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NATA

LumCAT: 3-1699-N
Luminaire: 92.70.045.00+92.70.089.00
Report No: NATA0100
Test No: GC2019010916
LampCAT: OSRAM SOLERIQ S19
Lamp flux(lm): 3440.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 35.1000
Current(A): 0.7000
Power (W): 24.5700
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 2634.67
Efficiency(%): 76.59%
Lumens(lm)/Power(W): 107.31
Central intensity(cd): 8540.860
Maximum intensity(cd): 8540.860
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=26.2
 [C90/270]Total=26.2
Field angle(10%Imax): [C0/180]Total=53.6
 [C90/270]Total=53.6
Maximum s/h(1/2): C0_180=0.44 C90_270=0.44
Maximum s/h(1/4): C0_180=0.45 C90_270=0.45
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 76.65%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.427%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8540.859	2.043	2.043	.059%	.078%
1.0	8509.148	16.285	18.329	.473%	.696%
2.0	8381.672	32.078	50.406	.932%	1.913%
3.0	8197.523	47.047	97.453	1.368%	3.699%
4.0	7970.063	60.967	158.421	1.772%	6.013%
5.0	7628.766	72.913	231.333	2.120%	8.780%
6.0	7312.078	83.816	315.149	2.437%	11.962%
7.0	6938.438	92.727	407.877	2.696%	15.481%
8.0	6513.680	99.411	507.288	2.890%	19.254%
9.0	6108.750	104.794	612.082	3.046%	23.232%
10.0	5675.906	108.083	720.164	3.142%	27.334%
11.0	5202.844	108.866	829.03	3.165%	31.466%
12.0	4782.305	109.035	938.066	3.170%	35.605%
13.0	4331.320	106.846	1044.912	3.106%	39.660%
14.0	3829.078	101.583	1146.495	2.953%	43.516%
15.0	3437.578	97.566	1244.062	2.836%	47.219%
16.0	3034.055	91.709	1335.771	2.666%	50.700%
17.0	2643.188	84.745	1420.516	2.464%	53.916%
18.0	2305.617	78.131	1498.647	2.271%	56.882%
19.0	2026.688	72.357	1571.004	2.103%	59.628%
20.0	1743.820	65.404	1636.408	1.901%	62.110%
21.0	1533.586	60.268	1696.676	1.752%	64.398%
22.0	1361.109	55.914	1752.59	1.625%	66.520%
23.0	1197.563	51.313	1803.903	1.492%	68.468%
24.0	1085.379	48.411	1852.314	1.407%	70.305%
25.0	991.716	45.961	1898.275	1.336%	72.050%
26.0	910.526	43.771	1942.046	1.272%	73.711%
27.0	837.830	41.711	1983.757	1.213%	75.294%
28.0	779.632	40.138	2023.895	1.167%	76.818%
29.0	717.729	38.158	2062.053	1.109%	78.266%
30.0	663.293	36.369	2098.421	1.057%	79.646%
31.0	611.508	34.538	2132.959	1.004%	80.957%
32.0	561.038	32.603	2165.562	.948%	82.195%
33.0	522.422	31.202	2196.764	.907%	83.379%
34.0	484.727	29.724	2226.488	.864%	84.507%
35.0	448.425	28.205	2254.693	.820%	85.578%
36.0	412.833	26.610	2281.303	.774%	86.588%
37.0	382.317	25.231	2306.535	.733%	87.545%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	348.609	23.536	2330.071	.684%	88.439%
39.0	317.707	21.926	2351.996	.637%	89.271%
40.0	293.351	20.678	2372.674	.601%	90.056%
41.0	269.641	19.399	2392.073	.564%	90.792%
42.0	239.618	17.583	2409.656	.511%	91.459%
43.0	218.320	16.328	2425.984	.475%	92.079%
44.0	200.370	15.264	2441.247	.444%	92.658%
45.0	180.879	14.026	2455.273	.408%	93.191%
46.0	165.980	13.093	2468.366	.381%	93.688%
47.0	150.961	12.107	2480.473	.352%	94.147%
48.0	136.519	11.125	2491.599	.323%	94.570%
49.0	123.462	10.218	2501.816	.297%	94.957%
50.0	111.452	9.363	2511.179	.272%	95.313%
51.0	99.942	8.517	2519.696	.248%	95.636%
52.0	90.577	7.827	2527.523	.228%	95.933%
53.0	81.352	7.125	2534.648	.207%	96.204%
54.0	72.063	6.393	2541.041	.186%	96.446%
55.0	64.997	5.839	2546.88	.170%	96.668%
56.0	58.247	5.295	2552.175	.154%	96.869%
57.0	51.827	4.767	2556.942	.139%	97.050%
58.0	46.434	4.318	2561.26	.126%	97.214%
59.0	41.941	3.942	2565.203	.115%	97.363%
60.0	37.737	3.584	2568.786	.104%	97.499%
61.0	35.205	3.377	2572.163	.098%	97.627%
62.0	33.546	3.248	2575.411	.094%	97.751%
63.0	32.020	3.129	2578.54	.091%	97.869%
64.0	30.818	3.037	2581.577	.088%	97.985%
65.0	29.707	2.952	2584.53	.086%	98.097%
66.0	28.652	2.870	2587.4	.083%	98.206%
67.0	27.752	2.801	2590.202	.081%	98.312%
68.0	26.951	2.740	2592.942	.080%	98.416%
69.0	26.044	2.666	2595.608	.078%	98.517%
70.0	25.362	2.613	2598.222	.076%	98.617%
71.0	24.638	2.555	2600.776	.074%	98.713%
72.0	23.773	2.479	2603.256	.072%	98.808%
73.0	23.077	2.420	2605.676	.070%	98.899%
74.0	22.395	2.361	2608.036	.069%	98.989%
75.0	21.495	2.277	2610.313	.066%	99.075%

