
Light Blue USA-Rayhil

Client:

LumCAT: INF-RD-CCT-WH

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.040

LampCAT:

Current(A): 0.096

Lamp flux(lm): 914.2

Power (W): 11.270

Number of Lamps: 1

PF: 0.979

Length(mm): -50

Width(mm): -50

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 914.19, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 81.12

Central intensity(cd): 1858.952, Maximum intensity(cd): 1858.952

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.2

[C90/270]Total=36.2

Field angle(10%Imax): [C0/180]Total=59.0

[C90/270]Total=60.2

Maximum s/h(1/2): C0_180=0.56 C90_270=0.58

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.21%

Down flux rate of lamp(%): 99.79%

Up flux rate of LUM(%): 0.21%

Down flux rate of LUM(%): 99.79%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 93.772%

Light Blue USA-Rayhil INF-RD-CCT-WH

Zonal flux distribution table

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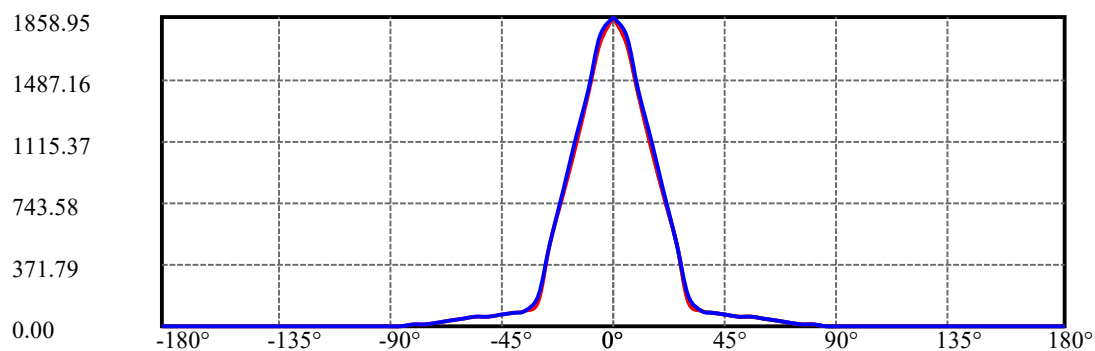
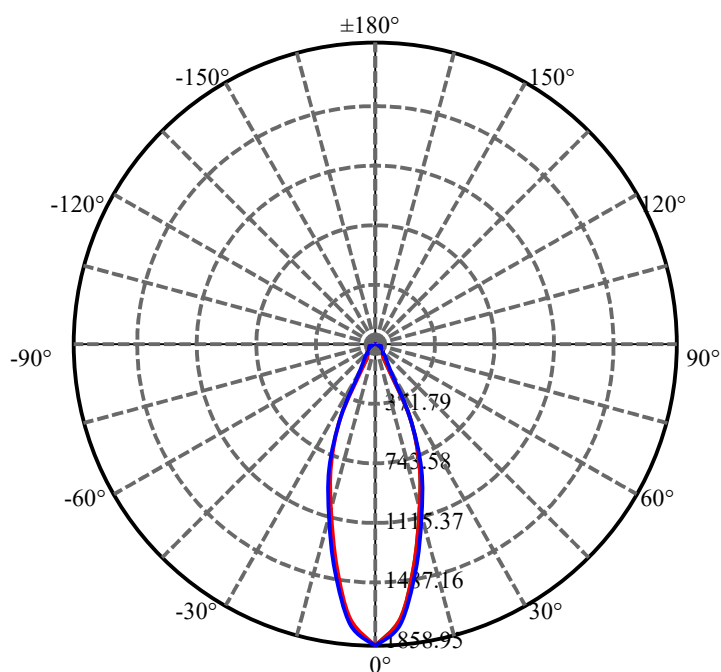
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1858.952	0.000	0	0.00%	0.00%
5.0	1724.617	42.841	42.841	4.69%	4.69%
10.0	1419.076	112.460	155.3	12.30%	16.99%
15.0	1097.809	149.300	304.6	16.33%	33.32%
20.0	814.084	157.567	462.167	17.24%	50.55%
25.0	494.457	137.242	599.409	15.01%	65.57%
30.0	177.767	85.071	684.479	9.31%	74.87%
35.0	93.917	40.007	724.487	4.38%	79.25%
40.0	81.832	29.322	753.809	3.21%	82.46%
45.0	71.823	28.450	782.26	3.11%	85.57%
50.0	62.115	27.064	809.324	2.96%	88.53%
55.0	53.645	25.170	834.494	2.75%	91.28%
60.0	44.821	22.760	857.254	2.49%	93.77%
65.0	33.666	19.080	876.334	2.09%	95.86%
70.0	23.925	14.583	890.917	1.60%	97.45%
75.0	15.762	10.374	901.29	1.13%	98.59%
80.0	9.013	6.629	907.919	0.73%	99.31%
85.0	3.334	3.355	911.274	0.37%	99.68%
90.0	0.312	0.998	912.272	0.11%	99.79%
95.0	0.000	0.085	912.358	0.01%	99.80%
100.0	0.000	0.000	912.358	0.00%	99.80%
105.0	0.000	0.000	912.358	0.00%	99.80%
110.0	0.000	0.000	912.358	0.00%	99.80%
115.0	0.000	0.000	912.358	0.00%	99.80%
120.0	0.000	0.000	912.358	0.00%	99.80%
125.0	0.000	0.000	912.358	0.00%	99.80%
130.0	0.000	0.000	912.358	0.00%	99.80%
135.0	0.000	0.000	912.358	0.00%	99.80%
140.0	0.000	0.000	912.358	0.00%	99.80%
145.0	0.000	0.000	912.358	0.00%	99.80%
150.0	0.460	0.068	912.426	0.01%	99.81%
155.0	1.381	0.233	912.659	0.03%	99.83%
160.0	2.301	0.386	913.045	0.04%	99.87%
165.0	3.222	0.455	913.5	0.05%	99.92%
170.0	3.222	0.382	913.882	0.04%	99.97%
175.0	3.643	0.246	914.128	0.03%	99.99%
180.0	1.841	0.066	914.193	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	684.48	74.87%	74.87%
0-40	753.81	82.46%	82.46%
0-60	857.25	93.77%	93.77%
0-90	912.27	99.79%	99.79%
0-120	912.36	99.80%	99.80%
0-180	914.19	100.00%	100.00%
60-90	55.02	6.02%	6.02%
90-120	0.09	0.01%	0.01%
90-130	0.09	0.01%	0.01%
90-150	0.15	0.02%	0.02%
90-180	1.86	0.20%	0.20%
0-36.17	731.35	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	155.30
10-20	306.87
20-30	222.31
30-40	69.33
40-50	55.51
50-60	47.93
60-70	33.66
70-80	17.00
80-90	4.35
90-100	0.09
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:

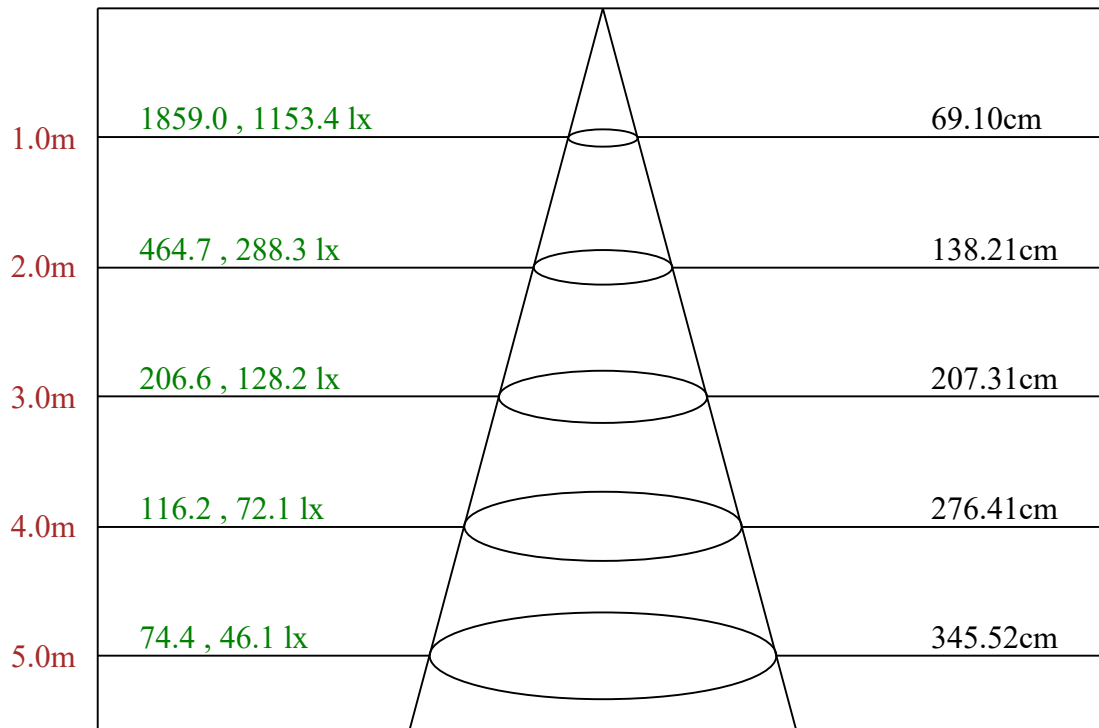
C90/C270:

