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NT

Client: NT

LumCAT:

Luminaire: 92.70.427.00

Report No: 20251212-B005

Ballast type: AC

Test No: 20251212-C005

Voltage(V): 35.340

LampCAT: CITIZEN CLU028

Current(A): 0.360

Lamp flux(lm): 1546.7

Power (W): 12.722

Number of Lamps: 1

PF: 0.000

Length(mm): 45

Width(mm): 45

Phm Type: C

Height(mm): 25

Photometric Results

Lumens(lm): 1399.11, Efficiency(%): 90.46% , Luminous Efficacy(lm/W): 109.98

Central intensity(cd): 3615.201, Maximum intensity(cd): 3615.201

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=34.2

[C90/270]Total=34.2

Field angle(10%Imax): [C0/180]Total=58.6

[C90/270]Total=58.6

Maximum s/h(1/2): C0_180=0.56 C90_270=0.56

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(%): 90.46%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.310%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3615.202	0.000	0	0.00%	0.00%
1.0	3601.209	3.453	3.453	0.22%	0.25%
2.0	3573.014	10.297	13.75	0.67%	0.98%
3.0	3530.194	16.989	30.739	1.10%	2.20%
4.0	3477.038	23.455	54.194	1.52%	3.87%
5.0	3400.186	29.585	83.779	1.91%	5.99%
6.0	3310.608	35.267	119.046	2.28%	8.51%
7.0	3218.498	40.526	159.573	2.62%	11.41%
8.0	3108.952	45.284	204.857	2.93%	14.64%
9.0	2994.061	49.462	254.318	3.20%	18.18%
10.0	2860.608	52.983	307.301	3.43%	21.96%
11.0	2716.608	55.728	363.029	3.60%	25.95%
12.0	2574.295	57.837	420.866	3.74%	30.08%
13.0	2432.616	59.419	480.285	3.84%	34.33%
14.0	2274.834	60.255	540.54	3.90%	38.63%
15.0	2123.100	60.377	600.917	3.90%	42.95%
16.0	1961.030	59.844	660.761	3.87%	47.23%
17.0	1814.991	58.803	719.564	3.80%	51.43%
18.0	1669.373	57.450	777.014	3.71%	55.54%
19.0	1472.920	54.669	831.683	3.53%	59.44%
20.0	1339.411	51.473	883.157	3.33%	63.12%
21.0	1246.830	49.661	932.818	3.21%	66.67%
22.0	1102.500	47.211	980.028	3.05%	70.05%
23.0	988.657	43.878	1023.906	2.84%	73.18%
24.0	853.467	40.275	1064.182	2.60%	76.06%
25.0	737.508	36.175	1100.357	2.34%	78.65%
26.0	640.470	32.527	1132.885	2.10%	80.97%
27.0	544.605	28.993	1161.878	1.87%	83.04%
28.0	458.325	25.392	1187.27	1.64%	84.86%
29.0	379.505	21.920	1209.19	1.42%	86.43%
30.0	322.383	18.951	1228.141	1.23%	87.78%
31.0	256.493	16.109	1244.25	1.04%	88.93%
32.0	222.173	13.713	1257.963	0.89%	89.91%
33.0	177.771	11.783	1269.746	0.76%	90.75%
34.0	133.432	9.418	1279.163	0.61%	91.43%
35.0	104.787	7.398	1286.562	0.48%	91.96%
36.0	86.302	6.084	1292.646	0.39%	92.39%
37.0	70.966	5.129	1297.775	0.33%	92.76%

