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Optical Report For Luminaires

Applicant : GlacialTech Inc

Applicant Add : 9Fl.,No.352,Sec.2,Jung Shan Rd.,Jung He City, Taipei,
Taiwan, 235, R.O.C

Report No : GO11122701-1

Product Name : LED Flood Light

Model No : GL-FL30-CW

Sample No : 11122701-1

Test Specification : IESNA LM-79-08, Approved Method: Electrical and
Photometric Measurements of Solid-State Lighting
Products. (Deviation - Type C Goniophotometer of
Rotating Luminaire)

Test Date : 2011-12-30

Issue Date : 2011-12-30

- Note: 1. The test results of this report relate only to the tested sample identified in this report.
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Tested By:

Reviewed By:

Chuck Lee
Project Engineer

David Yuan
Manager

Great One Global Certification Co.

Product: LED Flood Light
Manufacturer: GlacialTech Inc
Sample No.: GL-FL30-CW
Tested By: Nadia Chen

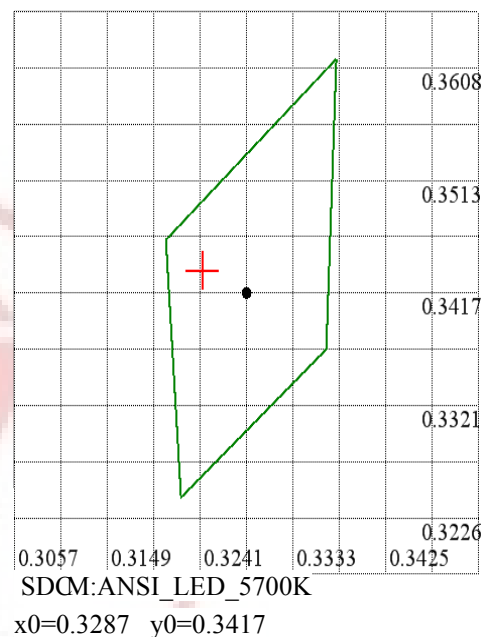
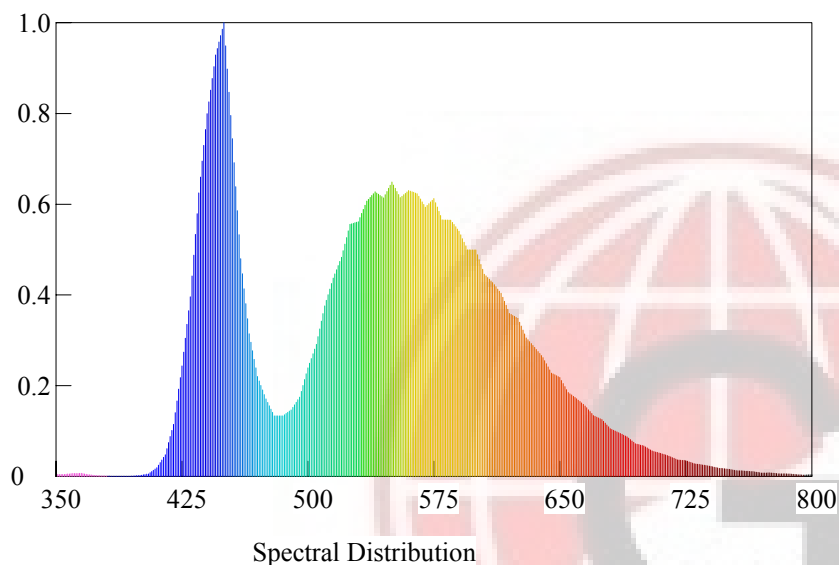
Date:12-29-2011
Reviewed By: Roy Kao

Test Condition

Temperature: 24.1°C
Spectrum Range: 350-800 nm

RH:59%
Scan Step: 5 nm

Spectroradiometric Parameters



Chromaticity Coordinates: x=0.3243 y=0.3436 u'=0.2004 v'=0.4776

Correlated Color Temperature: 5862 K

Dominant Wavelength: 507.0 nm(E)

Luminous Flux: 1852.898 lm

Purity:0.0280

Chromaticity Difference: +0.00496Duv

Peak Wavelength: 448.6 nm

Color Ratio: Kr=29.6% Kg=61.3% Kb=9.2%

Color Tolerance: 0.0 SDCM

Bandwidth:26.6nm

Radiant Flux: 6.024 W

Rendering Index: Ra=70.7

R1=69 R2=74 R3=77 R4=72 R5=70 R6=65 R7=80 R8=60

R9=-29 R10=37 R11=69 R12=42 R13=69 R14=86 R15=64

Electric Parameters

Voltage: 120.21 V

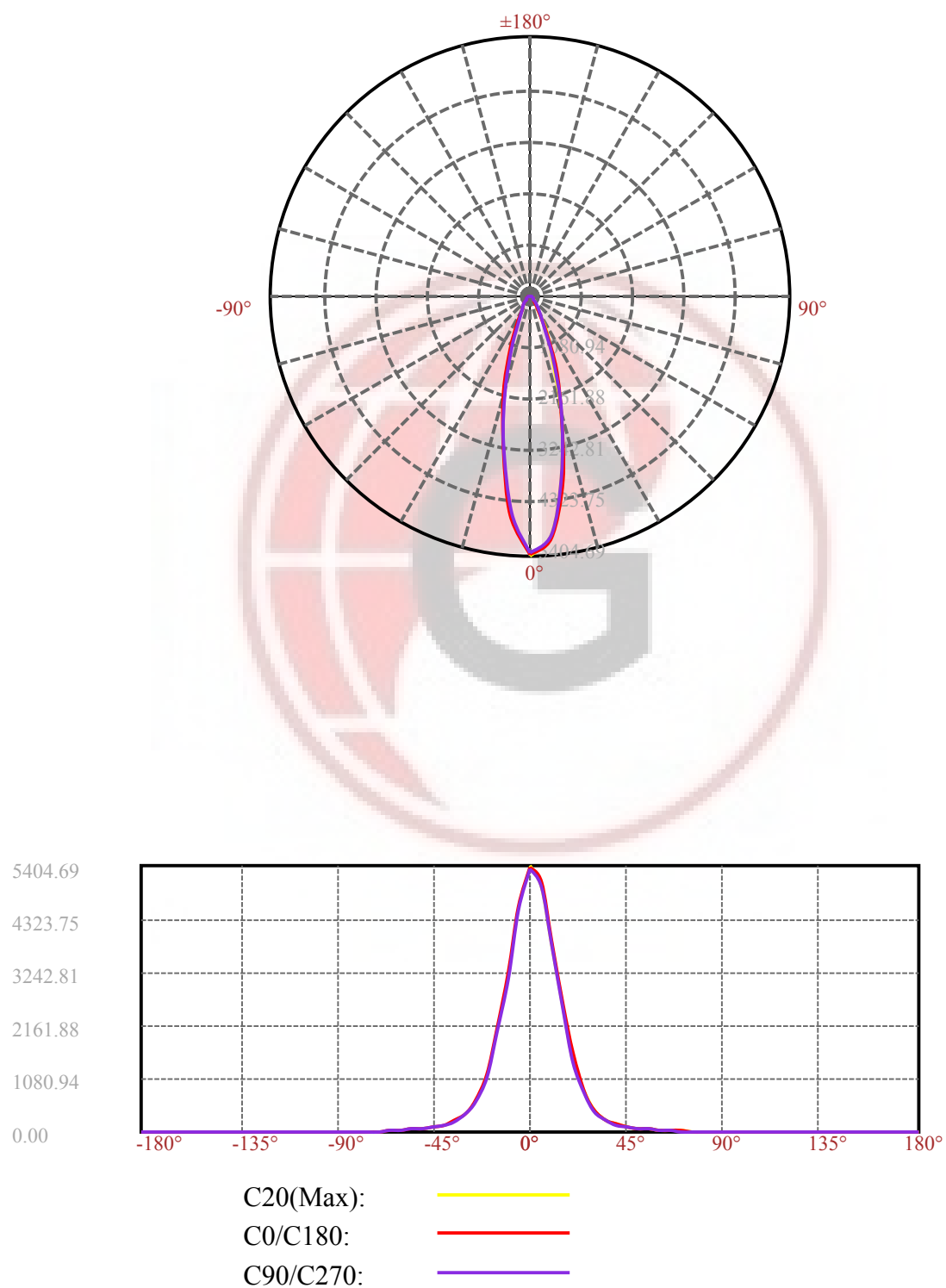
Current: 0.2355 A

Power Factor: 0.9484

Power: 26.842 W

Luminous Efficacy: 69.03 lm/W

Light Distribution Curve [Unit: cd]



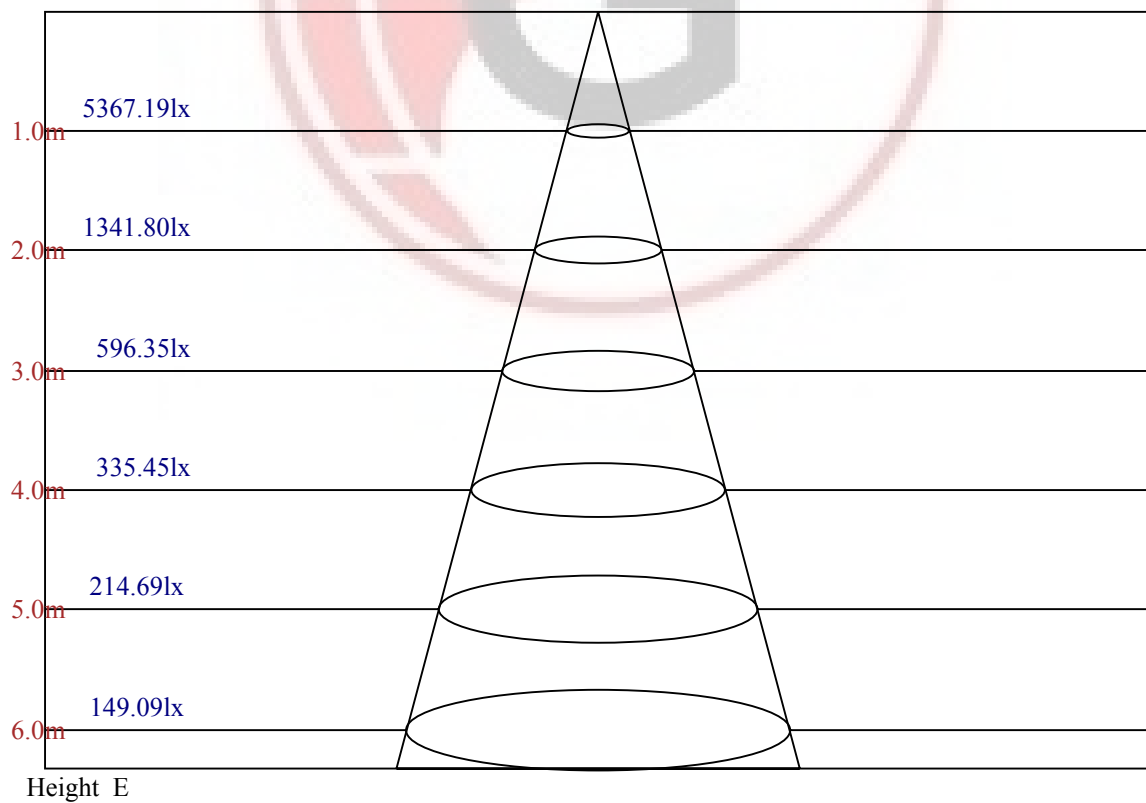
Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

Lux distance Curve

Illuminance at a Distance			
	Center Beam LUX	Beam Width	
		V	H
2m	1341.80 LUX	0.9m	1.0m
4m	335.45 LUX	1.9m	1.9m
6m	149.09 LUX	2.8m	2.9m
8m	83.86 LUX	3.7m	3.9m
10m	53.67 LUX	4.7m	4.8m
12m	37.27 LUX	5.6m	5.8m

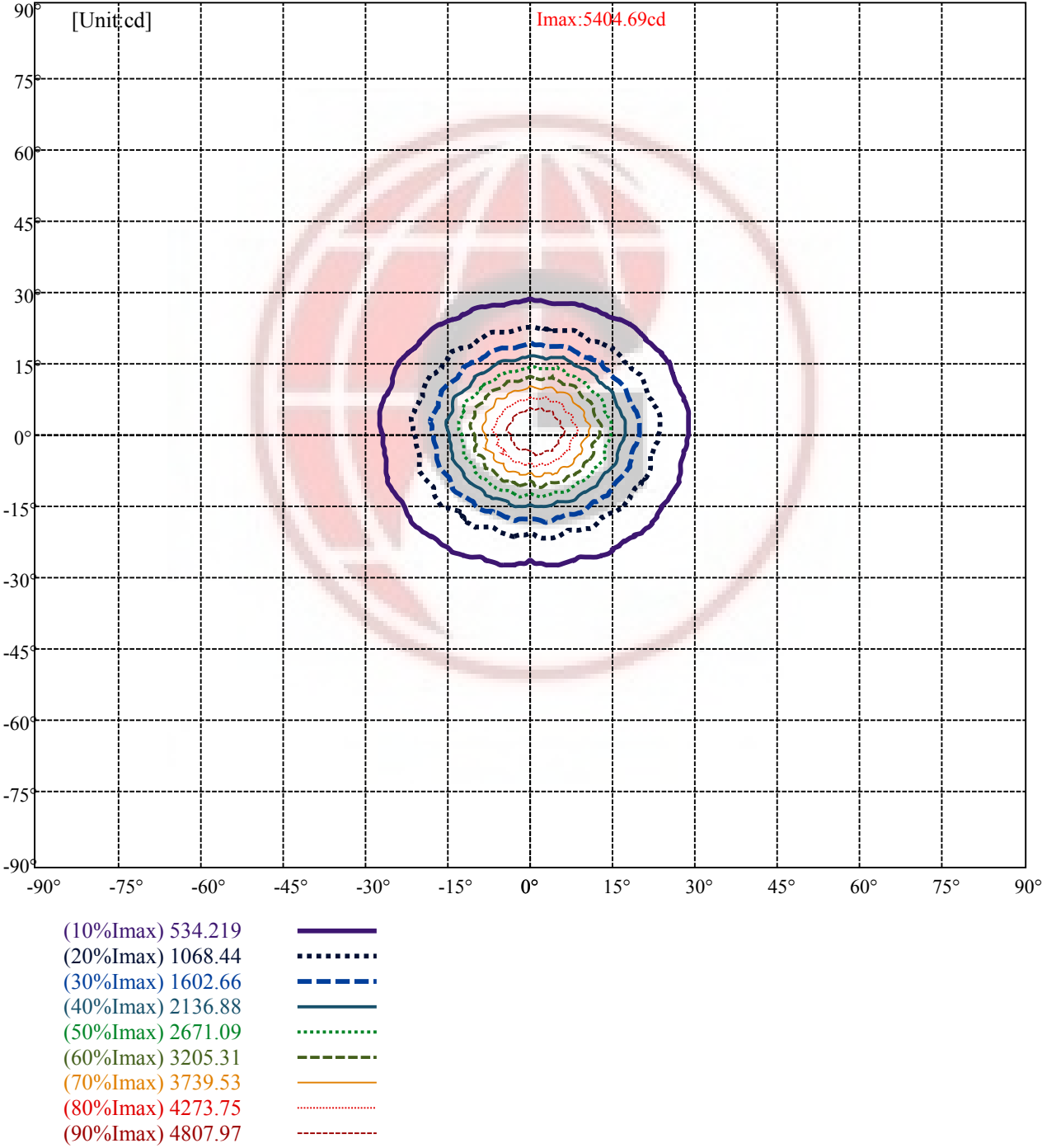


Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

ISO-Intensity(V-H)

