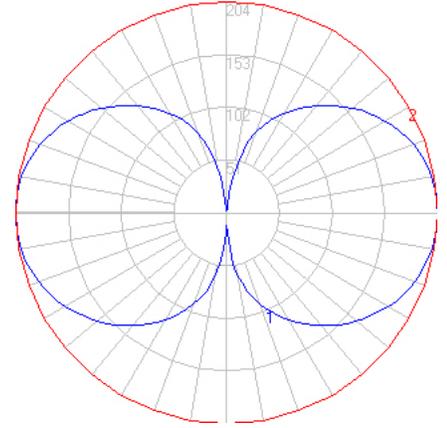


BEGA

File: 50410K4_BEGA_IES.ies

TEST: BE_50410K4
 TEST LAB: BEGA
 DATE: 09/18/2017
 LUMINAIRE: 50 410K4
 LAMP: 16.4W LED

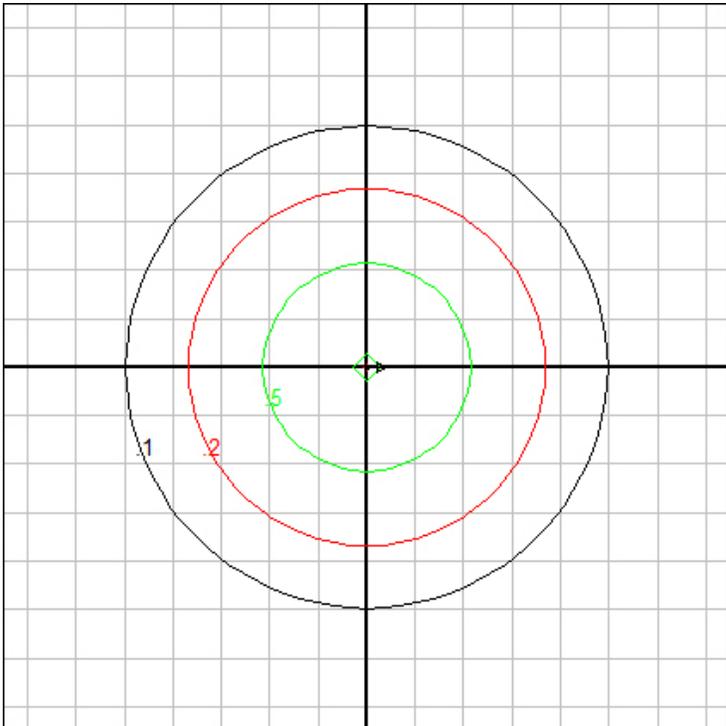


Characteristics

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2070 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 99 |
| Total Luminaire Watts | 21 |
| Ballast Factor | 1.00 |
| CIE Type | General Diffuse |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| Basic Luminous Shape | Circular w/ Sides |
| Luminous Length (0-180) | 0.00 ft |
| Luminous Width (90-270) | 0.46 ft (Diameter) |
| Luminous Height | 2.03 ft |

Zonal Lumen Summary

| Zone | Lumens |
|---------|--------|
| 0-10 | 4.12 |
| 10-20 | 22.63 |
| 20-30 | 49.97 |
| 30-40 | 82.61 |
| 40-50 | 118.59 |
| 50-60 | 154.65 |
| 60-70 | 186.45 |
| 70-80 | 209.72 |
| 80-90 | 221.57 |
| 90-100 | 221.38 |
| 100-110 | 208.58 |
| 110-120 | 183.54 |
| 120-130 | 150.49 |
| 130-140 | 113.59 |
| 140-150 | 77.41 |
| 150-160 | 45.63 |
| 160-170 | 17.85 |
| 170-180 | 1.55 |



Mounting Height: 10 ft.

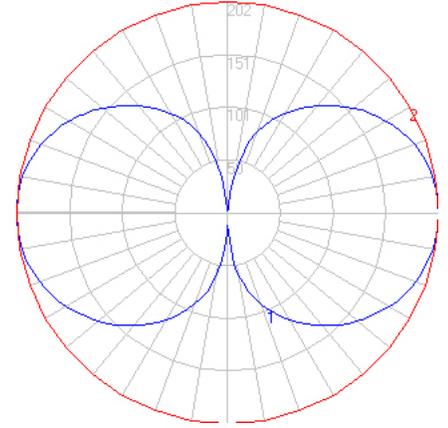
Grid Spacing: 5 ft.

In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA

File: 50410K35_BEGA_IES.ies

TEST: BE_50410K4
 TEST LAB: BEGA
 DATE: 09/18/2017
 LUMINAIRE: 50 410K35
 LAMP: 16.4W LED

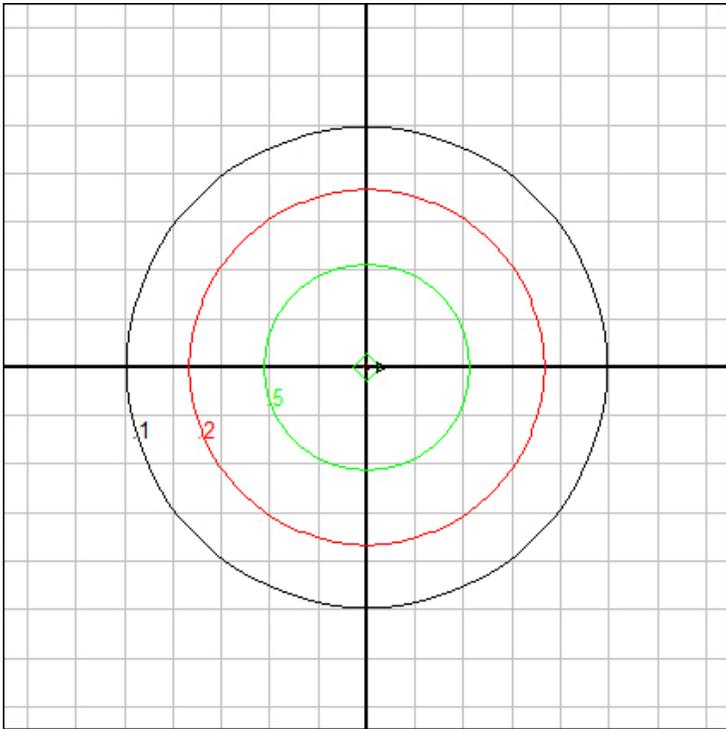


Characteristics

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2050 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 98 |
| Total Luminaire Watts | 21 |
| Ballast Factor | 1.00 |
| CIE Type | General Diffuse |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| Basic Luminous Shape | Circular w/ Sides |
| Luminous Length (0-180) | 0.00 ft |
| Luminous Width (90-270) | 0.46 ft (Diameter) |
| Luminous Height | 2.03 ft |

Zonal Lumen Summary

| Zone | Lumens |
|---------|--------|
| 0-10 | 4.08 |
| 10-20 | 22.40 |
| 20-30 | 49.47 |
| 30-40 | 81.79 |
| 40-50 | 117.41 |
| 50-60 | 153.11 |
| 60-70 | 184.58 |
| 70-80 | 207.62 |
| 80-90 | 219.35 |
| 90-100 | 219.17 |
| 100-110 | 206.49 |
| 110-120 | 181.71 |
| 120-130 | 148.98 |
| 130-140 | 112.45 |
| 140-150 | 76.63 |
| 150-160 | 45.17 |
| 160-170 | 17.67 |
| 170-180 | 1.53 |



Mounting Height: 10 ft.

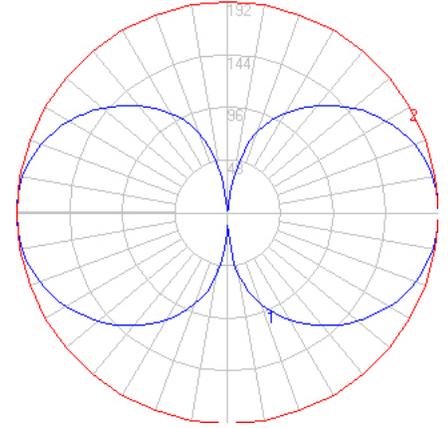
Grid Spacing: 5 ft.

In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA

File: 50410K3_BEGA_IES.ies

TEST: BE_50410K4
 TEST LAB: BEGA
 DATE: 09/18/2017
 LUMINAIRE: 50 410K3
 LAMP: 16.4W LED

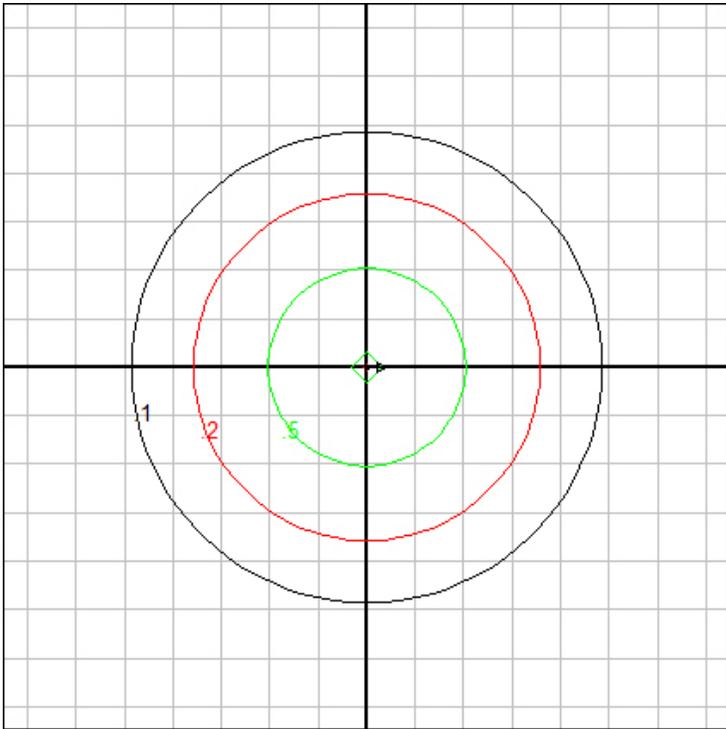


Characteristics

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1956 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 93 |
| Total Luminaire Watts | 21 |
| Ballast Factor | 1.00 |
| CIE Type | General Diffuse |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| Basic Luminous Shape | Circular w/ Sides |
| Luminous Length (0-180) | 0.00 ft |
| Luminous Width (90-270) | 0.46 ft (Diameter) |
| Luminous Height | 2.03 ft |

