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Nata

LumCAT: 1-0940-N	
Luminaire: 92.70.259.00	
Report No: 200902-B012	Voltage(V): 36.0500
Test No: 200902-C012	Current(A): 0.2500
LampCAT: LUMINUS CXM-6-AC40	Power (W): 9.0120
Lamp flux(lm): 1033.6	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(feet)(ft.):0.000	Width(feet)(ft.):0.000
Phm Type: C	Height(feet)(ft.):0.000

Photometric Results

Lumens(lm): 799.27
Efficiency(%): 77.33%
Lumens(lm)/Power(W): 88.69
Central intensity(cd): 4768.734
Maximum intensity(cd): 4768.734
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=17.4
 [C90/270]Total=17.4
Field angle(10%Imax): [C0/180]Total=44.5
 [C90/270]Total=44.5
Maximum s/h(1/2): C0_180=0.30 C90_270=0.30
Maximum s/h(1/4): C0_180=0.33 C90_270=0.33
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 77.43%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.159%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4768.734	1.141	1.141	.110%	.143%
1.0	4742.648	9.077	10.218	.878%	1.278%
2.0	4640.555	17.760	27.978	1.718%	3.500%
3.0	4481.930	25.723	53.7	2.489%	6.719%
4.0	4259.883	32.586	86.286	3.153%	10.796%
5.0	3904.031	37.313	123.6	3.610%	15.464%
6.0	3485.461	39.953	163.552	3.865%	20.463%
7.0	3092.695	41.332	204.884	3.999%	25.634%
8.0	2650.008	40.444	245.328	3.913%	30.694%
9.0	2274.117	39.012	284.34	3.774%	35.575%
10.0	1957.711	37.280	321.619	3.607%	40.239%
11.0	1671.469	34.974	356.594	3.384%	44.615%
12.0	1477.898	33.696	390.289	3.260%	48.831%
13.0	1285.200	31.704	421.993	3.067%	52.797%
14.0	1134.563	30.099	452.092	2.912%	56.563%
15.0	1036.350	29.414	481.506	2.846%	60.243%
16.0	939.326	28.393	509.899	2.747%	63.795%
17.0	834.645	26.760	536.659	2.589%	67.143%
18.0	756.274	25.628	562.287	2.479%	70.350%
19.0	687.234	24.536	586.823	2.374%	73.420%
20.0	612.380	22.968	609.791	2.222%	76.293%
21.0	547.341	21.510	631.301	2.081%	78.984%
22.0	490.838	20.163	651.464	1.951%	81.507%
23.0	434.039	18.598	670.062	1.799%	83.834%
24.0	378.246	16.871	686.933	1.632%	85.945%
25.0	330.539	15.319	702.252	1.482%	87.861%
26.0	286.552	13.775	716.027	1.333%	89.585%
27.0	241.088	12.003	728.029	1.161%	91.086%
28.0	193.669	9.971	738	.965%	92.334%
29.0	155.693	8.277	746.277	.801%	93.370%
30.0	121.444	6.659	752.936	.644%	94.203%
31.0	90.668	5.121	758.057	.495%	94.843%
32.0	63.759	3.705	761.762	.358%	95.307%
33.0	44.592	2.663	764.425	.258%	95.640%
34.0	32.991	2.023	766.448	.196%	95.893%
35.0	25.573	1.608	768.057	.156%	96.094%
36.0	22.113	1.425	769.482	.138%	96.273%
37.0	19.884	1.312	770.795	.127%	96.437%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	17.782	1.201	771.995	.116%	96.587%
39.0	15.616	1.078	773.073	.104%	96.722%
40.0	13.992	0.986	774.059	.095%	96.845%
41.0	12.565	0.904	774.963	.087%	96.959%
42.0	11.215	0.823	775.786	.080%	97.061%
43.0	10.104	0.756	776.542	.073%	97.156%
44.0	9.169	0.698	777.24	.068%	97.243%
45.0	8.381	0.650	777.89	.063%	97.325%
46.0	7.699	0.607	778.497	.059%	97.401%
47.0	7.221	0.579	779.076	.056%	97.473%
48.0	6.834	0.557	779.633	.054%	97.543%
49.0	6.539	0.541	780.175	.052%	97.611%
50.0	6.272	0.527	780.701	.051%	97.676%
51.0	6.068	0.517	781.219	.050%	97.741%
52.0	5.899	0.510	781.728	.049%	97.805%
53.0	5.745	0.503	782.231	.049%	97.868%
54.0	5.590	0.496	782.727	.048%	97.930%
55.0	5.477	0.492	783.219	.048%	97.992%
56.0	5.386	0.490	783.709	.047%	98.053%
57.0	5.288	0.486	784.195	.047%	98.114%
58.0	5.210	0.485	784.68	.047%	98.174%
59.0	5.161	0.485	785.165	.047%	98.235%
60.0	5.119	0.486	785.651	.047%	98.296%
61.0	5.084	0.488	786.139	.047%	98.357%
62.0	5.077	0.492	786.63	.048%	98.418%
63.0	5.020	0.491	787.121	.047%	98.480%
64.0	4.985	0.491	787.612	.048%	98.541%
65.0	4.943	0.491	788.103	.048%	98.603%
66.0	4.915	0.492	788.596	.048%	98.664%
67.0	4.873	0.492	789.088	.048%	98.726%
68.0	4.838	0.492	789.579	.048%	98.787%
69.0	4.781	0.489	790.069	.047%	98.848%
70.0	4.718	0.486	790.555	.047%	98.909%
71.0	4.669	0.484	791.039	.047%	98.970%
72.0	4.563	0.476	791.515	.046%	99.029%
73.0	4.507	0.473	791.988	.046%	99.089%
74.0	4.444	0.468	792.456	.045%	99.147%
75.0	4.366	0.463	792.919	.045%	99.205%

