

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 : 20150820

2. Purpose of Report : Sample test

3. Test Standard / Item : LED / NDV4 30K-24V -1 DJ1505 VER1.0

4. Test Period : 20150820 ~ 20150820

5. Test Environment

Ambient Temp. : (25.96 +- 3) °C

Relative Humidity : (72.91 +- 10) % RH

6. Test Result : Refer to the attachment

Test Item

Name of Product :

Model / Rating :

Model :

Rating :

Confirmation	Test by Jincheol, Kim	Technical manager Soobeom, Park
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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
20150820-0007			LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.4339, 0.4002	
Correlated Color Temperature	K	3036	
Ra	-	83.88	
Power Factor	%	1.000	
Input Voltage	V	23.990	
Input Current	A	0.152	
Input Watt	W	3.64	
Lamp Flux	lm	300.9	
Efficient	lm/W	82.52	
Illuminance	lx	134	1 m
		33	2 m
		15	3 m

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

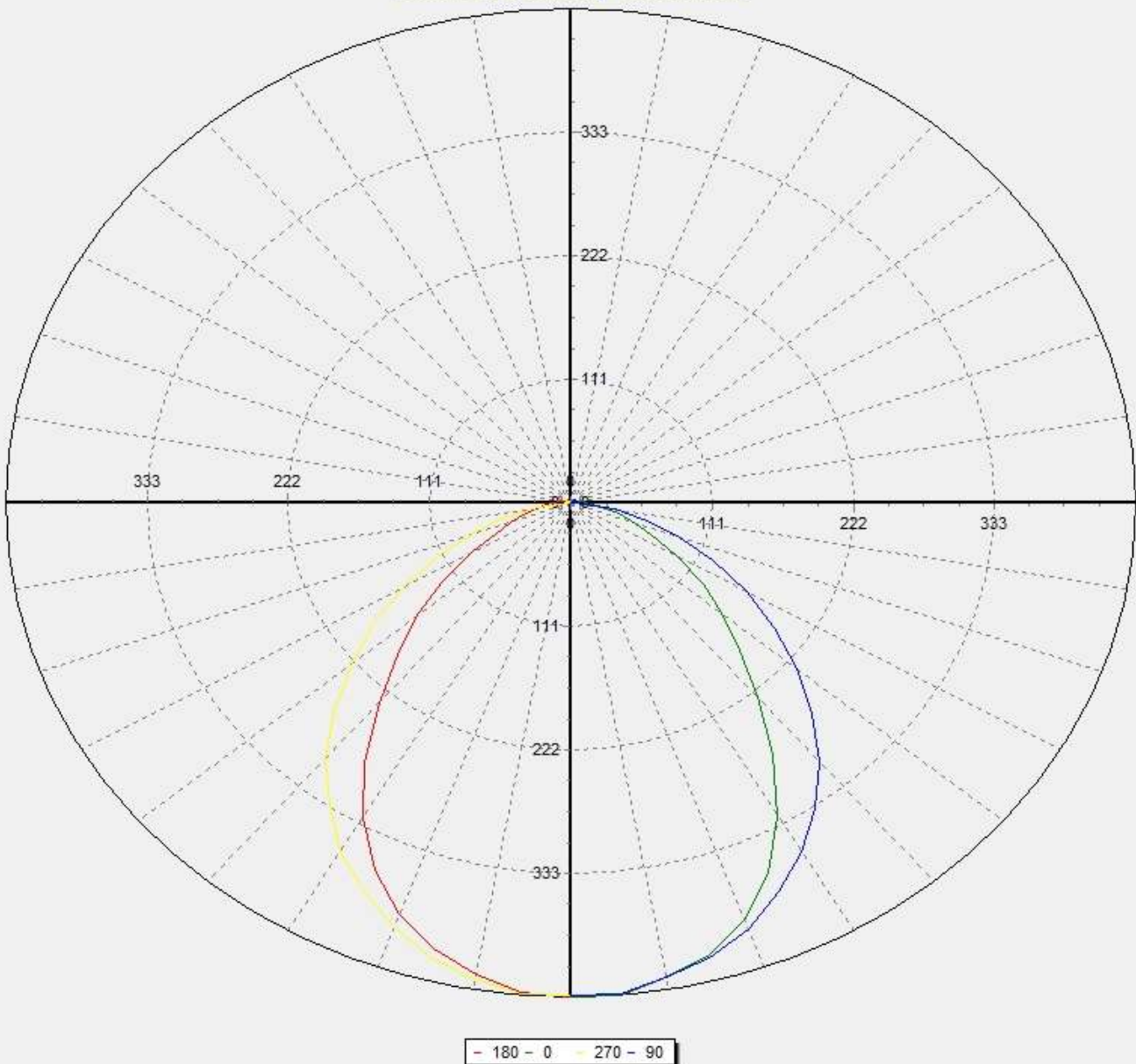
Sample photo

Click to load image

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

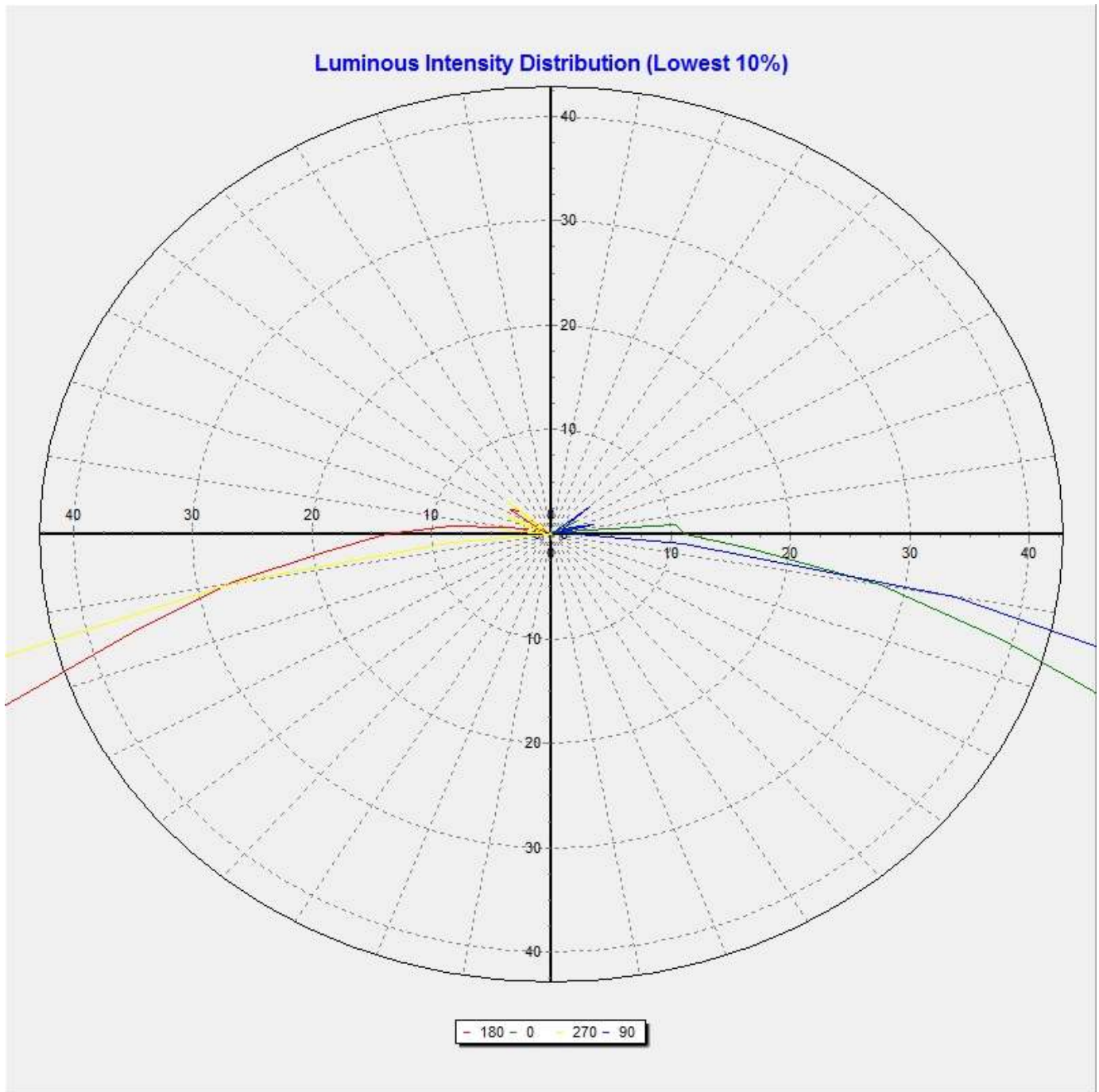
Luminous Intensity Distribution



All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
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All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120
0	133.44	133.78	133.48	132.98	133.01	132.92	134.14	132.65	133.12	133.03	133.95	133.46	133.29
5	133.56	132.46	133.21	133.07	132.59	132.83	132.92	132.29	132.60	133.17	132.49	133.54	132.82
10	130.13	130.36	130.85	130.69	130.75	131.14	129.86	130.70	130.44	130.15	129.66	130.57	131.01
15	126.56	126.37	126.02	125.90	127.13	126.78	126.96	127.02	127.37	127.26	127.41	127.12	127.08
20	119.99	119.63	120.13	119.73	120.59	122.01	123.27	122.32	122.14	122.74	123.22	121.84	123.28
25	110.66	109.98	110.53	111.07	112.52	114.56	115.07	115.73	116.72	115.90	116.62	116.29	115.43
30	97.72	97.01	98.96	100.42	103.37	105.23	106.80	109.08	109.87	109.14	109.34	109.21	107.93
35	82.99	83.19	84.45	86.69	90.55	94.03	97.42	98.95	100.43	100.78	100.36	100.07	98.54
40	68.63	67.95	70.71	72.90	76.27	81.46	85.76	89.04	90.89	91.41	90.98	89.66	87.05
45	56.32	56.31	57.38	59.09	62.62	67.82	72.89	77.16	79.65	80.40	80.66	78.47	75.99
50	46.55	46.95	47.46	48.62	51.15	54.56	60.02	65.46	68.58	69.93	68.52	66.56	64.11
55	38.30	38.29	38.51	40.33	40.89	43.14	47.66	52.76	57.33	58.90	58.17	55.47	51.31
60	28.86	29.04	30.67	31.82	33.20	34.75	37.55	40.42	45.21	48.13	46.27	43.21	40.02
65	20.66	21.61	23.22	24.20	26.04	27.54	29.66	31.45	34.89	37.08	36.02	32.96	30.83
70	16.20	15.44	16.56	17.55	19.43	20.19	21.56	23.01	25.00	27.23	25.62	24.21	23.33
75	11.76	11.52	12.82	12.74	14.18	14.38	15.26	16.00	16.49	17.87	17.57	16.60	16.18
80	8.41	8.35	8.42	8.80	8.79	9.76	10.16	10.07	9.47	10.32	9.79	10.56	10.60
85	5.12	5.58	5.86	5.84	6.01	5.67	5.22	5.62	4.15	3.34	4.35	5.33	5.67
90	3.36	4.00	3.92	3.89	3.41	3.14	3.14	2.23	1.38	0.65	1.07	2.21	2.71
95	3.15	2.37	2.45	1.78	1.44	1.96	1.08	0.39	0.47	0.48	0.33	0.50	1.55
100	0.37	1.64	0.47	1.10	0.70	0.19	0.87	0.62	0.95	0.12	-0.09	0.48	0.43
105	0.71	0.46	-0.11	0.44	0.15	0.30	0.54	0.51	0.30	1.11	0.06	0.57	0.29
110	0.19	0.50	0.44	0.48	0.27	1.19	-0.22	0.33	0.64	0.52	1.17	0.98	1.27
115	-0.31	0.45	0.68	0.48	0.22	0.63	-0.11	-0.34	-0.18	0.29	0.44	0.41	0.87
120	0.72	0.34	0.41	0.91	0.83	0.31	0.41	-0.14	0.68	0.46	0.78	0.41	0.73
125	0.21	0.87	0.33	0.87	1.25	0.74	1.12	0.89	0.83	0.54	0.69	0.95	1.11
130	0.42	1.04	1.20	1.12	0.80	0.62	1.05	0.15	1.20	1.24	0.98	0.80	0.36

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

Luminous Intensity Data (Continued)

GWC	130	140	150	160	170	180	190	200	210	220	230	240	250
0	133.48	133.42	133.71	133.45	133.00	133.44	133.78	133.48	132.98	133.01	132.92	134.14	132.65
5	133.13	132.88	133.09	133.13	132.50	133.02	132.10	132.69	133.12	132.98	132.29	132.71	132.25
10	130.61	130.78	130.14	130.31	130.69	129.45	129.59	130.19	129.09	130.10	129.81	130.68	130.31
15	127.00	127.46	126.49	126.97	125.97	124.82	125.32	125.03	125.25	126.23	125.81	127.58	127.01
20	122.74	121.76	121.46	120.70	120.54	118.42	118.85	118.86	119.36	120.49	120.94	121.46	122.23
25	114.15	114.29	113.05	113.26	112.07	109.41	110.19	109.80	111.03	112.87	114.26	114.55	115.81
30	107.05	105.05	103.25	102.21	101.32	98.49	98.62	99.89	101.66	102.98	105.32	106.38	107.69
35	96.38	94.55	91.97	90.66	89.45	85.26	85.77	85.82	89.15	91.13	94.44	96.26	98.66
40	84.15	81.52	77.99	77.10	74.74	70.44	71.34	72.38	75.35	78.09	81.75	85.29	88.34
45	71.67	68.87	65.56	63.34	62.17	57.98	59.12	59.35	61.87	64.57	69.28	73.31	76.18
50	58.93	55.78	53.14	51.96	50.89	48.04	48.30	48.57	50.25	52.84	55.70	59.82	64.35
55	47.20	45.23	42.82	42.58	40.90	37.42	38.07	39.65	41.06	41.73	44.63	48.07	52.67
60	37.06	36.18	33.68	32.71	30.19	27.01	27.64	29.32	32.25	33.33	35.31	36.92	40.89
65	28.79	28.33	25.48	23.38	21.90	19.77	21.48	20.69	23.12	25.62	27.40	27.82	30.60
70	21.67	19.99	18.16	17.64	16.32	15.01	15.57	16.01	17.21	18.24	20.97	20.58	21.44
75	15.36	14.51	13.59	13.06	12.38	10.94	11.90	10.96	12.72	12.80	13.30	13.97	14.50
80	10.09	10.16	9.30	9.27	9.13	8.24	7.80	8.20	8.28	8.40	9.55	8.66	8.64
85	5.56	7.17	6.85	6.71	7.08	5.73	5.92	5.33	6.24	5.17	5.45	4.02	3.89
90	3.25	4.19	3.67	4.92	4.50	4.17	3.48	3.17	3.83	3.85	2.52	2.22	1.25
95	1.41	1.95	2.36	3.59	3.38	2.53	2.14	2.03	1.52	1.42	0.90	0.59	-0.17
100	0.96	1.13	1.08	1.59	1.00	1.24	1.52	0.58	0.46	0.62	0.53	0.23	0.68
105	1.20	0.20	0.17	0.99	0.64	0.59	0.80	0.39	0.70	-0.57	0.00	0.10	0.71
110	0.60	0.84	0.24	0.87	0.64	0.56	0.38	0.41	0.76	0.75	0.31	0.17	0.14
115	-0.24	0.46	1.12	0.65	0.45	0.15	0.37	0.13	0.26	0.52	0.75	0.64	0.66
120	0.19	1.11	0.79	0.09	0.77	0.47	0.48	0.31	0.13	0.96	-0.46	0.76	0.22
125	1.51	0.45	0.15	0.52	0.34	1.24	0.86	0.75	0.71	1.03	0.43	0.27	1.10
130	0.92	0.57	1.24	0.70	0.19	1.04	1.09	0.32	0.65	0.46	1.05	1.31	1.19

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

Luminous Intensity Data (Continued)

GWC	260	270	280	290	300	310	320	330	340	350	360
0	133.12	133.03	133.95	133.46	133.29	133.48	133.42	133.71	133.45	133.00	133.44
5	132.68	133.08	132.26	133.03	132.58	132.44	132.08	132.07	132.29	132.34	133.56
10	130.43	130.65	130.83	130.53	130.13	130.28	129.76	130.52	129.76	129.22	130.13
15	126.84	127.47	127.03	126.34	127.04	126.43	125.70	125.54	125.20	125.00	126.56
20	122.48	122.17	122.39	122.70	121.88	120.13	119.05	118.57	117.88	116.72	119.99
25	115.60	115.76	115.66	115.78	114.42	113.49	111.05	109.49	107.19	106.22	110.66
30	107.87	109.16	108.44	107.68	104.86	104.19	99.64	97.52	94.98	93.42	97.72
35	99.58	99.50	99.07	98.14	94.65	91.56	86.63	83.10	80.23	78.71	82.99
40	88.98	90.54	89.12	86.56	82.93	77.94	72.69	69.86	66.02	64.62	68.63
45	78.25	79.30	77.41	74.88	69.15	63.52	59.65	56.77	54.04	53.41	56.32
50	67.19	67.39	66.14	62.11	55.99	51.70	47.92	45.60	44.97	44.83	46.55
55	55.37	56.75	54.27	49.45	44.02	40.98	38.58	38.15	36.16	35.53	38.30
60	43.06	45.61	42.56	38.02	34.44	32.88	31.32	29.86	27.57	26.57	28.86
65	32.89	35.05	31.49	29.23	26.63	25.63	23.85	22.09	20.02	19.41	20.66
70	23.14	25.12	22.34	20.38	18.91	18.44	17.57	16.00	14.98	14.31	16.20
75	15.45	16.35	13.96	13.41	13.60	13.08	11.96	11.33	10.50	11.16	11.76
80	8.02	8.02	7.30	7.10	8.49	8.14	8.20	8.12	7.89	7.83	8.41
85	2.67	2.53	2.28	3.82	4.93	4.81	5.23	4.98	4.95	4.72	5.12
90	0.47	-0.48	0.20	0.78	1.37	2.81	3.23	3.20	3.15	3.66	3.36
95	-0.16	1.25	-0.01	0.45	0.91	1.51	1.79	1.43	1.77	1.81	3.15
100	0.74	0.33	0.00	0.55	0.37	0.03	0.78	0.56	1.03	0.98	0.37
105	0.50	0.16	0.72	0.29	0.85	0.04	1.10	0.36	0.68	0.78	0.71
110	1.06	0.77	0.06	-0.13	0.88	0.73	0.91	0.46	0.22	0.20	0.19
115	0.58	1.25	0.81	0.55	1.35	0.19	0.49	0.43	0.27	-0.23	-0.31
120	0.60	0.30	0.82	0.64	0.88	0.80	0.01	0.50	0.48	0.21	0.72
125	0.87	0.24	0.55	-0.04	0.51	1.06	0.73	0.79	0.57	0.53	0.21
130	0.60	1.45	0.71	0.54	0.54	0.20	0.74	0.37	1.01	1.35	0.42

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

Luminous Flux Table

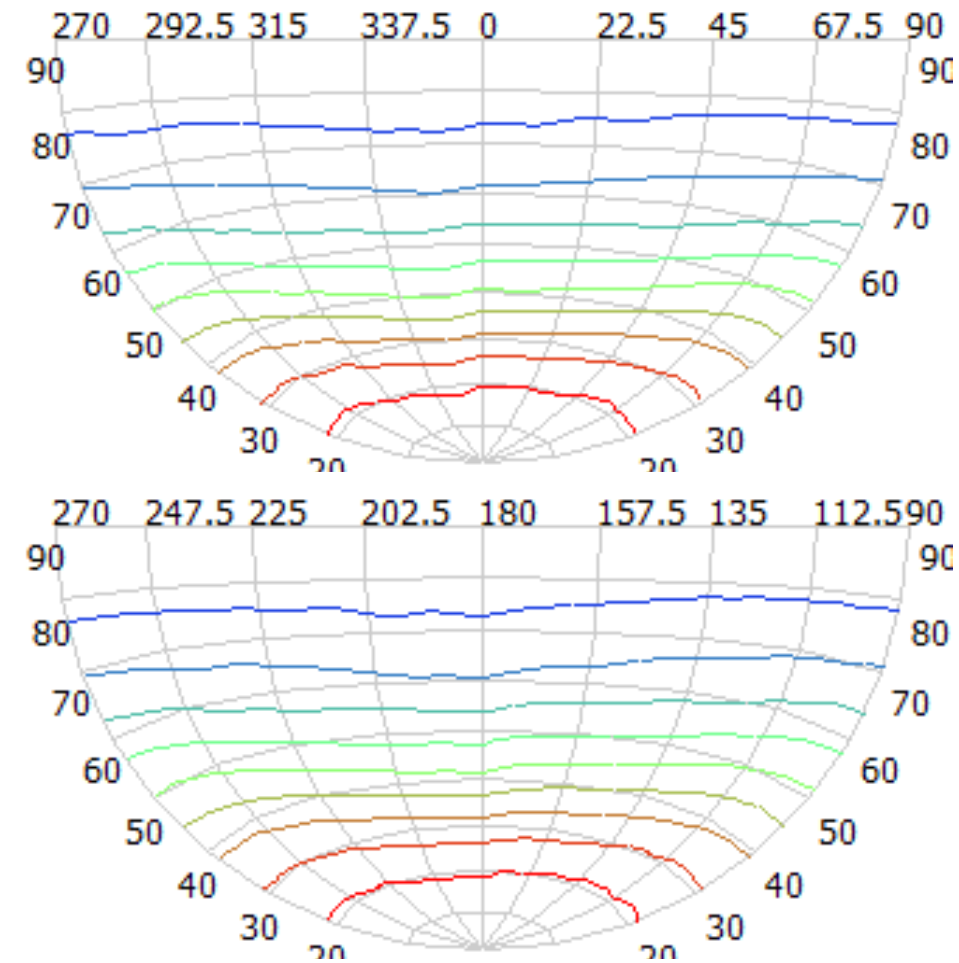
Total Lamp Lumens: 301
 Luminaire Efficiency (lm/W):300.93
 CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	0.80	0.80	0.27	0.26
5	6.34	7.14	2.37	2.37
10	12.40	19.54	6.49	6.49
15	17.94	37.48	12.46	12.45
20	22.67	60.15	19.99	19.99
25	26.19	86.34	28.69	28.69
30	28.41	114.75	38.14	38.13
35	28.99	143.74	47.77	47.76
40	28.09	171.83	57.11	57.10
45	26.10	197.93	65.78	65.77
50	23.45	221.39	73.57	73.57
55	20.36	241.75	80.34	80.33
60	16.79	258.54	85.92	85.91
65	13.34	271.88	90.36	90.35
70	10.09	281.97	93.71	93.70
75	7.27	289.24	96.12	96.11
80	4.77	294.01	97.71	97.70
85	2.79	296.80	98.64	98.63
90	1.50	298.30	99.14	99.13
95	0.79	299.10	99.40	99.39
100	0.37	299.47	99.52	99.51
105	0.25	299.71	99.61	99.60
110	0.28	299.99	99.70	99.69
115	0.21	300.20	99.77	99.76
120	0.24	300.44	99.85	99.84
125	0.32	300.76	99.95	99.94
130	0.17	300.93	100.01	100.00

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

IsoCandela (Type C)



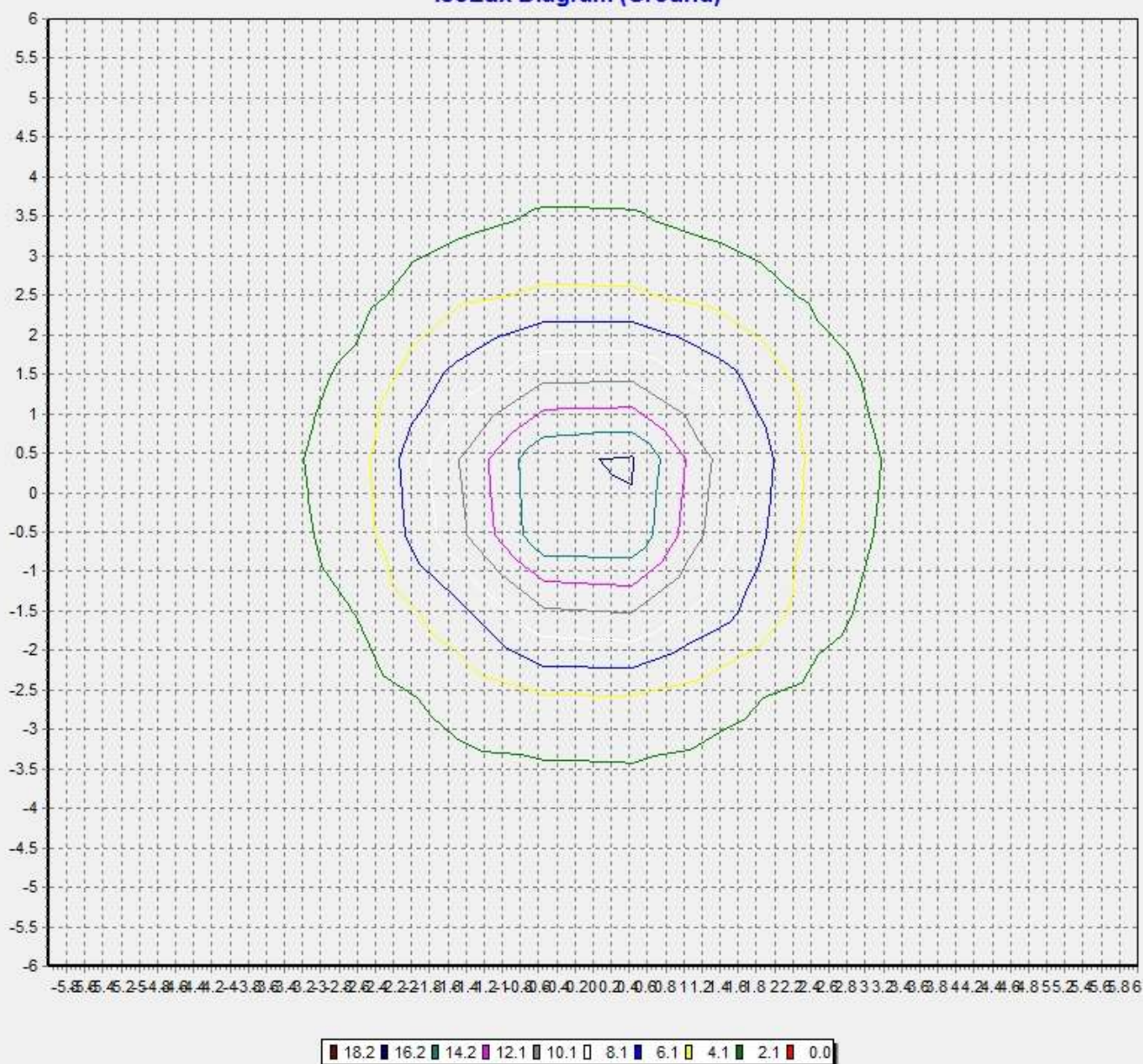
	-1 ~ 13		67 ~ 80
	13 ~ 26		80 ~ 94
	26 ~ 40		94 ~ 107
	40 ~ 53		107 ~ 121
	53 ~ 67		121 ~ 134

Luminaire

Lamp	Report	20150820-0007		
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	

2015-08-20 오후 4:30:25

IsoLux Diagram (Ground)