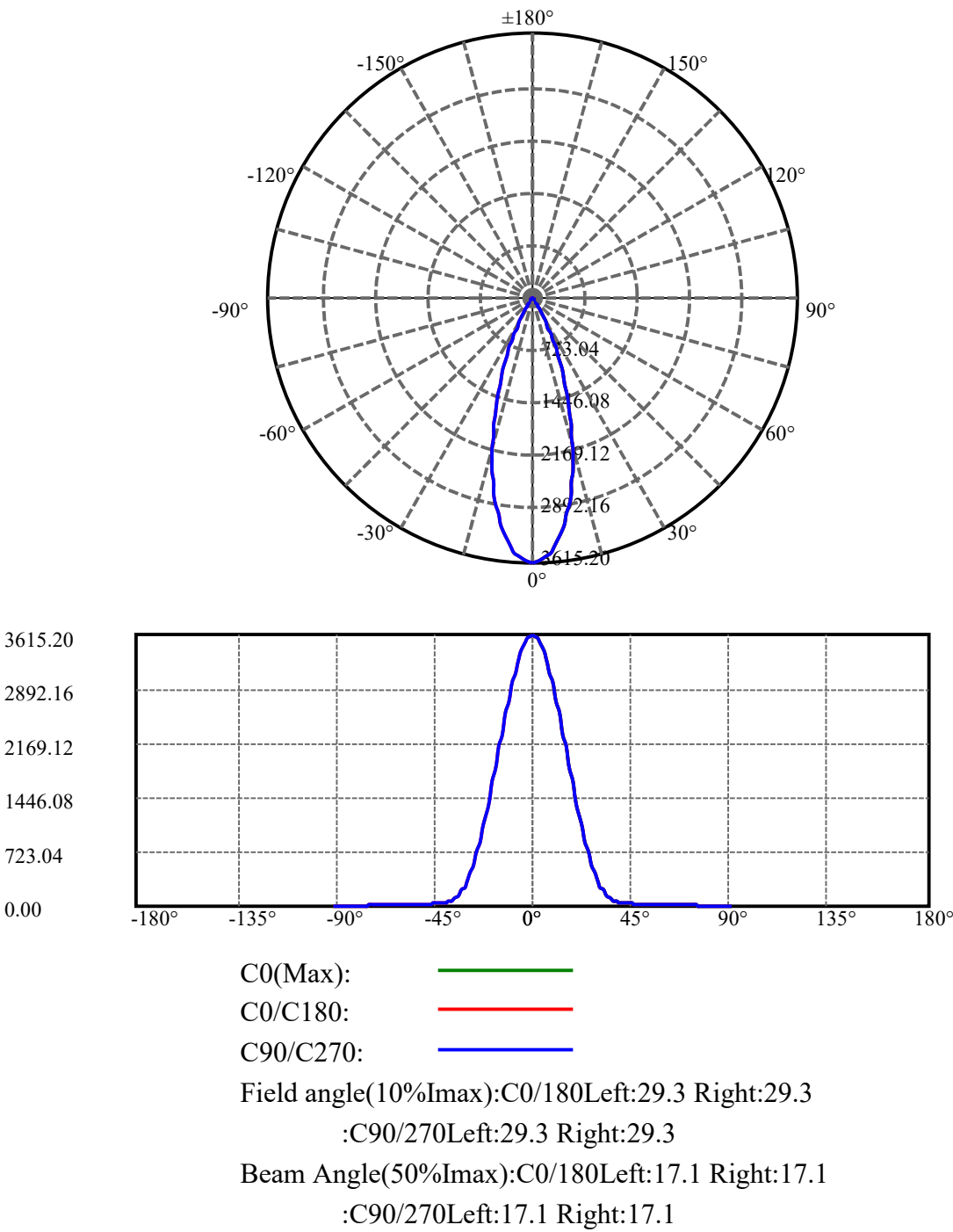
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	61.003	4.405	1302.18	0.28%	93.07%
39.0	52.903	3.888	1306.068	0.25%	93.35%
40.0	47.095	3.488	1309.556	0.23%	93.60%
41.0	43.207	3.216	1312.771	0.21%	93.83%
42.0	39.684	3.012	1315.783	0.19%	94.04%
43.0	37.575	2.862	1318.645	0.19%	94.25%
44.0	35.831	2.771	1321.415	0.18%	94.45%
45.0	34.298	2.695	1324.11	0.17%	94.64%
46.0	33.202	2.640	1326.75	0.17%	94.83%
47.0	32.168	2.600	1329.35	0.17%	95.01%
48.0	31.451	2.572	1331.922	0.17%	95.20%
49.0	30.846	2.558	1334.48	0.17%	95.38%
50.0	30.263	2.548	1337.028	0.16%	95.56%
51.0	29.714	2.538	1339.566	0.16%	95.74%
52.0	29.138	2.525	1342.091	0.16%	95.92%
53.0	28.582	2.511	1344.602	0.16%	96.10%
54.0	28.069	2.497	1347.099	0.16%	96.28%
55.0	27.485	2.480	1349.579	0.16%	96.46%
56.0	26.845	2.455	1352.034	0.16%	96.64%
57.0	26.220	2.426	1354.46	0.16%	96.81%
58.0	25.327	2.384	1356.843	0.15%	96.98%
59.0	24.673	2.337	1359.181	0.15%	97.15%
60.0	23.913	2.295	1361.476	0.15%	97.31%
61.0	23.098	2.243	1363.72	0.15%	97.47%
62.0	22.240	2.185	1365.904	0.14%	97.63%
63.0	21.389	2.122	1368.026	0.14%	97.78%
64.0	20.552	2.058	1370.084	0.13%	97.93%
65.0	19.709	1.992	1372.077	0.13%	98.07%
66.0	18.809	1.922	1373.999	0.12%	98.21%
67.0	17.972	1.849	1375.848	0.12%	98.34%
68.0	17.114	1.777	1377.625	0.11%	98.46%
69.0	16.200	1.700	1379.325	0.11%	98.59%
70.0	15.335	1.620	1380.944	0.10%	98.70%
71.0	14.520	1.543	1382.488	0.10%	98.81%
72.0	13.598	1.462	1383.95	0.09%	98.92%
73.0	12.748	1.378	1385.327	0.09%	99.01%
74.0	11.967	1.299	1386.627	0.08%	99.11%
75.0	11.166	1.222	1387.849	0.08%	99.20%

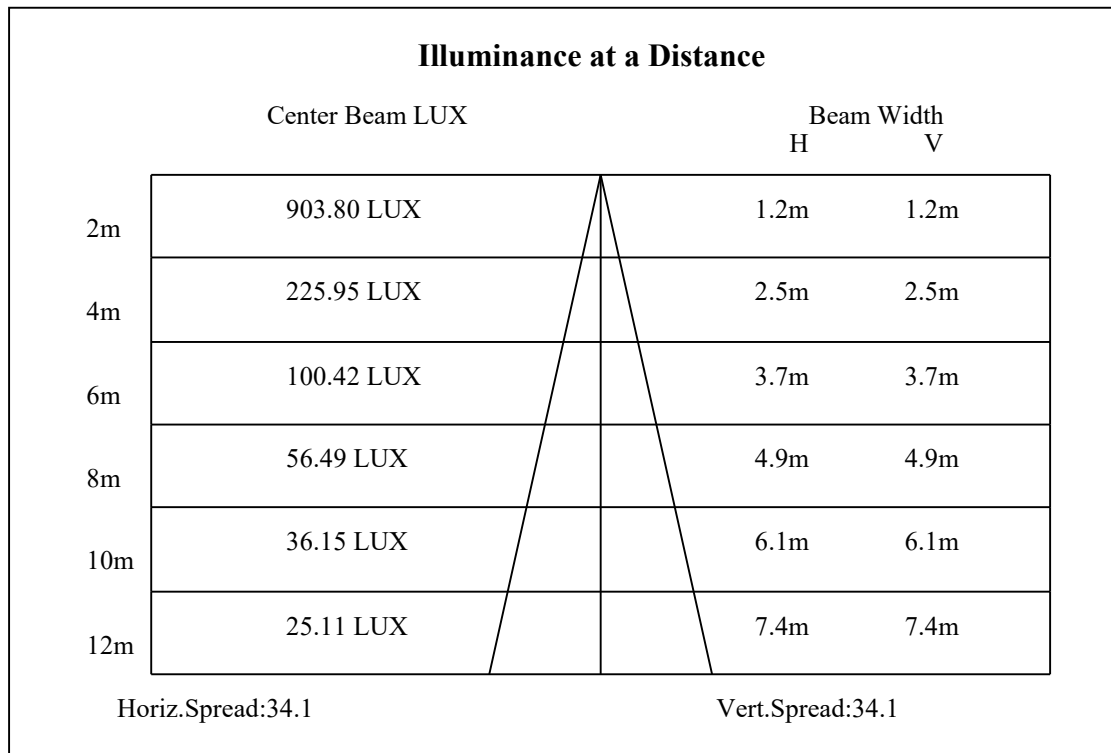
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.308	1.140	1388.989	0.07%	99.28%
77.0	9.619	1.062	1390.051	0.07%	99.35%
78.0	9.309	1.013	1391.064	0.07%	99.42%
79.0	8.726	0.969	1392.033	0.06%	99.49%
80.0	8.290	0.917	1392.951	0.06%	99.56%
81.0	8.571	0.912	1393.863	0.06%	99.62%
82.0	7.854	0.891	1394.753	0.06%	99.69%
83.0	6.532	0.782	1395.535	0.05%	99.74%
84.0	5.674	0.665	1396.2	0.04%	99.79%
85.0	5.175	0.592	1396.792	0.04%	99.83%
86.0	4.746	0.542	1397.335	0.04%	99.87%
87.0	4.324	0.496	1397.831	0.03%	99.91%
88.0	4.036	0.458	1398.289	0.03%	99.94%
89.0	3.705	0.424	1398.713	0.03%	99.97%
90.0	3.530	0.397	1399.11	0.03%	100.00%

