

ISLT Co.,Ltd. Goniophotometer Test Report

Product Info

Luminaire Category : LED

Luminaire : 20991LEDDMSCS

Manufacturer : Number of

Lamps : 1 Luminous Length :
100 mm

Lumens per Lamp : 1039 lm

Luminous Width : 100 mm

Luminous Height : 0 mm

Electric Parameters

Voltage : 119.70 V Current : 0.1240 A Power : 13.08 W Power Factor : 0.882 Frequency : 60.15 Hz

Photometric Parameters

CIE Class : Direct

Measurement Flux : 1038.7 lm

Upward Ratio : 0.00 %

Maximum Intensity : 370.34 cd

Central Intensity : 370.32 cd

Luminaire Efficacy Rating (LER) : 79

Conical Flux (90°) : 547.05 lm (52.7%)

Beam Angle (C0-C180,C90-C270) : 106.5 °, 106.7 °

Field Angle (C0-C180,C90-C270) : 171.4 °, 171.3 °

Total Rated Lamp Lumens : 1038.7 lm

Efficiency : 100.00 %

Downward Ratio : 100.00 %

Position Of Maximum Intensity : C210° γ1°

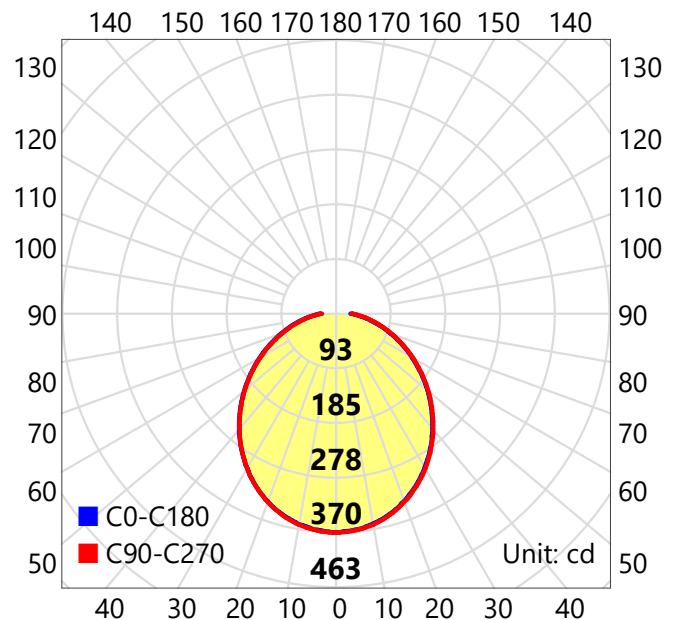
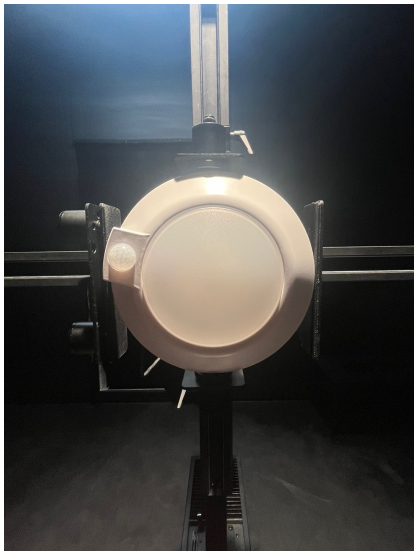
S/MH(C0-C180,C90-C270) : 1.21, 1.21

Energy Efficiency Class : G (EU 2019/2015 η_{TM}:79lm/W)

Conical Flux (120°) : 791.93 lm (76.2%)

Beam Angle (C45-C225,C135-C315) : 106.9 °, 106.4 °

Field Angle (C45-C225,C135-C315) : 171.0 °, 171.5 °



Average Beam Angle (50%): 106.6°

Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°) : 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

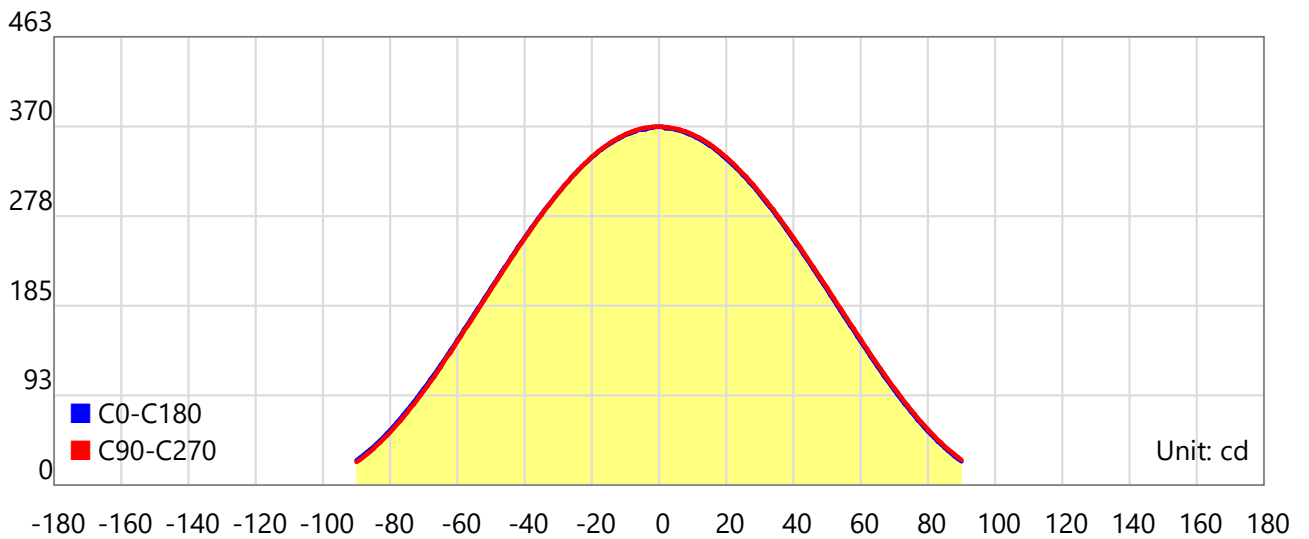
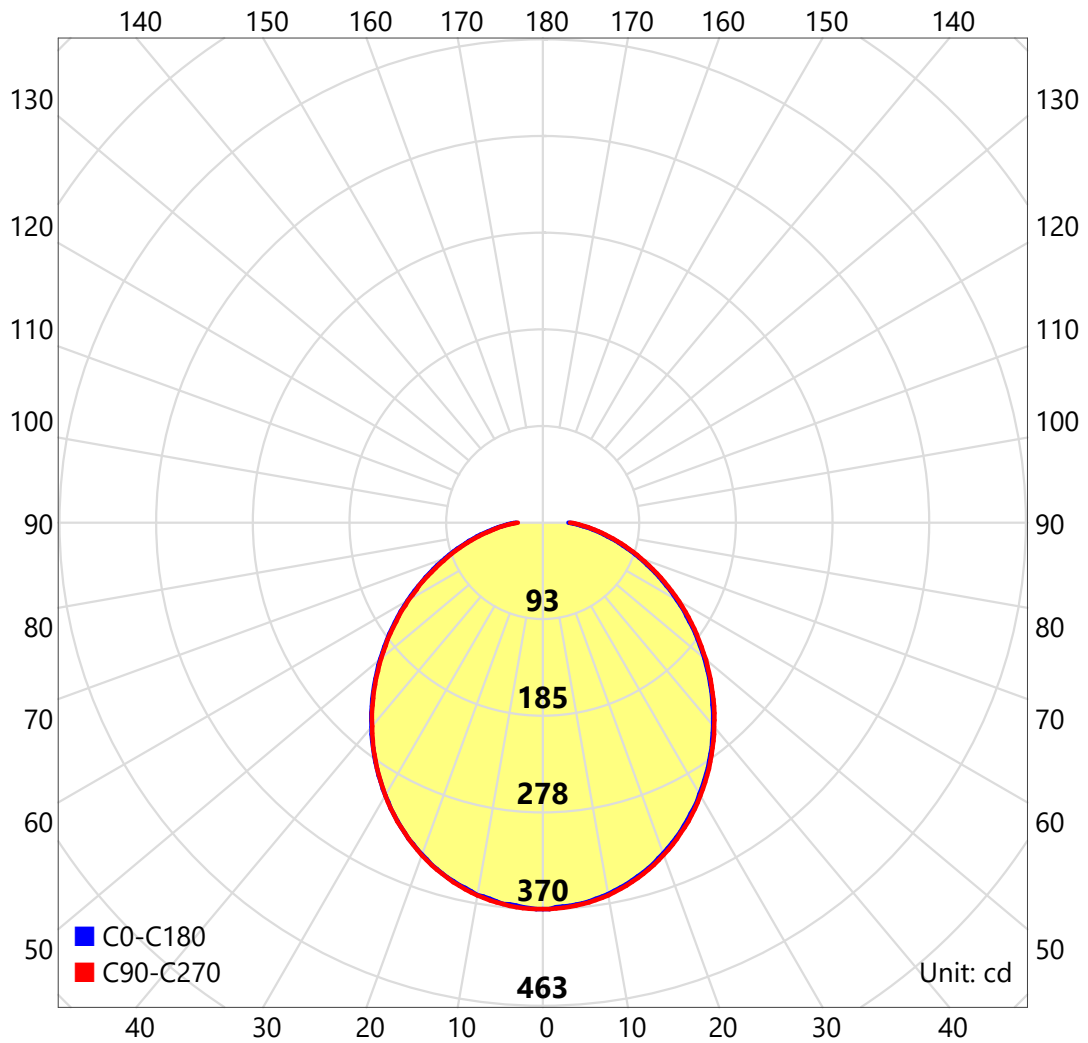
Humidity : 65.0%

Test Lab :

Test By : 장진혁

Review By :

Light Distribution Curve



Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

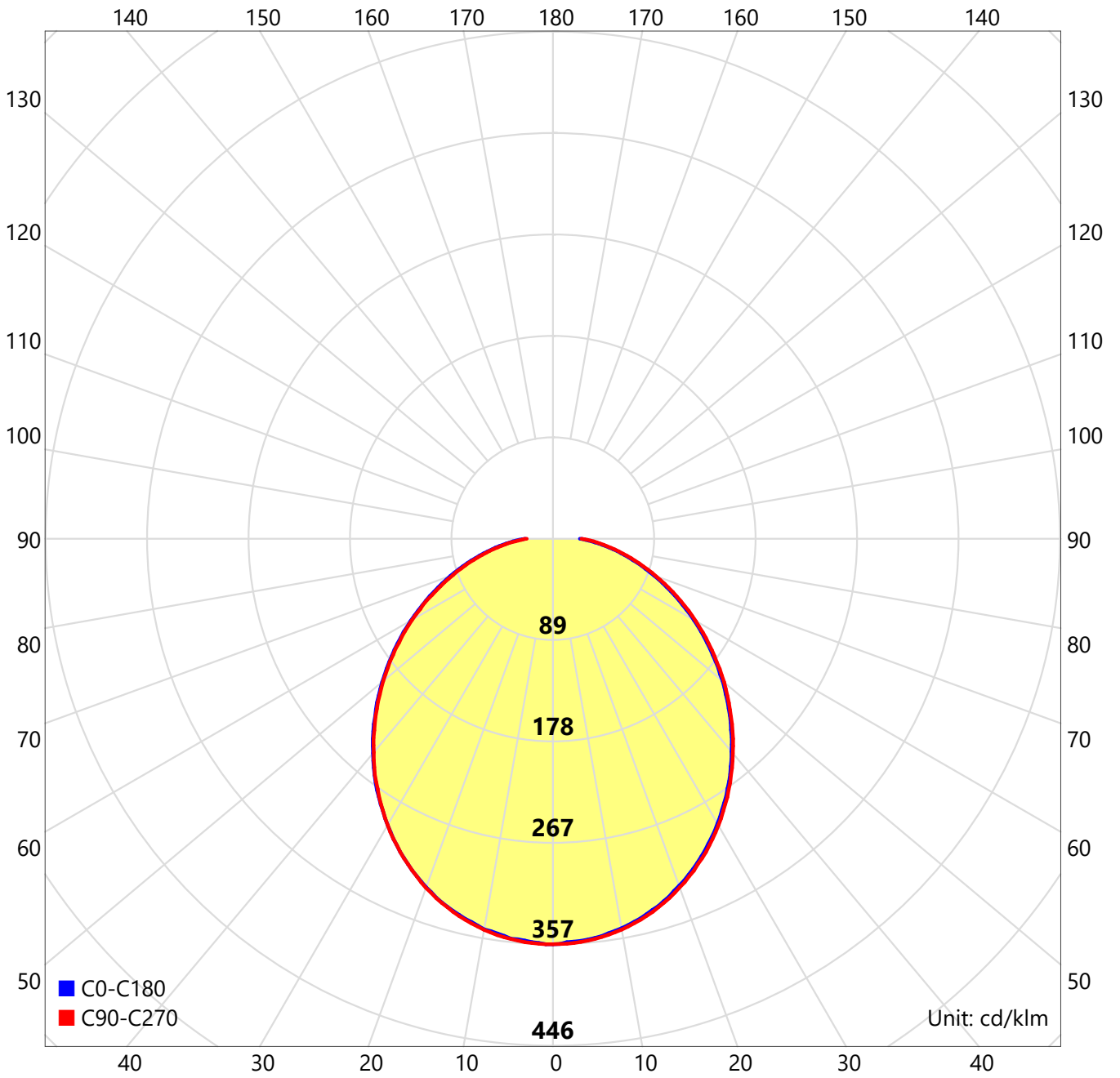
Humidity : 65.0%

Test Lab :

Test By : 장진혁

Review By :

Light Distribution Curve (cd/klm)



$\eta=100\%$

Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

Humidity : 65.0%

Test Lab :

Test By : 장진혁

Review By :

UGR

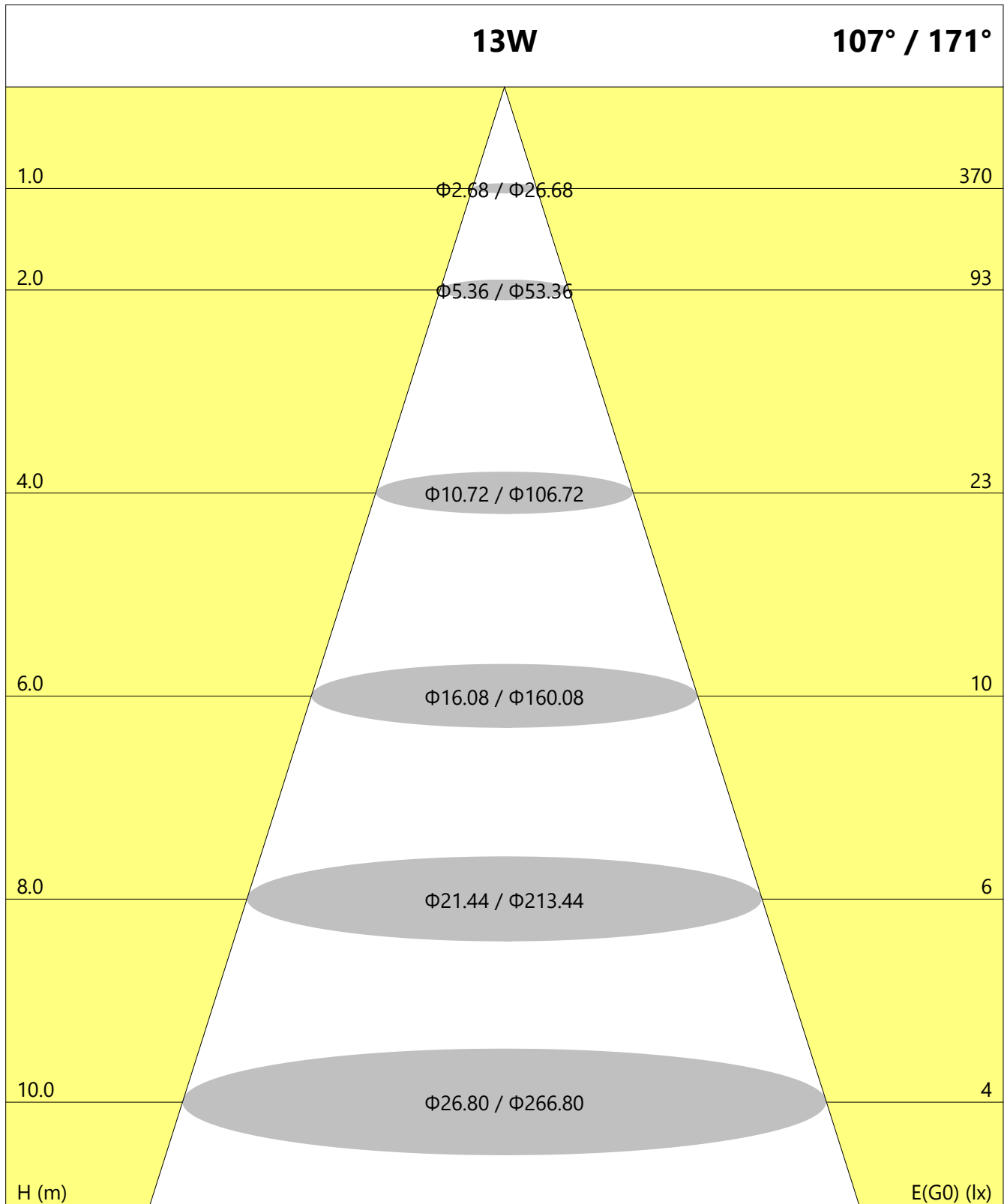
Reflectance										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	23.8	25.4	24.1	25.8	26.1	23.9	25.5	24.2	25.8	26.2
3H	25.7	27.2	26.1	27.6	27.9	25.8	27.3	26.2	27.7	28.0
4H	26.6	28.0	27.0	28.3	28.7	26.7	28.1	27.1	28.5	28.8
6H	27.4	28.7	27.8	29.1	29.4	27.5	28.8	27.9	29.2	29.6
8H	27.7	29.0	28.2	29.4	29.8	27.9	29.2	28.3	29.5	29.9
12H	28.1	29.4	28.6	29.7	30.2	28.3	29.5	28.7	29.9	30.3
X=4H Y=2H	24.4	25.9	24.8	26.2	26.6	24.5	25.9	24.9	26.3	26.7
3H	26.6	27.8	27.0	28.2	28.6	26.7	28.0	27.2	28.3	28.7
4H	27.6	28.7	28.1	29.2	29.6	27.8	28.9	28.2	29.3	29.7
6H	28.6	29.6	29.1	30.0	30.5	28.8	29.7	29.2	30.2	30.6
8H	29.1	30.0	29.5	30.4	30.9	29.2	30.1	29.7	30.6	31.0
12H	29.6	30.4	30.1	30.9	31.3	29.7	30.6	30.2	31.0	31.5
X=8H Y=4H	28.1	29.0	28.5	29.4	29.9	28.2	29.1	28.6	29.5	30.0
6H	29.2	30.0	29.7	30.5	31.0	29.4	30.1	29.9	30.6	31.1
8H	29.8	30.5	30.3	31.0	31.5	30.0	30.7	30.5	31.2	31.7
12H	30.5	31.1	31.0	31.6	32.2	30.7	31.3	31.2	31.8	32.3
X=12H Y=4H	28.1	29.0	28.6	29.4	29.9	28.3	29.1	28.7	29.6	30.0
6H	29.4	30.1	29.9	30.5	31.1	29.5	30.2	30.0	30.7	31.2
8H	30.1	30.7	30.6	31.2	31.7	30.2	30.8	30.7	31.3	31.9

Calculate in accordance with CIE 190:2010. The table is corrected with 1039lm ($8\log(F/F_0) = 0.1$).

Reflectance										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	24.3	25.7	24.6	26.0	26.2	24.3	25.7	24.6	26.0	26.2
3H	26.0	27.3	26.3	27.5	27.8	26.0	27.3	26.3	27.6	27.8
4H	26.8	28.0	27.1	28.3	28.6	26.8	28.0	27.1	28.3	28.6
6H	27.5	28.6	27.9	29.0	29.3	27.5	28.7	27.9	29.0	29.3
8H	27.9	29.0	28.2	29.3	29.6	27.9	29.0	28.3	29.3	29.7
12H	28.2	29.3	28.6	29.6	30.0	28.3	29.3	28.7	29.7	30.0
X=4H Y=2H	25.0	26.2	25.4	26.5	26.8	25.0	26.2	25.4	26.5	26.8
3H	26.9	28.0	27.3	28.3	28.6	26.9	28.0	27.3	28.3	28.6
4H	27.8	28.8	28.2	29.1	29.5	27.8	28.8	28.3	29.2	29.5
6H	28.7	29.6	29.2	30.0	30.4	28.8	29.6	29.2	30.0	30.4
8H	29.2	30.0	29.6	30.4	30.8	29.2	30.0	29.7	30.4	30.8
12H	29.7	30.4	30.1	30.8	31.3	29.7	30.4	30.2	30.8	31.3
X=8H Y=4H	28.2	29.0	28.7	29.4	29.8	28.2	29.0	28.7	29.4	29.9
6H	29.4	30.0	29.8	30.5	30.9	29.4	30.0	29.9	30.5	30.9
8H	30.0	30.5	30.5	31.0	31.5	30.0	30.6	30.5	31.0	31.5
12H	30.6	31.1	31.1	31.6	32.1	30.6	31.2	31.1	31.6	32.1
X=12H Y=4H	28.3	29.0	28.8	29.4	29.9	28.3	29.0	28.8	29.4	29.9
6H	29.5	30.1	30.0	30.5	31.0	29.5	30.1	30.0	30.6	31.1
8H	30.2	30.7	30.7	31.2	31.7	30.2	30.7	30.7	31.2	31.7
Variations with the observer position at spacings										
S=1.0H						+0.3/-0.2				
S=1.5H						+0.4/-0.5				
S=2.0H						+0.5/-0.9				

Calculate in accordance with CIE Pub.117. The table is corrected with 1039lm ($8\log(F/F_0) = 0.1$).

