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

NT

Client:
LumCAT: 2-2685-L
Luminaire: 92.70.411.00
Report No: 2024424-B006
Ballast type: AC

Test No: 2024424-C006	Voltage(V): 36.480
LampCAT: NICHIA NFCWJ130B-V3	Current(A): 0.576
Lamp flux(lm): 2924.0	Power (W): 21.012
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2493.30, Efficiency(%): 85.27% , Luminous Efficacy(lm/W): 118.66
Central intensity(cd): 4234.893, Maximum intensity(cd): 4234.893
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=45.2
[C90/270]Total=45.2
Field angle(10%Imax): [C0/180]Total=70.0
[C90/270]Total=70.0
Maximum s/h(1/2): C0_180=0.72 C90_270=0.72
Maximum s/h(1/4): C0_180=0.71 C90_270=0.71
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 85.27%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.928%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4234.893	0.000	0	0.00%	0.00%
1.0	4231.382	4.051	4.051	0.14%	0.16%
2.0	4216.093	12.125	16.176	0.41%	0.65%
3.0	4195.098	20.117	36.292	0.69%	1.46%
4.0	4167.299	27.992	64.284	0.96%	2.58%
5.0	4131.747	35.702	99.986	1.22%	4.01%
6.0	4086.758	43.190	143.176	1.48%	5.74%
7.0	4036.867	50.423	193.6	1.72%	7.76%
8.0	3972.493	57.321	250.921	1.96%	10.06%
9.0	3899.632	63.799	314.72	2.18%	12.62%
10.0	3816.457	69.828	384.548	2.39%	15.42%
11.0	3719.968	75.304	459.853	2.58%	18.44%
12.0	3617.261	80.206	540.059	2.74%	21.66%
13.0	3509.653	84.579	624.638	2.89%	25.05%
14.0	3395.388	88.384	713.021	3.02%	28.60%
15.0	3277.757	91.612	804.633	3.13%	32.27%
16.0	3131.378	93.912	898.545	3.21%	36.04%
17.0	2999.483	95.474	994.019	3.27%	39.87%
18.0	2833.791	96.178	1090.197	3.29%	43.73%
19.0	2689.533	96.095	1186.292	3.29%	47.58%
20.0	2525.890	95.457	1281.748	3.26%	51.41%
21.0	2367.952	93.972	1375.72	3.21%	55.18%
22.0	2206.649	91.929	1467.649	3.14%	58.86%
23.0	2054.930	89.419	1557.068	3.06%	62.45%
24.0	1911.989	86.731	1643.799	2.97%	65.93%
25.0	1767.219	83.657	1727.456	2.86%	69.28%
26.0	1632.032	80.240	1807.696	2.74%	72.50%
27.0	1453.436	75.487	1883.183	2.58%	75.53%
28.0	1290.392	69.468	1952.651	2.38%	78.32%
29.0	1196.434	65.062	2017.713	2.23%	80.93%
30.0	1068.643	61.157	2078.87	2.09%	83.38%
31.0	924.085	55.455	2134.324	1.90%	85.60%
32.0	792.117	49.167	2183.491	1.68%	87.57%
33.0	655.803	42.656	2226.148	1.46%	89.29%
34.0	538.378	36.139	2262.287	1.24%	90.73%
35.0	422.445	29.840	2292.127	1.02%	91.93%
36.0	321.303	23.681	2315.808	0.81%	92.88%
37.0	254.353	18.775	2334.582	0.64%	93.63%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	224.251	15.975	2350.558	0.55%	94.27%
39.0	118.625	11.703	2362.261	0.40%	94.74%
40.0	93.453	7.397	2369.657	0.25%	95.04%
41.0	80.534	6.196	2375.853	0.21%	95.29%
42.0	71.039	5.507	2381.36	0.19%	95.51%
43.0	63.936	5.000	2386.36	0.17%	95.71%
44.0	57.754	4.593	2390.953	0.16%	95.90%
45.0	53.153	4.262	2395.215	0.15%	96.07%
46.0	49.334	4.008	2399.223	0.14%	96.23%
47.0	46.291	3.803	2403.026	0.13%	96.38%
48.0	43.775	3.641	2406.667	0.12%	96.53%
49.0	41.229	3.491	2410.158	0.12%	96.67%
50.0	39.225	3.354	2413.513	0.11%	96.80%
51.0	37.206	3.234	2416.746	0.11%	96.93%
52.0	35.413	3.116	2419.862	0.11%	97.05%
53.0	33.870	3.014	2422.876	0.10%	97.18%
54.0	32.363	2.919	2425.795	0.10%	97.29%
55.0	31.083	2.832	2428.628	0.10%	97.41%
56.0	29.868	2.754	2431.382	0.09%	97.52%
57.0	28.771	2.681	2434.063	0.09%	97.62%
58.0	27.601	2.607	2436.67	0.09%	97.73%
59.0	26.401	2.525	2439.194	0.09%	97.83%
60.0	25.326	2.444	2441.638	0.08%	97.93%
61.0	24.170	2.362	2444	0.08%	98.02%
62.0	22.977	2.272	2446.272	0.08%	98.11%
63.0	21.873	2.181	2448.453	0.07%	98.20%
64.0	20.914	2.100	2450.553	0.07%	98.29%
65.0	19.949	2.022	2452.575	0.07%	98.37%
66.0	19.151	1.951	2454.526	0.07%	98.44%
67.0	18.500	1.893	2456.419	0.06%	98.52%
68.0	17.813	1.840	2458.259	0.06%	98.59%
69.0	17.367	1.795	2460.053	0.06%	98.67%
70.0	17.140	1.772	2461.826	0.06%	98.74%
71.0	17.089	1.769	2463.595	0.06%	98.81%
72.0	17.096	1.777	2465.372	0.06%	98.88%
73.0	17.169	1.792	2467.164	0.06%	98.95%
74.0	17.176	1.806	2468.97	0.06%	99.02%
75.0	17.147	1.814	2470.783	0.06%	99.10%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	17.030	1.814	2472.597	0.06%	99.17%
77.0	16.884	1.808	2474.405	0.06%	99.24%
78.0	16.664	1.796	2476.201	0.06%	99.31%
79.0	16.357	1.774	2477.976	0.06%	99.39%
80.0	15.933	1.741	2479.716	0.06%	99.46%
81.0	15.428	1.696	2481.412	0.06%	99.52%
82.0	14.645	1.631	2483.043	0.06%	99.59%
83.0	13.753	1.544	2484.587	0.05%	99.65%
84.0	12.765	1.445	2486.032	0.05%	99.71%
85.0	11.858	1.344	2487.375	0.05%	99.76%
86.0	11.214	1.261	2488.637	0.04%	99.81%
87.0	10.849	1.207	2489.844	0.04%	99.86%
88.0	10.578	1.174	2491.018	0.04%	99.91%
89.0	10.373	1.148	2492.166	0.04%	99.95%
90.0	10.329	1.135	2493.301	0.04%	100.00%