Field angle(10%Imax):C0/180Left:29.5 Right:29.5

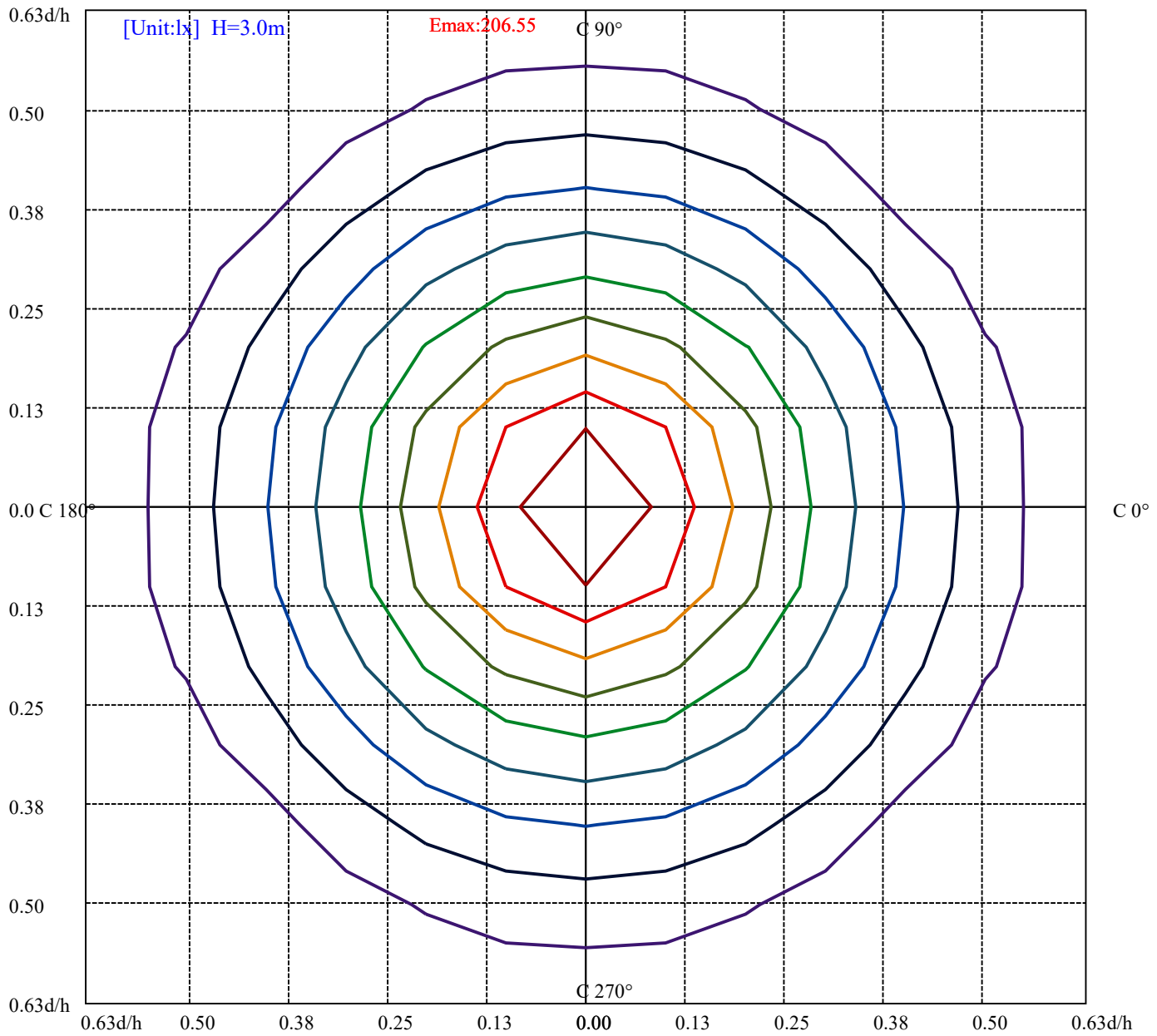
:C90/270Left:30.1 Right:30.1

Beam Angle(50%Imax):C0/180Left:17.6 Right:17.6

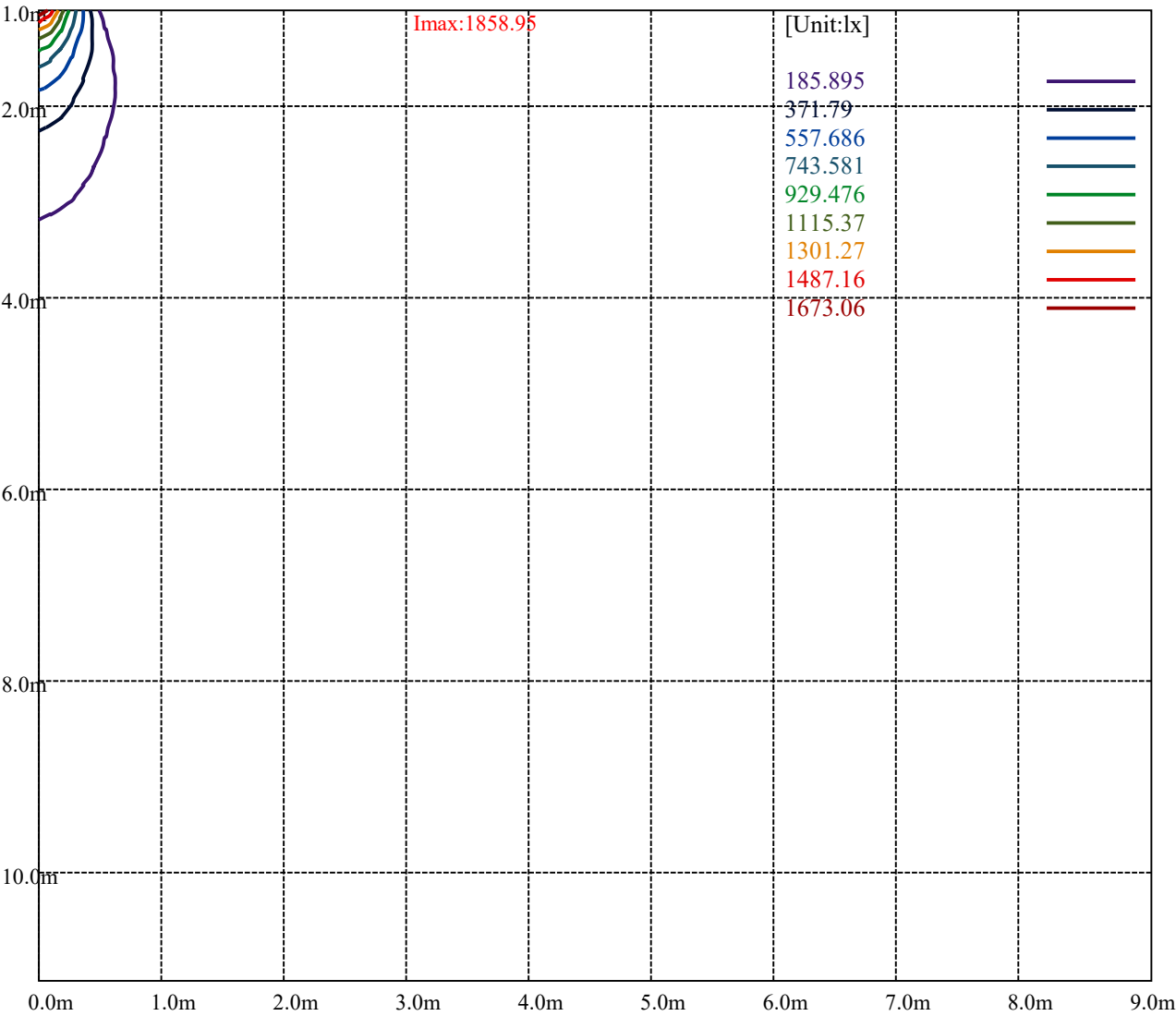
:C90/270Left:18.1 Right:18.1



Max , Ave Beam angle of C0 plane 38.12



(10%Emax)	20.655	
(20%Emax)	41.31	
(30%Emax)	61.96489	
(40%Emax)	82.61989	
(50%Emax)	103.2749	
(60%Emax)	123.93	
(70%Emax)	144.5844	
(80%Emax)	165.24	
(90%Emax)	185.8945	



Light Blue USA-Rayhil INF-RD-CCT-WH

Luminance Limiting Curve(no luminous side)

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Luminance Table

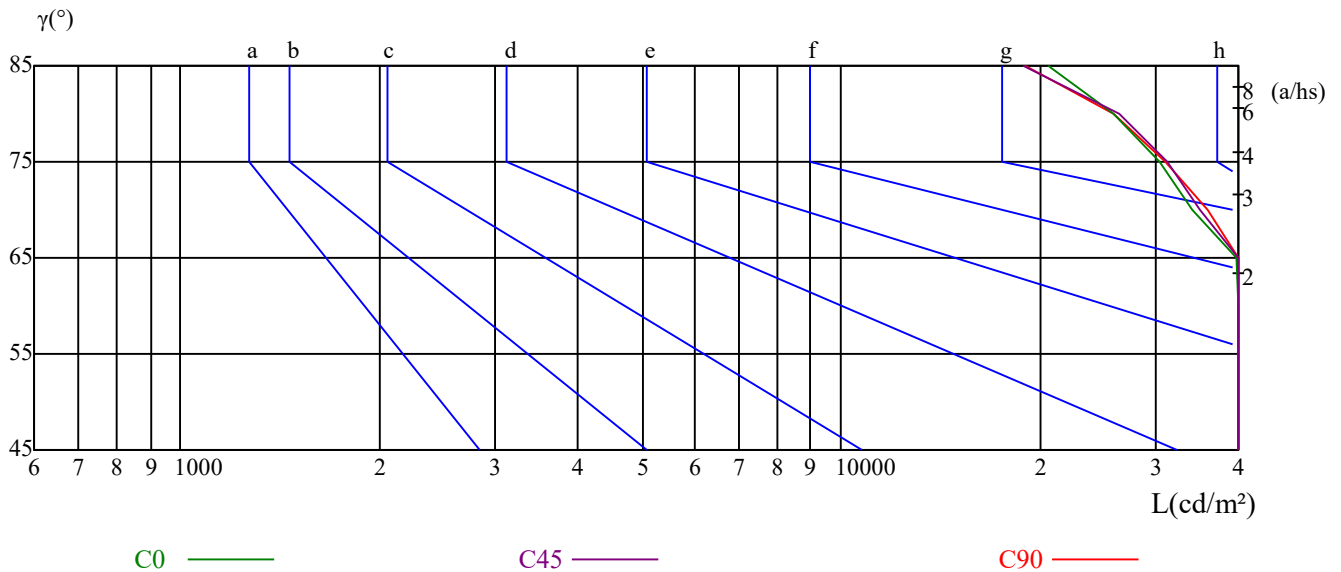
γ	45	50	55	60	65	70	75	80	85
C0	50789	48538	46959	45340	39833	34126	30353	25852	20603
C45	51483	49147	47490	45561	40563	35026	31302	26390	18866
C90	52192	49317	47432	45422	40304	35968	31077	25885	19000

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
39833	40304	40563	30353	31077	31302	20603	19000	18866

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	1.02	1.02	1.02	1.00
1	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.92
2	1.02	0.97	0.94	1.00	0.96	0.93	0.97	0.93	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.85
3	0.95	0.90	0.85	0.93	0.89	0.85	0.91	0.87	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.79
4	0.89	0.83	0.79	0.88	0.82	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.74
5	0.84	0.78	0.73	0.83	0.77	0.73	0.81	0.76	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.69
6	0.79	0.73	0.69	0.78	0.72	0.68	0.77	0.72	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.66
7	0.75	0.69	0.65	0.74	0.69	0.65	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.62
8	0.71	0.65	0.61	0.71	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.59
9	0.68	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.56
10	0.65	0.59	0.56	0.64	0.59	0.56	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.54

