

TEST REPORT

1. Applicant

* Client Name : KH-FEELUX Co. Ltd.
* Address : 235-48 Gwangjeok-ro Gwangjeok-myeon Yangju-si Gyeonggi-do 482-844 Korea
* Date of Receipt : 220121

2. Purpose of Report :**3. Number of Report :** 220121**4. Test Standard / Item :** / FTS5 40K-24V-C90-1M**5. Test Period :** 220121 ~ 220121**6. Test Environment**

* Ambient Temp. : 23.0 +- 3 °C
* Relative Humidity : 25.0 +- 10 % RH

7. Test Item

* Name of Product :
* Rating :
* Model :

8. Test Result : Refer to the attachment

| Confirmation | Test by | | Technical manager | |
|--------------|---------|------|-------------------|------|
| | YKI | Sign | YKI | 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 |
|---------------|-------------|---------------|---------------|
| 220121 | | | |

| Test Item | Unit | Result | Notice |
|-----------------------------------|------|-----------------|--------|
| Beam Distribution Test | | See Attachement | |
| ATHD | % | 0.0 | |
| CIE 1931 Cx, Cy | | 0.3790 , 0.3670 | |
| Correlated Color Temperature | K | 3970 | |
| Ra | | 93.8 | |
| Power Factor | | 1.000 | |
| Input Voltage | V | 23.967 | |
| Input Current | A | 0.191 | |
| Input Watt | W | 4.5771 | |
| Lamp Flux | lm | 477.2 | |
| Efficient | lm/W | 104.26 | |
| luminous Intensity (Max , Center) | cd | 171 , 170 | |
| Illuminance | lx | 170 | 1 m |
| | | 43 | 2 m |
| | | 19 | 3 m |

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

* Sample photo

Click to load image

Luminaire KH FEELUX

Lamp

Report

220121

No. of lamps 1

Voltage (V) 23.967

Filename FTS5 40K-24V-C90-1M.jdt

Lamp flux (lm) 477

Current (A) 0.19097

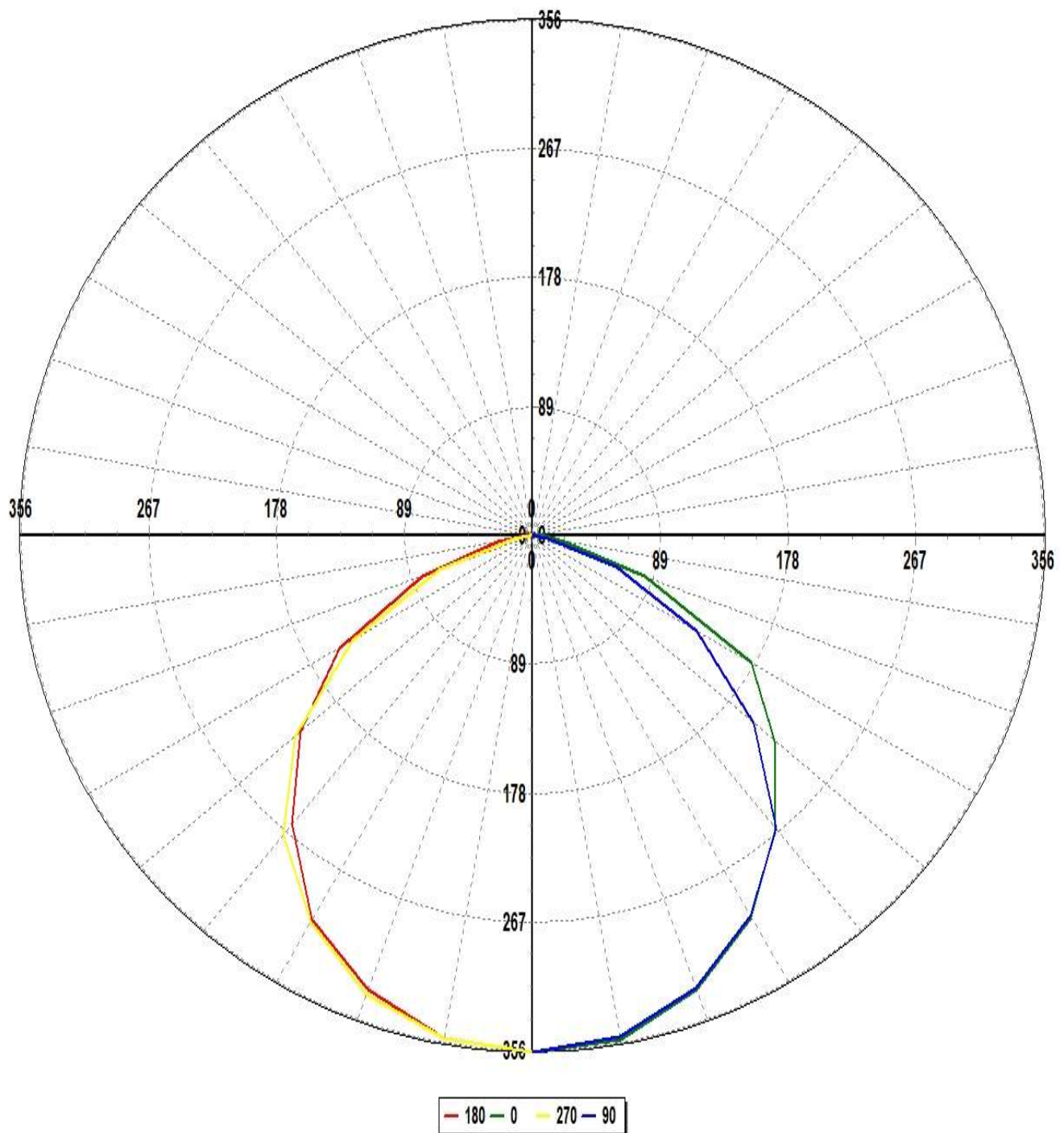
Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

