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Optical Report For Luminaires

Applicant : GlacialTech Inc

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

Report No : GO1205250102

Product Name : LED Baylight

Model No : GL-BL220-CW-60D

Sample No : 12052501-2

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 : 2012-6-1

Issue Date : 2012-6-13

- 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:

Eason Yang
Project Engineer

David Yuan
Manager

Great One Global Certification Co., Ltd

Product: LED HighBay Lamp, GL-BL220-CW-60D

Manufacturer: GlacialTech Inc

Sample No.: 12052501-2

Tested By: Eason Yang

Date: 6-1-2012

Reviewed By: David Yuan

Test Condition

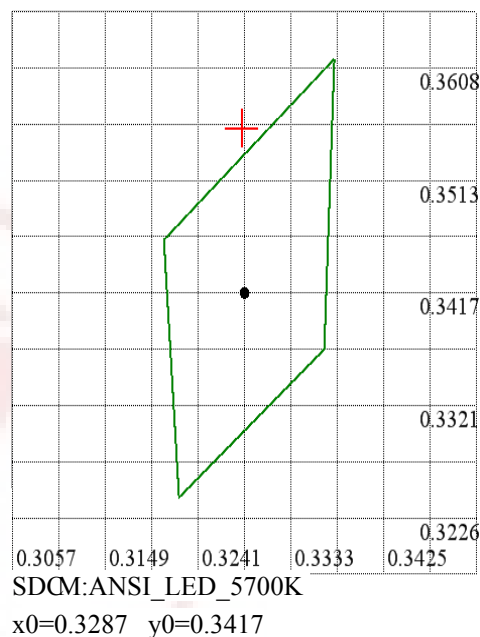
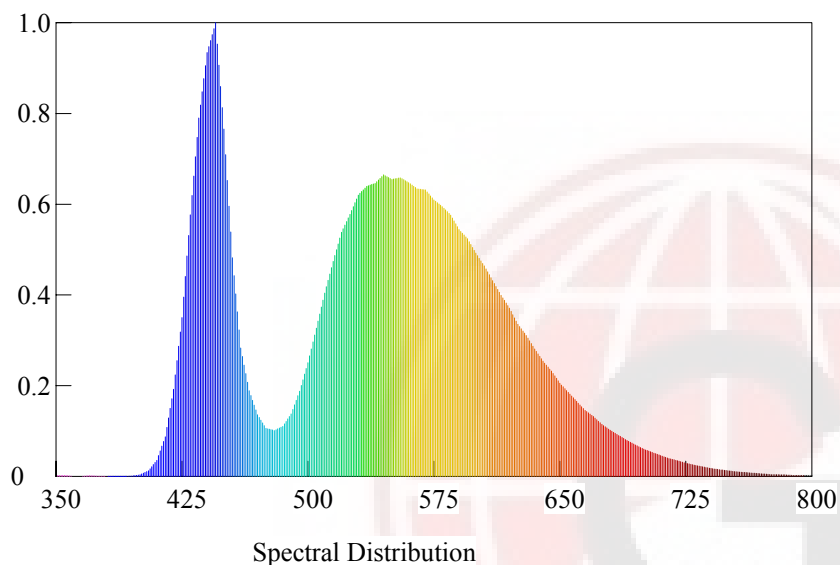
Temperature: 26°C

Spectrum Range: 350-800 nm

RH:56%

Scan Step: 5 nm

Spectroradiometric Parameters



Chromaticity Coordinates: $x=0.3284$ $y=0.3557$ $u'=0.1987$ $v'=0.4842$

Correlated Color Temperature: 5668 K

Dominant Wavelength: 541.0 nm(E)

