
Light Blue USA-Rayhil

Client:

LumCAT: INF-RD-CCT-BK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.097

Lamp flux(lm): 847.1

Power (W): 11.390

Number of Lamps: 1

PF: 0.979

Length(mm): -50

Width(mm): -50

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 847.14, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 74.38

Central intensity(cd): 2411.930, Maximum intensity(cd): 2411.930

Angle of maximum intensity: C=0.0 γ =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(%): 0.28%

Down flux rate of lamp(%): 99.72%

Up flux rate of LUM(%): 0.28%

Down flux rate of LUM(%): 99.72%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.670%

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

Zonal flux distribution table

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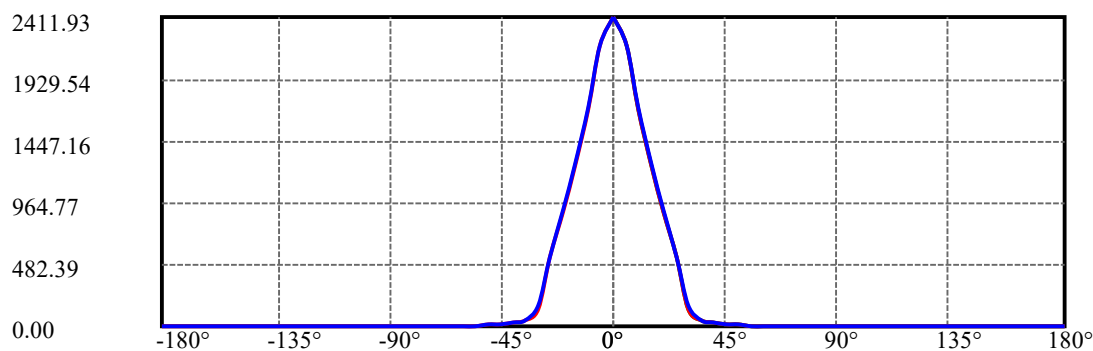
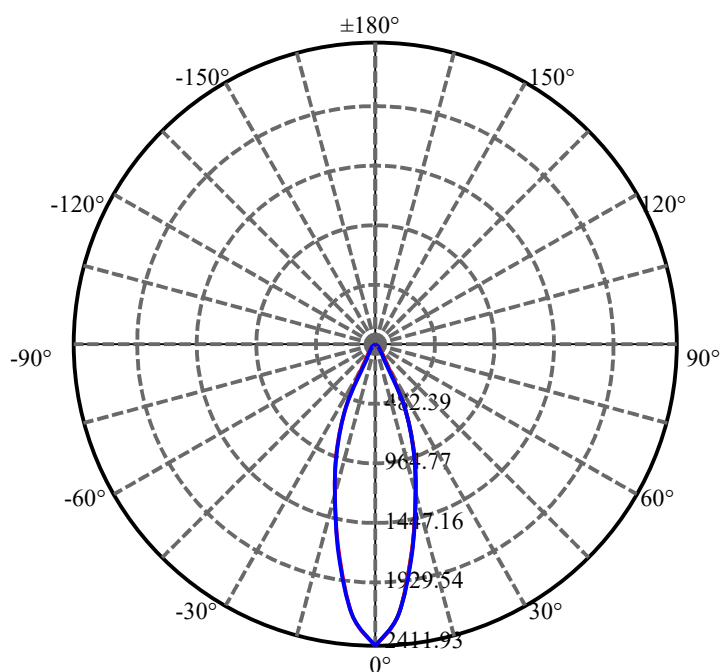
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2411.930	0.000	0	0.00%	0.00%
5.0	2181.295	54.911	54.911	6.48%	6.48%
10.0	1705.185	139.032	193.942	16.41%	22.89%
15.0	1257.393	175.738	369.68	20.74%	43.64%
20.0	909.808	178.608	548.288	21.08%	64.72%
25.0	538.324	151.882	700.17	17.93%	82.65%
30.0	151.948	87.354	787.525	10.31%	92.96%
35.0	42.710	28.665	816.19	3.38%	96.35%
40.0	26.532	11.553	827.742	1.36%	97.71%
45.0	15.332	7.752	835.494	0.92%	98.63%
50.0	8.282	4.772	840.265	0.56%	99.19%
55.0	4.103	2.693	842.958	0.32%	99.51%
60.0	1.878	1.382	844.341	0.16%	99.67%
65.0	0.000	0.457	844.797	0.05%	99.72%
70.0	0.000	0.000	844.797	0.00%	99.72%
75.0	0.000	0.000	844.797	0.00%	99.72%
80.0	0.000	0.000	844.797	0.00%	99.72%
85.0	0.000	0.000	844.797	0.00%	99.72%
90.0	0.000	0.000	844.797	0.00%	99.72%
95.0	0.000	0.000	844.797	0.00%	99.72%
100.0	0.000	0.000	844.797	0.00%	99.72%
105.0	0.000	0.000	844.797	0.00%	99.72%
110.0	0.000	0.000	844.797	0.00%	99.72%
115.0	0.000	0.000	844.797	0.00%	99.72%
120.0	0.000	0.000	844.797	0.00%	99.72%
125.0	0.000	0.000	844.797	0.00%	99.72%
130.0	0.000	0.000	844.797	0.00%	99.72%
135.0	0.000	0.000	844.797	0.00%	99.72%
140.0	0.000	0.000	844.797	0.00%	99.72%
145.0	0.000	0.000	844.797	0.00%	99.72%
150.0	0.460	0.068	844.865	0.01%	99.73%
155.0	1.840	0.291	845.156	0.03%	99.77%
160.0	3.146	0.523	845.679	0.06%	99.83%
165.0	4.103	0.597	846.276	0.07%	99.90%
170.0	4.141	0.489	846.765	0.06%	99.96%
175.0	4.141	0.296	847.062	0.03%	99.99%
180.0	2.263	0.077	847.138	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	787.52	92.96%	92.96%
0-40	827.74	97.71%	97.71%
0-60	844.34	99.67%	99.67%
0-90	844.80	99.72%	99.72%
0-120	844.80	99.72%	99.72%
0-180	847.14	100.00%	100.00%
60-90	0.46	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	2.26	0.27%	0.27%
0-24.26	677.71	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	193.94
10-20	354.35
20-30	239.24
30-40	40.22
40-50	12.52
50-60	4.08
60-70	0.46
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	0.81
160-170	1.09
170-180	0.30



