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NT

Client: NT

LumCAT: 2-3123-LM

Luminaire: 92.70.412.00 LED HOLDER

Report No: 20260123-B007

Ballast type: AC

Test No: 20260123-C007

Voltage(V): 36.930

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.712

Lamp flux(lm): 3447.0

Power (W): 26.294

Number of Lamps: 1

PF: 0.000

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 35

Photometric Results

Lumens(lm): 3345.41, Efficiency(%): 97.05% , Luminous Efficacy(lm/W): 127.23

Central intensity(cd): 10320.270, Maximum intensity(cd): 10320.270

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=26.4

[C90/270]Total=26.4

Field angle(10%Imax): [C0/180]Total=63.0

[C90/270]Total=63.0

Maximum s/h(1/2): C0_180=0.44 C90_270=0.44

Maximum s/h(1/4): C0_180=0.46 C90_270=0.46

Up flux rate of lamp(%): 0.00%

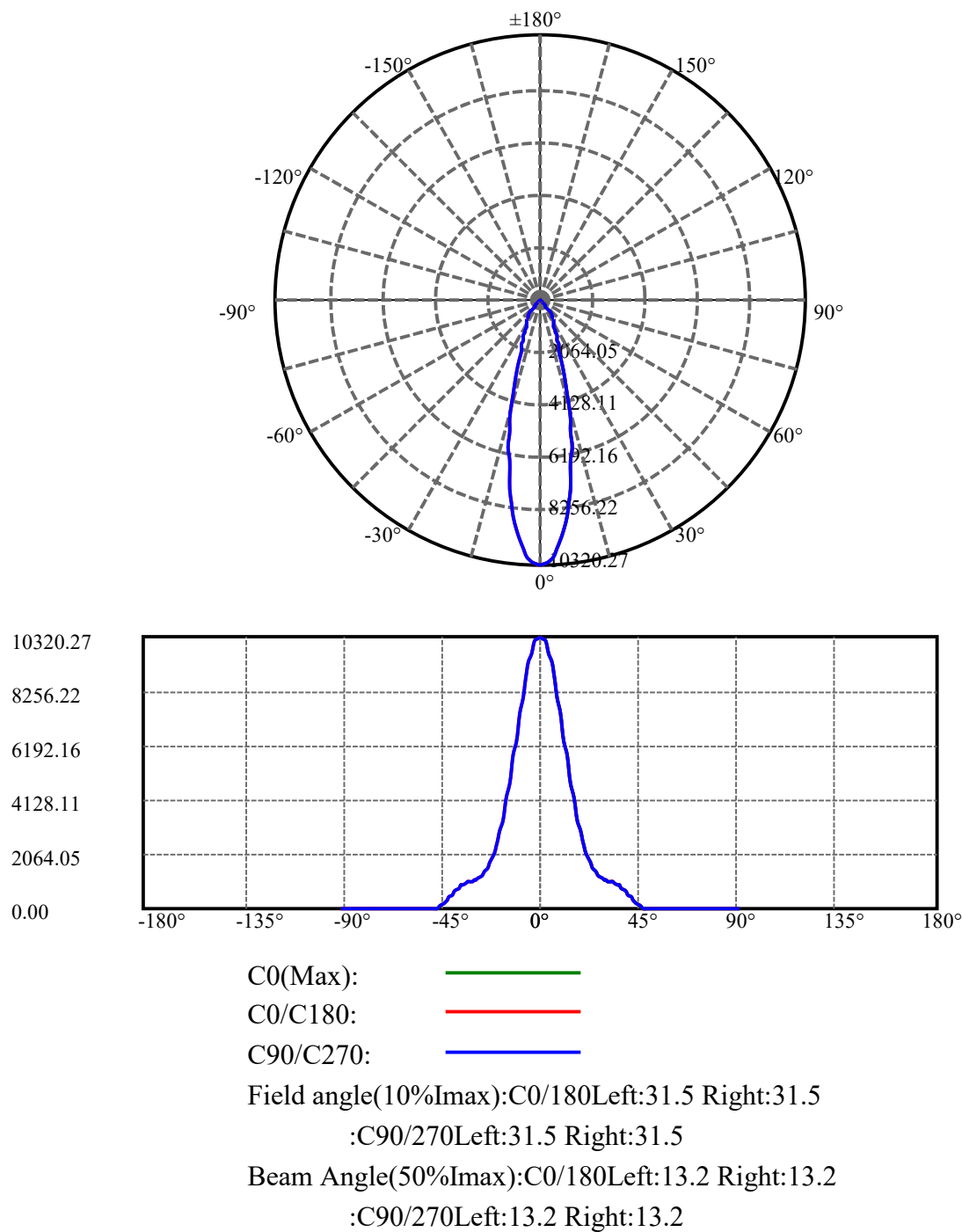
Down flux rate of lamp(%): 97.05%

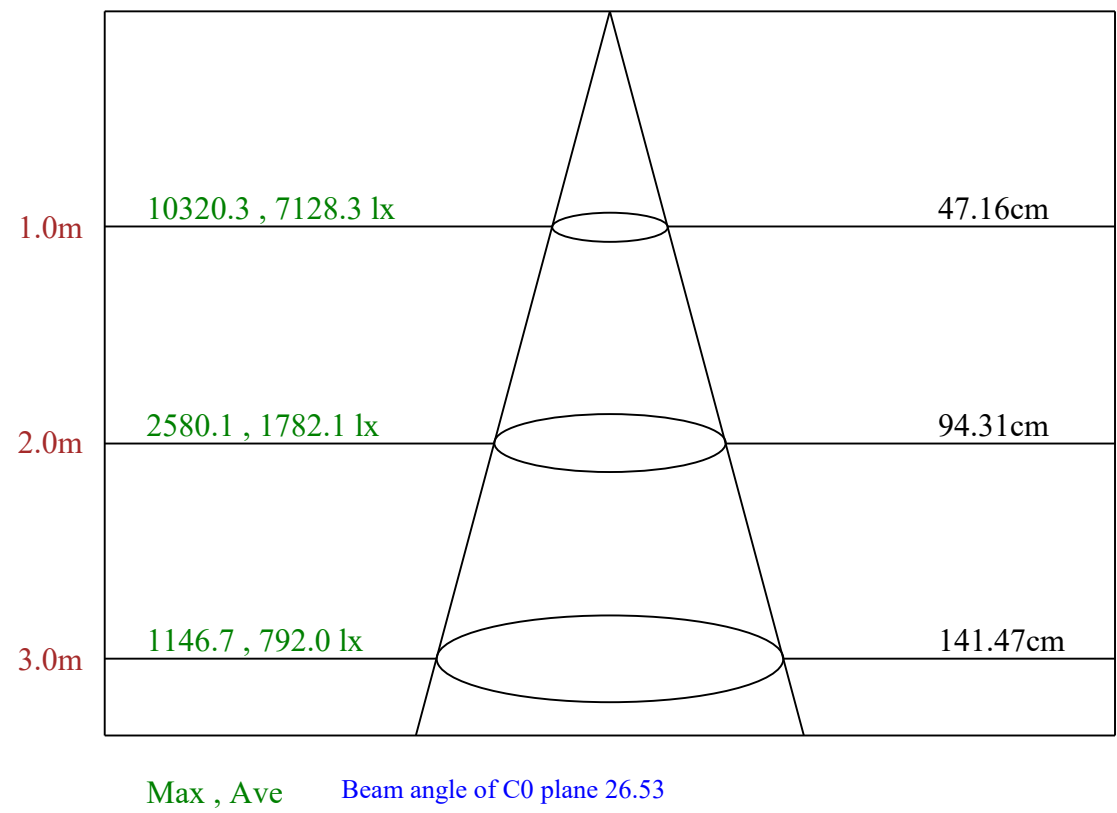
Up flux rate of LUM(%): - -

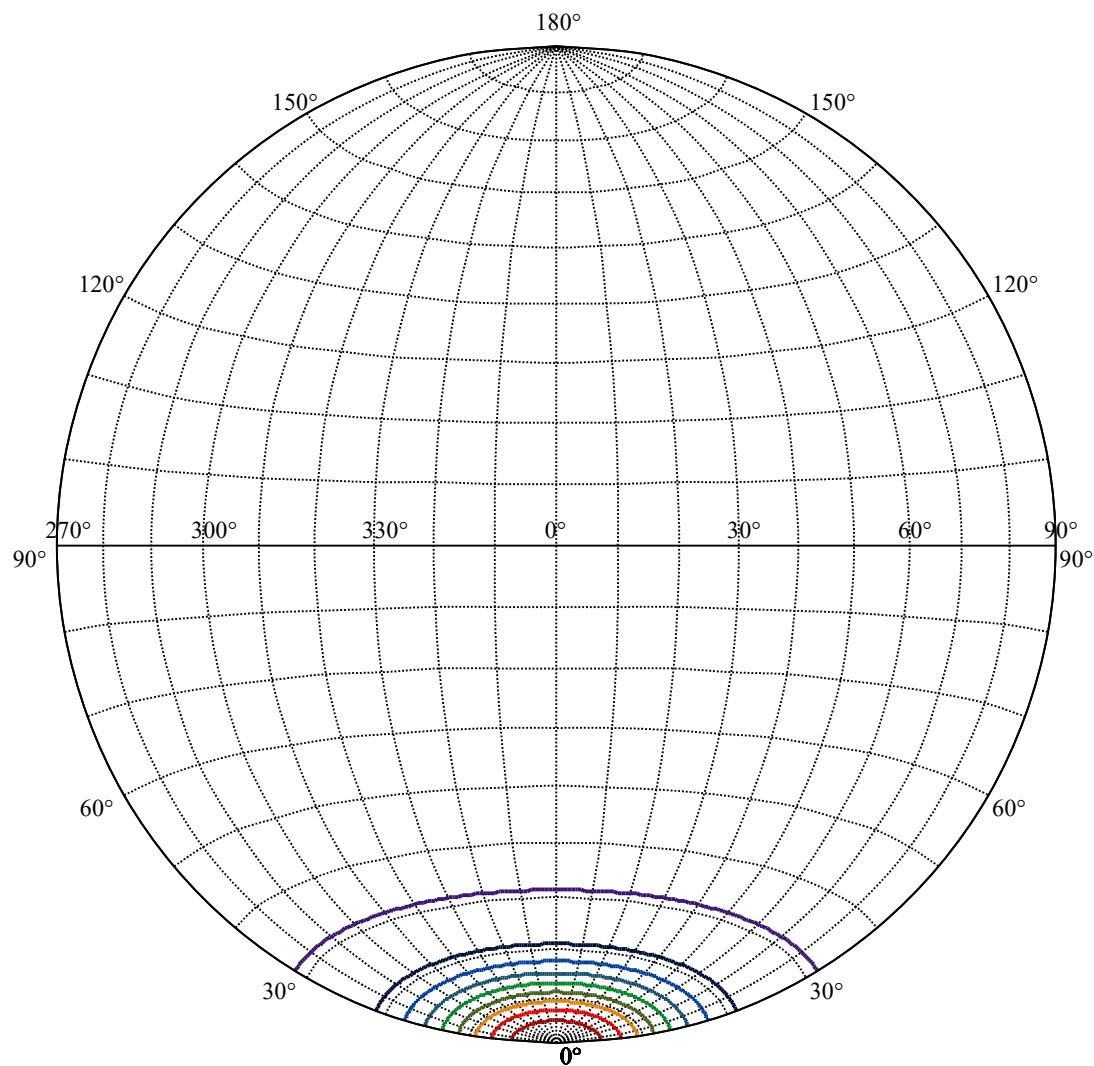
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.963%





