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Light Blue USA-Rayhil

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Client:

LumCAT: INF-RD-CCT-BK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.930

LampCAT:

Current(A): 0.097

Lamp flux(lm): 720.0

Power (W): 11.450

Number of Lamps: 1

PF: 0.980

Length(mm): -50

Width(mm): -50

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 720.01, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 62.88

Central intensity(cd): 2051.532, Maximum intensity(cd): 2051.532

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

Beam Angle(50%Imax): [C0/180]Total=31.0

[C90/270]Total=31.6

Field angle(10%Imax): [C0/180]Total=57.4

[C90/270]Total=57.8

Maximum s/h(1/2): C0\_180=0.50 C90\_270=0.51

Maximum s/h(1/4): C0\_180=0.57 C90\_270=0.58

Up flux rate of lamp(%): 0.26%

Down flux rate of lamp(%): 99.74%

Up flux rate of LUM(%): 0.26%

Down flux rate of LUM(%): 99.74%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 99.696%

# Light Blue USA-Rayhil INF-RD-CCT-BK

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	2051.532	0.000	0	0.00%	0.00%
5.0	1854.983	46.701	46.701	6.49%	6.49%
10.0	1450.131	118.234	164.936	16.42%	22.91%
15.0	1069.382	149.456	314.391	20.76%	43.66%
20.0	773.683	151.894	466.286	21.10%	64.76%
25.0	457.665	129.146	595.431	17.94%	82.70%
30.0	129.160	74.263	669.695	10.31%	93.01%
35.0	36.270	24.361	694.055	3.38%	96.40%
40.0	22.390	9.787	703.842	1.36%	97.75%
45.0	13.036	6.560	710.402	0.91%	98.67%
50.0	6.902	4.029	714.431	0.56%	99.23%
55.0	3.486	2.259	716.689	0.31%	99.54%
60.0	1.419	1.134	717.823	0.16%	99.70%
65.0	0.000	0.345	718.168	0.05%	99.74%
70.0	0.000	0.000	718.168	0.00%	99.74%
75.0	0.000	0.000	718.168	0.00%	99.74%
80.0	0.000	0.000	718.168	0.00%	99.74%
85.0	0.000	0.000	718.168	0.00%	99.74%
90.0	0.000	0.000	718.168	0.00%	99.74%
95.0	0.000	0.000	718.168	0.00%	99.74%
100.0	0.000	0.000	718.168	0.00%	99.74%
105.0	0.000	0.000	718.168	0.00%	99.74%
110.0	0.000	0.000	718.168	0.00%	99.74%
115.0	0.000	0.000	718.168	0.00%	99.74%
120.0	0.000	0.000	718.168	0.00%	99.74%
125.0	0.000	0.000	718.168	0.00%	99.74%
130.0	0.000	0.000	718.168	0.00%	99.74%
135.0	0.000	0.000	718.168	0.00%	99.74%
140.0	0.000	0.000	718.168	0.00%	99.74%
145.0	0.000	0.000	718.168	0.00%	99.74%
150.0	0.460	0.068	718.236	0.01%	99.75%
155.0	1.380	0.233	718.469	0.03%	99.79%
160.0	2.263	0.382	718.851	0.05%	99.84%
165.0	3.221	0.452	719.303	0.06%	99.90%
170.0	3.333	0.389	719.691	0.05%	99.96%
175.0	3.681	0.251	719.942	0.03%	99.99%
180.0	1.840	0.066	720.008	0.01%	100.00%