Luminous Intensity Distribution



Luminaire KH FEELUX

Lamp

Report

220121

No. of lamps 1

Voltage (V) 23.967

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Lamp flux (lm) 477

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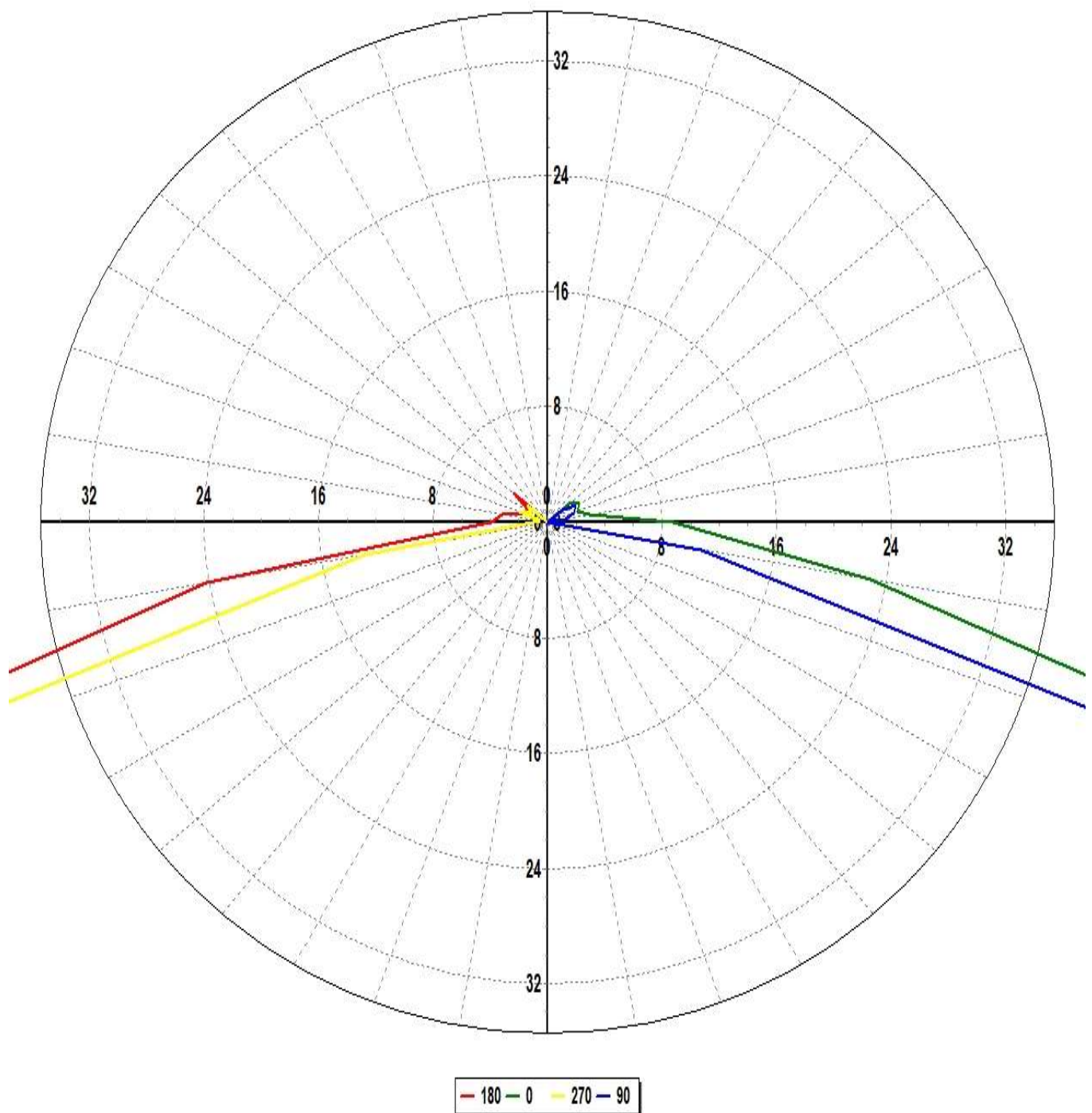
Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

Luminous Intensity Distribution (Lowest 10%)



Luminaire KH FEELUX

Lamp

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220121

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Current (A) 0.19097

Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

Luminous Intensity Data

Maximum (cd) : 171

Minimum (cd) : 0

| G/C | 0 | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0 | 170.18 | 169.94 | 169.86 | 170.39 | 171.22 | 170.71 | 170.18 | 169.94 | 169.86 | 170.39 | 171.22 |
| 10 | 168.71 | 168.49 | 168.46 | 167.77 | 167.29 | 167.44 | 168.27 | 168.48 | 168.18 | 168.51 | 167.91 |
| 20 | 159.4 | 159.41 | 159.67 | 158.67 | 159.42 | 158.48 | 159.56 | 160.05 | 160.6 | 160.93 | 160.94 |
| 30 | 145.67 | 145.51 | 145.61 | 144.74 | 144.46 | 144.22 | 146.27 | 146.24 | 146.64 | 147.27 | 148.55 |
| 40 | 125.8 | 125.23 | 125.72 | 125.93 | 124.35 | 123.01 | 124.32 | 126.27 | 127.5 | 128.78 | 128.35 |
| 50 | 105.04 | 102.07 | 101.27 | 96.06 | 99.25 | 97.5 | 100.69 | 101.04 | 102.01 | 102.59 | 103.7 |
| 60 | 84.1 | 78.7 | 72.34 | 63.17 | 69.13 | 68.12 | 74.1 | 72.15 | 72.16 | 69.01 | 75.24 |
| 70 | 39.82 | 41.98 | 40.06 | 29.67 | 35.85 | 36.67 | 38.79 | 40.04 | 40.15 | 32.95 | 43.95 |
| 80 | 10.93 | 11.55 | 13.25 | 5.2 | 11.05 | 10.33 | 11.55 | 12.74 | 12.68 | 6.19 | 15.65 |
| 90 | 4.18 | 4.32 | 2.62 | -0.25 | 1.74 | 2.03 | 1.87 | 1.62 | 0.54 | 0.48 | 3.32 |
| 100 | 1.42 | 0.38 | 0.61 | 0.6 | 0.12 | 1.01 | 1.54 | 1.69 | 0.85 | 0.26 | 0.58 |
| 110 | 1.08 | 1.4 | 0.97 | 0.94 | 0.24 | 0.03 | 0.88 | 0.99 | 0.94 | 0.99 | 1.14 |
| 120 | 1.22 | 1.28 | 1.74 | 1.1 | 0.94 | 0.97 | 0.7 | 0.95 | 0.78 | 0.64 | 1.23 |
| 130 | 1.01 | 1.34 | 0.56 | 0.67 | 1.63 | 1.74 | 1.5 | 1.51 | 0.59 | 0.9 | 0.62 |

Luminaire KH FEELUX

Lamp

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Lamp flux (lm) 477

Current (A) 0.19097

Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

Luminous Intensity Data (Continued)

Maximum (cd) : 171

Minimum (cd) : 0

| G/C | 330 | 360 |
|-----|--------|--------|
| 0 | 170.71 | 170.18 |
| 10 | 168.49 | 168.71 |
| 20 | 160.65 | 159.4 |
| 30 | 147.65 | 145.67 |
| 40 | 128 | 125.8 |
| 50 | 105.18 | 105.04 |
| 60 | 81.63 | 84.1 |
| 70 | 47.28 | 39.82 |
| 80 | 14.22 | 10.93 |
| 90 | 4.03 | 4.18 |
| 100 | 0.8 | 1.42 |
| 110 | 1.24 | 1.08 |
| 120 | 0.79 | 1.22 |
| 130 | 0.76 | 1.01 |

Luminaire KH FEELUX

Lamp

Report

220121

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Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

Luminous Flux Table

Total Lamp Lumens: 477.19

Luminaire Efficiency (lm/W): 104.26

CIE Classification: Direct

| Elevation | Lumens | Cumulative | Lamp % | Luminaire % |
|-----------|--------|------------|--------|-------------|
| 0 | 4.07 | 4.07 | 0.85 | 0.85 |
| 10 | 31.98 | 36.06 | 7.56 | 7.56 |
| 20 | 59.86 | 95.92 | 20.10 | 20.10 |
| 30 | 79.99 | 175.91 | 36.86 | 36.86 |
| 40 | 88.78 | 264.69 | 55.47 | 55.47 |
| 50 | 85.05 | 349.73 | 73.29 | 73.29 |
| 60 | 69.55 | 419.28 | 87.86 | 87.86 |
| 70 | 40.07 | 459.35 | 96.26 | 96.26 |
| 80 | 12.16 | 471.52 | 98.81 | 98.81 |
| 90 | 2.42 | 473.94 | 99.32 | 99.32 |
| 100 | 0.89 | 474.82 | 99.50 | 99.50 |
| 110 | 0.93 | 475.75 | 99.70 | 99.70 |
| 120 | 0.98 | 476.73 | 99.90 | 99.90 |
| 130 | 0.47 | 477.19 | 100.00 | 100.00 |

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Lamp

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Current (A) 0.19097

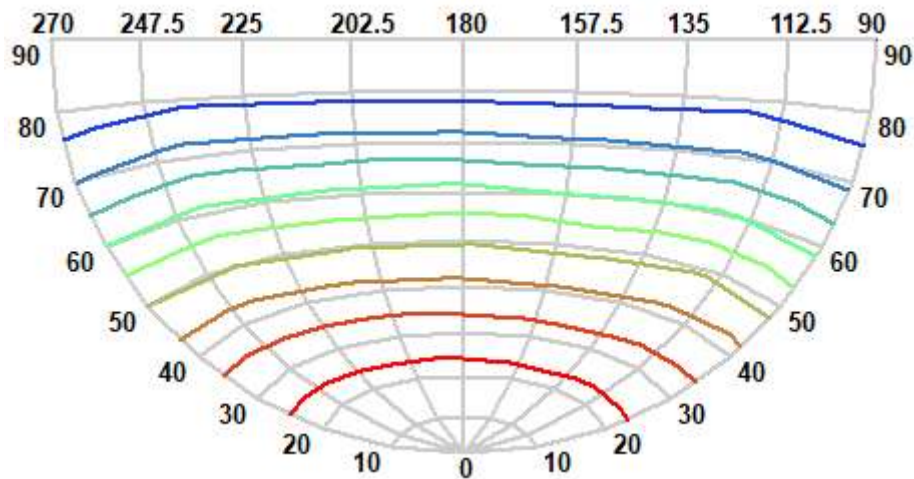
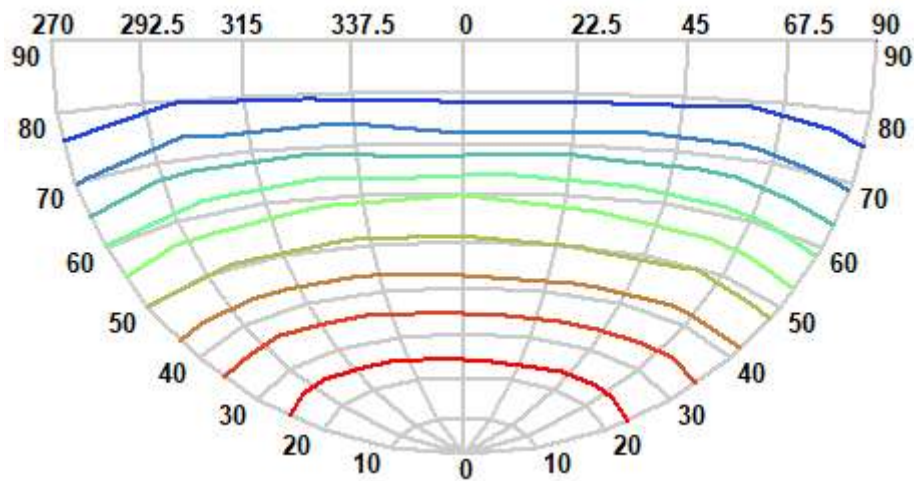
Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

IsoCandela (Type C)



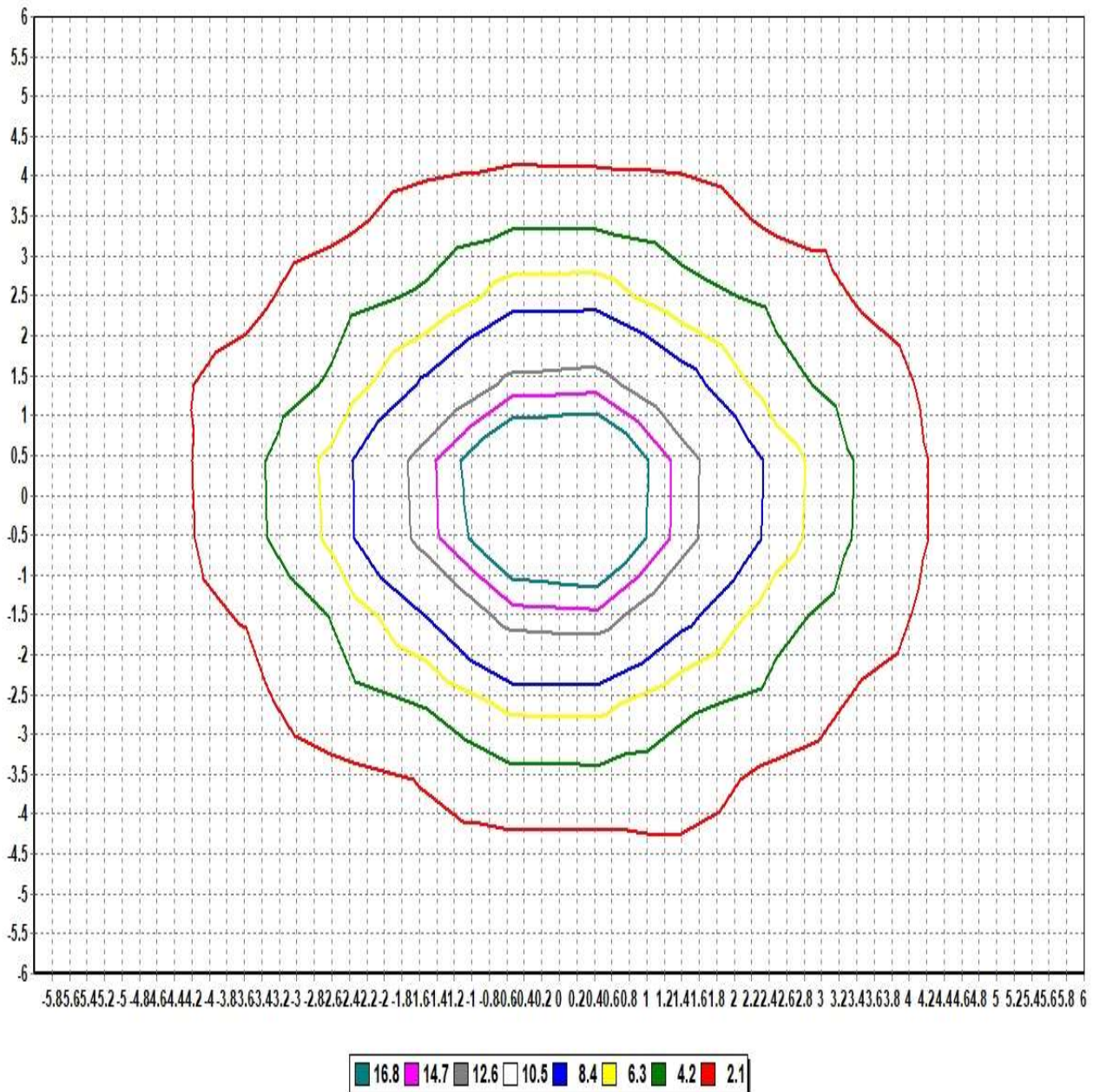
Luminaire KH FEELUX

Lamp

| | | | |
|-----------------|-----|--------------|---------|
| No. of lamps | 1 | Voltage (V) | 23.967 |
| Lamp flux (lm) | 477 | Current (A) | 0.19097 |
| Total flux (lm) | 477 | Power Factor | 1 |

| | |
|----------|-------------------------|
| Report | 220121 |
| Filename | FTS5 40K-24V-C90-1M.jdt |
| Operator | YKI |
| Date | 2022-01-21 오전 9:21:16 |

IsoLux Diagram (Ground)



Pole Height (m): 2.7

Area Width (m): 12

Total Optical Solution Provider

Luminaire KH FEELUX

Lamp

No. of lamps 1

Voltage (V) 23.967

Lamp flux (lm) 477

Current (A) 0.19097

Total flux (lm) 477

Power Factor 1

Report

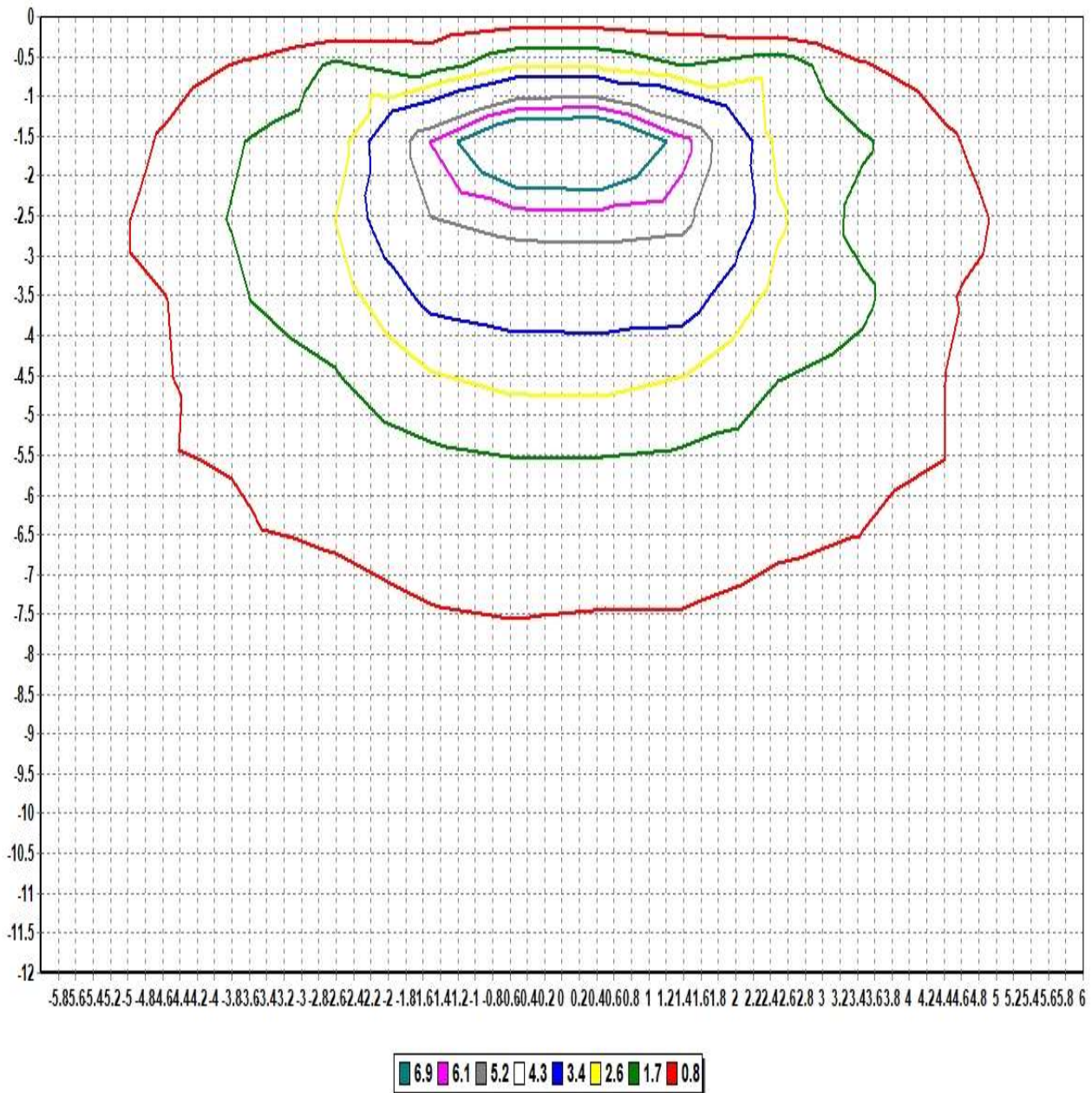
220121

Filename FTS5 40K-24V-C90-1M.jdt

Operator YKI

Date 2022-01-21 오전 9:21:16

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) | 23.967 |
| Lamp flux (lm) | 477 | Current (A) | 0.19097 |
| Total flux (lm) | 477 | Power Factor | 1 |

| | |
|----------|-------------------------|
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| Filename | FTS5 40K-24V-C90-1M.jdt |
| Operator | YKI |
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Illuminance Levels (Ground)

| | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 6.00 | 0.22 | 0.30 | 0.19 | 0.30 | 0.36 | 0.45 | 0.42 | 0.42 | 0.43 | 0.35 | 0.25 | 0.34 | 0.27 |
| 5.00 | 0.31 | 0.22 | 0.33 | 0.47 | 1.09 | 1.31 | 1.33 | 1.29 | 1.15 | 0.57 | 0.40 | 0.28 | 0.38 |
| 4.00 | 0.23 | 0.37 | 0.92 | 1.35 | 1.36 | 1.76 | 1.83 | 1.75 | 1.53 | 1.43 | 1.03 | 0.42 | 0.25 |
| 3.00 | 0.30 | 0.53 | 1.37 | 1.57 | 3.44 | 3.73 | 4.19 | 3.87 | 3.48 | 1.84 | 1.48 | 0.62 | 0.35 |
| 2.00 | 0.38 | 1.10 | 1.37 | 3.40 | 4.87 | 7.85 | 9.43 | 7.90 | 5.04 | 3.52 | 1.55 | 1.18 | 0.44 |
| 1.00 | 0.47 | 1.32 | 1.81 | 3.75 | 7.83 | 14.11 | 18.94 | 14.19 | 7.90 | 3.92 | 2.03 | 1.41 | 0.55 |
| 0.00 | 0.51 | 1.42 | 2.04 | 4.33 | 9.39 | 19.00 | 23.34 | 19.05 | 9.44 | 4.48 | 2.22 | 1.50 | 0.55 |
| -1.00 | 0.46 | 1.30 | 1.80 | 3.83 | 7.95 | 14.25 | 19.03 | 14.40 | 8.09 | 3.96 | 2.03 | 1.41 | 0.53 |
| -2.00 | 0.41 | 1.13 | 1.43 | 3.46 | 4.96 | 7.97 | 9.62 | 8.09 | 5.08 | 3.57 | 1.50 | 1.17 | 0.46 |
| -3.00 | 0.33 | 0.57 | 1.42 | 1.70 | 3.52 | 3.86 | 4.43 | 3.92 | 3.56 | 1.69 | 1.48 | 0.65 | 0.36 |
| -4.00 | 0.24 | 0.39 | 0.97 | 1.43 | 1.43 | 1.82 | 1.98 | 1.82 | 1.47 | 1.44 | 0.98 | 0.45 | 0.29 |
| -5.00 | 0.34 | 0.26 | 0.40 | 0.57 | 1.13 | 1.34 | 1.43 | 1.34 | 1.15 | 0.52 | 0.37 | 0.26 | 0.37 |
| -6.00 | 0.25 | 0.33 | 0.25 | 0.33 | 0.42 | 0.45 | 0.46 | 0.47 | 0.42 | 0.35 | 0.21 | 0.32 | 0.25 |
| -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.) : 23.344

Illum. (Min.) : 0.1904

Illum. (Avg.) : 2.7339

All illuminance level values are in lux.



Luminaire KH FEELUX

Lamp

Report

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Lamp flux (lm) 477

Current (A) 0.19097

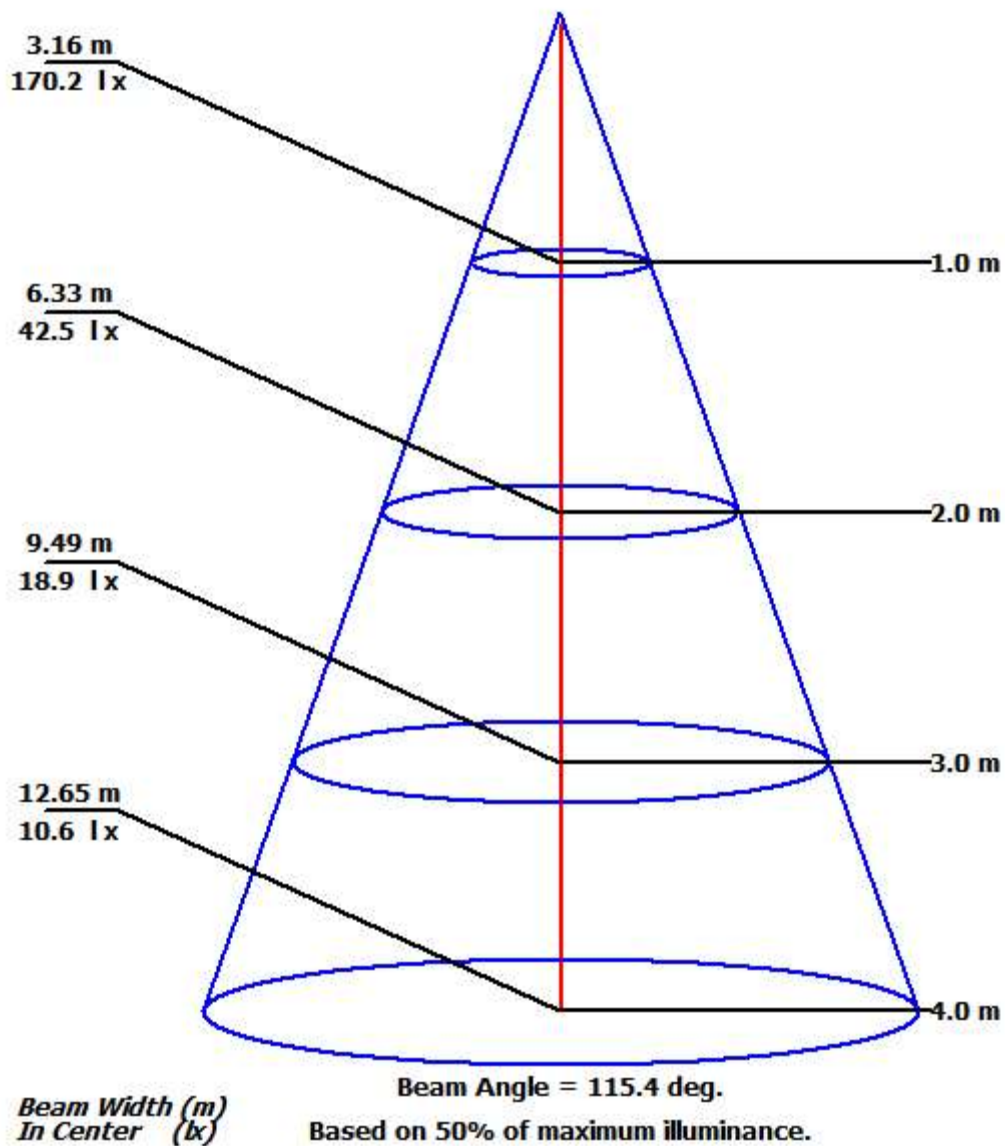
Operator YKI

Total flux (lm) 477

Power Factor 1

Date 2022-01-21 오전 9:21:16

Illuminance Cone Diagram



Luminaire KH FEELUX

Lamp

Report 220121

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Filename FTS5 40K-24V-C90-1M.jdt

Lamp flux (lm) 477 Current (A) 0.19097

Operator YKI

Total flux (lm) 477 Power Factor 1

Date 2022-01-21 오전 9:21:16

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 |