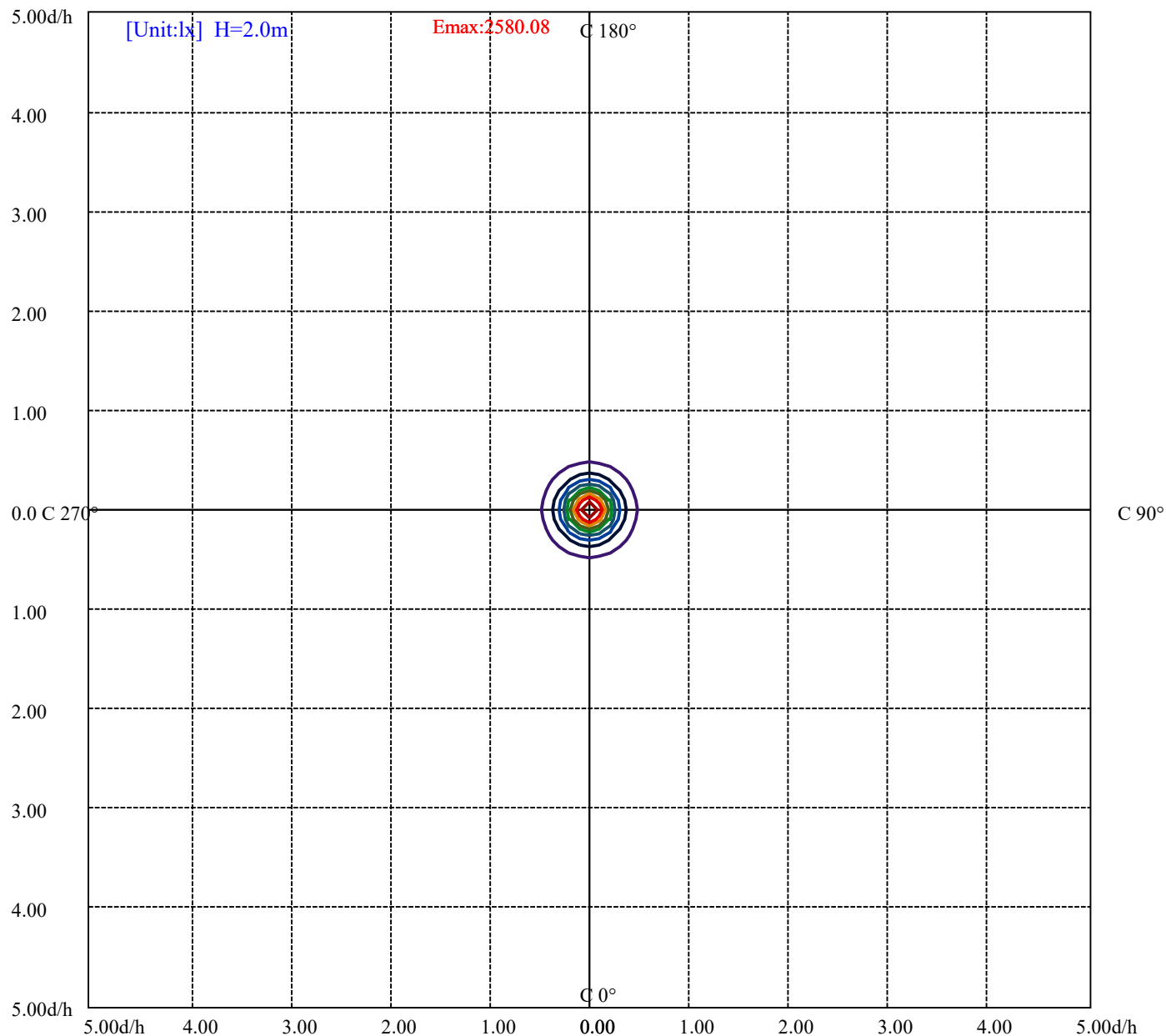


House

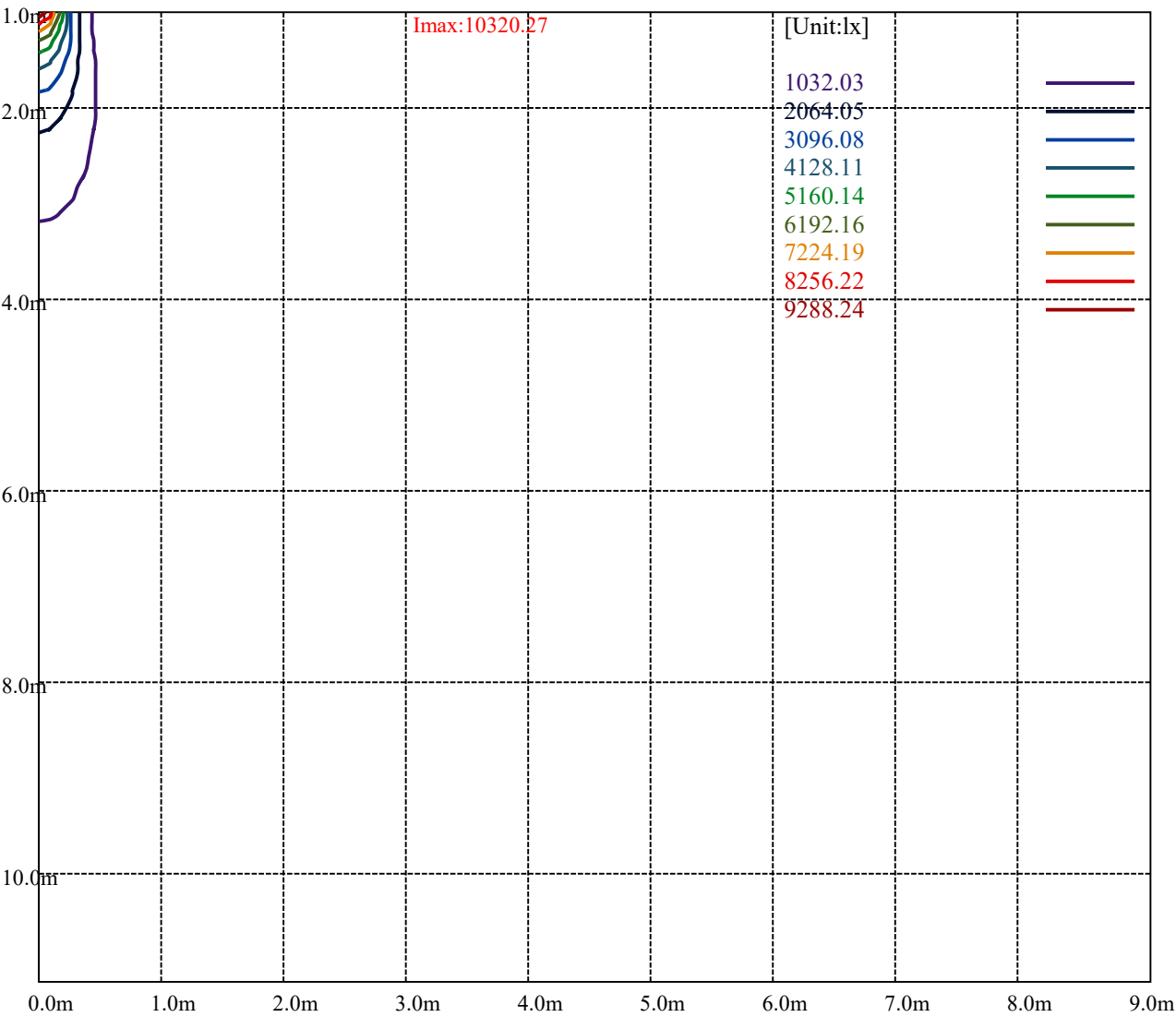
[Unit:cd]

Road

Imax:10320.27	
(10%Imax)	1032.03
(20%Imax)	2064.05
(30%Imax)	3096.08
(40%Imax)	4128.11
(50%Imax)	5160.14
(60%Imax)	6192.16
(70%Imax)	7224.19
(80%Imax)	8256.22
(90%Imax)	9288.24



