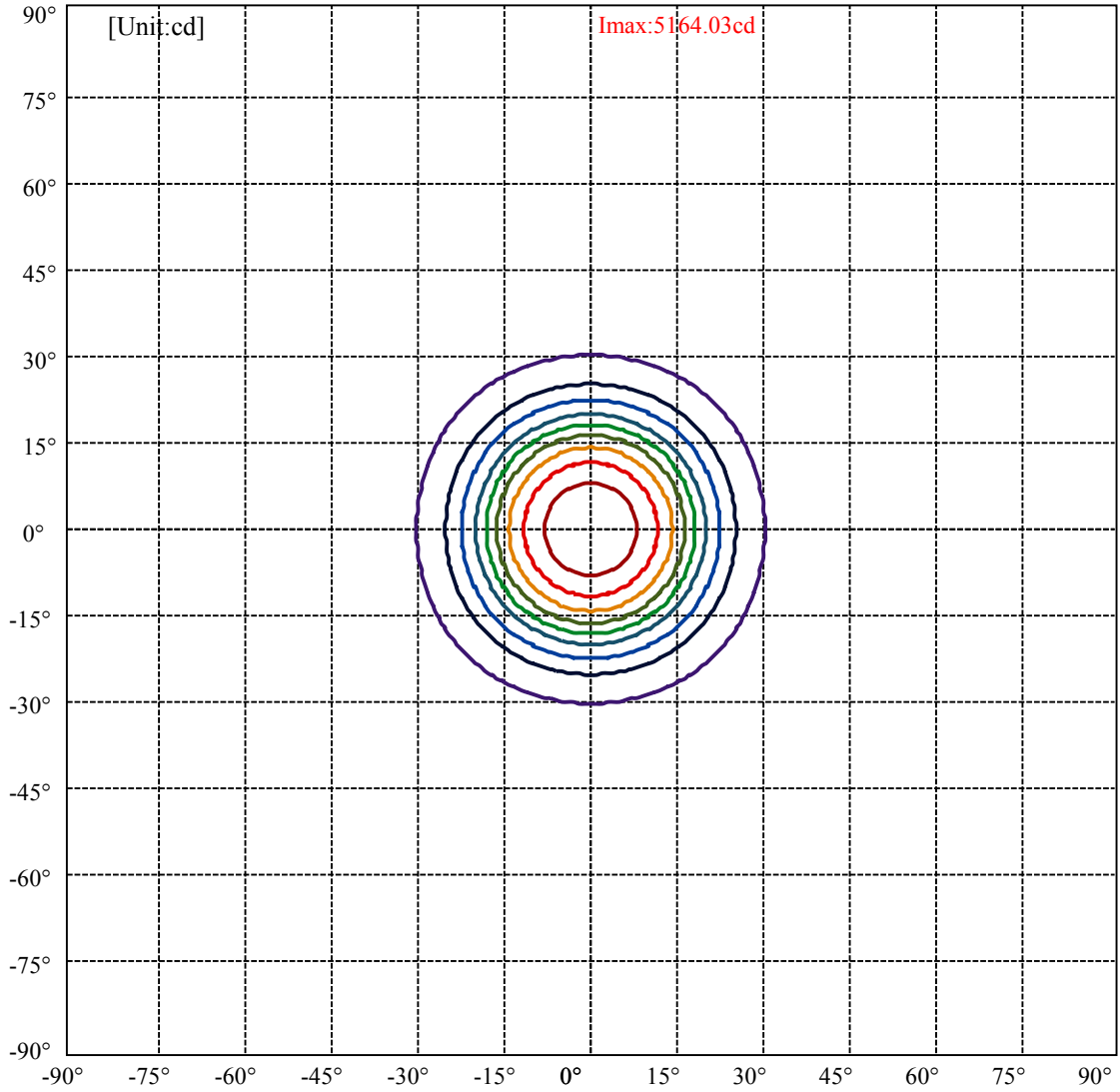
Field angle(10%Imax):C0/180Left:29.8 Right:29.8

