

TEST REPORT

1. Applicant

* Client Name :
* Address : 235-48 GWANGJEOK-RO GWANGJEOK-MYEON YANGJU-SI GYENGGI-DO 482-84
* Date of Receipt : 230714

2. Purpose of Report :

3. Number of Report : 230714

4. Test Standard / Item : / 230714 MICRO SPOT CREE 30K 38도

5. Test Period : 230714 ~ 230714

6. Test Environment

* Ambient Temp. : 22.0 +- 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 | |
| | PKW | Sign | PKW | Sign |

- * The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
- * This report cannot be reporduced, 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 |
|---------------|-------------|---------------|---------------|
| 230714 | | | |

| Test Item | Unit | Result | Notice |
|-----------------------------------|------|-----------------|--------|
| Beam Distribution Test | | See Attachement | |
| ATHD | % | 0.0 | |
| CIE 1931 Cx, Cy | | 0.4231 , 0.3970 | |
| Correlated Color Temperature | K | 3191 | |
| Ra | | 91.97 | |
| Power Factor | | 1.000 | |
| Input Voltage | V | 23.981 | |
| Input Current | A | 0.050 | |
| Input Watt | W | 1.2097 | |
| Lamp Flux | lm | 90.7 | |
| Efficient | lm/W | 74.97 | |
| luminous Intensity (Max , Center) | cd | 217 , 207 | |
| Illuminance | lx | 207 | 1 m |
| | | 52 | 2 m |
| | | 23 | 3 m |

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

* Sample photo

[Click to load image](#)

Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

23.5Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05Operator

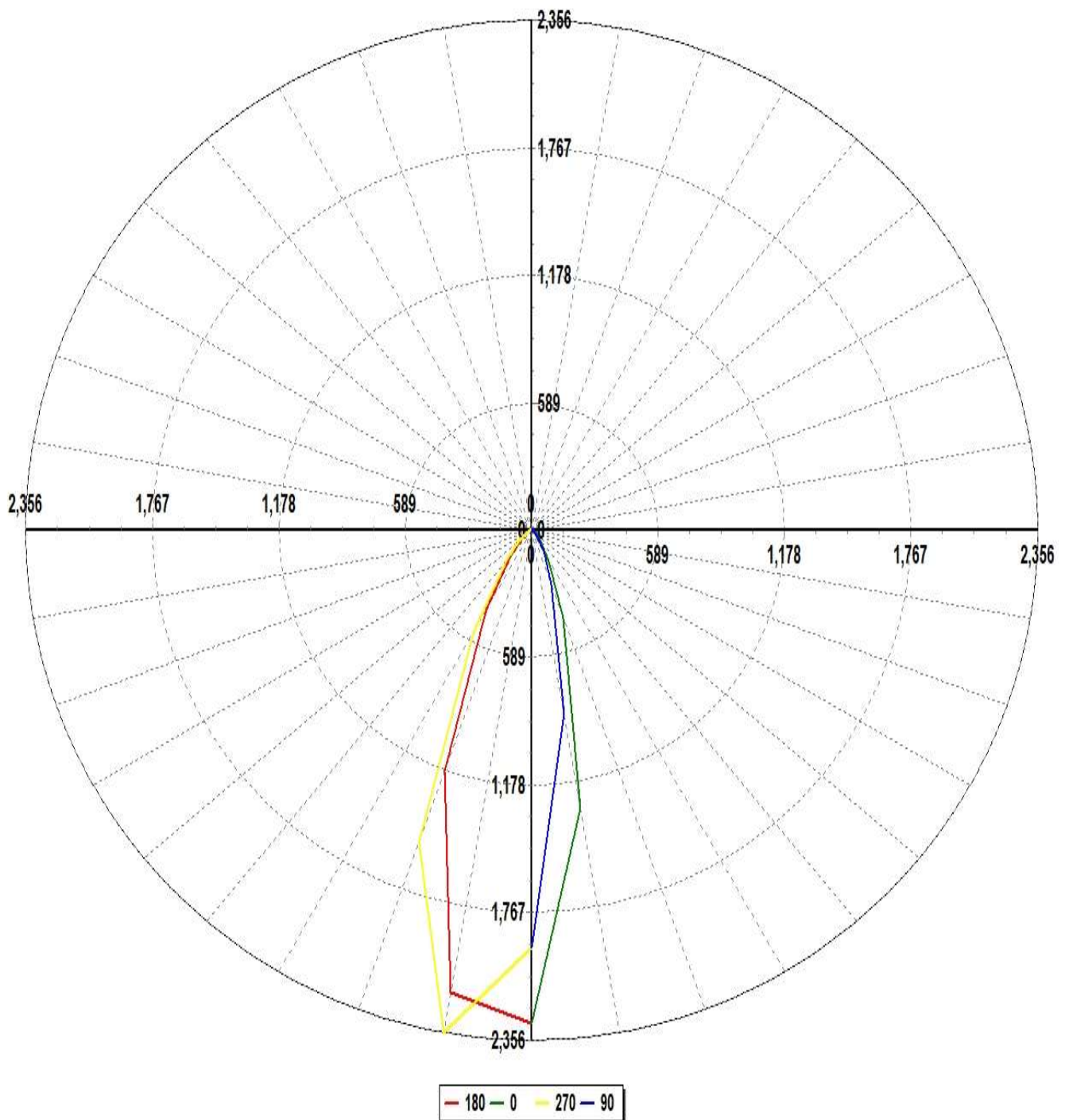
Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

