

TEST REPORT

1. Applicant

Client Name : FEELUX Co. Ltd.

Address : 235-48 Gwangjeok-ro Gwangjeok-myeon Yangju-si Gyeonggi-do 482-844 Korea

Date of Receipt : 20150420

2. Purpose of Report : Sample test

3. Test Standard / Item : LED / NDV 15W 35K -1

4. Test Period : 20150420 ~ 20150420

5. Test Environment

Ambient Temp. : (16.23 +- 3) °C

Relative Humidity : (42.42 +- 10) % RH

6. Test Result : Refer to the attachment

Test Item

Name of Product :

Model / Rating :

Model :

Rating :

Confirmation	Test by	Technical manager
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The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

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This report is for reference only. It cannot replace the report by standard organization(s).

TEST RESULT

Report Number	Sample Name	Sample Number	Test Standard
20150423-0001			LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.4084, 0.3879	
Correlated Color Temperature	K	3425	
Ra	-	85.21	
Power Factor	%	1.000	
Input Voltage	V	23.940	
Input Current	A	0.614	
Input Watt	W	14.7	
Lamp Flux	lm	1160.9	
Efficient	lm/W	78.98	
Illuminance	lx	481	1 m
		120	2 m
		53	3 m

* This test result is for the sample provided by the client.

Sample photo

Click to load image

Luminaire

Lamp

Report

20150423-0001

No. of lamps

1

Filename C:\Program Files\WINTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt

Lamp flux (lm)

1161

Operator

Current (A)

0.614

Total flux (lm)