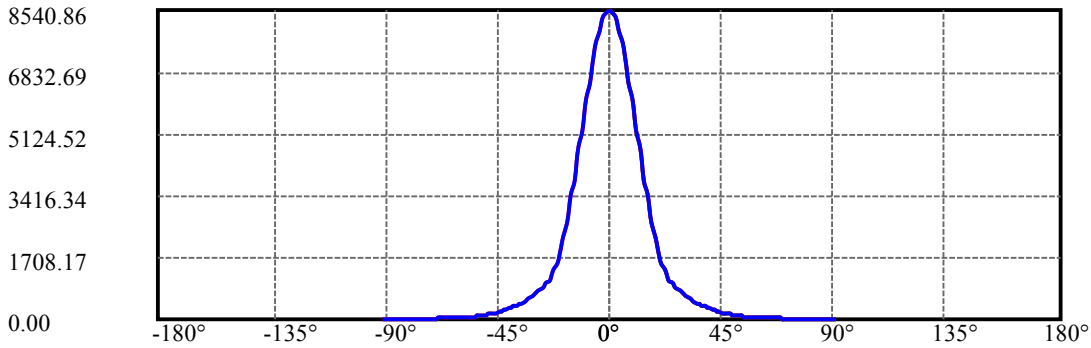
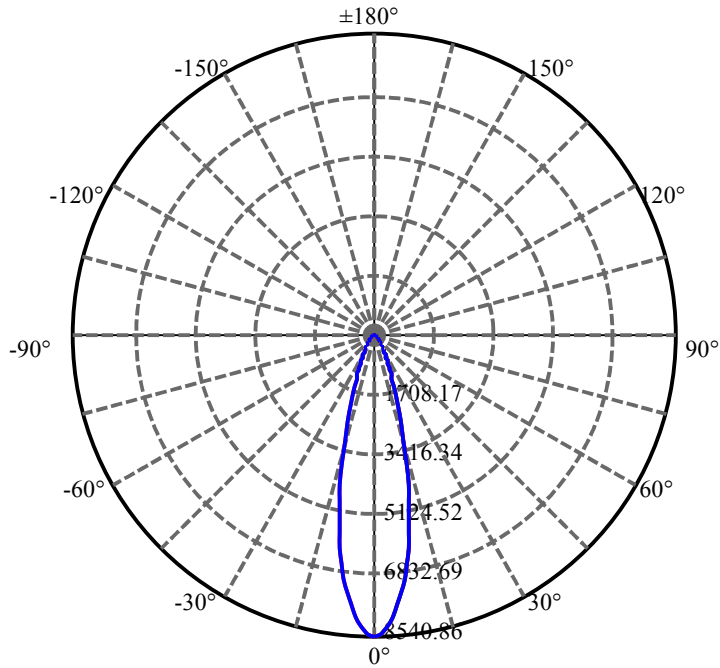
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	20.742	2.207	2612.52	.064%	99.159%
77.0	19.983	2.135	2614.655	.062%	99.240%
78.0	19.013	2.039	2616.695	.059%	99.318%
79.0	18.274	1.967	2618.662	.057%	99.392%
80.0	17.529	1.893	2620.555	.055%	99.464%
81.0	16.671	1.806	2622.36	.052%	99.533%
82.0	15.975	1.735	2624.095	.050%	99.599%
83.0	15.188	1.653	2625.748	.048%	99.661%
84.0	14.400	1.570	2627.319	.046%	99.721%
85.0	13.732	1.500	2628.819	.044%	99.778%
86.0	12.980	1.420	2630.239	.041%	99.832%
87.0	12.410	1.359	2631.598	.040%	99.883%
88.0	11.721	1.285	2632.882	.037%	99.932%
89.0	10.948	1.200	2634.083	.035%	99.978%
90.0	10.751	0.589	2634.672	.017%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2098.42	61.00%	79.65%
0-40	2372.67	68.97%	90.06%
0-60	2568.79	74.67%	97.50%
0-90	2634.08	76.57%	99.98%
0-120	2634.08	76.57%	99.98%
0-180	2634.67	76.59%	100.00%
60-90	68.88	2.00%	2.61%
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%
0-30.27	2107.74	61.27%	80.00%

ZONAL LUMEN SUMMARY

0-10	720.16
10-20	916.24
20-30	462.01
30-40	274.25
40-50	138.50
50-60	57.61
60-70	29.44
70-80	22.33
80-90	13.53
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



