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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: LN01D3524EE
Luminaire: 92.70.308.00
Report No: 210514-B004
Test No: 210514-C004
LampCAT: Bridgelux V4HD LES5.2
Lamp flux(lm): 668.0
Number of Lamps: 1
Length(mm): 74
Phm Type: C

Voltage(V): 220.7000
Current(A): 0.0770
Power (W): 8.6000
PF: 0.5040
Ballast type: DC
Width(mm): 74
Height(mm): 56

Photometric Results

Lumens(lm): 456.78
Efficiency(%): 68.38%
Lumens(lm)/Power(W): 53.11
Central intensity(cd): 1569.656
Maximum intensity(cd): 1569.656
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=25.4
[C90/270]Total=25.4
Field angle(10%Imax): [C0/180]Total=49.5
[C90/270]Total=49.5
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.43 C90_270=0.43
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 68.38%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 93.962%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1569.656	0.000	0	.000%	.000%
1.0	1563.750	1.499	1.499	.224%	.328%
2.0	1546.102	4.464	5.963	.668%	1.305%
3.0	1514.602	7.320	13.283	1.096%	2.908%
4.0	1473.328	10.002	23.285	1.497%	5.098%
5.0	1422.281	12.457	35.741	1.865%	7.825%
6.0	1355.977	14.600	50.342	2.186%	11.021%
7.0	1270.315	16.301	66.643	2.440%	14.590%
8.0	1207.526	17.733	84.377	2.655%	18.472%
9.0	1116.879	18.838	103.215	2.820%	22.596%
10.0	1025.346	19.386	122.601	2.902%	26.840%
11.0	939.375	19.632	142.233	2.939%	31.138%
12.0	849.136	19.551	161.784	2.927%	35.418%
13.0	757.554	19.067	180.851	2.854%	39.593%
14.0	673.052	18.312	199.163	2.741%	43.602%
15.0	595.934	17.421	216.584	2.608%	47.416%
16.0	522.717	16.391	232.975	2.454%	51.004%
17.0	453.691	15.205	248.18	2.276%	54.333%
18.0	394.228	13.980	262.161	2.093%	57.393%
19.0	344.700	12.856	275.017	1.925%	60.208%
20.0	300.157	11.803	286.819	1.767%	62.792%
21.0	263.306	10.820	297.639	1.620%	65.160%
22.0	225.267	9.818	307.457	1.470%	67.310%
23.0	201.248	8.949	316.406	1.340%	69.269%
24.0	172.814	8.178	324.585	1.224%	71.060%
25.0	152.198	7.390	331.975	1.106%	72.677%
26.0	135.471	6.790	338.765	1.017%	74.164%
27.0	120.614	6.265	345.031	.938%	75.536%
28.0	106.959	5.762	350.792	.863%	76.797%
29.0	95.801	5.305	356.097	.794%	77.958%
30.0	86.548	4.923	361.02	.737%	79.036%
31.0	77.948	4.578	365.598	.685%	80.038%
32.0	70.502	4.253	369.851	.637%	80.969%
33.0	64.399	3.974	373.825	.595%	81.840%
34.0	58.634	3.723	377.549	.557%	82.655%
35.0	53.550	3.484	381.033	.522%	83.417%
36.0	49.254	3.273	384.306	.490%	84.134%
37.0	45.345	3.085	387.391	.462%	84.809%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	41.892	2.912	390.303	.436%	85.447%
39.0	38.602	2.747	393.051	.411%	86.048%
40.0	35.705	2.592	395.642	.388%	86.616%
41.0	33.223	2.454	398.097	.367%	87.153%
42.0	30.923	2.331	400.427	.349%	87.663%
43.0	28.786	2.212	402.639	.331%	88.148%
44.0	27.007	2.106	404.745	.315%	88.609%
45.0	25.411	2.014	406.759	.302%	89.050%
46.0	23.801	1.925	408.684	.288%	89.471%
47.0	22.500	1.842	410.525	.276%	89.874%
48.0	21.340	1.772	412.297	.265%	90.262%
49.0	20.166	1.704	414.002	.255%	90.635%
50.0	19.125	1.638	415.64	.245%	90.994%
51.0	18.232	1.581	417.221	.237%	91.340%
52.0	17.241	1.522	418.743	.228%	91.673%
53.0	16.320	1.460	420.203	.219%	91.993%
54.0	15.623	1.408	421.61	.211%	92.301%
55.0	14.948	1.365	422.975	.204%	92.600%
56.0	14.295	1.321	424.297	.198%	92.889%
57.0	13.711	1.280	425.577	.192%	93.169%
58.0	13.155	1.242	426.819	.186%	93.441%
59.0	12.642	1.206	428.026	.181%	93.705%
60.0	12.150	1.171	429.197	.175%	93.962%
61.0	11.637	1.135	430.332	.170%	94.210%
62.0	11.222	1.101	431.433	.165%	94.451%
63.0	10.884	1.075	432.509	.161%	94.687%
64.0	10.491	1.049	433.557	.157%	94.916%
65.0	10.153	1.022	434.579	.153%	95.140%
66.0	9.914	1.001	435.58	.150%	95.359%
67.0	9.914	0.997	436.577	.149%	95.577%
68.0	10.188	1.018	437.596	.152%	95.800%
69.0	10.343	1.047	438.643	.157%	96.030%
70.0	10.575	1.074	439.717	.161%	96.265%
71.0	10.983	1.114	440.832	.167%	96.509%
72.0	11.552	1.172	442.003	.175%	96.765%
73.0	11.995	1.231	443.235	.184%	97.035%
74.0	12.213	1.273	444.507	.191%	97.314%
75.0	12.108	1.285	445.792	.192%	97.595%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	11.834	1.271	447.063	.190%	97.873%
77.0	11.454	1.242	448.305	.186%	98.145%
78.0	10.884	1.196	449.501	.179%	98.407%
79.0	9.970	1.121	450.621	.168%	98.652%
80.0	9.077	1.027	451.648	.154%	98.877%
81.0	8.002	0.924	452.572	.138%	99.079%
82.0	6.863	0.806	453.378	.121%	99.256%
83.0	6.061	0.703	454.08	.105%	99.409%
84.0	5.351	0.622	454.702	.093%	99.545%
85.0	4.310	0.527	455.229	.079%	99.661%
86.0	3.248	0.413	455.642	.062%	99.751%
87.0	2.813	0.332	455.974	.050%	99.824%
88.0	2.538	0.293	456.267	.044%	99.888%
89.0	2.306	0.266	456.533	.040%	99.946%
90.0	2.173	0.246	456.778	.037%	100.000%