Luminous Intensity Distribution



Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

23.9Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05Operator

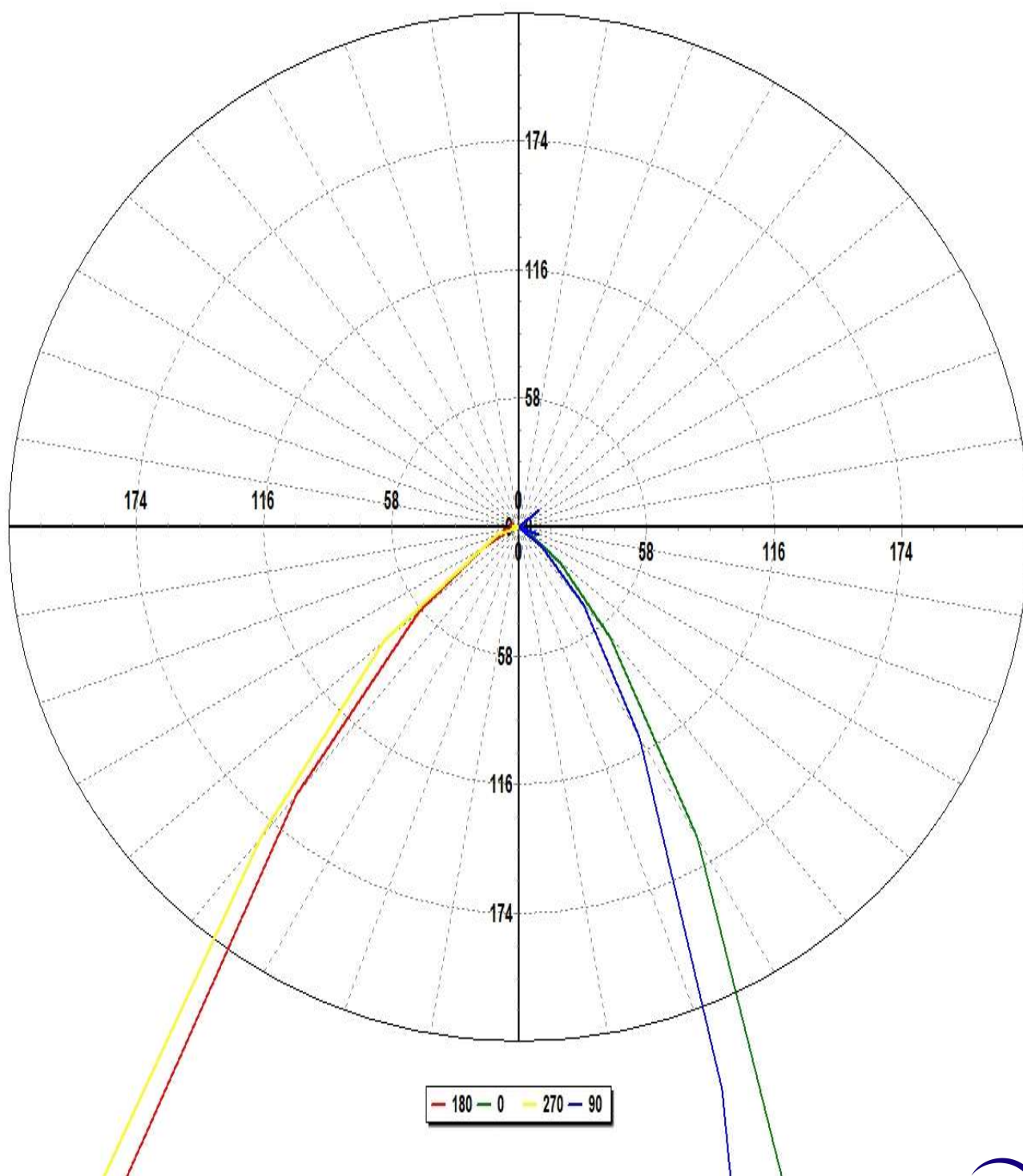
Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

Luminous Intensity Distribution (Lowest 10%)



Total Optical Solution Provider

Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

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Lamp flux (lm) 91

Current (A)

0.05Operator

Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

Luminous Intensity Data

Maximum (cd) : 217

Minimum (cd) : -1

| G/C | 0 | 30 | 60 | 90 | 120 | 150 | 180 | 210 | 240 | 270 | 300 |
|-----|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 0 | 206.61 | 193.68 | 184.59 | 174.77 | 173.3 | 175.76 | 206.61 | 193.68 | 184.59 | 174.77 | 173.3 |
| 10 | 118.55 | 101.27 | 87.58 | 78.19 | 78 | 83.12 | 197.01 | 203.07 | 208.06 | 213.91 | 216.65 |
| 20 | 39.18 | 32.86 | 27.64 | 24.45 | 25.65 | 28.53 | 107.72 | 120.4 | 129.71 | 139.38 | 142.87 |
| 30 | 14.65 | 12.89 | 10.62 | 9.93 | 10.84 | 10.91 | 38.15 | 43.29 | 46.1 | 49.22 | 51.45 |
| 40 | 5.87 | 4.67 | 4.63 | 4.16 | 3.69 | 3.18 | 14.31 | 15.88 | 15.64 | 16.5 | 16.48 |
| 50 | 2.23 | 1.94 | 1.25 | 1.27 | 1.53 | 2.02 | 5.36 | 5.71 | 6.32 | 7.27 | 6.54 |
| 60 | 0.43 | 0.88 | 0.51 | -0.09 | 0.46 | 0.06 | 1.67 | 1.81 | 1.24 | 1.75 | 2.69 |
| 70 | -0.07 | 0.22 | -0.56 | 0.86 | -0.39 | -0.27 | 0.53 | -0.07 | 0.75 | 0.94 | 0.56 |
| 80 | 0.07 | -0.44 | 0.64 | 0.02 | 0.43 | 0.07 | 0.63 | -0.39 | -0.04 | -0.17 | 0.57 |
| 90 | -0.27 | 0.35 | 0.01 | -0.19 | -0.35 | 0.27 | -0.65 | -0.11 | -0.68 | 0.27 | 0.68 |
| 100 | -0.3 | -0.32 | 0.23 | -0.03 | 0.31 | 0.56 | 0.17 | -0.49 | 0.23 | -0.18 | -0.45 |
| 110 | 0.12 | 0.15 | 0.15 | -0.62 | -0.42 | 0.34 | 0.4 | -0.33 | 0.34 | -0.28 | 0.09 |
| 120 | 0.19 | 0.13 | -0.72 | -0.11 | 0.27 | 0.31 | -0.41 | 0.53 | -0.01 | -0.44 | 0.03 |
| 130 | 0.26 | -0.57 | 0.48 | 1.08 | 0.61 | -0.25 | 0.14 | 0.48 | 0.32 | -0.61 | -0.21 |

Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

23.9Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05Operator

Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

Luminous Intensity Data (Continued)

Maximum (cd) : 217

Minimum (cd) : -1

| G/C | 330 | 360 |
|-----|--------|--------|
| 0 | 175.76 | 206.61 |
| 10 | 214.6 | 118.55 |
| 20 | 140.58 | 39.18 |
| 30 | 51.71 | 14.65 |
| 40 | 16.53 | 5.87 |
| 50 | 7.1 | 2.23 |
| 60 | 2.63 | 0.43 |
| 70 | 0.54 | -0.07 |
| 80 | -0.19 | 0.07 |
| 90 | 0.21 | -0.27 |
| 100 | -0.35 | -0.3 |
| 110 | -0.02 | 0.12 |
| 120 | -0.66 | 0.19 |
| 130 | -0.01 | 0.26 |

Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1 Voltage (V) 23.5Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91 Current (A) 0.05Operator

Total flux (lm) 91 Power Factor Date 2023-07-14 오후 5:41:25

Luminous Flux Table

Total Lamp Lumens: 90.732

Luminaire Efficiency (lm/W): 75.00

CIE Classification: Direct

| Elevation | Lumens | Cumulative | Lamp % | Luminaire % |
|-----------|--------|------------|--------|-------------|
| 0 | 4.42 | 4.42 | 4.87 | 4.87 |
| 10 | 28.53 | 32.95 | 36.32 | 36.31 |
| 20 | 29.94 | 62.88 | 69.33 | 69.30 |
| 30 | 15.96 | 78.84 | 86.93 | 86.90 |
| 40 | 7.13 | 85.97 | 94.79 | 94.76 |
| 50 | 3.39 | 89.37 | 98.53 | 98.50 |
| 60 | 1.11 | 90.48 | 99.75 | 99.72 |
| 70 | 0.26 | 90.74 | 100.04 | 100.00 |
| 80 | 0.11 | 90.84 | 100.16 | 100.12 |
| 90 | -0.04 | 90.80 | 100.11 | 100.08 |
| 100 | -0.05 | 90.75 | 100.05 | 100.02 |
| 110 | -0.01 | 90.74 | 100.04 | 100.01 |
| 120 | -0.07 | 90.67 | 99.97 | 99.93 |
| 130 | 0.06 | 90.73 | 100.04 | 100.00 |

Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

23.9Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05Operator

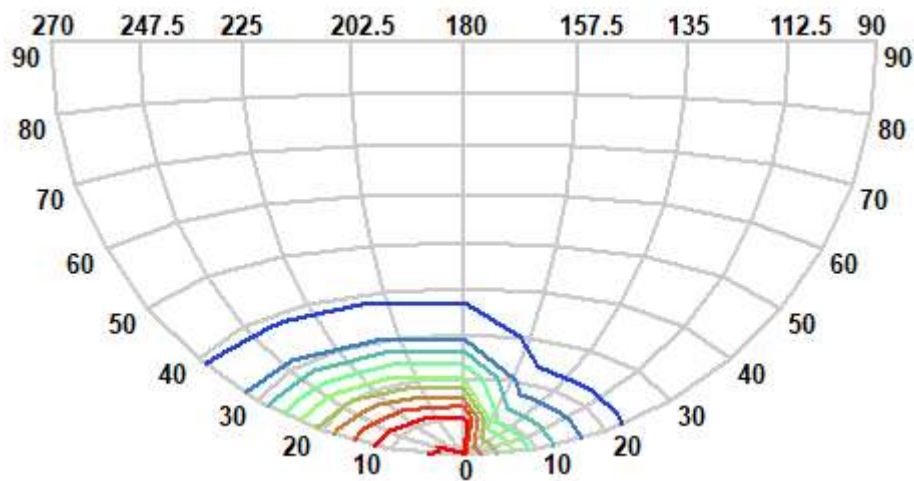
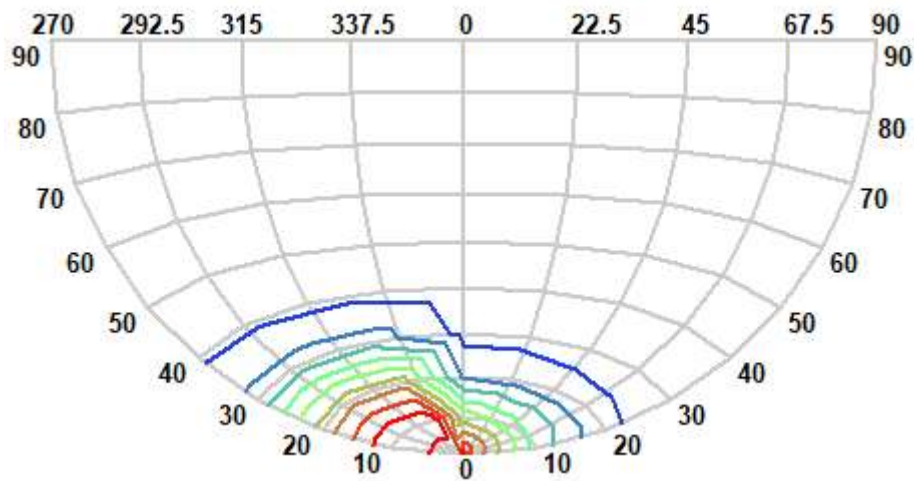
Total flux (lm) 91

Power Factor

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IsoCandela (Type C)



Luminaire KH FEELUX

Lamp

Report

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Voltage (V)

230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05

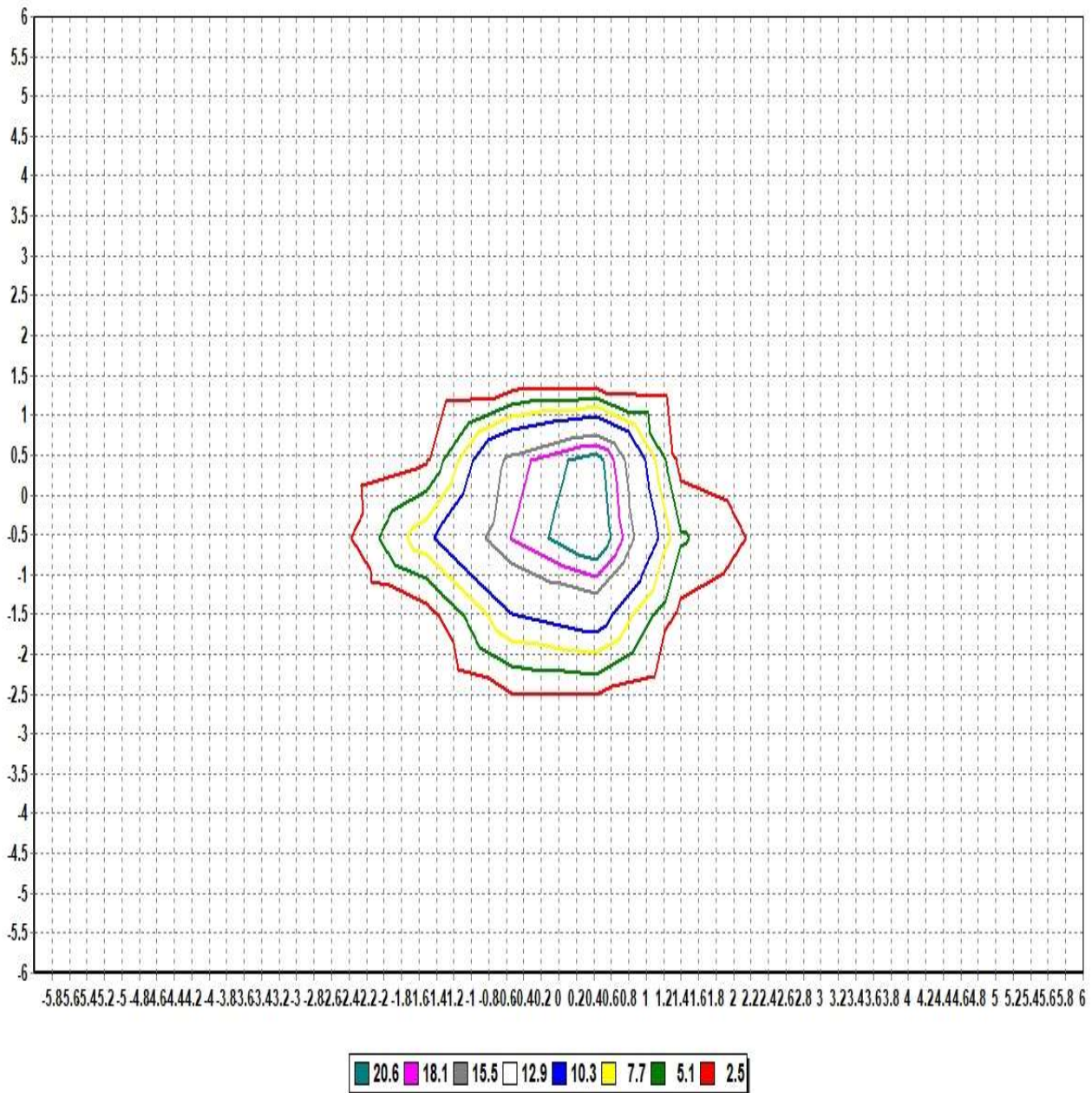
Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

IsoLux Diagram (Ground)



Pole Height (m): 2.7

Area Width (m): 12

Total Optical Solution Provider

Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

23.9Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05Operator

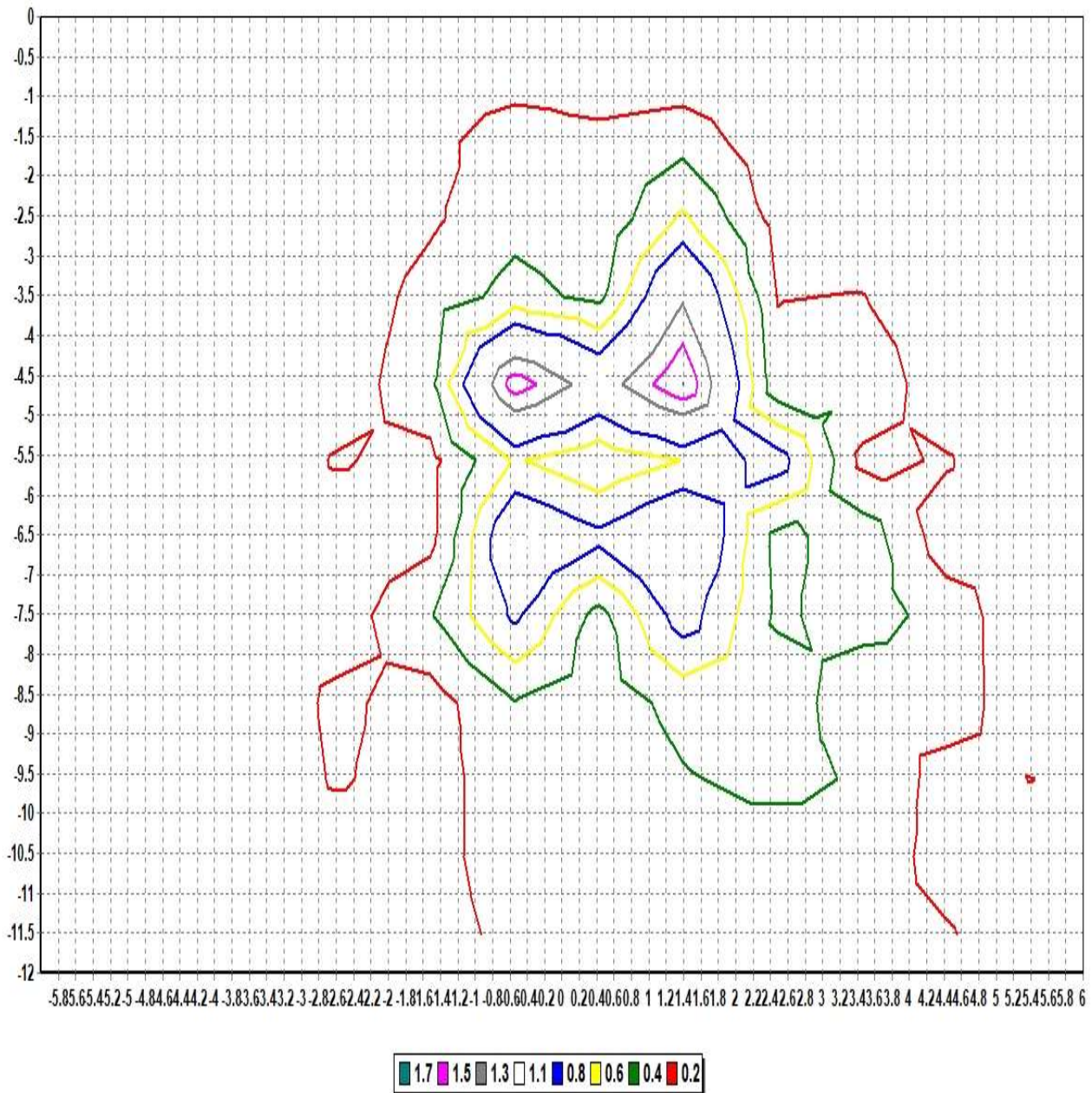
Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