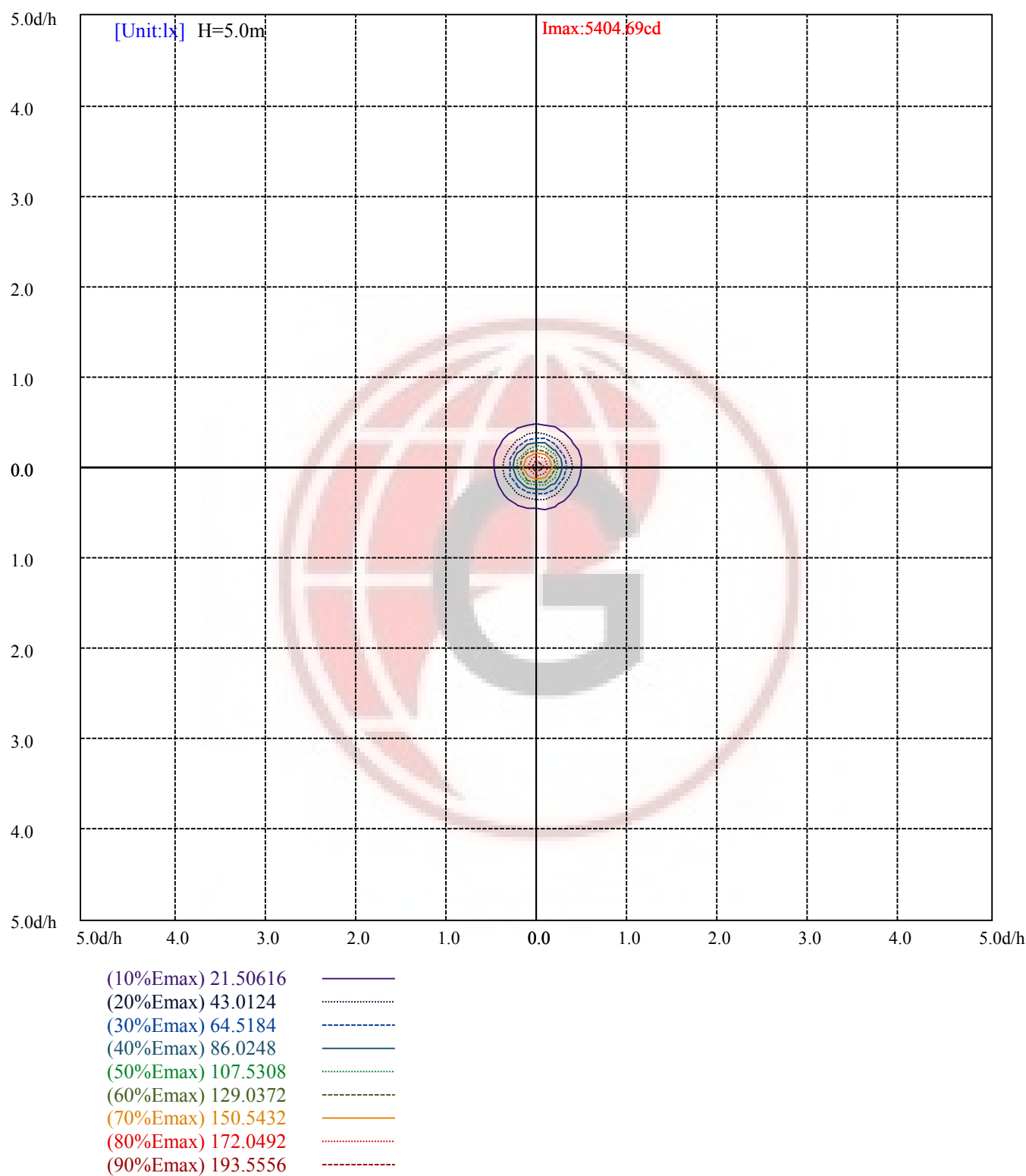


Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

ISO illuminance diagram



Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

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	5367.19	5057.81	3882.81	2575.00	1596.88	818.75	428.13	245.31	162.50
10.0	5368.75	5114.06	4034.38	2651.56	1610.94	915.63	445.31	264.06	167.19
20.0	5404.69	4973.44	3823.44	2515.63	1448.44	793.75	421.88	240.63	156.25
30.0	5356.25	5109.38	4020.31	2685.94	1556.25	867.19	462.50	259.38	165.63
40.0	5392.19	4992.19	3778.13	2510.94	1423.44	767.19	434.38	246.88	151.56
50.0	5360.94	5118.75	4110.94	2617.19	1540.63	825.00	468.75	267.19	160.94
60.0	5382.81	4918.75	3751.56	2476.56	1346.88	742.19	423.44	232.81	146.88
70.0	5321.88	5054.69	3943.75	2653.13	1479.69	809.38	420.31	242.19	156.25
80.0	5376.56	4871.88	3673.44	2346.88	1309.38	714.06	381.25	215.63	134.38
90.0	5342.19	4971.88	3812.50	2468.75	1398.44	759.38	409.38	226.56	146.88
100.0	5362.50	4801.56	3518.75	2279.69	1271.88	673.44	376.56	212.50	137.50
110.0	5345.31	4934.38	3703.13	2379.69	1384.38	743.75	409.38	245.31	150.00
120.0	5360.94	4696.88	3465.63	2232.81	1198.44	676.56	392.19	220.31	145.31
130.0	5364.06	4864.06	3681.25	2292.19	1323.44	746.88	407.81	250.00	159.38
140.0	5365.63	4651.56	3420.31	2062.50	1185.94	670.31	382.81	232.81	153.13
150.0	5376.56	4800.00	3606.25	2351.56	1296.88	732.81	398.44	245.31	165.63
160.0	5365.63	4612.50	3376.56	2104.69	1182.81	643.75	375.00	229.69	148.44
170.0	5384.38	4796.88	3525.00	2243.75	1278.13	712.50	403.13	242.19	165.63
180.0	5367.19	4575.00	3250.00	2081.25	1176.56	634.38	367.19	223.44	148.44
190.0	5368.75	4460.94	3193.75	2034.38	1107.81	617.19	360.94	218.75	151.56
200.0	5404.69	4653.13	3410.94	2095.31	1225.00	692.19	387.50	242.19	162.50
210.0	5356.25	4468.75	3067.19	1982.81	1120.31	629.69	376.56	231.25	151.56
220.0	5392.19	4679.69	3370.31	2114.06	1278.13	703.13	409.38	246.88	165.63
230.0	5360.94	4425.00	3164.06	1998.44	1098.44	645.31	390.63	232.81	153.13
240.0	5382.81	4657.81	3425.00	2095.31	1223.44	714.06	404.69	251.56	170.31
250.0	5321.88	4456.25	3200.00	1970.31	1104.69	637.50	370.31	226.56	148.44
260.0	5376.56	4659.38	3423.44	2157.81	1212.50	679.69	400.00	234.38	154.69
270.0	5342.19	4510.94	3120.31	2023.44	1121.88	590.63	356.25	215.63	139.06
280.0	5362.50	4803.13	3467.19	2189.06	1310.94	687.50	381.25	229.69	148.44
290.0	5345.31	4590.63	3289.06	2101.56	1167.19	635.94	365.63	207.81	142.19
300.0	5360.94	4800.00	3612.50	2256.25	1309.38	757.81	398.44	243.75	162.50
310.0	5364.06	4653.13	3432.81	2214.06	1201.56	685.94	390.63	231.25	148.44
320.0	5360.94	4876.56	3718.75	2335.94	1362.50	778.13	428.13	254.69	159.38
330.0	5376.56	4759.38	3562.50	2262.50	1281.25	725.00	401.56	231.25	153.13
340.0	5365.63	4953.13	3812.50	2493.75	1443.75	809.38	434.38	248.44	162.50
350.0	5384.38	4857.81	3537.50	2387.50	1365.63	721.88	398.44	234.38	153.13
360.0	5367.19	5057.81	3882.81	2575.00	1596.88	818.75	428.13	245.31	162.50

Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

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	112.50	79.69	57.81	46.88	32.81	20.31	10.94	1.56	1.56
10.0	115.63	84.38	62.50	46.88	34.38	20.31	10.94	1.56	1.56
20.0	104.69	76.56	57.81	42.19	29.69	20.31	9.38	1.56	1.56
30.0	114.06	81.25	60.94	45.31	31.25	21.88	14.06	4.69	3.13
40.0	106.25	76.56	56.25	42.19	29.69	20.31	10.94	1.56	1.56
50.0	109.38	79.69	59.38	45.31	32.81	21.88	10.94	3.13	1.56
60.0	103.13	75.00	56.25	40.63	31.25	17.19	6.25	1.56	0.00
70.0	104.69	79.69	59.38	43.75	32.81	17.19	6.25	1.56	1.56
80.0	96.88	73.44	56.25	42.19	26.56	12.50	4.69	1.56	1.56
90.0	103.13	76.56	56.25	45.31	28.13	15.63	6.25	1.56	1.56
100.0	98.44	71.88	54.69	42.19	23.44	12.50	4.69	1.56	1.56
110.0	104.69	78.13	57.81	45.31	29.69	15.63	6.25	1.56	1.56
120.0	101.56	75.00	56.25	40.63	28.13	14.06	4.69	3.13	1.56
130.0	107.81	79.69	59.38	43.75	31.25	18.75	7.81	1.56	3.13
140.0	104.69	76.56	57.81	40.63	28.13	18.75	7.81	1.56	3.13
150.0	117.19	81.25	57.81	43.75	31.25	21.88	9.38	1.56	1.56
160.0	107.81	78.13	56.25	42.19	28.13	18.75	7.81	1.56	1.56
170.0	118.75	82.81	62.50	45.31	29.69	18.75	7.81	0.00	3.13
180.0	107.81	78.13	57.81	42.19	28.13	15.63	4.69	1.56	0.00
190.0	107.81	78.13	56.25	40.63	26.56	15.63	6.25	1.56	1.56
200.0	110.94	79.69	59.38	42.19	28.13	20.31	7.81	1.56	1.56
210.0	107.81	78.13	54.69	40.63	25.00	15.63	6.25	1.56	1.56
220.0	114.06	79.69	59.38	42.19	28.13	20.31	9.38	1.56	0.00
230.0	107.81	75.00	54.69	40.63	25.00	14.06	4.69	1.56	1.56
240.0	110.94	78.13	56.25	40.63	28.13	14.06	4.69	1.56	1.56
250.0	101.56	73.44	53.13	39.06	25.00	12.50	4.69	1.56	1.56
260.0	106.25	73.44	56.25	43.75	23.44	14.06	3.13	1.56	1.56
270.0	96.88	71.88	51.56	39.06	23.44	10.94	3.13	1.56	1.56
280.0	103.13	73.44	56.25	40.63	25.00	15.63	3.13	1.56	1.56
290.0	98.44	68.75	53.13	39.06	25.00	14.06	4.69	1.56	1.56
300.0	107.81	76.56	54.69	42.19	31.25	17.19	9.38	1.56	1.56
310.0	100.00	71.88	54.69	40.63	28.13	17.19	7.81	1.56	1.56
320.0	109.38	78.13	57.81	42.19	29.69	18.75	9.38	1.56	1.56
330.0	104.69	75.00	54.69	40.63	28.13	18.75	9.38	1.56	1.56
340.0	112.50	78.13	60.94	46.88	31.25	21.88	10.94	1.56	1.56
350.0	107.81	76.56	57.81	42.19	29.69	18.75	9.38	1.56	3.13
360.0	112.50	79.69	57.81	46.88	32.81	20.31	10.94	1.56	1.56

Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

Intensity data(cd)									
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	1.56	3.13	1.56	1.56	1.56	1.56	1.56	1.56
10.0	1.56	1.56	0.00	3.13	3.13	0.00	1.56	1.56	1.56
20.0	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
30.0	1.56	3.13	0.00	1.56	1.56	1.56	0.00	1.56	1.56
40.0	1.56	1.56	1.56	1.56	1.56	0.00	1.56	1.56	1.56
50.0	1.56	1.56	0.00	1.56	0.00	1.56	1.56	1.56	1.56
60.0	1.56	0.00	1.56	1.56	1.56	0.00	1.56	1.56	1.56
70.0	1.56	1.56	1.56	1.56	1.56	1.56	1.56	3.13	1.56
80.0	1.56	0.00	1.56	1.56	1.56	1.56	1.56	1.56	1.56
90.0	1.56	1.56	0.00	1.56	3.13	3.13	1.56	1.56	1.56
100.0	1.56	0.00	0.00	1.56	0.00	0.00	1.56	0.00	0.00
110.0	1.56	1.56	1.56	0.00	1.56	1.56	1.56	1.56	1.56
120.0	1.56	0.00	1.56	1.56	1.56	0.00	1.56	1.56	1.56
130.0	1.56	1.56	3.13	1.56	1.56	1.56	1.56	1.56	3.13
140.0	1.56	1.56	1.56	0.00	0.00	1.56	1.56	1.56	0.00
150.0	0.00	1.56	3.13	1.56	1.56	0.00	1.56	1.56	0.00
160.0	1.56	1.56	1.56	1.56	1.56	0.00	1.56	1.56	1.56
170.0	1.56	1.56	1.56	1.56	0.00	1.56	1.56	1.56	1.56
180.0	1.56	0.00	0.00	1.56	1.56	1.56	3.13	1.56	3.13
190.0	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
200.0	1.56	3.13	1.56	1.56	0.00	1.56	1.56	1.56	1.56
210.0	1.56	0.00	0.00	1.56	1.56	1.56	1.56	1.56	1.56
220.0	1.56	1.56	1.56	3.13	1.56	0.00	0.00	0.00	1.56
230.0	1.56	1.56	1.56	0.00	1.56	1.56	1.56	1.56	1.56
240.0	0.00	1.56	-1.56	1.56	1.56	0.00	1.56	1.56	1.56
250.0	1.56	1.56	1.56	0.00	1.56	1.56	1.56	1.56	1.56
260.0	0.00	1.56	0.00	0.00	1.56	1.56	1.56	1.56	1.56
270.0	0.00	3.13	1.56	0.00	1.56	1.56	1.56	1.56	0.00
280.0	0.00	3.13	1.56	1.56	1.56	1.56	1.56	1.56	1.56
290.0	1.56	1.56	1.56	1.56	0.00	1.56	1.56	1.56	1.56
300.0	1.56	0.00	1.56	1.56	0.00	3.13	1.56	1.56	0.00
310.0	1.56	0.00	1.56	1.56	1.56	1.56	0.00	1.56	1.56
320.0	1.56	1.56	1.56	1.56	1.56	0.00	1.56	1.56	1.56
330.0	1.56	1.56	1.56	1.56	1.56	0.00	1.56	1.56	1.56
340.0	0.00	1.56	0.00	1.56	1.56	1.56	0.00	1.56	0.00
350.0	0.00	1.56	1.56	1.56	1.56	1.56	3.13	1.56	0.00
360.0	0.00	1.56	3.13	1.56	1.56	1.56	1.56	1.56	1.56

Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

Intensity data(cd)									
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.56	1.56	3.13	1.56	1.56	0.00	1.56	3.13	1.56
10.0	1.56	1.56	1.56	1.56	1.56	3.13	3.13	1.56	1.56
20.0	1.56	1.56	1.56	1.56	3.13	3.13	3.13	1.56	1.56
30.0	1.56	1.56	1.56	0.00	1.56	1.56	1.56	3.13	0.00
40.0	1.56	0.00	1.56	1.56	1.56	1.56	1.56	1.56	1.56
50.0	1.56	1.56	1.56	1.56	1.56	3.13	1.56	1.56	3.13
60.0	1.56	1.56	3.13	3.13	1.56	3.13	1.56	1.56	1.56
70.0	3.13	1.56	1.56	1.56	1.56	3.13	1.56	1.56	3.13
80.0	0.00	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
90.0	0.00	1.56	1.56	1.56	1.56	3.13	1.56	3.13	3.13
100.0	1.56	0.00	3.13	3.13	3.13	3.13	3.13	1.56	1.56
110.0	0.00	1.56	3.13	1.56	1.56	3.13	1.56	3.13	3.13
120.0	1.56	1.56	1.56	1.56	1.56	3.13	3.13	3.13	3.13
130.0	1.56	1.56	3.13	3.13	1.56	1.56	1.56	1.56	1.56
140.0	1.56	1.56	0.00	1.56	1.56	3.13	1.56	3.13	3.13
150.0	1.56	1.56	1.56	1.56	1.56	3.13	3.13	3.13	1.56
160.0	0.00	1.56	1.56	1.56	3.13	1.56	3.13	1.56	1.56
170.0	0.00	1.56	0.00	3.13	1.56	3.13	3.13	1.56	3.13
180.0	1.56	1.56	3.13	1.56	1.56	3.13	1.56	1.56	3.13
190.0	1.56	1.56	0.00	1.56	1.56	1.56	3.13	1.56	1.56
200.0	1.56	1.56	1.56	3.13	1.56	1.56	1.56	3.13	1.56
210.0	1.56	1.56	1.56	3.13	1.56	3.13	3.13	3.13	1.56
220.0	1.56	1.56	3.13	1.56	3.13	3.13	3.13	3.13	3.13
230.0	1.56	1.56	3.13	3.13	3.13	1.56	1.56	1.56	1.56
240.0	1.56	1.56	1.56	1.56	3.13	1.56	1.56	1.56	1.56
250.0	1.56	1.56	1.56	1.56	3.13	3.13	3.13	1.56	3.13
260.0	1.56	1.56	1.56	1.56	3.13	1.56	3.13	3.13	1.56
270.0	1.56	1.56	1.56	3.13	1.56	1.56	1.56	3.13	1.56
280.0	1.56	1.56	1.56	3.13	3.13	3.13	3.13	1.56	1.56
290.0	1.56	0.00	1.56	1.56	1.56	1.56	1.56	1.56	1.56
300.0	1.56	1.56	1.56	1.56	3.13	1.56	1.56	1.56	1.56
310.0	0.00	1.56	1.56	1.56	1.56	1.56	3.13	1.56	3.13
320.0	1.56	1.56	0.00	1.56	3.13	1.56	1.56	1.56	1.56
330.0	1.56	3.13	1.56	1.56	3.13	1.56	1.56	1.56	3.13
340.0	0.00	1.56	1.56	1.56	1.56	1.56	3.13	3.13	3.13
350.0	0.00	0.00	3.13	1.56	3.13	0.00	1.56	3.13	1.56
360.0	1.56	1.56	3.13	1.56	1.56	0.00	1.56	3.13	1.56

Equipment: GMS1800
Temperature(°C): 24.0

Date: 2011/12/30
Humidity(%): 63.0%

Operator: Nadia Chen
Distance(m): 12.50

Intensity data(cd)

C/γ(°)	180.0
0.0	1.56
10.0	3.13
20.0	1.56
30.0	1.56
40.0	3.13
50.0	1.56
60.0	1.56
70.0	1.56
80.0	3.13
90.0	1.56
100.0	3.13
110.0	1.56
120.0	1.56
130.0	1.56
140.0	3.13
150.0	1.56
160.0	1.56
170.0	1.56
180.0	1.56
190.0	3.13
200.0	1.56
210.0	1.56
220.0	3.13
230.0	1.56
240.0	1.56
250.0	1.56
260.0	3.13
270.0	1.56
280.0	3.13
290.0	1.56
300.0	1.56
310.0	1.56
320.0	3.13
330.0	1.56
340.0	1.56
350.0	1.56
360.0	1.56





廣益全球驗證有限公司
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Fax: 886 - 2 - 2248.0811

Great One Global Certification Co Ltd
9F-2, No.120, Qiaohe Rd., Zhonghe Dist.,
New Taipei City 235, Taiwan (R.O.C.)
Email: sales@go-safety.com.tw

