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NATA

LumCAT: 2-2641-L
Luminaire: 92.70.411.00
LampCAT: NICHIA NFCWJ108B-V3
Ballast type: AC

Report No: 20231016-B014	Voltage(V): 34.3300
Test No: 20231016-C014	Current(A): 0.5760
Number of Lamps: 1	Power (W): 19.7740
Lamp flux(lm): 2574.8	PF: 0.0000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2378.84, Efficiency(%): 92.39% , Luminous Efficacy(lm/W): 120.30
Central intensity(cd): 5227.317, Maximum intensity(cd): 5227.317
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=37.2
[C90/270]Total=37.2
Field angle(10%Imax): [C0/180]Total=65.6
[C90/270]Total=65.6
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
Maximum s/h(1/4): C0_180=0.61 C90_270=0.61
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.39%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.107%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5227.317	0.000	0	0.00%	0.00%
1.0	5215.901	4.997	4.997	0.19%	0.21%
2.0	5186.909	14.931	19.928	0.58%	0.84%
3.0	5134.046	24.684	44.612	0.96%	1.88%
4.0	5059.111	34.120	78.732	1.33%	3.31%
5.0	4971.099	43.149	121.882	1.68%	5.12%
6.0	4861.015	51.670	173.552	2.01%	7.30%
7.0	4729.965	59.531	233.083	2.31%	9.80%
8.0	4586.668	66.677	299.76	2.59%	12.60%
9.0	4430.917	73.083	372.843	2.84%	15.67%
10.0	4267.832	78.720	451.563	3.06%	18.98%
11.0	4085.165	83.464	535.027	3.24%	22.49%
12.0	3904.366	87.337	622.364	3.39%	26.16%
13.0	3707.169	90.330	712.694	3.51%	29.96%
14.0	3528.515	92.616	805.31	3.60%	33.85%
15.0	3328.689	94.139	899.449	3.66%	37.81%
16.0	3126.371	94.585	994.033	3.67%	41.79%
17.0	2932.011	94.345	1088.379	3.66%	45.75%
18.0	2728.863	93.336	1181.714	3.62%	49.68%
19.0	2532.150	91.531	1273.245	3.55%	53.52%
20.0	2337.098	89.121	1362.366	3.46%	57.27%
21.0	2138.725	85.945	1448.311	3.34%	60.88%
22.0	1957.718	82.320	1530.63	3.20%	64.34%
23.0	1775.743	78.338	1608.969	3.04%	67.64%
24.0	1605.670	73.930	1682.898	2.87%	70.74%
25.0	1410.140	68.573	1751.471	2.66%	73.63%
26.0	1249.552	62.782	1814.254	2.44%	76.27%
27.0	1151.383	58.739	1872.993	2.28%	78.74%
28.0	1038.053	55.432	1928.425	2.15%	81.07%
29.0	920.593	51.244	1979.669	1.99%	83.22%
30.0	799.839	46.451	2026.12	1.80%	85.17%
31.0	693.255	41.551	2067.67	1.61%	86.92%
32.0	590.955	36.791	2104.462	1.43%	88.47%
33.0	504.534	32.274	2136.735	1.25%	89.82%
34.0	423.905	28.097	2164.832	1.09%	91.00%
35.0	348.894	24.000	2188.833	0.93%	92.01%
36.0	288.288	20.288	2209.121	0.79%	92.87%
37.0	247.901	17.487	2226.608	0.68%	93.60%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	203.528	15.068	2241.676	0.59%	94.23%
39.0	157.772	12.332	2254.008	0.48%	94.75%
40.0	117.758	9.609	2263.618	0.37%	95.16%
41.0	96.433	7.627	2271.245	0.30%	95.48%
42.0	79.432	6.389	2277.635	0.25%	95.75%
43.0	68.154	5.467	2283.102	0.21%	95.98%
44.0	59.021	4.800	2287.902	0.19%	96.18%
45.0	52.787	4.297	2292.198	0.17%	96.36%
46.0	48.109	3.946	2296.144	0.15%	96.52%
47.0	44.089	3.667	2299.811	0.14%	96.68%
48.0	40.671	3.426	2303.238	0.13%	96.82%
49.0	37.765	3.221	2306.459	0.13%	96.96%
50.0	35.419	3.051	2309.51	0.12%	97.09%
51.0	33.108	2.899	2312.409	0.11%	97.21%
52.0	31.206	2.760	2315.169	0.11%	97.32%
53.0	29.538	2.642	2317.811	0.10%	97.43%
54.0	27.981	2.535	2320.347	0.10%	97.54%
55.0	26.618	2.437	2322.784	0.09%	97.64%
56.0	25.380	2.350	2325.134	0.09%	97.74%
57.0	24.300	2.271	2327.405	0.09%	97.84%
58.0	23.269	2.200	2329.605	0.09%	97.93%
59.0	22.397	2.135	2331.74	0.08%	98.02%
60.0	21.581	2.078	2333.817	0.08%	98.11%
61.0	20.848	2.025	2335.842	0.08%	98.19%
62.0	20.169	1.976	2337.819	0.08%	98.28%
63.0	19.519	1.930	2339.749	0.07%	98.36%
64.0	18.986	1.889	2341.638	0.07%	98.44%
65.0	18.447	1.853	2343.491	0.07%	98.51%
66.0	17.928	1.815	2345.306	0.07%	98.59%
67.0	17.464	1.780	2347.085	0.07%	98.67%
68.0	16.966	1.744	2348.829	0.07%	98.74%
69.0	16.537	1.709	2350.539	0.07%	98.81%
70.0	16.080	1.675	2352.214	0.07%	98.88%
71.0	15.651	1.640	2353.854	0.06%	98.95%
72.0	15.195	1.604	2355.458	0.06%	99.02%
73.0	14.800	1.569	2357.026	0.06%	99.08%
74.0	14.406	1.535	2358.562	0.06%	99.15%
75.0	13.991	1.500	2360.062	0.06%	99.21%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.617	1.466	2361.527	0.06%	99.27%
77.0	13.230	1.431	2362.959	0.06%	99.33%
78.0	12.890	1.398	2364.357	0.05%	99.39%
79.0	12.517	1.365	2365.722	0.05%	99.45%
80.0	12.192	1.332	2367.054	0.05%	99.50%
81.0	11.860	1.301	2368.355	0.05%	99.56%
82.0	11.500	1.267	2369.622	0.05%	99.61%
83.0	11.216	1.235	2370.856	0.05%	99.66%
84.0	10.946	1.207	2372.064	0.05%	99.72%
85.0	10.704	1.182	2373.245	0.05%	99.76%
86.0	10.490	1.158	2374.404	0.04%	99.81%
87.0	10.289	1.137	2375.541	0.04%	99.86%
88.0	10.102	1.117	2376.658	0.04%	99.91%
89.0	9.922	1.098	2377.756	0.04%	99.95%
90.0	9.853	1.084	2378.84	0.04%	100.00%

Zonal flux distribution table

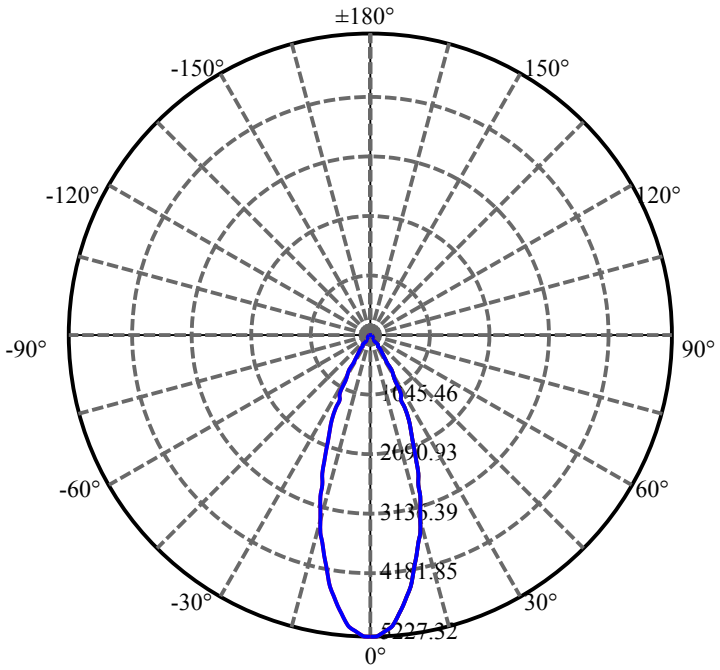
ZONAL LUMEN SUMMARY

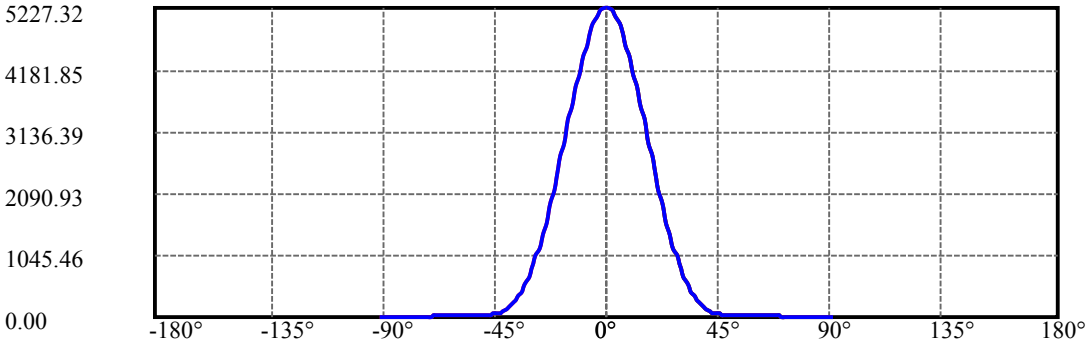
Zone	Lumens	%Lamp	%Fixt
0-30	2026.12	78.69%	85.17%
0-40	2263.62	87.92%	95.16%
0-60	2333.82	90.64%	98.11%
0-90	2377.76	92.35%	99.95%
0-120	2377.76	92.35%	99.95%
0-180	2378.84	92.39%	100.00%
60-90	43.94	1.71%	1.85%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.54	1903.07	73.91%	80.00%

ZONAL LUMEN SUMMARY

0-10	451.56
10-20	910.80
20-30	663.75
30-40	237.50
40-50	45.89
50-60	24.31
60-70	18.40
70-80	14.84
80-90	10.70
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):

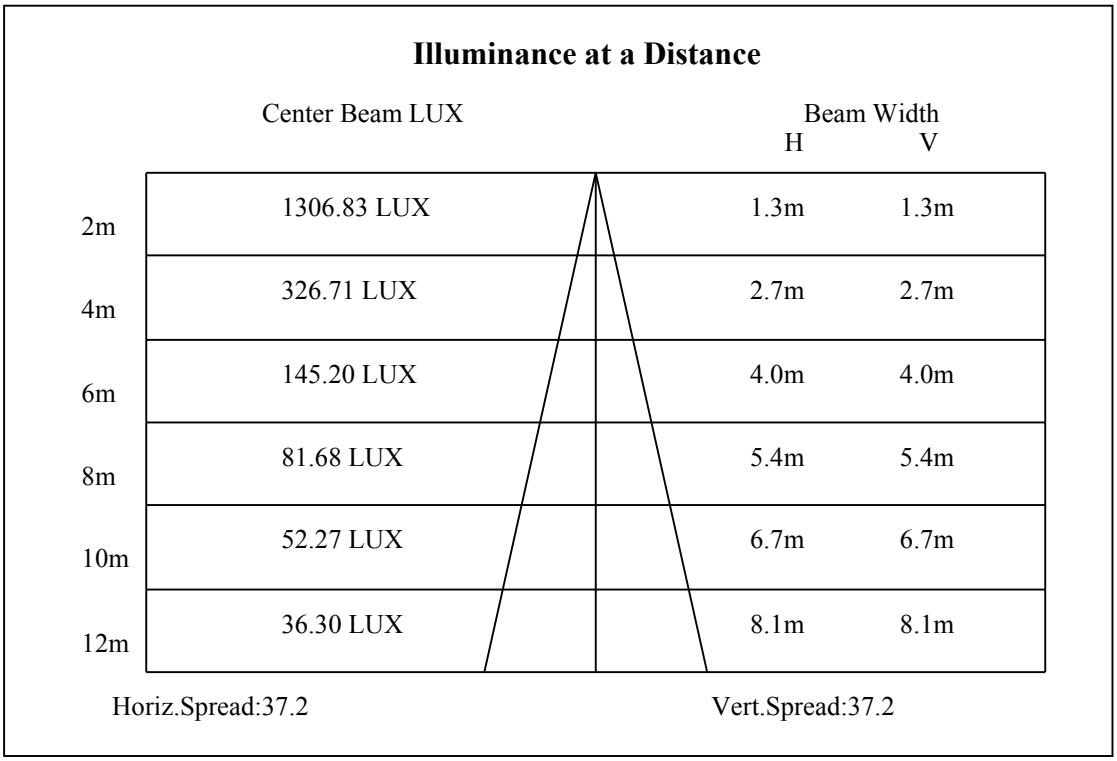
C0/C180:

C90/C270:

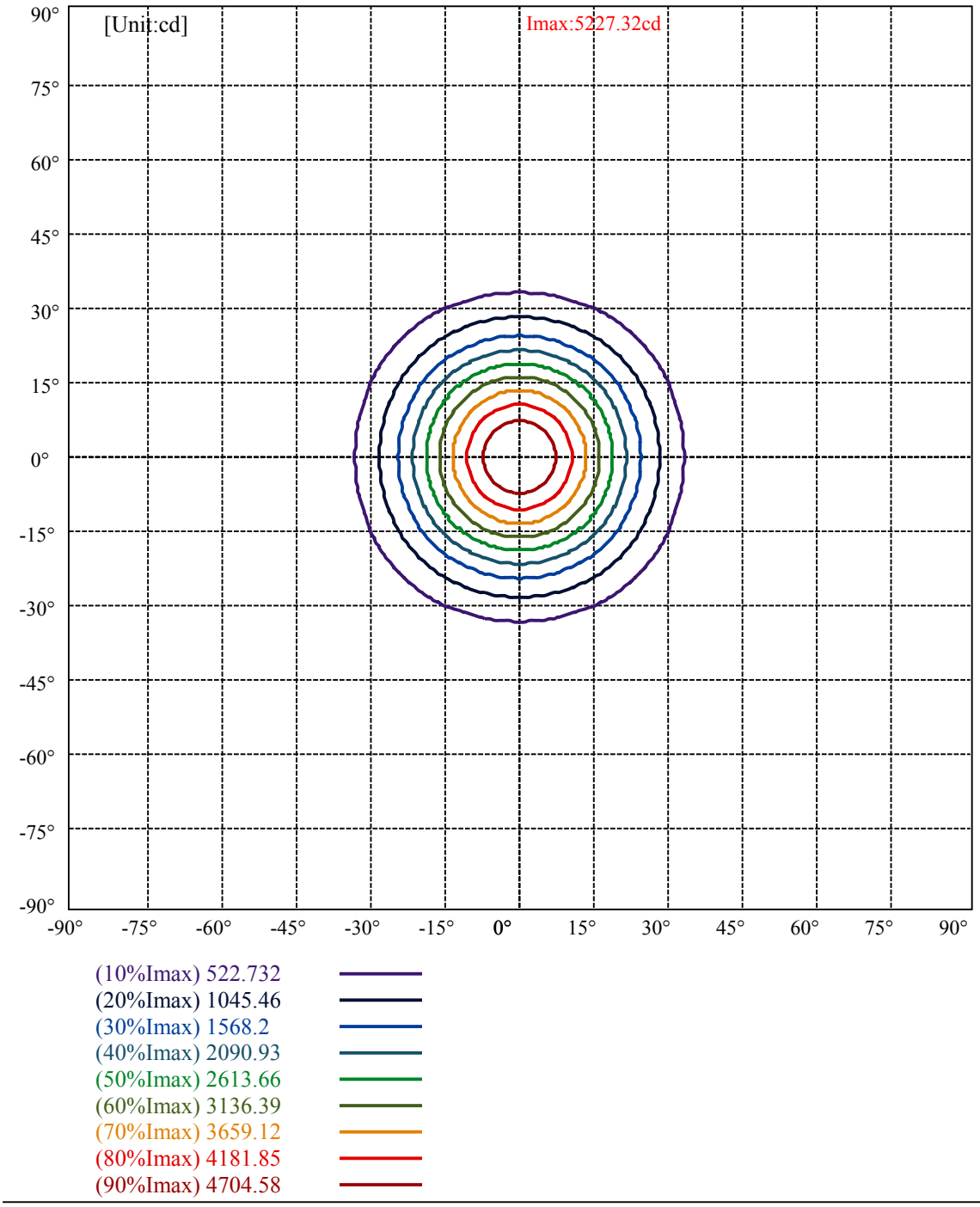
Field angle(10%Imax):C0/180Left:32.8 Right:32.8
:C90/270Left:32.8 Right:32.8

Beam Angle(50%Imax):C0/180Left:18.6 Right:18.6
:C90/270Left:18.6 Right:18.6

Lux distance Curve



ISO-Intensity(V-H)

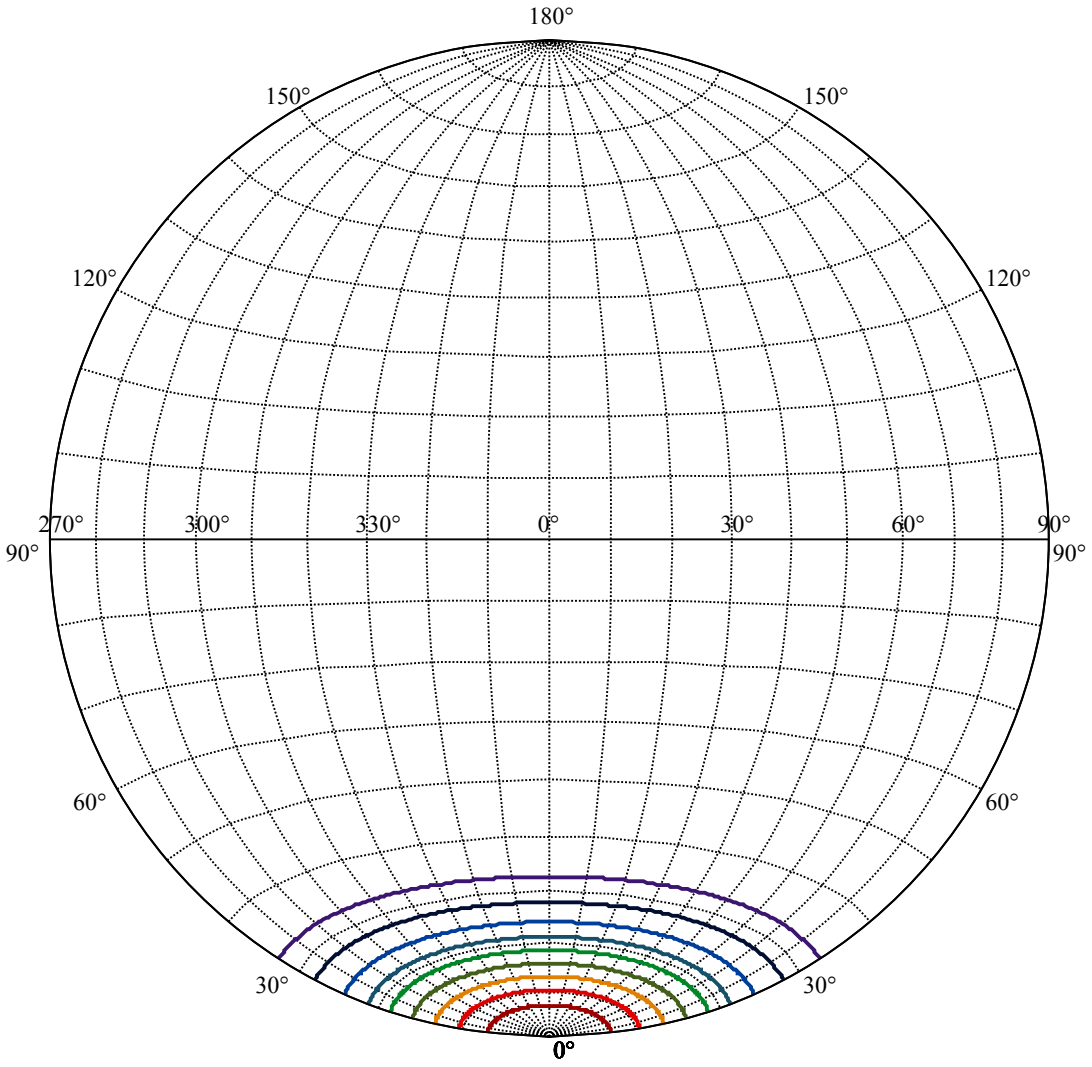


Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/16
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



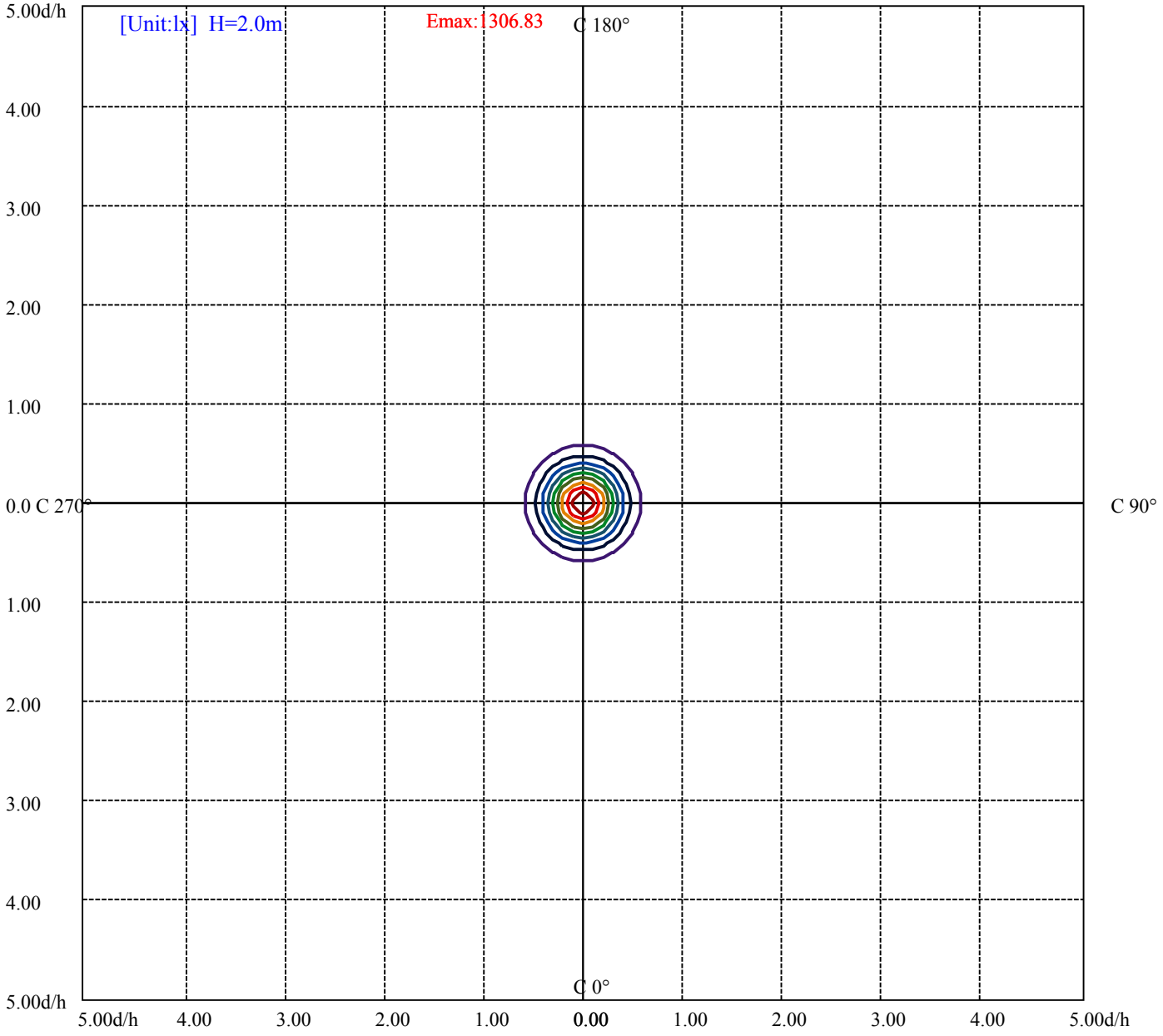
House [Unit:cd] Road

Imax:5227.32

(10%Imax) 522.732
(20%Imax) 1045.46
(30%Imax) 1568.2
(40%Imax) 2090.93
(50%Imax) 2613.66
(60%Imax) 3136.39
(70%Imax) 3659.12
(80%Imax) 4181.85
(90%Imax) 4704.58

Equipment: GMS1980 Date: 2023/10/16 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

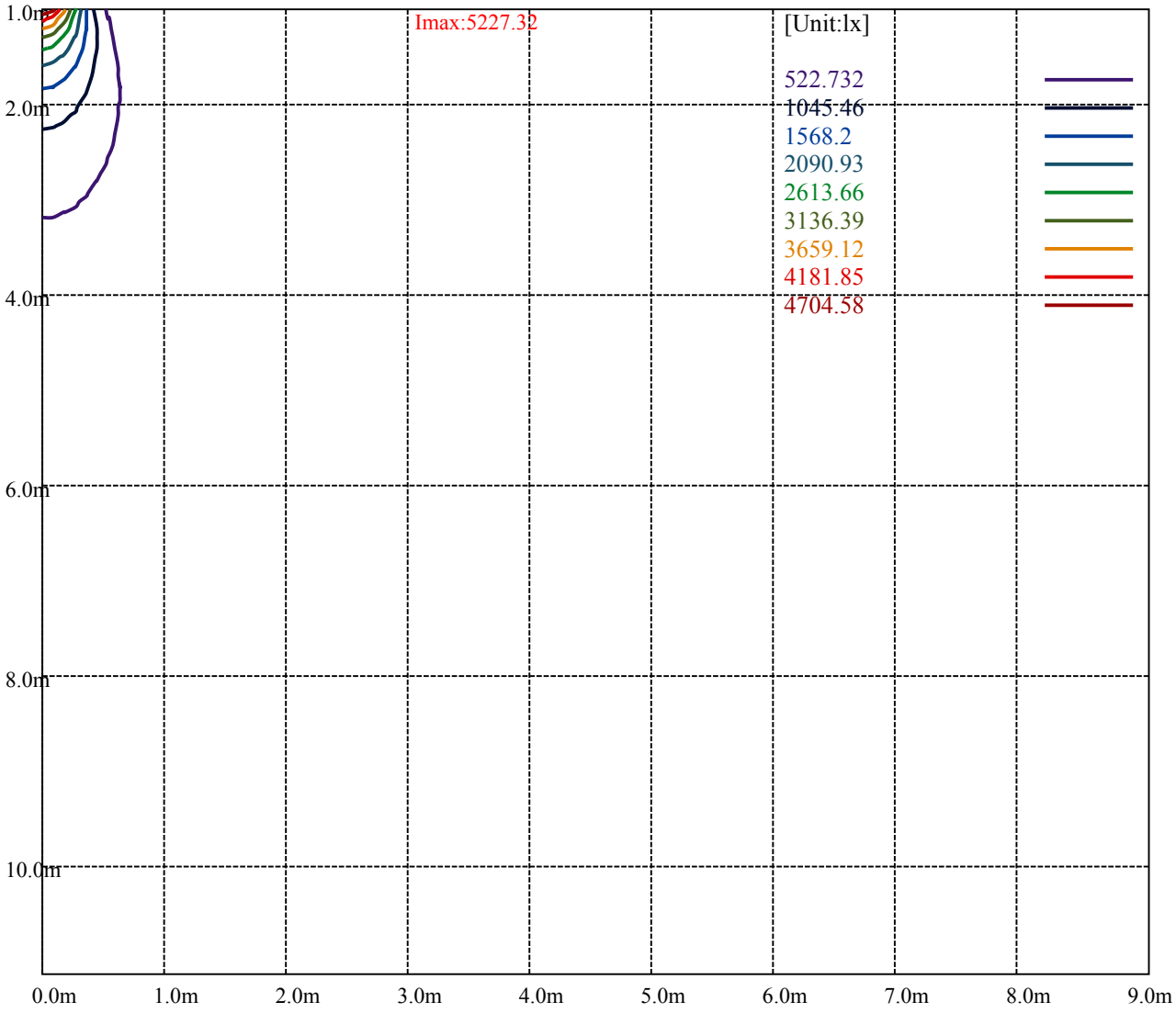
ISO illuminance diagram



(10%Emax) 130.683
(20%Emax) 261.365
(30%Emax) 392.0475
(40%Emax) 522.7325
(50%Emax) 653.415
(60%Emax) 784.0975
(70%Emax) 914.78
(80%Emax) 1045.463
(90%Emax) 1176.145

Equipment: GMS1980
Temperature(°C): 0.0
Date: 2023/10/16
Humidity(%): 0.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/16
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

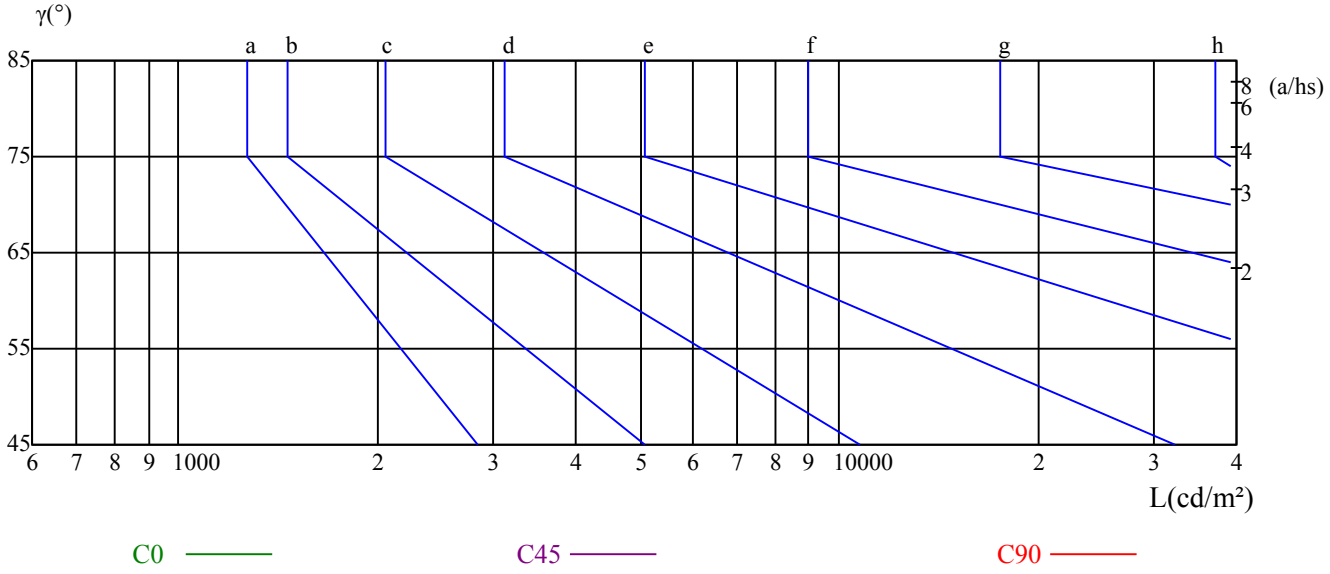
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

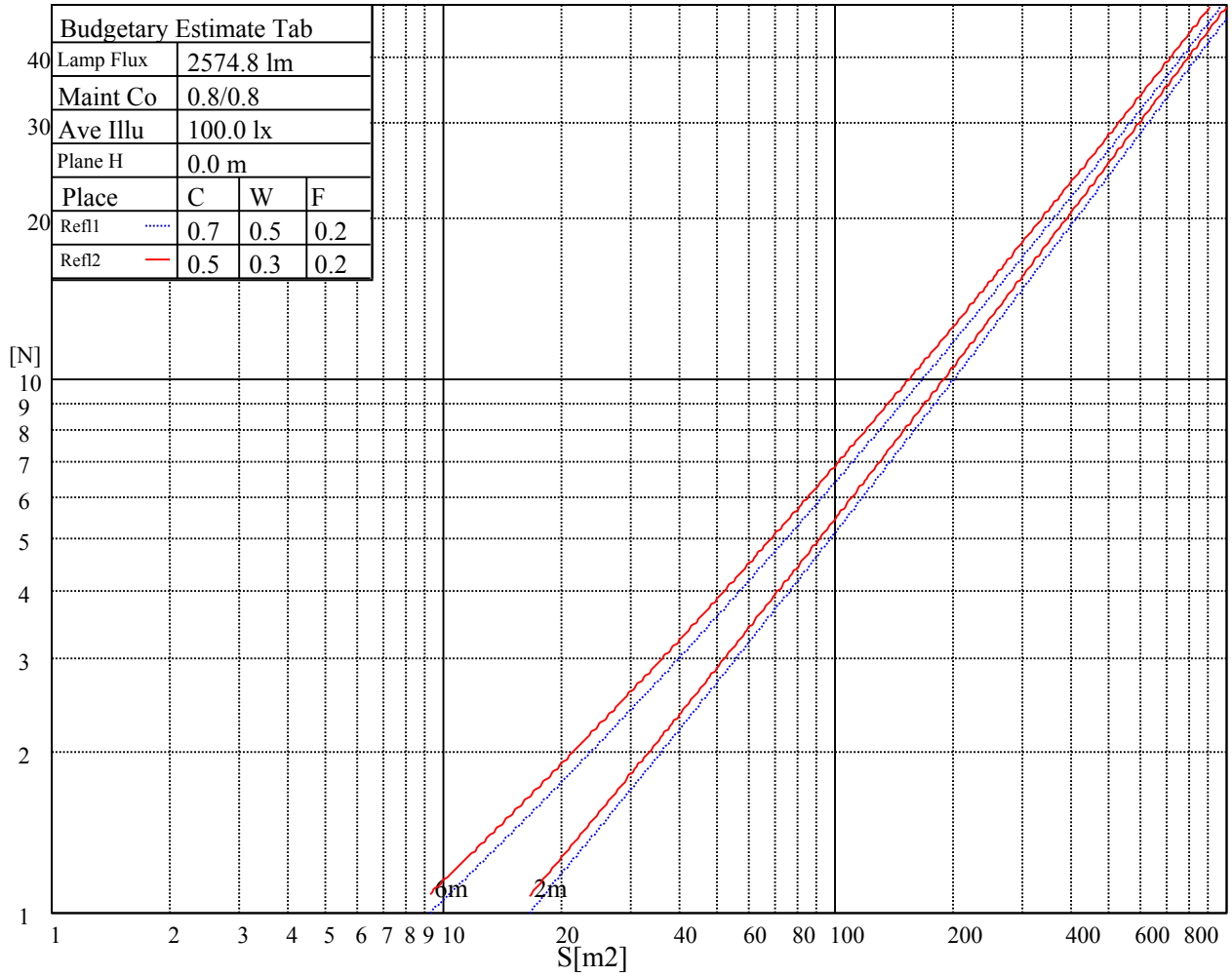
Luminance Limitting Curve



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	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
4H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
8H	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
12H	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
Variation with the observer position at spacings:											
S = 1.0H		非数字/非数字					非数字/非数字				
S = 1.5H		非数字/非数字					非数字/非数字				
S = 2.0H		非数字/非数字					非数字/非数字				
Standard tables:		BK0					BK0				
Uncorrected UGR		负无穷大					负无穷大				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25

Budgetary Estimate Table

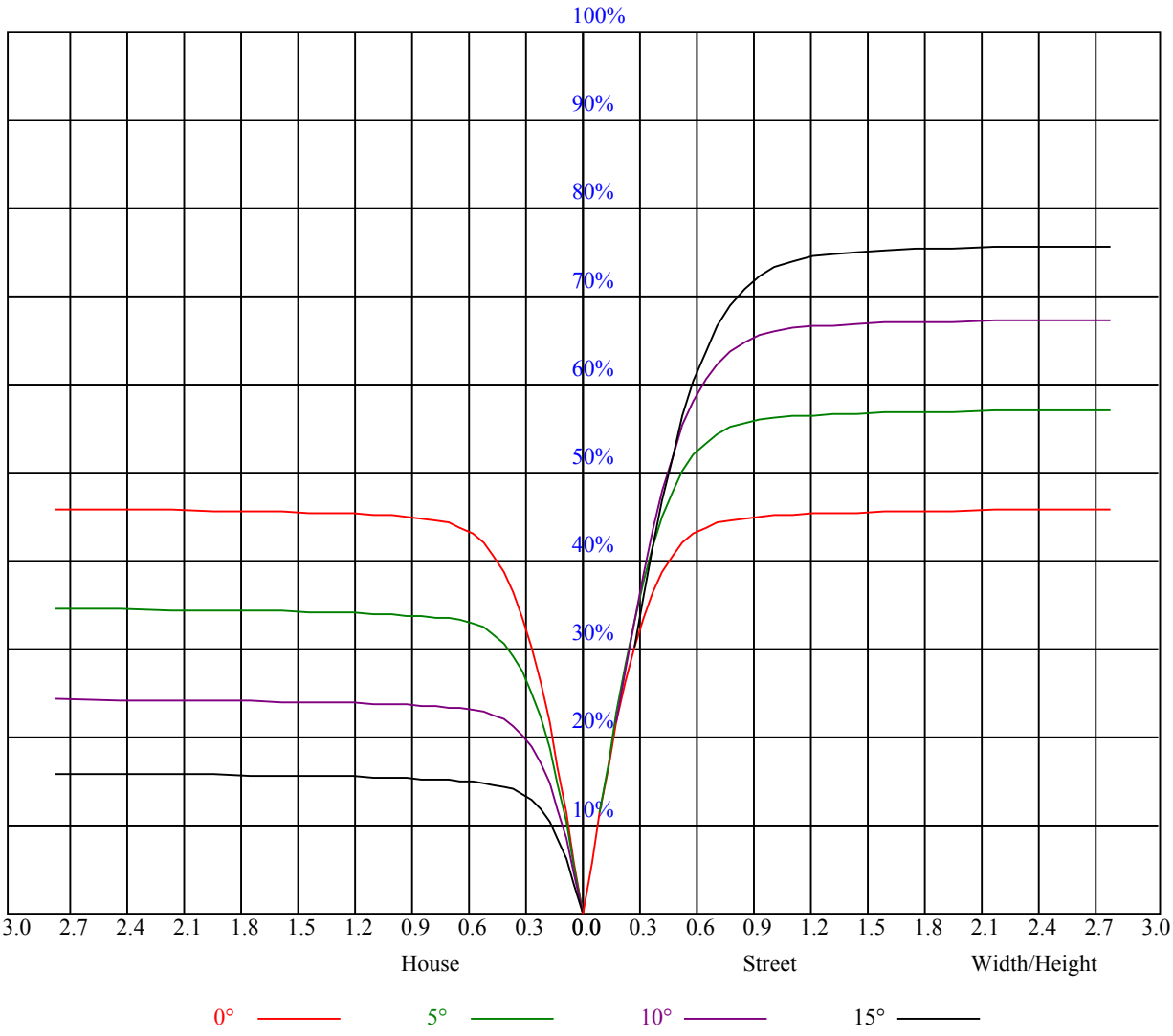


Equipment: GMS1980 Date: 2023/10/16 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

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	1.03	1.03	1.03	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	0.97	0.97	0.96	0.94	0.94	0.92	0.91	0.91	0.90	0.89	0.87
2	0.97	0.93	0.90	0.95	0.92	0.89	0.92	0.90	0.87	0.89	0.87	0.86	0.87	0.85	0.84	0.82
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.84	0.82	0.85	0.83	0.80	0.83	0.81	0.79	0.78
4	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.74
5	0.82	0.77	0.74	0.81	0.77	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.70	0.68	0.67
7	0.74	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.64
8	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61
9	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
10	0.65	0.61	0.58	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.56

Coefficient Utilization Curve



Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/16
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

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	5220.95	5175.01	5120.76	5049.36	4927.02	4825.17	4710.59	4520.17	4362.97
45.0	5227.59	5223.17	5188.29	5122.42	5049.36	4952.49	4829.05	4716.13	4573.31
90.0	5228.15	5188.29	5126.30	5051.57	4956.36	4857.83	4712.81	4571.65	4431.06
135.0	5232.58	5233.13	5212.09	5143.46	5088.66	4995.11	4896.58	4768.16	4629.78
180.0	5220.95	5230.92	5229.25	5217.63	5173.35	5103.05	5029.43	4934.77	4795.28
225.0	5227.59	5223.72	5199.92	5141.80	5087.00	5013.38	4872.78	4755.98	4624.79
270.0	5228.15	5227.04	5227.04	5205.45	5132.94	5071.50	4991.23	4879.97	4730.52
315.0	5232.58	5225.93	5191.61	5140.69	5058.21	4950.27	4845.65	4692.88	4545.64
360.0	5220.95	5175.01	5120.76	5049.36	4927.02	4825.17	4710.59	4520.17	4362.97

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4170.89	3986.57	3814.42	3638.39	3405.91	3226.56	3034.48	2839.64	2609.92
45.0	4386.22	4238.43	4081.77	3869.22	3700.39	3518.83	3335.05	3105.34	2919.90
90.0	4283.82	4075.69	3900.21	3726.40	3505.54	3329.52	3145.75	2914.37	2728.38
135.0	4490.28	4346.36	4140.45	3966.64	3747.99	3576.40	3395.94	3158.48	2981.90
180.0	4675.17	4526.26	4331.97	4179.75	3965.53	3781.76	3598.54	3417.53	3202.21
225.0	4439.91	4279.94	4080.67	3912.95	3735.26	3559.24	3339.48	3157.92	2968.61
270.0	4608.19	4455.41	4304.85	4095.61	3927.34	3741.35	3513.85	3341.70	3159.03
315.0	4392.86	4234.00	4026.97	3845.97	3669.39	3494.47	3266.42	3076.00	2886.14
360.0	4170.89	3986.57	3814.42	3638.39	3405.91	3226.56	3034.48	2839.64	2609.92

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2421.17	2238.50	2059.15	1846.60	1684.41	1494.55	1258.74	1098.60	1068.27
45.0	2729.49	2541.28	2311.57	2131.67	1960.62	1754.16	1598.61	1413.18	1272.03
90.0	2538.52	2311.01	2130.56	1958.41	1754.71	1598.06	1449.71	1091.24	1091.24
135.0	2796.46	2611.03	2382.97	2209.16	2037.57	1873.72	1677.21	1525.55	1385.50
180.0	3006.25	2829.12	2637.60	2443.31	2216.36	2043.10	1882.02	1688.28	1540.49
225.0	2780.41	2537.41	2356.96	2174.84	2003.80	1803.97	1648.43	1465.21	1101.87
270.0	2909.94	2728.93	2539.07	2288.32	2112.85	1945.68	1787.37	1595.29	1453.03
315.0	2648.67	2459.91	2278.91	2057.49	1891.43	1692.71	1543.26	1403.77	1083.99
360.0	2421.17	2238.50	2059.15	1846.60	1684.41	1494.55	1258.74	1098.60	1068.27

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	949.70	842.26	740.52	621.40	532.78	454.34	382.77	304.22	248.59
45.0	1140.28	991.38	880.68	776.06	676.97	562.95	482.13	409.62	345.41
90.0	1027.81	911.51	800.19	674.76	580.99	497.02	403.92	339.32	267.63
135.0	1219.44	1091.57	973.67	836.39	732.88	610.00	520.88	440.61	369.76
180.0	1370.00	1238.81	1114.27	966.47	857.43	749.49	649.85	535.27	455.01
225.0	1101.87	1041.59	929.61	821.17	695.30	600.09	515.95	438.35	353.99
270.0	1317.97	1190.10	1038.43	920.53	810.93	684.72	593.39	509.25	415.15
315.0	1083.99	997.20	887.37	781.92	658.76	569.04	487.39	414.60	335.61
360.0	949.70	842.26	740.52	621.40	532.78	454.34	382.77	304.22	248.59

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	202.04	154.99	125.54	98.86	83.42	71.79	61.22	55.02	50.04
45.0	286.18	286.18	175.97	135.06	110.54	92.05	75.11	65.15	57.68
90.0	218.59	177.19	143.42	111.54	92.77	78.82	68.08	58.34	52.53
135.0	291.71	291.71	224.57	149.68	115.08	94.93	80.37	69.30	59.56
180.0	383.05	318.84	290.05	290.05	160.64	130.47	101.57	84.97	70.02
225.0	295.15	243.28	198.66	152.61	123.72	101.52	81.43	69.86	59.73
270.0	350.39	292.27	292.27	181.01	145.75	111.26	91.11	76.55	65.76
315.0	279.20	218.76	177.74	143.37	110.15	90.61	76.55	66.04	56.85
360.0	202.04	154.99	125.54	98.86	83.42	71.79	61.22	55.02	50.04

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	46.00	42.51	38.97	36.53	34.32	32.44	30.33	28.89	27.57
45.0	50.81	46.50	42.90	39.80	36.53	34.21	32.22	30.56	28.73
90.0	48.05	44.28	40.35	37.75	34.82	32.82	31.05	29.12	27.73
135.0	53.75	48.21	44.50	41.35	37.97	35.54	33.43	31.55	29.67
180.0	61.77	55.58	49.65	45.78	42.46	39.58	36.48	34.32	32.38
225.0	53.91	49.32	45.50	41.40	38.69	36.26	34.10	31.72	30.06
270.0	56.46	51.15	47.05	42.73	39.80	37.25	34.54	32.49	30.78
315.0	51.53	47.33	43.78	40.02	37.53	35.26	32.71	31.00	29.39
360.0	46.00	42.51	38.97	36.53	34.32	32.44	30.33	28.89	27.57

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	26.07	24.96	23.80	22.92	22.14	21.20	20.54	19.93	19.43
45.0	27.34	26.18	24.80	23.86	22.81	22.03	21.26	20.65	19.82
90.0	26.46	25.08	24.02	23.14	22.31	21.37	20.70	20.04	19.48
135.0	28.23	26.96	25.79	24.47	23.58	22.69	21.64	20.92	20.31
180.0	30.72	28.78	27.46	26.24	24.91	23.91	22.86	22.03	21.26
225.0	28.56	27.18	25.74	24.69	23.53	22.69	21.92	21.03	20.37
270.0	28.84	27.46	26.24	25.13	23.86	23.03	22.25	21.53	20.65
315.0	27.62	26.35	25.19	23.97	23.03	22.25	21.48	20.65	20.04
360.0	26.07	24.96	23.80	22.92	22.14	21.20	20.54	19.93	19.43

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	18.76	18.32	17.88	17.38	16.88	16.44	16.00	15.50	15.11
45.0	19.32	18.76	18.32	17.71	17.33	16.88	16.50	15.94	15.55
90.0	18.82	18.32	17.82	17.27	16.88	16.33	15.94	15.55	15.11
135.0	19.54	19.04	18.54	17.93	17.49	16.99	16.61	16.11	15.67
180.0	20.48	19.82	19.32	18.76	18.32	17.71	17.27	16.83	16.38
225.0	19.76	19.21	18.60	18.10	17.66	17.10	16.66	16.27	15.83
270.0	20.04	19.48	18.82	18.38	17.77	17.38	16.88	16.50	16.00
315.0	19.43	18.93	18.27	17.88	17.38	16.88	16.44	15.94	15.55
360.0	18.76	18.32	17.88	17.38	16.88	16.44	16.00	15.50	15.11

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	14.67	14.28	13.89	13.51	13.12	12.84	12.51	12.12	11.73
45.0	15.00	14.61	14.28	13.84	13.45	13.12	12.73	12.45	12.12
90.0	14.67	14.28	13.95	13.62	13.23	12.84	12.51	12.18	11.85
135.0	15.28	14.89	14.45	14.06	13.73	13.34	13.01	12.57	12.29
180.0	15.89	15.50	15.00	14.61	14.23	13.73	13.40	12.95	12.62
225.0	15.33	14.95	14.56	14.06	13.73	13.28	12.95	12.62	12.29
270.0	15.61	15.22	14.83	14.34	13.95	13.62	13.28	12.84	12.51
315.0	15.11	14.67	14.28	13.89	13.51	13.06	12.73	12.40	12.12
360.0	14.67	14.28	13.89	13.51	13.12	12.84	12.51	12.12	11.73

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	11.46	11.13	10.90	10.63	10.46	10.30	10.07	9.91	9.91
45.0	11.79	11.40	11.13	10.79	10.57	10.35	10.19	10.02	9.80
90.0	11.51	11.24	10.96	10.68	10.46	10.30	10.02	9.91	9.80
135.0	11.96	11.57	11.24	11.02	10.74	10.52	10.30	10.13	9.85
180.0	12.34	11.96	11.62	11.35	11.02	10.79	10.57	10.35	10.19
225.0	11.90	11.51	11.29	11.02	10.79	10.57	10.41	10.19	9.96
270.0	12.18	11.79	11.46	11.18	10.90	10.63	10.46	10.24	10.02
315.0	11.73	11.40	11.13	10.90	10.68	10.46	10.30	10.07	9.85
360.0	11.46	11.13	10.90	10.63	10.46	10.30	10.07	9.91	9.91

Intensity data(cd)

C/γ(°)	90.0
0.0	9.85
45.0	9.80
90.0	9.80
135.0	9.85
180.0	9.96
225.0	9.85
270.0	9.85
315.0	9.85
360.0	9.85