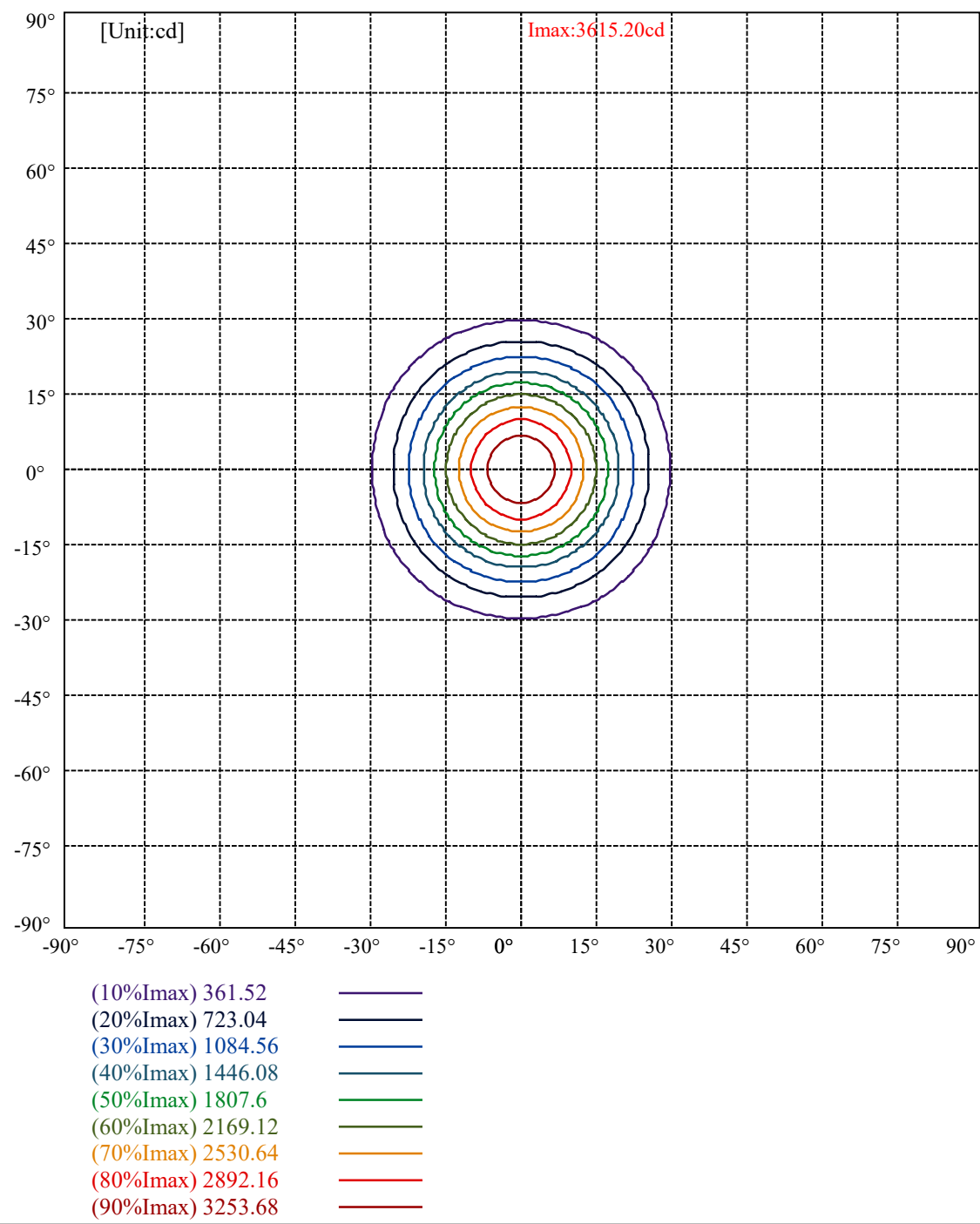
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	1228.14	79.41%	87.78%
0-40	1309.56	84.67%	93.60%
0-60	1361.48	88.03%	97.31%
0-90	1398.71	90.44%	99.97%
0-120	1398.71	90.44%	99.97%
0-180	1399.11	90.46%	100.00%
60-90	37.24	2.41%	2.66%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.58	1119.29	72.37%	80.00%

