




Seed Lighting Design Co., Ltd

TEST REPORT

Prepared For :	Seed Lighting Design Co., Ltd No.73-31, Qionglin S. Rd., Xinzhuang Dist., New Taipei City 242, Taiwan
Product Name:	LING
Model :	SLD-80PV
Prepared By :	Dongguan Precise Testing & Certification Corp.,Ltd. Building D, Baoding Technology Park, Guangming Road 2, Guangming Community, Dongcheng District, Dongguan, Guangdong, China
Test Date:	Nov. 01- Dec. 19, 2017
Date of Report :	Dec. 19, 2017
Report No.:	PTCDQ031711201012S-LD01



TEST REPORT	
ELECTRICAL AND PHOTOMETRIC MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS ACCODING TO LM-79-08 APPROVED METHOD	
Testing laboratory	: Dongguan Precise Testing & Certification Corp.,Ltd.
Address	: Building D, Baoding Technology Park, Guangming Road 2, Guangming Community, Dongcheng District, Dongguan, Guangdong, China
Testing location	: Dongguan Precise Testing & Certification Corp.,Ltd.
Tested by (name + signature):	Jason Zhan
Approved by (name + signature):	Sam Chou
Applicant	: Seed Lighting Design Co., Ltd
Address	: No.73-31, Qionglin S. Rd., Xinzhuang Dist., New Taipei City 242, Taiwan
Test Procedure	: Electrical And Photometric Measurements of Solid-State Lighting Products Accoding to LM-79-08 Approved Method.
Non-standard test method	: N.A.
Type of test object	: LING
Trademark	: 
Model/type reference	: SLD-80PV
Rating	: 220-240V~, 50/60Hz
Manufacturer	: Dong Guan Seed Lighting Co., Ltd
Address	: No.6, ZhenXing Road., DingWu Village, Dong Keng Town, Dong Guan City, Guang Dong Province, China
Particulars: test item vs. test requirements	



1.0 TEST METHOD

Test methods according to IESNA LM-79-08 following chapter:

4.0 SEASONING OF SSL PRODUCT

For the purpose of rating new SSL products, SSL products shall be tested with no seasoning.

5.0 STABILIZATION OF SSL PRODUCT

Before measurements are taken, the SSL product under test shall be operated long enough to reach stabilization and temperature equilibrium. The time required first stabilization depends on the type of SSL products under test. The stabilization time typically ranges from 30 min (small integrated LED lamps) to 2 or more hours for large SSL luminaries. The SSL product during stabilization shall be operated in the ambient temperature as specified in section 2.2 and in the operating orientation as specified in 6. It can be judged that stability is reached when the variation (maximum-minimum) of at least 3 readings of the light output and electrical power over a period of 30 min, taken 15 minutes apart, is less than 0.5%. The stabilization time used for each SSL product shall be reported.

9.0 TEST METHODS FOR TLTA LUMINOUS FLUX MEASUREMENT

10.0 LUMINOUS INTENSITY DISTRIBUTION

11.0 LUMINOUS EFFICACY

13.0 UNCERTAINTY STATEMENT

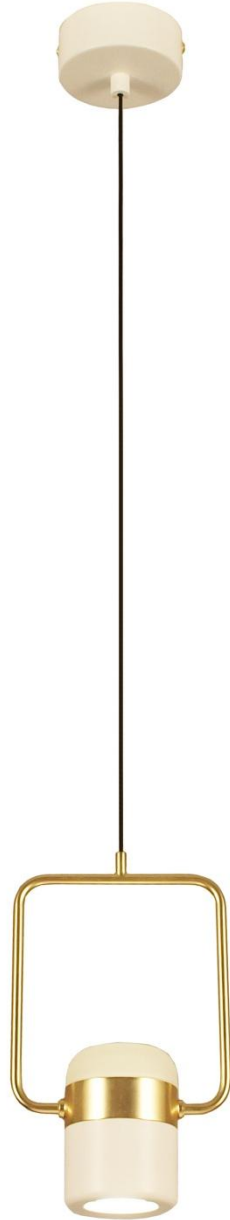
The uncertainty of the light output measurements is $U=1.50\%$ ($K=2$), the uncertainty of the Correlated Color Temperature measurements is $U=14K$ ($K=2$), at the 95% confidence level. This calibration results are traceable to the NATIONAL INSTITUTE OF METROLOGY(NIM).

Remark:

1. 0 hour season, pre-heating the lamp for 45 minutes at least;
2. Ambient: 65%RH, 25°C.



Photo



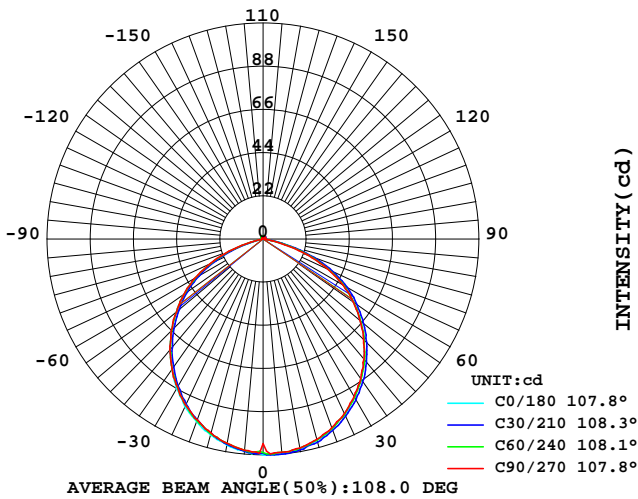
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number: PTCHX031711201012S-LD01

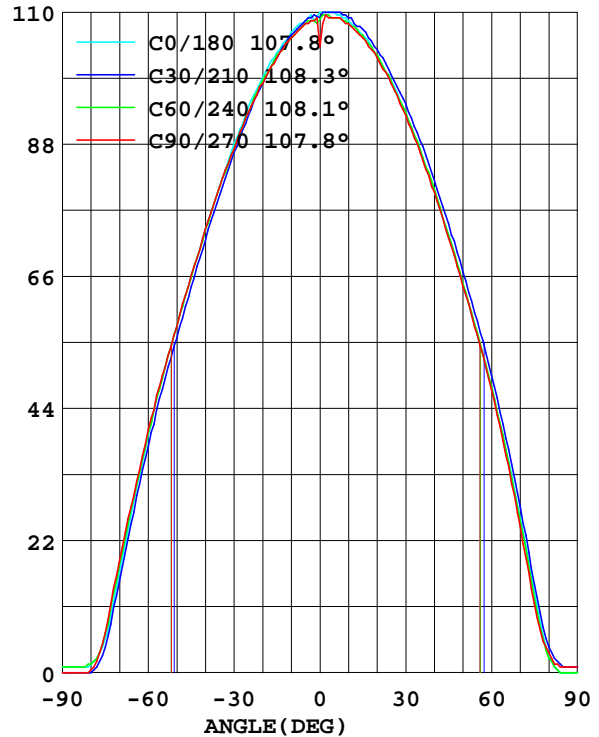
MANUFACTURER: Dong Guan Seed Lighting Co., Ltd		
Address: No.6, ZhenXing Road., DingWu Village, Dong Keng Town, Dong Guan City, Guang Dong Province, China		
NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