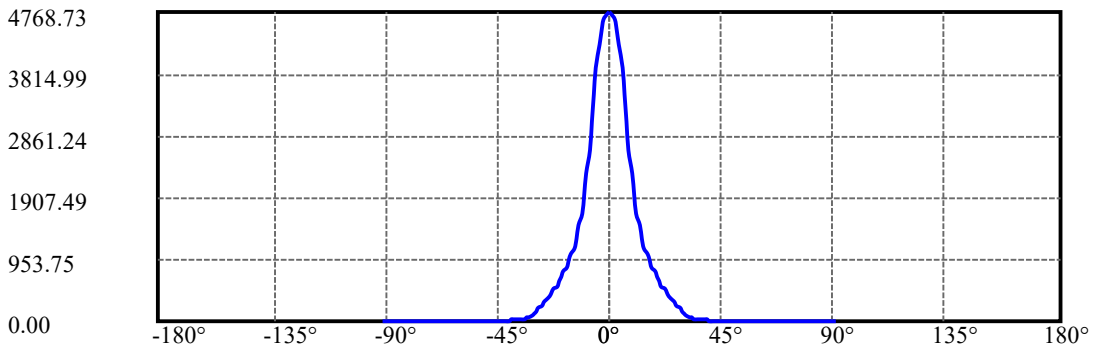
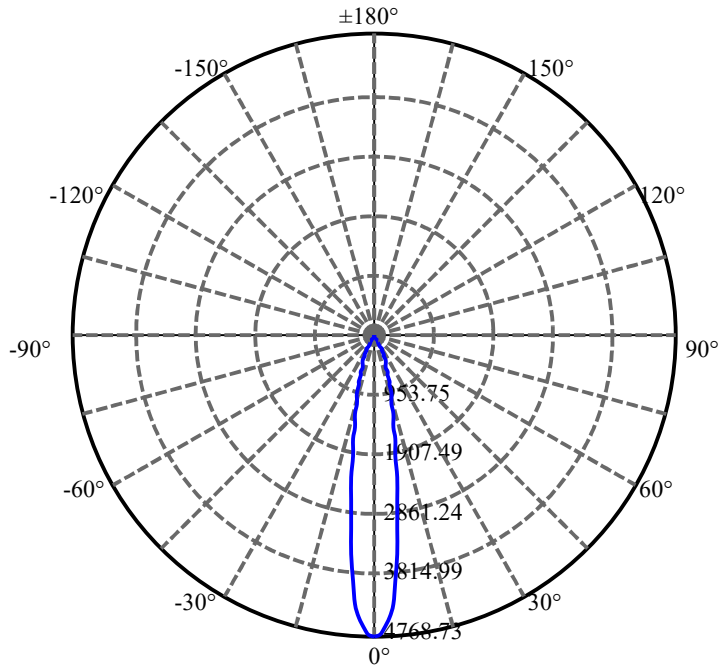
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.338	0.462	793.38	.045%	99.263%
77.0	4.303	0.460	793.84	.044%	99.320%
78.0	4.261	0.457	794.297	.044%	99.377%
79.0	4.219	0.454	794.751	.044%	99.434%
80.0	4.205	0.454	795.205	.044%	99.491%
81.0	4.170	0.452	795.657	.044%	99.548%
82.0	4.282	0.465	796.122	.045%	99.606%
83.0	4.409	0.480	796.602	.046%	99.666%
84.0	3.987	0.435	797.037	.042%	99.720%
85.0	3.909	0.427	797.464	.041%	99.774%
86.0	3.804	0.416	797.88	.040%	99.826%
87.0	3.698	0.405	798.285	.039%	99.876%
88.0	3.614	0.396	798.681	.038%	99.926%
89.0	3.600	0.395	799.076	.038%	99.975%
90.0	3.593	0.197	799.273	.019%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	752.94	72.84%	94.20%
0-40	774.06	74.89%	96.85%
0-60	785.65	76.01%	98.30%
0-90	799.08	77.31%	99.98%
0-120	799.08	77.31%	99.98%
0-180	799.27	77.33%	100.00%
60-90	13.91	1.35%	1.74%
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%
0-21.40	639.42	61.86%	80.00%

ZONAL LUMEN SUMMARY

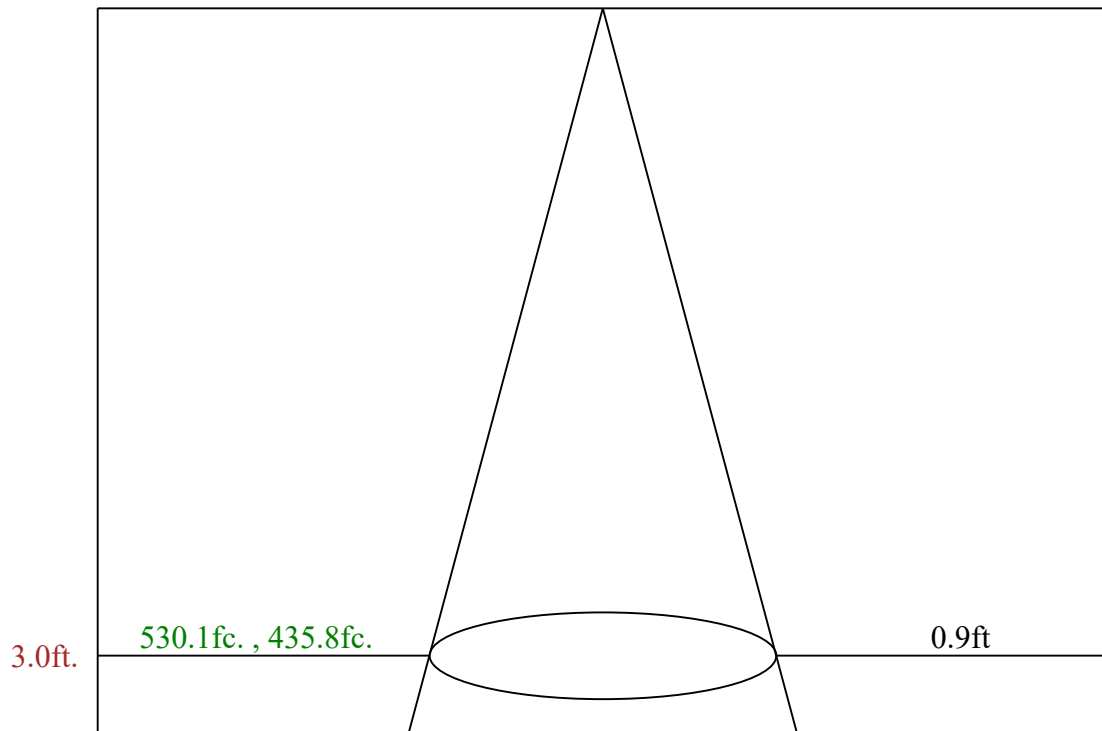
0-10	321.62
10-20	288.17
20-30	143.15
30-40	21.12
40-50	6.64
50-60	4.95
60-70	4.90
70-80	4.65
80-90	3.87
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