Purity:0.0538

Chromaticity Difference: +0.00908Duv

Peak Wavelength: 443.6 nm

Color Ratio: $K_r=29.1\%$ $K_g=62.0\%$ $K_b=8.9\%$

Color Tolerance: 0.0 SDCM

Bandwidth:26.6nm

Radiant Flux: 48.136 W

Rendering Index: $R_a=67.1$

$R_1=64$ $R_2=70$ $R_3=75$ $R_4=69$ $R_5=66$ $R_6=61$ $R_7=76$ $R_8=55$

$R_9=-44$ $R_{10}=30$ $R_{11}=68$ $R_{12}=41$ $R_{13}=65$ $R_{14}=85$ $R_{15}=58$

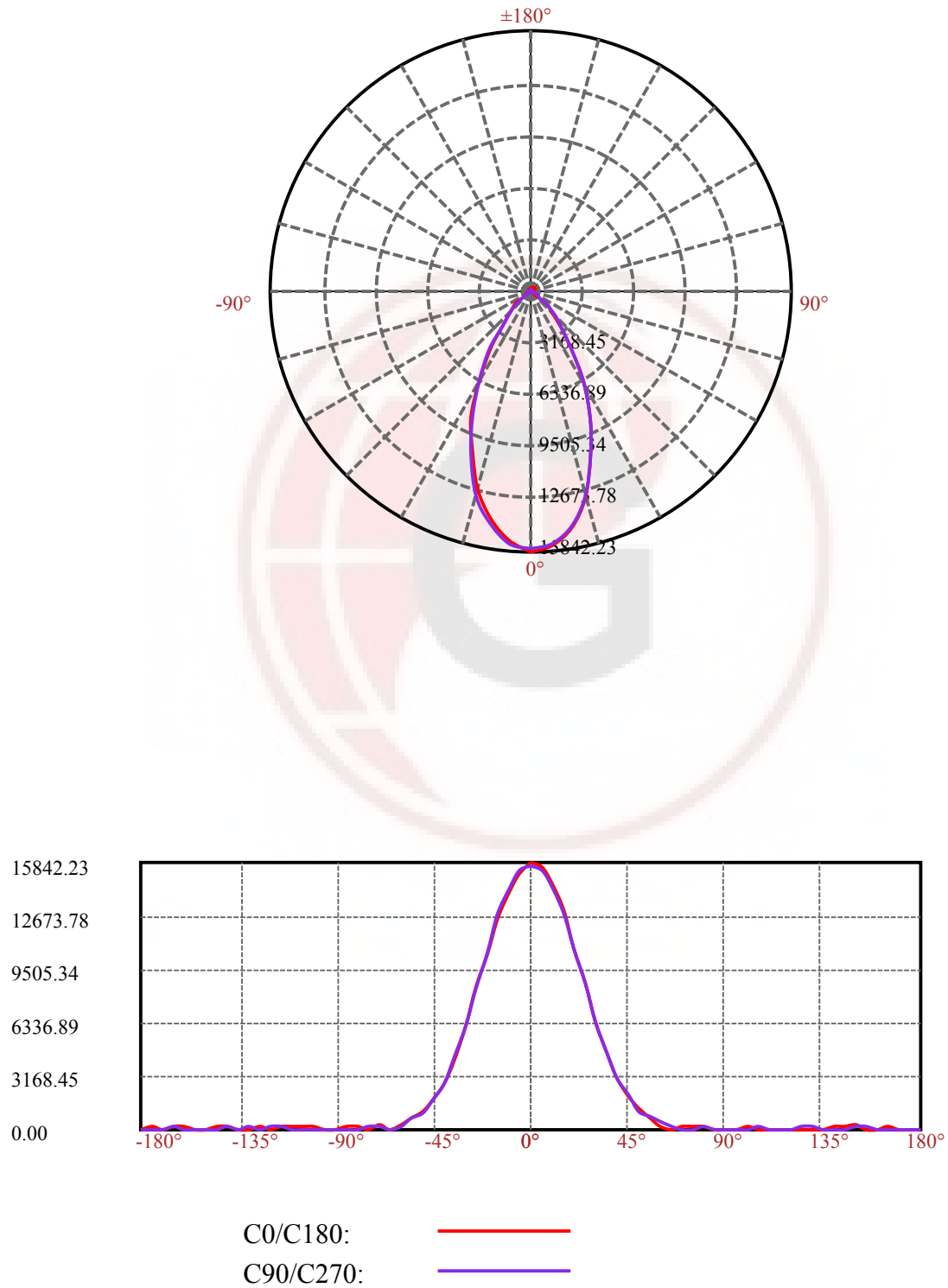
Electric Parameters

Voltage: 220.2 V

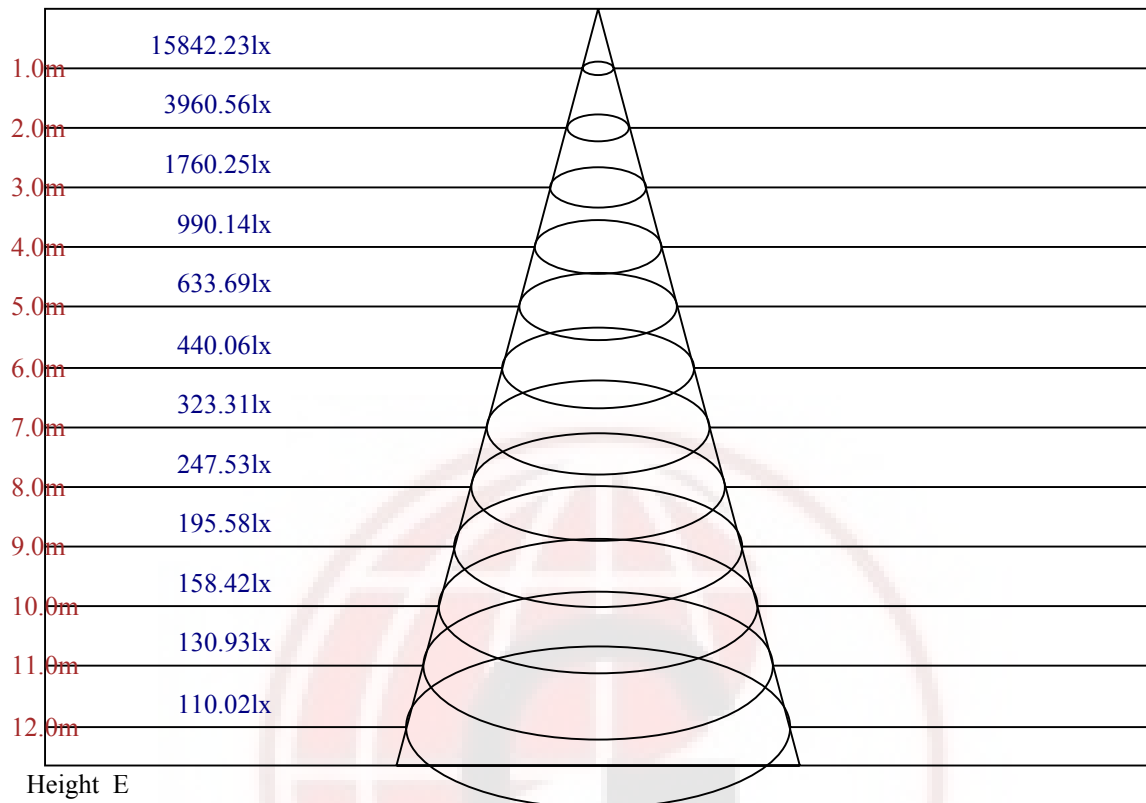
Current: 0.978 A

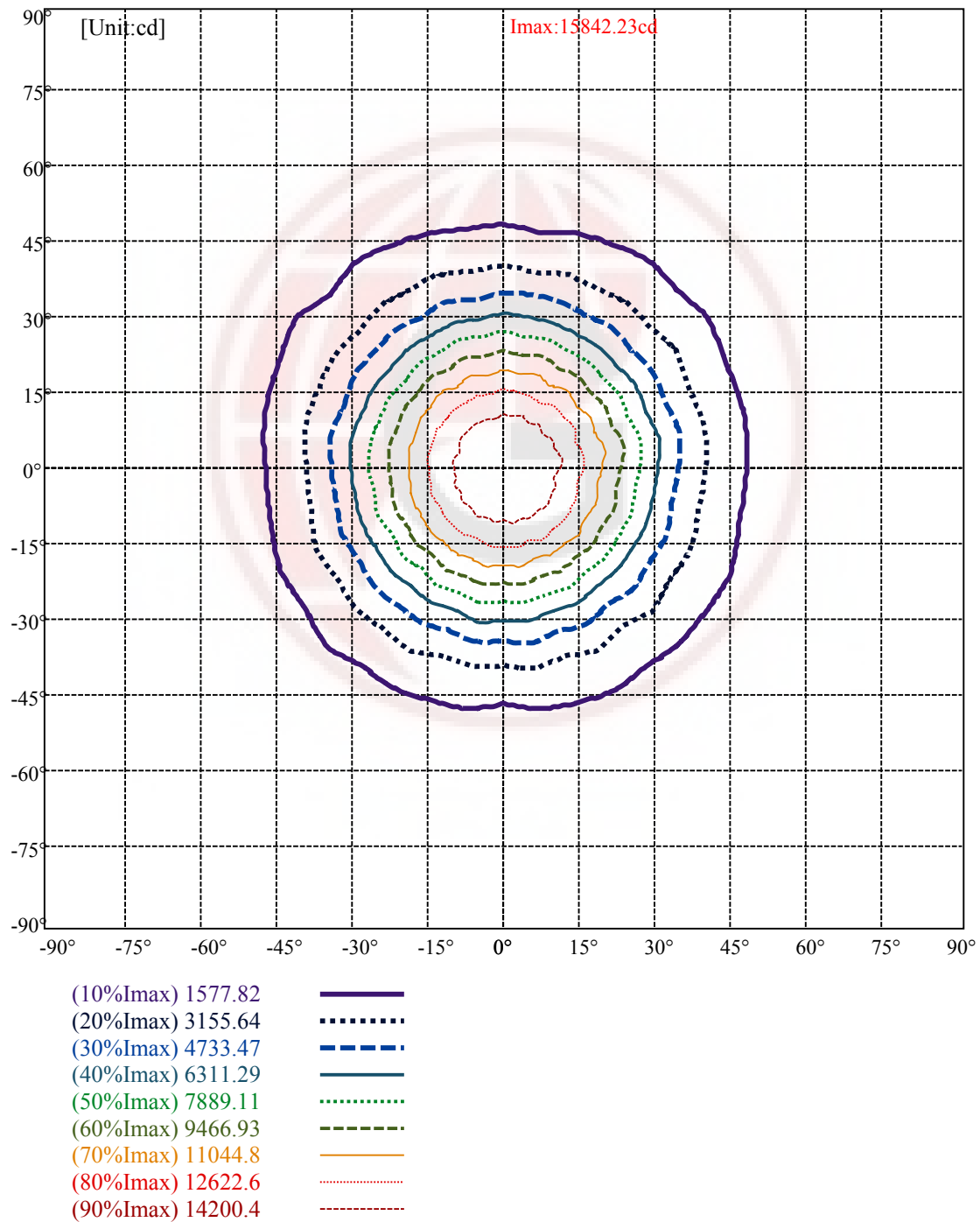
Power Factor: 0.971

Power: 209.3 W



Lux distance Curve



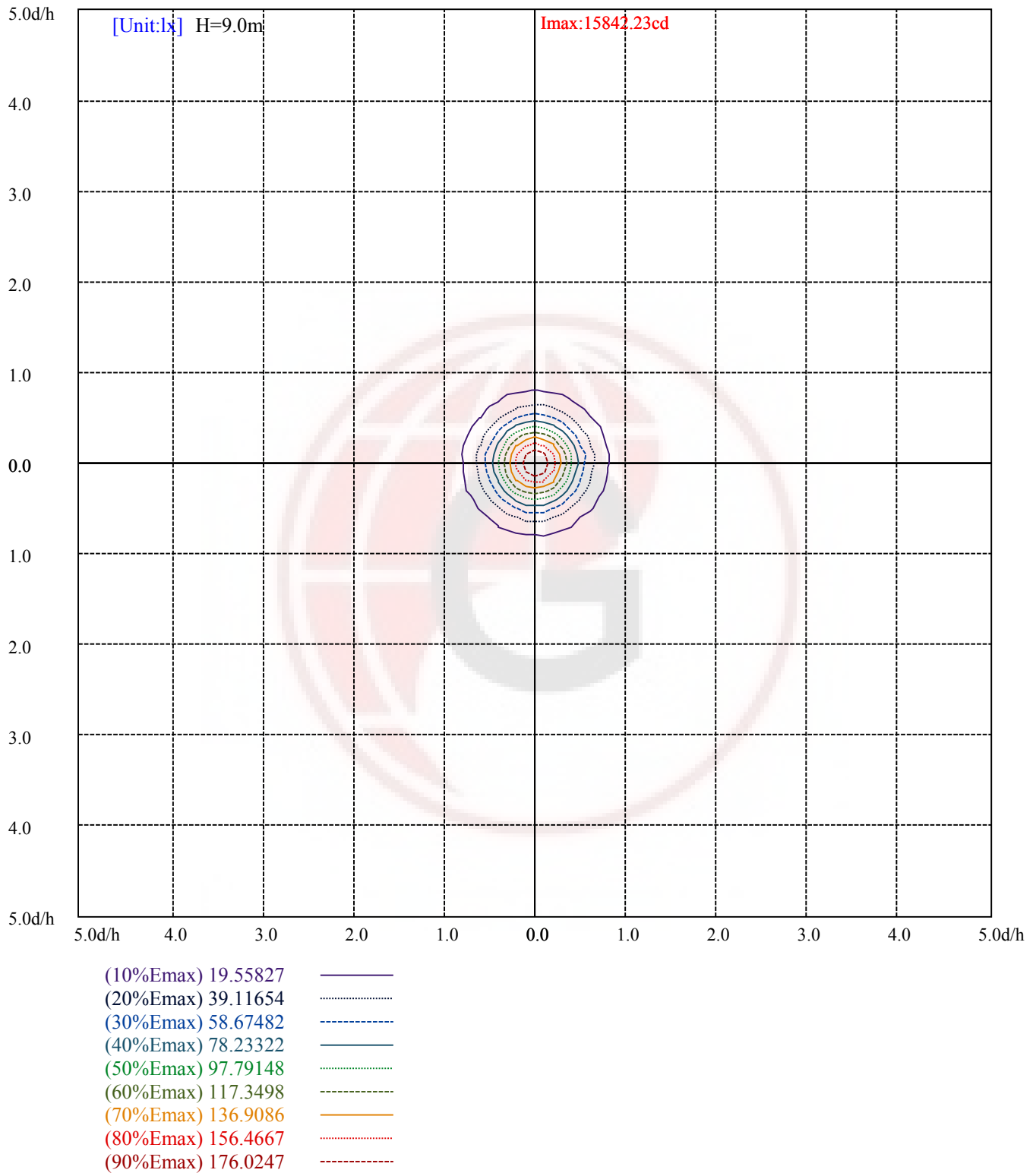


Equipment: GMS1800
Temperature(°C): 26.0

Date: 2012/6/5
Humidity(%): 62.0%

Operator: Eason Yang
Distance(m): 12.65

ISO illuminance diagram



Equipment: GMS1800
Temperature(°C): 26.0

Date: 2012/6/5
Humidity(%): 62.0%

Operator: Eason Yang
Distance(m): 12.65

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	15842.23	15522.18	14562.05	12961.82	10721.51	8641.22	6400.90	4480.63	3040.43