DATA OF LAMP		I _{max} (cd)	109.7	S/MH(C0/180)	1.20
MODEL	N/A	EFFICIENCY(%)	100.0	S/MH(C90/270)	1.24
NOMINAL POWER(W)	8	TOTAL FLUX(lm)	284.20	Voltage(V)	230.0
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	36.9	Current(A)	0.070
NOMINAL FLUX(lm)	284.2	η up(%)	1.6	Power(W)	7.700
LAMPS QUANTITY	1	η down(%)	98.4	Power Factor(PF)	0.477
TEST VOLTAGE(V)	230.0	Effective Flux(lm)	275.7	EEL	0.274

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPPO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

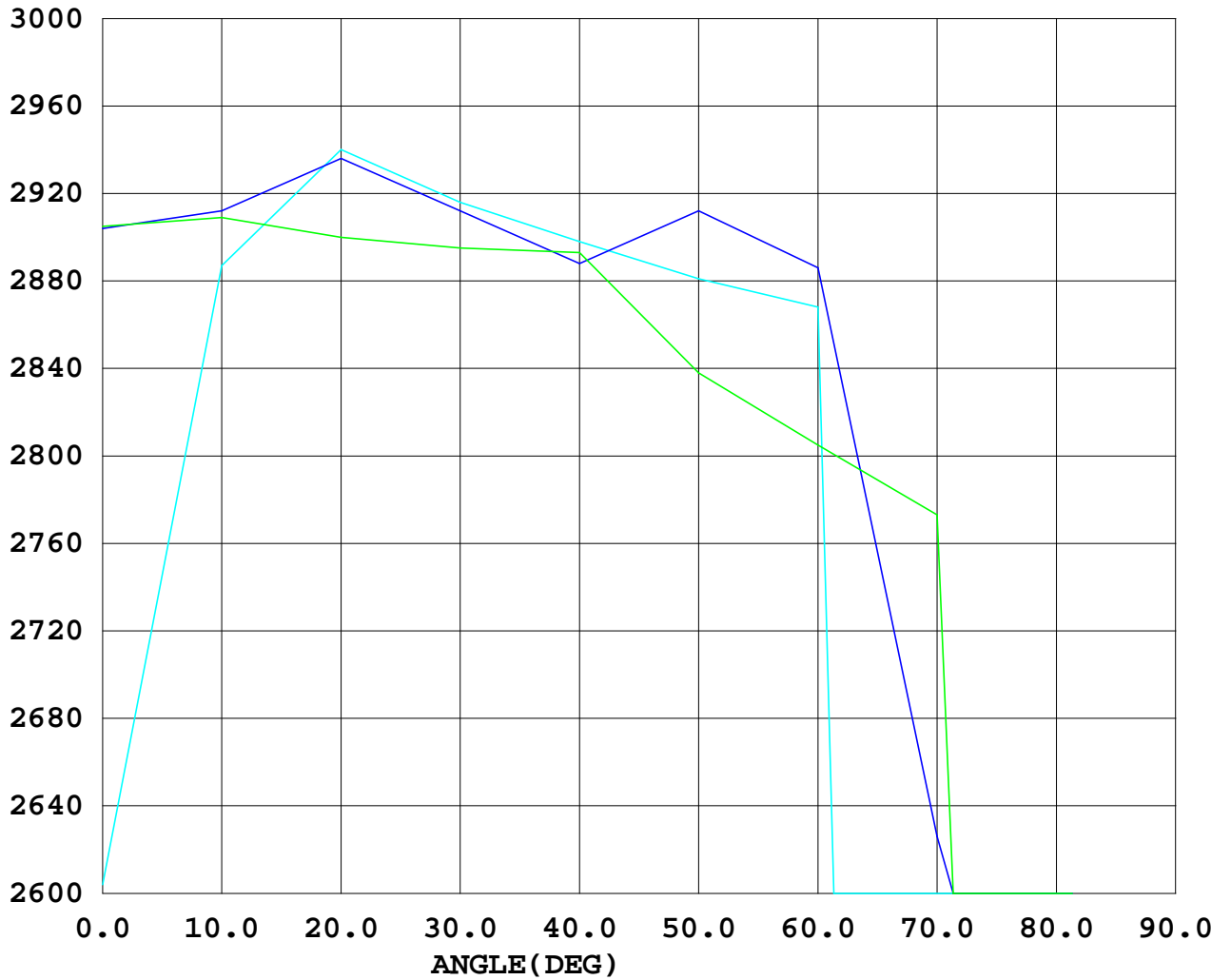
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

Color Temperature Distrib

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NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

