
Light Blue USA-Rayhil

Client:

LumCAT: INV-9-CCT-120-**-5000K

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.128

Lamp flux(lm): 774.4

Power (W): 14.520

Number of Lamps: 1

PF: 0.948

Length(mm): -210

Width(mm): -210

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 774.37, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 53.33

Central intensity(cd): 277.753, Maximum intensity(cd): 277.753

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=110.2

[C90/270]Total=110.0

Field angle(10%Imax): [C0/180]Total=158.2

[C90/270]Total=158.2

Maximum s/h(1/2): C0_180=1.25 C90_270=1.27

Maximum s/h(1/4): C0_180=1.37 C90_270=1.37

Up flux rate of lamp(%): 0.84%

Down flux rate of lamp(%): 99.16%

Up flux rate of LUM(%): 0.84%

Down flux rate of LUM(%): 99.16%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.693%

Light Blue USA-Rayhil INV-9-CCT-120-**-5000K

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	277.752	0.000	0	0.00%	0.00%
5.0	276.493	6.626	6.626	0.86%	0.86%
10.0	272.755	19.648	26.274	2.54%	3.39%
15.0	266.688	31.999	58.274	4.13%	7.53%
20.0	258.066	43.247	101.521	5.58%	13.11%
25.0	247.344	53.008	154.529	6.85%	19.96%
30.0	234.449	60.971	215.5	7.87%	27.83%
35.0	219.302	66.818	282.318	8.63%	36.46%
40.0	201.790	70.256	352.574	9.07%	45.53%
45.0	182.256	71.109	423.684	9.18%	54.71%
50.0	160.584	69.276	492.959	8.95%	63.66%
55.0	139.181	65.179	558.139	8.42%	72.08%
60.0	115.984	58.981	617.119	7.62%	79.69%
65.0	92.864	50.771	667.891	6.56%	86.25%
70.0	69.056	40.999	708.89	5.29%	91.54%
75.0	46.317	30.157	739.047	3.89%	95.44%
80.0	24.609	18.978	758.024	2.45%	97.89%
85.0	5.456	8.169	766.194	1.05%	98.94%
90.0	0.763	1.703	767.897	0.22%	99.16%
95.0	0.381	0.313	768.21	0.04%	99.20%
100.0	0.267	0.176	768.386	0.02%	99.23%
105.0	0.420	0.184	768.57	0.02%	99.25%
110.0	0.458	0.229	768.799	0.03%	99.28%
115.0	0.687	0.290	769.089	0.04%	99.32%
120.0	0.916	0.390	769.479	0.05%	99.37%
125.0	0.992	0.441	769.92	0.06%	99.42%
130.0	1.183	0.473	770.393	0.06%	99.49%
135.0	1.183	0.478	770.871	0.06%	99.55%
140.0	1.603	0.516	771.387	0.07%	99.61%
145.0	1.832	0.573	771.96	0.07%	99.69%
150.0	1.984	0.562	772.522	0.07%	99.76%
155.0	2.404	0.555	773.077	0.07%	99.83%
160.0	2.404	0.504	773.581	0.07%	99.90%
165.0	2.213	0.380	773.962	0.05%	99.95%
170.0	1.907	0.244	774.206	0.03%	99.98%
175.0	1.831	0.134	774.34	0.02%	100.00%
180.0	0.916	0.033	774.373	0.00%	100.00%

Equipment: LC-I-902 GMS-2000
Temperature($^{\circ}\text{C}$): 24.8

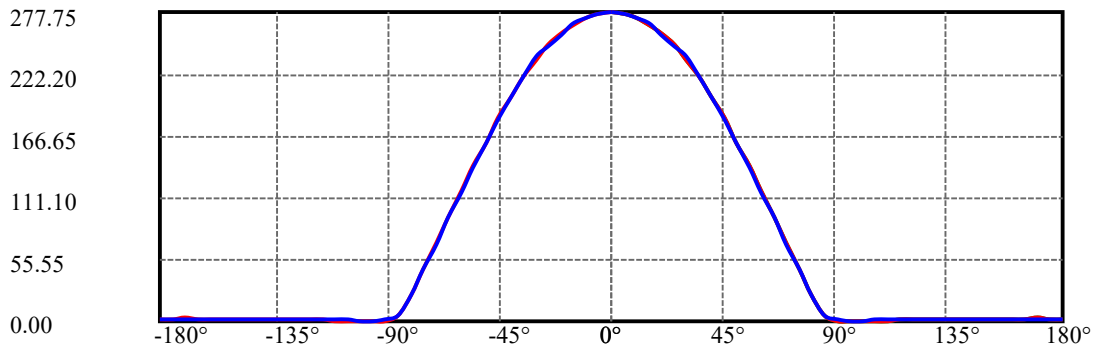
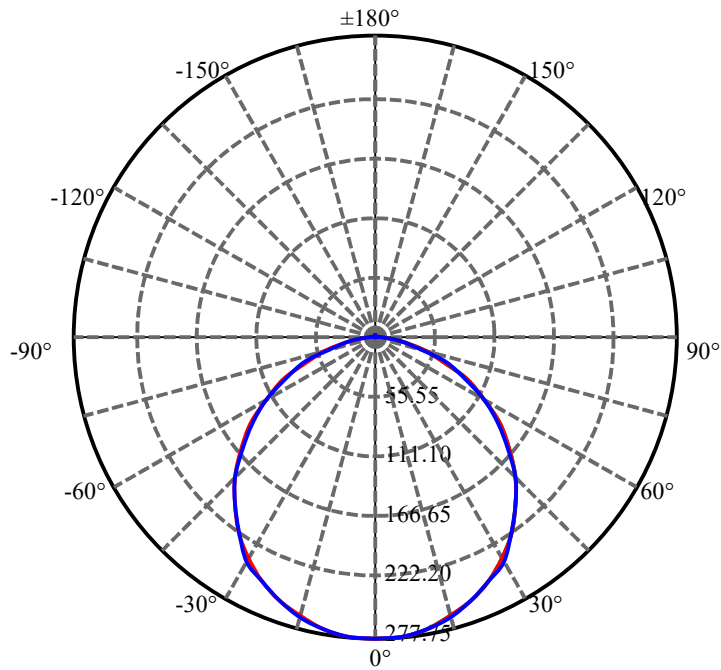
Date: 2024/12/18
Humidity(%): 60.2%

Operator: JUN WANG
Distance(m): 30.26

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	215.50	27.83%	27.83%
0-40	352.57	45.53%	45.53%
0-60	617.12	79.69%	79.69%
0-90	767.90	99.16%	99.16%
0-120	769.48	99.37%	99.37%
0-180	774.37	100.00%	100.00%
60-90	150.78	19.47%	19.47%
90-120	1.58	0.20%	0.20%
90-130	2.50	0.32%	0.32%
90-150	4.62	0.60%	0.60%
90-180	6.44	0.83%	0.83%
0-60.23	619.50	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	26.27
10-20	75.25
20-30	113.98
30-40	137.07
40-50	140.39
50-60	124.16
60-70	91.77
70-80	49.13
80-90	9.87
90-100	0.49
100-110	0.41
110-120	0.68
120-130	0.91
130-140	0.99
140-150	1.13
150-160	1.06
160-170	0.62
170-180	0.13



C0(Max): —————

C0/C180: —————

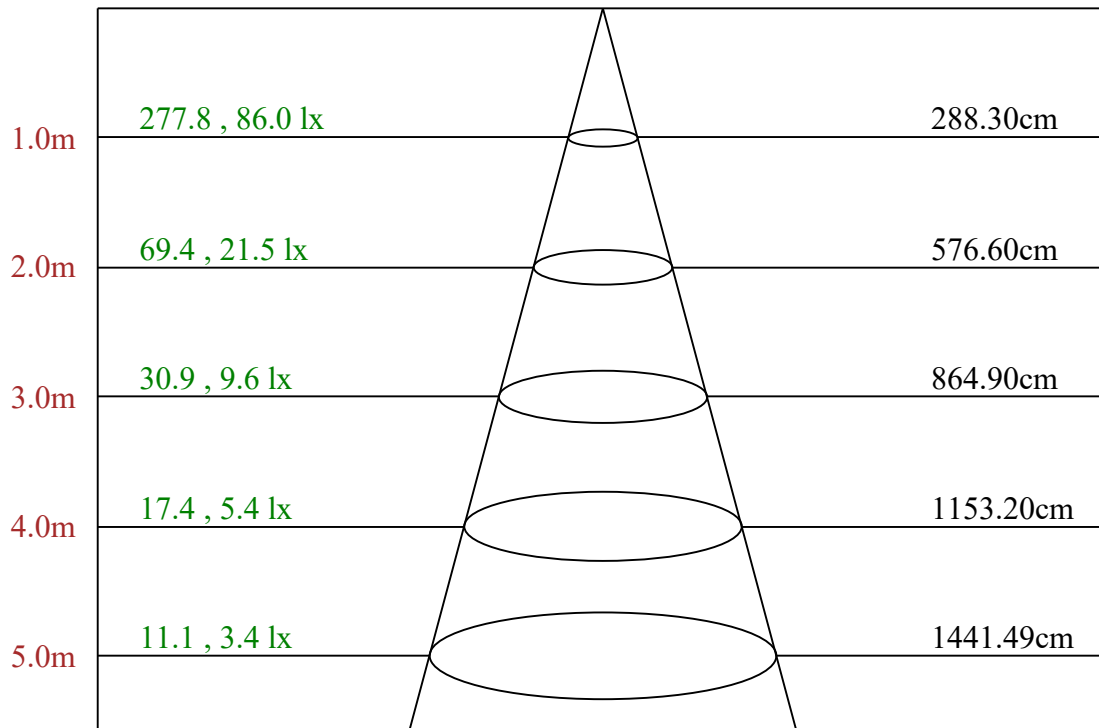
C90/C270: —————

Field angle(10%Imax):C0/180Left:79.1 Right:79.1

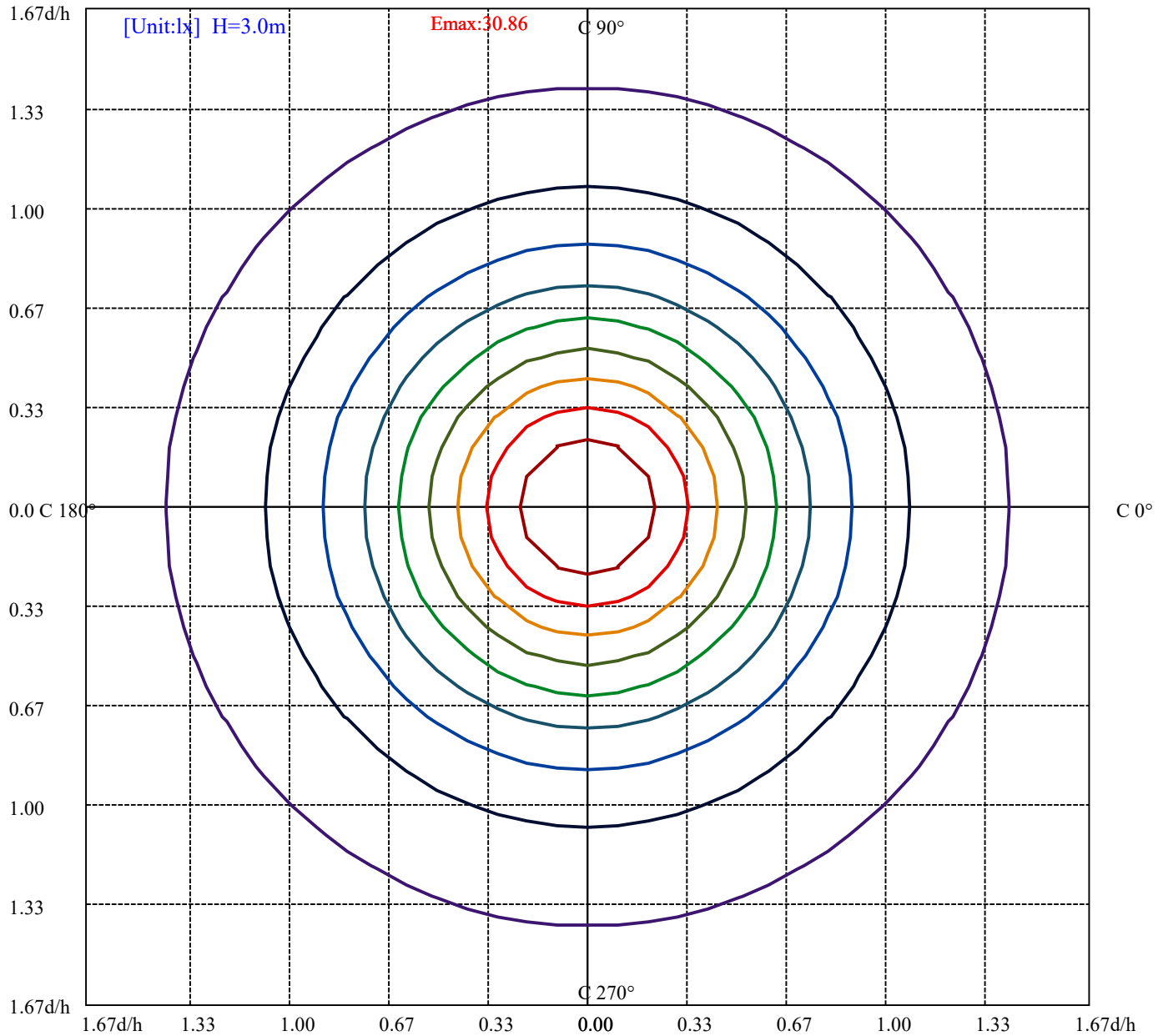
:C90/270Left:79.1 Right:79.1

Beam Angle(50%Imax):C0/180Left:55.1 Right:55.1

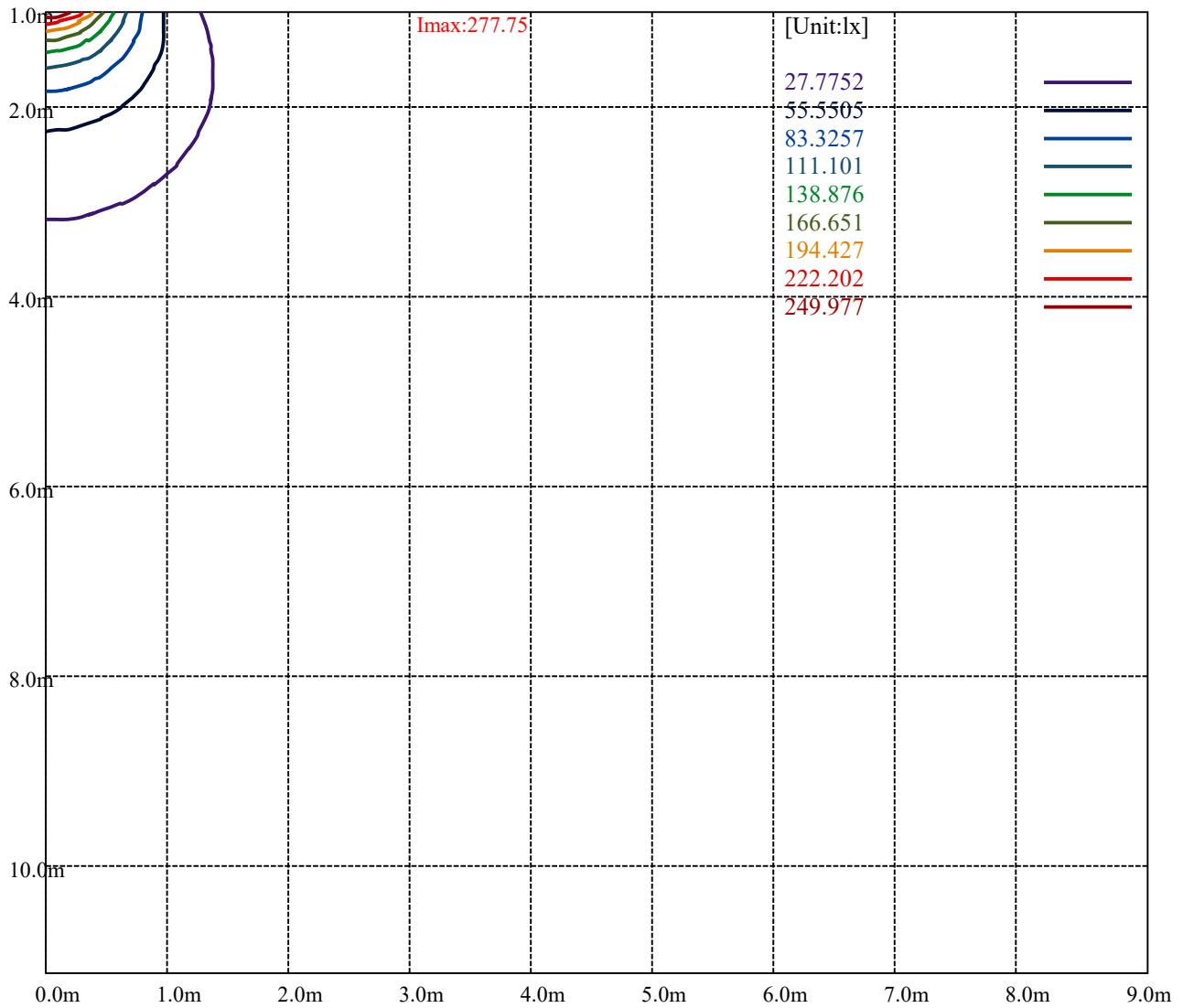
:C90/270Left:55.0 Right:55.0



Max , Ave Beam angle of C0 plane 110.50



(10%Emax) 3.086133	—
(20%Emax) 6.172277	—
(30%Emax) 9.258411	—
(40%Emax) 12.34455	—
(50%Emax) 15.43067	—
(60%Emax) 18.51678	—
(70%Emax) 21.603	—
(80%Emax) 24.68911	—
(90%Emax) 27.77522	—



Luminance Table

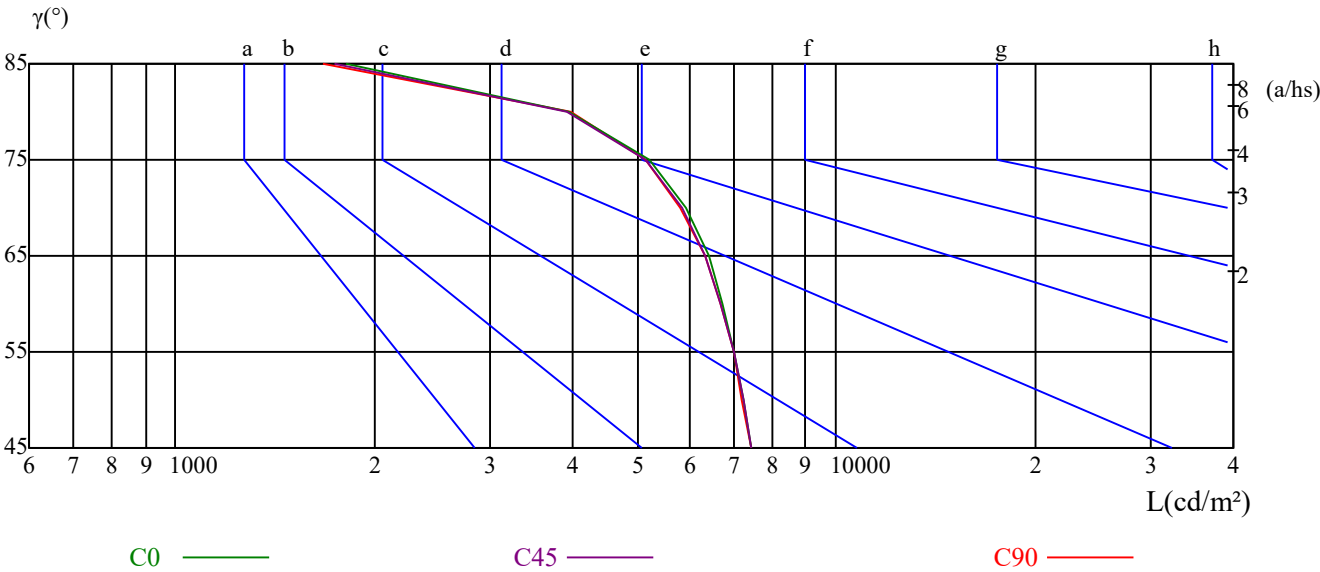
γ	45	50	55	60	65	70	75	80	85
C0	7437	7240	7013	6731	6408	5919	5232	3937	1810
C45	7458	7257	7014	6696	6325	5842	5164	3925	1746
C90	7430	7205	6990	6696	6325	5804	5164	3963	1670

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6408	6325	6325	5232	5164	5164	1810	1670	1746

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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.99
1	1.04	1.00	0.96	1.02	0.98	0.95	0.97	0.94	0.92	0.93	0.91	0.89	0.90	0.88	0.86	0.84
2	0.91	0.84	0.79	0.89	0.83	0.78	0.85	0.80	0.76	0.82	0.78	0.74	0.79	0.75	0.72	0.70
3	0.80	0.72	0.66	0.78	0.71	0.65	0.75	0.69	0.64	0.72	0.67	0.62	0.70	0.65	0.61	0.59
4	0.71	0.62	0.56	0.70	0.61	0.55	0.67	0.60	0.54	0.64	0.58	0.53	0.62	0.57	0.53	0.50
5	0.63	0.54	0.48	0.62	0.54	0.48	0.60	0.53	0.47	0.58	0.51	0.46	0.56	0.50	0.46	0.44
6	0.57	0.48	0.42	0.56	0.48	0.42	0.54	0.47	0.41	0.52	0.46	0.41	0.51	0.45	0.40	0.38
7	0.52	0.43	0.37	0.51	0.43	0.37	0.49	0.42	0.36	0.48	0.41	0.36	0.46	0.40	0.36	0.34
8	0.47	0.39	0.33	0.46	0.38	0.33	0.45	0.38	0.33	0.44	0.37	0.32	0.43	0.37	0.32	0.30
9	0.43	0.35	0.30	0.43	0.35	0.30	0.41	0.34	0.29	0.40	0.34	0.29	0.39	0.33	0.29	0.27
10	0.40	0.32	0.27	0.39	0.32	0.27	0.38	0.31	0.27	0.37	0.31	0.26	0.36	0.31	0.26	0.25

Light Blue USA-Rayhil INV-9-CCT-120-**-5000K

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	277.75	276.84	273.20	268.65	260.45	251.34	237.68	224.02	206.72		
15.0	277.75	277.75	274.10	268.62	261.31	250.34	238.47	223.85	207.40		
30.0	277.75	276.84	273.18	267.70	259.48	250.34	237.55	222.93	205.57		
45.0	277.75	277.75	274.09	268.59	260.34	249.34	237.42	222.75	205.34		
60.0	277.75	276.84	274.09	268.59	259.42	250.25	236.50	222.75	205.34		
75.0	277.75	276.84	274.09	267.67	260.34	249.34	237.42	222.75	206.25		
90.0	277.75	276.84	274.09	268.59	259.42	249.34	236.50	222.75	205.34		
105.0	277.75	276.84	274.09	268.59	260.34	249.34	237.42	222.75	205.34		
120.0	277.75	276.84	269.50	268.59	260.34	250.25	237.42	223.67	207.17		
135.0	277.75	276.84	274.09	268.59	260.34	250.25	228.25	224.59	207.17		
150.0	277.75	276.84	274.09	268.59	261.25	251.17	239.25	224.59	208.09		
165.0	277.75	276.84	274.09	269.50	260.34	251.17	239.25	224.59	209.00		
180.0	277.75	275.93	271.38	264.09	255.90	244.06	230.40	214.92	196.70		
195.0	277.75	276.84	272.27	264.96	255.82	244.86	232.07	216.54	197.35		
210.0	277.75	275.93	272.27	264.96	255.82	244.86	232.07	215.62	197.35		
225.0	277.75	276.84	272.25	265.84	256.67	244.75	232.84	215.42	198.00		
240.0	277.75	275.92	272.25	265.84	256.67	245.67	231.92	215.42	198.00		
255.0	277.75	275.92	272.25	264.92	255.75	244.75	231.00	216.34	198.00		
270.0	277.75	275.92	271.34	264.92	255.75	244.75	241.09	214.50	197.09		
285.0	277.75	275.92	275.00	264.92	255.75	243.84	231.00	214.50	197.09		
300.0	277.75	275.92	271.34	264.92	255.75	244.75	231.00	215.42	197.09		
315.0	277.75	275.92	271.34	264.92	255.75	243.84	231.00	214.50	196.17		
330.0	277.75	275.92	270.42	264.00	255.75	243.84	230.09	214.50	196.17		
345.0	277.75	275.00	271.34	264.00	254.84	243.84	229.17	213.59	195.25		
360.0	277.75	276.84	273.20	268.65	260.45	251.34	237.68	224.02	206.72		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	187.60	166.65	144.80	122.94	100.17	76.50	52.82	29.14	8.20		
15.0	187.30	167.20	144.36	121.52	97.76	74.92	51.16	29.24	8.22		
30.0	186.39	165.37	144.36	120.60	98.68	73.09	51.16	28.32	8.22		
45.0	187.00	165.92	144.83	121.00	97.17	74.25	51.33	27.50	7.33		
60.0	186.09	165.92	143.92	120.08	98.08	74.25	50.42	28.42	7.33		
75.0	184.25	165.92	143.92	120.08	97.17	73.33	50.42	28.42	8.25		
90.0	186.09	165.00	143.92	121.00	98.08	74.25	51.33	28.42	7.33		
105.0	187.92	165.92	144.83	121.92	98.08	74.25	50.42	29.33	7.33		
120.0	187.00	166.83	144.83	122.83	99.92	74.25	51.33	29.33	8.25		
135.0	187.92	167.75	144.83	122.83	99.00	75.17	52.25	29.33	8.25		
150.0	188.84	151.25	145.75	122.83	99.92	76.08	54.08	31.17	9.17		
165.0	189.75	169.58	146.67	123.75	100.83	73.33	54.08	31.17	10.08		
180.0	176.67	155.72	133.87	110.19	87.42	63.75	40.98	18.21	2.73		
195.0	178.16	156.24	133.39	110.55	86.80	63.96	41.11	20.10	2.74		
210.0	177.25	156.24	134.31	109.64	87.71	64.87	42.03	19.19	2.74		
225.0	178.75	156.75	134.75	110.92	88.00	64.17	41.25	19.25	2.75		
240.0	177.83	156.75	134.75	111.83	88.00	64.17	41.25	19.25	2.75		
255.0	177.83	156.75	133.83	110.00	87.08	63.25	40.33	35.75	2.75		
270.0	177.83	155.83	133.83	110.92	87.08	63.25	41.25	19.25	2.75		
285.0	176.92	155.83	133.83	110.92	87.08	64.17	41.25	18.33	2.75		
300.0	176.92	155.83	132.92	110.00	86.17	64.17	41.25	18.33	2.75		
315.0	176.92	155.83	132.92	109.08	86.17	63.25	40.33	18.33	2.75		
330.0	176.00	154.92	132.92	109.08	87.08	62.33	40.33	17.42	2.75		
345.0	176.92	154.00	132.00	109.08	85.25	62.33	39.42	17.42	2.75		
360.0	187.60	166.65	144.80	122.94	100.17	76.50	52.82	29.14	8.20		