Light Blue USA-Rayhil INF-RD-CCT-WH

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	1858.95	1709.11	1409.42	1095.63	840.01	547.37	188.63	94.31	83.74		
15.0	1858.95	1724.97	1419.72	1103.84	839.41	555.47	198.76	94.94	82.52		
30.0	1858.95	1743.77	1426.80	1105.37	848.22	573.22	209.82	94.64	83.04		
45.0	1858.95	1772.07	1453.49	1136.73	881.51	575.61	219.02	96.84	83.26		
60.0	1858.95	1788.08	1485.53	1155.71	878.60	593.30	241.68	96.31	84.50		
75.0	1858.95	1835.88	1531.28	1211.00	907.32	618.42	251.06	97.84	85.84		
90.0	1858.95	1869.17	1571.89	1256.02	934.59	635.44	273.13	99.40	86.40		
105.0	1858.95	1889.83	1603.54	1292.00	947.72	651.15	298.44	100.10	87.01		
120.0	1858.95	1908.96	1412.61	1308.82	987.98	675.64	317.06	101.91	87.76		
135.0	1858.95	1909.70	1640.91	1318.56	977.41	667.27	113.72	102.44	89.28		
150.0	1858.95	1927.24	1696.77	1318.34	993.02	687.62	330.06	102.43	88.21		
165.0	1858.95	1934.19	1687.53	1343.74	974.24	691.39	332.36	102.85	88.57		
180.0	1858.95	1691.48	1383.86	1039.21	759.80	434.55	117.23	89.03	77.57		
195.0	1858.95	1689.47	1366.48	1034.62	750.68	431.24	120.68	89.62	78.08		
210.0	1858.95	1678.59	1361.62	1016.98	745.55	433.04	110.72	88.39	76.79		
225.0	1858.95	1653.51	1331.31	1014.55	743.04	419.03	112.22	89.60	77.83		
240.0	1858.95	1620.90	1305.63	996.71	739.58	397.05	107.21	88.13	77.23		
255.0	1858.95	1632.81	1304.22	985.78	730.10	378.44	107.07	89.53	78.46		
270.0	1858.95	1607.19	1274.60	964.31	709.76	350.24	103.12	88.26	78.04		
285.0	1858.95	1593.25	1496.89	940.23	700.73	330.25	104.78	89.81	77.65		
300.0	1858.95	1555.10	1239.93	945.52	682.24	327.44	102.86	89.64	78.32		
315.0	1858.95	1554.45	1223.64	927.60	661.63	300.74	101.50	89.28	77.06		
330.0	1858.95	1553.55	1218.75	915.25	653.48	295.91	102.43	88.21	78.72		
345.0	1858.95	1547.54	1211.37	920.90	651.40	297.13	102.85	90.47	78.09		
360.0	1858.95	1709.11	1409.42	1095.63	840.01	547.37	188.63	94.31	83.74		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	73.16	63.46	55.53	47.60	35.26	24.68	16.75	10.58	4.41		
15.0	72.76	63.00	55.01	47.92	35.49	25.73	16.86	10.65	4.44		
30.0	72.32	63.39	55.36	47.32	36.61	25.89	17.86	10.71	4.46		
45.0	73.31	63.35	56.11	47.97	37.11	26.25	18.10	10.86	4.53		
60.0	73.59	63.60	55.42	48.15	38.16	26.35	18.17	11.81	4.54		
75.0	75.69	65.53	57.23	48.92	37.84	27.69	18.46	12.00	5.54		
90.0	76.18	65.96	56.67	49.24	39.02	27.87	19.51	12.08	5.57		
105.0	76.72	66.42	57.07	49.58	39.29	28.07	19.65	12.16	5.61		
120.0	77.38	67.00	58.51	50.01	40.58	28.31	19.82	12.27	5.66		
135.0	77.06	66.73	57.33	49.81	39.47	28.19	19.74	13.16	5.64		
150.0	78.72	59.75	58.80	50.27	39.83	28.45	19.92	13.28	5.69		
165.0	78.09	67.62	58.09	50.47	40.00	27.62	20.00	13.33	5.71		
180.0	67.87	59.06	50.24	41.43	30.85	21.15	14.10	7.05	2.64		
195.0	68.32	58.56	50.58	40.82	30.17	21.30	13.31	7.10	2.66		
210.0	68.75	58.04	50.00	41.07	29.46	20.54	13.39	7.14	1.79		
225.0	67.88	58.83	50.68	40.73	29.87	19.91	13.58	6.34	1.81		
240.0	68.14	59.06	49.97	40.89	29.98	26.35	12.72	6.36	1.82		
255.0	68.30	65.53	50.77	40.61	29.54	20.31	12.92	5.54	1.85		
270.0	68.75	58.53	50.17	39.95	27.87	20.44	12.08	5.57	0.93		
285.0	69.23	58.94	50.52	40.23	28.07	19.65	12.16	5.61	0.94		
300.0	67.94	59.45	50.96	40.58	28.31	19.82	12.27	5.66	0.94		
315.0	67.67	59.21	49.81	40.41	28.19	19.74	12.22	5.64	0.94		
330.0	68.29	59.75	51.22	40.78	28.45	19.92	12.33	5.69	0.95		
345.0	67.62	60.00	51.43	40.95	28.57	20.00	12.38	5.71	0.95		
360.0	73.16	63.46	55.53	47.60	35.26	24.68	16.75	10.58	4.41		