C0(Max):

C0/C180:

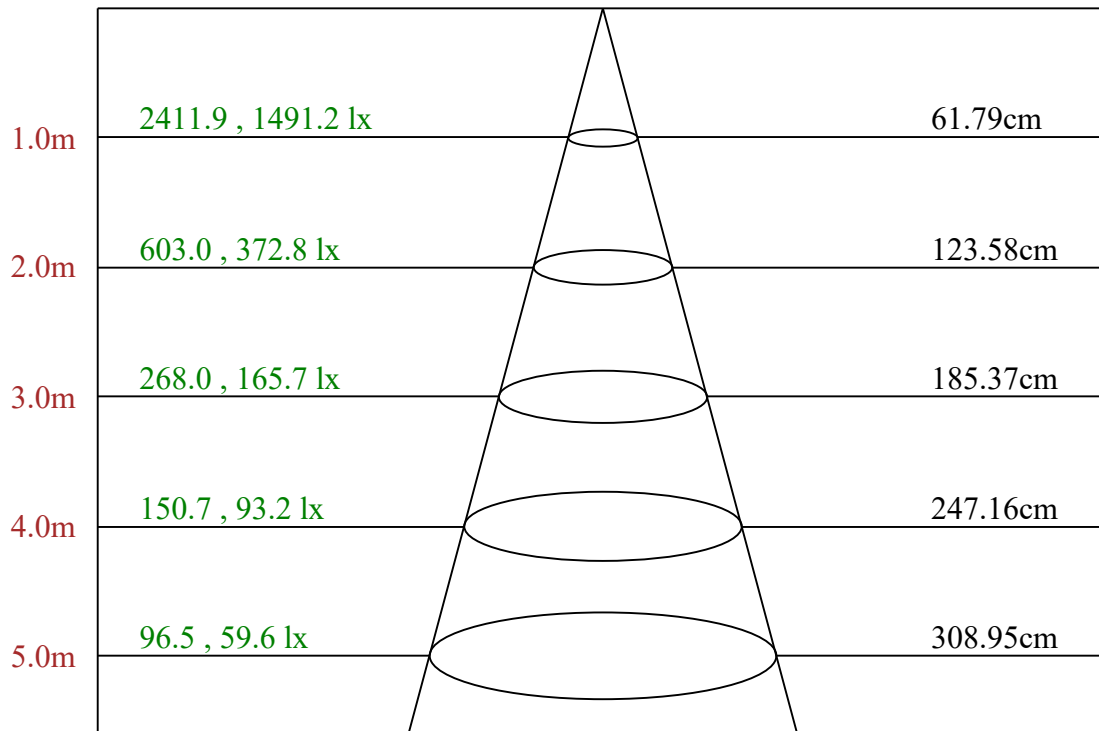
C90/C270:

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

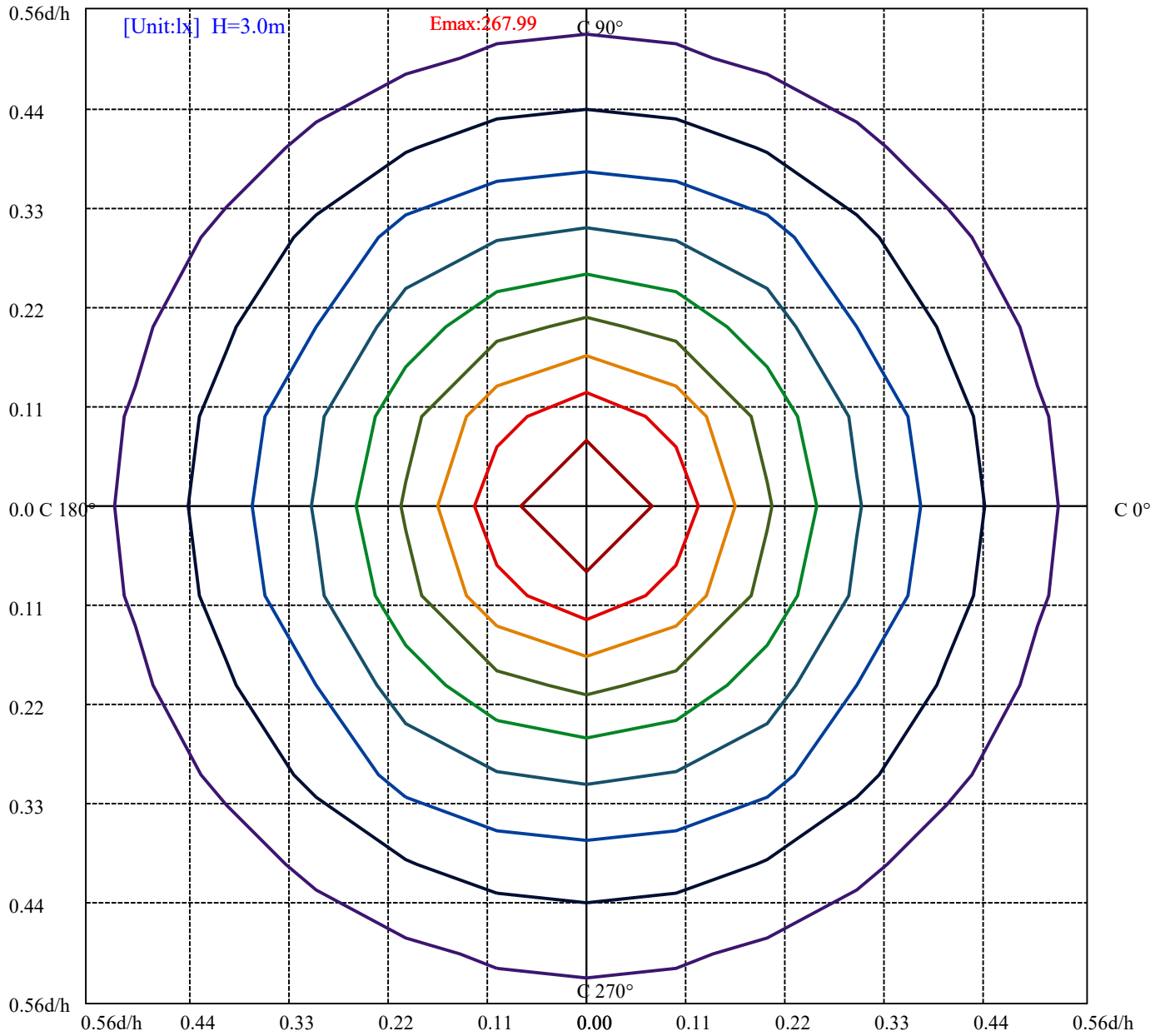
:C90/270Left:28.9 Right:28.9

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

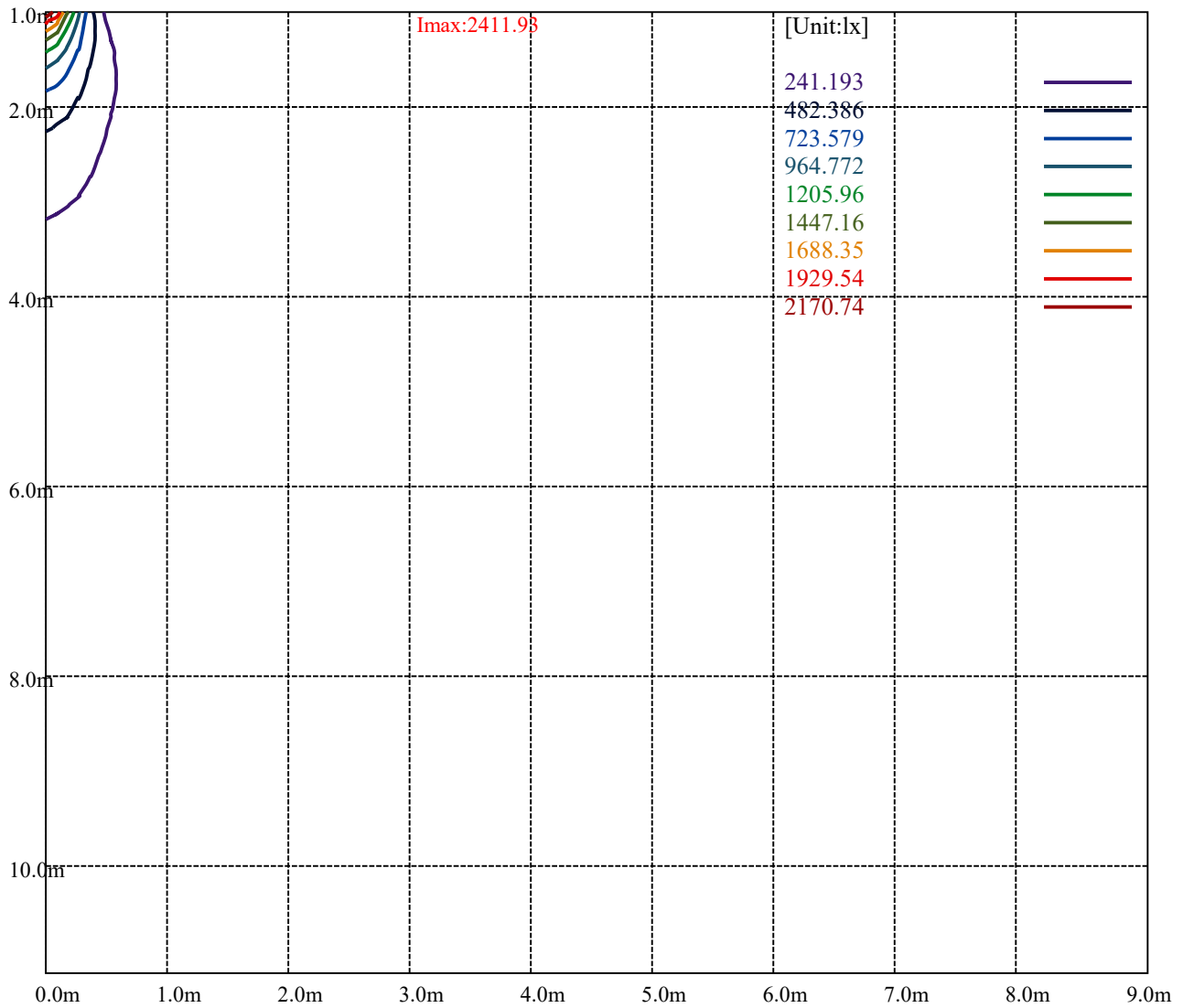
:C90/270Left:15.8 Right:15.8



Max , Ave Beam angle of C0 plane 34.34



(10%Emax)	26.79911	
(20%Emax)	53.59834	
(30%Emax)	80.39745	
(40%Emax)	107.1966	
(50%Emax)	133.9955	
(60%Emax)	160.7944	
(70%Emax)	187.5944	
(80%Emax)	214.3933	
(90%Emax)	241.1922	



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

Luminance Limiting Curve(no luminous side)

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Luminance Table

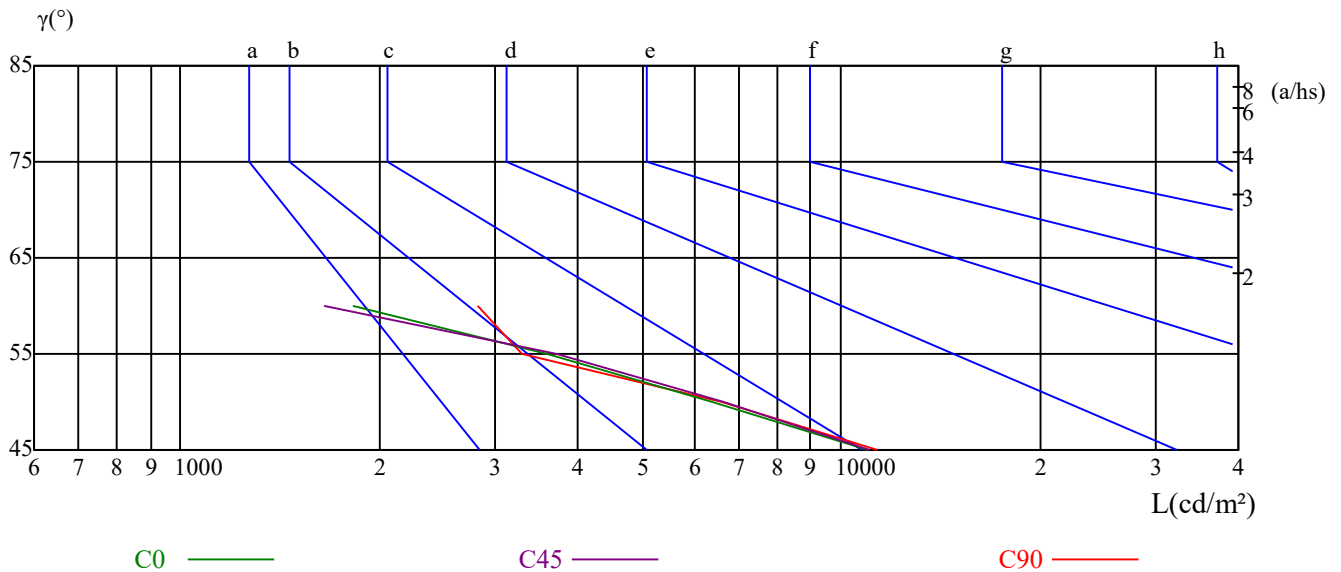
γ	45	50	55	60	65	70	75	80	85
C0	10966	6387	3579	1825	0	0	0	0	0
C45	11040	6628	3714	1652	0	0	0	0	0
C90	11328	6597	3286	2827	0	0	0	0	0

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	<=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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	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	0.82	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	0.74	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	2411.93	2265.05	1756.33	1287.02	941.31	593.80	193.46	46.57	27.76		
15.0	2411.93	2266.35	1762.22	1303.92	949.85	618.26	190.51	47.63	30.55		
30.0	2411.93	2274.03	1801.74	1319.53	952.69	620.11	219.02	47.77	29.74		
45.0	2411.93	2310.11	1825.54	1334.61	968.23	628.21	230.92	48.18	30.91		
60.0	2411.93	2328.41	1835.56	1370.25	993.04	642.45	218.43	50.48	30.29		
75.0	2411.93	2341.72	1863.22	1391.18	1031.84	648.48	237.41	51.73	31.41		
90.0	2411.93	2341.62	1889.21	1397.94	1025.09	651.32	248.87	49.03	30.53		
105.0	2411.93	2343.12	1914.48	1421.68	1037.67	684.34	250.12	51.14	31.61		
120.0	2411.93	2351.72	1887.68	1428.26	1029.98	680.79	251.01	49.09	30.57		
135.0	2411.93	2372.03	1947.40	1452.48	1062.05	696.32	255.54	50.35	29.45		
150.0	2411.93	2323.29	1890.36	1396.77	762.30	673.66	235.13	48.52	27.99		
165.0	2411.93	2307.51	1859.06	1419.93	1015.30	680.60	237.74	47.55	27.04		
180.0	2411.93	2098.46	1620.19	1187.60	858.01	475.58	87.77	35.83	22.39		
195.0	2411.93	2075.84	1604.96	1177.21	842.92	462.80	77.28	37.74	20.67		
210.0	2411.93	2035.18	1584.52	1173.52	840.03	438.04	74.81	36.05	22.53		
225.0	2411.93	2017.37	1576.44	1155.51	838.22	436.38	75.46	36.37	20.91		
240.0	2411.93	2044.82	1546.46	1148.14	834.26	434.11	74.34	35.79	22.94		
255.0	2411.93	2025.80	1577.78	1131.60	830.46	435.09	72.98	36.95	23.09		
270.0	2411.93	2022.43	1541.34	1122.24	804.90	423.73	71.24	36.08	23.13		
285.0	2411.93	2023.27	1548.14	1114.84	806.15	399.82	71.60	37.19	33.47		
300.0	2411.93	2032.17	1519.96	1105.00	1025.35	392.73	66.69	35.20	23.16		
315.0	2411.93	2087.05	1530.37	1134.24	816.96	410.38	68.40	37.05	21.85		
330.0	2411.93	2034.98	1519.00	1099.13	779.10	401.21	68.11	36.39	21.46		
345.0	2411.93	2028.74	1522.49	1104.81	789.68	391.58	69.92	36.36	23.31		
360.0	2411.93	2265.05	1756.33	1287.02	941.31	593.80	193.46	46.57	27.76		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	17.91	8.96	4.48	2.69	0.00	0.00	0.00	0.00	0.00		
15.0	17.97	8.99	4.49	2.70	0.00	0.00	0.00	0.00	0.00		
30.0	18.03	9.01	4.51	2.70	0.00	0.00	0.00	0.00	0.00		
45.0	18.18	9.09	4.55	2.73	0.00	0.00	0.00	0.00	0.00		
60.0	18.36	9.18	4.59	2.75	0.00	0.00	0.00	0.00	0.00		
75.0	18.48	9.24	4.62	2.77	0.00	0.00	0.00	0.00	0.00		
90.0	18.50	9.25	4.63	2.78	0.00	0.00	0.00	0.00	0.00		
105.0	18.60	9.30	4.65	2.79	0.00	0.00	0.00	0.00	0.00		
120.0	16.67	9.26	4.63	2.78	0.00	0.00	0.00	0.00	0.00		
135.0	17.10	9.50	4.75	2.85	0.00	0.00	0.00	0.00	0.00		
150.0	16.79	9.33	4.67	2.80	0.00	0.00	0.00	0.00	0.00		
165.0	16.78	9.32	4.66	2.80	0.00	0.00	0.00	0.00	0.00		
180.0	12.54	7.17	3.58	0.90	0.00	0.00	0.00	0.00	0.00		
195.0	12.58	7.19	3.59	0.90	0.00	0.00	0.00	0.00	0.00		
210.0	12.62	7.21	3.61	0.90	0.00	0.00	0.00	0.00	0.00		
225.0	12.73	7.27	3.64	0.91	0.00	0.00	0.00	0.00	0.00		
240.0	12.85	7.34	3.67	0.92	0.00	0.00	0.00	0.00	0.00		
255.0	12.93	7.39	3.70	0.92	0.00	0.00	0.00	0.00	0.00		
270.0	12.95	7.40	2.78	2.78	0.00	0.00	0.00	0.00	0.00		
285.0	13.02	7.44	3.72	0.93	0.00	0.00	0.00	0.00	0.00		
300.0	12.97	7.41	3.70	0.93	0.00	0.00	0.00	0.00	0.00		
315.0	13.30	7.60	3.80	0.00	0.00	0.00	0.00	0.00	0.00		
330.0	13.06	7.46	3.73	0.93	0.00	0.00	0.00	0.00	0.00		
345.0	13.05	7.46	3.73	0.93	0.00	0.00	0.00	0.00	0.00		
360.0	17.91	8.96	4.48	2.69	0.00	0.00	0.00	0.00	0.00		