10.0	15842.23	15682.20	14882.09	12961.82	11201.57	9121.28	6720.95	4800.68	3200.45
20.0	15682.20	15522.18	14402.02	12641.78	10721.51	8481.19	6240.88	4320.61	2880.41
30.0	15842.23	15522.18	14562.05	13121.84	10881.53	8641.22	6400.90	4480.63	3200.45
40.0	15842.23	15362.16	14242.00	12801.80	10401.46	8321.17	6080.85	4160.59	2880.41
50.0	15842.23	15522.18	14562.05	12961.82	10881.53	8481.19	6240.88	4480.63	3040.43
60.0	15842.23	15362.16	14242.00	12481.75	10401.46	8321.17	6080.85	4160.59	2880.41
70.0	15682.20	15362.16	14562.05	12641.78	10881.53	8641.22	6240.88	4480.63	3040.43
80.0	15842.23	15202.14	14242.00	12641.78	10401.46	8321.17	6240.88	4480.63	2720.38
90.0	15682.20	15362.16	14402.02	12801.80	10721.51	8641.22	6400.90	4480.63	3040.43
100.0	15682.20	15362.16	14081.98	12481.75	10241.44	8321.17	6080.85	4000.56	2880.41
110.0	15682.20	15522.18	14242.00	12641.78	10721.51	8641.22	6240.88	4480.63	3040.43
120.0	15682.20	15202.14	14242.00	12481.75	10241.44	8161.15	5920.83	4000.56	2880.41