Zonal flux distribution table

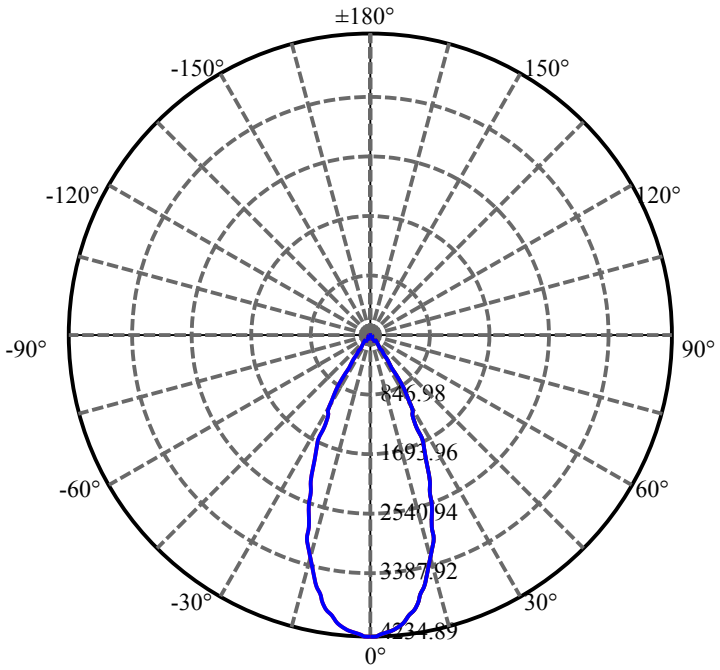
ZONAL LUMEN SUMMARY

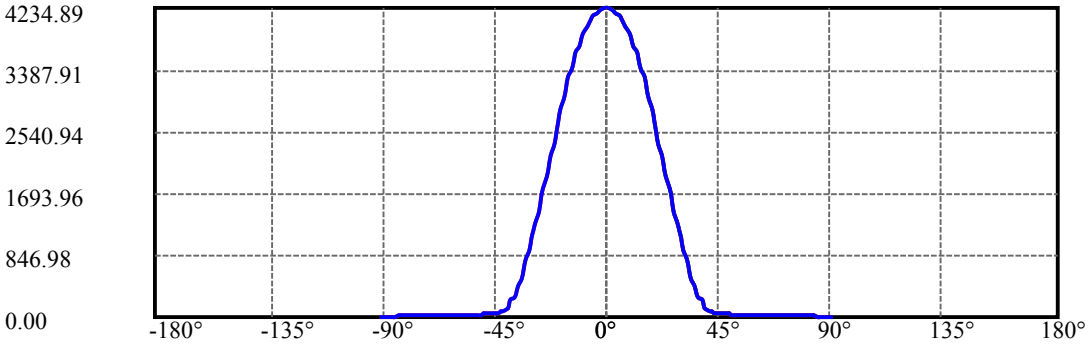
Zone	Lumens	%Lamp	%Fixt
0-30	2078.87	71.10%	83.38%
0-40	2369.66	81.04%	95.04%
0-60	2441.64	83.50%	97.93%
0-90	2492.17	85.23%	99.95%
0-120	2492.17	85.23%	99.95%
0-180	2493.30	85.27%	100.00%
60-90	50.53	1.73%	2.03%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-28.65	1994.64	68.22%	80.00%

ZONAL LUMEN SUMMARY

0-10	384.55
10-20	897.20
20-30	797.12
30-40	290.79
40-50	43.86
50-60	28.13
60-70	20.19
70-80	17.89
80-90	12.45
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):

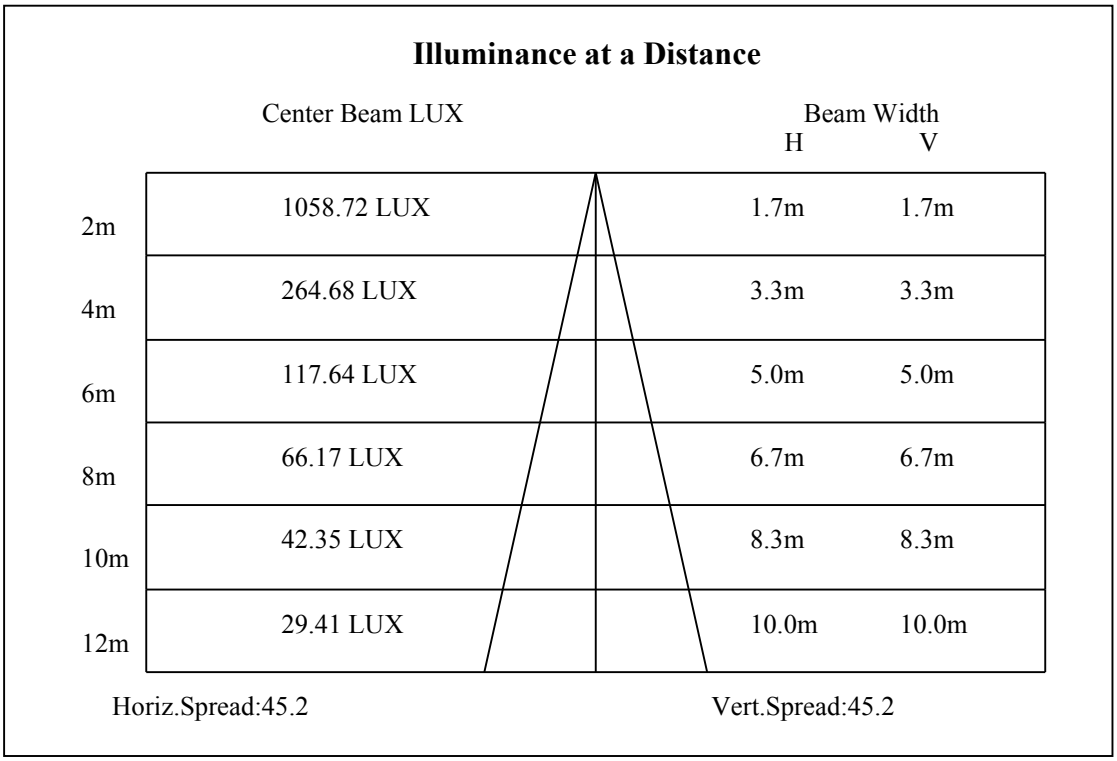
C0/C180:

C90/C270:

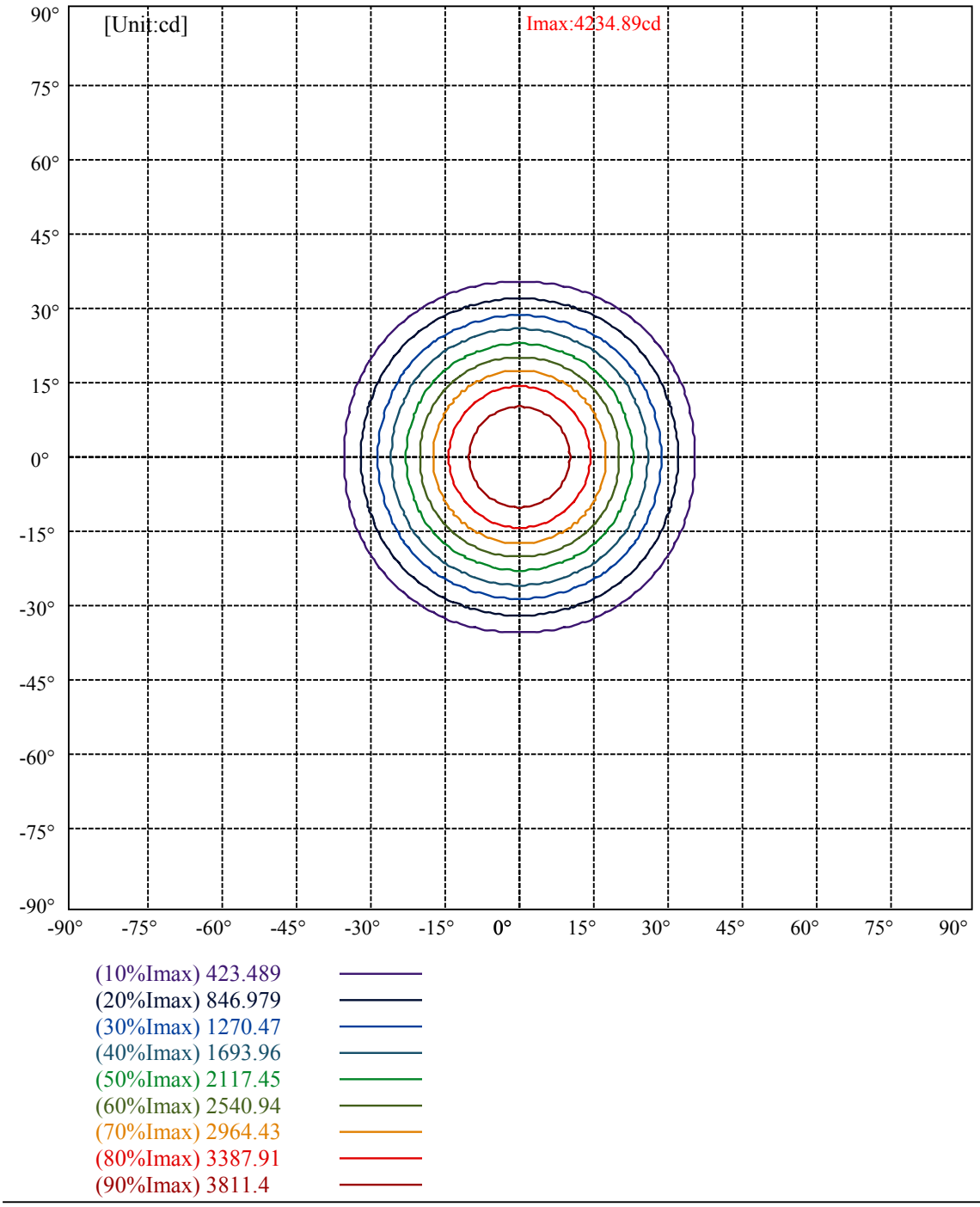
Field angle(10%Imax):C0/180Left:35.0 Right:35.0
:C90/270Left:35.0 Right:35.0

Beam Angle(50%Imax):C0/180Left:22.6 Right:22.6
:C90/270Left:22.6 Right:22.6

Lux distance Curve



ISO-Intensity(V-H)

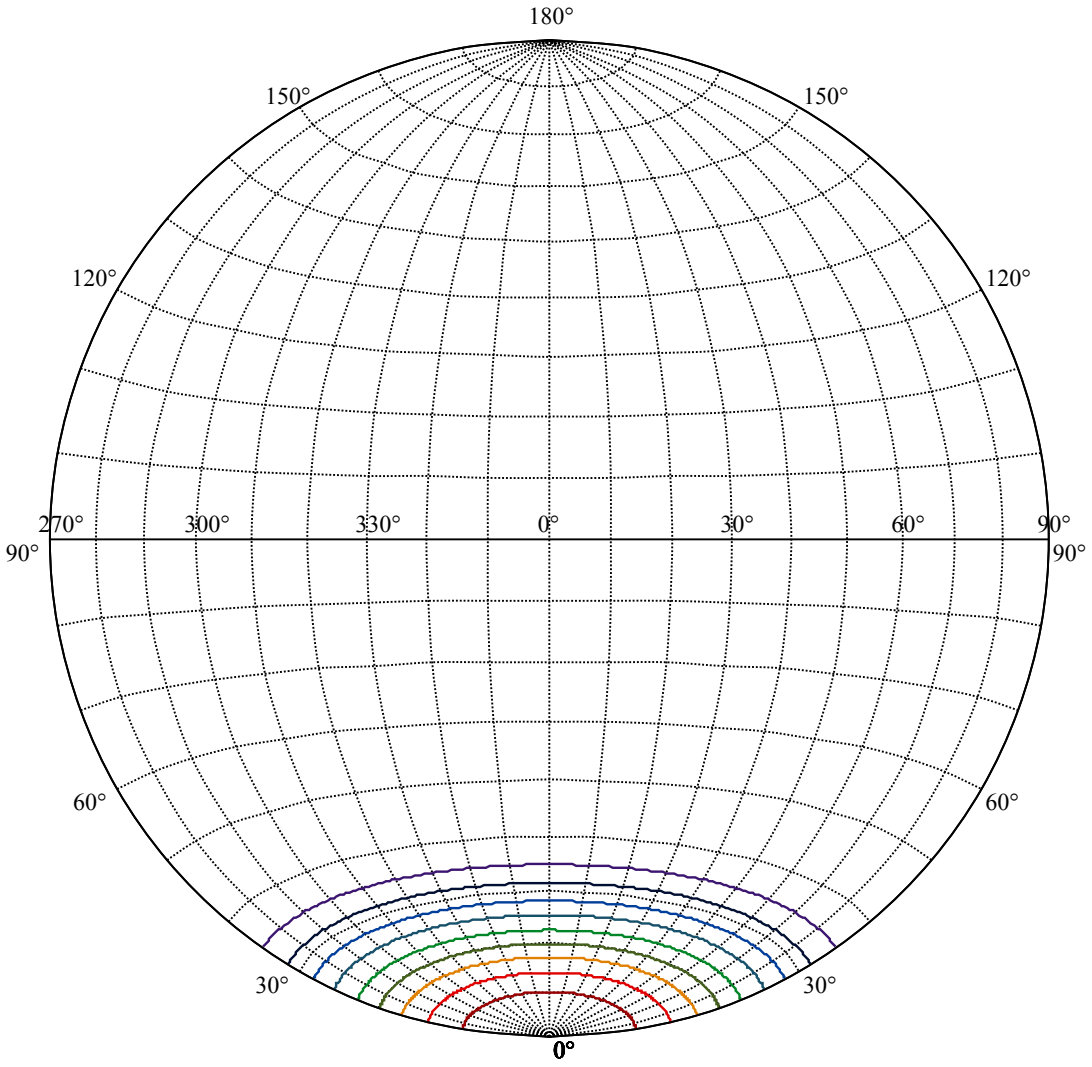


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/24
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

ISO candela diagram on circular web



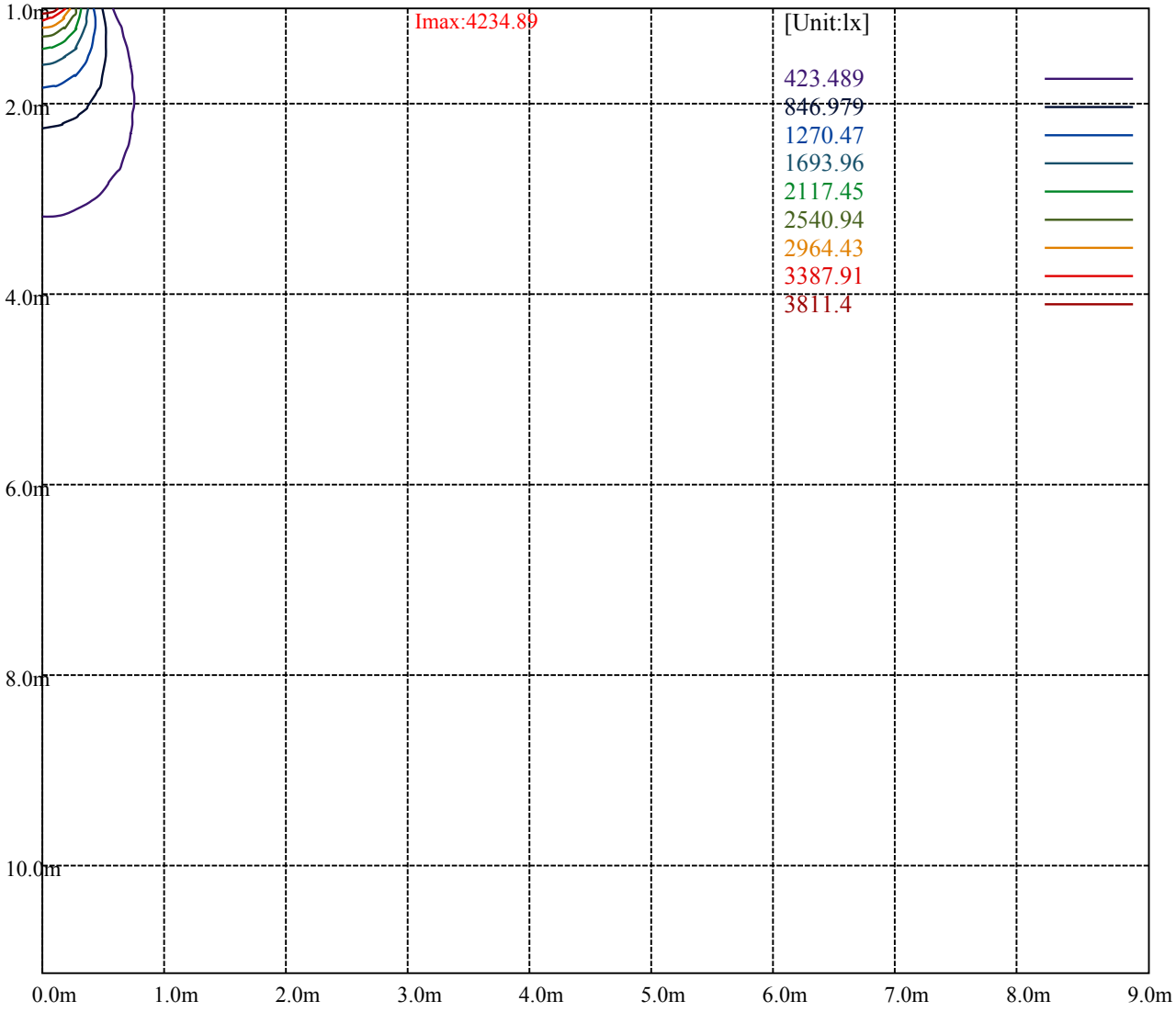
House [Unit:cd] Road

Imax:4234.89

(10%Imax) 423.489
(20%Imax) 846.979
(30%Imax) 1270.47
(40%Imax) 1693.96
(50%Imax) 2117.45
(60%Imax) 2540.94
(70%Imax) 2964.43
(80%Imax) 3387.91
(90%Imax) 3811.4

Equipment: GMS1980	Date: 2024/4/24	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/24
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

Luminance Limitting Curve(no luminous side)

Luminance Table

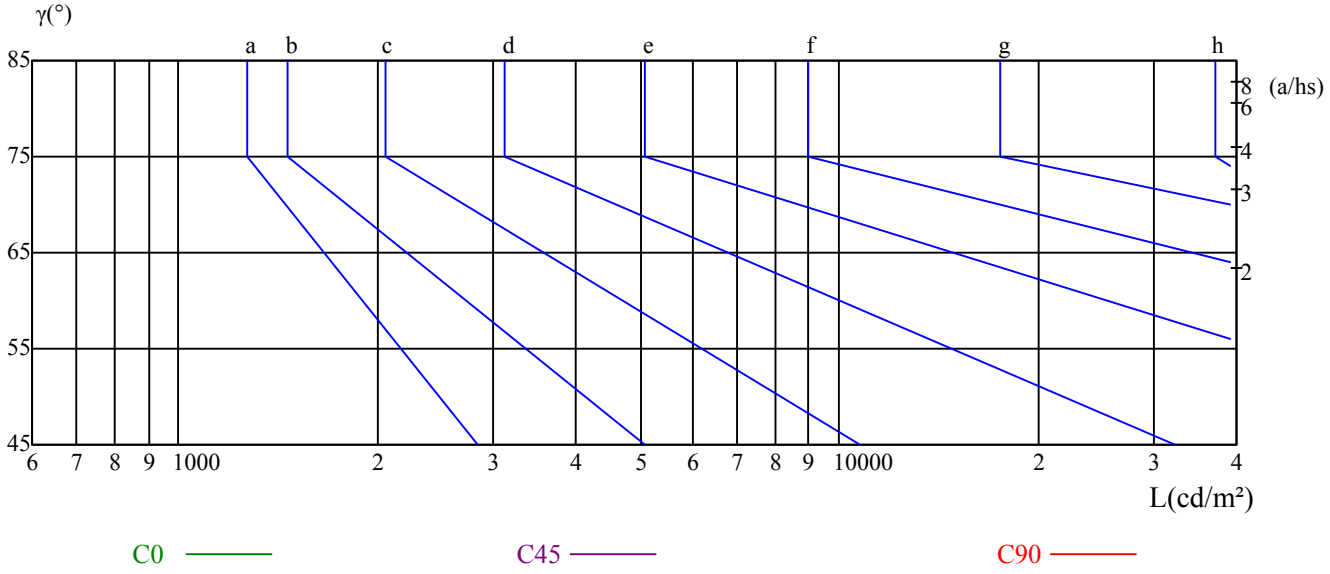
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

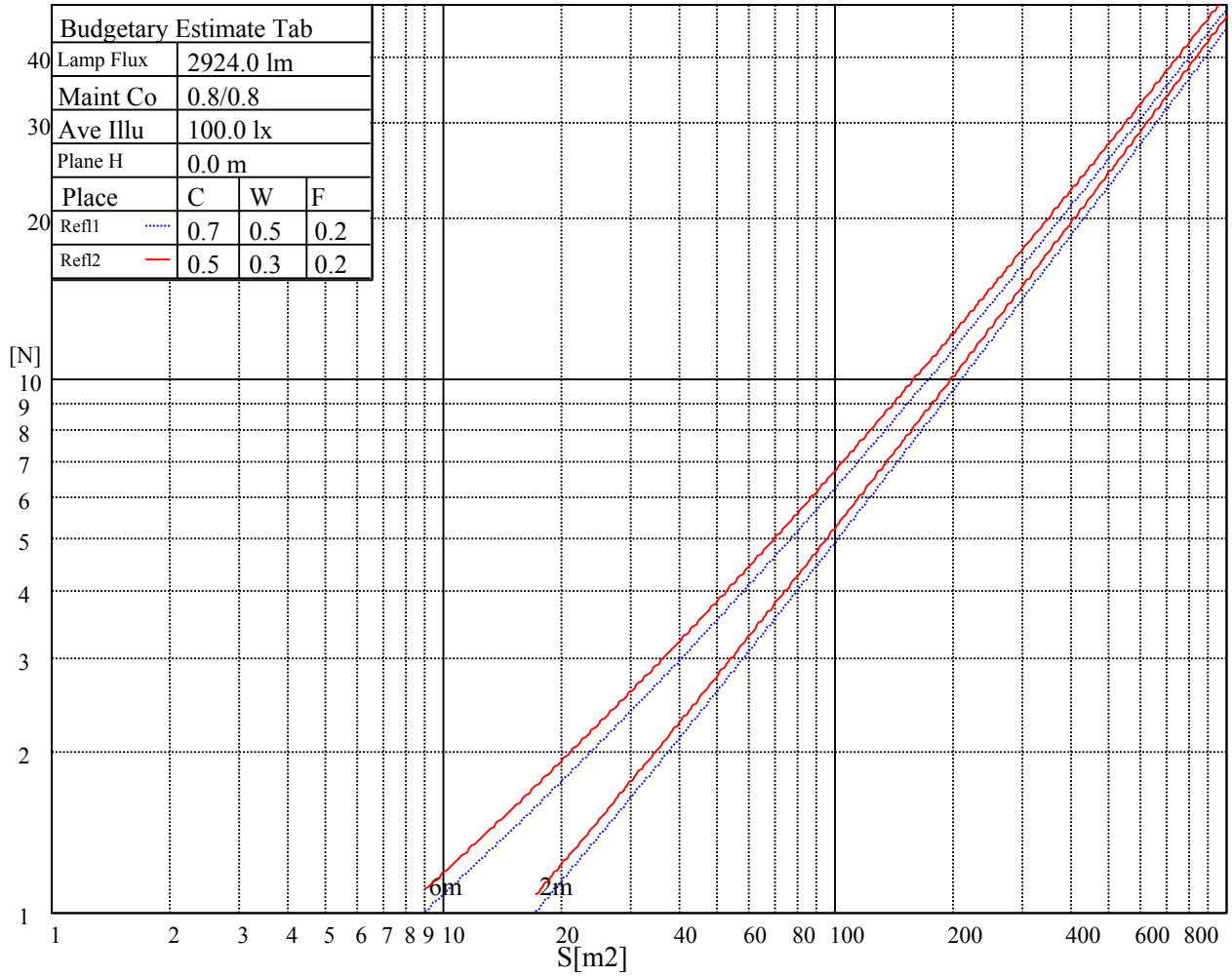
Glare Table

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 Limitting Curve



Budgetary Estimate Table

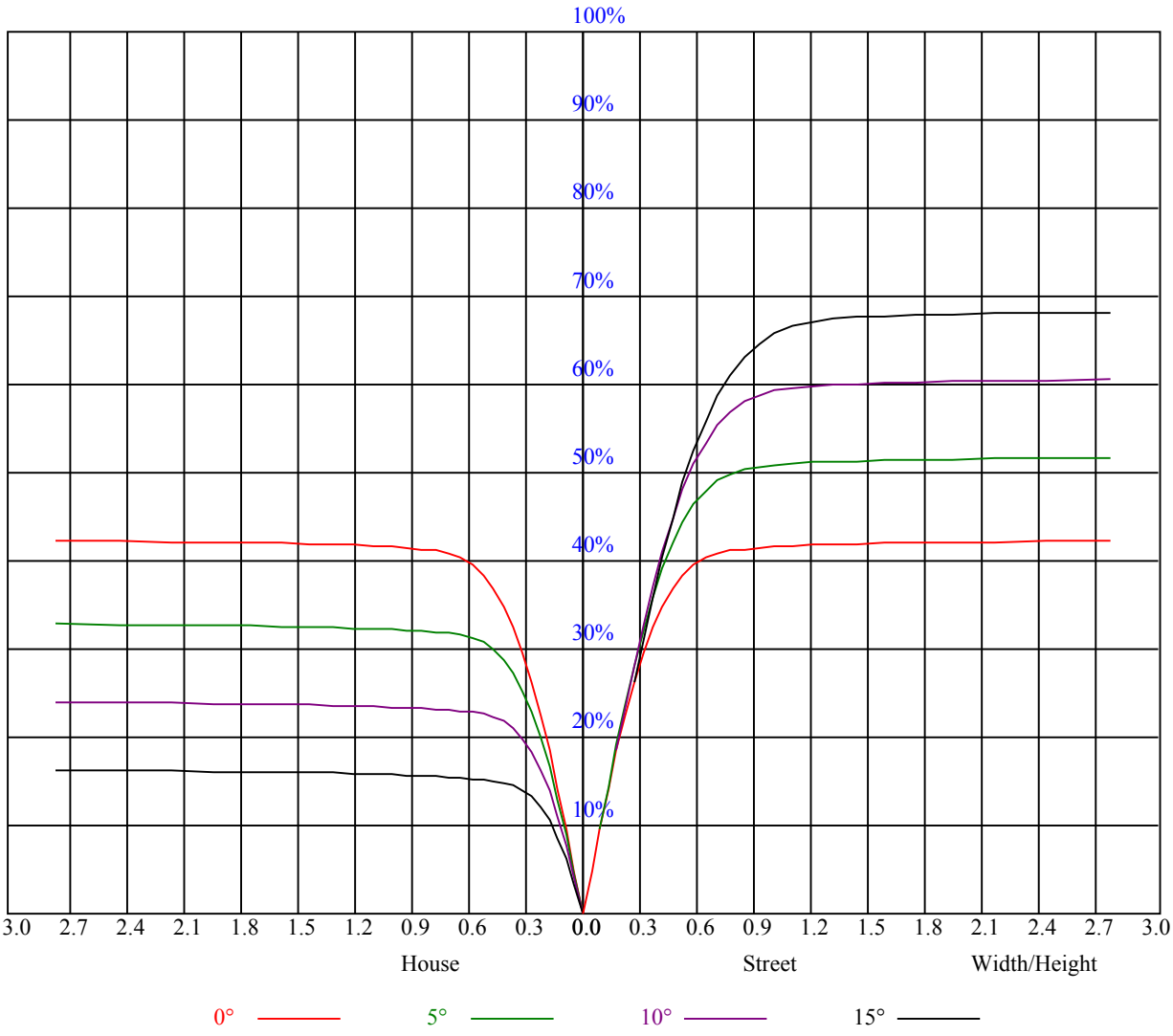


Equipment: GMS1980 Date: 2024/4/24 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

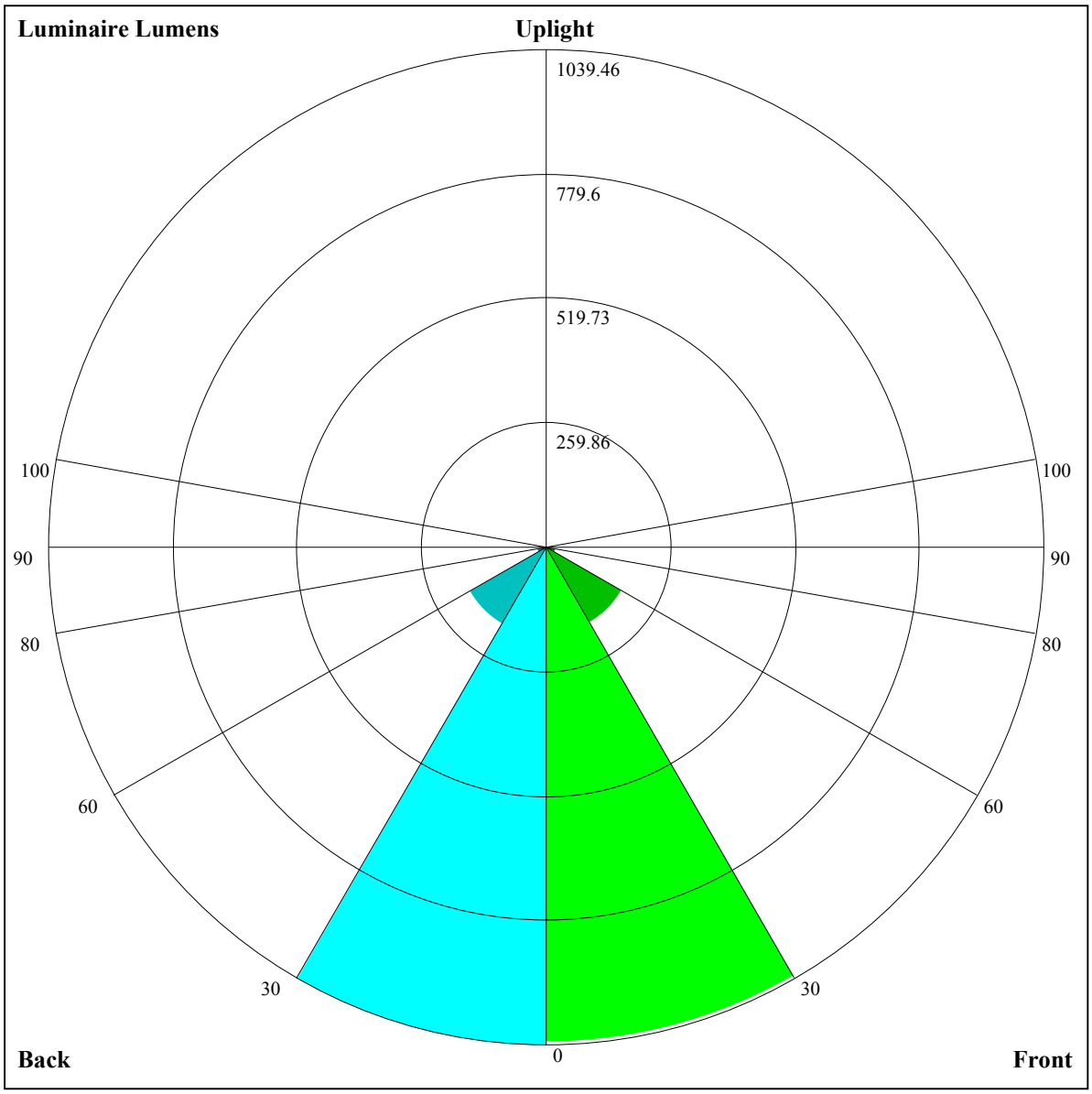
Utilization factor table for indoor luminaire