Equipment: LC-I-902 GMS-2000  
Temperature( $^{\circ}$ C): 25.3

Date: 2025/1/14  
Humidity(%): 51.5%

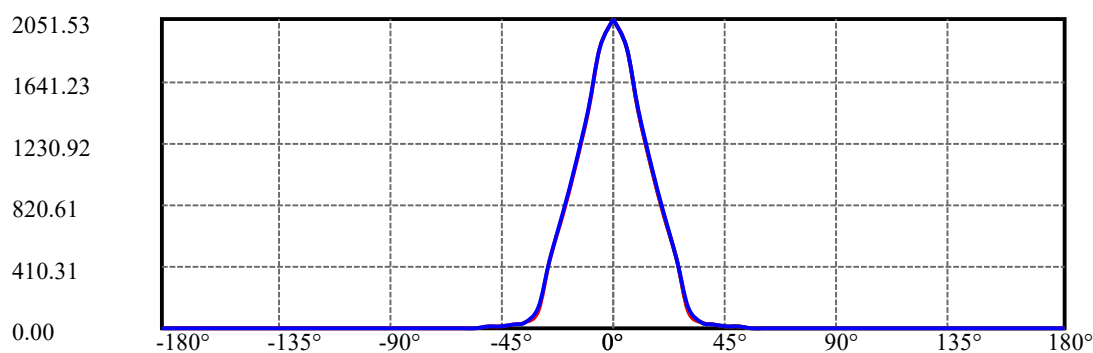
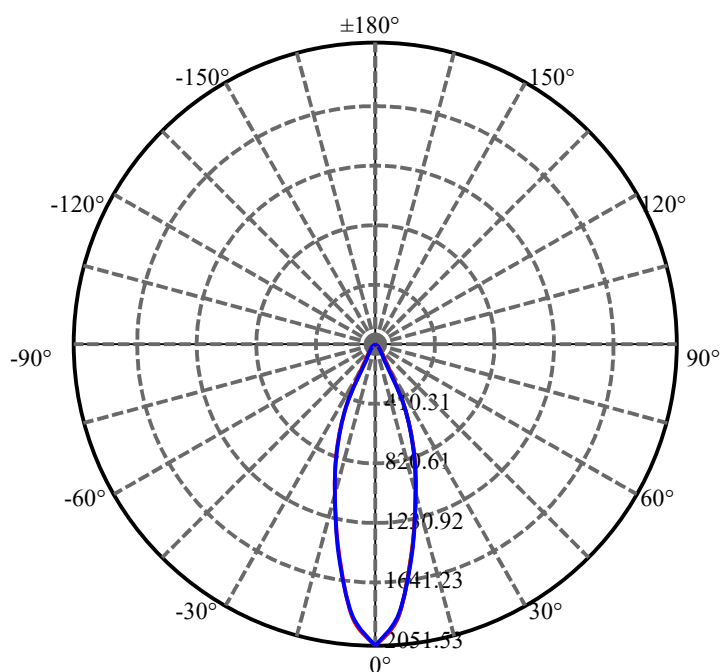
Operator: JUN WANG  
Distance(m): 30.33

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	669.69	93.01%	93.01%
0-40	703.84	97.75%	97.75%
0-60	717.82	99.70%	99.70%
0-90	718.17	99.74%	99.74%
0-120	718.17	99.74%	99.74%
0-180	720.01	100.00%	100.00%
60-90	0.34	0.05%	0.05%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.07	0.01%	0.01%
90-180	1.77	0.25%	0.25%
0-24.25	576.01	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	164.94
10-20	301.35
20-30	203.41
30-40	34.15
40-50	10.59
50-60	3.39
60-70	0.34
70-80	0.00
80-90	0.00
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.07
150-160	0.62
160-170	0.84
170-180	0.25



C0(Max):

C0/C180:

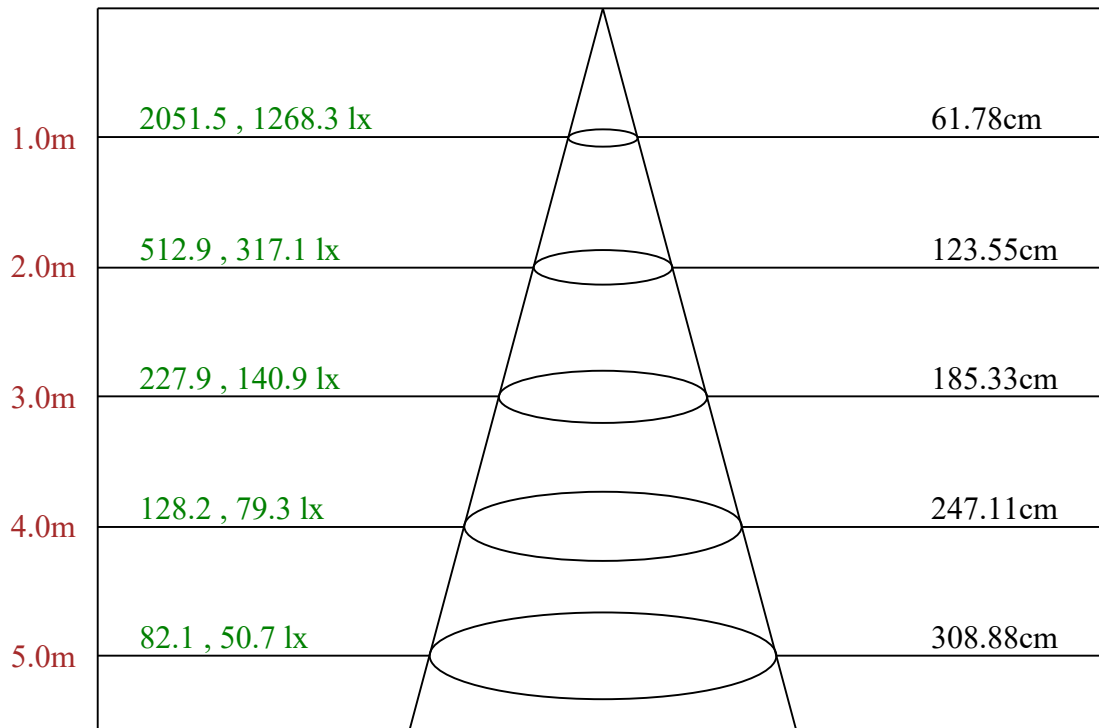
C90/C270:

Field angle(10%Imax):C0/180Left:28.7 Right:28.7

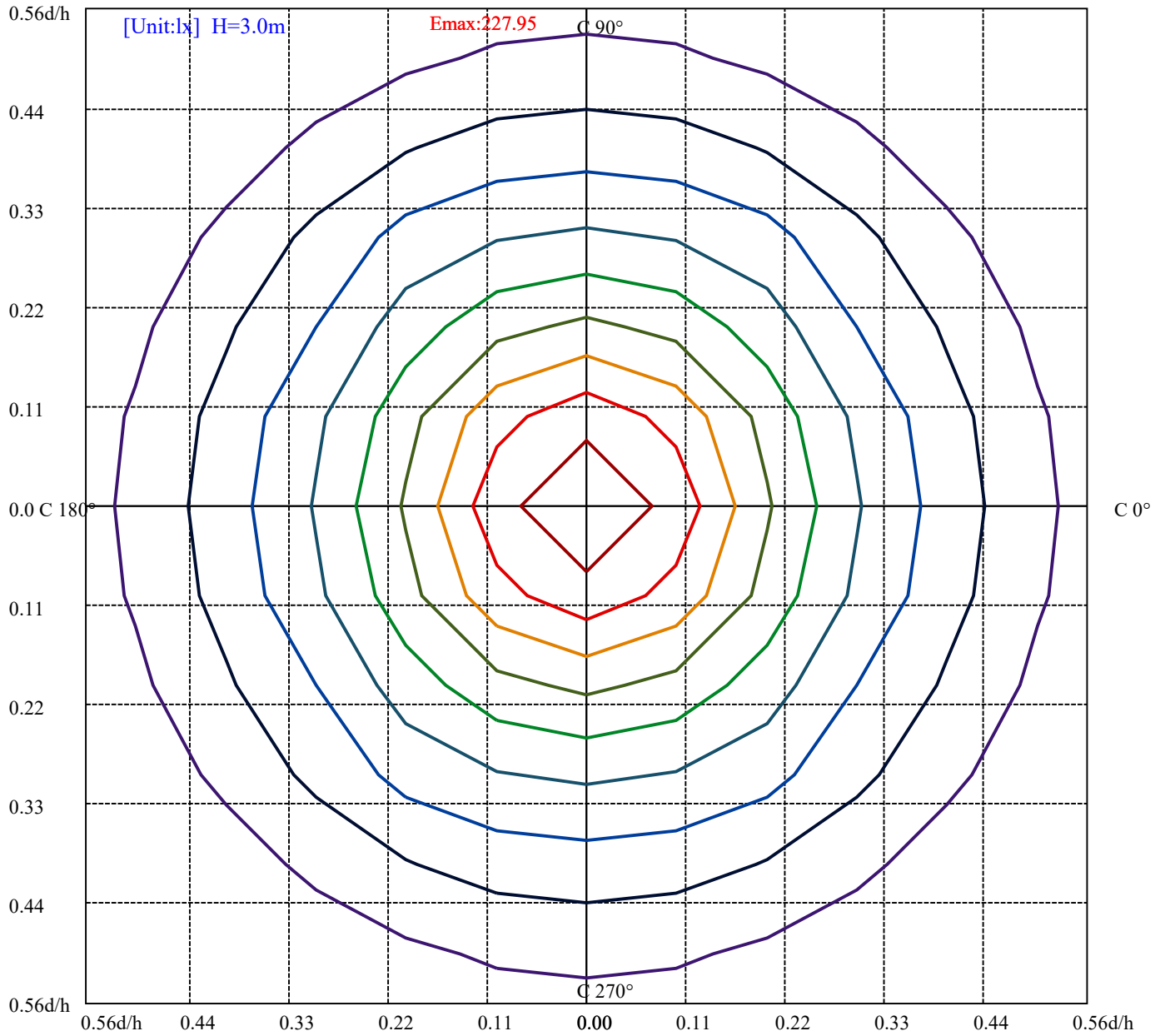
:C90/270Left:28.9 Right:28.9

Beam Angle(50%Imax):C0/180Left:15.5 Right:15.5

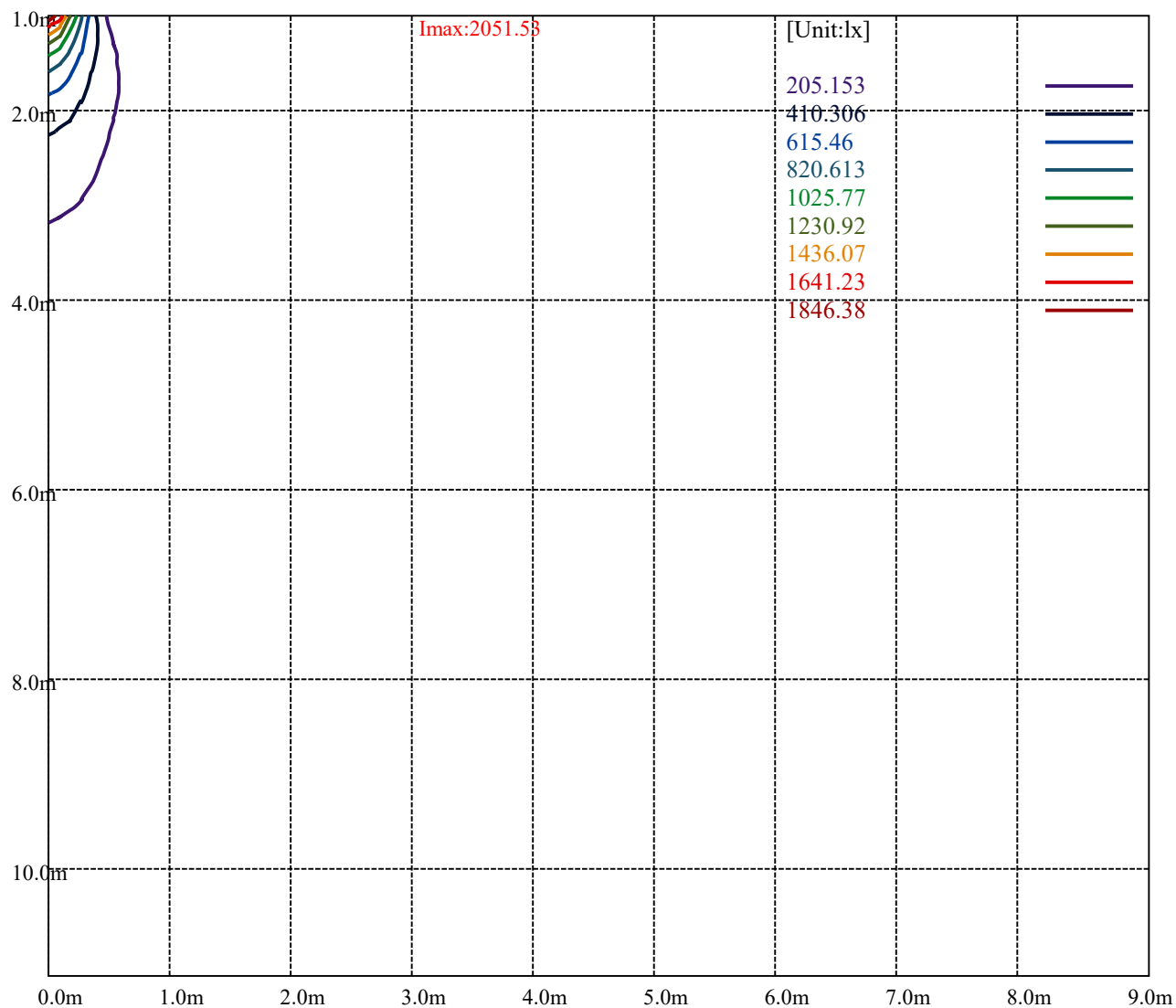
:C90/270Left:15.8 Right:15.8



Max , Ave      Beam angle of C0 plane 34.33



(10%Emax)	22.79478	
(20%Emax)	45.58944	
(30%Emax)	68.38422	
(40%Emax)	91.179	
(50%Emax)	113.9733	
(60%Emax)	136.7689	
(70%Emax)	159.5633	
(80%Emax)	182.3578	
(90%Emax)	205.1522	



