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NATA

Client:
LumCAT: 2-2645-L
Luminaire: 92.70.411.00
Report No: 20231023-B004
Ballast type: AC

Test No: 20231023-C004	Voltage(V): 36.820
LampCAT: NICHIA NFDWJ130B-V3	Current(A): 0.576
Lamp flux(lm): 2810.0	Power (W): 21.208
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2618.33, Efficiency(%): 93.18% , Luminous Efficacy(lm/W): 123.46
Central intensity(cd): 5599.570, Maximum intensity(cd): 5599.570
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=40.0
[C90/270]Total=40.0
Field angle(10%Imax): [C0/180]Total=63.4
[C90/270]Total=63.4
Maximum s/h(1/2): C0_180=0.66 C90_270=0.66
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(%): 93.18%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.160%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5599.570	0.000	0	0.00%	0.00%
1.0	5585.455	5.352	5.352	0.19%	0.20%
2.0	5564.628	16.004	21.355	0.57%	0.82%
3.0	5517.508	26.505	47.86	0.94%	1.83%
4.0	5456.343	36.733	84.593	1.31%	3.23%
5.0	5375.803	46.599	131.193	1.66%	5.01%
6.0	5288.898	56.046	187.238	1.99%	7.15%
7.0	5188.431	65.033	252.271	2.31%	9.63%
8.0	5074.818	73.452	325.723	2.61%	12.44%
9.0	4952.487	81.266	406.989	2.89%	15.54%
10.0	4826.004	88.492	495.481	3.15%	18.92%
11.0	4695.646	95.141	590.622	3.39%	22.56%
12.0	4544.877	101.012	691.634	3.59%	26.42%
13.0	4377.363	105.884	797.518	3.77%	30.46%
14.0	4200.785	109.800	907.318	3.91%	34.65%
15.0	4011.752	112.745	1020.063	4.01%	38.96%
16.0	3791.860	114.345	1134.408	4.07%	43.33%
17.0	3549.065	114.318	1248.726	4.07%	47.69%
18.0	3317.687	113.218	1361.944	4.03%	52.02%
19.0	3057.525	110.916	1472.859	3.95%	56.25%
20.0	2812.793	107.443	1580.302	3.82%	60.36%
21.0	2535.818	102.704	1683.007	3.65%	64.28%
22.0	2292.815	97.033	1780.04	3.45%	67.98%
23.0	2069.187	91.527	1871.567	3.26%	71.48%
24.0	1834.487	85.348	1956.915	3.04%	74.74%
25.0	1601.380	78.124	2035.039	2.78%	77.72%
26.0	1374.824	70.254	2105.293	2.50%	80.41%
27.0	1202.557	63.056	2168.349	2.24%	82.81%
28.0	1069.265	57.518	2225.867	2.05%	85.01%
29.0	912.864	51.858	2277.725	1.85%	86.99%
30.0	763.167	45.252	2322.977	1.61%	88.72%
31.0	636.802	38.959	2361.936	1.39%	90.21%
32.0	518.601	33.101	2395.037	1.18%	91.47%
33.0	405.022	27.210	2422.248	0.97%	92.51%
34.0	296.917	21.243	2443.49	0.76%	93.32%
35.0	237.785	16.606	2460.096	0.59%	93.96%
36.0	182.646	13.387	2473.483	0.48%	94.47%
37.0	158.803	11.136	2484.619	0.40%	94.89%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	105.815	8.833	2493.451	0.31%	95.23%
39.0	92.164	6.758	2500.209	0.24%	95.49%
40.0	82.138	6.079	2506.288	0.22%	95.72%
41.0	72.769	5.516	2511.804	0.20%	95.93%
42.0	65.490	5.023	2516.827	0.18%	96.12%
43.0	58.675	4.599	2521.427	0.16%	96.30%
44.0	53.534	4.235	2525.662	0.15%	96.46%
45.0	49.064	3.943	2529.605	0.14%	96.61%
46.0	45.134	3.684	2533.289	0.13%	96.75%
47.0	41.827	3.459	2536.747	0.12%	96.88%
48.0	38.955	3.266	2540.013	0.12%	97.01%
49.0	36.520	3.099	2543.112	0.11%	97.13%
50.0	34.215	2.949	2546.062	0.10%	97.24%
51.0	32.271	2.813	2548.875	0.10%	97.35%
52.0	30.590	2.697	2551.572	0.10%	97.45%
53.0	29.054	2.594	2554.166	0.09%	97.55%
54.0	27.663	2.500	2556.666	0.09%	97.65%
55.0	26.362	2.412	2559.078	0.09%	97.74%
56.0	25.310	2.335	2561.413	0.08%	97.83%
57.0	24.321	2.269	2563.682	0.08%	97.91%
58.0	23.435	2.208	2565.891	0.08%	98.00%
59.0	22.660	2.155	2568.046	0.08%	98.08%
60.0	21.899	2.105	2570.151	0.07%	98.16%
61.0	21.297	2.061	2572.212	0.07%	98.24%
62.0	20.654	2.021	2574.234	0.07%	98.32%
63.0	20.080	1.981	2576.215	0.07%	98.39%
64.0	19.554	1.945	2578.159	0.07%	98.47%
65.0	19.083	1.912	2580.072	0.07%	98.54%
66.0	18.613	1.881	2581.952	0.07%	98.61%
67.0	18.114	1.847	2583.799	0.07%	98.68%
68.0	17.713	1.815	2585.614	0.06%	98.75%
69.0	17.263	1.784	2587.398	0.06%	98.82%
70.0	16.876	1.753	2589.152	0.06%	98.89%
71.0	16.482	1.724	2590.876	0.06%	98.95%
72.0	16.115	1.695	2592.571	0.06%	99.02%
73.0	15.769	1.667	2594.238	0.06%	99.08%
74.0	15.430	1.640	2595.878	0.06%	99.14%
75.0	15.118	1.614	2597.492	0.06%	99.20%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	14.752	1.586	2599.078	0.06%	99.26%
77.0	14.433	1.556	2600.634	0.06%	99.32%
78.0	14.087	1.527	2602.161	0.05%	99.38%
79.0	13.790	1.498	2603.658	0.05%	99.44%
80.0	13.465	1.469	2605.128	0.05%	99.50%
81.0	13.174	1.441	2606.568	0.05%	99.55%
82.0	12.877	1.413	2607.981	0.05%	99.60%
83.0	12.579	1.384	2609.365	0.05%	99.66%
84.0	12.302	1.355	2610.72	0.05%	99.71%
85.0	12.039	1.329	2612.049	0.05%	99.76%
86.0	11.776	1.302	2613.351	0.05%	99.81%
87.0	11.555	1.277	2614.628	0.05%	99.86%
88.0	11.327	1.253	2615.881	0.04%	99.91%
89.0	11.119	1.230	2617.111	0.04%	99.95%
90.0	11.057	1.216	2618.327	0.04%	100.00%

