



## 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..... : GO1508070502E

Product Name..... : LED Down Light

Model No ..... : GL-DLC06-35-NW

Sample No..... : 15080705-6

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

Test Date ..... : October 12, 2015

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

- Note:
1. The test results of this report relate only to the tested sample identified in this report.
  2. This report shall not be reproduced, in full or in portion, except for having written approval from Great One Global Certification Co. , Ltd.
  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-DLC06-35/P Y  
Manufacturer: GlacialTech Inc.  
Sample No.: 15080705-6  
Tested By: Alex Sung

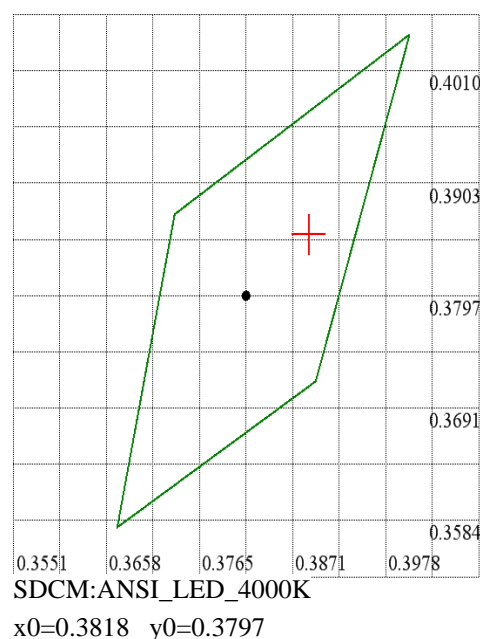
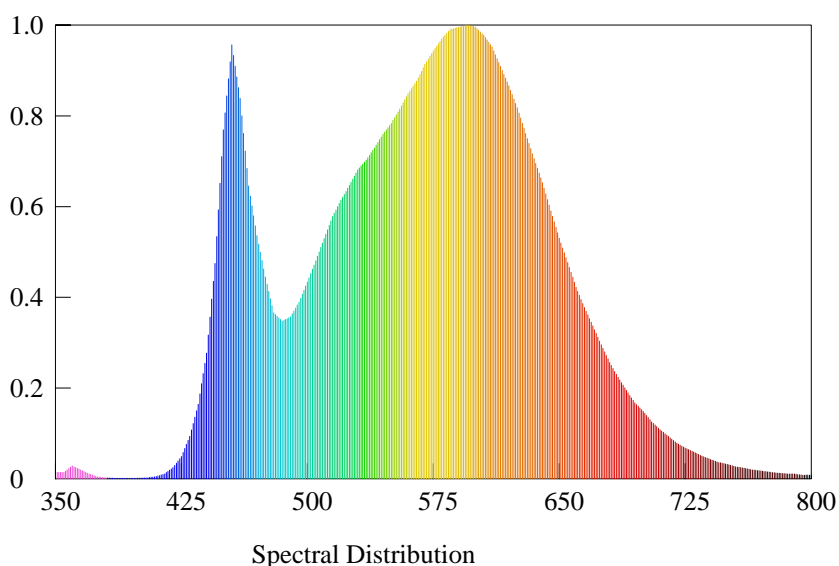
Date: 10-12-2015  
Reviewed By: Dqpcrf 'Ej cpi

## Test Condition

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

RH: 60.0%  
Scan Step: 5 nm

## Spectroradiometric Parameters



Chromaticity Coordinates:  $x=0.3890$   $y=0.3855$   $u'=0.2272$   $v'=0.5067$

Correlated Color Temperature: 3842 K

Dominant Wavelength: 577.0 nm(E)

Chromaticity Difference: +0.00164Duv

Purity: 0.3247

Color Ratio:  $K_r=38.9\%$   $K_g=51.9\%$   $K_b=9.2\%$

Peak Wavelength: 595.2 nm

Bandwidth: 146nm

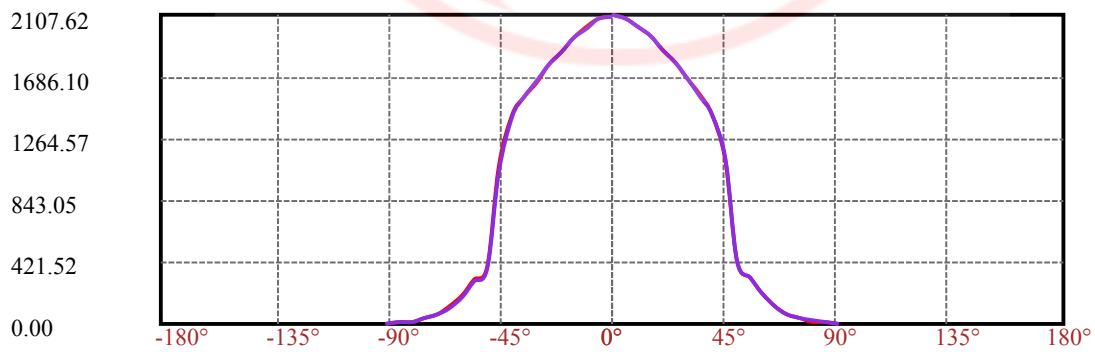
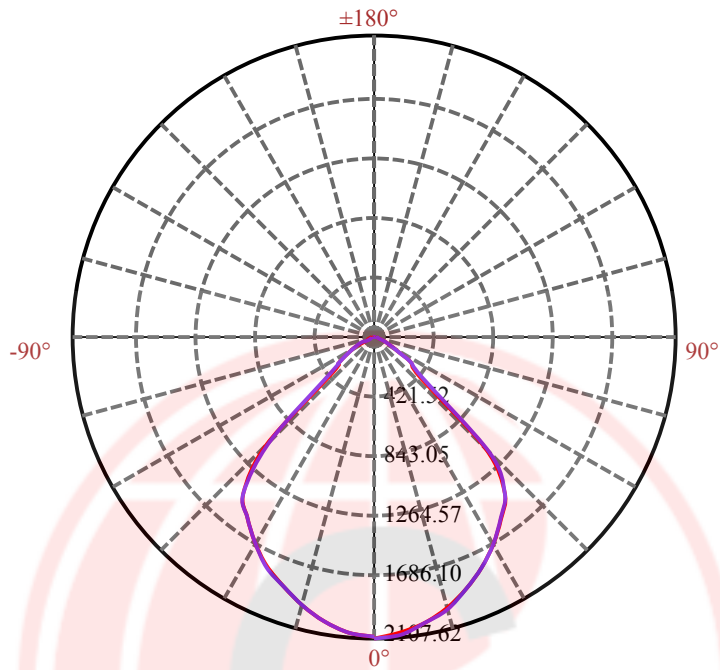
Color Tolerance: 0.0 SDCM

Rendering Index:  $R_a=82.7$

Radiant Flux: 12.487 W

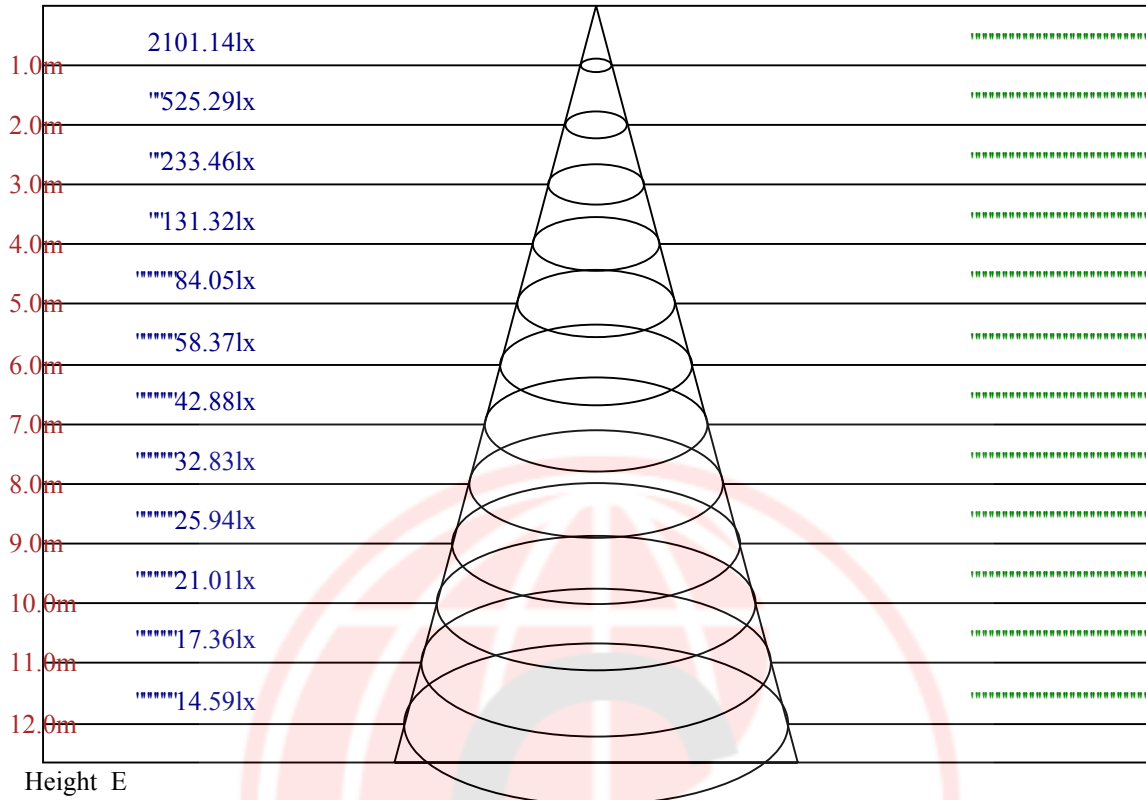
R1=81 R2=91 R3=96 R4=79 R5=80 R6=87 R7=85 R8=63

R9=9 R10=78 R11=77 R12=61 R13=84 R14=98 R15=75

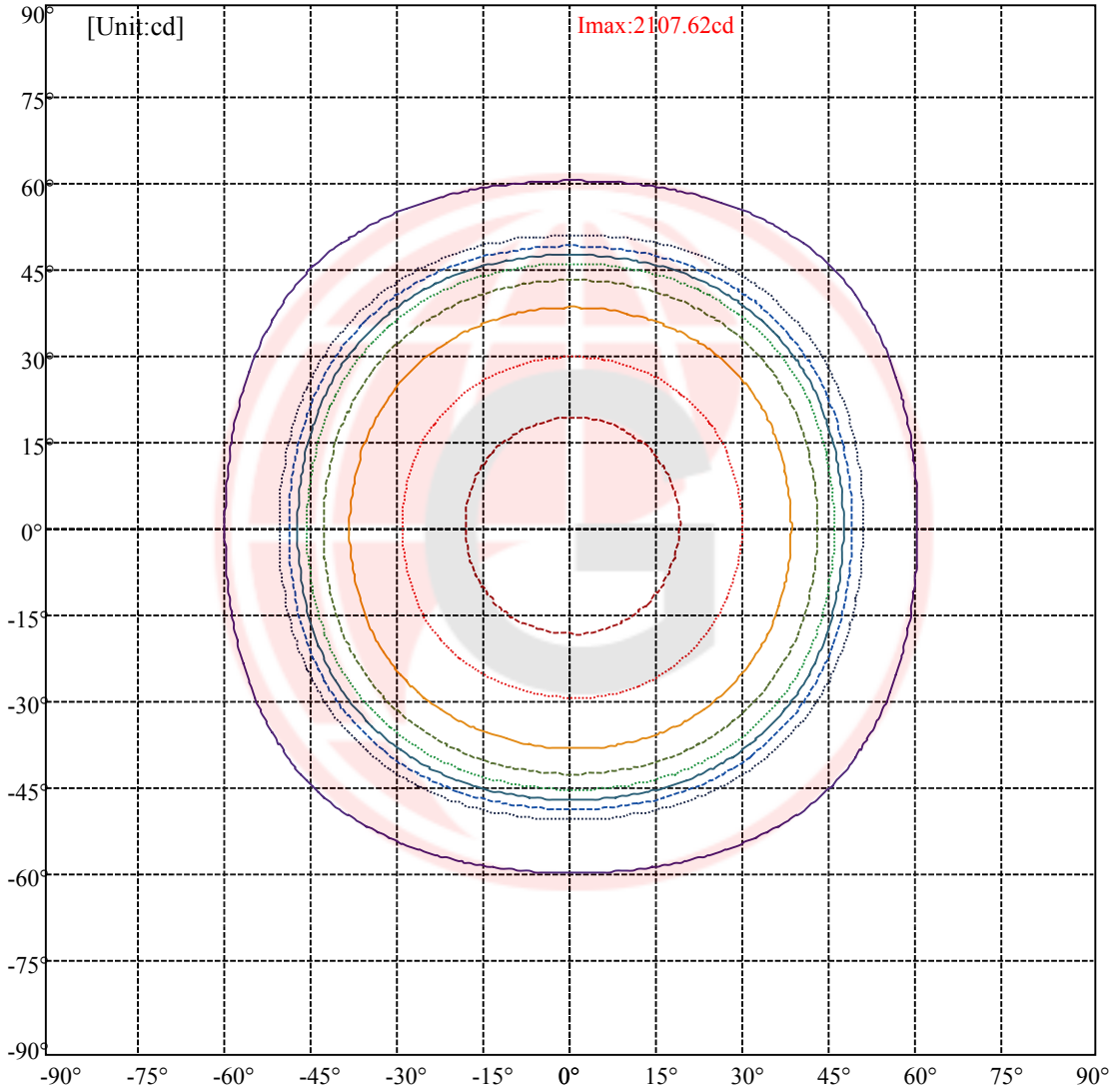


C0/C180: ————  
C90/C270: ————

Lux distance Curve



ISO-Intensity(V-H)



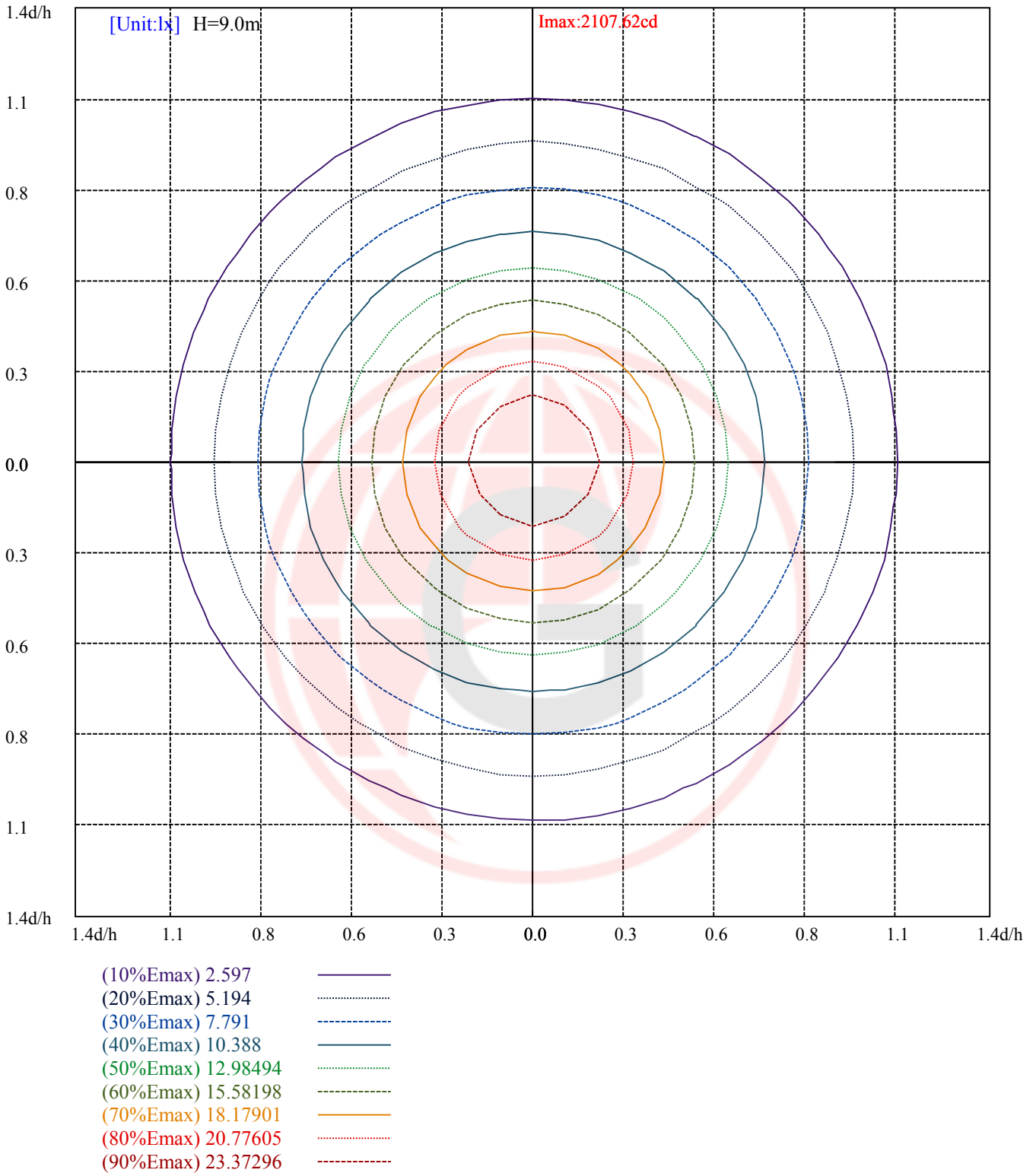
- |                  |           |
|------------------|-----------|
| (10%Imax) 210.6  | ———       |
| (20%Imax) 421.2  | .....     |
| (30%Imax) 631.8  | - - - - - |
| (40%Imax) 842.4  | ———       |
| (50%Imax) 1053   | .....     |
| (60%Imax) 1263.6 | - - - - - |
| (70%Imax) 1474.2 | ———       |
| (80%Imax) 1684.8 | .....     |
| (90%Imax) 1895.4 | - - - - - |