Light Blue USA-Rayhil INF-RD-CCT-WH

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	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
90.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105.0	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120.0	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
135.0	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
150.0	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
165.0	0.95	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	0.91	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	0.88	1.76	2.64	3.53	3.53	3.53		
15.0	0.00	0.00	0.00	0.89	1.77	2.66	3.55	3.55	3.55		
30.0	0.00	0.00	0.00	0.89	1.79	2.68	3.57	3.57	3.57		
45.0	0.00	0.00	0.00	0.91	1.81	2.72	3.62	3.62	3.62		
60.0	0.00	0.00	0.00	0.91	1.82	2.73	3.63	3.63	3.63		
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	0.93	1.86	2.79	3.72	3.72	3.72		
105.0	0.00	0.00	0.00	0.94	1.87	2.81	3.74	3.74	3.74		
120.0	0.00	0.00	0.00	0.94	1.89	2.83	3.77	3.77	3.77		
135.0	0.00	0.00	0.00	0.94	1.88	2.82	3.76	3.76	3.76		
150.0	0.00	0.00	0.00	0.95	1.90	2.85	3.79	3.79	3.79		
165.0	0.00	0.00	0.00	0.95	1.90	2.86	3.81	3.81	3.81		
180.0	0.00	0.00	0.00	0.00	0.88	1.76	2.64	2.64	3.53		
195.0	0.00	0.00	0.00	0.00	0.89	1.77	2.66	2.66	3.55		
210.0	0.00	0.00	0.00	0.00	0.89	1.79	2.68	2.68	3.57		
225.0	0.00	0.00	0.00	0.00	0.91	1.81	2.72	2.72	3.62		
240.0	0.00	0.00	0.00	0.00	0.91	1.82	2.73	2.73	3.63		
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	0.93	1.86	2.79	2.79	3.72		
285.0	0.00	0.00	0.00	0.00	0.94	1.87	2.81	2.81	3.74		
300.0	0.00	0.00	0.00	0.00	0.94	1.89	2.83	2.83	3.77		
315.0	0.00	0.00	0.00	0.00	0.94	1.88	2.82	2.82	2.82		
330.0	0.00	0.00	0.00	0.00	0.95	1.90	2.85	2.85	3.79		
345.0	0.00	0.00	0.00	0.00	0.95	1.90	2.86	2.86	3.81		
360.0	0.00	0.00	0.00	0.88	1.76	2.64	3.53	3.53	3.53		

Light Blue USA-Rayhil INF-RD-CCT-WH

Intensity data(cd)

Appendix Page: 12 Total:12

C/γ(°)	180.0
0.0	3.53
15.0	3.55
30.0	3.57
45.0	3.62
60.0	3.63
75.0	3.69
90.0	3.72
105.0	3.74
120.0	3.77
135.0	3.76
150.0	3.79
165.0	3.81
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	0.00
360.0	3.53