130.0	15682.20	15362.16	14242.00	12641.78	10721.51	8321.17	6080.85	4320.61	2880.41
140.0	15682.20	15202.14	14242.00	12481.75	10401.46	8001.13	5920.83	4160.59	2560.36
150.0	15842.23	15362.16	14242.00	12641.78	10561.48	8321.17	6080.85	4320.61	2880.41
160.0	15842.23	15202.14	13921.96	12481.75	10241.44	8321.17	6080.85	4000.56	2880.41
170.0	15842.23	15202.14	14242.00	12641.78	10561.48	8481.19	6400.90	4480.63	3040.43
180.0	15842.23	15202.14	14081.98	12481.75	10401.46	8481.19	6240.88	4160.59	2720.38
190.0	15842.23	15202.14	14081.98	12481.75	10401.46	8161.15	6080.85	4000.56	2720.38
200.0	15682.20	15362.16	14242.00	12641.78	10561.48	8481.19	6080.85	4320.61	3040.43
210.0	15842.23	15362.16	14081.98	12481.75	10401.46	7841.10	5920.83	4000.56	2720.38
220.0	15842.23	15362.16	14402.02	12641.78	10561.48	8321.17	6080.85	4320.61	2880.41
230.0	15842.23	15202.14	14081.98	12641.78	10241.44	7841.10	5920.83	4160.59	2720.38
240.0	15842.23	15362.16	14562.05	12641.78	10721.51	8481.19	6080.85	4320.61	3040.43
250.0	15682.20	15362.16	14242.00	12481.75	10561.48	8321.17	5920.83	4160.59	2720.38
260.0	15842.23	15362.16	14402.02	12801.80	10881.53	8641.22	6560.92	4480.63	2880.41
270.0	15682.20	15362.16	14242.00	12801.80	10561.48	8321.17	6240.88	4320.61	2720.38
280.0	15682.20	15362.16	14562.05	12961.82	10881.53	8641.22	6400.90	4640.65	3040.43
290.0	15682.20	15362.16	14402.02	12641.78	10401.46	8321.17	6080.85	4160.59	2720.38
300.0	15682.20	15522.18	14562.05	13121.84	10721.51	8641.22	6240.88	4480.63	3040.43
310.0	15682.20	15362.16	14402.02	12801.80	10561.48	8161.15	5920.83	4000.56	2560.36
320.0	15682.20	15362.16	14722.07	12961.82	10881.53	8481.19	6080.85	4480.63	3040.43
330.0	15842.23	15362.16	14402.02	12801.80	10401.46	8321.17	6080.85	4160.59	2720.38
340.0	15842.23	15522.18	14562.05	12801.80	10881.53	8641.22	6240.88	4480.63	3040.43
350.0	15842.23	15362.16	14242.00	12481.75	10561.48	8321.17	6240.88	4160.59	2880.41
360.0	15842.23	15522.18	14562.05	12961.82	10721.51	8641.22	6400.90	4480.63	3040.43

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	1920.27	1280.18	640.09	160.02	0.00	160.02	160.02	160.02	0.00
10.0	2080.29	1280.18	800.11	480.07	0.00	0.00	0.00	0.00	160.02
20.0	1920.27	1120.16	640.09	320.05	160.02	160.02	0.00	160.02	0.00
30.0	2080.29	1280.18	640.09	480.07	160.02	0.00	160.02	0.00	0.00
40.0	1920.27	1120.16	640.09	480.07	0.00	160.02	160.02	160.02	0.00
50.0	2080.29	1280.18	800.11	320.05	0.00	0.00	160.02	160.02	160.02
60.0	1920.27	1280.18	800.11	320.05	160.02	0.00	0.00	0.00	0.00
70.0	1920.27	1280.18	800.11	480.07	0.00	160.02	160.02	0.00	0.00
80.0	1760.25	1120.16	640.09	480.07	160.02	160.02	0.00	160.02	160.02
90.0	2080.29	1120.16	800.11	480.07	160.02	0.00	0.00	160.02	0.00
100.0	1920.27	1120.16	640.09	320.05	0.00	0.00	160.02	0.00	160.02
110.0	1920.27	1280.18	800.11	160.02	160.02	0.00	0.00	160.02	0.00
120.0	1920.27	1280.18	640.09	160.02	0.00	160.02	0.00	0.00	0.00
130.0	2080.29	1280.18	800.11	320.05	0.00	0.00	0.00	0.00	0.00
140.0	1760.25	1120.16	640.09	320.05	160.02	0.00	0.00	160.02	0.00
150.0	1920.27	1440.20	640.09	480.07	320.05	160.02	0.00	0.00	0.00
160.0	1920.27	1280.18	800.11	160.02	160.02	160.02	160.02	0.00	0.00
170.0	2080.29	1120.16	800.11	320.05	160.02	160.02	160.02	160.02	160.02
180.0	1760.25	1120.16	640.09	320.05	0.00	320.05	0.00	160.02	160.02
190.0	1760.25	1120.16	640.09	160.02	0.00	160.02	0.00	160.02	0.00
200.0	1920.27	1120.16	640.09	320.05	320.05	160.02	160.02	0.00	0.00
210.0	1760.25	960.13	640.09	320.05	0.00	160.02	0.00	0.00	160.02
220.0	2080.29	1120.16	640.09	320.05	160.02	0.00	0.00	0.00	160.02
230.0	1760.25	960.13	640.09	160.02	160.02	0.00	160.02	0.00	0.00
240.0	1920.27	1120.16	640.09	160.02	160.02	160.02	0.00	160.02	0.00
250.0	1920.27	1120.16	640.09	160.02	0.00	160.02	0.00	160.02	0.00
260.0	2080.29	1120.16	640.09	320.05	0.00	0.00	0.00	160.02	0.00
270.0	1760.25	960.13	640.09	160.02	0.00	160.02	160.02	0.00	0.00
280.0	1920.27	1280.18	640.09	320.05	160.02	160.02	160.02	0.00	160.02
290.0	1920.27	1280.18	640.09	160.02	0.00	160.02	160.02	0.00	160.02
300.0	1920.27	1280.18	640.09	160.02	160.02	160.02	0.00	0.00	0.00
310.0	1760.25	1120.16	640.09	320.05	0.00	0.00	0.00	0.00	0.00
320.0	1920.27	1120.16	800.11	320.05	0.00	160.02	160.02	0.00	0.00
330.0	1920.27	1120.16	640.09	160.02	0.00	0.00	160.02	0.00	0.00
340.0	2080.29	1280.18	640.09	160.02	0.00	160.02	0.00	0.00	0.00
350.0	1920.27	1120.16	640.09	320.05	160.02	0.00	0.00	0.00	160.02
360.0	1920.27	1280.18	640.09	160.02	0.00	160.02	160.02	160.02	0.00

Equipment: GMS1800
Temperature(°C): 26.0

Date: 2012/6/5
Humidity(%): 62.0%

Operator: Eason Yang
Distance(m): 12.65

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	0.00	160.02	0.00	0.00	-160.02	0.00	0.00	0.00
10.0	0.00	0.00	160.02	160.02	0.00	0.00	0.00	160.02	0.00
20.0	0.00	0.00	160.02	160.02	160.02	0.00	0.00	160.02	0.00
30.0	0.00	0.00	160.02	0.00	160.02	0.00	0.00	0.00	0.00
40.0	0.00	160.02	0.00	0.00	0.00	0.00	160.02	0.00	0.00
50.0	0.00	0.00	0.00	160.02	0.00	0.00	0.00	0.00	0.00
60.0	0.00	160.02	160.02	160.02	160.02	0.00	160.02	160.02	0.00
70.0	160.02	0.00	0.00	0.00	0.00	160.02	0.00	160.02	0.00
80.0	0.00	160.02	160.02	0.00	160.02	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	160.02	0.00	0.00	0.00	160.02	160.02
100.0	160.02	160.02	0.00	0.00	0.00	160.02	0.00	160.02	160.02
110.0	0.00	0.00	160.02	160.02	0.00	160.02	0.00	0.00	0.00
120.0	0.00	0.00	160.02	0.00	160.02	160.02	0.00	0.00	0.00
130.0	0.00	0.00	0.00	0.00	160.02	160.02	0.00	160.02	160.02
140.0	160.02	0.00	-160.02	160.02	-160.02	0.00	160.02	160.02	0.00
150.0	0.00	0.00	160.02	0.00	0.00	0.00	0.00	0.00	160.02
160.0	160.02	0.00	0.00	0.00	160.02	0.00	0.00	0.00	0.00
170.0	0.00	0.00	0.00	160.02	160.02	0.00	0.00	0.00	0.00
180.0	0.00	0.00	160.02	160.02	160.02	160.02	0.00	160.02	0.00
190.0	0.00	0.00	0.00	0.00	160.02	0.00	160.02	0.00	0.00
200.0	0.00	0.00	160.02	160.02	0.00	0.00	0.00	0.00	0.00
210.0	160.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	160.02
220.0	0.00	0.00	160.02	160.02	0.00	160.02	0.00	160.02	0.00
230.0	0.00	0.00	160.02	160.02	0.00	-160.02	0.00	0.00	160.02
240.0	0.00	0.00	160.02	160.02	0.00	0.00	0.00	160.02	160.02
250.0	160.02	0.00	160.02	0.00	0.00	160.02	0.00	0.00	0.00
260.0	0.00	160.02	160.02	160.02	0.00	0.00	0.00	0.00	160.02
270.0	0.00	0.00	0.00	0.00	0.00	160.02	160.02	0.00	160.02
280.0	0.00	160.02	160.02	160.02	160.02	0.00	160.02	0.00	160.02
290.0	160.02	160.02	0.00	160.02	160.02	0.00	160.02	0.00	160.02
300.0	0.00	160.02	0.00	160.02	0.00	160.02	160.02	-160.02	0.00
310.0	0.00	0.00	160.02	160.02	0.00	0.00	0.00	160.02	160.02
320.0	0.00	0.00	0.00	0.00	0.00	0.00	160.02	0.00	0.00
330.0	160.02	160.02	160.02	0.00	160.02	0.00	160.02	0.00	160.02
340.0	0.00	0.00	0.00	160.02	0.00	0.00	0.00	160.02	160.02
350.0	160.02	0.00	160.02	160.02	0.00	160.02	160.02	160.02	160.02
360.0	0.00	0.00	160.02	0.00	0.00	-160.02	0.00	0.00	0.00

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	0.00	160.02	160.02	320.05	0.00	0.00	160.02	0.00	0.00
10.0	0.00	0.00	160.02	0.00	160.02	0.00	0.00	0.00	0.00
20.0	160.02	160.02	160.02	0.00	0.00	0.00	0.00	0.00	0.00
30.0	160.02	0.00	0.00	0.00	160.02	160.02	160.02	0.00	160.02
40.0	0.00	160.02	0.00	0.00	0.00	160.02	160.02	0.00	160.02
50.0	0.00	0.00	160.02	160.02	160.02	0.00	160.02	0.00	160.02
60.0	0.00	0.00	160.02	0.00	0.00	0.00	160.02	160.02	160.02
70.0	0.00	0.00	160.02	0.00	0.00	160.02	0.00	0.00	160.02
80.0	0.00	0.00	160.02	0.00	0.00	160.02	0.00	0.00	0.00
90.0	0.00	0.00	0.00	160.02	160.02	0.00	0.00	0.00	0.00
100.0	160.02	160.02	0.00	160.02	0.00	160.02	160.02	160.02	0.00
110.0	0.00	0.00	160.02	160.02	160.02	0.00	160.02	0.00	0.00
120.0	160.02	0.00	0.00	0.00	160.02	0.00	0.00	0.00	0.00
130.0	0.00	0.00	0.00	160.02	160.02	160.02	0.00	160.02	160.02
140.0	0.00	0.00	0.00	0.00	160.02	160.02	160.02	0.00	0.00
150.0	0.00	0.00	0.00	0.00	160.02	0.00	0.00	0.00	-160.02
160.0	160.02	0.00	0.00	0.00	160.02	160.02	0.00	0.00	0.00
170.0	0.00	0.00	0.00	0.00	160.02	0.00	0.00	160.02	0.00
180.0	0.00	160.02	160.02	0.00	0.00	160.02	160.02	0.00	160.02
190.0	0.00	160.02	160.02	160.02	0.00	160.02	0.00	0.00	160.02
200.0	0.00	0.00	0.00	0.00	160.02	160.02	0.00	0.00	-160.02
210.0	160.02	160.02	160.02	0.00	0.00	0.00	160.02	160.02	0.00
220.0	0.00	160.02	0.00	160.02	0.00	0.00	0.00	0.00	0.00
230.0	160.02	0.00	160.02	160.02	0.00	0.00	160.02	0.00	0.00
240.0	160.02	0.00	0.00	160.02	160.02	0.00	0.00	0.00	0.00
250.0	0.00	160.02	160.02	0.00	160.02	-160.02	160.02	0.00	0.00
260.0	160.02	160.02	160.02	160.02	0.00	160.02	0.00	0.00	0.00
270.0	0.00	160.02	0.00	0.00	0.00	0.00	160.02	0.00	0.00
280.0	0.00	160.02	0.00	160.02	160.02	160.02	0.00	0.00	160.02
290.0	0.00	160.02	0.00	0.00	160.02	160.02	160.02	160.02	0.00
300.0	160.02	0.00	0.00	0.00	0.00	0.00	0.00	160.02	0.00
310.0	0.00	0.00	160.02	0.00	160.02	0.00	0.00	160.02	160.02
320.0	160.02	0.00	0.00	0.00	0.00	0.00	0.00	160.02	160.02
330.0	0.00	160.02	160.02	0.00	0.00	160.02	160.02	160.02	160.02
340.0	160.02	0.00	0.00	0.00	0.00	0.00	160.02	160.02	0.00
350.0	0.00	160.02	0.00	-160.02	0.00	0.00	0.00	160.02	160.02
360.0	0.00	160.02	160.02	320.05	0.00	0.00	160.02	0.00	0.00

Intensity data(cd)

C/γ(°)	180.0
0.0	0.00
10.0	0.00
20.0	0.00
30.0	0.00
40.0	160.02
50.0	160.02
60.0	160.02
70.0	0.00
80.0	160.02
90.0	0.00
100.0	160.02
110.0	0.00
120.0	0.00
130.0	160.02
140.0	0.00
150.0	160.02
160.0	160.02
170.0	0.00
180.0	0.00
190.0	0.00
200.0	0.00
210.0	0.00
220.0	160.02
230.0	160.02
240.0	160.02
250.0	0.00
260.0	160.02
270.0	0.00
280.0	160.02
290.0	0.00
300.0	0.00
310.0	160.02
320.0	0.00
330.0	160.02
340.0	160.02
350.0	0.00
360.0	0.00