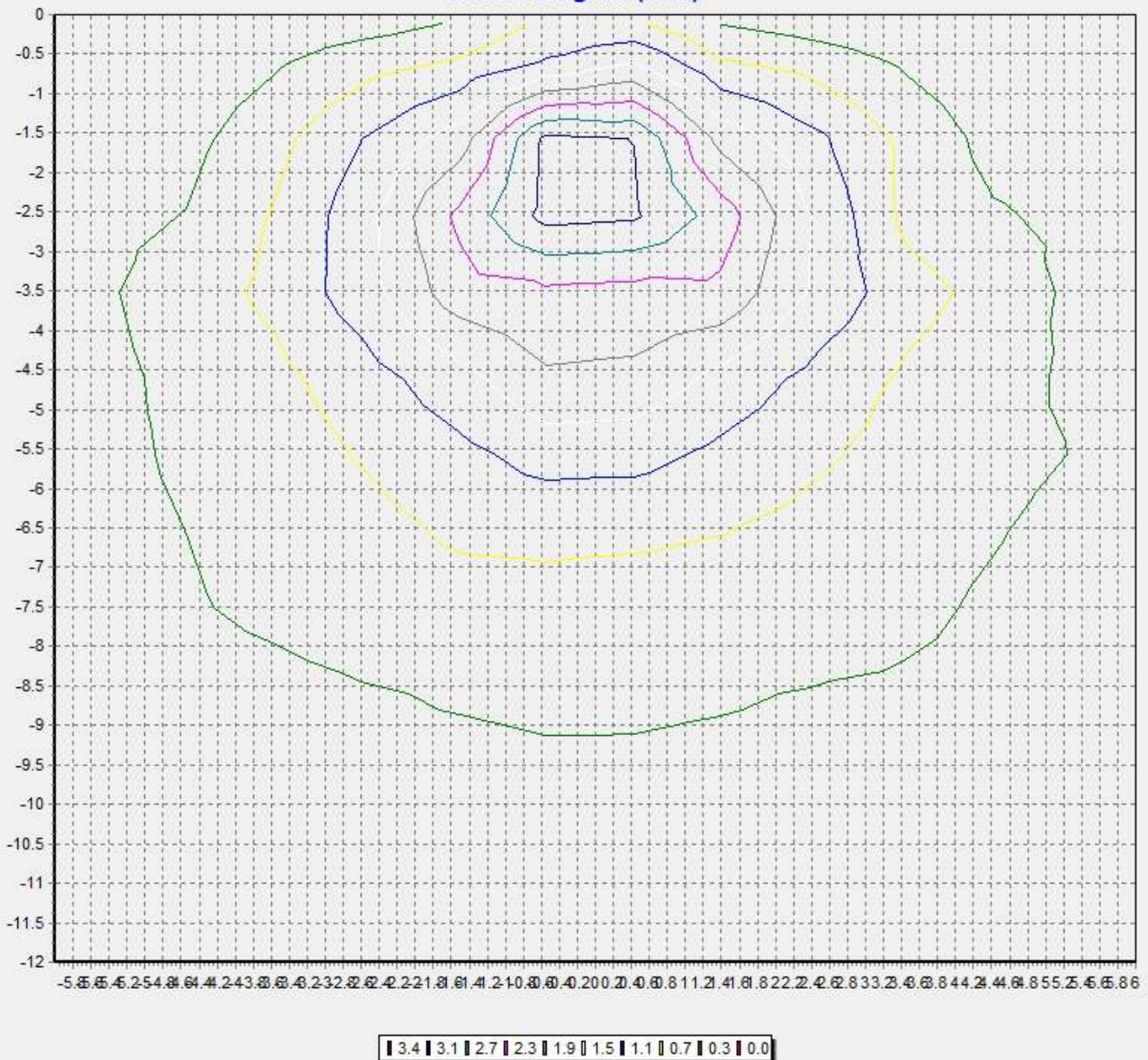
Pole Height (m): 2.7

Area Width (m): 12

Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

IsoLux Diagram (Wall)



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

Luminaire

Lamp

Report

20150820-0007

No. of lamps	1	Voltage (V)	23.99	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt
Lamp flux (lm)	301	Current (A)	0.152	Operator	
Total flux (lm)	301	Power Factor	1	Date	2015-08-20 오후 4:30:25

Illuminance Levels (Ground)

6.00	0.10	0.13	0.15	0.19	0.33	0.40	0.44	0.35	0.29	0.17	0.13	0.12	0.08
5.00	0.13	0.15	0.27	0.43	0.48	0.76	0.82	0.73	0.42	0.38	0.24	0.12	0.12
4.00	0.12	0.27	0.34	0.66	0.83	1.48	1.63	1.42	0.71	0.57	0.28	0.24	0.10
3.00	0.16	0.34	0.64	0.93	1.72	2.56	3.04	2.33	1.49	0.78	0.56	0.31	0.14
2.00	0.25	0.33	0.71	1.40	3.72	5.56	7.59	5.25	3.20	1.25	0.63	0.30	0.23
1.00	0.28	0.52	1.08	2.03	5.09	10.58	14.36	10.16	4.59	1.82	0.99	0.48	0.25
0.00	0.25	0.50	1.10	2.14	6.72	14.07	18.30	14.27	6.63	2.07	1.08	0.52	0.26
-1.00	0.24	0.47	1.00	1.86	4.72	10.19	14.38	10.39	4.56	1.75	0.94	0.45	0.24
-2.00	0.22	0.29	0.63	1.28	3.30	5.26	7.56	5.33	3.46	1.22	0.62	0.28	0.22
-3.00	0.14	0.30	0.57	0.79	1.51	2.32	2.96	2.40	1.54	0.81	0.55	0.30	0.14
-4.00	0.10	0.24	0.28	0.59	0.72	1.39	1.57	1.42	0.72	0.58	0.29	0.24	0.10
-5.00	0.12	0.12	0.24	0.37	0.41	0.70	0.78	0.73	0.43	0.38	0.24	0.12	0.12
-6.00	0.08	0.12	0.13	0.17	0.28	0.36	0.42	0.37	0.29	0.16	0.12	0.12	0.09
-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.): 18.3

All illuminance level values are in lux.

Illum. (Min.): 0.08

Illum. Avg.: 1.73

Total Optical Solution Provider

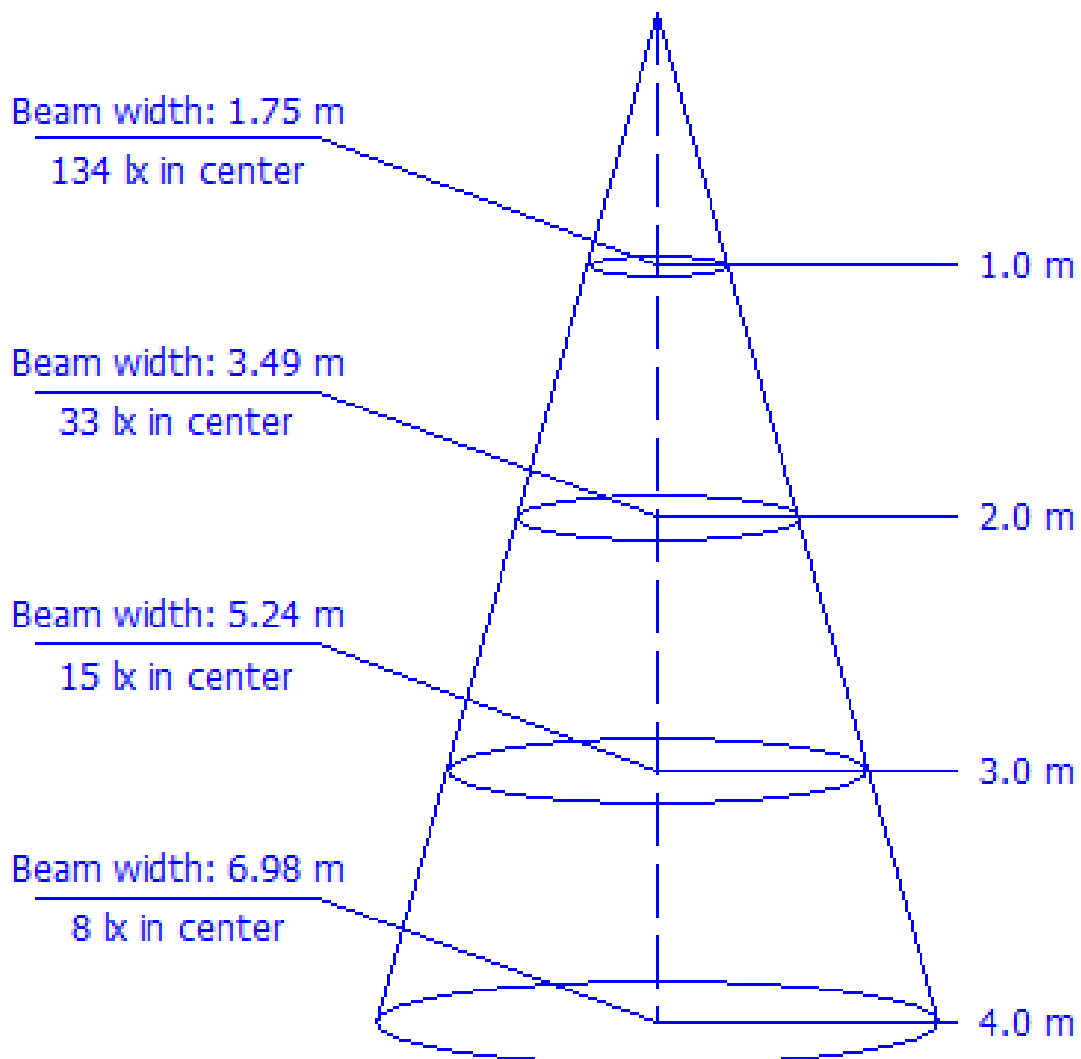


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Luminaire

Lamp	Report			20150820-0007
No. of lamps	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	Operator	Current (A)	0.152	
Total flux (lm)	Datel	Power Factor	1	2015-08-20 오후 4:30:25

Illuminance Cone Diagram



Beam Angle = 82 deg.

Based on 50% of maximum illuminance.

Luminaire

Lamp				Report		20150820-0007	
No. of lamps	1	Voltage (V)	23.99	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150820\NDV4 30K-24V -1 DJ1505 VER1.0.jdt			
Lamp flux (lm)	301	Current (A)	0.152	Operator			
Total flux (lm)	301	Power Factor	1	Date		2015-08-20 오후 4:30:25	

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		1.17	1.17	1.17	1.14	1.14	1.14	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.97
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	0.80	0.89	0.84	0.79	0.86	0.81	0.77	0.82	0.78	0.75	0.79	0.76	0.73	0.71
Room CR	3		0.81	0.74	0.68	0.80	0.73	0.67	0.77	0.71	0.66	0.74	0.69	0.65	0.71	0.67	0.63	0.61
Room CR	4		0.73	0.65	0.59	0.71	0.64	0.58	0.69	0.62	0.57	0.66	0.61	0.56	0.64	0.59	0.55	0.53
Room CR	5		0.66	0.57	0.51	0.64	0.57	0.51	0.62	0.55	0.50	0.60	0.54	0.50	0.58	0.53	0.49	0.47
Room CR	6		0.60	0.51	0.45	0.59	0.51	0.45	0.57	0.50	0.45	0.55	0.49	0.44	0.53	0.48	0.44	0.42
Room CR	7		0.54	0.46	0.40	0.54	0.46	0.40	0.52	0.45	0.40	0.50	0.44	0.40	0.49	0.43	0.39	0.37
Room CR	8		0.50	0.42	0.36	0.49	0.42	0.36	0.48	0.41	0.36	0.46	0.40	0.36	0.45	0.40	0.35	0.34
Room CR	9		0.46	0.38	0.33	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.33	0.42	0.36	0.32	0.31
Room CR	10		0.43	0.35	0.30	0.42	0.35	0.30	0.41	0.34	0.30	0.40	0.34	0.30	0.39	0.34	0.30	0.28