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Nata

LumCAT: LN01D02817DA-N
Luminaire: 92.70.307.00

Report No: 211111-B008	Voltage(V): 35.6300
Test No: 211111-C008	Current(A): 0.2510
LampCAT: LUMINUS CXM-6-AC40 LES6.3	Power (W): 9.1940
Lamp flux(lm): 895.7	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 111	Width(mm): 111
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 569.11
Efficiency(%): 63.54%
Lumens(lm)/Power(W): 61.90
Central intensity(cd): 1815.442
Maximum intensity(cd): 1815.442
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=25.6
[C90/270]Total=25.6
Field angle(10%Imax): [C0/180]Total=53.5
[C90/270]Total=53.5
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.45 C90_270=0.45
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 63.54%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.982%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1815.442	0.000	0	.000%	.000%
1.0	1808.870	1.734	1.734	.194%	.305%
2.0	1782.877	5.155	6.889	.576%	1.211%
3.0	1743.440	8.434	15.323	.942%	2.692%
4.0	1694.443	11.508	26.831	1.285%	4.715%
5.0	1624.831	14.279	41.11	1.594%	7.224%
6.0	1545.882	16.663	57.773	1.860%	10.151%
7.0	1462.452	18.673	76.446	2.085%	13.432%
8.0	1356.876	20.177	96.623	2.253%	16.978%
9.0	1269.801	21.288	117.911	2.377%	20.718%
10.0	1164.397	22.029	139.94	2.460%	24.589%
11.0	1073.416	22.360	162.3	2.497%	28.518%
12.0	980.754	22.455	184.755	2.507%	32.464%
13.0	888.765	22.186	206.941	2.477%	36.362%
14.0	796.783	21.575	228.516	2.409%	40.153%
15.0	719.544	20.817	249.333	2.324%	43.811%
16.0	647.580	20.032	269.365	2.237%	47.331%
17.0	574.083	19.025	288.39	2.124%	50.674%
18.0	511.896	17.905	306.295	1.999%	53.820%
19.0	460.471	16.917	323.213	1.889%	56.792%
20.0	405.117	15.843	339.055	1.769%	59.576%
21.0	359.436	14.681	353.736	1.639%	62.156%
22.0	322.300	13.700	367.436	1.530%	64.563%
23.0	284.409	12.730	380.166	1.421%	66.800%
24.0	256.093	11.817	391.984	1.319%	68.876%
25.0	223.446	10.904	402.887	1.217%	70.792%
26.0	198.551	9.961	412.849	1.112%	72.543%
27.0	176.249	9.170	422.018	1.024%	74.154%
28.0	157.531	8.451	430.469	.944%	75.639%
29.0	140.046	7.785	438.254	.869%	77.007%
30.0	125.757	7.177	445.431	.801%	78.268%
31.0	113.030	6.645	452.076	.742%	79.435%
32.0	100.975	6.131	458.207	.685%	80.513%
33.0	91.594	5.673	463.88	.633%	81.509%
34.0	83.198	5.290	469.17	.591%	82.439%
35.0	75.035	4.914	474.084	.549%	83.302%
36.0	68.350	4.565	478.649	.510%	84.105%
37.0	62.793	4.277	482.927	.478%	84.856%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	57.355	4.010	486.937	.448%	85.561%
39.0	52.329	3.744	490.681	.418%	86.219%
40.0	48.504	3.517	494.197	.393%	86.836%
41.0	44.986	3.329	497.527	.372%	87.421%
42.0	41.663	3.148	500.675	.351%	87.975%
43.0	39.049	2.990	503.664	.334%	88.500%
44.0	36.733	2.860	506.525	.319%	89.003%
45.0	34.455	2.736	509.261	.305%	89.483%
46.0	32.483	2.618	511.878	.292%	89.943%
47.0	30.735	2.514	514.393	.281%	90.385%
48.0	29.152	2.421	516.814	.270%	90.810%
49.0	27.740	2.336	519.15	.261%	91.221%
50.0	26.358	2.256	521.406	.252%	91.617%
51.0	25.149	2.179	523.585	.243%	92.000%
52.0	24.118	2.114	525.699	.236%	92.372%
53.0	23.109	2.054	527.753	.229%	92.733%
54.0	22.101	1.993	529.746	.222%	93.083%
55.0	21.280	1.936	531.682	.216%	93.423%
56.0	20.458	1.886	533.568	.211%	93.754%
57.0	19.562	1.830	535.398	.204%	94.076%
58.0	18.792	1.774	537.172	.198%	94.388%
59.0	18.023	1.721	538.893	.192%	94.690%
60.0	17.119	1.660	540.553	.185%	94.982%
61.0	16.193	1.590	542.143	.177%	95.261%
62.0	15.356	1.520	543.663	.170%	95.528%
63.0	14.512	1.453	545.116	.162%	95.783%
64.0	13.781	1.388	546.504	.155%	96.027%
65.0	13.019	1.326	547.83	.148%	96.260%
66.0	12.249	1.261	549.091	.141%	96.482%
67.0	11.585	1.198	550.289	.134%	96.693%
68.0	10.927	1.140	551.43	.127%	96.893%
69.0	10.263	1.081	552.511	.121%	97.083%
70.0	9.785	1.030	553.54	.115%	97.264%
71.0	9.374	0.990	554.531	.111%	97.438%
72.0	9.277	0.970	555.5	.108%	97.608%
73.0	9.359	0.974	556.475	.109%	97.779%
74.0	9.568	0.995	557.47	.111%	97.954%
75.0	9.777	1.022	558.492	.114%	98.134%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.874	1.043	559.535	.116%	98.317%
77.0	10.061	1.063	560.598	.119%	98.504%
78.0	10.106	1.080	561.678	.121%	98.694%
79.0	10.113	1.086	562.764	.121%	98.884%
80.0	9.613	1.063	563.827	.119%	99.071%
81.0	8.619	0.986	564.813	.110%	99.245%
82.0	7.611	0.880	565.694	.098%	99.399%
83.0	6.565	0.771	566.464	.086%	99.535%
84.0	5.348	0.649	567.113	.072%	99.649%
85.0	3.824	0.501	567.614	.056%	99.737%
86.0	3.018	0.374	567.988	.042%	99.802%
87.0	2.689	0.312	568.3	.035%	99.857%
88.0	2.487	0.284	568.584	.032%	99.907%
89.0	2.368	0.266	568.85	.030%	99.954%
90.0	2.427	0.263	569.113	.029%	100.000%