廣益全球驗證有限公司
新北市中和區橋和路120號9樓之二
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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 : 218.3 V ac / 50Hz
- (2) Input Watt : 208.3 W
- (3) Input Current : 0.984 A
- (4) Total Luminous Flux Output : 14339.34 lm
- (5) Luminaire Efficacy : 68.83 lm/W
- (6) Central Intensity (cd) : 15842.230
- (7) Maximum Intensity(cd): 15842.230
- (8) PF : 0.970
- (9) Beam angle : (C0-C180) 52.9 (C90-C270) 53

2. Description of EUT Setup :

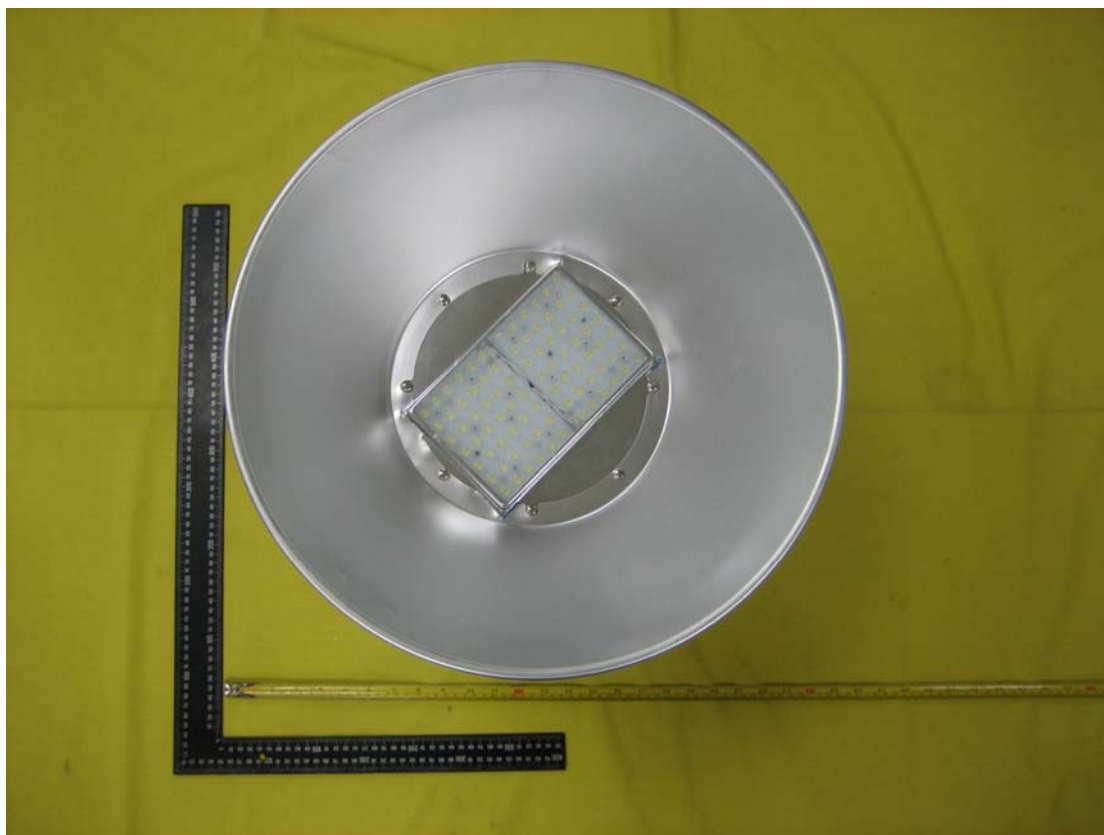
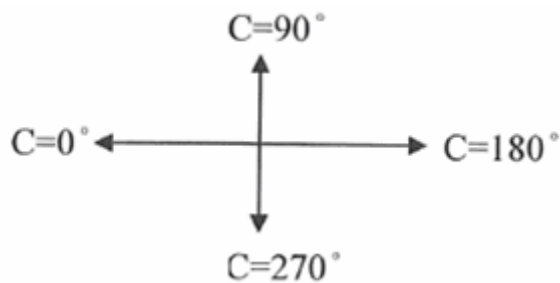
- (1) Operating Orientation : The light source is considered as horizontal.
- (2) Light Source : LED
- (3) Stabilization time : 1 Hour
- (4) Environment Condition : Temperature: 25 ± 1 °C , Humidity: $60 \pm 20\%$



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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
L204	Goniophotometer-1800	SENSING	GMS1800	N/A	N/A	
L205	GMS-1800B Goniophotometer System	SENSING		N/A	N/A	
L206	AC Power Source	Twintex	TFC 500VA	N/A	N/A	
L207	Power Meter	SENSING	UI2008	2011/12/4	2012/12/3	V : Auto (0~300Vac) A : Auto (0~20A)
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	
L210	Standard Lamp(100W)	SENSING	S01107	2012/01/05	2013/01/04	
L221	Irradiance Standard lamp	SENSING	LSD1003029	2012/05/30	2013/05/29	
L222	Power Meter	Yokogawa	WT-210	2011/10/13	2012/10/12	V : Auto (0~300Vac) A : Auto (0~20A)