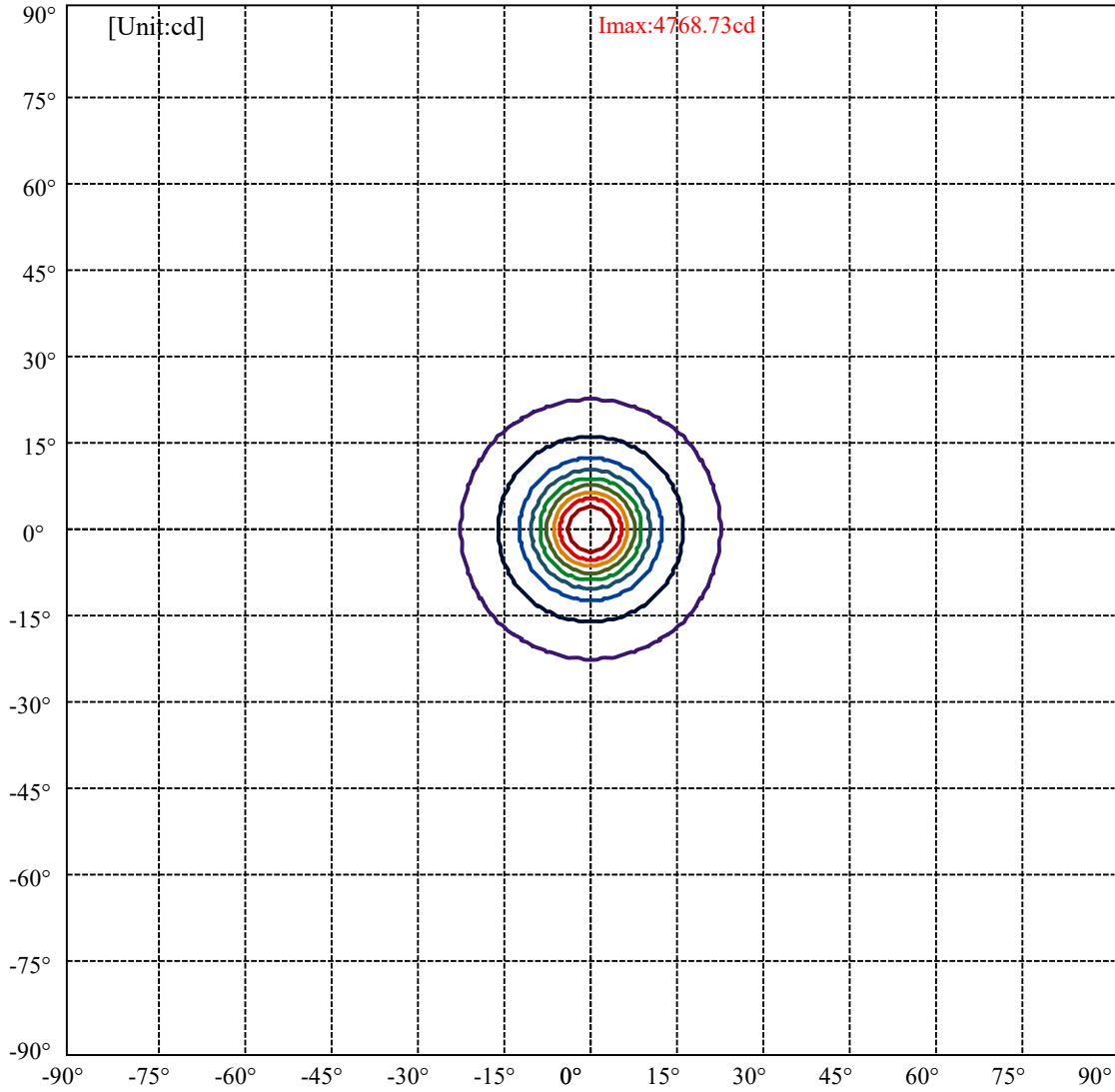
C90/C270: —————

Field angle(10%Imax):C90/270Left:22.2 Right:22.2

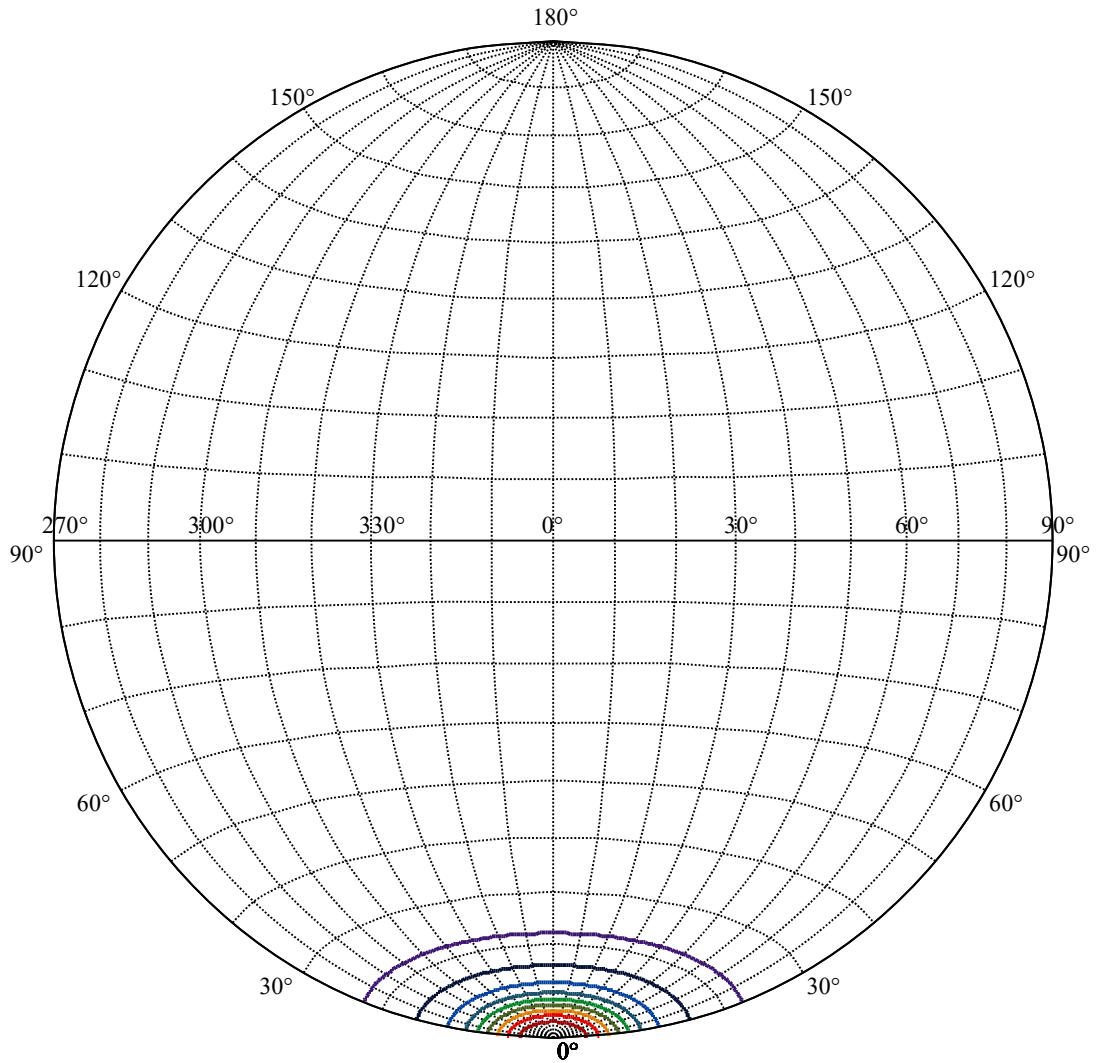
Beam Angle(50%Imax):C90/270Left:8.7 Right:8.7



