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Lotus LED Lights

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Client:

LumCAT: LFR-6S-RB-14W-5CCT-3500K

Luminaire: Fire rated slim panel

Report No:

Ballast type:

Test No: LCZP23080240

Voltage(V): 120.030

LampCAT:

Current(A): 0.119

Lamp flux(lm): 1680.6

Power (W): 13.960

Number of Lamps: 1

PF: 0.981

Length(mm): -130

Width(mm): -130

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 1680.63, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 120.39

Central intensity(cd): 672.303, Maximum intensity(cd): 672.303

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

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

[C90/270]Total=101.0

Field angle(10%Imax): [C0/180]Total=152.6

[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=1.30

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  $\pi$  solid angle : 82.776%

Lotus LED Lights LFR-6S-RB-14W-5CCT-3500K

Zonal flux distribution table

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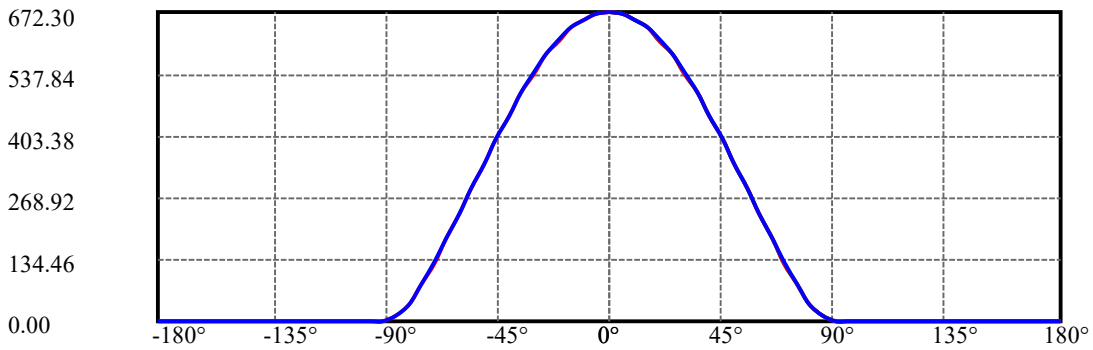
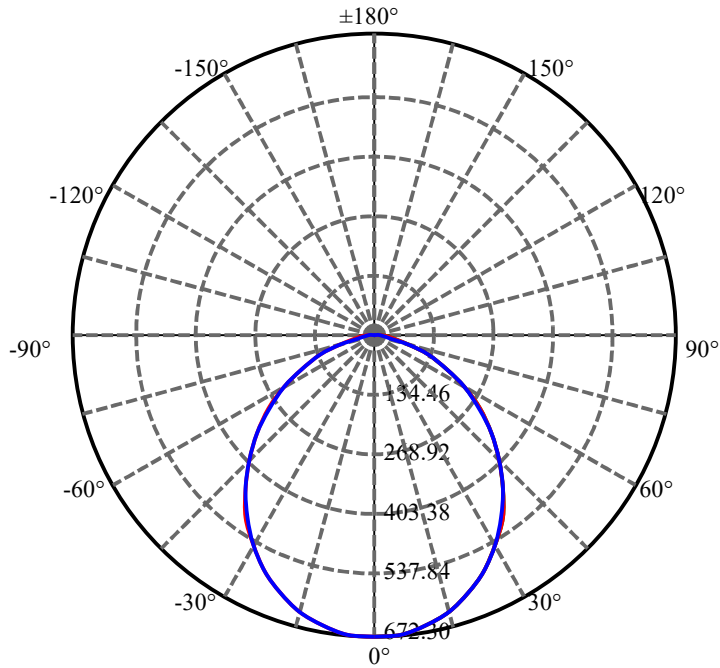
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	672.303	0.000	0	0.00%	0.00%
5.0	669.230	16.038	16.038	0.95%	0.95%
10.0	658.369	47.492	63.53	2.83%	3.78%
15.0	639.279	76.976	140.506	4.58%	8.36%
20.0	613.749	103.267	243.773	6.14%	14.50%
25.0	581.786	125.390	369.162	7.46%	21.97%
30.0	543.157	142.362	511.525	8.47%	30.44%
35.0	498.766	153.430	664.955	9.13%	39.57%
40.0	450.149	158.319	823.274	9.42%	48.99%
45.0	398.316	157.100	980.374	9.35%	58.33%
50.0	344.756	150.149	1130.523	8.93%	67.27%
55.0	291.015	138.238	1268.761	8.23%	75.49%
60.0	238.519	122.400	1391.161	7.28%	82.78%
65.0	182.483	102.346	1493.508	6.09%	88.87%
70.0	130.644	79.286	1572.794	4.72%	93.58%
75.0	81.809	55.532	1628.325	3.30%	96.89%
80.0	39.033	32.334	1660.659	1.92%	98.81%
85.0	12.100	13.894	1674.553	0.83%	99.64%
90.0	1.568	3.742	1678.296	0.22%	99.86%
95.0	0.000	0.429	1678.725	0.03%	99.89%
100.0	0.000	0.000	1678.725	0.00%	99.89%
105.0	0.074	0.020	1678.745	0.00%	99.89%
110.0	0.111	0.049	1678.793	0.00%	99.89%
115.0	0.000	0.028	1678.821	0.00%	99.89%
120.0	0.112	0.027	1678.849	0.00%	99.89%
125.0	0.000	0.026	1678.875	0.00%	99.90%
130.0	0.000	0.000	1678.875	0.00%	99.90%
135.0	0.336	0.068	1678.942	0.00%	99.90%
140.0	0.786	0.208	1679.15	0.01%	99.91%
145.0	0.898	0.281	1679.431	0.02%	99.93%
150.0	0.898	0.264	1679.695	0.02%	99.94%
155.0	0.898	0.227	1679.923	0.01%	99.96%
160.0	0.898	0.188	1680.111	0.01%	99.97%
165.0	1.421	0.191	1680.302	0.01%	99.98%
170.0	1.534	0.175	1680.478	0.01%	99.99%
175.0	1.796	0.119	1680.597	0.01%	100.00%
180.0	0.961	0.033	1680.63	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	511.52	30.44%	30.44%
0-40	823.27	48.99%	48.99%
0-60	1391.16	82.78%	82.78%
0-90	1678.30	99.86%	99.86%
0-120	1678.85	99.89%	99.89%
0-180	1680.63	100.00%	100.00%
60-90	287.13	17.08%	17.08%
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%
0-58.09	1344.50	80.00%	80.00%

ZONAL LUMEN SUMMARY

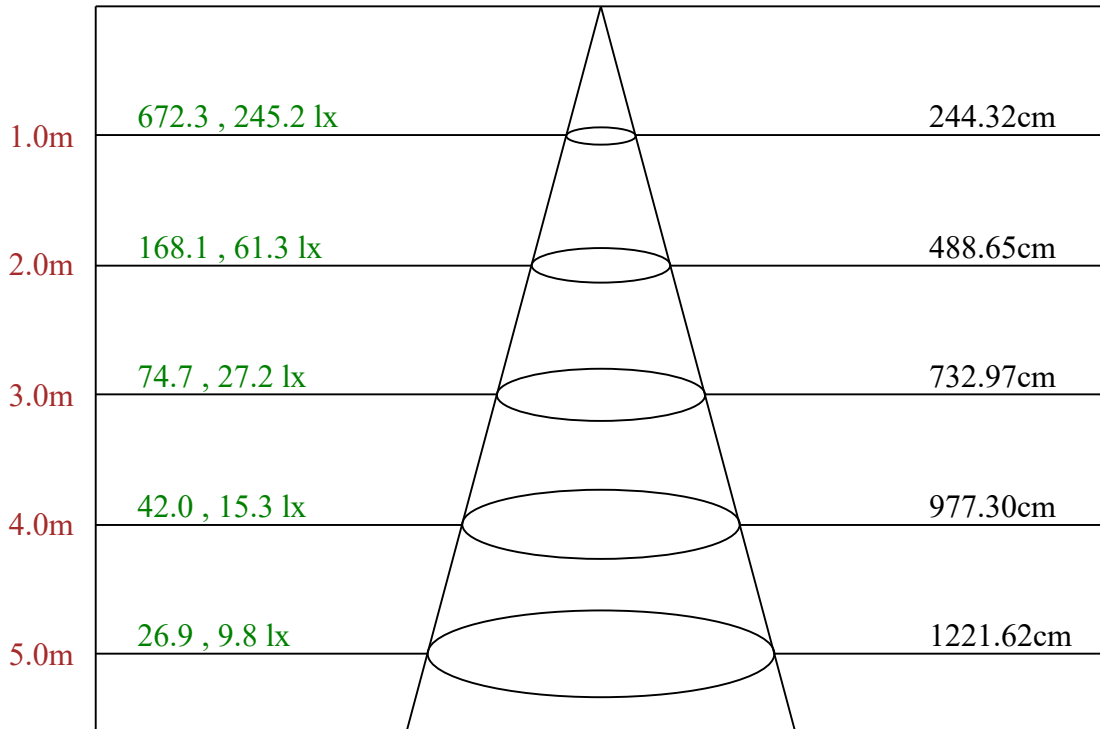
0-10	63.53
10-20	180.24
20-30	267.75
30-40	311.75
40-50	307.25
50-60	260.64
60-70	181.63
70-80	87.87
80-90	17.64
90-100	0.43
100-110	0.07
110-120	0.06
120-130	0.03
130-140	0.28
140-150	0.55
150-160	0.42
160-170	0.37
170-180	0.12



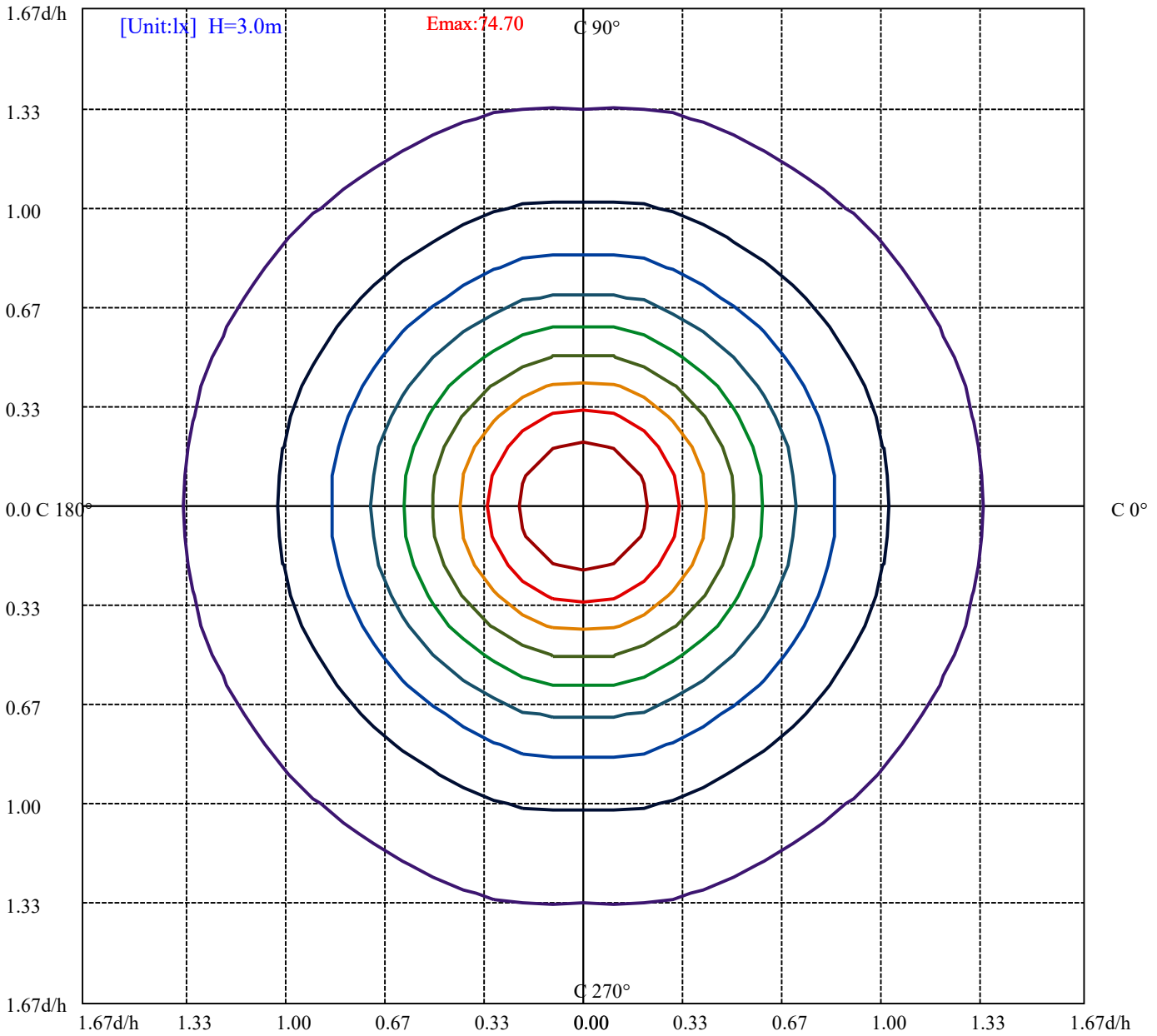
C0(Max): ———  
C0/C180: ———  
C90/C270: ———

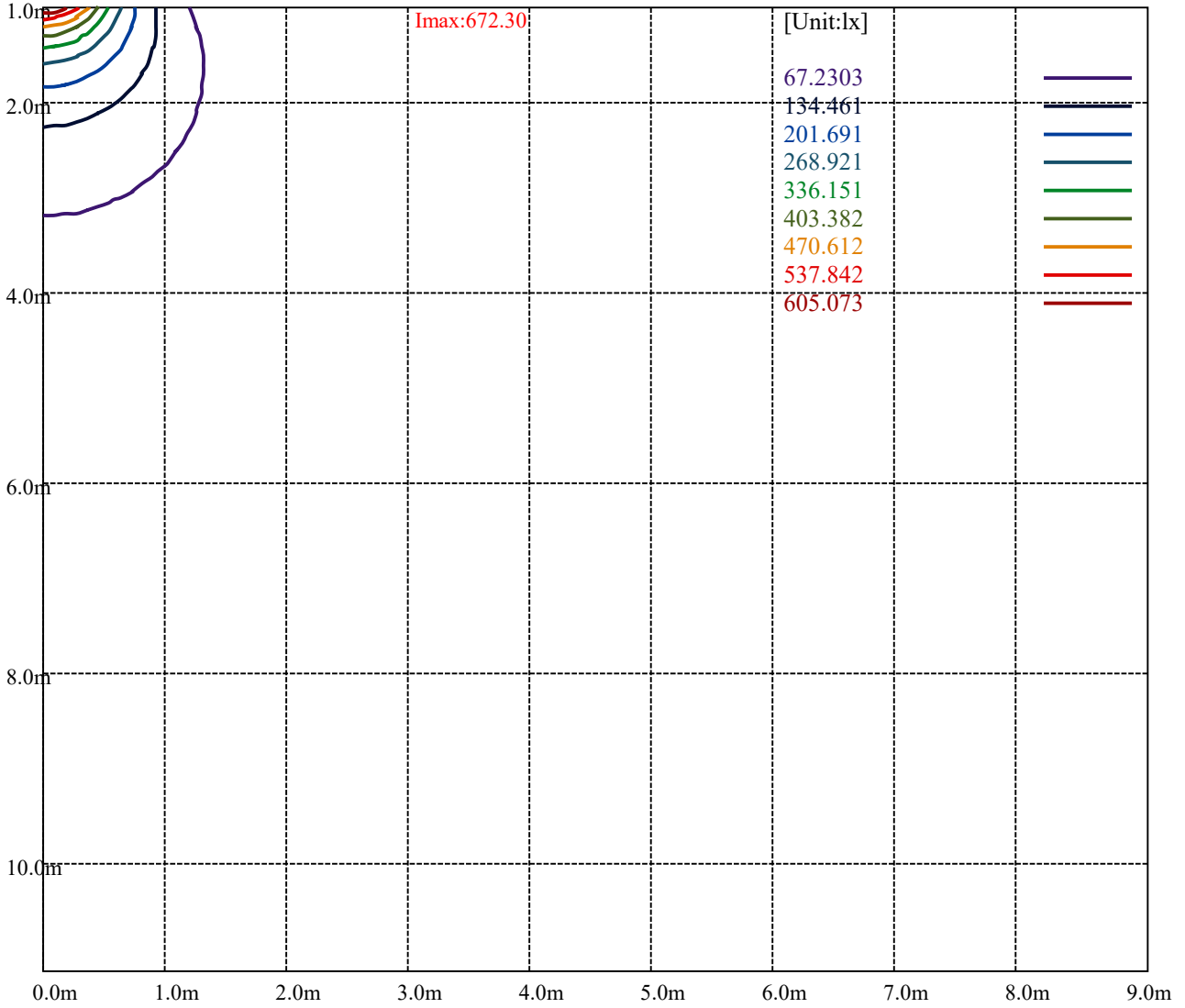
Field angle(10%Imax):C0/180Left:76.3 Right:76.3  
:C90/270Left:76.5 Right:76.5

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 101.39





Lotus LED Lights LFR-6S-RB-14W-5CCT-3500K

Luminance Limiting Curve(no luminous side)

Luminance Table

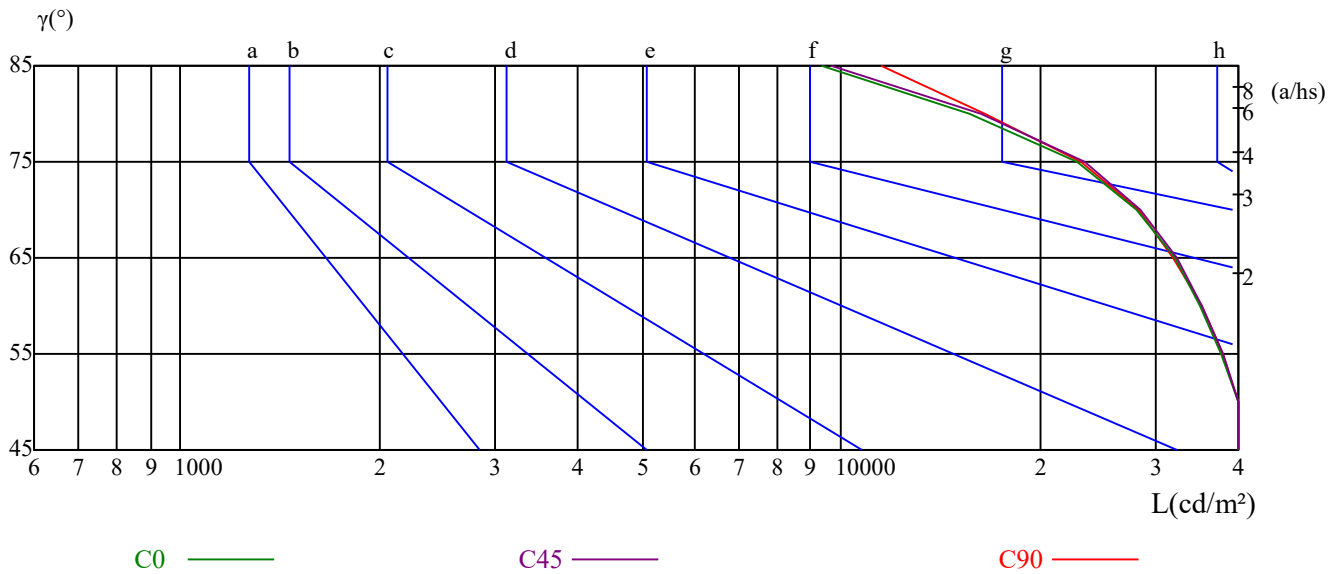
$\gamma$	45	50	55	60	65	70	75	80	85
C0	42057	40086	37702	35035	31971	27991	22823	15640	9349
C45	42247	40196	37980	35328	32287	28492	23435	16281	9699
C90	42147	40075	37804	35148	31860	28329	23107	16547	11500

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
31971	31860	32287	22823	23107	23435	9349	11500	9699

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-6S-RB-14W-5CCT-3500K

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	672.30	668.70	656.53	638.06	611.47	579.03	540.73	496.57	447.00
15.0	672.30	669.37	657.87	638.94	613.03	581.03	542.27	498.56	449.67
30.0	672.30	668.92	658.11	637.83	611.92	580.16	539.83	495.89	447.01
45.0	672.30	668.69	658.33	638.51	613.29	581.10	541.93	496.45	447.83
60.0	672.30	668.71	657.24	637.90	612.27	579.45	541.00	495.13	446.34
75.0	672.30	670.96	661.79	644.59	620.25	589.88	553.03	510.38	462.82
90.0	672.30	668.76	657.22	637.71	611.99	579.17	541.04	495.80	447.46
105.0	672.30	670.96	661.79	644.59	620.25	589.88	553.03	510.38	462.82
120.0	672.30	668.71	657.24	637.90	612.27	579.45	541.00	495.13	446.34
135.0	672.30	668.69	658.33	638.51	613.29	581.10	541.93	496.45	447.83
150.0	672.30	668.92	658.11	637.83	611.92	580.16	539.83	495.89	447.01
165.0	672.30	669.37	657.87	638.94	613.03	581.03	542.27	498.56	449.67
180.0	672.30	668.70	656.53	638.06	611.47	579.03	540.73	496.57	447.00
195.0	672.30	669.37	657.87	638.94	613.03	581.03	542.27	498.56	449.67
210.0	672.30	668.92	658.11	637.83	611.92	580.16	539.83	495.89	447.01
225.0	672.30	668.69	658.33	638.51	613.29	581.10	541.93	496.45	447.83
240.0	672.30	668.71	657.24	637.90	612.27	579.45	541.00	495.13	446.34
255.0	672.30	670.96	661.79	644.59	620.25	589.88	553.03	510.38	462.82
270.0	672.30	668.76	657.22	637.71	611.99	579.17	541.04	495.80	447.46
285.0	672.30	670.96	661.79	644.59	620.25	589.88	553.03	510.38	462.82
300.0	672.30	668.71	657.24	637.90	612.27	579.45	541.00	495.13	446.34
315.0	672.30	668.69	658.33	638.51	613.29	581.10	541.93	496.45	447.83
330.0	672.30	668.92	658.11	637.83	611.92	580.16	539.83	495.89	447.01
345.0	672.30	669.37	657.87	638.94	613.03	581.03	542.27	498.56	449.67
360.0	672.30	668.70	656.53	638.06	611.47	579.03	540.73	496.57	447.00
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	394.73	342.01	287.04	232.51	179.34	127.07	78.40	36.05	10.81
15.0	397.39	343.77	289.92	241.27	181.10	128.83	80.39	37.82	11.70
30.0	394.96	340.89	287.72	239.07	178.89	126.85	78.63	36.27	10.59
45.0	396.52	342.94	289.15	234.46	181.11	129.35	80.51	37.53	11.22
60.0	394.86	340.88	287.37	232.96	179.21	127.27	78.70	36.19	10.55
75.0	411.02	358.08	304.50	250.47	195.54	143.73	93.73	49.29	16.48
90.0	395.58	341.92	287.81	233.27	178.72	128.61	79.38	38.14	13.30
105.0	411.02	358.08	304.50	250.47	195.54	143.73	93.73	49.29	16.48
120.0	394.86	340.88	287.37	232.96	179.21	127.27	78.70	36.19	10.55
135.0	396.52	342.94	289.15	234.46	181.11	129.35	80.51	37.53	11.22
150.0	394.96	340.89	287.72	239.07	178.89	126.85	78.63	36.27	10.59
165.0	397.39	343.77	289.92	241.27	181.10	128.83	80.39	37.82	11.70
180.0	394.73	342.01	287.04	232.51	179.34	127.07	78.40	36.05	10.81
195.0	397.39	343.77	289.92	241.27	181.10	128.83	80.39	37.82	11.70
210.0	394.96	340.89	287.72	239.07	178.89	126.85	78.63	36.27	10.59
225.0	396.52	342.94	289.15	234.46	181.11	129.35	80.51	37.53	11.22
240.0	394.86	340.88	287.37	232.96	179.21	127.27	78.70	36.19	10.55
255.0	411.02	358.08	304.50	250.47	195.54	143.73	93.73	49.29	16.48
270.0	395.58	341.92	287.81	233.27	178.72	128.61	79.38	38.14	13.30
285.0	411.02	358.08	304.50	250.47	195.54	143.73	93.73	49.29	16.48
300.0	394.86	340.88	287.37	232.96	179.21	127.27	78.70	36.19	10.55
315.0	396.52	342.94	289.15	234.46	181.11	129.35	80.51	37.53	11.22
330.0	394.96	340.89	287.72	239.07	178.89	126.85	78.63	36.27	10.59
345.0	397.39	343.77	289.92	241.27	181.10	128.83	80.39	37.82	11.70
360.0	394.73	342.01	287.04	232.51	179.34	127.07	78.40	36.05	10.81

Lotus LED Lights LFR-6S-RB-14W-5CCT-3500K

Appendix Page: 11 Total:12

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	1.35	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00
15.0	1.58	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
30.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	1.35	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
75.0	2.23	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
90.0	1.77	0.00	0.00	0.00	0.44	0.00	0.44	0.00	0.00
105.0	2.23	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
120.0	1.35	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
135.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0	1.58	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
180.0	1.35	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00
195.0	1.58	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
210.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240.0	1.35	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
255.0	2.23	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
270.0	1.77	0.00	0.00	0.00	0.44	0.00	0.44	0.00	0.00
285.0	2.23	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
300.0	1.35	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00
315.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330.0	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345.0	1.58	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
360.0	1.35	0.00	0.00	0.00	0.00	0.00	0.45	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	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.80	1.80
15.0	0.22	0.68	0.90	0.90	0.90	0.90	1.35	1.58	1.80
30.0	0.00	0.68	0.90	0.90	0.90	0.90	1.35	1.35	1.80
45.0	0.22	0.90	0.90	0.90	0.90	0.90	1.35	1.35	1.80
60.0	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.57	1.80
75.0	0.67	0.89	0.89	0.89	0.89	0.89	1.56	1.79	1.79
90.0	0.44	0.44	0.89	0.89	0.89	0.89	1.77	1.33	1.77
105.0	0.67	0.89	0.89	0.89	0.89	0.89	1.56	1.79	1.79
120.0	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.57	1.80
135.0	0.22	0.90	0.90	0.90	0.90	0.90	1.35	1.35	1.80
150.0	0.00	0.68	0.90	0.90	0.90	0.90	1.35	1.35	1.80
165.0	0.22	0.68	0.90	0.90	0.90	0.90	1.35	1.58	1.80
180.0	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.80	1.80
195.0	0.22	0.68	0.90	0.90	0.90	0.90	1.35	1.58	1.80
210.0	0.00	0.68	0.90	0.90	0.90	0.90	1.35	1.35	1.80
225.0	0.22	0.90	0.90	0.90	0.90	0.90	1.35	1.35	1.80
240.0	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.57	1.80
255.0	0.67	0.89	0.89	0.89	0.89	0.89	1.56	1.79	1.79
270.0	0.44	0.44	0.89	0.89	0.89	0.89	1.77	1.33	1.77
285.0	0.67	0.89	0.89	0.89	0.89	0.89	1.56	1.79	1.79
300.0	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.57	1.80
315.0	0.22	0.90	0.90	0.90	0.90	0.90	1.35	1.35	1.80
330.0	0.00	0.68	0.90	0.90	0.90	0.90	1.35	1.35	1.80
345.0	0.22	0.68	0.90	0.90	0.90	0.90	1.35	1.58	1.80
360.0	0.45	0.90	0.90	0.90	0.90	0.90	1.35	1.80	1.80

Intensity data(cd)

C/γ(°)	180.0
0.0	0.96
15.0	0.96
30.0	0.96
45.0	0.96
60.0	0.96
75.0	0.96
90.0	0.96
105.0	0.96
120.0	0.96
135.0	0.96
150.0	0.96
165.0	0.96
180.0	0.96
195.0	0.96
210.0	0.96
225.0	0.96
240.0	0.96
255.0	0.96
270.0	0.96
285.0	0.96
300.0	0.96
315.0	0.96
330.0	0.96
345.0	0.96
360.0	0.96