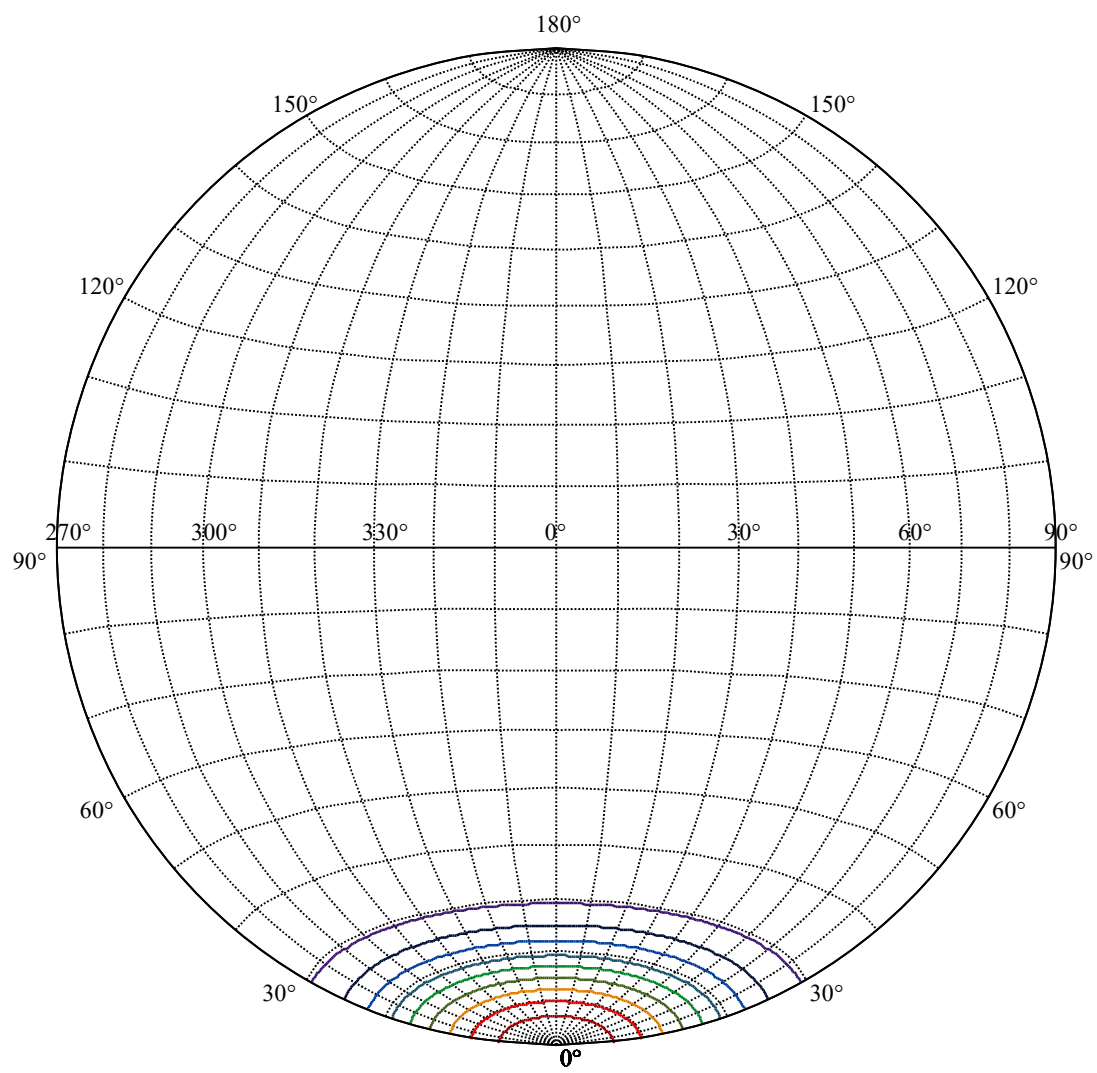
ZONAL LUMEN SUMMARY

0-10	307.30
10-20	575.86
20-30	344.98
30-40	81.42
40-50	27.47
50-60	24.45
60-70	19.47
70-80	12.01
80-90	5.76
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







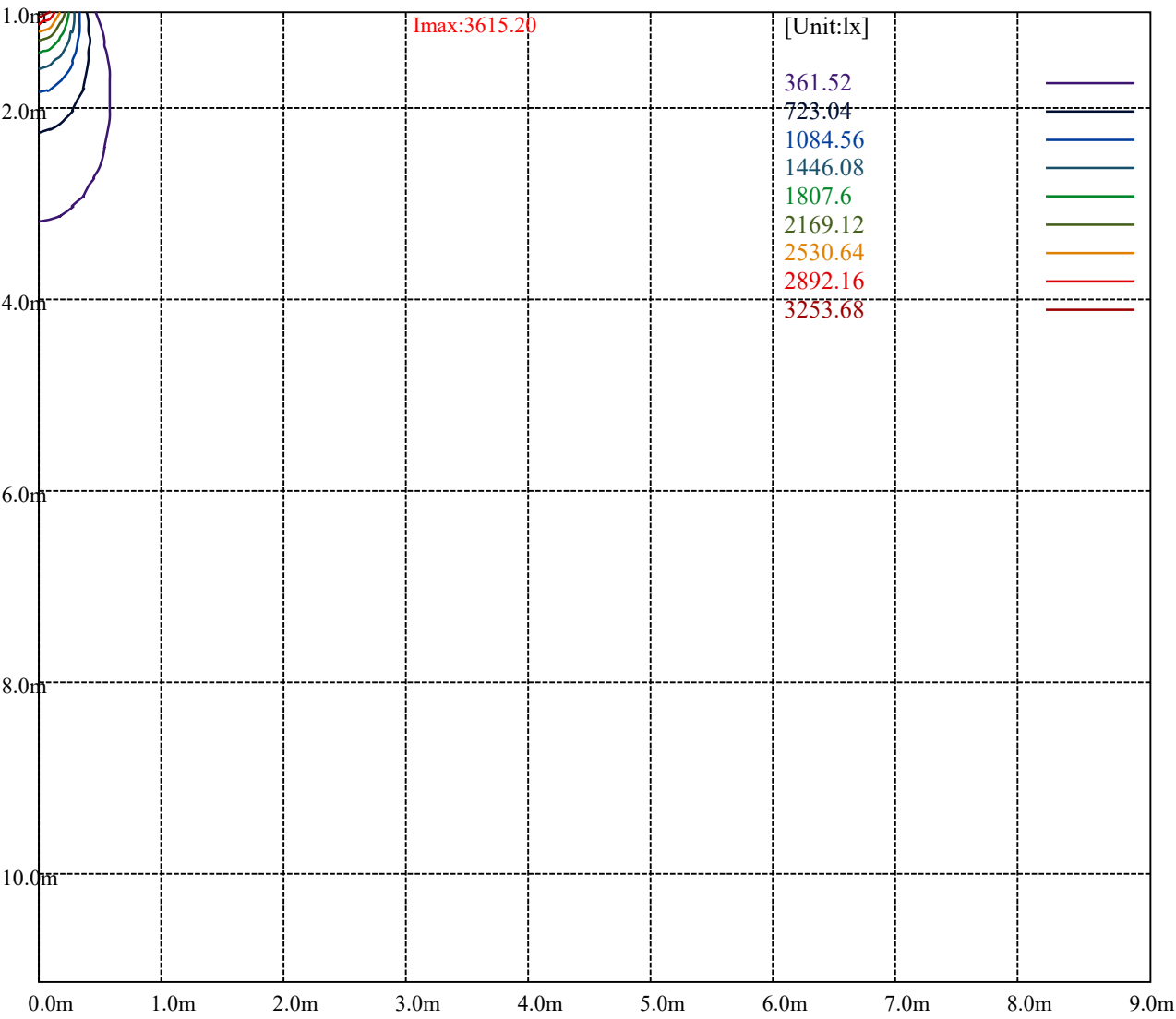


House

[Unit:cd]