Max , Ave Beam angle of C0 plane 17.48



(10%Imax) 476.873	—
(20%Imax) 953.747	—
(30%Imax) 1430.62	—
(40%Imax) 1907.49	—
(50%Imax) 2384.37	—
(60%Imax) 2861.24	—
(70%Imax) 3338.11	—
(80%Imax) 3814.99	—
(90%Imax) 4291.86	—



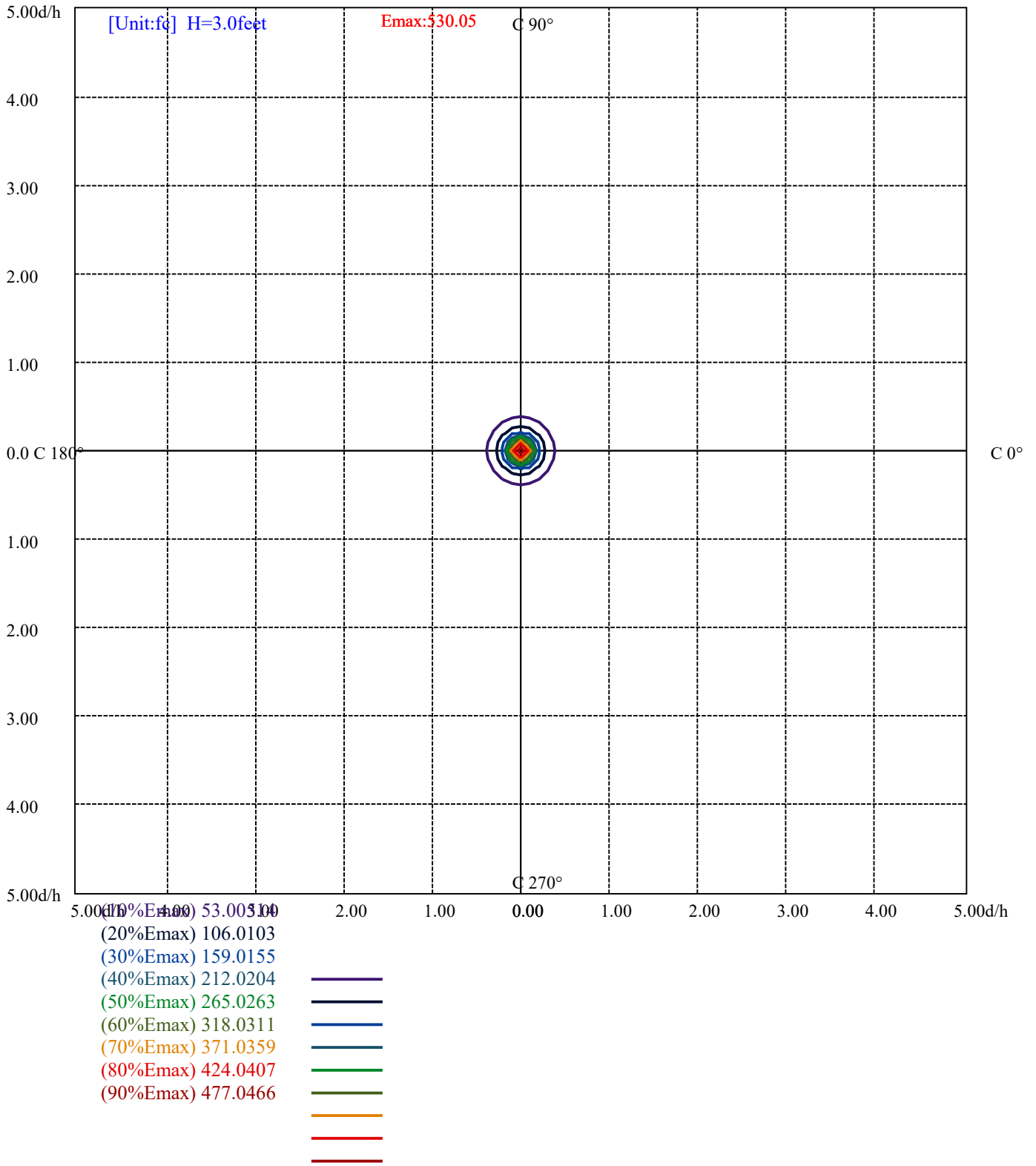
House

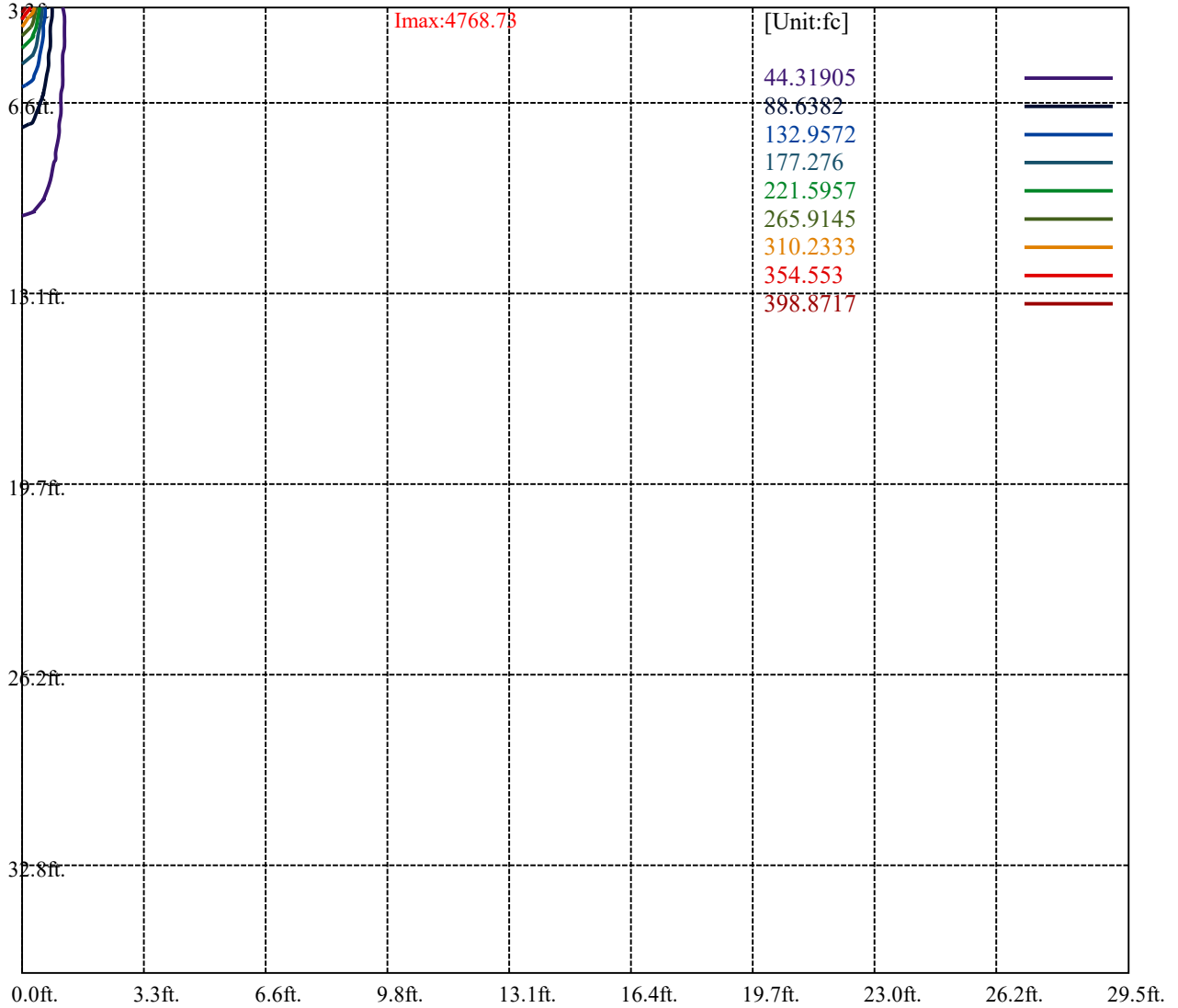
[Unit:cd]

