

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 : 20151202

2. Purpose of Report : Sample test

3. Test Standard / Item : LED / NDV3 40K -24V

4. Test Period : 20151202 ~ 20151202

5. Test Environment

Ambient Temp. : (24.03 +- 3) °C

Relative Humidity : (32.72 +- 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.

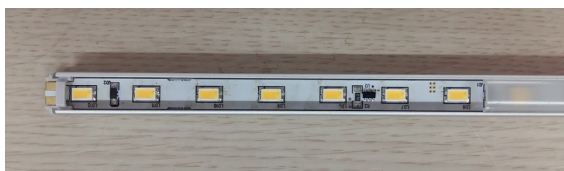
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TEST RESULT

Report Number	Sample Name	Sample Number	Test Standard
20151201-0010			LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.3829, 0.3770	
Correlated Color Temperature	K	3945	
Ra	-	84.42	
Power Factor	%	1.000	
Input Voltage	V	24.990	
Input Current	A	0.100	
Input Watt	W	2.49	
Lamp Flux	lm	195	
Efficient	lm/W	78.03	
Illuminance	lx	83	1 m
		21	2 m
		9	3 m



Luminaire

Lamp

Report

20151201-0010

No. of lamps 1

FilenameC:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt

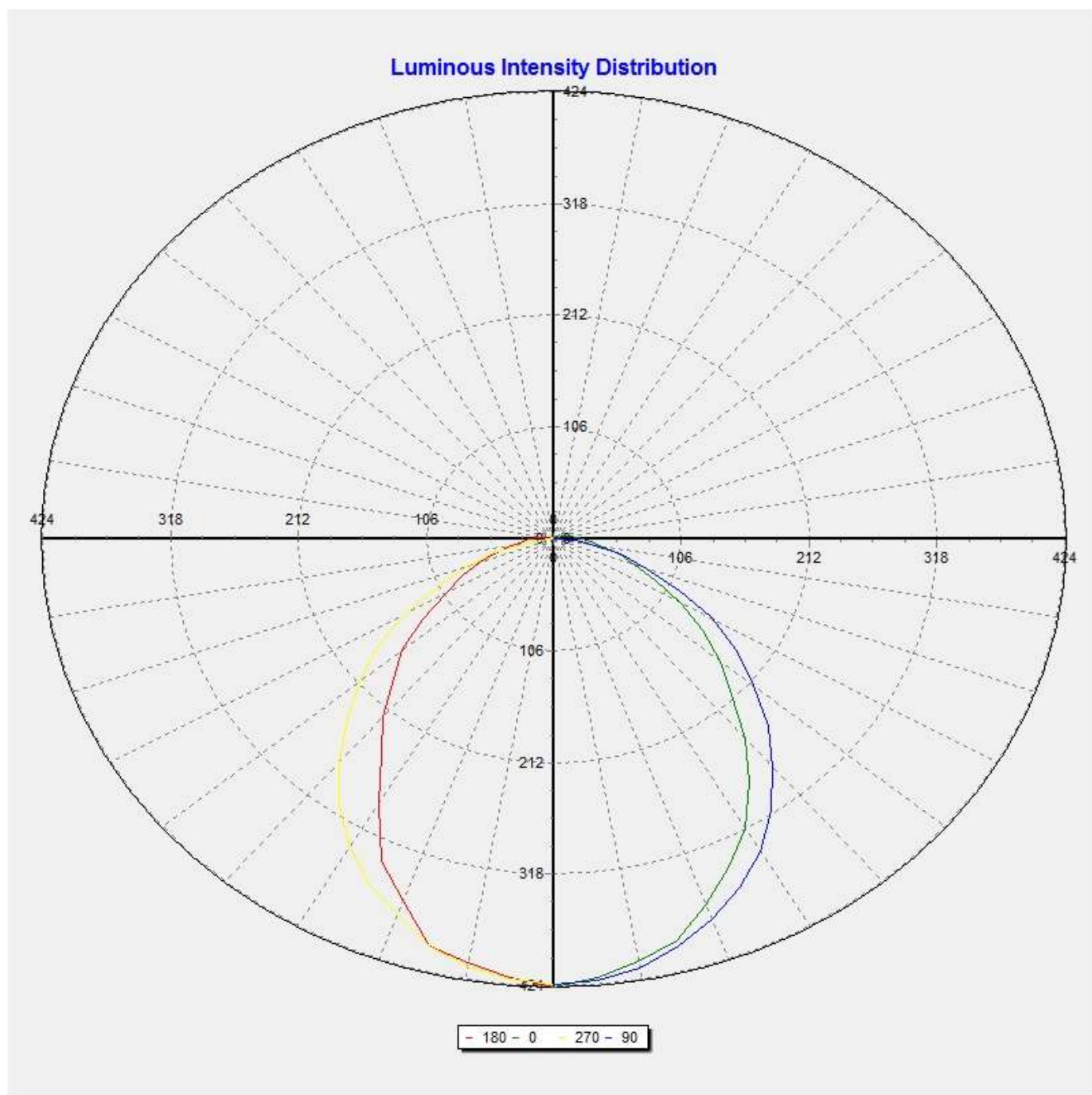
Lamp flux (lm) 195

Operatorent (A) 0.1

Total flux (lm) 195

DatePower Factor 1

2015-12-02 오후 4:17:18



All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp

Report

20151201-0010

No. of lamps 1

Filename: C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt

Lamp flux (lm) 195

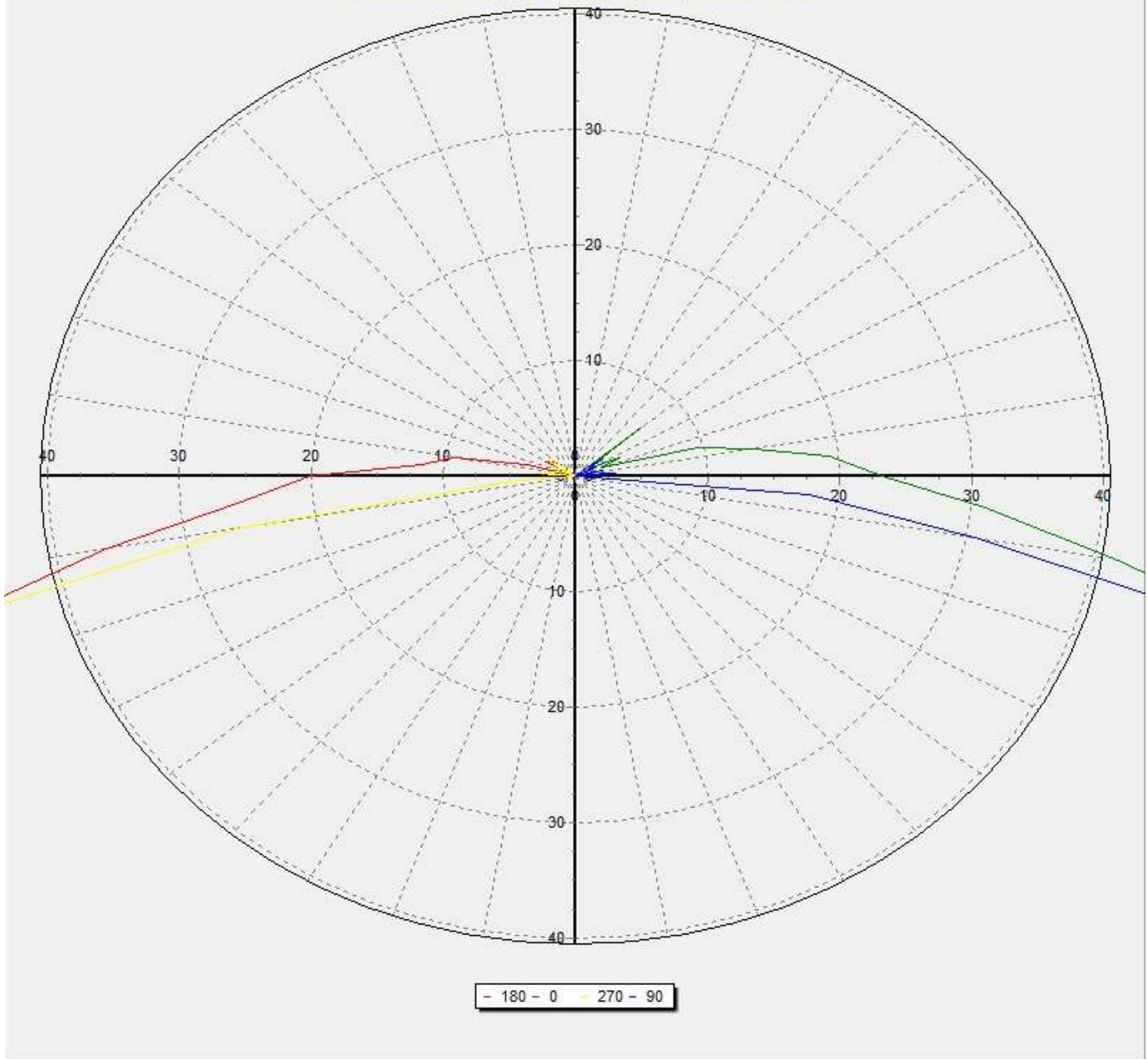
Operator: rent (A) 0.1

Total flux (lm) 195

Date: Power Factor 1

2015-12-02 오후 4:17:18

Luminous Intensity Distribution (Lowest 10%)



All luminous intensity values are in Cd/KLm unit.

Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt
Lamp flux (lm)	195	Operator	rent (A) 0.1
Total flux (lm)	195	Date	Power Factor 1 2015-12-02 오후 4:17:18

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
0	82.93	83.14	82.88	81.70	82.10	82.63	82.26	81.51	82.07	82.48	82.38	81.66	82.17	82.34	81.73
5	81.41	82.26	81.93	81.68	81.63	80.81	81.30	82.06	81.55	81.88	82.14	81.61	81.58	82.43	81.96
10	79.26	79.97	79.60	79.77	80.30	80.12	80.00	80.22	80.37	80.53	81.31	81.24	80.69	80.76	81.42
15	76.85	75.76	77.17	76.83	78.20	78.05	77.36	77.33	78.62	77.89	78.65	78.33	79.36	78.26	78.77
20	72.05	72.46	72.49	73.19	72.71	73.87	74.88	74.36	75.87	74.80	75.27	75.61	76.20	75.38	74.82
25	66.95	66.97	68.29	68.05	68.80	69.00	70.12	71.18	71.33	71.06	72.11	71.64	70.78	69.95	70.37
30	61.84	61.30	61.94	62.65	63.32	63.76	65.45	65.56	66.65	66.91	66.94	65.82	65.94	64.24	63.37
35	55.07	54.50	55.07	55.98	57.07	57.73	59.05	60.54	60.88	61.47	61.14	60.55	60.28	57.34	55.58
40	48.24	48.47	49.03	48.43	49.70	51.15	52.48	52.97	55.03	55.02	55.08	53.56	53.16	50.37	48.39
45	40.60	41.15	41.99	42.13	42.71	43.98	46.59	46.79	49.38	48.99	49.32	47.91	45.37	42.27	41.02
50	35.25	34.58	35.77	35.47	36.78	37.38	39.02	40.60	41.83	42.22	42.40	40.69	37.92	35.75	33.45
55	29.45	29.31	29.59	30.10	30.07	30.53	32.03	33.72	35.02	36.15	35.07	32.67	31.13	29.84	28.98
60	23.82	23.90	23.97	24.89	24.79	25.51	26.39	26.92	28.44	29.50	28.27	26.52	24.97	23.72	23.59
65	18.13	18.43	18.67	19.45	19.66	20.30	20.87	20.86	21.82	22.45	21.73	19.84	19.25	19.77	18.83
70	13.93	14.61	14.58	14.78	15.13	15.09	15.46	15.03	16.73	15.90	15.98	15.49	15.38	15.60	14.54
75	11.02	10.19	11.16	11.09	11.41	11.76	10.34	11.14	11.72	11.19	11.30	10.00	10.54	10.51	10.80
80	8.13	7.10	9.14	8.37	8.48	8.00	7.62	7.20	6.60	6.06	6.29	6.27	7.54	8.20	7.85
85	6.08	6.37	6.02	6.91	5.60	5.31	4.65	3.21	2.32	3.46	3.49	3.81	4.88	5.42	6.37
90	4.53	4.49	4.73	4.34	3.97	3.37	1.91	1.87	0.73	-0.08	0.19	1.62	2.67	3.01	4.70
95	3.76	3.95	3.23	3.18	2.68	1.36	0.70	0.35	-0.06	0.58	0.27	0.51	1.18	1.91	2.35
100	2.66	2.87	2.60	1.64	1.35	0.97	0.83	0.68	0.49	0.11	0.15	-0.08	0.45	0.89	1.52
105	1.87	1.12	1.38	1.21	1.50	0.61	0.08	0.16	0.83	0.41	0.24	0.18	-0.20	0.71	0.42
110	0.40	0.24	1.28	0.58	-0.44	0.62	0.56	-0.22	0.82	0.00	0.10	0.45	0.35	0.80	0.61
115	0.73	0.03	0.21	0.67	0.43	0.50	0.11	0.12	0.79	0.33	0.11	0.42	-0.41	0.19	-0.10
120	0.26	0.40	0.42	0.12	0.43	0.13	1.00	0.86	0.73	0.22	0.91	0.66	0.12	0.62	0.79
125	0.29	0.64	0.50	0.37	1.05	0.90	0.68	0.20	0.49	0.49	0.81	0.41	-0.30	0.98	0.38
130	1.27	0.48	0.47	1.12	0.35	0.11	0.04	0.16	0.38	0.23	0.34	0.91	0.47	0.69	0.24

Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt
Lamp flux (lm)	195	Operator	rent (A) 0.1
Total flux (lm)	195	Date	Power Factor 1 2015-12-02 오후 4:17:18

Luminous Intensity Data (Continued)

GWC	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
0	81.98	82.02	83.19	82.93	83.14	82.88	81.70	82.10	82.63	82.26	81.51	82.07	82.48	82.38	81.66
5	82.90	82.55	82.54	81.45	81.36	81.83	81.39	81.03	83.33	81.90	81.24	81.11	81.72	80.72	81.63
10	81.19	81.58	81.42	79.65	80.92	80.28	80.35	81.25	80.01	80.08	80.44	79.72	80.25	80.49	80.07
15	78.34	78.86	77.74	77.92	77.73	76.83	77.86	78.50	78.33	78.85	78.28	77.62	77.90	77.20	77.76
20	74.53	74.08	73.09	71.20	72.43	71.92	73.45	73.99	74.15	74.52	75.00	74.67	73.91	74.85	74.32
25	68.40	67.92	67.34	65.82	64.62	66.07	66.98	68.29	70.54	69.83	70.45	70.56	70.66	70.78	70.42
30	61.18	60.66	60.71	56.77	57.38	58.23	60.95	61.05	64.07	65.22	65.92	65.19	65.92	65.59	64.27
35	53.75	52.73	51.87	48.75	49.59	49.94	52.67	54.10	56.66	57.70	60.17	60.69	60.65	59.69	58.73
40	46.52	45.46	44.94	42.97	43.09	43.82	44.75	46.52	49.43	51.05	53.66	53.96	53.85	54.06	52.65
45	39.96	38.81	38.39	36.59	37.02	38.18	37.85	38.19	41.39	43.51	46.51	46.63	47.21	46.98	45.32
50	34.20	33.84	32.95	31.96	32.41	32.73	32.15	32.89	34.44	37.19	39.03	39.62	41.13	39.69	38.70
55	28.68	27.76	27.95	26.04	26.81	26.83	27.43	27.52	28.54	29.66	31.38	33.40	34.73	32.71	32.19
60	23.13	23.06	22.36	20.10	21.20	21.66	22.14	22.37	23.36	23.43	25.73	26.29	28.08	26.61	25.36
65	18.51	17.38	17.10	16.26	15.42	16.41	16.93	18.16	18.37	18.38	19.24	20.54	20.82	20.04	20.49
70	14.21	14.06	13.06	12.71	12.51	12.22	12.69	13.15	14.83	13.84	14.04	14.75	15.28	14.37	14.22
75	10.50	10.72	9.93	9.63	9.79	9.44	9.58	9.54	10.41	9.45	9.20	8.94	9.94	9.25	9.81
80	8.52	8.04	7.35	7.04	6.48	6.91	7.10	6.82	6.96	5.97	4.88	5.95	5.10	5.30	6.03
85	5.37	5.00	6.15	4.95	5.07	4.62	5.50	5.38	4.12	3.75	2.41	1.27	0.86	1.72	2.92
90	4.22	3.81	3.78	3.92	3.89	3.40	3.99	3.37	2.77	1.80	0.67	0.04	0.01	0.58	1.19
95	2.27	3.09	3.06	2.28	1.89	1.87	2.55	1.24	1.39	0.80	0.09	0.03	0.54	0.05	0.30
100	1.28	2.04	1.72	1.81	1.49	1.18	0.92	-0.25	0.83	0.14	0.03	0.31	0.36	0.17	-0.23
105	0.69	0.53	1.26	0.73	0.83	1.19	0.37	0.26	1.01	0.34	-0.30	0.06	0.27	0.23	0.45
110	0.81	1.06	0.77	-0.18	0.43	0.20	-0.08	0.20	0.49	0.32	0.05	0.36	0.28	0.71	1.21
115	0.18	0.07	0.66	-0.14	0.85	0.24	0.41	0.77	1.23	0.81	0.27	0.06	0.00	0.54	0.43
120	-0.01	1.12	0.96	0.50	-0.17	0.34	0.52	0.47	0.69	0.37	-0.49	0.25	0.26	0.04	0.64
125	0.62	0.67	0.61	0.42	0.45	0.52	0.02	0.88	0.39	0.51	0.96	0.57	0.48	-0.06	-0.06
130	0.11	0.21	0.02	0.33	0.38	0.85	0.89	0.73	0.56	0.77	0.24	-0.14	0.41	0.25	1.20

Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt
Lamp flux (lm)	195	Operator	rent (A) 0.1
Total flux (lm)	195	Date	Power Factor 1 2015-12-02 오후 4:17:18

Luminous Intensity Data (Continued)

GWC	300	310	320	330	340	350	360
0	82.17	82.34	81.73	81.98	82.02	83.19	82.93
5	81.43	81.02	80.65	81.20	81.34	81.46	81.41
10	79.69	79.31	79.53	79.33	79.27	78.95	79.26
15	77.38	76.81	76.06	75.76	75.55	75.66	76.85
20	74.32	72.87	72.87	71.62	71.08	71.22	72.05
25	69.07	68.53	67.13	66.91	65.82	66.21	66.95
30	63.50	62.70	61.41	61.15	60.52	59.65	61.84
35	56.70	56.15	55.02	54.74	53.15	52.92	55.07
40	50.18	49.48	47.89	46.69	46.26	46.41	48.24
45	43.73	42.59	41.03	39.39	39.86	39.78	40.60
50	37.00	35.93	34.08	33.84	32.44	33.65	35.25
55	29.82	29.97	28.82	28.06	27.44	27.83	29.45
60	23.75	23.72	22.82	22.90	21.96	21.03	23.82
65	18.60	18.57	18.41	17.88	16.43	16.94	18.13
70	14.04	14.79	13.47	13.57	13.28	13.39	13.93
75	9.81	9.51	10.39	9.97	10.13	10.22	11.02
80	6.13	6.71	6.99	7.27	8.16	7.08	8.13
85	4.37	4.54	5.06	5.48	5.27	6.25	6.08
90	2.28	3.16	3.58	3.31	4.71	4.39	4.53
95	1.12	1.95	1.93	3.02	3.49	2.75	3.76
100	0.40	0.74	0.90	1.52	2.30	1.70	2.66
105	0.97	0.44	0.36	0.64	0.93	1.51	1.87
110	0.12	0.09	0.56	0.24	1.08	0.52	0.40
115	1.13	0.19	1.17	0.83	0.07	0.63	0.73
120	0.35	0.25	-0.25	0.40	0.21	-0.22	0.26
125	0.53	-0.02	0.51	-0.16	0.20	0.71	0.29
130	0.43	0.42	0.55	-0.02	-0.08	0.25	1.27

Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt
Lamp flux (lm)	195	Operator	rent (A) 0.1
Total flux (lm)	195	Date	Power Factor 1 2015-12-02 오후 4:17:18

Luminous Flux Table

Total Lamp Lumens: 195

Luminaire Efficiency (lm/W): 195.01

CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	0.49	0.49	0.25	0.25
5	3.90	4.39	2.25	2.25
10	7.64	12.03	6.17	6.17
15	11.01	23.04	11.82	11.82
20	13.82	36.87	18.91	18.90
25	15.95	52.82	27.09	27.08
30	17.26	70.08	35.94	35.94
35	17.72	87.80	45.02	45.02
40	17.47	105.27	53.98	53.98
45	16.57	121.84	62.48	62.48
50	15.27	137.10	70.31	70.31
55	13.56	150.66	77.26	77.26
60	11.55	162.22	83.19	83.18
65	9.40	171.62	88.01	88.00
70	7.39	179.01	91.80	91.79
75	5.45	184.45	94.59	94.59
80	3.80	188.26	96.54	96.54
85	2.49	190.74	97.82	97.81
90	1.54	192.28	98.61	98.60
95	0.94	193.22	99.09	99.08
100	0.55	193.76	99.37	99.36
105	0.34	194.11	99.54	99.54
110	0.22	194.33	99.65	99.65
115	0.20	194.53	99.76	99.75
120	0.18	194.71	99.85	99.85
125	0.21	194.92	99.96	99.95
130	0.09	195.01	100.01	100.00

Luminaire

Lamp

Report

20151201-0010

No. of lamps 1

Filename: C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt

Lamp flux (lm) 195

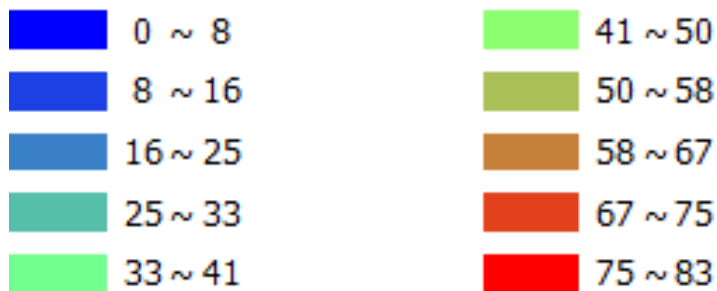
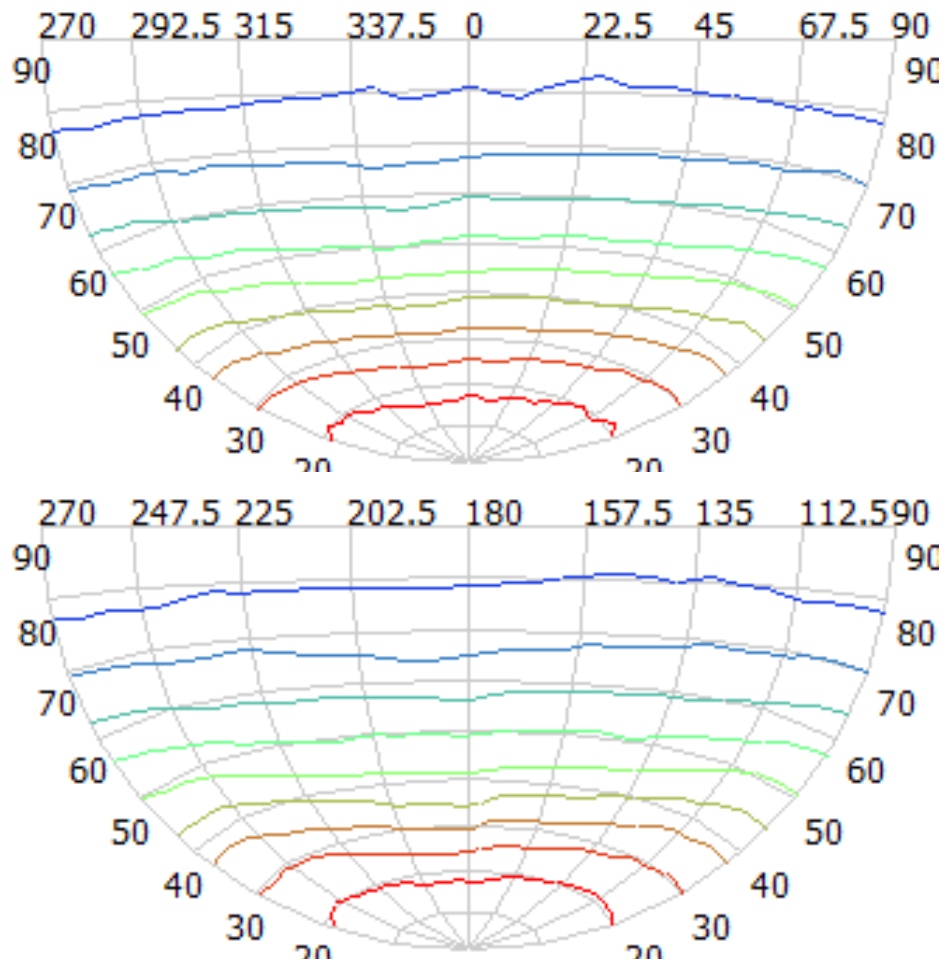
Operator: rent (A) 0.1

Total flux (lm) 195

Date: Power Factor 1

2015-12-02 오후 4:17:18

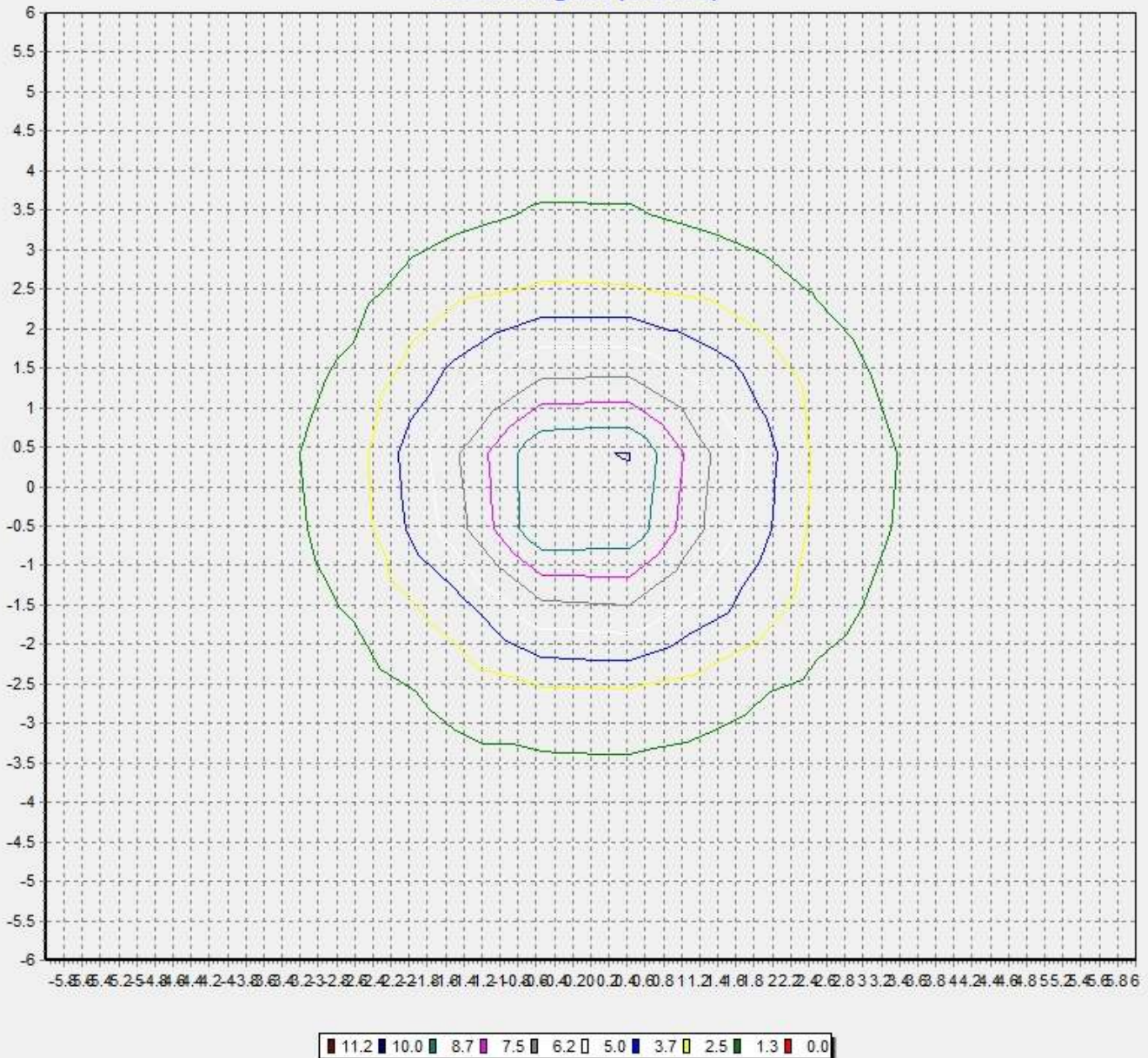
IsoCandela (Type C)



Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt
Lamp flux (lm)	195	Operator	rent (A) 0.1
Total flux (lm)	195	Date	Power Factor 1 2015-12-02 오후 4:17:18

IsoLux Diagram (Ground)



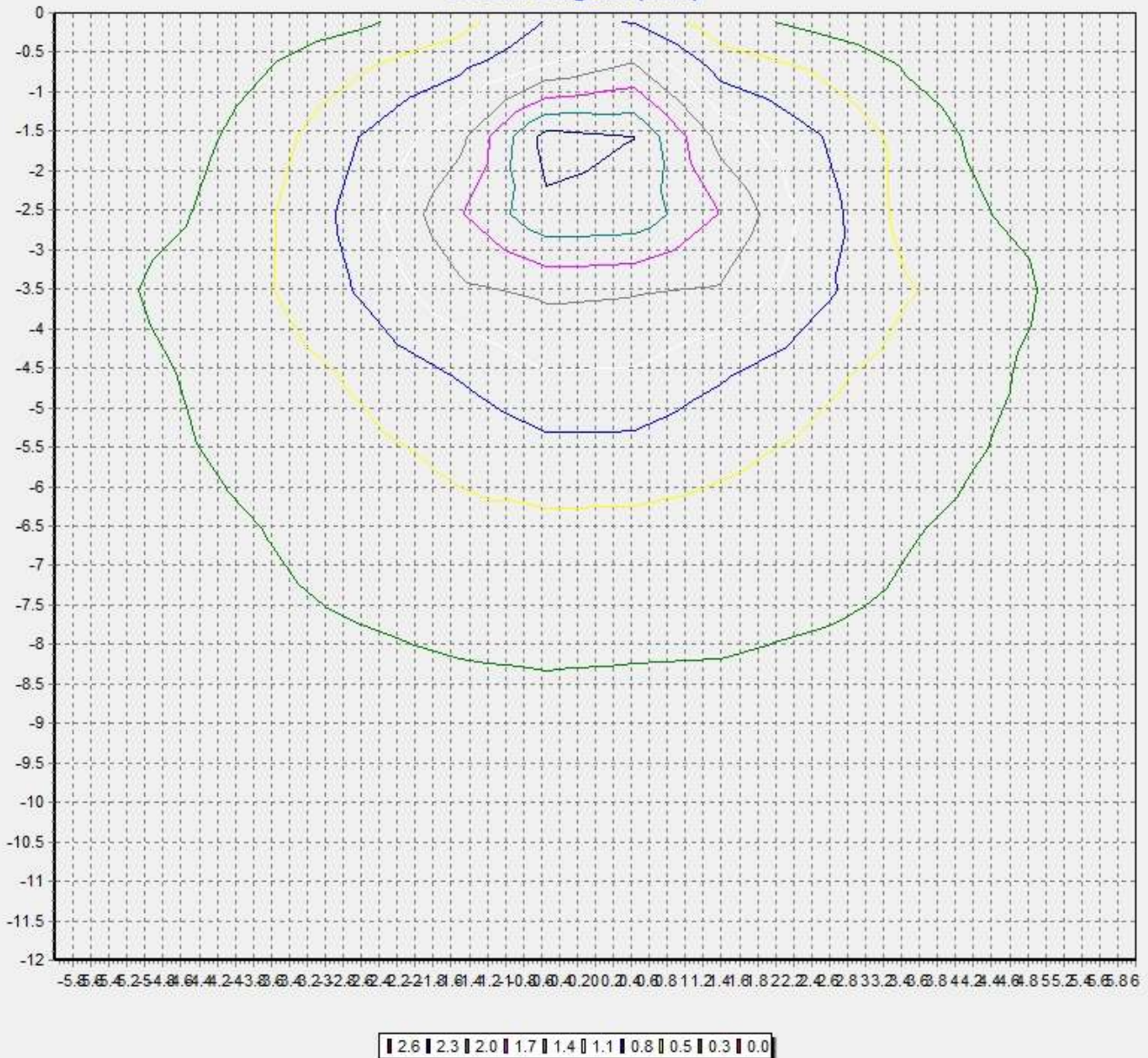
Pole Height (m): 2.7

Area Width (m): 12

Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\WNV3 40K -24V.jdt
Lamp flux (lm)	195	Operatorent (A)	0.1
Total flux (lm)	195	DatePower Factor	1
			2015-12-02 오후 4:17:18

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)	24.99
Lamp flux (lm)	195	Current (A)	0.1
Total flux (lm)	195	Power Factor	1

Report

20151201-0010

Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\WNDV3 40K -24V.jdt

Operator

Date

2015-12-02 오후 4:17:18

Illuminance Levels (Ground)

6.00	0.07	0.09	0.09	0.12	0.20	0.25	0.27	0.24	0.20	0.12	0.09	0.09	0.07
5.00	0.09	0.10	0.18	0.27	0.29	0.47	0.50	0.45	0.28	0.27	0.18	0.10	0.09
4.00	0.09	0.18	0.22	0.42	0.51	0.90	0.99	0.88	0.51	0.42	0.22	0.18	0.09
3.00	0.11	0.23	0.41	0.58	1.03	1.56	1.84	1.50	1.00	0.58	0.42	0.24	0.12
2.00	0.18	0.24	0.47	0.91	2.24	3.37	4.64	3.26	2.14	0.94	0.49	0.25	0.18
1.00	0.20	0.36	0.71	1.30	3.03	6.44	8.79	6.25	3.08	1.36	0.74	0.38	0.21
0.00	0.18	0.35	0.74	1.39	3.87	8.76	11.38	8.66	4.25	1.53	0.82	0.41	0.22
-1.00	0.18	0.33	0.68	1.25	2.82	6.11	8.78	6.27	3.01	1.28	0.70	0.35	0.19
-2.00	0.16	0.22	0.44	0.86	1.97	3.17	4.58	3.23	2.17	0.90	0.46	0.23	0.17
-3.00	0.10	0.22	0.38	0.53	0.94	1.43	1.79	1.48	1.00	0.57	0.41	0.23	0.11
-4.00	0.08	0.16	0.20	0.38	0.47	0.83	0.96	0.86	0.49	0.41	0.21	0.17	0.08
-5.00	0.08	0.09	0.17	0.24	0.26	0.42	0.48	0.45	0.27	0.25	0.17	0.09	0.09
-6.00	0.06	0.08	0.09	0.11	0.18	0.22	0.26	0.23	0.20	0.11	0.09	0.09	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.): 11.4

All illuminance level values are in lux.

Illum. (Min.): 0.06

Illum. Avg.: 1.09

Total Optical Solution Provider

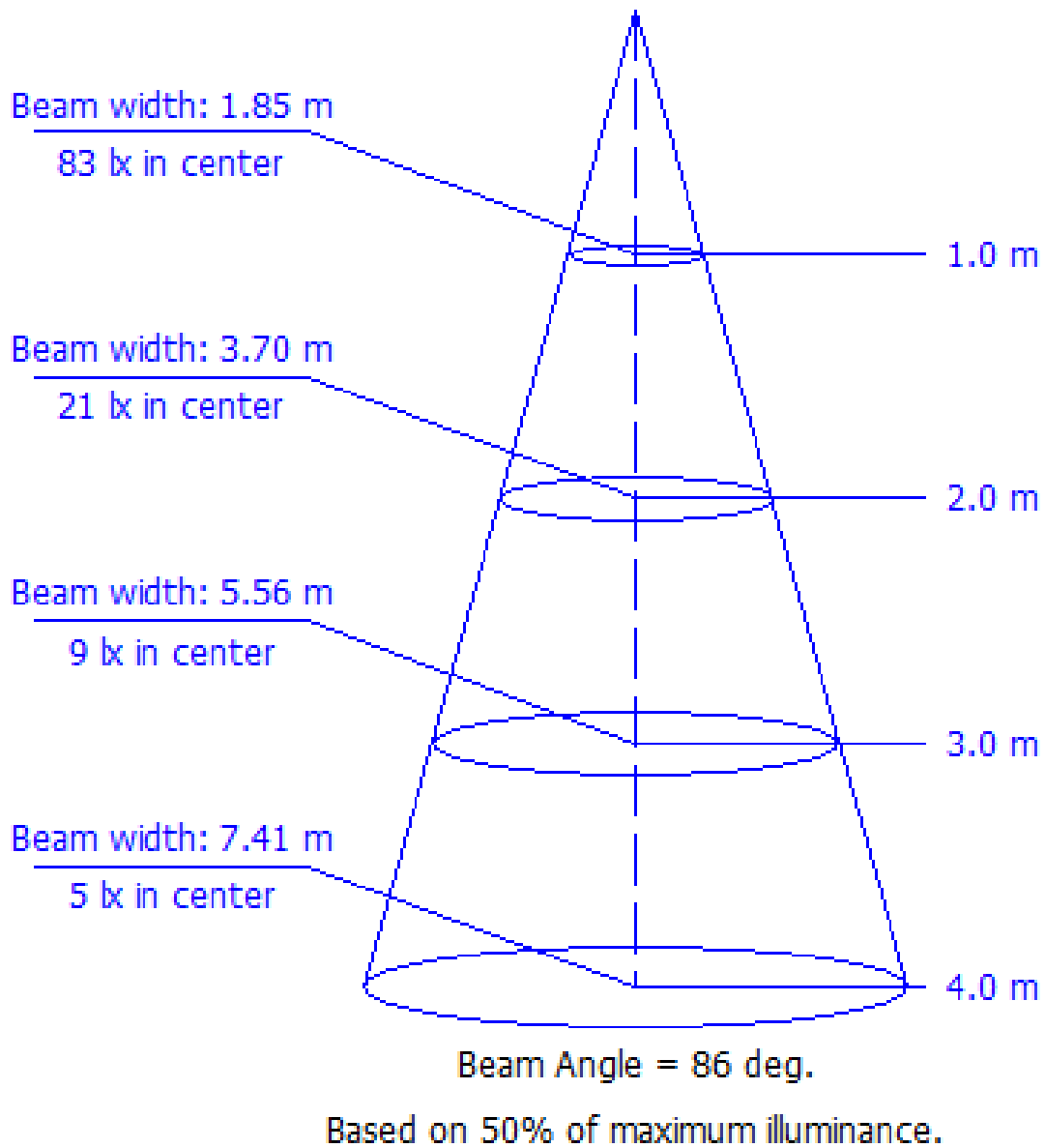


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Luminaire

Lamp		Report	20151201-0010
No. of lamps	1	Filename	C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt
Lamp flux (lm)	195	Operatorent (A)	0.1
Total flux (lm)	195	DatePower Factor	1
			2015-12-02 오후 4:17:18

Illuminance Cone Diagram



Luminaire

Lamp				Report		20151201-0010	
No. of lamps	1	Voltage (V)	24.99	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\151127\NDV3 40K -24V.jdt			
Lamp flux (lm)	195	Current (A)	0.1	Operator			
Total flux (lm)	195	Power Factor	1	Date		2015-12-02 오후 4:17:18	

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	1.19	1.19	1.19	1.16	1.16	1.16	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	1.00	0.96	1.01	0.98	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	0.65	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	0.47	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	0.47	0.43	0.52	0.46	0.42	0.40
Room CR 7	0.54	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	0.45	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	0.29	0.38	0.32	0.28	0.27