

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 : 20150602

2. Purpose of Report : Sample test

3. Test Standard / Item : LED / NDV15 3K 5630 -1

4. Test Period : 20150602 ~ 20150602

5. Test Environment

Ambient Temp. : (26.05 +- 3) °C

Relative Humidity : (21.64 +- 10) % RH

6. Test Result : Refer to the attachment

Test Item

Name of Product :

Model / Rating :

Model :

Rating :

Confirmation	Test by	Technical manager
--------------	---------	-------------------

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

This report cannot be reproduced, except in full.

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
20150603-0002			LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.4330, 0.4001	
Correlated Color Temperature	K	3051	
Ra	-	84.26	
Power Factor	%	1.000	
Input Voltage	V	23.940	
Input Current	A	0.604	
Input Watt	W	14.46	
Lamp Flux	lm	1093	
Efficient	lm/W	75.59	
Illuminance	lx	449	1 m
		112	2 m
		50	3 m

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

Sample photo

Click to load image

Luminaire

Lamp

Report

20150603-0002

No. of lamps

1

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\W\NDV15 3K 5630 -1.jdt

Lamp flux (lm)

1093

Operator

Current (A)

0.604

Total flux (lm)

1093

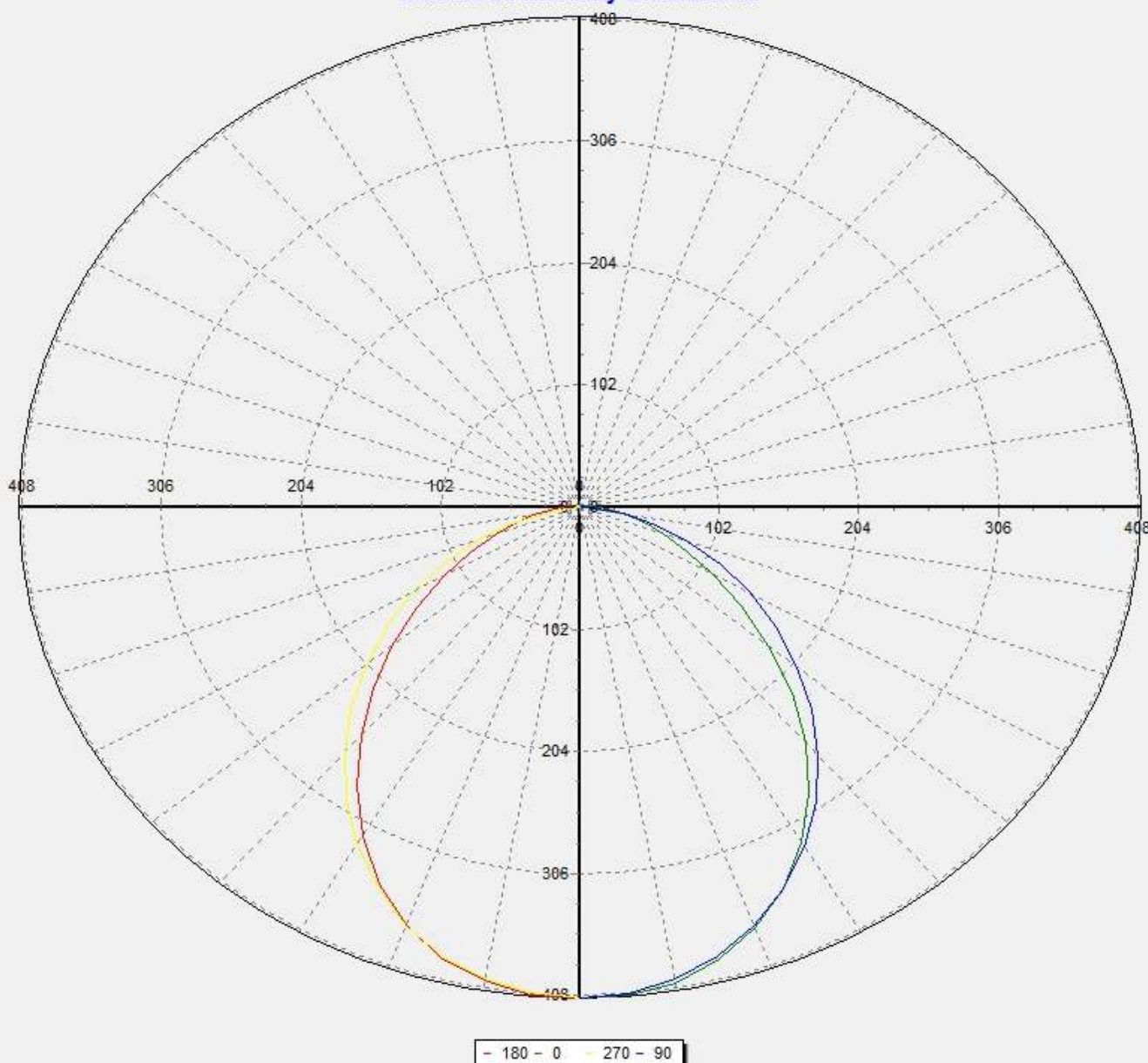
Date

Power Factor

1

2015-06-03 오후 4:30:18

Luminous Intensity Distribution



All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp

Report

20150603-0002

No. of lamps

1

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\WNDV15 3K 5630 -1.jdt

Lamp flux (lm)

1093

Operator

Current (A)

0.604

Total flux (lm)

1093

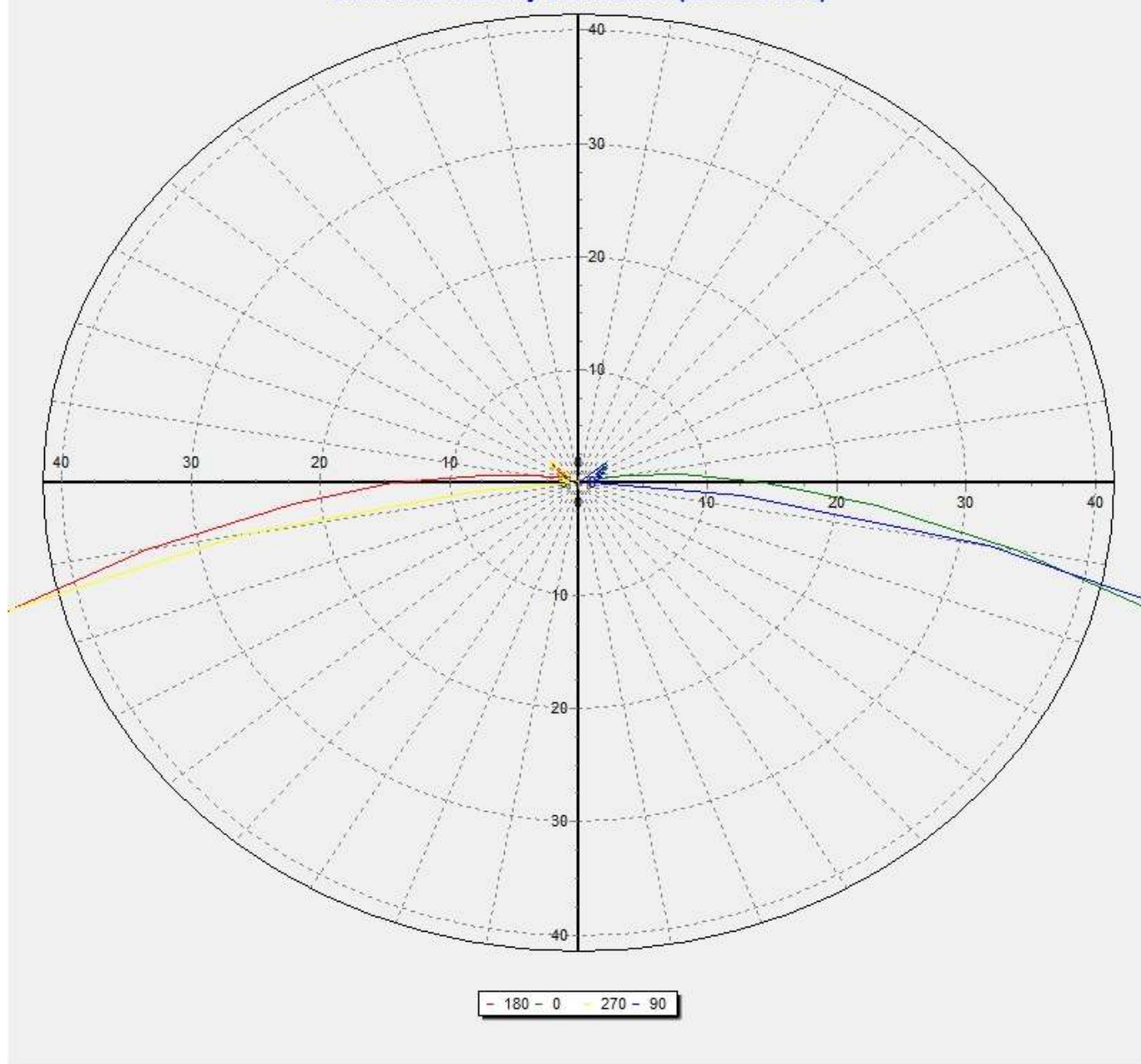
Date

Power Factor

1

2015-06-03 오후 4:30:18

Luminous Intensity Distribution (Lowest 10%)



All luminous intensity values are in Cd/Klm unit.

Luminaire

Lamp	Report				20150603-0002	
No. of lamps	1	Filename C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\W150602\WNDV15 3K 5630 -1.jdt				
Lamp flux (lm)	1093	Operator	Current (A)	0.604		
Total flux (lm)	1093	Date	Power Factor	12015-06-03 오후 4:30:18		

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120
0	448.68	449.03	448.38	448.88	448.69	447.83	448.39	448.17	447.90	448.60	448.56	448.95	448.87
5	447.85	446.83	446.60	446.20	445.84	445.75	446.52	446.05	445.25	446.34	445.67	446.30	446.91
10	441.27	440.16	439.20	438.70	439.41	437.85	438.02	437.66	438.32	438.15	439.56	438.66	440.03
15	428.31	427.30	426.97	426.43	425.93	425.82	426.05	425.67	425.64	424.59	425.64	426.38	427.31
20	409.20	407.47	408.28	407.54	408.18	407.56	408.42	407.75	408.05	407.26	408.18	408.77	411.28
25	384.32	381.86	382.57	381.85	384.64	384.05	385.48	384.67	385.42	384.62	386.81	387.14	388.73
30	353.17	350.96	352.38	352.73	355.01	355.98	358.14	357.86	359.34	358.23	359.60	360.18	361.97
35	318.59	317.00	318.25	318.89	322.20	323.45	327.60	328.08	329.27	328.76	330.74	330.05	331.57
40	280.99	279.41	281.90	282.68	286.92	288.77	293.26	294.50	296.76	295.77	297.17	297.05	297.28
45	240.39	238.42	243.07	244.87	250.56	252.36	257.25	259.40	263.20	261.69	263.54	262.06	261.35
50	196.99	195.98	200.85	205.25	212.09	215.22	221.13	223.56	226.35	226.87	227.73	225.41	224.40
55	157.15	156.02	160.71	165.54	173.39	179.17	185.64	187.67	191.58	191.44	192.71	190.50	188.21
60	122.55	122.51	126.32	131.29	138.14	144.13	150.54	152.88	156.75	157.24	157.78	155.30	154.15
65	95.61	94.35	98.36	101.27	107.28	111.59	117.96	120.38	122.60	123.82	124.97	122.50	121.80
70	70.91	71.03	73.48	76.05	80.04	84.01	88.17	89.94	92.11	92.03	92.49	91.92	92.26
75	52.89	52.73	54.55	55.11	57.88	58.70	61.76	62.58	62.96	62.76	63.80	63.84	65.20
80	37.53	37.50	38.05	37.82	38.83	38.56	39.61	37.46	36.48	35.20	37.91	39.01	42.03
85	25.34	25.54	26.20	24.94	24.54	22.97	21.21	17.95	14.88	13.78	15.62	19.10	22.90
90	15.71	16.39	15.14	14.63	13.36	11.27	9.26	5.36	3.40	1.20	3.05	6.35	10.08
95	8.75	8.52	7.98	6.89	5.66	4.54	2.58	1.14	0.67	0.79	0.89	1.53	3.66
100	4.19	3.73	4.31	2.29	2.65	2.12	1.26	1.68	0.72	1.59	1.27	1.43	1.83
105	1.78	1.04	1.54	1.59	1.31	1.40	1.53	1.23	0.78	1.97	0.75	1.65	1.37
110	1.51	1.83	1.37	1.85	1.31	1.94	2.23	1.50	1.57	1.71	1.49	2.13	2.11
115	1.86	2.08	2.45	2.12	2.10	1.53	2.28	1.85	2.59	2.43	2.42	2.24	2.63
120	2.77	2.61	2.25	1.98	2.74	2.24	2.34	2.33	2.76	1.69	2.53	2.54	3.17
125	2.26	2.67	2.87	2.39	2.38	2.52	2.21	2.87	2.88	3.01	3.10	2.12	3.34
130	2.93	2.89	2.52	2.88	2.83	3.28	2.81	2.60	2.25	2.79	2.80	2.65	3.83

Luminaire

Lamp	Report				20150603-0002
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\NDV15 3K 5630 -1.jdt			
Lamp flux (lm)	1093	Operator	Current (A)	0.604	
Total flux (lm)	1093	Date	Power Factor	1	2015-06-03 오후 4:30:18

Luminous Intensity Data (Continued)

GWC	130	140	150	160	170	180	190	200	210	220	230	240	250
0	448.64	448.63	448.20	448.11	448.21	448.68	449.03	448.38	448.88	448.69	447.83	448.39	448.17
5	446.41	446.79	446.64	447.77	446.97	447.07	445.92	446.43	445.56	445.18	445.71	446.28	445.82
10	439.68	441.22	441.05	441.06	441.61	439.53	439.35	439.10	439.51	439.06	438.50	438.16	437.94
15	428.31	430.06	429.19	431.04	429.96	427.02	426.90	426.85	427.30	426.10	426.19	424.72	424.93
20	411.28	412.80	412.45	413.48	412.30	406.58	407.24	406.93	408.12	407.73	408.57	407.51	406.67
25	389.22	390.28	388.64	389.00	387.88	379.66	380.61	380.75	382.79	383.17	385.49	384.74	385.01
30	360.98	360.88	358.75	359.23	357.47	347.22	348.70	348.53	352.65	353.79	357.12	356.36	358.23
35	328.57	328.47	324.96	324.01	321.48	310.26	313.36	313.66	317.71	319.23	323.65	325.42	326.98
40	294.01	291.83	287.22	287.61	284.29	272.17	274.47	274.83	280.24	282.36	287.41	289.77	292.95
45	256.50	254.41	249.73	248.81	246.98	233.95	237.65	237.65	242.02	243.79	250.27	252.73	257.00
50	219.39	217.70	212.86	211.56	209.45	197.38	199.83	201.93	205.86	207.96	213.06	216.14	220.57
55	183.33	182.27	178.43	175.49	171.82	159.30	162.23	163.58	169.51	173.27	177.71	179.10	184.82
60	150.31	148.78	143.01	139.97	136.51	125.29	127.87	129.66	135.43	138.93	143.74	145.43	149.04
65	119.62	115.76	110.18	108.10	105.30	96.11	97.96	98.69	104.05	107.59	112.91	113.74	116.41
70	90.44	87.72	83.35	81.91	79.60	71.23	73.46	73.90	77.64	79.18	83.19	84.10	85.43
75	63.79	63.50	60.43	59.07	57.90	52.26	53.00	53.84	54.37	56.23	57.98	57.17	57.22
80	42.12	42.86	42.53	42.94	42.35	37.22	37.75	37.86	38.06	37.97	37.46	34.65	32.89
85	24.85	27.94	27.68	28.80	28.72	24.30	25.78	25.41	24.89	22.95	20.96	18.39	14.85
90	13.12	15.71	17.06	18.24	18.22	15.75	16.12	14.96	13.89	11.99	9.86	7.33	3.97
95	5.93	7.74	8.62	9.66	10.28	7.97	8.26	7.61	6.53	4.61	3.42	0.97	1.87
100	1.69	3.11	2.89	5.41	5.24	3.81	3.75	3.40	2.28	2.41	1.55	1.43	1.29
105	1.63	0.72	1.59	1.87	2.58	2.22	2.14	1.39	1.49	1.50	1.24	1.13	1.89
110	2.31	1.82	1.05	1.85	1.96	1.34	1.15	2.54	2.31	1.77	1.42	1.94	1.81
115	2.12	2.40	1.08	1.35	1.65	2.04	1.92	1.14	1.35	1.52	1.49	1.76	1.70
120	2.35	2.62	1.88	1.94	2.53	1.18	1.88	2.38	2.04	2.32	2.33	1.91	1.94
125	1.95	2.48	2.53	2.68	2.39	2.48	2.21	2.78	1.67	2.41	2.75	2.83	2.43
130	3.48	3.02	2.64	3.41	3.38	2.84	2.21	2.53	2.76	3.15	2.08	3.02	2.72

Luminaire

Lamp	Report				20150603-0002
No. of lamps	1	Filename C:\Program Files\WJNCTECH\GoniLED\StartUp\Data\W150602\WNDV15 3K 5630 -1.jdt			
Lamp flux (lm)	1093	Operator	Current (A)	0.604	
Total flux (lm)	1093	Date	Power Factor	1	2015-06-03 오후 4:30:18

Luminous Intensity Data (Continued)

GWC	260	270	280	290	300	310	320	330	340	350	360
0	447.90	448.60	448.56	448.95	448.87	448.64	448.63	448.20	448.11	448.21	448.68
5	445.49	445.22	445.81	445.89	446.43	446.02	445.80	445.78	445.72	445.10	447.85
10	437.92	437.68	437.65	438.18	437.88	438.46	437.60	438.08	437.13	436.65	441.27
15	424.21	424.73	423.91	425.50	424.53	424.87	423.92	423.58	422.44	422.06	428.31
20	406.09	406.93	405.84	407.16	406.22	405.53	403.76	403.36	401.43	400.88	409.20
25	383.04	383.41	382.44	383.37	382.37	381.53	378.85	377.38	374.40	373.17	384.32
30	355.95	356.10	355.14	356.22	354.22	352.43	348.51	346.54	343.38	341.90	353.17
35	325.64	326.19	324.79	325.25	321.79	319.07	313.75	312.01	307.71	306.32	318.59
40	292.58	293.06	291.09	291.19	286.40	283.24	277.09	274.81	270.26	267.85	280.99
45	256.77	258.30	256.26	255.50	249.05	246.42	240.04	236.10	229.23	226.89	240.39
50	220.86	221.85	220.06	218.66	212.81	209.73	201.56	195.32	187.60	183.55	196.99
55	185.21	186.50	184.33	181.88	177.51	172.55	162.76	156.88	149.32	146.17	157.15
60	150.70	151.33	149.44	146.89	141.88	136.63	128.32	121.94	116.77	113.78	122.55
65	115.77	117.48	115.35	114.66	109.50	105.60	98.18	94.19	89.51	87.40	95.61
70	84.77	85.52	83.41	83.38	79.93	77.51	73.09	70.36	66.98	65.81	70.91
75	56.21	56.05	54.64	55.43	54.18	53.81	51.21	50.22	47.98	47.43	52.89
80	30.26	28.69	29.40	31.86	32.49	33.97	35.09	34.05	33.94	33.80	37.53
85	10.59	8.76	10.28	13.62	16.86	19.65	19.84	21.02	21.93	22.40	25.34
90	1.12	0.44	1.29	4.00	6.31	9.50	9.59	12.23	12.48	13.81	15.71
95	0.62	1.55	1.05	1.24	0.81	2.86	3.26	5.37	6.86	6.92	8.75
100	1.33	0.83	1.52	1.76	1.13	0.90	1.58	1.83	2.66	2.09	4.19
105	1.56	1.69	1.02	1.67	1.44	1.39	1.52	1.11	1.19	1.80	1.78
110	1.79	1.34	1.55	1.72	1.62	1.80	1.96	2.21	2.10	1.89	1.51
115	1.94	1.82	1.83	1.94	1.84	2.39	1.76	2.33	1.59	2.16	1.86
120	2.53	2.13	2.10	1.72	2.37	2.31	2.32	2.67	1.73	2.36	2.77
125	2.25	2.73	2.50	2.66	2.38	2.06	3.03	2.77	2.12	2.97	2.26
130	2.48	3.13	2.50	2.81	3.09	2.69	3.08	2.55	2.80	2.39	2.93

Luminaire

Lamp	Report				20150603-0002
No. of lamps	1	Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\WNDV15 3K 5630 -1.jdt			
Lamp flux (lm)	1093	Operator	Current (A)	0.604	
Total flux (lm)	1093	Date	Power Factor	1	2015-06-03 오후 4:30:18

Luminous Flux Table

Total Lamp Lumens: 1093
 Luminaire Efficiency (lm/W): 1092.96
 CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	2.68	2.68	0.25	0.25
5	21.31	24.00	2.20	2.20
10	41.77	65.77	6.02	6.02
15	60.45	126.22	11.55	11.55
20	76.43	202.66	18.54	18.54
25	88.86	291.52	26.67	26.67
30	97.19	388.70	35.56	35.56
35	101.17	489.88	44.82	44.82
40	100.80	590.68	54.04	54.04
45	96.51	687.19	62.87	62.87
50	88.73	775.92	70.99	70.99
55	78.37	854.29	78.16	78.16
60	66.47	920.77	84.24	84.25
65	54.05	974.81	89.19	89.19
70	41.73	1016.54	93.00	93.01
75	30.13	1046.67	95.76	95.77
80	19.89	1066.56	97.58	97.58
85	11.46	1078.02	98.63	98.63
90	5.67	1083.68	99.15	99.15
95	2.54	1086.22	99.38	99.38
100	1.24	1087.47	99.49	99.50
105	0.79	1088.26	99.57	99.57
110	0.91	1089.17	99.65	99.65
115	0.96	1090.13	99.74	99.74
120	1.07	1091.21	99.84	99.84
125	1.14	1092.35	99.94	99.94
130	0.60	1092.96	100.00	100.00

Luminaire

Lamp

Report

20150603-0002

No. of lamps

1

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\WNDV15 3K 5630 -1.jdt

Lamp flux (lm)

1093

Operator

Current (A)

0.604

Total flux (lm)

1093

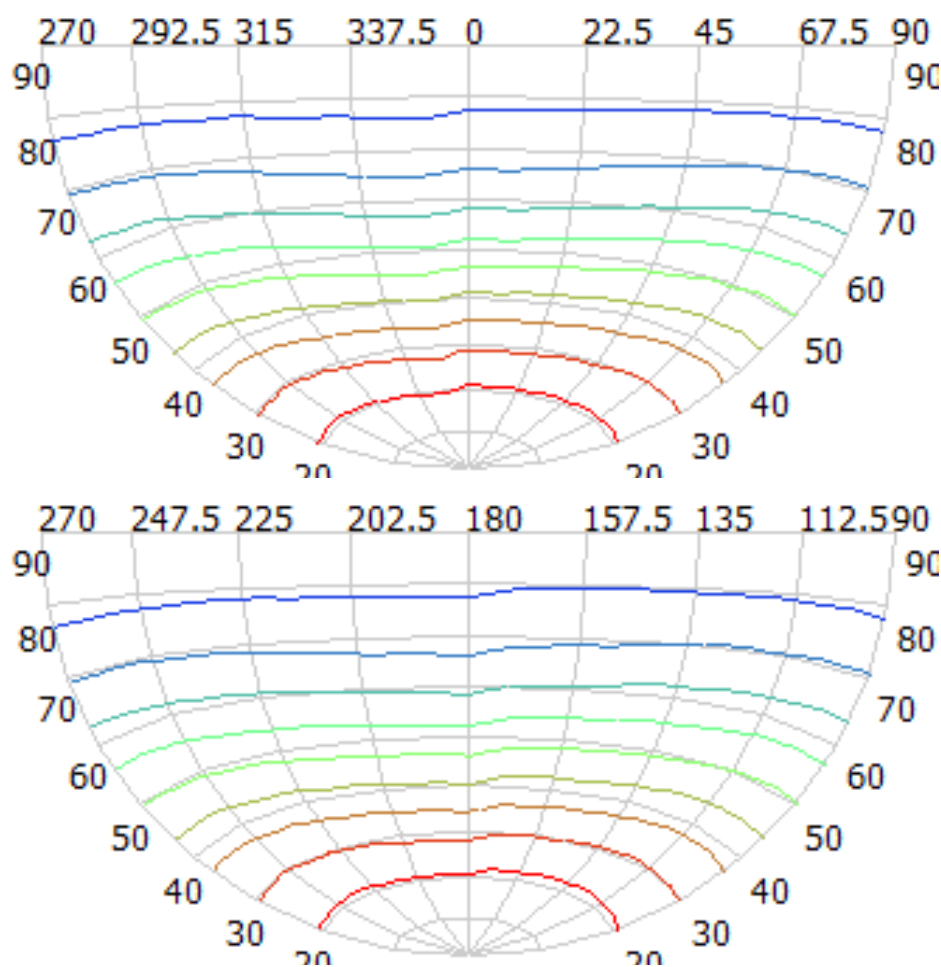
Date

Power Factor

1

2015-06-03 오후 4:30:18

IsoCandela (Type C)



Luminaire

Lamp

Report

20150603-0002

No. of lamps

1

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\W\NDV15 3K 5630 -1.jdt

Lamp flux (lm)

1093

Operator

Current (A)

0.604

Total flux (lm)

1093

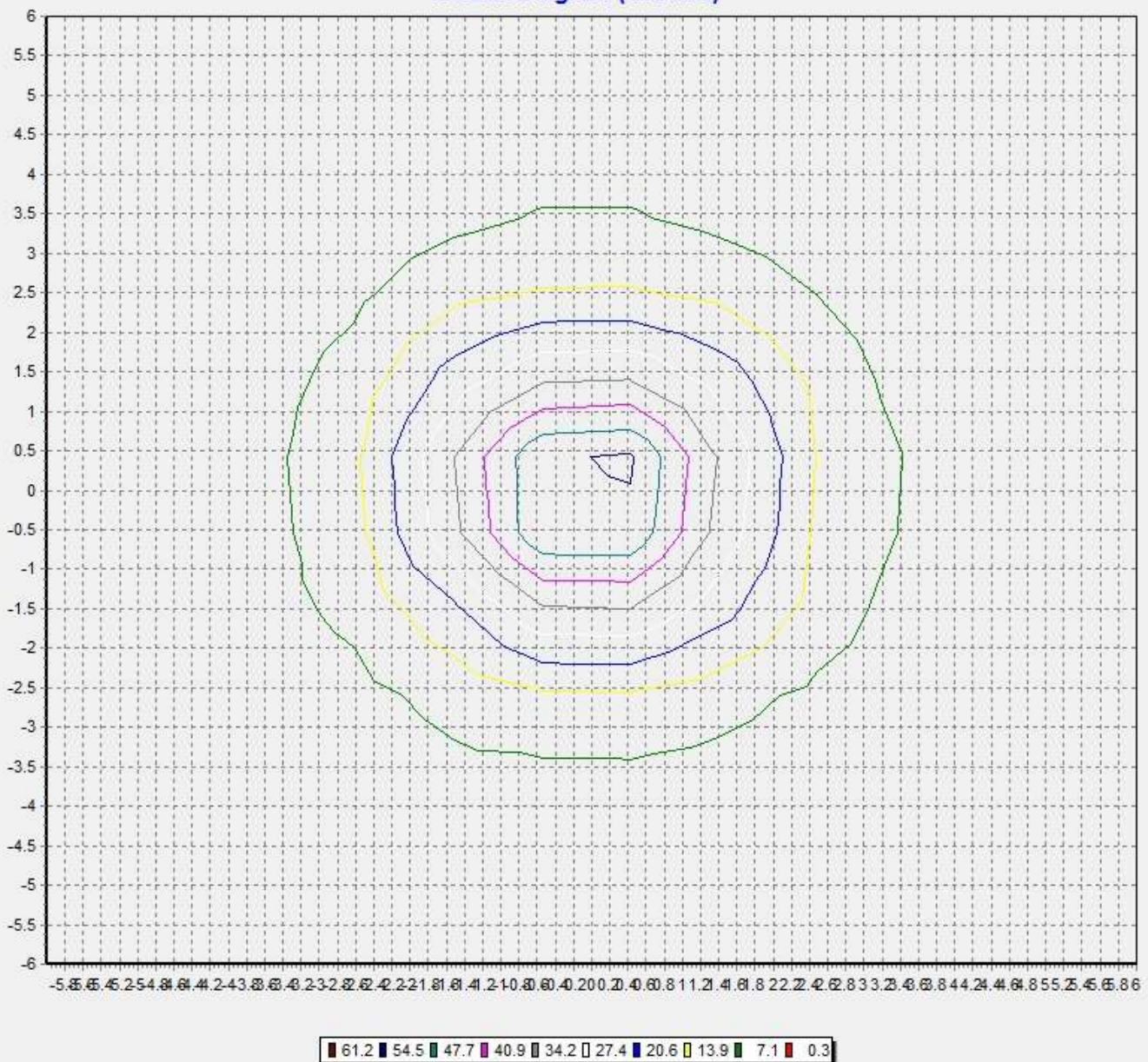
Date

Power Factor

1

2015-06-03 오후 4:30:18

IsoLux Diagram (Ground)



Pole Height (m): 2.7

Area Width (m): 12

Luminaire

Lamp

Report

20150603-0002

No. of lamps

1

Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\W150602\WNDV15 3K 5630 -1.jdt

Lamp flux (lm)

1093

Operator

Current (A)

0.604

Total flux (lm)

1093

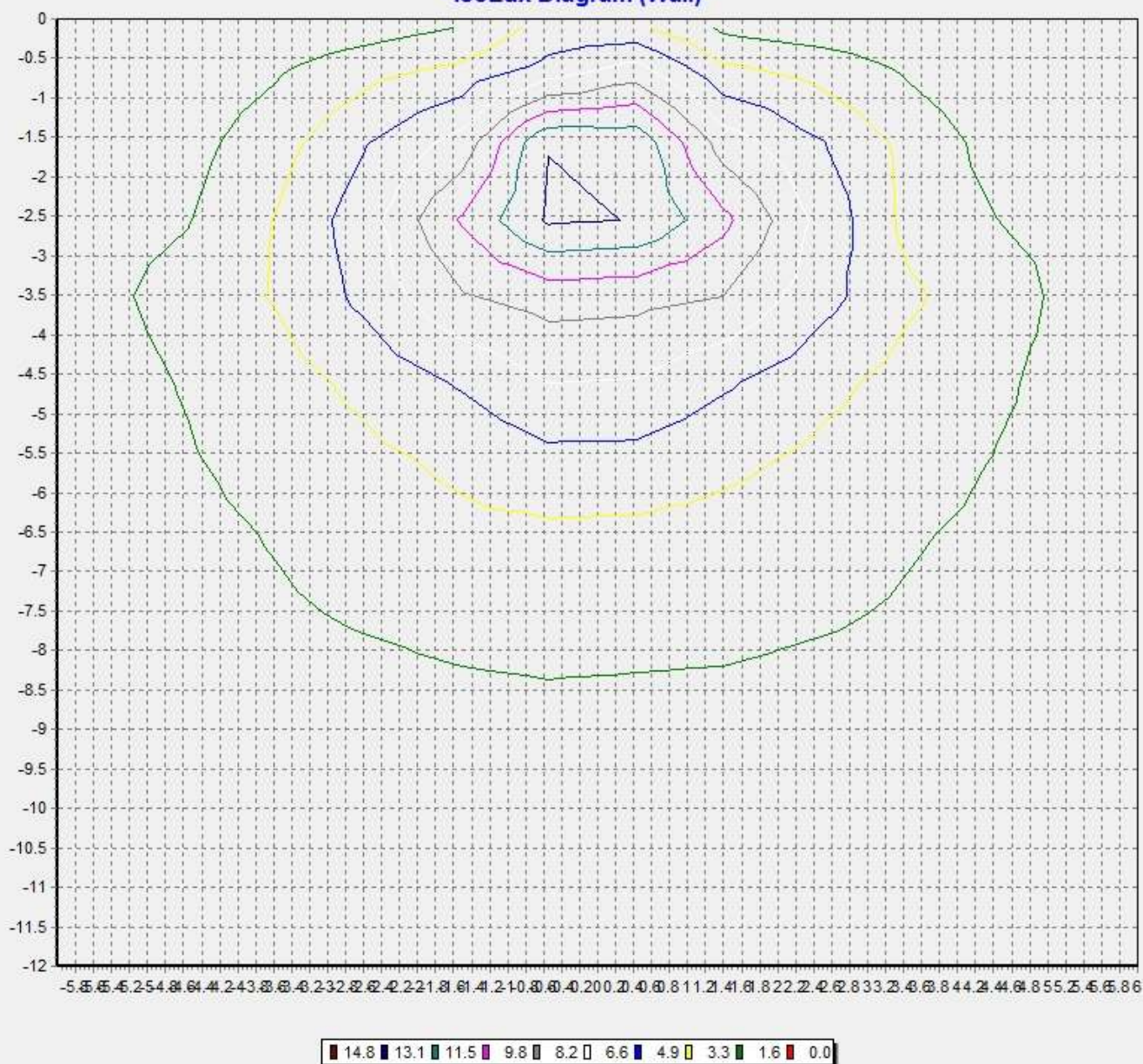
Date

Power Factor

1

2015-06-03 오후 4:30:18

IsoLux Diagram (Wall)



Pole Height (m): 2.7

Wall Distance (m): 2.7

Aiming Plane: 0

Wall Height (m): 12

Luminaire

Lamp

Report

20150603-0002

No. of lamps 1 Voltage (V) 23.94

Filename C:\Program Files\WJNCTECH\GoniLED\Startup\Data\150602\WNDV15 3K 5630 -1.jdt

Lamp flux (lm) 1093 Current (A) 0.604

Operator

Total flux (lm) 1093 Power Factor 1

Date

2015-06-03 오후 4:30:18

Illuminance Levels (Ground)

6.00	0.41	0.55	0.56	0.74	1.19	1.38	1.44	1.34	1.15	0.69	0.53	0.49	0.35
5.00	0.55	0.60	1.11	1.57	1.67	2.49	2.65	2.48	1.61	1.52	1.01	0.52	0.49
4.00	0.52	1.10	1.36	2.56	3.07	4.84	5.28	4.80	2.92	2.41	1.18	1.00	0.46
3.00	0.69	1.45	2.53	3.58	5.98	8.61	9.88	8.45	5.80	3.22	2.35	1.28	0.61
2.00	1.08	1.47	2.93	5.69	12.91	18.78	24.86	18.35	12.42	5.23	2.60	1.29	0.96
1.00	1.22	2.21	4.45	8.12	18.36	35.70	47.90	35.06	17.87	7.67	4.11	2.00	1.07
0.00	1.14	2.18	4.56	8.70	23.91	48.15	61.55	48.31	24.38	8.80	4.54	2.15	1.12
-1.00	1.11	2.04	4.17	7.70	17.62	35.02	47.91	34.98	17.49	7.44	3.87	1.87	1.02
-2.00	0.98	1.33	2.67	5.30	12.24	18.23	24.69	18.21	12.42	5.12	2.54	1.23	0.92
-3.00	0.62	1.32	2.37	3.27	5.67	8.28	9.71	8.36	5.72	3.33	2.32	1.24	0.58
-4.00	0.46	1.01	1.20	2.41	2.88	4.69	5.16	4.70	2.87	2.39	1.21	0.98	0.44
-5.00	0.49	0.52	1.02	1.47	1.56	2.40	2.58	2.41	1.56	1.48	1.00	0.52	0.48
-6.00	0.36	0.49	0.51	0.68	1.11	1.30	1.38	1.30	1.12	0.66	0.50	0.48	0.36
-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.): 61.5

All illuminance level values are in lux.

Illum. (Min.): 0.35

Illum. Avg.: 6.20

Total Optical Solution Provider


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

Luminaire

Lamp

Report

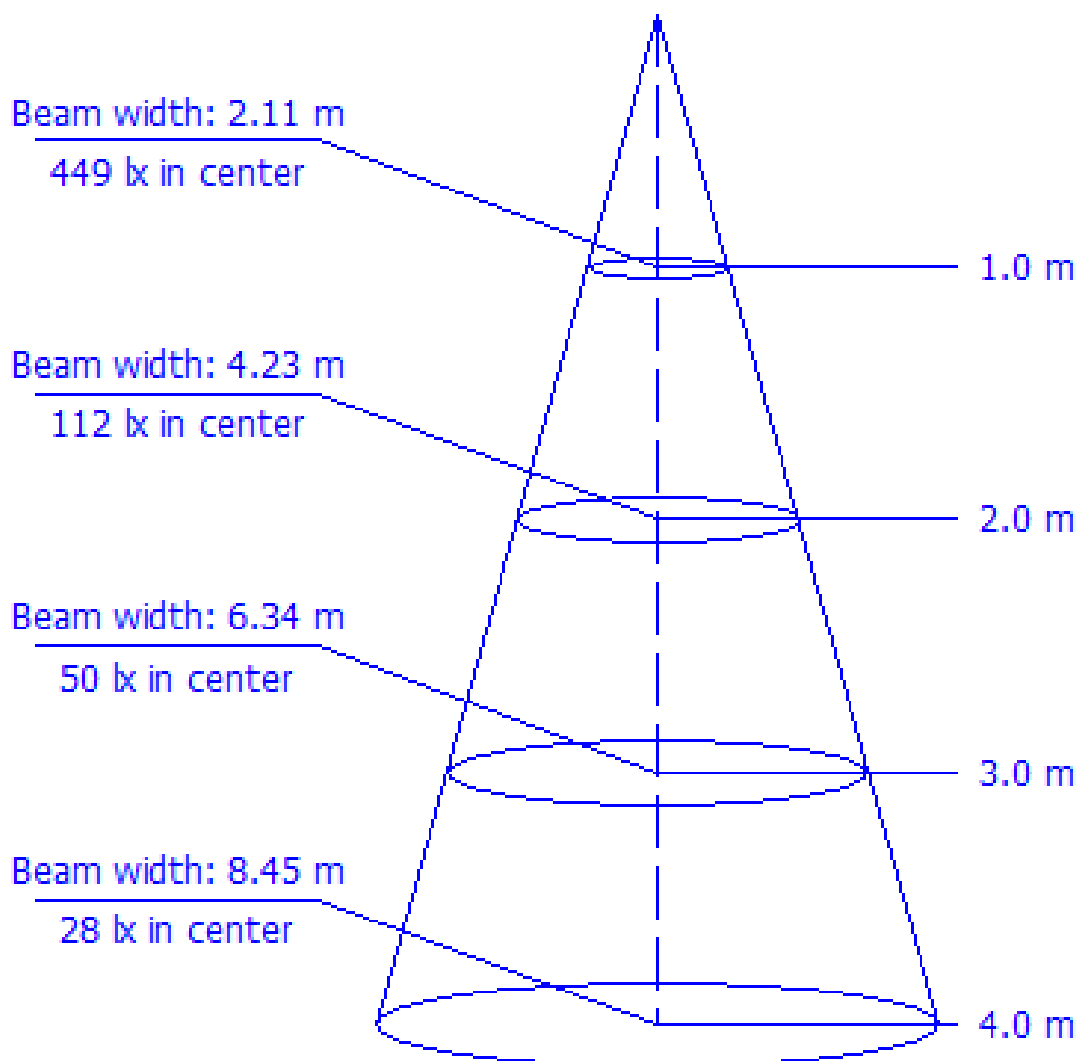
20150603-0002

No. of lamps 1 Filename C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\W\NDV15 3K 5630 -1.jdt

Lamp flux (lm) 1093 Operator Current (A) 0.604

Total flux (lm) 1093 Date Power Factor 1

2015-06-03 오후 4:30:18

Illuminance Cone Diagram

Beam Angle = 93 deg.

Based on 50% of maximum illuminance.

Luminaire

Lamp

Report

20150603-0002

No. of lamps	1	Voltage (V)	23.94	Filename	C:\Program Files\JNCTECH\GoniLED\StartUp\Data\150602\WNDV15 3K 5630 -1.jdt
Lamp flux (lm)	1093	Current (A)	0.604	Operator	
Total flux (lm)	1093	Power Factor	1	Date	2015-06-03 오후 4:30:18

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	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.98	
Room CR 1	1.03	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	0.64	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	0.50	0.61	0.54	0.49	0.59	0.53	0.48	0.57	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	0.43	0.54	0.48	0.43	0.52	0.47	0.42	0.40	
Room CR 7	0.53	0.45	0.39	0.52	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	