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	1.02	1.02	1.02	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.85
1	0.95	0.93	0.91	0.93	0.91	0.89	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.82	0.80
2	0.89	0.85	0.83	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.80	0.78	0.77	0.75
3	0.83	0.79	0.76	0.82	0.79	0.76	0.80	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.71
4	0.79	0.74	0.71	0.78	0.74	0.71	0.76	0.72	0.70	0.74	0.71	0.69	0.73	0.70	0.68	0.67
5	0.74	0.70	0.66	0.74	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.69	0.67	0.64	0.63
6	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
7	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.58	0.64	0.60	0.58	0.57
8	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.55	0.61	0.58	0.55	0.54
9	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52
10	0.58	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.49

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2024/4/24	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65



Luminaire Lumens:
FL=1035.52,FM=183.05,FH=19.07,FVH=6.79
BL=1039.46,BM=184.52,BH=19.02,BVH=6.81
UL=0,UH=0

BUG Rating:B3-U0-G0

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	4237.67	4225.38	4202.56	4176.22	4148.13	4099.56	4058.59	4005.92	3942.72
45.0	4237.67	4234.75	4216.02	4192.03	4170.96	4142.87	4105.41	4065.03	4007.09
90.0	4230.06	4217.19	4193.78	4173.30	4146.96	4113.61	4060.35	4007.09	3927.50
135.0	4234.16	4234.75	4226.55	4212.51	4183.83	4151.64	4113.02	4068.54	4004.75
180.0	4237.67	4244.70	4239.43	4220.12	4196.12	4161.59	4122.97	4075.57	4018.21
225.0	4237.67	4232.41	4216.02	4194.37	4155.74	4121.21	4059.18	4000.07	3923.99
270.0	4230.06	4235.33	4231.82	4215.43	4189.10	4161.59	4116.53	4070.88	4015.87
315.0	4234.16	4226.55	4202.56	4176.81	4147.55	4101.90	4058.01	4001.83	3939.79
360.0	4237.67	4225.38	4202.56	4176.22	4148.13	4099.56	4058.59	4005.92	3942.72

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3855.52	3772.42	3682.29	3569.93	3459.32	3349.89	3232.26	3068.98	2932.62
45.0	3947.99	3880.69	3782.37	3691.07	3596.27	3464.59	3353.98	3201.82	3070.73
90.0	3860.20	3770.66	3655.37	3556.47	3447.62	3300.73	3176.66	3046.15	2908.63
135.0	3940.96	3865.47	3778.27	3662.98	3566.42	3461.08	3349.89	3194.22	3064.30
180.0	3935.11	3857.28	3770.08	3675.27	3553.54	3449.37	3341.11	3195.39	3064.88
225.0	3851.42	3761.88	3645.43	3545.94	3439.43	3331.74	3186.02	3061.37	2926.77
270.0	3938.62	3863.13	3774.76	3660.06	3563.49	3462.25	3353.40	3208.85	3088.88
315.0	3867.23	3760.13	3671.17	3576.37	3451.13	3343.45	3228.74	3074.25	2939.06
360.0	3855.52	3772.42	3682.29	3569.93	3459.32	3349.89	3232.26	3068.98	2932.62

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2753.54	2608.99	2462.10	2276.00	2132.03	1996.26	1862.83	1706.57	1575.48
45.0	2938.47	2799.77	2616.60	2471.46	2319.89	2175.34	2003.87	1871.02	1736.42
90.0	2731.30	2587.34	2438.69	2291.80	2110.97	1972.85	1805.48	1676.14	1547.39
135.0	2893.41	2750.62	2606.65	2421.72	2269.56	2122.08	1984.56	1820.69	1687.85
180.0	2895.75	2745.93	2594.95	2448.64	2259.61	2108.04	1973.44	1818.35	1685.51
225.0	2745.35	2603.72	2411.77	2253.17	2106.87	1936.57	1802.55	1672.05	1541.54
270.0	2956.62	2812.06	2617.77	2473.22	2327.50	2134.96	2003.28	1835.91	1707.75
315.0	2755.88	2607.82	2458.59	2307.60	2126.77	1993.33	1859.90	1737.01	1574.31
360.0	2753.54	2608.99	2462.10	2276.00	2132.03	1996.26	1862.83	1706.57	1575.48