Lux-Distance



Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

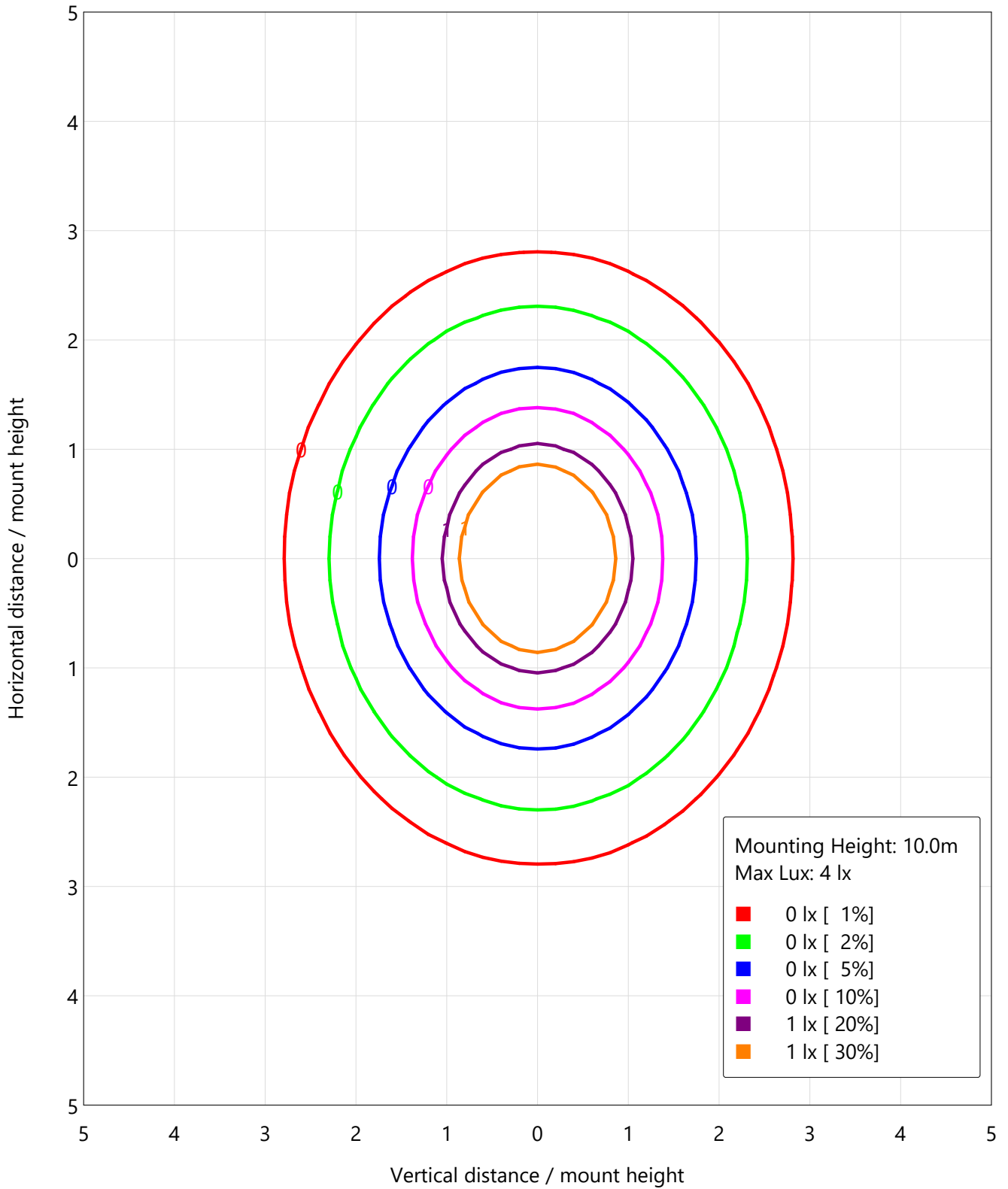
Humidity : 65.0%

Test Lab :

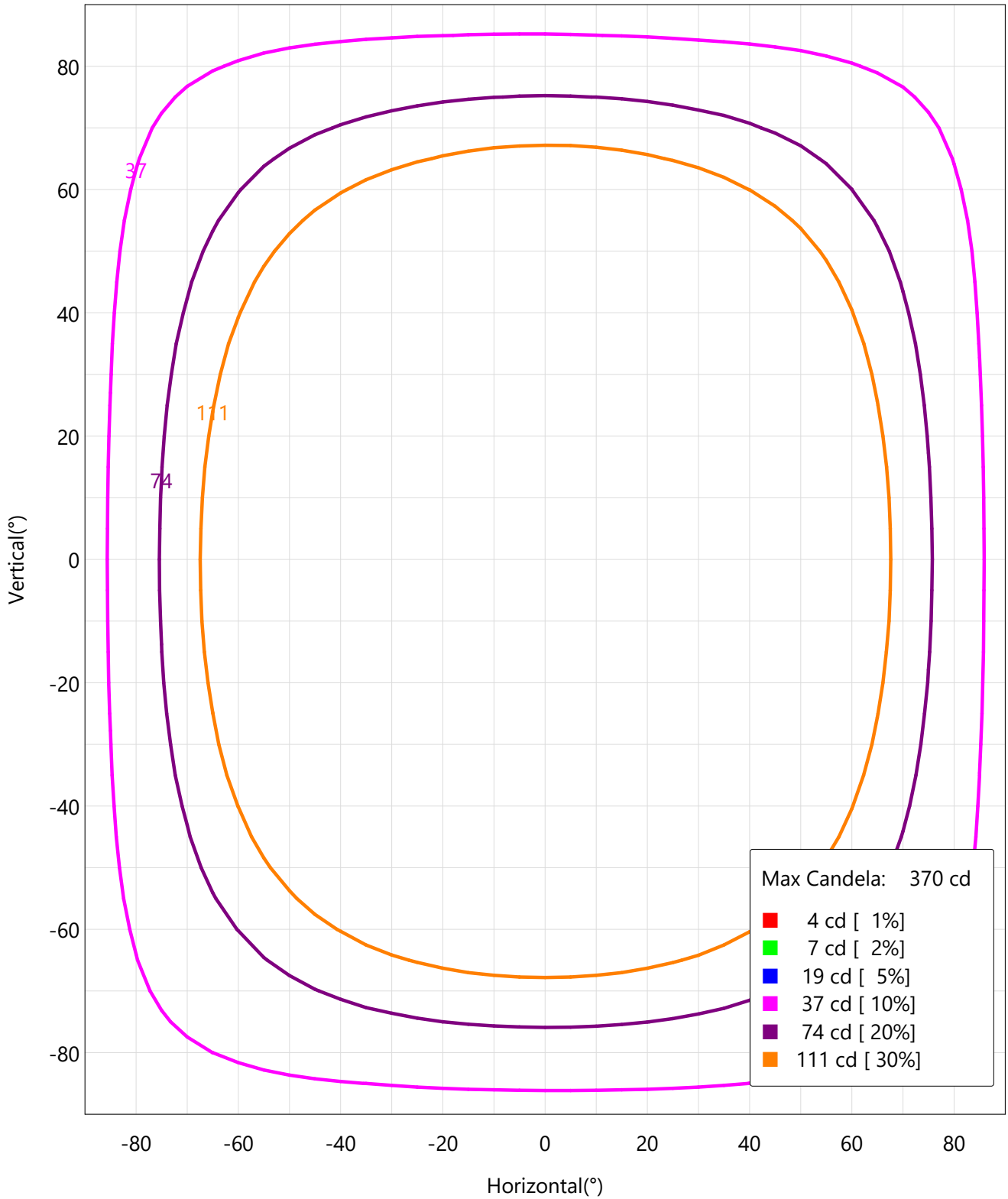
Test By : 장진혁

Review By :

IsoLux



IsoCandela



Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

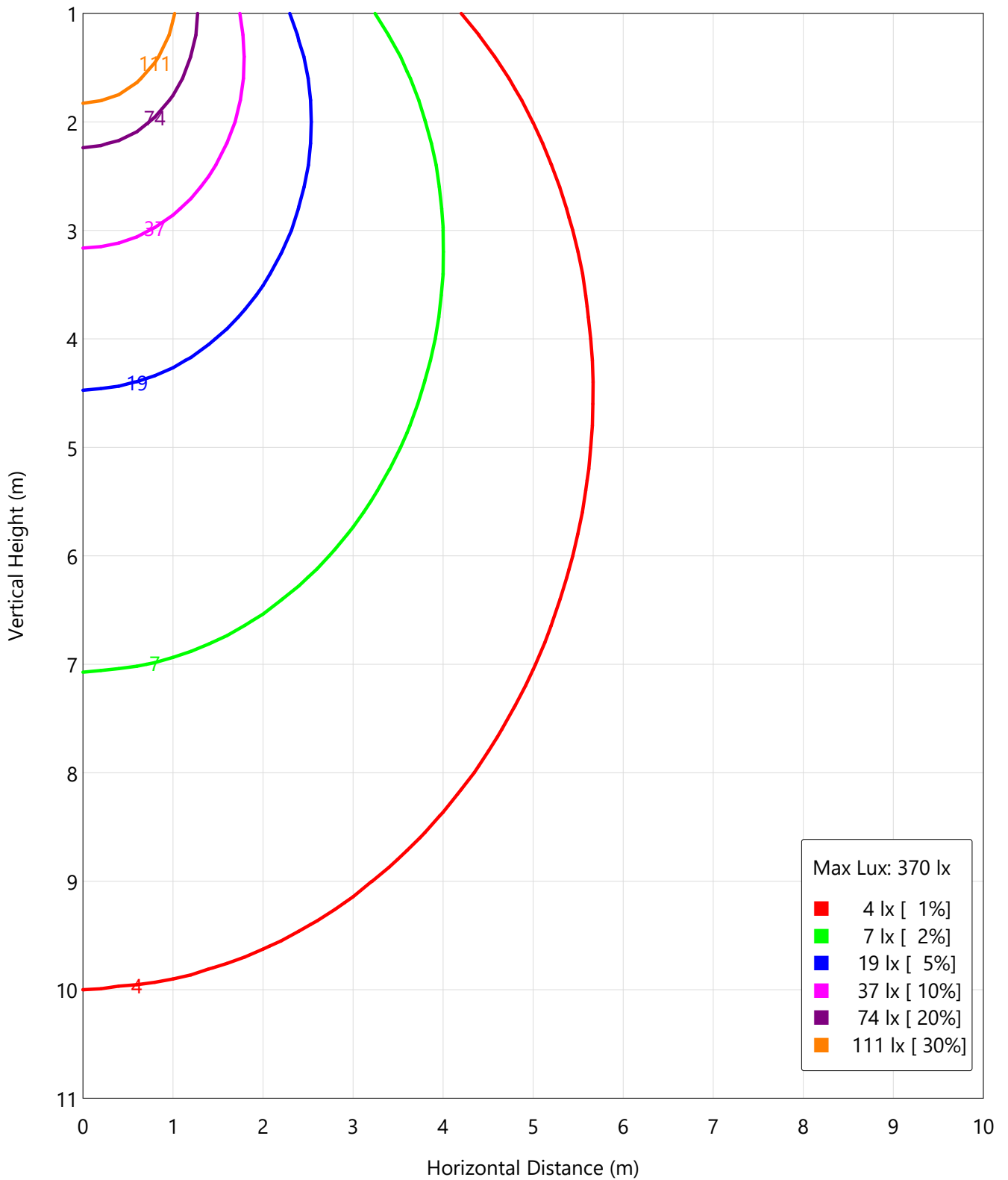
Humidity : 65.0%

Test Lab :

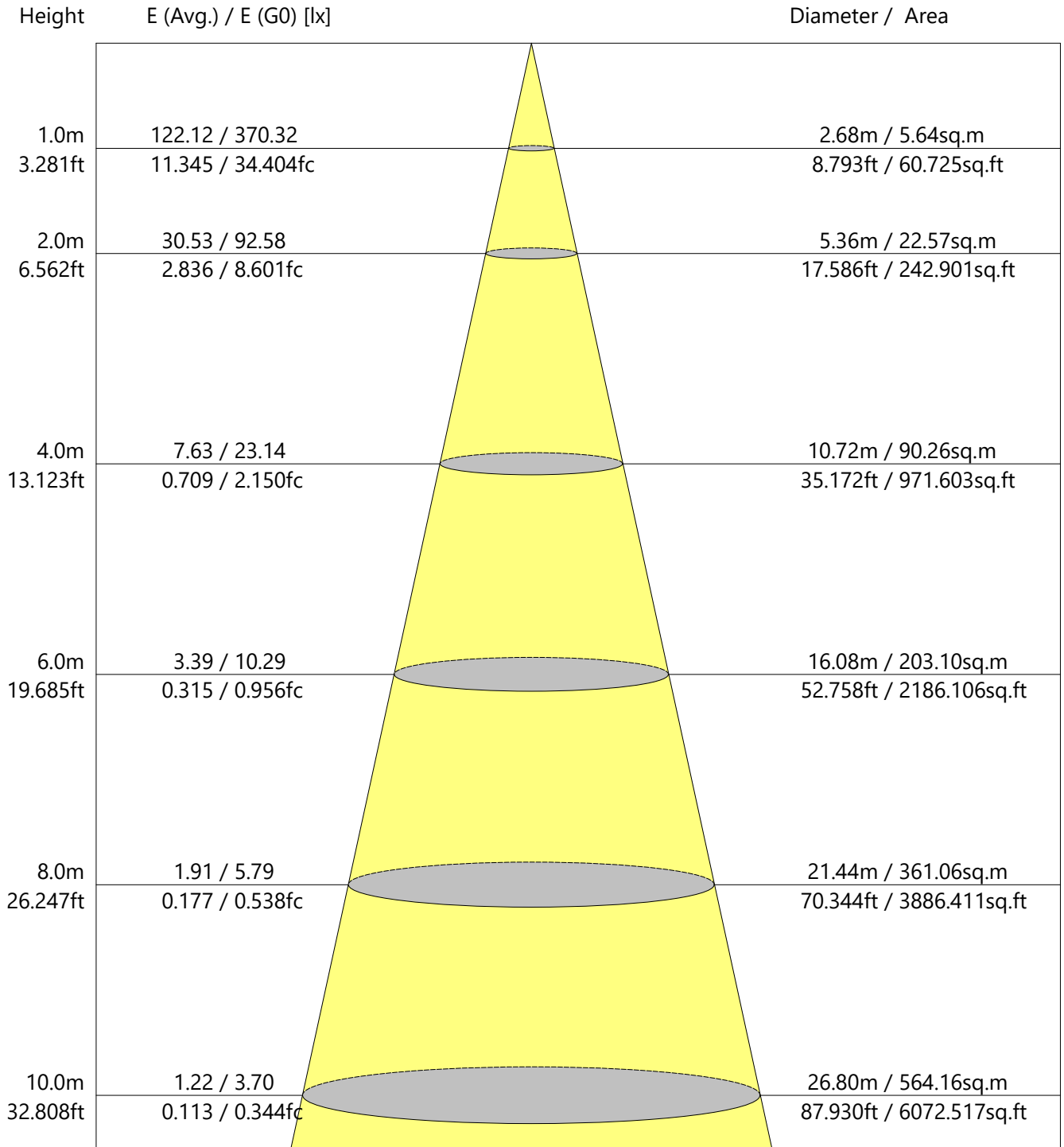
Test By : 장진혁

Review By :

Vertical IsoLux Plot



Average Illuminance Effective Figure

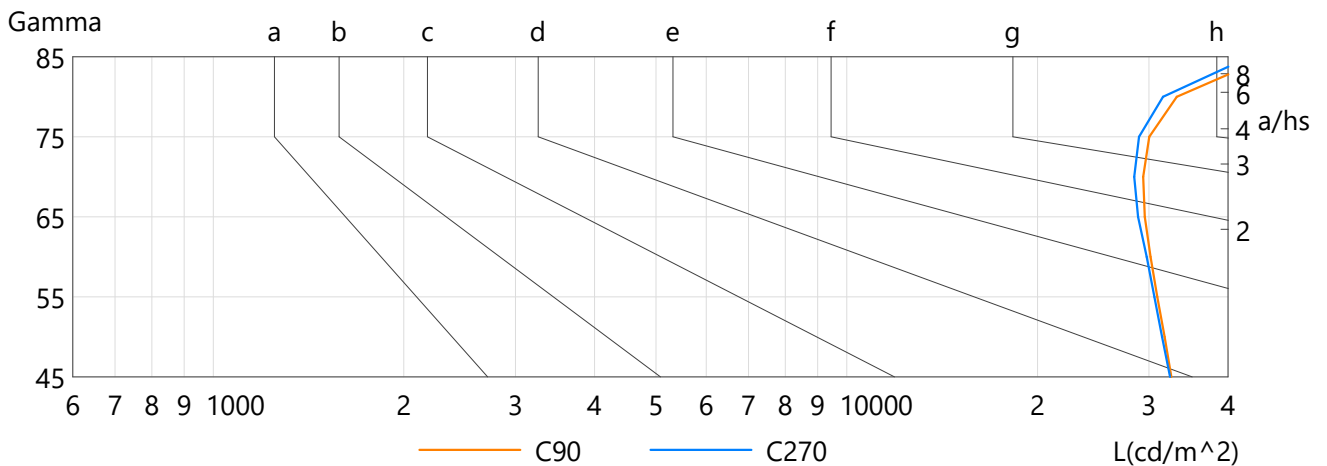
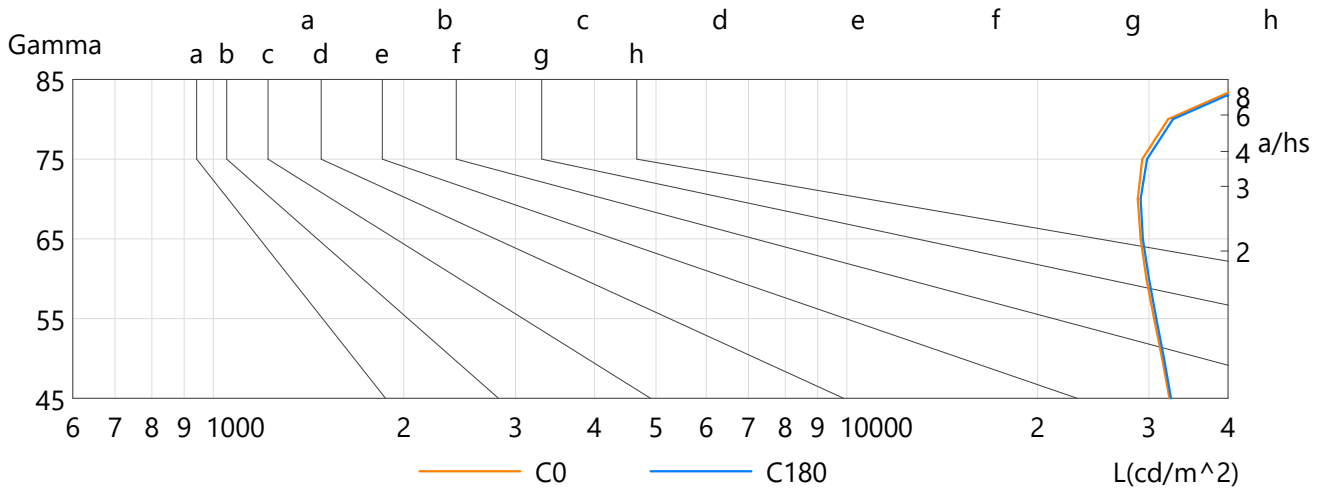


Beam Angle: 106.5° Flux Out: 688.95lm

Luminance Limit Curve

L (cd/m ²)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	32321	31464	30549	29717	29091	28795	29263	32148	44430
C90	32537	31758	30905	30169	29556	29377	30045	33206	46283
C180	32499	31661	30794	29990	29351	29105	29782	32735	45342
C270	32402	31468	30577	29740	28823	28429	28941	31561	43214

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

Humidity : 65.0%

Test Lab :

Test By : 장진혁

Review By :

TM5 UF Table

Utilisation Factors UF (F)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.56	0.66	0.73	0.78	0.86	0.91	0.94	0.99	1.02
	0.30		0.48	0.58	0.66	0.71	0.79	0.85	0.89	0.94	0.98
	0.20		0.42	0.52	0.60	0.65	0.74	0.80	0.84	0.90	0.94
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.82	0.87	0.90	0.95	0.98
	0.30		0.47	0.57	0.64	0.69	0.77	0.82	0.86	0.91	0.94
	0.20		0.42	0.52	0.59	0.64	0.72	0.78	0.82	0.88	0.91
0.30	0.50	0.20	0.53	0.62	0.68	0.73	0.80	0.84	0.87	0.91	0.94
	0.30		0.46	0.56	0.63	0.68	0.75	0.80	0.83	0.88	0.91
	0.20		0.42	0.51	0.58	0.63	0.71	0.76	0.80	0.85	0.89
0.00	0.00	0.00	0.39	0.49	0.55	0.60	0.67	0.72	0.76	0.81	0.84

Utilisation Factors UF (W)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	1.01	0.84	0.72	0.63	0.51	0.43	0.37	0.29	0.24
	0.30		0.84	0.72	0.63	0.56	0.46	0.39	0.34	0.27	0.23
	0.20		0.72	0.63	0.56	0.50	0.42	0.36	0.32	0.26	0.22
0.50	0.50	0.20	0.97	0.81	0.69	0.61	0.49	0.44	0.35	0.28	0.23
	0.30		0.82	0.70	0.61	0.54	0.45	0.38	0.33	0.26	0.22
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.31	0.25	0.21
0.30	0.50	0.20	0.95	0.78	0.67	0.58	0.47	0.39	0.34	0.27	0.22
	0.30		0.81	0.69	0.60	0.53	0.43	0.37	0.32	0.25	0.21
	0.20		0.71	0.61	0.54	0.48	0.40	0.35	0.30	0.24	0.20
0.00	0.00	0.00	0.61	0.52	0.45	0.40	0.33	0.28	0.24	0.19	0.16

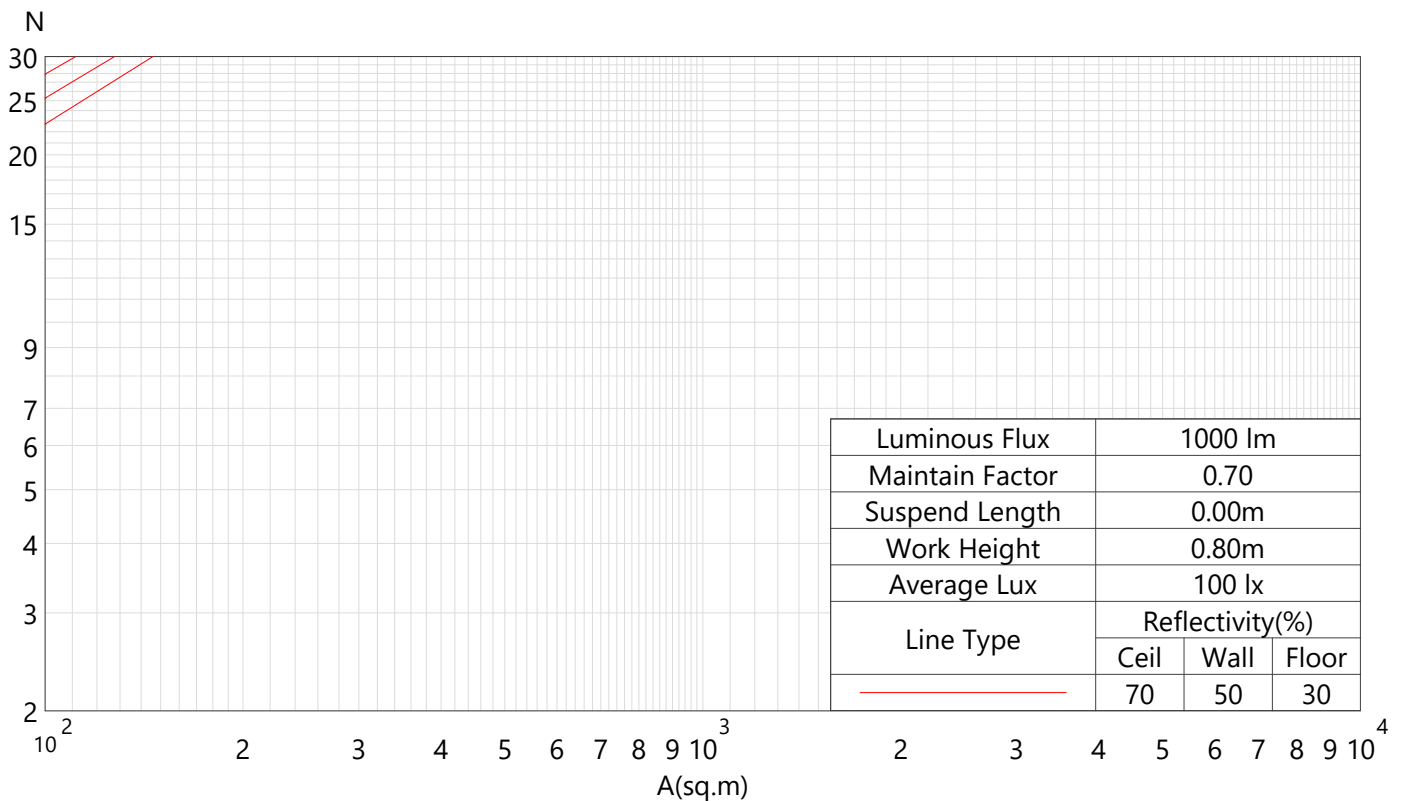
Utilisation Factors UF (C)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.16	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.17
0.50	0.50	0.20	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.04	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16
0.30	0.50	0.20	0.15	0.17	0.17	0.18	0.19	0.19	0.20	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.16
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA

Rating: 13W Photometrically tested without ceiling board.
 Multiply UF values by service correction factors
 Calculate in accordance with CIBSE Technical Memorandum No.5/1980

Indoor CU, Curves of Luminaires vs Lighting Area

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	70	63	87	77	69	62	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

Spacing Criteria: 1.21 (0-180), 1.21 (90-270), 1.33 (Diagonal)



Zonal Flux

Gamma °	I _{mean} cd	Zonal Flux lm	Sum Zonal Flux lm	Rel Zonal Flux %	Sum Rel Zonal Flux %
0.0-1.0	370.3	0.4	0.4	0.03	0.03
1.0-2.0	370.0	1.1	1.4	0.10	0.14
2.0-3.0	369.6	1.8	3.2	0.17	0.31
3.0-4.0	369.2	2.5	5.7	0.24	0.54
4.0-5.0	368.5	3.2	8.8	0.31	0.85
5.0-6.0	367.8	3.9	12.7	0.37	1.22
6.0-7.0	366.9	4.6	17.2	0.44	1.66
7.0-8.0	365.7	5.2	22.5	0.50	2.16
8.0-9.0	364.4	5.9	28.4	0.57	2.73
9.0-10.0	363.1	6.6	35.0	0.63	3.37
10.0-11.0	361.5	7.2	42.2	0.70	4.06
11.0-12.0	359.7	7.9	50.0	0.76	4.82
12.0-13.0	357.8	8.5	58.5	0.82	5.64
13.0-14.0	355.8	9.1	67.6	0.88	6.51
14.0-15.0	353.6	9.7	77.4	0.93	7.45
15.0-16.0	351.2	10.3	87.6	0.99	8.44
16.0-17.0	348.7	10.9	98.5	1.05	9.48
17.0-18.0	346.2	11.4	109.9	1.10	10.58
18.0-19.0	343.3	11.9	121.9	1.15	11.73
19.0-20.0	340.3	12.5	134.3	1.20	12.93
20.0-21.0	337.3	13.0	147.3	1.25	14.18
21.0-22.0	334.1	13.4	160.7	1.29	15.47
22.0-23.0	330.7	13.9	174.6	1.34	16.81
23.0-24.0	327.2	14.3	188.9	1.38	18.18
24.0-25.0	323.6	14.7	203.6	1.42	19.60
25.0-26.0	320.0	15.1	218.7	1.45	21.06
26.0-27.0	316.1	15.5	234.2	1.49	22.55
27.0-28.0	312.2	15.8	250.0	1.52	24.07
28.0-29.0	308.2	16.1	266.1	1.55	25.62
29.0-30.0	304.0	16.4	282.5	1.58	27.20
30.0-31.0	299.8	16.7	299.2	1.61	28.81
31.0-32.0	295.4	16.9	316.1	1.63	30.44
32.0-33.0	290.9	17.1	333.3	1.65	32.09
33.0-34.0	286.5	17.3	350.6	1.67	33.76
34.0-35.0	281.9	17.5	368.1	1.69	35.44
35.0-36.0	277.2	17.6	385.8	1.70	37.14
36.0-37.0	272.5	17.8	403.6	1.71	38.85
37.0-38.0	267.6	17.9	421.4	1.72	40.57
38.0-39.0	262.7	17.9	439.4	1.73	42.30
39.0-40.0	257.7	18.0	457.3	1.73	44.03

Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

Humidity : 65.0%

Test Lab :

Test By : 장진혁

Review By :

Zonal Flux

Gamma °	lmean cd	Zonal Flux lm	Sum Zonal Flux lm	Rel Zonal Flux %	Sum Rel Zonal Flux %
40.0-41.0	252.6	18.0	475.3	1.73	45.76
41.0-42.0	247.7	18.0	493.3	1.73	47.49
42.0-43.0	242.6	18.0	511.3	1.73	49.22
43.0-44.0	237.3	17.9	529.2	1.72	50.95
44.0-45.0	232.2	17.8	547.1	1.72	52.67
45.0-46.0	226.9	17.7	564.8	1.71	54.37
46.0-47.0	221.7	17.6	582.4	1.70	56.07
47.0-48.0	216.3	17.5	599.9	1.68	57.76
48.0-49.0	210.9	17.3	617.2	1.67	59.42
49.0-50.0	205.8	17.2	634.4	1.65	61.08
50.0-51.0	200.4	17.0	651.4	1.63	62.71
51.0-52.0	194.9	16.7	668.1	1.61	64.32
52.0-53.0	189.5	16.5	684.6	1.59	65.91
53.0-54.0	184.1	16.2	700.8	1.56	67.47
54.0-55.0	178.8	16.0	716.8	1.54	69.00
55.0-56.0	173.3	15.7	732.4	1.51	70.51
56.0-57.0	167.9	15.4	747.8	1.48	71.99
57.0-58.0	162.8	15.1	762.8	1.45	73.44
58.0-59.0	157.4	14.7	777.6	1.42	74.86
59.0-60.0	152.1	14.4	791.9	1.38	76.24
60.0-61.0	146.8	14.0	805.9	1.35	77.59
61.0-62.0	141.5	13.6	819.6	1.31	78.90
62.0-63.0	136.4	13.3	832.9	1.28	80.18
63.0-64.0	131.3	12.9	845.7	1.24	81.42
64.0-65.0	126.0	12.5	858.2	1.20	82.62
65.0-66.0	121.0	12.1	870.3	1.16	83.78
66.0-67.0	116.0	11.7	881.9	1.12	84.91
67.0-68.0	111.0	11.2	893.2	1.08	85.99
68.0-69.0	106.2	10.8	904.0	1.04	87.03
69.0-70.0	101.4	10.4	914.4	1.00	88.04
70.0-71.0	96.7	10.0	924.4	0.96	89.00
71.0-72.0	92.0	9.6	934.0	0.92	89.92
72.0-73.0	87.4	9.1	943.2	0.88	90.80
73.0-74.0	83.1	8.7	951.9	0.84	91.64
74.0-75.0	78.6	8.3	960.2	0.80	92.44
75.0-76.0	74.3	7.9	968.1	0.76	93.20
76.0-77.0	70.1	7.5	975.6	0.72	93.92
77.0-78.0	66.0	7.1	982.6	0.68	94.60
78.0-79.0	62.2	6.7	989.3	0.64	95.24
79.0-80.0	58.3	6.3	995.6	0.60	95.85

Test Type : Type C

Test Distance : 12.994 m

C Plane (°): 0.0-360.0:30.0 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1800A

Temperature : 25.0°C

Humidity : 65.0%

Test Lab :

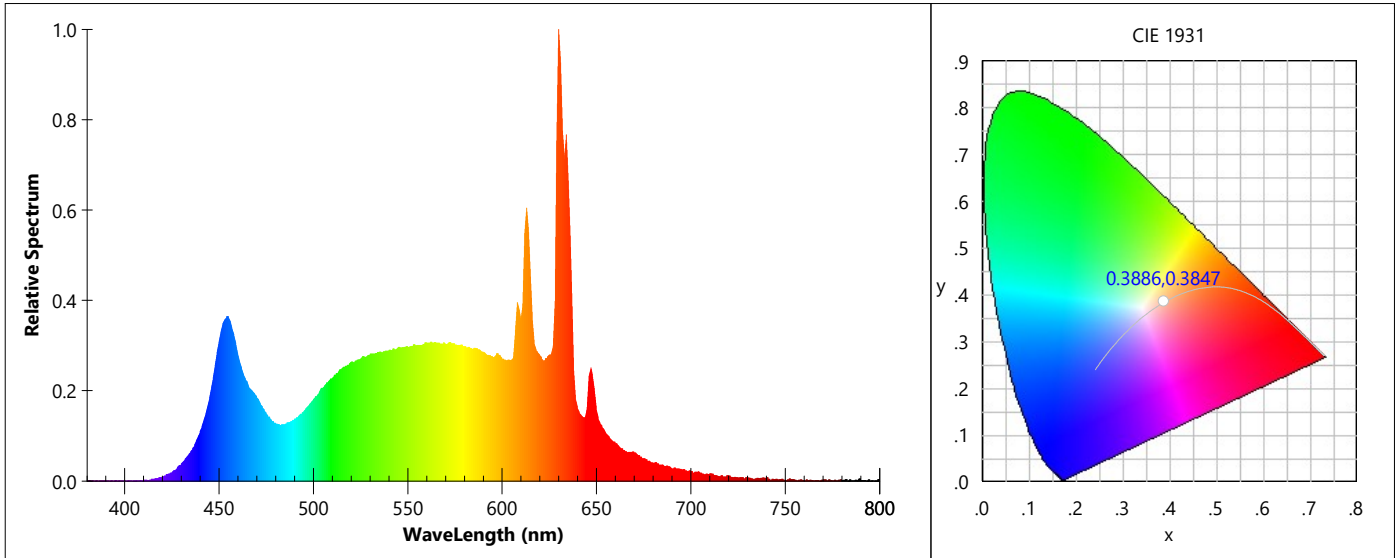
Test By : 장진혁

Review By :

Zonal Flux

Gamma °	I _{mean} cd	Zonal Flux lm	Sum Zonal Flux lm	Rel Zonal Flux %	Sum Rel Zonal Flux %
80.0-81.0	54.5	5.9	1001.5	0.57	96.42
81.0-82.0	50.9	5.5	1007.0	0.53	96.95
82.0-83.0	47.3	5.1	1012.2	0.50	97.44
83.0-84.0	44.0	4.8	1017.0	0.46	97.90
84.0-85.0	40.6	4.4	1021.4	0.43	98.33
85.0-86.0	37.4	4.1	1025.5	0.39	98.73
86.0-87.0	34.5	3.8	1029.3	0.36	99.09
87.0-88.0	31.5	3.5	1032.7	0.33	99.42
88.0-89.0	28.7	3.1	1035.9	0.30	99.72
89.0-90.0	26.1	2.9	1038.7	0.28	100.00

Color Properties



Colorimetric

CIE(x,y): 0.3886,0.3847 CIE(u,v): 0.2273,0.3375 CIE(u',v'): 0.2273,0.5062
 CCT: 3847 K (Duv=0.001393) Dominant Wavelength: 579.0 nm Color Purity: 0.321
 Peak Wavelength: 630.3 nm Half Width: 8.0 nm Color Ratio: R:0.212, G:0.750, B:0.038
 Luminous Flux: 1038.72 lm Radiant Power: 3.107 W

Color Render Index: Ra: 95.6

R1: 98	R2: 97	R3: 93	R4: 97	R5: 95	R6: 94	R7: 97	R8: 94
R9: 81	R10: 89	R11: 97	R12: 71	R13: 97	R14: 95	R15: 96	

Color Quality Scale: Qa: 94.4 , Qf: 93.8 , Qp: 95.6 , Qg: 100.7

Q1: 94	Q2: 96	Q3: 88	Q4: 89	Q5: 94	Q6: 96	Q7: 95	Q8: 98
Q9: 96	Q10: 96	Q11: 97	Q12: 99	Q13: 99	Q14: 97	Q15: 97	

TM-30-18: Rf: 91 , Rg: 99

Color Distribution Data

Evaluation of Spatial non-uniformity of chromaticity

IESNA LM-79: Spatially Averaged Chromaticity (u',v'): 0.2276, 0.5061
 Spatially Averaged Chromaticity (CCT): 3836K
 Spatial non-uniformity of chromaticity $\Delta u'v'(\Delta u',\Delta v')$: 0.002347 (-0.0016,0.0017)
 CIE S025: Spatially Averaged Chromaticity (u',v'): 0.2279, 0.5057
 Spatially Averaged Chromaticity (CCT): 3832K
 Angular Colour Uniformity $\Delta u'v'(\Delta u',\Delta v')$: 0.002786 (-0.0019,0.0020)
 GB/T 24824: Spatially Averaged Chromaticity (u',v'): 0.2276, 0.5061
 Average Color Nonuniformity $\Delta u'v'(\Delta u',\Delta v')$:0.001300 (0.0010,-0.0009)
 Maximum Color Nonuniformity $\Delta u'v'(\Delta u',\Delta v')$:0.002095 (0.0015,-0.0015)

Color Distribution Data (u',v') Average Color(u',v'):(0.2276,0.5061)

G\C	0.0	30.0	60.0	90.0
0.0	0.2269,0.5078	0.2270,0.5080	----	----
15.0	0.2270,0.5080	----	----	0.2270,0.5067
30.0	----	----	0.2270,0.5067	0.2269,0.5080
45.0	----	0.2270,0.5067	0.2269,0.5080	----

Color Distribution Data

Color Distribution Data (u',v')

Average Color(u',v'):(0.2276,0.5061)

G\C	120.0	150.0	180.0	210.0
0.0	0.2270,0.5067	0.2269,0.5080	----	----
15.0	0.2269,0.5080	----	----	0.2266,0.5069
30.0	----	----	0.2266,0.5069	0.2268,0.5076
45.0	----	0.2266,0.5069	0.2268,0.5076	----

Color Distribution Data

Color Distribution Data (u',v')

Average Color(u',v'):(0.2276,0.5061)

G\C	240.0	270.0	300.0	330.0
0.0	0.2266,0.5069	0.2268,0.5076	----	----
15.0	0.2268,0.5076	----	----	0.2267,0.5065
30.0	----	----	0.2267,0.5065	0.2265,0.5078
45.0	----	0.2267,0.5065	0.2265,0.5078	----