Zonal flux distribution table

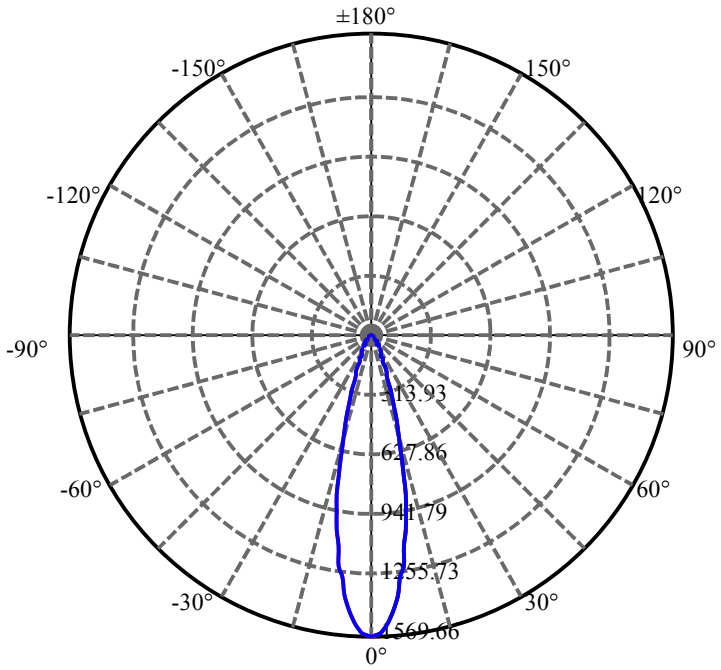
ZONAL LUMEN SUMMARY

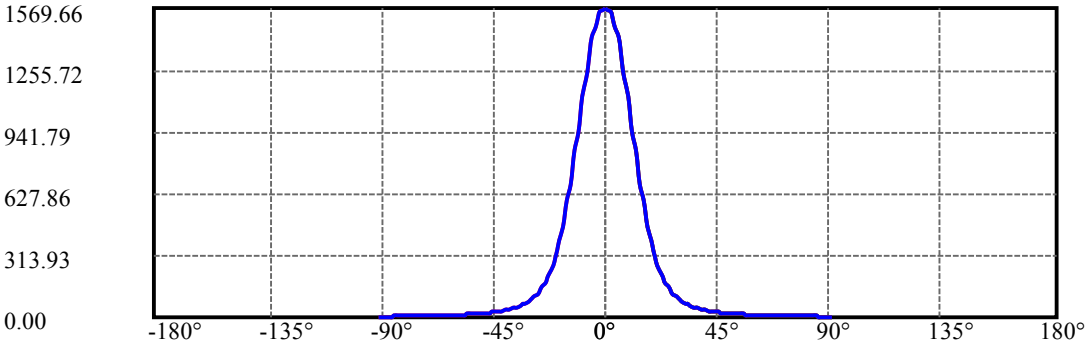
Zone	Lumens	%Lamp	%Fixt
0-30	361.02	54.04%	79.04%
0-40	395.64	59.23%	86.62%
0-60	429.20	64.25%	93.96%
0-90	456.53	68.34%	99.95%
0-120	456.53	68.34%	99.95%
0-180	456.78	68.38%	100.00%
60-90	28.51	4.27%	6.24%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-30.96	365.42	54.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	122.60
10-20	164.22
20-30	74.20
30-40	34.62
40-50	20.00
50-60	13.56
60-70	10.52
70-80	11.93
80-90	4.88
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

Light Distribution Curve [Unit:cd]





C0(Max):

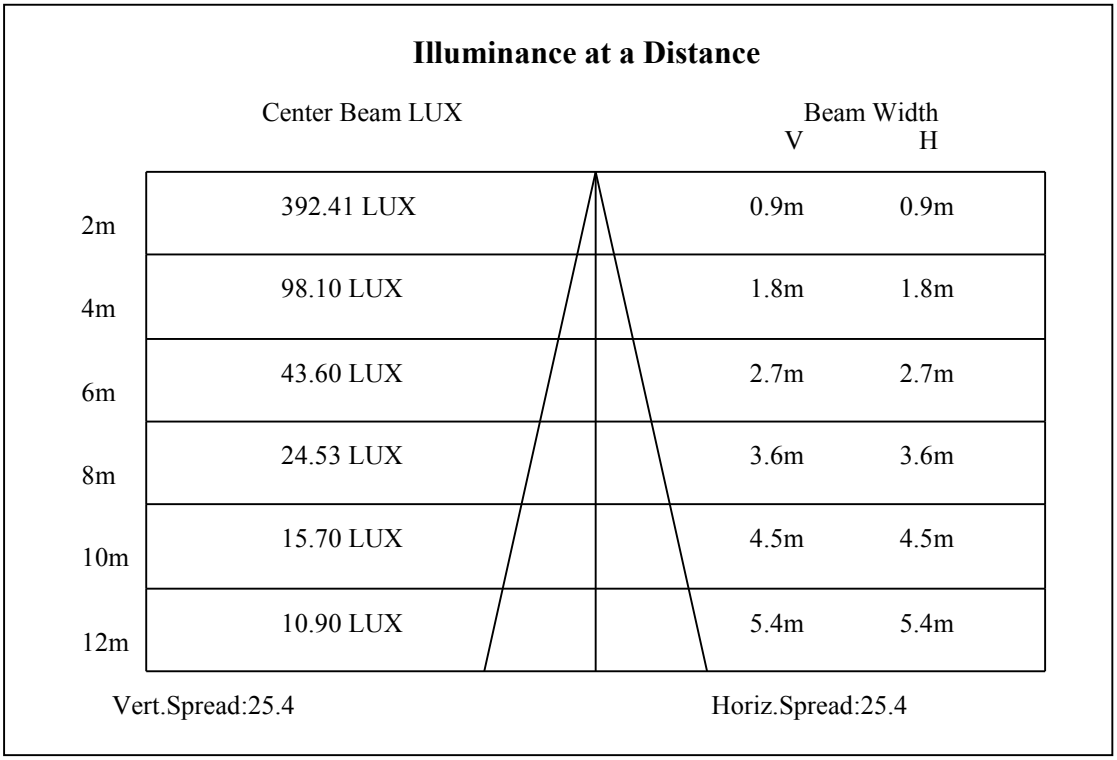
C0/C180:

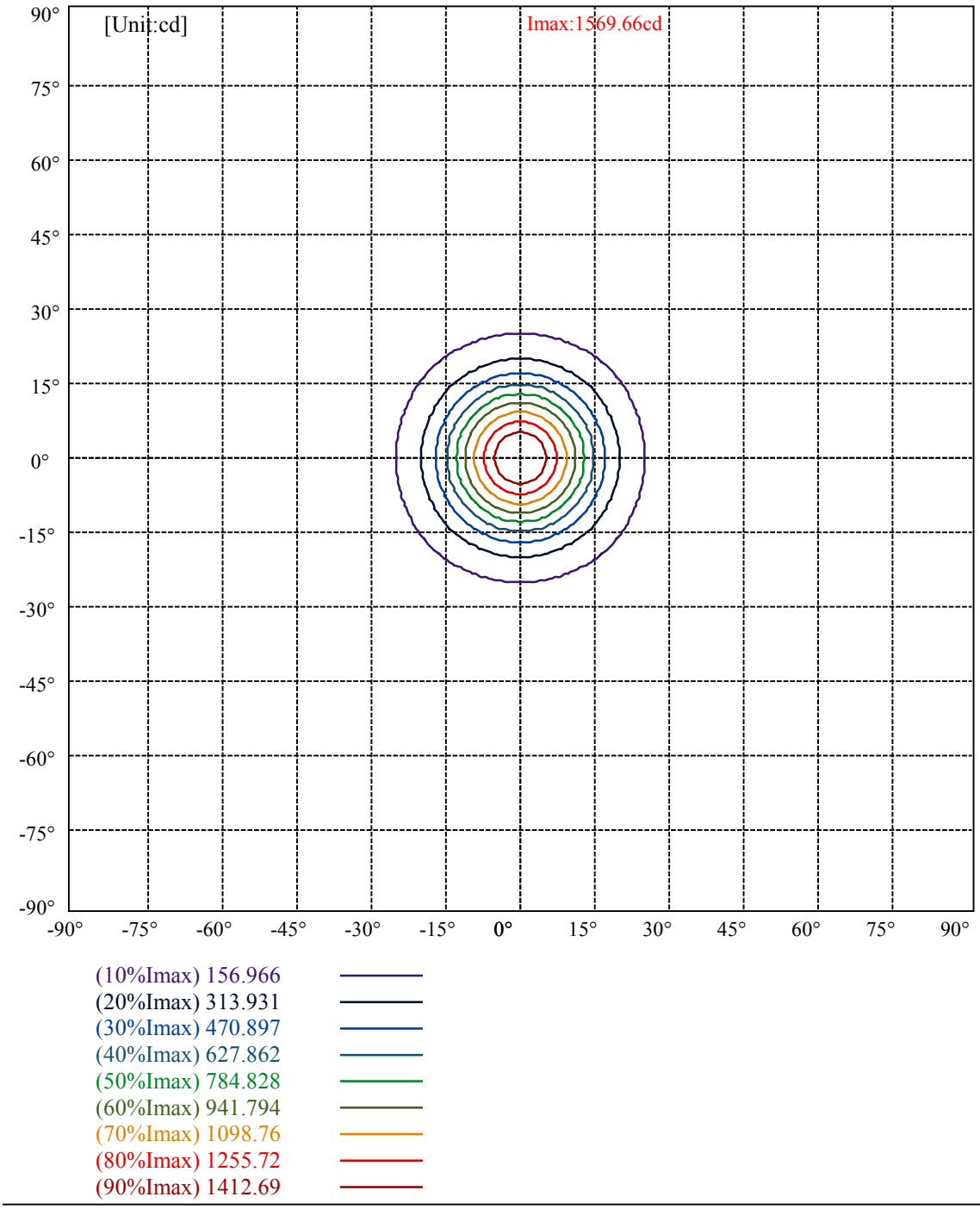
C90/C270:

Field angle(10%Imax):C0/180Left:24.8 Right:24.8
:C90/270Left:24.8 Right:24.8

Beam Angle(50%Imax):C0/180Left:12.7 Right:12.7
:C90/270Left:12.7 Right:12.7

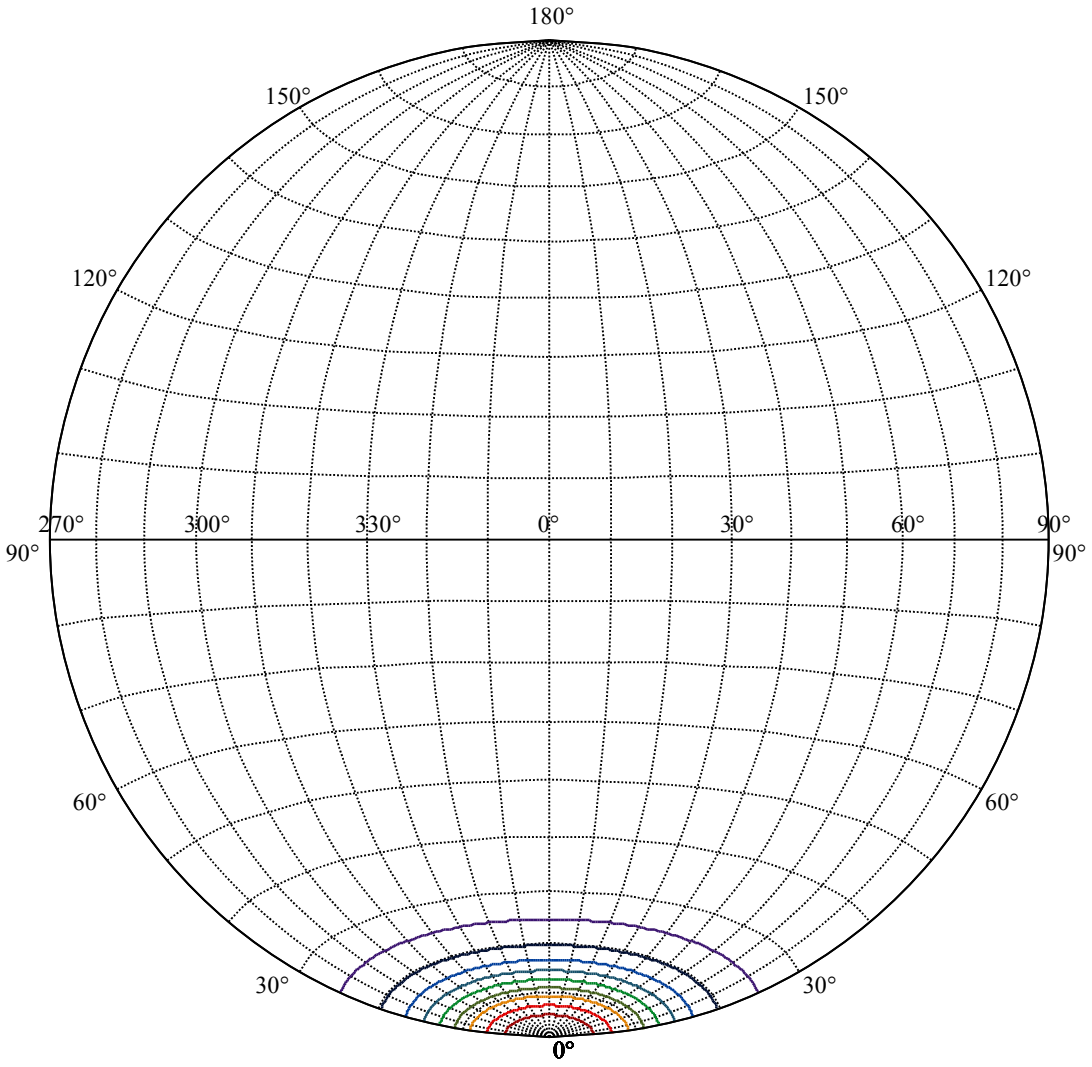
Lux distance Curve





Equipment: GMS1980
Temperature(°C): 25.0
Date: 2021/05/14
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:1569.66

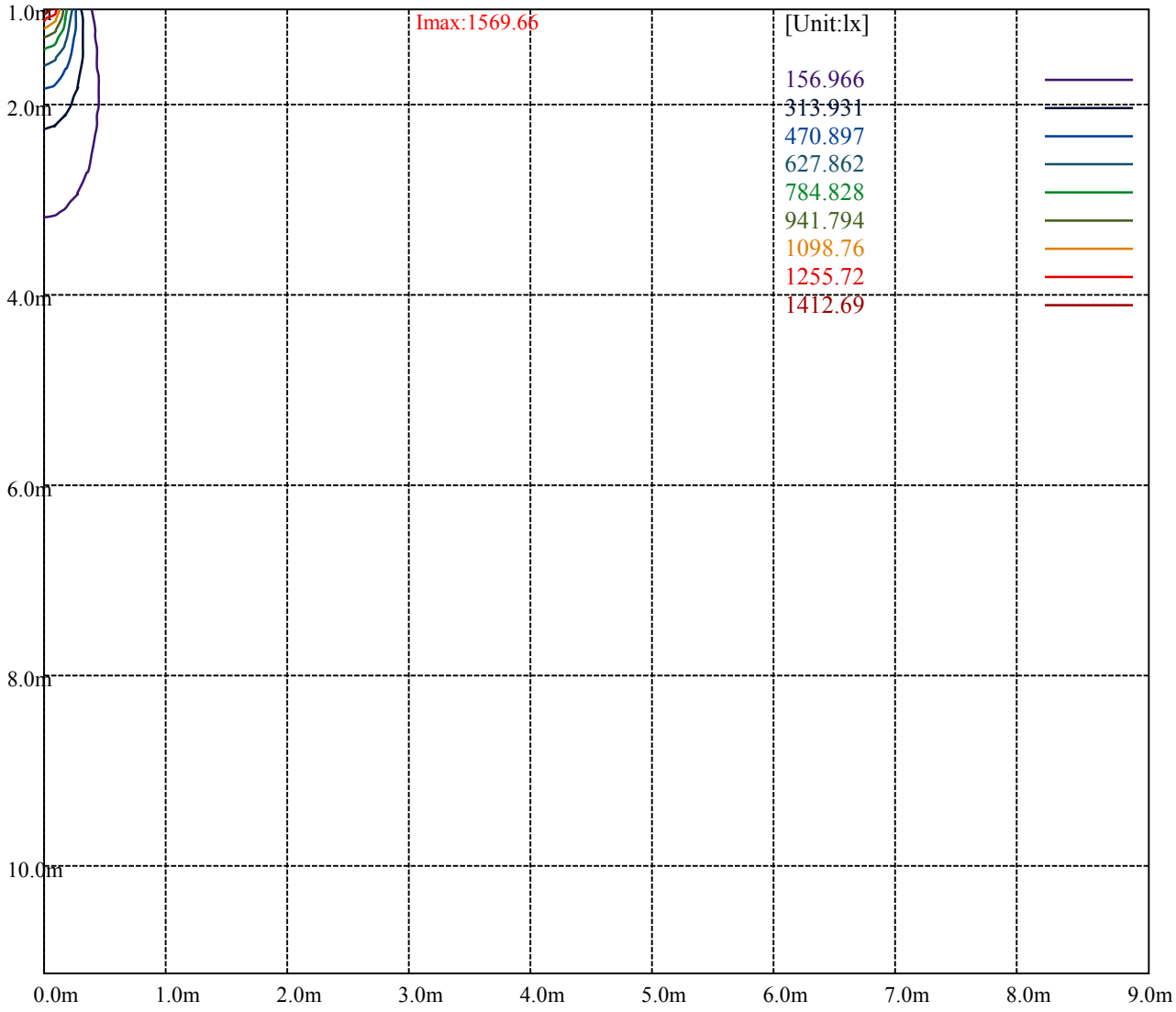
(10%Imax) 156.966
(20%Imax) 313.931
(30%Imax) 470.897
(40%Imax) 627.862
(50%Imax) 784.828
(60%Imax) 941.794
(70%Imax) 1098.76
(80%Imax) 1255.72
(90%Imax) 1412.69

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/05/14
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/05/14
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Nata LN01D3524EE

Luminance Limitting Curve(no luminous side)

Luminance Table

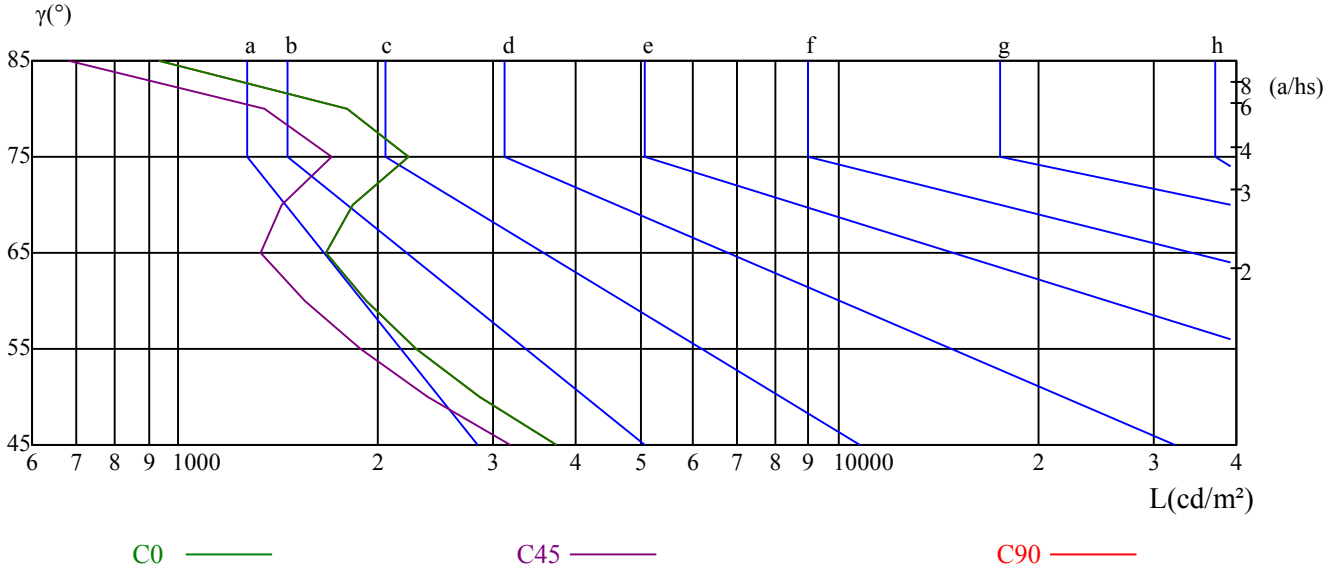
γ	45	50	55	60	65	70	75	80	85
C0	3736	2857	2287	1920	1673	1834	2234	1804	936
C45	3170	2388	1882	1555	1331	1433	1711	1350	682
C90	3736	2857	2287	1920	1673	1834	2234	1804	936

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4387	4387	4387	8543	8543	8543	9031	9031	9031

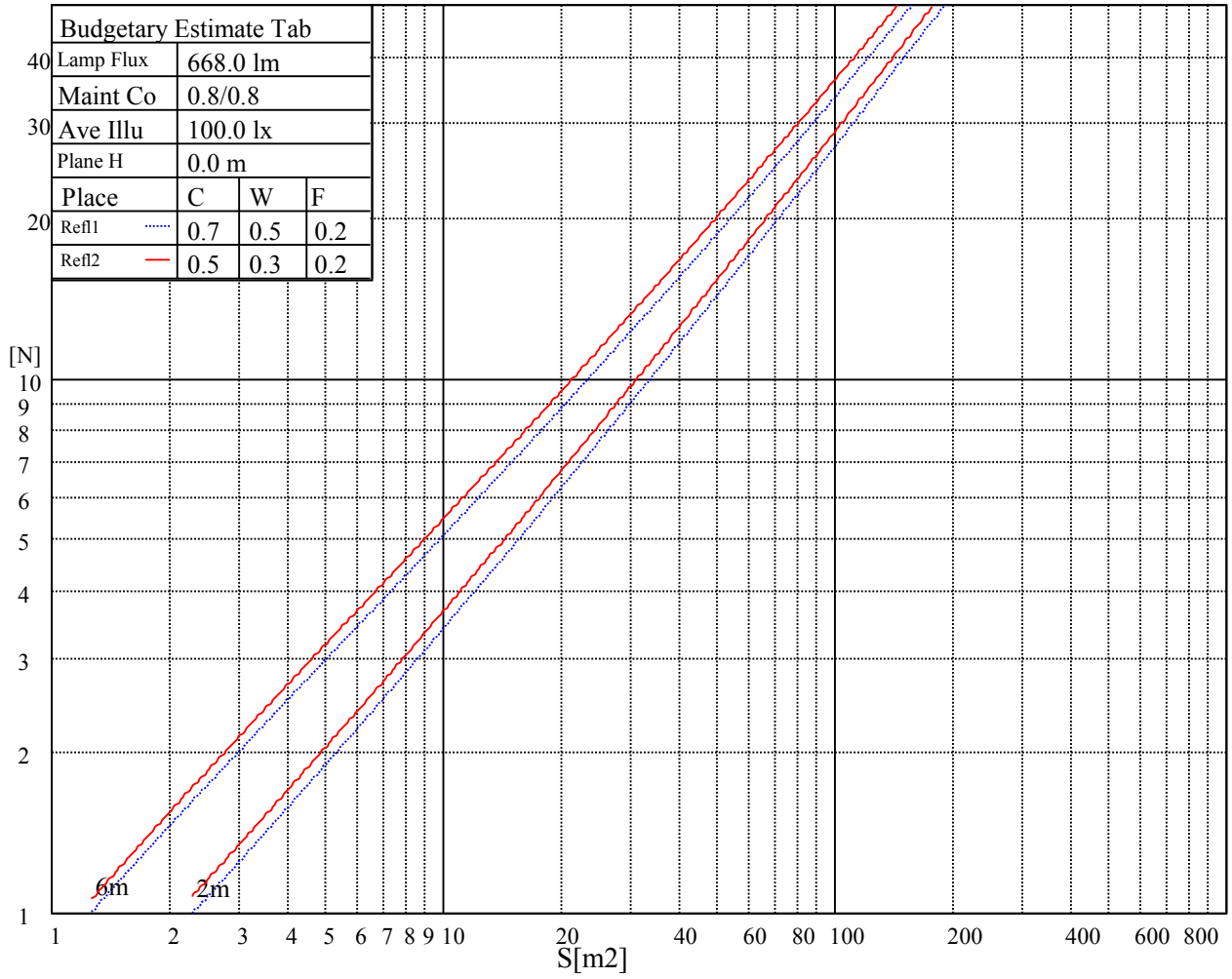
Glare Table

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 Limitting Curve



Budgetary Estimate Table



Equipment: GMS1980
Temperature(°C): 25.0

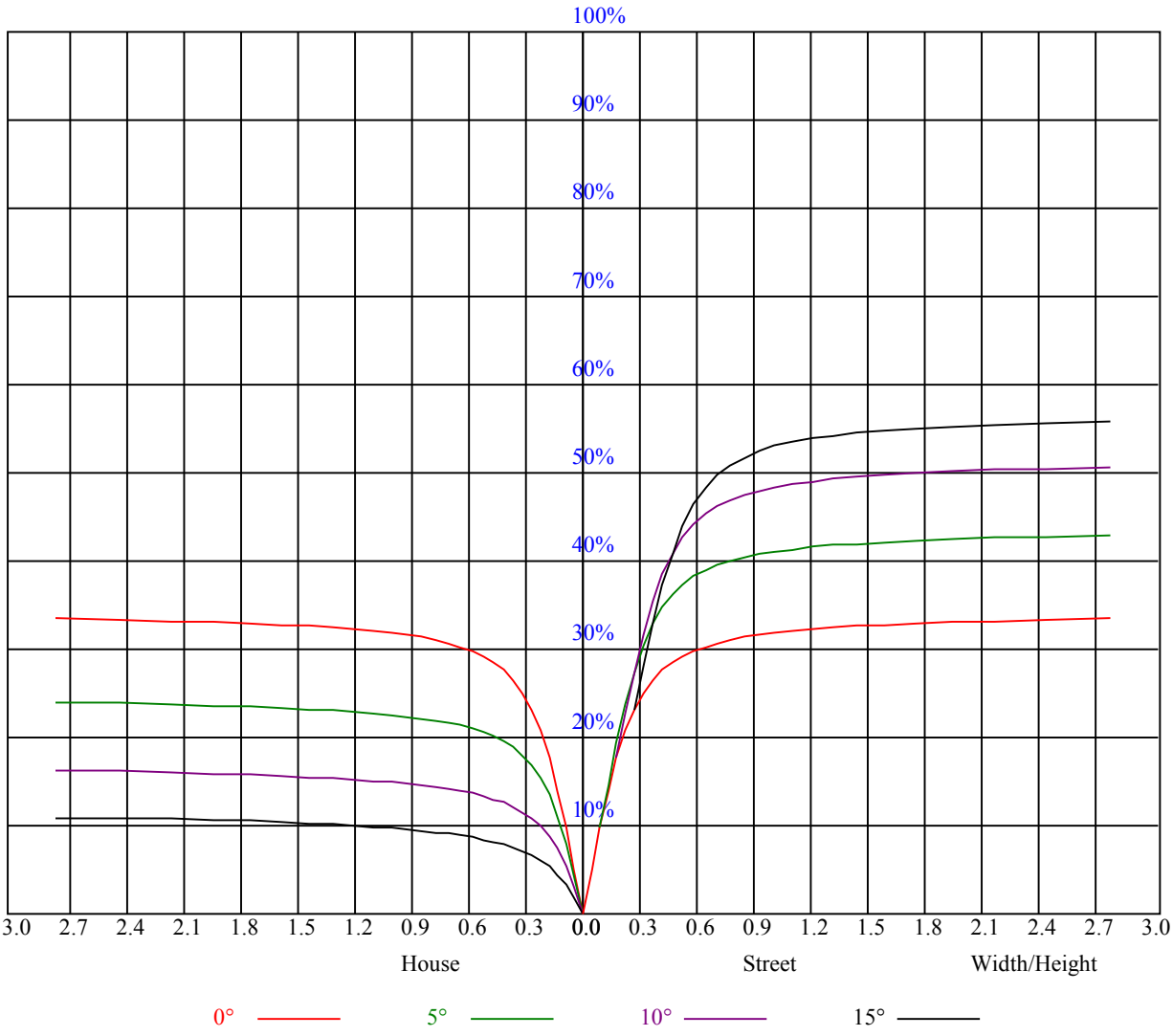
Date: 2021/05/14
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Utilization factor table for indoor luminaire

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	0.81	0.81	0.81	0.80	0.80	0.80	0.76	0.76	0.76	0.73	0.73	0.73	0.70	0.70	0.70	0.68
1	0.75	0.74	0.72	0.74	0.72	0.71	0.71	0.70	0.69	0.69	0.68	0.67	0.66	0.65	0.65	0.63
2	0.70	0.68	0.65	0.69	0.67	0.65	0.67	0.65	0.63	0.65	0.63	0.62	0.63	0.62	0.61	0.59
3	0.66	0.63	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.62	0.60	0.58	0.60	0.59	0.57	0.56
4	0.63	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.59	0.57	0.55	0.58	0.56	0.54	0.53
5	0.60	0.56	0.53	0.59	0.56	0.53	0.58	0.55	0.53	0.57	0.54	0.52	0.56	0.54	0.52	0.51
6	0.57	0.53	0.51	0.56	0.53	0.51	0.55	0.52	0.50	0.55	0.52	0.50	0.54	0.51	0.50	0.49
7	0.55	0.51	0.48	0.54	0.51	0.48	0.53	0.50	0.48	0.53	0.50	0.48	0.52	0.49	0.48	0.47
8	0.52	0.49	0.46	0.52	0.49	0.46	0.51	0.48	0.46	0.51	0.48	0.46	0.50	0.48	0.46	0.45
9	0.50	0.47	0.45	0.50	0.47	0.45	0.50	0.47	0.44	0.49	0.46	0.44	0.48	0.46	0.44	0.43
10	0.49	0.45	0.43	0.48	0.45	0.43	0.48	0.45	0.43	0.47	0.45	0.43	0.47	0.44	0.43	0.42

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2021/05/14	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

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	1557.00	1575.00	1581.19	1574.44	1557.56	1526.63	1479.94	1427.06	1370.81
45.0	1578.38	1569.38	1547.44	1514.81	1476.00	1420.88	1352.81	1285.88	1216.13
90.0	1571.06	1546.31	1515.94	1468.69	1409.63	1350.00	1275.19	1121.18	1111.22
135.0	1572.19	1553.06	1520.44	1469.25	1418.63	1359.00	1276.31	1203.75	1126.69
180.0	1557.00	1528.88	1487.25	1435.50	1376.44	1302.19	1218.38	1114.03	1040.18
225.0	1578.38	1573.88	1557.56	1527.75	1485.00	1433.81	1374.75	1289.81	1209.38
270.0	1571.06	1580.06	1578.94	1561.50	1533.38	1491.75	1426.50	1361.25	1289.25
315.0	1572.19	1583.44	1580.06	1564.88	1530.00	1494.00	1443.94	1359.56	1296.56
360.0	1557.00	1575.00	1581.19	1574.44	1557.56	1526.63	1479.94	1427.06	1370.81

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1286.44	1209.94	1130.63	1035.00	936.00	849.38	753.75	672.75	586.69
45.0	1118.81	1035.56	950.06	855.56	763.88	685.13	612.00	525.94	463.50
90.0	1031.40	918.84	847.58	767.59	682.14	601.09	534.32	464.51	401.91
135.0	1024.31	941.63	858.94	766.69	679.50	606.94	532.13	463.50	408.38
180.0	954.73	858.83	766.46	687.66	604.07	527.74	465.92	410.06	347.85
225.0	1112.96	1015.31	927.51	838.29	741.38	652.16	577.97	501.92	432.56
270.0	1188.00	1102.50	1011.94	910.69	810.00	724.50	633.38	559.13	482.06
315.0	1218.38	1120.16	1021.89	931.61	843.47	737.49	658.01	583.93	506.59
360.0	1286.44	1209.94	1130.63	1035.00	936.00	849.38	753.75	672.75	586.69

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	510.75	449.44	383.06	335.25	294.75	285.19	218.93	193.44	171.28
45.0	400.50	351.56	302.63	287.44	224.72	196.93	173.53	151.65	135.73
90.0	352.58	304.26	267.02	231.30	201.43	178.82	157.05	138.15	123.86
135.0	352.69	309.94	285.75	228.88	200.64	176.79	153.84	137.81	123.24
180.0	305.16	268.14	231.98	202.22	180.28	158.51	139.33	124.99	110.93
225.0	379.35	326.87	286.59	247.89	214.54	189.62	167.68	145.07	129.88
270.0	415.13	362.81	312.75	287.44	234.51	206.89	180.34	158.96	141.64
315.0	437.68	384.58	331.48	286.03	251.27	217.24	191.81	167.51	147.21
360.0	510.75	449.44	383.06	335.25	294.75	285.19	218.93	193.44	171.28

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	150.02	131.79	118.07	105.19	94.05	85.28	76.73	70.09	63.51
45.0	120.66	107.21	96.36	87.08	77.91	70.65	65.08	58.28	53.49
90.0	111.60	98.27	88.99	80.94	73.01	66.21	60.86	55.69	50.96
135.0	108.68	98.16	88.37	79.14	71.66	65.70	59.51	53.94	49.73
180.0	100.01	89.04	79.65	72.56	66.38	59.29	54.51	50.18	45.34
225.0	116.61	103.67	92.53	84.04	75.77	68.46	62.78	57.04	52.59
270.0	125.72	109.69	99.06	89.89	79.99	73.13	67.05	60.98	55.74
315.0	131.63	117.84	103.39	93.54	84.83	75.32	68.68	62.89	57.04
360.0	150.02	131.79	118.07	105.19	94.05	85.28	76.73	70.09	63.51

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	57.83	53.33	49.11	44.16	40.78	37.91	34.76	32.46	30.43
45.0	49.39	45.45	41.79	38.87	35.89	33.58	31.22	29.03	27.28
90.0	47.25	43.43	40.44	37.41	34.65	32.34	30.32	28.01	26.44
135.0	45.62	42.41	39.15	36.06	33.64	31.22	28.80	27.06	25.48
180.0	42.02	38.93	35.89	33.19	30.99	28.52	27.06	25.31	23.63
225.0	48.49	44.10	40.95	38.14	34.99	32.74	30.54	28.41	26.66
270.0	51.47	47.14	43.76	40.22	37.18	34.71	32.29	29.98	28.13
315.0	51.98	47.98	44.04	40.78	37.52	34.76	32.40	30.04	28.01
360.0	57.83	53.33	49.11	44.16	40.78	37.91	34.76	32.46	30.43

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	28.41	26.66	25.20	23.68	22.50	21.26	20.08	18.68	17.49
45.0	25.54	23.96	22.61	21.43	20.14	19.13	18.28	17.33	16.43
90.0	25.03	23.34	22.22	21.15	20.08	18.96	17.89	17.10	16.31
135.0	23.85	22.61	21.49	20.31	19.13	18.23	17.38	16.37	15.58
180.0	22.28	20.93	19.69	18.79	17.83	16.88	16.09	15.47	14.68
225.0	25.09	23.34	22.11	20.93	19.63	18.73	17.83	16.88	16.20
270.0	26.72	24.69	23.46	22.39	21.04	20.03	19.46	18.11	16.93
315.0	26.38	24.86	23.23	22.05	20.98	19.80	18.84	18.00	16.93
360.0	28.41	26.66	25.20	23.68	22.50	21.26	20.08	18.68	17.49

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	16.65	15.92	15.19	14.40	13.84	13.33	12.71	12.26	11.81
45.0	15.75	15.02	14.23	13.67	13.11	12.60	12.09	11.53	11.08
90.0	15.58	15.02	14.40	13.84	13.39	12.88	12.38	11.87	11.42
135.0	14.91	14.29	13.61	13.11	12.60	12.15	11.64	11.19	10.86
180.0	14.23	13.78	13.22	12.71	12.21	11.59	11.25	10.80	10.41
225.0	15.41	14.57	14.01	13.44	12.71	12.32	11.81	11.25	10.91
270.0	16.37	15.64	15.08	14.51	14.01	13.44	12.94	12.32	11.87
315.0	16.09	15.36	14.63	14.01	13.39	12.83	12.38	11.87	11.42
360.0	16.65	15.92	15.19	14.40	13.84	13.33	12.71	12.26	11.81

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.42	11.03	10.74	10.35	10.13	9.90	9.79	10.24	12.32
45.0	10.69	10.29	9.96	9.62	9.23	8.94	8.66	8.33	8.04
90.0	11.03	10.63	10.24	9.90	9.62	9.28	9.00	8.66	8.38
135.0	10.52	10.13	9.79	9.51	9.11	8.78	8.61	8.44	7.99
180.0	10.24	9.90	9.73	10.13	12.38	16.65	19.63	22.84	25.93
225.0	10.58	10.18	9.79	9.51	9.17	8.94	8.72	8.38	8.04
270.0	11.59	11.08	10.69	10.29	9.96	9.62	9.28	8.94	8.66
315.0	11.03	10.69	10.29	10.01	9.73	9.39	9.06	8.78	8.49
360.0	11.42	11.03	10.74	10.35	10.13	9.90	9.79	10.24	12.32

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	15.19	18.28	21.32	24.47	27.17	29.42	29.81	27.96	25.82
45.0	7.76	7.48	7.26	6.92	6.58	6.24	5.91	5.51	5.23
90.0	8.10	7.82	7.48	7.14	6.75	6.30	5.91	5.51	5.18
135.0	7.76	7.37	6.92	6.58	6.24	5.91	5.57	5.18	4.84
180.0	29.31	31.67	32.29	30.09	27.34	24.13	21.32	18.17	15.30
225.0	7.76	7.43	7.14	6.86	6.53	6.19	5.85	5.51	5.12
270.0	8.38	8.04	7.76	7.54	7.20	6.86	6.47	6.02	5.63
315.0	8.16	7.88	7.54	7.26	6.86	6.58	6.24	5.91	5.51
360.0	15.19	18.28	21.32	24.47	27.17	29.42	29.81	27.96	25.82

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	23.46	21.21	18.84	15.86	10.74	4.84	3.54	3.04	2.76
45.0	4.84	4.56	4.22	3.94	3.60	3.21	2.93	2.64	2.36
90.0	4.84	4.56	4.22	3.88	3.43	3.09	2.81	2.48	2.19
135.0	4.50	4.22	3.94	3.54	3.09	2.64	2.42	2.14	2.03
180.0	11.19	6.13	4.16	3.49	2.70	2.36	2.08	1.91	1.91
225.0	4.84	4.50	4.16	3.83	3.54	3.21	2.87	2.64	2.31
270.0	5.23	4.89	4.50	4.11	3.54	3.21	2.87	2.70	2.48
315.0	5.12	4.84	4.44	4.16	3.83	3.43	2.98	2.76	2.42
360.0	23.46	21.21	18.84	15.86	10.74	4.84	3.54	3.04	2.76

Intensity data(cd)

C/γ(°)	90.0
0.0	2.42
45.0	2.14
90.0	2.14
135.0	1.97
180.0	1.97
225.0	2.19
270.0	2.31
315.0	2.25
360.0	2.42