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Lotus LED Lights

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Client:

LumCAT: LFR-6S-FE-12W-5CCT-4000K

Luminaire: Fire rated slim panel

Report No:

Ballast type:

Test No: LCZP23080240

Voltage(V): 120.000

LampCAT:

Current(A): 0.104

Lamp flux(lm): 1219.8

Power (W): 12.130

Number of Lamps: 1

PF: 0.975

Length(mm): -120

Width(mm): -120

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 1219.82, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 100.56

Central intensity(cd): 491.990, Maximum intensity(cd): 491.990

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=100.2

[C90/270]Total=101.0

Field angle(10%Imax): [C0/180]Total=152.8

[C90/270]Total=153.0

Maximum s/h(1/2): C0\_180=1.20 C90\_270=1.20

Maximum s/h(1/4): C0\_180=1.30 C90\_270=1.31

Up flux rate of lamp(%): 0.37%

Down flux rate of lamp(%): 99.63%

Up flux rate of LUM(%): 0.37%

Down flux rate of LUM(%): 99.63%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 82.912%

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Zonal flux distribution table

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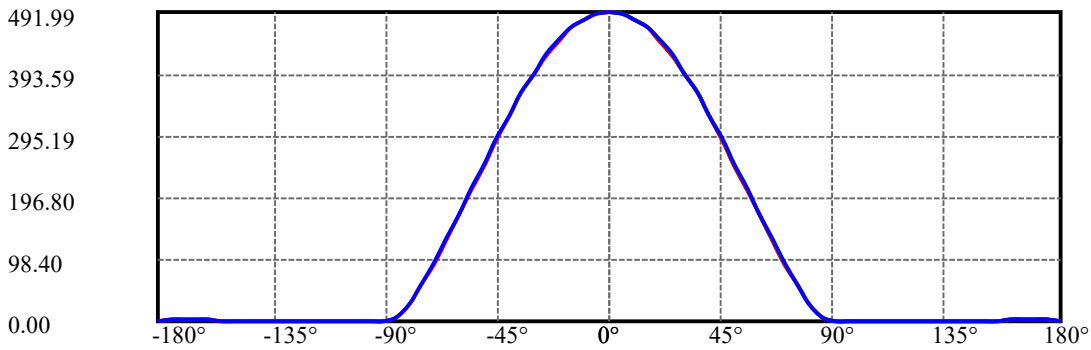
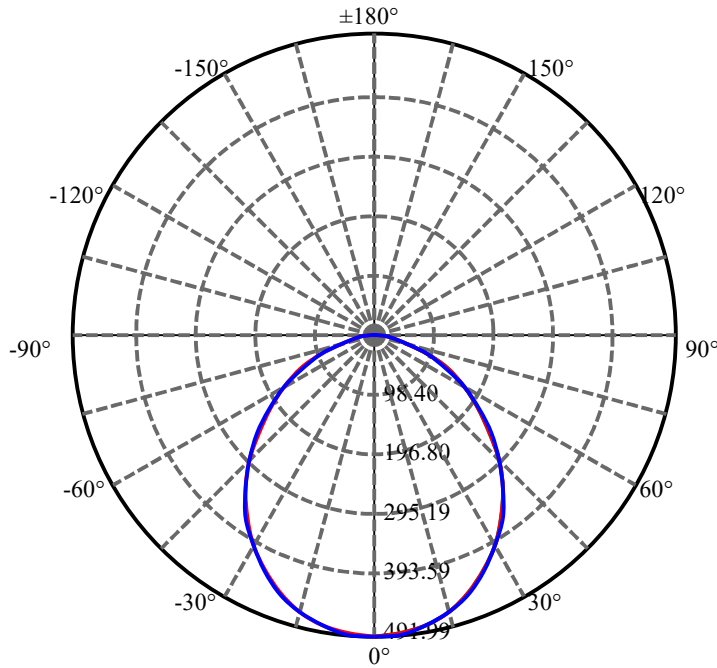
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	491.990	0.000	0	0.00%	0.00%
5.0	489.333	11.731	11.731	0.96%	0.96%
10.0	480.837	34.706	46.437	2.85%	3.81%
15.0	467.177	56.236	102.673	4.61%	8.42%
20.0	448.277	75.446	178.119	6.19%	14.60%
25.0	423.801	91.465	269.584	7.50%	22.10%
30.0	395.996	103.746	373.33	8.51%	30.61%
35.0	363.097	111.782	485.112	9.16%	39.77%
40.0	326.870	115.116	600.228	9.44%	49.21%
45.0	289.708	114.164	714.392	9.36%	58.57%
50.0	249.325	108.920	823.312	8.93%	67.49%
55.0	209.991	99.871	923.183	8.19%	75.68%
60.0	171.557	88.194	1011.377	7.23%	82.91%
65.0	131.100	73.576	1084.953	6.03%	88.94%
70.0	93.937	56.981	1141.934	4.67%	93.61%
75.0	59.281	40.049	1181.982	3.28%	96.90%
80.0	26.160	22.861	1204.844	1.87%	98.77%
85.0	5.725	8.664	1213.508	0.71%	99.48%
90.0	0.674	1.752	1215.26	0.14%	99.63%
95.0	0.224	0.246	1215.505	0.02%	99.65%
100.0	0.449	0.183	1215.688	0.02%	99.66%
105.0	0.449	0.240	1215.929	0.02%	99.68%
110.0	0.449	0.235	1216.163	0.02%	99.70%
115.0	0.449	0.227	1216.391	0.02%	99.72%
120.0	0.449	0.218	1216.609	0.02%	99.74%
125.0	0.599	0.242	1216.851	0.02%	99.76%
130.0	0.898	0.325	1217.177	0.03%	99.78%
135.0	0.898	0.363	1217.54	0.03%	99.81%
140.0	0.898	0.333	1217.872	0.03%	99.84%
145.0	0.898	0.300	1218.172	0.02%	99.86%
150.0	0.898	0.265	1218.437	0.02%	99.89%
155.0	1.347	0.284	1218.721	0.02%	99.91%
160.0	1.796	0.330	1219.051	0.03%	99.94%
165.0	1.984	0.312	1219.362	0.03%	99.96%
170.0	2.246	0.251	1219.613	0.02%	99.98%
175.0	2.395	0.166	1219.779	0.01%	100.00%
180.0	1.347	0.045	1219.824	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	373.33	30.61%	30.61%
0-40	600.23	49.21%	49.21%
0-60	1011.38	82.91%	82.91%
0-90	1215.26	99.63%	99.63%
0-120	1216.61	99.74%	99.74%
0-180	1219.82	100.00%	100.00%
60-90	203.88	16.71%	16.71%
90-120	1.35	0.11%	0.11%
90-130	1.92	0.16%	0.16%
90-150	3.18	0.26%	0.26%
90-180	4.52	0.37%	0.37%
0-57.99	975.86	80.00%	80.00%

ZONAL LUMEN SUMMARY

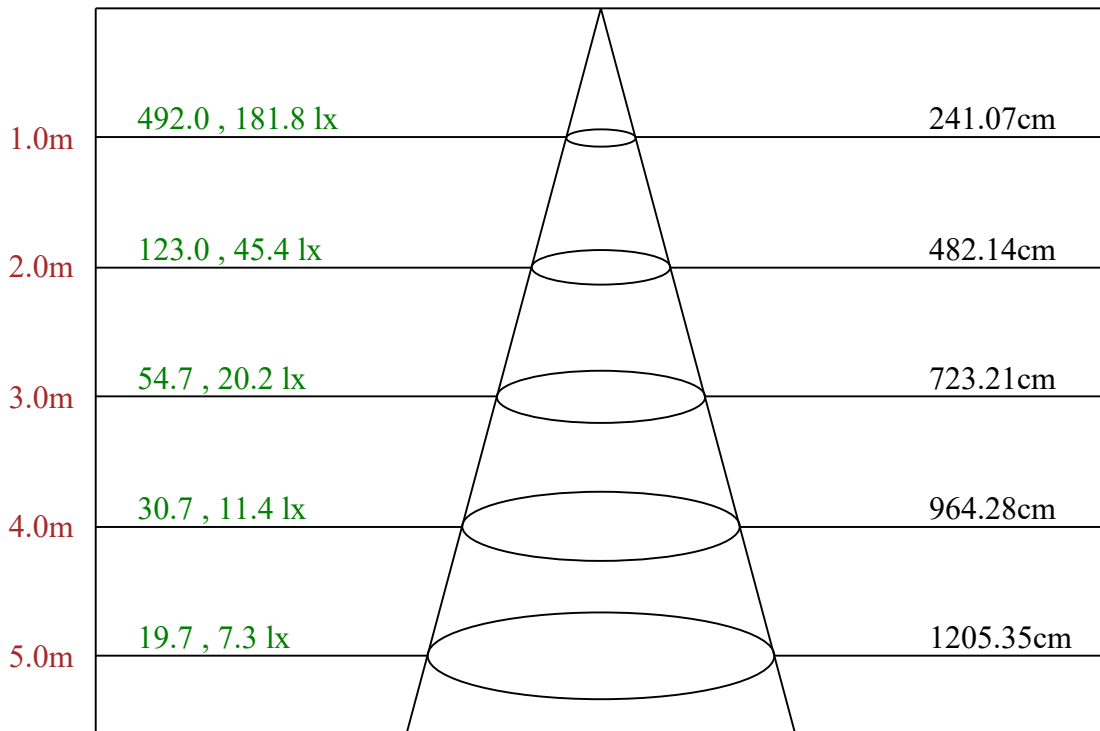
0-10	46.44
10-20	131.68
20-30	195.21
30-40	226.90
40-50	223.08
50-60	188.06
60-70	130.56
70-80	62.91
80-90	10.42
90-100	0.43
100-110	0.48
110-120	0.45
120-130	0.57
130-140	0.70
140-150	0.56
150-160	0.61
160-170	0.56
170-180	0.17



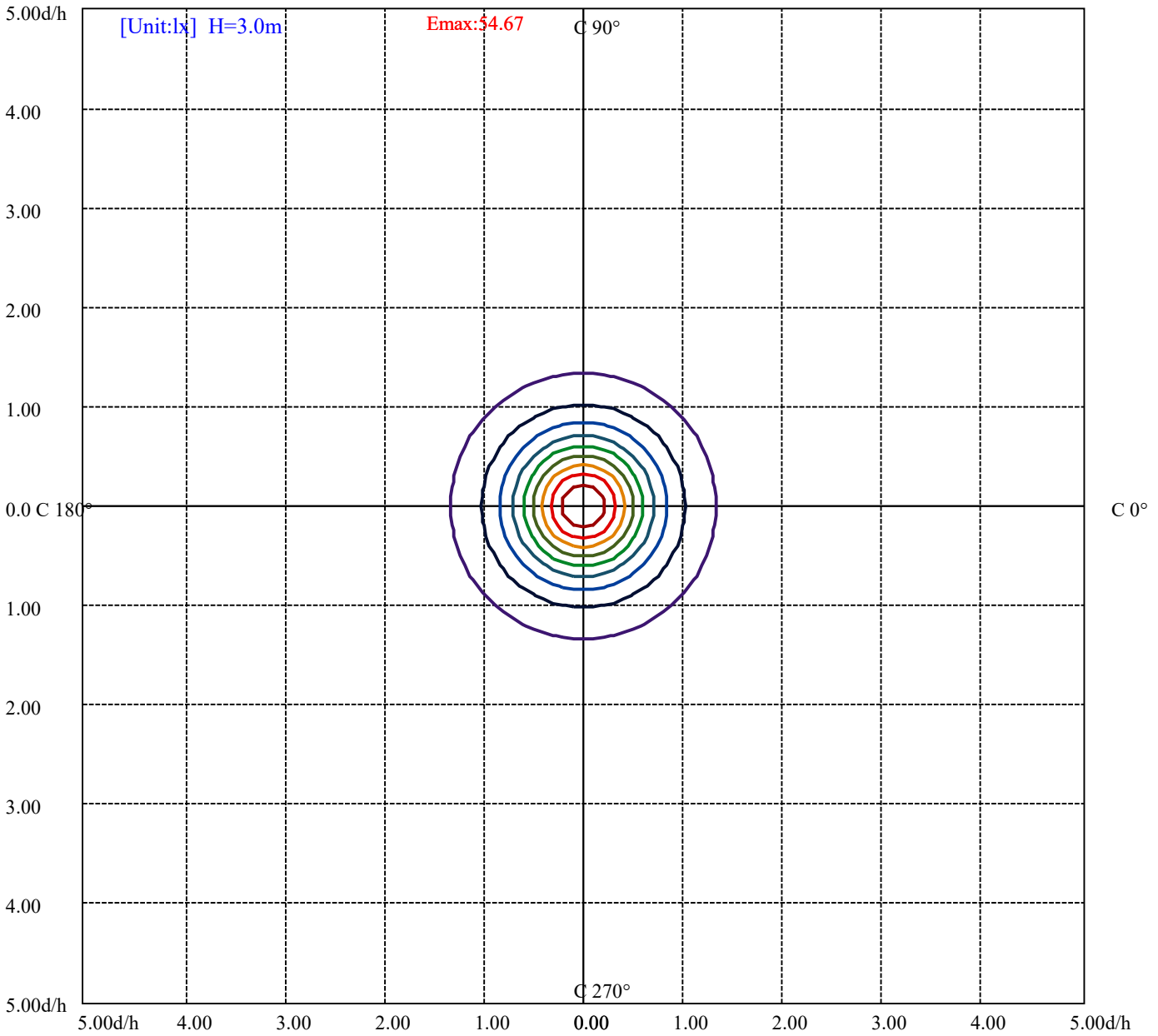
C0(Max): —————  
 C0/C180: —————  
 C90/C270: —————

Field angle(10%Imax):C0/180Left:76.4 Right:76.4  
 :C90/270Left:76.5 Right:76.5

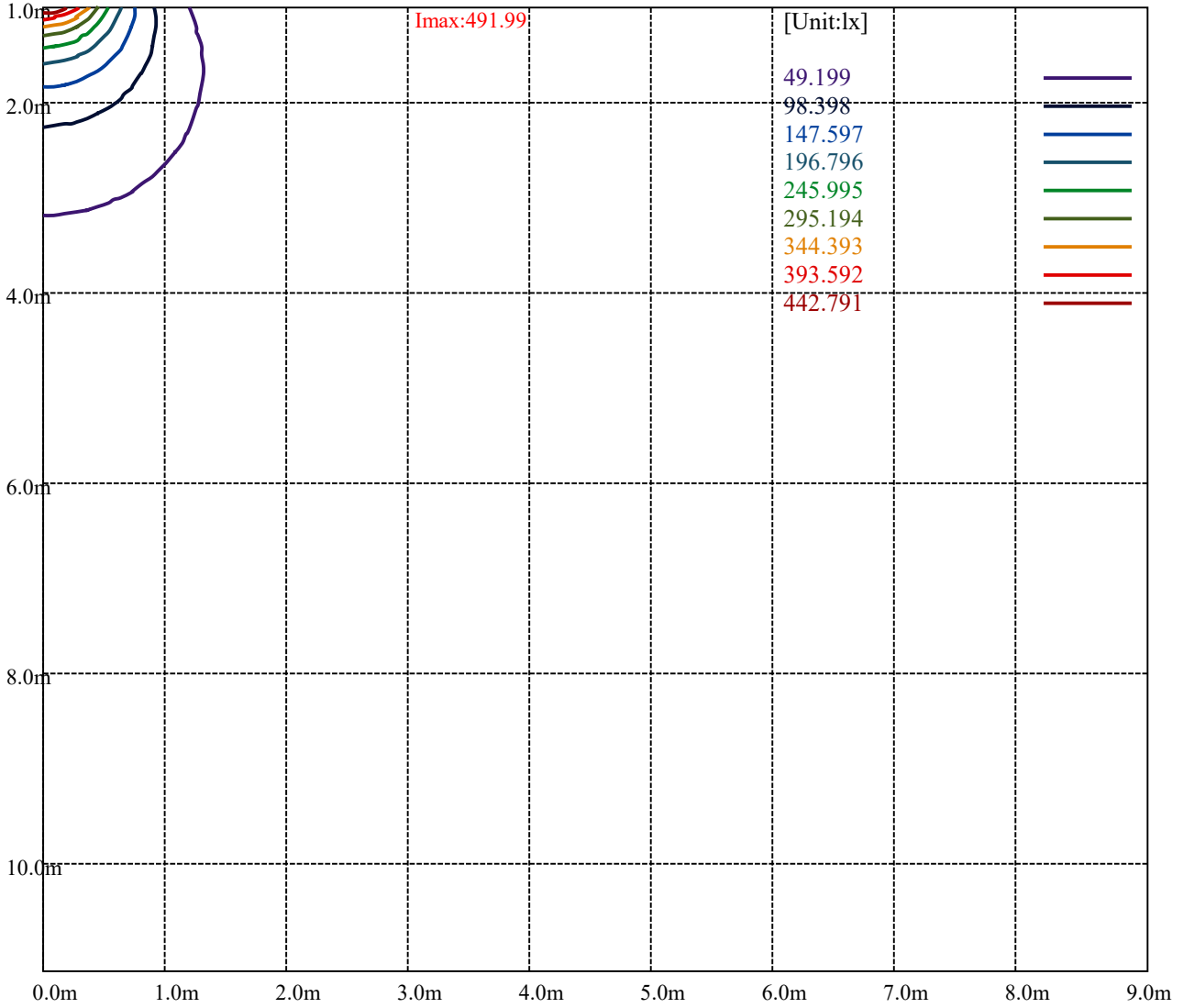
Beam Angle(50%Imax):C0/180Left:50.1 Right:50.1  
 :C90/270Left:50.5 Right:50.5



Max , Ave      Beam angle of C0 plane 100.64



- (10%Emax) 5.466556
- (20%Emax) 10.93311
- (30%Emax) 16.39967
- (40%Emax) 21.86622
- (50%Emax) 27.33278
- (60%Emax) 32.79933
- (70%Emax) 38.26589
- (80%Emax) 43.73244
- (90%Emax) 49.199



Luminance Table

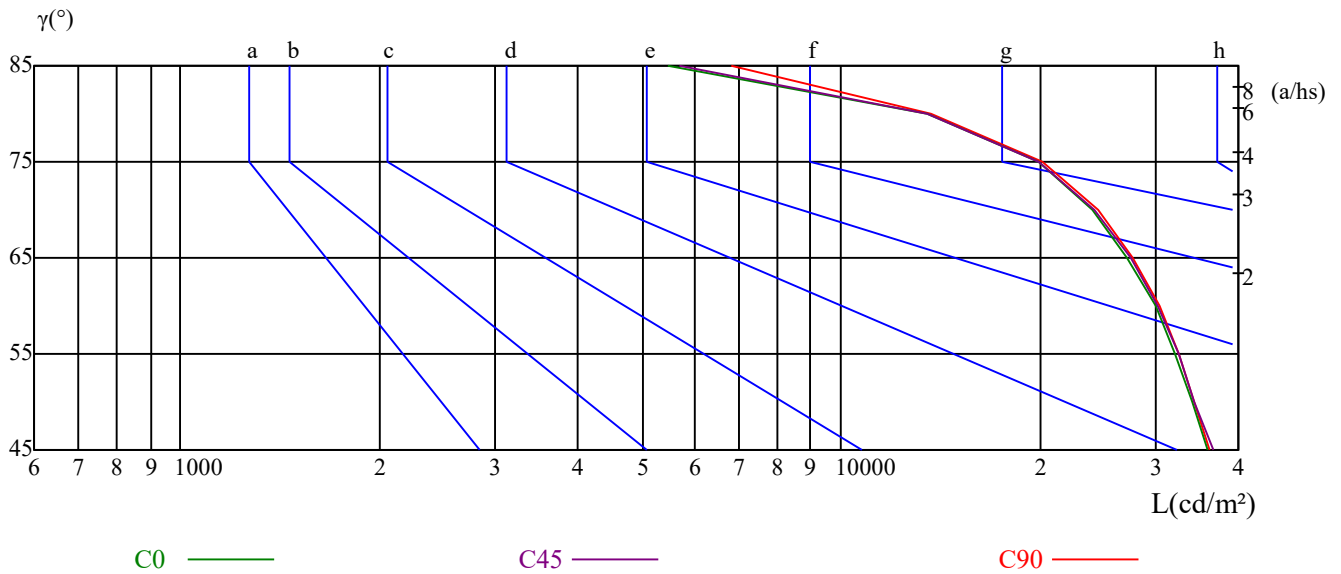
$\gamma$	45	50	55	60	65	70	75	80	85
C0	35868	33962	32109	30007	27142	24022	19936	13486	5465
C45	36665	34364	32444	30220	27427	24240	19973	13510	5702
C90	36297	34392	32543	30372	27698	24513	20169	13665	6806

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
27142	27698	27427	19936	20169	19973	5465	6806	5702

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





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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.05	1.01	0.98	1.03	0.99	0.96	0.99	0.96	0.93	0.95	0.92	0.90	0.91	0.89	0.87	0.85
2	0.92	0.86	0.81	0.91	0.85	0.80	0.87	0.82	0.78	0.84	0.80	0.76	0.81	0.77	0.74	0.72
3	0.82	0.74	0.68	0.80	0.73	0.67	0.77	0.71	0.66	0.74	0.69	0.65	0.72	0.67	0.64	0.61
4	0.73	0.64	0.58	0.71	0.64	0.57	0.69	0.62	0.57	0.67	0.61	0.56	0.64	0.59	0.55	0.53
5	0.65	0.57	0.50	0.64	0.56	0.50	0.62	0.55	0.49	0.60	0.54	0.49	0.58	0.53	0.48	0.46
6	0.59	0.50	0.44	0.58	0.50	0.44	0.56	0.49	0.43	0.54	0.48	0.43	0.53	0.47	0.43	0.41
7	0.54	0.45	0.39	0.53	0.45	0.39	0.51	0.44	0.39	0.50	0.43	0.38	0.48	0.42	0.38	0.36
8	0.49	0.41	0.35	0.48	0.40	0.35	0.47	0.40	0.35	0.46	0.39	0.34	0.44	0.39	0.34	0.32
9	0.45	0.37	0.32	0.44	0.37	0.31	0.43	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.31	0.29
10	0.42	0.34	0.29	0.41	0.34	0.29	0.40	0.33	0.29	0.39	0.33	0.28	0.38	0.32	0.28	0.27

Lotus LED Lights LFR-6S-FE-12W-5CCT-4000K

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Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	491.99	488.85	480.32	466.40	447.55	422.86	394.13	362.26	325.45
15.0	491.99	489.29	480.76	467.05	448.41	423.25	394.71	362.14	325.75
30.0	491.99	489.52	480.97	467.03	448.59	423.63	395.30	362.70	326.49
45.0	491.99	489.97	481.20	467.26	448.14	424.08	395.52	363.82	327.39
60.0	491.99	489.52	481.21	467.28	448.18	424.37	400.11	363.49	327.55
75.0	491.99	488.63	480.33	467.32	448.04	423.82	395.57	363.27	327.39
90.0	491.99	489.31	480.81	467.84	449.05	424.45	395.38	364.07	327.84
105.0	491.99	488.63	480.33	467.32	448.04	423.82	395.57	363.27	327.39
120.0	491.99	489.52	481.21	467.28	448.18	424.37	400.11	363.49	327.55
135.0	491.99	489.97	481.20	467.26	448.14	424.08	395.52	363.82	327.39
150.0	491.99	489.52	480.97	467.03	448.59	423.63	395.30	362.70	326.49
165.0	491.99	489.29	480.76	467.05	448.41	423.25	394.71	362.14	325.75
180.0	491.99	488.85	480.32	466.40	447.55	422.86	394.13	362.26	325.45
195.0	491.99	489.29	480.76	467.05	448.41	423.25	394.71	362.14	325.75
210.0	491.99	489.52	480.97	467.03	448.59	423.63	395.30	362.70	326.49
225.0	491.99	489.97	481.20	467.26	448.14	424.08	395.52	363.82	327.39
240.0	491.99	489.52	481.21	467.28	448.18	424.37	400.11	363.49	327.55
255.0	491.99	488.63	480.33	467.32	448.04	423.82	395.57	363.27	327.39
270.0	491.99	489.31	480.81	467.84	449.05	424.45	395.38	364.07	327.84
285.0	491.99	488.63	480.33	467.32	448.04	423.82	395.57	363.27	327.39
300.0	491.99	489.52	481.21	467.28	448.18	424.37	400.11	363.49	327.55
315.0	491.99	489.97	481.20	467.26	448.14	424.08	395.52	363.82	327.39
330.0	491.99	489.52	480.97	467.03	448.59	423.63	395.30	362.70	326.49
345.0	491.99	489.29	480.76	467.05	448.41	423.25	394.71	362.14	325.75
360.0	491.99	488.85	480.32	466.40	447.55	422.86	394.13	362.26	325.45
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	286.84	246.89	208.29	169.68	129.73	92.92	58.36	26.49	5.39
15.0	288.00	248.46	208.93	170.06	130.30	93.46	61.78	25.83	5.17
30.0	288.94	249.14	209.57	174.49	130.64	93.77	58.91	26.08	5.62
45.0	293.21	249.82	210.47	170.89	131.09	93.77	58.46	26.53	5.62
60.0	290.25	249.82	210.50	171.41	132.10	94.13	58.63	25.61	5.84
75.0	289.27	250.26	210.79	171.77	131.41	94.63	59.20	26.24	6.05
90.0	290.27	250.02	211.11	171.75	132.39	94.82	59.04	26.84	6.71
105.0	289.27	250.26	210.79	171.77	131.41	94.63	59.20	26.24	6.05
120.0	290.25	249.82	210.50	171.41	132.10	94.13	58.63	25.61	5.84
135.0	293.21	249.82	210.47	170.89	131.09	93.77	58.46	26.53	5.62
150.0	288.94	249.14	209.57	174.49	130.64	93.77	58.91	26.08	5.62
165.0	288.00	248.46	208.93	170.06	130.30	93.46	61.78	25.83	5.17
180.0	286.84	246.89	208.29	169.68	129.73	92.92	58.36	26.49	5.39
195.0	288.00	248.46	208.93	170.06	130.30	93.46	61.78	25.83	5.17
210.0	288.94	249.14	209.57	174.49	130.64	93.77	58.91	26.08	5.62
225.0	293.21	249.82	210.47	170.89	131.09	93.77	58.46	26.53	5.62
240.0	290.25	249.82	210.50	171.41	132.10	94.13	58.63	25.61	5.84
255.0	289.27	250.26	210.79	171.77	131.41	94.63	59.20	26.24	6.05
270.0	290.27	250.02	211.11	171.75	132.39	94.82	59.04	26.84	6.71
285.0	289.27	250.26	210.79	171.77	131.41	94.63	59.20	26.24	6.05
300.0	290.25	249.82	210.50	171.41	132.10	94.13	58.63	25.61	5.84
315.0	293.21	249.82	210.47	170.89	131.09	93.77	58.46	26.53	5.62
330.0	288.94	249.14	209.57	174.49	130.64	93.77	58.91	26.08	5.62
345.0	288.00	248.46	208.93	170.06	130.30	93.46	61.78	25.83	5.17
360.0	286.84	246.89	208.29	169.68	129.73	92.92	58.36	26.49	5.39

Lotus LED Lights LFR-6S-FE-12W-5CCT-4000K

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.90	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
15.0	0.45	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
30.0	0.90	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
45.0	0.68	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
60.0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.90
75.0	0.67	0.22	0.45	0.45	0.45	0.45	0.45	0.45	0.90
90.0	0.89	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.89
105.0	0.67	0.22	0.45	0.45	0.45	0.45	0.45	0.45	0.90
120.0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.90
135.0	0.68	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
150.0	0.90	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
165.0	0.45	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
180.0	0.90	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
195.0	0.45	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
210.0	0.90	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
225.0	0.68	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
240.0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.90
255.0	0.67	0.22	0.45	0.45	0.45	0.45	0.45	0.45	0.90
270.0	0.89	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.89
285.0	0.67	0.22	0.45	0.45	0.45	0.45	0.45	0.45	0.90
300.0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.90
315.0	0.68	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
330.0	0.90	0.22	0.45	0.45	0.45	0.45	0.45	0.90	0.90
345.0	0.45	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
360.0	0.90	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.90
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.24	2.24
15.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.25	2.47
30.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.47
45.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.25
60.0	0.90	0.90	0.90	0.90	1.35	1.80	2.25	2.25	2.25
75.0	0.90	0.90	0.90	0.90	1.35	1.79	2.02	2.24	2.69
90.0	0.89	0.89	0.89	0.89	1.34	1.79	1.79	2.24	2.24
105.0	0.90	0.90	0.90	0.90	1.35	1.79	2.02	2.24	2.69
120.0	0.90	0.90	0.90	0.90	1.35	1.80	2.25	2.25	2.25
135.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.25
150.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.47
165.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.25	2.47
180.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.24	2.24
195.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.25	2.47
210.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.47
225.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.25
240.0	0.90	0.90	0.90	0.90	1.35	1.80	2.25	2.25	2.25
255.0	0.90	0.90	0.90	0.90	1.35	1.79	2.02	2.24	2.69
270.0	0.89	0.89	0.89	0.89	1.34	1.79	1.79	2.24	2.24
285.0	0.90	0.90	0.90	0.90	1.35	1.79	2.02	2.24	2.69
300.0	0.90	0.90	0.90	0.90	1.35	1.80	2.25	2.25	2.25
315.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.25
330.0	0.90	0.90	0.90	0.90	1.35	1.80	2.02	2.25	2.47
345.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.25	2.47
360.0	0.90	0.90	0.90	0.90	1.35	1.80	1.80	2.24	2.24

Intensity data(cd)

C/γ(°)	180.0
0.0	1.35
15.0	1.35
30.0	1.35
45.0	1.35
60.0	1.35
75.0	1.35
90.0	1.34
105.0	1.35
120.0	1.35
135.0	1.35
150.0	1.35
165.0	1.35
180.0	1.35
195.0	1.35
210.0	1.35
225.0	1.35
240.0	1.35
255.0	1.35
270.0	1.34
285.0	1.35
300.0	1.35
315.0	1.35
330.0	1.35
345.0	1.35
360.0	1.35