Equipment: GMS1980  
Temperature(°C): 25.5

Date: 2015/10/12  
Humidity(%): 60.0%

Operator: Alex Sung  
Distance(m): 9.00

ISO illuminance diagram



Equipment: GMS1980  
Temperature(°C): 25.5

Date: 2015/10/12  
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	2101.14	2076.84	2030.67	1965.87	1875.96	1780.38	1676.70	1551.96	1423.17
10.0	2101.95	2076.03	2033.10	1967.49	1878.39	1779.57	1676.70	1552.77	1423.98
20.0	2103.57	2079.27	2033.10	1966.68	1881.63	1782.81	1679.13	1556.01	1430.46
30.0	2102.76	2080.89	2035.53	1969.92	1881.63	1783.62	1681.56	1554.39	1436.13
40.0	2103.57	2080.89	2033.91	1967.49	1882.44	1789.29	1678.32	1556.82	1434.51
50.0	2103.57	2083.32	2033.91	1969.11	1882.44	1784.43	1675.89	1557.63	1430.46
60.0	2105.19	2082.51	2034.72	1969.11	1884.06	1782.81	1678.32	1552.77	1428.84
70.0	2103.57	2080.89	2032.29	1969.11	1884.06	1782.81	1676.70	1549.53	1426.41
80.0	2107.62	2082.51	2033.10	1966.68	1881.63	1782.81	1675.08	1551.96	1427.22
90.0	2106.00	2085.75	2033.10	1967.49	1877.58	1782.81	1674.27	1547.91	1425.60
100.0	2104.38	2081.70	2033.91	1966.68	1878.39	1780.38	1674.27	1549.53	1424.79
110.0	2104.38	2078.46	2032.29	1965.06	1873.53	1779.57	1666.98	1547.10	1419.93
120.0	2102.76	2082.51	2032.29	1962.63	1873.53	1776.33	1667.79	1544.67	1415.88
130.0	2099.52	2080.08	2029.86	1961.01	1871.91	1776.33	1666.17	1539.00	1418.31
140.0	2101.95	2077.65	2029.05	1958.58	1865.43	1773.90	1660.50	1541.43	1418.31
150.0	2098.71	2078.46	2028.24	1956.15	1866.24	1773.09	1664.55	1536.57	1420.74
160.0	2099.52	2077.65	2027.43	1950.48	1864.62	1773.09	1661.31	1539.00	1419.93
170.0	2095.47	2076.03	2025.00	1948.86	1860.57	1769.85	1658.07	1539.00	1419.12
180.0	2096.28	2076.84	2022.57	1944.00	1860.57	1767.42	1654.83	1538.19	1423.98
190.0	2093.85	2076.03	2022.57	1942.38	1859.76	1766.61	1656.45	1534.95	1422.36
200.0	2093.04	2077.65	2019.33	1943.19	1858.95	1765.80	1656.45	1537.38	1419.93
210.0	2093.04	2077.65	2018.52	1940.76	1860.57	1766.61	1659.69	1539.81	1417.50
220.0	2094.66	2077.65	2019.33	1940.76	1860.57	1768.23	1657.26	1539.00	1412.64
230.0	2094.66	2074.41	2016.90	1944.00	1862.19	1768.23	1656.45	1539.00	1407.78
240.0	2093.85	2075.22	2019.33	1941.57	1865.43	1765.80	1655.64	1534.14	1406.16
250.0	2093.85	2076.03	2016.09	1943.19	1860.57	1771.47	1656.45	1534.14	1408.59
260.0	2094.66	2073.60	2018.52	1942.38	1860.57	1765.80	1656.45	1539.00	1412.64
270.0	2093.85	2076.03	2021.76	1944.81	1860.57	1771.47	1660.50	1539.81	1416.69
280.0	2094.66	2076.03	2023.38	1946.43	1864.62	1773.90	1665.36	1544.67	1418.31
290.0	2093.85	2076.03	2024.19	1944.81	1864.62	1776.33	1669.41	1546.29	1419.12
300.0	2095.47	2076.03	2024.19	1948.05	1867.05	1776.33	1668.60	1547.10	1420.74
310.0	2095.47	2076.84	2028.24	1951.29	1867.05	1777.14	1664.55	1546.29	1421.55
320.0	2096.28	2076.84	2032.29	1956.15	1867.05	1778.76	1665.36	1543.05	1421.55
330.0	2097.90	2076.84	2033.91	1959.39	1868.67	1777.95	1666.98	1547.10	1419.93
340.0	2096.28	2076.84	2027.43	1960.20	1868.67	1775.52	1670.22	1548.72	1424.79
350.0	2098.71	2076.03	2032.29	1963.44	1871.10	1777.95	1673.46	1549.53	1423.98
360.0	2101.14	2076.84	2030.67	1965.87	1875.96	1780.38	1676.70	1551.96	1423.17

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	1110.51	429.30	309.34	203.63	121.82	69.50	38.72	19.60	9.80
10.0	1118.61	434.16	311.69	205.50	122.96	69.82	39.20	19.93	9.96
20.0	1128.33	438.21	313.71	207.28	124.58	70.79	39.69	20.09	9.96
30.0	1140.48	440.64	315.01	207.93	125.31	71.12	39.93	20.25	9.96
40.0	1140.48	441.45	314.60	207.60	124.66	70.88	39.93	20.25	9.96
50.0	1141.29	443.07	313.79	207.52	125.15	70.96	39.93	20.33	9.88
60.0	1139.67	442.02	313.39	207.52	125.23	70.79	39.77	20.25	9.88
70.0	1135.62	439.10	312.66	207.20	124.74	70.39	39.45	20.09	9.80
80.0	1133.19	434.16	311.69	206.06	123.77	69.74	39.20	19.93	9.72
90.0	1129.95	430.27	310.23	205.25	123.04	69.26	38.88	19.68	9.56
100.0	1120.23	426.22	308.69	204.12	121.99	68.53	38.48	19.44	9.48
110.0	1107.27	422.98	307.64	202.74	120.93	68.12	38.07	18.95	9.40
120.0	1102.41	416.42	306.59	201.12	119.72	67.55	37.58	18.71	9.23
130.0	1099.17	407.43	305.29	199.58	118.50	66.74	37.10	18.23	9.15
140.0	1092.69	402.49	303.99	198.37	117.53	66.10	36.61	17.98	8.99
150.0	1087.02	397.71	301.97	196.75	116.24	65.45	36.13	17.58	8.83
160.0	1080.54	393.34	300.51	195.29	115.10	64.88	35.72	17.25	8.75
170.0	1074.87	389.85	298.32	193.75	114.21	64.48	35.24	17.01	8.67
180.0	1067.58	387.10	296.78	192.21	113.08	63.99	34.99	16.77	8.59
190.0	1062.72	386.61	294.92	191.24	112.19	63.50	34.67	16.61	8.51
200.0	1057.05	385.56	293.14	190.19	111.62	63.34	34.51	16.52	8.51
210.0	1044.90	383.45	292.09	189.30	110.57	63.02	34.18	16.44	8.42
220.0	1027.89	382.16	291.11	188.41	109.84	62.61	33.94	16.44	8.42
230.0	1015.74	382.32	290.63	188.16	109.59	62.45	33.94	16.44	8.51
240.0	1013.31	382.89	290.95	188.00	109.59	62.45	33.86	16.52	8.51
250.0	1015.74	383.37	291.60	188.16	109.59	62.61	33.94	16.61	8.51
260.0	1022.22	383.45	292.09	188.81	109.76	62.78	34.10	16.61	8.42
270.0	1033.56	384.83	293.46	189.78	110.48	63.18	34.34	16.85	8.51
280.0	1042.47	385.64	294.76	190.51	111.21	63.75	34.67	17.01	8.67
290.0	1052.19	387.26	296.62	192.05	112.43	64.31	35.24	17.33	8.75
300.0	1062.72	389.85	298.32	193.51	113.48	65.04	35.56	17.66	9.07
310.0	1069.20	393.98	300.02	195.05	114.53	65.61	35.96	17.98	9.15
320.0	1076.49	398.84	302.29	196.67	116.07	66.26	36.53	18.39	9.40
330.0	1086.21	410.67	304.07	198.61	117.53	67.07	37.18	18.63	9.48
340.0	1094.31	413.91	305.94	200.39	118.99	67.80	37.67	19.04	9.56
350.0	1099.98	422.01	307.48	202.34	120.61	68.61	38.23	19.28	9.72
360.0	1110.51	429.30	309.34	203.63	121.82	69.50	38.72	19.60	9.80



