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NATA

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

Report No: NATA0100	Voltage(V): 35.1000
Test No: GC2019011509	Current(A): 0.7000
LampCAT: LUMINUS CLM-14-AC30	Power (W): 24.5700
Lamp flux(lm): 3533.0	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): 3208.27
Efficiency(%): 90.81%
Lumens(lm)/Power(W): 130.70
Central intensity(cd): 12825.000
Maximum intensity(cd): 12825.000
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=22.6
[C90/270]Total=22.6
Field angle(10%Imax): [C0/180]Total=54.7
[C90/270]Total=54.7
Maximum s/h(1/2): C0_180=0.38 C90_270=0.38
Maximum s/h(1/4): C0_180=0.40 C90_270=0.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.89%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.603%

Equipment: GMS1980	Date: 2019/1/15	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	12825.000	3.068	3.068	.087%	.096%
1.0	12717.422	24.339	27.407	.689%	.854%
2.0	12433.359	47.584	74.991	1.347%	2.337%
3.0	11950.242	68.585	143.576	1.941%	4.475%
4.0	11461.289	87.674	231.25	2.482%	7.208%
5.0	10935.492	104.517	335.767	2.958%	10.466%
6.0	10297.898	118.042	453.808	3.341%	14.145%
7.0	9605.250	128.367	582.176	3.633%	18.146%
8.0	8917.805	136.102	718.278	3.852%	22.388%
9.0	8143.594	139.701	857.979	3.954%	26.743%
10.0	7340.484	139.781	997.76	3.956%	31.100%
11.0	6640.805	138.954	1136.714	3.933%	35.431%
12.0	5912.719	134.809	1271.522	3.816%	39.633%
13.0	5195.180	128.156	1399.679	3.627%	43.627%
14.0	4552.805	120.783	1520.462	3.419%	47.392%
15.0	3981.586	113.007	1633.469	3.199%	50.914%
16.0	3459.938	104.582	1738.051	2.960%	54.174%
17.0	3019.922	96.824	1834.875	2.741%	57.192%
18.0	2662.523	90.225	1925.1	2.554%	60.004%
19.0	2376.070	84.831	2009.931	2.401%	62.648%
20.0	2098.195	78.695	2088.626	2.227%	65.101%
21.0	1897.805	74.582	2163.208	2.111%	67.426%
22.0	1742.414	71.578	2234.786	2.026%	69.657%
23.0	1614.516	69.179	2303.964	1.958%	71.813%
24.0	1503.492	67.060	2371.025	1.898%	73.903%
25.0	1415.461	65.599	2436.624	1.857%	75.948%
26.0	1352.742	65.029	2501.653	1.841%	77.975%
27.0	1298.602	64.651	2566.304	1.830%	79.990%
28.0	1250.508	64.379	2630.683	1.822%	81.997%
29.0	1207.898	64.217	2694.901	1.818%	83.999%
30.0	1169.016	64.098	2758.998	1.814%	85.996%
31.0	1123.010	63.427	2822.425	1.795%	87.973%
32.0	1050.138	61.025	2883.451	1.727%	89.876%
33.0	946.842	56.551	2940.001	1.601%	91.638%
34.0	823.535	50.500	2990.502	1.429%	93.212%
35.0	681.469	42.864	3033.365	1.213%	94.548%
36.0	538.770	34.727	3068.093	.983%	95.631%
37.0	409.134	27.001	3095.094	.764%	96.472%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	297.422	20.080	3115.174	.568%	97.098%
39.0	170.747	11.784	3126.958	.334%	97.465%
40.0	85.134	6.001	3132.959	.170%	97.653%
41.0	48.178	3.466	3136.425	.098%	97.761%
42.0	37.680	2.765	3139.19	.078%	97.847%
43.0	30.544	2.284	3141.474	.065%	97.918%
44.0	26.262	2.001	3143.474	.057%	97.980%
45.0	23.414	1.816	3145.29	.051%	98.037%
46.0	20.145	1.589	3146.879	.045%	98.086%
47.0	17.592	1.411	3148.29	.040%	98.130%
48.0	17.248	1.406	3149.696	.040%	98.174%
49.0	16.875	1.397	3151.092	.040%	98.218%
50.0	16.580	1.393	3152.485	.039%	98.261%
51.0	16.327	1.391	3153.876	.039%	98.305%
52.0	16.073	1.389	3155.265	.039%	98.348%
53.0	15.827	1.386	3156.651	.039%	98.391%
54.0	15.616	1.385	3158.037	.039%	98.434%
55.0	15.413	1.384	3159.421	.039%	98.477%
56.0	15.216	1.383	3160.805	.039%	98.520%
57.0	15.068	1.386	3162.191	.039%	98.564%
58.0	14.885	1.384	3163.575	.039%	98.607%
59.0	14.745	1.386	3164.961	.039%	98.650%
60.0	14.604	1.387	3166.348	.039%	98.693%
61.0	14.484	1.389	3167.737	.039%	98.737%
62.0	14.365	1.391	3169.128	.039%	98.780%
63.0	14.259	1.393	3170.521	.039%	98.823%
64.0	14.147	1.394	3171.915	.039%	98.867%
65.0	14.055	1.397	3173.312	.040%	98.910%
66.0	13.985	1.401	3174.713	.040%	98.954%
67.0	13.915	1.405	3176.118	.040%	98.998%
68.0	13.852	1.408	3177.526	.040%	99.042%
69.0	13.781	1.411	3178.937	.040%	99.086%
70.0	13.704	1.412	3180.349	.040%	99.130%
71.0	13.662	1.417	3181.766	.040%	99.174%
72.0	13.605	1.419	3183.185	.040%	99.218%
73.0	13.549	1.421	3184.606	.040%	99.262%
74.0	13.507	1.424	3186.03	.040%	99.307%
75.0	13.479	1.428	3187.457	.040%	99.351%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.430	1.429	3188.886	.040%	99.396%
77.0	13.402	1.432	3190.318	.041%	99.440%
78.0	13.359	1.433	3191.751	.041%	99.485%
79.0	13.324	1.434	3193.186	.041%	99.530%
80.0	13.303	1.437	3194.622	.041%	99.575%
81.0	13.268	1.437	3196.059	.041%	99.619%
82.0	13.254	1.439	3197.499	.041%	99.664%
83.0	13.240	1.441	3198.94	.041%	99.709%
84.0	13.205	1.440	3200.38	.041%	99.754%
85.0	13.170	1.439	3201.818	.041%	99.799%
86.0	13.148	1.438	3203.257	.041%	99.844%
87.0	13.092	1.434	3204.69	.041%	99.888%
88.0	13.078	1.433	3206.124	.041%	99.933%
89.0	13.050	1.431	3207.555	.040%	99.978%
90.0	13.078	0.717	3208.272	.020%	100.000%

