
Light Blue USA-Rayhil

Client:

LumCAT: LB72270

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.264

Lamp flux(lm): 2068.2

Power (W): 29.290

Number of Lamps: 1

PF: 0.925

Length(mm): -440

Width(mm): -440

Phm Type: C

Height(mm): 80

Photometric Results

Lumens(lm): 2068.16, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 70.61

Central intensity(cd): 461.376, Maximum intensity(cd): 461.601

Angle of maximum intensity: C=75.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=132.6

[C90/270]Total=131.8

Field angle(10%Imax): [C0/180]Total=263.2

[C90/270]Total=261.6

Maximum s/h(1/2): C0_180=1.34 C90_270=1.33

Maximum s/h(1/4): C0_180=1.47 C90_270=1.47

Up flux rate of lamp(%): 17.93%

Down flux rate of lamp(%): 82.07%

Up flux rate of LUM(%): 17.93%

Down flux rate of LUM(%): 82.07%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 55.791%

Light Blue USA-Rayhil LB72270

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	461.376	0.000	0	0.00%	0.00%
5.0	461.302	11.030	11.03	0.53%	0.53%
10.0	459.505	32.940	43.971	1.59%	2.13%
15.0	454.310	54.207	98.177	2.62%	4.75%
20.0	445.186	74.131	172.308	3.58%	8.33%
25.0	432.104	92.012	264.32	4.45%	12.78%
30.0	415.243	107.232	371.552	5.18%	17.97%
35.0	395.131	119.333	490.886	5.77%	23.74%
40.0	373.937	128.313	619.199	6.20%	29.94%
45.0	349.186	133.892	753.091	6.47%	36.41%
50.0	323.279	135.881	888.972	6.57%	42.98%
55.0	295.540	134.552	1023.524	6.51%	49.49%
60.0	268.252	130.319	1153.843	6.30%	55.79%
65.0	237.407	122.927	1276.77	5.94%	61.73%
70.0	206.045	112.285	1389.055	5.43%	67.16%
75.0	173.746	99.271	1488.326	4.80%	71.96%
80.0	142.496	84.618	1572.943	4.09%	76.06%
85.0	110.569	68.764	1641.707	3.32%	79.38%
90.0	92.589	55.626	1697.333	2.69%	82.07%
95.0	91.055	50.283	1747.616	2.43%	84.50%
100.0	90.308	49.281	1796.897	2.38%	86.88%
105.0	88.551	47.858	1844.755	2.31%	89.20%
110.0	85.075	45.383	1890.138	2.19%	91.39%
115.0	79.693	41.720	1931.858	2.02%	93.41%
120.0	72.289	36.947	1968.805	1.79%	95.20%
125.0	61.151	30.844	1999.649	1.49%	96.69%
130.0	49.227	24.000	2023.649	1.16%	97.85%
135.0	38.126	17.651	2041.3	0.85%	98.70%
140.0	26.983	12.055	2053.355	0.58%	99.28%
145.0	16.558	7.265	2060.62	0.35%	99.64%
150.0	8.411	3.677	2064.297	0.18%	99.81%
155.0	4.822	1.675	2065.971	0.08%	99.89%
160.0	3.774	0.902	2066.873	0.04%	99.94%
165.0	3.589	0.607	2067.48	0.03%	99.97%
170.0	3.364	0.412	2067.892	0.02%	99.99%
175.0	2.692	0.217	2068.109	0.01%	100.00%
180.0	1.346	0.048	2068.157	0.00%	100.00%

Equipment: LC-I-902 GMS-2000
Temperature($^{\circ}$ C): 25.2

Date: 2025/2/19
Humidity(%): 50.6%

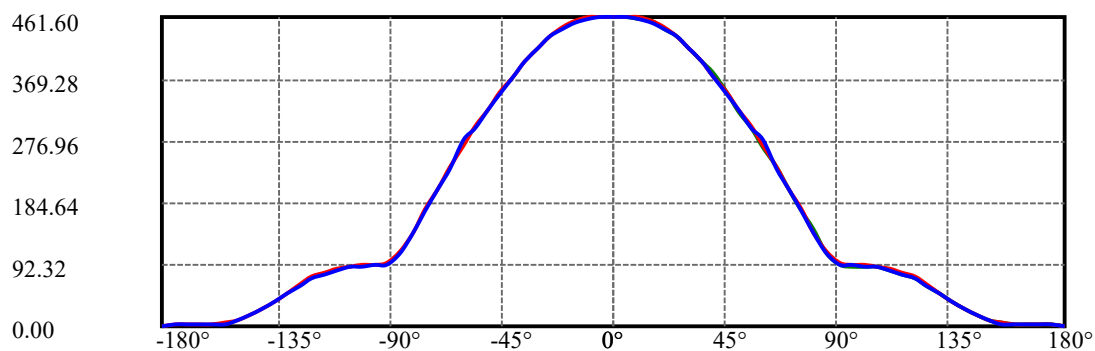
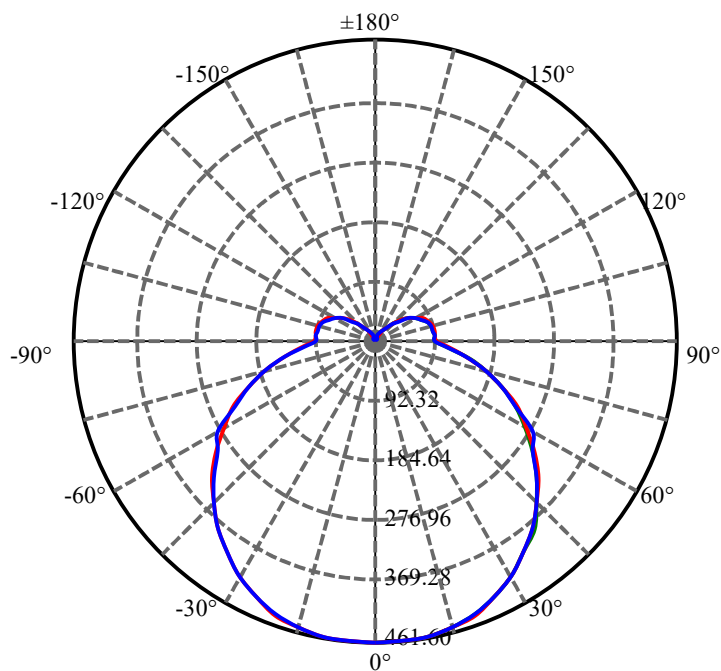
Operator: JUN WANG
Distance(m): 29.95

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	371.55	17.97%	17.97%
0-40	619.20	29.94%	29.94%
0-60	1153.84	55.79%	55.79%
0-90	1697.33	82.07%	82.07%
0-120	1968.80	95.20%	95.20%
0-180	2068.16	100.00%	100.00%
60-90	543.49	26.28%	26.28%
90-120	271.47	13.13%	13.13%
90-130	326.32	15.78%	15.78%
90-150	366.96	17.74%	17.74%
90-180	370.78	17.93%	17.93%
0-86.15	1654.53	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	43.97
10-20	128.34
20-30	199.24
30-40	247.65
40-50	269.77
50-60	264.87
60-70	235.21
70-80	183.89
80-90	124.39
90-100	99.56
100-110	93.24
110-120	78.67
120-130	54.84
130-140	29.71
140-150	10.94
150-160	2.58
160-170	1.02
170-180	0.22

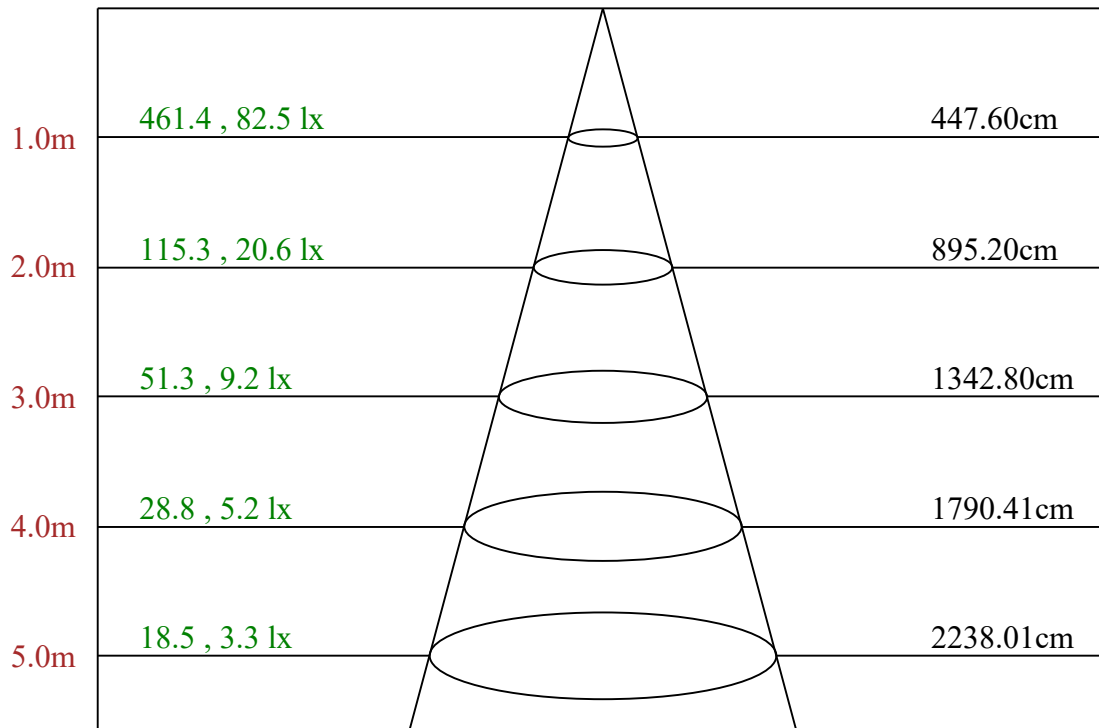
C75(Max): —————C0/C180: —————C90/C270: —————

Field angle(10%Imax):C0/180Left:131.6 Right:131.6

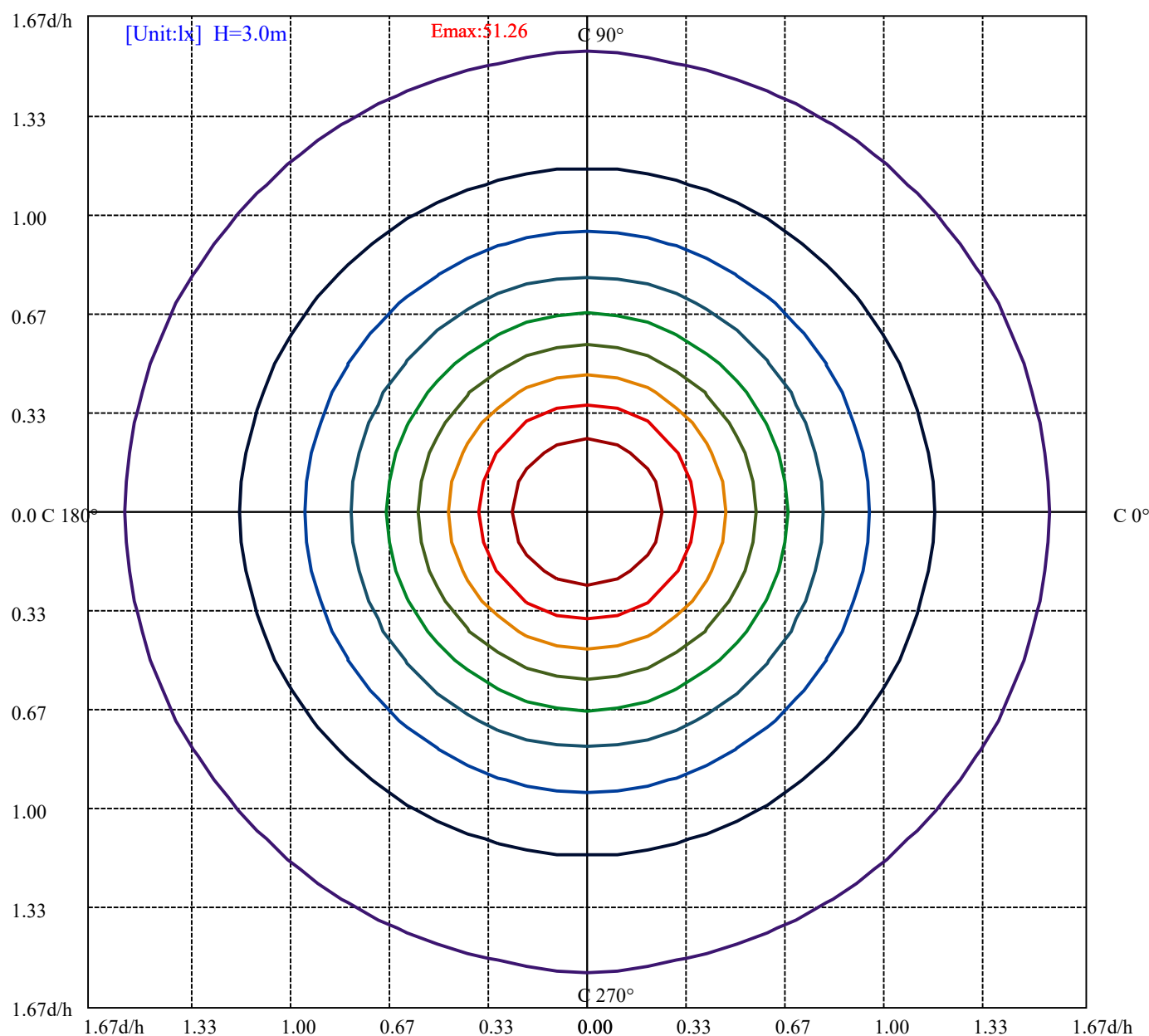
:C90/270Left:130.8 Right:130.8

Beam Angle(50%Imax):C0/180Left:66.3 Right:66.3

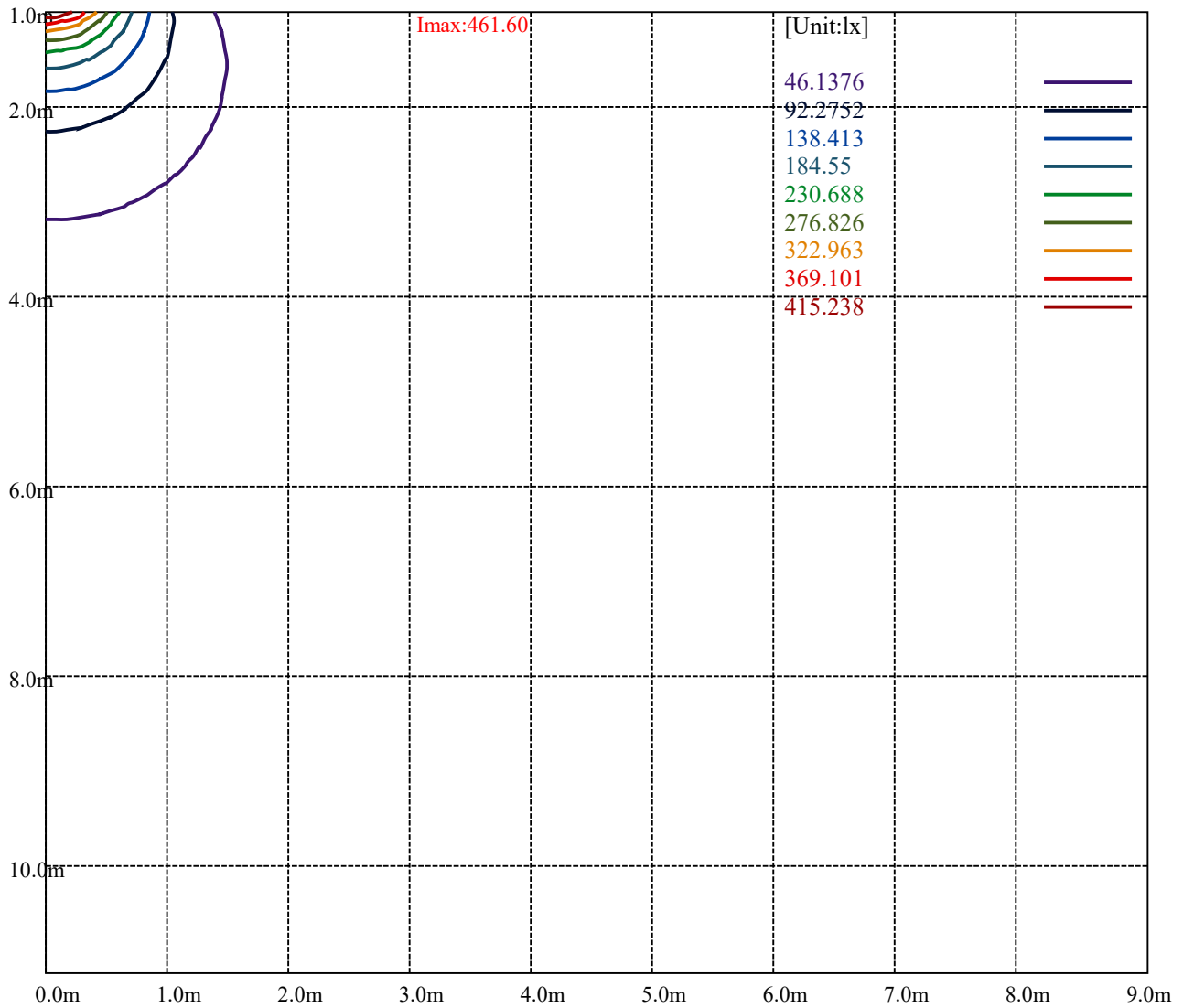
:C90/270Left:65.9 Right:65.9



Max , Ave Beam angle of C75 plane 131.85



(10%Emax) 5.1264	—
(20%Emax) 10.2528	—
(30%Emax) 15.37922	—
(40%Emax) 20.50556	—
(50%Emax) 25.632	—
(60%Emax) 30.75844	—
(70%Emax) 35.88478	—
(80%Emax) 41.01122	—
(90%Emax) 46.13756	—



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Luminance Limiting Curve(no luminous side)

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Luminance Table

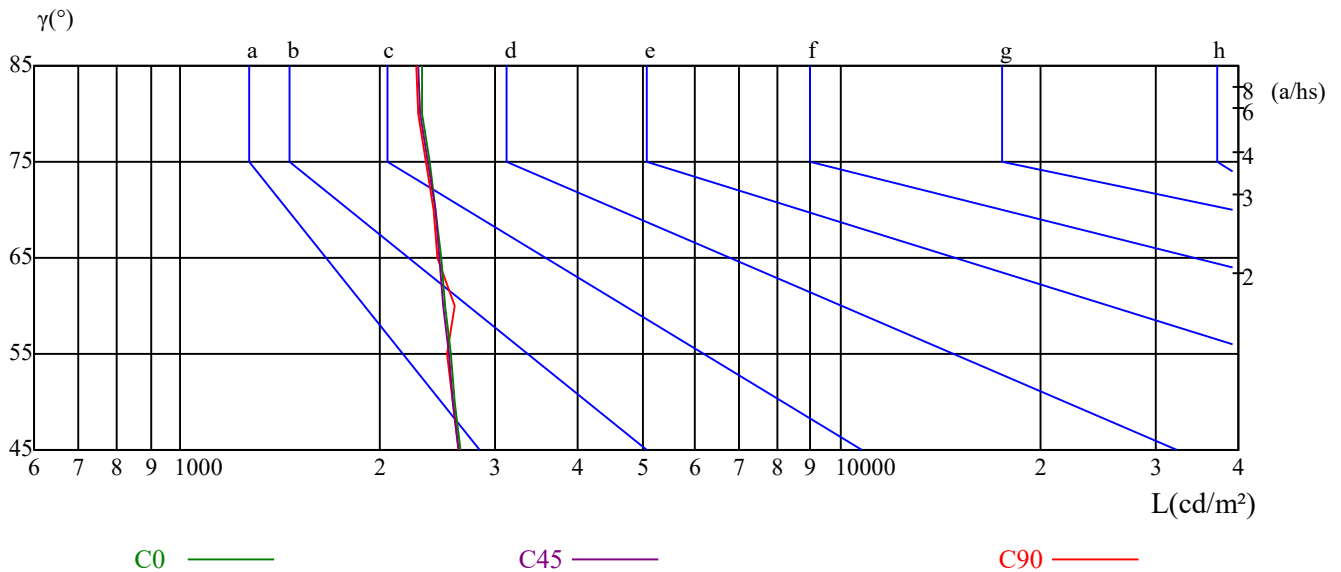
γ	45	50	55	60	65	70	75	80	85
C0	2648	2606	2560	2523	2486	2430	2384	2320	2328
C45	2639	2589	2543	2505	2466	2426	2362	2311	2285
C90	2629	2589	2538	2605	2455	2415	2354	2290	2271

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3721	3674	3691	4444	4388	4402	8487	8280	8330

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



RHOC	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	1.15	1.15	1.15	1.10	1.10	1.10	1.01	1.01	1.01	0.93	0.93	0.93	0.86	0.86	0.86	0.82
1	0.97	0.91	0.87	0.93	0.88	0.84	0.85	0.81	0.78	0.78	0.75	0.72	0.71	0.69	0.67	0.64
2	0.83	0.75	0.69	0.79	0.72	0.67	0.73	0.67	0.62	0.67	0.62	0.58	0.61	0.58	0.54	0.51
3	0.72	0.63	0.56	0.69	0.61	0.54	0.63	0.57	0.51	0.58	0.53	0.48	0.53	0.49	0.45	0.42
4	0.63	0.54	0.47	0.61	0.52	0.46	0.56	0.49	0.43	0.51	0.45	0.40	0.47	0.42	0.38	0.35
5	0.56	0.47	0.40	0.54	0.45	0.39	0.50	0.42	0.37	0.46	0.40	0.35	0.42	0.37	0.33	0.30
6	0.50	0.41	0.34	0.48	0.40	0.33	0.45	0.37	0.32	0.41	0.35	0.30	0.38	0.33	0.28	0.26
7	0.45	0.36	0.30	0.44	0.35	0.29	0.40	0.33	0.28	0.37	0.31	0.26	0.35	0.29	0.25	0.23
8	0.41	0.33	0.27	0.40	0.32	0.26	0.37	0.30	0.25	0.34	0.28	0.24	0.32	0.26	0.22	0.20
9	0.38	0.29	0.24	0.36	0.29	0.23	0.34	0.27	0.22	0.32	0.25	0.21	0.29	0.24	0.20	0.18
10	0.35	0.27	0.21	0.33	0.26	0.21	0.31	0.25	0.20	0.29	0.23	0.19	0.27	0.22	0.18	0.16

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Intensity data(cd)										Appendix Page: 10 Total:12	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	461.38	460.49	460.49	455.18	446.32	433.92	417.98	397.62	377.25		
15.0	461.38	460.49	459.60	455.15	447.15	433.82	418.71	399.15	377.81		
30.0	461.38	460.48	460.48	456.02	447.99	435.50	419.43	400.69	379.27		
45.0	461.38	461.38	459.59	456.01	447.96	436.34	421.14	401.47	380.01		
60.0	461.38	461.38	460.48	456.89	449.71	437.14	421.88	403.03	381.49		
75.0	461.38	461.38	460.48	457.78	449.68	437.99	422.70	403.82	382.23		
90.0	461.38	461.38	460.48	457.78	449.68	437.99	422.70	402.92	382.23		
105.0	461.38	462.28	461.38	457.77	450.56	438.85	423.53	403.70	382.98		
120.0	461.38	462.28	461.38	457.77	450.56	438.85	423.53	403.70	382.08		
135.0	461.38	462.28	461.38	457.77	450.56	437.95	422.63	403.70	382.98		
150.0	461.38	462.28	462.28	458.67	441.51	439.71	424.36	404.49	382.82		
165.0	461.38	462.28	461.38	458.67	449.64	438.80	423.45	403.59	379.21		
180.0	461.38	462.26	460.49	454.29	445.44	431.27	413.56	394.96	371.05		
195.0	461.38	461.38	459.60	453.38	444.49	431.15	412.48	392.04	369.81		
210.0	461.38	461.38	458.70	453.34	443.53	429.25	412.29	390.88	370.35		
225.0	461.38	461.38	458.69	452.43	442.60	428.29	410.41	388.95	367.49		
240.0	461.38	461.38	458.68	452.40	442.53	428.16	409.31	389.57	367.13		
255.0	461.38	461.38	458.68	451.48	440.69	426.30	409.21	387.63	365.14		
270.0	461.38	460.48	457.78	450.58	438.89	425.40	407.41	386.73	363.34		
285.0	461.38	461.38	458.67	451.46	439.75	425.33	406.41	384.78	380.27		
300.0	461.38	460.47	457.77	450.56	447.86	424.43	405.51	383.88	362.25		
315.0	461.38	460.47	455.97	448.76	437.95	423.53	405.51	383.88	361.35		
330.0	461.38	460.47	456.86	449.64	439.71	424.36	405.40	384.63	362.06		
345.0	461.38	460.47	456.86	449.64	439.71	426.16	406.30	387.34	363.86		
360.0	461.38	460.49	460.49	455.18	446.32	433.92	417.98	397.62	377.25		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	353.34	328.54	301.09	272.75	243.53	210.76	179.77	145.23	116.01		
15.0	354.70	328.92	303.14	274.69	245.36	211.58	181.35	148.46	116.46		
30.0	356.07	331.08	303.42	275.75	246.31	215.96	182.94	151.71	118.69		
45.0	357.66	331.73	304.01	277.18	248.57	217.28	184.19	152.00	118.92		
60.0	358.15	333.02	304.29	278.26	248.64	218.12	184.91	153.49	119.38		
75.0	358.85	332.77	305.79	277.90	248.23	218.55	185.27	152.89	119.62		
90.0	358.85	333.67	304.89	277.90	248.23	217.65	184.37	151.09	119.62		
105.0	359.55	333.42	305.48	277.55	247.81	217.17	185.63	151.39	118.95		
120.0	359.55	332.52	306.38	277.55	247.81	217.17	183.83	153.19	118.05		
135.0	359.55	333.42	305.48	277.55	247.81	218.07	182.93	151.39	118.95		
150.0	359.35	334.97	306.08	278.99	249.20	217.60	185.09	151.69	118.28		
165.0	357.54	334.07	306.08	278.09	248.29	217.60	185.99	153.49	120.08		
180.0	348.02	321.46	293.12	264.78	234.67	202.79	170.03	138.15	108.92		
195.0	344.92	319.14	291.58	264.02	234.69	202.69	170.68	138.68	107.57		
210.0	343.58	318.59	291.82	262.37	232.92	201.68	168.67	139.22	107.09		
225.0	343.35	316.53	289.70	260.19	231.58	201.18	168.10	135.91	106.40		
240.0	342.89	315.96	288.14	260.31	229.79	197.48	167.85	133.75	105.02		
255.0	339.96	312.98	285.10	256.32	227.54	196.06	163.69	156.49	103.43		
270.0	337.26	312.08	284.20	277.01	223.94	193.36	160.99	128.61	99.83		
285.0	337.92	310.89	282.95	253.22	222.58	190.14	158.60	127.96	99.12		
300.0	335.22	309.09	282.05	253.22	221.68	190.14	157.70	126.16	97.32		
315.0	337.02	309.99	281.15	252.31	220.78	189.24	157.70	125.26	97.32		
330.0	337.68	311.50	282.60	254.61	223.01	191.41	158.01	126.40	99.32		
345.0	339.49	312.40	284.41	255.52	224.82	191.41	161.62	127.31	99.32		
360.0	353.34	328.54	301.09	272.75	243.53	210.76	179.77	145.23	116.01		

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Intensity data(cd)										Appendix Page: 11 Total:12	
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0		
0.0	91.21	89.44	88.56	87.67	84.13	78.81	72.62	62.87	50.48		
15.0	91.56	89.79	88.90	88.01	84.45	79.12	72.90	64.01	51.56		
30.0	92.81	90.13	89.24	88.35	85.67	81.21	74.96	64.25	51.76		
45.0	92.99	90.31	89.41	88.52	84.94	81.37	73.32	64.38	53.65		
60.0	93.35	89.76	88.86	87.07	85.27	79.89	73.60	64.63	53.86		
75.0	93.53	89.04	89.04	87.24	84.54	79.14	73.75	63.86	53.96		
90.0	92.63	89.04	87.24	87.24	83.64	79.14	72.85	63.86	51.26		
105.0	91.91	87.41	87.41	86.51	83.80	79.30	72.09	63.98	51.36		
120.0	92.82	87.41	87.41	86.51	84.71	79.30	72.09	63.98	51.36		
135.0	91.91	89.21	89.21	87.41	84.71	80.20	72.99	63.98	51.36		
150.0	93.00	90.29	90.29	89.39	85.77	82.16	75.84	65.01	51.46		
165.0	94.80	92.09	92.09	90.29	86.68	83.07	76.75	65.91	54.17		
180.0	95.64	95.64	94.75	92.10	88.56	82.36	74.39	61.99	48.71		
195.0	96.90	96.90	96.01	93.34	89.79	83.56	74.67	62.23	49.78		
210.0	97.27	97.27	96.38	93.70	89.24	82.99	74.96	62.47	49.97		
225.0	96.57	96.57	95.67	92.99	89.41	83.15	81.37	61.70	49.18		
240.0	96.05	96.05	94.25	91.56	87.07	81.68	71.81	59.24	48.47		
255.0	93.53	93.53	92.63	90.84	85.44	79.14	71.05	58.46	46.77		
270.0	91.74	91.74	90.84	89.04	83.64	77.35	68.35	55.76	44.07		
285.0	90.11	90.11	89.21	86.51	82.00	75.69	66.68	54.97	43.25		
300.0	89.21	89.21	87.41	85.61	82.00	75.69	65.78	54.07	43.25		
315.0	87.41	87.41	87.41	84.71	82.00	75.69	66.68	54.97	43.25		
330.0	87.58	87.58	87.58	84.87	82.16	75.84	66.81	55.08	43.34		
345.0	87.58	89.39	87.58	85.77	82.16	76.75	68.62	55.98	45.14		
360.0	91.21	89.44	88.56	87.67	84.13	78.81	72.62	62.87	50.48		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	40.74	30.11	19.48	9.74	5.31	4.43	4.43	4.43	2.66		
15.0	40.89	30.23	19.56	9.78	5.33	5.33	4.44	4.44	2.67		
30.0	41.94	30.34	20.53	11.60	5.35	5.35	4.46	4.46	2.68		
45.0	42.02	32.19	21.46	11.62	5.36	5.36	4.47	2.68	2.68		
60.0	43.09	32.31	21.54	12.57	6.28	4.49	4.49	4.49	2.69		
75.0	42.27	30.58	20.69	12.59	5.40	4.50	4.50	4.50	2.70		
90.0	42.27	30.58	20.69	11.69	5.40	4.50	4.50	4.50	2.70		
105.0	41.45	29.74	19.82	11.71	5.41	4.51	4.51	4.51	2.70		
120.0	40.55	29.74	18.92	9.91	5.41	4.51	4.51	2.70	2.70		
135.0	40.55	28.84	18.92	9.91	5.41	4.51	4.51	4.51	2.70		
150.0	41.53	28.89	18.96	9.93	5.42	4.51	4.51	2.71	2.71		
165.0	41.53	29.80	18.96	9.93	5.42	4.51	4.51	4.51	2.71		
180.0	36.31	23.91	14.17	6.20	4.43	2.66	2.66	2.66	2.66		
195.0	37.34	25.78	14.22	6.22	4.44	4.44	2.67	2.67	2.67		
210.0	37.48	34.80	14.28	6.25	4.46	2.68	2.68	2.68	2.68		
225.0	36.66	24.14	13.41	6.26	4.47	2.68	2.68	2.68	2.68		
240.0	35.90	23.34	13.46	6.28	4.49	2.69	2.69	2.69	2.69		
255.0	34.18	22.48	12.59	5.40	4.50	2.70	2.70	2.70	2.70		
270.0	33.28	21.58	12.59	5.40	2.70	2.70	2.70	2.70	2.70		
285.0	32.44	20.73	12.62	5.41	4.51	2.70	2.70	2.70	2.70		
300.0	32.44	21.63	11.71	5.41	4.51	2.70	2.70	2.70	2.70		
315.0	32.44	21.63	12.62	5.41	4.51	2.70	2.70	2.70	2.70		
330.0	33.41	21.67	12.64	6.32	2.71	2.71	2.71	2.71	2.71		
345.0	34.31	22.57	13.54	6.32	4.51	2.71	2.71	2.71	2.71		
360.0	40.74	30.11	19.48	9.74	5.31	4.43	4.43	4.43	2.66		

Intensity data(cd)

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C/ γ (°)	180.0
0.0	2.66
15.0	2.67
30.0	2.68
45.0	2.68
60.0	2.69
75.0	2.70
90.0	2.70
105.0	2.70
120.0	2.70
135.0	2.70
150.0	2.71
165.0	2.71
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	0.00
360.0	2.66