COLOR TEMPERATURE DISTRIBUTION



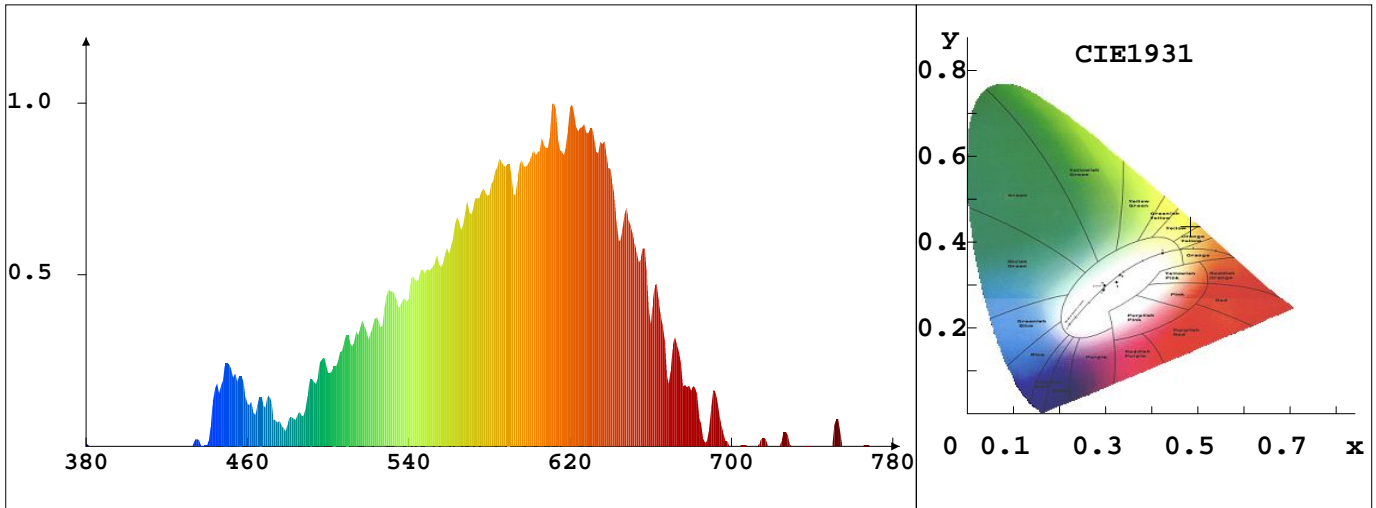
Test System:HOP00 HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

Spectrum Chart

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SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001



Avg Chro. Para.

CCT: 2886K Chro. Coord.: $x_a=0.4468$ $y_a=0.4098$ $u'_a=0.2545$ $v'_a=0.5251$ $\Delta u'v'=0.0000$

Current Angle: C=0.0° G=0.0°

Chroma Parameters

Chro.Coord.: $x=0.4816$ $y=0.4359$ $u'=0.2650$ $v'=0.5398$ $duv=0.0073$

CCT: 2604K Dominant Wave: 582.7nm Purity: 75.4% Light Intensity: 12.9cd

Flux RGB Ratio: R=25.6%,G=73.6%,B=0.8% Peak Wave: 611.2nm Half Width: 109.7nm

Rendering Index: Ra= 82.3

R1 =80 R2 =88 R3 =97 R4 =81 R5 =79 R6 =86 R7 =87 R8 =62
R9 =14 R10=73 R11=79 R12=62 R13=81 R14=98 R15=72

Instrument State

Scan Range: 380nm-780nm Integral Time: 1000.0ms Peak Signal: 5161 Dark Signal: 2008

Test System:HOP00 HPG2000
Temperature:25.3DEG
Operators:Jason
Test Date:2017.12.12

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Humidity:65.0%
Test Distance:21.800 m
Remarks:



Color Temperature Data List

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NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

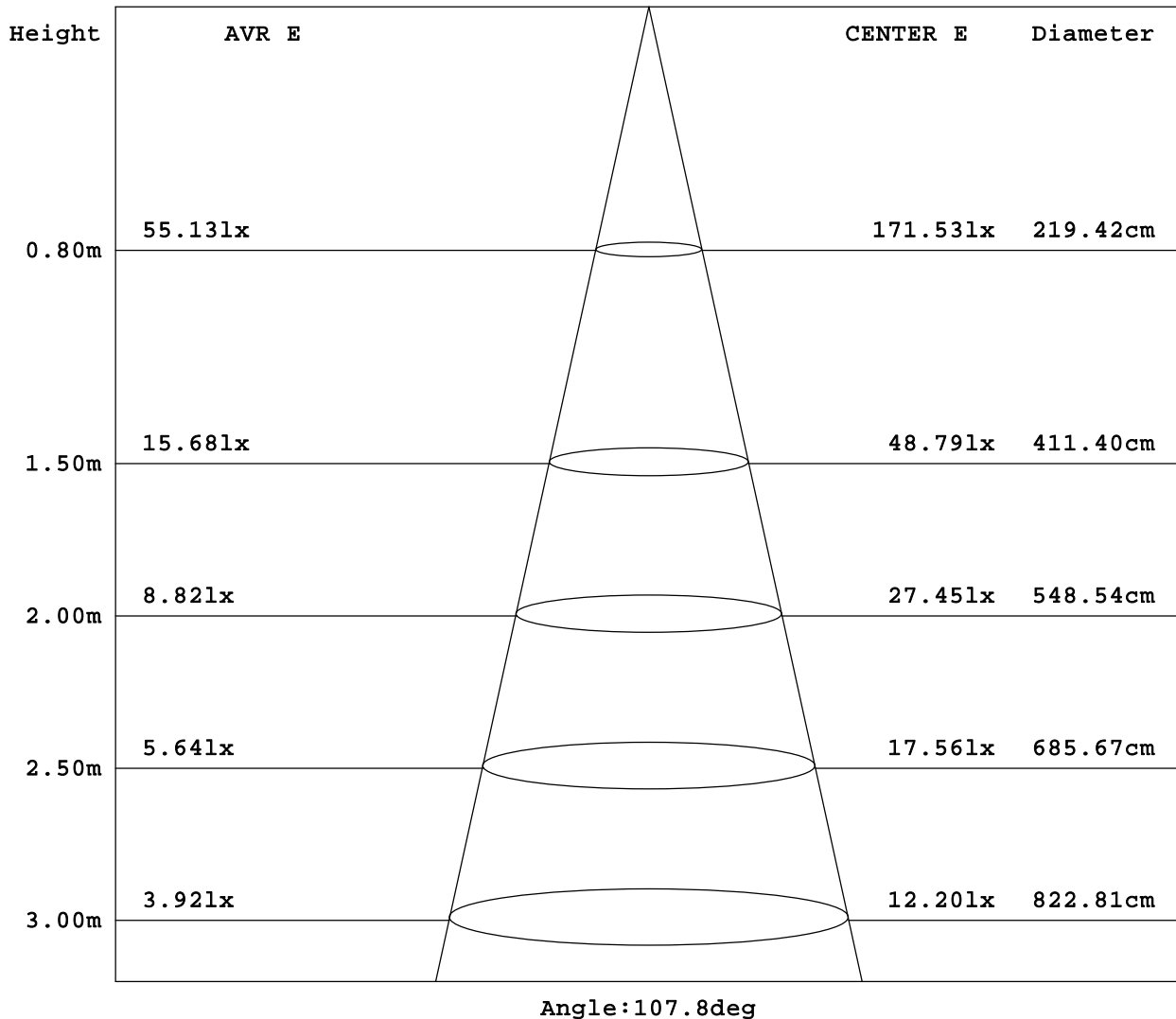
Gamma\C	C0 (CT/ Δu^*v^*)		C45 (CT/ Δu^*v^*)		C90 (CT/ Δu^*v^*)	
0.0deg	2604K	0.0181	2904K	0.0016	2905K	0.0016
10.0deg	2887K	0.0005	2912K	0.0019	2909K	0.0019
20.0deg	2940K	0.0029	2936K	0.0030	2900K	0.0010
30.0deg	2916K	0.0017	2912K	0.0015	2895K	0.0008
40.0deg	2898K	0.0005	2888K	0.0004	2893K	0.0006
50.0deg	2881K	0.0005	2912K	0.0011	2838K	0.0024
60.0deg	2868K	0.0010	2886K	0.0015	2805K	0.0041
70.0deg	OK	0.5835	2626K	0.0182	2773K	0.0074
80.0deg	OK	0.5835	OK	0.5835	OK	0.5835
90.0deg	OK	0.5835	OK	0.5835	OK	0.5835

Test System:HOPOO HPG2000 Test Set: 5.0deg/s C-Gamma (TYPE C)
 Temperature:25.3DEG Humidity:65.0%
 Operators:Jason Test Distance:21.800 m
 Test Date:2017.12.12 Remarks:

AVERAGE AND CENTER E Figure

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NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001



Test System:HOP00 HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
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 Remarks:

ZONAL FLUX DIAGRAM

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SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	108.3	108.1	107.8	107.1	109.7	109.3	108.8	106.6	0- 5	2.589	2.589
10.0	106.4	105.7	105.5	105.7	108.3	108.3	107.8	105.0	5- 10	7.673	10.26
15.0	103.1	102.4	102.1	103.1	105.9	106.4	105.5	102.1	10- 15	12.46	22.73
20.0	98.84	98.13	97.89	99.80	102.6	103.1	102.1	98.37	15- 20	16.79	39.52
25.0	94.09	92.90	93.14	95.52	98.37	98.84	97.89	93.62	20- 25	20.49	60.01
30.0	87.91	86.73	86.96	90.05	93.14	93.85	92.67	88.15	25- 30	23.43	83.45
35.0	80.79	80.07	80.79	84.11	86.96	87.68	86.49	81.97	30- 35	25.52	108.9
40.0	73.66	72.71	73.66	77.46	79.84	81.02	79.84	74.85	35- 40	26.70	135.6
45.0	66.05	64.87	66.05	70.09	72.71	73.66	72.23	67.48	40- 45	26.96	162.6
50.0	57.50	56.55	57.50	62.01	64.63	65.58	64.15	59.40	45- 50	26.28	188.9
55.0	48.94	47.99	49.42	53.93	56.07	57.50	56.07	51.32	50- 55	24.70	213.6
60.0	39.44	38.73	40.39	44.67	47.52	48.47	47.04	42.29	55- 60	22.26	235.8
65.0	28.51	27.80	29.46	34.45	37.06	38.01	36.11	31.36	60- 65	18.62	254.5
70.0	16.63	16.63	18.53	23.28	25.66	26.37	24.23	19.24	65- 70	13.77	268.2
75.0	5.702	5.465	6.653	10.93	13.30	13.54	11.40	7.603	70- 75	7.975	276.2
80.0	1.425	0.713	0.475	2.138	2.851	3.326	3.326	1.425	75- 80	2.691	278.9
85.0	0.950	0.475	0	0.475	0	0.475	0.950	0.475	80- 85	0.505	279.4
90.0	0.950	0.475	0	0.475	0	0.475	0.950	0.475	85- 90	0.260	279.7
95.0	0.950	0.475	0	0.475	0	0.475	0.950	0.475	90- 95	0.260	279.9
100.0	0.950	0.475	0	0.475	0	0.475	0.950	0.475	95-100	0.258	280.2
105.0	0.950	0.475	0	0.475	0	0.475	0.950	0.475	100-105	0.254	280.4
110.0	0.950	0.713	0	0.475	0	0.475	0.950	0.475	105-110	0.267	280.7
115.0	0.950	0.713	0.475	0.475	0	0.713	0.950	0.475	110-115	0.293	281.0
120.0	0.950	0.713	0.475	0.713	0.475	0.713	0.950	0.713	115-120	0.329	281.3
125.0	0.950	0.713	0.475	0.713	0.475	0.713	0.950	0.713	120-125	0.330	281.7
130.0	1.425	0.713	0.475	0.713	0.475	0.713	0.950	0.713	125-130	0.319	282.0
135.0	0.950	0.950	0.950	0.950	0.475	0.950	0.950	0.950	130-135	0.310	282.3
140.0	0.950	1.188	0.950	0.950	0.950	0.950	1.425	0.950	135-140	0.336	282.6
145.0	1.425	1.188	0.950	0.950	0.950	0.950	0.950	1.188	140-145	0.350	283.0
150.0	1.425	1.188	0.950	0.950	0.950	1.188	1.425	1.188	145-150	0.336	283.3
155.0	1.425	1.188	0.950	0.950	0.950	1.188	1.425	1.188	150-155	0.299	283.6
160.0	1.425	1.188	0.950	0.713	0.950	1.188	0.950	1.188	155-160	0.236	283.8
165.0	1.425	1.188	0.475	0.475	0.950	1.425	0.950	1.188	160-165	0.172	284.0
170.0	0.950	0.950	0.475	0.238	0.475	0.950	0.950	0.475	165-170	0.101	284.1
175.0	0	0.238	0	0.238	0.475	0.238	0.475	0.238	170-175	0.034	284.2
180.0	0	0.475	0	0.238	0	0.238	0	0.475	175-180	0.006	284.2
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