Road

Imax:4768.73

(10%Imax) 476.873	—
(20%Imax) 953.747	—
(30%Imax) 1430.62	—
(40%Imax) 1907.49	—
(50%Imax) 2384.37	—
(60%Imax) 2861.24	—
(70%Imax) 3338.11	—
(80%Imax) 3814.99	—
(90%Imax) 4291.86	—





Luminance Table

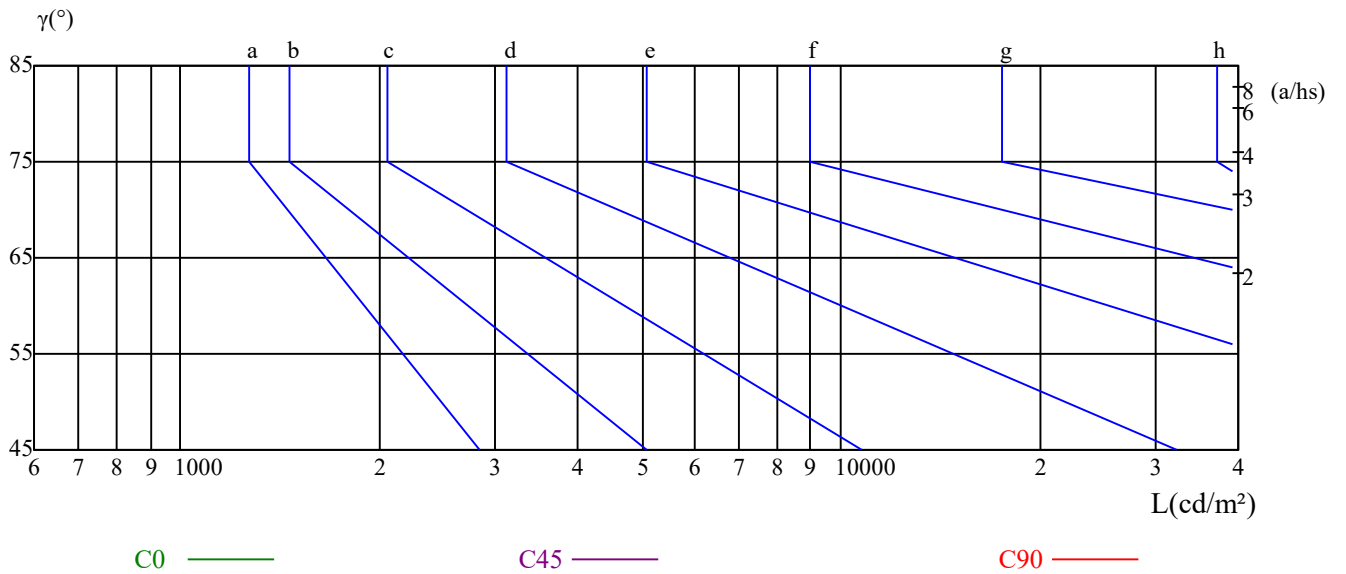
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

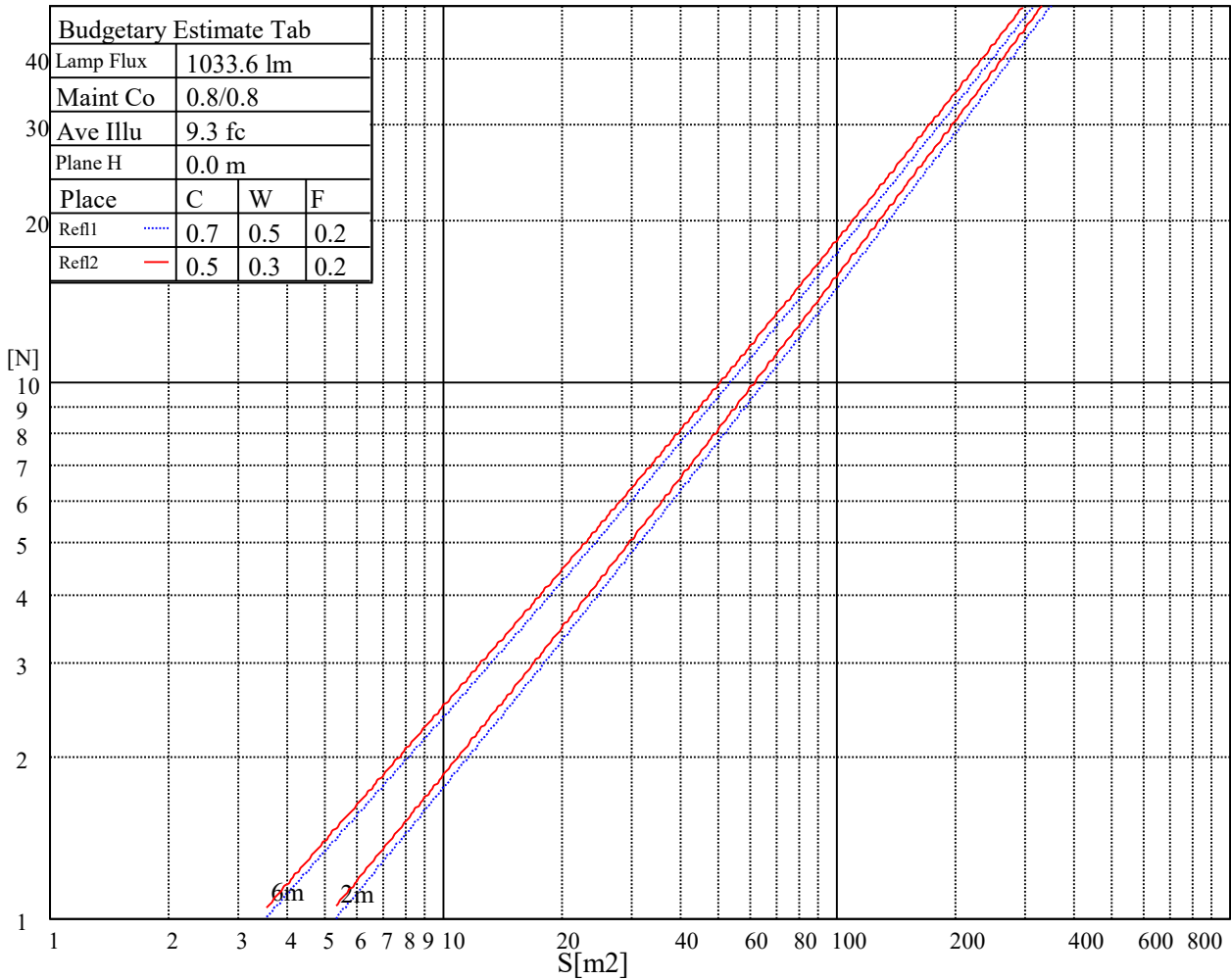
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