Zonal Lumen Summary

| Zone | Lumens |
|---------|--------|
| 0-10 | 3.89 |
| 10-20 | 21.39 |
| 20-30 | 47.22 |
| 30-40 | 78.07 |
| 40-50 | 112.07 |
| 50-60 | 146.15 |
| 60-70 | 176.19 |
| 70-80 | 198.19 |
| 80-90 | 209.38 |
| 90-100 | 209.20 |
| 100-110 | 197.11 |
| 110-120 | 173.45 |
| 120-130 | 142.21 |
| 130-140 | 107.34 |
| 140-150 | 73.15 |
| 150-160 | 43.12 |
| 160-170 | 16.87 |
| 170-180 | 1.46 |



Mounting Height: 10 ft.

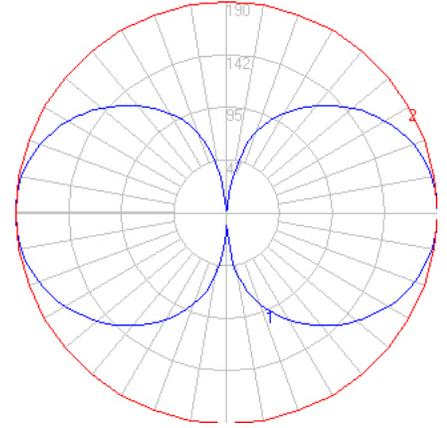
Grid Spacing: 5 ft.

In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA

File: 50410K27_BEGA_IES.ies

TEST: BE_50410K4
 TEST LAB: BEGA
 DATE: 09/18/2017
 LUMINAIRE: 50 410K27
 LAMP: 16.4W LED

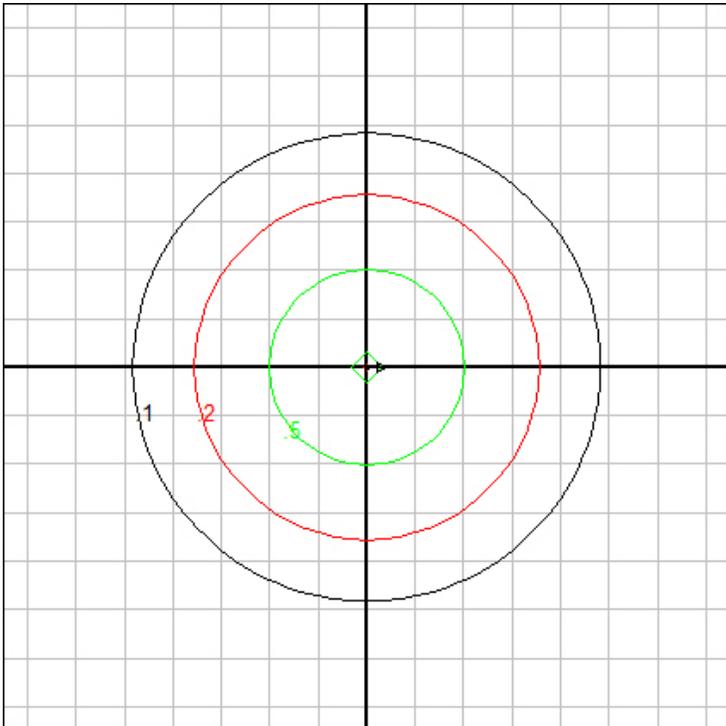


Characteristics

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1930 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 92 |
| Total Luminaire Watts | 21 |
| Ballast Factor | 1.00 |
| CIE Type | General Diffuse |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| Basic Luminous Shape | Circular w/ Sides |
| Luminous Length (0-180) | 0.00 ft |
| Luminous Width (90-270) | 0.46 ft (Diameter) |
| Luminous Height | 2.03 ft |

Zonal Lumen Summary

| Zone | Lumens |
|---------|--------|
| 0-10 | 3.84 |
| 10-20 | 21.09 |
| 20-30 | 46.57 |
| 30-40 | 76.99 |
| 40-50 | 110.53 |
| 50-60 | 144.14 |
| 60-70 | 173.77 |
| 70-80 | 195.46 |
| 80-90 | 206.50 |
| 90-100 | 206.33 |
| 100-110 | 194.39 |
| 110-120 | 171.06 |
| 120-130 | 140.25 |
| 130-140 | 105.87 |
| 140-150 | 72.14 |
| 150-160 | 42.52 |
| 160-170 | 16.64 |
| 170-180 | 1.44 |



Mounting Height: 10 ft.

Grid Spacing: 5 ft.

In the interest of product improvement, BEGA reserves the right to make technical changes without notice.