(10%Emax) 258.0075	—
(20%Emax) 516.0125	—
(30%Emax) 774.02	—
(40%Emax) 1032.027	—
(50%Emax) 1290.032	—
(60%Emax) 1548.04	—
(70%Emax) 1806.047	—
(80%Emax) 2064.052	—
(90%Emax) 2322.06	—



Luminance Table

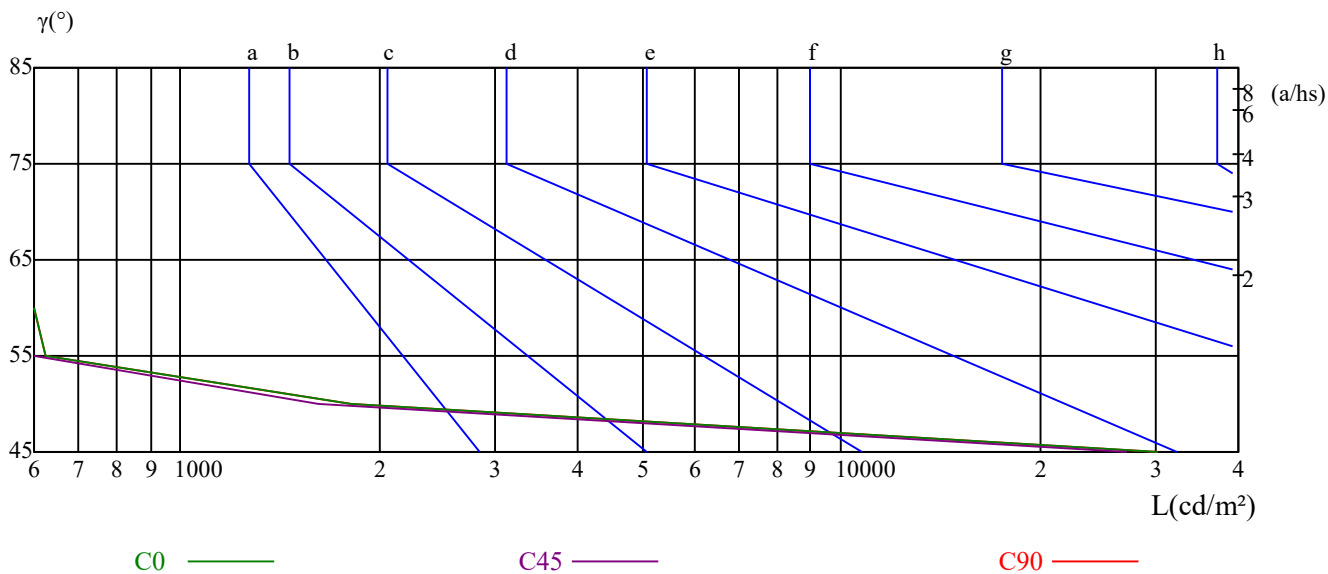
γ	45	50	55	60	65	70	75	80	85
C0	30141	1813	626	417	281	158	70	3	0
C45	27150	1612	549	360	238	131	57	2	0
C90	30141	1813	626	417	281	158	70	3	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
500	500	500	165	165	165	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