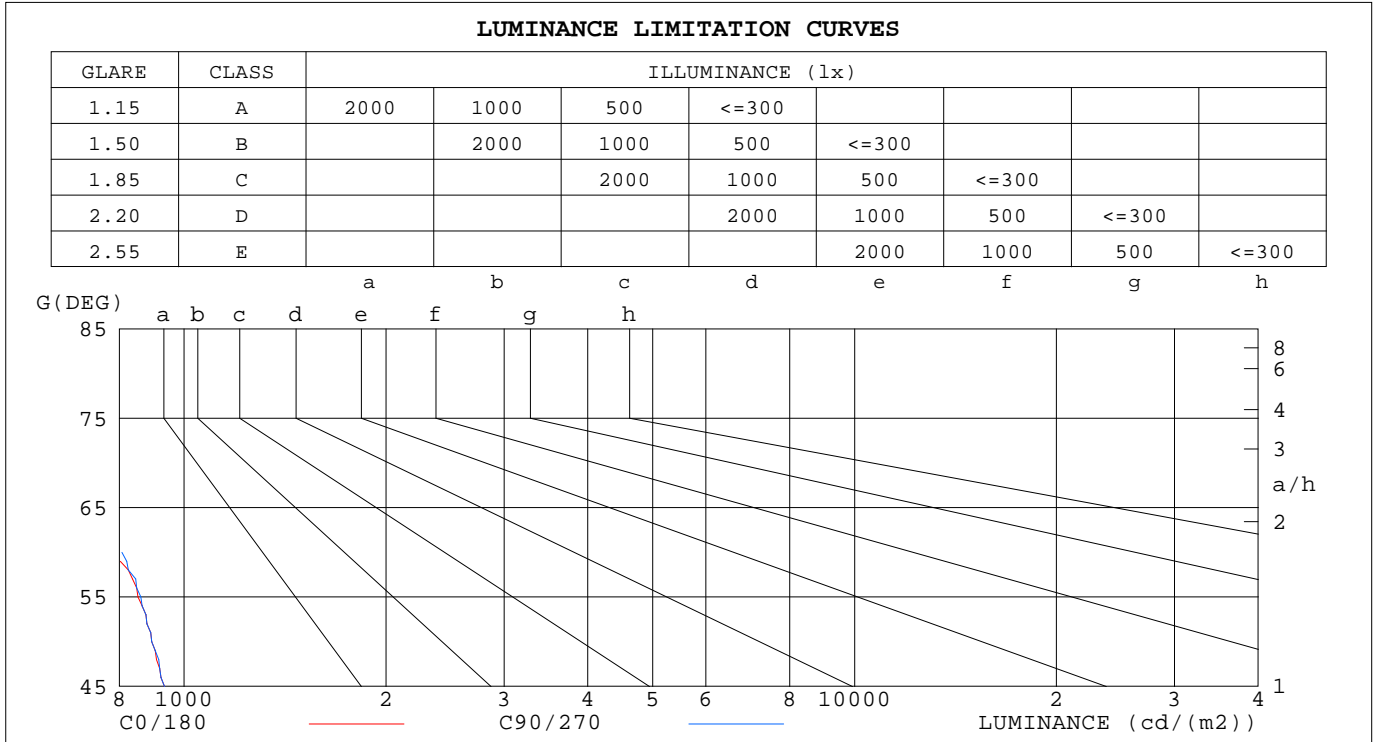
Test System:HOPPO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

LUMINANCE LIMITATION CURVES

Report number: PTCHX031711201012S-LD01

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NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001



LUMINANCE cd/m2		
G (DEG)	C0/180	C90/270
85	109	0
80	82	27
75	220	257
70	486	542
65	675	697
60	789	808
55	853	862
50	895	895
45	934	934

Test System:HOP00 HPG2000
 Temperature:25.3DEG
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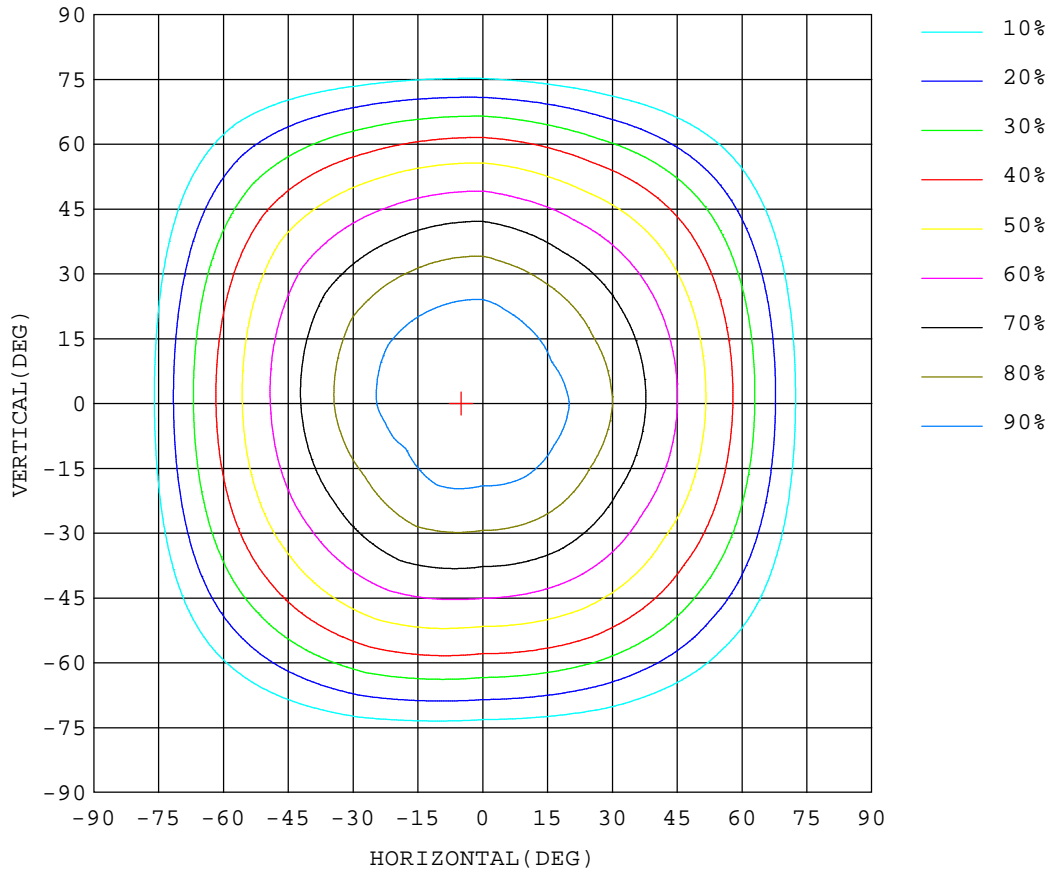
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 Remarks:

ISOCANDELA DIAGRAM

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NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

UNIT: cd



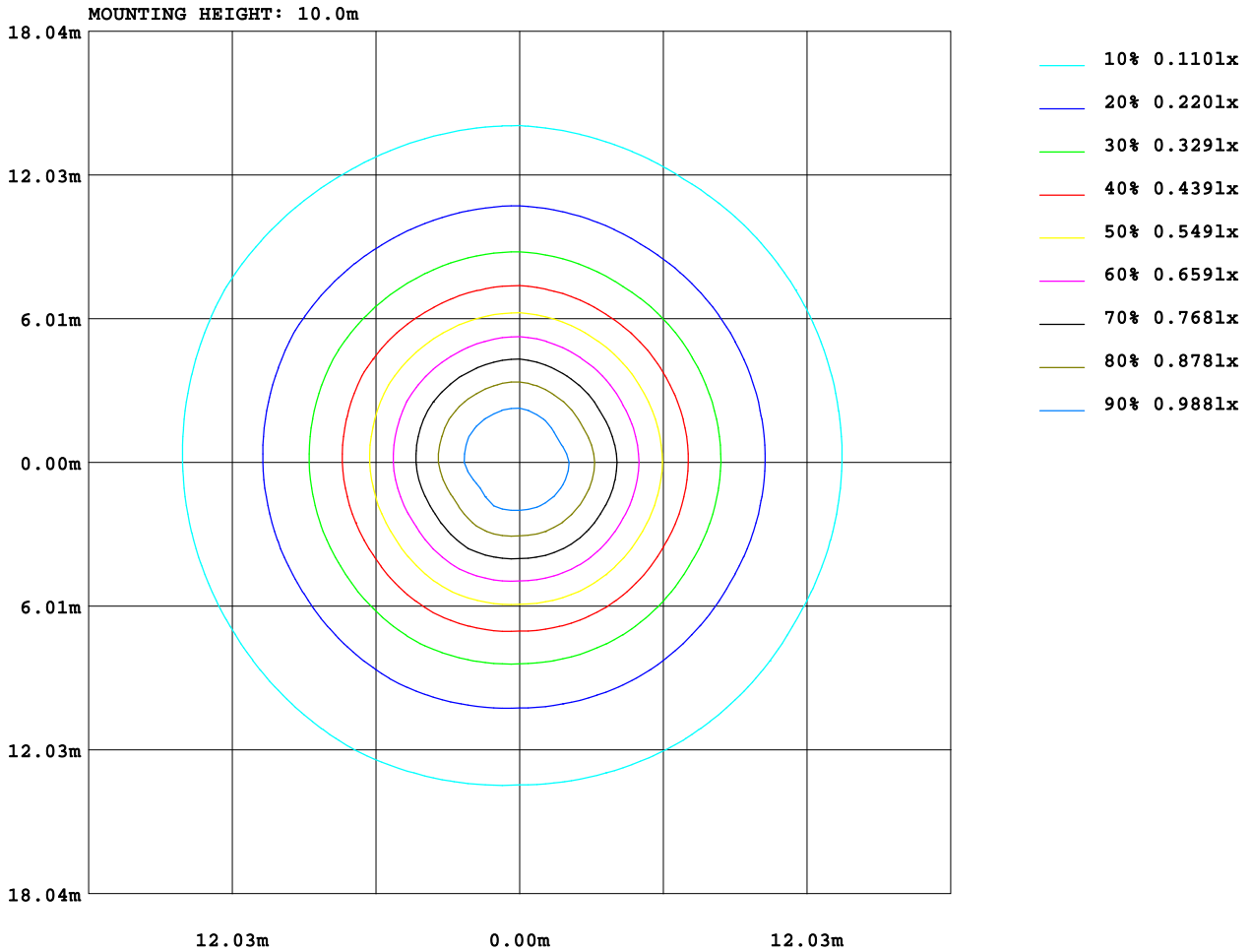
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ISOLUX DIAGRAM

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SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001



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 Temperature:25.3DEG
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AREA LUMINOUS FLUX

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NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

VERTICAL (DEG)	AREA FLUX DIAGRAM																	UNIT:lm	Φ t	Φ a
	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.02	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.23	0.00
90	0.00	0.00	0.02	0.05	0.11	0.18	0.26	0.33	0.37	0.35	0.28	0.18	0.10	0.05	0.02	0.01	0.01	0.00	2.33	1.29
80	0.00	0.01	0.06	0.22	0.43	0.65	0.86	1.00	1.08	1.05	0.93	0.72	0.50	0.28	0.11	0.03	0.01	0.00	7.96	7.62
70	0.00	0.02	0.16	0.44	0.77	1.09	1.37	1.57	1.68	1.65	1.49	1.24	0.95	0.61	0.29	0.08	0.01	0.00	13.4	13.3
60	0.00	0.04	0.27	0.64	1.05	1.44	1.78	2.04	2.17	2.14	1.94	1.64	1.29	0.90	0.49	0.16	0.02	0.00	18.0	17.9
50	0.00	0.07	0.36	0.79	1.26	1.73	2.13	2.44	2.60	2.56	2.33	1.98	1.56	1.10	0.65	0.24	0.03	0.00	21.8	21.7
40	0.00	0.09	0.42	0.89	1.41	1.95	2.42	2.76	2.94	2.90	2.64	2.25	1.77	1.25	0.76	0.31	0.04	0.00	24.8	24.8
30	0.00	0.11	0.46	0.95	1.51	2.10	2.62	2.99	3.17	3.12	2.85	2.44	1.92	1.36	0.83	0.35	0.05	0.00	26.8	26.8
20	0.00	0.12	0.48	0.98	1.56	2.15	2.70	3.10	3.29	3.22	2.97	2.55	2.00	1.41	0.86	0.37	0.06	0.00	27.8	27.8
10	0.00	0.12	0.48	0.97	1.54	2.13	2.65	3.03	3.23	3.23	2.98	2.55	1.99	1.40	0.85	0.37	0.06	0.00	27.6	27.5
0	0.00	0.11	0.45	0.93	1.47	2.02	2.51	2.89	3.09	3.07	2.84	2.41	1.89	1.33	0.80	0.34	0.05	0.00	26.2	26.1
-10	0.00	0.09	0.40	0.85	1.34	1.85	2.31	2.67	2.82	2.79	2.59	2.20	1.71	1.20	0.72	0.29	0.04	0.00	23.9	23.8
-20	0.00	0.06	0.33	0.73	1.17	1.63	2.04	2.34	2.45	2.42	2.25	1.92	1.49	1.03	0.60	0.22	0.02	0.00	20.7	20.6
-30	0.00	0.04	0.24	0.58	0.97	1.35	1.69	1.92	2.00	1.97	1.83	1.57	1.21	0.82	0.43	0.13	0.01	0.00	16.8	16.6
-40	0.00	0.01	0.13	0.38	0.70	1.01	1.28	1.44	1.50	1.47	1.36	1.15	0.87	0.54	0.24	0.05	0.01	0.00	12.1	12.0
-50	0.00	0.00	0.04	0.16	0.37	0.59	0.77	0.88	0.91	0.88	0.80	0.65	0.44	0.23	0.07	0.01	0.00	0.00	6.80	6.46
-60	0.00	0.00	0.00	0.02	0.07	0.15	0.21	0.25	0.25	0.23	0.20	0.14	0.08	0.03	0.00	0.00	0.00	0.00	1.65	0.71
-70	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.16	0.00
-80	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.16	0.00
-90	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.16	0.00
	Φ t	0.02	0.89	4.31	9.61	15.7	22.1	27.7	31.7	33.6	33.1	30.3	25.6	19.8	13.5	7.72	2.97	0.45	0.04	284
	Φ a	0.00	0.59	4.07	9.38	15.5	21.8	27.4	31.5	33.4	32.9	30.1	25.4	19.5	13.3	7.47	2.67	0.12	0.00	276

