



Great One Global Certification Co., Ltd.

9F-2, No. 120, Qiaoh Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)

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Optical Report For Luminaires

Applicant..... : GlacialTech Inc.

Applicant Add..... : 6Fl., No. 346, Sec. 2, Jung Shan Rd., Jung He Dist., New Taipei
City 235, Taiwan (R.O.C.)

Report No..... : GO1508070501E

Product Name..... : LED Down Light

Model No : GL-DLC06-15-NW

Sample No..... : 15080705-5

Test Specification..... : IESNA LM-79-08, Approved Method: Electrical and Photometric
Measurements of Solid-State Lighting Products.

Test Date : October 5, 2015 to October 8, 2015

Issue Date..... : October 15, 2015

- Note:
1. The test results of this report relate only to the tested sample identified in this report.
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 3. The data in report cannot be used for advertisement, publication and promotion.

Tested By :

Reviewed By :

Alex Sung

Donald Chang

Project Engineer

Team Leader

Great One Global Certification Co., Ltd.

Product: GL-DLC06-15/P Y
Manufacturer: GlacialTech Inc.
Sample No.: 15080705-5
Tested By: Alex Sung

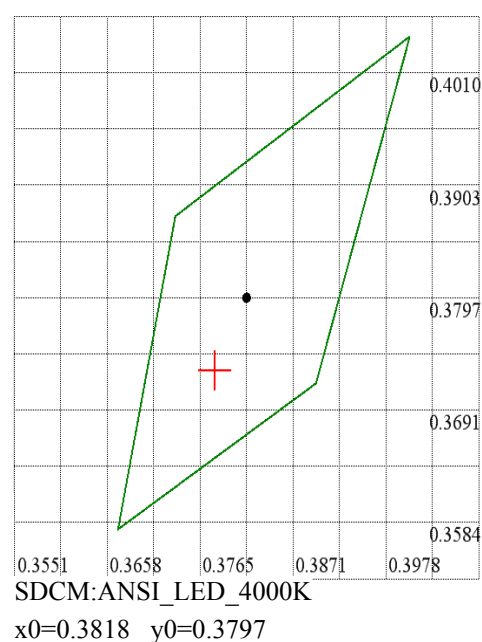
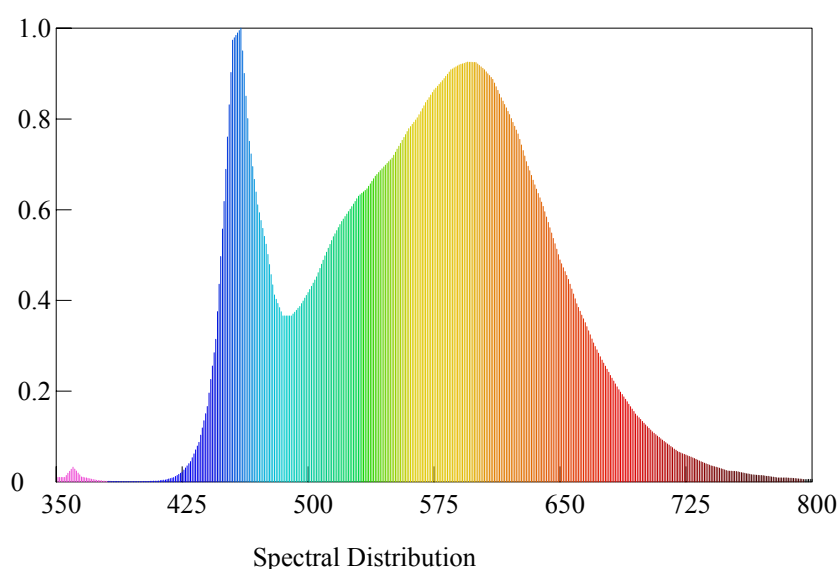
Date:10-8-2015
Reviewed By: Dqpcrf 'Ej cpi

Test Condition

Temperature: 25.5°C
Spectrum Range: 350-800 nm

RH: 60.0%
Scan Step: 5 nm

Spectroradiometric Parameters



Chromaticity Coordinates: $x=0.3851$ $y=0.3820$ $u'=0.2261$ $v'=0.5045$

Correlated Color Temperature: 3916 K

Dominant Wavelength: 577.0 nm(E)

Chromaticity Difference: +0.0011Duv

Purity: 0.3025

Color Ratio: $K_r=38.8\%$ $K_g=51.4\%$ $K_b=9.8\%$

Peak Wavelength: 458.0 nm

Bandwidth: 27.8nm

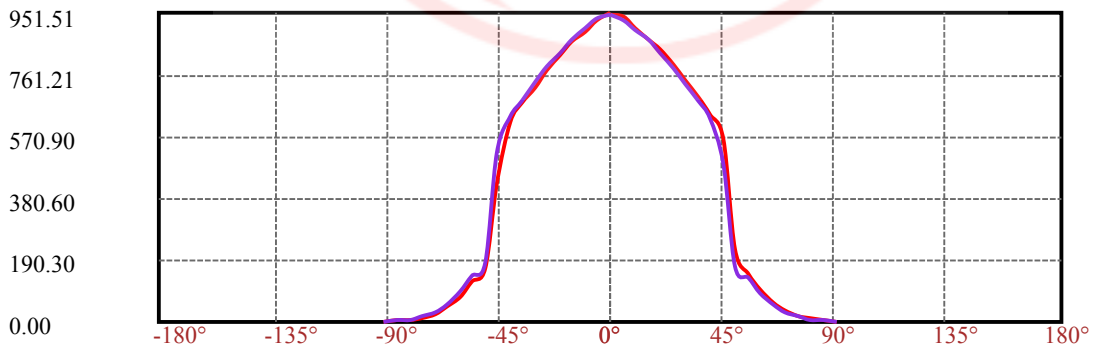
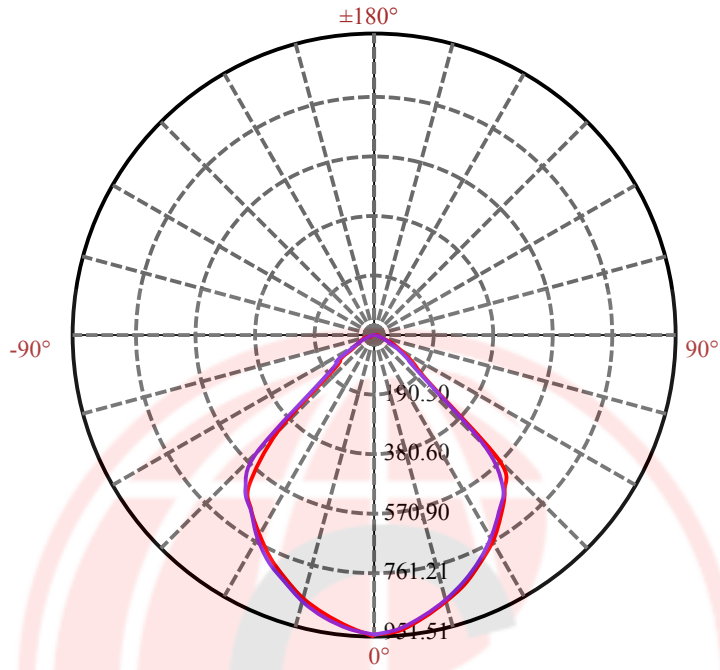
Color Tolerance: 0.0 SDCM

Rendering Index: $R_a=83.8$

Radiant Flux: 5.073 W

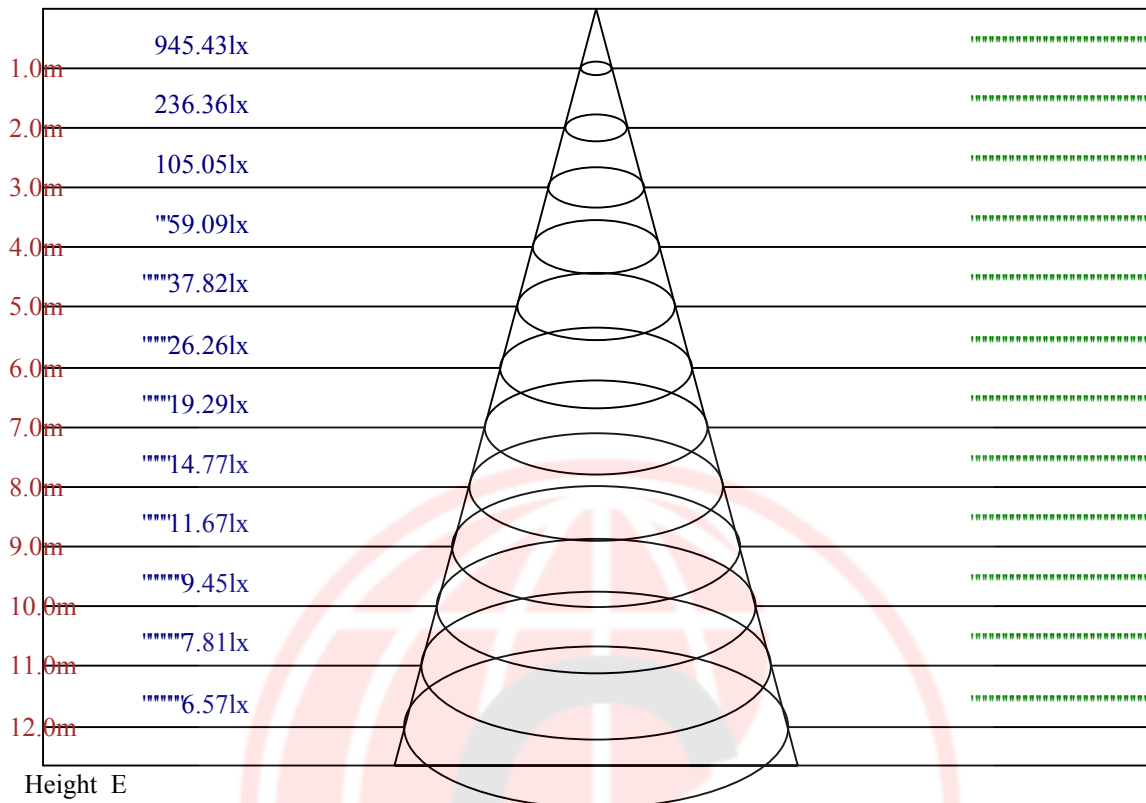
R1=83 R2=94 R3=95 R4=78 R5=82 R6=90 R7=83 R8=64
R9=15 R10=84 R11=77 R12=61 R13=87 R14=98 R15=77

Light Distribution Curve [Unit: cd]

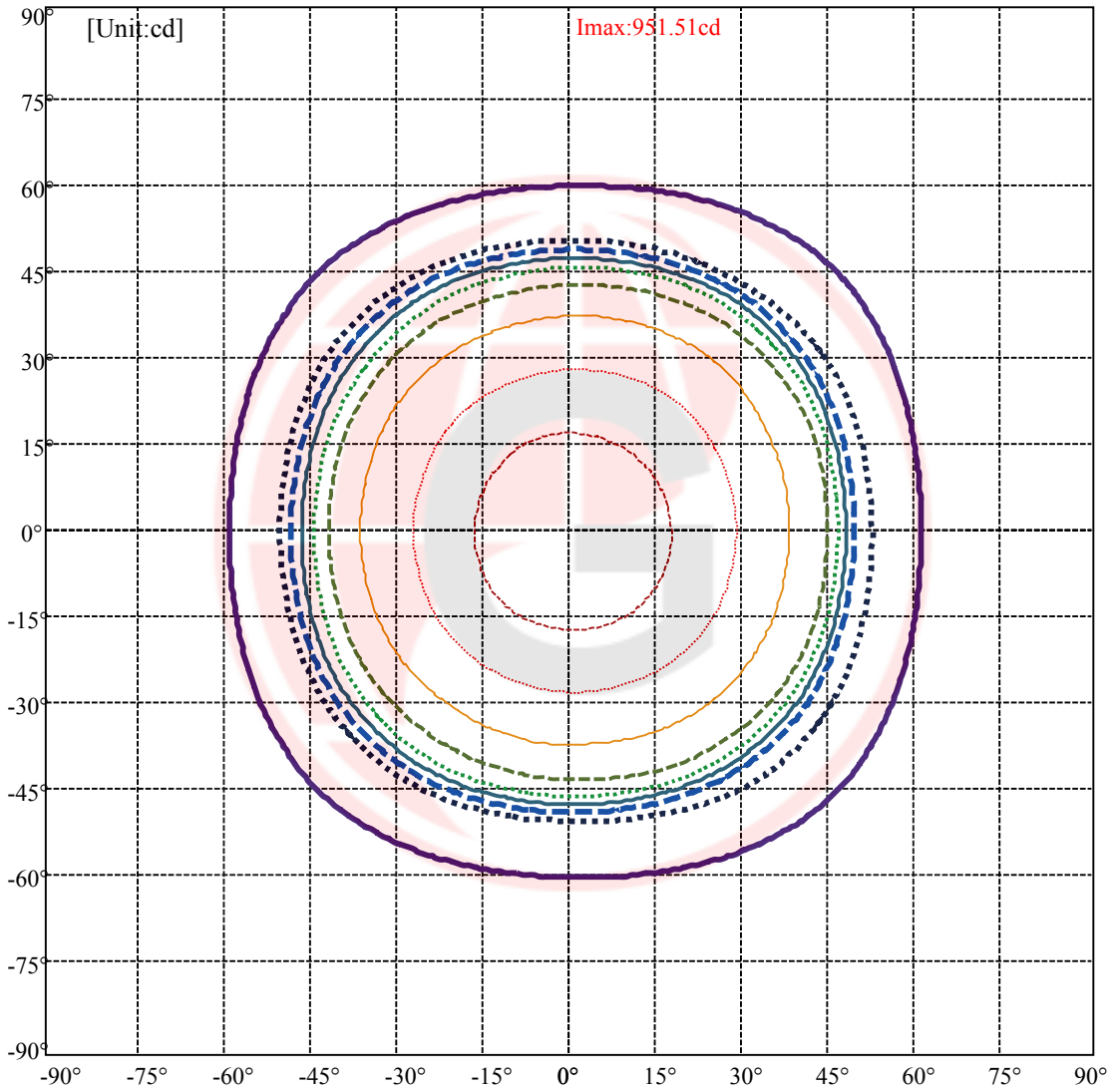


C0/C180: ———
C90/C270: ———

Lux distance Curve



ISO-Intensity(V-H)



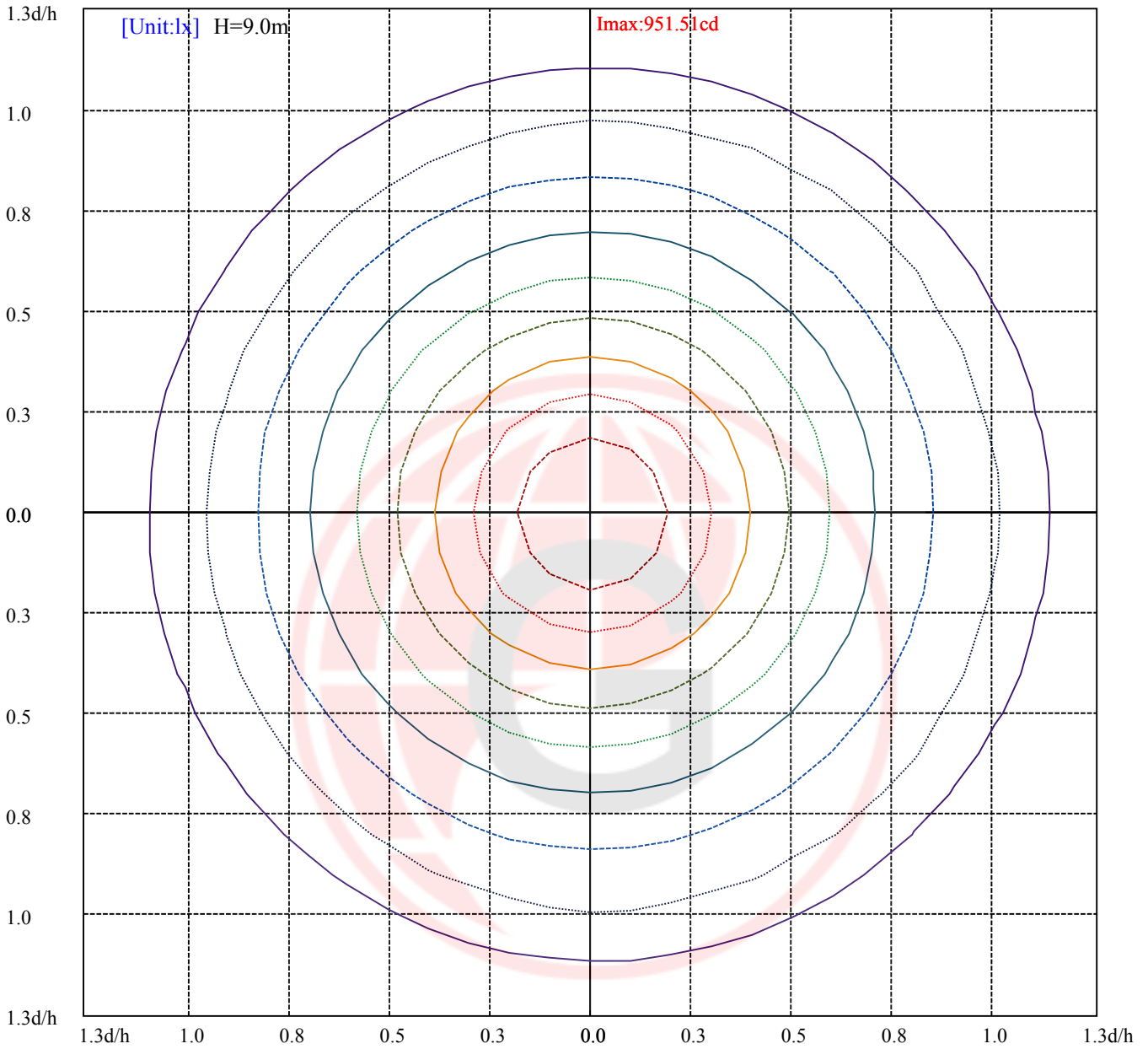
(10%Imax)	94.7376	—
(20%Imax)	189.475	⋯
(30%Imax)	284.213	- · -
(40%Imax)	378.95	—
(50%Imax)	473.688	⋯
(60%Imax)	568.426	- · -
(70%Imax)	663.163	—
(80%Imax)	757.901	⋯
(90%Imax)	852.638	- · -

Equipment: GMS1980
Temperature(°C): 25.5

Date: 2015/10/5
Humidity(%): 60.0%

Operator: Alex Sung
Distance(m): 9.00

ISO illuminance diagram



- (10%Emax) 1.1666
- (20%Emax) 2.333198
- (30%Emax) 3.499803
- (40%Emax) 4.666395
- (50%Emax) 5.833
- (60%Emax) 6.999605
- (70%Emax) 8.166197
- (80%Emax) 9.332802
- (90%Emax) 10.4994

Equipment: GMS1980
Temperature(°C): 25.5

Date: 2015/10/5
Humidity(%): 60.0%

Operator: Alex Sung
Distance(m): 9.00

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	945.43	937.17	903.15	871.40	836.57	792.83	747.39	692.87	641.12
10.0	945.43	936.77	902.66	870.59	834.71	792.42	746.33	692.96	643.46
20.0	945.59	935.96	902.34	869.37	834.46	792.34	745.61	691.25	638.12
30.0	945.35	935.06	902.18	868.73	833.49	792.10	743.34	690.12	636.09
40.0	944.54	934.25	902.75	867.92	832.52	791.94	743.50	690.93	640.63
50.0	945.35	932.80	902.50	867.02	830.66	791.21	743.01	689.88	637.71
60.0	945.59	931.34	902.75	866.46	828.79	789.02	740.75	687.37	634.88
70.0	945.84	929.88	902.75	866.94	826.20	786.59	738.96	685.83	633.91
80.0	946.73	928.75	901.61	867.27	825.15	784.40	736.45	684.94	632.12
90.0	947.38	928.02	900.32	867.19	824.50	782.14	734.67	682.34	628.07
100.0	947.78	927.61	899.02	867.11	824.42	780.27	732.48	680.00	624.83
110.0	948.35	927.29	897.97	866.62	823.85	778.49	729.73	677.00	621.76
120.0	948.83	926.80	896.59	865.00	824.01	777.36	727.46	675.46	619.73
130.0	949.24	926.56	896.02	863.38	822.56	776.47	726.57	674.16	617.95
140.0	949.32	926.15	895.46	862.16	822.72	776.14	726.00	673.92	617.30
150.0	949.32	926.07	895.05	861.68	822.72	775.33	723.74	673.35	617.06
160.0	949.64	925.91	894.24	861.11	821.75	775.09	722.44	672.30	617.63
170.0	949.48	925.59	894.48	861.27	822.07	775.09	722.44	671.65	616.49
180.0	949.56	925.75	894.00	861.35	822.07	775.58	723.25	672.06	613.66
190.0	950.29	925.91	894.24	862.33	822.96	775.01	722.93	671.81	612.52
200.0	950.13	926.07	895.05	863.30	824.09	775.58	723.65	671.73	613.33
210.0	951.02	926.72	895.78	864.68	825.47	776.79	725.36	671.81	613.17
220.0	951.51	926.64	896.51	866.21	827.01	777.92	726.81	671.98	612.36
230.0	950.86	927.05	898.13	867.43	827.01	778.25	728.51	671.81	613.01
240.0	950.05	927.86	898.86	868.64	826.69	779.95	730.38	674.57	619.65
250.0	949.16	928.34	900.96	869.62	826.61	781.65	732.81	678.13	626.21
260.0	948.43	929.96	903.15	870.02	826.52	784.73	735.16	680.81	631.64
270.0	947.13	931.66	905.18	869.94	828.06	786.43	736.05	680.97	632.21
280.0	946.24	932.39	906.80	870.91	830.01	787.89	737.02	681.94	632.21
290.0	945.43	933.77	907.44	871.48	832.60	789.35	738.56	686.23	634.72
300.0	944.87	935.47	908.33	872.13	835.35	789.99	740.10	688.01	636.42
310.0	944.70	936.28	907.44	872.61	836.81	790.97	741.64	689.96	637.23
320.0	944.87	937.09	906.47	872.53	837.30	792.18	743.34	691.66	638.36
330.0	945.27	937.33	905.50	872.86	837.95	792.83	745.12	692.47	638.77
340.0	945.11	937.49	904.85	872.45	837.22	794.04	746.66	692.55	640.95
350.0	945.35	936.60	903.31	872.05	836.89	793.23	746.50	692.31	641.36
360.0	945.43	937.17	903.15	871.40	836.57	792.83	747.39	692.87	641.12

Intensity data(cd)

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	561.17	222.43	146.37	99.55	60.10	33.86	18.95	9.96	4.62
10.0	561.49	217.73	145.64	98.82	59.86	33.78	18.87	9.88	4.62
20.0	559.79	211.41	144.83	97.93	59.54	33.45	18.71	9.72	4.62
30.0	550.15	203.15	143.53	96.80	58.73	32.97	18.47	9.56	4.46
40.0	542.62	194.56	141.83	95.50	57.83	32.56	18.23	9.23	4.46
50.0	534.92	187.60	140.54	93.80	56.86	32.00	17.90	8.99	4.37
60.0	524.96	180.79	139.00	92.10	55.57	31.43	17.58	8.75	4.29
70.0	513.38	176.74	137.46	90.32	54.35	30.86	17.25	8.59	4.29
80.0	498.39	174.80	135.43	88.70	52.97	30.21	16.77	8.26	4.13
90.0	486.41	172.77	133.41	86.99	51.60	29.65	16.36	8.02	4.21
100.0	470.21	171.23	131.22	85.54	50.30	29.00	15.88	7.78	4.05
110.0	457.16	170.26	129.52	83.84	49.09	28.35	15.39	7.53	3.97
120.0	448.90	168.64	127.98	82.54	48.28	27.78	15.15	7.45	3.89
130.0	437.64	167.02	126.28	81.32	47.39	27.30	14.90	7.29	3.81
140.0	427.52	166.05	125.06	80.35	46.82	26.89	14.66	7.13	3.73
150.0	421.20	165.56	124.17	79.54	46.41	26.65	14.50	7.05	3.73
160.0	419.26	165.48	123.69	79.38	46.17	26.41	14.42	6.97	3.65
170.0	421.93	165.65	123.77	79.30	46.09	26.41	14.42	6.97	3.65
180.0	425.74	165.81	124.01	79.30	46.09	26.41	14.42	6.97	3.73
190.0	433.11	166.70	124.74	79.87	46.41	26.57	14.66	7.05	3.73
200.0	441.94	167.51	125.96	80.68	46.90	26.81	14.66	7.21	3.81
210.0	451.66	168.72	127.17	81.57	47.47	27.30	14.90	7.29	3.89
220.0	460.57	170.59	129.11	82.86	48.36	27.78	15.23	7.45	4.05
230.0	469.64	172.29	130.90	84.40	49.25	28.43	15.47	7.61	4.13
240.0	484.46	174.07	133.16	86.18	50.38	29.08	15.88	7.78	4.13
250.0	497.50	175.85	135.51	88.05	51.84	29.81	16.36	8.10	4.13
260.0	511.03	177.80	137.38	89.75	53.22	30.46	16.77	8.34	4.29
270.0	522.77	182.33	139.48	91.69	54.68	31.02	17.17	8.59	4.29
280.0	530.31	188.97	141.35	93.31	55.97	31.59	17.66	8.83	4.37
290.0	538.73	196.67	142.72	94.69	57.02	32.08	17.98	9.15	4.37
300.0	544.89	203.39	144.42	96.15	58.00	32.56	18.31	9.32	4.46
310.0	546.91	211.73	145.72	97.36	58.81	33.05	18.55	9.48	4.54
320.0	555.42	217.89	146.45	98.33	59.45	33.37	18.79	9.72	4.54
330.0	560.12	222.35	146.77	99.23	59.94	33.70	18.95	9.80	4.70
340.0	561.25	226.72	146.77	99.63	60.18	33.86	19.04	9.96	4.54
350.0	562.63	226.07	146.69	99.79	60.35	33.94	19.04	9.96	4.70
360.0	561.17	222.43	146.37	99.55	60.10	33.86	18.95	9.96	4.62

Intensity data(cd)

C/γ(°)	90.0
0.0	0.73
10.0	0.65
20.0	0.49
30.0	0.32
40.0	0.08
50.0	0.00
60.0	0.00
70.0	0.00
80.0	0.00
90.0	0.00
100.0	0.00
110.0	0.00
120.0	0.00
130.0	0.00
140.0	0.00
150.0	0.00
160.0	0.00
170.0	0.00
180.0	0.00
190.0	0.00
200.0	0.00
210.0	0.00
220.0	0.00
230.0	0.00
240.0	0.00
250.0	0.00
260.0	0.00
270.0	0.00
280.0	0.00
290.0	0.08
300.0	0.24
310.0	0.49
320.0	0.65
330.0	0.65
340.0	0.73
350.0	0.81
360.0	0.73





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1. Luminaire Specification :

- (1) Input Voltage/Frequency : 240.00 Vac / 50 Hz
- (2) Input Watt : 14.61W
- (3) Input Current : 0.074 A
- (4) Total Luminous Flux Output : 1669.30 lm
- (5) Luminaire Efficacy : 114.25 lm/W
- (6) Central Intensity (cd) : 945.432 cd
- (7) Maximum Intensity(cd) : 951.507 cd
- (8) PF : 0.819
- (9) Beam angle: (C0-C180) : 90.1°, (C90-C270) : 90.9°
- (10) Correlated Color Temperature (CCT) : 3916 K
- (11) Duv : +0.00011
- (12) Color Rendering Index (CRI) : 83.8

2. Description of EUT Setup :

- (1) Operating Orientation : The light source is considered as horizontal
- (2) Light Source : LED
- (3) Stabilization time : 1 Hour
- (4) Environment Condition : Temperature : 25 ± 1 °C , Humidity : 60 ± 20 %



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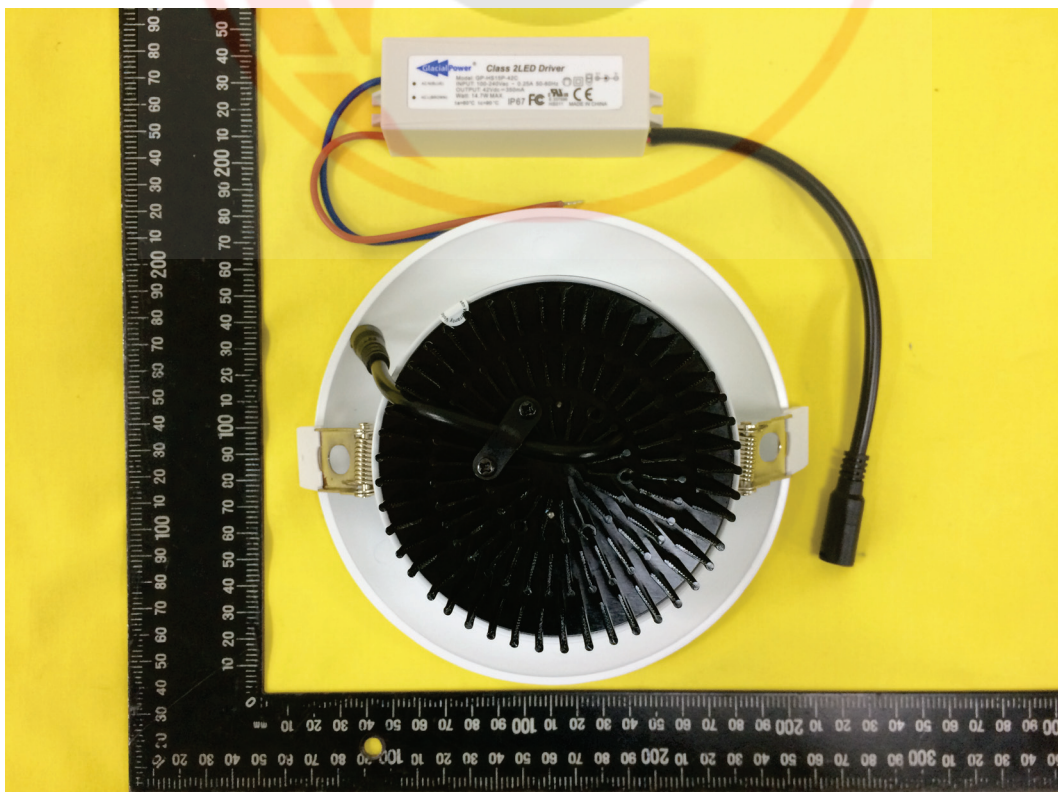
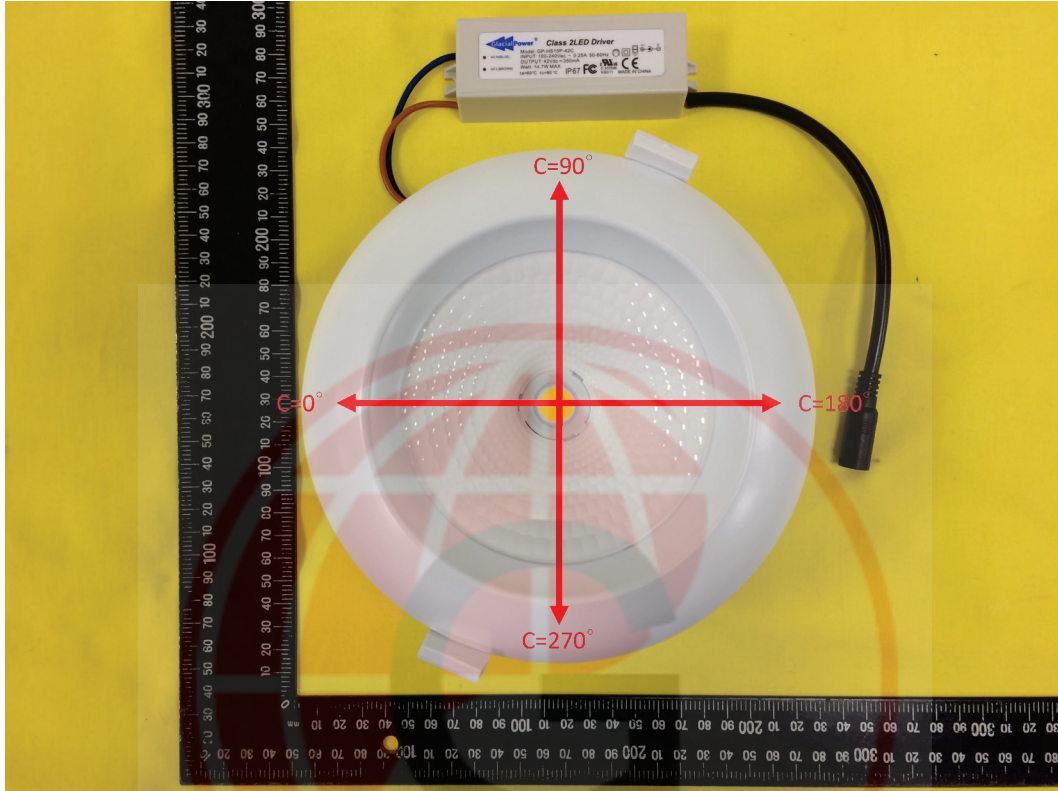
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3. Photograph of EUT :

Complete Sample Angle Definition





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4. Equipments List:

Equipment List				
Equipment ID	Equipment Type	Cal. Date	Due Date	Range Used
L201	Integrating Sphere	N/A	N/A	
L202	Spetroradiometer	N/A	N/A	
L203	AC Power Source	N/A	N/A	
L222	Power Meter	2015/10/10	2016/10/09	V : Auto (0~300Vac) A : Auto (0~20A)
L217	Goniophotometer Photo Detector	N/A	N/A	
L218	Goniophotometer System	N/A	N/A	
L219	AC Power Source	N/A	N/A	AC 0~150VAC4.2A AC0~300VAC2.1A
L220	Power Meter	2015/08/26	2016/08/25	V : Auto (0~300Vac) A : Auto (0~20A)
L221	Luminous Intensity Lamp	2014/11/13	2015/11/12	
L242	DC Standard Light	2015/10/14	2016/10/13	