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Nata

LumCAT: 3-1549-A3
Luminaire: 99.02.73.172+92.76.365.00

Report No: NATA0100	Voltage(V): 34.5000
Test No: GC2018082816	Current(A): 0.5000
LampCAT: SAMSUNG LC026D	Power (W): 17.2500
Lamp flux(lm): 2486.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 79	Width(mm): 79
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2290.74
Efficiency(%): 92.15%
Lumens(lm)/Power(W): 132.80
Central intensity(cd): 8464.784
Maximum intensity(cd): 8464.784
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.9
[C90/270]Total=23.9
Field angle(10%Imax): [C0/180]Total=59.0
[C90/270]Total=59.0
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.22%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.536%

Equipment: GMS1980	Date: 2018/8/28	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8464.784	2.025	2.025	.081%	.088%
1.0	8420.051	16.115	18.14	.648%	.792%
2.0	8247.655	31.565	49.705	1.270%	2.170%
3.0	8001.347	45.921	95.626	1.847%	4.174%
4.0	7720.215	59.056	154.682	2.376%	6.752%
5.0	7330.003	70.057	224.739	2.818%	9.811%
6.0	6952.935	79.699	304.438	3.206%	13.290%
7.0	6535.057	87.336	391.775	3.513%	17.103%
8.0	6065.908	92.577	484.352	3.724%	21.144%
9.0	5602.539	96.110	580.462	3.866%	25.340%
10.0	5141.992	97.916	678.378	3.939%	29.614%
11.0	4649.238	97.282	775.66	3.913%	33.861%
12.0	4211.883	96.030	871.69	3.863%	38.053%
13.0	3775.837	93.144	964.833	3.747%	42.119%
14.0	3300.149	87.551	1052.384	3.522%	45.941%
15.0	2940.769	83.466	1135.85	3.357%	49.584%
16.0	2597.836	78.524	1214.374	3.159%	53.012%
17.0	2267.842	72.711	1287.085	2.925%	56.186%
18.0	2000.750	67.800	1354.885	2.727%	59.146%
19.0	1786.649	63.787	1418.672	2.566%	61.931%
20.0	1579.637	59.246	1477.918	2.383%	64.517%
21.0	1423.001	55.922	1533.84	2.249%	66.958%
22.0	1298.312	53.334	1587.175	2.145%	69.287%
23.0	1188.551	50.927	1638.102	2.049%	71.510%
24.0	1097.088	48.934	1687.035	1.968%	73.646%
25.0	1034.317	47.935	1734.97	1.928%	75.738%
26.0	980.272	47.124	1782.094	1.896%	77.796%
27.0	934.259	46.512	1828.606	1.871%	79.826%
28.0	899.525	46.310	1874.916	1.863%	81.848%
29.0	865.143	45.995	1920.911	1.850%	83.856%
30.0	826.300	45.306	1966.217	1.822%	85.833%
31.0	778.670	43.979	2010.196	1.769%	87.753%
32.0	713.077	41.438	2051.634	1.667%	89.562%
33.0	642.777	38.390	2090.024	1.544%	91.238%
34.0	563.695	34.567	2124.591	1.390%	92.747%
35.0	477.401	30.028	2154.619	1.208%	94.058%
36.0	386.228	24.895	2179.514	1.001%	95.145%
37.0	311.433	20.553	2200.067	.827%	96.042%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	222.407	15.016	2215.083	.604%	96.697%
39.0	151.109	10.428	2225.511	.419%	97.153%
40.0	102.219	7.205	2232.717	.290%	97.467%
41.0	59.943	4.313	2237.029	.173%	97.655%
42.0	35.147	2.579	2239.608	.104%	97.768%
43.0	24.686	1.846	2241.454	.074%	97.849%
44.0	19.614	1.494	2242.948	.060%	97.914%
45.0	15.739	1.220	2244.169	.049%	97.967%
46.0	13.964	1.102	2245.27	.044%	98.015%
47.0	12.752	1.023	2246.293	.041%	98.060%
48.0	11.899	0.970	2247.263	.039%	98.102%
49.0	11.720	0.970	2248.233	.039%	98.144%
50.0	11.555	0.971	2249.203	.039%	98.187%
51.0	11.438	0.975	2250.178	.039%	98.229%
52.0	11.321	0.978	2251.157	.039%	98.272%
53.0	11.204	0.981	2252.138	.039%	98.315%
54.0	11.087	0.984	2253.121	.040%	98.358%
55.0	11.004	0.989	2254.11	.040%	98.401%
56.0	10.908	0.992	2255.102	.040%	98.444%
57.0	10.832	0.996	2256.098	.040%	98.488%
58.0	10.770	1.002	2257.099	.040%	98.531%
59.0	10.708	1.007	2258.106	.040%	98.575%
60.0	10.626	1.009	2259.115	.041%	98.619%
61.0	10.571	1.014	2260.129	.041%	98.664%
62.0	10.530	1.020	2261.149	.041%	98.708%
63.0	10.488	1.025	2262.173	.041%	98.753%
64.0	10.461	1.031	2263.204	.041%	98.798%
65.0	10.413	1.035	2264.239	.042%	98.843%
66.0	10.399	1.042	2265.281	.042%	98.889%
67.0	10.357	1.046	2266.327	.042%	98.934%
68.0	10.323	1.050	2267.376	.042%	98.980%
69.0	10.316	1.056	2268.432	.042%	99.026%
70.0	10.296	1.061	2269.493	.043%	99.073%
71.0	10.282	1.066	2270.559	.043%	99.119%
72.0	10.261	1.070	2271.629	.043%	99.166%
73.0	10.220	1.072	2272.701	.043%	99.213%
74.0	10.227	1.078	2273.779	.043%	99.260%
75.0	10.199	1.080	2274.86	.043%	99.307%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.179	1.083	2275.943	.044%	99.354%
77.0	10.172	1.087	2277.029	.044%	99.402%
78.0	10.137	1.087	2278.117	.044%	99.449%
79.0	10.123	1.090	2279.207	.044%	99.497%
80.0	10.117	1.093	2280.299	.044%	99.544%
81.0	10.103	1.094	2281.393	.044%	99.592%
82.0	10.089	1.096	2282.489	.044%	99.640%
83.0	10.096	1.099	2283.588	.044%	99.688%
84.0	10.117	1.103	2284.691	.044%	99.736%
85.0	10.179	1.112	2285.803	.045%	99.785%
86.0	10.220	1.118	2286.921	.045%	99.833%
87.0	9.993	1.094	2288.015	.044%	99.881%
88.0	9.945	1.090	2289.105	.044%	99.929%
89.0	9.931	1.089	2290.194	.044%	99.976%
90.0	9.938	0.545	2290.739	.022%	100.000%

Zonal flux distribution table

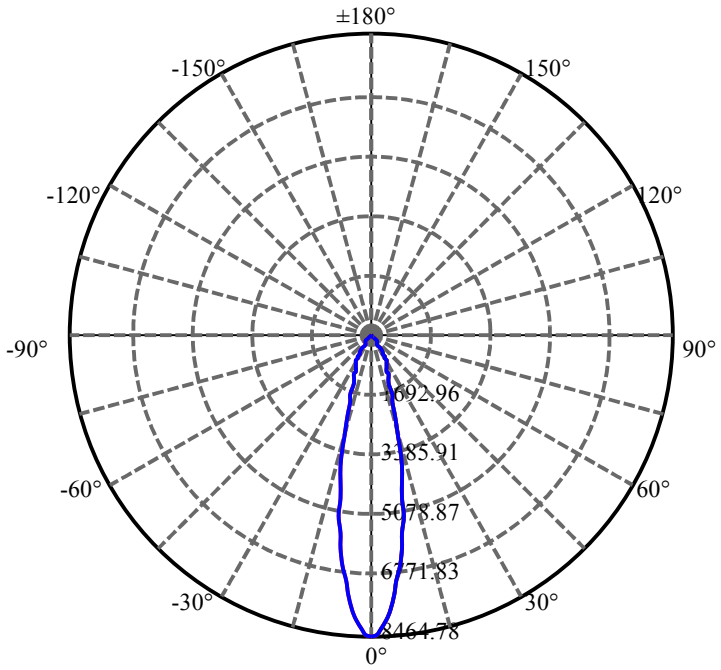
ZONAL LUMEN SUMMARY

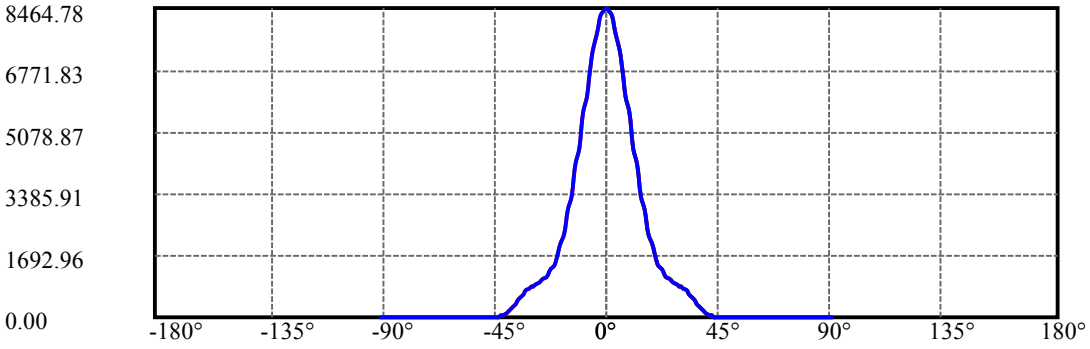
Zone	Lumens	%Lamp	%Fixt
0-30	1966.22	79.09%	85.83%
0-40	2232.72	89.81%	97.47%
0-60	2259.12	90.87%	98.62%
0-90	2290.19	92.12%	99.98%
0-120	2290.19	92.12%	99.98%
0-180	2290.74	92.15%	100.00%
60-90	32.09	1.29%	1.40%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.09	1832.59	73.72%	80.00%

ZONAL LUMEN SUMMARY

0-10	678.38
10-20	799.54
20-30	488.30
30-40	266.50
40-50	16.49
50-60	9.91
60-70	10.38
70-80	10.81
80-90	9.90
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):

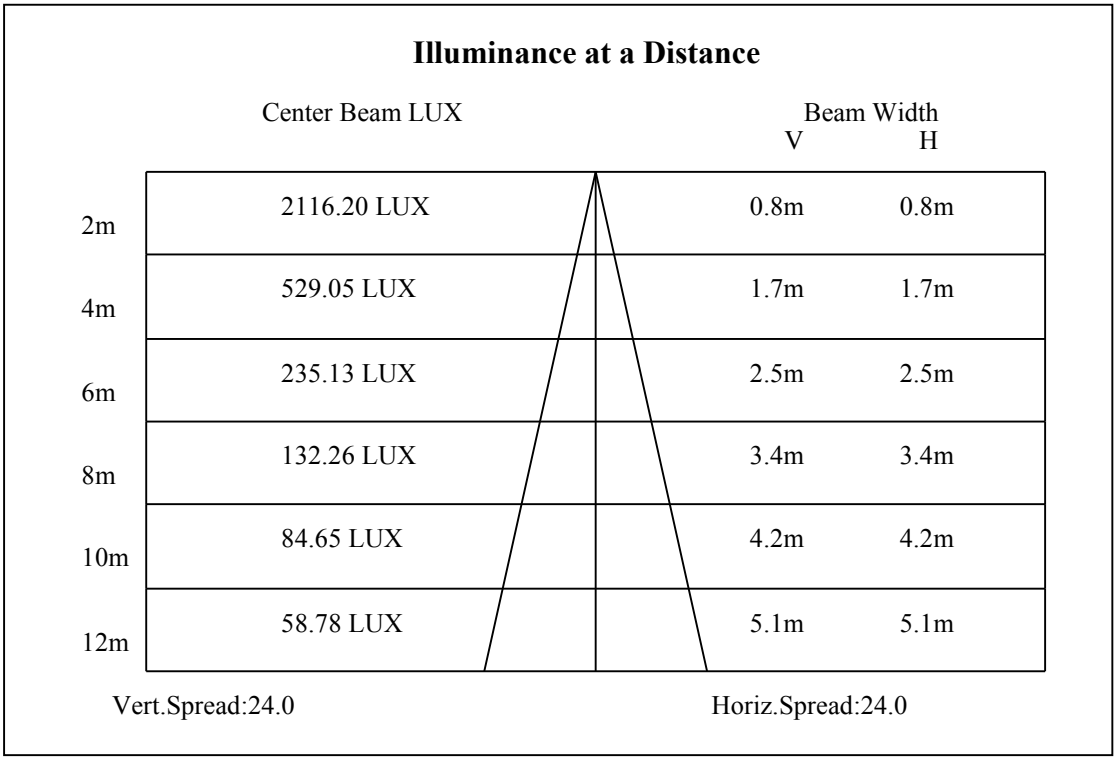
C0/C180:

C90/C270:

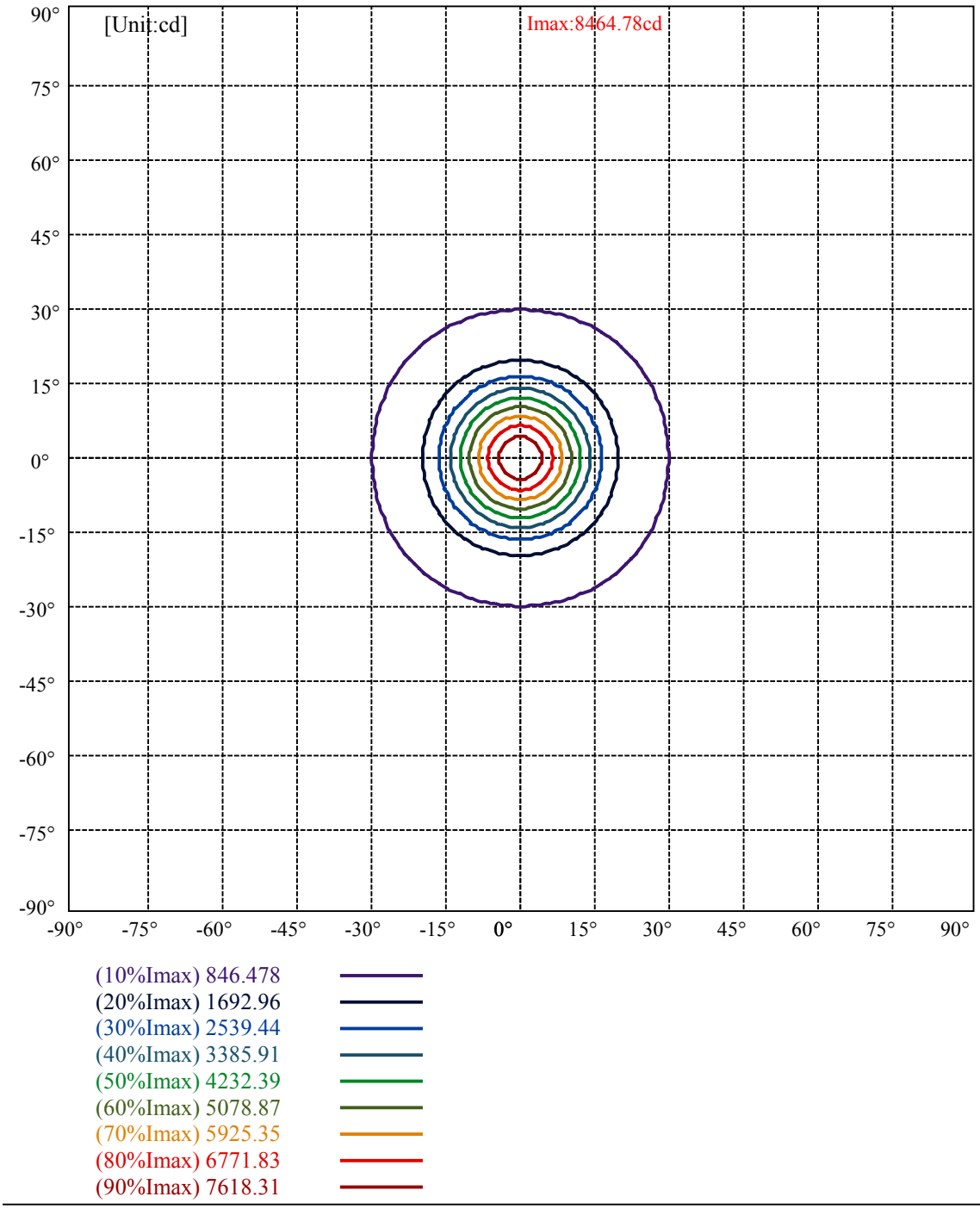
Field angle(10%Imax):C0/180Left:29.5 Right:29.5
:C90/270Left:29.5 Right:29.5

Beam Angle(50%Imax):C0/180Left:12.0 Right:12.0
:C90/270Left:12.0 Right:12.0

Lux distance Curve



ISO-Intensity(V-H)

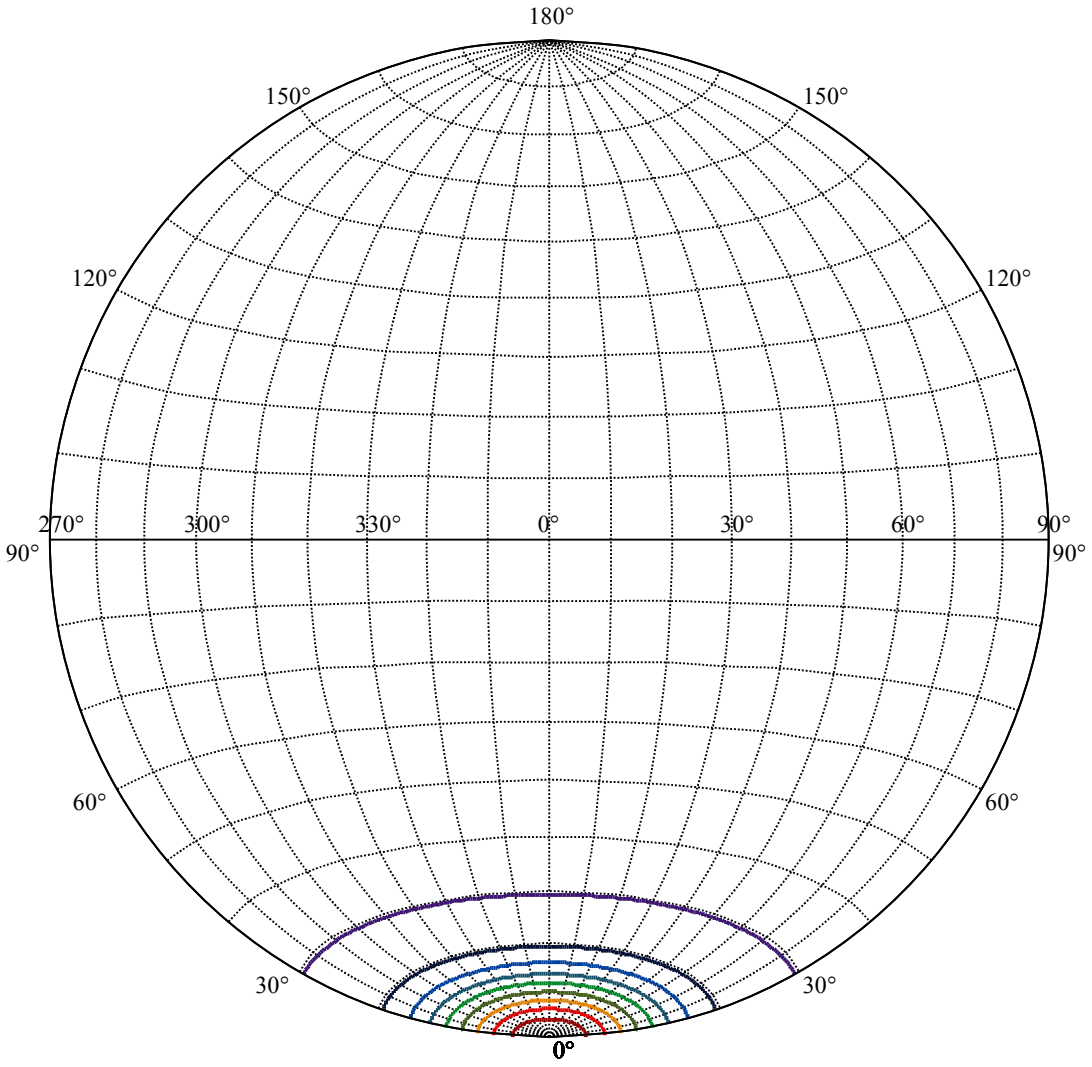


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:8464.78

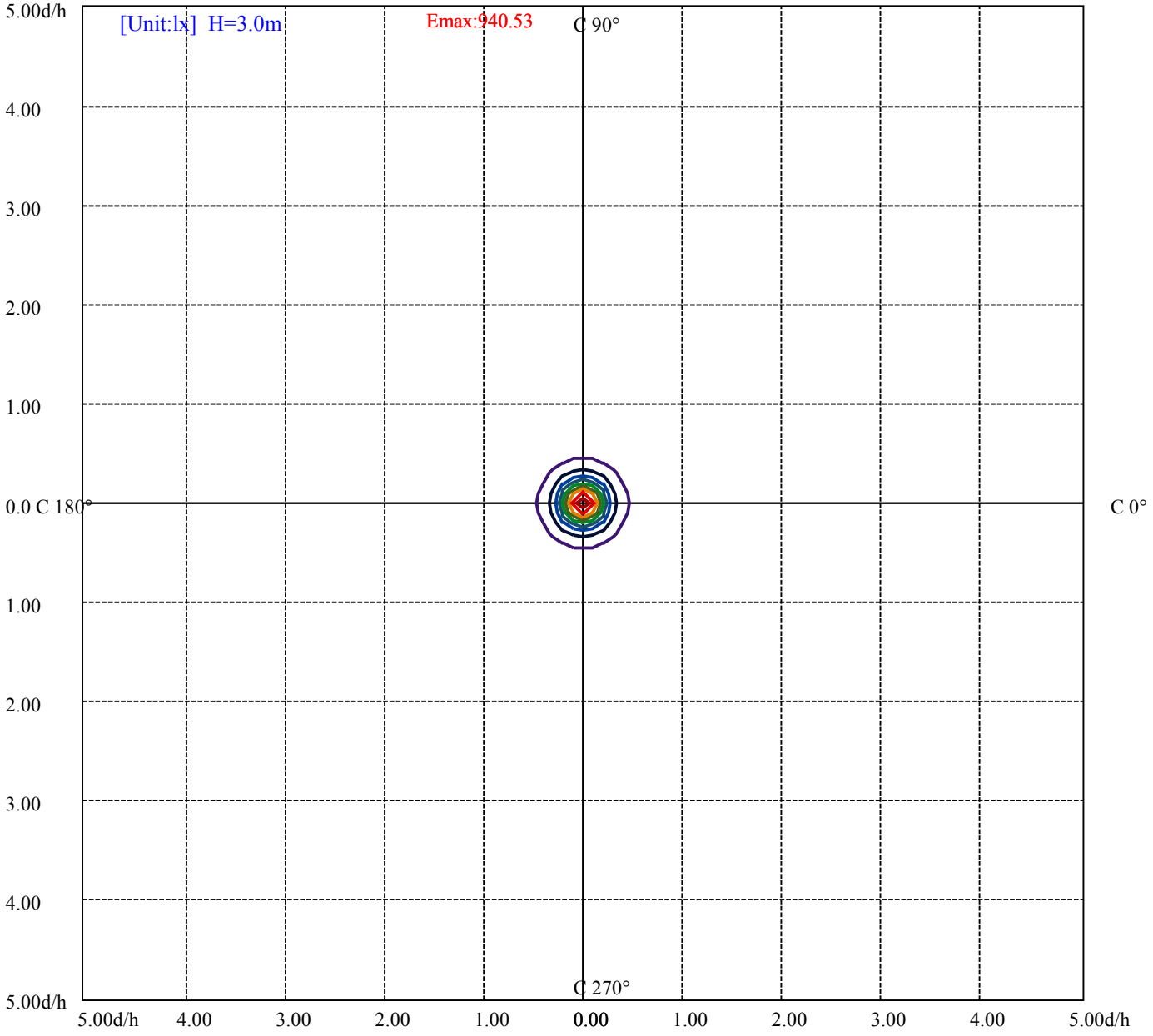
(10%Imax) 846.478
(20%Imax) 1692.96
(30%Imax) 2539.44
(40%Imax) 3385.91
(50%Imax) 4232.39
(60%Imax) 5078.87
(70%Imax) 5925.35
(80%Imax) 6771.83
(90%Imax) 7618.31

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

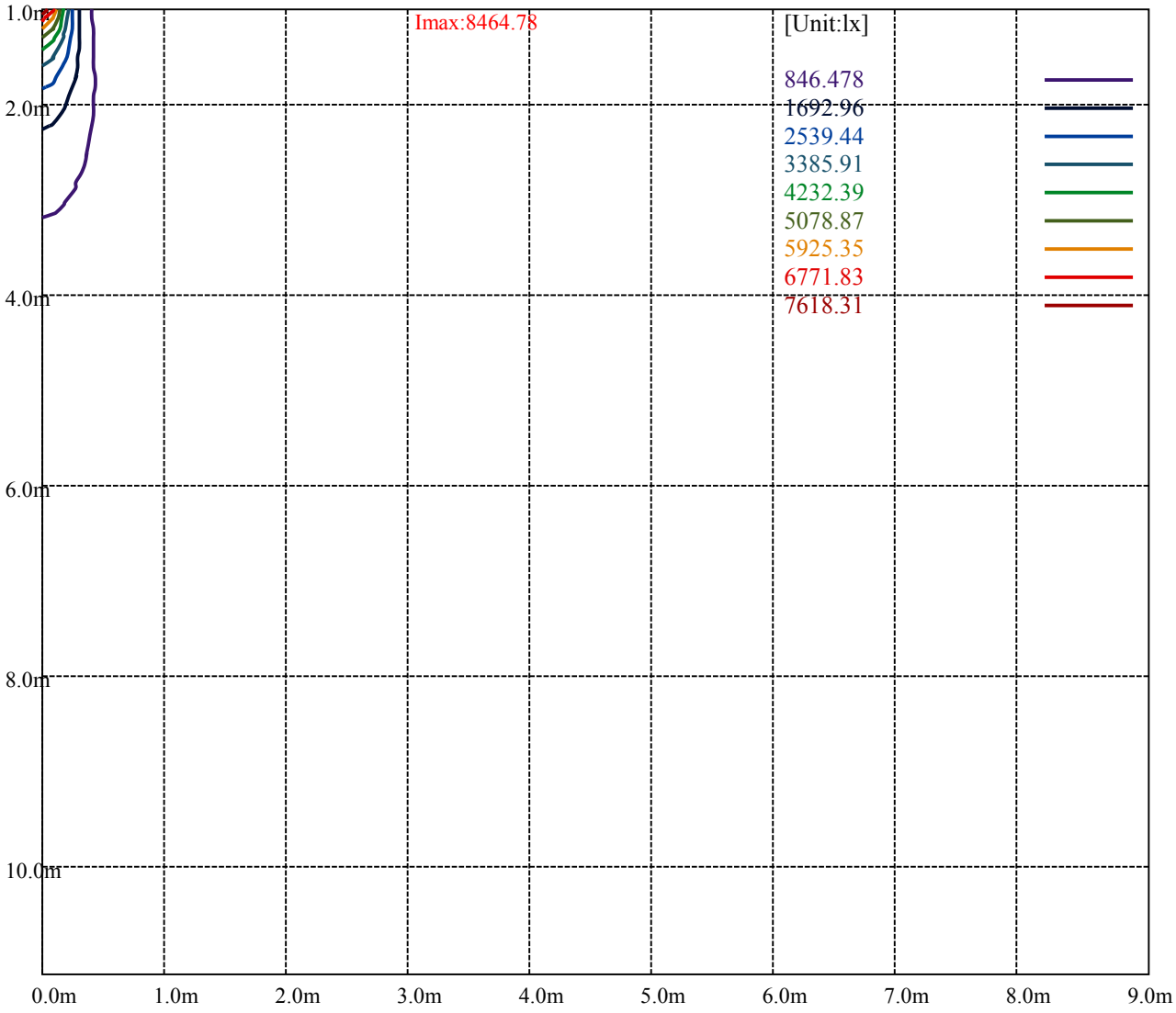
ISO illuminance diagram



(10%Emax) 94.05312
(20%Emax) 188.1067
(30%Emax) 282.1589
(40%Emax) 376.2122
(50%Emax) 470.2656
(60%Emax) 564.3189
(70%Emax) 658.3711
(80%Emax) 752.4244
(90%Emax) 846.4778

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2018/8/28
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.42

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

Luminance Limitting Curve(no luminous side)

Luminance Table

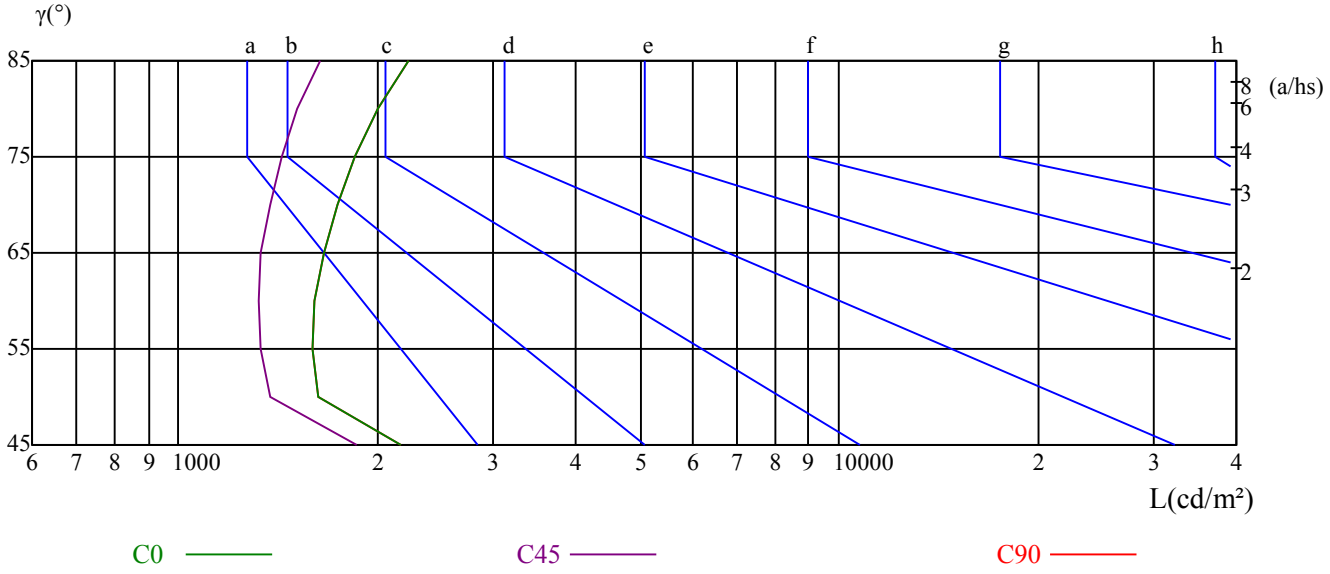
γ	45	50	55	60	65	70	75	80	85
C0	2167	1628	1599	1608	1656	1739	1852	2003	2233
C45	1864	1379	1334	1319	1335	1375	1433	1511	1636
C90	2167	1628	1599	1608	1656	1739	1852	2003	2233

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3948	3948	3948	6314	6314	6314	18713	18713	18713

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

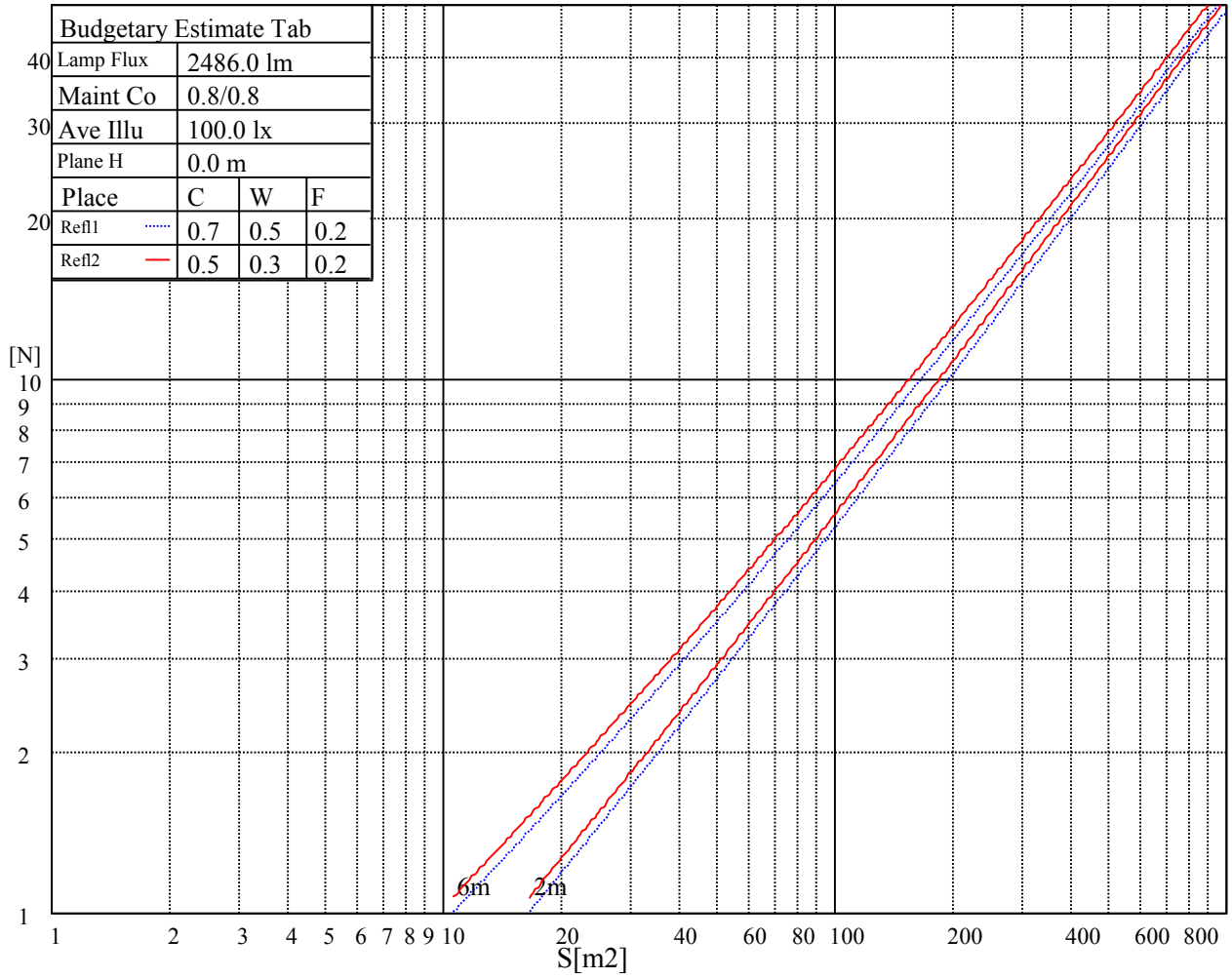


UGR Glare

Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	-0.10	0.81	0.26	1.12	1.44	-0.08	0.84	0.29	1.15	1.46
	3H	2.23	3.03	2.61	3.37	3.74	2.25	3.06	2.63	3.39	3.76
	4H	3.50	4.24	3.90	4.60	4.99	3.52	4.26	3.93	4.62	5.01
	6H	4.82	5.51	5.24	5.88	6.28	4.85	5.53	5.27	5.91	6.31
	8H	5.50	6.13	5.93	6.53	6.94	5.52	6.15	5.95	6.55	6.96
	12H	6.54	7.15	6.98	7.54	7.97	6.54	7.15	6.98	7.53	7.97
4H	2H	0.40	1.15	0.81	1.50	1.89	0.42	1.17	0.83	1.52	1.91
	3H	3.03	3.64	3.45	4.05	4.46	3.04	3.66	3.46	4.07	4.47
	4H	4.47	5.02	4.91	5.44	5.89	4.48	5.03	4.92	5.46	5.91
	6H	5.89	6.36	6.36	6.81	7.28	5.91	6.38	6.39	6.83	7.31
	8H	6.67	7.11	7.15	7.56	8.04	6.69	7.12	7.17	7.58	8.05
	12H	7.71	8.09	8.21	8.58	9.06	7.71	8.08	8.20	8.57	9.05
8H	4H	4.92	5.35	5.39	5.80	6.28	4.93	5.36	5.41	5.81	6.29
	6H	6.57	6.92	7.09	7.42	7.91	6.59	6.94	7.10	7.44	7.93
	8H	7.51	7.82	8.05	8.34	8.84	7.52	7.83	8.06	8.35	8.85
	12H	8.68	8.94	9.20	9.44	10.02	8.67	8.93	9.19	9.43	10.01
12H	4H	5.01	5.38	5.50	5.87	6.35	5.02	5.39	5.51	5.88	6.36
	6H	6.95	7.05	7.29	7.53	8.08	6.97	7.07	7.30	7.54	8.09
	8H	7.78	8.04	8.31	8.54	9.13	7.79	8.05	8.32	8.55	9.13
Variation with the observer position at spacings:											
S = 1.0H		5.8/-7.9					5.8/-7.9				
S = 1.5H		8.2/-6.2					8.2/-6.2				
S = 2.0H		9.8/-4.9					9.8/-4.9				
Standard tables:		BK1					BK1				
Uncorrected UGR		-3.3					-3.3				

Equipment: GMS1980 Date: 2018/8/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

Budgetary Estimate Table

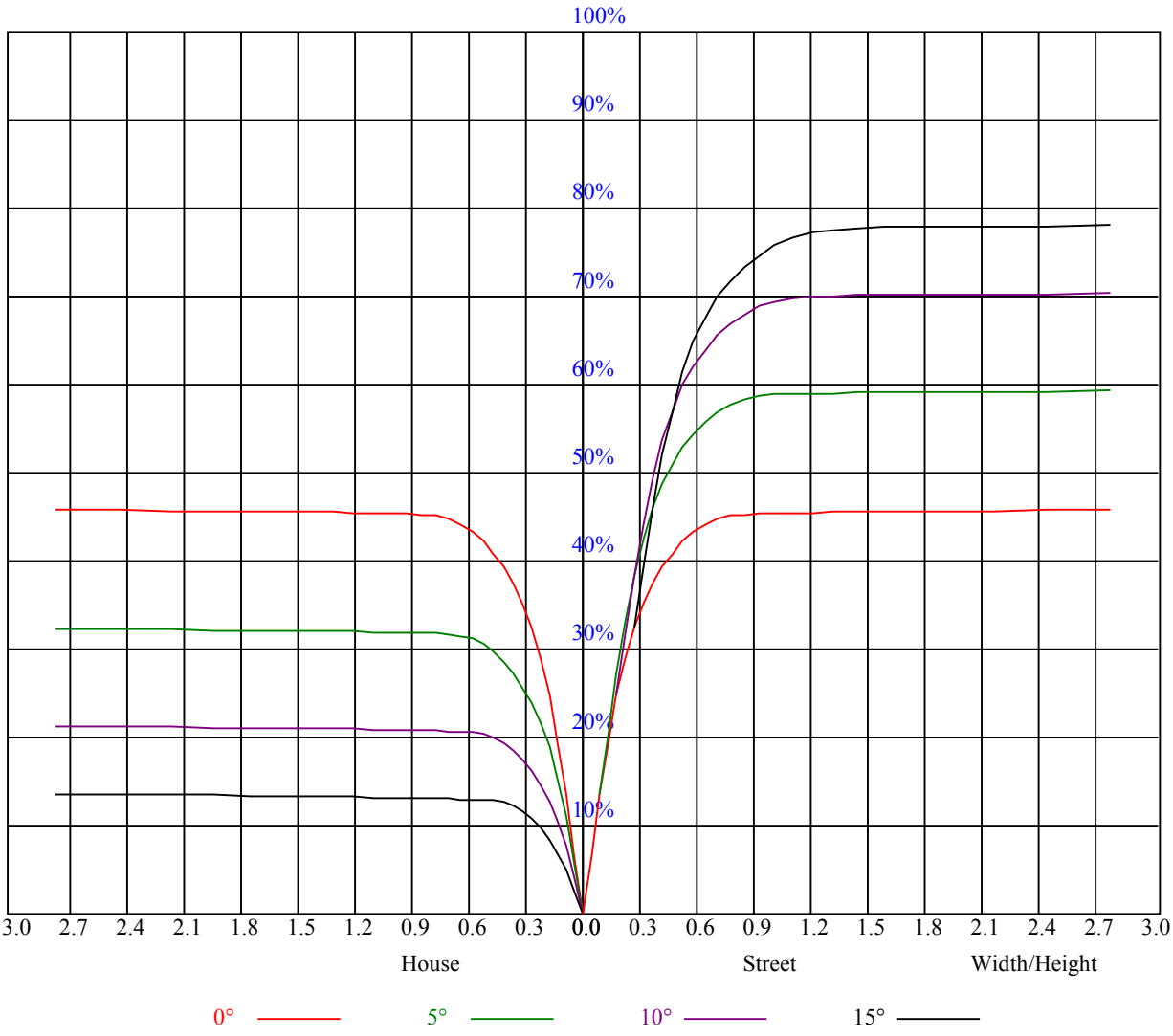


Equipment: GMS1980 Date: 2018/8/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.42

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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.01	0.99	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88
2	0.97	0.94	0.92	0.96	0.93	0.91	0.93	0.91	0.89	0.90	0.88	0.87	0.88	0.86	0.85	0.84
3	0.92	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.82	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.76
5	0.84	0.80	0.77	0.83	0.79	0.76	0.82	0.78	0.76	0.80	0.77	0.75	0.79	0.77	0.74	0.73
6	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.74	0.71	0.70
7	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.68
8	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.72	0.69	0.66	0.65
9	0.72	0.68	0.65	0.71	0.67	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2018/8/28	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.42

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	8423.63	8589.35	8594.30	8469.33	8297.00	7947.39	7645.68	7345.62	6878.20
45.0	8410.42	8621.28	8696.71	8622.93	8424.73	8104.30	7807.55	7475.01	7051.62
90.0	8530.99	8584.94	8492.45	8277.18	8023.37	7681.47	7342.32	6911.23	6447.66
135.0	8494.10	8455.01	8247.45	8017.86	7740.93	7341.22	6974.54	6566.03	6081.53
180.0	8423.63	8196.25	7924.82	7535.57	7169.44	6773.04	6285.79	5773.76	5316.25
225.0	8410.42	8149.45	7808.65	7420.50	7042.26	6578.14	6134.93	5633.92	5138.96
270.0	8530.99	8358.66	8047.59	7750.29	7426.01	6949.77	6539.05	6122.27	5633.92
315.0	8494.10	8405.46	8169.27	7917.11	7637.97	7264.69	6893.61	6452.61	5979.13
360.0	8423.63	8589.35	8594.30	8469.33	8297.00	7947.39	7645.68	7345.62	6878.20

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6419.03	6044.64	5502.34	5056.38	4603.27	4047.20	3627.12	3226.86	2778.70
45.0	6592.45	6152.55	5650.99	5193.47	4692.46	4187.59	3755.95	3303.93	2889.36
90.0	6012.16	5526.56	5027.20	4593.36	4157.86	3584.72	3239.52	2876.70	2464.88
135.0	5597.58	5143.92	4637.40	4200.80	3726.22	3272.00	2906.98	2543.06	2219.32
180.0	4799.82	4289.99	3860.55	3401.93	3020.39	2639.95	2304.66	2049.75	1824.57
225.0	4689.70	4195.30	3715.76	3311.09	2928.45	2515.53	2232.54	1983.68	1745.29
270.0	5149.98	4717.78	4230.53	3805.50	3361.19	2933.40	2594.26	2260.62	1976.52
315.0	5559.60	5065.19	4569.13	4132.53	3716.86	3220.80	2865.14	2538.10	2244.10
360.0	6419.03	6044.64	5502.34	5056.38	4603.27	4047.20	3627.12	3226.86	2778.70

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2457.72	2176.93	1877.42	1680.32	1515.70	1360.44	1237.67	1142.97	1060.39
45.0	2559.57	2258.96	1942.39	1729.32	1549.29	1401.74	1254.74	1157.84	1075.80
90.0	2169.22	1914.86	1683.62	1499.74	1366.50	1226.66	1098.32	1055.49	993.05
135.0	1960.56	1751.89	1540.48	1397.88	1283.36	1176.56	1089.57	1029.55	977.25
180.0	1596.64	1447.43	1326.31	1201.33	1098.15	1048.11	991.18	945.65	915.09
225.0	1555.34	1414.40	1285.02	1179.31	1091.00	1028.78	982.70	940.53	906.56
270.0	1771.71	1597.19	1416.05	1303.74	1204.08	1109.39	1037.81	989.91	946.97
315.0	1935.23	1731.52	1565.80	1392.38	1278.41	1156.73	1084.72	1012.60	967.07
360.0	2457.72	2176.93	1877.42	1680.32	1515.70	1360.44	1237.67	1142.97	1060.39

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	991.02	947.52	913.39	882.55	857.23	830.80	792.26	731.15	638.65
45.0	994.32	948.07	911.18	880.90	851.17	822.54	786.21	717.38	637.55
90.0	950.88	911.90	878.65	846.33	822.21	769.47	696.46	620.54	541.64
135.0	938.16	902.92	869.89	844.57	789.51	711.33	635.35	548.91	458.62
180.0	877.54	851.78	813.73	745.85	675.21	585.30	493.03	409.18	323.07
225.0	881.73	855.25	807.35	746.34	674.66	575.28	490.33	402.90	314.87
270.0	911.18	885.86	857.78	820.89	753.17	672.79	594.06	504.32	411.82
315.0	929.24	892.90	869.18	842.97	806.19	737.10	654.51	575.17	492.98
360.0	991.02	947.52	913.39	882.55	857.23	830.80	792.26	731.15	638.65

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	557.17	469.63	356.77	280.79	188.90	115.95	60.34	36.61	26.15
45.0	557.17	474.59	371.63	285.19	236.19	133.84	67.22	37.66	27.91
90.0	441.94	364.58	289.38	197.10	129.93	72.51	35.95	26.37	19.66
135.0	374.93	297.86	199.96	134.50	76.14	37.33	28.68	22.24	19.38
180.0	223.31	152.01	93.54	42.67	30.89	24.28	19.66	18.11	14.87
225.0	213.45	142.54	83.41	36.12	27.53	20.43	16.68	15.80	12.77
270.0	331.44	281.34	154.21	91.12	45.59	31.99	22.41	18.66	17.01
315.0	390.40	308.92	230.36	141.38	82.58	43.22	30.23	22.02	19.16
360.0	557.17	469.63	356.77	280.79	188.90	115.95	60.34	36.61	26.15

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	19.82	17.84	14.59	12.28	12.00	11.78	11.67	11.51	11.34
45.0	19.21	17.23	15.47	12.33	12.00	11.84	11.73	11.56	11.45
90.0	17.40	15.91	12.28	12.00	11.84	11.67	11.51	11.40	11.29
135.0	16.68	12.33	12.06	11.95	11.78	11.62	11.51	11.40	11.29
180.0	12.28	12.17	12.00	11.67	11.56	11.40	11.34	11.23	11.12
225.0	12.17	11.89	11.73	11.51	11.45	11.29	11.18	11.12	11.01
270.0	12.39	12.11	11.89	11.67	11.51	11.40	11.29	11.18	11.07
315.0	15.97	12.22	12.00	11.78	11.62	11.45	11.29	11.18	11.07
360.0	19.82	17.84	14.59	12.28	12.00	11.78	11.67	11.51	11.34

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	11.23	11.12	11.01	10.90	10.85	10.79	10.68	10.63	10.57
45.0	11.29	11.18	11.07	10.96	10.90	10.85	10.74	10.68	10.63
90.0	11.18	11.07	10.96	10.85	10.79	10.74	10.68	10.57	10.52
135.0	11.18	11.12	10.96	10.90	10.85	10.79	10.74	10.68	10.63
180.0	11.01	10.96	10.90	10.85	10.79	10.74	10.63	10.57	10.57
225.0	10.90	10.85	10.79	10.74	10.68	10.57	10.52	10.52	10.46
270.0	10.96	10.90	10.79	10.74	10.68	10.63	10.52	10.46	10.46
315.0	10.96	10.85	10.79	10.74	10.63	10.57	10.52	10.46	10.41
360.0	11.23	11.12	11.01	10.90	10.85	10.79	10.68	10.63	10.57

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	10.52	10.46	10.41	10.41	10.35	10.30	10.30	10.30	10.30
45.0	10.57	10.52	10.46	10.46	10.41	10.35	10.35	10.30	10.30
90.0	10.52	10.46	10.41	10.35	10.35	10.30	10.30	10.30	10.24
135.0	10.57	10.57	10.52	10.52	10.46	10.46	10.41	10.41	10.35
180.0	10.52	10.52	10.46	10.46	10.41	10.41	10.41	10.35	10.35
225.0	10.46	10.41	10.41	10.41	10.35	10.30	10.30	10.30	10.30
270.0	10.41	10.41	10.35	10.30	10.30	10.24	10.24	10.24	10.24
315.0	10.35	10.35	10.30	10.30	10.24	10.24	10.24	10.19	10.19
360.0	10.52	10.46	10.41	10.41	10.35	10.30	10.30	10.30	10.30

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.24	10.19	10.24	10.19	10.19	10.19	10.13	10.13	10.13
45.0	10.30	10.24	10.24	10.19	10.19	10.19	10.13	10.13	10.13
90.0	10.24	10.19	10.19	10.19	10.13	10.13	10.08	10.08	10.08
135.0	10.35	10.30	10.30	10.30	10.24	10.19	10.19	10.13	10.13
180.0	10.35	10.30	10.30	10.24	10.24	10.24	10.19	10.19	10.19
225.0	10.24	10.24	10.24	10.24	10.19	10.19	10.19	10.13	10.13
270.0	10.19	10.19	10.19	10.13	10.13	10.13	10.13	10.13	10.08
315.0	10.19	10.13	10.13	10.13	10.13	10.13	10.08	10.08	10.08
360.0	10.24	10.19	10.24	10.19	10.19	10.19	10.13	10.13	10.13

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.08	10.08	10.08	10.08	10.08	10.08	10.02	10.02	9.97
45.0	10.13	10.13	10.08	10.08	10.08	10.02	10.02	9.97	9.97
90.0	10.08	10.02	10.02	10.02	10.08	10.13	9.91	9.91	9.91
135.0	10.13	10.08	10.08	10.13	10.24	10.30	10.19	9.91	9.91
180.0	10.13	10.13	10.13	10.13	10.13	10.02	9.97	9.97	9.97
225.0	10.13	10.19	10.30	10.24	10.19	10.02	9.97	9.97	9.97
270.0	10.08	10.08	10.08	10.24	10.46	10.68	9.97	9.91	9.91
315.0	10.08	10.02	10.02	10.02	10.19	10.52	9.91	9.91	9.86
360.0	10.08	10.08	10.08	10.08	10.08	10.08	10.02	10.02	9.97

Intensity data(cd)

C/γ(°)	90.0
0.0	10.02
45.0	9.97
90.0	9.91
135.0	9.91
180.0	9.97
225.0	9.97
270.0	9.91
315.0	9.86
360.0	10.02