Zonal flux distribution table

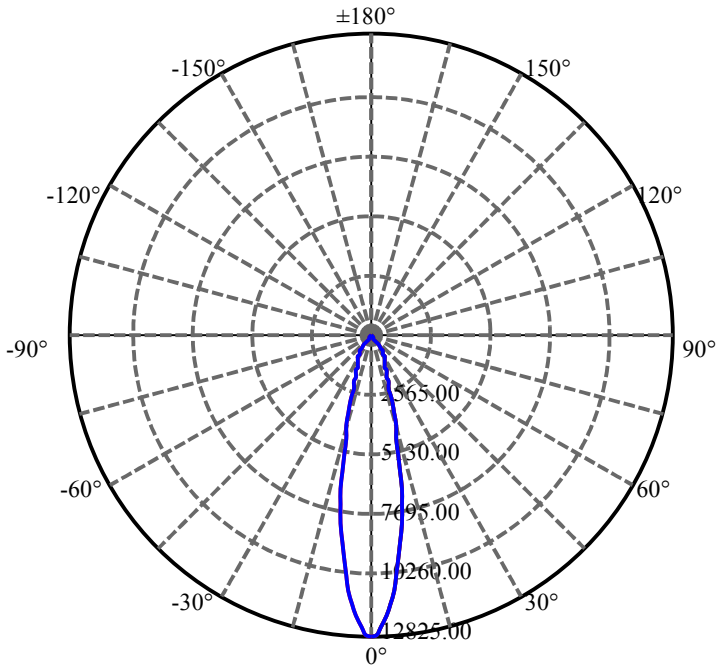
ZONAL LUMEN SUMMARY

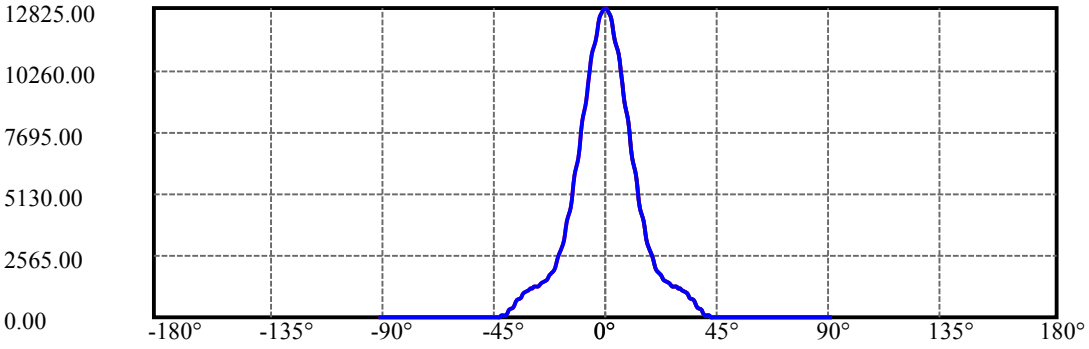
Zone	Lumens	%Lamp	%Fixt
0-30	2759.00	78.09%	86.00%
0-40	3132.96	88.68%	97.65%
0-60	3166.35	89.62%	98.69%
0-90	3207.55	90.79%	99.98%
0-120	3207.55	90.79%	99.98%
0-180	3208.27	90.81%	100.00%
60-90	42.59	1.21%	1.33%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.00	2566.62	72.65%	80.00%

ZONAL LUMEN SUMMARY

0-10	997.76
10-20	1090.87
20-30	670.37
30-40	373.96
40-50	19.53
50-60	13.86
60-70	14.00
70-80	14.27
80-90	12.93
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:

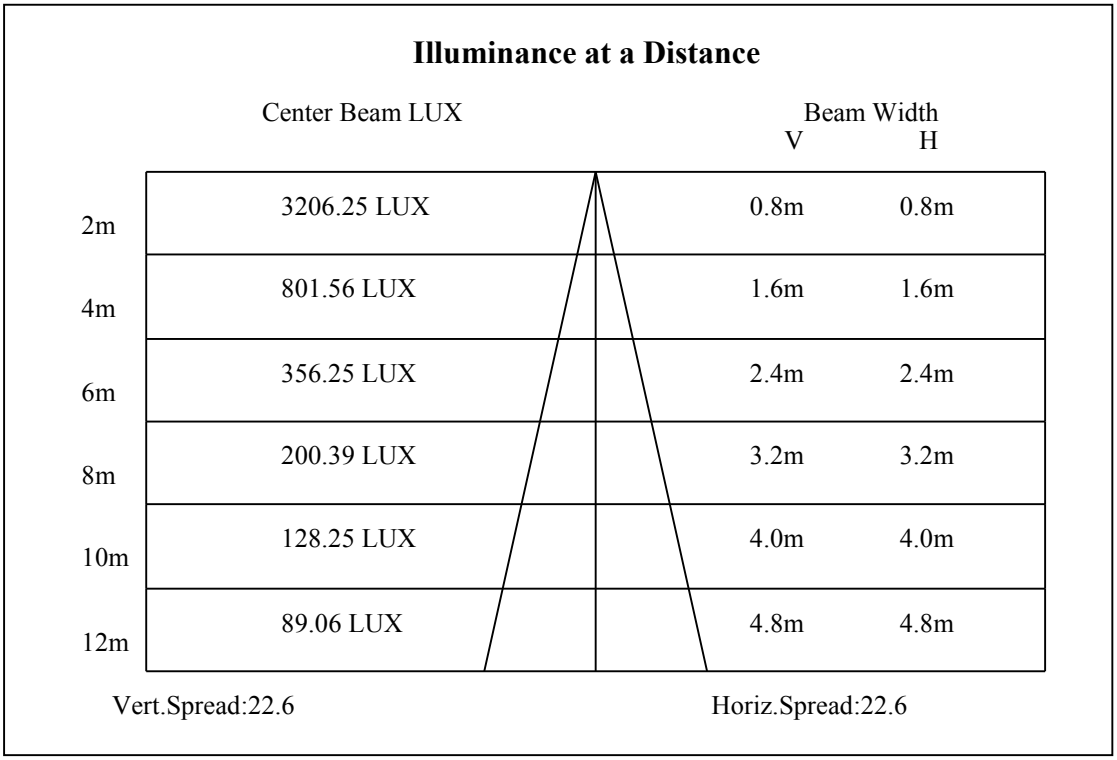
C90/C270:

Field angle(10%Imax):C0/180Left:27.3 Right:27.3
:C90/270Left:27.3 Right:27.3

Beam Angle(50%Imax):C0/180Left:11.3 Right:11.3
:C90/270Left:11.3 Right:11.3

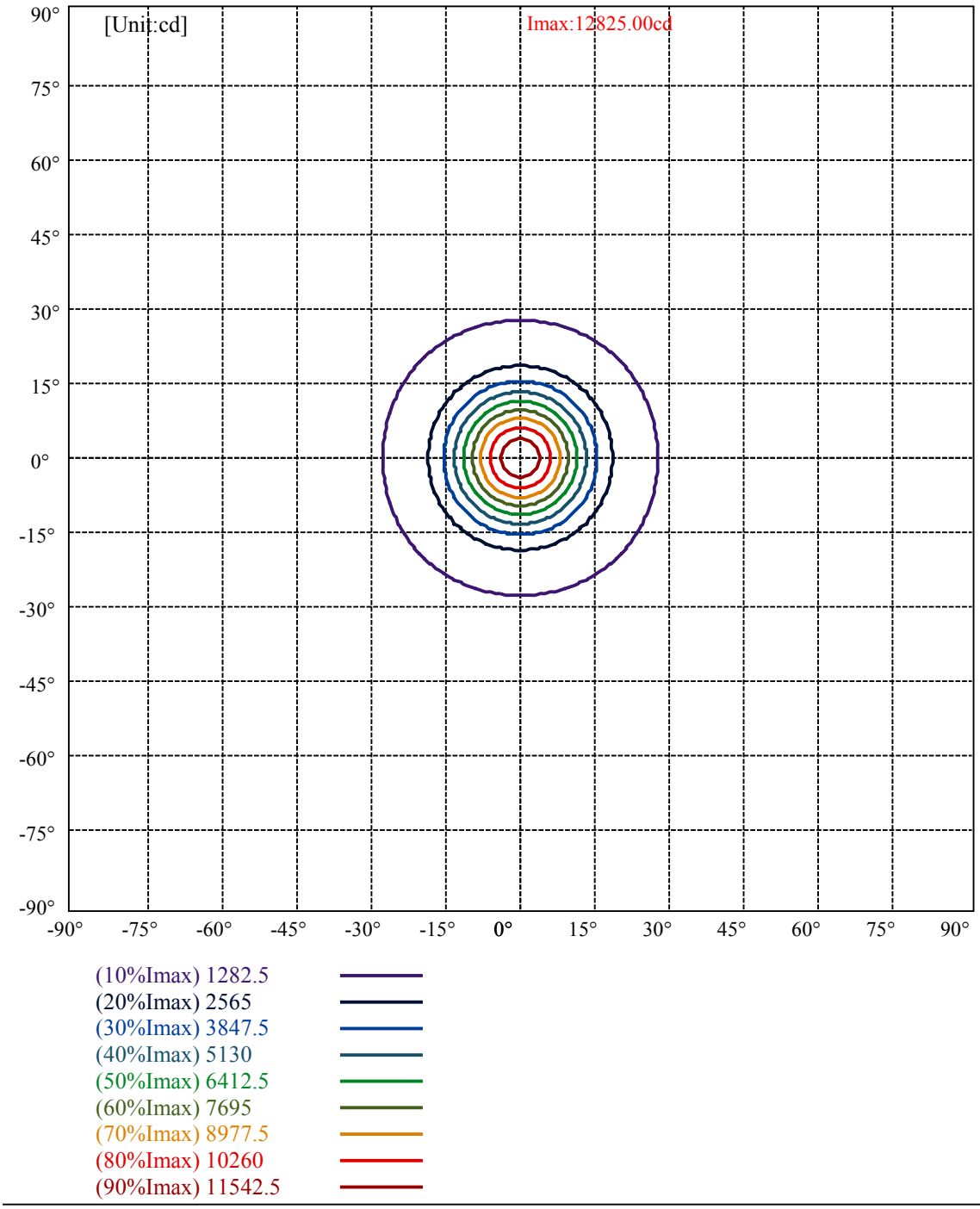
Equipment: GMS1980 Date: 2019/1/15 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

Lux distance Curve



Equipment: GMS1980 Date: 2019/1/15 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

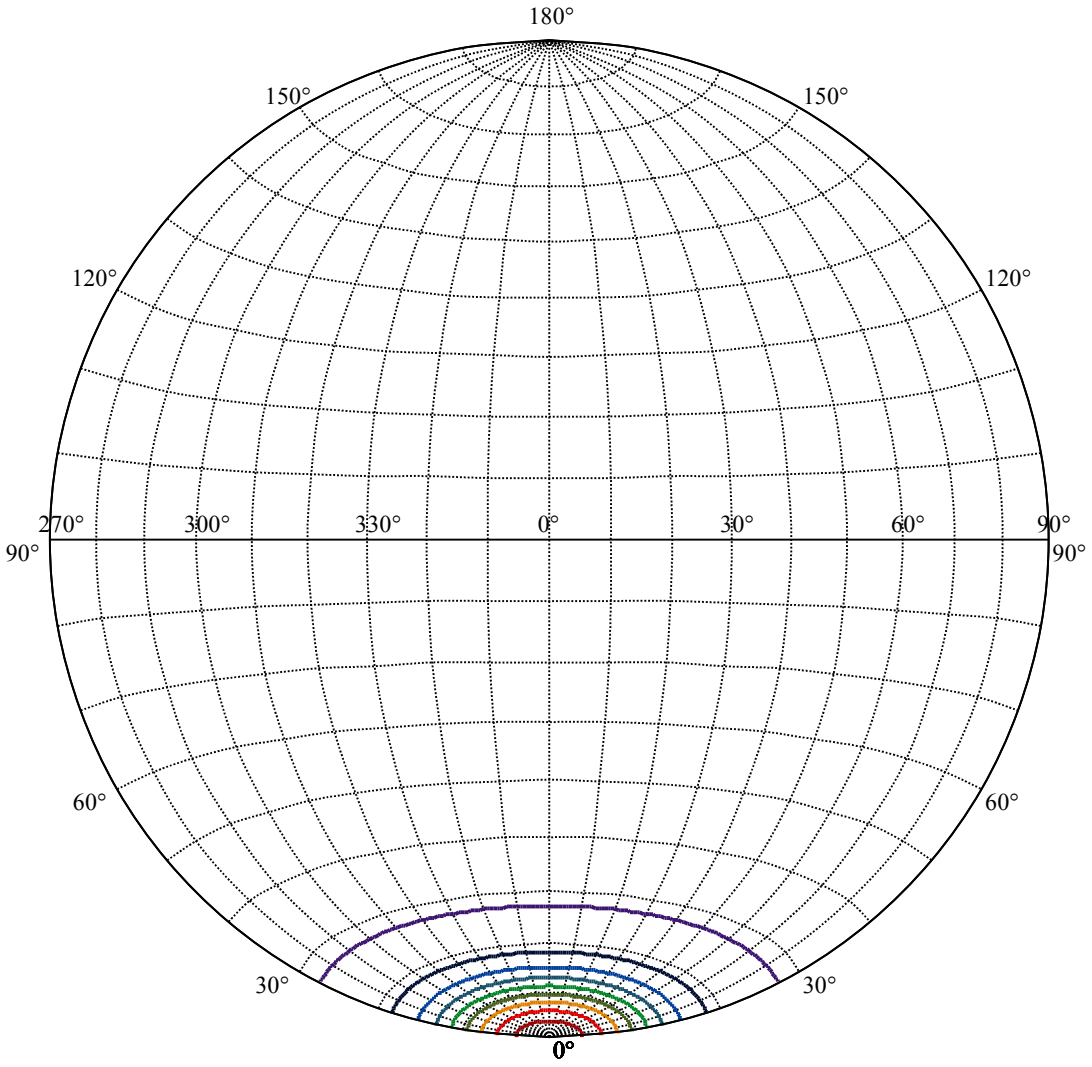


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/15
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:12825.00

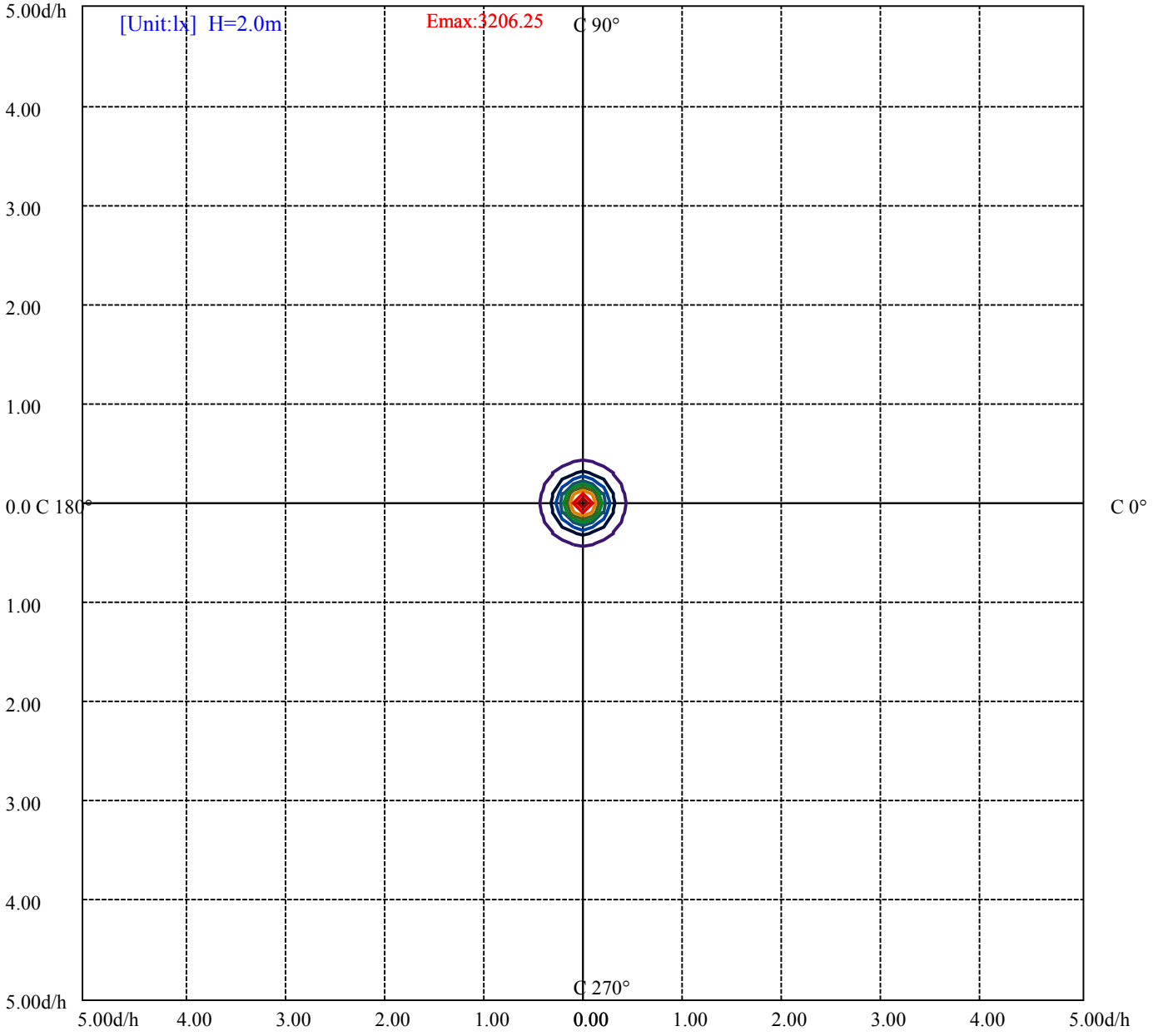
(10%Imax) 1282.5
(20%Imax) 2565
(30%Imax) 3847.5
(40%Imax) 5130
(50%Imax) 6412.5
(60%Imax) 7695
(70%Imax) 8977.5
(80%Imax) 10260
(90%Imax) 11542.5

Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/15
Humidity(%): 65.0%

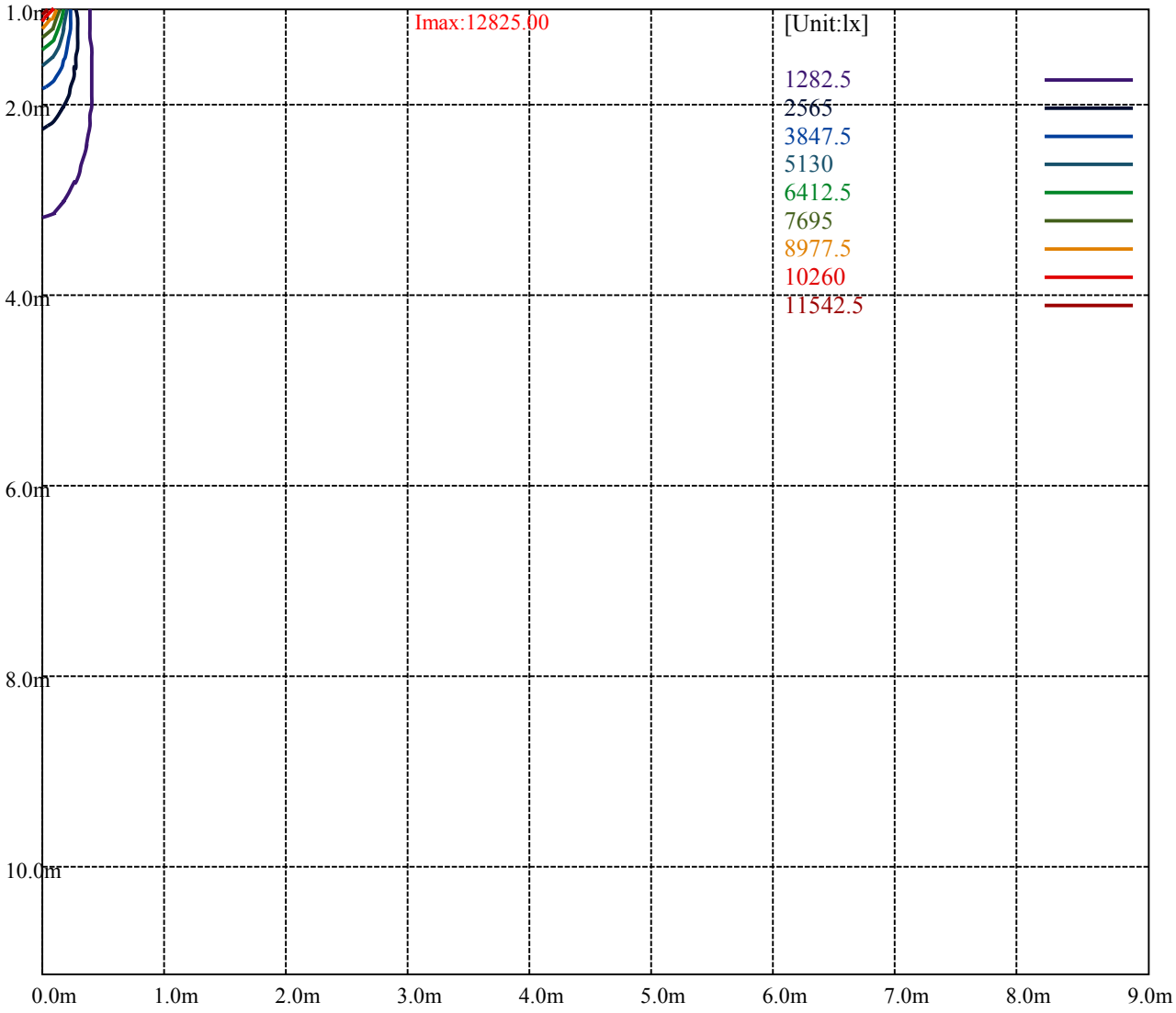
Operator: NT07
Distance(m): 7.50

ISO illuminance diagram



Equipment: GMS1980	Date: 2019/1/15	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/15
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

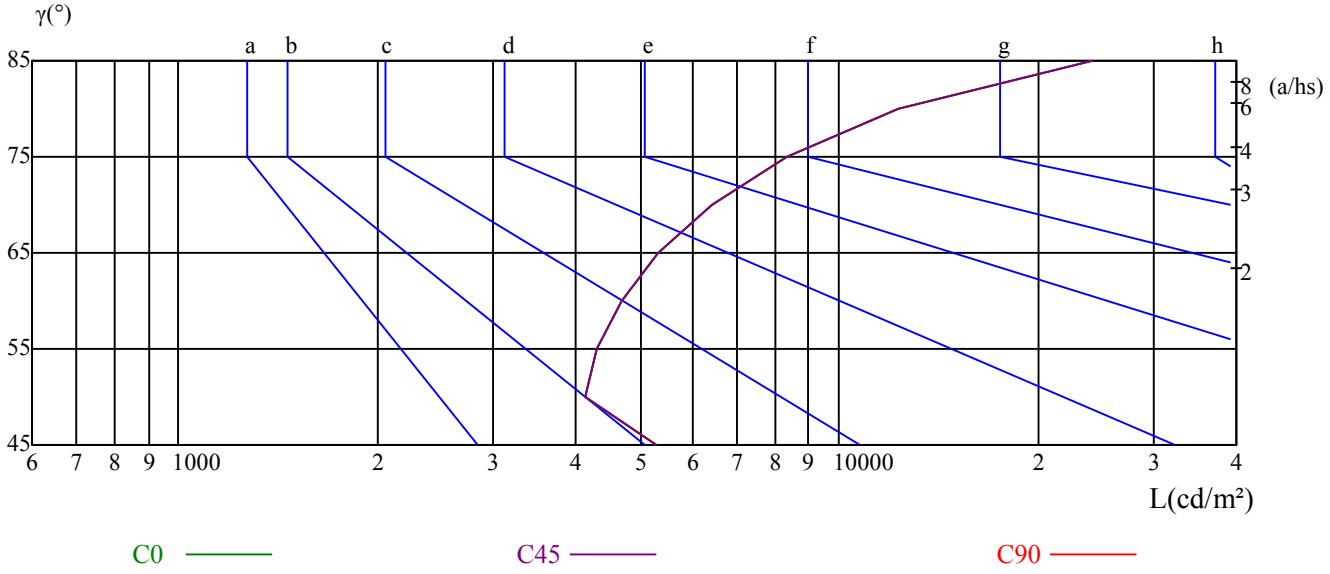
γ	45	50	55	60	65	70	75	80	85
C0	5306	4133	4306	4680	5329	6420	8345	12275	24211
C45	5306	4133	4306	4680	5329	6420	8345	12275	24211
C90	5306	4133	4306	4680	5329	6420	8345	12275	24211

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5329	5329	5329	8345	8345	8345	24211	24211	24211

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

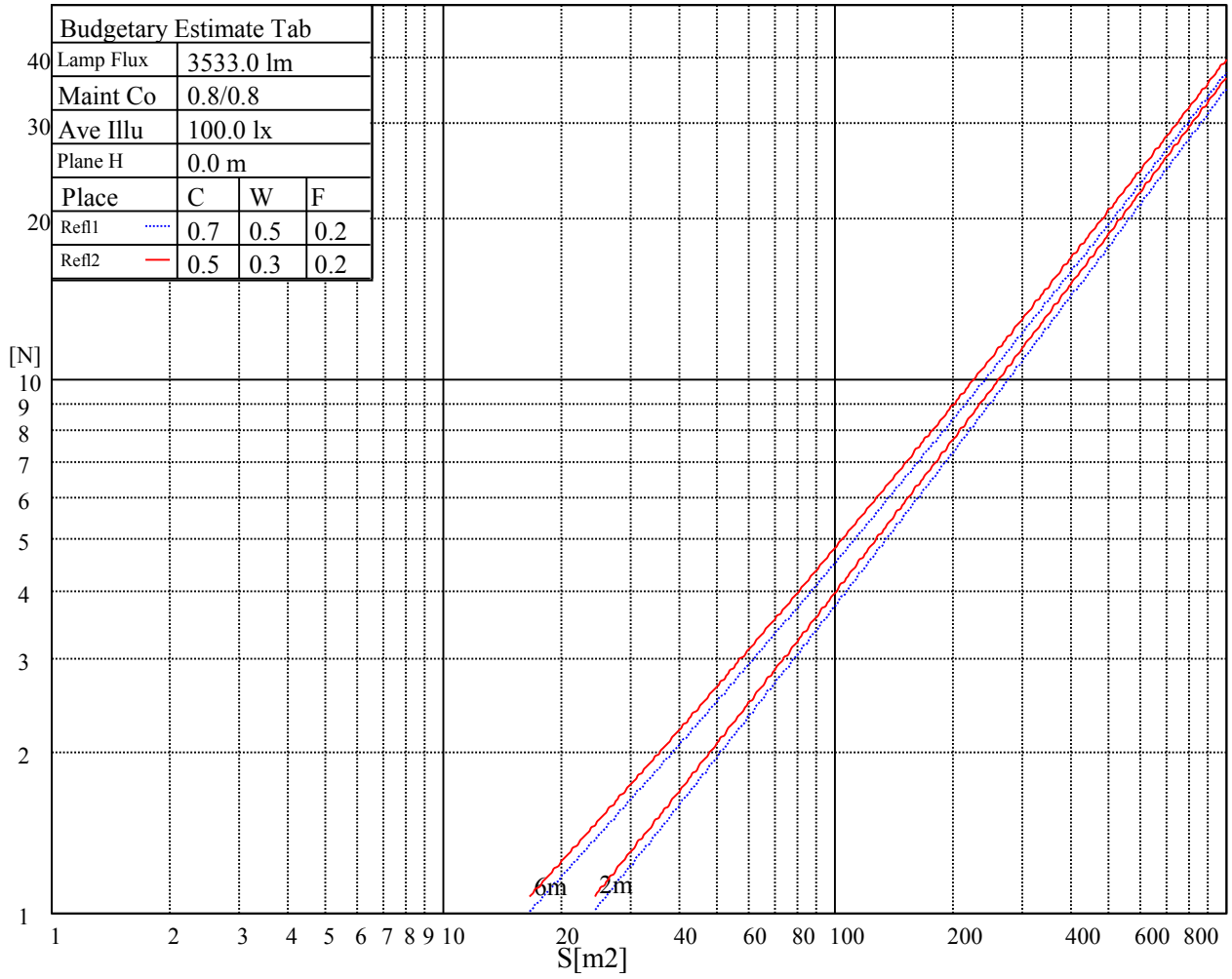
Luminance Limitting Curve



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	1.91	2.82	2.27	3.13	3.45	1.86	2.78	2.23	3.09	3.40
	3H	5.07	5.87	5.45	6.21	6.58	5.03	5.83	5.41	6.16	6.53
	4H	6.79	7.53	7.20	7.89	8.28	6.75	7.49	7.16	7.85	8.24
	6H	8.74	9.42	9.16	9.79	10.19	8.68	9.36	9.10	9.74	10.13
	8H	9.82	10.45	10.25	10.85	11.26	9.75	10.39	10.19	10.79	11.20
	12H	11.57	12.18	12.00	12.56	12.99	11.50	12.11	11.94	12.50	12.93
4H	2H	2.79	3.53	3.20	3.89	4.28	2.76	3.50	3.17	3.86	4.25
	3H	6.20	6.81	6.61	7.22	7.62	6.17	6.78	6.59	7.19	7.60
	4H	8.09	8.64	8.53	9.06	9.51	8.06	8.61	8.50	9.03	9.48
	6H	10.20	10.67	10.67	11.12	11.60	10.16	10.63	10.63	11.08	11.56
	8H	11.38	11.82	11.86	12.27	12.74	11.33	11.77	11.81	12.22	12.69
	12H	13.03	13.41	13.53	13.90	14.37	12.98	13.35	13.47	13.84	14.32
8H	4H	8.81	9.24	9.29	9.69	10.17	8.78	9.22	9.26	9.67	10.15
	6H	11.19	11.53	11.70	12.04	12.53	11.16	11.50	11.67	12.01	12.50
	8H	12.56	12.86	13.10	13.39	13.88	12.52	12.82	13.06	13.35	13.85
	12H	14.35	14.61	14.88	15.11	15.69	14.31	14.57	14.83	15.07	15.65
12H	4H	9.01	9.38	9.50	9.87	10.35	8.99	9.36	9.48	9.85	10.33
	6H	11.70	11.81	12.04	12.28	12.83	11.68	11.78	12.02	12.26	12.81
	8H	13.01	13.26	13.53	13.76	14.35	12.97	13.23	13.50	13.73	14.31
Variation with the observer position at spacings:											
S = 1.0H		5.8/-7.3					5.8/-7.3				
S = 1.5H		7.9/-5.4					7.9/-5.4				
S = 2.0H		9.2/-4.0					9.2/-4.0				
Standard tables:		BK3					BK3				
Uncorrected UGR		1.7					1.7				

Budgetary Estimate Table

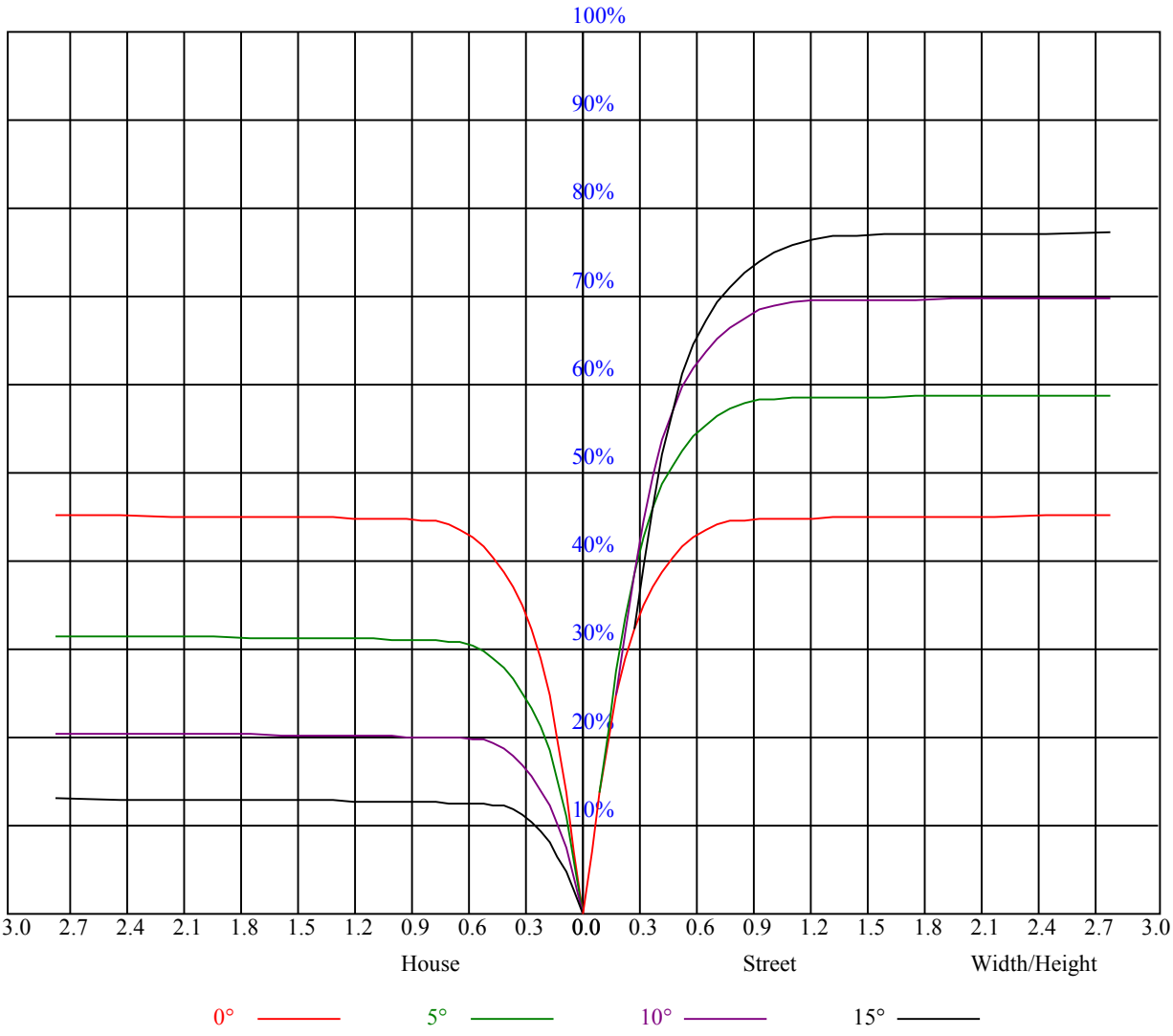


Equipment: GMS1980 Date: 2019/1/15 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.86
2	0.96	0.93	0.90	0.95	0.92	0.89	0.92	0.89	0.88	0.89	0.87	0.86	0.87	0.85	0.84	0.83
3	0.91	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.86	0.83	0.81	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
5	0.83	0.79	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.73
6	0.80	0.76	0.72	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.70
7	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
8	0.74	0.70	0.67	0.73	0.69	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.65
9	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	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	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/1/15	Operator: NT07
Temperature(°C): 10.0	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	12870.00	12673.13	12290.63	11806.88	11323.13	10687.50	9990.00	9326.25	8634.38
45.0	12791.25	12594.38	12268.13	11733.75	11255.63	10636.88	9939.38	9264.38	8572.50
90.0	12825.00	12695.63	12403.13	11953.13	11172.38	10897.88	10227.94	9486.56	8790.19
135.0	12813.75	12937.50	12808.13	12459.38	12026.25	11542.50	10890.00	10288.13	9652.50
180.0	12870.00	12853.13	12633.75	12228.75	11722.50	11161.69	10660.50	9872.44	9198.00
225.0	12791.25	12763.13	12577.50	12189.38	11621.25	11163.38	10670.63	9996.19	9263.25
270.0	12825.00	12735.00	12442.50	12009.38	11553.75	10968.75	10305.00	9669.38	9000.00
315.0	12813.75	12487.50	12043.13	11221.31	11015.44	10425.38	9699.75	8938.69	8231.63
360.0	12870.00	12673.13	12290.63	11806.88	11323.13	10687.50	9990.00	9326.25	8634.38

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7756.88	7059.38	6367.50	5608.13	4893.75	4314.38	3729.38	3206.25	2857.50
45.0	7689.38	6975.00	6277.50	5518.13	4815.00	4252.50	3684.38	3178.13	2840.63
90.0	8069.06	7183.69	6490.69	5814.56	5170.50	4434.19	3912.19	3439.69	2970.00
135.0	8881.88	8083.13	7363.13	6558.75	5788.13	5146.88	4483.13	3948.75	3420.00
180.0	8498.81	7613.44	6907.50	6217.88	5470.31	4779.56	4215.94	3643.88	3199.50
225.0	8578.13	7709.06	7004.25	6302.25	5623.31	4838.63	4272.19	3750.75	3190.50
270.0	8150.63	7458.75	6766.88	5996.25	5270.63	4663.13	4044.38	3487.50	3060.00
315.0	7524.00	6641.44	5949.00	5285.81	4529.81	3993.19	3511.13	3024.56	2621.25
360.0	7756.88	7059.38	6367.50	5608.13	4893.75	4314.38	3729.38	3206.25	2857.50

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2500.88	2216.25	1988.44	1821.94	1667.81	1552.50	1447.88	1370.81	1320.19
45.0	2441.25	2183.06	1953.00	1776.94	1639.13	1531.13	1424.81	1356.19	1305.56
90.0	2582.44	2309.63	2064.94	1868.63	1724.63	1591.31	1492.31	1405.69	1339.88
135.0	2958.75	2868.75	2313.56	2072.81	1891.69	1749.94	1605.38	1500.19	1423.13
180.0	2777.63	2437.88	2194.88	1974.94	1799.44	1670.06	1556.44	1442.25	1373.63
225.0	2824.31	2517.19	2235.94	2009.25	1845.56	1692.00	1576.69	1469.81	1388.25
270.0	2874.38	2388.94	2129.63	1920.94	1770.75	1630.69	1514.25	1432.13	1368.00
315.0	2340.56	2086.88	1905.19	1737.00	1600.31	1498.50	1410.19	1346.63	1303.31
360.0	2500.88	2216.25	1988.44	1821.94	1667.81	1552.50	1447.88	1370.81	1320.19

