

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 : 20150911

2. Purpose of Report : Sample test

3. Test Standard / Item : LED / NDV15 40K-24V -1 D1502 VER1.0 40S2A

4. Test Period : 20150911 ~ 20150911

5. Test Environment

Ambient Temp. : (24.19 +- 3) °C

Relative Humidity : (66.9 +- 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
20150911-0002			LED

Test Item	Unit	Result	Memo
Beam Distribution Test	-	See attachment	
ATHD	%	0.0	
CIE 1931 Cxy		0.3805, 0.3770	
Correlated Color Temperature	K	4008	
Ra	-	84.7	
Power Factor	%	1.000	
Input Voltage	V	23.940	
Input Current	A	0.605	
Input Watt	W	14.47	
Lamp Flux	lm	1188.1	
Efficient	lm/W	82.03	
Illuminance	lx	500	1 m
		125	2 m
		56	3 m

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

Sample photo

Click to load image

Luminaire

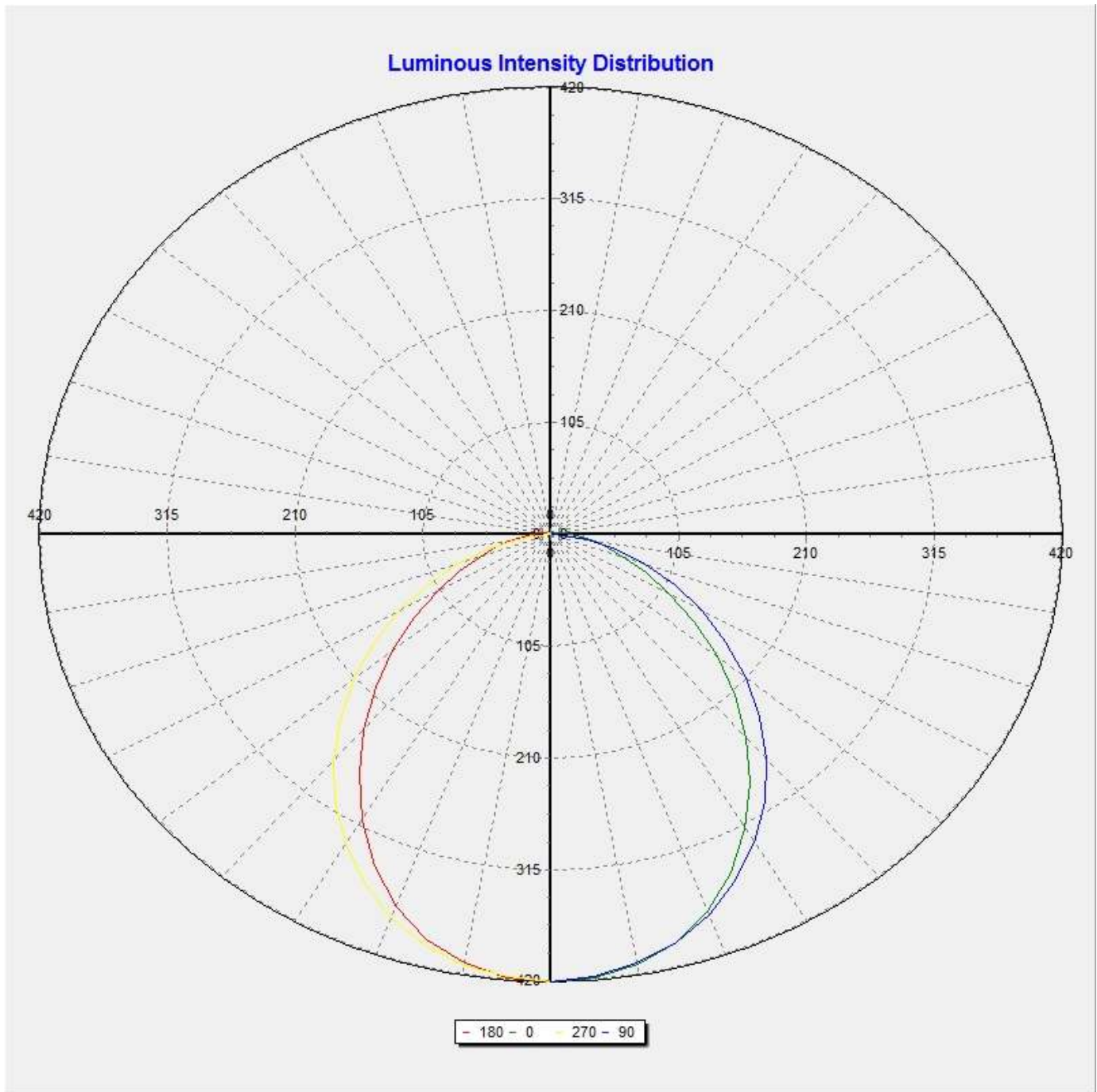
Lamp Report

20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188) Current (A) 0.605

Total flux (I: 1188) Date 1188 Power Factor 1 2015-09-11 오전 11:21:48



All luminous intensity values are in Cd/Klm unit.

Luminaire

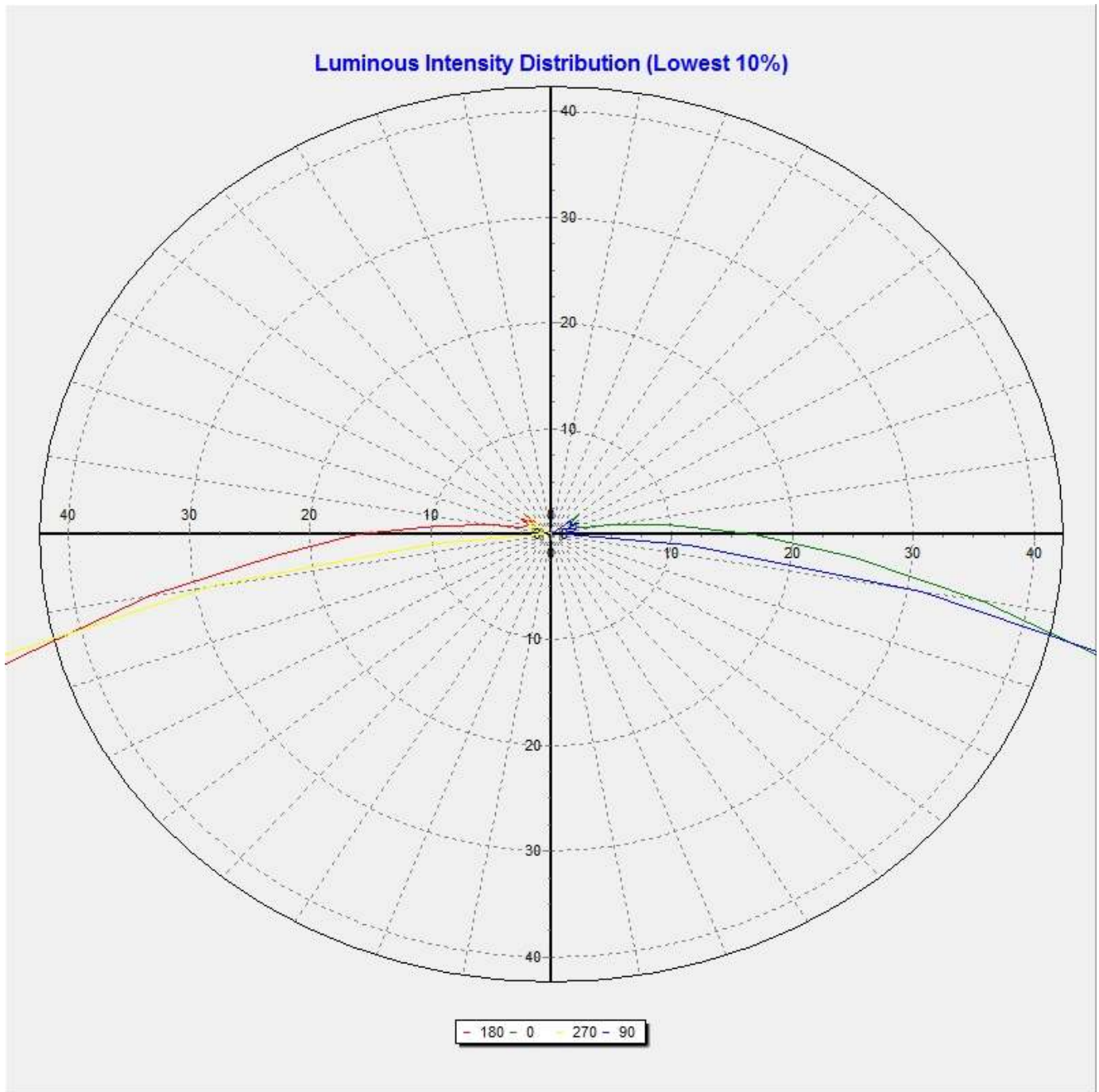
Lamp Report

20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188) Current (A) 0.605

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Luminaire

Lamp Report

20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188 Current (A) 0.605

Total flux (IDate: 1188 Power Factor 1 2015-09-11 오전 11:21:48

Luminous Intensity Data

GWC	0	10	20	30	40	50	60	70	80	90	100	110	120
0	499.92	498.67	499.37	498.91	498.86	498.19	498.76	499.51	499.76	499.24	499.59	499.00	499.35
5	497.10	495.65	495.88	494.80	494.66	495.16	495.33	495.50	496.02	495.46	496.65	496.75	497.64
10	488.04	486.14	485.81	485.88	485.96	486.72	486.08	486.20	486.79	486.57	487.40	487.73	488.19
15	471.38	469.06	469.86	468.91	470.68	470.54	471.01	471.57	471.86	471.99	474.09	473.03	473.37
20	447.43	445.07	445.93	445.38	448.02	448.85	450.14	450.95	452.76	452.27	454.00	453.09	453.08
25	417.19	413.48	415.92	416.68	420.19	421.40	424.35	424.99	426.86	427.15	428.81	427.14	426.66
30	379.70	376.10	380.51	380.27	385.21	388.05	392.62	395.26	397.13	396.95	398.87	396.33	394.93
35	338.44	336.26	338.63	340.74	347.43	351.77	357.73	359.93	364.25	364.19	364.55	361.01	358.48
40	296.72	294.01	297.74	299.36	306.18	311.47	318.09	322.45	326.80	327.66	327.60	323.51	319.15
45	254.13	252.52	255.68	257.82	265.25	270.06	277.51	283.20	288.22	288.66	289.11	283.03	278.13
50	211.93	211.33	215.37	217.73	224.04	230.55	235.42	242.94	248.58	249.38	248.36	243.02	236.30
55	170.91	169.36	174.24	178.01	186.57	190.16	197.14	203.68	209.09	209.05	209.06	201.51	195.82
60	133.39	132.90	137.09	141.23	149.59	153.97	159.80	164.48	170.36	170.76	170.29	163.04	158.77
65	102.62	102.04	106.23	109.34	115.21	120.70	126.45	128.43	133.67	133.94	132.74	127.11	124.39
70	78.06	77.27	80.26	82.82	86.43	89.96	95.57	95.84	98.96	98.54	98.22	94.92	93.54
75	58.40	57.81	59.39	60.08	62.91	64.89	66.77	66.07	67.24	66.14	66.77	64.68	65.60
80	43.07	42.01	43.34	42.59	43.07	43.19	42.51	40.24	38.24	36.92	38.55	39.35	41.79
85	29.89	29.40	29.56	28.43	28.26	26.04	24.31	20.17	15.66	13.65	15.42	18.76	22.93
90	19.92	19.54	18.99	18.01	17.25	13.88	11.40	6.35	3.76	1.44	3.57	6.51	11.40
95	11.51	11.51	10.80	10.35	8.35	6.24	3.08	2.59	1.58	1.16	1.03	1.98	4.00
100	5.97	6.45	5.50	4.63	3.13	2.10	0.95	1.61	2.37	2.17	0.73	1.42	1.39
105	3.17	2.92	2.57	1.57	1.71	2.14	1.87	1.60	2.24	2.51	2.28	2.17	1.42
110	1.74	1.83	1.81	2.11	1.83	1.36	1.92	2.27	2.27	1.63	2.83	2.26	2.10
115	2.01	2.18	2.21	2.28	2.59	2.30	2.09	2.19	2.81	2.93	2.38	2.31	2.39
120	2.19	2.04	2.05	2.14	2.66	2.09	3.02	2.71	3.07	2.22	3.15	3.07	2.43
125	2.67	2.39	2.52	2.83	2.86	3.19	2.54	2.72	2.40	2.37	3.08	2.50	3.28
130	3.42	2.69	3.30	3.14	3.27	3.22	3.37	2.44	3.03	2.50	3.45	3.64	3.29

Luminaire

Lamp Report

20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\NDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188) Current (A) 0.605

Total flux (IDate: 1188) Power Factor 1 2015-09-11 오전 11:21:48

Luminous Intensity Data (Continued)

GWC	130	140	150	160	170	180	190	200	210	220	230	240	250
0	499.63	499.01	498.92	499.02	497.91	499.92	498.67	499.37	498.91	498.86	498.19	498.76	499.51
5	496.65	496.98	497.21	496.93	497.00	496.76	496.14	496.18	496.23	496.31	497.10	496.79	496.71
10	488.19	488.22	488.37	487.13	487.51	485.99	486.83	486.09	486.87	487.18	488.26	488.34	488.13
15	472.21	472.72	471.70	471.83	470.35	468.25	468.69	468.31	470.77	471.38	472.11	473.74	475.23
20	450.15	449.82	448.35	447.75	446.30	442.20	444.66	443.76	447.44	448.19	451.63	453.59	454.07
25	422.91	421.99	418.48	417.45	414.63	408.38	411.08	412.11	416.53	418.83	423.46	426.66	429.49
30	390.10	387.53	382.72	379.86	375.87	369.09	372.18	374.08	379.44	383.89	390.26	394.53	399.02
35	352.50	348.11	341.55	337.37	334.27	326.17	329.27	332.26	338.67	344.37	352.43	358.08	363.91
40	311.21	305.93	298.42	294.49	290.93	284.69	287.38	287.50	295.61	300.30	309.80	318.60	323.11
45	268.98	263.54	256.14	252.51	248.92	241.63	245.16	247.08	253.28	258.62	267.94	275.42	284.12
50	227.44	222.73	216.92	212.75	210.01	201.76	204.65	207.18	213.68	217.61	224.77	233.73	242.29
55	188.35	184.23	178.59	174.11	170.29	162.01	165.89	168.82	175.36	180.08	187.12	192.85	201.16
60	152.56	149.12	142.58	137.81	133.71	128.09	130.05	132.27	139.69	144.72	151.49	157.03	160.74
65	120.62	116.65	110.09	107.01	103.95	97.85	99.75	102.23	107.77	111.43	118.06	121.80	125.73
70	90.51	87.02	83.75	81.17	79.85	74.41	75.80	76.96	80.62	83.68	87.29	90.69	92.44
75	64.57	63.17	61.32	60.72	58.98	55.11	56.19	57.40	59.05	60.18	61.90	62.49	62.69
80	42.73	43.64	43.47	43.24	42.81	40.08	40.46	40.63	41.42	40.78	40.76	38.45	35.35
85	26.17	28.95	28.96	29.94	30.00	27.42	28.12	27.51	28.21	25.93	24.25	20.85	16.49
90	14.86	17.52	18.23	20.18	20.18	19.01	18.51	17.07	16.59	15.44	13.09	9.46	5.11
95	6.83	8.30	10.33	11.33	12.54	11.27	11.22	10.44	8.90	7.70	5.23	3.89	0.98
100	2.72	4.38	4.88	6.49	6.65	5.91	5.73	5.29	4.57	2.98	2.43	0.77	1.60
105	1.69	1.88	2.64	3.15	4.32	3.10	2.94	2.30	1.63	1.88	2.17	1.93	1.78
110	2.33	1.98	1.90	2.14	2.65	2.53	1.74	1.85	1.93	2.04	1.71	2.45	1.97
115	2.17	1.70	2.18	2.34	2.49	2.58	1.68	2.49	1.36	1.74	2.53	2.44	1.79
120	3.34	2.70	2.59	2.85	2.18	3.46	1.84	1.48	2.40	2.87	2.62	2.24	1.67
125	2.66	2.83	3.05	2.57	3.37	2.31	2.27	3.47	2.16	2.33	2.76	3.10	3.06
130	3.61	3.45	2.99	2.77	3.60	3.34	2.89	3.38	2.45	3.21	2.97	2.76	2.91

Luminaire

Lamp Report

20150911-0002

No. of lamp: 1188
Filename: C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188) Current (A) 0.605

Total flux (IDate: 1188) Power Factor 1 2015-09-11 오전 11:21:48

Luminous Intensity Data (Continued)

GWC	260	270	280	290	300	310	320	330	340	350	360
0	499.76	499.24	499.59	499.00	499.35	499.63	499.01	498.92	499.02	497.91	499.92
5	496.13	496.36	496.40	496.71	496.42	496.70	495.67	494.93	495.24	493.59	497.10
10	489.05	489.24	488.02	488.28	487.49	487.82	485.61	485.77	485.12	483.95	488.04
15	474.20	474.73	473.80	473.43	472.46	471.92	470.26	468.37	467.29	466.86	471.38
20	455.15	455.43	454.15	454.23	452.08	450.52	447.58	445.35	443.82	441.27	447.43
25	429.85	429.97	428.50	428.69	425.32	422.55	418.95	415.43	411.80	409.28	417.19
30	399.63	399.29	400.23	398.27	393.76	390.30	382.74	379.48	373.60	371.89	379.70
35	365.49	366.86	365.07	363.50	357.56	352.41	344.58	338.43	332.99	330.19	338.44
40	329.58	330.05	328.37	325.06	318.22	311.54	302.45	296.36	291.45	289.15	296.72
45	289.24	290.66	287.53	285.57	275.97	269.60	260.99	255.46	249.78	247.43	254.13
50	248.00	249.79	249.60	243.92	234.83	228.72	220.55	215.25	210.12	205.07	211.93
55	206.72	209.63	207.31	202.91	194.15	190.07	182.34	175.27	168.05	164.23	170.91
60	167.28	170.47	167.89	164.04	157.47	153.05	144.89	137.08	131.65	128.07	133.39
65	129.68	132.18	130.36	127.82	122.91	119.52	111.31	106.15	100.98	98.48	102.62
70	93.98	97.49	95.26	94.61	91.68	88.33	82.25	79.81	76.75	73.89	78.06
75	61.31	63.37	63.01	64.00	63.62	62.31	59.96	58.46	56.58	55.38	58.40
80	33.87	33.91	34.61	36.83	39.66	41.13	41.13	40.37	40.58	39.74	43.07
85	11.83	11.54	12.94	16.80	21.46	25.43	25.83	27.22	27.66	27.55	29.89
90	2.14	1.15	2.12	6.07	8.94	12.41	14.85	17.09	18.03	19.14	19.92
95	1.48	0.55	0.39	1.05	2.56	5.04	7.14	8.81	10.62	10.88	11.51
100	1.78	1.64	1.75	1.35	1.00	1.84	2.41	3.53	4.72	5.49	5.97
105	1.41	2.28	1.45	1.39	1.04	1.60	1.81	1.86	1.81	2.11	3.17
110	2.15	2.07	1.99	1.65	1.48	1.87	1.70	1.59	1.65	1.68	1.74
115	2.46	2.01	2.27	2.70	2.15	2.10	2.30	1.59	2.07	1.32	2.01
120	3.06	2.26	2.72	2.57	2.28	2.33	2.97	2.23	3.10	2.10	2.19
125	2.50	2.78	2.58	2.53	2.46	3.00	2.07	2.87	2.80	3.23	2.67
130	3.51	2.91	3.25	2.12	2.96	3.60	3.61	3.26	3.14	2.86	3.42

Luminaire

Lamp Report

20150911-0002

No. of lamp: 1
Filename: C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\NDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188) Current (A) 0.605

Total flux (IDate: 1188) Power Factor 1 2015-09-11 오전 11:21:48

Luminous Flux Table

Total Lamp Lumens: 1188
Luminaire Efficiency (lm/W): 1188.07
CIE Classification: Direct

Elevation	Lumens	Cumulative	Lamp %	Luminaire %
0	2.98	2.98	0.25	0.25
5	23.70	26.69	2.25	2.25
10	46.36	73.05	6.15	6.15
15	66.87	139.92	11.78	11.78
20	84.23	224.15	18.87	18.87
25	97.51	321.65	27.07	27.07
30	106.05	427.70	36.00	36.00
35	109.69	537.39	45.23	45.23
40	108.65	646.03	54.38	54.38
45	103.56	749.59	63.09	63.09
50	95.13	844.73	71.10	71.10
55	83.87	928.59	78.16	78.16
60	71.04	999.63	84.14	84.14
65	57.75	1057.39	89.00	89.00
70	44.76	1102.15	92.77	92.77
75	32.63	1134.78	95.51	95.51
80	21.75	1156.53	97.34	97.34
85	12.95	1169.48	98.43	98.43
90	6.99	1176.47	99.02	99.02
95	3.51	1179.98	99.32	99.32
100	1.77	1181.76	99.47	99.47
105	1.12	1182.88	99.56	99.56
110	1.02	1183.90	99.65	99.65
115	1.09	1184.99	99.74	99.74
120	1.20	1186.18	99.84	99.84
125	1.22	1187.41	99.94	99.94
130	0.67	1188.07	100.00	100.00

Luminaire

Lamp Report

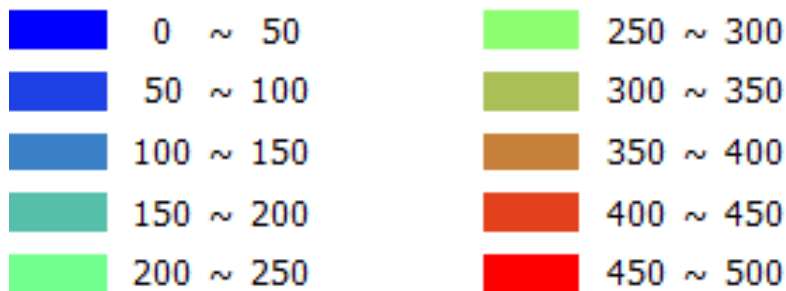
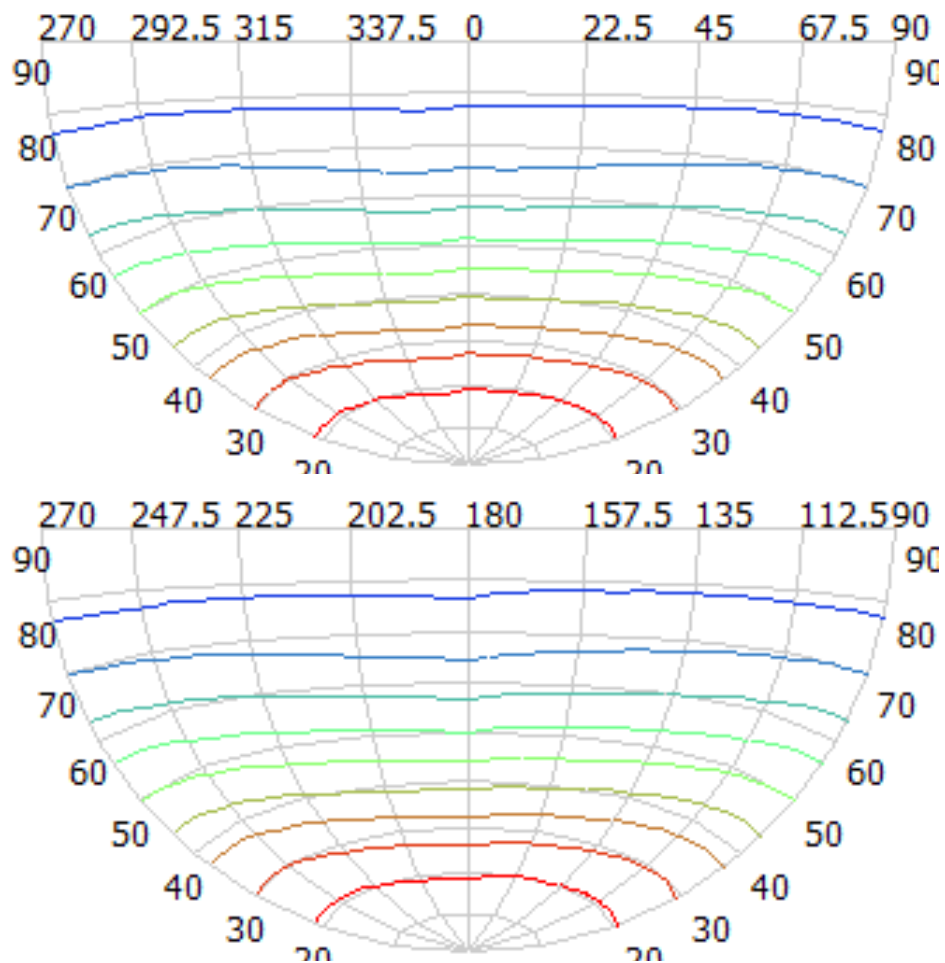
20150911-0002

No. of lamp:Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator1188 Current (A) 0.605

Total flux (lDate 1188 Power Factor 1 2015-09-11 오전 11:21:48

IsoCandela (Type C)



Luminaire

Lamp Report

20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188

Current (A)

0.605

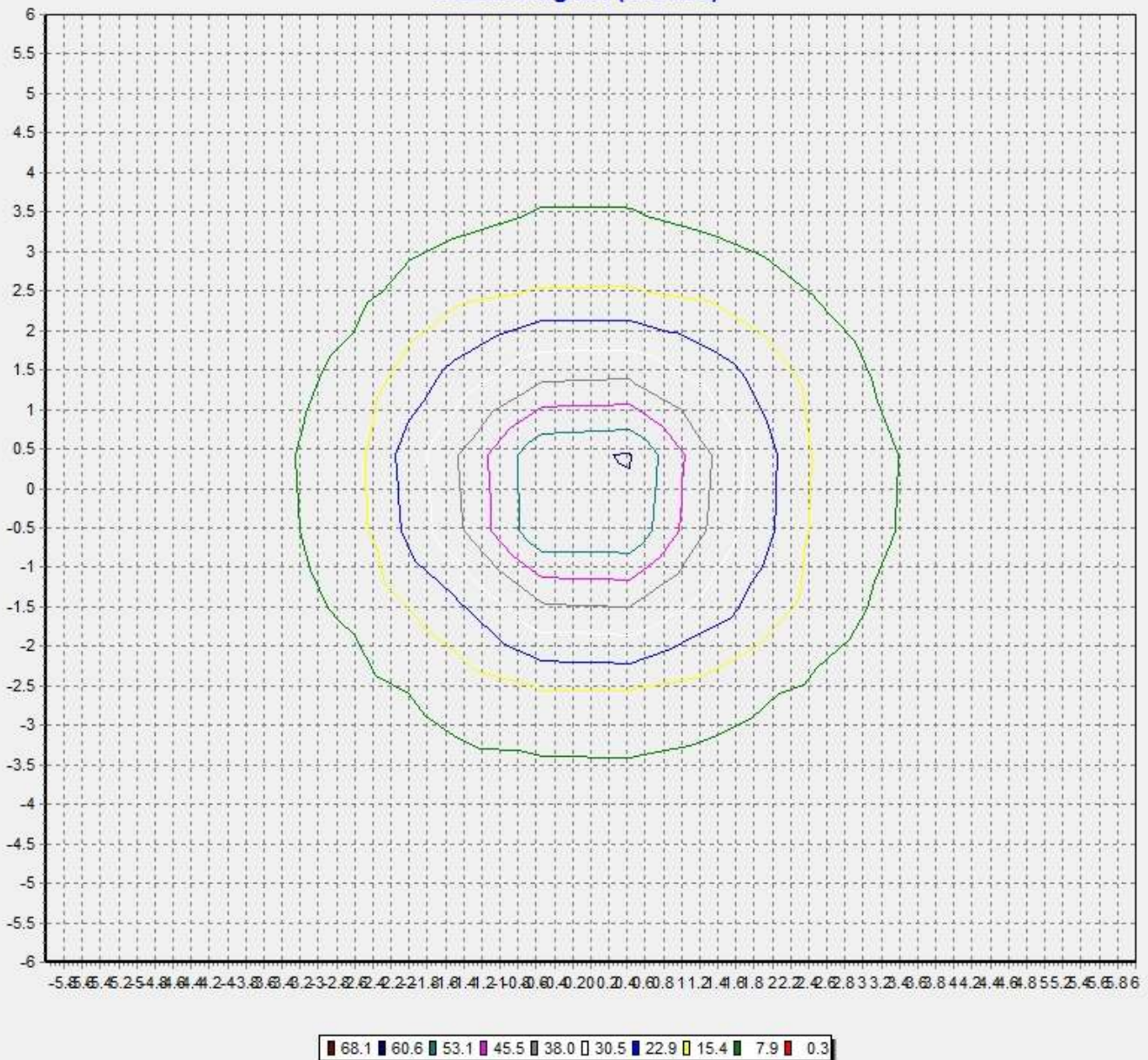
Total flux (Date: 1188

Power Factor

1

2015-09-11 오전 11:21:48

IsoLux Diagram (Ground)



Pole Height (m): 2.7

Area Width (m): 12

Luminaire

Lamp Report

20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188

Current (A)

0.605

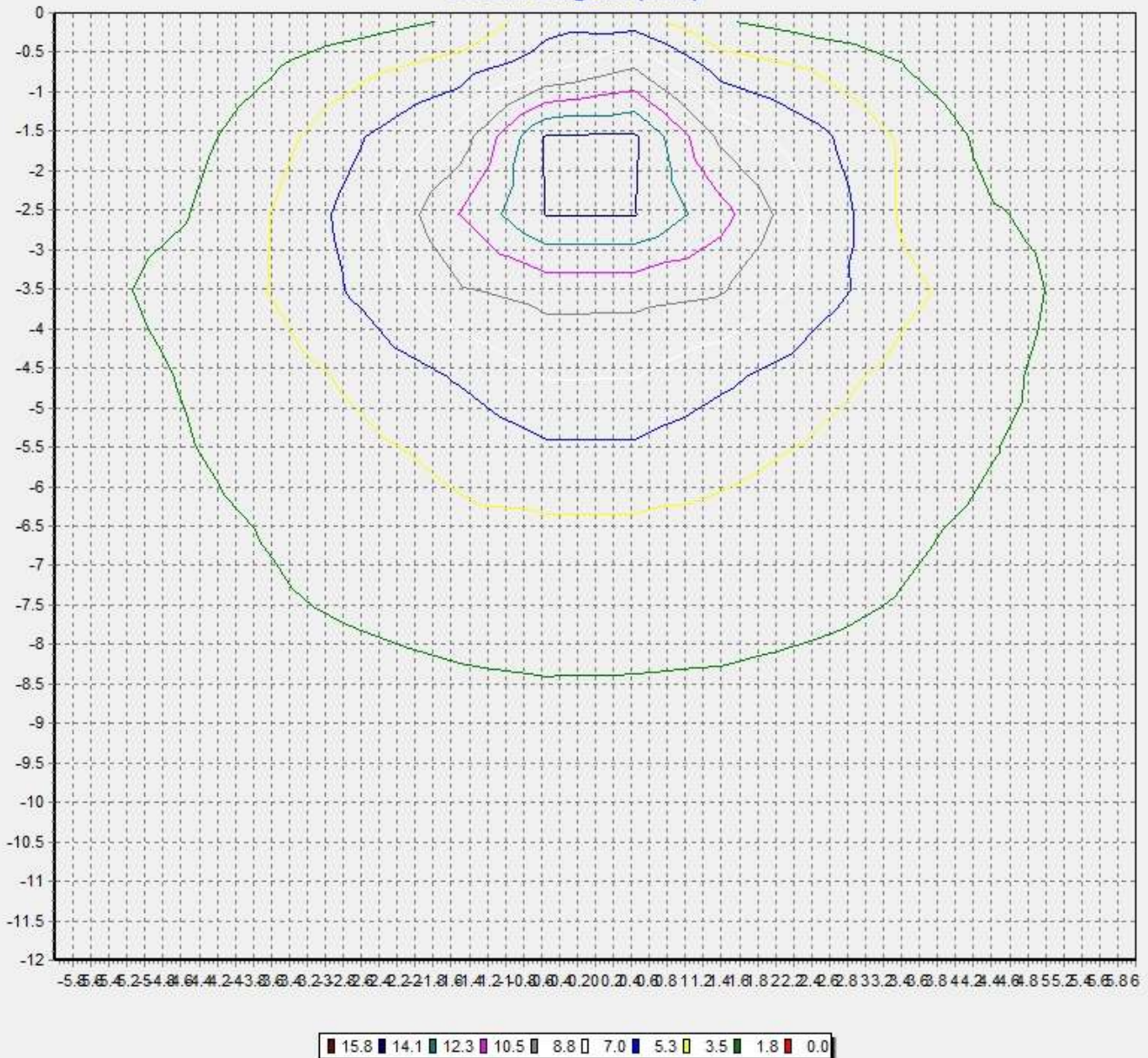
Total flux (I: Date 1188

Power Factor

1

2015-09-11 오전 11:21:48

IsoLux Diagram (Wall)



Pole Height (m): 2.7

Wall Distance (m): 2.7

Aiming Plane: 0

Wall Height (m): 12

Luminaire

Lamp				Report	20150911-0002
No. of lamps	1	Voltage (V)	23.94	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\NDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt	
Lamp flux (lm)	1188	Current (A)	0.605	Operator	
Total flux (lm)	1188	Power Factor	1	Date	2015-09-11 오전 11:21:48

Illuminance Levels (Ground)

6.00	0.41	0.55	0.58	0.76	1.25	1.49	1.56	1.44	1.23	0.74	0.57	0.53	0.38
5.00	0.55	0.61	1.12	1.64	1.78	2.71	2.89	2.70	1.72	1.61	1.09	0.56	0.53
4.00	0.52	1.11	1.38	2.63	3.19	5.29	5.80	5.24	3.11	2.59	1.27	1.08	0.50
3.00	0.69	1.45	2.58	3.69	6.34	9.31	10.88	9.04	6.17	3.47	2.53	1.39	0.66
2.00	1.08	1.45	2.93	5.75	13.73	20.27	27.54	19.85	13.18	5.63	2.80	1.39	1.04
1.00	1.20	2.19	4.45	8.27	19.21	38.88	53.25	38.10	18.92	8.21	4.44	2.18	1.16
0.00	1.17	2.22	4.66	8.94	25.34	52.78	68.58	53.15	26.13	9.39	4.90	2.33	1.22
-1.00	1.13	2.08	4.26	7.91	18.55	38.01	53.56	38.81	19.02	8.20	4.34	2.10	1.14
-2.00	1.00	1.36	2.75	5.47	12.95	19.80	27.71	20.27	13.71	5.68	2.85	1.38	1.03
-3.00	0.64	1.34	2.46	3.39	6.06	8.98	10.92	9.35	6.34	3.68	2.58	1.39	0.66
-4.00	0.48	1.05	1.24	2.51	3.06	5.21	5.81	5.30	3.18	2.64	1.37	1.11	0.49
-5.00	0.51	0.54	1.06	1.58	1.69	2.66	2.90	2.71	1.75	1.65	1.12	0.60	0.54
-6.00	0.37	0.51	0.55	0.72	1.20	1.41	1.56	1.47	1.25	0.75	0.57	0.54	0.41
-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.): 68.6
 All illuminance level values are in lux.
 Illum. (Min.): 0.37
 Illum. Avg.: 6.73

Total Optical Solution Provider

Luminaire

Lamp Report

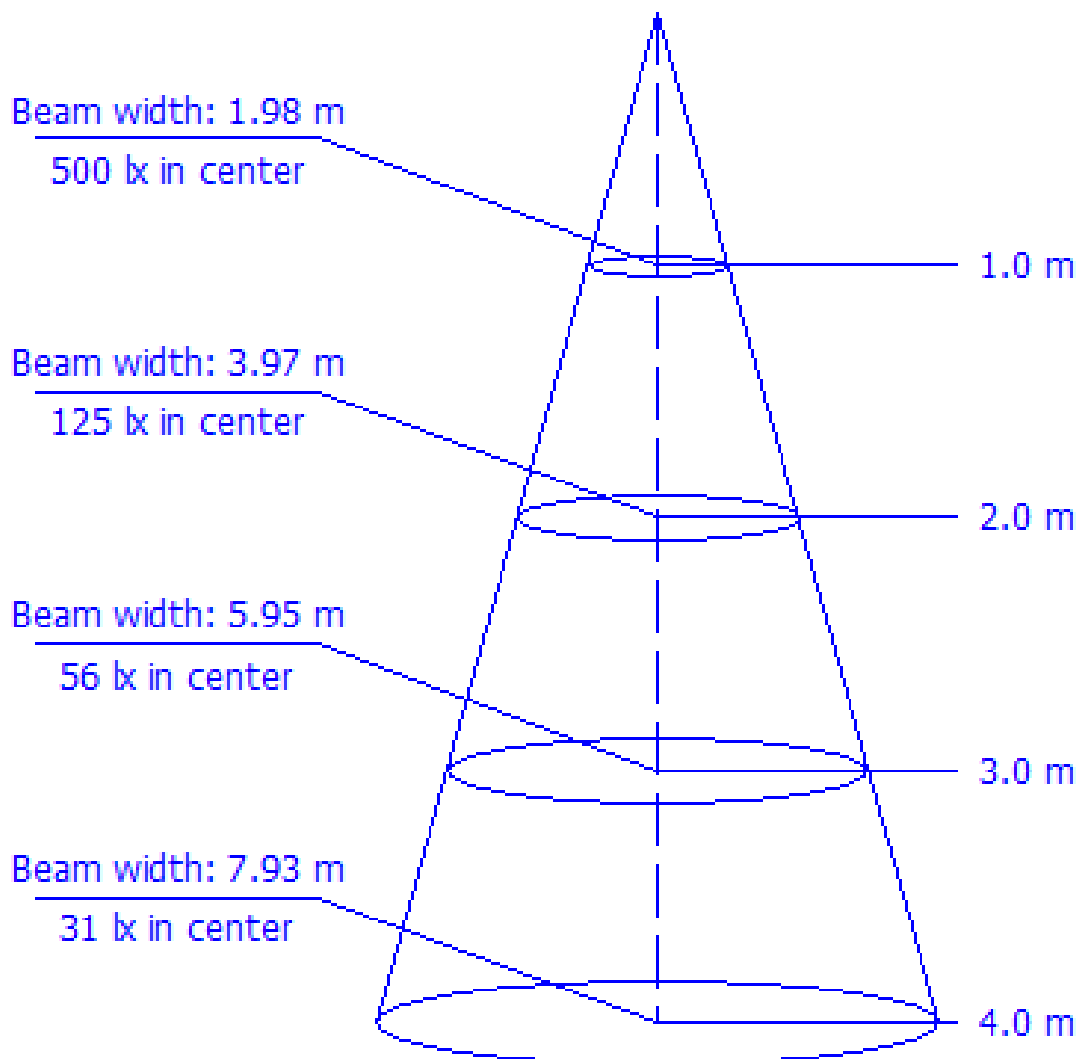
20150911-0002

No. of lamp: Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\WNDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt

Lamp flux (Operator: 1188) Current (A) 0.605

Total flux (IDate: 1188) Power Factor 1 2015-09-11 오전 11:21:48

Illuminance Cone Diagram



Beam Angle = 90 deg.

Based on 50% of maximum illuminance.

Luminaire

Lamp				Report	20150911-0002
No. of lamps	1	Voltage (V)	23.94	Filename C:\Users\WFEELUX\Desktop\완료 리포트\Data\150911\NDV15 40K-24V -1 D1502 VER1.0 40S2A.jdt	
Lamp flux (lm)	1188	Current (A)	0.605	Operator	
Total flux (lm)	1188	Power Factor	1	Date	2015-09-11 오전 11:21:48

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%	0%
Eff. Floor Cavity Refl.	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Room CR 0	1.17	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	0.95	1.00	0.97	0.94	0.96	0.93	0.90	0.92	0.90	0.87	0.88	0.86	0.84	0.82	
Room CR 2	0.91	0.84	0.79	0.89	0.83	0.78	0.85	0.80	0.76	0.82	0.77	0.74	0.78	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	0.63	0.70	0.66	0.62	0.60	
Room CR 4	0.72	0.63	0.57	0.70	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	0.63	0.55	0.49	0.61	0.54	0.49	0.59	0.53	0.48	0.57	0.52	0.48	0.46	
Room CR 6	0.58	0.50	0.44	0.57	0.49	0.44	0.56	0.48	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	0.32	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	