

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 : 20150409

2. Purpose of Report : Test

3. Test Standard / Item : LED / NDV4 35K-24V -1

4. Test Period : 20150409 ~ 20150409

5. Test Environment

Ambient Temp. : (24.1 +- 3) °C

Relative Humidity : (18.7 +- 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
20150408-0007	FEELUX		LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.4056, 0.3857	
Correlated Color Temperature	K	3468	
Ra	-	84.74	
Power Factor	%	1.000	
Input Voltage	V	23.990	
Input Current	A	0.157	
Input Watt	W	3.76	
Lamp Flux	lm	304.3	
Efficient	lm/W	80.79	
Illuminance	lx	129	1 m
		32	2 m
		14	3 m

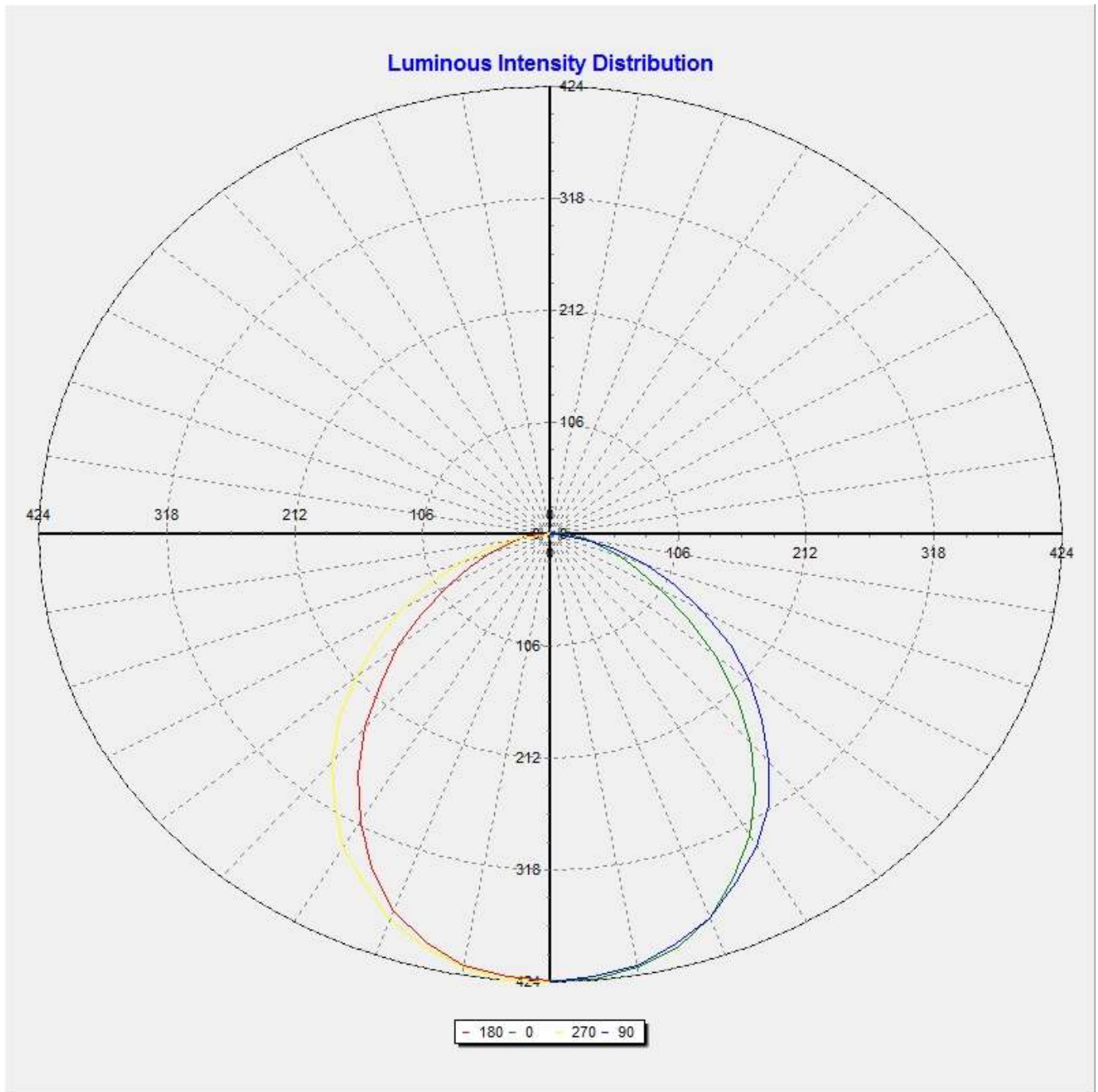
* This test result is for the sample provided by the client.

Sample photo

Click to load image

Luminaire

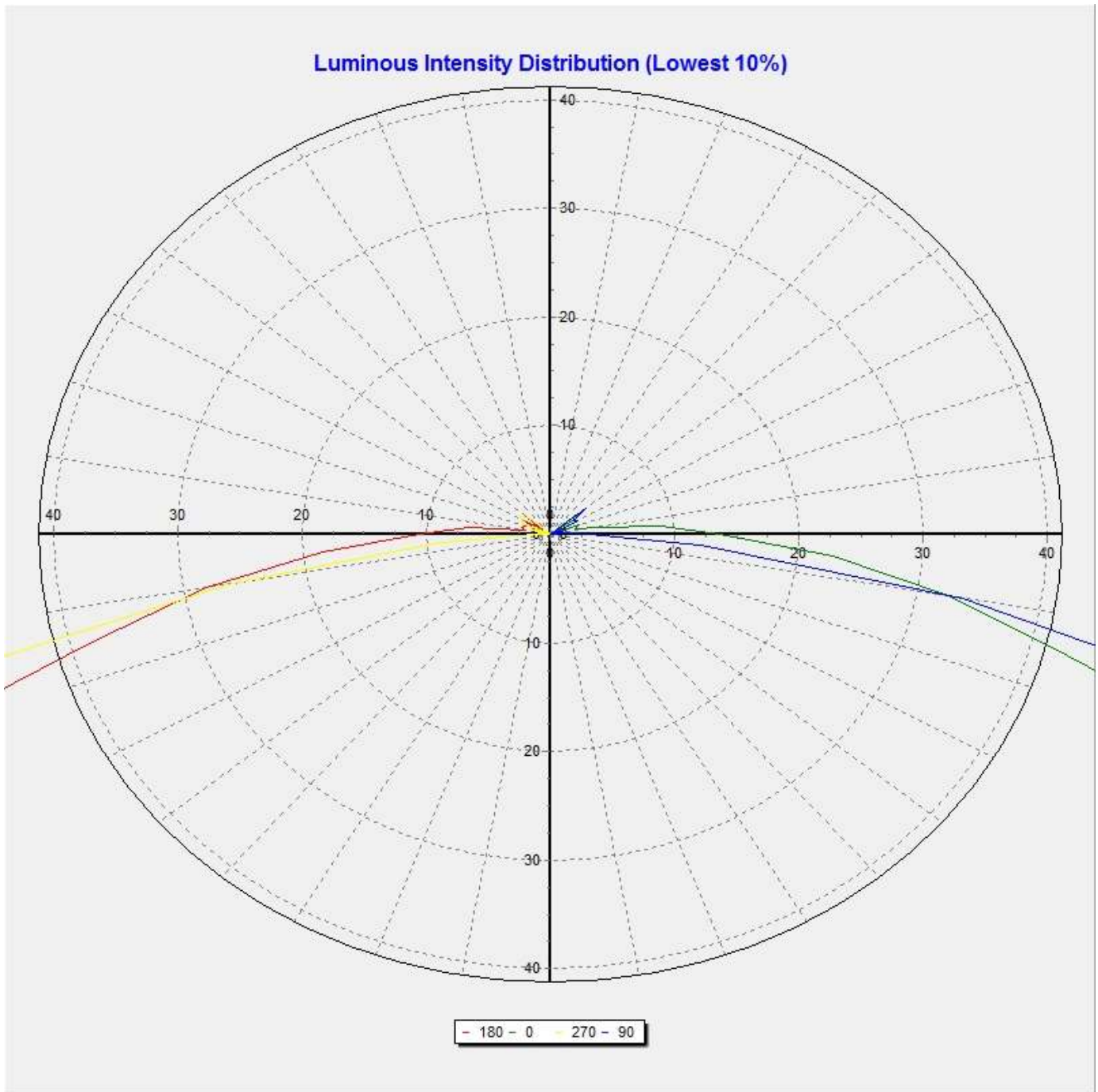
Lamp		Report	20150408-0007
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt
Lamp flux (lm)	304	Operator	Current (A) 0.157
Total flux (lm)	304	Date	Power Factor 1
			2015-04-09 오전 11:41:05



All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp		Report	20150408-0007
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt
Lamp flux (lm)	304	Operator	Current (A) 0.157
Total flux (lm)	304	Date	Power Factor 1
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Luminaire

Lamp		Report	20150408-0007
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt	
Lamp flux (lm)	304	Operator Current (A)	0.157
Total flux (lm)	304	Date Power Factor	1
			2015-04-09 오전 11:41:05

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120
0	128.68	129.18	129.12	128.47	129.07	128.61	129.98	128.40	129.12	128.97	129.06	128.80	129.25
5	128.75	129.13	129.05	129.29	128.99	128.49	128.02	128.43	128.15	128.00	128.09	128.26	127.81
10	126.59	127.04	126.25	126.20	127.59	126.21	126.76	126.00	126.25	126.16	125.58	126.20	126.36
15	123.54	122.92	124.05	123.33	123.30	122.67	122.20	123.14	121.82	122.30	122.64	122.88	122.83
20	117.79	117.13	118.10	118.28	118.32	117.61	118.40	118.86	118.09	117.49	116.83	117.56	117.65
25	109.42	110.09	110.47	110.51	110.83	111.33	111.69	111.96	111.70	110.52	111.11	110.49	111.83
30	100.52	100.29	100.33	101.14	102.68	103.56	105.13	103.79	104.50	104.04	104.69	103.01	104.40
35	89.78	88.92	90.45	90.33	92.32	93.66	94.21	95.33	95.76	95.79	95.01	94.72	94.34
40	78.94	78.15	79.12	79.15	81.86	82.90	84.59	84.49	86.87	85.75	85.69	85.72	84.56
45	66.82	65.96	67.89	68.53	70.28	70.91	73.80	74.81	76.49	75.45	75.87	74.76	72.85
50	54.52	53.76	55.79	57.64	59.09	60.68	62.77	63.93	65.41	65.79	66.20	63.03	61.03
55	42.36	42.05	43.90	45.90	48.55	49.69	51.88	53.29	55.47	55.42	54.91	53.23	50.91
60	32.76	32.47	33.45	35.27	38.31	39.46	41.48	43.74	45.21	43.91	43.63	42.29	40.81
65	24.37	25.04	25.92	26.92	28.90	30.66	32.41	33.34	35.39	34.55	34.11	33.20	31.87
70	18.61	17.90	18.72	20.02	21.24	23.07	24.14	24.71	25.89	25.95	24.97	24.42	24.25
75	13.11	14.03	14.44	15.19	15.65	15.55	17.27	17.38	17.72	17.18	17.70	17.22	16.69
80	9.92	9.68	10.35	10.18	10.06	11.21	11.12	11.06	10.36	10.27	10.04	10.29	10.60
85	6.96	5.90	7.60	6.17	7.00	6.36	6.70	5.40	4.61	3.70	4.18	5.07	5.44
90	4.15	5.13	3.87	4.12	4.16	3.57	3.00	1.65	1.11	0.95	0.69	1.87	2.68
95	2.71	2.41	2.25	2.71	1.70	1.35	1.12	0.47	1.20	0.40	0.29	0.61	0.33
100	1.19	1.21	1.35	1.15	0.56	0.45	0.56	0.65	0.54	-0.10	-0.19	0.92	0.96
105	0.63	0.31	0.23	0.52	0.22	0.01	0.09	0.46	0.25	0.30	0.51	0.61	0.34
110	0.75	0.61	0.60	0.27	1.13	1.09	0.90	0.20	0.56	0.12	0.14	0.20	0.20
115	-0.20	0.98	0.52	0.72	1.24	0.79	1.17	0.41	0.00	0.03	0.42	0.67	0.60
120	-0.01	0.81	0.85	0.78	0.79	0.88	0.26	0.64	0.50	0.79	0.85	1.19	0.38
125	0.77	0.97	0.44	0.55	0.58	0.89	0.58	1.01	0.86	0.70	1.10	1.07	1.03
130	0.89	0.16	0.78	1.03	0.19	0.78	0.65	0.44	0.31	1.13	0.46	1.02	0.82

Luminaire

Lamp		Report	20150408-0007										
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt										
Lamp flux (lm)	304	Operator	Current (A)	0.157									
Total flux (lm)	304	Date	Power Factor	1									
2015-04-09 오전 11:41:05													

Luminous Intensity Data (Continued)

GWC	130	140	150	160	170	180	190	200	210	220	230	240	250
0	130.18	129.79	127.51	129.45	129.57	128.68	129.18	129.12	128.47	129.07	128.61	129.98	128.40
5	128.27	127.67	127.72	128.61	128.57	127.93	127.50	127.88	127.74	128.13	128.36	127.65	128.38
10	125.79	125.97	126.69	127.28	126.39	126.15	126.08	125.57	127.02	125.27	126.07	125.90	126.38
15	122.91	122.33	123.76	122.89	122.63	121.57	121.84	121.30	123.26	122.08	122.73	121.94	122.85
20	117.40	118.10	117.68	118.06	117.93	115.54	115.92	115.76	116.38	117.43	116.88	117.31	118.74
25	111.58	110.90	110.50	110.64	110.16	106.41	106.71	108.44	109.17	110.12	110.60	110.49	110.78
30	102.94	102.33	101.11	101.21	99.49	95.80	96.50	97.38	98.81	99.86	101.40	102.29	103.20
35	93.08	92.80	90.63	88.83	88.31	84.30	84.87	85.75	88.30	90.08	91.15	91.96	93.47
40	82.10	80.24	78.18	77.63	76.19	72.55	73.29	73.97	75.37	78.04	80.66	81.65	83.94
45	70.17	68.39	66.78	65.65	65.26	60.48	61.48	62.69	63.68	65.66	69.12	70.76	74.13
50	59.61	57.53	55.64	54.92	53.36	50.31	51.54	51.75	53.45	54.61	57.37	59.84	62.47
55	48.85	47.88	45.39	44.50	43.27	39.54	39.71	41.92	43.03	44.28	47.13	48.52	51.96
60	39.63	37.97	36.10	34.78	33.30	29.71	30.70	31.39	33.92	34.77	37.60	38.87	40.64
65	30.50	29.11	26.69	26.31	24.69	22.38	22.71	23.01	25.62	27.25	28.79	30.00	30.51
70	22.61	20.88	19.98	18.79	18.49	16.75	17.00	17.32	18.32	19.05	21.36	21.27	23.02
75	15.81	15.22	14.66	13.98	13.87	11.64	12.63	12.90	13.10	13.46	13.95	14.47	14.73
80	10.48	10.02	9.43	9.39	9.90	8.56	8.83	9.10	9.23	9.13	8.97	8.48	8.10
85	5.91	6.87	6.28	6.71	6.60	5.62	5.97	5.47	5.81	5.05	4.56	4.09	3.77
90	2.43	4.12	3.73	4.01	4.16	3.21	2.38	3.68	2.61	3.07	2.44	1.37	1.15
95	1.18	1.27	2.74	2.01	2.42	2.01	2.15	1.61	2.09	0.44	1.11	-0.22	0.79
100	0.07	0.54	0.11	1.20	1.78	0.65	1.26	1.36	0.91	0.67	0.39	-0.08	0.59
105	0.41	0.63	1.01	0.13	0.36	0.72	0.27	0.67	0.34	0.93	-0.12	0.70	0.27
110	0.59	0.61	0.75	1.10	0.35	0.64	0.61	1.29	0.96	0.69	0.02	0.73	0.30
115	1.04	0.08	0.73	0.27	0.70	0.51	-0.11	0.62	0.27	0.66	1.58	0.66	0.84
120	0.45	0.47	0.05	0.94	0.46	0.69	0.60	-0.01	0.66	0.11	1.03	0.74	0.74
125	0.54	0.05	1.00	0.98	0.07	0.32	1.18	0.97	0.84	0.64	0.85	0.77	0.88
130	0.92	0.57	0.81	1.13	0.56	0.79	0.68	0.03	0.89	0.91	1.16	0.41	1.15

Luminaire

Lamp		Report	20150408-0007			
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt			
Lamp flux (lm)	304	Operator	Current (A)	0.157		
Total flux (lm)	304	Date	Power Factor	1	2015-04-09 오전 11:41:05	

Luminous Intensity Data (Continued)

GWC	260	270	280	290	300	310	320	330	340	350	360
0	129.12	128.97	129.06	128.80	129.25	130.18	129.79	127.51	129.45	129.57	128.68
5	128.52	129.03	128.01	128.64	128.28	128.16	128.49	129.05	128.87	128.98	128.75
10	126.43	126.63	126.74	126.32	125.87	127.26	126.54	126.62	126.01	127.02	126.59
15	121.09	123.13	122.07	123.30	122.28	122.67	122.83	122.71	121.86	121.97	123.54
20	117.38	118.23	117.83	117.02	117.70	117.38	117.42	116.81	116.06	115.99	117.79
25	110.79	111.10	111.72	112.64	111.13	110.50	109.71	108.53	107.41	108.24	109.42
30	103.55	104.48	103.39	102.92	102.83	101.40	100.63	98.80	98.19	97.10	100.52
35	94.08	94.92	94.08	95.47	92.67	91.37	89.75	88.28	86.50	86.33	89.78
40	84.32	85.63	84.14	83.88	82.33	80.74	78.71	77.50	76.31	74.92	78.94
45	73.96	75.35	74.67	73.85	71.24	69.47	67.78	66.11	64.10	63.15	66.82
50	64.44	63.99	64.04	62.48	60.18	58.50	56.38	54.27	52.99	51.50	54.52
55	53.49	53.10	52.74	51.41	49.05	48.04	45.07	42.28	40.49	39.47	42.36
60	41.94	43.38	42.85	41.42	39.58	37.14	34.80	33.19	31.20	29.83	32.76
65	32.35	33.01	31.75	31.45	29.80	29.36	25.88	25.31	23.18	22.39	24.37
70	22.48	24.19	23.31	23.44	21.75	21.28	19.29	18.71	17.50	16.60	18.61
75	14.84	15.69	15.39	15.39	14.91	14.13	13.51	13.02	12.01	12.40	13.11
80	7.60	7.91	8.57	8.64	9.13	10.08	9.04	8.59	9.79	9.25	9.92
85	2.63	2.68	2.66	4.08	5.23	5.71	5.88	5.77	6.14	6.35	6.96
90	0.09	0.39	1.08	1.05	1.63	2.69	3.20	3.40	3.67	3.81	4.15
95	-0.53	-0.19	0.24	0.26	0.74	1.72	1.05	1.93	2.67	1.75	2.71
100	0.50	0.32	0.26	0.26	0.64	-0.25	0.06	0.76	1.58	1.16	1.19
105	0.87	0.52	0.35	0.66	0.14	0.63	-0.09	0.43	-0.24	0.72	0.63
110	0.65	-0.04	0.32	0.41	0.00	0.31	1.22	0.61	-0.12	0.70	0.75
115	0.79	0.77	0.79	0.26	0.34	0.28	-0.16	0.56	0.16	-0.16	-0.20
120	0.21	0.81	1.11	0.82	0.54	0.34	0.42	0.70	0.90	0.96	-0.01
125	1.19	0.90	0.34	0.74	0.84	0.23	1.12	0.88	0.34	0.43	0.77
130	0.16	0.71	0.98	0.95	0.60	0.85	0.61	1.12	0.35	0.42	0.89

Luminaire

Lamp		Report	20150408-0007
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt	
Lamp flux (lm)	304	Operator Current (A)	0.157
Total flux (lm)	304	Date Power Factor	1
			2015-04-09 오전 11:41:05

Luminous Flux Table

Total Lamp Lumens: 304

Luminaire Efficiency (lm/W):304.29

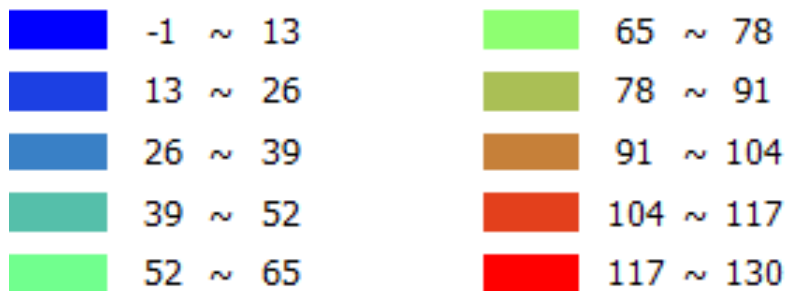
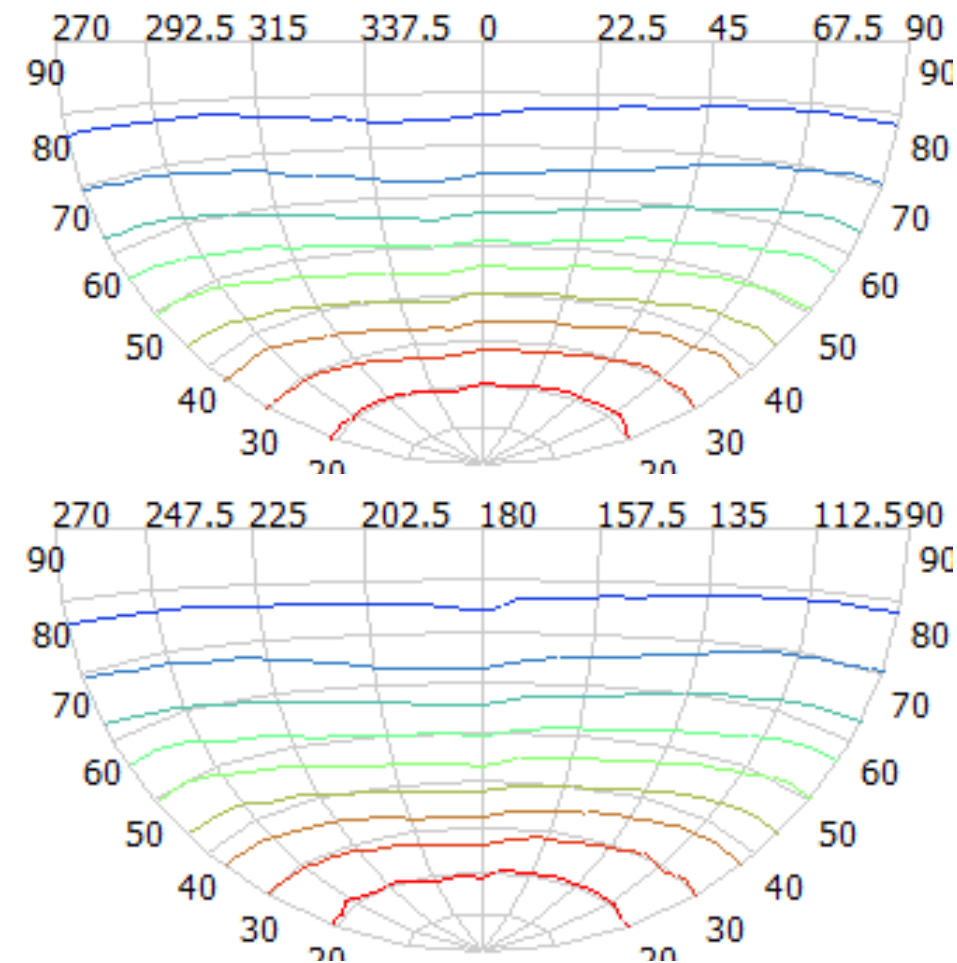
CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	0.77	0.77	0.25	0.25
5	6.13	6.90	2.27	2.27
10	12.03	18.93	6.22	6.22
15	17.39	36.32	11.94	11.94
20	22.01	58.34	19.17	19.17
25	25.55	83.89	27.57	27.57
30	27.82	111.70	36.71	36.71
35	28.71	140.41	46.14	46.14
40	28.38	168.80	55.47	55.47
45	26.90	195.69	64.31	64.31
50	24.50	220.20	72.36	72.36
55	21.31	241.51	79.37	79.37
60	17.77	259.28	85.20	85.21
65	14.20	273.47	89.87	89.87
70	10.84	284.31	93.43	93.43
75	7.81	292.11	96.00	96.00
80	5.15	297.26	97.69	97.69
85	2.96	300.22	98.66	98.66
90	1.47	301.69	99.14	99.14
95	0.71	302.40	99.37	99.38
100	0.36	302.76	99.49	99.50
105	0.22	302.97	99.56	99.57
110	0.28	303.25	99.66	99.66
115	0.26	303.51	99.74	99.74
120	0.30	303.81	99.84	99.84
125	0.33	304.14	99.95	99.95
130	0.15	304.29	100.00	100.00

Luminaire

Lamp		Report	20150408-0007
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt	
Lamp flux (lm)	304	Operator Current (A)	0.157
Total flux (lm)	304	Date Power Factor	1
			2015-04-09 오전 11:41:05

IsoCandela (Type C)

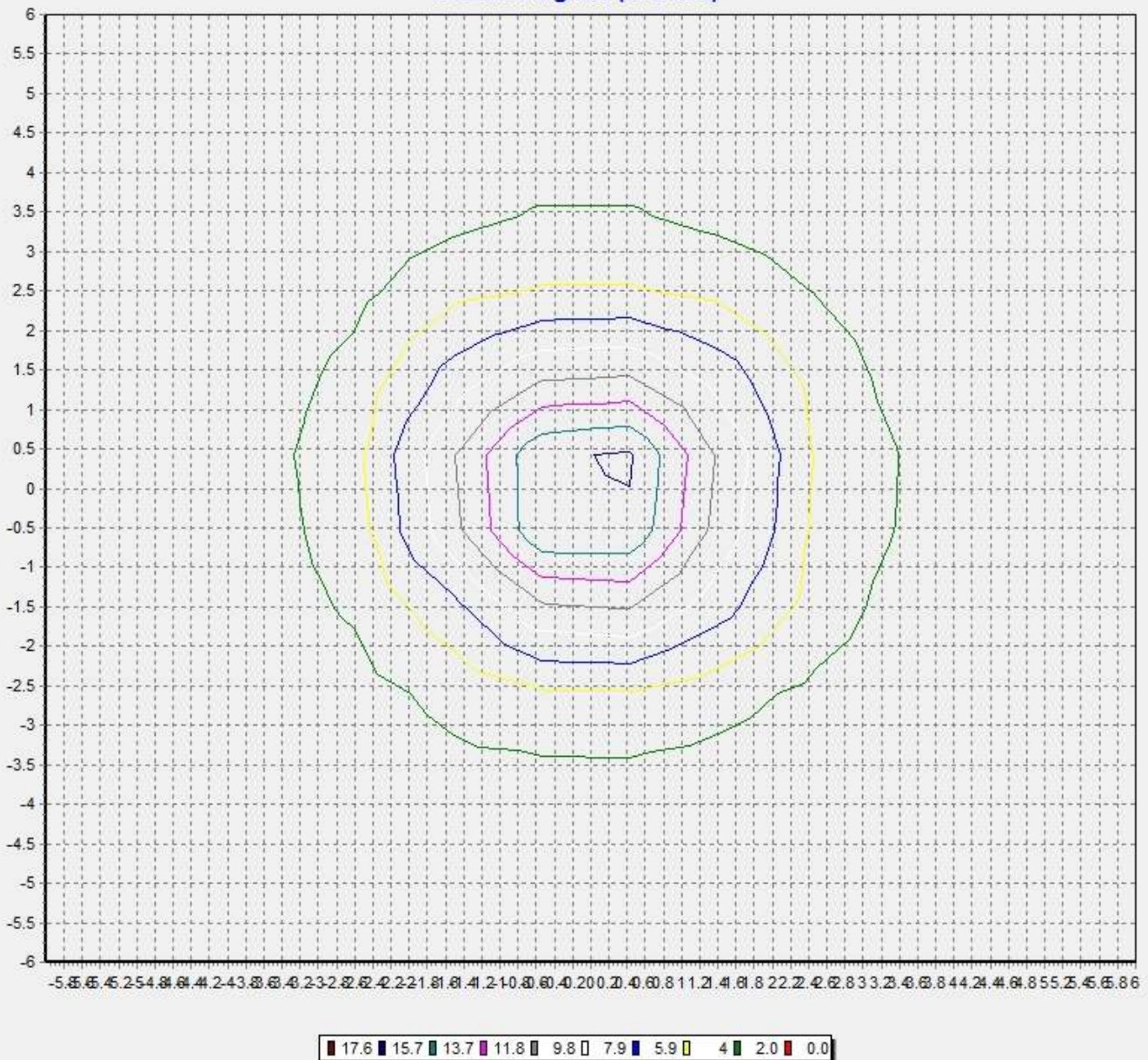


Luminaire

Lamp	Report			20150408-0007
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt	
Lamp flux (lm)	304	Operator	Current (A)	0.157
Total flux (lm)	304	Date	Power Factor	1

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IsoLux Diagram (Ground)



Pole Height (m): 2.7

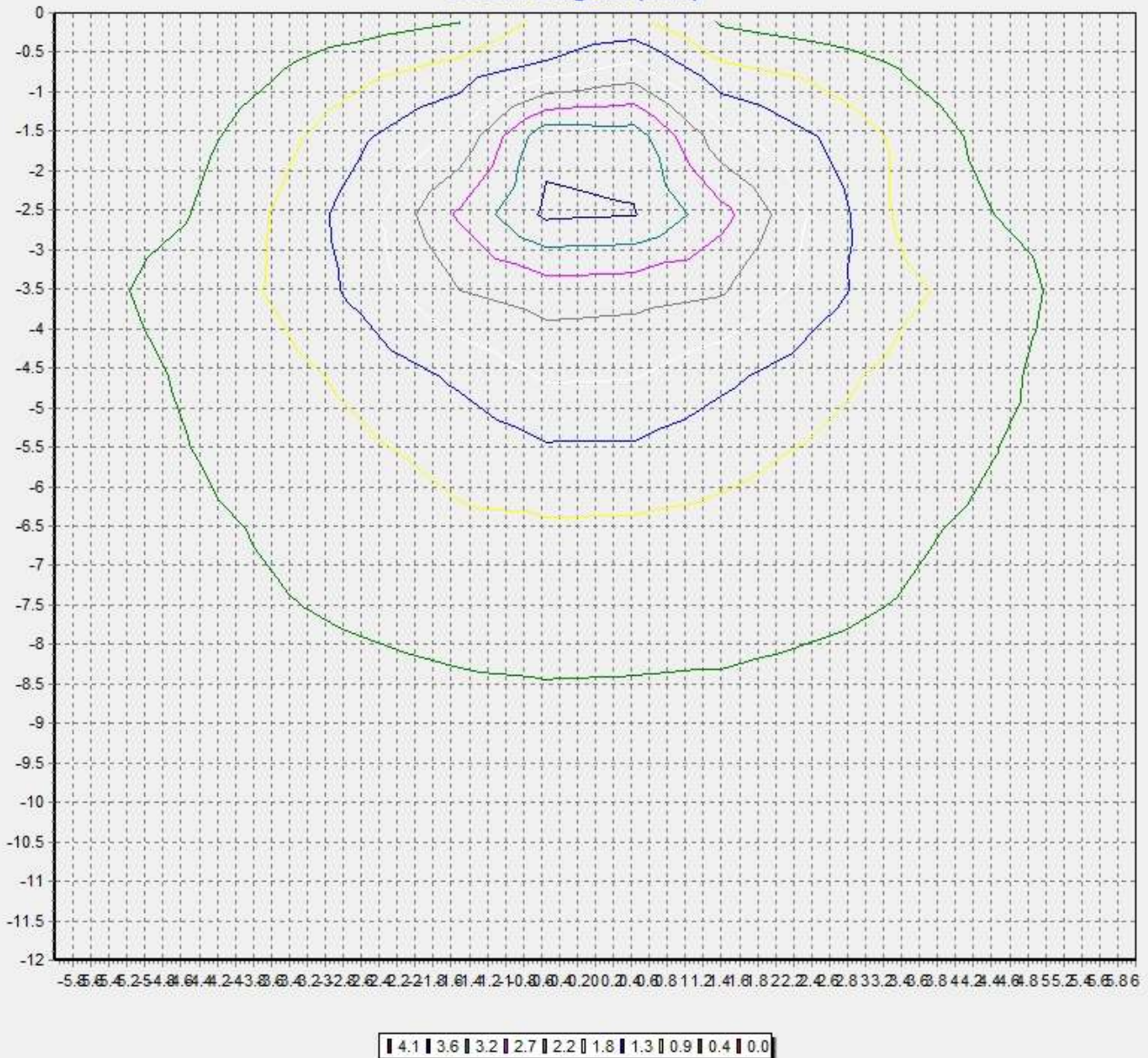
Area Width (m): 12

Luminaire

Lamp	Report			20150408-0007
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt	
Lamp flux (lm)	304	Operator	Current (A)	0.157
Total flux (lm)	304	Date	Power Factor	1

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IsoLux Diagram (Wall)



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)	23.99
Lamp flux (lm)	304	Current (A)	0.157
Total flux (lm)	304	Power Factor	1

Report

20150408-0007

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt

Operator

Date

2015-04-09 오전 11:41:05

Illuminance Levels (Ground)

6.00	0.11	0.14	0.15	0.20	0.32	0.38	0.40	0.38	0.32	0.19	0.15	0.13	0.09
5.00	0.14	0.15	0.29	0.43	0.46	0.71	0.76	0.72	0.45	0.42	0.28	0.14	0.13
4.00	0.12	0.29	0.35	0.68	0.83	1.40	1.53	1.38	0.80	0.67	0.32	0.27	0.12
3.00	0.17	0.37	0.67	0.96	1.65	2.43	2.86	2.40	1.63	0.89	0.65	0.34	0.16
2.00	0.27	0.36	0.75	1.48	3.62	5.37	7.23	5.28	3.50	1.45	0.70	0.34	0.25
1.00	0.30	0.55	1.14	2.13	5.04	10.25	13.80	10.11	5.01	2.13	1.13	0.54	0.28
0.00	0.27	0.53	1.16	2.23	6.57	13.71	17.65	13.93	6.92	2.44	1.25	0.58	0.30
-1.00	0.27	0.50	1.06	1.98	4.75	9.93	13.89	10.13	4.96	2.07	1.08	0.50	0.27
-2.00	0.23	0.31	0.67	1.36	3.32	5.12	7.23	5.24	3.55	1.41	0.69	0.32	0.25
-3.00	0.15	0.32	0.60	0.83	1.54	2.30	2.81	2.40	1.61	0.92	0.64	0.34	0.15
-4.00	0.11	0.25	0.30	0.62	0.76	1.35	1.49	1.35	0.80	0.66	0.33	0.27	0.12
-5.00	0.12	0.13	0.26	0.39	0.42	0.68	0.73	0.69	0.44	0.42	0.27	0.14	0.13
-6.00	0.09	0.12	0.13	0.17	0.30	0.35	0.40	0.37	0.31	0.18	0.14	0.13	0.10
-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.): 17.7

All illuminance level values are in lux.

Illum. (Min.): 0.09

Illum. Avg.: 1.74

Total Optical Solution Provider

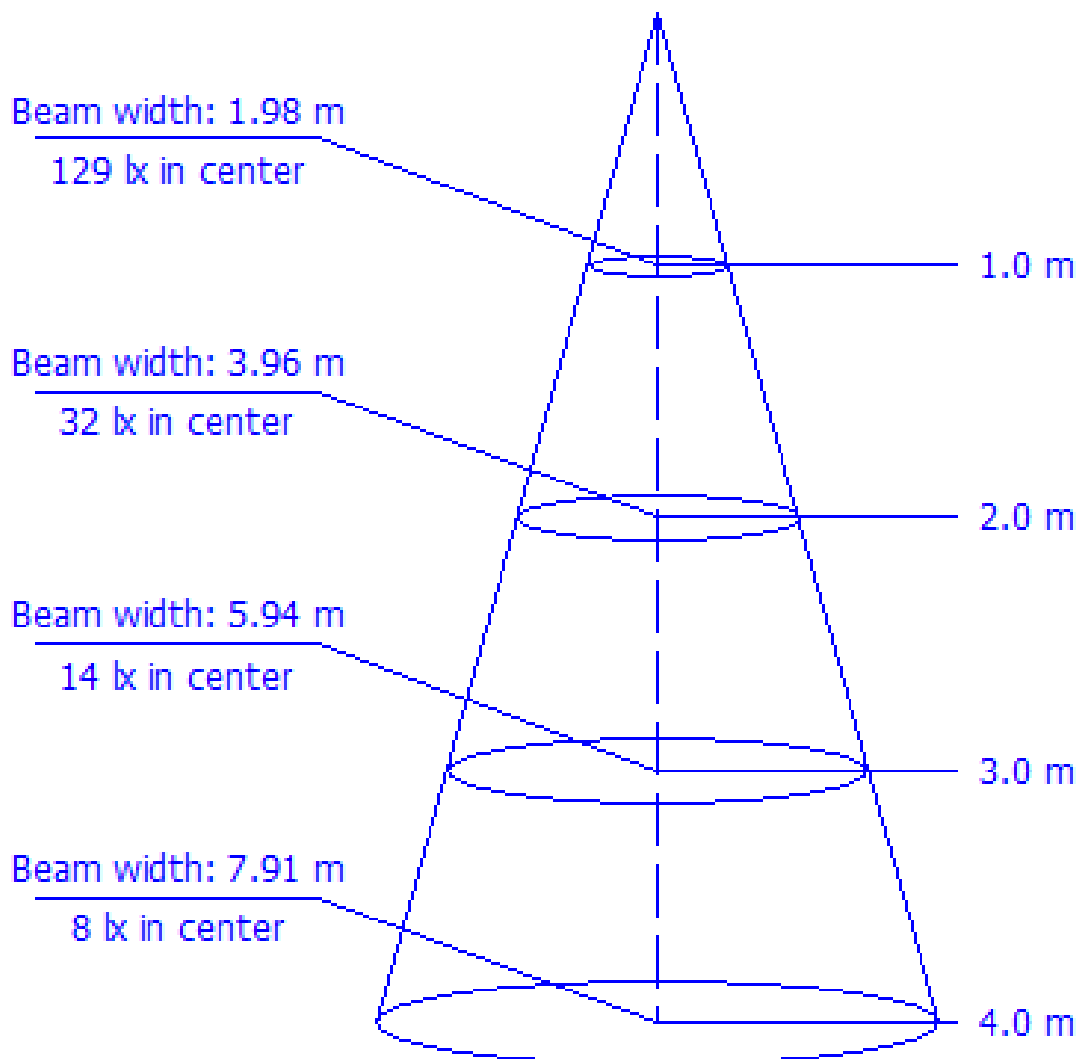


<http://www.jnctech.co.kr>
J & C Technology Co., Ltd.

Luminaire

Lamp		Report		20150408-0007
No. of lamps	1	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt	
Lamp flux (lm)	304	Operator	Current (A)	0.157
Total flux (lm)	304	Date	Power Factor	1
				2015-04-09 오전 11:41:05

Illuminance Cone Diagram



Beam Angle = 89 deg.

Based on 50% of maximum illuminance.

Luminaire

Lamp

Report

20150408-0007

No. of lamps	1	Voltage (V)	23.99
Lamp flux (lm)	304	Current (A)	0.157
Total flux (lm)	304	Power Factor	1

Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150408\NDV 4W 35K -1.jdt
Operator	
Date	2015-04-09 오전 11:41:05

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	1.16	1.16	1.16	1.13	1.13	1.13	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.97
Room CR 1	1.03	0.99	0.95	1.00	0.97	0.94	0.96	0.93	0.90	0.92	0.90	0.87	0.88	0.86	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	0.67	0.79	0.72	0.66	0.76	0.70	0.65	0.73	0.68	0.64	0.70	0.66	0.63	0.60
Room CR 4	0.72	0.64	0.58	0.71	0.63	0.57	0.68	0.61	0.56	0.66	0.60	0.55	0.63	0.59	0.55	0.53
Room CR 5	0.65	0.56	0.50	0.64	0.56	0.50	0.61	0.55	0.49	0.59	0.53	0.49	0.58	0.52	0.48	0.46
Room CR 6	0.59	0.50	0.44	0.58	0.50	0.44	0.56	0.49	0.44	0.54	0.48	0.43	0.53	0.47	0.43	0.41
Room CR 7	0.53	0.45	0.40	0.53	0.45	0.39	0.51	0.44	0.39	0.50	0.43	0.39	0.48	0.43	0.38	0.36
Room CR 8	0.49	0.41	0.36	0.48	0.41	0.35	0.47	0.40	0.35	0.46	0.39	0.35	0.45	0.39	0.35	0.33
Room CR 9	0.45	0.37	0.32	0.45	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.41	0.36	0.31	0.30
Room CR 10	0.42	0.34	0.29	0.41	0.34	0.29	0.40	0.34	0.29	0.39	0.33	0.29	0.38	0.33	0.29	0.27