Zonal flux distribution table

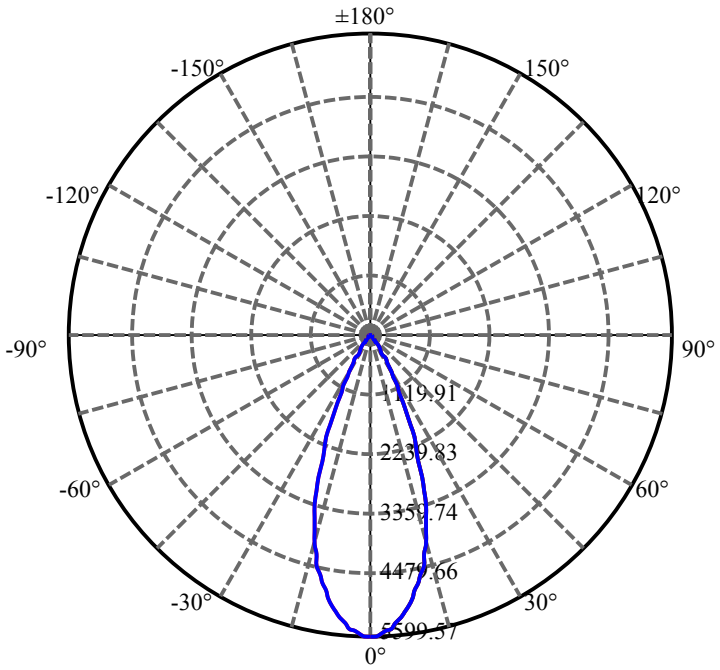
ZONAL LUMEN SUMMARY

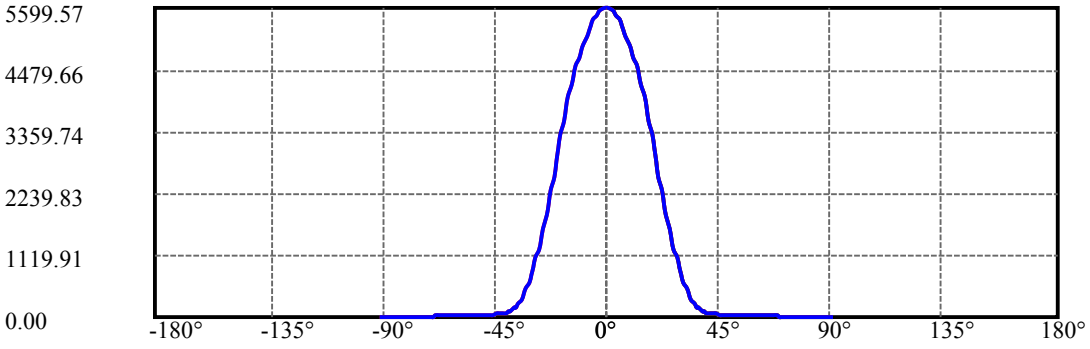
Zone	Lumens	%Lamp	%Fixt
0-30	2322.98	82.67%	88.72%
0-40	2506.29	89.19%	95.72%
0-60	2570.15	91.46%	98.16%
0-90	2617.11	93.14%	99.95%
0-120	2617.11	93.14%	99.95%
0-180	2618.33	93.18%	100.00%
60-90	46.96	1.67%	1.79%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.85	2094.66	74.54%	80.00%

ZONAL LUMEN SUMMARY

0-10	495.48
10-20	1084.82
20-30	742.67
30-40	183.31
40-50	39.77
50-60	24.09
60-70	19.00
70-80	15.98
80-90	11.98
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):

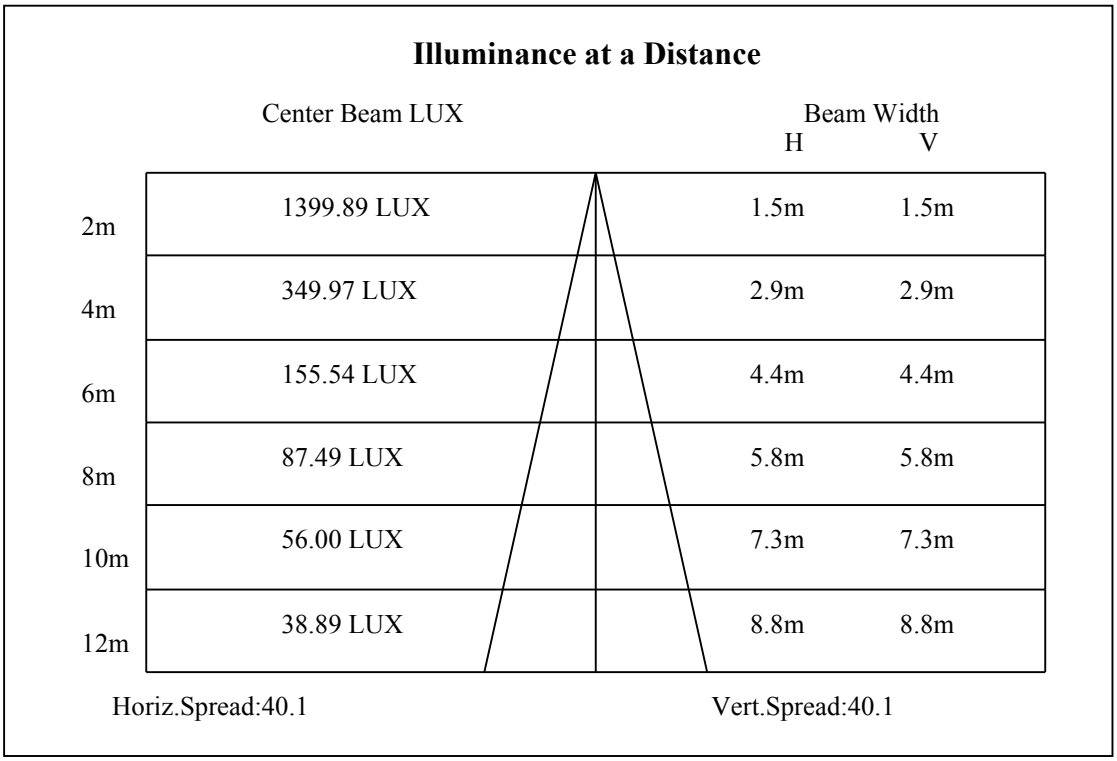
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:31.7 Right:31.7
:C90/270Left:31.7 Right:31.7

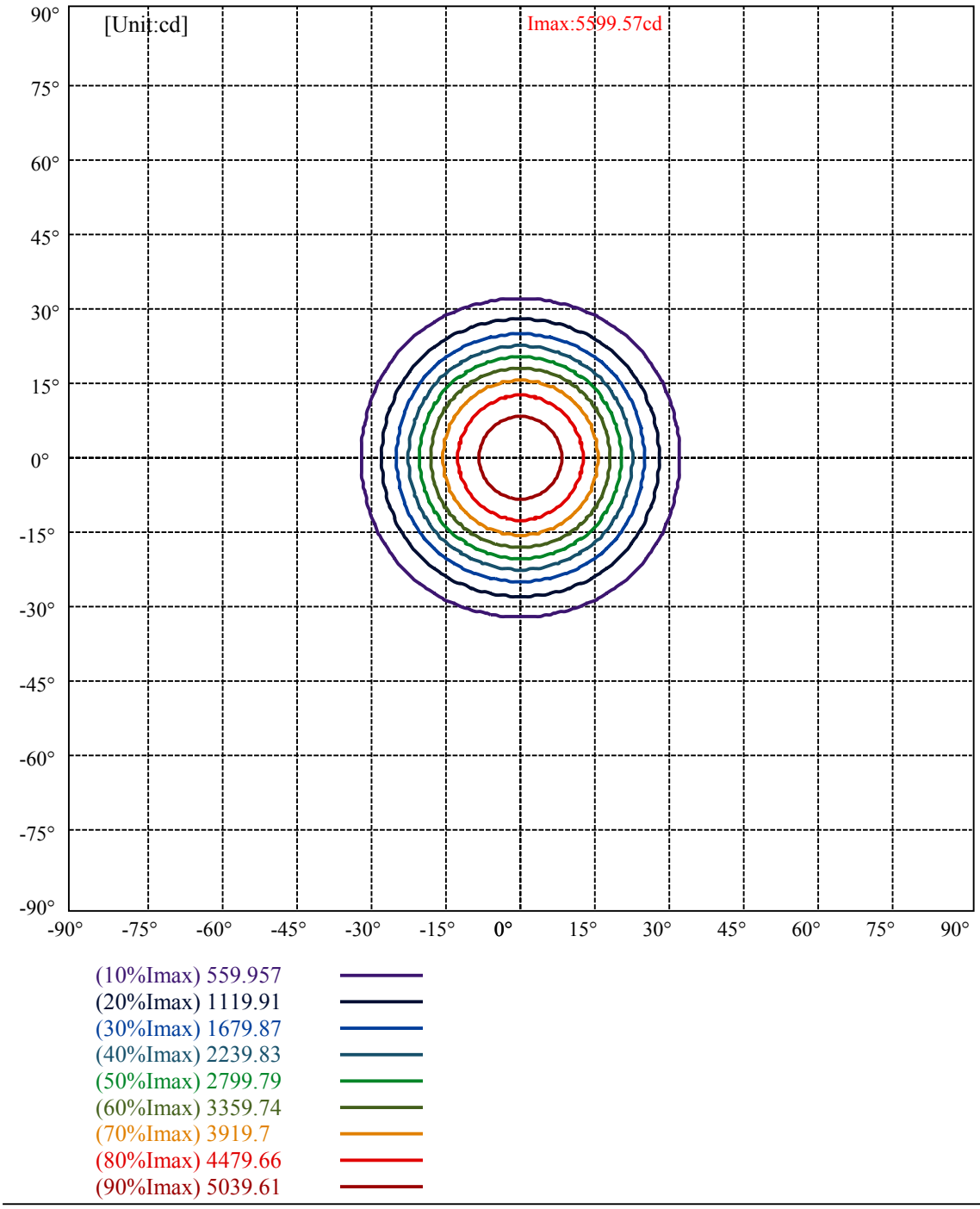
Beam Angle(50%Imax):C0/180Left:20.0 Right:20.0
:C90/270Left:20.0 Right:20.0

Lux distance Curve



Equipment: GMS1980 Date: 2023/10/23 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

ISO-Intensity(V-H)