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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	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	2.69	3.58	4.48	4.48	4.48		
15.0	0.00	0.00	0.00	0.90	2.70	3.59	4.49	4.49	4.49		
30.0	0.00	0.00	0.00	0.90	2.70	3.61	4.51	4.51	4.51		
45.0	0.00	0.00	0.00	0.91	2.73	3.64	4.55	4.55	4.55		
60.0	0.00	0.00	0.00	0.92	2.75	3.67	4.59	4.59	4.59		
75.0	0.00	0.00	0.00	0.92	2.77	3.70	4.62	4.62	4.62		
90.0	0.00	0.00	0.00	0.93	2.78	3.70	4.63	4.63	4.63		
105.0	0.00	0.00	0.00	0.93	2.79	3.72	4.65	4.65	4.65		
120.0	0.00	0.00	0.00	0.93	2.78	3.70	4.63	4.63	4.63		
135.0	0.00	0.00	0.00	0.95	2.85	3.80	4.75	4.75	4.75		
150.0	0.00	0.00	0.00	0.93	2.80	3.73	4.67	4.67	4.67		
165.0	0.00	0.00	0.00	0.93	2.80	3.73	4.66	4.66	4.66		
180.0	0.00	0.00	0.00	0.00	0.90	2.69	3.58	3.58	3.58		
195.0	0.00	0.00	0.00	0.00	0.90	0.90	3.59	3.59	3.59		
210.0	0.00	0.00	0.00	0.00	0.90	2.70	3.61	3.61	3.61		
225.0	0.00	0.00	0.00	0.00	0.91	2.73	3.64	3.64	3.64		
240.0	0.00	0.00	0.00	0.00	0.92	2.75	3.70	3.67	3.67		
255.0	0.00	0.00	0.00	0.00	0.92	2.77	3.70	3.70	3.70		
270.0	0.00	0.00	0.00	0.00	0.93	2.78	3.70	3.70	3.70		
285.0	0.00	0.00	0.00	0.00	0.93	2.79	3.72	3.72	3.72		
300.0	0.00	0.00	0.00	0.00	0.93	2.78	3.70	3.70	3.70		
315.0	0.00	0.00	0.00	0.00	0.95	2.85	3.80	3.80	3.80		
330.0	0.00	0.00	0.00	0.00	0.93	2.80	3.73	3.73	3.73		
345.0	0.00	0.00	0.00	0.00	0.93	2.80	3.73	3.73	3.73		
360.0	0.00	0.00	0.00	0.90	2.69	3.58	4.48	4.48	4.48		

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

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Intensity data(cd)

C/γ(°)	180.0
0.0	3.58
15.0	4.49
30.0	4.51
45.0	4.55
60.0	4.59
75.0	4.62
90.0	4.63
105.0	4.65
120.0	4.63
135.0	4.75
150.0	4.67
165.0	4.66
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