
Lotus LED Lights

Client:

LumCAT: LFR-6R-RB-14W-5CCT-5000K

Luminaire: Fire rated slim panel

Report No:

Ballast type:

Test No: LCZP23080240

Voltage(V): 120.010

LampCAT:

Current(A): 0.121

Lamp flux(lm): 1688.3

Power (W): 14.210

Number of Lamps: 1

PF: 0.981

Length(mm): -130

Width(mm): -130

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1688.29, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 118.81

Central intensity(cd): 675.747, Maximum intensity(cd): 675.747

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=101.0

[C90/270]Total=101.0

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

[C90/270]Total=152.6

Maximum s/h(1/2): C0_180=1.20 C90_270=1.20

Maximum s/h(1/4): C0_180=1.30 C90_270=1.30

Up flux rate of lamp(%): 0.14%

Down flux rate of lamp(%): 99.86%

Up flux rate of LUM(%): 0.14%

Down flux rate of LUM(%): 99.86%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 82.790%

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Zonal flux distribution table

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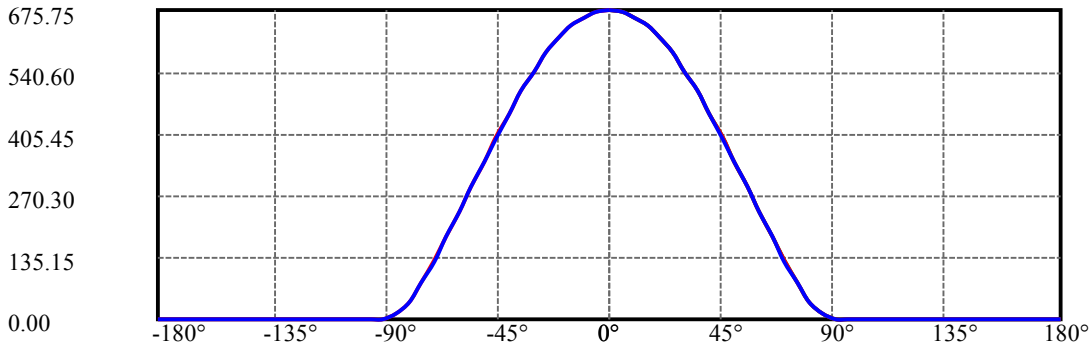
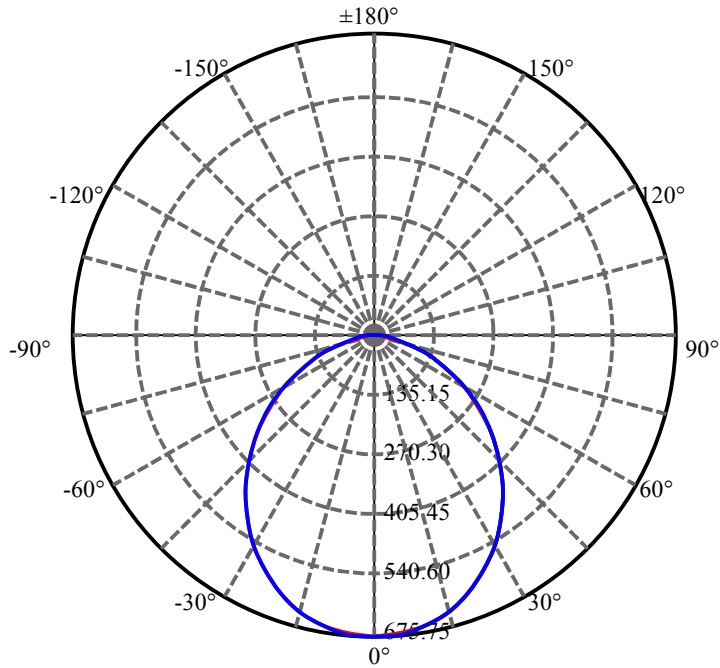
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	675.746	0.000	0	0.00%	0.00%
5.0	672.562	16.119	16.119	0.95%	0.95%
10.0	661.551	47.725	63.844	2.83%	3.78%
15.0	642.237	77.340	141.184	4.58%	8.36%
20.0	616.857	103.767	244.951	6.15%	14.51%
25.0	584.482	125.998	370.949	7.46%	21.97%
30.0	545.816	143.040	513.989	8.47%	30.44%
35.0	501.161	154.175	668.164	9.13%	39.58%
40.0	452.283	159.075	827.239	9.42%	49.00%
45.0	400.227	157.849	985.088	9.35%	58.35%
50.0	346.478	150.883	1135.971	8.94%	67.29%
55.0	292.174	138.864	1274.835	8.23%	75.51%
60.0	239.493	122.893	1397.728	7.28%	82.79%
65.0	183.231	102.765	1500.493	6.09%	88.88%
70.0	131.280	79.636	1580.129	4.72%	93.59%
75.0	81.958	55.737	1635.866	3.30%	96.89%
80.0	39.182	32.414	1668.28	1.92%	98.81%
85.0	12.099	13.934	1682.214	0.83%	99.64%
90.0	1.567	3.742	1685.956	0.22%	99.86%
95.0	0.000	0.429	1686.385	0.03%	99.89%
100.0	0.000	0.000	1686.385	0.00%	99.89%
105.0	0.074	0.020	1686.405	0.00%	99.89%
110.0	0.111	0.049	1686.454	0.00%	99.89%
115.0	0.000	0.028	1686.482	0.00%	99.89%
120.0	0.112	0.027	1686.509	0.00%	99.89%
125.0	0.000	0.026	1686.535	0.00%	99.90%
130.0	0.000	0.000	1686.535	0.00%	99.90%
135.0	0.336	0.068	1686.603	0.00%	99.90%
140.0	0.786	0.208	1686.811	0.01%	99.91%
145.0	0.898	0.281	1687.092	0.02%	99.93%
150.0	0.898	0.265	1687.356	0.02%	99.94%
155.0	0.898	0.227	1687.584	0.01%	99.96%
160.0	0.898	0.188	1687.772	0.01%	99.97%
165.0	1.421	0.191	1687.963	0.01%	99.98%
170.0	1.534	0.175	1688.138	0.01%	99.99%
175.0	1.797	0.119	1688.258	0.01%	100.00%
180.0	0.972	0.033	1688.291	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	513.99	30.44%	30.44%
0-40	827.24	49.00%	49.00%
0-60	1397.73	82.79%	82.79%
0-90	1685.96	99.86%	99.86%
0-120	1686.51	99.89%	99.89%
0-180	1688.29	100.00%	100.00%
60-90	288.23	17.07%	17.07%
90-120	0.55	0.03%	0.03%
90-130	0.58	0.03%	0.03%
90-150	1.40	0.08%	0.08%
90-180	2.30	0.14%	0.14%
0-58.08	1350.63	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	63.84
10-20	181.11
20-30	269.04
30-40	313.25
40-50	308.73
50-60	261.76
60-70	182.40
70-80	88.15
80-90	17.68
90-100	0.43
100-110	0.07
110-120	0.06
120-130	0.03
130-140	0.28
140-150	0.55
150-160	0.42
160-170	0.37
170-180	0.12



C0(Max): —————

C0/C180: —————

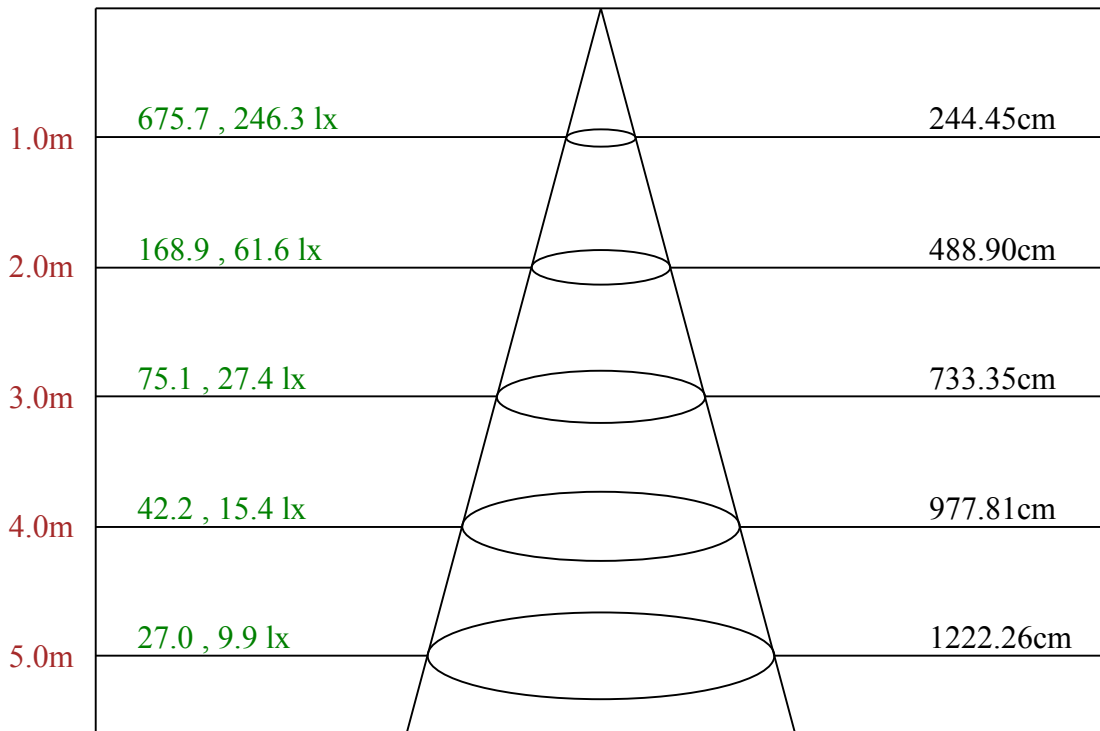
C90/C270: —————

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

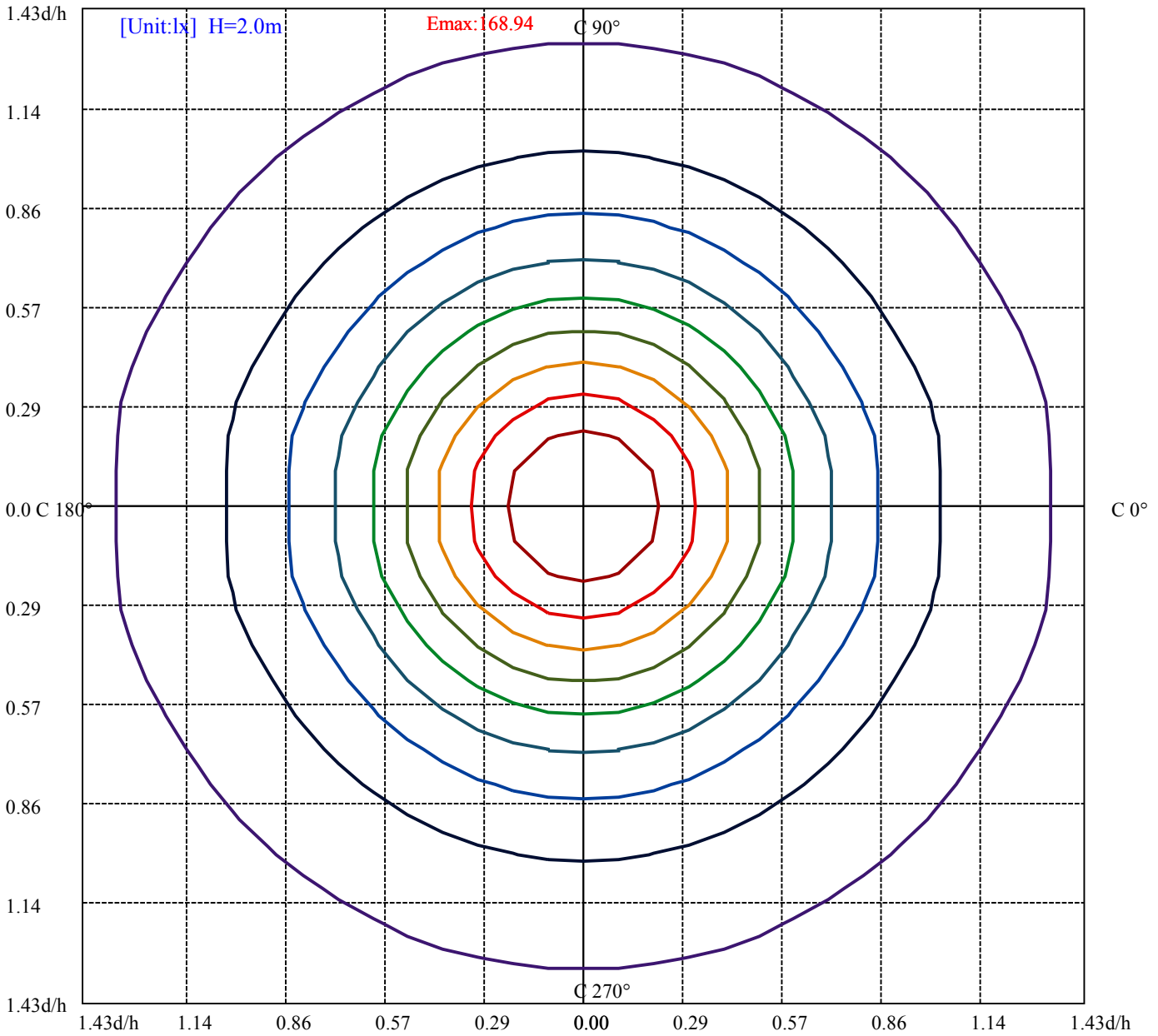
:C90/270Left:76.3 Right:76.3

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

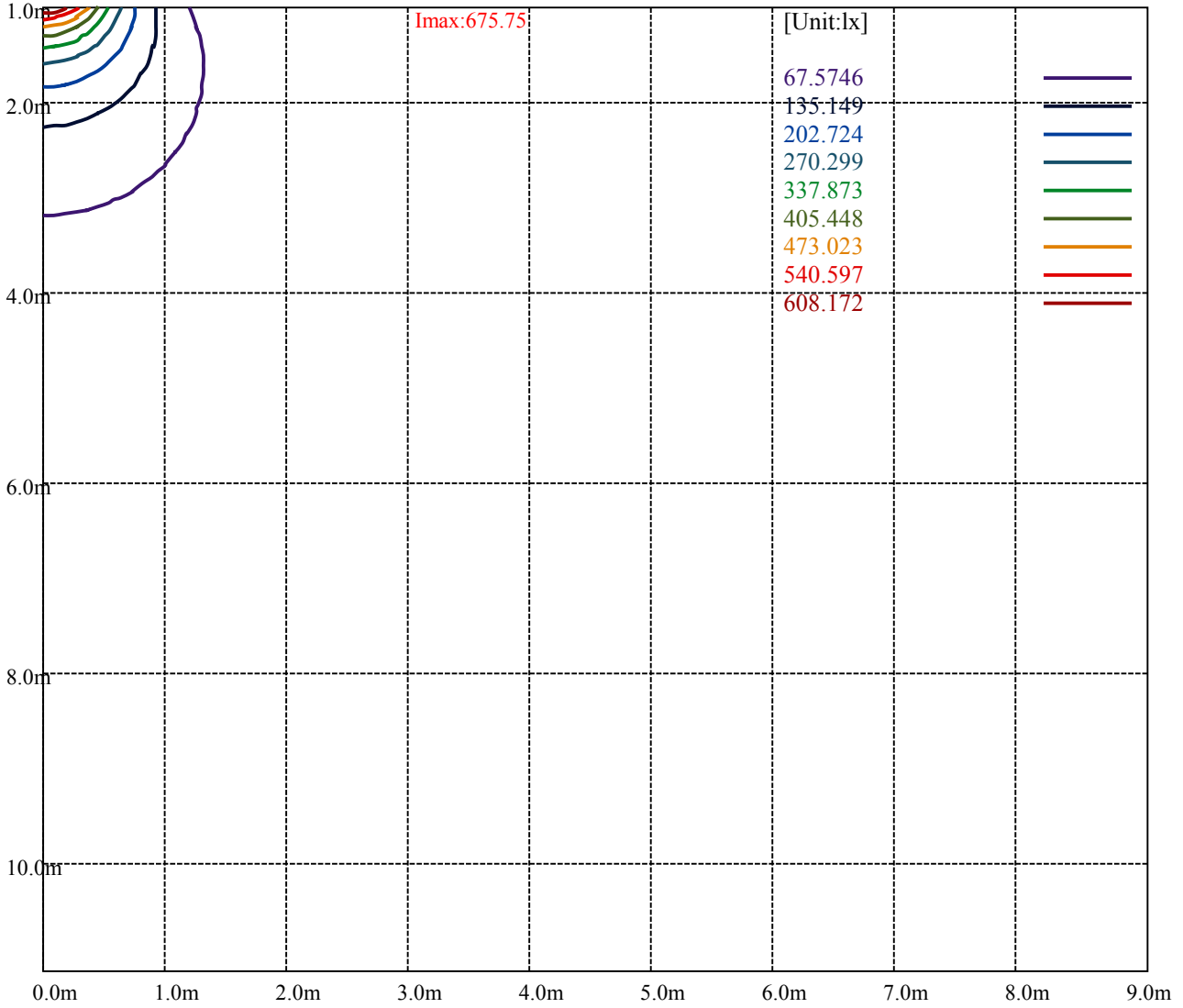
:C90/270Left:50.5 Right:50.5



Max , Ave Beam angle of C0 plane 101.42



(10%Emax) 16.89365	—
(20%Emax) 33.78725	—
(30%Emax) 50.681	—
(40%Emax) 67.57475	—
(50%Emax) 84.46825	—
(60%Emax) 101.362	—
(70%Emax) 118.2555	—
(80%Emax) 135.1492	—
(90%Emax) 152.043	—



Luminance Table

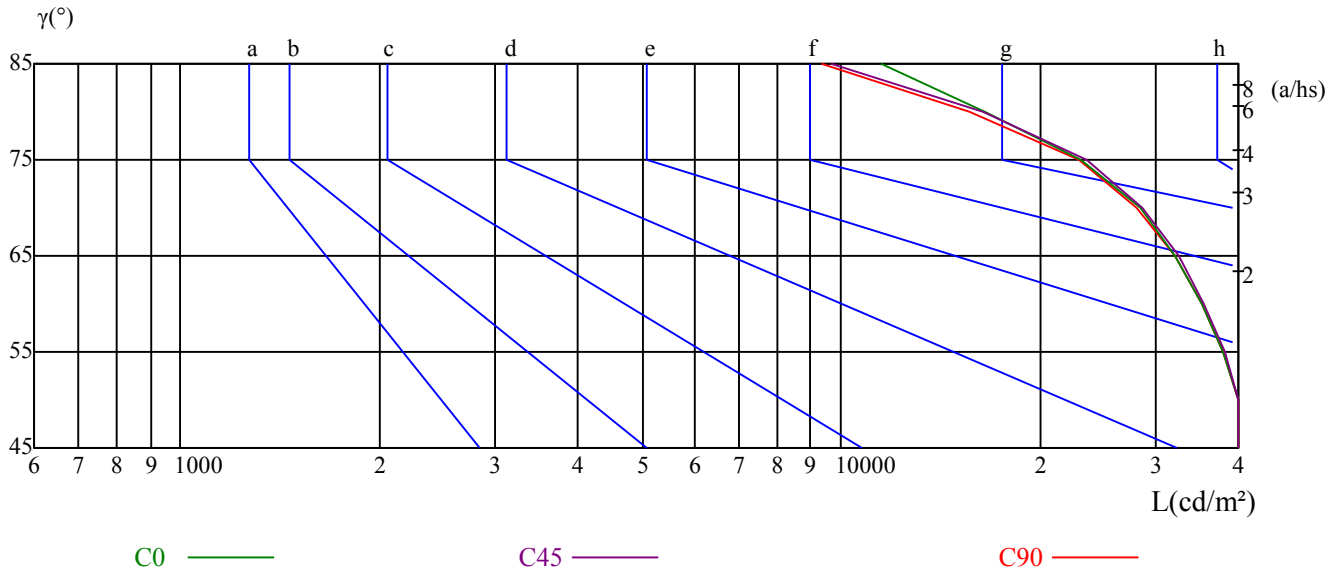
γ	45	50	55	60	65	70	75	80	85
C0	42282	40277	37973	35277	32013	28423	23104	16544	11499
C45	42467	40410	38131	35500	32409	28592	23500	16378	9698
C90	42239	40235	37812	35162	32124	28083	22949	15636	9346

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
32013	32124	32409	23104	22949	23500	11499	9346	9698

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	0.80	0.90	0.84	0.79	0.87	0.82	0.78	0.84	0.79	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	0.63	0.61
4	0.73	0.64	0.58	0.71	0.63	0.57	0.69	0.62	0.56	0.66	0.60	0.56	0.64	0.59	0.55	0.53
5	0.65	0.56	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	0.42	0.40
7	0.53	0.45	0.39	0.53	0.44	0.39	0.51	0.44	0.38	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	0.34	0.46	0.39	0.34	0.44	0.38	0.34	0.32
9	0.45	0.37	0.31	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	0.41	0.34	0.29	0.41	0.34	0.29	0.40	0.33	0.28	0.39	0.33	0.28	0.38	0.32	0.28	0.26

Lotus LED Lights LFR-6R-RB-14W-5CCT-5000K

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	675.75	677.52	672.20	657.12	636.73	608.35	574.65	534.74	488.63
15.0	675.75	677.52	672.20	657.12	636.73	608.35	574.65	534.74	488.63
30.0	675.75	676.64	670.39	656.11	636.47	607.01	573.09	532.03	485.61
45.0	675.75	676.64	670.39	656.11	636.47	607.01	573.09	532.03	485.61
60.0	675.75	678.44	671.25	655.98	634.41	606.55	570.61	529.27	482.55
75.0	675.75	678.44	671.25	655.98	634.41	606.55	570.61	529.27	482.55
90.0	675.75	675.75	669.44	654.12	633.40	602.77	567.63	527.08	479.33
105.0	675.75	675.75	669.44	654.12	633.40	602.77	567.63	527.08	479.33
120.0	675.75	673.94	667.62	652.26	627.87	600.76	564.63	522.17	475.19
135.0	675.75	673.94	667.62	652.26	627.87	600.76	564.63	522.17	475.19
150.0	675.75	676.65	667.58	652.16	629.49	599.55	562.37	520.64	474.38
165.0	675.75	676.65	667.58	652.16	629.49	599.55	562.37	520.64	474.38
180.0	675.75	665.99	648.26	624.31	593.27	555.14	511.69	462.03	410.59
195.0	675.75	665.93	649.86	623.97	591.84	554.34	510.60	460.61	407.95
210.0	675.75	665.93	649.86	623.97	591.84	554.34	510.60	460.61	407.95
225.0	675.75	667.66	651.48	625.42	595.77	558.93	512.20	465.47	411.56
240.0	675.75	667.66	651.48	625.42	595.77	558.93	512.20	465.47	411.56
255.0	675.75	668.54	650.52	627.09	596.46	560.42	518.97	470.32	418.96
270.0	675.75	668.54	650.52	627.09	596.46	560.42	518.97	470.32	418.96
285.0	675.75	668.52	653.16	629.67	600.76	564.63	523.07	476.09	425.50
300.0	675.75	668.52	653.16	629.67	600.76	564.63	523.07	476.09	425.50
315.0	675.75	669.40	654.88	632.21	604.09	568.72	528.81	477.10	428.12
330.0	675.75	669.40	654.88	632.21	604.09	568.72	528.81	477.10	428.12
345.0	675.75	677.52	672.20	657.12	636.73	608.35	574.65	534.74	488.63
360.0	675.75	677.52	672.20	657.12	636.73	608.35	574.65	534.74	488.63
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	437.20	385.76	331.67	276.68	220.81	169.38	116.17	68.28	25.72
15.0	437.20	385.76	331.67	276.68	220.81	169.38	116.17	68.28	25.72
30.0	433.83	382.06	327.61	271.37	218.70	166.04	115.15	66.06	24.99
45.0	433.83	382.06	327.61	271.37	218.70	166.04	115.15	66.06	24.99
60.0	432.23	376.51	325.29	269.58	214.77	160.85	110.53	63.80	23.36
75.0	432.23	376.51	325.29	269.58	214.77	160.85	110.53	63.80	23.36
90.0	428.87	375.72	318.95	265.79	212.63	158.58	107.22	59.47	19.82
105.0	428.87	375.72	318.95	265.79	212.63	158.58	107.22	59.47	19.82
120.0	426.41	373.11	318.00	262.89	208.69	154.48	103.89	56.91	16.26
135.0	426.41	373.11	318.00	262.89	208.69	154.48	103.89	56.91	16.26
150.0	422.68	367.35	313.84	260.32	204.99	150.57	99.77	52.61	13.61
165.0	422.68	367.35	313.84	260.32	204.99	150.57	99.77	52.61	13.61
180.0	356.50	301.51	246.53	191.55	138.34	88.68	42.57	7.98	0.89
195.0	354.39	300.83	246.38	191.92	138.36	89.27	42.85	8.93	0.89
210.0	354.39	300.83	246.38	191.92	138.36	89.27	42.85	8.93	0.89
225.0	357.64	302.83	248.91	195.89	142.88	92.56	45.83	9.88	0.90
240.0	357.64	302.83	248.91	195.89	142.88	92.56	45.83	9.88	0.90
255.0	364.00	310.84	256.78	200.92	147.76	96.41	50.46	12.61	1.80
270.0	364.00	310.84	256.78	200.92	147.76	96.41	50.46	12.61	1.80
285.0	372.20	318.00	262.89	232.17	152.68	102.08	54.20	15.36	1.81
300.0	372.20	318.00	262.89	232.17	152.68	102.08	54.20	15.36	1.81
315.0	376.42	321.09	266.67	212.25	156.92	106.12	58.05	18.14	2.72
330.0	376.42	321.09	266.67	212.25	156.92	106.12	58.05	18.14	2.72
345.0	437.20	385.76	331.67	276.68	220.81	169.38	116.17	68.28	25.72
360.0	437.20	385.76	331.67	276.68	220.81	169.38	116.17	68.28	25.72

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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	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.0	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.0	3.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	3.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0	1.81	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	0.89	0.00	0.89	0.00	0.00
195.0	0.00	0.00	0.00	0.89	0.89	0.00	0.00	0.00	0.00
210.0	0.00	0.00	0.00	0.89	0.89	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
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0	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
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345.0	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77	1.77
15.0	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77	1.77
30.0	0.89	0.89	0.89	0.89	0.89	0.89	1.79	1.79	1.79
45.0	0.89	0.89	0.89	0.89	0.89	0.89	1.79	1.79	1.79
60.0	0.00	0.90	0.90	0.90	0.90	0.90	1.80	1.80	1.80
75.0	0.00	0.90	0.90	0.90	0.90	0.90	1.80	1.80	1.80
90.0	0.90	0.90	0.90	0.90	0.90	0.90	1.80	1.80	1.80
105.0	0.90	0.90	0.90	0.90	0.90	0.90	1.80	1.80	1.80
120.0	0.00	0.90	0.90	0.90	0.90	0.90	1.81	1.81	1.81
135.0	0.00	0.90	0.90	0.90	0.90	0.90	1.81	1.81	1.81
150.0	0.91	0.91	0.91	0.91	0.91	0.91	1.81	1.81	1.81
165.0	0.91	0.91	0.91	0.91	0.91	0.91	1.81	1.81	1.81
180.0	0.00	0.00	0.89	0.89	0.89	0.89	1.77	0.89	1.77
195.0	0.00	0.89	0.89	0.89	0.89	0.89	0.89	1.79	1.79
210.0	0.00	0.89	0.89	0.89	0.89	0.89	0.89	1.79	1.79
225.0	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.80
240.0	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.80
255.0	0.00	0.90	0.90	0.90	0.90	0.90	0.90	1.80	1.80
270.0	0.00	0.90	0.90	0.90	0.90	0.90	0.90	1.80	1.80
285.0	0.00	0.00	0.90	0.90	0.90	0.90	0.90	0.90	1.81
300.0	0.00	0.00	0.90	0.90	0.90	0.90	0.90	0.90	1.81
315.0	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	1.81
330.0	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	1.81
345.0	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77	1.77
360.0	0.89	0.89	0.89	0.89	0.89	0.89	1.77	1.77	1.77

Intensity data(cd)

C/γ(°)	180.0
0.0	1.77
15.0	1.77
30.0	1.79
45.0	1.79
60.0	1.80
75.0	1.80
90.0	1.80
105.0	1.80
120.0	1.81
135.0	1.81
150.0	1.81
165.0	1.81
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	1.77
360.0	1.77