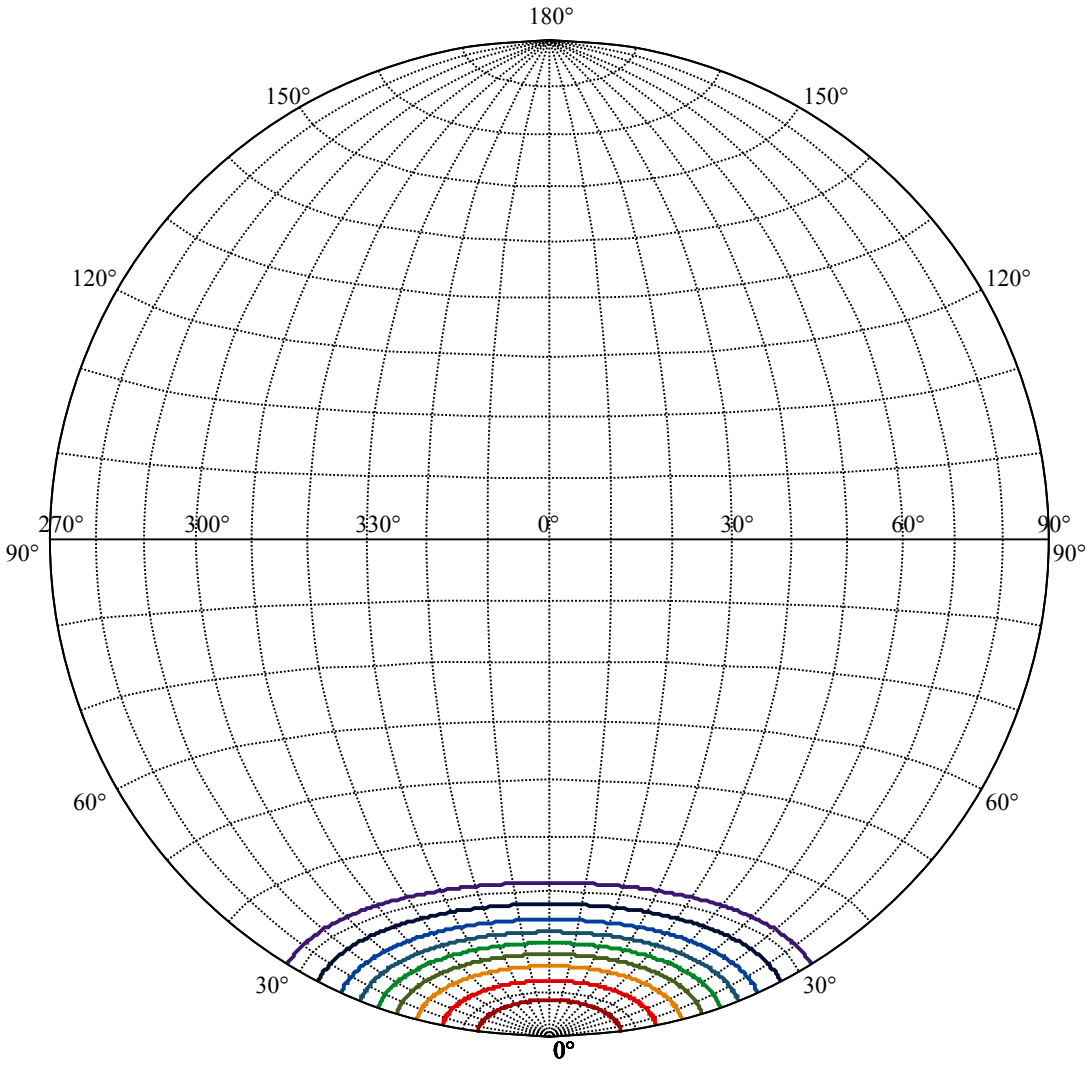


Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/23
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



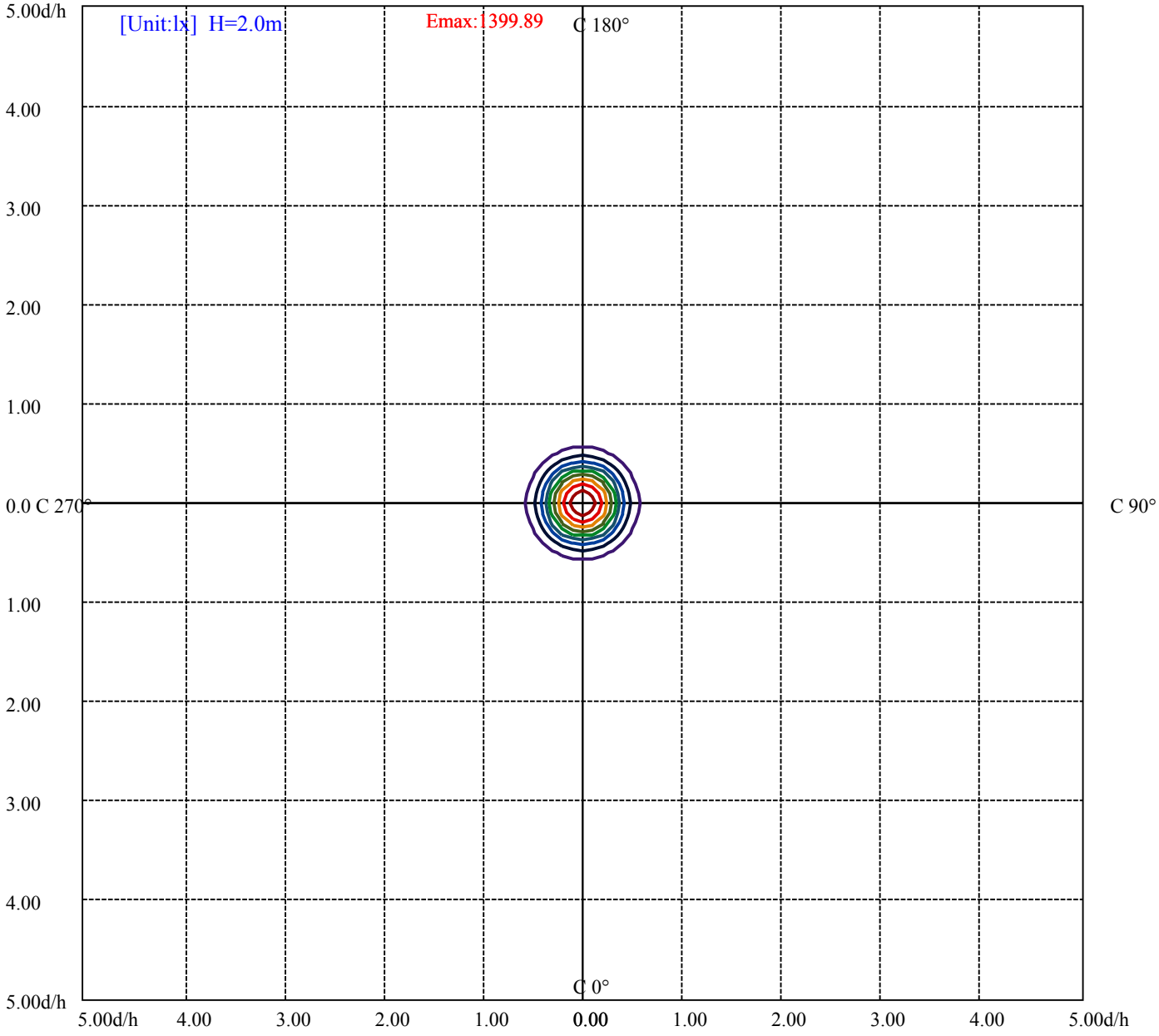
House [Unit:cd] Road

Imax:5599.57

(10%Imax) 559.957
(20%Imax) 1119.91
(30%Imax) 1679.87
(40%Imax) 2239.83
(50%Imax) 2799.79
(60%Imax) 3359.74
(70%Imax) 3919.7
(80%Imax) 4479.66
(90%Imax) 5039.61

Equipment: GMS1980 Date: 2023/10/23 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

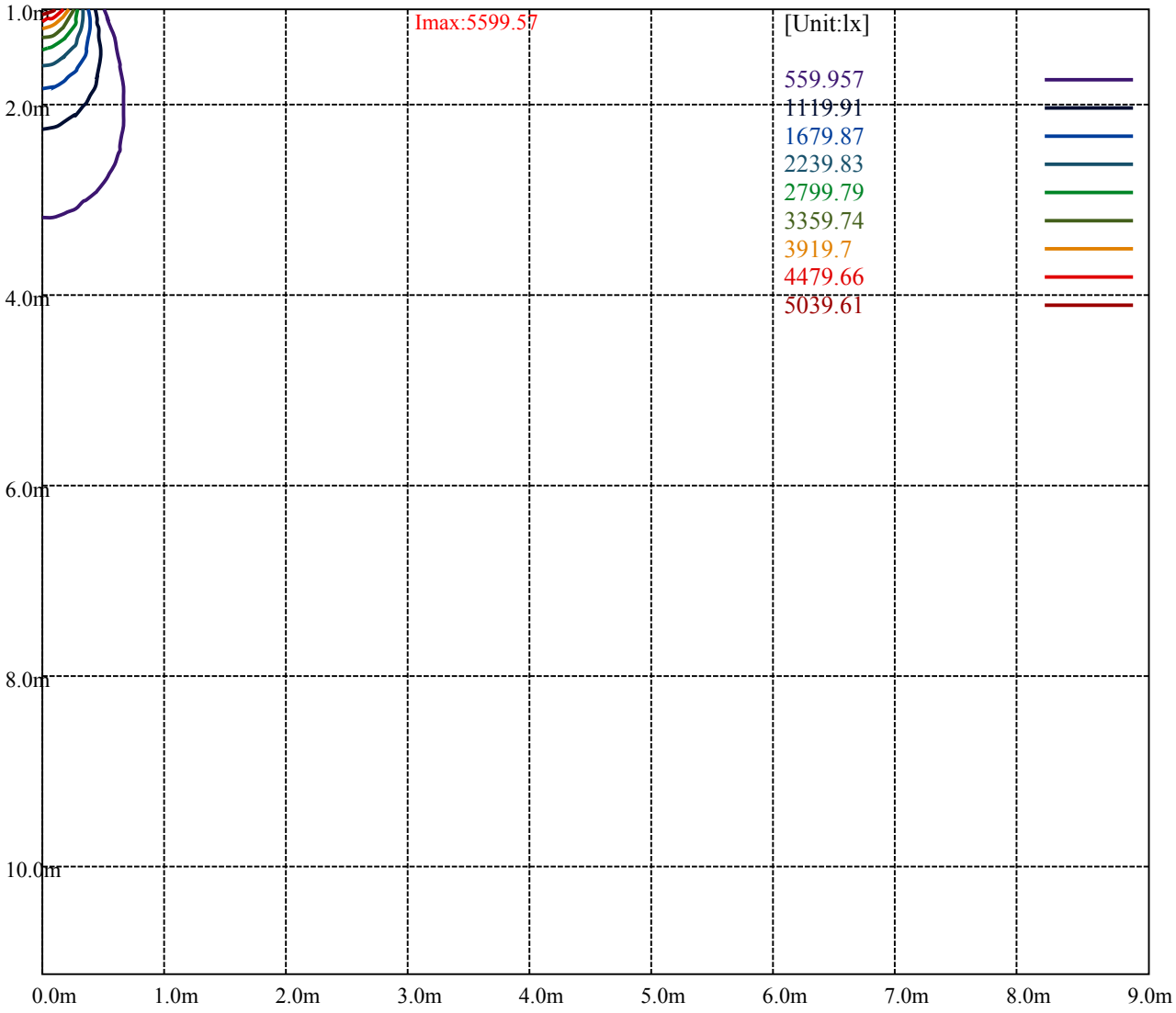
ISO illuminance diagram



(10%Emax) 139.9892
(20%Emax) 279.9775
(30%Emax) 419.9675
(40%Emax) 559.9575
(50%Emax) 699.945
(60%Emax) 839.935
(70%Emax) 979.925
(80%Emax) 1119.912
(90%Emax) 1259.902

Equipment: GMS1980
Temperature(°C): 0.0
Date: 2023/10/23
Humidity(%): 0.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/23
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

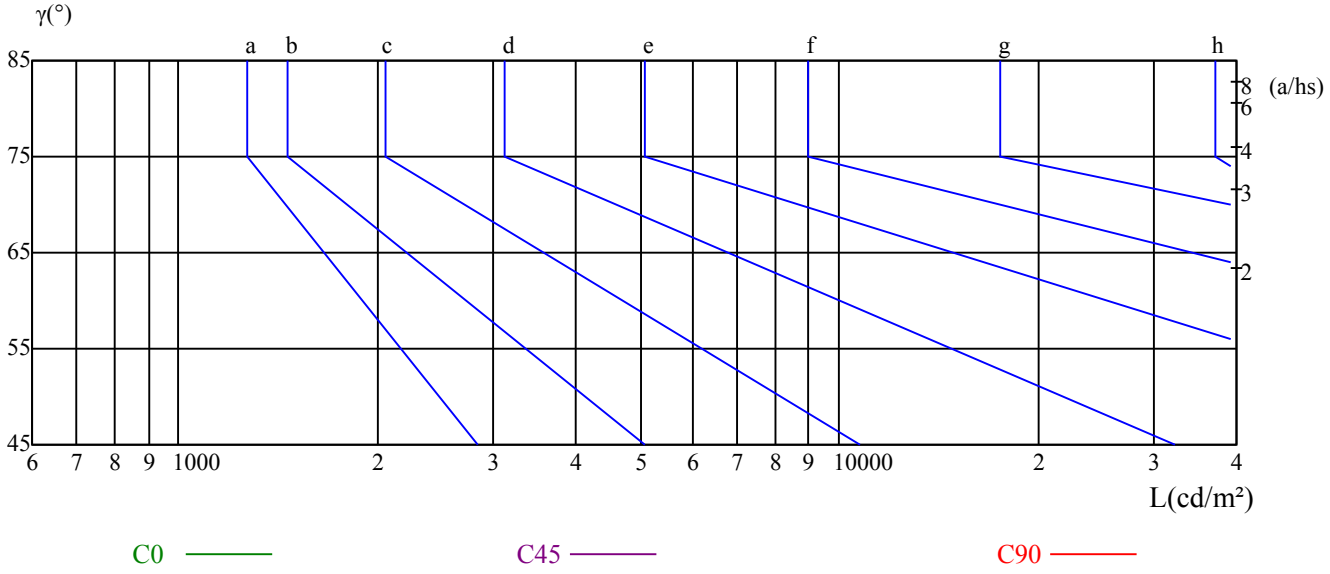
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

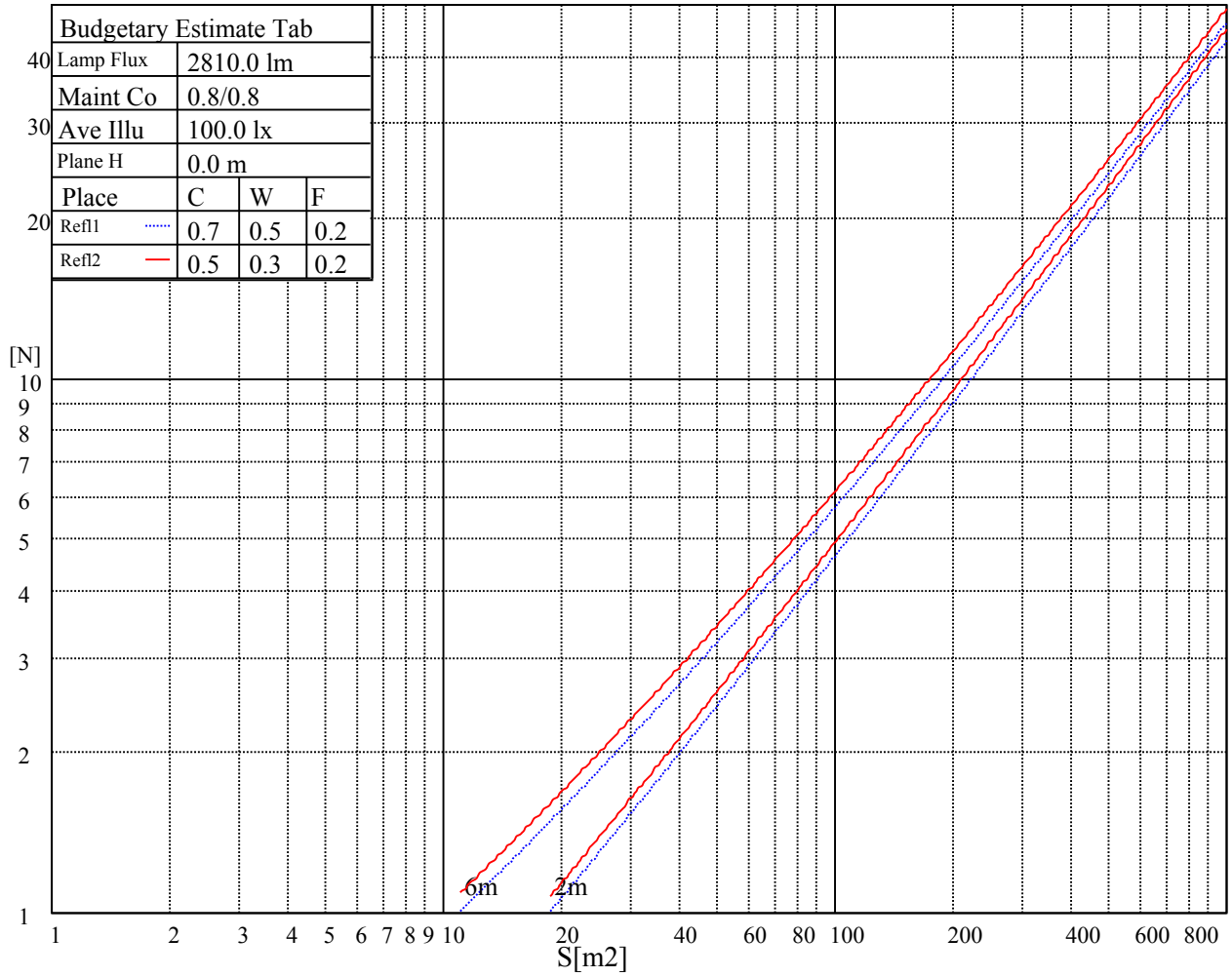
Luminance Limitting Curve



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

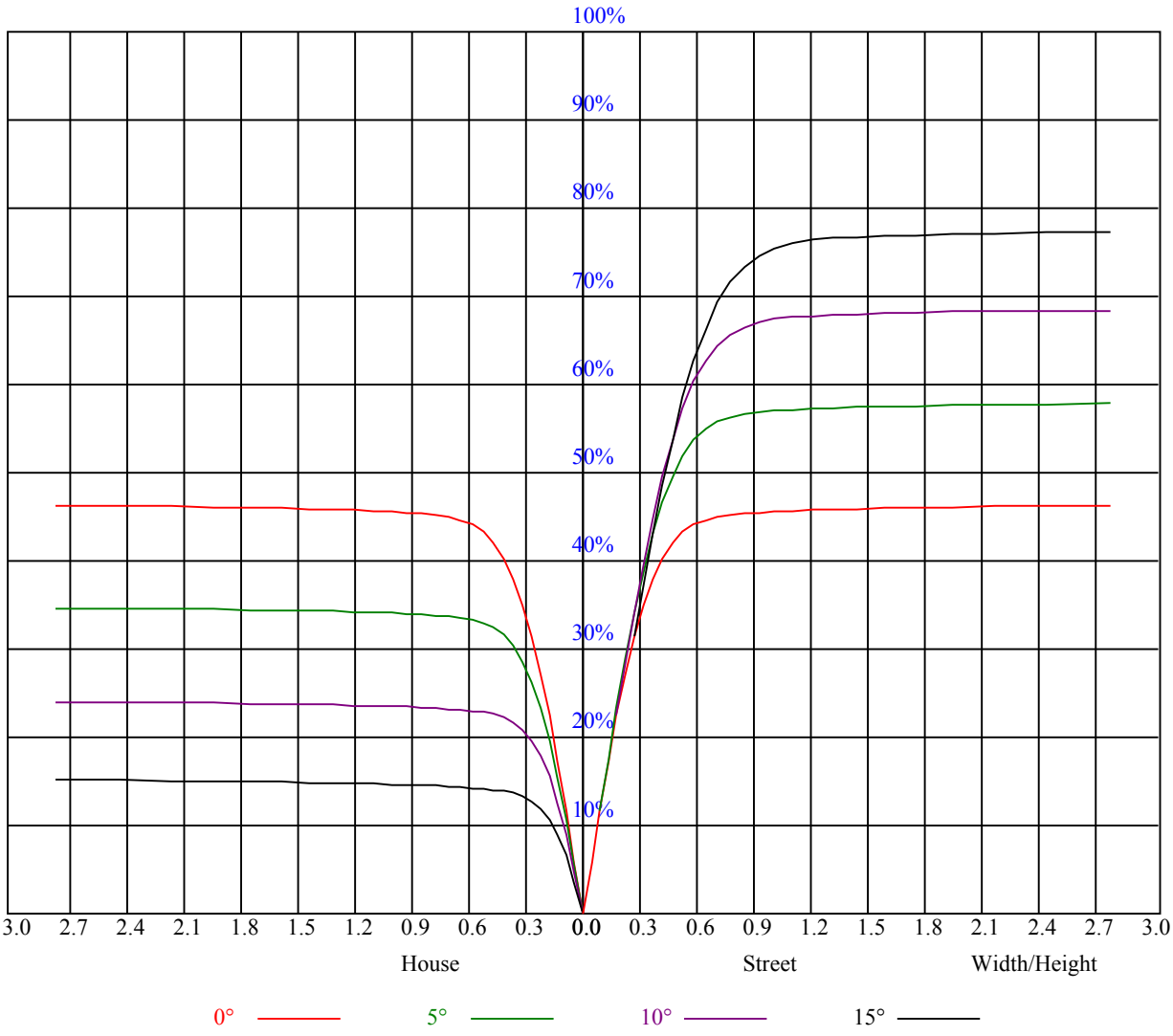
Budgetary Estimate Table



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	1.11	1.11	1.11	1.08	1.08	1.08	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.93	0.92	0.91	0.91	0.90	0.88
2	0.98	0.94	0.92	0.96	0.93	0.90	0.93	0.91	0.89	0.90	0.88	0.87	0.88	0.86	0.85	0.83
3	0.92	0.88	0.85	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.84	0.82	0.81	0.79
4	0.88	0.83	0.80	0.87	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.77	0.75
5	0.83	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.72
6	0.79	0.75	0.71	0.79	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.70	0.66	0.64	0.63
9	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.60
10	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.58

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/23	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	5586.29	5550.31	5515.99	5453.99	5374.83	5274.64	5175.01	5046.03	4934.77
45.0	5609.53	5573.55	5547.54	5491.63	5421.33	5324.46	5243.65	5139.03	5010.05
90.0	5582.41	5519.31	5477.24	5381.48	5299.00	5206.01	5082.01	4973.52	4852.30
135.0	5620.05	5596.25	5551.41	5493.84	5407.49	5314.50	5225.93	5110.24	5002.86
180.0	5586.29	5603.44	5595.14	5574.66	5531.49	5449.01	5382.58	5279.63	5184.97
225.0	5609.53	5601.23	5594.59	5553.07	5504.92	5441.81	5351.03	5258.59	5153.97
270.0	5582.41	5616.73	5618.94	5618.39	5581.30	5543.66	5478.35	5411.92	5300.11
315.0	5620.05	5622.82	5616.18	5573.00	5530.38	5452.33	5372.62	5288.48	5159.51
360.0	5586.29	5550.31	5515.99	5453.99	5374.83	5274.64	5175.01	5046.03	4934.77

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4799.71	4629.78	4483.09	4315.92	4097.27	3912.95	3701.50	3472.88	3188.92
45.0	4897.69	4775.91	4644.17	4467.59	4322.56	4158.72	3977.71	3731.39	3519.94
90.0	4701.18	4583.83	4458.73	4308.17	4105.58	3932.32	3733.60	3515.51	3248.15
135.0	4866.69	4759.30	4640.85	4482.53	4338.06	4178.64	4003.73	3732.49	3517.17
180.0	5087.00	4955.25	4840.67	4723.32	4548.96	4403.93	4251.16	4070.15	3818.29
225.0	5022.23	4910.97	4790.30	4621.47	4469.80	4304.85	4069.04	3869.22	3648.91
270.0	5200.47	5098.62	4956.91	4832.37	4690.11	4485.30	4321.46	4120.52	3847.63
315.0	5044.93	4894.37	4750.45	4607.63	4446.55	4229.57	4035.83	3822.72	3603.52
360.0	4799.71	4629.78	4483.09	4315.92	4097.27	3912.95	3701.50	3472.88	3188.92

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2942.60	2702.92	2470.43	2197.54	1996.05	1803.97	1581.45	1269.26	1067.00
45.0	3299.63	3013.45	2778.20	2488.14	2268.39	2062.48	1816.15	1624.63	1432.00
90.0	3026.18	2740.56	2511.95	2286.66	2025.94	1827.22	1636.25	1293.61	1071.70
135.0	3304.06	3079.32	2837.98	2542.39	2318.76	2103.99	1853.24	1663.38	1416.50
180.0	3609.05	3384.32	3138.00	2835.21	2589.44	2355.30	2073.55	1871.51	1641.79
225.0	3414.21	3107.00	2849.05	2591.10	2342.01	2053.62	1839.40	1645.11	1281.99
270.0	3633.41	3375.46	3113.64	2793.70	2536.86	2293.85	2068.01	1811.72	1627.95
315.0	3312.36	3057.18	2803.11	2551.80	2265.07	2053.07	1807.85	1631.82	1459.67
360.0	2942.60	2702.92	2470.43	2197.54	1996.05	1803.97	1581.45	1269.26	1067.00

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1028.41	886.65	722.86	601.08	485.06	378.23	281.97	187.43	141.93
45.0	1239.92	1028.47	881.78	749.49	627.16	511.47	378.62	285.62	285.62
90.0	1030.63	878.79	745.61	596.60	483.13	377.90	283.69	189.97	143.42
135.0	1227.74	1055.04	870.16	741.18	622.17	510.36	379.73	287.29	287.29
180.0	1466.87	1284.76	1114.27	924.41	791.00	665.35	543.02	403.53	303.89
225.0	1077.24	1077.24	930.94	764.77	643.93	500.62	396.61	303.45	206.86
270.0	1460.23	1253.76	1098.22	953.19	791.00	669.78	550.21	414.60	313.85
315.0	1089.41	1089.41	939.07	774.62	650.96	535.10	426.33	303.45	219.42
360.0	1028.41	886.65	722.86	601.08	485.06	378.23	281.97	187.43	141.93

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	117.79	101.52	86.24	77.61	70.02	61.72	55.96	50.26	46.33
45.0	147.02	122.50	105.12	89.06	79.88	70.19	63.55	57.79	52.92
90.0	114.80	99.47	87.90	77.27	69.63	63.05	57.35	51.42	47.44
135.0	193.79	120.01	104.34	92.83	83.31	73.12	66.42	58.90	53.91
180.0	281.75	281.75	124.82	107.94	95.15	83.25	74.84	66.20	60.11
225.0	157.48	130.25	112.20	98.70	86.63	77.77	69.97	61.89	56.57
270.0	290.61	290.61	120.34	104.06	91.72	82.37	72.02	64.93	58.79
315.0	157.92	124.32	105.56	89.84	80.76	70.69	63.82	58.01	52.20
360.0	117.79	101.52	86.24	77.61	70.02	61.72	55.96	50.26	46.33

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	43.01	40.08	37.03	34.87	32.94	30.83	29.39	28.06	26.85
45.0	47.77	44.34	41.35	38.64	35.70	33.65	31.83	30.28	28.45
90.0	44.06	41.07	37.97	35.81	33.82	31.61	30.11	28.78	27.29
135.0	49.76	45.33	42.29	39.58	37.14	34.54	32.66	31.00	29.50
180.0	55.13	49.98	46.33	43.12	40.30	37.25	35.09	33.10	31.33
225.0	52.03	47.05	43.62	39.97	37.36	35.15	33.16	30.89	29.34
270.0	52.53	48.49	44.95	41.13	38.64	36.37	33.88	32.11	30.56
315.0	48.21	44.73	41.07	38.53	36.26	34.32	32.05	30.50	29.12
360.0	43.01	40.08	37.03	34.87	32.94	30.83	29.39	28.06	26.85

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	25.46	24.47	23.69	22.75	22.03	21.42	20.76	20.20	19.76
45.0	27.23	25.79	24.74	23.86	22.86	22.20	21.53	20.92	20.26
90.0	26.18	24.91	24.02	23.19	22.47	21.70	21.09	20.54	20.04
135.0	27.90	26.68	25.63	24.47	23.69	22.69	22.03	21.42	20.65
180.0	29.78	28.06	26.79	25.52	24.58	23.69	22.69	22.03	21.42
225.0	28.01	26.79	25.46	24.52	23.64	22.86	21.98	21.37	20.59
270.0	28.84	27.62	26.57	25.57	24.52	23.75	23.03	22.36	21.59
315.0	27.90	26.57	25.57	24.69	23.69	22.97	22.09	21.53	20.92
360.0	25.46	24.47	23.69	22.75	22.03	21.42	20.76	20.20	19.76

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	19.15	18.71	18.27	17.88	17.38	16.99	16.66	16.27	15.89
45.0	19.82	19.37	18.93	18.32	17.93	17.60	17.10	16.72	16.38
90.0	19.48	19.04	18.60	18.16	17.66	17.27	16.83	16.44	16.11
135.0	20.15	19.65	19.21	18.71	18.21	17.82	17.38	16.88	16.50
180.0	20.59	20.04	19.54	19.10	18.49	18.05	17.60	17.27	16.77
225.0	20.04	19.54	18.99	18.54	18.10	17.71	17.16	16.83	16.50
270.0	21.03	20.31	19.87	19.37	18.82	18.38	17.93	17.55	17.05
315.0	20.37	19.76	19.26	18.82	18.32	17.88	17.44	17.05	16.66
360.0	19.15	18.71	18.27	17.88	17.38	16.99	16.66	16.27	15.89

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	15.55	15.28	14.89	14.61	14.23	13.95	13.67	13.40	13.01
45.0	15.94	15.61	15.28	15.00	14.67	14.39	14.00	13.73	13.51
90.0	15.72	15.39	15.11	14.78	14.45	14.12	13.78	13.51	13.17
135.0	16.16	15.78	15.44	15.17	14.78	14.45	14.17	13.78	13.51
180.0	16.44	16.11	15.72	15.39	15.00	14.72	14.39	14.12	13.78
225.0	16.16	15.78	15.44	15.17	14.78	14.45	14.00	13.73	13.45
270.0	16.72	16.33	16.05	15.67	15.28	14.95	14.56	14.23	13.84
315.0	16.22	15.89	15.50	15.17	14.83	14.45	14.12	13.84	13.45
360.0	15.55	15.28	14.89	14.61	14.23	13.95	13.67	13.40	13.01

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.79	12.45	12.18	11.96	11.79	11.51	11.35	11.02	11.13
45.0	13.23	12.90	12.57	12.29	12.07	11.73	11.51	11.29	10.96
90.0	12.90	12.62	12.34	12.12	11.79	11.57	11.35	11.18	11.02
135.0	13.17	12.90	12.57	12.34	12.01	11.79	11.57	11.35	11.02
180.0	13.45	13.12	12.84	12.62	12.29	12.01	11.79	11.57	11.35
225.0	13.12	12.90	12.62	12.23	12.01	11.79	11.57	11.35	11.13
270.0	13.56	13.23	12.90	12.62	12.29	12.01	11.73	11.51	11.24
315.0	13.17	12.90	12.62	12.23	12.07	11.79	11.57	11.35	11.13
360.0	12.79	12.45	12.18	11.96	11.79	11.51	11.35	11.02	11.13

Intensity data(cd)

C/γ(°)	90.0
0.0	11.13
45.0	11.13
90.0	11.02
135.0	11.02
180.0	11.07
225.0	10.96
270.0	11.02
315.0	11.13
360.0	11.13