C0(Max): —————

C0/C180: —————

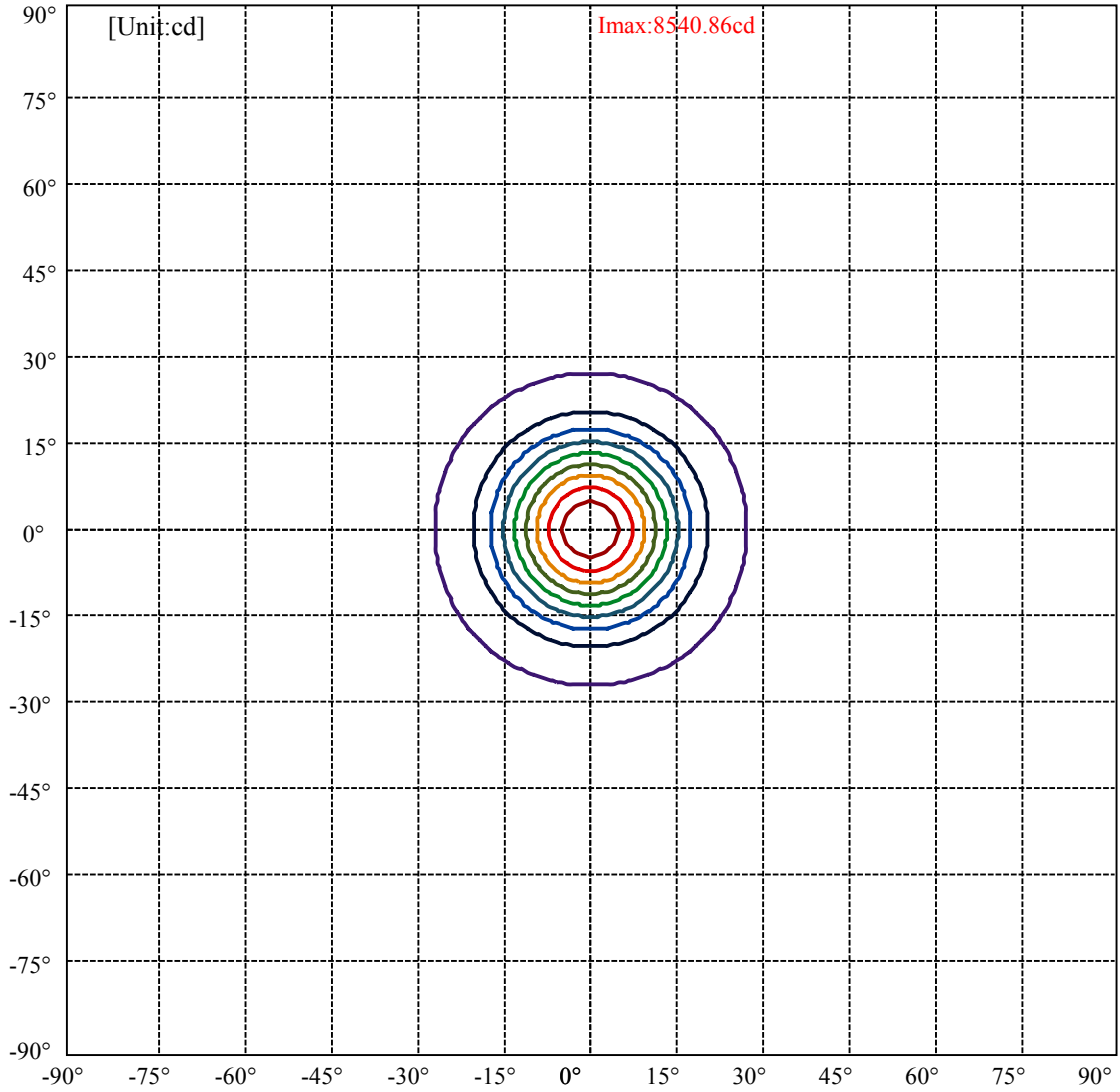
C90/C270: —————

Field angle(10%Imax):C0/180Left:26.8 Right:26.8

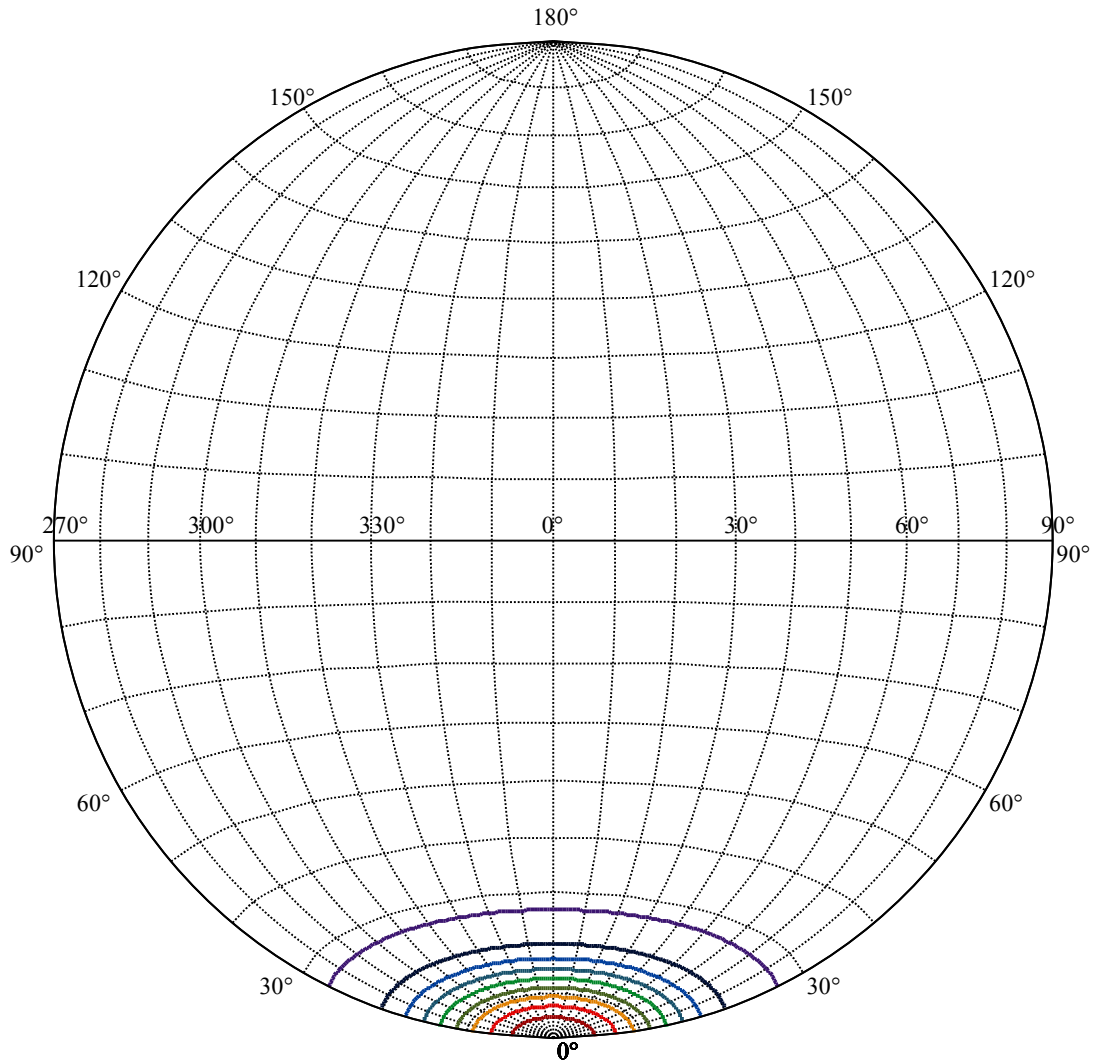
:C90/270Left:26.8 Right:26.8

Beam Angle(50%Imax):C0/180Left:13.1 Right:13.1

:C90/270Left:13.1 Right:13.1



(10%Imax) 854.086	—
(20%Imax) 1708.17	—
(30%Imax) 2562.26	—
(40%Imax) 3416.34	—
(50%Imax) 4270.43	—
(60%Imax) 5124.52	—
(70%Imax) 5978.6	—
(80%Imax) 6832.69	—
(90%Imax) 7686.77	—



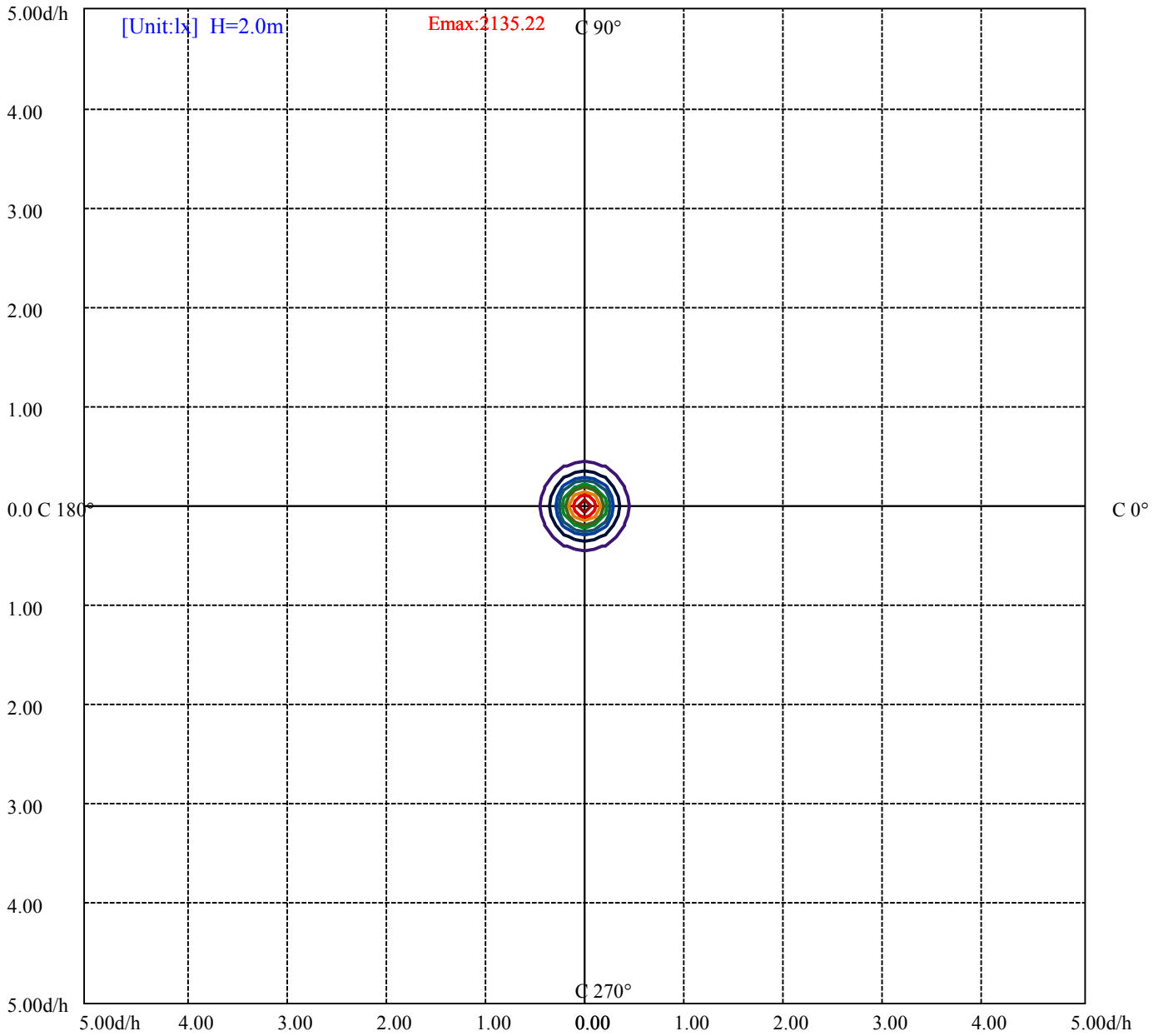
House

[Unit:cd]

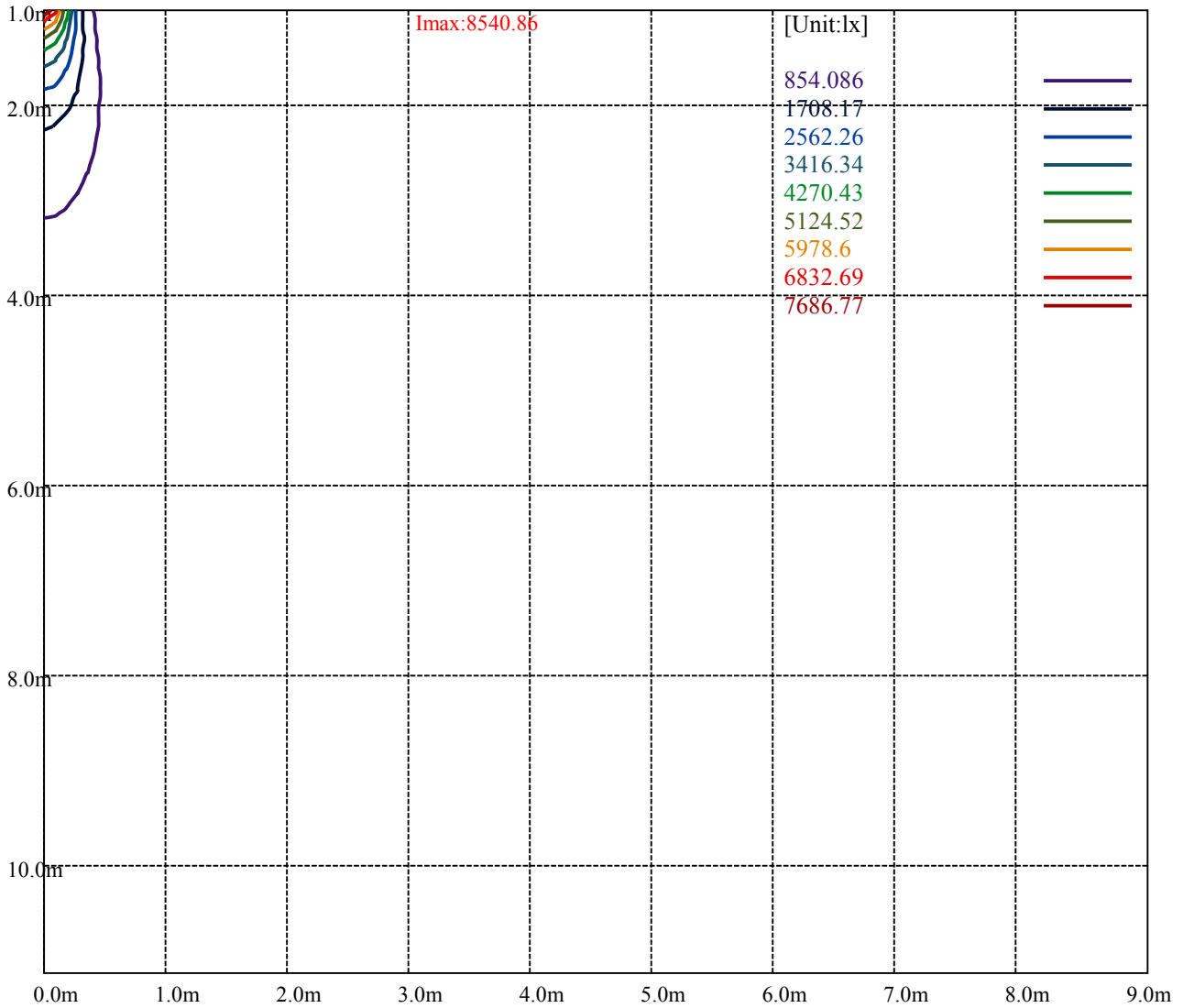
Road

Imax:8540.86

(10%Imax) 854.086	—
(20%Imax) 1708.17	—
(30%Imax) 2562.26	—
(40%Imax) 3416.34	—
(50%Imax) 4270.43	—
(60%Imax) 5124.52	—
(70%Imax) 5978.6	—
(80%Imax) 6832.69	—
(90%Imax) 7686.77	—



- (10%Emax) 213.5215
- (20%Emax) 427.0425
- (30%Emax) 640.565
- (40%Emax) 854.085
- (50%Emax) 1067.608
- (60%Emax) 1281.127
- (70%Emax) 1494.65
- (80%Emax) 1708.17
- (90%Emax) 1921.693



Luminance Limiting Curve(no luminous side)

Luminance Table

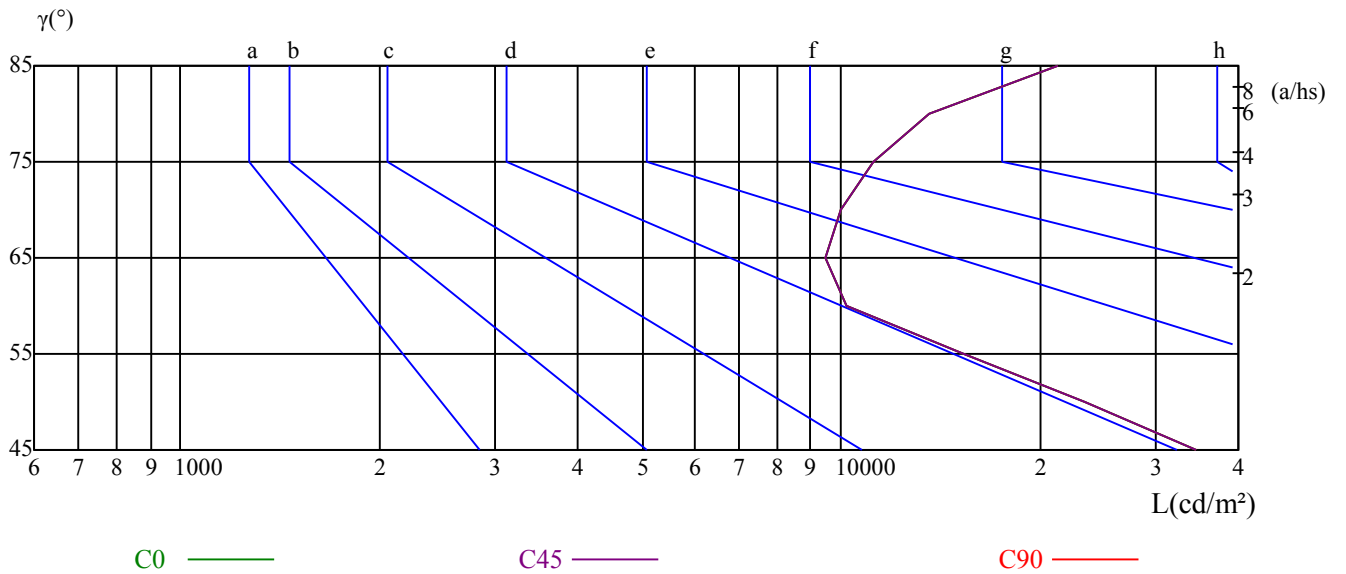
γ	45	50	55	60	65	70	75	80	85
C0	34586	23444	15322	10205	9504	10026	11229	13649	21303
C45	34586	23444	15322	10205	9504	10026	11229	13649	21303
C90	34586	23444	15322	10205	9504	10026	11229	13649	21303

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9504	9504	9504	11229	11229	11229	21303	21303	21303

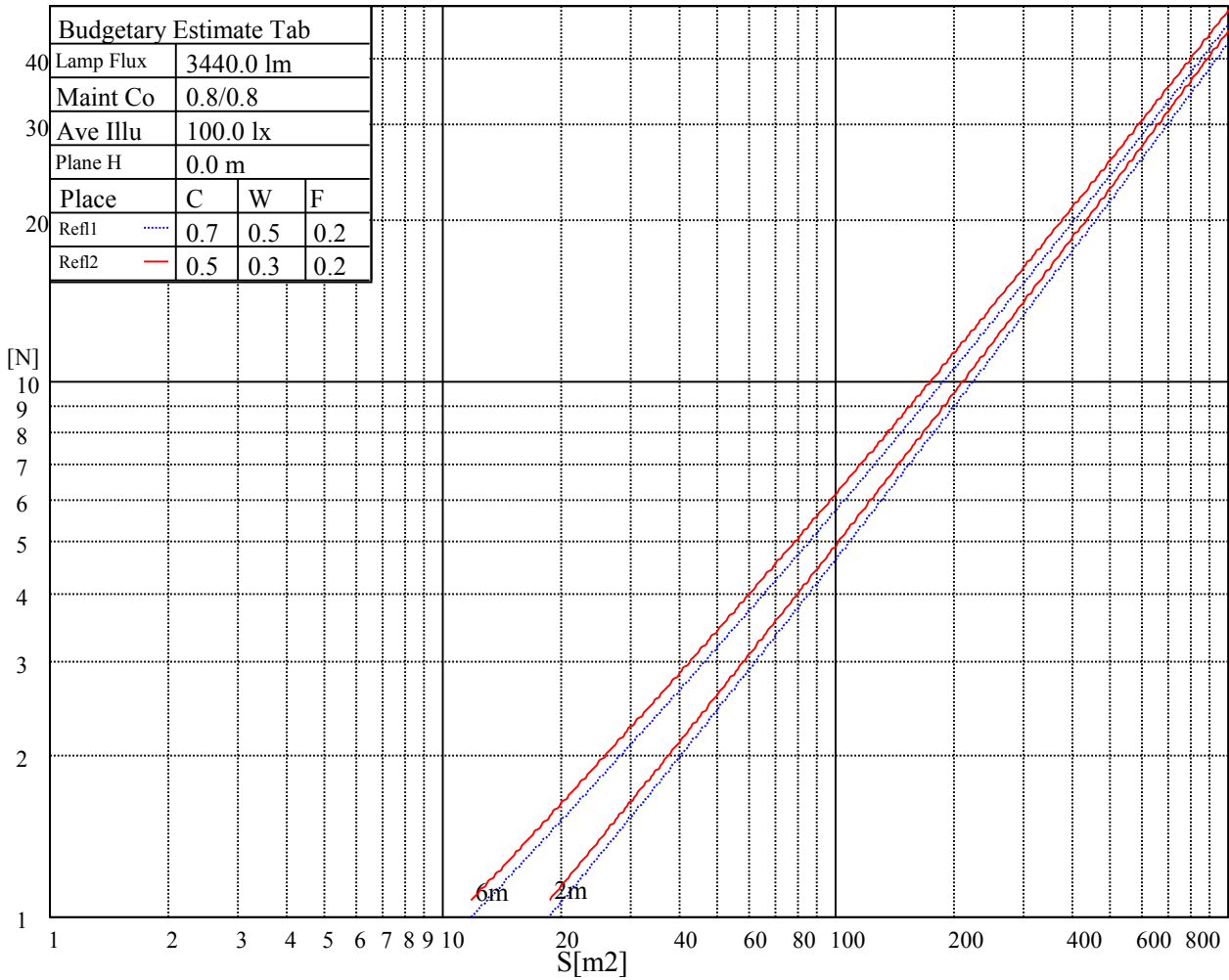
Glare Table

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

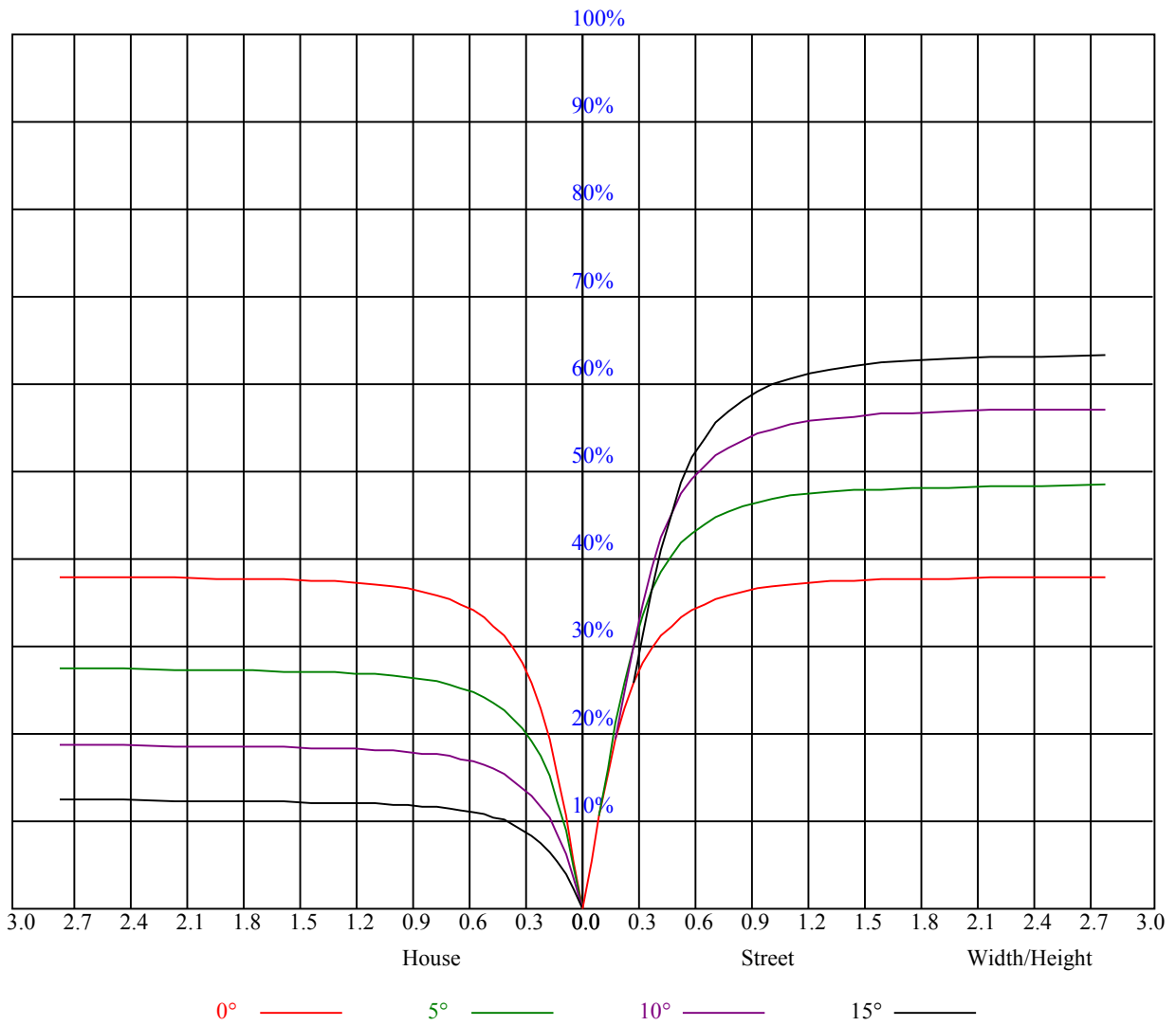
Luminance Limiting Curve



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	10.98	12.01	11.35	12.32	12.63	10.91	11.93	11.27	12.24	12.56
	3H	12.28	13.19	12.67	13.52	13.89	12.21	13.12	12.60	13.45	13.82
	4H	13.05	13.88	13.45	14.24	14.63	12.98	13.82	13.39	14.17	14.56
	6H	13.90	14.67	14.32	15.04	15.44	13.83	14.60	14.25	14.97	15.37
	8H	14.36	15.08	14.80	15.48	15.89	14.28	15.00	14.72	15.39	15.80
	12H	15.18	15.87	15.62	16.25	16.68	15.06	15.75	15.49	16.13	16.56
4H	2H	11.22	12.06	11.63	12.41	12.80	11.15	11.99	11.56	12.34	12.73
	3H	12.85	13.54	13.27	13.95	14.35	12.80	13.48	13.21	13.89	14.30
	4H	13.83	14.44	14.26	14.86	15.31	13.78	14.39	14.21	14.81	15.26
	6H	14.78	15.31	15.25	15.76	16.23	14.73	15.25	15.20	15.70	16.17
	8H	15.39	15.88	15.86	16.33	16.80	15.31	15.80	15.79	16.25	16.73
	12H	16.26	16.69	16.75	17.18	17.65	16.15	16.57	16.64	17.06	17.54
8H	4H	14.18	14.67	14.65	15.12	15.59	14.13	14.62	14.61	15.07	15.55
	6H	15.40	15.79	15.91	16.30	16.78	15.35	15.75	15.86	16.25	16.73
	8H	16.18	16.53	16.71	17.05	17.54	16.11	16.46	16.64	16.98	17.48
	12H	17.36	17.67	17.89	18.16	18.74	17.26	17.56	17.78	18.06	18.64
12H	4H	14.24	14.67	14.73	15.15	15.63	14.20	14.62	14.69	15.11	15.59
	6H	15.86	15.91	16.09	16.38	16.93	15.82	15.86	16.05	16.34	16.88
	8H	16.44	16.74	16.96	17.24	17.82	16.38	16.68	16.90	17.18	17.76
Variation with the observer position at spacings:											
S = 1.0H	1.8/-2.4					1.8/-2.4					
S = 1.5H	3.1/-2.5					3.1/-2.5					
S = 2.0H	4.5/-2.2					4.5/-2.2					
Standard tables:	BK3					BK3					
Uncorrected UGR	2.7					2.7					



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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	0.91	0.91	0.91	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.78	0.78	0.78	0.77
1	0.85	0.83	0.82	0.84	0.82	0.80	0.80	0.79	0.78	0.78	0.77	0.76	0.75	0.74	0.73	0.72
2	0.80	0.77	0.75	0.79	0.76	0.74	0.76	0.74	0.72	0.74	0.72	0.71	0.72	0.71	0.69	0.68
3	0.75	0.72	0.69	0.74	0.71	0.69	0.72	0.70	0.68	0.71	0.68	0.67	0.69	0.67	0.66	0.64
4	0.72	0.68	0.65	0.71	0.67	0.65	0.69	0.66	0.64	0.68	0.65	0.63	0.66	0.64	0.62	0.61
5	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.58
6	0.65	0.61	0.58	0.64	0.61	0.58	0.63	0.60	0.58	0.62	0.59	0.57	0.61	0.59	0.57	0.56
7	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.59	0.56	0.54	0.54
8	0.60	0.56	0.53	0.59	0.56	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.57	0.54	0.52	0.51
9	0.57	0.54	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.56	0.53	0.51	0.55	0.52	0.50	0.50
10	0.55	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.49	0.54	0.51	0.49	0.53	0.51	0.49	0.48



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	8529.19	8499.38	8351.44	8163.00	7952.63	7558.88	7227.56	6869.25	6447.94
45.0	8568.56	8508.94	8342.44	8136.00	7885.69	7520.63	7188.75	6819.75	6392.81
90.0	8536.50	8463.94	8304.19	8066.25	7804.69	7464.94	7130.25	6723.00	6301.69
135.0	8529.19	8524.13	8430.19	8277.75	8068.50	7743.94	7434.00	7098.75	6697.13
180.0	8529.19	8499.94	8394.75	8211.38	7981.88	7674.19	7362.56	6967.69	6545.25
225.0	8568.56	8559.56	8471.25	8305.31	8095.50	7796.81	7484.06	7100.44	6687.56
270.0	8536.50	8548.88	8466.75	8330.06	8129.81	7801.31	7492.50	7156.13	6750.00
315.0	8529.19	8468.44	8292.38	8090.44	7841.81	7469.44	7176.94	6772.50	6287.06
360.0	8529.19	8499.38	8351.44	8163.00	7952.63	7558.88	7227.56	6869.25	6447.94
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6011.44	5602.50	5131.13	4712.06	4233.94	3763.13	3366.56	2943.56	2558.25
45.0	5952.94	5533.31	5102.44	4622.06	4145.63	3677.06	3279.94	2862.00	2494.13
90.0	5901.19	5439.94	4971.94	4563.56	4151.25	3642.19	3260.25	2899.13	2480.63
135.0	6279.19	5886.00	5426.44	5008.50	4535.44	4064.63	3657.94	3210.75	2817.00
180.0	6157.69	5701.50	5235.75	4820.06	4398.19	3881.25	3485.81	3106.69	2746.69
225.0	6303.94	5849.44	5371.88	4944.94	4513.50	3980.81	3575.81	3183.75	2769.75
270.0	6328.69	5926.50	5456.25	5034.38	4552.31	4064.06	3652.88	3211.88	2804.63
315.0	5934.94	5468.06	4926.94	4552.88	4120.31	3559.50	3221.44	2854.69	2474.44
360.0	6011.44	5602.50	5131.13	4712.06	4233.94	3763.13	3366.56	2943.56	2558.25
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2252.81	1983.38	1695.94	1501.88	1338.75	1188.00	1068.75	982.13	900.56
45.0	2184.75	1913.63	1635.19	1450.13	1289.25	1143.00	1029.94	947.25	868.50
90.0	2176.88	1915.31	1636.31	1450.69	1296.00	1112.51	1053.11	959.91	888.19
135.0	2478.38	2174.06	1852.88	1634.63	1442.25	1248.75	1130.63	1034.44	943.88
180.0	2331.56	2048.63	1804.50	1571.63	1379.81	1241.44	1112.63	1011.21	935.44
225.0	2402.44	2113.31	1830.38	1591.31	1413.56	1248.19	1112.40	1017.79	929.48
270.0	2473.31	2178.56	1860.75	1640.25	1454.06	1279.13	1142.44	1042.31	948.94
315.0	2144.81	1886.63	1634.63	1428.19	1275.19	1119.49	1033.14	938.70	869.23
360.0	2252.81	1983.38	1695.94	1501.88	1338.75	1188.00	1068.75	982.13	900.56
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	830.25	774.56	714.94	666.00	614.81	569.81	531.00	488.81	449.44
45.0	799.31	743.63	682.88	630.00	576.00	532.69	497.81	464.06	424.13
90.0	817.09	760.16	699.41	639.34	588.49	534.54	496.86	462.66	430.93
135.0	862.88	802.13	738.56	686.81	629.44	572.06	536.63	494.44	456.75
180.0	862.31	805.11	744.98	687.32	640.46	589.73	545.01	507.38	471.71
225.0	861.08	800.16	731.76	679.56	628.71	573.81	535.44	499.56	464.79
270.0	869.63	808.31	745.88	693.00	635.63	581.63	542.25	501.19	462.94
315.0	800.10	743.01	683.44	624.32	578.53	534.04	494.38	459.73	426.71
360.0	830.25	774.56	714.94	666.00	614.81	569.81	531.00	488.81	449.44
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	416.25	383.06	343.69	313.88	289.13	268.20	230.85	211.73	192.26
45.0	393.75	364.50	329.63	303.75	284.06	254.48	226.91	208.07	190.97
90.0	394.03	365.23	336.71	302.68	279.06	255.04	230.34	209.36	192.26
135.0	424.69	394.31	358.31	330.75	304.88	284.06	249.64	228.77	210.09
180.0	430.37	398.03	365.46	327.26	299.81	274.95	247.56	224.10	205.54
225.0	423.90	393.36	360.34	328.73	303.13	279.84	253.07	229.39	210.43
270.0	430.88	399.94	362.25	334.13	308.81	286.88	249.36	227.42	210.83
315.0	388.80	360.11	332.49	300.49	277.93	253.69	229.22	207.73	190.58
360.0	416.25	383.06	343.69	313.88	289.13	268.20	230.85	211.73	192.26

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	174.54	160.31	144.96	132.13	118.24	105.75	95.68	86.74	76.33
45.0	171.68	157.67	144.45	130.67	117.56	106.93	96.19	86.91	77.40
90.0	174.66	160.31	145.07	130.84	119.03	106.82	95.79	86.51	77.85
135.0	188.55	173.31	157.39	144.17	130.16	118.46	106.59	96.69	86.40
180.0	186.41	171.06	154.74	139.44	126.68	113.51	101.36	91.63	82.69
225.0	190.63	174.43	157.89	142.71	130.11	116.83	105.08	95.57	86.51
270.0	187.48	172.07	159.58	142.48	128.03	117.51	103.95	94.39	85.61
315.0	173.08	158.68	143.61	129.71	117.90	105.81	94.89	86.18	78.02
360.0	174.54	160.31	144.96	132.13	118.24	105.75	95.68	86.74	76.33
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	68.96	62.27	54.90	49.56	44.72	39.99	36.39	34.37	32.85
45.0	69.08	62.21	55.35	49.11	44.33	40.16	36.23	34.37	32.91
90.0	68.51	61.65	55.69	49.50	44.27	40.33	37.13	34.99	33.47
135.0	77.01	69.64	61.99	55.18	49.84	45.06	39.54	36.62	34.82
180.0	72.56	65.36	58.89	52.59	46.80	42.53	38.42	35.72	34.03
225.0	76.11	68.74	61.82	55.07	48.83	43.88	39.15	35.66	33.81
270.0	75.54	68.29	61.59	54.17	48.94	44.16	39.15	36.11	34.20
315.0	68.74	61.82	55.74	49.44	43.76	39.43	35.89	33.81	32.29
360.0	68.96	62.27	54.90	49.56	44.72	39.99	36.39	34.37	32.85
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	31.39	30.21	29.19	28.24	27.34	26.61	25.76	25.09	24.30
45.0	31.50	30.26	29.31	28.35	27.45	26.66	25.88	25.26	24.53
90.0	32.06	30.99	29.81	28.80	27.96	27.06	26.21	25.54	24.81
135.0	33.19	31.84	30.66	29.53	28.46	27.68	26.72	26.04	25.37
180.0	32.40	31.22	30.04	28.80	28.07	27.23	26.21	25.54	24.81
225.0	32.18	30.99	29.70	28.63	27.73	26.89	25.93	25.26	24.58
270.0	32.51	31.16	30.15	29.03	27.96	27.17	26.27	25.48	24.69
315.0	30.94	29.87	28.80	27.84	27.06	26.33	25.37	24.69	24.02
360.0	31.39	30.21	29.19	28.24	27.34	26.61	25.76	25.09	24.30
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	23.51	22.84	22.16	21.21	20.59	19.80	18.73	18.06	17.33
45.0	23.68	23.01	22.33	21.32	20.70	19.80	18.84	18.28	17.44
90.0	23.91	23.23	22.50	21.66	20.87	19.91	19.18	18.39	17.61
135.0	24.47	23.68	23.01	22.05	21.26	20.64	19.46	18.73	18.17
180.0	23.91	23.23	22.56	21.60	20.87	20.14	18.96	18.34	17.49
225.0	23.68	23.01	22.33	21.60	20.70	20.08	19.24	18.34	17.55
270.0	23.91	23.12	22.44	21.60	20.76	20.14	19.29	18.39	17.72
315.0	23.12	22.50	21.83	20.93	20.19	19.35	18.39	17.66	16.93
360.0	23.51	22.84	22.16	21.21	20.59	19.80	18.73	18.06	17.33
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	16.43	15.75	14.91	14.06	13.50	12.66	11.98	11.48	10.86
45.0	16.65	15.86	15.13	14.34	13.56	12.66	11.98	11.36	10.80
90.0	16.99	16.26	15.53	14.68	13.95	13.44	13.22	11.76	10.86
135.0	17.10	16.43	15.53	14.79	14.12	13.16	12.38	11.64	11.19
180.0	16.48	15.92	15.08	14.18	13.44	12.71	12.04	11.42	10.86
225.0	16.76	15.98	15.19	14.46	13.78	13.05	12.38	11.76	11.08
270.0	16.93	16.20	15.53	14.91	14.34	13.67	13.39	12.99	11.14
315.0	16.03	15.41	14.63	13.78	13.16	12.49	11.93	11.36	10.80
360.0	16.43	15.75	14.91	14.06	13.50	12.66	11.98	11.48	10.86

Intensity data(cd)

C/ γ (°)	90.0
0.0	10.69
45.0	10.74
90.0	10.74
135.0	10.69
180.0	10.69
225.0	10.86
270.0	10.91
315.0	10.69
360.0	10.69