1. Luminaire Specification :

- (1) Input Voltage/Frequency : 120.1 V ac / 60 Hz
- (2) Input Watt : 26.7 W
- (3) Input Current : 0.235 A
- (4) Total Luminous Flux Output : 1762.39 lm
- (5) Luminaire Efficacy : 66.01 lm/W
- (6) Central Intensity (cd): 5367.188
- (7) Maximum Intensity(cd): 5404.688
- (8) PF: 0.949
- (9) Beam angle: (C0-C180) 26.6 (C90-C270) 25.6

2. Description of EUT Setup :

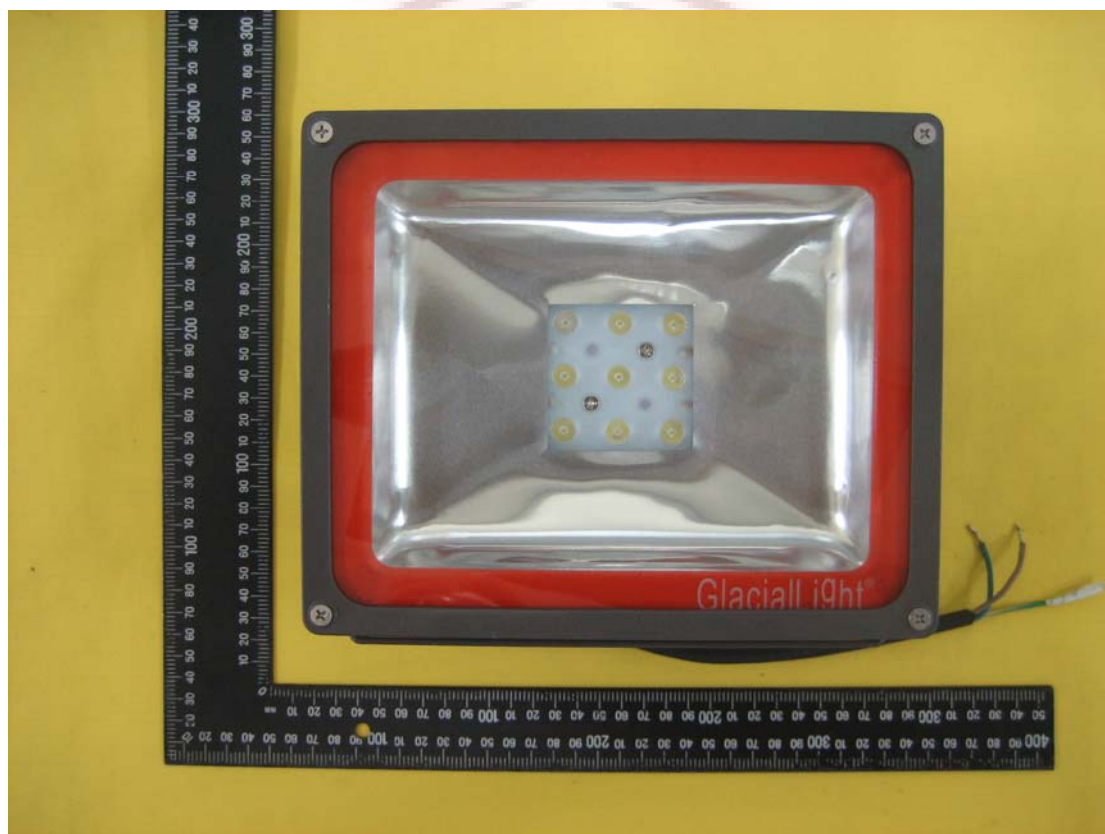
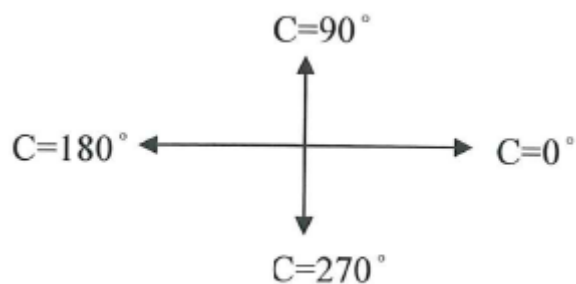
- (1) Operating Orientation : The light source is considered as horizontal.
- (2) Light Source : LED
- (3) Stabilization time : 1 Hour
- (4) Environment Condition : Temperature: 25 ± 1 °C , Humidity: $60 \pm 20\%$



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3. Photograph of EUT :





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4. Equipments List:

Equipment ID	Equipment Type	Manufacturer	Model #	Cal. Date	Due Date	Range Used
L201	2m Integrating Sphere	SENSING		N/A	N/A	
L202	Spetroradiometer	SENSING	SL300	N/A	N/A	
L203	AC Power Source	EXTECH ELECTRONICS	6190	N/A	N/A	AC 0~150VAC4.2A
L204	Goniophotometer-1980	SENSING	GMS1800	N/A	N/A	
L205	GMS-1800B Goniophotometer System	SENSING		2011/11/2	2013/11/1	
L219	AC Power Source	All Power Electrics Co	APW-150N	N/A	N/A	AC 0~150VAC4.2A
L220	Power Meter	Yokogawa	WT-210	2011/8/26	2012/8/25	
L221	Irradiance Standard Lamp	SENSING	LSD1003029	2011/5/23	2012/5/22	
L222	Power Meter	Yokogawa	WT-210	2011/10/13	2012/10/12	