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Nata

LumCAT: NA01D0201560BW

Luminaire:

Report No: 200420-B003

Voltage(V): 6.6100

Test No: 200420-C003

Current(A): 0.1600

LampCAT: LUMILEDS LUXEON 3030 2D(ROUND)1.0500

Lamp flux(lm): 93.0

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): 75.60

Efficiency(%): 81.29%

Lumens(lm)/Power(W): 72.00

Central intensity(cd): 159.356

Maximum intensity(cd): 161.494

Angle of maximum intensity: C=150.0 γ =1.0

Beam Angle(50%Imax): [C0/180]Total=57.4

[C90/270]Total=16.8

Field angle(10%Imax): [C0/180]Total=84.2

[C90/270]Total=47.6

Maximum s/h(1/2): C0_180=0.91 C90_270=0.30

Maximum s/h(1/4): C0_180=0.87 C90_270=0.36

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 81.29%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 88.861%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	159.098	0.000	0	.000%	.000%
1.0	157.737	0.152	0.152	.163%	.201%
2.0	153.558	0.447	0.598	.480%	.792%
3.0	147.405	0.720	1.318	.774%	1.744%
4.0	140.702	0.964	2.283	1.037%	3.019%
5.0	133.038	1.178	3.46	1.266%	4.577%
6.0	125.796	1.360	4.82	1.463%	6.376%
7.0	118.458	1.516	6.337	1.630%	8.381%
8.0	111.879	1.648	7.985	1.773%	10.562%
9.0	105.628	1.763	9.748	1.895%	12.893%
10.0	99.504	1.856	11.604	1.996%	15.349%
11.0	93.832	1.932	13.536	2.077%	17.904%
12.0	88.613	1.994	15.53	2.144%	20.542%
13.0	83.311	2.040	17.571	2.194%	23.241%
14.0	78.272	2.068	19.639	2.224%	25.977%
15.0	73.828	2.088	21.727	2.245%	28.738%
16.0	69.190	2.096	23.823	2.253%	31.510%
17.0	64.861	2.088	25.91	2.245%	34.272%
18.0	60.616	2.069	27.979	2.225%	37.008%
19.0	56.723	2.041	30.02	2.195%	39.708%
20.0	52.812	2.005	32.025	2.156%	42.360%
21.0	49.165	1.958	33.983	2.106%	44.950%
22.0	45.806	1.908	35.892	2.052%	47.474%
23.0	42.659	1.856	37.748	1.996%	49.930%
24.0	39.485	1.796	39.544	1.931%	52.305%
25.0	36.539	1.729	41.273	1.859%	54.592%
26.0	33.952	1.664	42.937	1.789%	56.793%
27.0	31.352	1.598	44.534	1.718%	58.906%
28.0	28.905	1.526	46.06	1.640%	60.924%
29.0	26.655	1.454	47.514	1.563%	62.847%
30.0	24.609	1.384	48.898	1.488%	64.677%
31.0	22.498	1.311	50.209	1.410%	66.411%
32.0	20.578	1.234	51.443	1.327%	68.044%
33.0	18.907	1.163	52.606	1.251%	69.582%
34.0	17.215	1.093	53.699	1.175%	71.028%
35.0	15.722	1.023	54.722	1.100%	72.381%
36.0	14.302	0.956	55.678	1.028%	73.646%
37.0	13.008	0.891	56.569	.958%	74.824%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	11.810	0.828	57.397	.891%	75.919%
39.0	10.692	0.768	58.165	.826%	76.935%
40.0	9.670	0.710	58.875	.764%	77.875%
41.0	8.817	0.658	59.534	.708%	78.745%
42.0	7.976	0.610	60.144	.656%	79.552%
43.0	7.219	0.563	60.707	.605%	80.297%
44.0	6.654	0.524	61.23	.563%	80.990%
45.0	6.129	0.491	61.721	.528%	81.639%
46.0	5.679	0.462	62.183	.497%	82.250%
47.0	5.323	0.438	62.621	.470%	82.829%
48.0	5.023	0.418	63.039	.450%	83.382%
49.0	4.744	0.401	63.44	.431%	83.913%
50.0	4.498	0.385	63.825	.414%	84.422%
51.0	4.294	0.372	64.197	.400%	84.914%
52.0	4.111	0.361	64.558	.388%	85.391%
53.0	3.949	0.351	64.909	.377%	85.855%
54.0	3.816	0.342	65.251	.368%	86.308%
55.0	3.691	0.335	65.586	.360%	86.751%
56.0	3.581	0.329	65.915	.353%	87.186%
57.0	3.473	0.323	66.237	.347%	87.612%
58.0	3.396	0.318	66.555	.342%	88.032%
59.0	3.330	0.314	66.869	.338%	88.448%
60.0	3.270	0.312	67.181	.335%	88.861%
61.0	3.206	0.309	67.49	.332%	89.270%
62.0	3.159	0.307	67.797	.330%	89.675%
63.0	3.108	0.305	68.102	.328%	90.078%
64.0	3.063	0.303	68.404	.326%	90.479%
65.0	3.026	0.301	68.706	.324%	90.878%
66.0	2.993	0.300	69.006	.323%	91.275%
67.0	2.977	0.300	69.306	.323%	91.672%
68.0	2.953	0.300	69.607	.323%	92.069%
69.0	2.946	0.301	69.908	.324%	92.467%
70.0	2.937	0.302	70.21	.325%	92.867%
71.0	2.941	0.304	70.513	.327%	93.269%
72.0	2.941	0.306	70.819	.329%	93.673%
73.0	2.944	0.308	71.127	.331%	94.080%
74.0	2.948	0.310	71.437	.333%	94.490%
75.0	2.963	0.312	71.749	.336%	94.903%

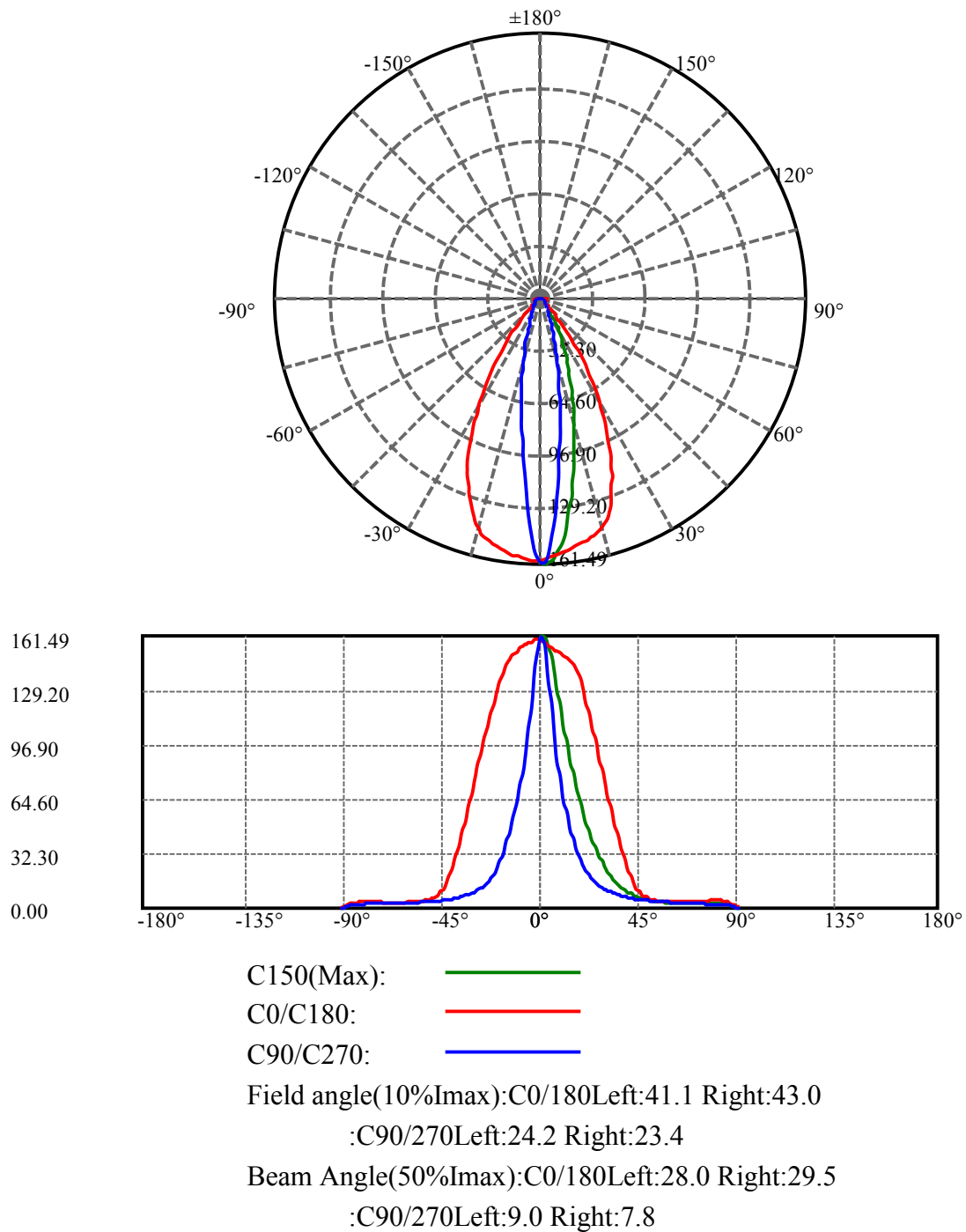
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	2.967	0.315	72.064	.338%	95.319%
77.0	2.974	0.317	72.381	.341%	95.738%
78.0	2.970	0.318	72.699	.342%	96.159%
79.0	2.958	0.318	73.017	.342%	96.581%
80.0	2.937	0.318	73.335	.342%	97.001%
81.0	2.899	0.316	73.651	.339%	97.418%
82.0	2.869	0.313	73.964	.336%	97.832%
83.0	2.794	0.308	74.271	.331%	98.239%
84.0	2.700	0.299	74.571	.322%	98.635%
85.0	2.609	0.290	74.86	.312%	99.018%
86.0	2.435	0.276	75.136	.296%	99.383%
87.0	1.434	0.212	75.348	.228%	99.663%
88.0	0.848	0.125	75.473	.134%	99.829%
89.0	0.584	0.078	75.551	.084%	99.932%
90.0	0.349	0.051	75.603	.055%	100.000%

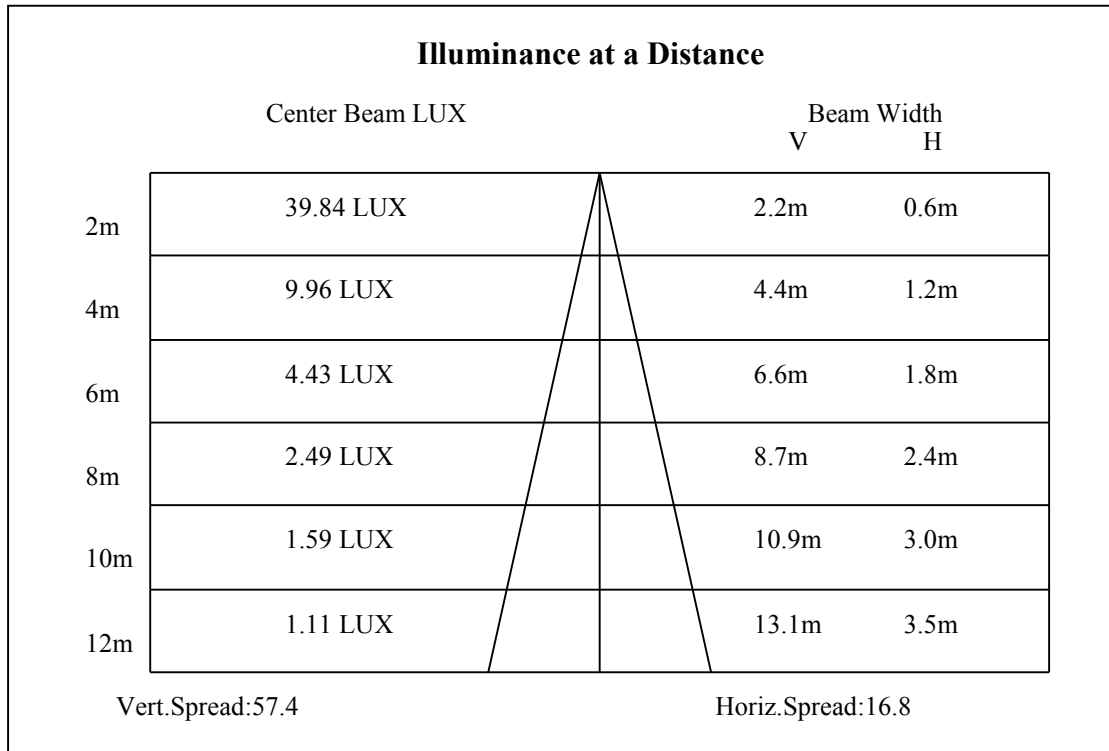
ZONAL LUMEN SUMMARY

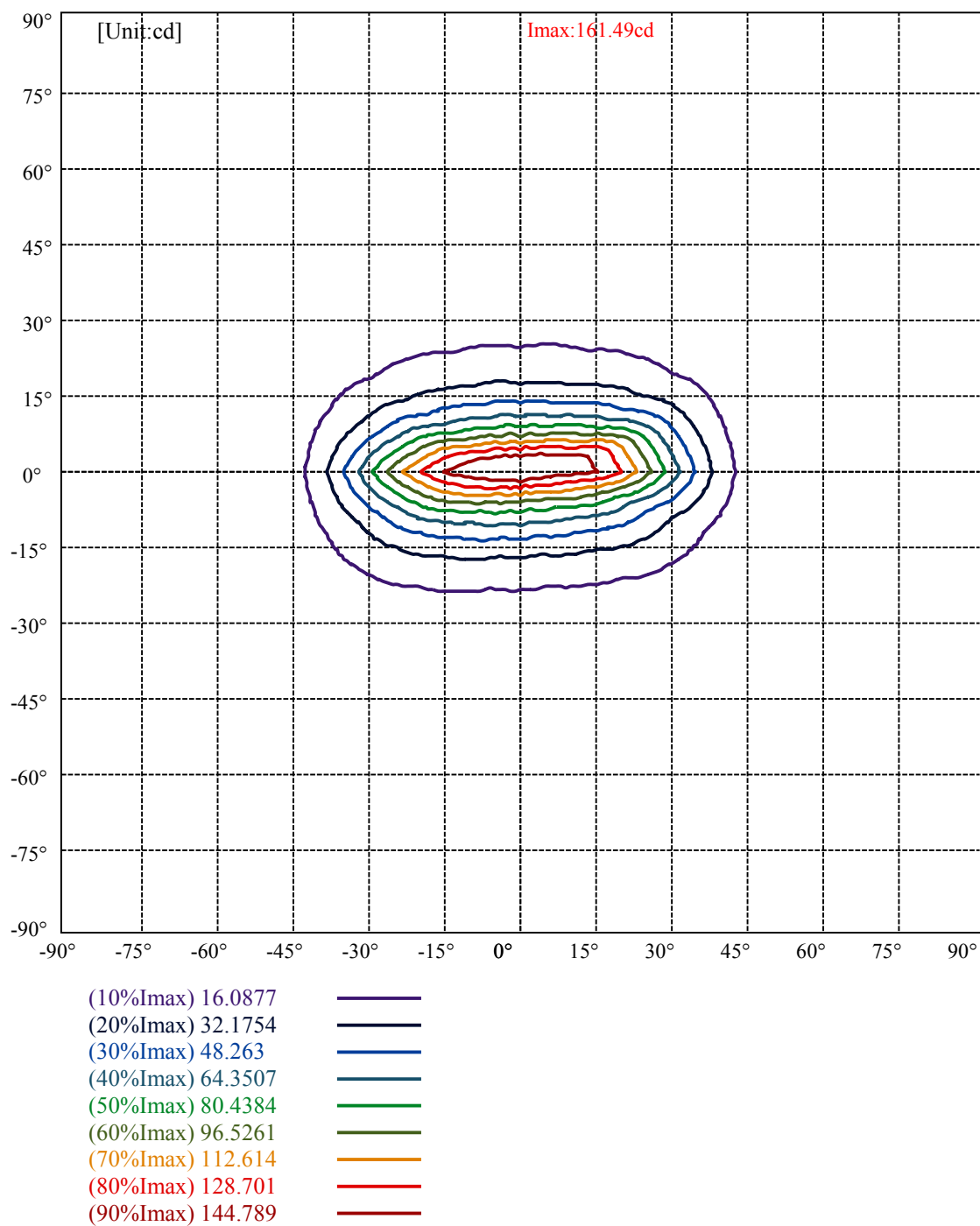
Zone	Lumens	%Lamp	%Fixt
0-30	48.90	52.58%	64.68%
0-40	58.88	63.31%	77.87%
0-60	67.18	72.24%	88.86%
0-90	75.55	81.24%	99.93%
0-120	75.55	81.24%	99.93%
0-180	75.60	81.29%	100.00%
60-90	8.68	9.34%	11.48%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-42.60	60.48	65.03%	80.00%

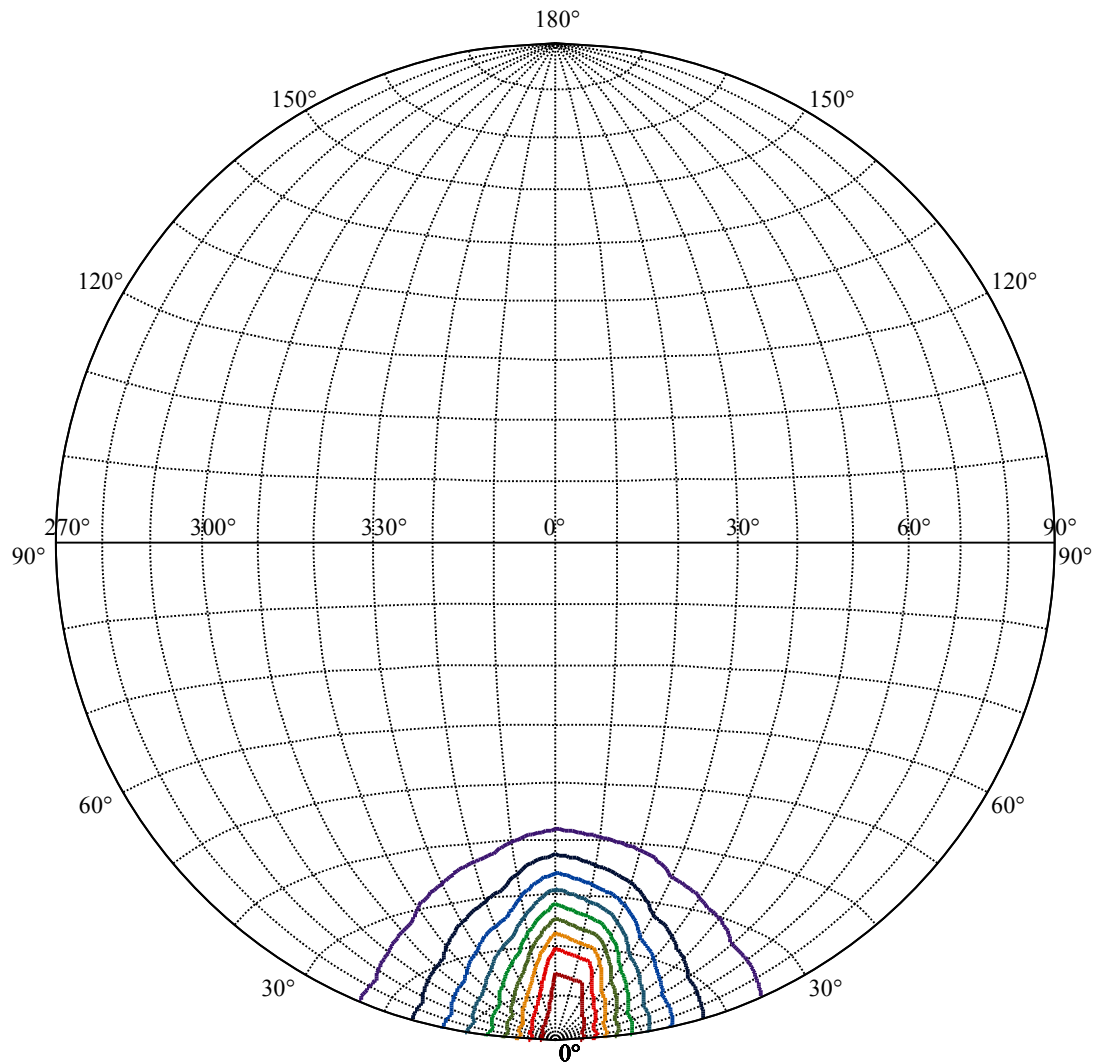
ZONAL LUMEN SUMMARY

0-10	11.60
10-20	20.42
20-30	16.87
30-40	9.98
40-50	4.95
50-60	3.36
60-70	3.03
70-80	3.13
80-90	2.22
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









House

[Unit:cd]