:C90/270Left:29.8 Right:29.8

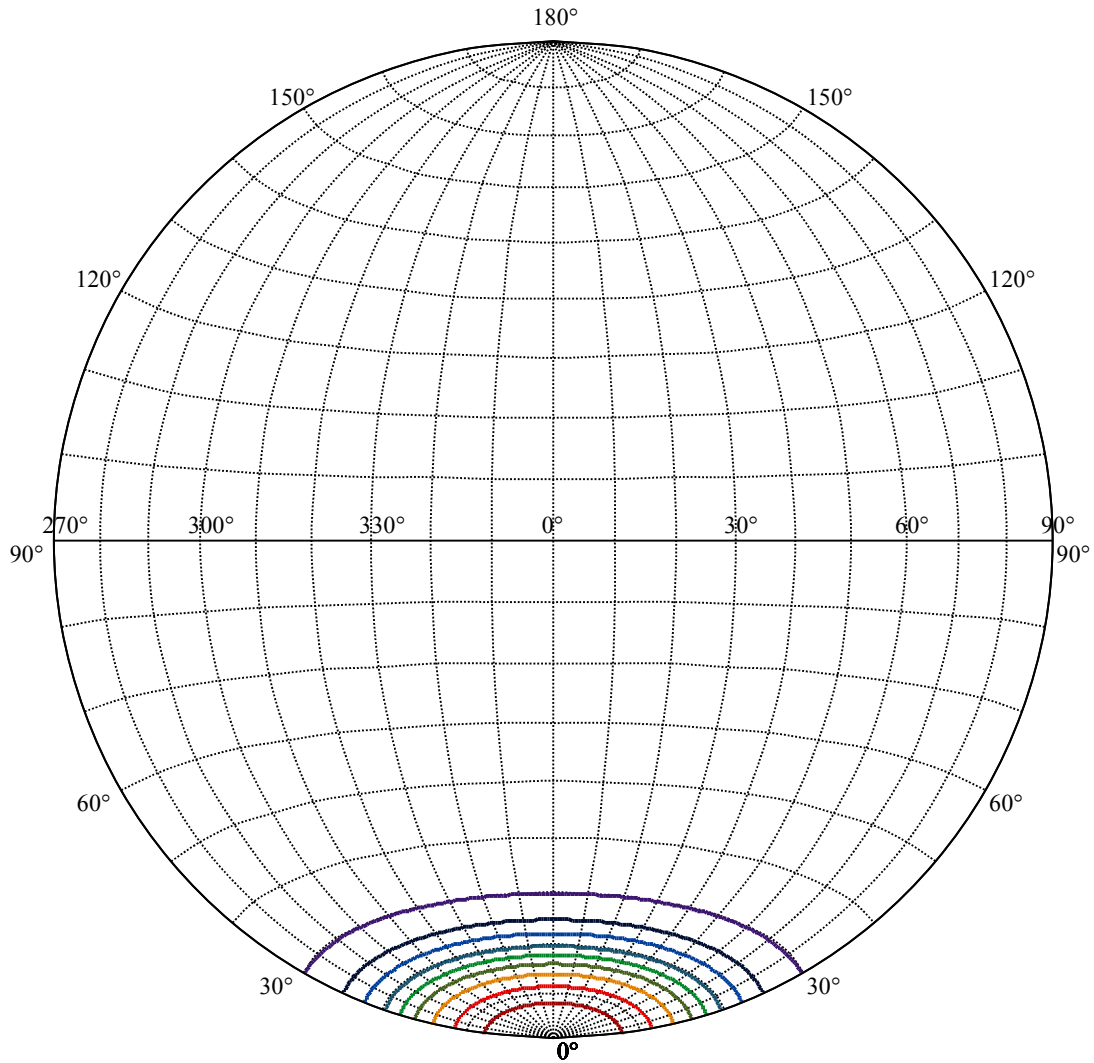
Beam Angle(50%Imax):C0/180Left:17.9 Right:17.9

:C90/270Left:17.9 Right:17.9





(10%Imax) 516.403	—
(20%Imax) 1032.81	—
(30%Imax) 1549.21	—
(40%Imax) 2065.61	—
(50%Imax) 2582.02	—
(60%Imax) 3098.42	—
(70%Imax) 3614.82	—
(80%Imax) 4131.23	—
(90%Imax) 4647.63	—



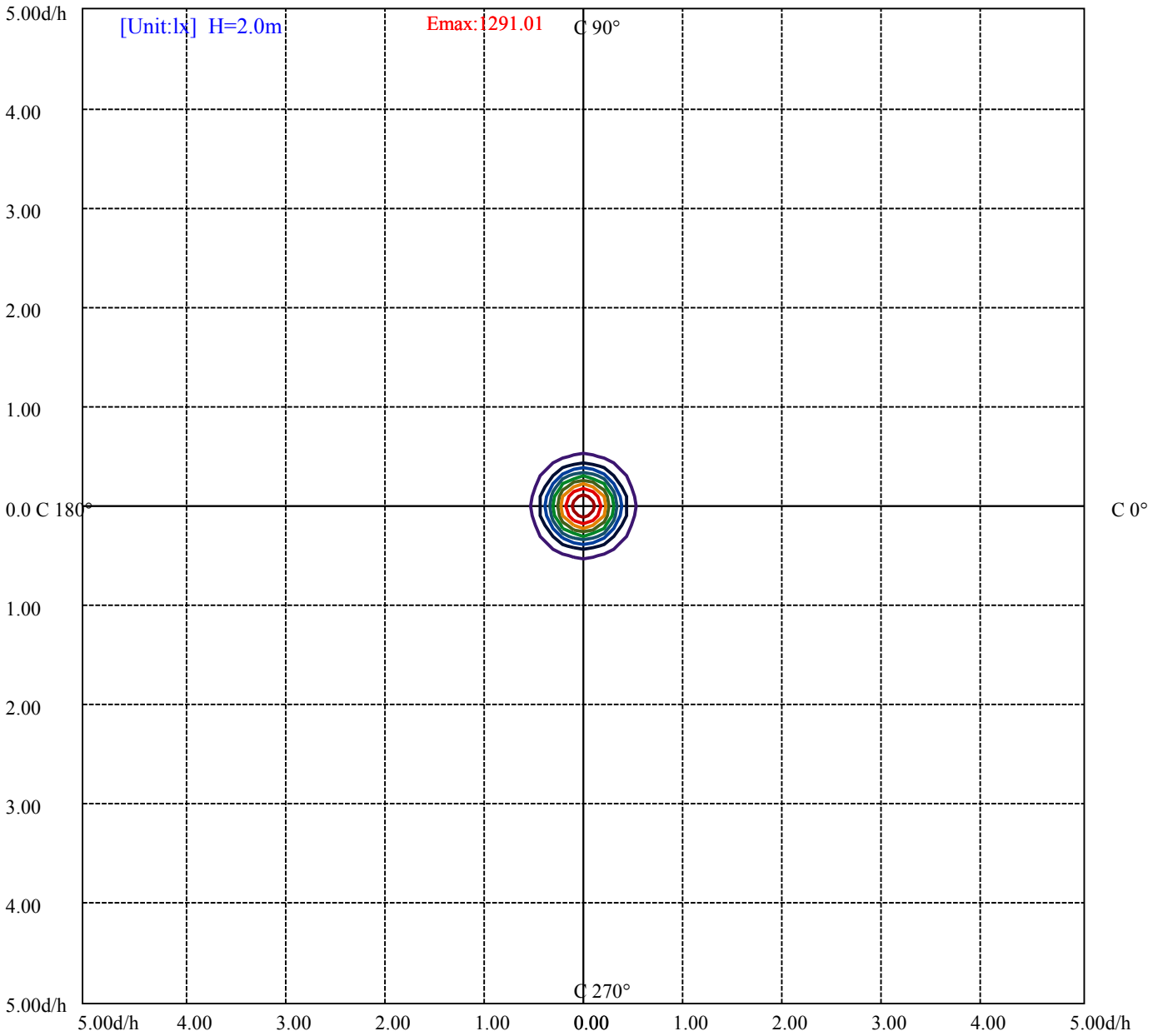
House

[Unit:cd]

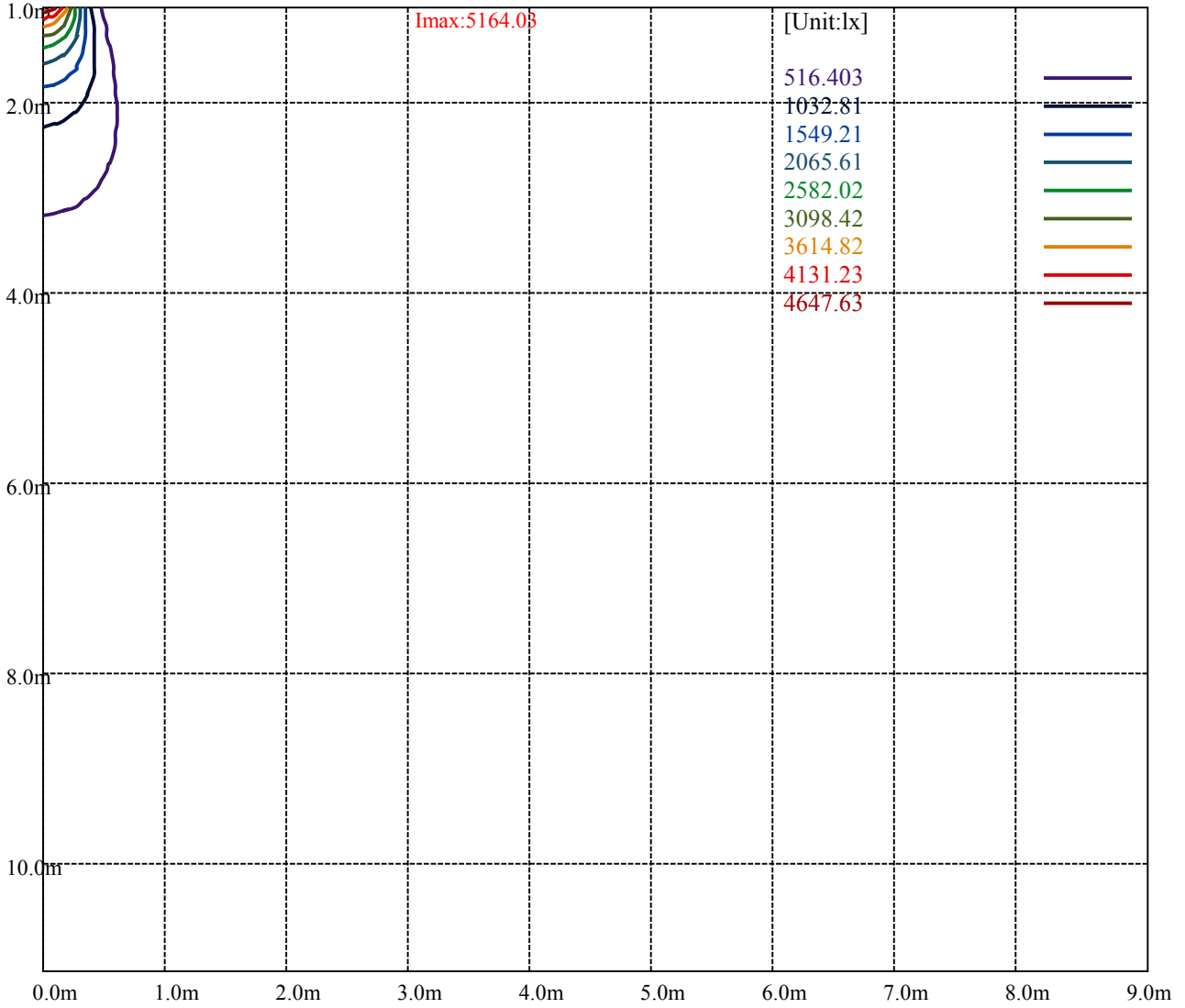
Road

Imax:5164.03

(10%Imax) 516.403	—
(20%Imax) 1032.81	—
(30%Imax) 1549.21	—
(40%Imax) 2065.61	—
(50%Imax) 2582.02	—
(60%Imax) 3098.42	—
(70%Imax) 3614.82	—
(80%Imax) 4131.23	—
(90%Imax) 4647.63	—



(10%Emax) 129.1008	—
(20%Emax) 258.2025	—
(30%Emax) 387.3025	—
(40%Emax) 516.4025	—
(50%Emax) 645.5025	—
(60%Emax) 774.605	—
(70%Emax) 903.705	—
(80%Emax) 1032.805	—
(90%Emax) 1161.905	—



Luminance Table

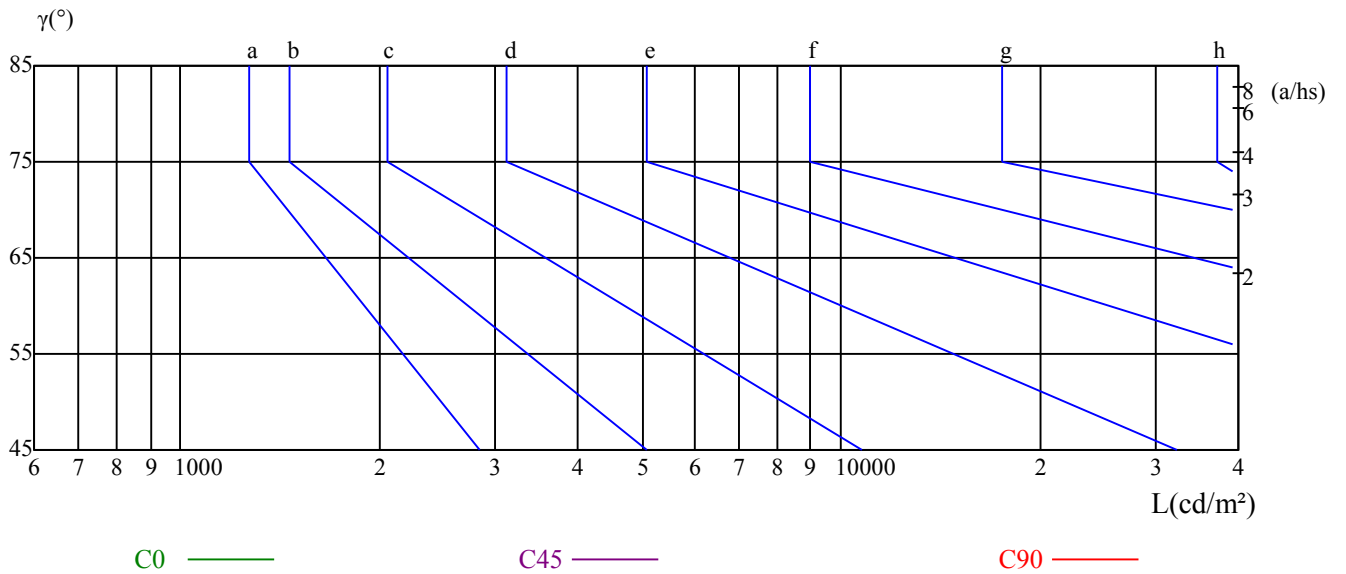
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

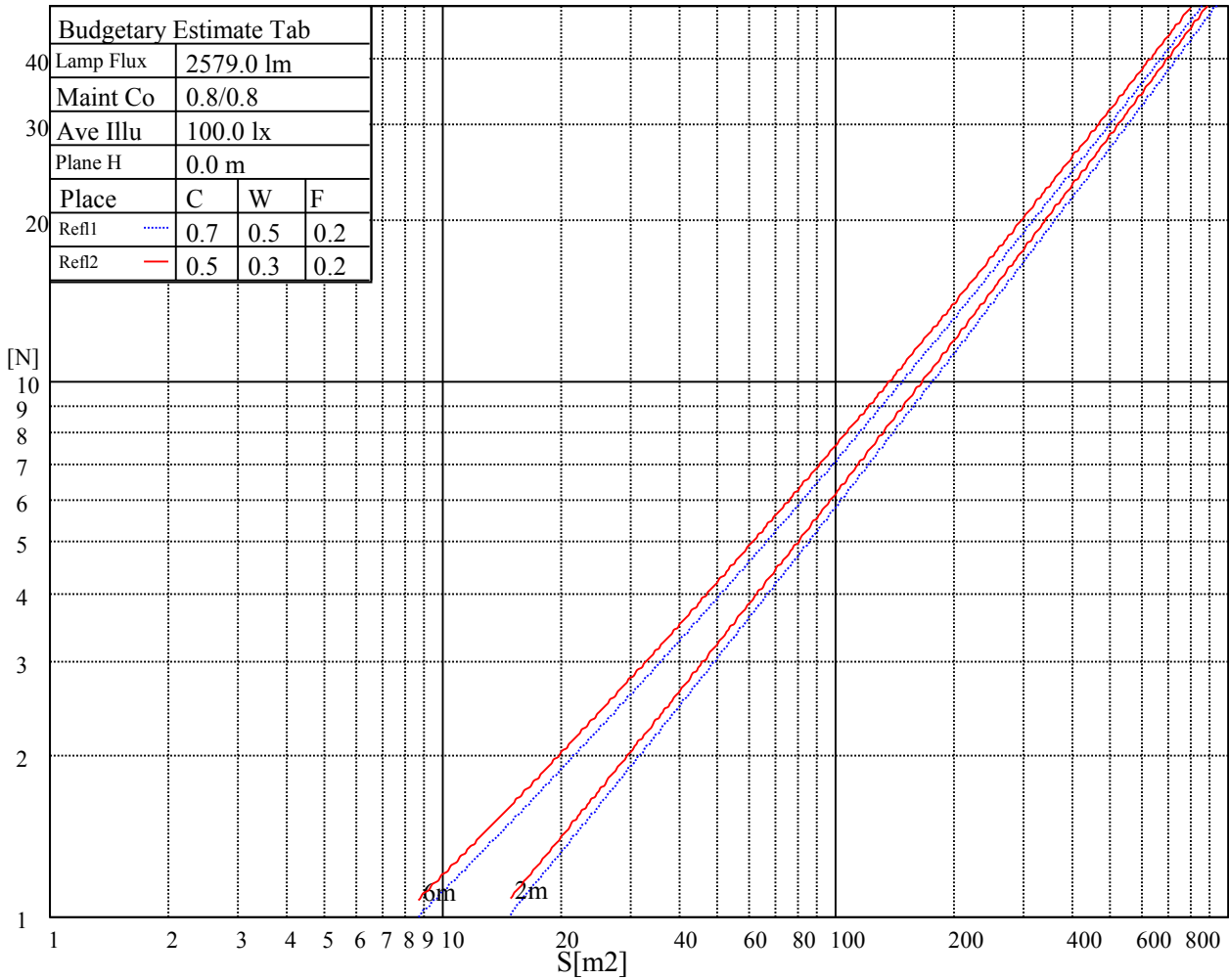
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

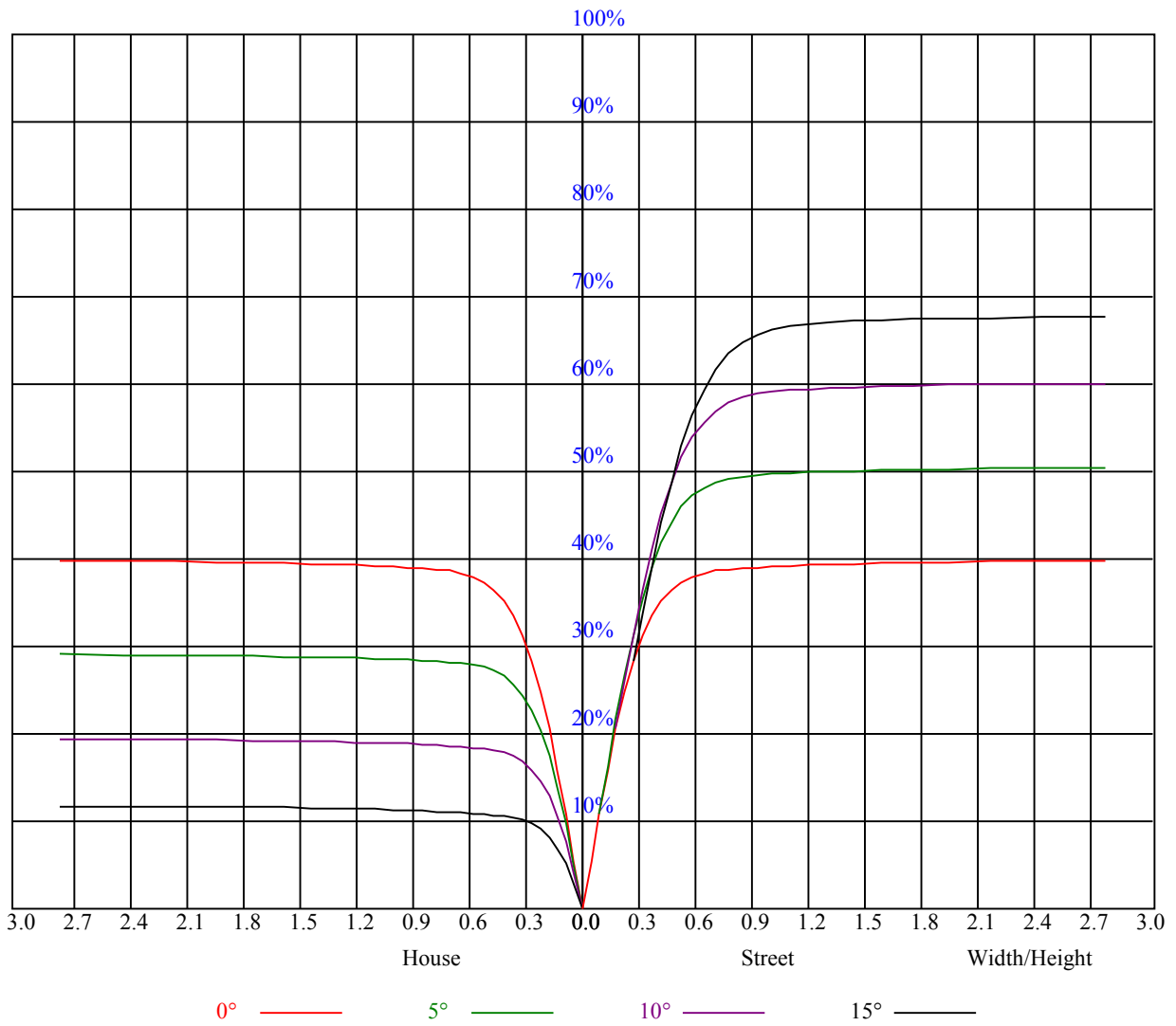
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance 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 RHOFC=20 CU															
0	0.96	0.96	0.96	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.90	0.89	0.87	0.89	0.87	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.80	0.79	0.78	0.77
2	0.85	0.82	0.80	0.84	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.76	0.77	0.75	0.74	0.73
3	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.75	0.73	0.76	0.73	0.72	0.74	0.72	0.71	0.69
4	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.66
5	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
6	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.61
7	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
8	0.64	0.60	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56
9	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.54
10	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.52



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	5143.50	5164.31	4746.38	3986.44	2726.44	1320.75	755.44	295.88	67.22
45.0	5148.00	5204.81	4780.13	3988.69	2566.13	1173.94	692.44	286.31	63.73
90.0	5186.25	5076.00	4533.75	3409.31	1915.31	922.73	477.68	88.37	52.20
135.0	5178.38	5027.63	4413.38	3315.38	1917.56	915.19	423.00	85.16	51.75
180.0	5143.50	4768.31	4016.81	2692.69	1092.88	745.03	244.18	68.34	44.94
225.0	5148.00	4712.06	4065.19	2855.25	1298.81	845.44	308.25	67.73	44.89
270.0	5186.25	4889.81	4370.63	3490.88	2042.44	1077.75	529.88	85.89	53.44
315.0	5178.38	4933.13	4427.44	3562.88	2198.81	1060.14	570.49	100.74	55.52
360.0	5143.50	5164.31	4746.38	3986.44	2726.44	1320.75	755.44	295.88	67.22
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	43.76	32.46	25.71	21.83	19.29	17.04	15.08	13.39	11.59
45.0	43.43	31.39	24.92	21.26	18.62	16.59	14.74	13.16	11.36
90.0	37.18	28.46	23.23	20.19	17.66	15.75	13.89	12.21	10.74
135.0	36.00	27.96	23.23	20.14	17.61	15.86	14.01	12.26	10.69
180.0	32.34	25.99	21.99	19.29	17.04	15.36	13.56	11.93	10.46
225.0	31.95	25.43	21.54	18.90	16.76	15.08	13.56	11.98	10.46
270.0	35.66	27.39	22.50	19.69	17.33	15.58	13.95	12.38	10.74
315.0	36.79	28.97	23.63	20.36	18.00	16.09	14.29	12.71	11.03
360.0	43.76	32.46	25.71	21.83	19.29	17.04	15.08	13.39	11.59
C/ γ (°)	90.0								
0.0	10.24								
45.0	9.90								
90.0	9.68								
135.0	9.73								
180.0	9.84								
225.0	9.68								
270.0	9.62								
315.0	9.79								
360.0	10.24								