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) | 23.981 |
| Lamp flux (lm) | 91 | Current (A) | 0.05045 |
| Total flux (lm) | 91 | Power Factor | 1 |

Report

230714

Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Operator

Date

2023-07-14 오후 5:41:25

Illuminance Levels (Ground)

| | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 6.00 | 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 |
| 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.00 | 0.00 |
| 3.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.09 | 0.06 | 0.08 | 0.07 | 0.11 | 0.02 | 0.03 | 0.00 | 0.00 |
| 2.00 | 0.00 | 0.02 | 0.01 | 0.08 | 0.11 | 0.25 | 0.44 | 0.31 | 0.15 | 0.14 | 0.02 | 0.02 | 0.00 |
| 1.00 | 0.01 | 0.05 | 0.04 | 0.07 | 0.24 | 1.32 | 8.65 | 1.81 | 0.32 | 0.08 | 0.06 | 0.06 | 0.01 |
| 0.00 | 0.01 | 0.07 | 0.08 | 0.29 | 1.61 | 21.96 | 28.34 | 13.12 | 0.63 | 0.12 | 0.03 | 0.03 | 0.00 |
| -1.00 | 0.00 | 0.04 | 0.04 | 0.23 | 1.05 | 5.53 | 23.93 | 6.84 | 1.11 | 0.27 | 0.05 | 0.05 | 0.00 |
| -2.00 | 0.01 | 0.05 | 0.04 | 0.34 | 0.41 | 1.06 | 1.98 | 1.11 | 0.47 | 0.40 | 0.06 | 0.07 | 0.01 |
| -3.00 | 0.00 | 0.01 | 0.07 | 0.06 | 0.37 | 0.24 | 0.37 | 0.27 | 0.40 | 0.07 | 0.09 | 0.02 | 0.01 |
| -4.00 | 0.00 | 0.01 | 0.04 | 0.08 | 0.04 | 0.07 | 0.10 | 0.07 | 0.06 | 0.09 | 0.05 | 0.01 | 0.00 |
| -5.00 | 0.01 | 0.00 | 0.01 | 0.01 | 0.06 | 0.08 | 0.09 | 0.08 | 0.07 | 0.01 | 0.01 | 0.01 | 0.01 |
| -6.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| -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.) : 28.342

Illum. (Min.) : -0.0024

Illum. (Avg.) : 0.7667

All illuminance level values are in lux.



Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V)

230.5Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A)

0.05Operator

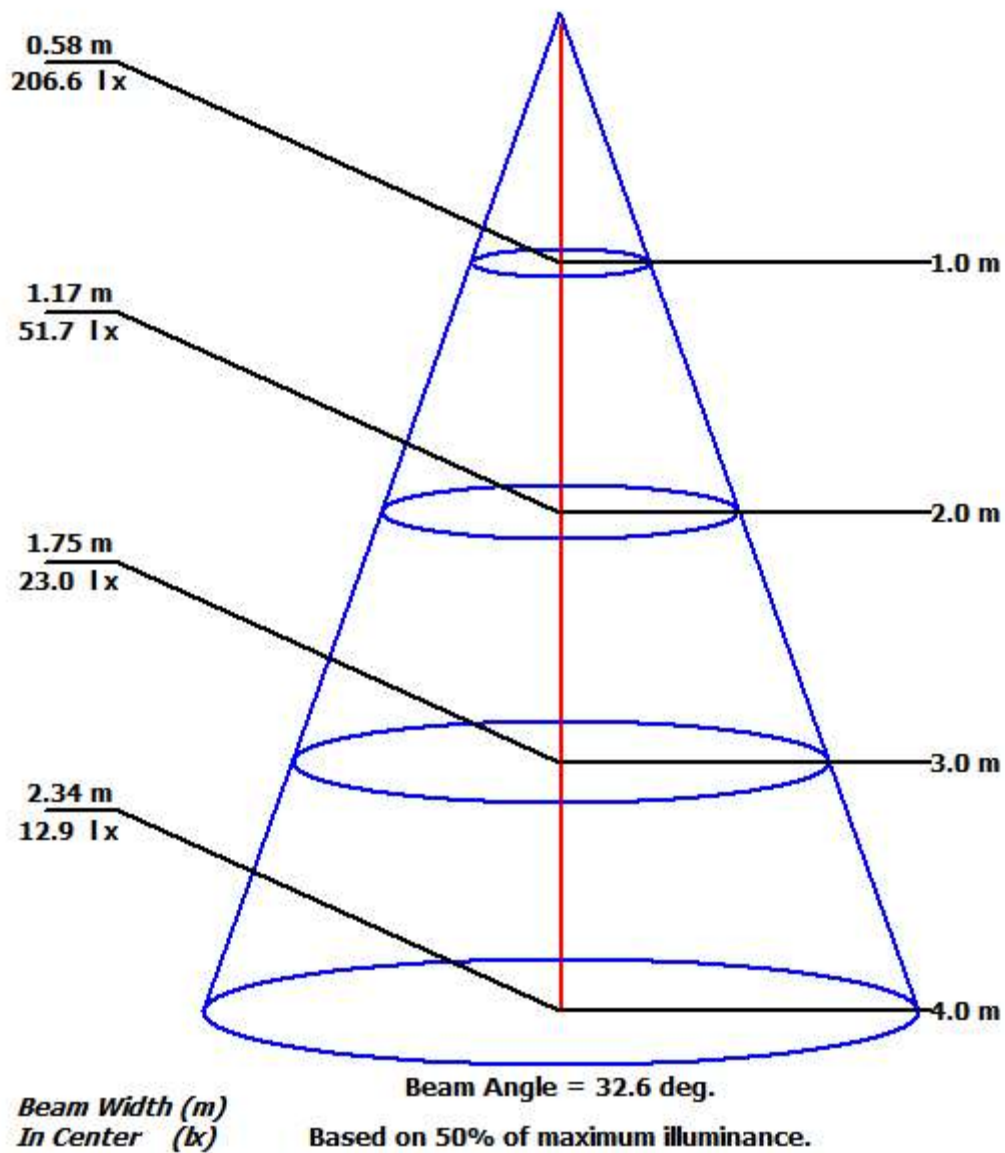
Total flux (lm) 91

Power Factor

Date

2023-07-14 오후 5:41:25

Illuminance Cone Diagram



Luminaire KH FEELUX

Lamp

Report

230714

No. of lamps 1

Voltage (V) 23.981

Filename 230714 MICRO SPOT CREE 30K 38도.jdt

Lamp flux (lm) 91

Current (A) 0.05045

Operator

Total flux (lm) 91

Power Factor 1

Date 2023-07-14 오후 5:41:25

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 | 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 |