Road

Imax:161.49

(10%Imax) 16.1494

(20%Imax) 32.2988

(30%Imax) 48.4481

(40%Imax) 64.5975

(50%Imax) 80.7469

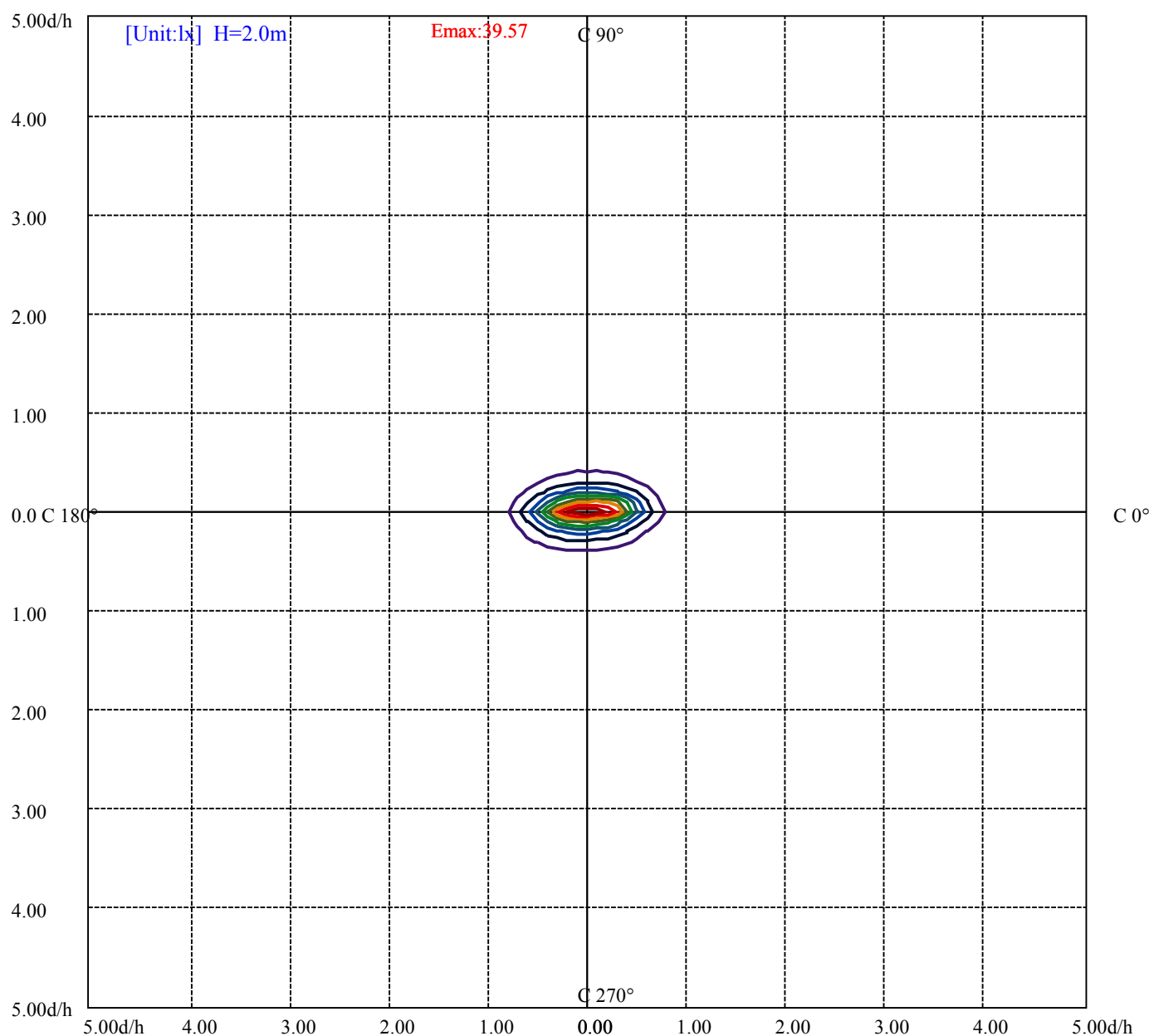
(60%Imax) 96.8963

(70%Imax) 113.046

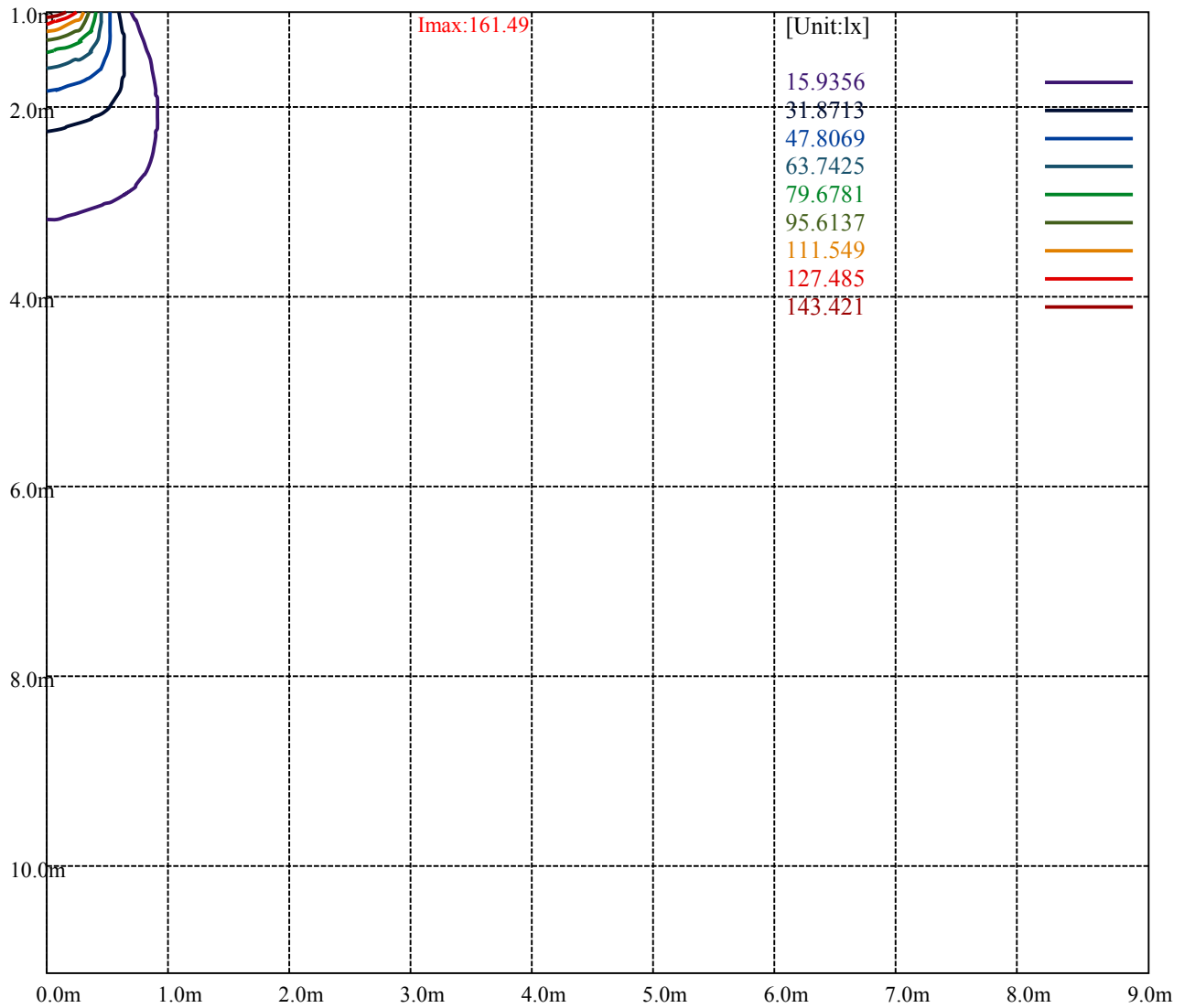
(80%Imax) 129.195

(90%Imax) 145.344





(10%Emax) 3.9572	—
(20%Emax) 7.9144	—
(30%Emax) 11.8716	—
(40%Emax) 15.8288	—
(50%Emax) 19.78602	—
(60%Emax) 23.74323	—
(70%Emax) 27.7005	—
(80%Emax) 31.6575	—
(90%Emax) 35.61475	—



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

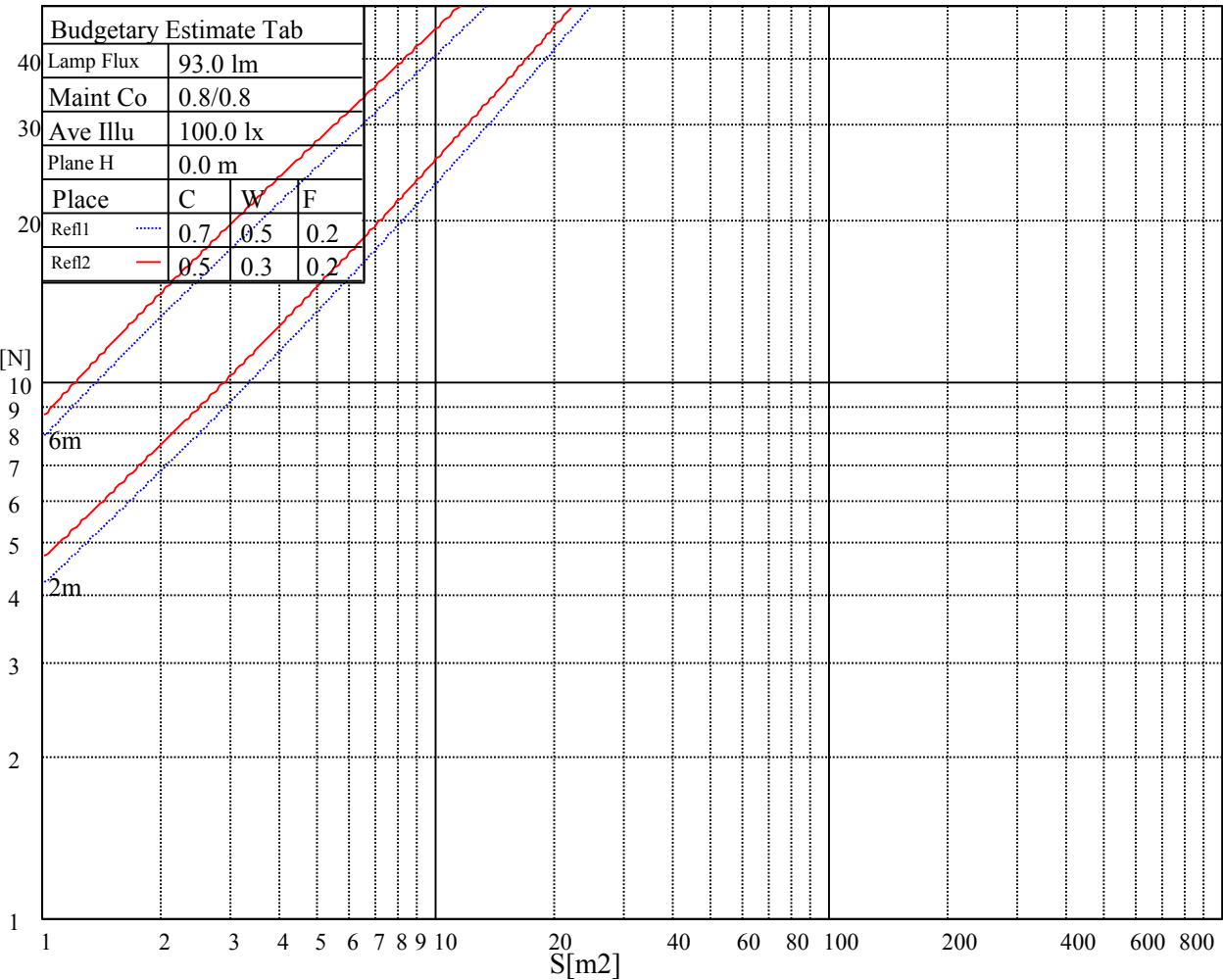
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

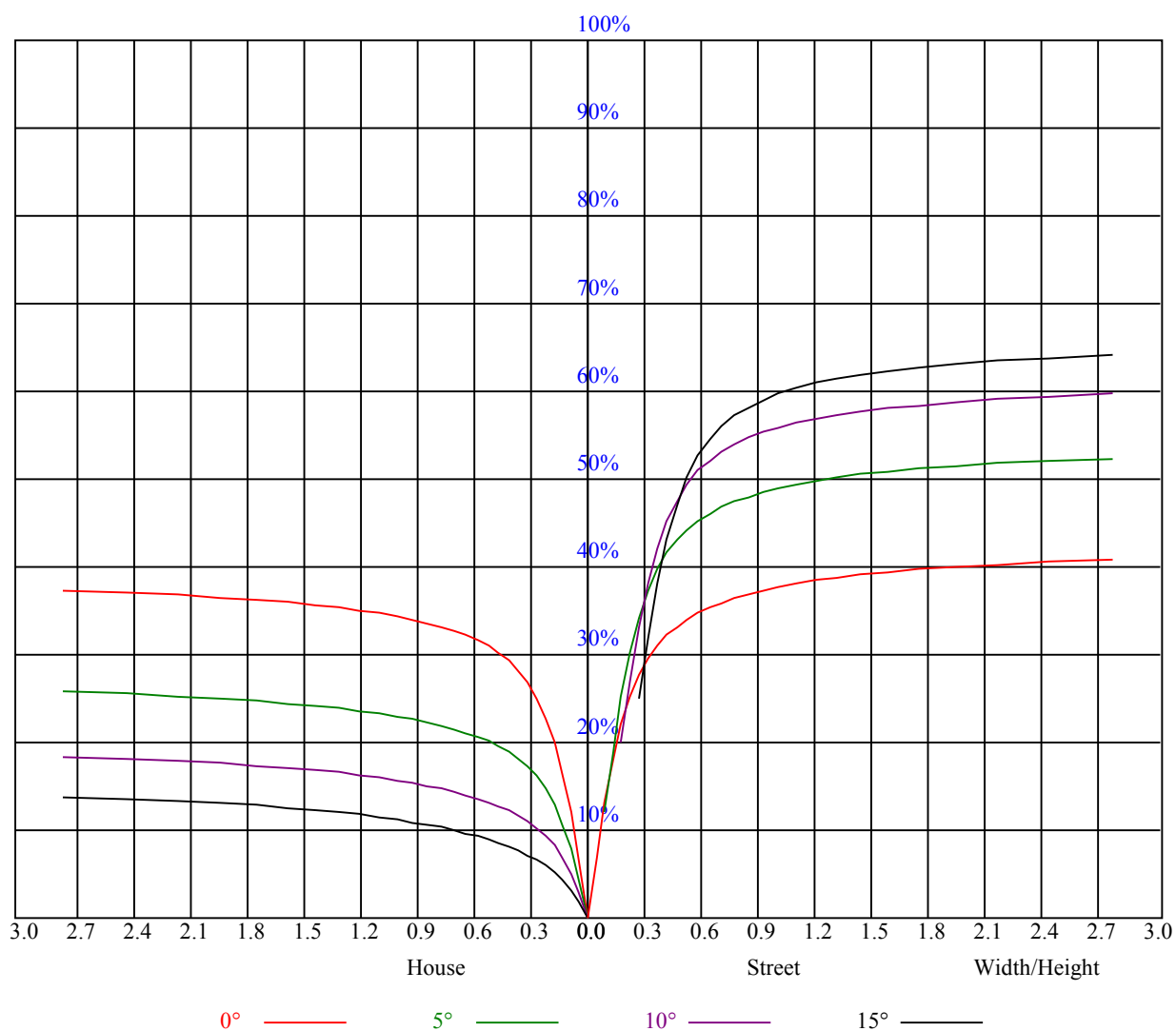
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOC	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	0.97	0.97	0.97	0.95	0.95	0.95	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
1	0.87	0.85	0.82	0.86	0.83	0.81	0.82	0.80	0.78	0.79	0.78	0.76	0.76	0.75	0.74	0.72
2	0.80	0.76	0.73	0.79	0.75	0.72	0.76	0.73	0.70	0.73	0.71	0.69	0.71	0.69	0.67	0.66
3	0.74	0.69	0.65	0.73	0.68	0.65	0.71	0.67	0.64	0.69	0.65	0.63	0.67	0.64	0.62	0.60
4	0.69	0.64	0.60	0.68	0.63	0.59	0.66	0.62	0.59	0.64	0.61	0.58	0.63	0.60	0.57	0.56
5	0.64	0.59	0.55	0.64	0.59	0.55	0.62	0.58	0.54	0.61	0.57	0.54	0.59	0.56	0.53	0.52
6	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.51	0.57	0.54	0.51	0.56	0.53	0.50	0.49
7	0.57	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.46
8	0.54	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.45	0.51	0.47	0.45	0.44
9	0.51	0.46	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.49	0.45	0.43	0.49	0.45	0.42	0.41
10	0.49	0.44	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.47	0.43	0.41	0.47	0.43	0.40	0.39



Intensity data(cd)

C/ γ (°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	159.36	158.91	157.95	156.77	155.76	154.80	153.79	152.89	151.99
15.0	158.68	159.53	159.58	159.36	158.85	158.34	157.73	156.60	155.53
30.0	159.98	160.54	160.20	158.29	155.93	152.94	148.50	143.21	138.04
45.0	158.29	160.54	159.92	157.11	152.38	144.45	137.03	128.64	119.08
60.0	159.58	160.14	156.99	150.02	141.36	130.28	118.52	108.34	97.82
75.0	157.67	160.43	158.06	150.64	140.96	129.77	115.26	104.18	94.28
90.0	160.09	160.48	155.76	144.68	133.20	121.05	109.24	95.79	86.46
105.0	156.83	161.10	158.57	151.71	140.51	127.63	117.34	103.22	93.49
120.0	160.54	161.21	157.89	149.12	139.67	129.26	116.89	105.24	96.08
135.0	158.40	161.16	160.48	156.88	151.14	141.81	133.03	123.69	113.40
150.0	160.37	161.49	160.88	158.29	154.52	149.34	143.72	136.58	128.87
165.0	159.24	160.59	161.16	160.82	159.86	158.46	156.32	154.07	151.43
180.0	159.36	159.53	159.24	158.63	157.89	157.39	156.83	156.04	155.25
195.0	158.68	157.61	155.64	153.11	151.03	148.50	144.90	142.48	139.67
210.0	159.98	157.05	153.45	149.06	143.49	137.14	131.40	125.10	119.53
225.0	158.29	153.73	145.63	138.15	130.33	120.15	113.51	105.36	97.03
240.0	159.58	155.25	145.86	136.29	126.45	115.37	105.24	97.31	89.44
255.0	157.67	149.63	139.50	127.18	115.03	104.79	94.95	86.46	79.82
270.0	160.43	154.63	143.89	130.67	118.74	106.26	96.64	87.47	80.38
285.0	156.83	149.91	139.44	123.64	113.79	103.28	93.15	84.49	77.63
300.0	160.54	155.25	145.80	135.62	123.41	111.77	102.26	93.04	85.84
315.0	158.40	153.00	143.72	135.17	126.34	115.31	108.17	99.68	91.29
330.0	160.37	157.50	151.82	146.14	139.89	131.63	125.10	118.69	111.83
345.0	159.24	156.49	153.96	150.41	146.31	143.21	139.61	134.44	130.95
360.0	159.36	158.91	157.95	156.77	155.76	154.80	153.79	152.89	151.99
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	150.98	150.30	149.51	148.33	147.32	146.25	144.79	142.65	140.01
15.0	154.35	152.72	150.98	148.73	145.63	142.99	140.01	136.01	131.12
30.0	131.74	125.78	118.74	111.60	105.41	98.44	91.80	85.95	80.33
45.0	110.14	103.16	93.66	86.51	78.86	71.94	66.26	60.41	55.01
60.0	89.38	80.78	73.07	66.88	60.24	54.28	49.39	45.00	40.05
75.0	83.64	75.94	69.02	61.82	55.46	50.06	44.66	40.39	36.11
90.0	78.24	69.13	62.66	56.81	50.74	45.28	40.89	36.56	33.13
105.0	84.99	75.54	68.63	62.27	55.24	50.06	45.34	40.16	36.45
120.0	86.79	78.53	71.78	64.86	59.23	53.49	48.26	44.04	40.11
135.0	103.78	95.91	87.58	80.72	73.69	67.22	61.76	56.31	51.30
150.0	121.67	113.57	105.64	99.00	92.70	85.39	79.76	74.48	68.74
165.0	147.54	143.89	139.78	135.17	130.61	126.06	120.43	114.47	109.07
180.0	154.29	152.89	151.88	150.81	149.29	147.26	144.90	141.81	138.71
195.0	136.18	132.30	128.76	125.27	120.77	117.06	112.56	108.23	103.33
210.0	113.34	107.16	101.70	95.74	89.94	85.22	80.72	75.21	71.10
225.0	91.80	85.33	78.53	74.03	69.08	62.89	59.34	55.41	51.13
240.0	82.35	76.50	70.37	64.91	59.23	54.00	49.67	45.51	40.67
255.0	73.69	66.43	60.81	55.58	49.39	44.89	40.73	35.83	32.34
270.0	73.18	66.49	60.69	53.94	48.88	44.16	40.39	34.82	31.22
285.0	70.54	63.96	58.39	52.71	47.93	42.98	38.36	34.65	31.16
300.0	78.53	71.89	66.38	61.14	55.01	50.34	46.13	41.18	37.46
315.0	85.89	79.31	72.62	68.34	63.56	57.32	53.66	49.56	45.34
330.0	104.96	99.17	92.93	87.75	82.18	76.78	72.28	67.39	62.83
345.0	127.07	121.44	117.90	113.79	109.07	104.18	99.79	94.56	89.94
360.0	150.98	150.30	149.51	148.33	147.32	146.25	144.79	142.65	140.01

Intensity data(cd)

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	136.24	132.19	127.07	121.67	116.78	111.71	105.19	99.84	94.44
15.0	125.78	119.59	112.78	107.10	100.13	94.22	87.13	80.49	74.93
30.0	73.58	68.34	63.34	58.05	53.16	49.11	44.94	41.01	37.74
45.0	50.46	46.35	41.85	38.59	35.55	31.95	29.36	27.00	24.64
60.0	36.62	33.53	30.38	27.51	25.20	22.84	20.70	19.01	17.27
75.0	32.40	29.59	26.72	24.19	22.11	20.19	18.23	16.88	15.64
90.0	29.59	26.49	24.13	21.71	19.69	18.06	16.65	15.13	14.12
105.0	32.91	29.59	26.66	24.30	21.83	19.97	18.06	16.54	15.30
120.0	35.61	32.34	29.48	26.27	24.08	22.11	20.14	18.39	16.99
135.0	47.03	43.26	38.76	35.61	32.57	29.70	27.11	24.92	22.84
150.0	63.34	58.84	54.23	49.84	46.18	42.36	39.21	35.83	32.74
165.0	102.71	97.43	91.07	85.22	79.99	74.93	68.63	63.90	59.23
180.0	134.66	130.39	126.34	121.78	116.72	112.33	107.61	101.42	96.41
195.0	98.21	93.60	89.10	83.48	78.98	74.36	68.79	64.46	60.30
210.0	67.16	63.00	58.89	55.35	51.98	47.76	44.61	41.12	38.19
225.0	47.14	43.76	40.11	36.68	33.86	30.83	28.29	25.71	23.34
240.0	37.18	33.98	30.26	27.56	25.09	22.61	20.36	18.62	16.76
255.0	29.08	25.54	23.34	20.76	18.39	16.93	15.30	13.78	12.94
270.0	28.35	24.81	22.05	20.14	17.83	16.31	14.91	13.44	12.43
285.0	27.39	24.64	22.16	19.46	17.61	16.03	14.51	13.22	12.26
300.0	34.09	30.60	27.39	24.81	22.28	20.25	18.23	16.37	14.96
315.0	41.46	38.31	34.93	31.73	29.14	26.44	24.13	21.77	19.63
330.0	58.95	55.46	51.19	47.87	44.72	41.40	38.14	35.33	32.68
345.0	84.88	79.76	75.26	70.31	65.53	61.43	57.43	52.76	49.05
360.0	136.24	132.19	127.07	121.67	116.78	111.71	105.19	99.84	94.44
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	87.58	82.24	76.84	71.55	65.19	60.02	55.07	48.94	44.27
15.0	69.47	62.89	57.77	52.82	47.03	42.47	38.25	34.03	30.15
30.0	34.26	31.39	28.35	25.59	23.40	21.09	19.07	17.44	15.98
45.0	22.33	20.64	18.90	17.33	15.69	14.34	13.28	11.98	10.91
60.0	15.98	14.63	13.44	12.49	11.59	10.58	9.96	9.34	8.66
75.0	14.34	13.22	12.38	11.48	10.63	9.96	9.39	8.83	8.33
90.0	13.22	12.32	11.53	10.86	10.24	9.68	9.17	8.66	8.21
105.0	14.18	13.16	12.38	11.59	10.80	10.13	9.56	8.94	8.49
120.0	15.53	14.34	13.28	12.32	11.48	10.69	9.96	9.45	8.94
135.0	20.81	19.29	17.72	16.37	14.96	13.78	12.83	11.81	10.91
150.0	30.21	27.79	24.98	22.89	20.98	18.84	17.27	15.86	14.46
165.0	53.83	49.78	46.01	41.79	37.69	34.48	31.16	28.13	25.37
180.0	91.41	85.56	79.48	74.08	67.95	61.93	56.81	51.13	46.24
195.0	56.25	51.30	47.53	43.93	40.16	36.51	33.02	30.21	27.11
210.0	34.99	32.01	29.53	27.28	24.58	22.56	20.70	18.56	16.99
225.0	21.38	19.52	17.55	16.14	14.85	13.39	12.26	11.31	10.41
240.0	15.13	13.84	12.77	11.70	10.80	10.01	9.39	8.83	8.21
255.0	12.04	10.91	10.35	9.68	9.11	8.55	8.16	7.65	7.20
270.0	11.64	10.74	10.13	9.51	8.94	8.49	7.99	7.59	7.14
285.0	11.42	10.58	9.90	9.34	8.78	8.27	7.88	7.43	7.03
300.0	13.50	12.32	11.36	10.58	9.73	9.17	8.55	7.99	7.59
315.0	17.94	16.37	14.68	13.50	12.38	11.19	10.35	9.56	8.89
330.0	29.53	27.17	24.75	22.67	20.59	18.62	17.04	15.41	13.89
345.0	45.51	41.74	38.14	35.16	32.40	29.14	26.66	24.08	21.94
360.0	87.58	82.24	76.84	71.55	65.19	60.02	55.07	48.94	44.27

Intensity data(cd)

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	39.66	34.71	30.04	26.21	22.33	19.18	16.03	13.33	11.36
15.0	27.06	23.91	21.15	18.39	15.86	13.84	11.87	10.24	9.00
30.0	14.29	13.05	11.93	10.86	9.79	9.00	8.10	7.37	6.81
45.0	10.13	9.39	8.66	8.16	7.71	7.20	6.69	6.36	5.96
60.0	8.16	7.71	7.26	6.86	6.53	6.19	5.91	5.63	5.40
75.0	7.76	7.43	7.09	6.69	6.41	6.13	5.85	5.63	5.40
90.0	7.76	7.31	6.98	6.64	6.30	6.08	5.79	5.51	5.34
105.0	8.10	7.65	7.26	6.92	6.53	6.24	5.91	5.68	5.46
120.0	8.33	7.93	7.59	7.20	6.86	6.58	6.30	6.02	5.79
135.0	10.24	9.56	8.78	8.16	7.65	7.20	6.75	6.53	6.24
150.0	13.11	12.15	11.14	10.18	9.45	8.72	8.10	7.48	6.92
165.0	22.78	20.59	18.34	16.31	14.63	13.11	11.36	10.13	9.06
180.0	40.89	35.78	31.50	27.00	22.84	19.46	16.43	13.22	11.25
195.0	24.30	21.94	19.74	17.38	15.36	13.67	12.09	10.29	9.17
210.0	15.58	14.06	12.71	11.64	10.58	9.73	8.83	8.04	7.37
225.0	9.45	8.83	8.21	7.65	7.14	6.75	6.36	6.02	5.79
240.0	7.76	7.37	7.03	6.64	6.30	6.02	5.68	5.40	5.23
255.0	6.86	6.47	6.13	5.85	5.57	5.34	5.12	4.89	4.73
270.0	6.69	6.41	6.08	5.74	5.51	5.23	5.01	4.84	4.67
285.0	6.64	6.30	6.02	5.68	5.34	5.12	4.95	4.73	4.56
300.0	7.20	6.81	6.41	6.19	5.85	5.63	5.34	5.12	4.89
315.0	8.10	7.59	7.09	6.58	6.24	5.96	5.63	5.34	5.18
330.0	12.71	11.70	10.46	9.62	8.83	8.10	7.37	6.81	6.30
345.0	19.69	17.55	15.86	14.06	12.49	11.14	9.96	8.66	7.82
360.0	39.66	34.71	30.04	26.21	22.33	19.18	16.03	13.33	11.36
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	9.62	8.21	7.26	6.58	5.74	5.29	4.95	4.61	4.33
15.0	7.93	6.98	6.36	5.85	5.34	4.95	4.67	4.33	4.11
30.0	6.19	5.74	5.29	4.95	4.73	4.44	4.16	4.05	3.88
45.0	5.63	5.40	5.12	4.95	4.67	4.44	4.28	4.11	3.94
60.0	5.18	5.01	4.78	4.67	4.50	4.33	4.16	4.05	3.94
75.0	5.18	5.01	4.89	4.73	4.61	4.44	4.33	4.16	4.05
90.0	5.18	4.95	4.78	4.67	4.56	4.44	4.33	4.16	4.05
105.0	5.29	5.06	4.95	4.78	4.61	4.56	4.39	4.28	4.16
120.0	5.57	5.34	5.12	4.89	4.73	4.56	4.39	4.28	4.16
135.0	5.96	5.68	5.46	5.23	5.06	4.78	4.61	4.39	4.11
150.0	6.47	6.02	5.57	5.23	4.95	4.61	4.39	4.22	4.05
165.0	7.93	7.20	6.64	6.08	5.57	5.23	4.89	4.61	4.28
180.0	9.62	8.27	7.20	6.47	5.85	5.34	4.95	4.61	4.44
195.0	8.16	7.14	6.53	6.02	5.51	5.01	4.67	4.39	4.16
210.0	6.69	6.13	5.68	5.29	4.89	4.61	4.33	4.11	3.94
225.0	5.46	5.18	5.01	4.73	4.50	4.33	4.05	3.94	3.77
240.0	5.01	4.84	4.67	4.50	4.33	4.16	4.05	3.94	3.77
255.0	4.61	4.44	4.33	4.22	4.11	3.99	3.88	3.71	3.60
270.0	4.50	4.33	4.28	4.11	4.05	3.94	3.83	3.77	3.66
285.0	4.44	4.28	4.16	4.05	3.94	3.83	3.77	3.66	3.60
300.0	4.73	4.56	4.33	4.22	4.05	3.88	3.83	3.66	3.54
315.0	4.95	4.78	4.56	4.39	4.22	3.99	3.88	3.71	3.60
330.0	5.79	5.40	5.06	4.73	4.44	4.22	3.99	3.88	3.77
345.0	7.03	6.36	5.74	5.23	4.89	4.56	4.28	4.05	3.88
360.0	9.62	8.21	7.26	6.58	5.74	5.29	4.95	4.61	4.33

Intensity data(cd)

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.22	4.05	3.94	3.83	3.77	3.66	3.66	3.60	3.60
15.0	3.94	3.83	3.71	3.60	3.54	3.49	3.43	3.43	3.49
30.0	3.71	3.54	3.49	3.38	3.32	3.26	3.26	3.21	3.15
45.0	3.77	3.66	3.54	3.43	3.38	3.26	3.15	3.04	2.98
60.0	3.83	3.71	3.54	3.43	3.32	3.26	3.15	3.09	2.98
75.0	3.94	3.83	3.71	3.60	3.49	3.43	3.32	3.21	3.15
90.0	3.94	3.83	3.77	3.66	3.60	3.49	3.43	3.26	3.21
105.0	4.05	3.94	3.88	3.71	3.60	3.54	3.43	3.32	3.26
120.0	3.94	3.83	3.71	3.60	3.49	3.43	3.32	3.21	3.15
135.0	3.99	3.83	3.71	3.60	3.49	3.38	3.26	3.21	3.09
150.0	3.88	3.77	3.60	3.43	3.38	3.32	3.38	3.38	3.21
165.0	4.05	3.88	3.71	3.60	3.54	3.43	3.38	3.32	3.32
180.0	4.22	4.05	3.88	3.83	3.66	3.60	3.54	3.43	3.43
195.0	3.99	3.83	3.66	3.54	3.49	3.43	3.32	3.32	3.32
210.0	3.77	3.60	3.43	3.38	3.26	3.21	3.21	3.26	3.21
225.0	3.66	3.54	3.43	3.26	3.21	3.15	3.09	2.98	2.98
240.0	3.66	3.54	3.49	3.32	3.21	3.15	3.09	3.04	2.93
255.0	3.54	3.43	3.38	3.26	3.21	3.15	3.09	3.04	2.98
270.0	3.54	3.49	3.38	3.32	3.26	3.21	3.15	3.04	3.04
285.0	3.54	3.43	3.38	3.26	3.21	3.09	3.04	3.04	2.98
300.0	3.49	3.43	3.32	3.26	3.15	3.09	3.04	2.98	2.93
315.0	3.49	3.43	3.32	3.26	3.21	3.15	3.04	2.98	2.98
330.0	3.66	3.54	3.43	3.38	3.32	3.32	3.26	3.15	3.09
345.0	3.77	3.60	3.54	3.43	3.43	3.43	3.43	3.43	3.38
360.0	4.22	4.05	3.94	3.83	3.77	3.66	3.66	3.60	3.60
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.60	3.66	3.66	3.66	3.71	3.77	3.83	3.94	3.99
15.0	3.43	3.38	3.38	3.38	3.38	3.38	3.43	3.43	3.49
30.0	3.09	3.04	2.98	2.98	2.98	3.04	3.04	3.04	3.04
45.0	2.98	2.93	2.87	2.87	2.81	2.76	2.76	2.76	2.76
60.0	2.93	2.87	2.81	2.76	2.76	2.70	2.70	2.64	2.59
75.0	3.09	3.04	2.98	2.87	2.87	2.76	2.70	2.70	2.64
90.0	3.15	3.09	3.04	2.98	2.87	2.81	2.76	2.70	2.64
105.0	3.21	3.04	3.04	2.93	2.87	2.81	2.76	2.76	2.64
120.0	3.04	2.98	2.93	2.87	2.87	2.76	2.70	2.64	2.64
135.0	3.04	2.93	2.93	2.81	2.76	2.70	2.70	2.64	2.70
150.0	3.09	3.04	2.98	2.93	2.93	2.87	2.87	2.81	2.81
165.0	3.32	3.26	3.21	3.21	3.15	3.15	3.09	3.09	3.09
180.0	3.43	3.43	3.38	3.38	3.38	3.38	3.43	3.43	3.49
195.0	3.26	3.21	3.15	3.15	3.15	3.15	3.15	3.15	3.21
210.0	3.09	3.04	3.04	3.04	2.98	2.98	2.98	2.98	2.98
225.0	2.93	2.93	2.87	2.81	2.81	2.81	2.76	2.76	2.76
240.0	2.87	2.81	2.81	2.76	2.76	2.76	2.70	2.70	2.70
255.0	2.93	2.87	2.81	2.81	2.76	2.70	2.70	2.64	2.64
270.0	2.98	2.93	2.87	2.81	2.76	2.76	2.70	2.64	2.64
285.0	2.93	2.87	2.81	2.81	2.76	2.70	2.70	2.70	2.70
300.0	2.87	2.87	2.81	2.76	2.76	2.70	2.70	2.70	2.70
315.0	2.93	2.93	2.87	2.87	2.87	2.81	2.87	2.87	2.87
330.0	3.09	3.09	3.09	3.09	3.15	3.15	3.21	3.15	3.21
345.0	3.32	3.32	3.32	3.32	3.38	3.49	3.49	3.60	3.66
360.0	3.60	3.66	3.66	3.66	3.71	3.77	3.83	3.94	3.99

Intensity data(cd)

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.05	4.16	4.28	4.33	4.44	4.56	4.61	4.67	4.67
15.0	3.54	3.60	3.60	3.66	3.66	3.71	3.71	3.71	3.71
30.0	3.04	3.04	3.09	3.04	3.04	3.04	3.04	2.98	2.98
45.0	2.76	2.76	2.76	2.76	2.76	2.76	2.81	2.76	2.81
60.0	2.59	2.53	2.53	2.59	2.59	2.53	2.53	2.53	2.53
75.0	2.64	2.59	2.53	2.59	2.53	2.53	2.53	2.53	2.53
90.0	2.59	2.59	2.53	2.48	2.48	2.42	2.42	2.36	2.36
105.0	2.64	2.59	2.53	2.53	2.53	2.53	2.48	2.48	2.48
120.0	2.59	2.59	2.53	2.59	2.53	2.53	2.53	2.53	2.53
135.0	2.64	2.64	2.64	2.59	2.53	2.59	2.53	2.53	2.53
150.0	2.81	2.81	2.76	2.76	2.76	2.81	2.76	2.76	2.70
165.0	3.09	3.15	3.15	3.15	3.15	3.21	3.21	3.21	3.15
180.0	3.54	3.60	3.66	3.71	3.77	3.83	3.88	3.88	3.83
195.0	3.21	3.21	3.26	3.32	3.32	3.38	3.38	3.32	3.26
210.0	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98
225.0	2.76	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81
240.0	2.64	2.64	2.59	2.64	2.64	2.64	2.59	2.59	2.59
255.0	2.59	2.59	2.64	2.64	2.64	2.59	2.64	2.59	2.53
270.0	2.64	2.59	2.59	2.59	2.59	2.59	2.53	2.53	2.48
285.0	2.70	2.64	2.64	2.64	2.64	2.64	2.64	2.59	2.53
300.0	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.59
315.0	2.93	2.87	2.93	2.93	2.98	2.98	2.98	2.98	2.98
330.0	3.21	3.21	3.26	3.26	3.32	3.26	3.26	3.26	3.21
345.0	3.77	3.83	3.83	3.88	3.88	3.83	3.77	3.77	3.71
360.0	4.05	4.16	4.28	4.33	4.44	4.56	4.61	4.67	4.67
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.67	4.95	4.39	3.77	3.60	3.32	2.42	1.52	1.29
15.0	3.66	3.54	3.38	3.21	3.04	2.81	1.74	1.07	0.73
30.0	2.93	2.87	2.81	2.81	2.70	2.53	1.18	0.79	0.45
45.0	2.76	2.76	2.70	2.70	2.64	2.53	1.63	0.84	0.56
60.0	2.53	2.53	2.48	2.48	2.42	2.25	1.18	0.62	0.45
75.0	2.53	2.48	2.42	2.42	2.36	2.25	1.69	0.84	0.56
90.0	2.31	2.25	2.19	2.14	2.08	1.97	1.18	0.68	0.45
105.0	2.42	2.42	2.42	2.42	2.36	2.25	1.69	0.90	0.56
120.0	2.48	2.42	2.48	2.42	2.36	2.25	1.24	0.73	0.45
135.0	2.53	2.48	2.48	2.48	2.42	2.36	1.69	0.84	0.56
150.0	2.70	2.70	2.70	2.59	2.59	2.42	1.29	0.84	0.56
165.0	3.09	3.04	2.98	2.87	2.81	2.64	1.74	1.07	0.79
180.0	3.77	3.60	3.38	3.21	2.98	2.70	1.58	1.18	0.84
195.0	3.21	3.21	3.09	2.98	2.87	2.70	1.52	1.01	0.73
210.0	2.93	2.87	2.87	2.81	2.70	2.59	1.63	0.96	0.68
225.0	2.76	2.76	2.76	2.70	2.64	2.36	1.18	0.73	0.45
240.0	2.53	2.53	2.48	2.42	2.42	2.25	1.35	0.73	0.51
255.0	2.53	2.48	2.42	2.36	2.25	2.08	0.90	0.62	0.39
270.0	2.42	2.36	2.36	2.25	2.14	1.97	1.18	0.62	0.45
285.0	2.48	2.42	2.31	2.14	2.03	1.91	0.96	0.62	0.39
300.0	2.59	2.53	2.42	2.36	2.19	2.14	1.29	0.68	0.45
315.0	2.98	2.98	2.98	2.93	2.93	2.59	1.07	0.68	0.39
330.0	3.21	3.15	3.15	3.04	2.98	2.76	1.69	0.84	0.62
345.0	3.60	3.54	3.43	3.32	3.09	2.81	1.41	0.96	0.68
360.0	4.67	4.95	4.39	3.77	3.60	3.32	2.42	1.52	1.29

Intensity data(cd)

C/ γ (°)	90.0
0.0	0.84
15.0	0.28
30.0	0.28
45.0	0.34
60.0	0.28
75.0	0.28
90.0	0.28
105.0	0.34
120.0	0.34
135.0	0.34
150.0	0.34
165.0	0.45
180.0	0.34
195.0	0.51
210.0	0.39
225.0	0.34
240.0	0.34
255.0	0.28
270.0	0.28
285.0	0.28
300.0	0.28
315.0	0.28
330.0	0.34
345.0	0.34
360.0	0.84