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1274.06	1226.25	1191.94	1162.69	1108.69	1024.31	916.88	762.75	632.81
45.0	1248.75	1205.44	1168.88	1135.13	1073.81	981.00	855.56	734.06	591.75
90.0	1292.06	1244.81	1193.06	1159.31	1118.25	1020.88	915.47	794.76	651.09
135.0	1352.81	1297.13	1247.06	1202.63	1162.69	1126.69	1040.06	933.19	795.94
180.0	1320.19	1266.75	1225.13	1189.69	1119.32	1094.40	1005.13	891.62	745.88
225.0	1332.56	1288.69	1234.69	1198.69	1167.75	1107.45	1020.60	910.69	769.22
270.0	1307.25	1262.81	1223.44	1185.75	1151.44	1086.75	979.31	847.13	718.31
315.0	1261.13	1212.19	1179.00	1118.25	1082.14	959.63	841.73	714.09	546.75
360.0	1274.06	1226.25	1191.94	1162.69	1108.69	1024.31	916.88	762.75	632.81

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	500.63	351.56	288.00	110.53	49.73	38.59	31.22	25.20	23.23
45.0	449.44	327.38	297.56	98.21	48.77	39.88	30.71	26.16	24.86
90.0	509.01	385.26	255.43	143.38	72.45	45.39	39.04	30.99	27.73
135.0	648.56	517.50	391.50	288.56	142.26	70.09	45.39	39.21	32.68
180.0	595.13	467.49	328.50	202.33	110.87	51.41	41.29	32.91	26.33
225.0	621.39	491.46	349.26	218.03	124.71	57.88	44.94	36.11	28.52
270.0	571.50	440.44	298.69	227.03	88.71	46.01	40.28	29.76	24.98
315.0	414.51	291.99	170.44	77.91	43.59	36.17	28.58	24.02	21.77
360.0	500.63	351.56	288.00	110.53	49.73	38.59	31.22	25.20	23.23

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	20.25	17.78	17.33	16.99	16.54	16.26	16.03	15.81	15.53
45.0	21.15	17.94	17.49	17.21	16.88	16.59	16.43	16.14	15.92
90.0	24.92	18.17	17.66	17.38	17.10	16.82	16.54	16.31	16.09
135.0	29.25	25.99	18.17	17.72	17.33	17.04	16.71	16.43	16.20
180.0	24.58	22.05	17.55	17.21	16.93	16.59	16.37	16.09	15.92
225.0	26.04	23.57	17.78	17.38	16.99	16.65	16.37	16.14	15.86
270.0	23.06	18.23	17.72	17.38	16.76	16.54	16.26	15.98	15.69
315.0	18.06	17.44	17.04	16.71	16.48	16.14	15.92	15.69	15.41
360.0	20.25	17.78	17.33	16.99	16.54	16.26	16.03	15.81	15.53

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	15.36	15.19	14.96	14.85	14.63	14.57	14.40	14.29	14.18
45.0	15.69	15.53	15.30	15.19	14.96	14.85	14.74	14.63	14.51
90.0	15.86	15.64	15.47	15.30	15.13	14.96	14.85	14.74	14.57
135.0	15.98	15.75	15.53	15.36	15.19	15.02	14.85	14.68	14.57
180.0	15.64	15.41	15.24	15.02	14.85	14.68	14.57	14.46	14.29
225.0	15.64	15.41	15.19	15.08	14.91	14.68	14.57	14.46	14.34
270.0	15.53	15.30	15.13	14.96	14.79	14.68	14.51	14.40	14.34
315.0	15.24	15.08	14.91	14.79	14.63	14.51	14.34	14.23	14.12
360.0	15.36	15.19	14.96	14.85	14.63	14.57	14.40	14.29	14.18

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.06	13.95	13.89	13.84	13.73	13.73	13.67	13.61	13.56
45.0	14.40	14.29	14.18	14.12	14.01	13.95	13.89	13.78	13.78
90.0	14.46	14.34	14.23	14.12	14.06	14.01	13.89	13.84	13.78
135.0	14.46	14.34	14.23	14.12	14.06	13.95	13.84	13.78	13.73
180.0	14.18	14.06	13.95	13.89	13.84	13.78	13.73	13.61	13.56
225.0	14.23	14.18	14.06	14.01	13.95	13.89	13.78	13.73	13.67
270.0	14.23	14.06	14.01	13.95	13.89	13.84	13.78	13.67	13.67
315.0	14.06	13.95	13.89	13.84	13.78	13.67	13.67	13.61	13.56
360.0	14.06	13.95	13.89	13.84	13.73	13.73	13.67	13.61	13.56

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.50	13.44	13.39	13.39	13.33	13.28	13.28	13.22	13.22
45.0	13.73	13.67	13.61	13.56	13.56	13.50	13.44	13.39	13.39
90.0	13.67	13.61	13.56	13.56	13.50	13.44	13.39	13.33	13.33
135.0	13.67	13.61	13.56	13.50	13.44	13.44	13.39	13.33	13.28
180.0	13.50	13.44	13.39	13.39	13.33	13.33	13.28	13.28	13.22
225.0	13.61	13.61	13.56	13.56	13.50	13.44	13.44	13.39	13.39
270.0	13.61	13.56	13.56	13.50	13.44	13.44	13.39	13.39	13.39
315.0	13.56	13.44	13.44	13.39	13.33	13.33	13.28	13.28	13.22
360.0	13.50	13.44	13.39	13.39	13.33	13.28	13.28	13.22	13.22

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	13.22	13.16	13.16	13.11	13.11	13.05	12.99	12.99	12.94
45.0	13.33	13.33	13.33	13.28	13.22	13.22	13.16	13.16	13.16
90.0	13.28	13.28	13.28	13.22	13.22	13.16	13.11	13.11	13.11
135.0	13.28	13.22	13.22	13.22	13.16	13.16	13.11	13.05	13.05
180.0	13.16	13.16	13.16	13.11	13.05	13.11	12.99	12.99	12.94
225.0	13.33	13.33	13.33	13.28	13.28	13.22	13.16	13.16	13.11
270.0	13.33	13.33	13.28	13.28	13.22	13.16	13.16	13.16	13.11
315.0	13.22	13.22	13.16	13.16	13.11	13.11	13.05	12.99	12.99
360.0	13.22	13.16	13.16	13.11	13.11	13.05	12.99	12.99	12.94

Intensity data(cd)

C/γ(°)	90.0
0.0	12.99
45.0	13.16
90.0	13.11
135.0	13.05
180.0	12.99
225.0	13.16
270.0	13.11
315.0	13.05
360.0	12.99