Test System:HOPOO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

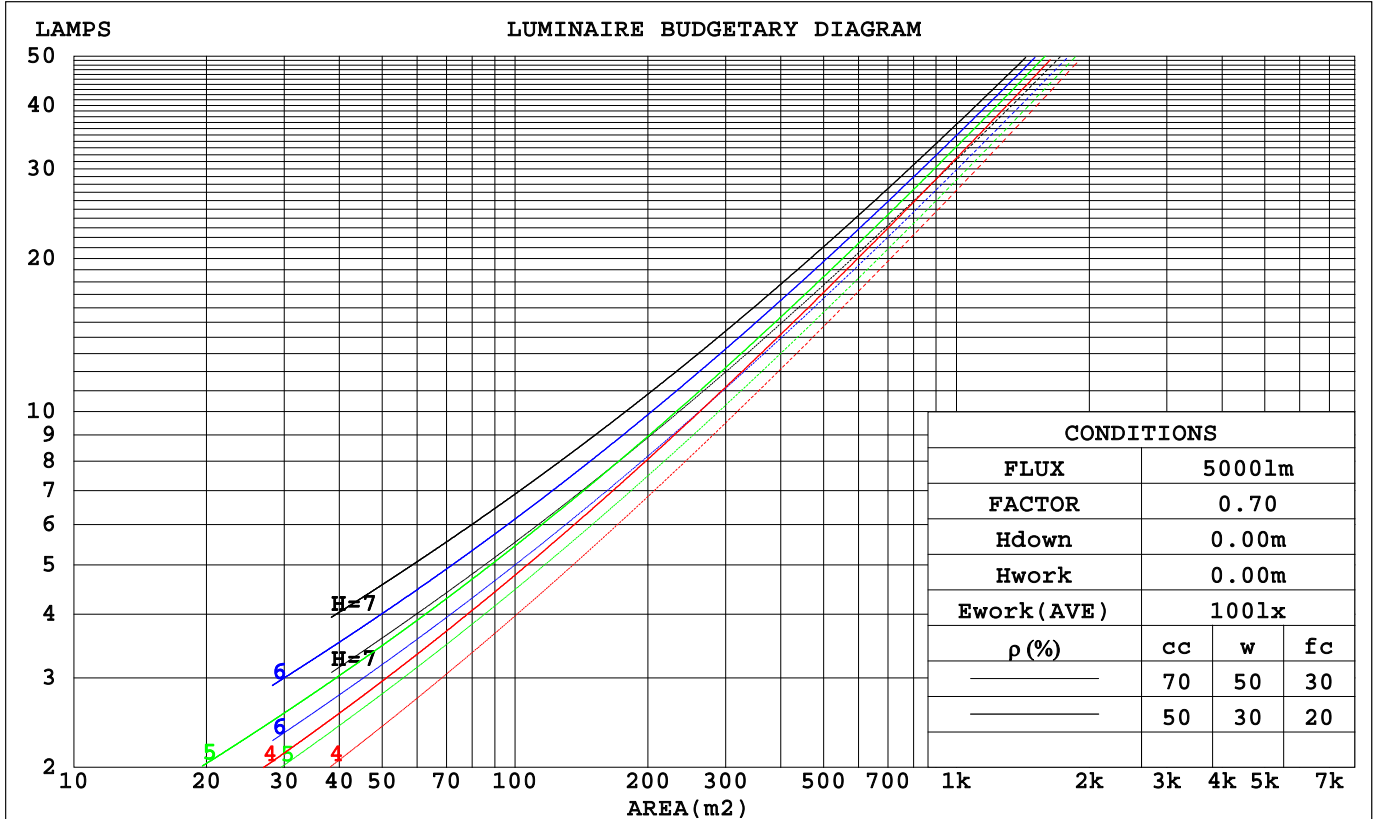
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number: PTCHX031711201012S-LD01

MANUFACTURER: Dong Guan Seed Lighting Co., Ltd		
Address: No.6, ZhenXing Road., DingWu Village, Dong Keng Town, Dong Guan City, Guang Dong Province, China		
NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.98
1.0	1.05	1.02	.98	1.03	.99	.96	.98	.96	.93	.94	.92	.90	.91	.89	.87	.85
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.83	.79	.76	.80	.77	.74	.72
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.74	.69	.65	.71	.67	.63	.61
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.56	.66	.60	.55	.64	.59	.55	.52
5.0	.65	.56	.50	.64	.56	.50	.62	.54	.49	.59	.53	.48	.57	.52	.48	.46
6.0	.59	.50	.44	.58	.49	.43	.56	.48	.43	.54	.47	.42	.52	.46	.42	.40
7.0	.53	.45	.39	.52	.44	.38	.51	.43	.38	.49	.43	.38	.48	.42	.37	.35
8.0	.49	.40	.34	.48	.40	.34	.46	.39	.34	.45	.38	.34	.44	.38	.33	.32
9.0	.45	.36	.31	.44	.36	.31	.43	.36	.31	.41	.35	.30	.40	.35	.30	.28
10.0	.41	.33	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.37	.32	.27	.26