# Light Blue USA-Rayhil INF-RD-CCT-BK

## Luminance Limiting Curve(no luminous side)

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Luminance Table

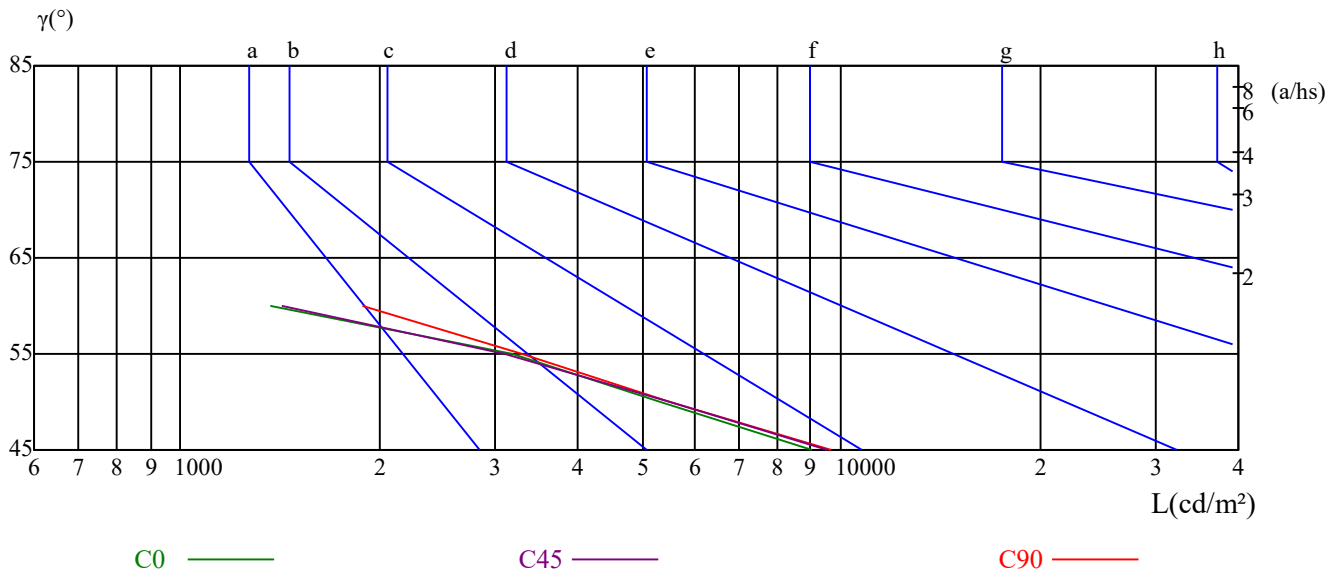
$\gamma$	45	50	55	60	65	70	75	80	85
C0	9034	5324	3182	1369	0	0	0	0	0
C45	9537	5524	3091	1420	0	0	0	0	0
C90	9660	5496	3285	1884	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	$\leq 300$				
1.5	B		2000	1000	500	$\leq 300$			
1.85	C			2000	1000	500	$\leq 300$		
2.2	D				2000	1000	500	$\leq 300$	
2.55	E					2000	1000	500	$\leq 300$
		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	1.02	1.02	1.02	1.00
1	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.05	1.03	1.02	1.01	1.00	0.99	0.98	0.97	0.95
2	1.06	1.03	1.00	1.04	1.01	0.99	1.01	0.99	0.97	0.98	0.96	0.95	0.96	0.94	0.93	0.91
3	1.01	0.97	0.94	0.99	0.96	0.93	0.97	0.94	0.91	0.95	0.92	0.90	0.92	0.90	0.89	0.87
4	0.96	0.92	0.88	0.95	0.91	0.88	0.93	0.89	0.87	0.91	0.88	0.86	0.89	0.87	0.85	0.83
5	0.92	0.87	0.84	0.91	0.86	0.83	0.89	0.85	0.83	0.88	0.84	0.82	0.86	0.83	0.81	0.80
6	0.88	0.83	0.80	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.77
7	0.84	0.79	0.76	0.84	0.79	0.76	0.82	0.78	0.75	0.81	0.78	0.75	0.80	0.77	0.75	0.74
8	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.71
9	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.76	0.72	0.69	0.75	0.72	0.69	0.68
10	0.75	0.70	0.67	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.66