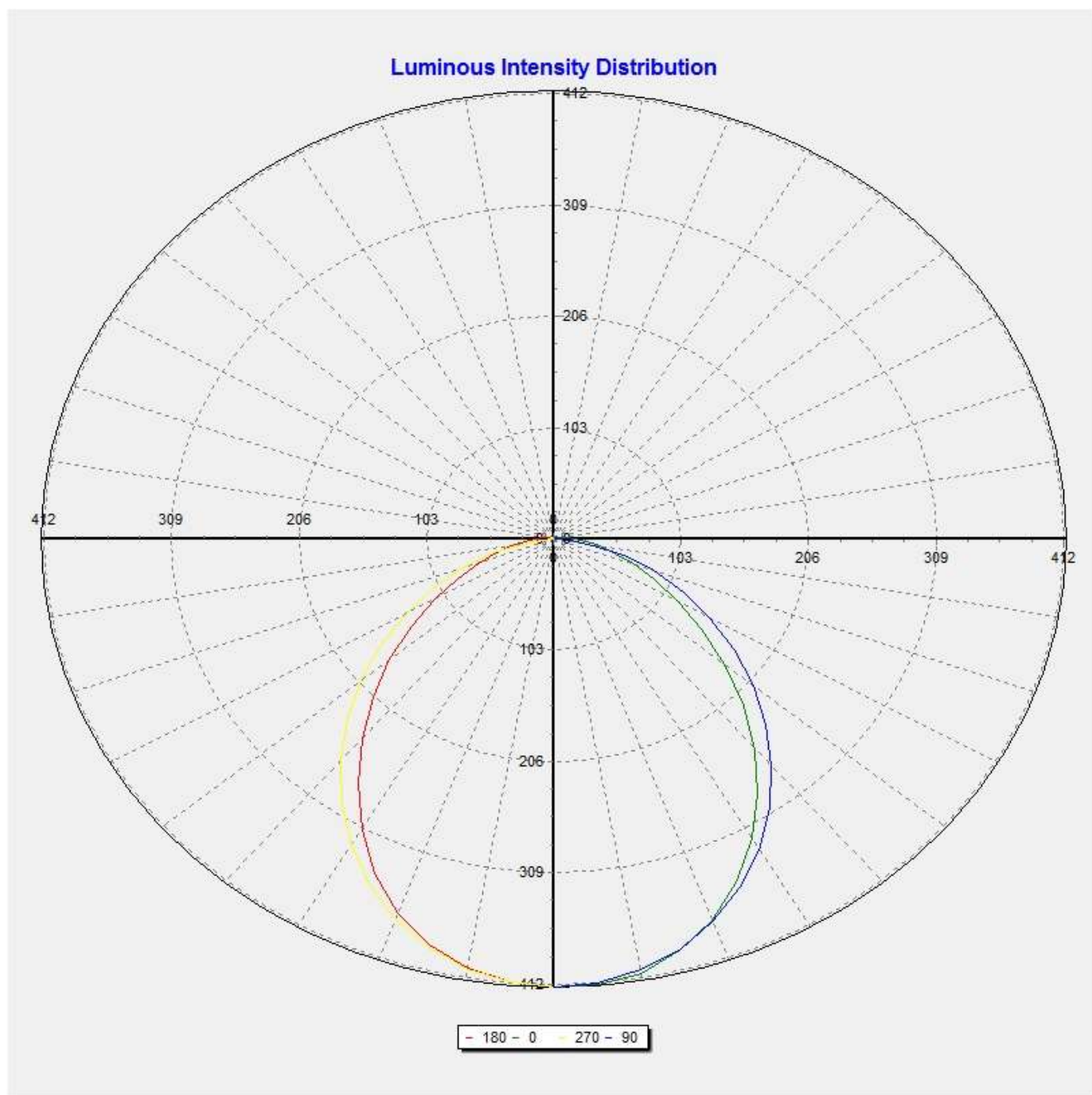
1161

Date

Power Factor

1

2015-04-23 오전 10:26:09



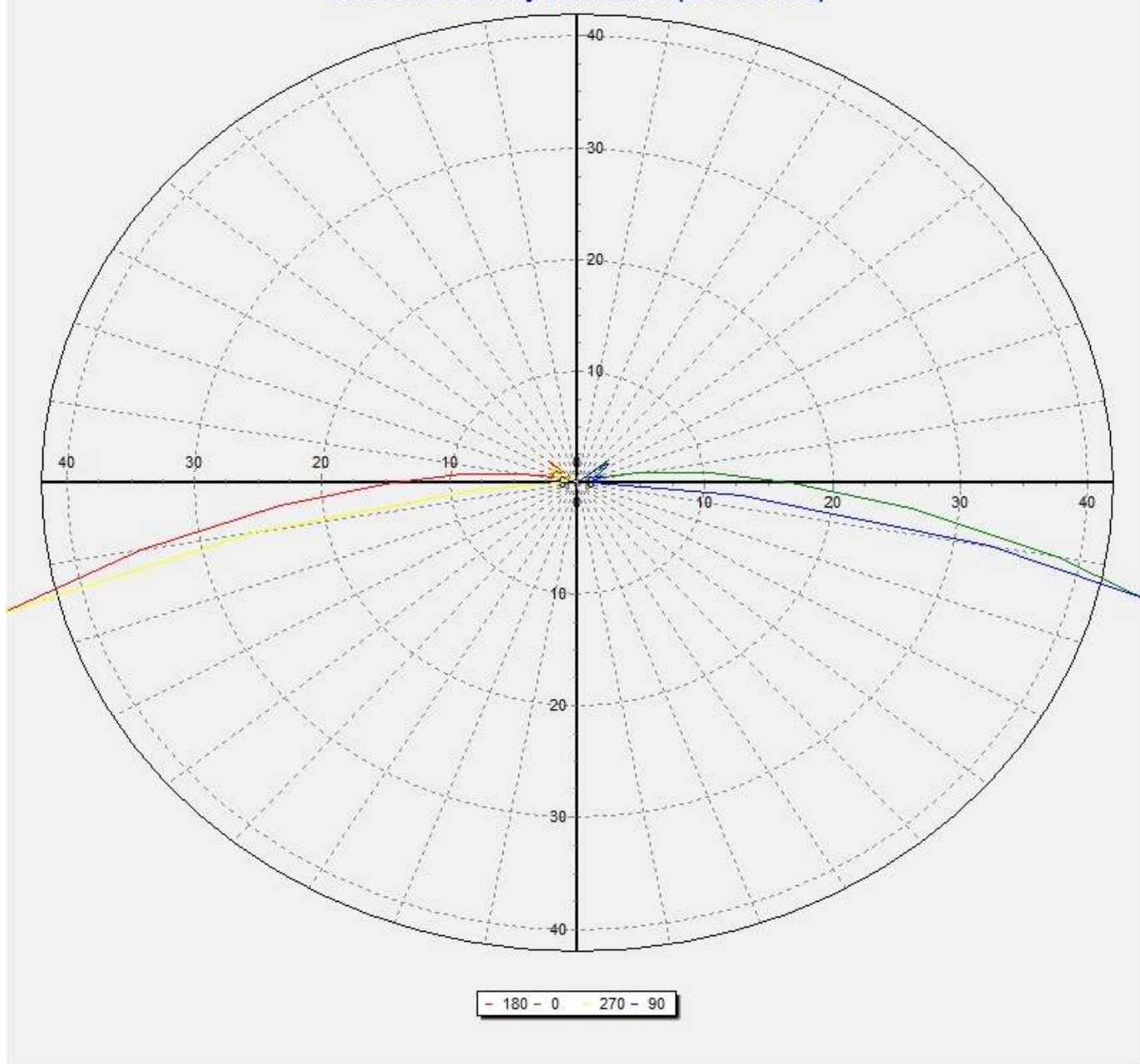
All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp		Report		20150423-0001
No. of lamps	1	Filename	C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt	
Lamp flux (lm)	1161	Operator	Current (A)	0.614
Total flux (lm)	1161	Date	Power Factor	1

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Luminous Intensity Distribution (Lowest 10%)



All luminous intensity values are in Cd/Klm unit.

Luminaire

Lamp		Report	20150423-0001											
No. of lamps	1	Filename C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\WNDV 15W 35K -1.jdt												
Lamp flux (lm)	1161	Operator	Current (A)	0.614										
Total flux (lm)	1161	Date	Power Factor	1										
2015-04-23 오전 10:26:09														

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120
0	481.29	480.91	480.39	480.81	480.02	480.74	480.08	480.89	480.62	480.70	480.57	480.79	481.25
5	480.28	480.08	479.52	478.73	479.22	478.68	478.41	479.01	478.68	478.58	478.64	478.58	479.13
10	473.16	472.42	472.78	471.52	472.07	470.94	471.29	470.69	470.91	469.98	470.53	470.62	471.16
15	457.90	457.12	457.18	457.59	457.25	457.57	458.29	456.83	457.61	456.71	457.18	456.52	457.15
20	436.01	433.89	434.96	435.11	437.36	436.61	439.08	437.87	438.48	436.75	437.73	437.70	438.38
25	405.51	404.55	406.54	406.86	410.17	411.62	414.08	414.21	415.22	413.63	413.87	413.81	414.85
30	371.45	370.82	372.75	373.43	378.13	380.06	384.17	384.66	386.59	385.55	385.54	384.34	384.70
35	334.40	332.58	335.56	336.72	342.24	344.59	350.29	351.34	354.98	352.61	354.20	352.21	350.91
40	294.42	293.28	296.58	298.72	303.67	306.62	312.93	315.42	319.14	318.29	319.09	315.91	314.50
45	252.23	250.85	255.15	258.08	264.61	267.96	274.65	278.86	281.69	281.80	281.45	278.87	276.05
50	209.09	209.00	213.88	217.66	225.12	228.73	235.43	239.56	243.81	244.17	244.12	240.72	236.46
55	169.72	169.56	174.38	178.66	186.30	191.34	198.29	201.26	206.01	206.49	206.58	201.75	198.58
60	134.76	134.57	138.31	142.39	150.12	155.00	161.69	165.40	169.22	169.22	170.32	165.07	162.73
65	104.30	104.51	107.86	111.28	117.80	121.50	127.50	130.28	134.17	133.94	133.63	129.90	128.98
70	79.11	79.01	82.16	84.23	89.01	91.87	96.73	97.86	100.21	99.36	100.28	97.74	98.10
75	59.71	59.01	61.11	62.57	64.77	66.22	67.96	67.67	68.43	67.98	68.77	68.58	68.43
80	44.28	43.23	44.07	43.75	44.41	44.32	43.71	41.56	40.46	38.03	40.58	41.52	43.60
85	30.57	29.10	30.65	29.13	29.21	26.50	24.19	20.64	17.30	14.97	16.38	19.91	24.21
90	19.39	18.83	18.96	18.06	16.41	13.80	11.19	6.77	3.73	1.40	3.56	6.72	10.94
95	12.03	11.43	11.44	9.89	8.00	5.89	3.81	2.18	0.59	1.65	2.04	1.65	3.97
100	5.72	6.00	5.13	3.74	3.14	2.24	1.64	2.17	1.04	1.57	1.29	1.69	1.53
105	2.53	3.11	2.41	2.21	1.51	1.66	1.76	1.64	1.52	2.44	1.89	1.69	2.10
110	2.21	1.63	1.49	1.67	2.17	1.80	1.49	1.86	1.80	1.72	2.18	2.21	1.67
115	2.21	1.30	2.42	1.97	2.06	1.60	2.98	3.02	2.56	2.11	2.03	3.15	2.25
120	2.88	2.03	2.36	2.41	2.11	2.48	2.93	2.50	2.43	2.52	2.28	2.65	2.33
125	2.42	3.02	2.54	2.63	3.10	2.83	2.42	2.86	3.01	3.46	3.08	2.46	3.09
130	3.75	2.99	3.29	2.96	2.61	2.96	3.27	2.85	2.76	2.81	3.17	2.43	2.89

Luminaire

Lamp		Report	20150423-0001			
No. of lamps	1	Filename	C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\WNDV 15W 35K -1.jdt			
Lamp flux (lm)	1161	Operator	Current (A)	0.614		
Total flux (lm)	1161	Date	Power Factor	1	2015-04-23 오전 10:26:09	

Luminous Intensity Data (Continued)

GWC	130	140	150	160	170	180	190	200	210	220	230	240	250
0	481.83	480.69	481.20	481.34	480.66	481.29	480.91	480.39	480.81	480.02	480.74	480.08	480.89
5	478.59	479.16	479.57	479.12	478.03	477.45	477.27	477.44	477.28	476.90	476.39	476.57	476.59
10	470.52	471.39	471.13	471.17	470.77	468.12	468.00	467.07	468.06	466.98	468.48	467.18	468.13
15	457.61	457.46	457.02	457.56	456.87	451.33	451.32	451.64	452.75	452.84	452.58	452.93	454.19
20	437.27	438.35	436.20	436.06	434.73	427.19	428.42	427.83	430.25	430.53	432.49	432.19	433.12
25	411.53	411.57	408.58	408.64	407.04	397.14	397.87	398.02	401.42	402.80	405.89	406.79	408.49
30	381.80	379.93	376.44	375.14	372.74	360.19	362.66	362.87	367.63	369.85	374.75	376.54	379.10
35	346.42	344.42	339.57	337.44	334.60	320.88	322.92	325.07	329.14	331.99	338.70	341.71	345.03
40	309.04	304.97	299.35	297.03	293.90	280.39	282.90	284.39	289.38	293.91	301.11	303.77	308.27
45	269.37	265.42	258.35	257.47	253.47	240.42	243.08	244.23	249.10	253.13	261.30	265.26	270.85
50	230.66	226.60	220.94	218.63	214.56	202.18	204.19	205.83	210.81	214.71	221.76	225.48	231.77
55	192.66	189.02	183.95	180.11	176.31	163.32	166.38	167.88	174.28	177.92	184.14	187.44	193.52
60	157.06	154.19	147.77	144.41	140.70	129.23	132.30	133.77	139.29	143.69	149.35	151.21	156.02
65	124.25	121.51	115.28	112.92	109.41	99.08	102.34	103.07	108.00	111.34	116.48	118.33	121.76
70	93.61	91.84	87.49	86.00	82.53	75.23	76.55	77.50	80.68	82.74	86.55	86.88	89.82
75	67.03	66.40	64.30	63.43	61.76	55.82	56.67	57.41	58.24	58.40	59.94	59.35	58.95
80	45.16	45.72	45.34	45.50	44.36	40.28	40.19	39.73	40.78	39.37	38.35	36.38	33.97
85	27.36	29.49	30.00	30.89	30.47	27.10	27.08	26.66	25.76	23.67	22.02	18.97	14.74
90	14.28	16.97	18.22	19.12	20.50	16.74	17.33	16.00	15.01	13.13	11.17	6.83	3.83
95	6.12	8.20	9.74	11.27	11.28	10.45	9.79	9.06	7.68	6.38	4.17	2.50	1.56
100	2.43	3.15	4.48	5.21	4.94	5.22	4.27	3.47	2.97	2.60	1.60	0.88	1.85
105	1.77	1.99	2.19	1.97	3.08	2.09	1.67	2.27	2.64	2.10	1.36	0.96	1.84
110	2.26	2.27	2.21	1.95	1.67	2.55	1.58	2.36	1.70	2.17	1.67	1.81	1.84
115	2.42	1.75	1.96	2.30	1.12	2.17	1.50	1.71	2.45	2.21	1.79	2.37	2.38
120	2.29	2.94	1.92	2.19	2.57	2.44	1.88	2.41	2.57	2.28	2.23	2.21	2.68
125	3.06	2.82	3.00	3.01	3.25	1.72	2.65	3.19	2.67	2.52	3.21	2.92	2.90
130	2.76	2.98	3.26	3.27	3.27	3.39	2.49	3.07	3.82	2.99	2.92	2.83	2.74

Luminaire

Lamp		Report	20150423-0001			
No. of lamps	1	Filename	C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\W	NDV 15W 35K -1.jdt		
Lamp flux (lm)	1161	Operator	Current (A)	0.614		
Total flux (lm)	1161	Date	Power Factor	1	2015-04-23 오전 10:26:09	

Luminous Intensity Data (Continued)

GWC	260	270	280	290	300	310	320	330	340	350	360
0	480.62	480.70	480.57	480.79	481.25	481.83	480.69	481.20	481.34	480.66	481.29
5	476.50	477.71	478.05	478.36	478.63	479.37	478.52	478.41	478.66	478.47	480.28
10	467.38	468.83	468.22	469.72	469.27	470.13	470.04	469.78	468.11	469.04	473.16
15	453.20	453.58	453.39	455.69	455.43	454.89	453.18	452.97	451.37	451.08	457.90
20	433.17	434.42	433.77	435.56	434.06	432.60	431.07	429.34	427.01	426.25	436.01
25	407.12	409.37	409.16	409.83	406.56	406.00	401.84	399.69	396.58	395.25	405.51
30	378.25	380.09	379.55	378.91	375.85	373.53	367.83	365.15	361.03	359.38	371.45
35	344.91	346.84	346.15	345.10	340.22	337.48	330.37	327.44	322.80	321.93	334.40
40	309.13	311.54	310.06	308.24	301.92	297.88	292.11	288.62	283.58	280.69	294.42
45	272.15	274.51	271.08	269.69	262.91	258.57	252.13	247.53	241.07	239.11	252.23
50	233.36	235.90	234.15	230.97	224.44	220.32	212.16	206.67	198.96	197.01	209.09
55	195.15	197.34	194.16	192.55	186.55	181.23	173.10	168.27	160.66	158.77	169.72
60	158.87	160.26	157.43	155.94	149.67	145.65	138.57	132.88	126.77	124.43	134.76
65	122.75	124.48	121.57	121.43	116.31	112.94	106.57	102.88	97.95	96.21	104.30
70	89.28	90.98	89.22	88.73	86.51	83.51	79.74	77.22	73.58	72.90	79.11
75	57.90	59.01	58.95	59.77	58.52	58.85	56.11	56.17	54.49	54.16	59.71
80	29.97	29.96	31.06	34.63	36.28	38.20	38.00	39.23	39.20	38.64	44.28
85	9.73	9.12	11.31	15.55	18.64	22.41	23.89	24.98	25.25	26.00	30.57
90	1.58	1.67	1.47	5.34	8.04	10.82	13.70	15.15	16.11	16.51	19.39
95	0.90	1.31	1.13	0.95	2.04	4.22	6.13	7.55	8.10	8.67	12.03
100	1.02	0.86	1.64	1.62	1.89	2.20	2.05	2.91	3.77	3.80	5.72
105	1.53	1.16	1.39	1.36	1.67	1.55	1.35	1.42	1.74	2.22	2.53
110	2.28	1.98	1.86	2.24	1.94	2.34	2.11	1.36	1.66	1.60	2.21
115	2.09	2.71	2.28	1.73	2.02	2.76	1.98	2.03	2.41	1.92	2.21
120	2.37	2.38	2.20	2.54	2.05	2.39	2.88	2.64	2.56	2.55	2.88
125	2.85	2.69	2.68	3.11	2.86	2.80	3.43	2.66	3.48	2.33	2.42
130	2.62	2.63	3.29	3.22	2.91	2.62	2.95	3.01	3.01	2.93	3.75

Luminaire

Lamp		Report		20150423-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt	
Lamp flux (lm)	1161	Operator	Current (A)	0.614
Total flux (lm)	1161	Date	Power Factor	1
				2015-04-23 오전 10:26:09

Luminous Flux Table

Total Lamp Lumens: 1161
 Luminaire Efficiency (lm/W) 1160.91
 CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	2.88	2.88	0.25	0.25
5	22.85	25.73	2.22	2.22
10	44.72	70.45	6.07	6.07
15	64.57	135.03	11.63	11.63
20	81.35	216.38	18.64	18.64
25	94.28	310.66	26.76	26.76
30	102.79	413.45	35.61	35.61
35	106.67	520.11	44.80	44.80
40	106.10	626.21	53.94	53.94
45	101.45	727.66	62.68	62.68
50	93.42	821.08	70.73	70.73
55	82.74	903.82	77.86	77.85
60	70.52	974.34	83.93	83.93
65	57.58	1031.92	88.89	88.89
70	44.71	1076.63	92.74	92.74
75	32.54	1109.18	95.54	95.54
80	21.65	1130.83	97.41	97.41
85	12.65	1143.47	98.50	98.50
90	6.54	1150.01	99.06	99.06
95	3.24	1153.25	99.34	99.34
100	1.53	1154.78	99.47	99.47
105	1.00	1155.78	99.56	99.56
110	0.99	1156.77	99.64	99.64
115	1.07	1157.84	99.74	99.74
120	1.15	1158.99	99.84	99.83
125	1.28	1160.27	99.95	99.94
130	0.64	1160.91	100.00	100.00

Luminaire

Lamp

Report

20150423-0001

No. of lamps

1

Filename C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt

Lamp flux (lm)

1161

Operator

Current (A)

0.614

Total flux (lm)

1161

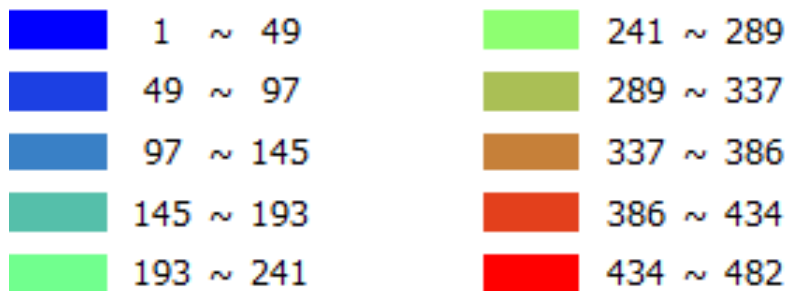
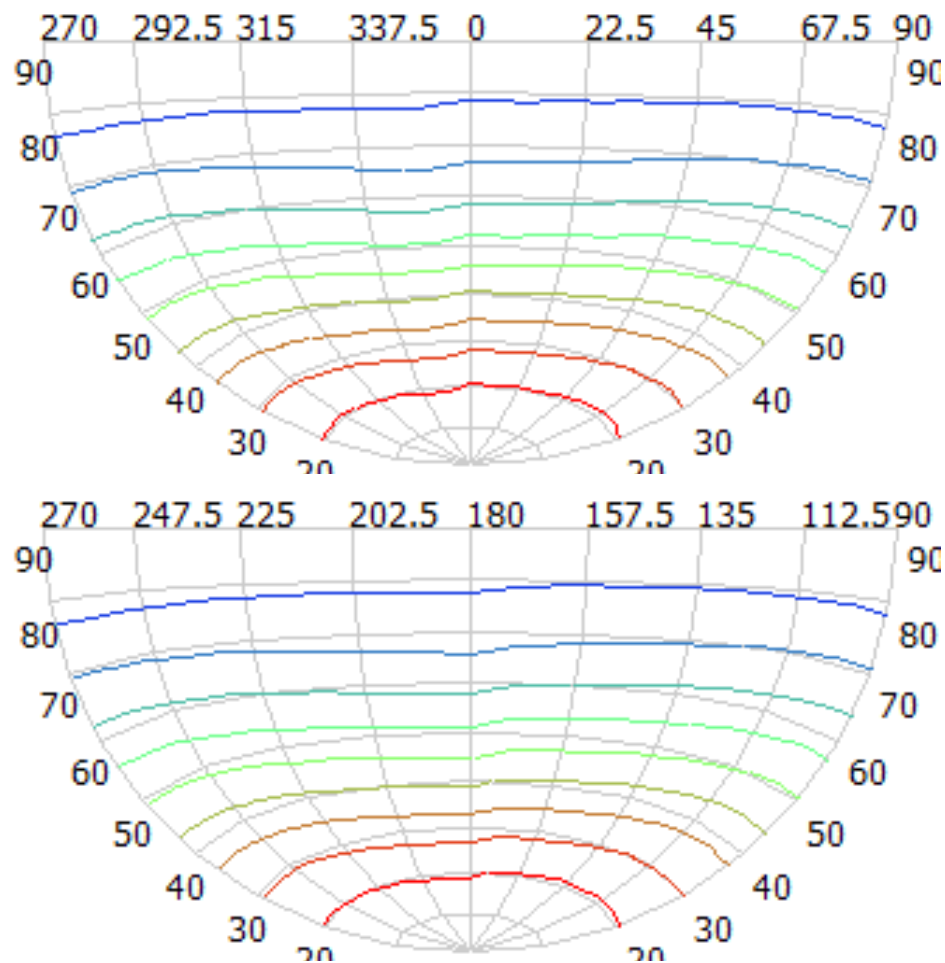
Date

Power Factor

1

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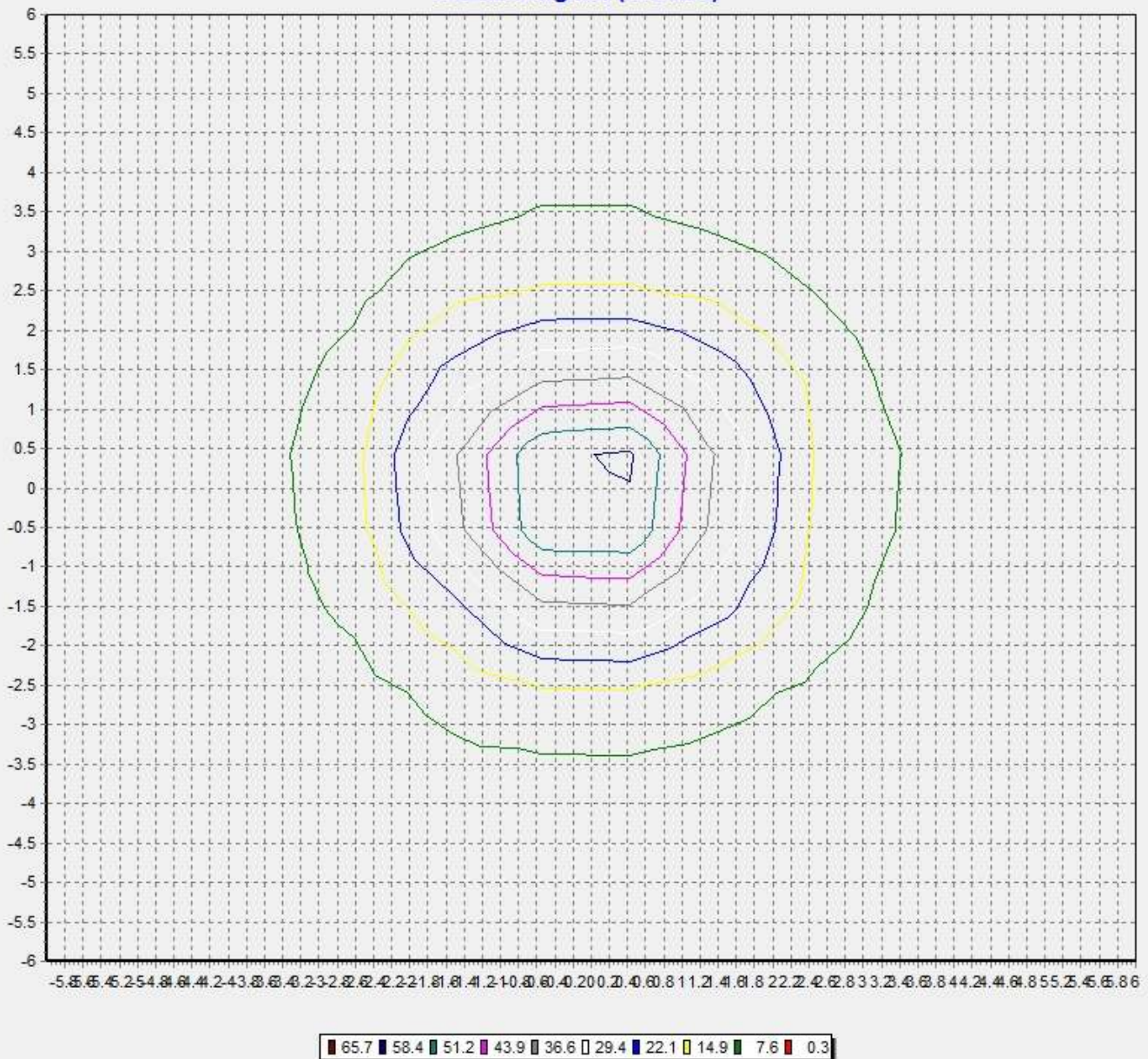
IsoCandela (Type C)



Luminaire

Lamp		Report		20150423-0001
No. of lamps	1	Filename	C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\W15W 35K -1.jdt	
Lamp flux (lm)	1161	Operator	Current (A)	0.614
Total flux (lm)	1161	Date	Power Factor	1
				2015-04-23 오전 10:26:09

IsoLux Diagram (Ground)



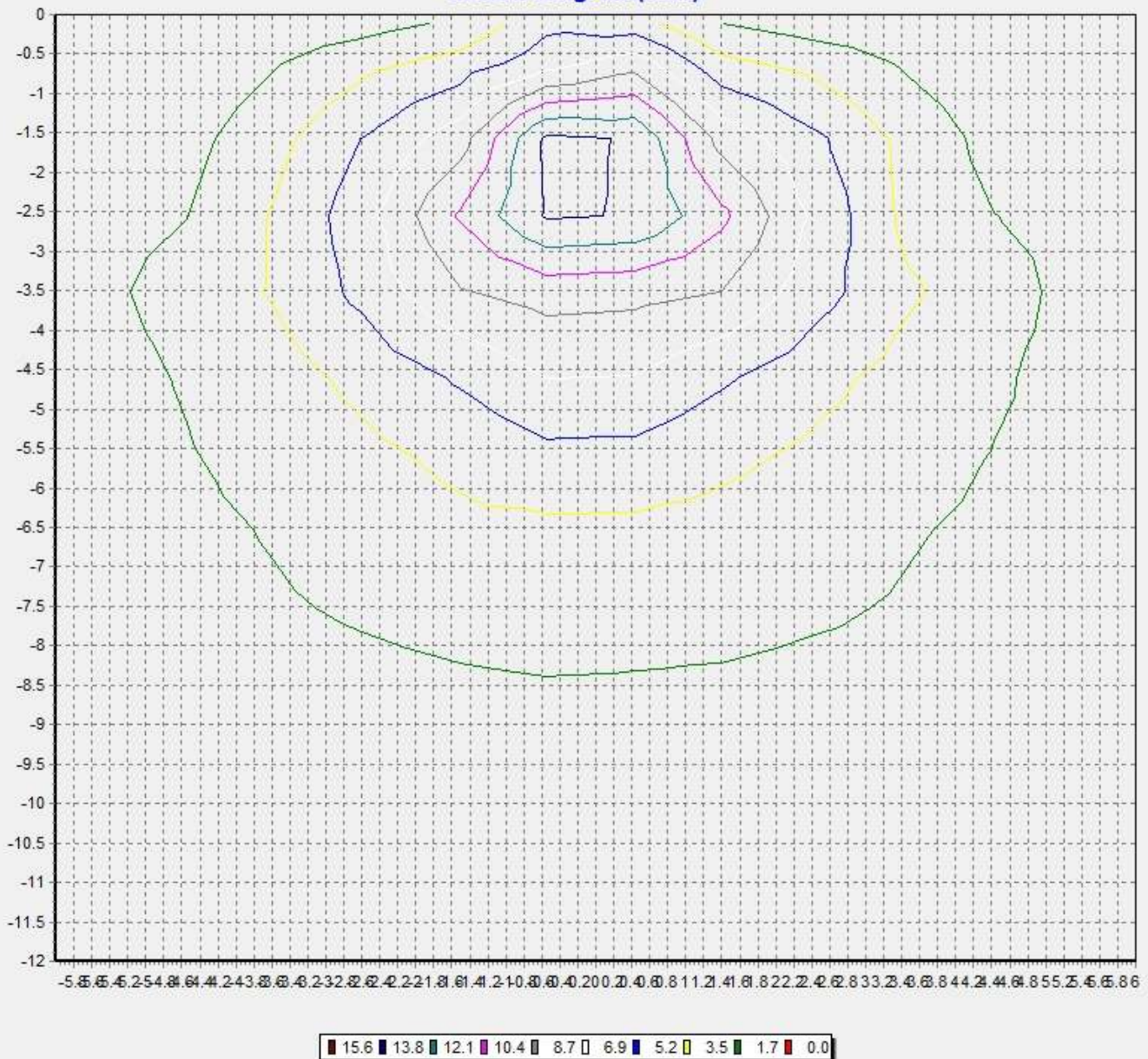
Pole Height (m): 2.7

Area Width (m): 12

Luminaire

Lamp		Report	20150423-0001		
No. of lamps	1	Filename	C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt		
Lamp flux (lm)	1161	Operator	Current (A)	0.614	
Total flux (lm)	1161	Date	Power Factor	1	2015-04-23 오전 10:26:09

IsoLux Diagram (Wall)



Pole Height (m): 2.7 Wall Distance (m): 2.7
 Aiming Plane: 0 Wall Height (m): 12

Luminaire

Lamp

Report

20150423-0001

No. of lamps 1 Voltage (V) 23.94

Filename C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt

Lamp flux (lm) 1161 Current (A) 0.614

Operator

Total flux (lm) 1161 Power Factor 1

Date

2015-04-23 오전 10:26:09

Illuminance Levels (Ground)

6.00	0.43	0.57	0.60	0.79	1.27	1.49	1.55	1.45	1.24	0.75	0.58	0.54	0.39
5.00	0.57	0.63	1.16	1.67	1.79	2.68	2.86	2.67	1.74	1.63	1.10	0.57	0.54
4.00	0.54	1.15	1.43	2.69	3.25	5.20	5.69	5.15	3.13	2.59	1.29	1.09	0.51
3.00	0.72	1.50	2.65	3.77	6.34	9.20	10.64	9.01	6.18	3.49	2.53	1.40	0.67
2.00	1.12	1.53	3.03	5.89	13.61	19.91	26.72	19.53	13.12	5.62	2.82	1.42	1.05
1.00	1.26	2.28	4.57	8.42	19.17	37.89	51.52	37.30	18.85	8.16	4.40	2.18	1.17
0.00	1.18	2.24	4.67	8.93	24.78	50.88	66.02	51.64	25.63	9.29	4.84	2.33	1.23
-1.00	1.15	2.10	4.27	7.86	18.21	36.66	51.17	37.15	18.41	7.87	4.15	2.03	1.10
-2.00	1.01	1.39	2.75	5.43	12.68	19.10	26.33	19.23	13.07	5.44	2.74	1.34	1.00
-3.00	0.64	1.36	2.44	3.37	5.91	8.65	10.32	8.83	6.04	3.52	2.46	1.35	0.64
-4.00	0.48	1.04	1.24	2.48	2.99	4.94	5.49	4.99	3.03	2.52	1.29	1.05	0.48
-5.00	0.51	0.54	1.05	1.53	1.63	2.53	2.73	2.55	1.64	1.57	1.06	0.56	0.51
-6.00	0.37	0.51	0.53	0.70	1.16	1.36	1.47	1.37	1.19	0.71	0.54	0.51	0.39
-6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	

Illum. (Max.): 66.0

All illuminance level values are in lux.

Illum. (Min.): 0.37

Illum. Avg.: 6.57

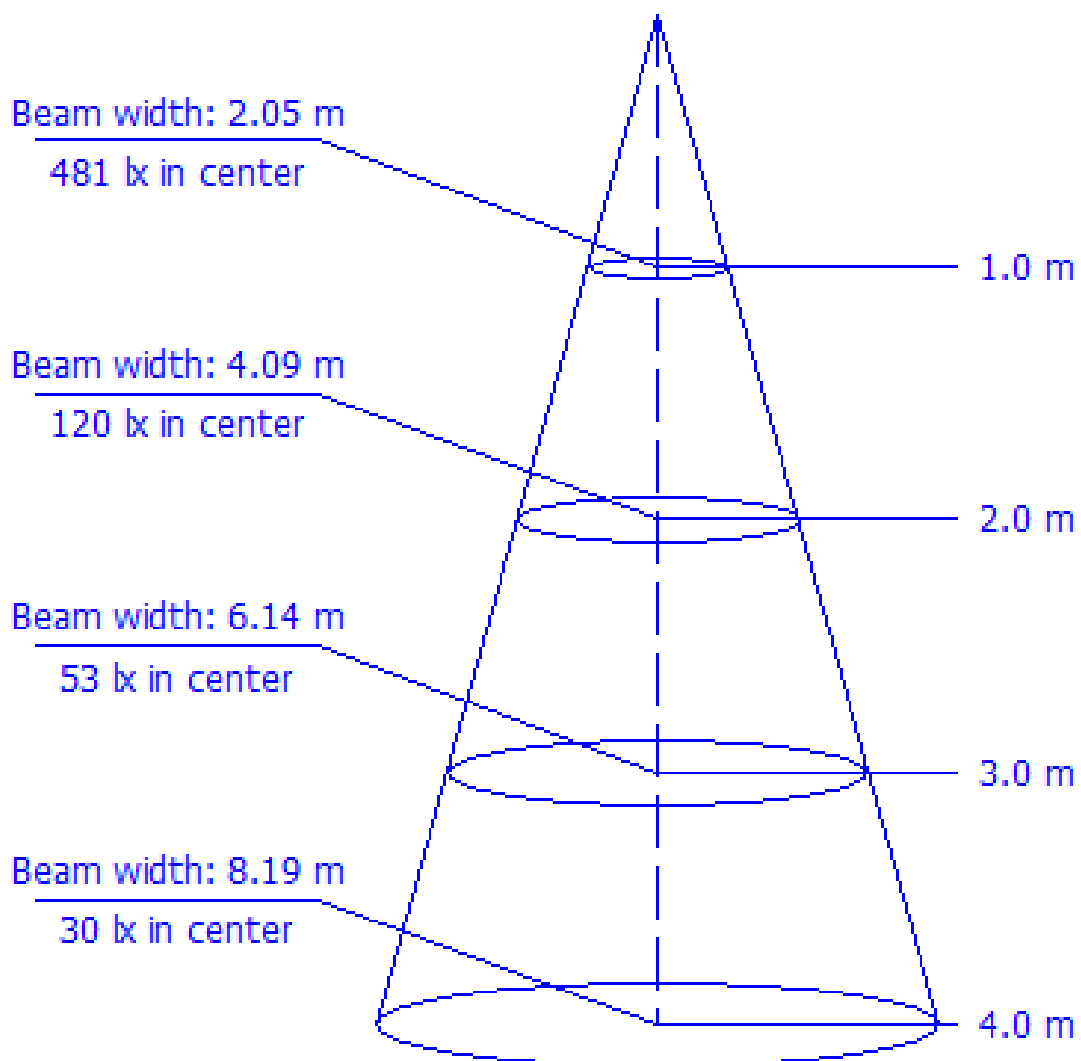
Total Optical Solution Provider


<http://www.jnctech.co.kr>
J & C Technology Co., Ltd.

Luminaire

Lamp		Report			20150423-0001
No. of lamps	1	Filename	C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt		
Lamp flux (lm)	1161	Operator	Current (A)	0.614	
Total flux (lm)	1161	Date	Power Factor	1	2015-04-23 오전 10:26:09

Illuminance Cone Diagram



Beam Angle = 91 deg.

Based on 50% of maximum illuminance.

Luminaire

Lamp

Report

20150423-0001

No. of lamps	1	Voltage (V)	23.94	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150423\NDV 15W 35K -1.jdt
Lamp flux (lm)	1161	Current (A)	0.614	Operator	
Total flux (lm)	1161	Power Factor	1	Date	2015-04-23 오전 10:26:09

Coefficient of Utilization

Refl. Ceiling (%)	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
Refl. Wall (%)	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%
Eff. Floor Cavity Refl.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Room CR 0	1.18	1.18	1.18	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	0.98	
Room CR 1	1.04	0.99	0.96	1.01	0.97	0.94	0.97	0.94	0.91	0.93	0.90	0.88	0.89	0.87	0.85	0.83	
Room CR 2	0.91	0.85	0.79	0.89	0.83	0.78	0.85	0.80	0.76	0.82	0.78	0.74	0.79	0.75	0.72	0.70	
Room CR 3	0.81	0.73	0.67	0.79	0.72	0.66	0.76	0.70	0.65	0.73	0.68	0.63	0.70	0.66	0.62	0.60	
Room CR 4	0.72	0.64	0.57	0.71	0.63	0.57	0.68	0.61	0.56	0.66	0.60	0.55	0.63	0.58	0.54	0.52	
Room CR 5	0.65	0.56	0.50	0.64	0.56	0.49	0.61	0.54	0.49	0.59	0.53	0.48	0.57	0.52	0.48	0.45	
Room CR 6	0.59	0.50	0.44	0.58	0.50	0.44	0.56	0.49	0.43	0.54	0.48	0.43	0.52	0.47	0.42	0.40	
Room CR 7	0.53	0.45	0.39	0.53	0.45	0.39	0.51	0.44	0.39	0.49	0.43	0.38	0.48	0.42	0.38	0.36	
Room CR 8	0.49	0.41	0.35	0.48	0.40	0.35	0.47	0.40	0.35	0.45	0.39	0.34	0.44	0.38	0.34	0.32	
Room CR 9	0.45	0.37	0.32	0.44	0.37	0.32	0.43	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.31	0.29	
Room CR 10	0.42	0.34	0.29	0.41	0.34	0.29	0.40	0.33	0.29	0.39	0.33	0.28	0.38	0.32	0.28	0.27	