Test System:HOPOO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

WEC AND CCEC

Report number: PTCHX031711201012S-LD01

MANUFACTURER: Dong Guan Seed Lighting Co., Ltd		
Address: No.6, ZhenXing Road., DingWu Village, Dong Keng Town, Dong Guan City, Guang Dong Province, China		
NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.274	.156	.049	.267	.152	.048	.253	.145	.046	.240	.139	.044	.228	.132	.043	
2.0	.267	.146	.045	.261	.144	.044	.248	.138	.043	.237	.133	.042	.227	.128	.040	
3.0	.252	.134	.040	.246	.132	.040	.236	.128	.039	.225	.124	.038	.216	.120	.037	
4.0	.236	.123	.036	.231	.121	.036	.221	.117	.035	.212	.114	.034	.204	.111	.034	
5.0	.220	.112	.033	.216	.111	.032	.207	.108	.032	.199	.105	.031	.191	.102	.031	
6.0	.206	.103	.030	.202	.102	.029	.194	.099	.029	.187	.097	.028	.180	.095	.028	
7.0	.192	.095	.027	.189	.094	.027	.182	.092	.026	.175	.090	.026	.169	.088	.026	
8.0	.180	.088	.025	.177	.087	.025	.171	.085	.024	.165	.084	.024	.159	.082	.024	
9.0	.170	.082	.023	.167	.081	.023	.161	.080	.023	.156	.078	.022	.151	.076	.022	
10.0	.160	.077	.021	.157	.076	.021	.152	.074	.021	.147	.073	.021	.143	.072	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.203	.203	.203	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.190	.169	.149	.163	.145	.128	.111	.100	.089	.064	.058	.052	.021	.019	.017	
2.0	.181	.144	.113	.155	.124	.098	.106	.086	.068	.061	.050	.040	.020	.016	.013	
3.0	.173	.126	.089	.149	.109	.077	.102	.076	.054	.059	.044	.032	.019	.014	.010	
4.0	.166	.113	.073	.142	.098	.063	.098	.068	.044	.057	.040	.026	.018	.013	.009	
5.0	.159	.103	.061	.136	.089	.053	.094	.062	.038	.054	.036	.022	.018	.012	.007	
6.0	.152	.094	.053	.131	.082	.046	.090	.057	.032	.052	.034	.019	.017	.011	.006	
7.0	.145	.087	.047	.125	.076	.041	.086	.053	.029	.050	.031	.017	.016	.010	.006	
8.0	.139	.081	.042	.120	.071	.036	.083	.050	.026	.048	.029	.015	.016	.010	.005	
9.0	.133	.077	.038	.115	.066	.033	.080	.047	.024	.046	.028	.014	.015	.009	.005	
10.0	.128	.072	.035	.110	.063	.031	.076	.044	.022	.045	.026	.013	.014	.009	.004	

Test System:HOPOO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

Uncorrected UGR Table

Report number: PTCHX031711201012S-LD01

MANUFACTURER: Dong Guan Seed Lighting Co., Ltd										
Address: No.6, ZhenXing Road., DingWu Village, Dong Keng Town, Dong Guan City, Guang Dong Province, China										
NAME: SLD-80PV					TYPE: LING			WEIGHT: N/A		
SPECIFICATION: N/A					DIMENSION: N/A			SERIAL No.: PTCEP0001		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	11.9	13.3	12.2	13.5	13.8	12.1	13.5	12.3	13.7	13.9
3H	12.7	14.0	13.0	14.3	14.5	13.0	14.3	13.3	14.6	14.8
4H	12.7	14.0	13.1	14.2	14.5	13.1	14.3	13.4	14.6	14.9
6H	12.6	13.8	13.0	14.1	14.4	13.0	14.2	13.3	14.5	14.8
8H	12.6	13.7	12.9	14.0	14.3	12.9	14.1	13.3	14.4	14.7
12H	12.5	13.6	12.9	13.9	14.3	12.9	14.0	13.3	14.3	14.6
4H 2H	12.3	13.6	12.6	13.8	14.1	12.5	13.7	12.8	14.0	14.3
3H	13.2	14.3	13.6	14.6	14.9	13.5	14.6	13.9	14.9	15.2
4H	13.2	14.2	13.6	14.6	14.9	13.6	14.6	14.0	14.9	15.3
6H	13.1	14.0	13.6	14.4	14.8	13.5	14.4	14.0	14.8	15.2
8H	13.1	13.9	13.5	14.3	14.7	13.5	14.3	13.9	14.7	15.1
12H	13.1	13.8	13.5	14.2	14.6	13.4	14.2	13.9	14.6	15.0
8H 4H	13.2	14.0	13.6	14.4	14.8	13.5	14.4	14.0	14.7	15.2
6H	13.1	13.8	13.6	14.2	14.7	13.5	14.2	14.0	14.6	15.0
8H	13.1	13.7	13.6	14.1	14.6	13.5	14.0	13.9	14.5	15.0
12H	13.0	13.5	13.5	14.0	14.5	13.4	13.9	13.9	14.4	14.9
12H 4H	13.1	13.9	13.6	14.3	14.7	13.5	14.2	14.0	14.6	15.1
6H	13.1	13.7	13.6	14.1	14.6	13.5	14.0	13.9	14.5	15.0
8H	13.0	13.5	13.5	14.0	14.5	13.4	13.9	13.9	14.4	14.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.3 / - 0.4				
1.5H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				
2.0H	+ 0.6 / - 0.7					+ 0.5 / - 0.6				

CIE Pub.117 Corrected 284.2 lm Total Lamp Luminous Flux. (8log(F/F0) = -4.4)

Test System:HOPOO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks:

UTILIZATION FACTORS TABLE

Report number: PTCHX031711201012S-LD01

MANUFACTURER: Dong Guan Seed Lighting Co., Ltd		
Address: No.6, ZhenXing Road., DingWu Village, Dong Keng Town, Dong Guan City, Guang Dong Province, China		
NAME: SLD-80PV	TYPE: LING	WEIGHT: N/A
SPECIFICATION: N/A	DIMENSION: N/A	SERIAL No.: PTCEP0001

REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	48	41	58	47	41	57	47	41	34
0.80	69	58	51	68	58	51	66	57	50	44
1.00	78	67	60	77	67	60	74	68	59	53
1.25	85	75	68	84	74	68	81	73	67	60
1.50	90	81	74	88	80	74	85	78	73	65
2.00	97	89	83	95	88	82	91	85	80	73
2.50	100	93	88	98	92	87	94	89	85	76
3.00	104	97	92	101	96	91	97	93	89	80
4.00	107	102	98	105	100	97	101	97	94	85
5.00	110	105	102	107	103	100	102	99	97	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

Test System:HOPPO HPG2000
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2017.12.12

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:21.800 m
 Remarks: