

# TEST REPORT

**1. Applicant**

\* Client Name : KH FEELUX Co. Ltd.  
\* Address : 235-48 Gwangjeok-ro Gwangjeok-myeon Yangju-Si Gyeonggi-do South Korea  
\* Date of Receipt : 240510

**2. Purpose of Report :****3. Number of Report :** KH FEELUX**4. Test Standard / Item :** / 240510 FNN2 30K-24V-C90-1M**5. Test Period :** 240510 ~ 240510**6. Test Environment**

\* Ambient Temp. : 25.0 +- 3 °C  
\* Relative Humidity : 60.0 +- 10 % RH

**7. Test Item**

\* Name of Product :  
\* Rating :  
\* Model :

**8. Test Result :** Refer to the attachment

|              |         |      |                   |      |
|--------------|---------|------|-------------------|------|
| Confirmation | Test by |      | Technical manager |      |
|              | 장상윤     | Sign | 장상윤               | Sign |

\*\*\*\*\*

- \* 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).

## Result

| Report Number | Sample Name | Sample Number | Test Standard |
|---------------|-------------|---------------|---------------|
| KH FEELUX     |             |               |               |

| Test Item                         | Unit | Result          | Notice |
|-----------------------------------|------|-----------------|--------|
| Beam Distribution Test            |      | See Attachement |        |
| ATHD                              | %    | 0.0             |        |
| CIE 1931 Cx, Cy                   |      | 0.4386 , 0.3951 |        |
| Correlated Color Temperature      | K    | 2897            |        |
| Ra                                |      | 91.44           |        |
| Power Factor                      |      | 1.000           |        |
| Input Voltage                     | V    | 23.963          |        |
| Input Current                     | A    | 0.285           |        |
| Input Watt                        | W    | 6.8234          |        |
| Lamp Flux                         | lm   | 549.8           |        |
| Efficient                         | lm/W | 80.57           |        |
| luminous Intensity (Max , Center) | cd   | 194 , 193       |        |
| Illuminance                       | lx   | 193             | 1 m    |
|                                   |      | 48              | 2 m    |
|                                   |      | 21              | 3 m    |

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

\* Sample photo

Click to load image

Luminaire KH FEELUX

Lamp

Report

KH FEELUX

No. of lamps 1

Voltage (V) 23.963

Filename 240510 FNN2 30K-24V-C90-1M.jdt

Lamp flux (lm) 550

Current (A) 0.28475

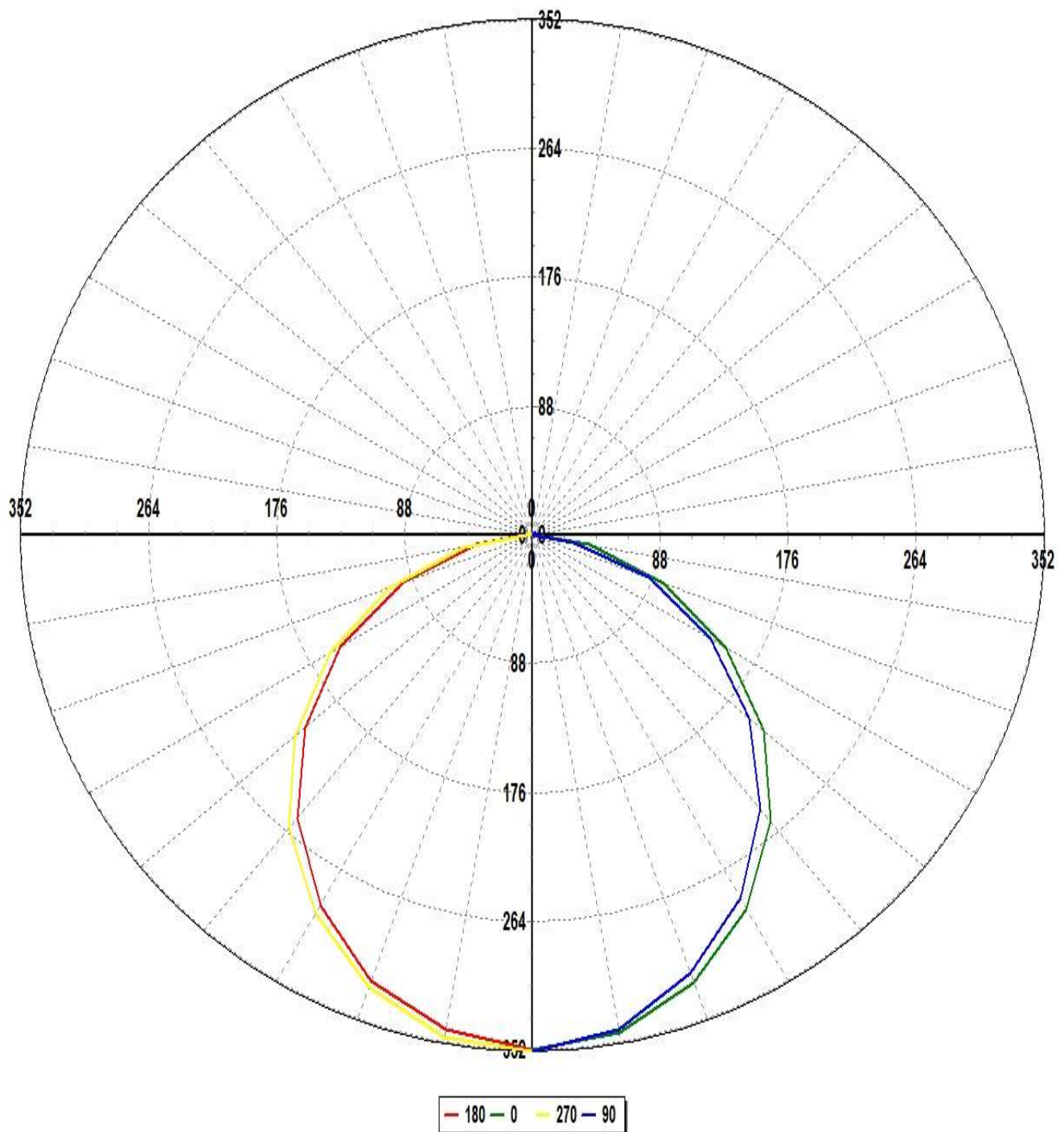
Operator

Total flux (lm) 550

Power Factor 1

Date 2024-05-10 오전 11:41:59

## Luminous Intensity Distribution



Luminaire KH FEELUX

Lamp

Report

KH FEELUX

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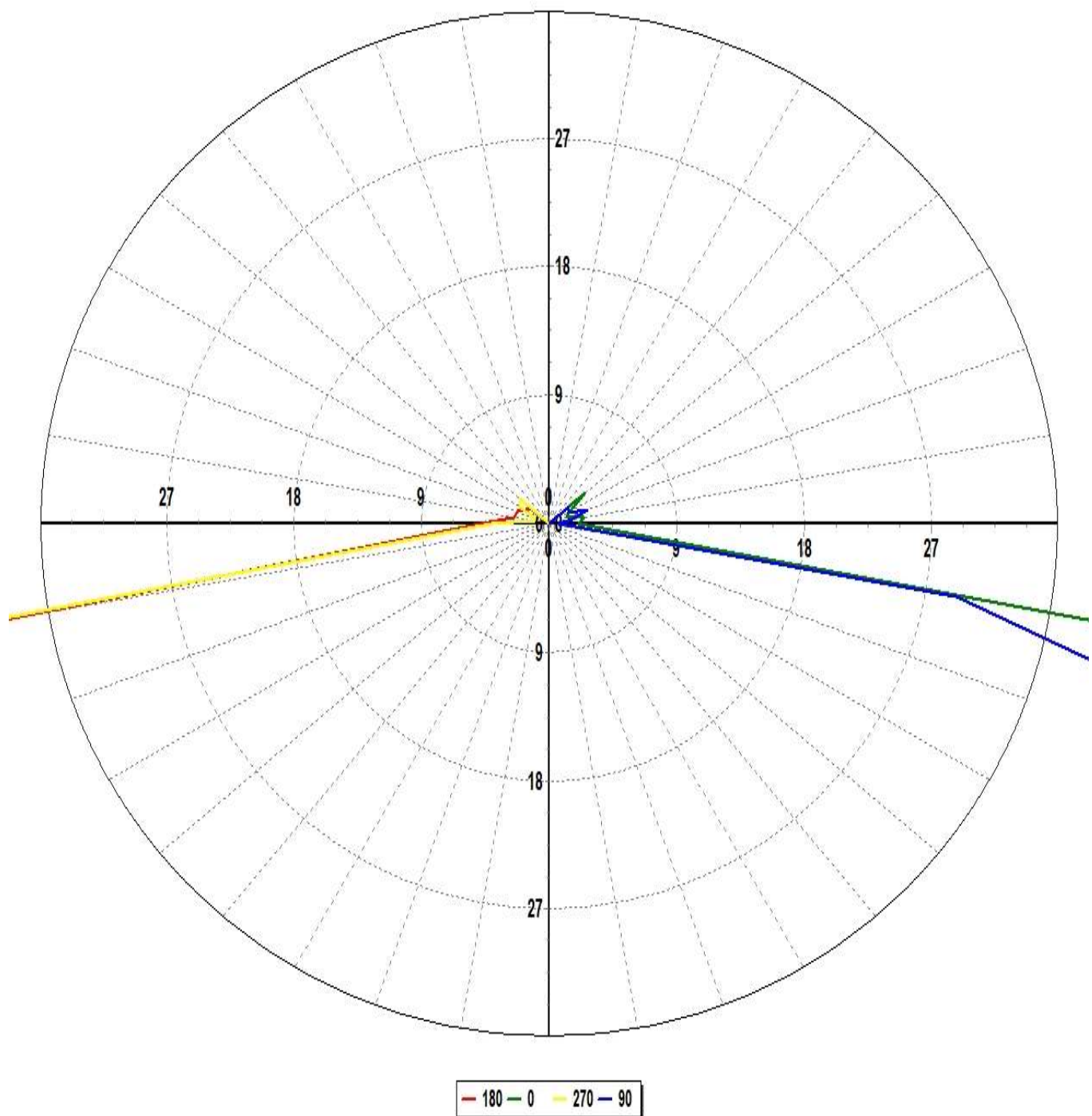
Operator

Total flux (lm) 550

Power Factor 1

Date 2024-05-10 오전 11:41:59

## Luminous Intensity Distribution (Lowest 10%)



Luminaire KH FEELUX

Lamp

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Current (A) 0.28475

Operator

Total flux (lm) 550

Power Factor 1

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## Luminous Intensity Data

Maximum (cd) : 194

Minimum (cd) : 0

| G/C | 0      | 30     | 60     | 90     | 120    | 150    | 180    | 210    | 240    | 270    | 300    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0   | 193.46 | 193.42 | 192.86 | 193.88 | 193.55 | 192.52 | 193.46 | 193.42 | 192.86 | 193.88 | 193.55 |
| 10  | 189.59 | 188.89 | 189.15 | 188.31 | 187.62 | 186.42 | 188.7  | 190.07 | 189.96 | 191.48 | 192.98 |
| 20  | 179.06 | 178.42 | 176.69 | 174.76 | 175.2  | 174.6  | 178.38 | 178.88 | 179.59 | 180.8  | 180.72 |
| 30  | 162.2  | 160.68 | 159.53 | 157.32 | 156.01 | 155.07 | 160.5  | 161.76 | 162.85 | 164.37 | 166.71 |
| 40  | 140.48 | 138.23 | 136.75 | 134.03 | 133.14 | 130.46 | 138.59 | 140.43 | 141.14 | 143.26 | 144.62 |
| 50  | 114.37 | 111.35 | 110.25 | 106.93 | 106.26 | 104.07 | 112.43 | 114.6  | 114.67 | 117.58 | 119.63 |
| 60  | 84.38  | 81.42  | 80.63  | 77.94  | 76.77  | 74.63  | 83.76  | 85.82  | 86.42  | 88.43  | 90.53  |
| 70  | 52.85  | 50.35  | 48.97  | 46.98  | 45.66  | 43.01  | 51.87  | 53.5   | 55.83  | 57.81  | 58.39  |
| 80  | 21.87  | 18.25  | 17.12  | 16.05  | 15.4   | 13.65  | 21.47  | 23.04  | 24.51  | 26.23  | 26.97  |
| 90  | 1.13   | 1.4    | 1.01   | 0.37   | 0.93   | 1.3    | 2.64   | 1.69   | 2.03   | 2.24   | 2.93   |
| 100 | 1.37   | 0.48   | 1.44   | 0.93   | 0.71   | 0.93   | 1.39   | 1.59   | 1.35   | 0.59   | 0.97   |
| 110 | 0.7    | 1.48   | 0.87   | 1.6    | 0.5    | 0.49   | 1.31   | 1.32   | 1.19   | 0.65   | 1.02   |
| 120 | 0.89   | 0.96   | 1.06   | 0.83   | 0.68   | 1.64   | 1.05   | 1.41   | 0.74   | 1.33   | 1.05   |
| 130 | 1.84   | 1.61   | 0.93   | 0.99   | 1.11   | 1.12   | 0.86   | 2.15   | 0.59   | 1.49   | 2.12   |

Luminaire KH FEELUX

Lamp

Report

KH FEELUX

No. of lamps 1

Voltage (V) 23.963

Filename 240510 FNN2 30K-24V-C90-1M.jdt

Lamp flux (lm) 550

Current (A) 0.28475

Operator

Total flux (lm) 550

Power Factor 1

Date 2024-05-10 오전 11:41:59

## Luminous Intensity Data (Continued)

Maximum (cd) : 194

Minimum (cd) : 0

| G/C | 330    | 360    |
|-----|--------|--------|
| 0   | 192.52 | 193.46 |
| 10  | 191.51 | 189.59 |
| 20  | 182.64 | 179.06 |
| 30  | 167.17 | 162.2  |
| 40  | 145.7  | 140.48 |
| 50  | 122.12 | 114.37 |
| 60  | 92.46  | 84.38  |
| 70  | 62.04  | 52.85  |
| 80  | 29.36  | 21.87  |
| 90  | 3.98   | 1.13   |
| 100 | 0.99   | 1.37   |
| 110 | 1.45   | 0.7    |
| 120 | 0.46   | 0.89   |
| 130 | 0.84   | 1.84   |

Luminaire KH FEELUX

Lamp

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KH FEELUX

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Operator

Total flux (lm) 550

Power Factor 1

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## Luminous Flux Table

Total Lamp Lumens: 549.84

Luminaire Efficiency (lm/W): 80.58

CIE Classification: Direct

| Elevation | Lumens | Cumulative | Lamp % | Luminaire % |
|-----------|--------|------------|--------|-------------|
| 0         | 4.62   | 4.62       | 0.84   | 0.84        |
| 10        | 36.05  | 40.67      | 7.40   | 7.40        |
| 20        | 66.79  | 107.47     | 19.55  | 19.54       |
| 30        | 88.26  | 195.73     | 35.60  | 35.60       |
| 40        | 97.79  | 293.52     | 53.39  | 53.38       |
| 50        | 94.68  | 388.20     | 70.61  | 70.60       |
| 60        | 79.29  | 467.50     | 85.03  | 85.02       |
| 70        | 53.80  | 521.29     | 94.81  | 94.81       |
| 80        | 22.82  | 544.12     | 98.97  | 98.96       |
| 90        | 1.98   | 546.09     | 99.33  | 99.32       |
| 100       | 1.14   | 547.24     | 99.53  | 99.53       |
| 110       | 1.08   | 548.32     | 99.73  | 99.72       |
| 120       | 0.96   | 549.27     | 99.90  | 99.90       |
| 130       | 0.57   | 549.84     | 100.01 | 100.00      |

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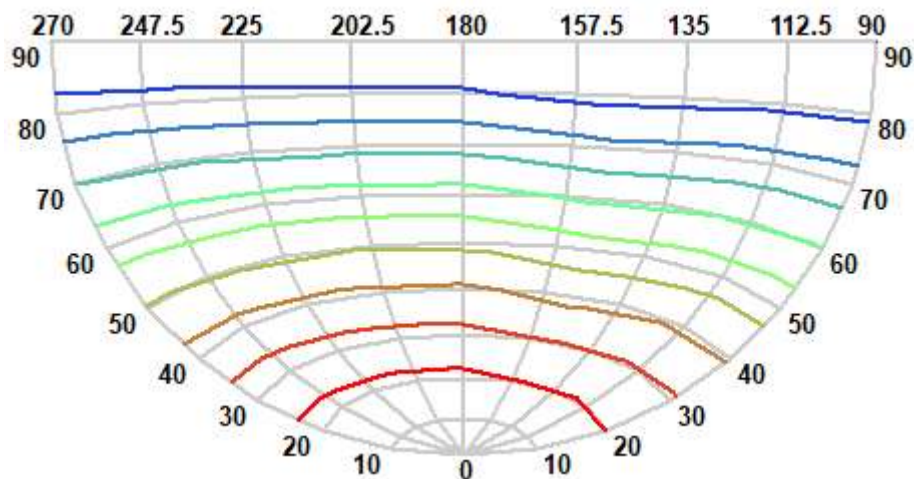
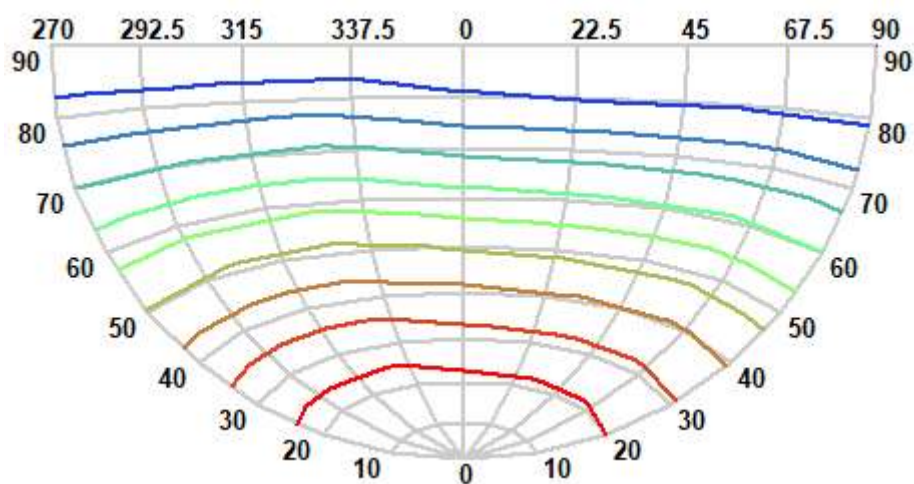
Operator

Total flux (lm) 550

Power Factor 1

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## IsoCandela (Type C)



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Current (A) 0.28475

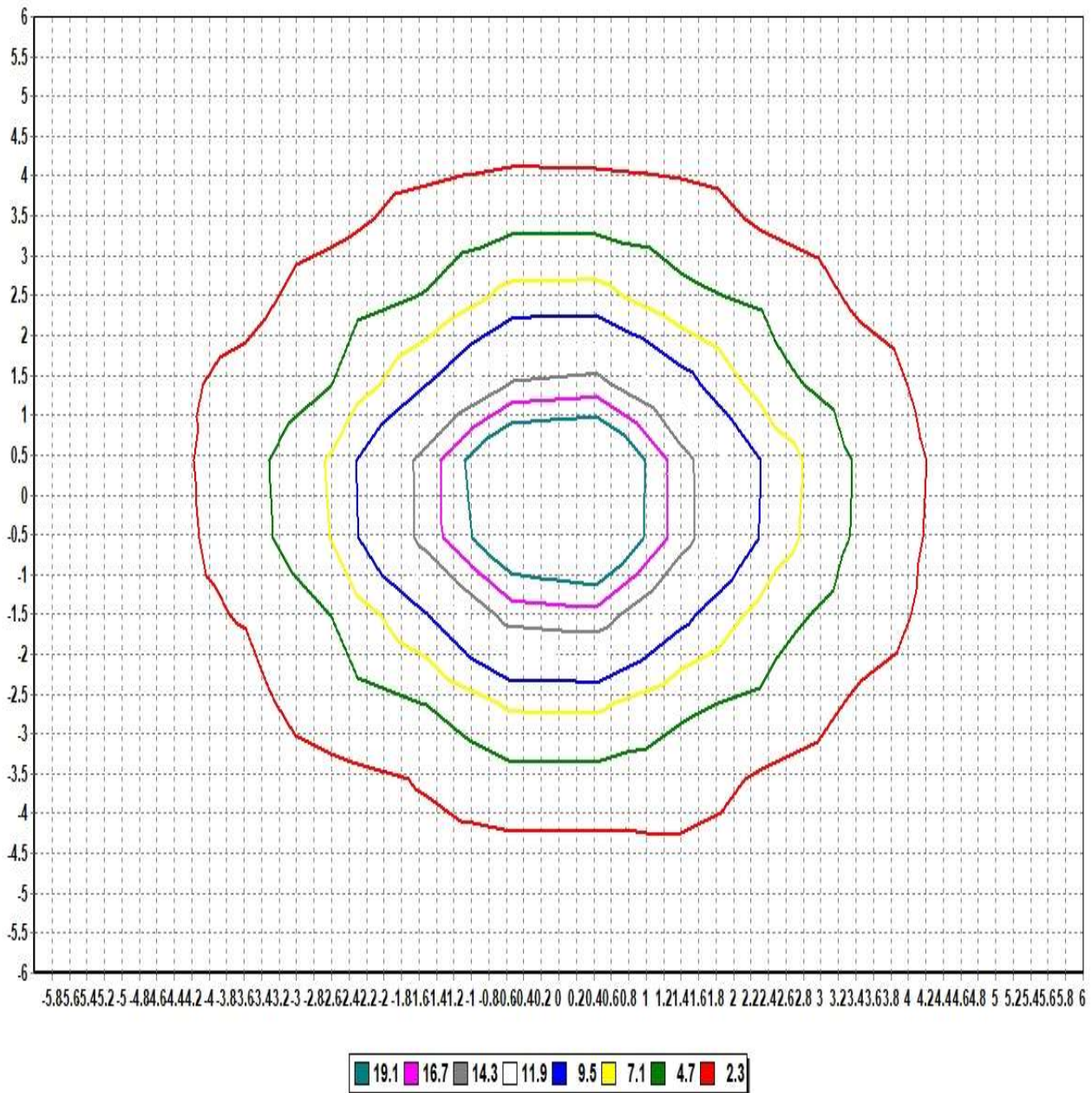
Operator

Total flux (lm) 550

Power Factor 1

Date 2024-05-10 오전 11:41:59

## IsoLux Diagram (Ground)



Pole Height (m): 2.7

Area Width (m): 12

Total Optical Solution Provider

Luminaire KH FEELUX

Lamp

Report

KH FEELUX

No. of lamps 1

Voltage (V) 23.963

Filename 240510 FNN2 30K-24V-C90-1M.jdt

Lamp flux (lm) 550

Current (A) 0.28475

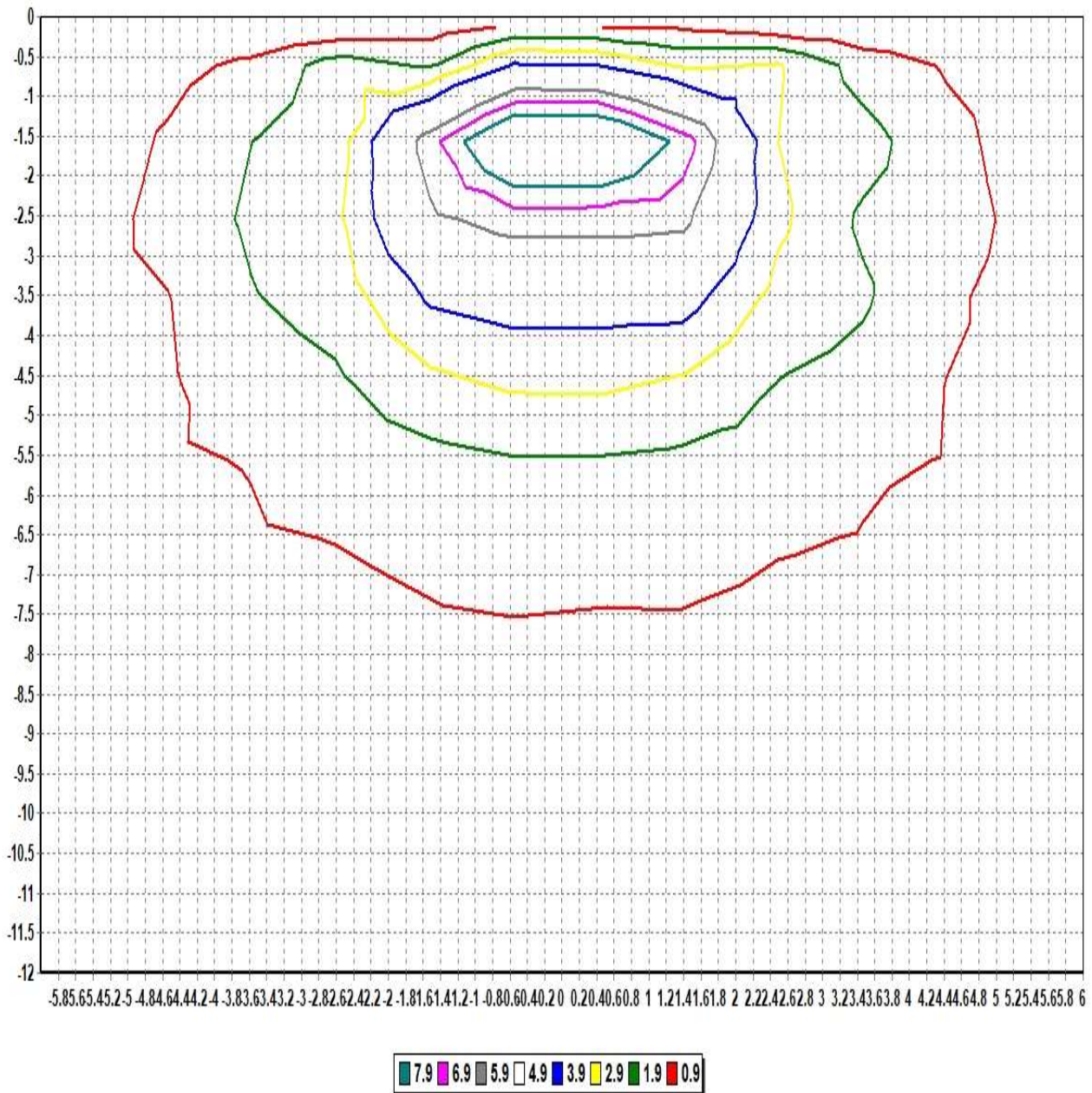
Operator

Total flux (lm) 550

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

Total Optical Solution Provider

Luminaire KH FEELUX

Lamp

|                 |     |              |         |
|-----------------|-----|--------------|---------|
| No. of lamps    | 1   | Voltage (V)  | 23.963  |
| Lamp flux (lm)  | 550 | Current (A)  | 0.28475 |
| Total flux (lm) | 550 | Power Factor | 1       |

Report

KH FEELUX

Filename 240510 FNN2 30K-24V-C90-1M.jdt

Operator

Date

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## Illuminance Levels (Ground)

|       |       |       |       |       |       |       |       |       |       |      |      |      |      |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 6.00  | 0.27  | 0.36  | 0.29  | 0.37  | 0.46  | 0.56  | 0.57  | 0.55  | 0.49  | 0.40 | 0.30 | 0.37 | 0.29 |
| 5.00  | 0.35  | 0.31  | 0.45  | 0.63  | 1.19  | 1.45  | 1.50  | 1.43  | 1.25  | 0.65 | 0.47 | 0.34 | 0.39 |
| 4.00  | 0.27  | 0.42  | 1.02  | 1.50  | 1.52  | 2.00  | 2.15  | 2.00  | 1.60  | 1.55 | 1.09 | 0.49 | 0.32 |
| 3.00  | 0.37  | 0.59  | 1.47  | 1.80  | 3.70  | 4.05  | 4.61  | 4.22  | 3.80  | 1.92 | 1.60 | 0.69 | 0.40 |
| 2.00  | 0.45  | 1.18  | 1.51  | 3.62  | 5.26  | 8.40  | 10.11 | 8.70  | 5.54  | 3.90 | 1.61 | 1.26 | 0.51 |
| 1.00  | 0.56  | 1.45  | 2.00  | 4.01  | 8.38  | 15.35 | 21.25 | 15.78 | 8.73  | 4.27 | 2.22 | 1.59 | 0.65 |
| 0.00  | 0.62  | 1.59  | 2.29  | 4.83  | 10.41 | 21.31 | 26.54 | 21.41 | 10.54 | 4.91 | 2.32 | 1.61 | 0.63 |
| -1.00 | 0.53  | 1.42  | 1.99  | 4.32  | 8.84  | 15.76 | 21.62 | 16.13 | 9.12  | 4.57 | 2.20 | 1.56 | 0.62 |
| -2.00 | 0.52  | 1.29  | 1.68  | 3.86  | 5.56  | 8.85  | 10.72 | 9.10  | 5.78  | 4.08 | 1.78 | 1.36 | 0.58 |
| -3.00 | 0.43  | 0.69  | 1.59  | 1.95  | 3.92  | 4.35  | 5.04  | 4.51  | 4.00  | 2.05 | 1.72 | 0.78 | 0.46 |
| -4.00 | 0.32  | 0.49  | 1.10  | 1.62  | 1.69  | 2.18  | 2.41  | 2.18  | 1.77  | 1.67 | 1.16 | 0.56 | 0.37 |
| -5.00 | 0.39  | 0.35  | 0.52  | 0.72  | 1.30  | 1.55  | 1.66  | 1.54  | 1.35  | 0.74 | 0.54 | 0.38 | 0.43 |
| -6.00 | 0.30  | 0.40  | 0.34  | 0.43  | 0.53  | 0.63  | 0.67  | 0.63  | 0.56  | 0.46 | 0.35 | 0.41 | 0.31 |
| -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.) : 26.538

Illum. (Min.) : 0.2662

Illum. (Avg.) : 3.0679

All illuminance level values are in lux.



Luminaire KH FEELUX

Lamp

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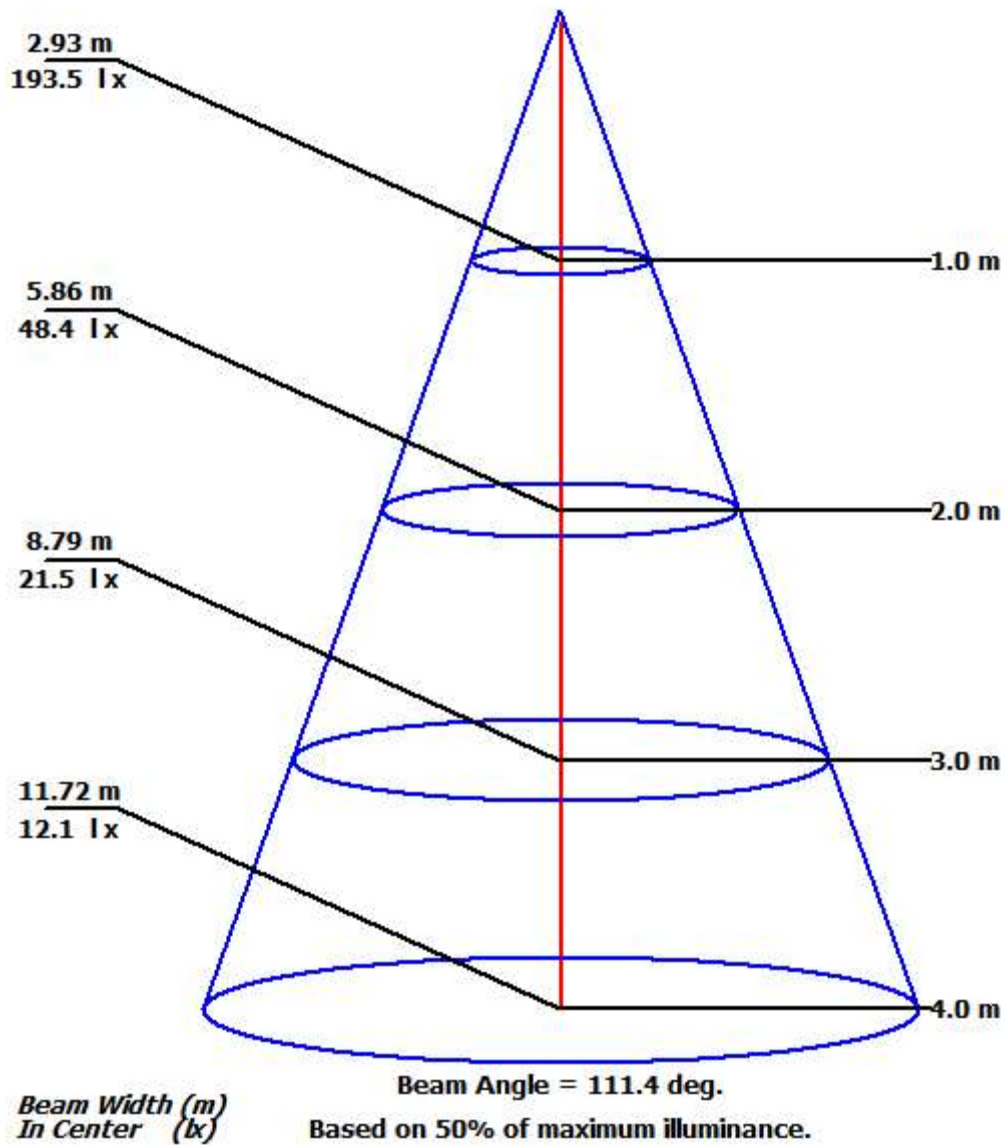
Operator

Total flux (lm) 550

Power Factor 1

Date 2024-05-10 오전 11:41:59

## Illuminance Cone Diagram



Luminaire KH FEELUX

Lamp

|                 |     |              |         |
|-----------------|-----|--------------|---------|
| No. of lamps    | 1   | Voltage (V)  | 23.963  |
| Lamp flux (lm)  | 550 | Current (A)  | 0.28475 |
| Total flux (lm) | 550 | Power Factor | 1       |

Report

KH FEELUX

Filename 240510 FNN2 30K-24V-C90-1M.jdt

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## 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                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 1                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 2                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 3                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 4                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 5                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 6                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 7                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 8                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 9                 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Room CR           | 10                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |