



Great One Global Certification Co., Ltd.

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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.....: GO1605230301F

Product Name: LED Bay Light

Model No: GL-BL190XYZ

Sample No: 16052303-2

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

Test Date: June 24, 2016

Issue Date.....: June 28, 2016

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
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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

Spectrum Test Report

Sample : GL-BL190XYZ
Specification : LED Bay Light
Sample No. : 16052303-2
Manufacturer : GlacialTech Inc.

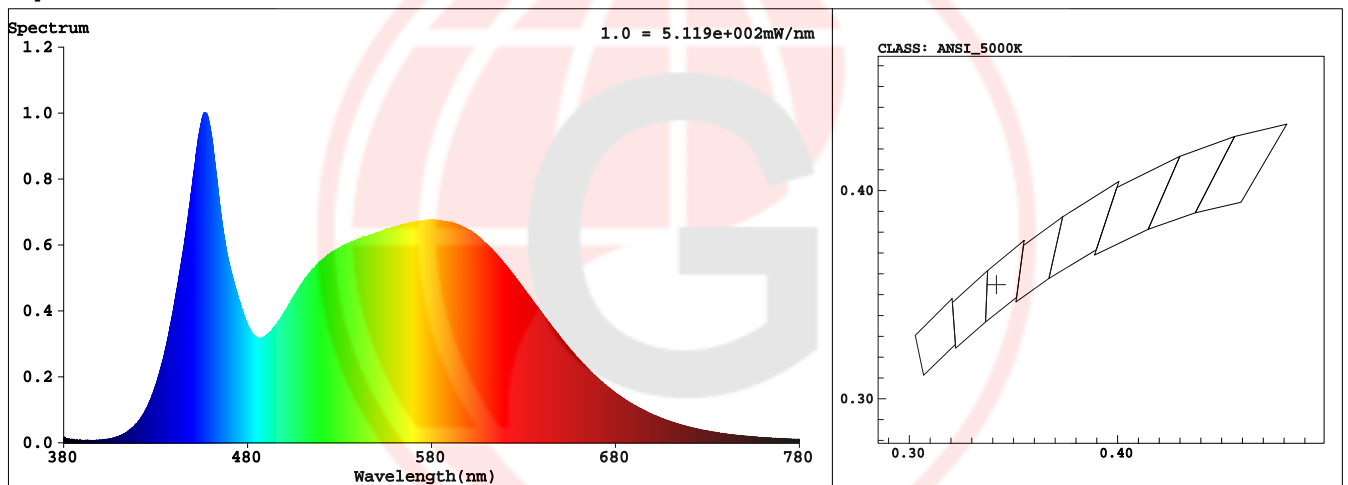
Date : 2016-06-24
Sam. Status :
Instrument : HaasSuite(EVERFINE)
Test by : Alex Sung

Test Condition

Temperature : 25.5Deg
WL Range : 380nm-780nm
Test Mode : Fast Test

RH : 60.0%
IP : 52311 (80%)
T : 75 ms
Delicacy : High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Quantities

Chromaticity Coordinate: $x = 0.3418$ $y = 0.3548$ / $u' = 0.2080$ $v' = 0.4857$ ($duv=2.94e-03$)

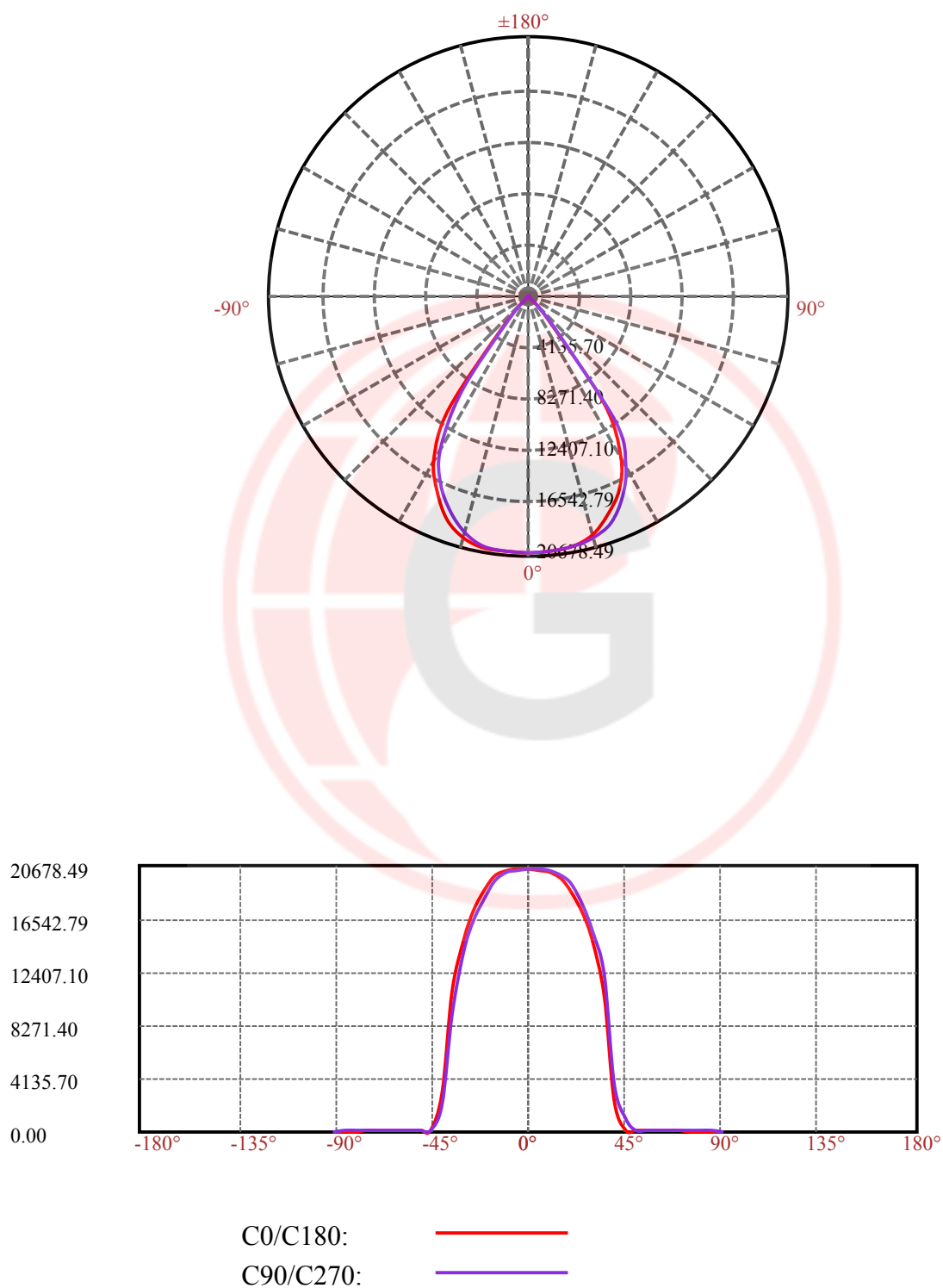
CCT= 5135K Prcp WL: Ld=567.6nm Purity=9.0%

Peak WL: Lp=457nm FWHM: =29.3nm Ratio:R=15.5% G=79.5% B=5.0%

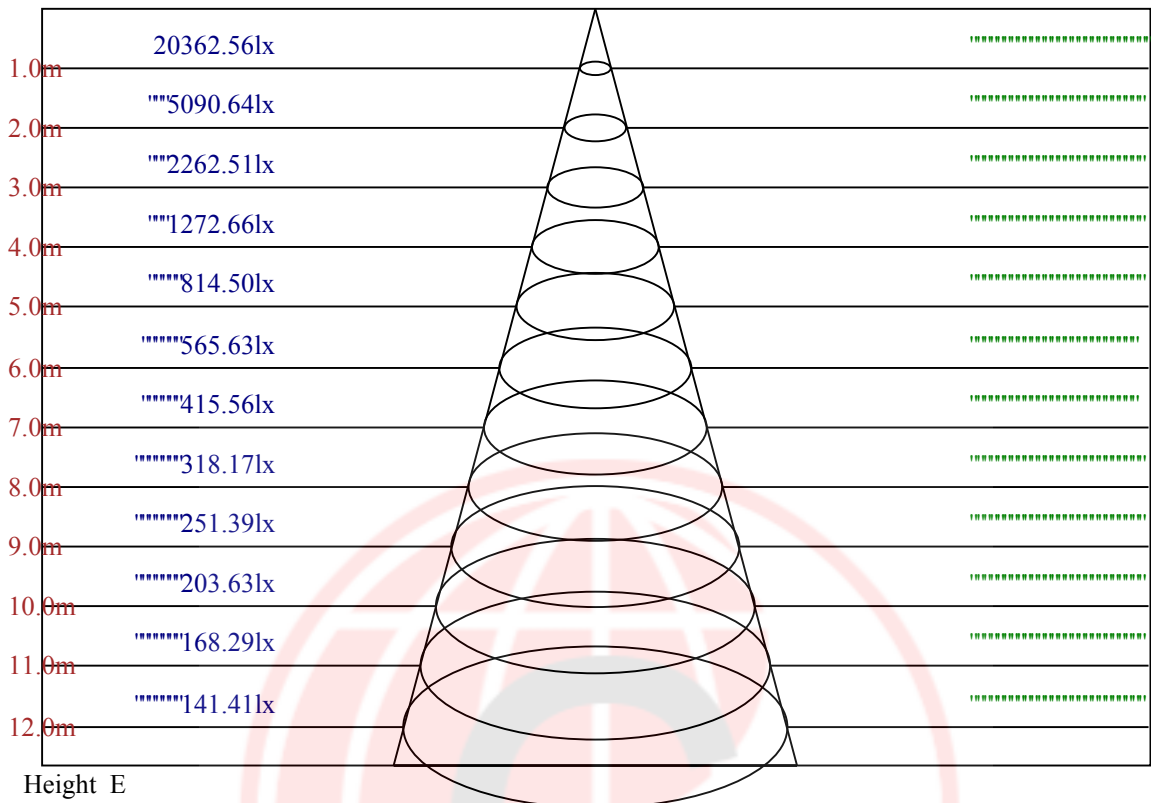
Render Index: Ra = 83.9

R1 =82 R2 =90 R3 =94 R4 =82 R5 =82 R6 =86 R7 =87
R8 =68 R9 =11 R10=76 R11=80 R12=64 R13=85 R14=97 R15=77
LEVEL:OUT WHITE:ANSI_5000K

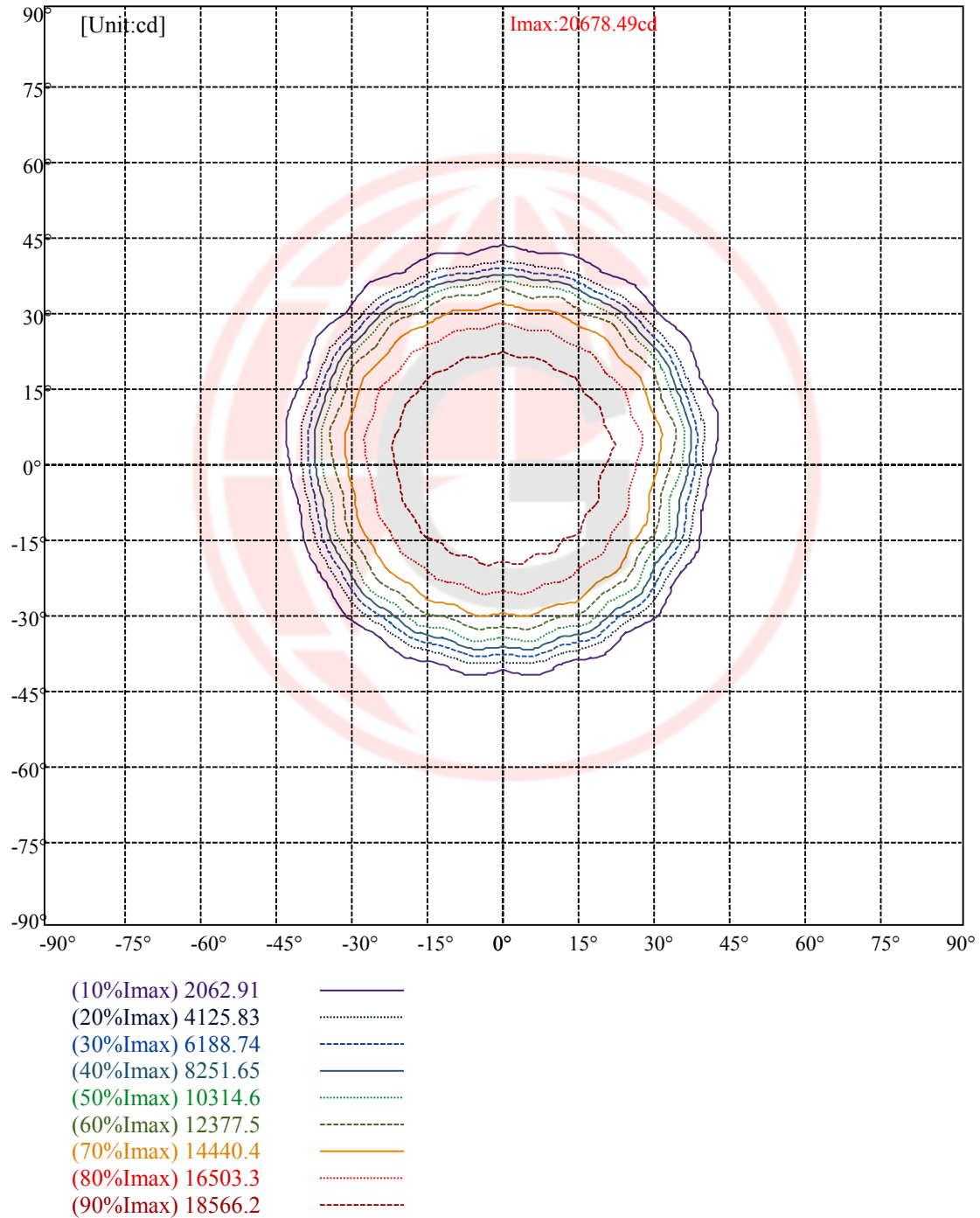
Light Distribution Curve [Unit: cd]



Lux distance Curve



ISO-Intensity(V-H)

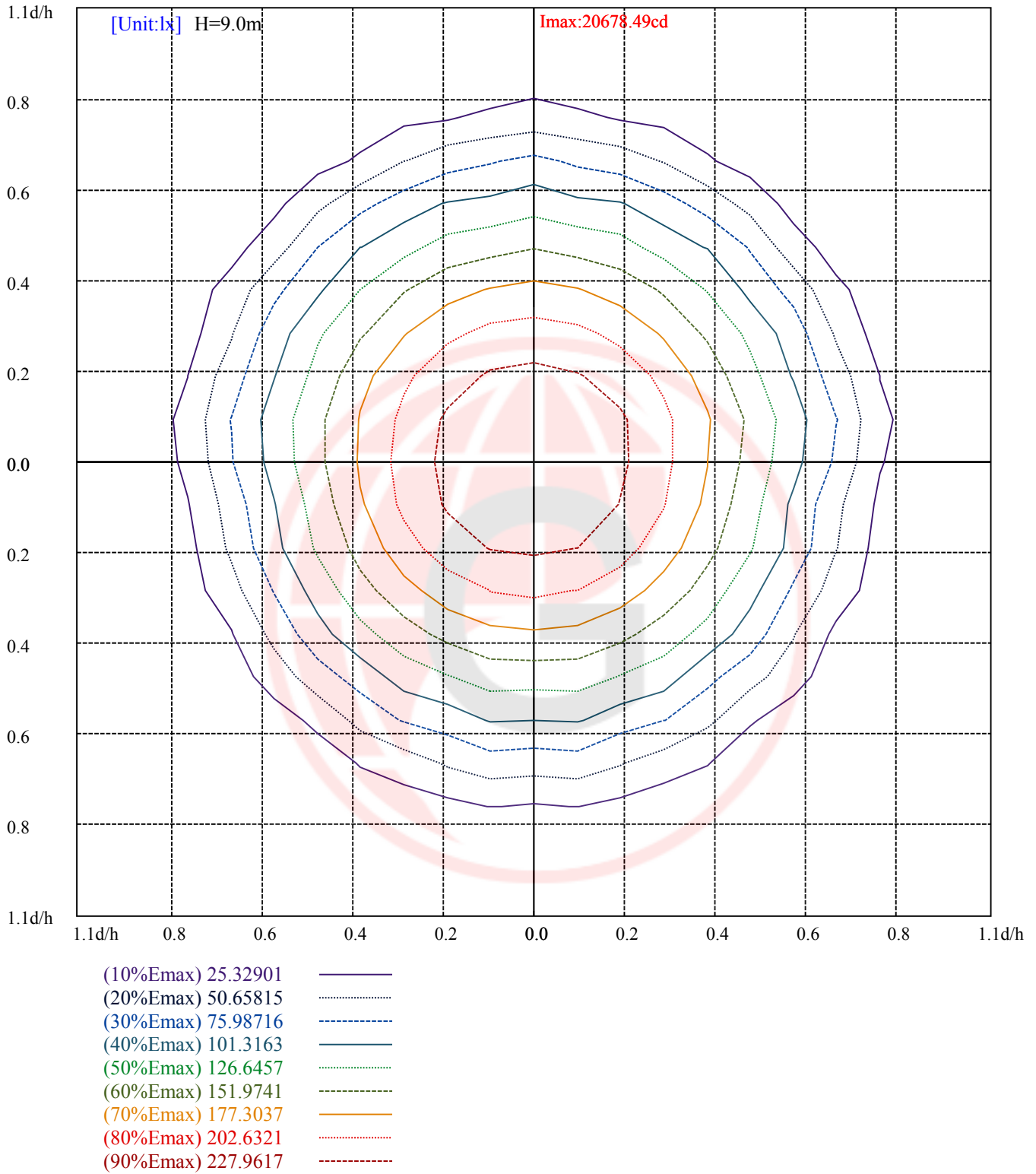


Equipment: HW-1015
Temperature(°C): 25.1

Date: 2018/8/26
Humidity(%): 60.0%

Operator: Alex Sung
Distance(m): 12.60

ISO illuminance diagram



Equipment: HW-1015
Temperature(°C): 25.1

Date: 2018/8/26
Humidity(%): 60.0%

Operator: Alex Sung
Distance(m): 12.60

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	20362.56	20316.52	20129.18	19656.08	18566.98	17011.13	14753.57	10530.55	2483.01
10.0	20678.49	20641.98	20495.92	20103.78	19262.35	17760.48	15650.56	12168.96	3976.94
20.0	20607.05	20564.18	20419.71	19960.90	18975.00	17347.71	15102.84	11025.88	2961.51
30.0	20556.25	20549.90	20380.02	19991.06	19162.33	17660.46	15493.39	11994.32	3440.33
40.0	20527.67	20497.51	20303.82	19846.59	18874.98	17339.77	14899.63	10748.05	2756.55
50.0	20505.44	20462.58	20302.23	19940.26	19128.99	17671.58	15498.15	12054.65	3530.82
60.0	20473.69	20413.36	20224.44	19798.96	18948.01	17354.06	14890.10	10821.08	3081.69
70.0	20432.41	20403.84	20241.90	19902.15	19167.10	17709.68	15550.54	12145.14	3694.35
80.0	20438.76	20386.37	20205.39	19802.14	18987.70	17355.64	14891.69	10752.82	3141.70
90.0	20413.36	20395.90	20249.84	19957.72	19209.96	17643.00	15583.88	12219.76	3762.61
100.0	20414.95	20370.50	20229.20	19865.64	19038.50	17423.91	14972.66	11244.97	2998.02
110.0	20381.61	20367.32	20280.00	20010.11	19224.25	17725.55	15575.94	12143.55	3975.35
120.0	20381.61	20351.45	20268.89	19935.49	19071.84	17458.84	15074.26	11286.25	3078.20
130.0	20349.86	20373.67	20306.99	20054.56	19263.94	17774.77	15671.20	12189.59	4105.53
140.0	20364.15	20356.21	20297.47	19962.48	19103.59	17501.70	15128.24	11251.32	3051.21
150.0	20353.03	20375.26	20311.76	20070.44	19282.99	17781.12	15702.95	12164.19	4138.87
160.0	20362.56	20353.03	20289.53	19949.78	19060.73	17412.80	15210.80	11179.88	2978.66
170.0	20345.09	20362.56	20289.53	20006.94	19205.20	17625.54	15529.90	12034.01	4084.90
180.0	20362.56	20357.79	20265.71	19894.22	18911.49	17190.53	14939.32	10938.56	3090.74
190.0	20678.49	20637.21	20468.93	19987.88	18743.21	16876.19	14189.97	9365.25	2253.44
200.0	20607.05	20561.01	20451.46	20054.56	18887.68	17066.70	14710.70	10471.81	2791.00
210.0	20556.25	20527.67	20333.98	19859.29	18620.96	16723.78	14291.58	9611.33	2400.13
220.0	20527.67	20489.57	20322.87	19897.39	18800.36	17000.02	14664.66	10682.96	3067.24
230.0	20505.44	20426.06	20216.50	19683.07	18409.81	16555.49	14053.44	9382.72	2297.42
240.0	20473.69	20411.78	20243.49	19751.33	18640.01	16825.39	14488.44	10498.80	3029.14
250.0	20432.41	20386.37	20122.83	19605.27	18285.98	16385.62	13901.03	9149.34	2230.90
260.0	20438.76	20378.44	20194.27	19724.34	18608.26	16795.22	14490.03	10508.33	3062.48
270.0	20413.36	20333.98	20132.36	19557.65	18276.45	16398.32	13959.77	9111.24	2170.09
280.0	20414.95	20341.92	20170.46	19689.42	18568.57	16803.16	14559.88	10501.97	3005.33
290.0	20381.61	20310.17	20089.49	19490.97	18206.60	16396.73	13966.12	8831.82	2034.67
300.0	20381.61	20337.16	20156.17	19665.60	18552.70	16803.16	14599.57	10389.26	2918.01
310.0	20349.86	20310.17	20092.67	19459.21	18219.30	16433.25	13969.29	8547.64	1935.44
320.0	20364.15	20316.52	20159.35	19657.66	18570.16	16895.24	14637.67	10262.25	2802.11
330.0	20353.03	20283.18	20081.55	19470.33	18290.74	16501.52	13988.34	8328.55	1826.38
340.0	20362.56	20313.34	20138.71	19616.39	18587.62	16965.10	14686.89	10179.69	2690.98
350.0	20345.09	20289.53	20081.55	19460.80	18297.09	16647.57	13999.46	8374.59	1749.54
360.0	20362.56	20316.52	20129.18	19656.08	18566.98	17011.13	14753.57	10530.55	2483.01

Equipment: HW-1015
Temperature(°C): 25.1

Date: 2018/8/26
Humidity(%): 60.0%

Operator: Alex Sung
Distance(m): 12.60

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	174.32	105.10	96.21	103.51	99.23	80.49	63.50	51.28	40.01
10.0	877.94	106.21	98.59	103.19	102.56	85.89	65.09	53.50	43.98
20.0	229.41	106.69	97.00	103.35	100.18	82.87	67.16	64.30	50.33
30.0	998.60	117.48	98.91	105.42	102.40	86.37	67.63	82.56	64.46
40.0	259.26	114.62	96.37	103.04	98.59	82.08	71.92	78.74	66.84
50.0	816.03	119.07	95.73	104.15	101.77	87.48	67.63	83.51	68.90
60.0	274.18	106.21	92.08	103.04	99.86	84.78	70.81	84.30	69.85
70.0	944.62	109.86	94.94	105.73	104.31	90.49	70.97	88.27	71.12
80.0	259.41	105.42	93.67	107.96	104.15	88.59	78.11	85.41	70.81
90.0	976.37	107.96	95.89	112.08	108.43	95.57	76.05	88.59	71.60
100.0	237.82	103.04	95.26	113.20	111.45	96.84	80.33	82.87	64.46
110.0	890.64	104.31	96.37	116.37	119.39	106.85	81.60	76.52	52.87
120.0	231.63	103.19	96.21	120.18	123.99	107.32	79.54	69.85	58.90
130.0	965.26	109.39	97.16	121.77	128.28	115.42	80.81	70.49	59.38
140.0	209.56	105.42	95.10	117.16	123.20	106.05	79.86	69.54	58.90
150.0	1004.95	104.78	94.62	114.47	117.64	104.46	79.22	77.79	64.77
160.0	165.43	103.83	94.78	110.50	108.43	92.87	82.87	73.98	63.50
170.0	1014.48	106.69	96.37	109.23	104.46	87.64	70.49	67.95	53.03
180.0	157.97	104.46	95.41	105.89	96.37	79.22	67.79	54.93	41.60
190.0	114.31	102.56	94.14	104.46	92.08	72.87	69.85	52.39	37.94
200.0	134.47	103.67	93.19	103.67	93.19	75.25	73.19	63.35	45.41
210.0	136.22	105.42	91.60	100.65	90.18	73.19	80.49	72.71	61.92
220.0	238.93	112.56	94.14	100.02	91.45	74.62	75.89	76.36	63.50
230.0	138.76	106.37	90.18	98.27	88.91	71.76	84.46	76.05	65.73
240.0	150.03	104.78	91.92	100.81	92.87	76.05	73.66	77.47	67.16
250.0	121.77	100.81	91.13	103.04	92.24	74.78	86.05	76.36	68.11
260.0	147.65	103.19	93.03	105.10	96.68	79.86	68.58	77.16	69.70
270.0	120.18	100.34	92.08	105.89	96.37	78.74	75.41	75.09	67.31
280.0	146.38	100.97	93.51	107.64	102.88	85.41	67.63	70.01	60.33
290.0	115.10	97.16	94.14	111.29	106.37	87.00	78.11	62.08	47.79
300.0	162.57	102.40	94.78	114.31	113.67	92.56	67.16	60.01	54.45
310.0	122.09	100.65	96.68	117.48	114.62	90.65	68.90	59.54	53.82
320.0	168.76	104.15	95.41	114.94	116.21	94.46	67.63	60.49	55.88
330.0	129.39	100.02	95.73	113.04	108.75	87.16	74.93	64.93	57.15
340.0	164.63	104.78	96.53	108.43	105.58	87.16	74.62	66.20	55.25
350.0	133.99	103.67	96.21	106.21	98.27	78.90	73.51	57.95	46.83
360.0	174.32	105.10	96.21	103.51	99.23	80.49	63.50	51.28	40.01

Intensity data(cd)

C/γ(°)	90.0
0.0	28.10
10.0	29.37
20.0	34.61
30.0	42.23
40.0	46.83
50.0	49.69
60.0	57.95
70.0	60.65
80.0	60.01
90.0	56.84
100.0	45.56
110.0	40.96
120.0	40.01
130.0	46.68
140.0	47.15
150.0	52.55
160.0	45.41
170.0	33.97
180.0	28.10
190.0	26.04
200.0	30.80
210.0	35.88
220.0	43.66
230.0	46.36
240.0	56.68
250.0	57.95
260.0	57.31
270.0	54.14
280.0	40.96
290.0	35.56
300.0	37.47
310.0	41.60
320.0	43.66
330.0	49.53
340.0	42.71
350.0	31.75
360.0	28.10





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1. Luminaire Specification :

- (1) Input Voltage / Frequency : 240.00 Vac / 50 Hz
- (2) Input Watt : 184.91 W
- (3) Input Current : 0.792 A
- (4) Total Luminous Flux Output : 22377 lm
- (5) Luminaire Efficacy : 121.02 lm/W
- (6) Central Intensity : 20362.56 cd
- (7) Maximum Intensity : 20678.490 cd
- (8) PF : 0.973
- (9) Beam Angle : (C0-C180) : 70.7°, (C90-C270) : 70.1°
- (10) Correlated Color Temperature (CCT) : 5135 K
- (11) Duv : +0.00294
- (12) Color Rendering Index (CRI) : 83.9

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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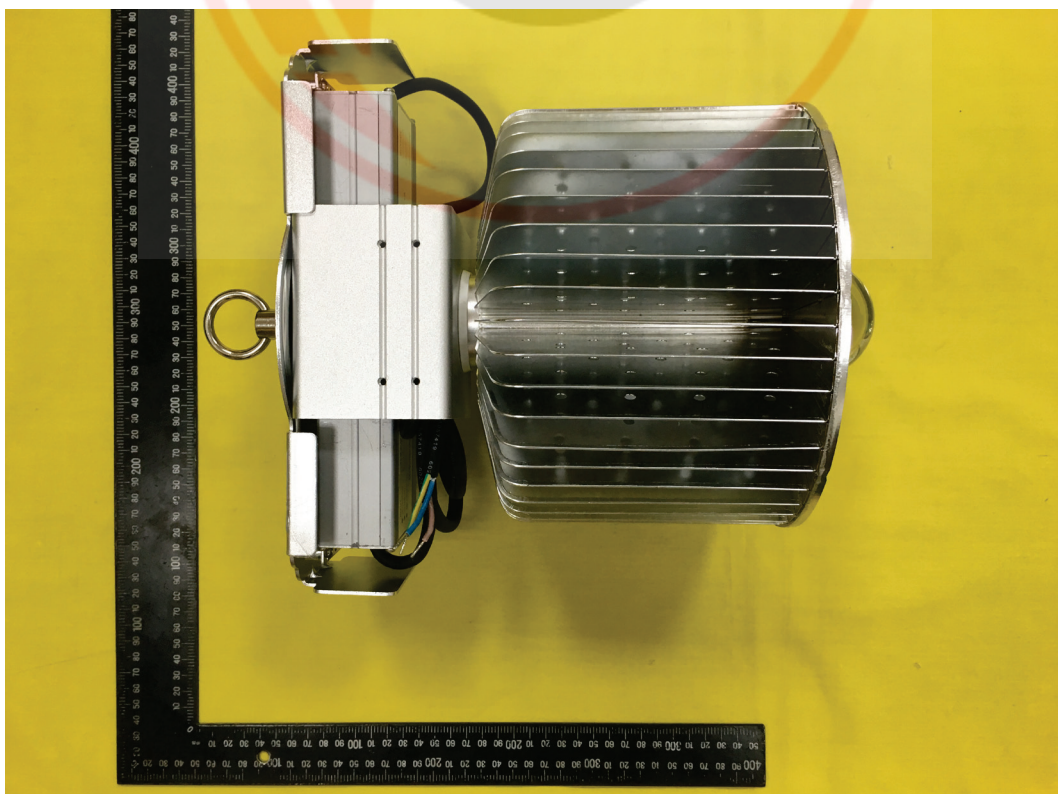
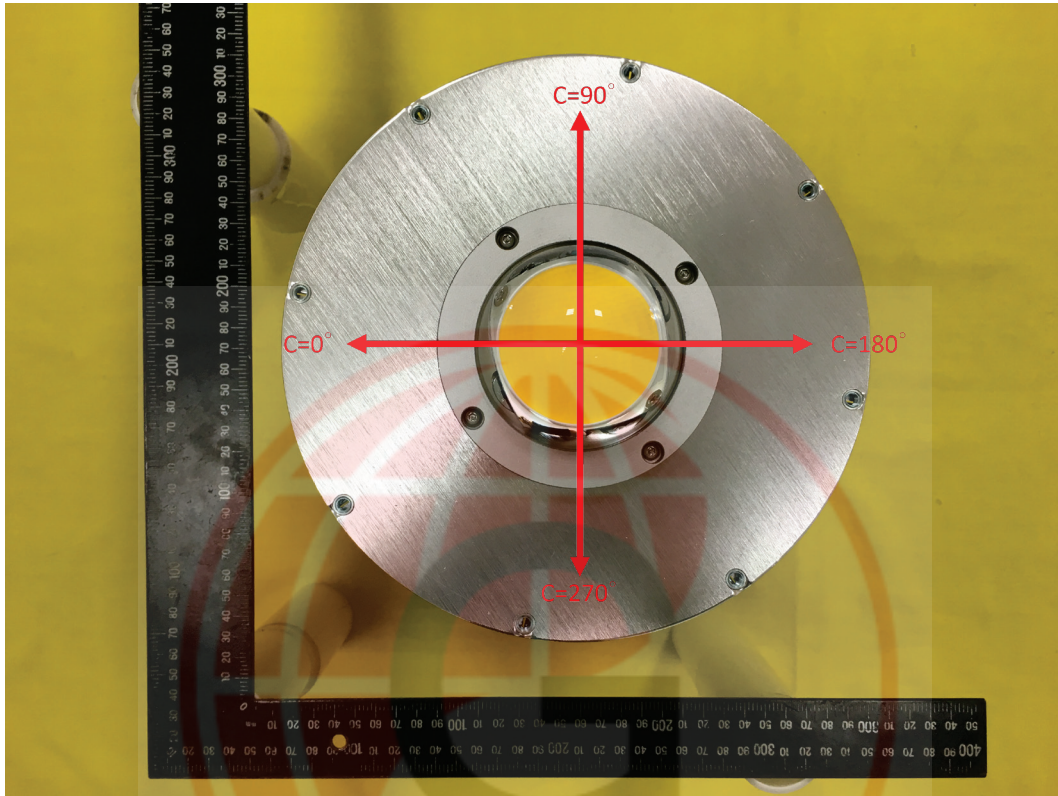
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3. Photograph of EUT :

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	2015/11/13	2016/11/12	
L242	DC Standard Light	2015/10/14	2016/10/13	