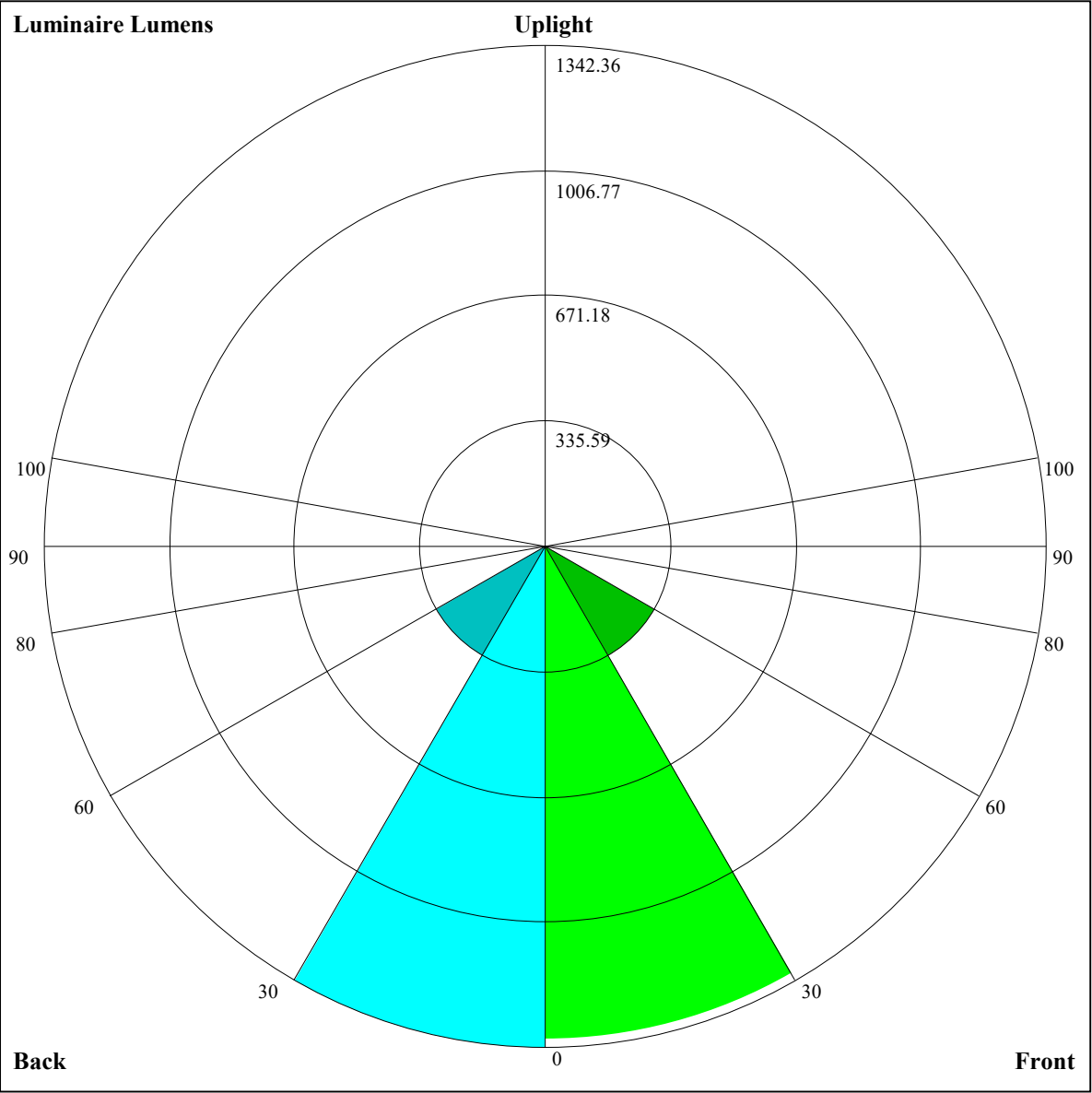
Luminance Limiting Curve



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	20.45	21.38	20.81	21.69	22.00	20.60	21.53	20.96	21.84	22.16
	3H	20.23	21.05	20.62	21.39	21.74	20.39	21.21	20.77	21.55	21.89
	4H	20.12	20.88	20.52	21.24	21.61	20.28	21.04	20.68	21.39	21.76
	6H	20.03	20.72	20.45	21.10	21.50	20.18	20.87	20.60	21.25	21.65
	8H	19.95	20.61	20.37	21.00	21.41	20.10	20.76	20.53	21.15	21.56
	12H	19.88	20.50	20.30	20.90	21.32	20.03	20.65	20.46	21.05	21.47
4H	2H	20.12	20.88	20.52	21.24	21.61	20.28	21.04	20.68	21.39	21.76
	3H	19.87	20.50	20.29	20.90	21.31	20.02	20.65	20.45	21.05	21.47
	4H	19.78	20.33	20.22	20.75	21.20	19.94	20.48	20.38	20.91	21.36
	6H	19.63	20.11	20.11	20.57	21.02	19.79	20.27	20.26	20.72	21.17
	8H	19.57	20.01	20.06	20.47	20.95	19.72	20.17	20.21	20.63	21.10
	12H	19.51	19.92	20.01	20.38	20.90	19.67	20.08	20.16	20.53	21.05
8H	4H	19.57	20.01	20.06	20.47	20.95	19.72	20.17	20.21	20.63	21.10
	6H	19.41	19.77	19.91	20.25	20.76	19.56	19.92	20.07	20.40	20.91
	8H	19.38	19.69	19.92	20.21	20.71	19.54	19.84	20.07	20.36	20.86
	12H	19.33	19.55	19.87	20.07	20.60	19.48	19.71	20.02	20.23	20.75
12H	4H	19.51	19.92	20.01	20.38	20.90	19.67	20.08	20.16	20.53	21.05
	6H	19.38	19.69	19.92	20.21	20.71	19.54	19.84	20.07	20.36	20.86
	8H	19.33	19.55	19.87	20.07	20.60	19.48	19.71	20.02	20.23	20.75
Variation with the observer position at spacings:											
S = 1.0H		4.1/-27.7					4.1/-27.7				
S = 1.5H		6.9/-29.9					6.9/-29.9				
S = 2.0H		8.9/-31.8					8.9/-31.8				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.9					0.9				

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

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	1.16	1.16	1.16	1.13	1.13	1.13	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.97
1	1.09	1.06	1.05	1.07	1.05	1.03	1.03	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.92
2	1.02	0.99	0.96	1.01	0.98	0.95	0.98	0.95	0.93	0.95	0.93	0.91	0.92	0.91	0.89	0.88
3	0.97	0.93	0.89	0.95	0.92	0.89	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.85	0.83
4	0.92	0.87	0.84	0.91	0.86	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.85	0.82	0.80	0.79
5	0.87	0.82	0.79	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.76	0.75
6	0.83	0.78	0.75	0.82	0.78	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.72
7	0.79	0.74	0.71	0.79	0.74	0.71	0.78	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.68
8	0.76	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.70	0.67	0.73	0.69	0.67	0.66
9	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.63
10	0.70	0.65	0.62	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60



Luminaire Lumens:

FL=1323.14,FM=337.09,FH=0.62,FVH=0

BL=1342.36,BM=339.77,BH=0.61,BVH=0

UL=0,UH=0

BUG Rating:B3-U0-G0

Intensity data(cd)

Appendix Page: 12 Total:14

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	10355.01	10211.01	10104.69	9862.82	9545.01	9147.88	8591.57	8282.76	7745.01
45.0	10303.82	10346.57	10313.38	10261.07	10065.88	9821.76	9501.13	9096.13	8825.01
90.0	10377.51	10330.82	10217.19	9972.51	9803.76	9458.38	9038.76	8551.07	7905.32
135.0	10244.76	10319.01	10295.38	10196.94	10022.01	9879.13	9500.01	8916.13	8624.19
180.0	10355.01	10355.01	10316.76	10173.32	9947.76	9646.26	9264.88	9003.88	8415.51
225.0	10303.82	10186.26	9932.01	9634.44	9255.88	8713.63	8407.63	7867.07	7300.63
270.0	10377.51	10347.69	10207.07	10004.01	9716.01	9348.13	9088.26	8510.57	7974.51
315.0	10244.76	10174.44	9983.76	9713.76	9283.44	8852.57	8569.07	7828.82	7152.13
360.0	10355.01	10211.01	10104.69	9862.82	9545.01	9147.88	8591.57	8282.76	7745.01
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7182.51	6611.57	5938.26	5603.01	5069.76	4554.51	4063.44	3527.38	3124.63
45.0	8214.13	7448.01	7108.26	6532.26	5852.19	5295.32	4771.07	4467.32	3898.07
90.0	7566.13	6990.13	6419.19	5852.19	5190.69	4876.82	4182.69	3639.88	3388.44
135.0	7991.94	7436.76	6867.51	6297.13	5954.01	5305.44	4783.44	4285.63	3814.26
180.0	7650.51	7307.94	6615.51	6384.32	5710.44	4960.63	4650.13	4059.51	3598.82
225.0	6722.38	6039.51	5703.13	5162.01	4640.57	4143.32	3593.76	3336.13	2796.13
270.0	7412.01	6837.69	6490.07	5817.32	5274.51	4754.76	4160.19	3701.19	3283.26
315.0	6808.44	6249.32	5690.76	5147.38	4535.38	4240.63	3778.82	3354.69	2963.76
360.0	7182.51	6611.57	5938.26	5603.01	5069.76	4554.51	4063.44	3527.38	3124.63
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2757.88	2378.19	2214.51	1977.69	1778.57	1612.63	1454.57	1387.07	1292.01
45.0	3458.19	3065.01	2715.13	2520.51	2184.69	1952.38	1758.32	1571.57	1445.01
90.0	2996.38	2647.07	2338.82	2030.57	1899.51	1712.19	1555.26	1405.07	1303.26
135.0	3550.44	2901.88	2693.19	2374.82	2057.01	1964.19	1724.57	1514.19	1438.26
180.0	3175.82	2797.26	2588.57	2227.44	1979.38	1774.07	1571.57	1437.13	1328.57
225.0	2406.88	2130.69	1986.69	1772.94	1599.13	1459.07	1323.51	1269.51	1199.76
270.0	2897.38	2689.26	2317.44	2055.88	1837.63	1654.26	1559.19	1401.69	1297.07
315.0	2549.19	2258.38	2011.44	1766.19	1662.13	1514.19	1393.26	1295.38	1202.57
360.0	2757.88	2378.19	2214.51	1977.69	1778.57	1612.63	1454.57	1387.07	1292.01
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1108.58	1108.58	1108.58	1069.43	1037.53	1007.83	986.68	953.04	880.54
45.0	1339.82	1253.76	1209.88	1138.44	1091.76	1054.63	1024.26	1009.07	983.19
90.0	1222.26	1096.99	1096.99	1088.94	1055.25	1013.57	992.31	977.85	940.11
135.0	1310.01	1225.07	1159.26	1108.63	1083.88	1043.94	1017.51	993.88	964.63
180.0	1239.69	1196.94	1128.32	1085.01	1051.26	1023.13	1010.19	984.88	941.57
225.0	1105.71	1097.44	1060.48	1031.06	1007.33	984.77	970.71	935.04	832.16
270.0	1214.94	1139.01	1092.32	1054.07	1024.26	1009.07	984.88	964.63	929.76
315.0	1109.76	1109.76	1063.13	1044.62	1016.66	994.67	971.21	921.66	885.09
360.0	1108.58	1108.58	1108.58	1069.43	1037.53	1007.83	986.68	953.04	880.54
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	835.93	755.94	668.64	574.82	460.58	402.13	308.19	221.96	142.93
45.0	953.94	903.88	818.38	735.13	645.69	548.38	489.32	369.51	330.69
90.0	885.43	812.42	708.36	652.73	550.91	446.40	344.87	231.30	180.96
135.0	924.13	863.38	786.32	736.26	627.13	533.76	437.57	342.51	323.38
180.0	906.69	837.51	742.44	654.69	559.63	502.82	386.38	349.82	349.82
225.0	800.38	696.38	601.76	502.26	382.61	324.62	233.72	150.24	82.01
270.0	876.88	834.69	739.63	608.01	547.26	441.51	318.88	282.88	282.88
315.0	778.39	671.34	614.70	519.81	421.82	327.60	219.04	169.65	97.14
360.0	835.93	755.94	668.64	574.82	460.58	402.13	308.19	221.96	142.93

