

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 : 20150406

2. Purpose of Report : Test

3. Test Standard / Item : LED / NDV3 27K-24V-1

4. Test Period : 20150406 ~ 20150406

5. Test Environment

Ambient Temp. : (22.35 +- 3) °C

Relative Humidity : (35.36 +- 10) % RH

6. Test Result : Refer to the attachment

Test Item

Name of Product :

FEELUX

Model / Rating :

Model : FEELUX

Rating :

Confirmation	Test by kjc	Technical manager kjc
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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
20150406-0001	FEELUX		LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.4588, 0.4070	
Correlated Color Temperature	K	2702	
Ra	-	83.53	
Power Factor	%	1.000	
Input Voltage	V	24.000	
Input Current	A	0.102	
Input Watt	W	2.44	
Lamp Flux	lm	170.3	
Efficient	lm/W	69.57	
Illuminance	lx	70	1 m
		18	2 m
		8	3 m

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

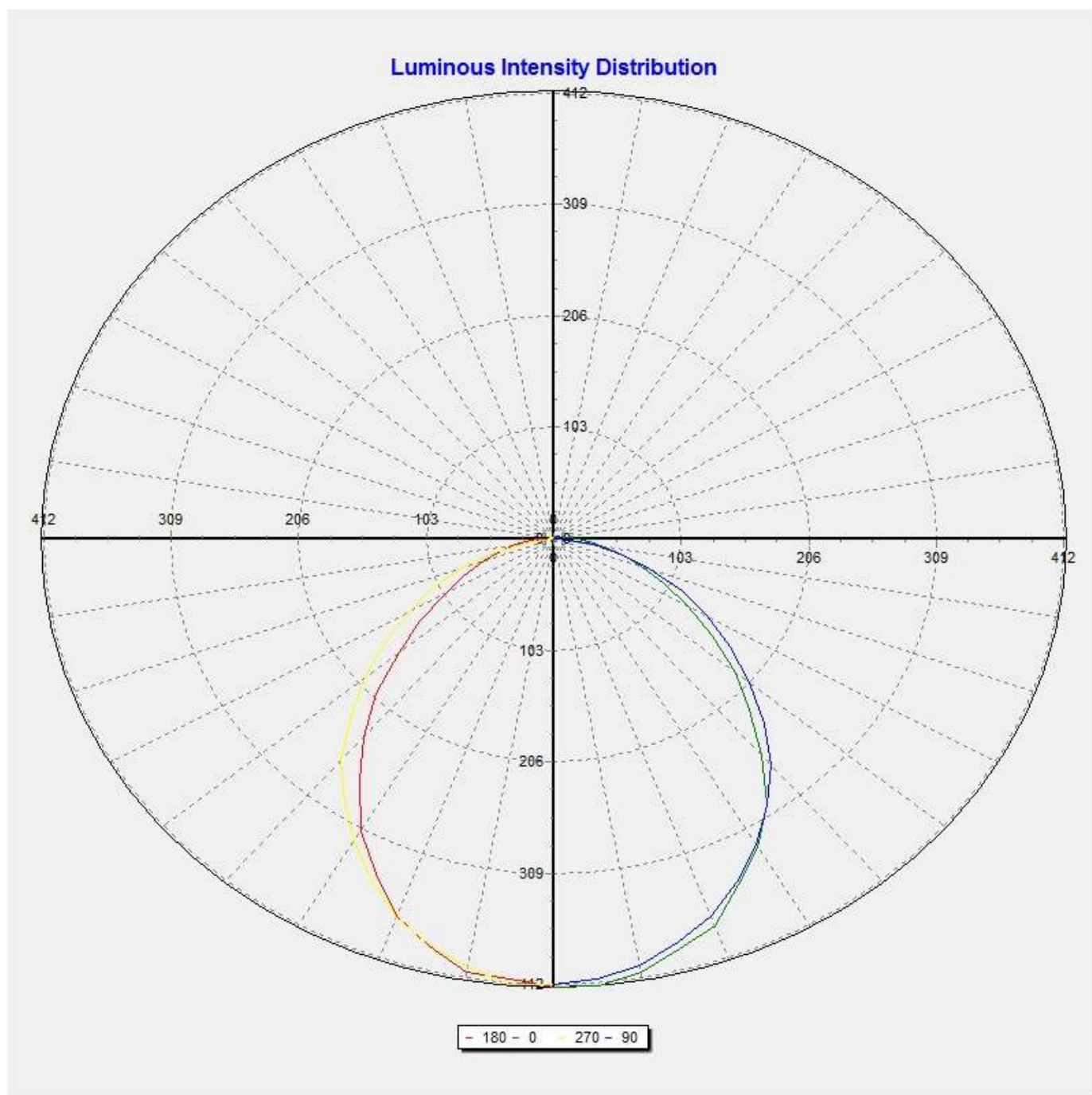
Sample photo

Click to load image

Luminaire

Lamp		Report	20150406-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt
Lamp flux (lm)	170	Operator	Current (A) 0.102
Total flux (lm)	170	Date	Power Factor 1

2015-04-06 오후 6:53:46



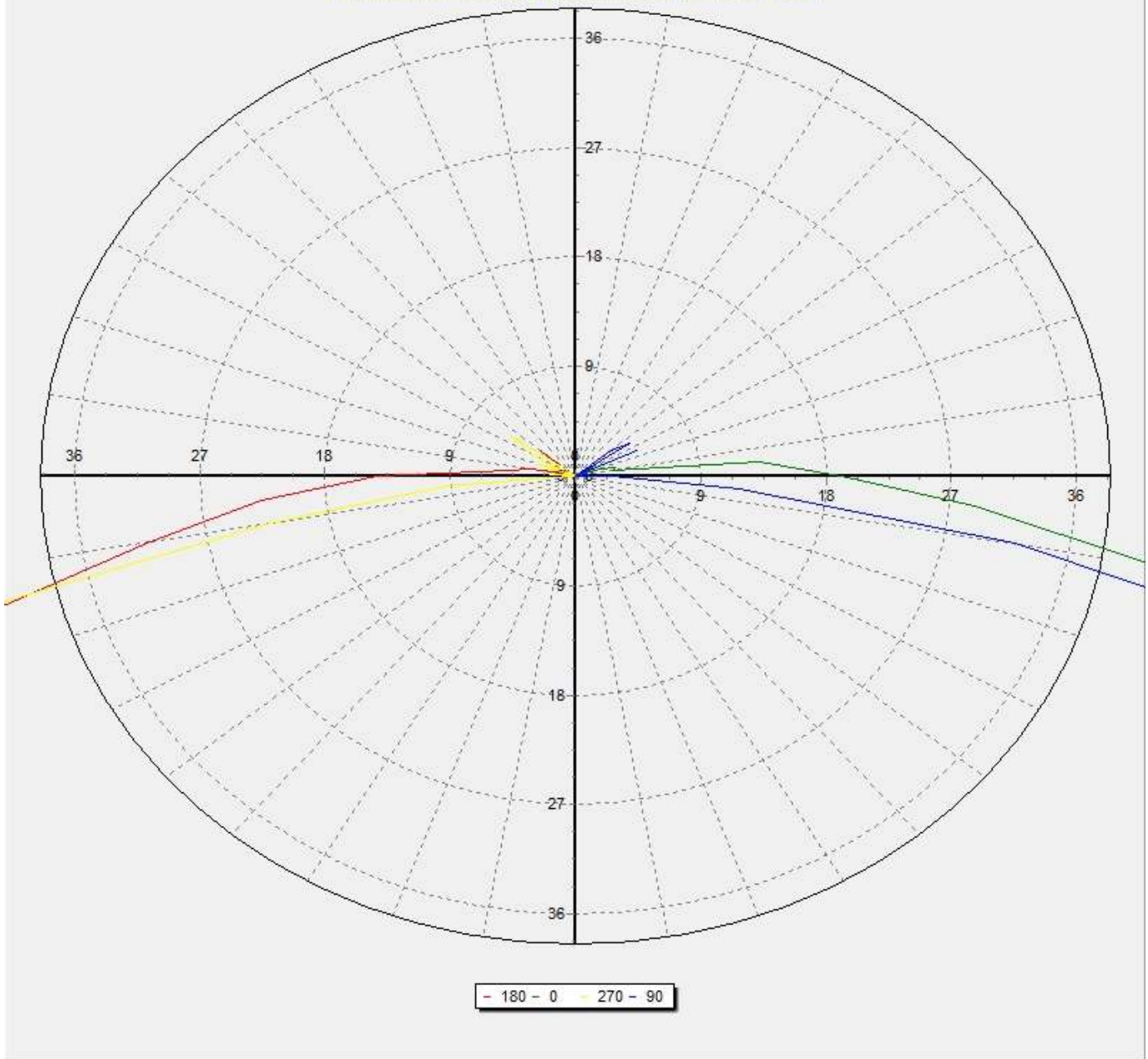
All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp		Report	20150406-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt
Lamp flux (lm)	170	Operator	Current (A) 0.102
Total flux (lm)	170	Date	Power Factor 1

2015-04-06 오후 6:53:46

Luminous Intensity Distribution (Lowest 10%)



All luminous intensity values are in Cd/Klm unit.

Luminaire

Lamp		Report	20150406-0001
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt	
Lamp flux (lm)	170	Operator Current (A)	0.102
Total flux (lm)	170	Date Power Factor	1
			2015-04-06 오후 6:53:46

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
0	70.38	70.16	70.01	71.11	69.95	69.70	69.99	69.85	69.39	70.01	69.73	70.09	69.76	70.27	69.76
5	70.40	69.53	69.87	70.04	69.98	70.12	70.13	68.91	70.97	69.42	68.67	69.61	69.71	69.89	69.80
10	69.10	69.09	68.96	69.01	69.15	69.08	68.69	68.49	67.54	68.04	68.04	68.65	68.00	67.92	68.36
15	66.55	67.05	67.87	67.84	66.98	66.03	66.56	66.16	66.24	65.66	66.83	66.47	66.76	66.47	65.97
20	64.61	64.43	64.03	63.11	64.98	63.69	64.17	63.89	64.22	62.93	63.05	63.14	63.72	64.12	63.50
25	59.99	60.80	60.68	60.74	61.06	60.50	60.43	59.48	60.36	59.46	60.45	59.99	60.12	60.53	60.16
30	55.97	55.71	56.65	56.04	55.68	56.85	57.06	56.25	56.62	55.48	56.12	55.39	56.48	55.71	55.41
35	50.90	50.11	51.28	50.73	51.08	51.44	52.28	51.28	51.39	51.06	51.00	51.44	50.56	50.31	49.80
40	44.29	44.06	44.59	44.94	45.45	45.38	47.39	46.18	46.29	46.30	46.18	45.92	45.49	43.85	43.80
45	37.86	38.65	38.53	38.93	38.95	39.81	40.68	40.55	41.76	41.00	40.97	40.40	39.68	38.97	38.59
50	32.56	31.99	32.74	33.28	33.44	34.96	35.30	35.41	36.02	35.06	35.05	34.18	34.29	33.16	31.97
55	26.49	26.83	26.94	27.72	28.65	28.91	29.71	28.67	29.79	29.66	29.68	28.92	27.86	27.69	26.33
60	21.21	21.08	21.79	22.04	23.00	23.01	23.95	24.43	24.91	24.18	24.67	23.38	23.35	22.49	21.47
65	16.82	16.71	17.00	17.73	17.93	18.21	19.12	19.47	19.10	19.48	18.87	19.00	17.95	17.09	16.77
70	12.75	12.62	12.99	13.84	14.24	14.39	14.19	14.72	14.74	14.01	14.13	13.85	13.75	13.51	12.32
75	9.95	9.25	9.59	9.72	9.86	10.44	10.49	9.80	10.51	9.94	10.41	9.74	9.64	9.84	9.26
80	7.14	7.44	7.50	7.40	7.42	6.85	6.84	6.13	6.30	5.45	5.74	5.74	5.72	6.25	6.33
85	4.89	5.18	5.18	5.36	4.67	4.25	4.00	3.25	2.69	2.01	3.09	2.62	3.72	3.81	4.44
90	3.24	3.01	3.43	3.49	3.71	2.80	1.81	0.18	0.49	0.43	0.92	1.02	1.84	1.70	2.03
95	2.26	1.80	1.84	1.84	1.36	0.98	0.75	0.37	0.87	-0.02	1.12	0.50	0.59	1.31	0.87
100	0.46	1.12	0.45	0.78	0.61	0.67	-0.31	-0.29	-0.47	0.17	0.20	-0.20	0.23	0.02	0.81
105	0.50	0.80	0.46	1.17	0.42	0.90	0.11	0.42	0.97	-0.03	0.14	0.14	0.07	0.54	0.68
110	0.32	-0.19	-0.18	0.12	0.17	0.43	0.49	0.07	-0.19	-0.06	0.25	0.81	0.49	0.72	0.48
115	0.02	0.39	0.28	0.50	0.82	0.26	0.58	0.25	1.35	0.83	0.63	0.40	0.21	0.53	0.54
120	0.24	-0.09	0.24	0.07	0.45	0.69	1.07	0.69	0.46	-0.15	0.14	0.65	0.22	0.22	0.53
125	0.12	0.24	0.30	-0.62	0.50	1.19	0.52	0.96	-0.36	0.81	0.77	0.62	0.37	0.30	0.64
130	-0.19	-0.22	1.11	-0.01	0.76	-0.18	0.21	-0.12	0.67	0.57	0.49	0.80	0.62	0.03	0.20

Luminaire

Lamp		Report	20150406-0001		
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt		
Lamp flux (lm)	170	Operator	Current (A)	0.102	
Total flux (lm)	170	Date	Power Factor	1	2015-04-06 오후 6:53:46

Luminous Intensity Data (Continued)

GWC	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
0	69.45	69.58	69.67	70.38	70.16	70.01	71.11	69.95	69.70	69.99	69.85	69.39	70.01	69.73	70.09
5	69.38	69.32	69.83	69.43	69.66	69.97	69.78	69.54	69.81	70.72	69.49	69.75	70.24	70.41	69.34
10	68.12	68.61	68.22	69.10	68.65	68.32	69.38	68.59	68.73	68.94	67.70	68.39	68.20	68.16	68.39
15	66.84	65.64	66.22	66.33	67.00	67.70	66.11	65.54	66.51	66.89	66.37	65.86	65.93	65.53	65.32
20	63.48	63.52	63.99	63.00	63.35	62.93	63.58	63.15	63.35	63.10	63.67	62.91	63.37	62.70	63.71
25	59.44	59.18	59.29	57.90	58.79	58.65	59.27	59.23	59.59	58.87	59.35	59.19	59.28	59.12	59.62
30	54.89	54.29	53.83	52.98	52.71	53.25	54.09	54.42	54.67	54.55	54.92	54.71	54.82	55.22	54.82
35	48.74	48.40	47.87	46.49	47.22	46.74	48.47	48.33	48.79	49.77	50.35	50.43	50.12	50.01	50.84
40	44.02	42.45	42.14	40.62	41.61	41.66	41.37	42.03	43.29	43.86	44.34	45.26	45.49	45.97	45.18
45	37.08	36.87	36.12	34.41	35.26	35.27	36.48	36.29	37.32	37.90	39.02	39.53	39.22	39.97	40.29
50	31.60	30.42	29.62	27.65	29.29	29.06	30.53	30.67	31.62	32.54	33.21	33.28	33.88	34.11	33.80
55	25.24	24.38	25.33	22.54	22.87	23.35	24.33	25.69	26.47	26.67	27.84	27.95	28.38	28.21	28.33
60	20.47	19.55	18.77	17.07	17.56	18.72	19.32	19.64	20.66	21.81	22.44	23.20	23.08	23.24	22.71
65	15.97	15.18	14.90	13.61	13.76	14.59	14.72	15.54	16.14	17.02	17.91	17.28	18.41	18.12	18.26
70	11.56	11.75	11.11	10.21	10.89	10.75	10.68	11.36	11.93	12.15	12.90	12.19	13.32	12.92	12.74
75	8.80	8.57	8.23	7.48	7.40	8.04	8.21	7.77	8.58	8.25	8.75	7.44	8.87	9.32	8.92
80	6.55	6.10	6.53	5.28	5.65	5.29	6.11	5.44	5.16	5.73	4.73	4.15	3.78	4.00	5.06
85	4.23	3.68	4.13	3.85	4.01	4.15	3.36	4.01	3.35	2.88	2.54	1.59	1.57	0.77	2.61
90	2.87	2.59	2.65	2.42	2.01	2.11	3.22	1.37	1.59	1.56	-0.10	-0.14	0.03	0.16	0.23
95	0.72	1.19	1.86	0.80	1.28	1.04	1.17	0.63	0.21	0.44	0.41	0.01	0.31	0.08	-0.32
100	1.22	0.93	0.53	0.57	0.67	1.03	0.68	0.48	0.81	0.29	0.16	-0.64	0.08	0.52	0.15
105	-0.34	0.98	0.66	0.14	0.35	0.78	-0.05	1.04	0.05	0.48	0.24	-0.05	-0.12	-0.24	-0.24
110	0.13	-0.22	0.20	0.34	-0.14	0.41	-0.18	-0.42	-0.37	0.56	0.26	0.00	0.47	0.07	0.36
115	0.77	0.31	0.46	-0.27	0.23	0.40	0.90	0.05	0.62	0.64	0.26	0.59	0.23	0.14	0.20
120	0.85	0.00	0.56	-0.04	0.97	-0.09	0.65	0.72	0.44	0.32	0.66	-0.19	0.61	0.59	0.70
125	0.72	-0.08	-0.01	0.17	0.45	0.50	0.63	0.32	0.86	0.21	0.55	0.52	0.96	-0.42	0.19
130	0.28	0.12	0.71	0.54	0.75	1.11	0.26	-0.03	0.76	0.50	0.45	0.68	0.19	0.35	0.23

Luminaire

Lamp		Report	20150406-0001
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt	
Lamp flux (lm)	170	Operator Current (A)	0.102
Total flux (lm)	170	Date Power Factor	1
			2015-04-06 오후 6:53:46

Luminous Intensity Data (Continued)

GWC	300	310	320	330	340	350	360
0	69.76	70.27	69.76	69.45	69.58	69.67	70.38
5	69.10	69.96	69.14	69.23	68.87	69.79	70.40
10	68.41	68.15	67.65	69.07	67.50	68.12	69.10
15	65.89	65.43	66.14	66.47	66.09	66.03	66.55
20	63.14	63.31	63.31	64.02	63.91	62.30	64.61
25	59.66	59.63	59.35	59.38	59.17	59.77	59.99
30	55.42	55.37	54.21	54.22	54.20	54.65	55.97
35	50.07	49.87	49.07	49.01	48.69	48.30	50.90
40	44.24	43.74	42.69	42.36	42.32	42.44	44.29
45	39.14	38.50	37.78	37.13	36.69	36.22	37.86
50	33.47	32.66	32.34	31.50	30.59	30.04	32.56
55	27.61	27.56	26.05	25.75	24.90	25.17	26.49
60	21.83	22.11	21.17	20.81	19.70	19.96	21.21
65	17.69	17.08	16.24	16.49	15.47	15.24	16.82
70	13.04	13.13	12.30	12.02	11.55	11.35	12.75
75	8.75	9.39	9.30	9.29	8.87	9.15	9.95
80	6.07	6.52	6.37	6.23	6.58	7.05	7.14
85	3.30	3.12	4.07	3.93	4.55	4.21	4.89
90	1.80	2.20	3.06	2.32	3.37	3.25	3.24
95	0.99	1.02	1.12	1.54	1.55	2.59	2.26
100	-0.27	-0.11	0.40	0.29	0.07	1.24	0.46
105	-0.08	0.02	0.24	0.46	-0.47	0.27	0.50
110	-0.13	0.60	0.24	0.59	-0.27	0.67	0.32
115	-0.22	-0.10	0.48	0.87	0.14	-0.24	0.02
120	0.08	0.08	0.91	-0.20	0.85	0.18	0.24
125	0.16	0.04	0.57	0.30	0.62	0.54	0.12
130	0.60	-0.08	1.17	0.39	0.04	0.59	-0.19

Luminaire

Lamp		Report		20150406-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt	
Lamp flux (lm)	170	Operator	Current (A)	0.102
Total flux (lm)	170	Date	Power Factor	1
				2015-04-06 오후 6:53:46

Luminous Flux Table

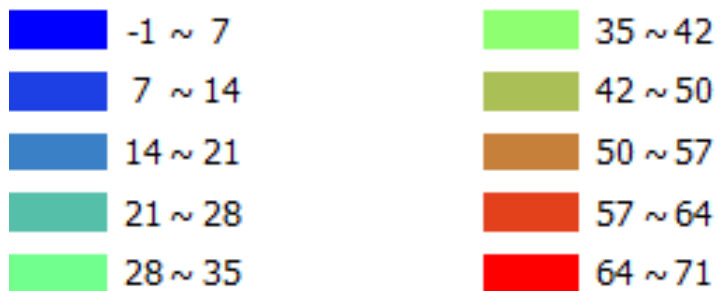
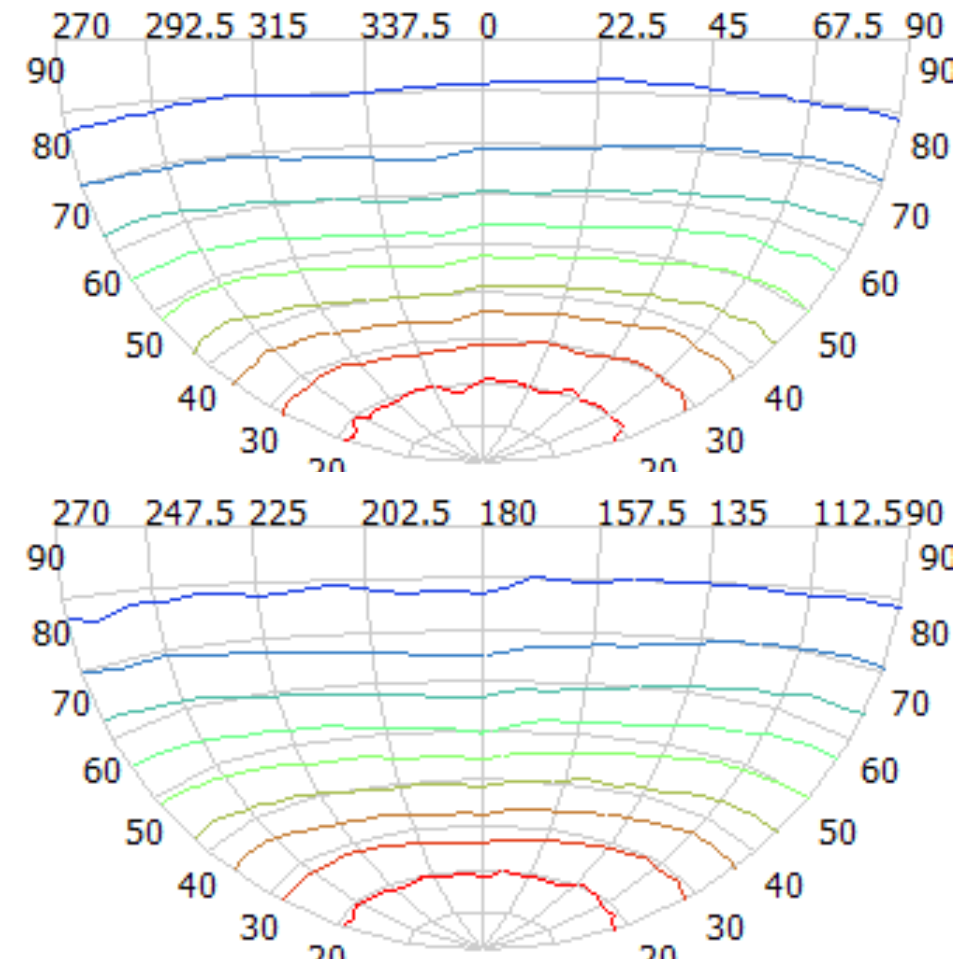
Total Lamp Lumens: 170
 Luminaire Efficiency (lm/W): 170.26
 CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	0.42	0.42	0.25	0.25
5	3.33	3.75	2.20	2.20
10	6.52	10.26	6.03	6.03
15	9.42	19.68	11.56	11.56
20	11.91	31.59	18.55	18.56
25	13.83	45.42	26.67	26.68
30	15.10	60.52	35.54	35.55
35	15.65	76.17	44.73	44.74
40	15.53	91.71	53.85	53.86
45	14.88	106.58	62.59	62.60
50	13.66	120.24	70.61	70.62
55	12.08	132.32	77.70	77.72
60	10.27	142.59	83.73	83.75
65	8.43	151.02	88.68	88.70
70	6.52	157.54	92.51	92.53
75	4.82	162.37	95.34	95.36
80	3.25	165.61	97.25	97.27
85	1.96	167.57	98.40	98.42
90	1.05	168.62	99.01	99.04
95	0.53	169.15	99.32	99.35
100	0.20	169.35	99.44	99.47
105	0.17	169.52	99.54	99.56
110	0.10	169.62	99.60	99.62
115	0.19	169.81	99.71	99.74
120	0.19	170.00	99.82	99.85
125	0.18	170.17	99.93	99.95
130	0.09	170.26	99.98	100.00

Luminaire

Lamp		Report	20150406-0001
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt	
Lamp flux (lm)	170	Operator Current (A)	0.102
Total flux (lm)	170	Date Power Factor	1
			2015-04-06 오후 6:53:46

IsoCandela (Type C)

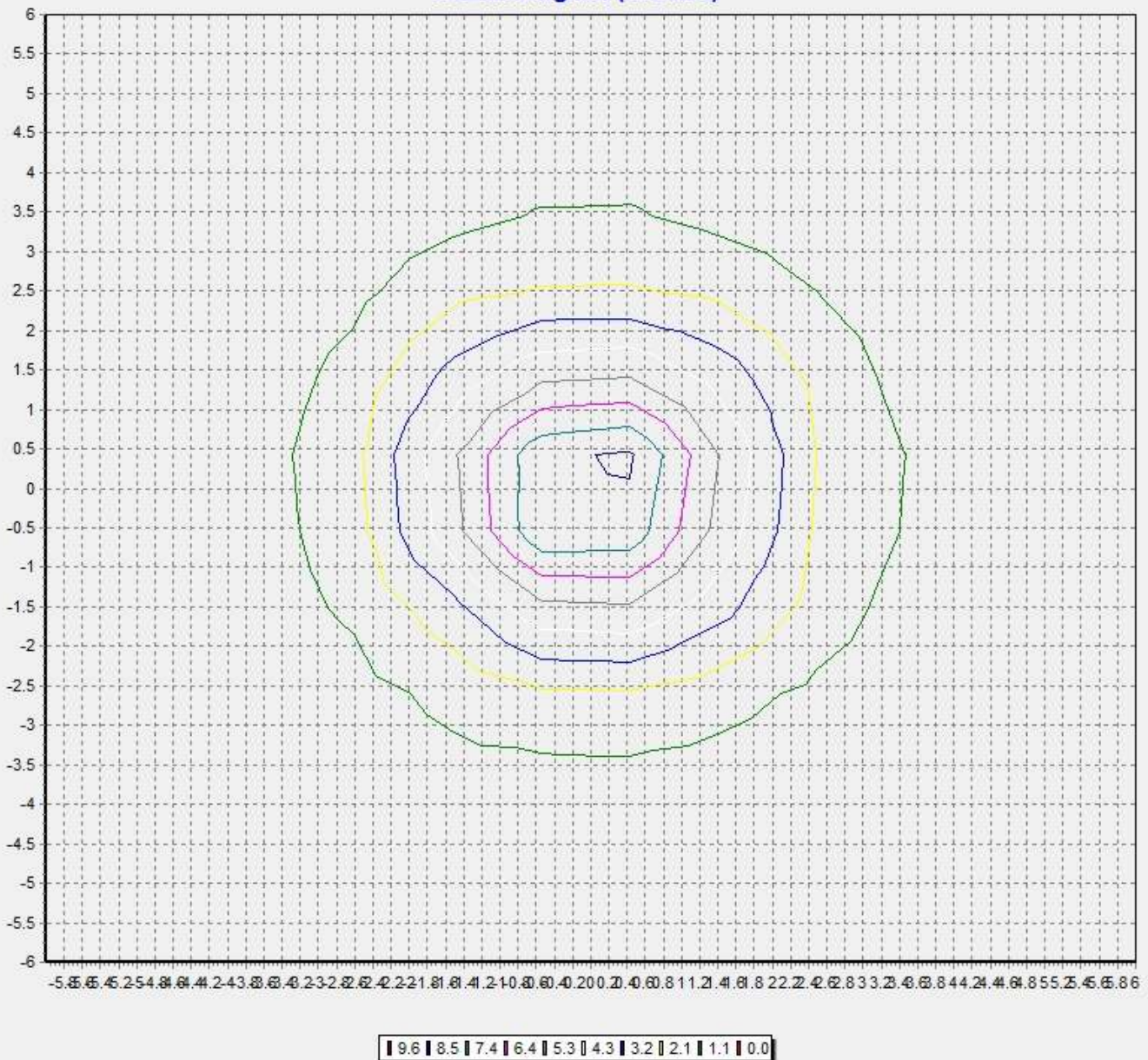


Luminaire

Lamp	Report			20150406-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt	
Lamp flux (lm)	170	Operator	Current (A)	0.102
Total flux (lm)	170	Date	Power Factor	1

2015-04-06 오후 6:53:46

IsoLux Diagram (Ground)

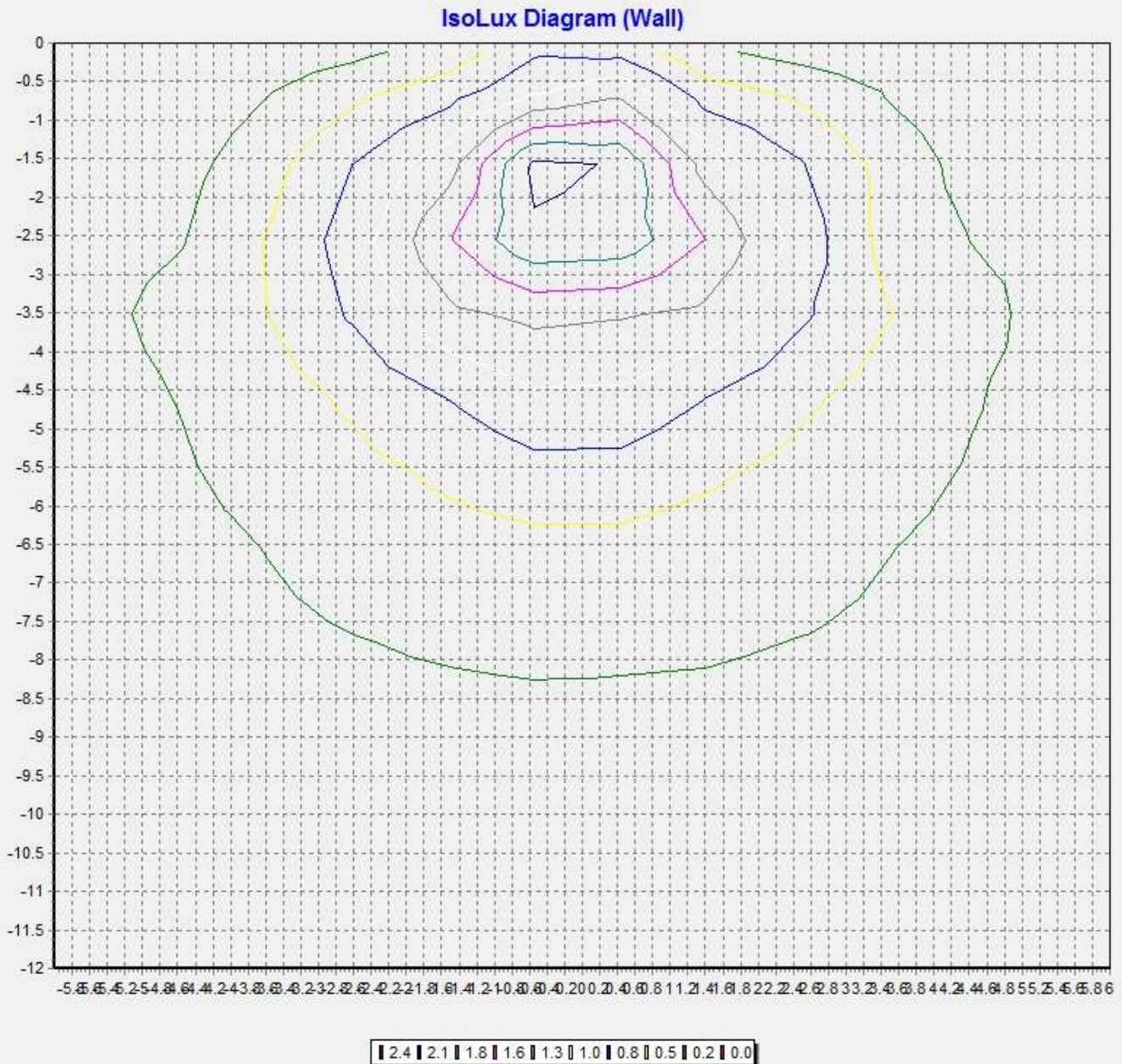


Pole Height (m): 2.7

Area Width (m): 12

Luminaire

Lamp		Report	20150406-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt
Lamp flux (lm)	170	Operator	Current (A) 0.102
Total flux (lm)	170	Date	Power Factor 1
			2015-04-06 오후 6:53:46



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

Luminaire

Lamp

No. of lamps	1	Voltage (V)	24
Lamp flux (lm)	170	Current (A)	0.102
Total flux (lm)	170	Power Factor	1

Report

20150406-0001

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt

Operator

Date

2015-04-06 오후 6:53:46

Illuminance Levels (Ground)

6.00	0.06	0.08	0.08	0.11	0.18	0.21	0.22	0.21	0.18	0.11	0.09	0.08	0.06
5.00	0.08	0.09	0.16	0.24	0.26	0.38	0.41	0.39	0.26	0.24	0.17	0.09	0.08
4.00	0.07	0.16	0.20	0.38	0.46	0.75	0.82	0.76	0.47	0.40	0.20	0.17	0.08
3.00	0.10	0.21	0.38	0.54	0.90	1.31	1.54	1.35	0.93	0.54	0.39	0.22	0.11
2.00	0.15	0.21	0.42	0.82	1.95	2.88	3.85	2.91	1.97	0.87	0.44	0.22	0.17
1.00	0.17	0.32	0.64	1.20	2.78	5.54	7.41	5.55	2.84	1.25	0.68	0.34	0.18
0.00	0.16	0.31	0.64	1.25	3.63	7.48	9.65	7.51	3.87	1.42	0.75	0.36	0.19
-1.00	0.15	0.29	0.59	1.12	2.63	5.40	7.44	5.47	2.70	1.20	0.64	0.32	0.17
-2.00	0.14	0.19	0.38	0.76	1.82	2.75	3.80	2.82	1.92	0.83	0.42	0.21	0.16
-3.00	0.09	0.19	0.34	0.47	0.85	1.25	1.48	1.29	0.89	0.53	0.37	0.21	0.10
-4.00	0.07	0.14	0.17	0.35	0.42	0.71	0.79	0.72	0.44	0.38	0.20	0.16	0.07
-5.00	0.07	0.07	0.14	0.22	0.24	0.36	0.39	0.37	0.24	0.23	0.16	0.09	0.08
-6.00	0.05	0.07	0.07	0.10	0.17	0.20	0.21	0.20	0.18	0.11	0.08	0.08	0.06
-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.): 0.65

All illuminance level values are in lux.

Illum. (Min.): 0.05

Illum. Avg.: 0.96

Total Optical Solution Provider

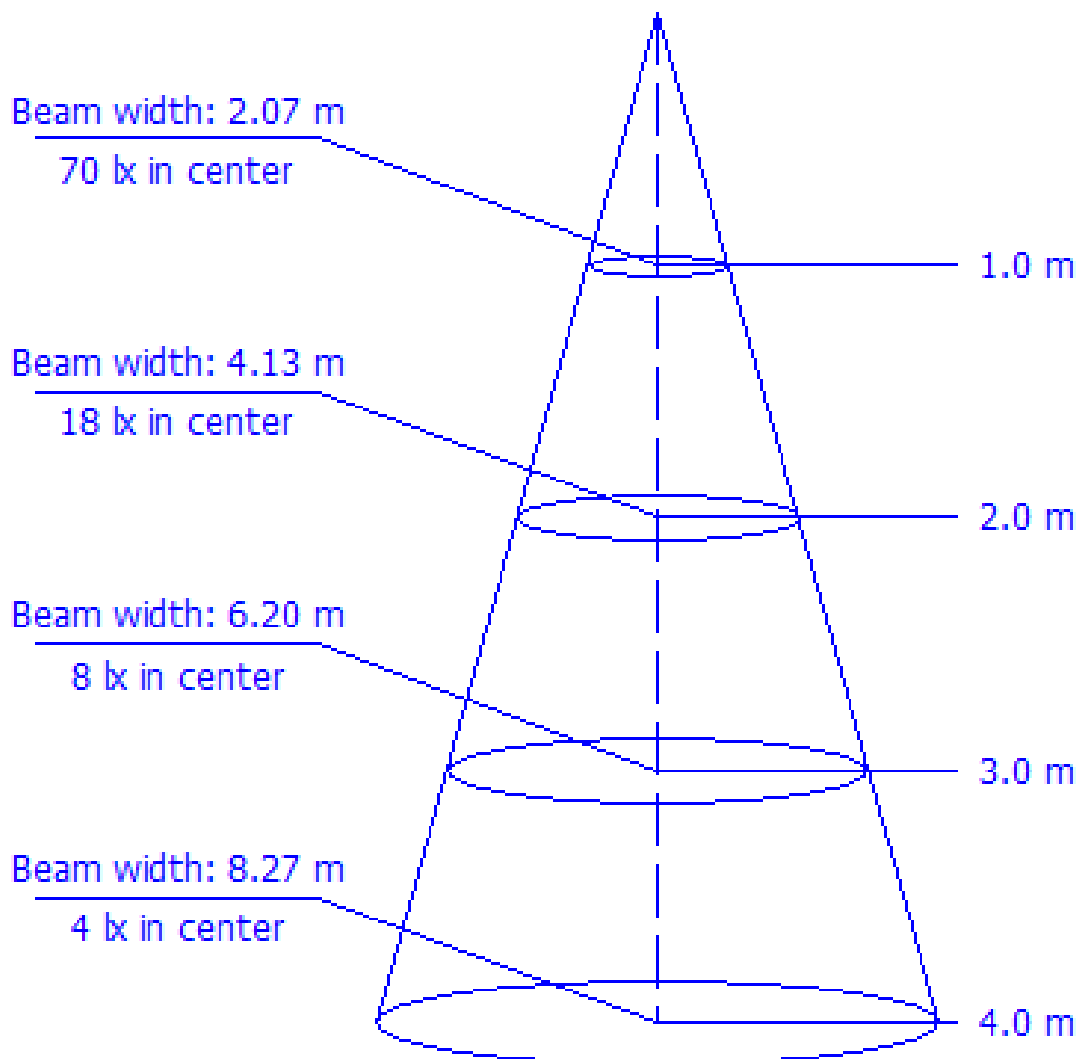


<http://www.jnctech.co.kr>
J & C Technology Co., Ltd.

Luminaire

Lamp		Report		20150406-0001
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt	
Lamp flux (lm)	170	Operator	Current (A)	0.102
Total flux (lm)	170	Date	Power Factor	1
				2015-04-06 오후 6:53:46

Illuminance Cone Diagram



Beam Angle = 92 deg.

Based on 50% of maximum illuminance.

Luminaire

Lamp

Report

20150406-0001

No. of lamps	1	Voltage (V)	24
Lamp flux (lm)	170	Current (A)	0.102
Total flux (lm)	170	Power Factor	1

Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150406\NDV 3W 27K -1.jdt
Operator	
Date	2015-04-06 오후 6:53:46

Coefficient of Utilization

Refl. Ceiling (%)	80%	80%	80%	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%	0%
Eff. Floor Cavity Refl.	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	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.98
Room CR 1	1.03	0.99	0.95	1.01	0.97	0.94	0.96	0.93	0.91	0.92	0.90	0.88	0.89	0.87	0.85	0.83
Room CR 2	0.91	0.84	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	0.80	0.73	0.66	0.79	0.72	0.66	0.76	0.69	0.64	0.73	0.68	0.63	0.70	0.66	0.62	0.60
Room CR 4	0.72	0.63	0.57	0.70	0.63	0.56	0.68	0.61	0.56	0.65	0.59	0.55	0.63	0.58	0.54	0.52
Room CR 5	0.64	0.56	0.50	0.63	0.55	0.49	0.61	0.54	0.49	0.59	0.53	0.48	0.57	0.52	0.47	0.45
Room CR 6	0.58	0.50	0.44	0.57	0.49	0.43	0.55	0.48	0.43	0.54	0.47	0.42	0.52	0.46	0.42	0.40
Room CR 7	0.53	0.45	0.39	0.52	0.44	0.39	0.51	0.44	0.38	0.49	0.43	0.38	0.48	0.42	0.38	0.36
Room CR 8	0.49	0.40	0.35	0.48	0.40	0.35	0.47	0.40	0.34	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	0.31	0.43	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.31	0.29
Room CR 10	0.41	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	0.26