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NATA

Client:
LumCAT: 2-2645-L
Luminaire: 92.70.411.00
Report No: 20231016-B005
Ballast type: AC

Test No: 20231016-C005	Voltage(V): 34.460
LampCAT: NICHIA NFCWJ108B-V3	Current(A): 0.576
Lamp flux(lm): 2574.8	Power (W): 19.848
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2423.26, Efficiency(%): 94.12% , Luminous Efficacy(lm/W): 122.09
Central intensity(cd): 5231.053, Maximum intensity(cd): 5231.053
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=39.6
[C90/270]Total=39.6
Field angle(10%Imax): [C0/180]Total=63.6
[C90/270]Total=63.6
Maximum s/h(1/2): C0_180=0.65 C90_270=0.65
Maximum s/h(1/4): C0_180=0.63 C90_270=0.63
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 94.12%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.238%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5231.054	0.000	0	0.00%	0.00%
1.0	5217.146	4.999	4.999	0.19%	0.21%
2.0	5184.833	14.930	19.929	0.58%	0.82%
3.0	5144.564	24.705	44.634	0.96%	1.84%
4.0	5081.876	34.231	78.865	1.33%	3.25%
5.0	5010.054	43.415	122.28	1.69%	5.05%
6.0	4920.243	52.186	174.466	2.03%	7.20%
7.0	4825.658	60.493	234.959	2.35%	9.70%
8.0	4713.497	68.270	303.229	2.65%	12.51%
9.0	4605.627	75.526	378.755	2.93%	15.63%
10.0	4481.151	82.232	460.987	3.19%	19.02%
11.0	4338.823	88.130	549.117	3.42%	22.66%
12.0	4183.141	93.157	642.274	3.62%	26.50%
13.0	4020.124	97.352	739.626	3.78%	30.52%
14.0	3846.937	100.698	840.324	3.91%	34.68%
15.0	3663.509	103.107	943.431	4.00%	38.93%
16.0	3446.938	104.188	1047.618	4.05%	43.23%
17.0	3254.100	104.353	1151.972	4.05%	47.54%
18.0	3016.287	103.385	1255.357	4.02%	51.80%
19.0	2803.660	101.255	1356.612	3.93%	55.98%
20.0	2565.985	98.279	1454.891	3.82%	60.04%
21.0	2336.060	94.129	1549.02	3.66%	63.92%
22.0	2110.910	89.364	1638.384	3.47%	67.61%
23.0	1887.281	83.893	1722.277	3.26%	71.07%
24.0	1687.316	78.154	1800.431	3.04%	74.30%
25.0	1448.002	71.290	1871.721	2.77%	77.24%
26.0	1249.940	63.685	1935.406	2.47%	79.87%
27.0	1139.274	58.453	1993.859	2.27%	82.28%
28.0	1001.333	54.196	2048.054	2.10%	84.52%
29.0	859.309	48.680	2096.734	1.89%	86.53%
30.0	722.025	42.696	2139.43	1.66%	88.29%
31.0	602.828	36.869	2176.298	1.43%	89.81%
32.0	497.158	31.513	2207.812	1.22%	91.11%
33.0	401.950	26.488	2234.3	1.03%	92.20%
34.0	327.735	22.082	2256.382	0.86%	93.11%
35.0	265.220	18.415	2274.797	0.72%	93.87%
36.0	223.449	15.559	2290.357	0.60%	94.52%
37.0	180.418	13.172	2303.528	0.51%	95.06%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	129.098	10.331	2313.86	0.40%	95.49%
39.0	102.210	7.895	2321.755	0.31%	95.81%
40.0	81.688	6.414	2328.169	0.25%	96.08%
41.0	67.165	5.301	2333.469	0.21%	96.29%
42.0	56.440	4.491	2337.96	0.17%	96.48%
43.0	48.414	3.884	2341.844	0.15%	96.64%
44.0	42.996	3.450	2345.294	0.13%	96.78%
45.0	38.595	3.136	2348.43	0.12%	96.91%
46.0	35.364	2.892	2351.322	0.11%	97.03%
47.0	32.589	2.703	2354.025	0.10%	97.14%
48.0	30.361	2.545	2356.57	0.10%	97.25%
49.0	28.237	2.406	2358.976	0.09%	97.35%
50.0	26.618	2.287	2361.263	0.09%	97.44%
51.0	25.110	2.189	2363.452	0.08%	97.53%
52.0	23.913	2.104	2365.555	0.08%	97.62%
53.0	22.896	2.036	2367.591	0.08%	97.70%
54.0	21.934	1.976	2369.567	0.08%	97.78%
55.0	21.180	1.925	2371.492	0.07%	97.86%
56.0	20.432	1.880	2373.372	0.07%	97.94%
57.0	19.844	1.842	2375.214	0.07%	98.02%
58.0	19.291	1.810	2377.023	0.07%	98.09%
59.0	18.806	1.781	2378.804	0.07%	98.17%
60.0	18.357	1.756	2380.56	0.07%	98.24%
61.0	17.928	1.732	2382.292	0.07%	98.31%
62.0	17.554	1.710	2384.001	0.07%	98.38%
63.0	17.139	1.687	2385.689	0.07%	98.45%
64.0	16.814	1.666	2387.355	0.06%	98.52%
65.0	16.468	1.647	2389.002	0.06%	98.59%
66.0	16.142	1.627	2390.629	0.06%	98.65%
67.0	15.817	1.607	2392.236	0.06%	98.72%
68.0	15.478	1.585	2393.821	0.06%	98.79%
69.0	15.188	1.564	2395.386	0.06%	98.85%
70.0	14.842	1.542	2396.928	0.06%	98.91%
71.0	14.565	1.520	2398.448	0.06%	98.98%
72.0	14.281	1.500	2399.948	0.06%	99.04%
73.0	13.998	1.479	2401.427	0.06%	99.10%
74.0	13.755	1.459	2402.886	0.06%	99.16%
75.0	13.527	1.442	2404.327	0.06%	99.22%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.292	1.424	2405.751	0.06%	99.28%
77.0	13.001	1.402	2407.153	0.05%	99.34%
78.0	12.745	1.378	2408.531	0.05%	99.39%
79.0	12.461	1.354	2409.885	0.05%	99.45%
80.0	12.199	1.329	2411.215	0.05%	99.50%
81.0	11.949	1.306	2412.52	0.05%	99.56%
82.0	11.666	1.281	2413.801	0.05%	99.61%
83.0	11.403	1.254	2415.055	0.05%	99.66%
84.0	11.168	1.230	2416.285	0.05%	99.71%
85.0	10.953	1.207	2417.492	0.05%	99.76%
86.0	10.766	1.187	2418.679	0.05%	99.81%
87.0	10.579	1.168	2419.847	0.05%	99.86%
88.0	10.406	1.150	2420.997	0.04%	99.91%
89.0	10.296	1.135	2422.132	0.04%	99.95%
90.0	10.220	1.125	2423.257	0.04%	100.00%

Zonal flux distribution table

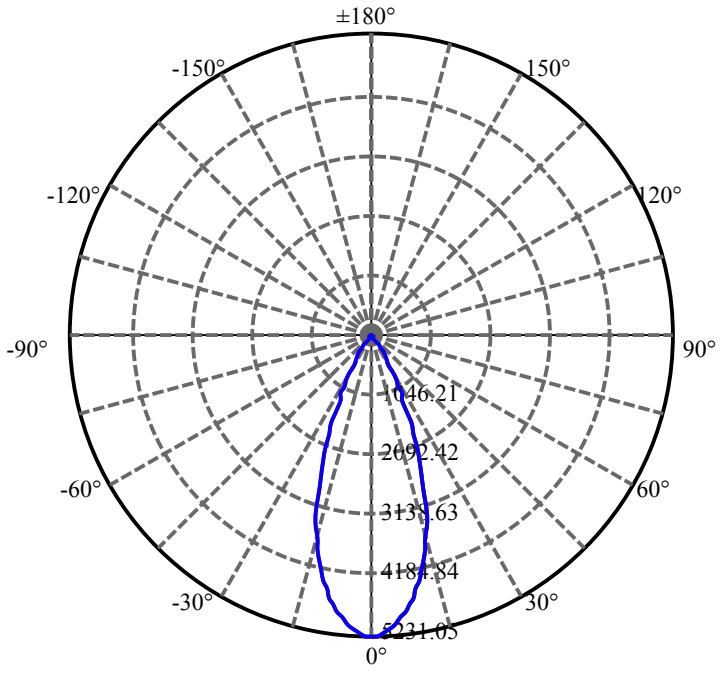
ZONAL LUMEN SUMMARY

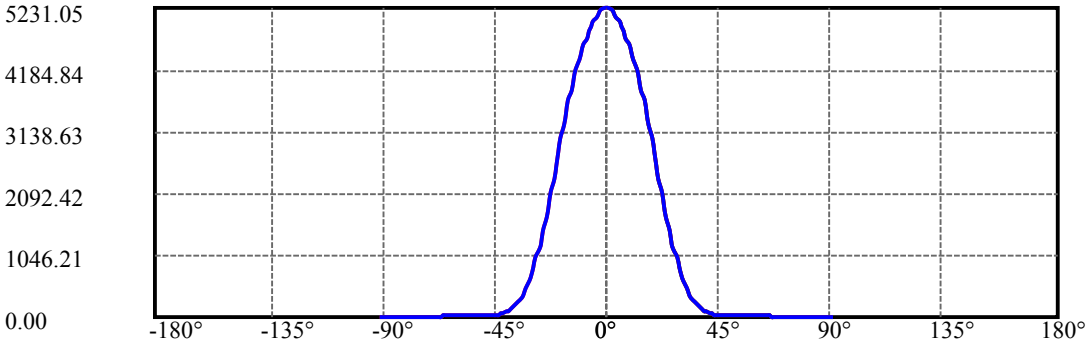
Zone	Lumens	%Lamp	%Fixt
0-30	2139.43	83.09%	88.29%
0-40	2328.17	90.42%	96.08%
0-60	2380.56	92.46%	98.24%
0-90	2422.13	94.07%	99.95%
0-120	2422.13	94.07%	99.95%
0-180	2423.26	94.12%	100.00%
60-90	41.57	1.61%	1.72%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.05	1938.61	75.29%	80.00%

ZONAL LUMEN SUMMARY

0-10	460.99
10-20	993.90
20-30	684.54
30-40	188.74
40-50	33.09
50-60	19.30
60-70	16.37
70-80	14.29
80-90	10.92
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):

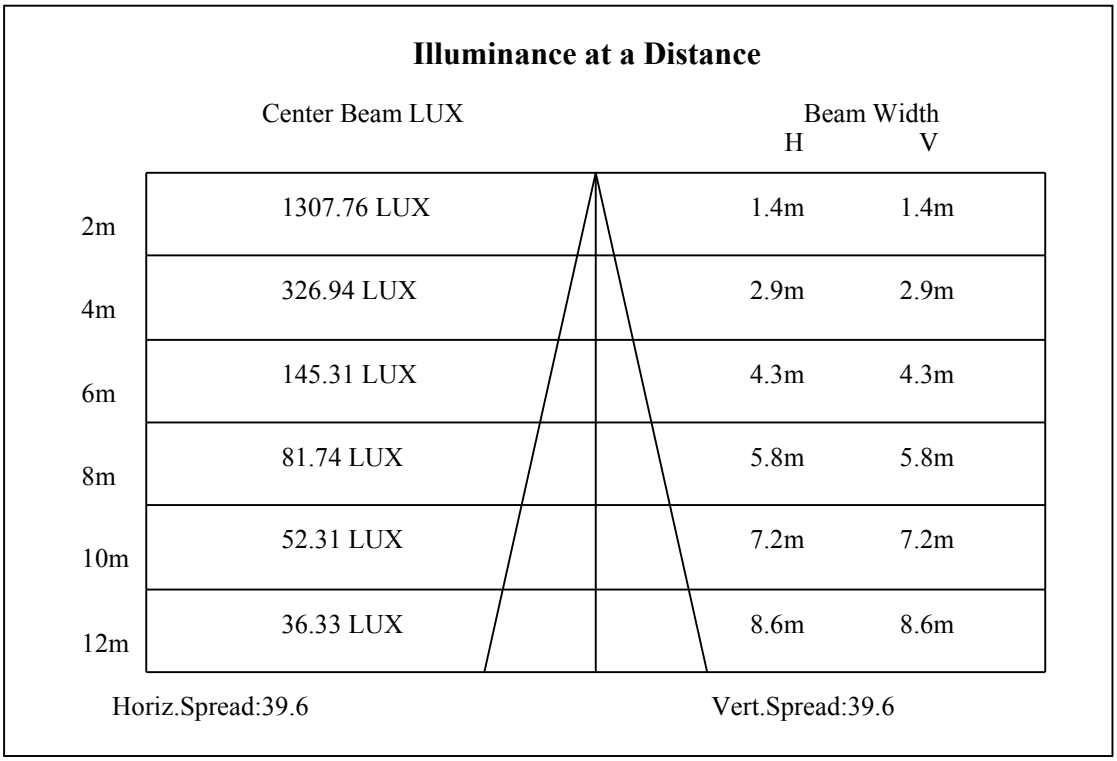
C0/C180:

C90/C270:

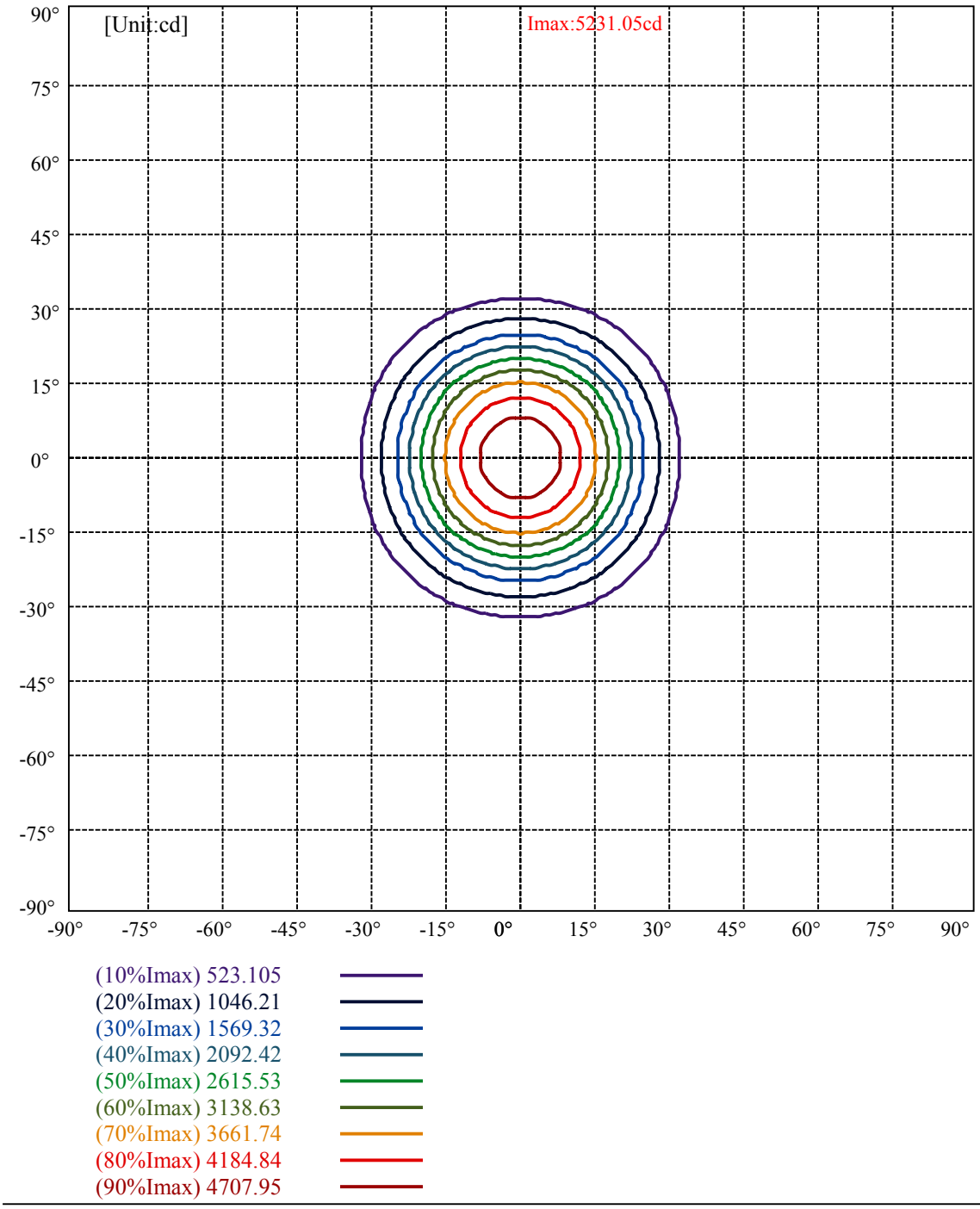
Field angle(10%Imax):C0/180Left:31.8 Right:31.8
:C90/270Left:31.8 Right:31.8

Beam Angle(50%Imax):C0/180Left:19.8 Right:19.8
:C90/270Left:19.8 Right:19.8

Lux distance Curve



ISO-Intensity(V-H)

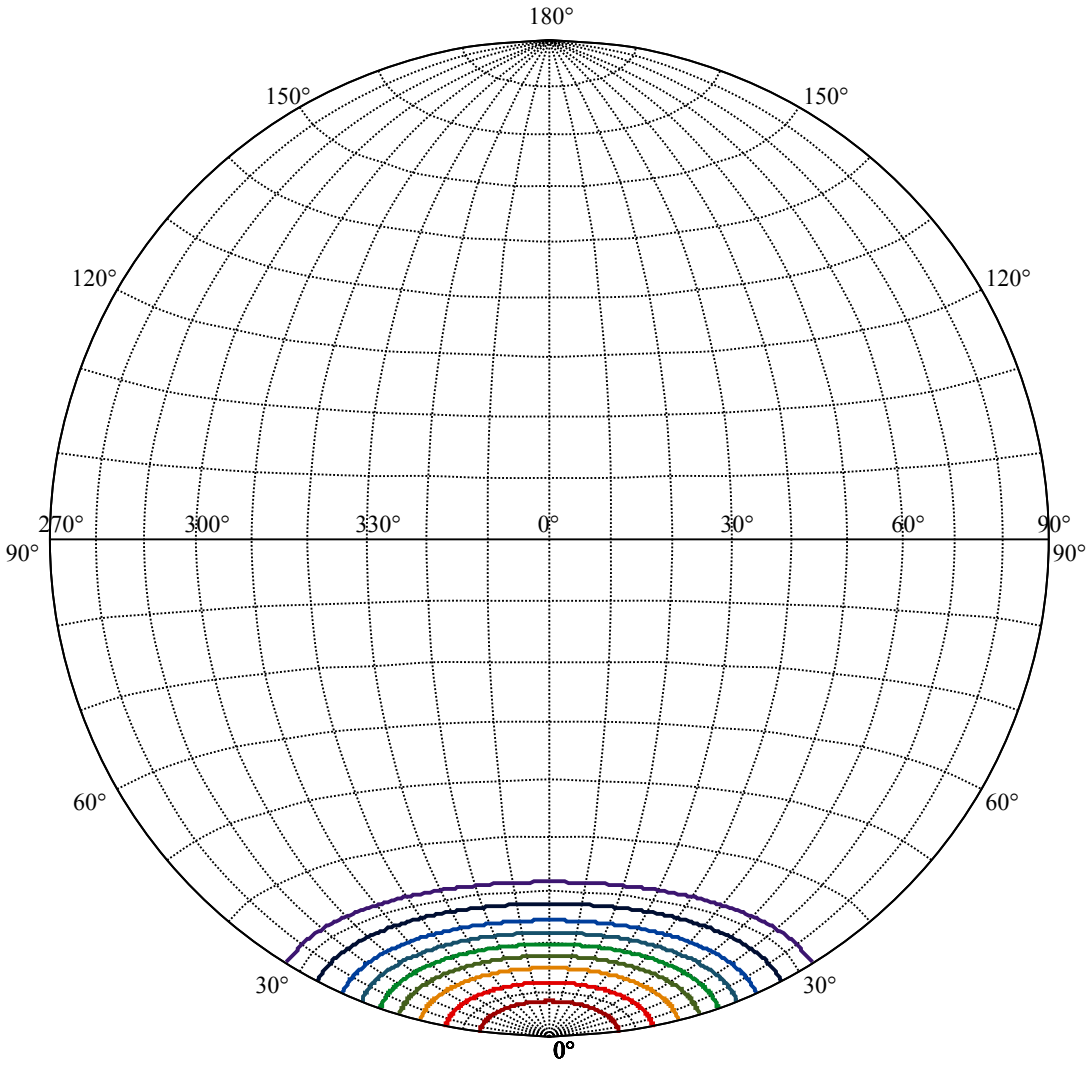


Equipment: GMS1980
Temperature(°C): 0.0

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

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



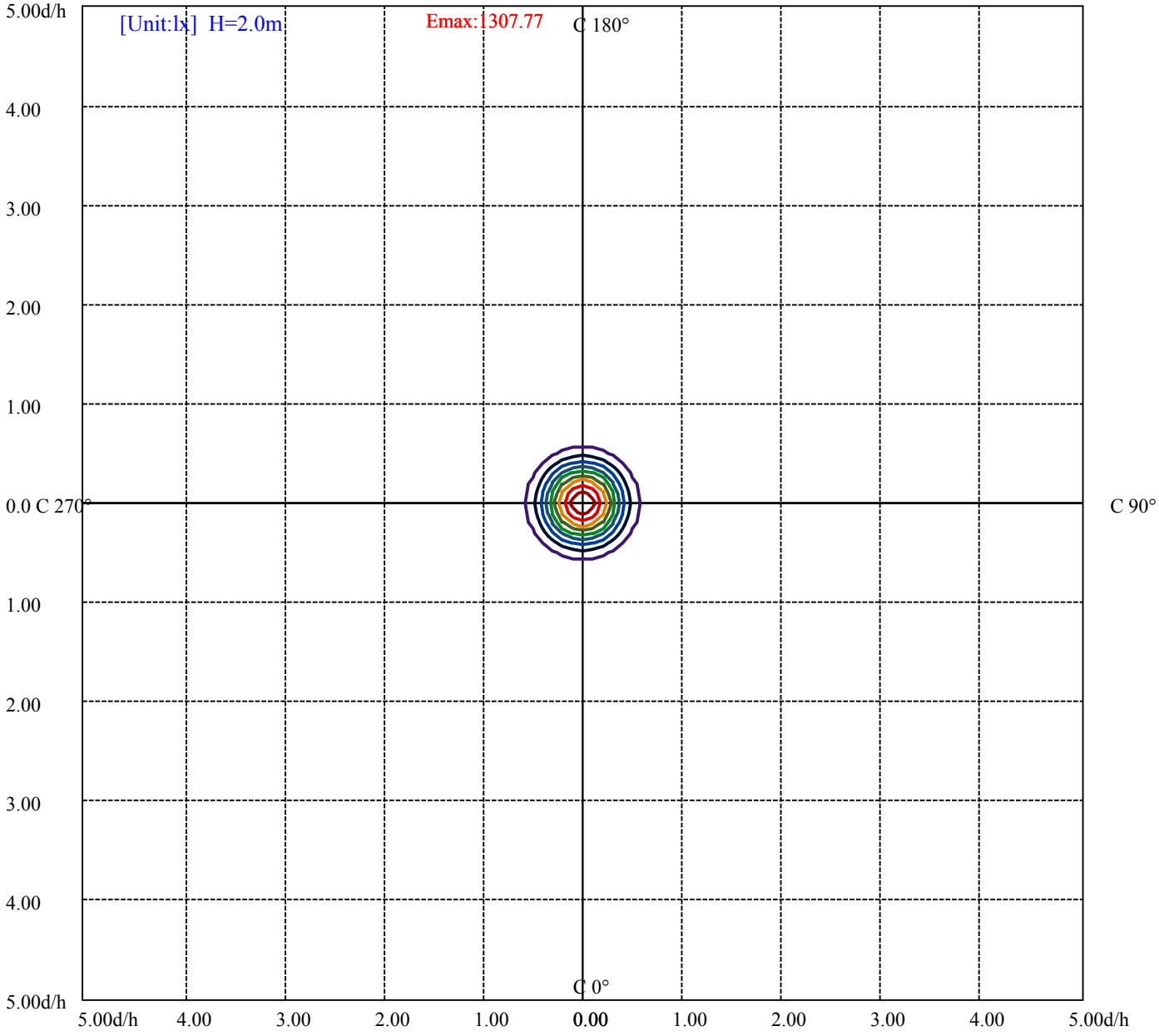
House [Unit:cd] Road

Imax:5231.05

(10%Imax) 523.105
(20%Imax) 1046.21
(30%Imax) 1569.32
(40%Imax) 2092.42
(50%Imax) 2615.53
(60%Imax) 3138.63
(70%Imax) 3661.74
(80%Imax) 4184.84
(90%Imax) 4707.95

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

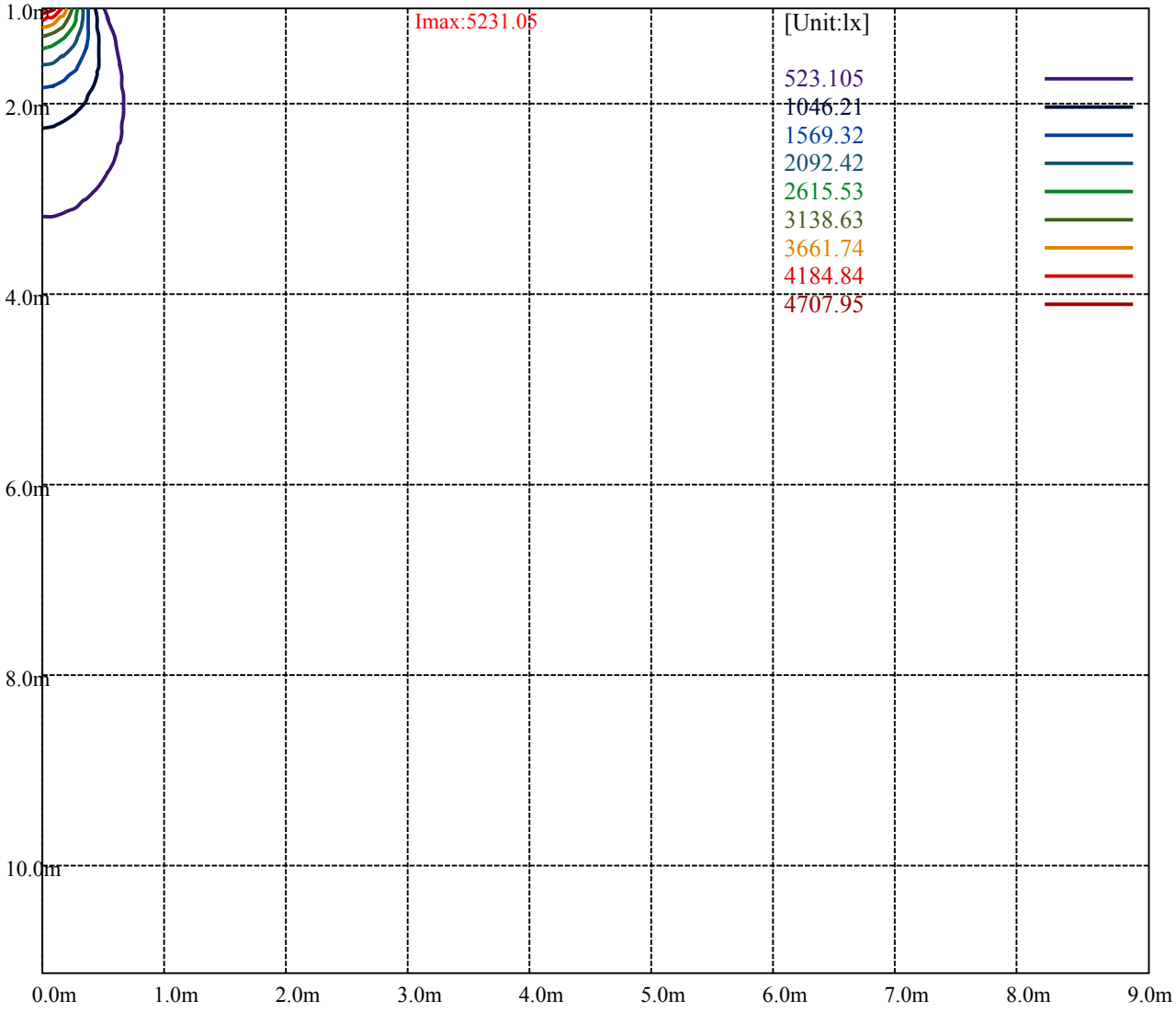
ISO illuminance diagram



(10%Emax) 130.7762
(20%Emax) 261.5525
(30%Emax) 392.33
(40%Emax) 523.105
(50%Emax) 653.8825
(60%Emax) 784.6575
(70%Emax) 915.435
(80%Emax) 1046.21
(90%Emax) 1176.988

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

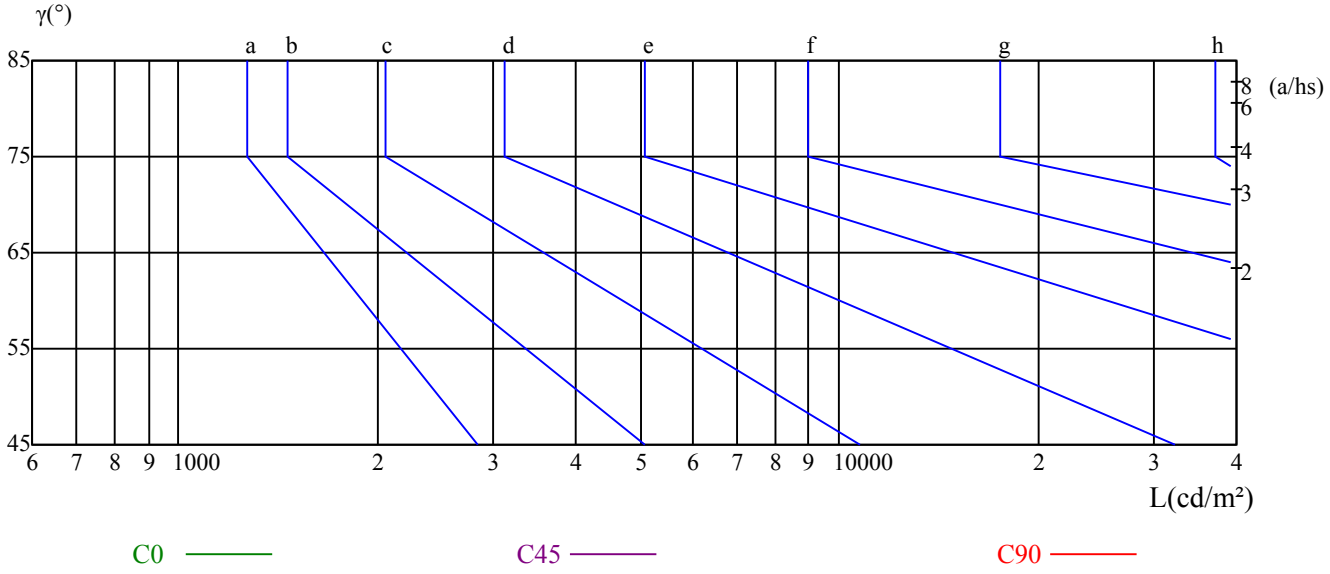
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

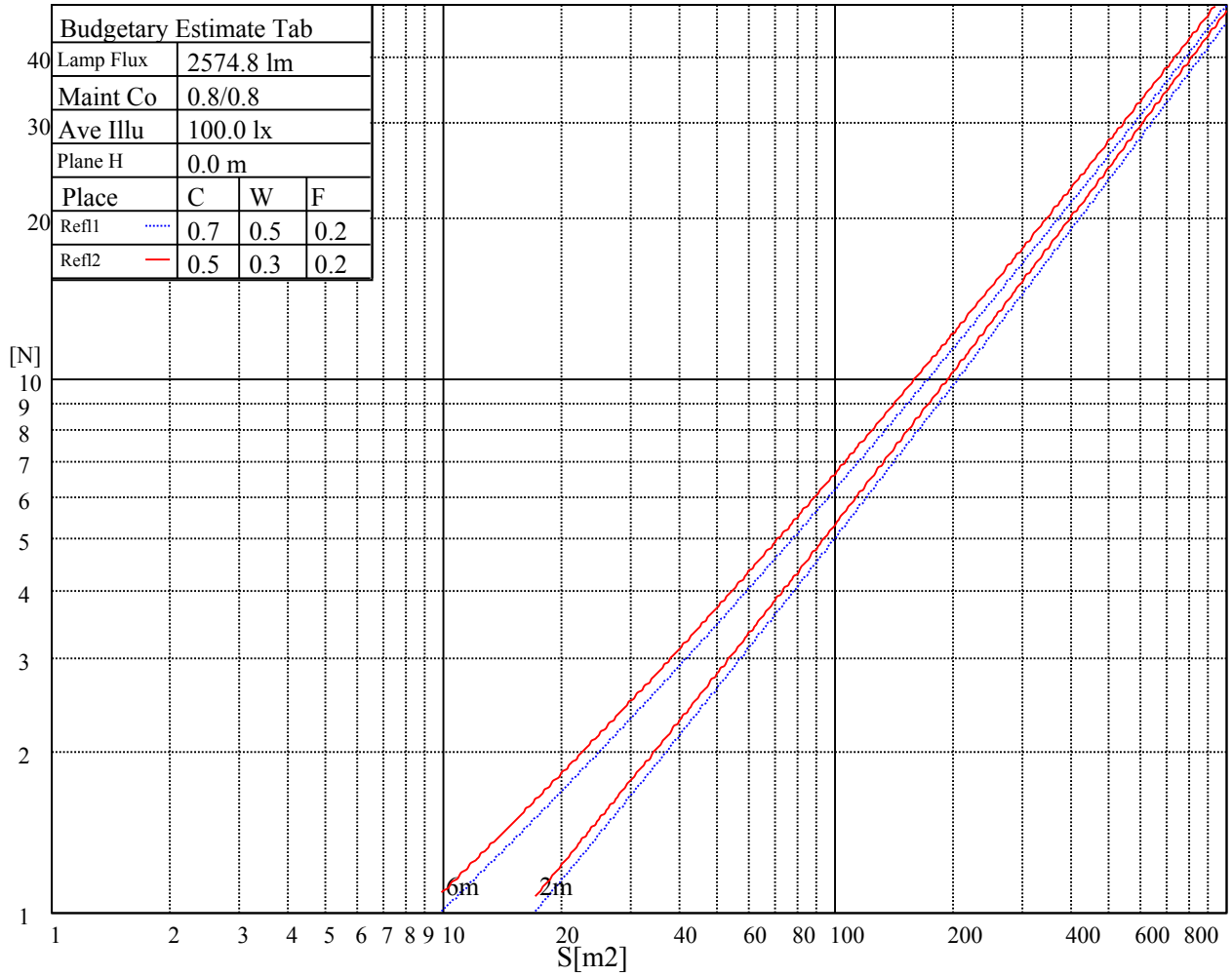


UGR Glare

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	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

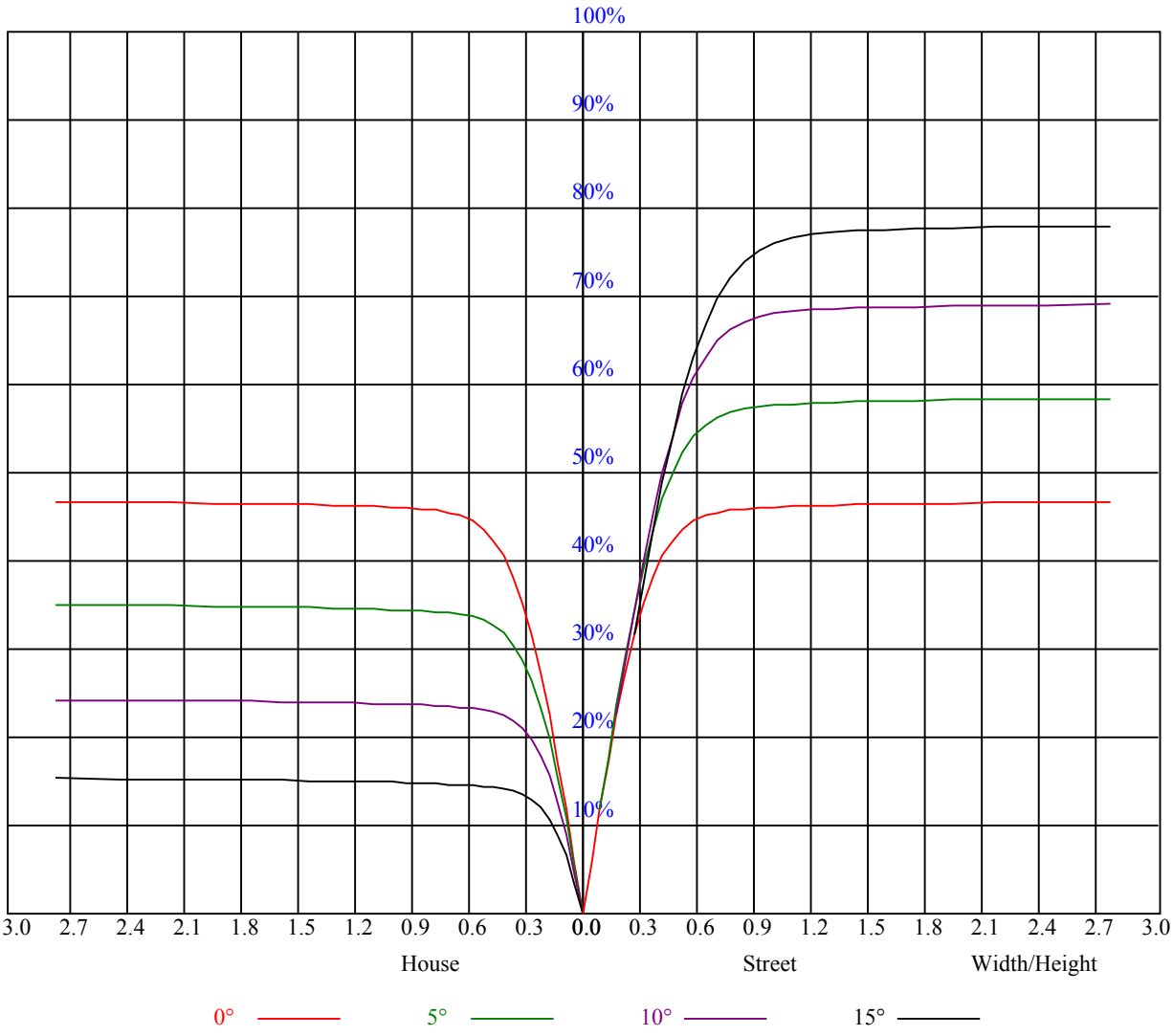
Budgetary Estimate Table



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	1.12	1.12	1.12	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.05	1.03	1.01	1.03	1.01	0.99	0.99	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.91	0.89
2	0.99	0.95	0.92	0.97	0.94	0.91	0.94	0.92	0.89	0.91	0.89	0.88	0.89	0.87	0.86	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.90	0.86	0.84	0.87	0.85	0.83	0.85	0.83	0.81	0.80
4	0.89	0.84	0.81	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.76
5	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.73
6	0.80	0.75	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.69
7	0.77	0.72	0.69	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
9	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
10	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/16	Operator: NT07
Temperature(°C): 0.0	Humidity(%): 0.0%	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	5206.01	5187.19	5119.65	5059.87	4959.13	4871.12	4769.82	4671.29	4532.91
45.0	5246.41	5215.97	5191.06	5129.62	5068.73	4997.88	4900.45	4798.60	4675.72
90.0	5224.83	5184.97	5147.33	5078.14	4998.43	4890.49	4794.73	4683.47	4547.30
135.0	5246.97	5237.00	5184.42	5165.04	5088.66	5003.41	4927.58	4833.48	4699.52
180.0	5206.01	5240.33	5230.92	5194.94	5180.54	5134.60	5062.09	4987.36	4901.01
225.0	5246.41	5209.33	5203.24	5181.65	5116.89	5057.10	4977.95	4866.13	4765.39
270.0	5224.83	5247.52	5220.95	5203.24	5170.58	5110.80	5028.87	4961.90	4871.67
315.0	5246.97	5214.86	5181.10	5144.01	5072.05	5015.04	4900.45	4803.03	4714.47
360.0	5206.01	5187.19	5119.65	5059.87	4959.13	4871.12	4769.82	4671.29	4532.91

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4415.56	4281.60	4130.49	3933.43	3763.49	3587.47	3395.39	3146.30	2939.83
45.0	4573.87	4472.57	4320.90	4175.88	4024.21	3814.97	3632.86	3395.94	3200.55
90.0	4433.27	4303.74	4125.50	3966.64	3804.45	3589.68	3400.93	3202.21	3004.59
135.0	4587.71	4476.45	4346.36	4166.47	4004.28	3843.75	3627.32	3441.89	3251.47
180.0	4800.26	4668.52	4552.83	4420.54	4244.51	4092.85	3932.32	3720.32	3554.25
225.0	4668.52	4541.76	4377.36	4241.75	4098.93	3951.69	3747.44	3564.77	3370.48
270.0	4754.87	4646.38	4532.35	4379.58	4231.78	4079.56	3930.11	3709.24	3521.60
315.0	4610.95	4458.18	4324.78	4180.86	3989.33	3815.52	3641.71	3394.84	3190.03
360.0	4415.56	4281.60	4130.49	3933.43	3763.49	3587.47	3395.39	3146.30	2939.83

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2679.67	2459.36	2243.48	1986.09	1789.03	1600.83	1423.14	1078.34	1078.34
45.0	3002.38	2800.34	2524.68	2305.48	2088.49	1876.49	1635.15	1459.67	1295.83
90.0	2754.95	2543.50	2332.60	2128.35	1876.49	1693.27	1513.37	1082.27	1082.27
135.0	3002.93	2803.66	2597.74	2337.03	2131.67	1931.84	1692.16	1512.81	1346.20
180.0	3322.88	3113.09	2904.40	2687.42	2409.54	2181.49	1984.43	1796.22	1553.22
225.0	3113.64	2896.65	2618.23	2389.06	2173.18	1913.57	1722.60	1538.28	1094.29
270.0	3321.77	3104.78	2825.25	2598.85	2371.90	2099.01	1905.27	1663.93	1476.83
315.0	2932.08	2707.90	2481.50	2256.21	2046.98	1801.76	1622.41	1452.48	1072.53
360.0	2679.67	2459.36	2243.48	1986.09	1789.03	1600.83	1423.14	1078.34	1078.34

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	938.69	808.05	657.71	551.43	457.00	374.97	290.55	234.37	177.52
45.0	1103.75	960.38	824.22	671.44	565.71	470.51	369.21	302.23	287.84
90.0	1010.26	842.15	717.55	600.81	475.38	390.13	316.79	255.07	192.35
135.0	1188.44	1005.77	870.71	746.72	632.69	506.49	417.92	327.69	281.20
180.0	1391.04	1238.26	1092.13	914.44	779.38	629.37	526.41	435.08	337.10
225.0	1094.29	1022.44	886.10	753.81	609.55	510.69	423.07	347.62	269.46
270.0	1315.20	1160.76	980.87	843.59	717.94	606.68	485.45	401.87	329.91
315.0	1072.53	972.84	845.19	693.97	584.98	488.44	386.20	317.95	246.38
360.0	938.69	808.05	657.71	551.43	457.00	374.97	290.55	234.37	177.52

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	141.93	114.08	87.24	71.35	59.45	49.32	43.78	39.52	36.26
45.0	220.53	145.41	116.85	94.82	74.34	62.38	53.53	47.22	41.40
90.0	153.05	122.28	98.42	76.94	64.71	55.58	47.27	42.40	38.58
135.0	281.20	161.19	129.53	104.40	85.08	67.09	57.07	49.71	44.28
180.0	287.84	287.84	173.37	131.80	106.28	86.46	71.41	57.73	50.10
225.0	218.54	167.17	134.07	107.88	82.70	68.25	57.62	48.43	43.12
270.0	285.07	285.07	164.62	132.79	102.18	83.36	65.82	55.74	48.43
315.0	199.44	160.30	128.70	97.70	78.77	64.87	55.02	46.55	41.79
360.0	141.93	114.08	87.24	71.35	59.45	49.32	43.78	39.52	36.26

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	32.94	30.67	28.73	27.18	25.41	24.19	22.97	22.09	21.26
45.0	37.81	35.04	31.99	29.95	27.79	26.35	25.02	23.91	22.81
90.0	34.93	32.44	29.84	28.12	26.68	25.30	24.13	22.97	22.14
135.0	39.13	36.04	33.38	31.05	28.56	26.90	25.08	23.97	22.92
180.0	44.56	39.30	36.09	33.32	30.50	28.56	26.63	25.24	24.02
225.0	39.13	35.92	33.32	30.50	28.62	27.07	25.35	24.24	23.25
270.0	42.18	38.42	35.43	32.88	30.67	28.34	26.85	25.46	24.30
315.0	38.08	35.09	31.94	29.89	27.68	26.24	24.85	23.41	22.47
360.0	32.94	30.67	28.73	27.18	25.41	24.19	22.97	22.09	21.26

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.43	19.82	19.32	18.82	18.27	17.93	17.60	17.21	16.88
45.0	21.98	21.20	20.48	19.82	19.26	18.76	18.38	17.93	17.55
90.0	21.37	20.65	19.98	19.43	18.82	18.38	18.05	17.55	17.21
135.0	21.81	21.03	20.37	19.87	19.21	18.76	18.32	17.88	17.49
180.0	23.03	22.14	21.20	20.54	19.98	19.48	18.88	18.43	18.05
225.0	22.20	21.48	20.65	20.09	19.60	19.10	18.65	18.16	17.77
270.0	23.03	22.25	21.31	20.59	20.09	19.43	18.88	18.49	18.10
315.0	21.64	20.87	20.15	19.60	19.10	18.60	18.10	17.77	17.38
360.0	20.43	19.82	19.32	18.82	18.27	17.93	17.60	17.21	16.88

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	16.55	16.27	15.89	15.55	15.33	14.95	14.67	14.39	14.12
45.0	17.10	16.83	16.50	16.11	15.83	15.55	15.22	14.89	14.56
90.0	16.88	16.55	16.22	15.89	15.61	15.22	14.95	14.61	14.39
135.0	17.16	16.83	16.50	16.22	15.89	15.50	15.28	14.83	14.56
180.0	17.55	17.16	16.77	16.50	16.11	15.78	15.50	15.17	14.89
225.0	17.33	17.05	16.61	16.27	15.94	15.55	15.28	14.89	14.61
270.0	17.60	17.16	16.88	16.61	16.16	15.83	15.55	15.17	14.89
315.0	16.94	16.66	16.38	16.00	15.67	15.44	15.06	14.78	14.50
360.0	16.55	16.27	15.89	15.55	15.33	14.95	14.67	14.39	14.12

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.84	13.62	13.40	13.17	12.90	12.62	12.40	12.07	11.79
45.0	14.28	14.00	13.73	13.56	13.34	12.95	12.73	12.45	12.18
90.0	14.06	13.78	13.62	13.34	13.06	12.73	12.51	12.29	11.90
135.0	14.34	14.06	13.78	13.56	13.34	13.12	12.79	12.51	12.29
180.0	14.56	14.28	14.06	13.84	13.56	13.34	13.06	12.79	12.51
225.0	14.39	14.06	13.78	13.56	13.40	13.06	12.79	12.57	12.34
270.0	14.56	14.28	14.00	13.73	13.51	13.28	13.01	12.68	12.45
315.0	14.23	13.89	13.67	13.45	13.23	12.90	12.68	12.34	12.12
360.0	13.84	13.62	13.40	13.17	12.90	12.62	12.40	12.07	11.79

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	11.57	11.35	11.13	10.90	10.74	10.57	10.41	10.30	10.30
45.0	11.90	11.62	11.35	11.13	10.90	10.68	10.46	10.35	10.24
90.0	11.68	11.46	11.18	10.96	10.74	10.57	10.41	10.30	10.19
135.0	12.01	11.73	11.40	11.18	10.96	10.79	10.63	10.41	10.30
180.0	12.34	11.96	11.73	11.46	11.18	11.02	10.79	10.63	10.46
225.0	12.01	11.73	11.46	11.24	11.07	10.85	10.63	10.46	10.30
270.0	12.23	11.90	11.62	11.35	11.13	10.90	10.74	10.46	10.35
315.0	11.85	11.57	11.35	11.13	10.90	10.74	10.57	10.35	10.24
360.0	11.57	11.35	11.13	10.90	10.74	10.57	10.41	10.30	10.30

Intensity data(cd)

C/γ(°)	90.0
0.0	10.30
45.0	10.24
90.0	10.24
135.0	10.19
180.0	10.30
225.0	10.19
270.0	10.13
315.0	10.19
360.0	10.30