Road

Imax:3615.20	
(10%Imax) 361.52	—
(20%Imax) 723.04	—
(30%Imax) 1084.56	—
(40%Imax) 1446.08	—
(50%Imax) 1807.6	—
(60%Imax) 2169.12	—
(70%Imax) 2530.64	—
(80%Imax) 2892.16	—
(90%Imax) 3253.68	—



Luminance Table

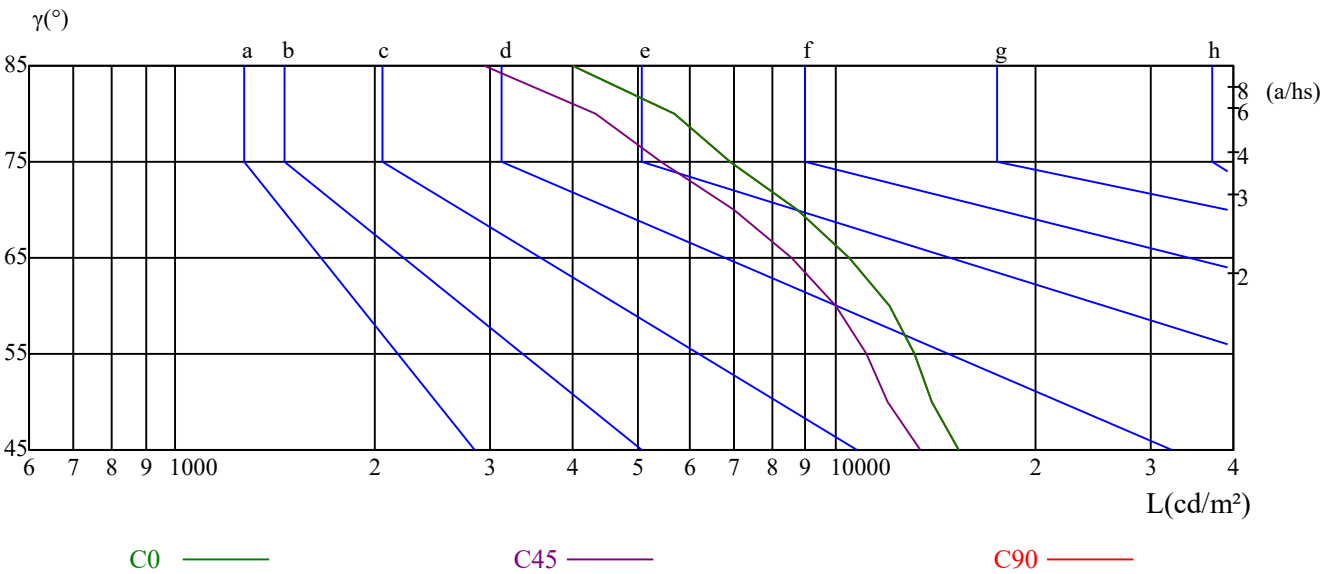
γ	45	50	55	60	65	70	75	80	85
C0	15399	13988	13195	12036	10509	8764	6932	5680	3989
C45	13414	12007	11151	10004	8577	7010	5418	4321	2938
C90	15399	13988	13195	12036	10509	8764	6932	5680	3989

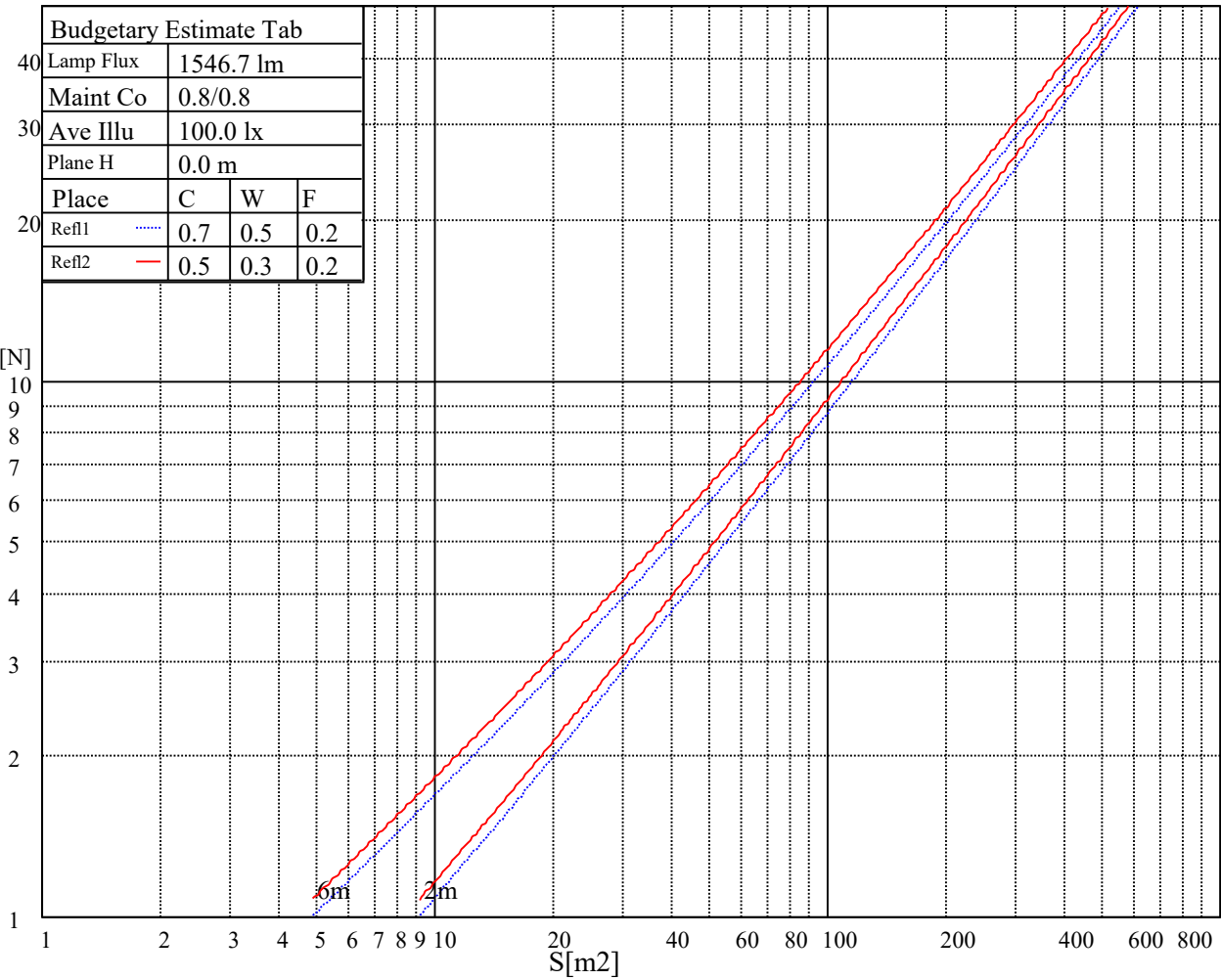
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
23029	23029	23029	21304	21304	21304	29322	29322	29322