Intensity data(cd)

C/γ(°)	90.0
0.0	0.00
10.0	0.00
20.0	0.08
30.0	0.08
40.0	0.08
50.0	0.08
60.0	0.08
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	0.00
300.0	0.00
310.0	0.00
320.0	0.00
330.0	0.00
340.0	0.00
350.0	0.00
360.0	0.00





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### 1. Luminaire Specification :

- (1) Input Voltage/Frequency : 240.00 Vac / 50 Hz
- (2) Input Watt : 34.92 W
- (3) Input Current : 0.154 A
- (4) Total Luminous Flux Output : 3744.27 lm
- (5) Luminaire Efficacy : 107.22 lm/W
- (6) Central Intensity (cd) : 2101.140 cd
- (7) Maximum Intensity(cd) : 2107.620 cd
- (8) PF : 0.946
- (9) Beam angle: (C0-C180) : 90.5°, (C90-C270) : 90.2°
- (10) Correlated Color Temperature (CCT) : 3842 K
- (11) Duv : +0.00164
- (12) Color Rendering Index (CRI) : 82.7

### 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 :  $25\pm 1$  °C , Humidity :  $60\pm 20$  %



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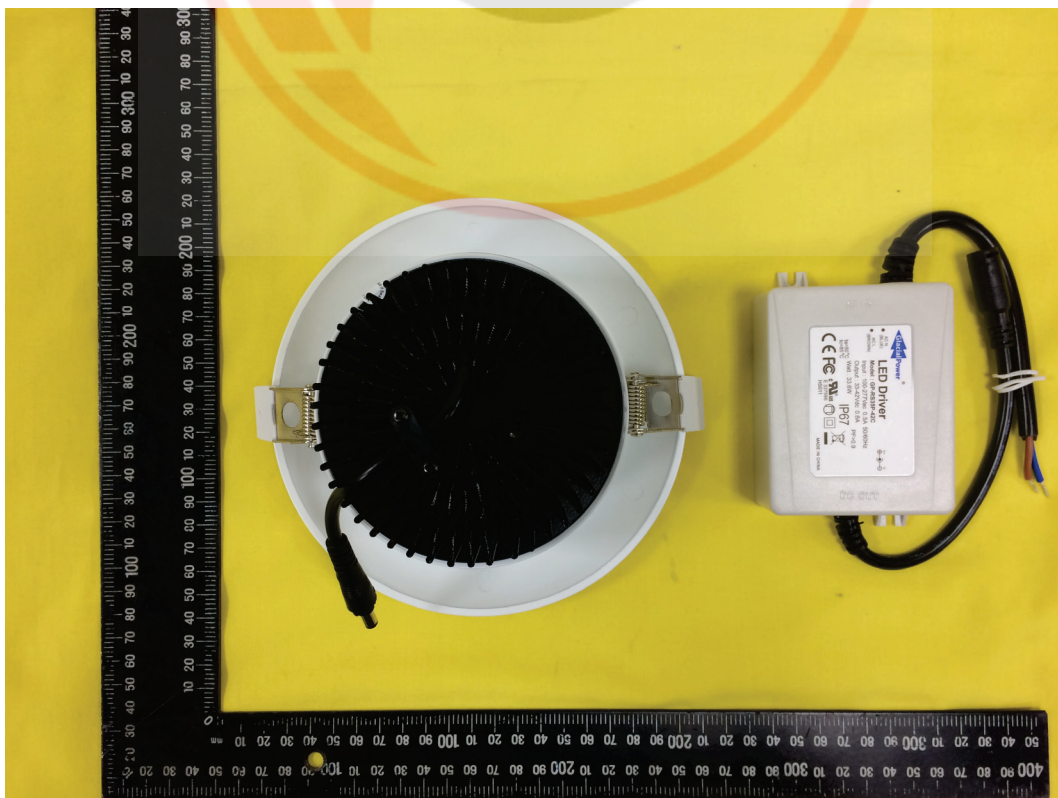
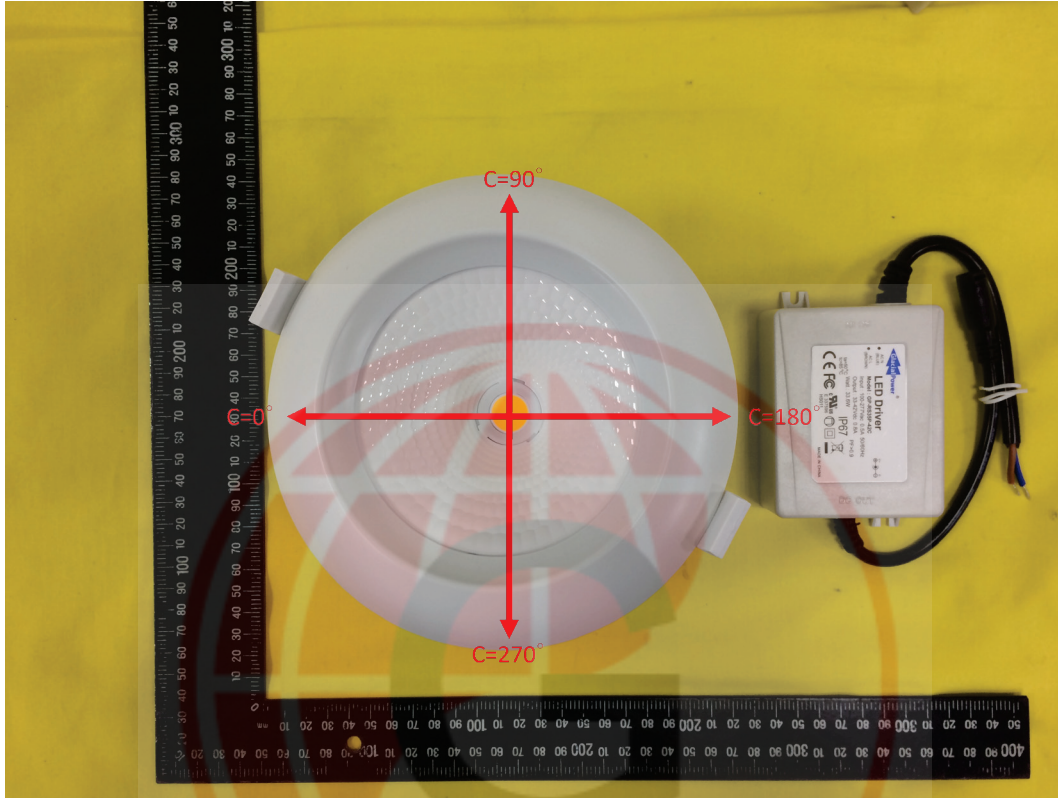
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## 3. Photograph of EUT :

### Complete Sample Angle Definition





## Great One Global Certification Co., Ltd.

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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	