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Nata

LumCAT: 3-1939-M	
Luminaire: BJB 47.319.2021	
Report No: GC2017050311	Voltage(V): 35.3000
Test No: NE-0010	Current(A): 0.5000
LampCAT: BRIDGELUX V13B	Power (W): 17.6500
Lamp flux(lm): 2274.0	PF: 0.0000
Number of Lamps: 1	Ballast type: CC500mA
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2070.95
Efficiency(%): 91.07%
Lumens(lm)/Power(W): 117.33
Central intensity(cd): 8450.606
Maximum intensity(cd): 8450.606
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.2
 [C90/270]Total=25.2
Field angle(10%Imax): [C0/180]Total=47.6
 [C90/270]Total=47.6
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.40 C90_270=0.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.07%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.752%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/5/3
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	8450.607	0.000	0	.000%	.000%
1.0	8427.758	8.076	8.076	.355%	.390%
2.0	8346.826	24.076	32.152	1.059%	1.553%
3.0	8207.395	39.592	71.745	1.741%	3.464%
4.0	8020.066	54.318	126.063	2.389%	6.087%
5.0	7779.056	67.967	194.03	2.989%	9.369%
6.0	7479.274	80.187	274.217	3.526%	13.241%
7.0	7084.658	90.398	364.615	3.975%	17.606%
8.0	6684.398	98.543	463.157	4.333%	22.364%
9.0	6191.918	104.356	567.513	4.589%	27.403%
10.0	5676.177	107.402	674.915	4.723%	32.590%
11.0	5183.285	108.508	783.423	4.772%	37.829%
12.0	4603.816	106.987	890.41	4.705%	42.995%
13.0	3995.030	102.047	992.457	4.488%	47.923%
14.0	3398.219	94.633	1087.09	4.162%	52.492%
15.0	2819.851	85.364	1172.454	3.754%	56.614%
16.0	2269.562	74.574	1247.028	3.279%	60.215%
17.0	1859.255	64.297	1311.325	2.827%	63.320%
18.0	1496.708	55.333	1366.658	2.433%	65.992%
19.0	1249.780	47.783	1414.441	2.101%	68.299%
20.0	1052.348	42.135	1456.576	1.853%	70.334%
21.0	983.431	39.091	1495.667	1.719%	72.221%
22.0	915.987	38.170	1533.837	1.679%	74.064%
23.0	874.805	37.576	1571.413	1.652%	75.879%
24.0	837.490	37.437	1608.85	1.646%	77.686%
25.0	805.461	37.357	1646.207	1.643%	79.490%
26.0	783.232	37.501	1683.708	1.649%	81.301%
27.0	762.958	37.828	1721.536	1.663%	83.128%
28.0	746.248	38.210	1759.746	1.680%	84.973%
29.0	729.539	38.611	1798.357	1.698%	86.837%
30.0	701.419	38.636	1836.992	1.699%	88.703%
31.0	648.275	37.560	1874.552	1.652%	90.516%
32.0	572.986	34.988	1909.54	1.539%	92.206%
33.0	488.171	31.262	1940.802	1.375%	93.715%
34.0	390.928	26.604	1967.406	1.170%	95.000%
35.0	315.074	21.926	1989.332	.964%	96.059%
36.0	200.736	16.423	2005.755	.722%	96.852%
37.0	119.362	10.440	2016.195	.459%	97.356%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	60.053	5.989	2022.184	.263%	97.645%
39.0	29.207	3.047	2025.23	.134%	97.792%
40.0	20.467	1.732	2026.963	.076%	97.876%
41.0	18.031	1.371	2028.334	.060%	97.942%
42.0	15.911	1.233	2029.567	.054%	98.002%
43.0	13.943	1.106	2030.673	.049%	98.055%
44.0	12.663	1.004	2031.677	.044%	98.103%
45.0	11.755	0.938	2032.615	.041%	98.149%
46.0	10.929	0.887	2033.503	.039%	98.192%
47.0	10.419	0.849	2034.352	.037%	98.233%
48.0	10.185	0.833	2035.185	.037%	98.273%
49.0	9.979	0.828	2036.013	.036%	98.313%
50.0	9.800	0.825	2036.837	.036%	98.353%
51.0	9.662	0.823	2037.661	.036%	98.392%
52.0	9.525	0.823	2038.484	.036%	98.432%
53.0	9.387	0.823	2039.307	.036%	98.472%
54.0	9.305	0.824	2040.131	.036%	98.512%
55.0	9.194	0.826	2040.956	.036%	98.552%
56.0	9.098	0.827	2041.783	.036%	98.591%
57.0	9.002	0.828	2042.611	.036%	98.631%
58.0	8.933	0.829	2043.44	.036%	98.671%
59.0	8.837	0.831	2044.271	.037%	98.712%
60.0	8.781	0.832	2045.103	.037%	98.752%
61.0	8.713	0.835	2045.938	.037%	98.792%
62.0	8.616	0.835	2046.773	.037%	98.832%
63.0	8.589	0.837	2047.61	.037%	98.873%
64.0	8.548	0.841	2048.45	.037%	98.913%
65.0	8.520	0.845	2049.295	.037%	98.954%
66.0	8.465	0.847	2050.143	.037%	98.995%
67.0	8.424	0.849	2050.992	.037%	99.036%
68.0	8.382	0.851	2051.843	.037%	99.077%
69.0	8.327	0.852	2052.696	.037%	99.118%
70.0	8.314	0.855	2053.55	.038%	99.160%
71.0	8.300	0.859	2054.409	.038%	99.201%
72.0	8.245	0.860	2055.269	.038%	99.243%
73.0	8.217	0.861	2056.13	.038%	99.284%
74.0	8.190	0.863	2056.992	.038%	99.326%
75.0	8.162	0.864	2057.856	.038%	99.368%

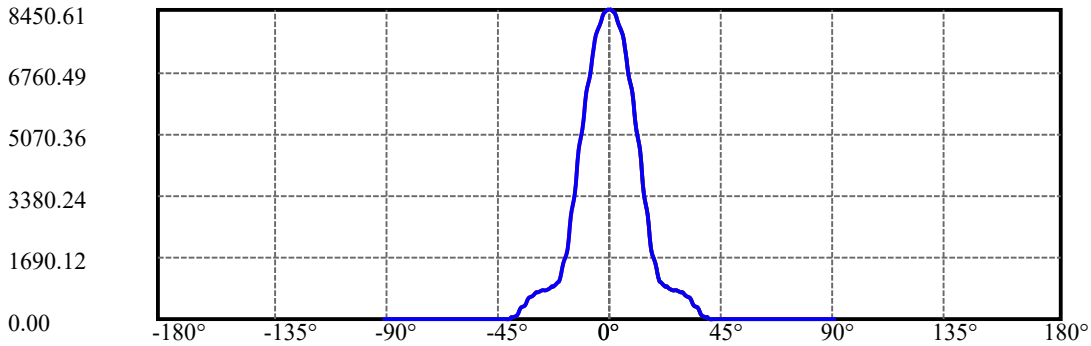
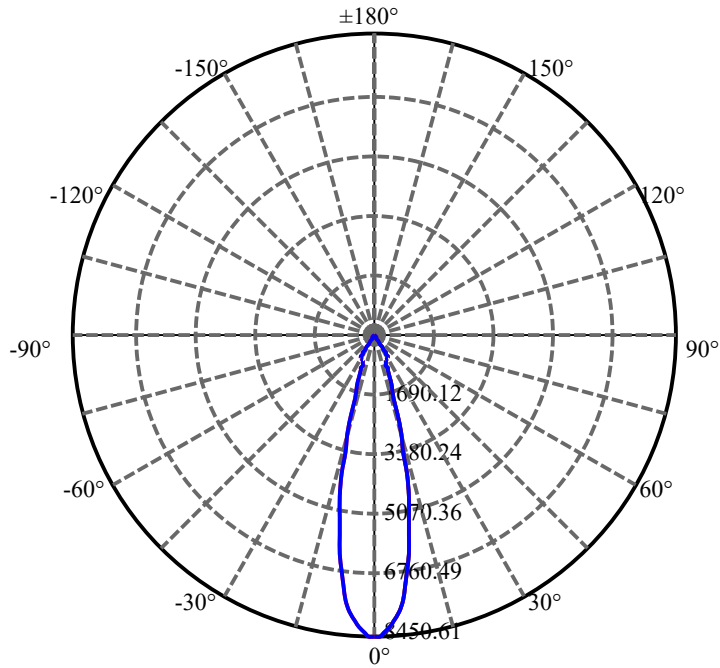
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.148	0.866	2058.722	.038%	99.409%
77.0	8.135	0.868	2059.59	.038%	99.451%
78.0	8.107	0.869	2060.46	.038%	99.493%
79.0	8.093	0.870	2061.33	.038%	99.535%
80.0	8.066	0.871	2062.201	.038%	99.577%
81.0	8.052	0.872	2063.073	.038%	99.620%
82.0	8.052	0.873	2063.946	.038%	99.662%
83.0	8.038	0.875	2064.821	.038%	99.704%
84.0	8.038	0.876	2065.697	.039%	99.746%
85.0	8.011	0.876	2066.573	.039%	99.789%
86.0	7.997	0.875	2067.448	.038%	99.831%
87.0	8.011	0.876	2068.324	.039%	99.873%
88.0	7.983	0.876	2069.2	.039%	99.915%
89.0	7.997	0.876	2070.076	.039%	99.958%
90.0	7.997	0.877	2070.953	.039%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1836.99	80.78%	88.70%
0-40	2026.96	89.14%	97.88%
0-60	2045.10	89.93%	98.75%
0-90	2070.08	91.03%	99.96%
0-120	2070.08	91.03%	99.96%
0-180	2070.95	91.07%	100.00%
60-90	25.81	1.13%	1.25%
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%
0-25.28	1656.76	72.86%	80.00%

ZONAL LUMEN SUMMARY

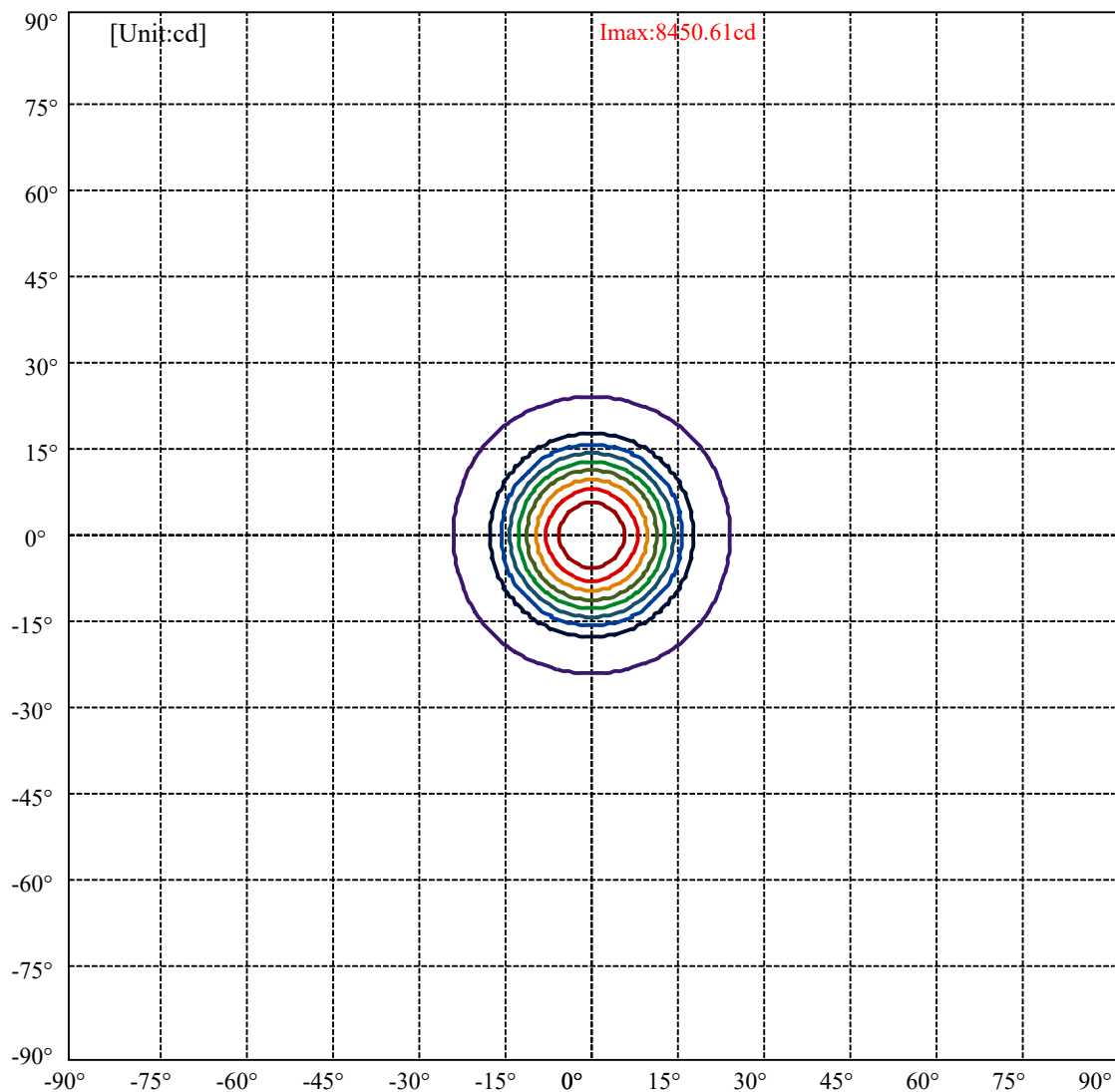
0-10	674.91
10-20	781.66
20-30	380.42
30-40	189.97
40-50	9.87
50-60	8.27
60-70	8.45
70-80	8.65
80-90	7.87
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



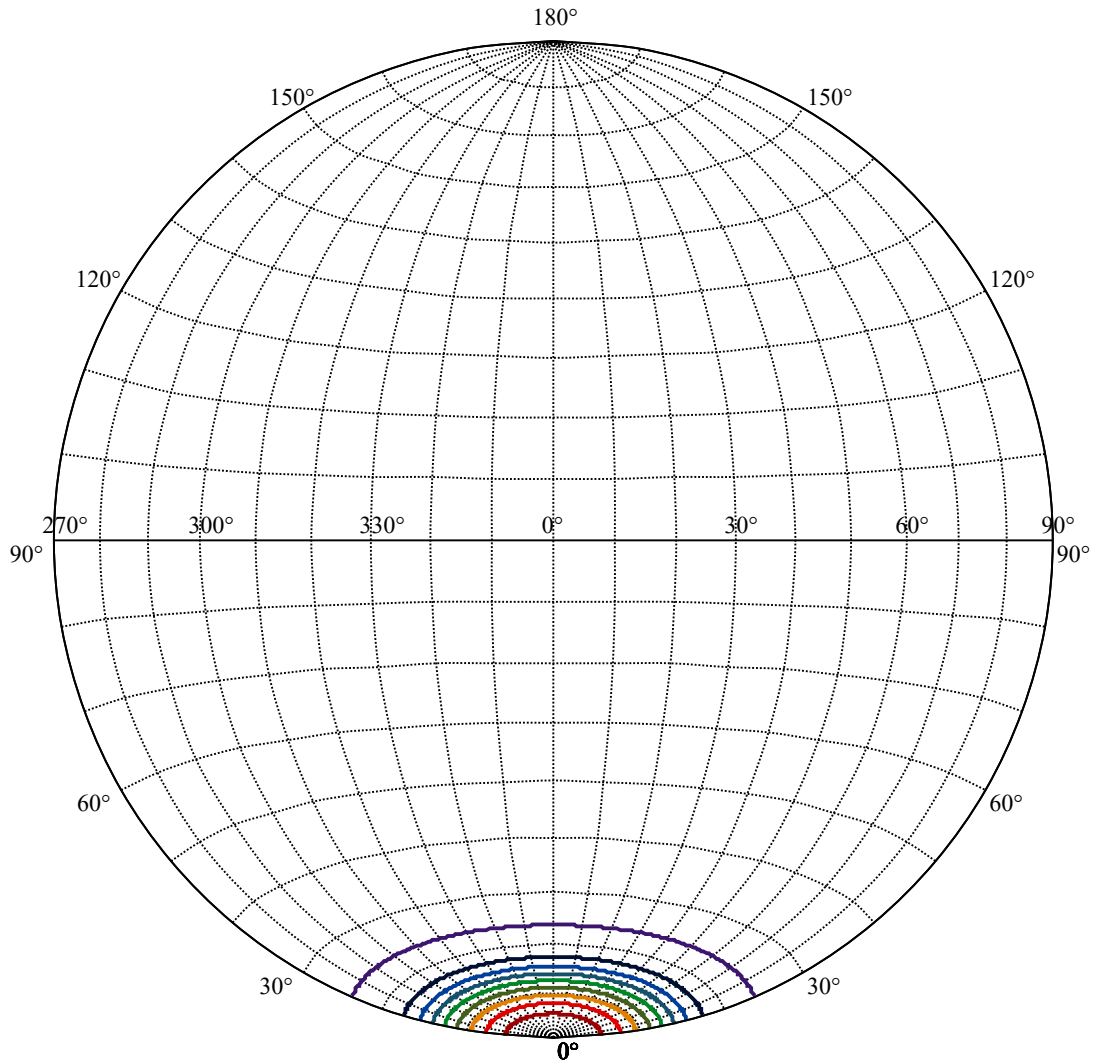
C0(Max): ———
C0/C180: ———
C90/C270: ———

Field angle(10%Imax):C0/180Left:23.8 Right:23.8
:C90/270Left:23.8 Right:23.8

Beam Angle(50%Imax):C0/180Left:12.6 Right:12.6
:C90/270Left:12.6 Right:12.6



(10%Imax) 845.061	—
(20%Imax) 1690.12	—
(30%Imax) 2535.18	—
(40%Imax) 3380.24	—
(50%Imax) 4225.3	—
(60%Imax) 5070.36	—
(70%Imax) 5915.42	—
(80%Imax) 6760.49	—
(90%Imax) 7605.55	—



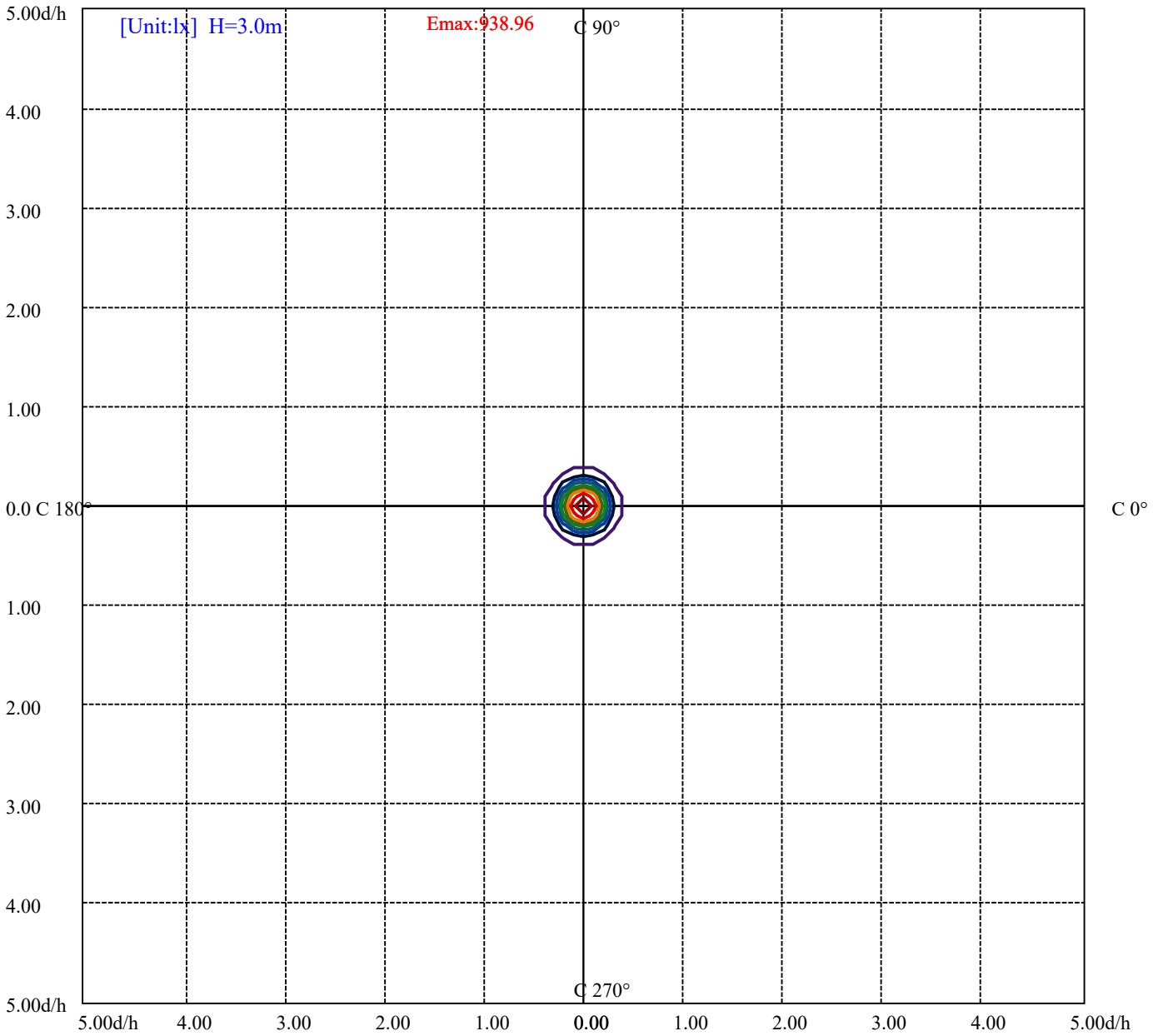
House

[Unit:cd]

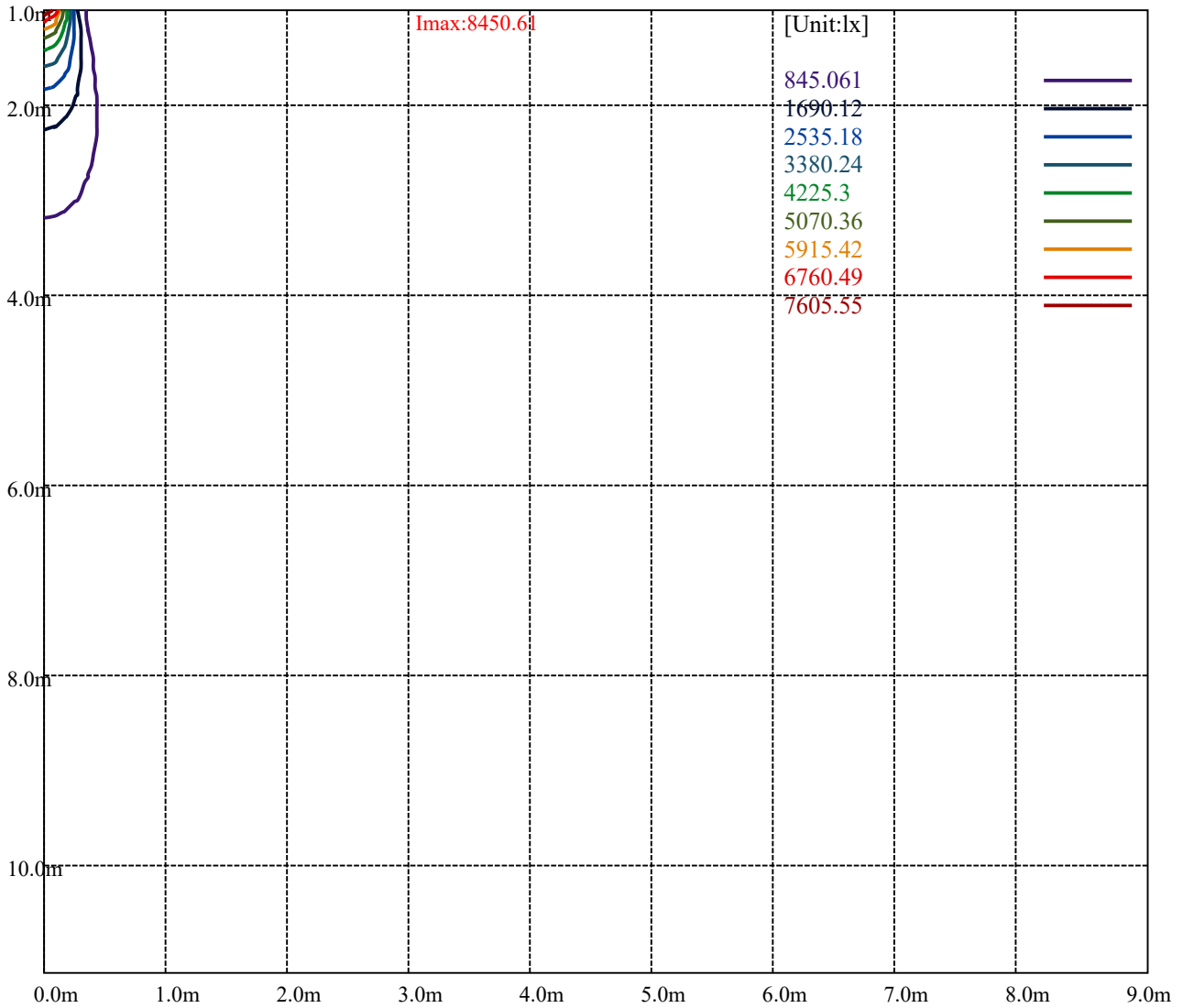
Road

Imax:8450.61

(10%Imax)	845.061	—
(20%Imax)	1690.12	—
(30%Imax)	2535.18	—
(40%Imax)	3380.24	—
(50%Imax)	4225.3	—
(60%Imax)	5070.36	—
(70%Imax)	5915.42	—
(80%Imax)	6760.49	—
(90%Imax)	7605.55	—



(10%Emax) 93.89555	—
(20%Emax) 187.7911	—
(30%Emax) 281.6866	—
(40%Emax) 375.5822	—
(50%Emax) 469.4778	—
(60%Emax) 563.3733	—
(70%Emax) 657.2689	—
(80%Emax) 751.1644	—
(90%Emax) 845.06	—



Luminance Table

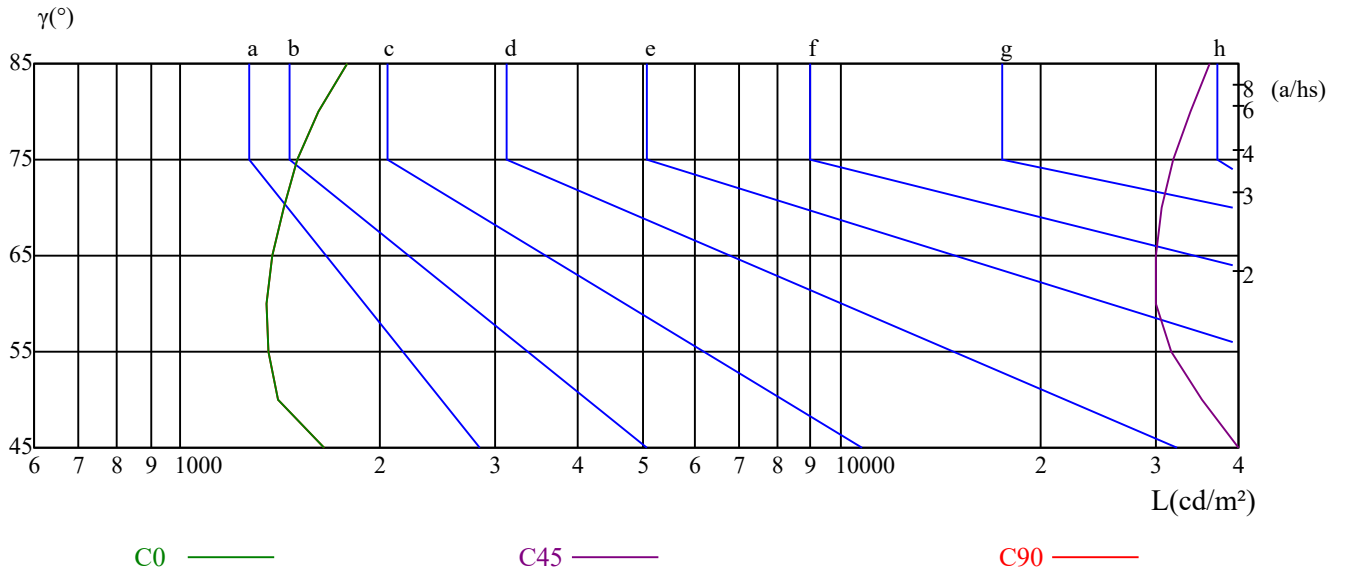
γ	45	50	55	60	65	70	75	80	85
C0	1652	1408	1362	1354	1379	1429	1507	1622	1783
C45	52402	35188	31592	30016	29890	30642	31910	33769	36227
C90	1652	1408	1362	1354	1379	1429	1507	1622	1783

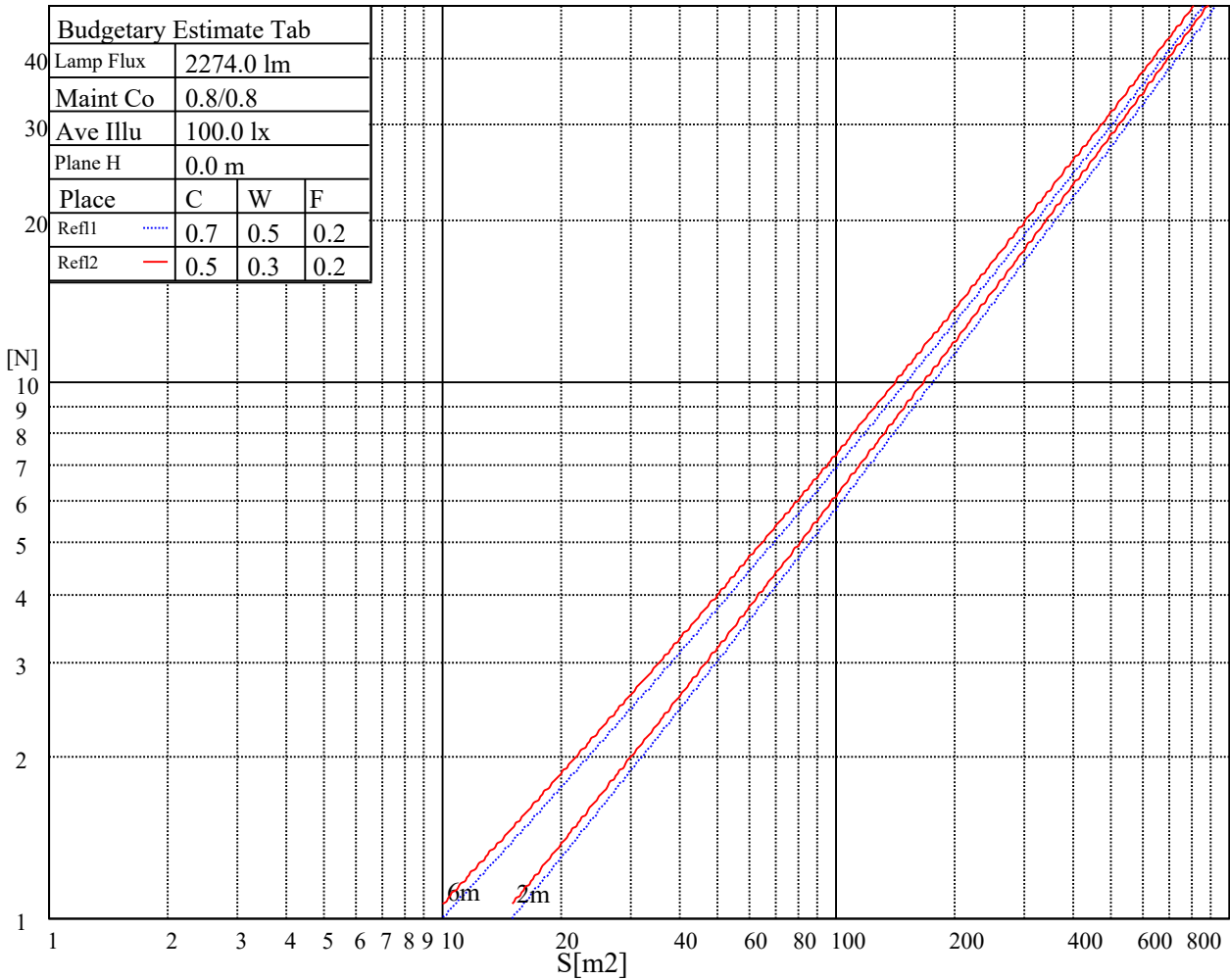
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3314	3314	89162	5183	5183	142029	15107	15107	419109

Glare Table

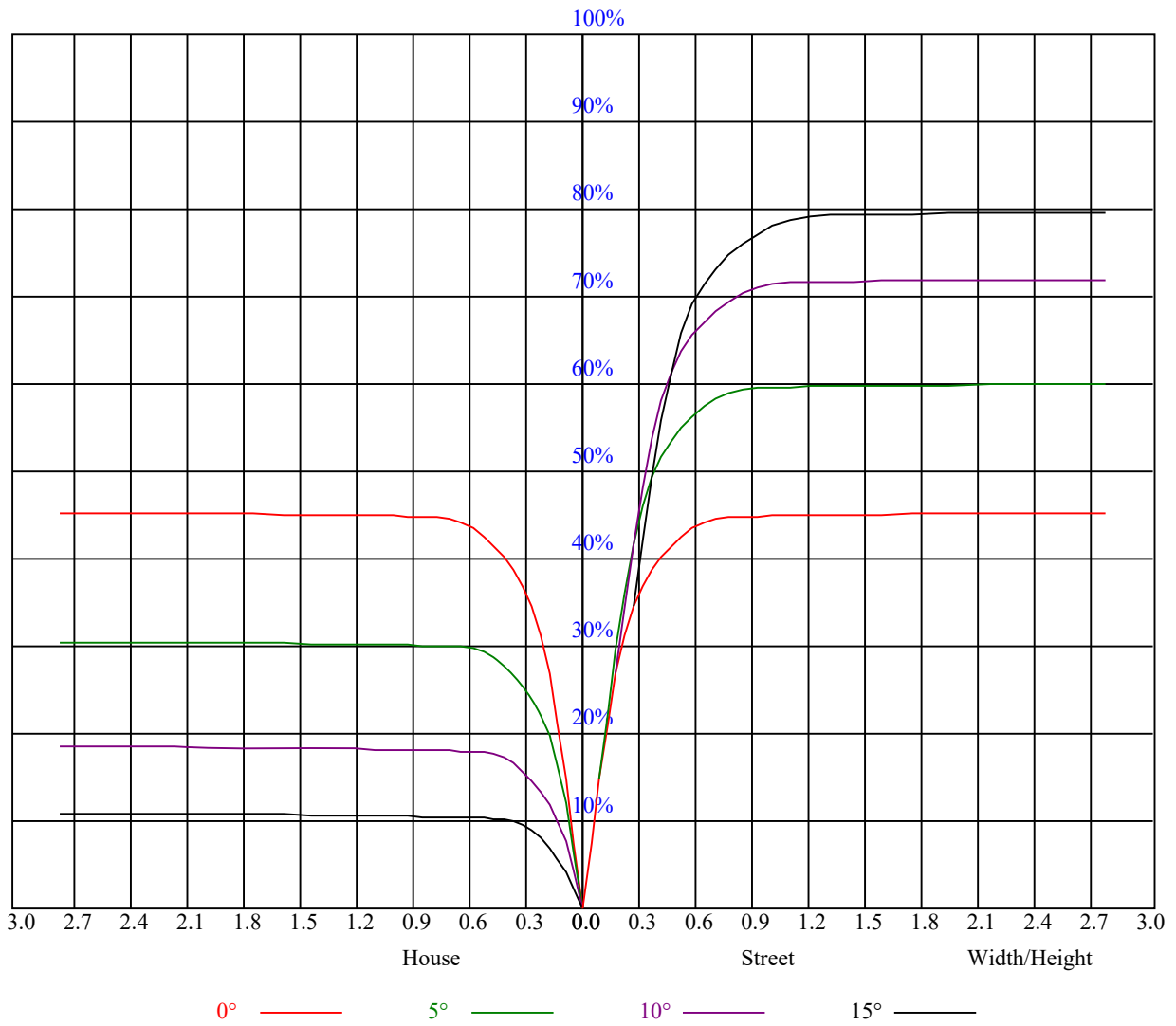
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	1.00	0.99	1.00	0.99	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.89	0.87
2	0.97	0.94	0.91	0.95	0.93	0.90	0.92	0.90	0.88	0.90	0.88	0.87	0.87	0.86	0.85	0.83
3	0.92	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.83	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.84	0.81	0.85	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
5	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
6	0.81	0.77	0.74	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.77	0.75	0.73	0.72
7	0.78	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
8	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.68	0.67
9	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.65
10	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63



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	8434.09	8397.75	8308.56	8178.08	7987.03	7730.47	7437.02	7009.78	6581.99
90.0	8467.12	8404.91	8270.57	8079.53	7870.31	7581.82	7216.79	6791.21	6339.74
180.0	8434.09	8414.82	8350.40	8207.81	8029.98	7810.30	7515.75	7146.32	6763.13
270.0	8467.12	8493.55	8457.76	8364.17	8192.94	7993.64	7747.54	7391.32	7052.72
360.0	8434.09	8397.75	8308.56	8178.08	7987.03	7730.47	7437.02	7009.78	6581.99
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6063.91	5528.76	5020.04	4468.38	3750.44	3168.50	2620.68	2029.93	1659.40
90.0	5768.81	5283.21	4761.83	4139.69	3503.79	2953.78	2388.35	1914.31	1580.12
180.0	6295.70	5786.98	5319.00	4682.55	4211.81	3586.92	2958.18	2448.91	2009.01
270.0	6639.25	6105.75	5632.27	5124.65	4514.07	3883.68	3312.19	2685.10	2188.49
360.0	6063.91	5528.76	5020.04	4468.38	3750.44	3168.50	2620.68	2029.93	1659.40
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1378.06	1157.84	1022.40	953.03	899.62	862.18	826.40	796.67	774.64
90.0	1299.88	1131.41	1011.39	938.71	893.57	857.23	819.24	793.36	772.44
180.0	1568.01	1308.14	1091.44	998.39	924.12	879.75	844.68	811.09	790.17
270.0	1740.88	1401.74	1084.17	1043.59	946.64	900.06	859.65	820.73	795.68
360.0	1378.06	1157.84	1022.40	953.03	899.62	862.18	826.40	796.67	774.64
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	753.72	736.65	722.89	692.06	616.08	542.31	454.77	355.11	278.03
90.0	751.52	737.21	722.34	666.73	597.36	512.58	406.87	307.77	280.79
180.0	772.06	754.16	736.93	722.78	674.00	597.80	523.48	423.60	332.27
270.0	774.53	756.97	735.99	724.10	705.66	639.26	567.58	477.23	369.21
360.0	753.72	736.65	722.89	692.06	616.08	542.31	454.77	355.11	278.03
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	171.17	92.44	35.29	22.13	19.32	17.12	15.09	13.60	12.66
90.0	136.43	62.76	25.88	22.02	18.72	16.41	14.48	12.72	11.73
180.0	233.27	148.27	82.64	31.55	20.48	18.22	16.19	14.04	12.77
270.0	262.07	173.98	96.40	41.13	23.34	20.37	17.89	15.42	13.49
360.0	171.17	92.44	35.29	22.13	19.32	17.12	15.09	13.60	12.66
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	11.73	11.18	10.35	10.13	9.91	9.74	9.58	9.52	9.30
90.0	11.18	10.46	10.30	10.08	9.86	9.69	9.58	9.47	9.36
180.0	11.89	10.90	10.41	10.19	10.02	9.80	9.69	9.47	9.36
270.0	12.22	11.18	10.63	10.35	10.13	9.97	9.80	9.63	9.52
360.0	11.73	11.18	10.35	10.13	9.91	9.74	9.58	9.52	9.30
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	9.25	9.14	9.08	9.03	8.92	8.81	8.75	8.70	8.64
90.0	9.30	9.14	9.03	8.92	8.86	8.81	8.75	8.64	8.59
180.0	9.25	9.19	9.08	8.97	8.92	8.81	8.75	8.70	8.59
270.0	9.41	9.30	9.19	9.08	9.03	8.92	8.86	8.81	8.64
360.0	9.25	9.14	9.08	9.03	8.92	8.81	8.75	8.70	8.64
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	8.59	8.53	8.53	8.42	8.42	8.37	8.37	8.31	8.26
90.0	8.59	8.53	8.53	8.48	8.48	8.37	8.31	8.31	8.31
180.0	8.59	8.53	8.48	8.48	8.42	8.37	8.31	8.31	8.31
270.0	8.59	8.59	8.53	8.48	8.48	8.42	8.31	8.31	8.31
360.0	8.59	8.53	8.53	8.42	8.42	8.37	8.37	8.31	8.26

Nata 3-1939-M

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	8.26	8.20	8.20	8.15	8.15	8.15	8.09	8.09	8.04
90.0	8.20	8.20	8.20	8.20	8.15	8.15	8.09	8.09	8.09
180.0	8.26	8.20	8.15	8.15	8.15	8.09	8.09	8.09	8.04
270.0	8.26	8.26	8.20	8.15	8.15	8.15	8.15	8.09	8.09
360.0	8.26	8.20	8.20	8.15	8.15	8.15	8.09	8.09	8.04
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.04	8.04	8.04	8.04	7.98	7.98	7.98	7.98	7.98
90.0	8.09	8.04	8.04	8.04	8.04	7.98	7.98	7.98	7.98
180.0	8.04	8.04	8.04	7.98	7.98	7.98	7.98	7.98	7.98
270.0	8.04	8.09	8.04	8.09	8.04	8.04	8.09	7.98	8.04
360.0	8.04	8.04	8.04	8.04	7.98	7.98	7.98	7.98	7.98
C/γ(°)	90.0								
0.0	7.98								
90.0	8.04								
180.0	7.98								
270.0	7.98								
360.0	7.98								