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1443.81	1142.83	1142.83	1010.80	884.57	759.56	608.81	497.27	374.19
45.0	1574.90	1441.47	1305.70	1174.61	1012.50	884.33	729.25	611.62	502.77
90.0	1310.96	1147.98	1115.03	987.63	828.68	702.56	581.77	470.35	347.80
135.0	1555.00	1420.98	1251.85	1120.76	992.01	836.35	712.86	566.56	457.12
180.0	1555.59	1423.91	1253.03	1113.74	979.14	825.23	698.23	582.36	448.34
225.0	1164.42	1164.42	1096.48	969.13	812.35	694.43	581.19	475.50	357.98
270.0	1580.17	1445.56	1270.58	1135.98	1004.89	877.31	725.15	605.18	493.40
315.0	1442.64	1135.98	1135.98	1036.49	878.54	757.16	609.16	498.20	397.95
360.0	1443.81	1142.83	1142.83	1010.80	884.57	759.56	608.81	497.27	374.19

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	286.23	213.02	141.16	105.28	88.54	78.60	68.65	61.45	56.71
45.0	400.35	309.06	309.06	144.02	106.69	86.20	76.90	69.70	61.16
90.0	262.30	191.37	136.65	97.97	84.33	75.32	66.19	60.28	55.65
135.0	360.56	316.08	316.08	126.76	99.31	84.16	75.73	68.71	60.57
180.0	352.95	308.47	308.47	130.15	100.01	86.03	74.27	67.07	60.10
225.0	253.40	183.18	130.15	99.20	82.17	72.51	65.31	59.11	53.49
270.0	366.41	300.28	300.28	141.57	99.49	84.33	72.16	65.08	58.93
315.0	288.22	213.37	152.16	104.05	87.08	77.13	69.12	60.10	55.42
360.0	286.23	213.02	141.16	105.28	88.54	78.60	68.65	61.45	56.71

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	52.67	48.52	45.94	43.66	40.97	38.92	36.75	35.11	33.71
45.0	56.42	52.55	48.63	46.06	43.19	40.97	39.03	37.28	35.58
90.0	50.91	47.87	45.30	42.55	40.44	38.45	36.69	34.59	33.18
135.0	55.71	51.09	47.99	45.47	42.66	40.44	38.10	36.28	34.70
180.0	55.25	50.45	47.29	44.65	41.90	39.85	37.45	35.76	34.18
225.0	49.63	46.53	43.83	41.20	39.15	37.34	35.29	33.71	32.36
270.0	53.20	49.45	46.41	43.83	41.26	39.39	37.63	35.93	34.00
315.0	51.44	48.22	44.95	42.78	40.26	38.45	36.69	34.65	33.24
360.0	52.67	48.52	45.94	43.66	40.97	38.92	36.75	35.11	33.71

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	32.07	30.90	29.79	28.68	27.45	26.10	25.05	23.94	22.88
45.0	33.77	32.42	31.13	29.67	28.56	27.39	26.22	24.99	23.76
90.0	31.89	30.67	29.32	28.15	26.74	25.69	24.58	23.17	22.12
135.0	32.95	31.66	30.49	29.44	28.03	26.92	25.75	24.70	23.29
180.0	32.77	31.25	30.08	29.09	27.97	26.63	25.52	24.46	23.12
225.0	30.84	29.79	28.56	27.56	26.51	25.52	24.52	23.17	22.12
270.0	32.60	31.37	30.02	29.03	28.03	26.74	25.81	24.81	23.53
315.0	32.01	30.61	29.55	28.56	27.51	26.22	25.16	24.11	23.00
360.0	32.07	30.90	29.79	28.68	27.45	26.10	25.05	23.94	22.88

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	21.65	20.72	19.66	19.02	18.38	17.56	17.32	17.21	17.21
45.0	22.41	21.54	20.48	19.49	18.79	18.14	17.50	17.09	16.97
90.0	21.19	20.25	19.31	18.61	18.02	17.32	17.03	16.97	16.97
135.0	22.24	21.30	20.25	19.49	18.84	18.02	17.50	17.21	17.15
180.0	22.06	21.13	20.07	19.31	18.61	18.02	17.44	17.21	17.09
225.0	21.24	20.13	19.31	18.73	17.97	17.44	17.15	16.97	16.97
270.0	22.47	21.48	20.60	19.55	18.96	18.32	17.67	17.26	17.15
315.0	21.71	20.78	19.90	19.02	18.43	17.67	17.32	17.21	17.21
360.0	21.65	20.72	19.66	19.02	18.38	17.56	17.32	17.21	17.21

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	17.21	17.26	17.26	17.15	17.03	16.85	16.62	16.33	15.80
45.0	16.97	16.97	17.03	17.03	16.97	16.85	16.74	16.50	16.09
90.0	16.97	17.03	16.97	16.91	16.74	16.62	16.27	15.92	15.33
135.0	17.15	17.21	17.21	17.15	17.09	16.91	16.80	16.44	16.04
180.0	17.09	17.15	17.21	17.15	17.09	16.91	16.74	16.39	16.09
225.0	17.03	17.09	17.03	17.03	16.85	16.68	16.33	16.04	15.68
270.0	17.15	17.26	17.32	17.38	17.32	17.21	17.03	16.80	16.44
315.0	17.21	17.38	17.38	17.38	17.15	17.03	16.80	16.44	15.98
360.0	17.21	17.26	17.26	17.15	17.03	16.85	16.62	16.33	15.80

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	15.04	14.40	13.34	12.47	11.53	11.06	10.77	10.59	10.36
45.0	15.63	14.98	14.16	13.17	12.11	11.29	10.83	10.65	10.42
90.0	14.75	13.99	13.17	12.11	11.41	10.89	10.65	10.42	10.30
135.0	15.63	14.75	13.93	12.93	12.00	11.35	10.94	10.65	10.36
180.0	15.57	14.75	13.99	13.11	12.17	11.53	11.24	10.77	10.48
225.0	15.10	14.28	13.23	12.35	11.70	11.06	10.77	10.48	10.36
270.0	16.21	15.39	14.63	13.40	12.35	11.53	10.89	10.59	10.42
315.0	15.51	14.63	13.58	12.58	11.59	11.00	10.71	10.48	10.30
360.0	15.04	14.40	13.34	12.47	11.53	11.06	10.77	10.59	10.36

Intensity data(cd)

C/γ(°)	90.0
0.0	10.36
45.0	10.30
90.0	10.30
135.0	10.30
180.0	10.42
225.0	10.36
270.0	10.30
315.0	10.30
360.0	10.36