# Light Blue USA-Rayhil INF-RD-CCT-BK

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	2051.53	1927.01	1493.41	1094.75	800.01	505.27	164.84	39.42	24.19		
15.0	2051.53	1927.52	1498.89	1108.89	807.85	525.69	162.65	40.44	25.16		
30.0	2051.53	1934.35	1532.34	1122.21	811.24	527.31	186.58	40.56	25.24		
45.0	2051.53	1964.27	1552.51	1135.30	823.52	533.56	196.34	41.81	26.36		
60.0	2051.53	1979.97	1560.67	1165.23	845.02	545.91	185.34	43.12	24.77		
75.0	2051.53	1991.49	1585.07	1182.33	878.44	552.37	202.29	43.41	26.79		
90.0	2051.53	1990.49	1605.71	1188.56	871.30	554.04	211.81	42.55	25.90		
105.0	2051.53	1992.97	1627.65	1209.35	882.15	581.90	212.87	42.76	26.03		
120.0	2051.53	2000.57	1605.83	1215.72	875.65	579.14	213.12	41.70	25.02		
135.0	2051.53	2018.27	1656.24	1235.29	903.66	592.94	217.60	43.71	24.71		
150.0	2051.53	1975.96	1607.45	1187.63	647.46	571.89	199.65	41.05	24.26		
165.0	2051.53	1962.94	1580.61	1208.54	862.58	578.16	202.36	40.10	22.38		
180.0	2051.53	1785.46	1378.74	1010.54	730.13	404.04	74.36	30.46	18.81		
195.0	2051.53	1764.88	1364.99	1000.16	716.19	392.69	65.60	31.45	17.97		
210.0	2051.53	1730.64	1347.56	997.82	714.79	373.17	64.00	30.65	18.93		
225.0	2051.53	1715.22	1339.81	982.59	712.63	370.86	63.63	30.90	18.18		
240.0	2051.53	1738.66	1314.78	976.22	709.23	368.84	63.31	30.28	19.27		
255.0	2051.53	1721.77	1341.21	962.49	705.71	369.48	61.89	31.41	19.40		
270.0	2051.53	1719.48	1310.65	954.55	684.46	359.80	60.12	30.52	19.42		
285.0	2051.53	1719.68	1315.32	948.15	686.01	340.22	60.42	31.60	27.89		
300.0	2051.53	1728.14	1293.56	939.59	871.95	333.58	55.60	29.65	19.46		
315.0	2051.53	1775.02	1302.76	964.48	694.61	348.73	57.96	31.36	19.00		
330.0	2051.53	1729.67	1292.12	934.80	662.39	341.46	57.84	30.79	18.66		
345.0	2051.53	1725.15	1295.26	939.97	671.41	332.91	59.68	30.77	19.58		
360.0	2051.53	1927.01	1493.41	1094.75	800.01	505.27	164.84	39.42	24.19		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	14.33	8.06	4.48	1.79	0.00	0.00	0.00	0.00	0.00		
15.0	14.38	8.09	4.49	1.80	0.00	0.00	0.00	0.00	0.00		
30.0	14.42	8.11	4.51	1.80	0.00	0.00	0.00	0.00	0.00		
45.0	15.45	8.18	4.54	1.82	0.00	0.00	0.00	0.00	0.00		
60.0	15.60	8.26	4.59	1.84	0.00	0.00	0.00	0.00	0.00		
75.0	15.70	8.31	4.62	1.85	0.00	0.00	0.00	0.00	0.00		
90.0	15.72	8.32	4.62	1.85	0.00	0.00	0.00	0.00	0.00		
105.0	15.80	8.37	3.72	1.86	0.00	0.00	0.00	0.00	0.00		
120.0	14.83	8.34	3.71	1.85	0.00	0.00	0.00	0.00	0.00		
135.0	15.20	8.55	3.80	1.90	0.00	0.00	0.00	0.00	0.00		
150.0	14.93	8.40	3.73	1.87	0.00	0.00	0.00	0.00	0.00		
165.0	13.99	7.46	3.73	1.87	0.00	0.00	0.00	0.00	0.00		
180.0	10.75	5.38	2.69	0.90	0.00	0.00	0.00	0.00	0.00		
195.0	10.78	5.39	2.70	0.90	0.00	0.00	0.00	0.00	0.00		
210.0	10.82	5.41	2.70	0.90	0.00	0.00	0.00	0.00	0.00		
225.0	10.91	5.45	2.73	0.91	0.00	0.00	0.00	0.00	0.00		
240.0	11.01	5.51	2.75	0.92	0.00	0.00	0.00	0.00	0.00		
255.0	11.08	5.54	2.77	0.92	0.00	0.00	0.00	0.00	0.00		
270.0	11.10	5.55	2.77	1.85	0.00	0.00	0.00	0.00	0.00		
285.0	11.15	5.58	2.79	0.93	0.00	0.00	0.00	0.00	0.00		
300.0	11.12	6.49	2.78	0.93	0.00	0.00	0.00	0.00	0.00		
315.0	11.40	5.70	2.85	0.95	0.00	0.00	0.00	0.00	0.00		
330.0	11.20	5.60	2.80	0.93	0.00	0.00	0.00	0.00	0.00		
345.0	11.19	5.60	2.80	0.93	0.00	0.00	0.00	0.00	0.00		
360.0	14.33	8.06	4.48	1.79	0.00	0.00	0.00	0.00	0.00		

# Light Blue USA-Rayhil INF-RD-CCT-BK

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
75.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
165.0	0.00	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	0.00	0.00	0.00	0.00	0.00		
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
210.0	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00		
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
360.0	0.00	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	0.00	0.00	0.00	0.90	1.79	2.69	3.58	4.48	3.58		
15.0	0.00	0.00	0.00	0.90	1.80	2.70	3.59	4.49	3.59		
30.0	0.00	0.00	0.00	0.90	1.80	2.70	3.61	4.51	3.61		
45.0	0.00	0.00	0.00	0.91	1.82	2.73	3.64	3.64	3.64		
60.0	0.00	0.00	0.00	0.92	1.84	2.75	3.67	3.67	3.67		
75.0	0.00	0.00	0.00	0.92	1.85	2.77	3.69	3.69	3.69		
90.0	0.00	0.00	0.00	0.92	1.85	2.77	3.70	3.70	3.70		
105.0	0.00	0.00	0.00	0.93	1.86	2.79	3.72	3.72	3.72		
120.0	0.00	0.00	0.00	0.93	1.85	2.78	3.71	3.71	3.71		
135.0	0.00	0.00	0.00	0.95	1.90	2.85	3.80	3.80	3.80		
150.0	0.00	0.00	0.00	0.93	1.87	2.80	3.73	3.73	3.73		
165.0	0.00	0.00	0.00	0.93	1.87	2.80	3.73	3.73	3.73		
180.0	0.00	0.00	0.00	0.00	0.90	1.79	2.69	2.69	3.58		
195.0	0.00	0.00	0.00	0.00	0.90	0.90	2.70	2.70	3.59		
210.0	0.00	0.00	0.00	0.00	0.90	1.80	2.70	2.70	3.61		
225.0	0.00	0.00	0.00	0.00	0.91	1.82	2.73	2.73	3.64		
240.0	0.00	0.00	0.00	0.00	0.92	1.84	2.75	2.75	3.67		
255.0	0.00	0.00	0.00	0.00	0.92	1.85	2.77	2.77	3.69		
270.0	0.00	0.00	0.00	0.00	0.92	1.85	2.77	2.77	3.70		
285.0	0.00	0.00	0.00	0.00	0.93	1.86	2.79	2.79	3.72		
300.0	0.00	0.00	0.00	0.00	0.93	1.85	2.78	2.78	3.71		
315.0	0.00	0.00	0.00	0.00	0.95	1.90	2.85	2.85	3.80		
330.0	0.00	0.00	0.00	0.00	0.93	1.87	2.80	2.80	3.73		
345.0	0.00	0.00	0.00	0.00	0.93	1.87	2.80	2.80	3.73		
360.0	0.00	0.00	0.00	0.90	1.79	2.69	3.58	4.48	3.58		

## Light Blue USA-Rayhil INF-RD-CCT-BK

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### Intensity data(cd)

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C/γ(°)	180.0
0.0	3.58
15.0	3.59
30.0	3.61
45.0	3.64
60.0	3.67
75.0	3.69
90.0	3.70
105.0	3.72
120.0	3.71
135.0	3.80
150.0	3.73
165.0	3.73
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	3.58