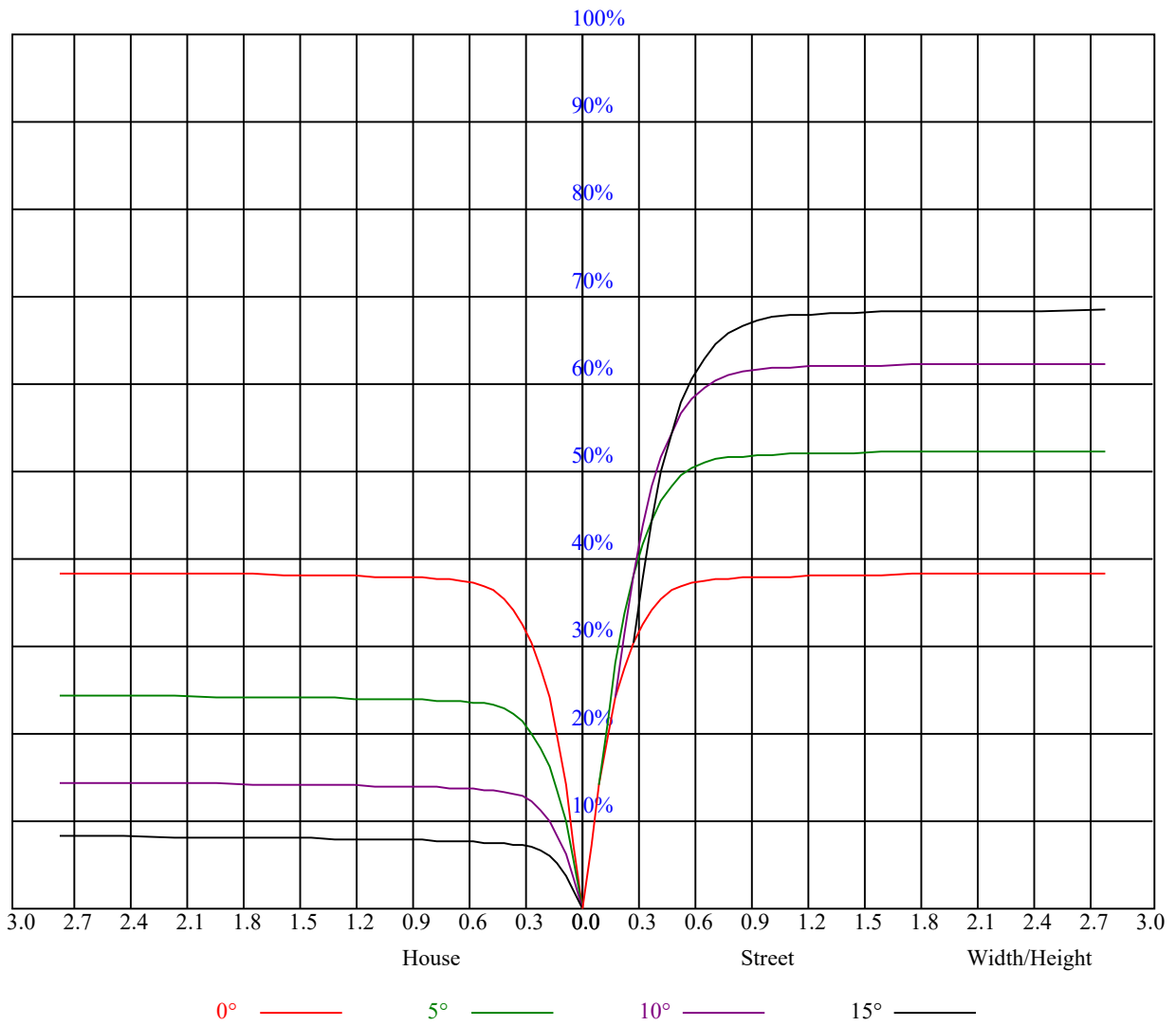
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.77
1	0.87	0.85	0.84	0.85	0.84	0.83	0.82	0.81	0.80	0.79	0.78	0.78	0.77	0.76	0.75	0.74
2	0.83	0.80	0.78	0.81	0.79	0.77	0.79	0.77	0.76	0.77	0.75	0.74	0.75	0.74	0.73	0.71
3	0.79	0.76	0.74	0.78	0.76	0.73	0.76	0.74	0.72	0.74	0.73	0.71	0.73	0.71	0.70	0.69
4	0.76	0.73	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.72	0.70	0.69	0.71	0.69	0.68	0.67
5	0.73	0.70	0.68	0.73	0.70	0.67	0.71	0.69	0.67	0.70	0.68	0.66	0.69	0.67	0.66	0.65
6	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.64	0.63
7	0.69	0.65	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.67	0.64	0.62	0.66	0.64	0.62	0.61
8	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.61	0.64	0.62	0.60	0.60
9	0.65	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.63	0.61	0.59	0.58
10	0.63	0.60	0.58	0.63	0.60	0.58	0.62	0.60	0.58	0.62	0.59	0.58	0.61	0.59	0.58	0.57



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	4752.56	4791.94	4772.81	4696.31	4582.13	4305.38	3938.63	3601.69	3090.38
45.0	4786.88	4736.81	4602.38	4426.88	4167.56	3786.75	3338.44	2931.19	2503.13
90.0	4755.94	4664.81	4474.13	4242.38	3936.94	3521.25	3075.19	2687.06	2285.44
135.0	4779.56	4715.44	4550.63	4361.63	4102.88	3723.75	3286.13	2890.13	2478.38
180.0	4752.56	4660.88	4495.50	4228.31	3916.13	3487.50	3030.19	2638.69	2287.69
225.0	4786.88	4787.44	4725.56	4584.94	4390.31	4064.63	3641.63	3239.44	2787.19
270.0	4755.94	4791.38	4772.25	4695.19	4547.81	4272.19	3885.19	3480.19	3012.75
315.0	4779.56	4792.50	4731.19	4619.81	4435.31	4070.81	3688.31	3273.19	2755.13
360.0	4752.56	4791.94	4772.81	4696.31	4582.13	4305.38	3938.63	3601.69	3090.38
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2637.56	2316.94	1926.00	1675.69	1473.75	1270.13	1137.94	1026.00	905.06
45.0	2116.13	1824.19	1567.69	1388.25	1223.44	1087.31	983.25	892.69	790.88
90.0	1982.81	1710.56	1495.13	1339.88	1115.55	1061.16	962.49	874.58	777.26
135.0	2116.69	1844.44	1600.88	1427.06	1265.06	1128.94	1023.19	929.25	824.06
180.0	1946.25	1676.25	1464.75	1311.75	1122.30	1054.41	946.24	860.96	774.17
225.0	2406.94	2036.81	1736.44	1524.94	1335.94	1120.78	1066.61	969.02	859.89
270.0	2564.44	2207.81	1870.88	1631.81	1417.50	1244.81	1117.69	1009.13	892.13
315.0	2422.13	2044.69	1710.00	1523.81	1328.06	1108.97	1053.39	952.99	853.71
360.0	2637.56	2316.94	1926.00	1675.69	1473.75	1270.13	1137.94	1026.00	905.06
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	821.25	745.88	662.63	600.75	541.13	478.13	419.63	371.25	317.81
45.0	718.31	653.06	577.13	519.19	460.13	405.00	354.38	309.38	286.88
90.0	707.34	641.08	570.26	502.93	452.87	402.30	348.69	302.57	258.75
135.0	748.69	681.19	600.75	540.56	478.13	423.56	369.56	317.81	286.88
180.0	695.25	629.10	565.03	491.74	444.94	399.32	338.34	290.53	246.09
225.0	782.61	713.31	634.44	573.75	515.53	446.63	396.79	349.31	292.44
270.0	810.56	738.00	656.44	594.00	535.50	473.06	415.69	368.44	314.44
315.0	766.18	696.26	632.36	555.81	498.49	444.32	382.89	335.03	289.13
360.0	821.25	745.88	662.63	600.75	541.13	478.13	419.63	371.25	317.81
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	288.56	221.85	180.34	148.28	114.30	83.81	60.58	42.69	29.14
45.0	218.25	178.71	147.66	106.65	77.96	56.53	36.68	27.23	22.16
90.0	214.20	171.56	132.98	101.53	72.00	43.93	30.88	25.03	21.83
135.0	220.67	181.86	142.59	112.11	81.96	57.99	41.12	30.26	24.08
180.0	206.10	167.91	134.33	99.06	70.09	45.84	31.44	26.27	23.34
225.0	254.42	208.97	162.28	132.58	101.48	69.36	50.18	36.28	26.10
270.0	285.19	219.21	181.07	142.26	107.27	81.06	55.91	39.94	29.70
315.0	241.31	199.29	164.31	129.09	100.29	71.55	49.95	36.23	28.24
360.0	288.56	221.85	180.34	148.28	114.30	83.81	60.58	42.69	29.14
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	23.68	21.15	18.90	16.82	15.02	13.33	11.81	10.80	9.62
45.0	19.18	17.38	15.47	13.56	12.15	11.14	9.96	8.94	8.10
90.0	19.46	17.21	15.36	13.39	11.98	10.69	9.62	8.61	7.93
135.0	21.71	19.52	17.27	15.30	13.89	12.54	11.25	10.24	9.28
180.0	20.70	18.39	16.48	14.34	12.88	11.64	10.35	9.34	8.55
225.0	23.01	20.81	18.45	16.37	14.68	12.99	11.76	10.52	9.45
270.0	24.69	22.33	20.25	17.72	15.81	14.23	12.54	11.31	10.35
315.0	24.47	22.28	20.08	17.44	15.53	13.95	12.43	11.08	10.07
360.0	23.68	21.15	18.90	16.82	15.02	13.33	11.81	10.80	9.62

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	8.78	8.04	7.43	6.98	6.64	6.30	6.08	5.91	5.79
45.0	7.43	6.86	6.47	6.24	5.96	5.79	5.68	5.57	5.40
90.0	7.31	6.81	6.47	6.24	6.02	5.79	5.63	5.51	5.40
135.0	8.66	8.04	7.59	7.20	6.92	6.64	6.41	6.19	5.96
180.0	7.88	7.31	6.92	6.58	6.36	6.13	5.96	5.79	5.68
225.0	8.66	7.82	7.26	6.86	6.53	6.24	6.02	5.85	5.68
270.0	9.34	8.49	7.93	7.31	6.98	6.64	6.41	6.19	5.96
315.0	9.00	8.21	7.71	7.26	6.92	6.64	6.36	6.19	6.08
360.0	8.78	8.04	7.43	6.98	6.64	6.30	6.08	5.91	5.79
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.63	5.51	5.40	5.29	5.23	5.23	5.12	5.06	5.06
45.0	5.29	5.23	5.12	5.12	5.06	5.01	4.95	5.01	4.95
90.0	5.34	5.23	5.12	5.06	5.06	5.01	5.01	5.06	5.06
135.0	5.79	5.68	5.57	5.46	5.40	5.34	5.34	5.29	5.23
180.0	5.51	5.40	5.34	5.23	5.18	5.12	5.12	5.06	5.06
225.0	5.51	5.40	5.34	5.23	5.12	5.06	5.06	5.01	5.06
270.0	5.79	5.63	5.57	5.40	5.29	5.23	5.12	5.06	5.06
315.0	5.85	5.74	5.63	5.51	5.34	5.29	5.23	5.12	5.12
360.0	5.63	5.51	5.40	5.29	5.23	5.23	5.12	5.06	5.06
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.01	5.01	4.95	4.95	4.89	4.84	4.78	4.78	4.73
45.0	4.89	4.89	4.84	4.78	4.73	4.73	4.67	4.61	4.56
90.0	5.01	4.95	4.95	4.89	4.89	4.84	4.78	4.67	4.67
135.0	5.18	5.18	5.06	5.06	5.01	4.95	4.89	4.78	4.67
180.0	5.01	4.95	4.89	4.89	4.84	4.84	4.73	4.61	4.56
225.0	4.95	4.89	4.89	4.89	4.84	4.78	4.73	4.67	4.67
270.0	5.06	5.01	4.95	4.89	4.84	4.84	4.78	4.78	4.73
315.0	5.06	5.01	5.01	4.95	4.95	4.89	4.89	4.84	4.78
360.0	5.01	5.01	4.95	4.95	4.89	4.84	4.78	4.78	4.73
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.67	4.61	4.50	4.44	4.39	4.39	4.33	4.28	4.22
45.0	4.44	4.39	4.33	4.28	4.28	4.22	4.16	4.11	4.05
90.0	4.50	4.50	4.44	4.39	4.39	4.39	4.33	4.33	4.39
135.0	4.56	4.50	4.44	4.39	4.33	4.28	4.28	4.22	4.22
180.0	4.44	4.39	4.33	4.22	4.22	4.16	4.11	4.05	4.05
225.0	4.56	4.50	4.44	4.33	4.28	4.28	4.22	4.16	4.16
270.0	4.67	4.56	4.50	4.44	4.39	4.33	4.33	4.33	4.28
315.0	4.67	4.61	4.56	4.44	4.44	4.39	4.33	4.28	4.28
360.0	4.67	4.61	4.50	4.44	4.39	4.39	4.33	4.28	4.22
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.16	4.16	4.11	4.11	4.05	3.99	3.83	3.66	3.60
45.0	4.05	3.99	3.99	3.94	3.88	3.71	3.66	3.60	3.60
90.0	4.50	5.63	6.81	3.83	3.71	3.66	3.60	3.60	3.60
135.0	4.11	4.11	4.05	3.88	3.77	3.66	3.66	3.54	3.54
180.0	3.99	3.94	3.94	3.83	3.71	3.60	3.60	3.54	3.60
225.0	4.11	4.05	4.05	3.99	3.94	3.83	3.71	3.66	3.60
270.0	4.22	4.16	4.11	4.11	4.05	3.99	3.77	3.66	3.66
315.0	4.22	4.22	4.22	4.22	4.16	3.99	3.77	3.66	3.60
360.0	4.16	4.16	4.11	4.11	4.05	3.99	3.83	3.66	3.60

Intensity data(cd)

C/γ(°)	90.0
0.0	3.60
45.0	3.60
90.0	3.60
135.0	3.54
180.0	3.60
225.0	3.60
270.0	3.60
315.0	3.60
360.0	3.60