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	64.29	36.39	12.32	9.90	8.55	7.37	6.36	4.61	2.93
45.0	330.69	112.84	54.45	23.12	11.93	10.86	8.33	6.98	5.96
90.0	105.81	37.46	12.99	11.03	8.94	7.09	6.13	4.56	3.38
135.0	286.26	91.29	57.54	19.18	11.25	9.39	7.43	6.86	4.73
180.0	130.89	65.87	25.48	12.15	11.03	8.55	7.09	5.96	4.11
225.0	29.14	17.04	11.25	9.28	7.59	6.41	5.46	3.21	2.87
270.0	114.69	34.26	14.06	11.14	8.89	7.26	6.36	4.78	3.43
315.0	44.10	17.89	10.63	9.39	7.48	6.64	5.06	2.93	2.70
360.0	64.29	36.39	12.32	9.90	8.55	7.37	6.36	4.61	2.93
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	2.76	2.59	2.36	2.14	1.86	1.74	1.63	1.41	1.29
45.0	4.39	2.98	2.81	2.53	2.42	2.19	1.91	1.80	1.69
90.0	2.64	2.42	2.31	2.03	1.91	1.69	1.52	1.41	1.24
135.0	2.81	2.70	2.42	2.19	2.03	1.74	1.69	1.46	1.35
180.0	3.09	2.76	2.48	2.31	2.03	1.86	1.63	1.46	1.41
225.0	2.70	2.53	2.25	2.03	1.80	1.74	1.63	1.46	1.24
270.0	2.81	2.59	2.36	2.14	2.03	1.69	1.58	1.46	1.41
315.0	2.48	2.19	2.08	1.86	1.63	1.52	1.35	1.29	1.13
360.0	2.76	2.59	2.36	2.14	1.86	1.74	1.63	1.41	1.29
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	1.24	1.13	1.01	0.84	0.79	0.73	0.62	0.51	0.45
45.0	1.52	1.35	1.24	1.13	1.01	0.90	0.79	0.62	0.51
90.0	1.07	1.07	0.90	0.73	0.73	0.62	0.56	0.51	0.39
135.0	1.24	1.13	1.07	0.90	0.79	0.68	0.62	0.56	0.45
180.0	1.29	1.13	1.01	0.96	0.84	0.79	0.62	0.56	0.51
225.0	1.18	1.07	1.01	0.79	0.68	0.62	0.56	0.45	0.39
270.0	1.18	1.07	0.96	0.90	0.79	0.68	0.56	0.45	0.45
315.0	1.07	0.96	0.84	0.79	0.68	0.51	0.45	0.45	0.34
360.0	1.24	1.13	1.01	0.84	0.79	0.73	0.62	0.51	0.45
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	0.39	0.34	0.23	0.23	0.17	0.11	0.11	0.00	0.06
45.0	0.51	0.39	0.28	0.28	0.23	0.17	0.06	0.06	0.00
90.0	0.34	0.28	0.23	0.17	0.11	0.06	0.00	0.00	0.00
135.0	0.39	0.34	0.28	0.23	0.17	0.11	0.06	0.06	0.00
180.0	0.39	0.34	0.34	0.23	0.23	0.11	0.11	0.06	0.00
225.0	0.34	0.34	0.23	0.17	0.11	0.06	0.00	0.00	0.00
270.0	0.39	0.28	0.28	0.17	0.11	0.06	0.06	0.06	0.00
315.0	0.34	0.28	0.17	0.17	0.11	0.06	0.06	0.00	0.00
360.0	0.39	0.34	0.23	0.23	0.17	0.11	0.11	0.00	0.06
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intensity data(cd)

C/ γ (°)	90.0
0.0	0.00
45.0	0.00
90.0	0.00
135.0	0.00
180.0	0.00
225.0	0.00
270.0	0.00
315.0	0.00
360.0	0.00