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

Nata

LumCAT: 1-0926-M
Luminaire: 99.02.73.179+92.76.853.00

Report No: 220608-B009	Voltage(V): 38.4900
Test No: 220608-C009	Current(A): 0.3610
LampCAT: CREE CXA1507	Power (W): 13.8940
Lamp flux(lm): 1084.9	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 834.31
Efficiency(%): 76.90%
Lumens(lm)/Power(W): 60.05
Central intensity(cd): 7124.787
Maximum intensity(cd): 7124.787
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=15.8
[C90/270]Total=15.8
Field angle(10%Imax): [C0/180]Total=36.4
[C90/270]Total=36.4
Maximum s/h(1/2): C0_180=0.27 C90_270=0.27
Maximum s/h(1/4): C0_180=0.31 C90_270=0.31
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 76.90%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.575%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7124.786	0.000	0	.000%	.000%
1.0	7018.277	6.767	6.767	.624%	.811%
2.0	6742.368	19.751	26.518	1.820%	3.178%
3.0	6277.864	31.140	57.658	2.870%	6.911%
4.0	5777.956	40.355	98.013	3.720%	11.748%
5.0	5166.908	47.084	145.097	4.340%	17.391%
6.0	4578.043	51.212	196.309	4.720%	23.529%
7.0	4025.478	53.402	249.711	4.922%	29.930%
8.0	3511.753	53.943	303.654	4.972%	36.396%
9.0	3030.816	53.024	356.678	4.887%	42.751%
10.0	2627.933	51.210	407.887	4.720%	48.889%
11.0	2284.652	49.087	456.974	4.524%	54.772%
12.0	1979.614	46.615	503.588	4.297%	60.360%
13.0	1697.147	43.634	547.222	4.022%	65.589%
14.0	1474.059	40.591	587.814	3.741%	70.455%
15.0	1266.455	37.623	625.437	3.468%	74.964%
16.0	1053.518	33.994	659.431	3.133%	79.039%
17.0	905.712	30.510	689.941	2.812%	82.696%
18.0	741.459	27.158	717.099	2.503%	85.951%
19.0	599.142	23.324	740.423	2.150%	88.746%
20.0	469.949	19.567	759.99	1.804%	91.092%
21.0	352.565	15.794	775.784	1.456%	92.985%
22.0	242.530	11.959	787.743	1.102%	94.418%
23.0	163.798	8.526	796.269	.786%	95.440%
24.0	99.055	5.747	802.016	.530%	96.129%
25.0	55.413	3.512	805.528	.324%	96.550%
26.0	28.644	1.984	807.512	.183%	96.788%
27.0	16.230	1.098	808.61	.101%	96.919%
28.0	12.511	0.728	809.338	.067%	97.006%
29.0	10.591	0.604	809.942	.056%	97.079%
30.0	9.635	0.546	810.488	.050%	97.144%
31.0	8.918	0.516	811.005	.048%	97.206%
32.0	8.246	0.492	811.496	.045%	97.265%
33.0	7.716	0.470	811.967	.043%	97.321%
34.0	7.260	0.453	812.42	.042%	97.376%
35.0	6.864	0.439	812.858	.040%	97.428%
36.0	6.513	0.426	813.284	.039%	97.479%
37.0	6.237	0.416	813.7	.038%	97.529%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	5.968	0.407	814.108	.038%	97.578%
39.0	5.759	0.400	814.508	.037%	97.626%
40.0	5.550	0.394	814.902	.036%	97.673%
41.0	5.378	0.389	815.291	.036%	97.720%
42.0	5.228	0.385	815.677	.036%	97.766%
43.0	5.086	0.382	816.059	.035%	97.812%
44.0	4.967	0.379	816.438	.035%	97.857%
45.0	4.870	0.378	816.816	.035%	97.903%
46.0	4.765	0.377	817.193	.035%	97.948%
47.0	4.676	0.375	817.569	.035%	97.993%
48.0	4.601	0.375	817.944	.035%	98.038%
49.0	4.511	0.374	818.318	.034%	98.083%
50.0	4.429	0.373	818.691	.034%	98.127%
51.0	4.369	0.372	819.063	.034%	98.172%
52.0	4.325	0.373	819.436	.034%	98.217%
53.0	4.257	0.373	819.809	.034%	98.261%
54.0	4.213	0.373	820.182	.034%	98.306%
55.0	4.160	0.374	820.556	.034%	98.351%
56.0	4.108	0.374	820.93	.034%	98.396%
57.0	4.078	0.374	821.304	.034%	98.441%
58.0	4.026	0.375	821.679	.035%	98.486%
59.0	3.989	0.375	822.054	.035%	98.530%
60.0	3.951	0.375	822.429	.035%	98.575%
61.0	3.921	0.376	822.804	.035%	98.620%
62.0	3.914	0.378	823.182	.035%	98.666%
63.0	3.884	0.379	823.561	.035%	98.711%
64.0	3.854	0.380	823.941	.035%	98.757%
65.0	3.832	0.380	824.321	.035%	98.802%
66.0	3.802	0.381	824.702	.035%	98.848%
67.0	3.779	0.381	825.083	.035%	98.894%
68.0	3.779	0.383	825.466	.035%	98.940%
69.0	3.749	0.384	825.85	.035%	98.986%
70.0	3.749	0.385	826.235	.035%	99.032%
71.0	3.742	0.387	826.623	.036%	99.078%
72.0	3.727	0.388	827.011	.036%	99.125%
73.0	3.742	0.391	827.402	.036%	99.171%
74.0	3.802	0.397	827.798	.037%	99.219%
75.0	3.817	0.403	828.201	.037%	99.267%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.869	0.408	828.609	.038%	99.316%
77.0	3.914	0.415	829.024	.038%	99.366%
78.0	3.929	0.420	829.443	.039%	99.416%
79.0	3.906	0.421	829.864	.039%	99.467%
80.0	3.854	0.418	830.283	.039%	99.517%
81.0	3.802	0.414	830.697	.038%	99.566%
82.0	3.839	0.414	831.111	.038%	99.616%
83.0	3.862	0.419	831.53	.039%	99.666%
84.0	3.899	0.423	831.953	.039%	99.717%
85.0	3.839	0.422	832.375	.039%	99.768%
86.0	3.600	0.407	832.781	.037%	99.816%
87.0	3.481	0.388	833.169	.036%	99.863%
88.0	3.488	0.382	833.551	.035%	99.909%
89.0	3.481	0.382	833.933	.035%	99.954%
90.0	3.473	0.381	834.314	.035%	100.000%

Zonal flux distribution table

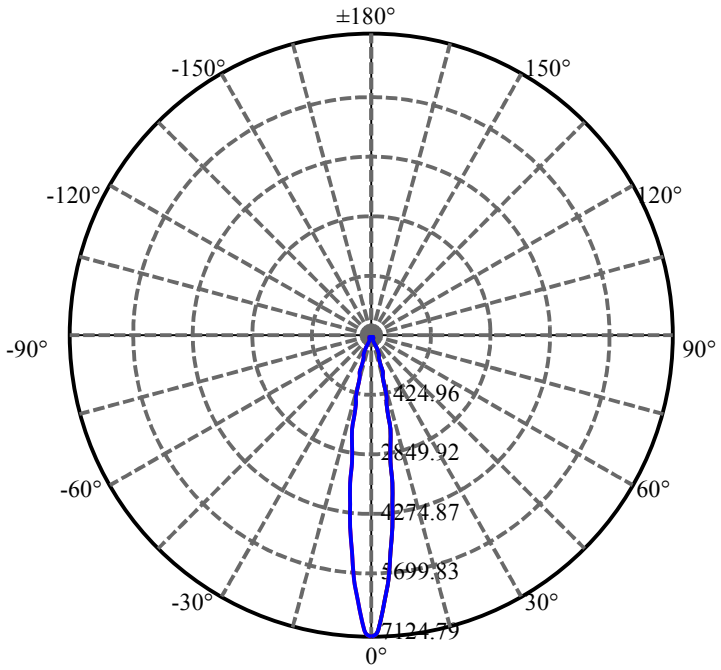
ZONAL LUMEN SUMMARY

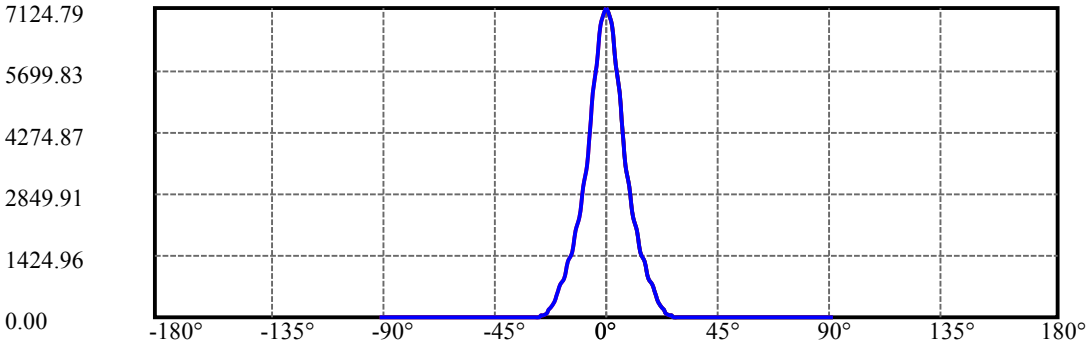
Zone	Lumens	%Lamp	%Fixt
0-30	810.49	74.70%	97.14%
0-40	814.90	75.11%	97.67%
0-60	822.43	75.81%	98.58%
0-90	833.93	76.87%	99.95%
0-120	833.93	76.87%	99.95%
0-180	834.31	76.90%	100.00%
60-90	11.88	1.09%	1.42%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-16.26	667.45	61.52%	80.00%

ZONAL LUMEN SUMMARY

0-10	407.89
10-20	352.10
20-30	50.50
30-40	4.41
40-50	3.79
50-60	3.74
60-70	3.81
70-80	4.05
80-90	3.65
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):

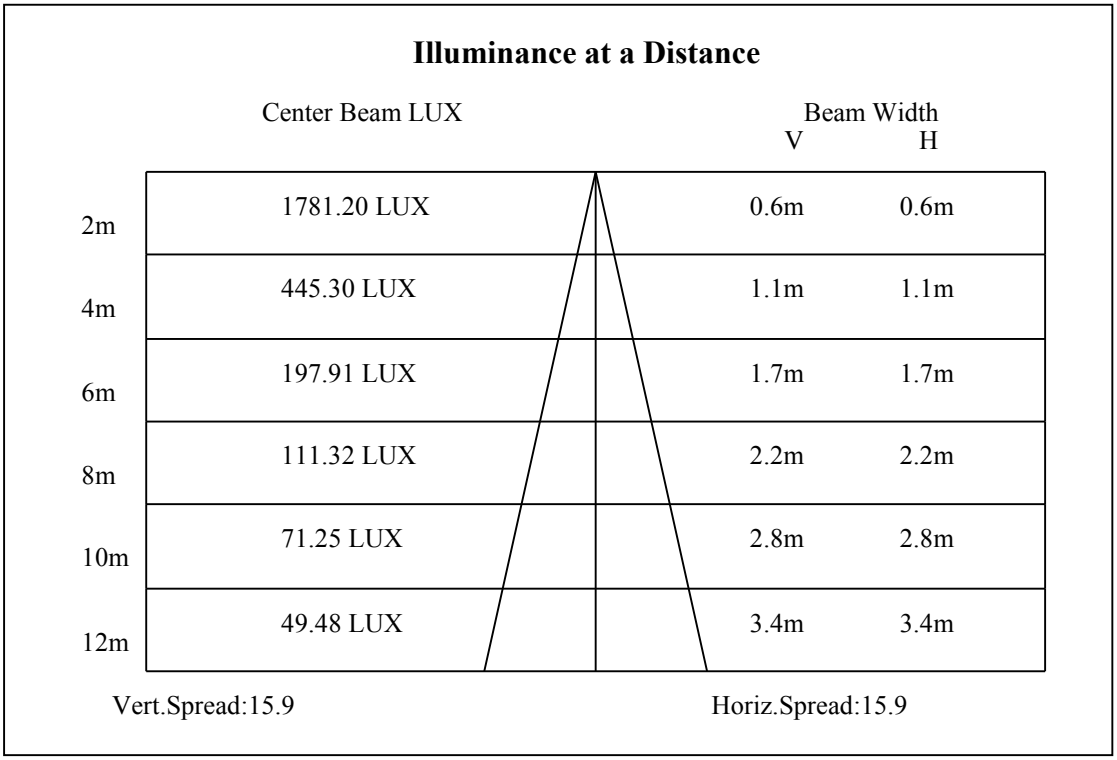
C0/C180:

C90/C270:

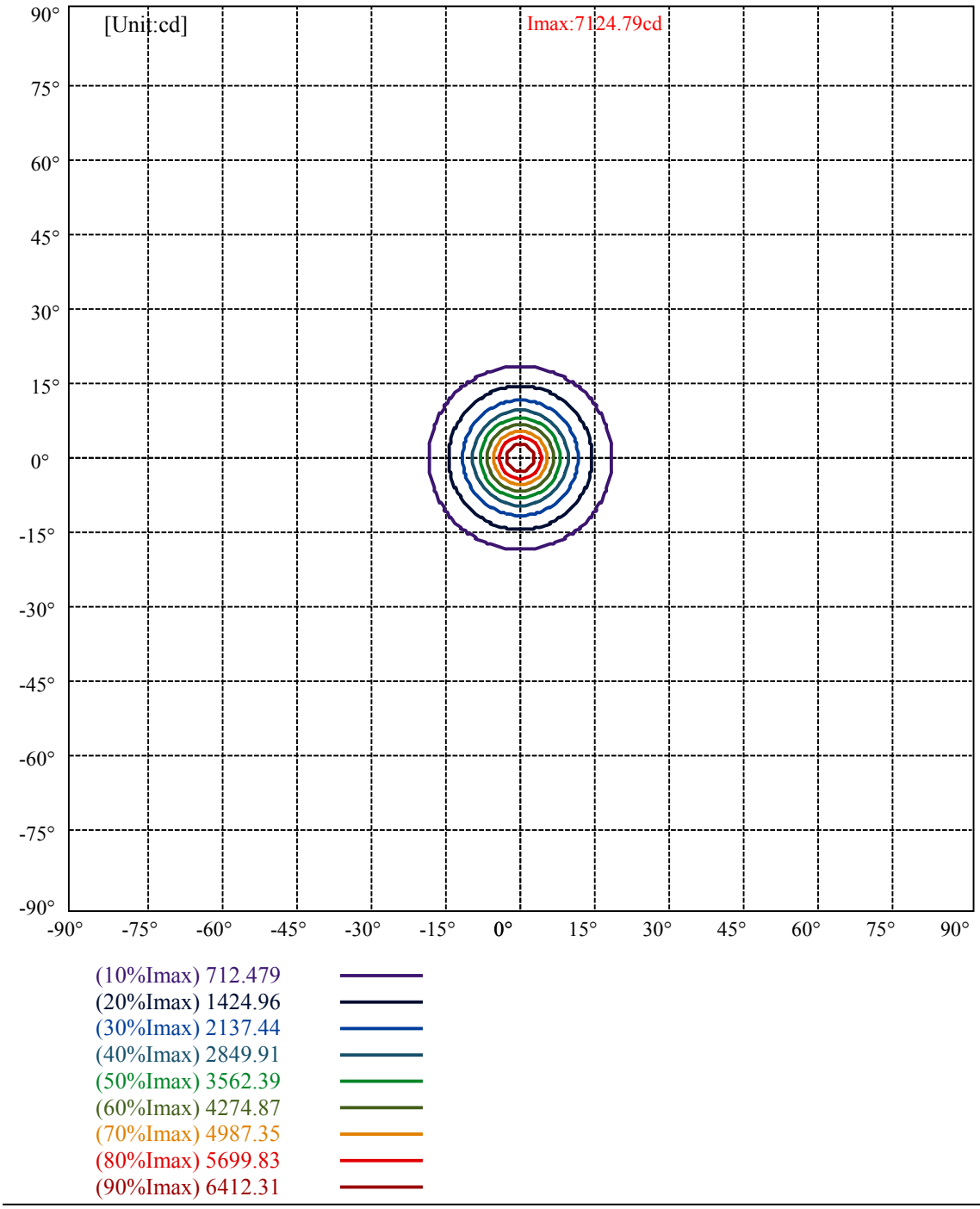
Field angle(10%Imax):C0/180Left:18.2 Right:18.2
:C90/270Left:18.2 Right:18.2

Beam Angle(50%Imax):C0/180Left:7.9 Right:7.9
:C90/270Left:7.9 Right:7.9

Lux distance Curve



ISO-Intensity(V-H)

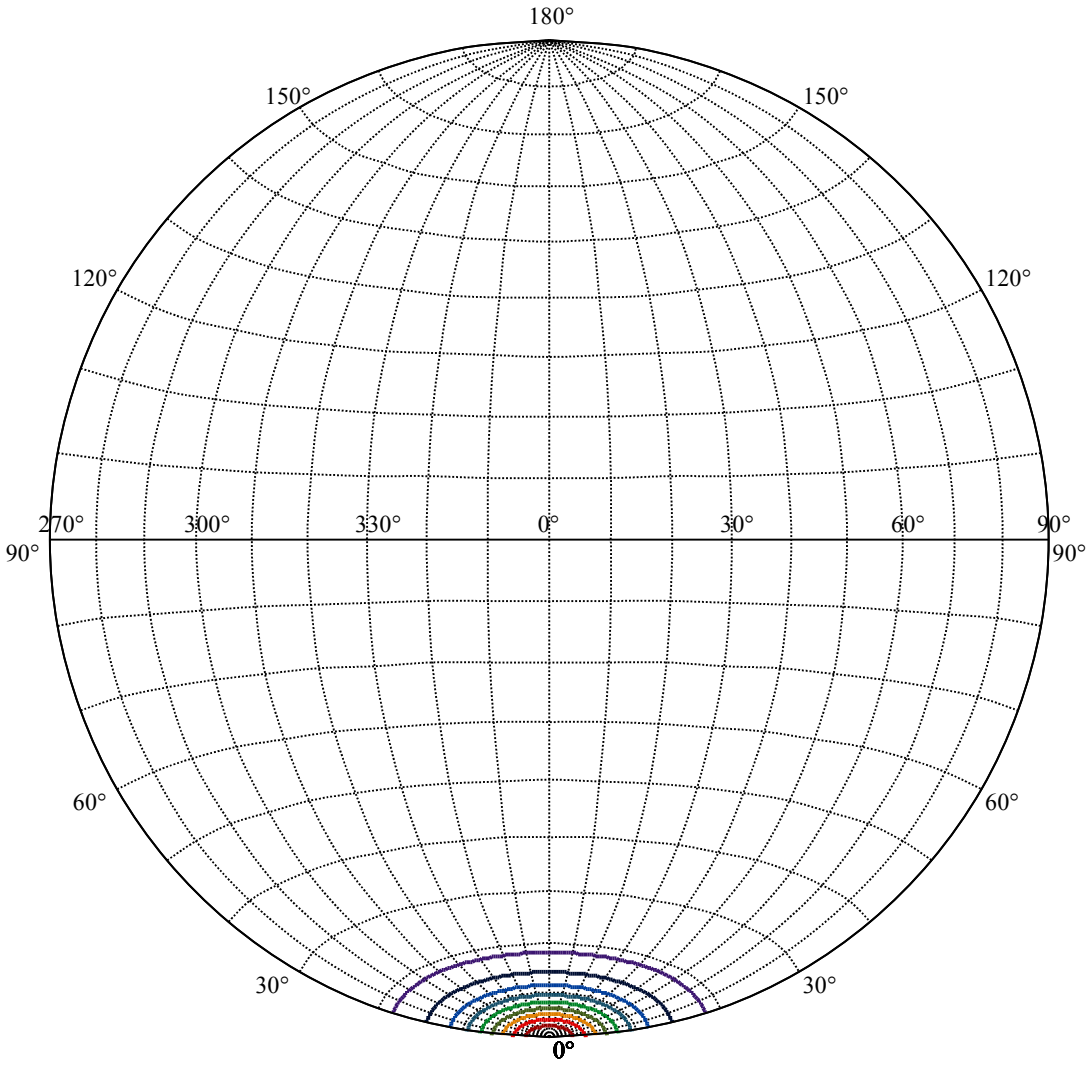


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/6/08
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:7124.79

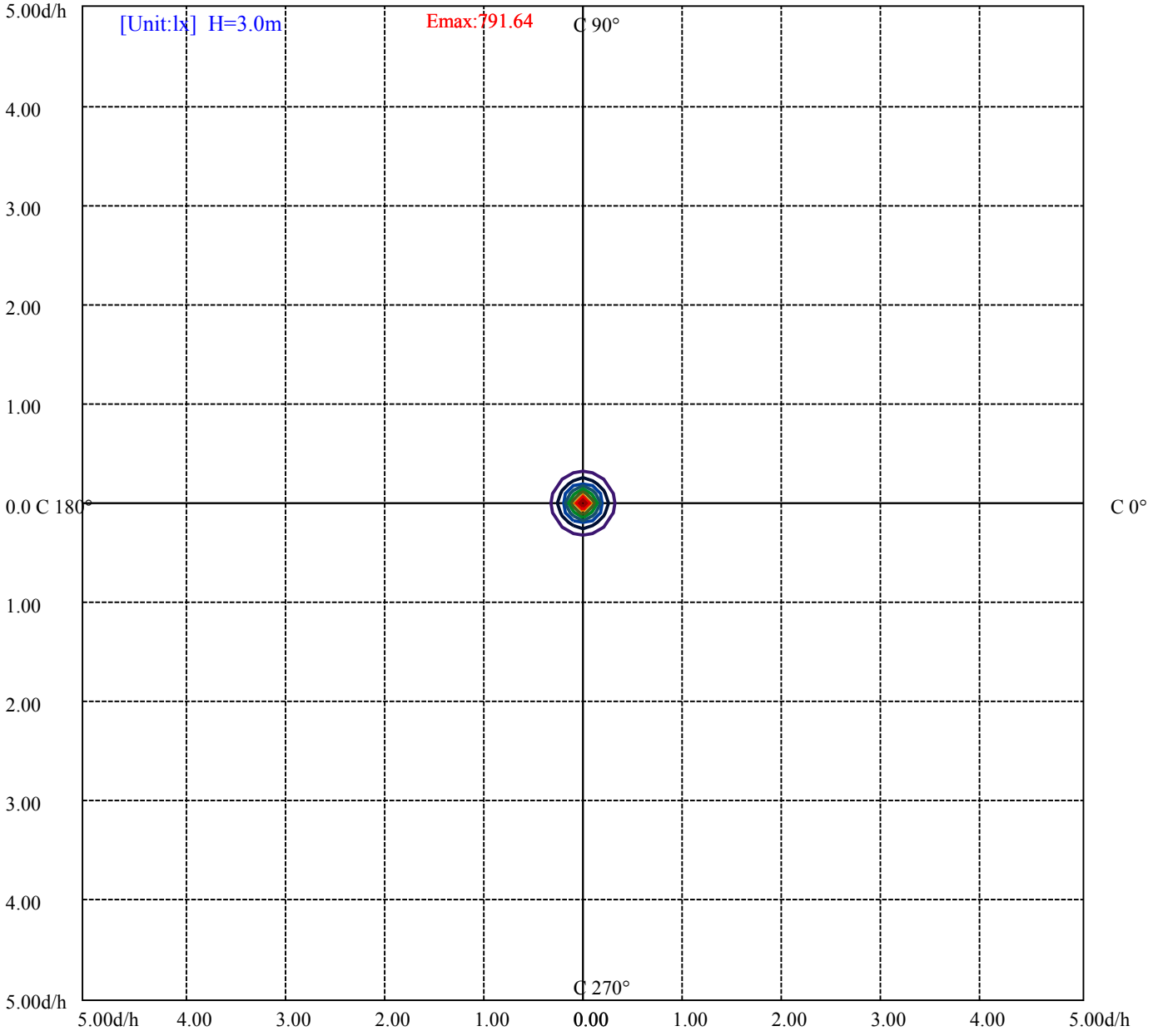
(10%Imax) 712.479
(20%Imax) 1424.96
(30%Imax) 2137.44
(40%Imax) 2849.91
(50%Imax) 3562.39
(60%Imax) 4274.87
(70%Imax) 4987.35
(80%Imax) 5699.83
(90%Imax) 6412.31

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/6/08
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

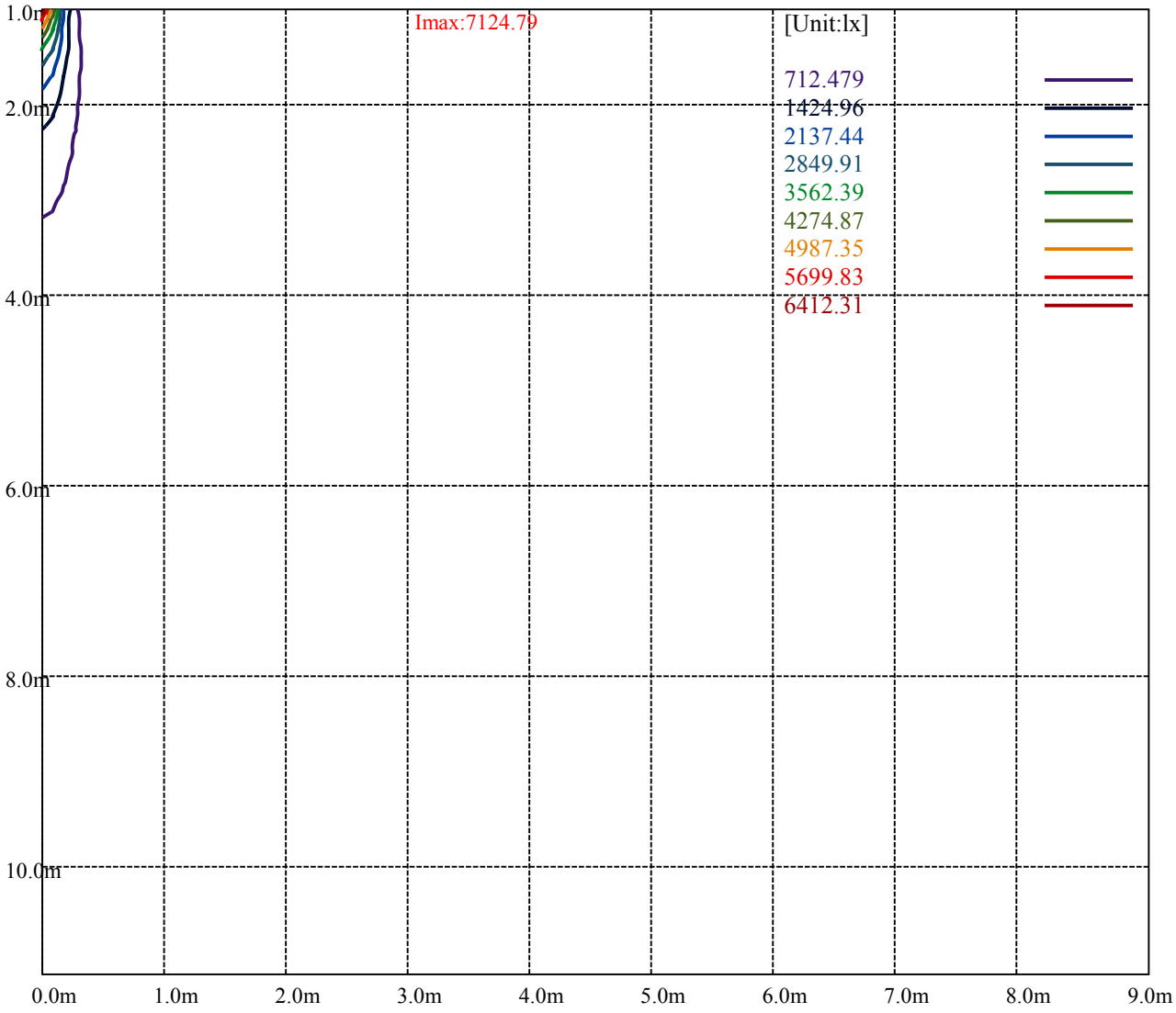
ISO illuminance diagram



(10%Emax) 79.16411
(20%Emax) 158.3278
(30%Emax) 237.4922
(40%Emax) 316.6566
(50%Emax) 395.8211
(60%Emax) 474.9844
(70%Emax) 554.1489
(80%Emax) 633.3133
(90%Emax) 712.4767

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2022/6/08
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.73

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/6/08
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

Luminance Limitting Curve(no luminous side)

Luminance Table

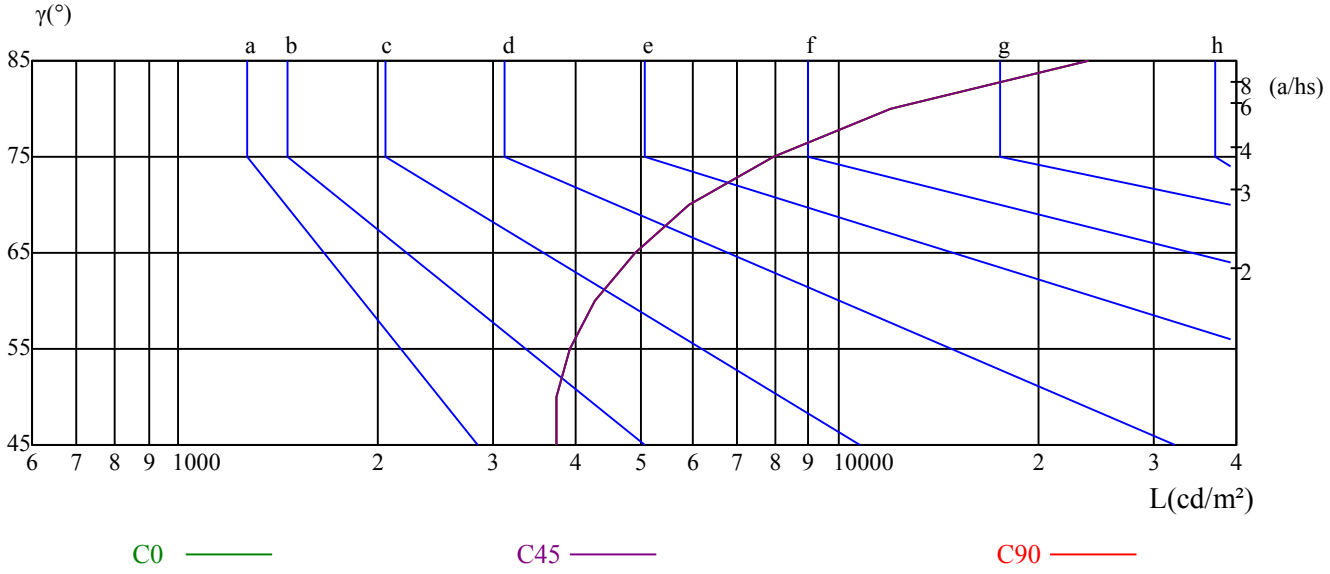
γ	45	50	55	60	65	70	75	80	85
C0	3725	3727	3923	4274	4903	5929	7975	12004	23823
C45	3725	3727	3923	4274	4903	5929	7975	12004	23823
C90	3725	3727	3923	4274	4903	5929	7975	12004	23823

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4903	4903	4903	7975	7975	7975	23823	23823	23823

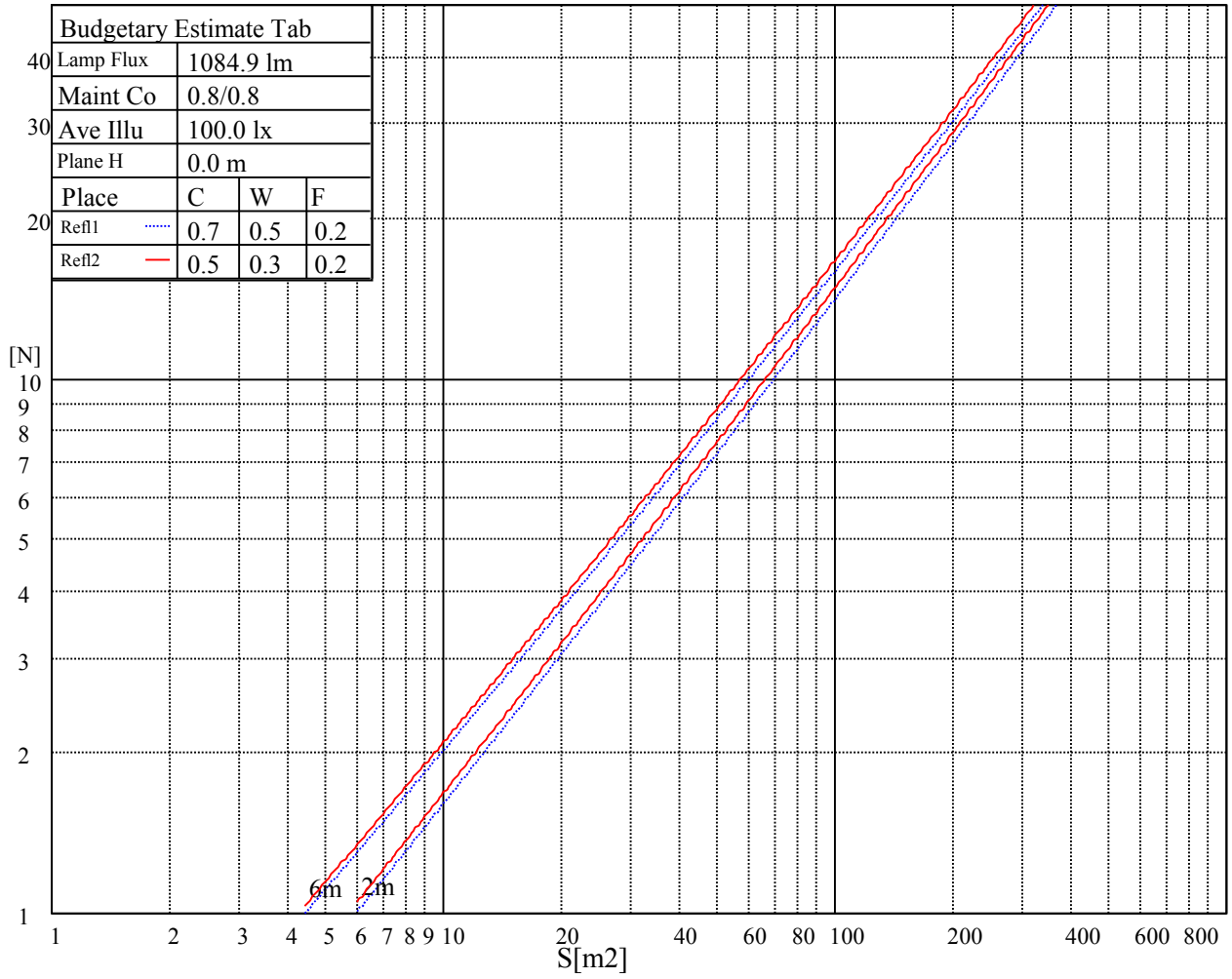
Glare Table

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

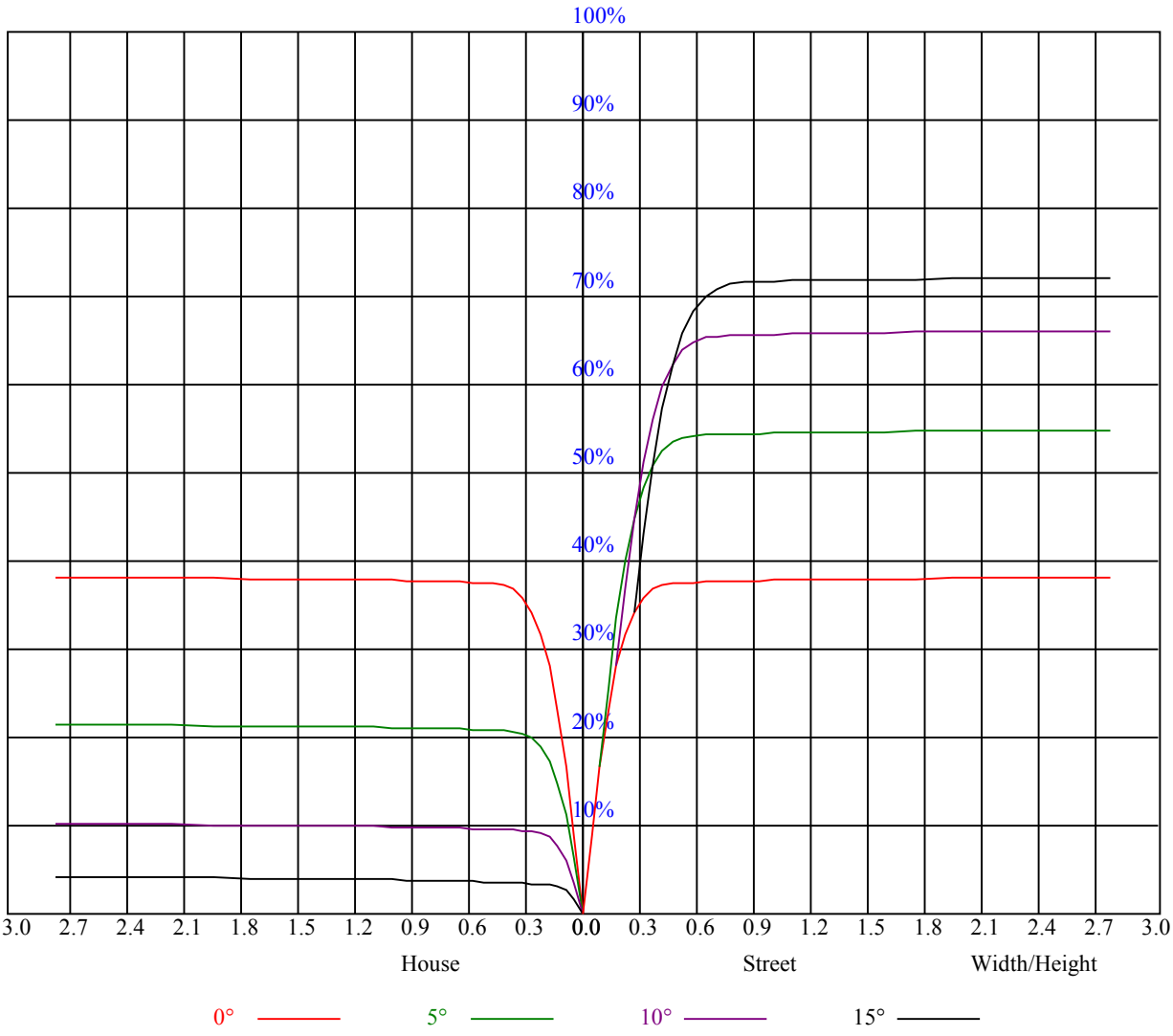


Equipment: GMS1980 Date: 2022/6/08 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.73

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	0.92	0.92	0.92	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.78	0.78	0.78	0.77
1	0.87	0.86	0.84	0.85	0.84	0.83	0.82	0.81	0.80	0.80	0.79	0.78	0.77	0.76	0.76	0.75
2	0.83	0.81	0.79	0.82	0.80	0.79	0.80	0.78	0.77	0.78	0.76	0.75	0.76	0.75	0.74	0.73
3	0.80	0.78	0.76	0.79	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.74	0.73	0.72	0.71
4	0.78	0.75	0.73	0.77	0.74	0.73	0.76	0.73	0.72	0.74	0.72	0.71	0.73	0.71	0.70	0.69
5	0.76	0.73	0.71	0.75	0.72	0.70	0.74	0.71	0.70	0.73	0.71	0.69	0.72	0.70	0.69	0.68
6	0.74	0.71	0.69	0.73	0.70	0.68	0.72	0.70	0.68	0.71	0.69	0.68	0.70	0.69	0.67	0.67
7	0.72	0.69	0.67	0.71	0.69	0.67	0.71	0.68	0.67	0.70	0.68	0.66	0.69	0.67	0.66	0.65
8	0.70	0.67	0.66	0.70	0.67	0.65	0.69	0.67	0.65	0.69	0.66	0.65	0.68	0.66	0.65	0.64
9	0.69	0.66	0.64	0.68	0.66	0.64	0.68	0.66	0.64	0.67	0.65	0.64	0.67	0.65	0.64	0.63
10	0.67	0.65	0.63	0.67	0.65	0.63	0.67	0.64	0.63	0.66	0.64	0.63	0.66	0.64	0.62	0.62

Coefficient Utilization Curve



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/6/08
Humidity(%): 65.0%

Operator: NT07
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	7072.95	7368.13	7359.76	7095.66	6607.48	5981.86	5426.76	4783.82	4219.15
45.0	7286.27	6879.95	6318.87	5724.93	5229.57	4514.33	3952.06	3454.32	2924.90
90.0	6921.18	6389.38	5832.48	5123.21	4565.12	4010.02	3440.57	2947.61	2583.72
135.0	7218.75	6683.96	6063.72	5519.97	4877.03	4239.47	3711.25	3186.62	2800.02
180.0	7072.95	6625.40	6115.71	5427.95	4857.31	4288.47	3705.28	3187.22	2786.28
225.0	7286.27	7403.38	7246.23	6808.25	6302.14	5761.37	5043.74	4481.47	3932.94
270.0	6921.18	7319.13	7516.91	7377.09	7078.93	6383.40	5807.98	5298.89	4569.90
315.0	7218.75	7476.88	7485.25	7145.85	6706.07	6156.34	5536.70	4863.89	4277.11
360.0	7072.95	7368.13	7359.76	7095.66	6607.48	5981.86	5426.76	4783.82	4219.15

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3632.98	3116.11	2732.50	2399.68	2032.20	1780.64	1552.38	1306.20	1126.34
45.0	2560.41	2243.72	1934.20	1662.33	1453.19	1246.45	1076.15	917.80	739.14
90.0	2227.59	1914.48	1674.28	1438.85	1192.19	1069.88	891.45	747.27	611.45
135.0	2421.79	2087.77	1825.45	1585.24	1333.09	1158.61	1000.26	806.66	667.44
180.0	2408.04	2082.39	1828.44	1569.71	1312.77	1169.90	982.94	829.61	689.49
225.0	3394.56	2929.68	2572.36	2223.41	1912.69	1666.51	1431.08	1179.10	1048.07
270.0	3940.70	3507.50	2969.72	2602.24	2278.38	1925.24	1679.06	1460.36	1223.14
315.0	3660.46	3141.81	2740.27	2355.46	2062.67	1775.26	1518.32	1181.14	1140.62
360.0	3632.98	3116.11	2732.50	2399.68	2032.20	1780.64	1552.38	1306.20	1126.34

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	963.81	795.91	645.33	517.46	379.43	310.72	168.56	92.44	42.90
45.0	603.50	463.08	326.85	312.51	139.16	74.45	29.46	18.28	12.61
90.0	446.71	331.03	229.69	128.35	68.72	32.15	17.93	12.31	10.76
135.0	531.80	393.17	310.12	175.67	102.18	42.48	21.51	16.01	11.53
180.0	517.70	393.29	283.05	170.83	101.16	48.64	24.20	15.48	11.89
225.0	867.49	728.87	592.39	436.20	319.02	219.11	121.12	63.76	29.76
270.0	1052.85	892.71	714.64	583.19	454.12	313.70	251.50	133.97	65.85
315.0	947.80	795.07	657.52	496.31	376.44	269.13	158.17	91.06	43.86
360.0	963.81	795.91	645.33	517.46	379.43	310.72	168.56	92.44	42.90

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	21.33	15.00	12.37	11.23	10.28	9.38	8.78	8.13	7.65
45.0	10.88	9.98	9.14	8.48	7.95	7.41	7.05	6.63	6.33
90.0	9.68	9.02	8.31	7.77	7.35	6.87	6.51	6.27	6.04
135.0	10.16	9.38	8.66	8.13	7.59	7.11	6.75	6.45	6.15
180.0	10.64	9.68	8.90	8.37	7.77	7.29	6.87	6.57	6.27
225.0	19.00	13.21	11.59	10.40	9.62	8.84	8.25	7.65	7.17
270.0	27.90	18.05	13.27	11.71	10.58	9.68	8.96	8.25	7.71
315.0	20.26	15.77	12.49	10.99	10.22	9.38	8.54	8.13	7.59
360.0	21.33	15.00	12.37	11.23	10.28	9.38	8.78	8.13	7.65

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	7.23	6.87	6.51	6.21	5.98	5.80	5.62	5.44	5.26
45.0	6.09	5.86	5.62	5.50	5.32	5.14	5.02	4.90	4.78
90.0	5.80	5.62	5.44	5.26	5.14	5.02	4.90	4.78	4.72
135.0	5.92	5.74	5.56	5.44	5.26	5.14	5.02	4.96	4.84
180.0	6.04	5.80	5.62	5.44	5.26	5.14	5.02	4.90	4.78
225.0	6.69	6.39	6.09	5.86	5.62	5.44	5.26	5.08	4.96
270.0	7.29	6.87	6.45	6.21	5.92	5.68	5.50	5.32	5.20
315.0	7.05	6.75	6.45	6.15	5.92	5.68	5.50	5.32	5.20
360.0	7.23	6.87	6.51	6.21	5.98	5.80	5.62	5.44	5.26

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	5.14	5.02	4.90	4.84	4.72	4.60	4.54	4.48	4.42
45.0	4.72	4.60	4.54	4.48	4.36	4.30	4.24	4.18	4.12
90.0	4.66	4.60	4.48	4.42	4.36	4.30	4.24	4.24	4.18
135.0	4.78	4.72	4.66	4.60	4.54	4.42	4.42	4.36	4.30
180.0	4.72	4.60	4.54	4.48	4.42	4.36	4.30	4.24	4.18
225.0	4.84	4.72	4.66	4.54	4.42	4.36	4.30	4.24	4.18
270.0	5.08	4.96	4.78	4.72	4.60	4.54	4.42	4.42	4.30
315.0	5.02	4.90	4.84	4.72	4.66	4.54	4.48	4.42	4.36
360.0	5.14	5.02	4.90	4.84	4.72	4.60	4.54	4.48	4.42

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.36	4.24	4.24	4.18	4.12	4.06	4.00	4.00	4.00
45.0	4.06	4.06	4.00	3.94	3.88	3.82	3.82	3.76	3.76
90.0	4.18	4.12	4.06	4.00	4.00	4.00	3.94	3.94	3.94
135.0	4.30	4.24	4.18	4.18	4.18	4.18	4.12	4.12	4.12
180.0	4.12	4.12	4.06	4.00	3.94	3.94	3.94	3.88	3.82
225.0	4.12	4.06	4.00	4.00	3.94	3.88	3.82	3.82	3.82
270.0	4.24	4.18	4.12	4.12	4.06	4.00	3.94	3.88	3.88
315.0	4.30	4.24	4.18	4.18	4.06	4.00	4.00	3.94	3.94
360.0	4.36	4.24	4.24	4.18	4.12	4.06	4.00	4.00	4.00

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.94	3.94	3.88	3.88	3.82	3.82	3.82	3.82	3.76
45.0	3.70	3.70	3.70	3.64	3.64	3.64	3.59	3.59	3.59
90.0	3.94	3.88	3.88	3.82	3.82	3.82	3.76	3.82	3.82
135.0	4.12	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06
180.0	3.88	3.82	3.82	3.82	3.76	3.76	3.76	3.76	3.76
225.0	3.76	3.70	3.70	3.64	3.64	3.64	3.59	3.59	3.59
270.0	3.82	3.82	3.76	3.76	3.70	3.70	3.70	3.64	3.64
315.0	3.88	3.88	3.82	3.76	3.76	3.76	3.70	3.70	3.70
360.0	3.94	3.94	3.88	3.88	3.82	3.82	3.82	3.82	3.76

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.76	3.76	3.76	3.70	3.70	3.76	3.70	3.70	3.70
45.0	3.59	3.59	3.53	3.53	3.53	3.53	3.59	3.53	3.59
90.0	3.76	3.82	3.82	3.82	3.82	3.82	3.82	3.88	3.94
135.0	4.06	4.12	4.78	4.96	5.44	5.68	5.80	5.68	5.08
180.0	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.76
225.0	3.59	3.59	3.59	3.53	3.53	3.59	3.59	3.53	3.59
270.0	3.64	3.64	3.59	3.59	3.59	3.59	3.59	3.59	3.53
315.0	3.70	3.70	3.64	3.70	3.64	3.64	3.64	3.64	3.64
360.0	3.76	3.76	3.76	3.70	3.70	3.76	3.70	3.70	3.70

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.70	3.76	3.82	3.82	3.82	3.88	3.59	3.59	3.53
45.0	3.64	3.64	3.70	3.76	3.82	3.41	3.41	3.41	3.41
90.0	4.12	4.18	4.18	4.18	3.70	3.47	3.41	3.41	3.47
135.0	4.36	4.42	4.48	4.66	4.66	3.53	3.53	3.53	3.53
180.0	3.82	3.82	3.88	3.94	3.88	3.53	3.53	3.59	3.59
225.0	3.59	3.59	3.59	3.64	3.64	3.70	3.41	3.41	3.41
270.0	3.53	3.59	3.59	3.53	3.53	3.59	3.47	3.47	3.47
315.0	3.64	3.70	3.64	3.64	3.64	3.70	3.53	3.53	3.47
360.0	3.70	3.76	3.82	3.82	3.82	3.88	3.59	3.59	3.53

Intensity data(cd)

C/γ(°)	90.0
0.0	3.53
45.0	3.41
90.0	3.47
135.0	3.53
180.0	3.53
225.0	3.41
270.0	3.47
315.0	3.47
360.0	3.53