Light Blue USA-Rayhil INV-9-CCT-120-**-5000K

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	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.91		
15.0	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.91		
30.0	0.91	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.91		
45.0	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
60.0	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92		
75.0	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
90.0	0.92	0.00	0.00	0.92	0.92	0.92	0.92	0.92	1.83		
105.0	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92	1.83		
120.0	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
135.0	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92		
150.0	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92		
165.0	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92		
180.0	0.00	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91		
195.0	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91		
210.0	0.91	0.91	0.91	0.91	0.91	0.00	0.91	0.91	0.91		
225.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
240.0	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92	0.92		
255.0	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
270.0	0.92	0.92	0.00	0.92	0.92	0.92	0.92	0.92	1.83		
285.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.83	1.83		
300.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.83	1.83		
315.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.83		
330.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.83		
345.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
360.0	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91	0.91		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	0.91	1.82	1.82	2.73	2.73	2.73	2.73	2.73	1.82		
15.0	0.91	1.83	1.83	1.83	2.74	2.74	2.74	2.74	1.83		
30.0	0.91	1.83	1.83	1.83	2.74	2.74	2.74	1.83	1.83		
45.0	0.92	1.83	1.83	1.83	2.75	1.83	1.83	2.75	1.83		
60.0	0.92	1.83	1.83	1.83	2.75	2.75	1.83	1.83	1.83		
75.0	0.92	1.83	1.83	1.83	2.75	2.75	2.75	1.83	1.83		
90.0	1.83	1.83	1.83	2.75	2.75	2.75	2.75	1.83	1.83		
105.0	1.83	1.83	2.75	2.75	2.75	3.67	2.75	1.83	1.83		
120.0	1.83	1.83	2.75	2.75	3.67	3.67	2.75	1.83	1.83		
135.0	0.92	1.83	1.83	2.75	2.75	3.67	2.75	2.75	1.83		
150.0	0.92	1.83	1.83	2.75	2.75	2.75	2.75	2.75	1.83		
165.0	0.92	0.92	1.83	1.83	1.83	2.75	2.75	2.75	1.83		
180.0	0.91	0.91	0.91	0.91	1.82	1.82	1.82	2.73	1.82		
195.0	0.91	0.91	0.91	0.91	1.83	1.83	1.83	1.83	1.83		
210.0	0.91	0.91	0.91	0.91	1.83	1.83	1.83	1.83	1.83		
225.0	0.00	0.92	0.92	0.92	1.83	1.83	1.83	1.83	1.83		
240.0	0.92	1.83	1.83	1.83	1.83	0.92	1.83	1.83	1.83		
255.0	0.92	1.83	1.83	1.83	1.83	1.83	0.92	0.92	1.83		
270.0	1.83	1.83	1.83	1.83	1.83	1.83	0.92	0.92	1.83		
285.0	1.83	1.83	2.75	2.75	2.75	1.83	0.92	0.92	1.83		
300.0	1.83	1.83	2.75	2.75	2.75	2.75	1.83	0.92	1.83		
315.0	1.83	1.83	1.83	1.83	2.75	1.83	2.75	0.92	1.83		
330.0	1.83	1.83	1.83	1.83	1.83	2.75	2.75	1.83	1.83		
345.0	0.92	0.92	1.83	1.83	1.83	1.83	2.75	1.83	1.83		
360.0	0.91	1.82	1.82	2.73	2.73	2.73	2.73	2.73	1.82		

Intensity data(cd)

C/γ(°)	180.0
0.0	1.82
15.0	1.83
30.0	1.83
45.0	1.83
60.0	1.83
75.0	1.83
90.0	1.83
105.0	1.83
120.0	1.83
135.0	1.83
150.0	1.83
165.0	1.83
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	1.82