Zonal flux distribution table

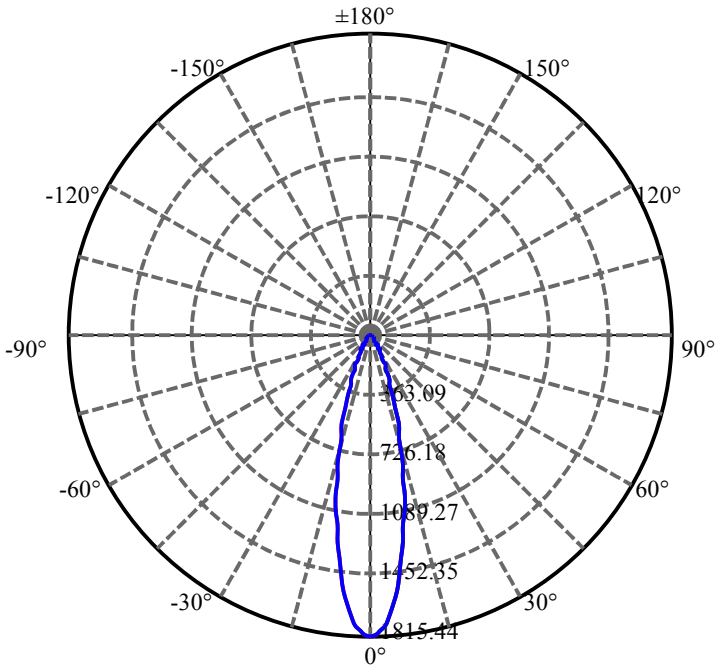
ZONAL LUMEN SUMMARY

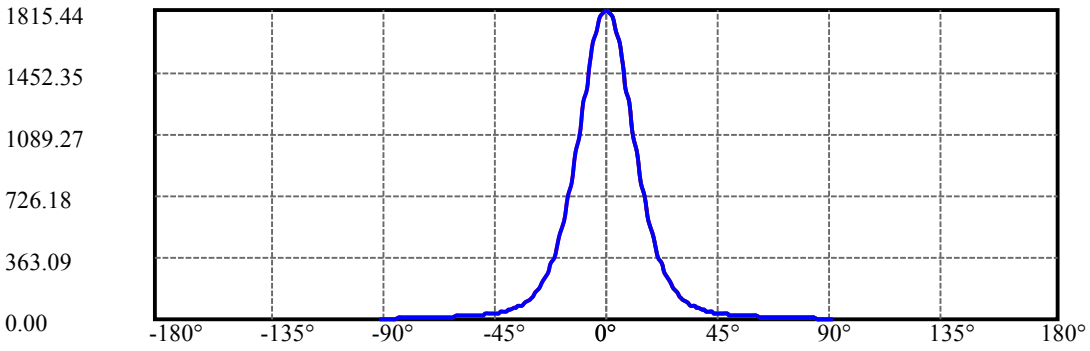
Zone	Lumens	%Lamp	%Fixt
0-30	445.43	49.73%	78.27%
0-40	494.20	55.18%	86.84%
0-60	540.55	60.35%	94.98%
0-90	568.85	63.51%	99.95%
0-120	568.85	63.51%	99.95%
0-180	569.11	63.54%	100.00%
60-90	29.96	3.34%	5.26%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-31.52	455.29	50.83%	80.00%

ZONAL LUMEN SUMMARY

0-10	139.94
10-20	199.12
20-30	106.38
30-40	48.77
40-50	27.21
50-60	19.15
60-70	12.99
70-80	10.29
80-90	5.02
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):

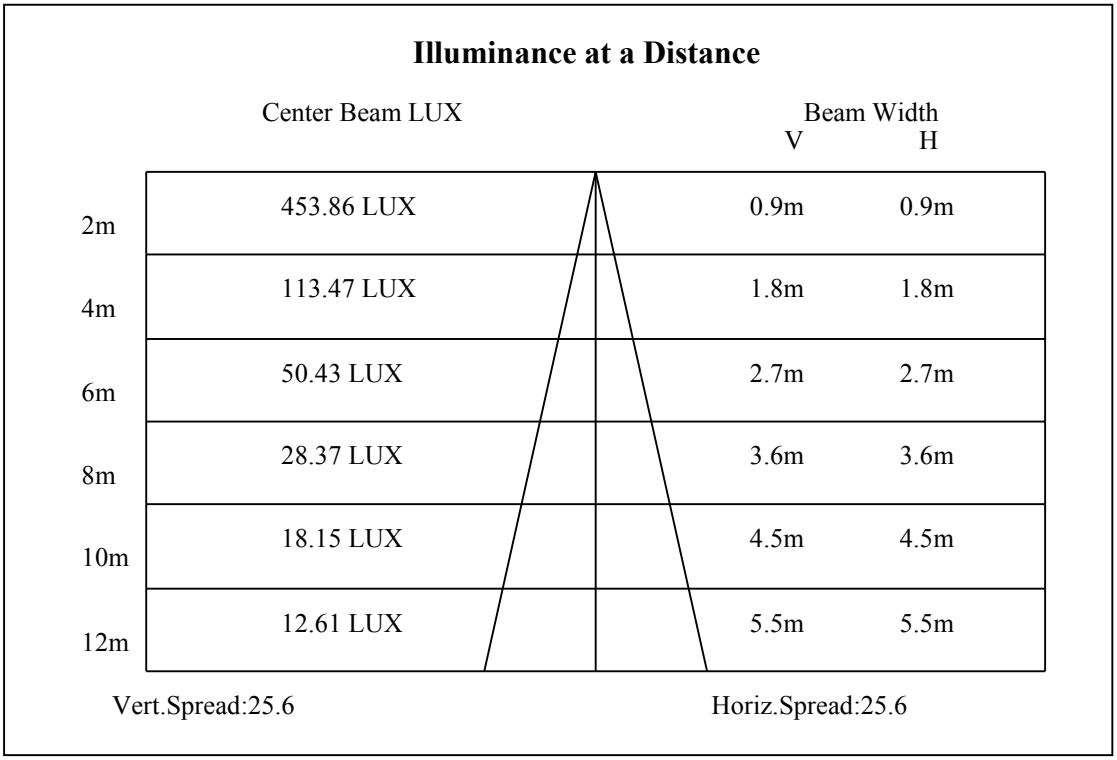
C0/C180:

C90/C270:

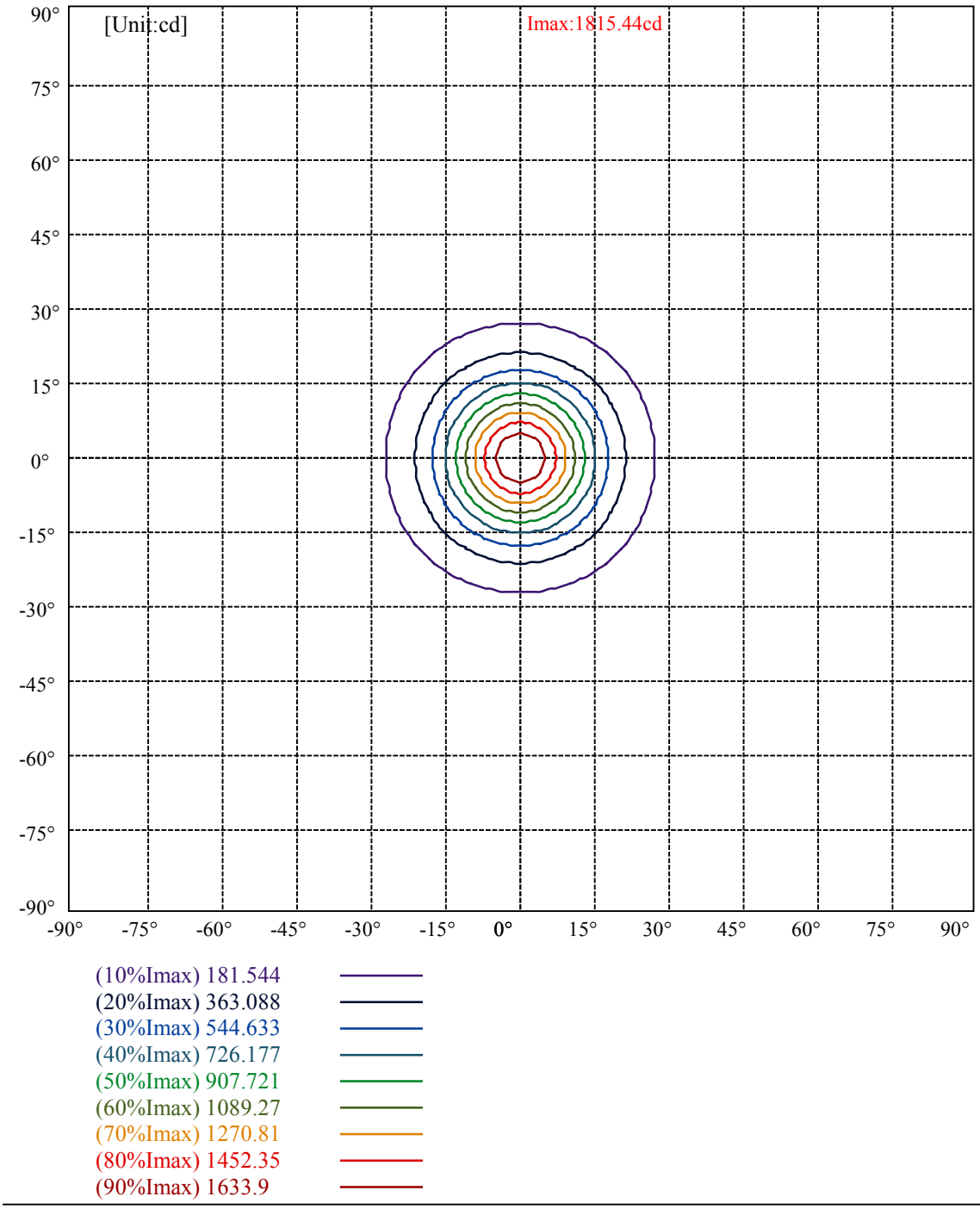
Field angle(10%Imax):C0/180Left:26.8 Right:26.8
:C90/270Left:26.8 Right:26.8

Beam Angle(50%Imax):C0/180Left:12.8 Right:12.8
:C90/270Left:12.8 Right:12.8

Lux distance Curve



ISO-Intensity(V-H)

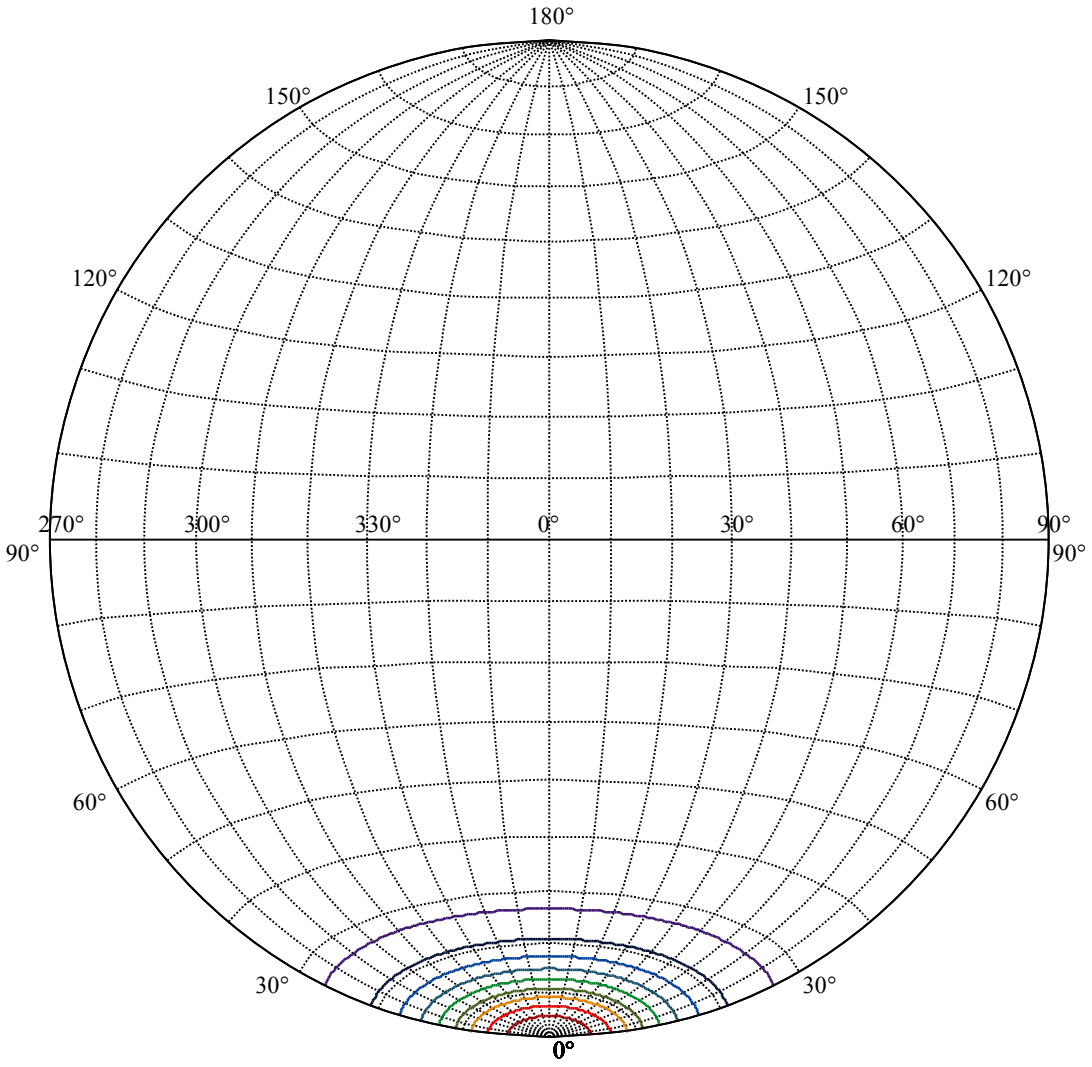


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/11/11
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:1815.44

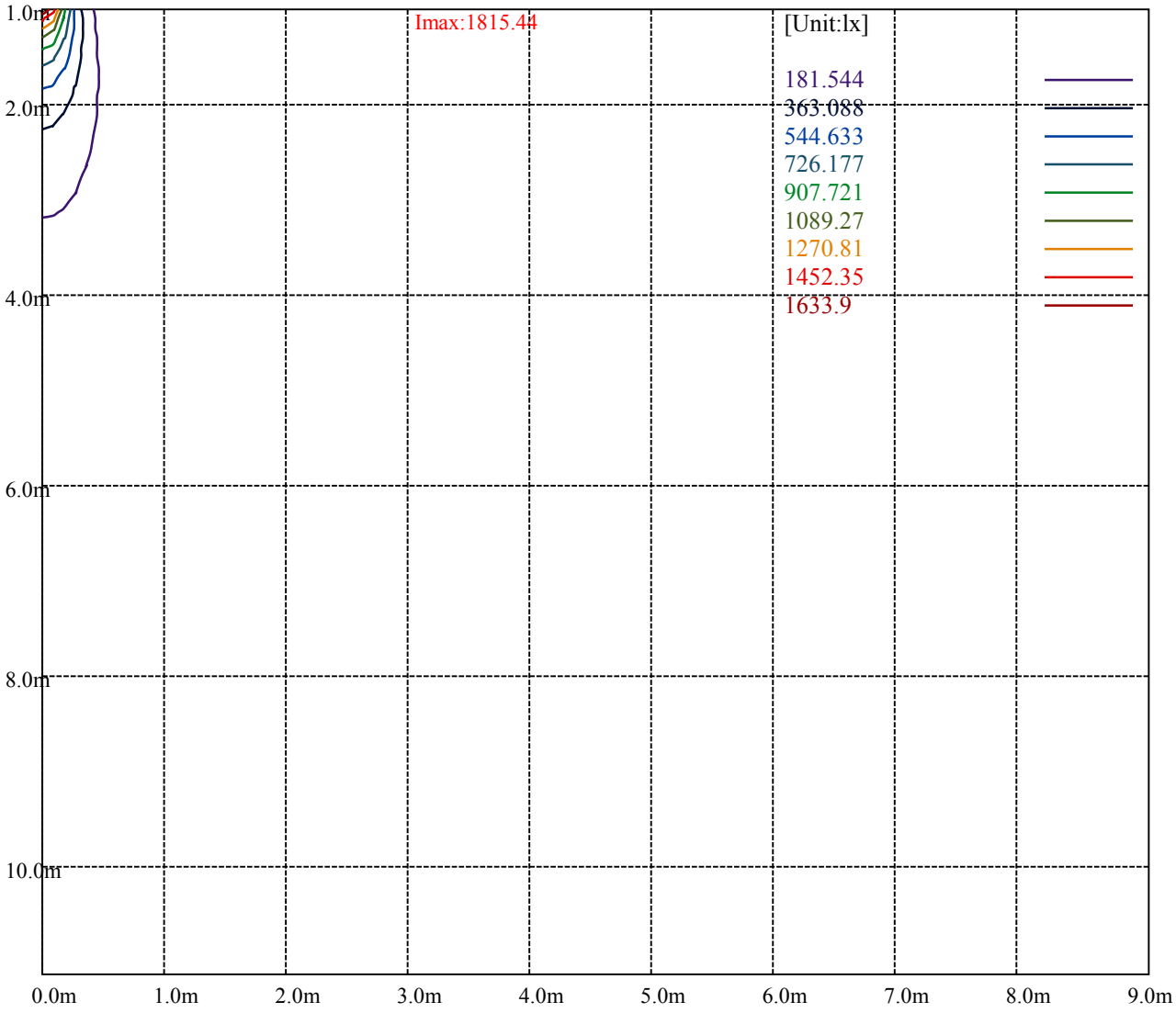
(10%Imax) 181.544
(20%Imax) 363.088
(30%Imax) 544.633
(40%Imax) 726.177
(50%Imax) 907.721
(60%Imax) 1089.27
(70%Imax) 1270.81
(80%Imax) 1452.35
(90%Imax) 1633.9

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/11/11
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/11/11
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

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Luminance Limitting Curve(no luminous side)

Luminance Table

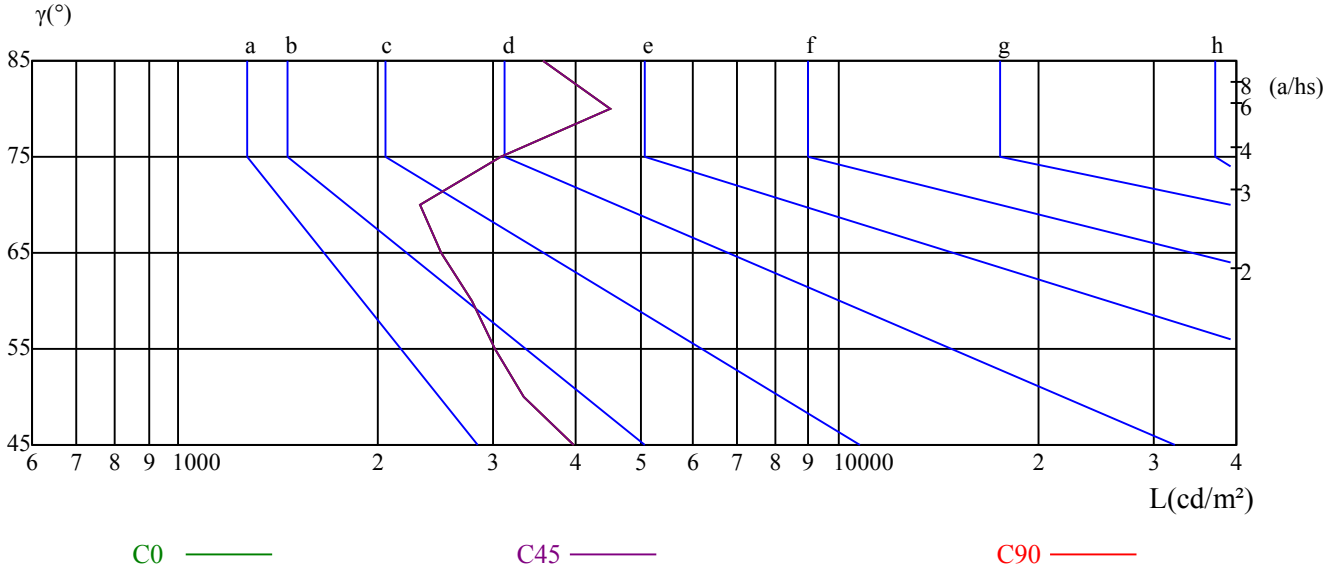
γ	45	50	55	60	65	70	75	80	85
C0	3955	3328	3011	2779	2500	2322	3066	4493	3561
C45	3955	3328	3011	2779	2500	2322	3066	4493	3561
C90	3955	3328	3011	2779	2500	2322	3066	4493	3561

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2500	2500	2500	3066	3066	3066	3561	3561	3561

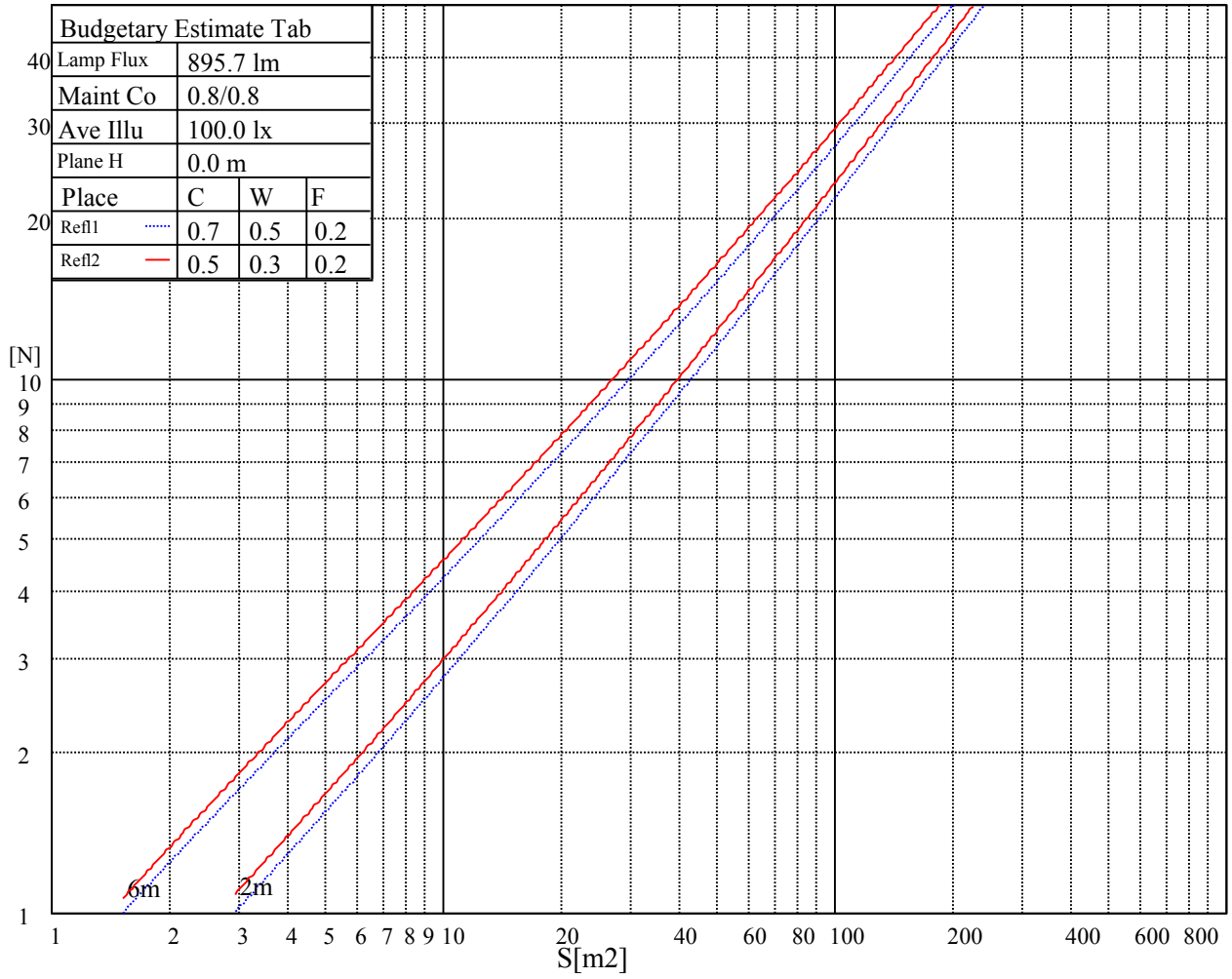
Glare Table

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

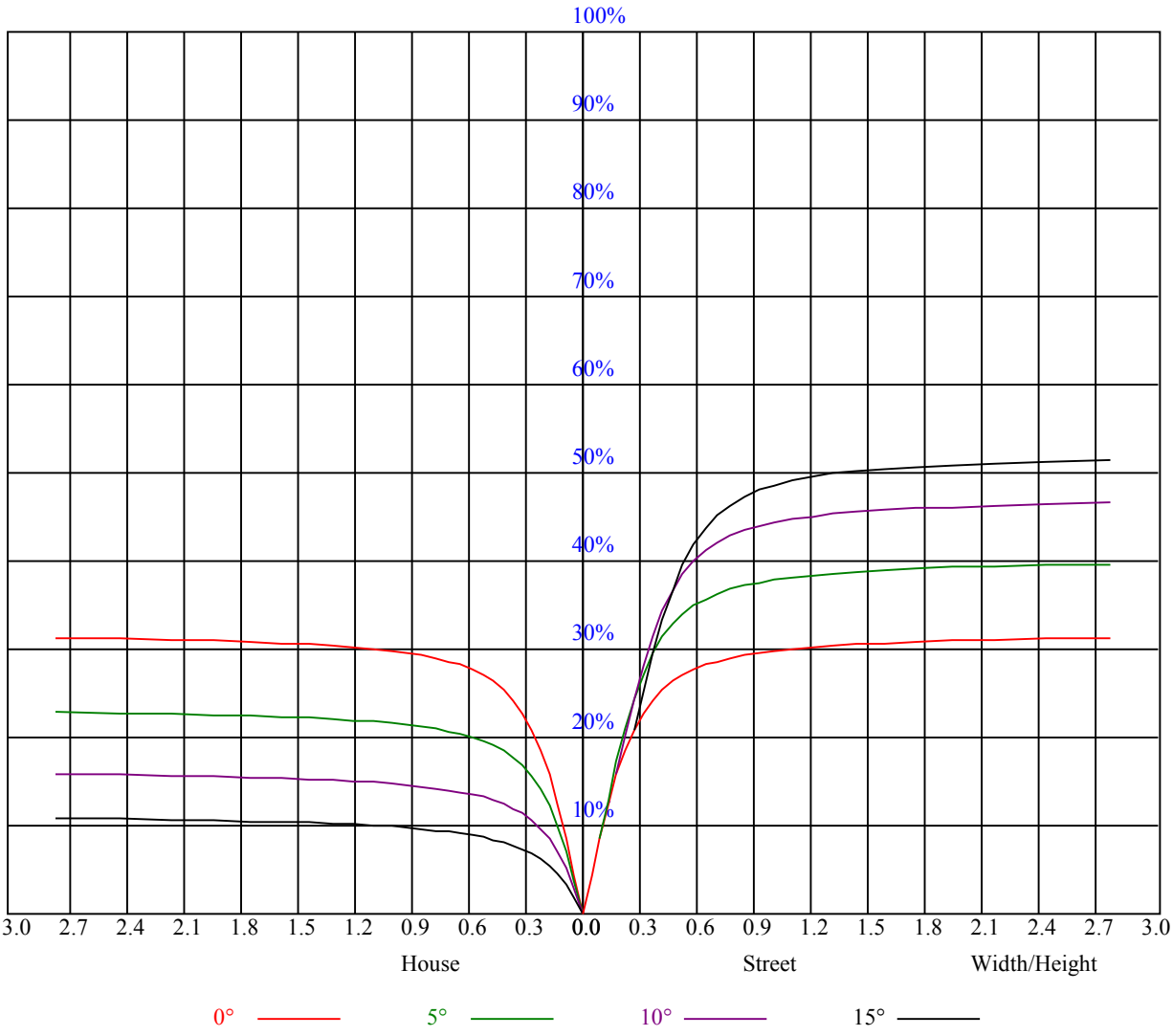


Equipment: GMS1980 Date: 2021/11/11 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

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	0.76	0.76	0.76	0.74	0.74	0.74	0.71	0.71	0.71	0.68	0.68	0.68	0.65	0.65	0.65	0.64
1	0.70	0.69	0.67	0.69	0.67	0.66	0.66	0.65	0.64	0.64	0.63	0.62	0.62	0.61	0.60	0.59
2	0.66	0.63	0.61	0.64	0.62	0.60	0.62	0.60	0.59	0.60	0.59	0.58	0.59	0.57	0.56	0.55
3	0.62	0.59	0.56	0.61	0.58	0.56	0.59	0.57	0.55	0.58	0.56	0.54	0.56	0.54	0.53	0.52
4	0.58	0.55	0.52	0.57	0.54	0.52	0.56	0.53	0.51	0.55	0.53	0.51	0.54	0.52	0.50	0.49
5	0.55	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.49	0.52	0.50	0.48	0.52	0.49	0.48	0.47
6	0.53	0.49	0.47	0.52	0.49	0.46	0.51	0.48	0.46	0.50	0.48	0.46	0.49	0.47	0.46	0.45
7	0.50	0.47	0.44	0.50	0.47	0.44	0.49	0.46	0.44	0.48	0.46	0.44	0.48	0.45	0.44	0.43
8	0.48	0.45	0.42	0.48	0.45	0.42	0.47	0.44	0.42	0.46	0.44	0.42	0.46	0.44	0.42	0.41
9	0.46	0.43	0.41	0.46	0.43	0.41	0.45	0.42	0.40	0.45	0.42	0.40	0.44	0.42	0.40	0.39
10	0.44	0.41	0.39	0.44	0.41	0.39	0.44	0.41	0.39	0.43	0.41	0.39	0.43	0.40	0.39	0.38

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2021/11/11	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.73

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	1815.89	1821.27	1808.72	1781.83	1742.39	1674.28	1606.76	1530.87	1438.85
45.0	1811.71	1794.98	1754.94	1707.74	1650.38	1573.89	1484.86	1398.22	1299.03
90.0	1812.90	1790.20	1749.56	1692.80	1631.25	1549.99	1468.73	1370.13	1183.41
135.0	1821.27	1811.71	1775.86	1734.03	1680.85	1609.15	1524.30	1440.64	1342.65
180.0	1815.89	1796.77	1759.72	1706.54	1647.98	1579.27	1489.64	1391.65	1300.22
225.0	1811.71	1814.70	1800.95	1770.48	1730.44	1670.09	1595.40	1521.91	1430.48
270.0	1812.90	1821.87	1813.50	1790.79	1754.35	1690.41	1626.47	1553.58	1463.35
315.0	1821.27	1819.48	1799.76	1763.31	1717.90	1651.57	1570.90	1492.63	1397.02
360.0	1815.89	1821.27	1808.72	1781.83	1742.39	1674.28	1606.76	1530.87	1438.85

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1340.26	1250.03	1147.26	1057.63	958.44	864.03	785.15	702.69	625.61
45.0	1198.05	1106.03	1015.20	917.80	826.98	741.53	671.62	607.09	534.19
90.0	1171.93	1069.76	970.87	887.03	807.44	714.47	645.75	582.35	523.85
135.0	1240.47	1147.85	1042.69	953.06	857.45	766.63	691.94	623.22	543.75
180.0	1191.11	1086.91	996.38	898.80	816.40	729.16	648.56	582.77	522.18
225.0	1343.25	1191.47	1134.41	1043.94	944.04	848.91	770.33	696.18	609.84
270.0	1365.95	1275.72	1173.55	1082.13	981.14	884.34	803.08	717.03	638.16
315.0	1307.39	1187.41	1106.98	1005.64	918.22	825.19	739.92	669.29	595.08
360.0	1340.26	1250.03	1147.26	1057.63	958.44	864.03	785.15	702.69	625.61

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	564.66	515.67	446.35	401.54	365.09	314.30	301.75	250.07	220.61
45.0	480.41	432.01	377.64	338.80	302.95	282.45	235.25	210.75	189.66
90.0	457.17	409.79	367.24	320.34	287.17	257.59	228.26	202.44	182.01
135.0	488.18	436.79	379.43	338.80	302.95	261.96	232.92	207.70	184.46
180.0	453.35	404.65	361.15	313.28	279.70	249.83	220.43	194.62	174.42
225.0	547.87	491.71	428.73	383.37	342.50	297.39	265.54	237.28	206.57
270.0	574.82	517.46	452.93	406.32	363.90	316.69	304.14	251.56	221.68
315.0	528.69	475.69	427.47	373.04	334.14	295.06	260.46	233.16	209.02
360.0	564.66	515.67	446.35	401.54	365.09	314.30	301.75	250.07	220.61

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	194.56	174.30	154.40	139.04	123.99	110.90	100.62	90.47	81.68
45.0	167.73	149.20	134.26	119.63	106.96	97.10	87.48	79.83	72.24
90.0	161.75	145.80	129.78	115.92	104.99	93.15	84.97	77.62	71.11
135.0	163.19	146.87	130.56	117.83	105.40	94.71	86.34	78.87	70.63
180.0	154.46	138.75	123.15	109.71	99.25	89.15	80.43	73.62	67.64
225.0	187.74	166.17	145.50	132.83	120.16	104.93	96.38	87.66	77.08
270.0	195.45	175.08	155.06	139.64	124.53	111.38	101.04	90.76	81.74
315.0	185.11	164.08	147.65	131.46	118.97	106.48	95.49	86.76	78.16
360.0	194.56	174.30	154.40	139.04	123.99	110.90	100.62	90.47	81.68

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	74.75	68.54	61.84	57.30	53.48	49.83	47.09	45.23	43.92
45.0	65.61	60.35	56.17	50.25	46.31	43.14	38.84	36.09	33.88
90.0	63.94	58.92	54.26	49.00	45.29	41.95	38.60	35.67	33.28
135.0	64.95	59.81	54.02	49.89	46.01	42.19	38.84	36.15	33.46
180.0	61.19	56.77	52.82	48.70	46.07	43.92	42.25	40.69	39.08
225.0	71.23	65.19	59.27	53.90	49.77	45.71	42.42	39.08	36.15
270.0	74.63	68.18	61.07	56.17	51.81	47.50	43.68	40.69	37.94
315.0	70.51	64.59	59.39	53.42	49.30	45.65	41.59	38.78	36.15
360.0	74.75	68.54	61.84	57.30	53.48	49.83	47.09	45.23	43.92

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	42.31	40.75	39.32	38.30	37.29	36.39	35.73	35.02	34.36
45.0	31.19	28.98	27.49	25.51	24.08	22.71	21.15	20.02	19.00
90.0	30.89	28.98	27.01	25.28	23.78	22.23	20.79	19.66	18.52
135.0	31.37	29.28	27.37	25.75	24.20	22.71	21.45	20.32	19.00
180.0	37.70	36.69	35.73	34.90	34.24	33.58	33.04	32.63	32.27
225.0	33.76	31.37	29.22	27.55	25.93	24.20	22.89	21.69	20.55
270.0	34.90	32.68	30.47	28.62	26.65	24.92	23.48	22.17	20.79
315.0	33.52	31.13	29.28	27.31	25.75	24.14	22.65	21.45	20.38
360.0	42.31	40.75	39.32	38.30	37.29	36.39	35.73	35.02	34.36

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	33.88	33.40	32.92	32.51	32.03	31.49	30.41	28.56	26.95
45.0	17.81	16.91	16.07	15.12	14.34	13.68	12.91	12.25	11.71
90.0	17.27	16.31	15.48	14.52	13.62	12.97	12.13	11.41	10.76
135.0	18.05	17.15	16.25	15.42	14.64	13.92	13.21	12.49	11.89
180.0	31.97	31.55	31.01	30.12	29.28	28.08	26.83	25.57	24.32
225.0	19.24	18.34	17.45	16.37	15.60	14.82	14.04	13.27	12.61
270.0	19.54	18.46	17.27	16.31	15.48	14.58	13.68	12.91	12.19
315.0	19.06	18.11	17.21	16.13	15.36	14.64	13.74	13.09	12.43
360.0	33.88	33.40	32.92	32.51	32.03	31.49	30.41	28.56	26.95

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	25.75	24.38	22.89	21.69	20.26	18.94	17.75	16.67	15.42
45.0	11.05	10.46	10.04	9.50	9.08	8.66	8.19	7.83	7.47
90.0	10.16	9.68	9.08	8.60	8.13	7.71	7.29	6.93	6.57
135.0	11.29	10.82	10.28	9.80	9.38	8.90	8.54	8.19	7.83
180.0	22.71	21.63	20.14	18.46	17.33	16.13	14.70	14.16	14.46
225.0	11.95	11.35	10.82	10.22	9.74	9.26	8.84	8.43	8.07
270.0	11.47	10.76	10.22	9.68	9.08	8.60	8.13	7.71	7.23
315.0	11.71	11.17	10.70	10.04	9.68	9.20	8.66	8.37	7.95
360.0	25.75	24.38	22.89	21.69	20.26	18.94	17.75	16.67	15.42

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	15.66	16.79	18.88	21.09	23.30	25.16	25.87	26.59	26.89
45.0	7.05	6.75	6.45	6.15	6.33	7.35	8.01	8.25	6.45
90.0	6.15	5.86	5.56	5.20	4.90	4.60	4.30	4.06	3.82
135.0	7.47	7.17	6.87	6.45	6.15	5.92	5.62	5.44	5.26
180.0	16.01	17.33	18.88	20.50	20.44	20.44	20.55	19.96	17.99
225.0	7.59	7.23	6.93	6.57	6.27	5.98	6.21	6.87	7.11
270.0	6.81	6.51	6.09	5.80	5.44	5.14	4.72	4.48	4.30
315.0	7.47	7.23	6.87	6.45	6.15	5.92	5.56	5.26	5.08
360.0	15.66	16.79	18.88	21.09	23.30	25.16	25.87	26.59	26.89

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	25.99	23.78	20.02	15.54	6.99	4.78	3.70	3.05	2.57
45.0	4.36	4.12	3.94	3.70	2.75	2.57	2.45	2.33	2.33
90.0	3.59	3.35	3.17	2.69	2.51	2.33	2.33	2.27	2.33
135.0	4.96	4.90	5.32	4.30	2.99	2.69	2.51	2.39	2.33
180.0	15.24	11.89	7.95	5.02	3.88	3.17	2.51	2.45	2.33
225.0	6.04	4.48	4.18	3.94	3.82	2.93	2.75	2.51	2.33
270.0	3.94	3.70	3.47	3.23	3.05	2.75	2.51	2.39	2.33
315.0	4.84	4.66	4.48	4.36	4.60	2.93	2.75	2.51	2.39
360.0	25.99	23.78	20.02	15.54	6.99	4.78	3.70	3.05	2.57

Intensity data(cd)

C/γ(°)	90.0
0.0	2.51
45.0	2.33
90.0	2.27
135.0	2.39
180.0	2.87
225.0	2.33
270.0	2.33
315.0	2.39
360.0	2.51