Glare Table

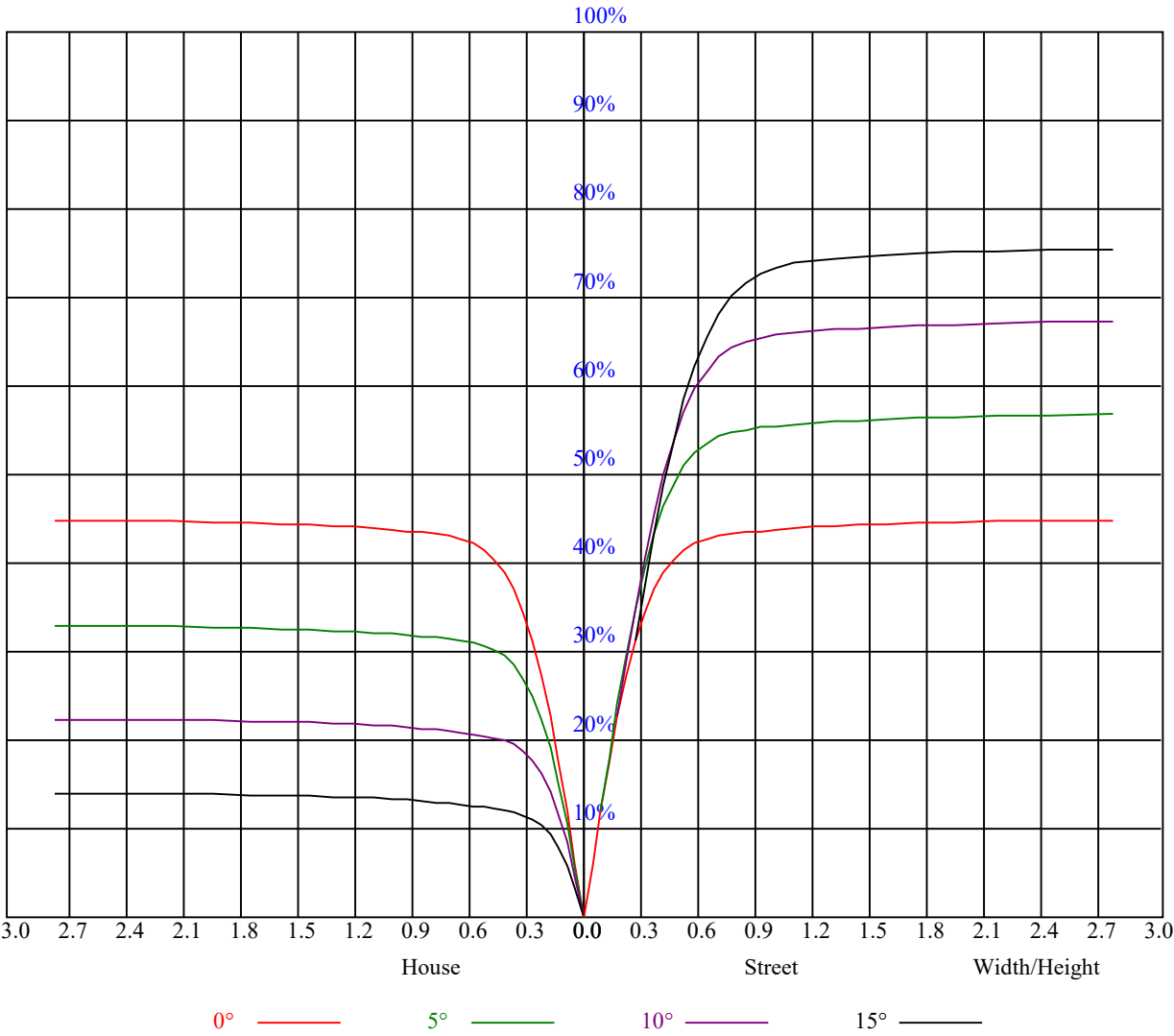
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

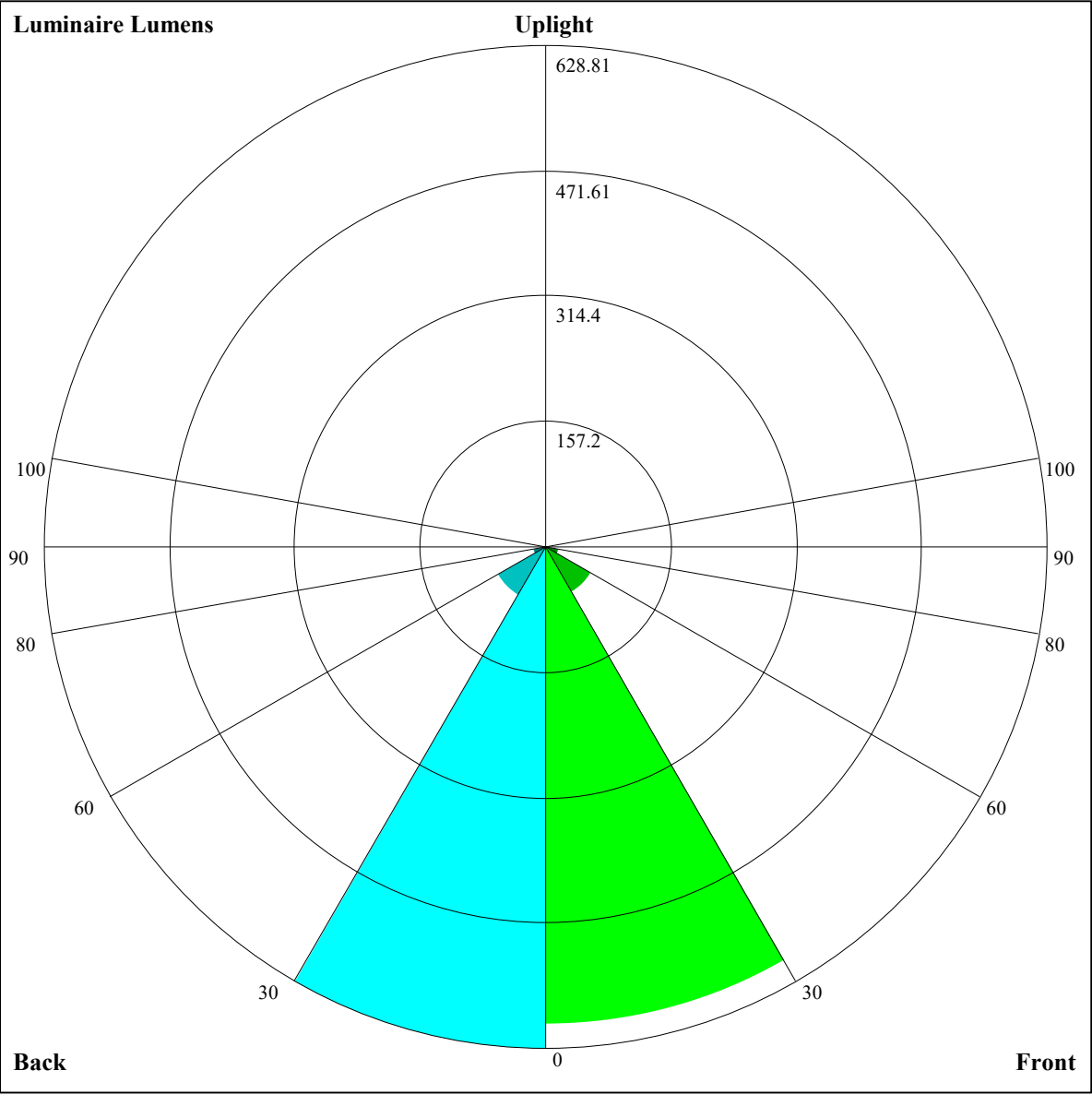
Luminance Limiting Curve





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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.01	0.99	0.97	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.89	0.88	0.87	0.85
2	0.95	0.91	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.81
3	0.90	0.86	0.82	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.81	0.79	0.82	0.80	0.78	0.77
4	0.85	0.81	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.78	0.75	0.79	0.76	0.74	0.73
5	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
6	0.77	0.73	0.69	0.77	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
7	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.64
8	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
9	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.59
10	0.66	0.61	0.58	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.63	0.60	0.58	0.57





Luminaire Lumens:

FL=599.13,FM=65.51,FH=15.61,FVH=2.84

BL=628.81,BM=68.89,BH=15.87,BVH=3.19

UL=0,UH=0

BUG Rating:B2-U0-G0

Intensity data(cd)

Appendix Page: 17 Total:19

C/ γ (°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	3615.13	3580.26	3531.32	3447.51	3414.88	3303.51	3196.63	3079.07	2926.63
45.0	3615.13	3624.69	3617.94	3599.94	3571.82	3503.19	3426.13	3336.13	3236.01
90.0	3632.57	3637.63	3629.76	3602.19	3553.26	3472.82	3422.76	3336.13	3235.44
135.0	3594.32	3626.94	3625.82	3619.07	3590.38	3542.01	3480.13	3435.69	3334.44
180.0	3615.13	3625.82	3617.94	3588.69	3542.01	3503.76	3413.19	3321.51	3219.69
225.0	3615.13	3569.57	3508.26	3436.82	3332.76	3277.07	3165.13	3047.57	2918.76
270.0	3639.88	3617.38	3558.88	3526.26	3440.76	3354.69	3267.51	3151.63	3089.76
315.0	3594.32	3527.38	3494.19	3421.07	3370.44	3244.44	3113.38	3040.26	2910.88
360.0	3615.13	3580.26	3531.32	3447.51	3414.88	3303.51	3196.63	3079.07	2926.63
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2845.07	2703.32	2556.51	2405.19	2219.01	2126.76	1973.76	1733.01	1645.26
45.0	3171.88	3024.51	2842.82	2757.32	2615.01	2432.19	2285.38	2132.38	2041.82
90.0	3125.76	2975.57	2899.63	2760.69	2528.94	2431.63	2277.51	2117.76	1959.13
135.0	3234.88	3125.76	2985.69	2851.82	2771.94	2571.69	2477.76	2297.19	2144.19
180.0	3104.38	2955.32	2820.32	2680.26	2591.38	2409.13	2254.44	2096.38	1938.32
225.0	2757.32	2668.44	2522.76	2279.19	2213.38	2022.69	1862.38	1710.51	1527.13
270.0	2940.13	2806.26	2661.13	2509.26	2321.38	2163.32	2001.32	1904.57	1718.38
315.0	2773.07	2625.69	2444.01	2350.63	2199.88	2041.26	1852.26	1696.44	1545.69
360.0	2845.07	2703.32	2556.51	2405.19	2219.01	2126.76	1973.76	1733.01	1645.26
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1500.69	1360.07	1046.31	1046.31	972.11	853.31	719.61	656.55	559.63
45.0	1862.38	1709.94	1563.13	1418.57	1333.07	1167.69	1039.44	916.26	777.88
90.0	1767.88	1676.19	1519.26	1369.07	1089.96	1089.96	955.63	828.56	688.50
135.0	1988.94	1837.07	1744.82	1565.38	1416.32	1269.51	1133.94	974.76	849.88
180.0	1846.07	1662.69	1510.82	1362.32	1220.57	1140.69	933.69	813.32	745.82
225.0	1435.44	1100.25	1046.25	1019.42	891.68	772.03	661.16	540.17	484.71
270.0	1559.76	1406.76	1254.32	1163.19	996.13	863.38	742.44	628.82	566.94
315.0	1393.82	1030.39	1030.39	1030.39	900.17	752.68	641.81	541.63	450.39
360.0	1500.69	1360.07	1046.31	1046.31	972.11	853.31	719.61	656.55	559.63
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	471.26	392.18	308.76	272.08	219.09	174.83	133.43	106.82	93.94
45.0	734.01	570.88	482.57	434.76	346.44	320.01	320.01	182.31	145.80
90.0	624.26	526.56	438.30	346.28	281.87	247.73	180.34	136.58	118.58
135.0	732.88	667.63	547.26	457.26	376.82	307.07	294.69	230.29	155.59
180.0	619.82	525.32	439.26	361.63	319.44	319.44	185.34	160.54	119.93
225.0	400.05	327.26	263.64	202.05	175.44	138.26	94.67	82.74	68.12
270.0	419.57	343.63	303.69	303.69	174.26	151.31	120.04	92.64	76.16
315.0	354.99	313.14	252.56	201.32	158.57	118.74	93.66	75.54	60.19
360.0	471.26	392.18	308.76	272.08	219.09	174.83	133.43	106.82	93.94
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	72.34	59.96	55.35	49.33	45.00	41.79	39.04	37.91	36.34
45.0	115.76	92.76	82.35	65.98	56.64	50.06	45.23	42.92	39.49
90.0	94.95	77.85	65.03	53.44	49.22	43.99	40.39	37.97	35.55
135.0	136.01	104.57	85.73	71.55	61.20	56.19	46.97	43.37	41.57
180.0	94.89	76.22	63.00	56.93	48.09	42.86	39.26	36.39	34.65
225.0	57.32	49.89	43.71	41.51	38.70	36.62	35.10	33.69	32.96
270.0	64.58	59.12	50.57	45.56	41.96	39.32	38.03	36.00	34.71
315.0	54.56	47.36	42.30	38.93	35.94	34.82	33.47	32.34	31.39
360.0	72.34	59.96	55.35	49.33	45.00	41.79	39.04	37.91	36.34

NT NT

Intensity data(cd)

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C/ γ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	34.99	33.98	32.91	32.12	31.44	30.83	30.49	29.87	29.25
45.0	37.46	35.72	33.98	32.96	32.12	31.28	30.88	30.21	29.70
90.0	34.03	32.79	31.50	31.11	30.32	29.81	29.25	28.52	28.29
135.0	38.81	36.84	35.33	34.03	33.30	32.18	31.28	30.54	29.98
180.0	33.19	32.12	31.44	30.49	29.87	29.31	28.80	28.58	28.07
225.0	31.67	31.33	30.66	30.21	29.64	29.19	28.58	28.29	27.73
270.0	33.64	32.51	31.73	31.16	30.71	30.49	29.93	29.25	28.63
315.0	30.60	30.32	29.81	29.53	29.36	29.03	28.52	27.84	27.00
360.0	34.99	33.98	32.91	32.12	31.44	30.83	30.49	29.87	29.25
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	28.74	28.01	27.68	26.89	25.54	25.20	24.13	23.18	22.16
45.0	29.14	28.58	27.90	27.51	26.61	26.16	25.31	24.53	23.63
90.0	27.90	27.39	26.94	26.21	25.65	25.03	24.13	23.74	22.95
135.0	29.53	28.86	28.24	27.56	26.83	26.16	25.37	24.58	24.13
180.0	27.62	27.17	26.49	25.93	25.26	24.58	24.19	23.29	22.44
225.0	27.11	26.49	25.59	25.20	24.08	23.01	22.56	21.60	20.70
270.0	27.96	27.51	26.66	25.93	25.09	24.13	23.29	22.39	21.43
315.0	26.55	25.88	25.26	24.53	23.57	23.12	22.33	21.49	20.48
360.0	28.74	28.01	27.68	26.89	25.54	25.20	24.13	23.18	22.16
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	21.09	20.48	19.46	18.56	17.61	16.48	15.98	15.02	14.12
45.0	22.78	22.22	21.21	20.19	19.29	18.28	17.66	16.65	15.47
90.0	22.16	21.32	20.36	19.80	18.96	18.06	17.16	16.09	15.58
135.0	23.12	22.28	21.38	20.53	19.97	18.96	18.06	17.10	16.14
180.0	21.60	20.76	20.25	19.29	18.00	17.49	16.48	15.75	14.79
225.0	19.80	18.73	18.23	17.33	16.48	15.58	14.51	14.06	13.33
270.0	20.93	19.86	18.96	17.94	17.16	16.65	15.24	14.34	13.95
315.0	19.63	18.79	17.83	16.82	16.31	15.41	14.51	13.67	12.77
360.0	21.09	20.48	19.46	18.56	17.61	16.48	15.98	15.02	14.12
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.28	12.38	11.87	10.74	9.79	10.35	12.15	11.70	9.39
45.0	14.96	13.95	13.16	12.26	11.42	10.91	9.90	9.06	8.04
90.0	14.40	13.39	12.83	11.98	11.14	10.24	9.17	8.49	7.59
135.0	15.24	14.34	13.50	13.11	12.04	11.19	10.35	10.29	13.73
180.0	13.89	13.39	12.54	11.70	10.80	9.90	9.39	8.33	7.14
225.0	11.93	11.42	10.58	9.73	8.83	7.71	7.43	7.03	6.64
270.0	12.88	12.09	11.25	10.35	9.84	9.06	9.06	8.61	7.88
315.0	12.21	11.03	10.01	9.45	8.61	7.59	7.03	6.30	5.91
360.0	13.28	12.38	11.87	10.74	9.79	10.35	12.15	11.70	9.39
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.65	7.31	6.92	6.19	5.68	5.01	4.50	4.61	4.73
45.0	7.31	6.81	6.41	5.85	5.46	5.06	4.61	4.22	3.77
90.0	6.86	6.58	6.02	5.68	5.12	4.89	4.39	4.05	3.60
135.0	20.81	18.84	11.64	8.21	7.31	6.75	6.19	5.63	4.84
180.0	6.86	6.30	5.68	5.18	4.72	4.39	3.99	3.60	3.21
225.0	6.02	5.51	5.01	4.73	4.39	4.05	3.71	3.32	3.09
270.0	7.54	6.58	5.91	5.34	4.84	4.22	3.94	3.88	3.66
315.0	5.51	4.89	4.67	4.22	3.88	3.60	3.26	2.98	2.76
360.0	7.65	7.31	6.92	6.19	5.68	5.01	4.50	4.61	4.73

NT NT

Intensity data(cd)

Appendix Page: 19 Total:19

C/ $\gamma(^{\circ})$	90.0
0.0	4.56
45.0	3.43
90.0	3.49
135.0	4.95
180.0	2.87
225.0	2.93
270.0	3.38
315.0	2.64
360.0	4.56