



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014

Prepared For

Vokslite

8020 Queenair Dr
Gaithersburg, MD 20879-4173
United States

Catalog Number

Tangent Down HO 3000K

Order Number

13939071

Test Number

13939071.01

Test Date

2021-08-02

Prepared By

Cordaryl Cousar, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cast aluminum housing, frosted lens enclosure
Lamp: 36 white LEDs
Mounting: Recessed

Luminaire



Luminaire Characteristics

Luminous Length: 12.00 in.
Luminous Width: 1.500 in.

Summary of Results

Total Luminaire Output: 581.8 Lumens
Luminaire Efficacy: 68.3 lm/w
Maximum Candela: 249 Candela

Test Conditions

Test Temperature: 24.2 °C
Voltage: 120.0 VAC
Current: 0.08718 A
Power: 8.512 W
Power Factor: 0.814
Frequency: 60 Hz
Current THD: 65.4 %

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

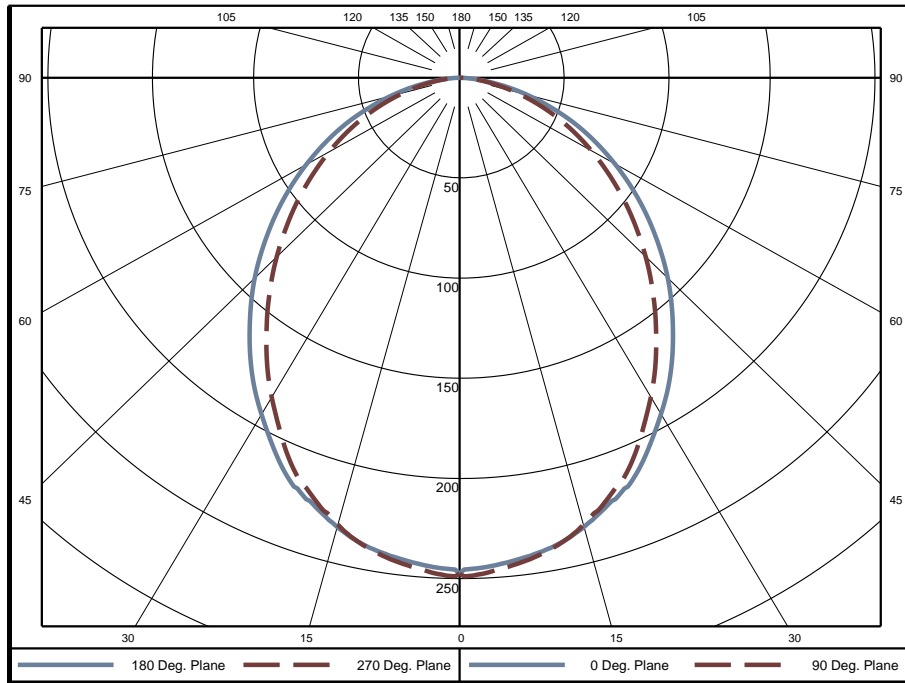
Distribution Test Conditions

| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|-----------|---------|--------------|-----------|-------------|
| 24.2 °C | 120.0 VAC | 0.08718 A | 8.512 W | 0.814 | 60 Hz | 65.4 % |

Summary of Results

| | | |
|------------------------------------------------------------------------------------|----------------------------|--------------|
| Spacing Criteria | Total Lumen Output: | 581.8 Lumens |
| 0-180: 1.17 | Luminaire Efficacy: | 68.3 lm/w |
| 90-270: 1.12 | Maximum Candela: | 249 Candela |
| Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1) | Endwise: | 24.3 |
| Crosswise: 25.3 | | |

Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5 | 5.88 | 1.0% | 60-65 | 34.42 | 5.9% | 120-125 | 0 | 0.0% |
| 5-10 | 17.33 | 3.0% | 65-70 | 27.50 | 4.7% | 125-130 | 0 | 0.0% |
| 10-15 | 27.99 | 4.8% | 70-75 | 19.99 | 3.4% | 130-135 | 0 | 0.0% |
| 15-20 | 37.21 | 6.4% | 75-80 | 12.70 | 2.2% | 135-140 | 0 | 0.0% |
| 20-25 | 44.85 | 7.7% | 80-85 | 6.33 | 1.1% | 140-145 | 0 | 0.0% |
| 25-30 | 49.85 | 8.6% | 85-90 | 1.77 | 0.3% | 145-150 | 0 | 0.0% |
| 30-35 | 52.86 | 9.1% | 90-95 | 0 | 0.0% | 150-155 | 0 | 0.0% |
| 35-40 | 53.72 | 9.2% | 95-100 | 0 | 0.0% | 155-160 | 0 | 0.0% |
| 40-45 | 52.74 | 9.1% | 100-105 | 0 | 0.0% | 160-165 | 0 | 0.0% |
| 45-50 | 50.06 | 8.6% | 105-110 | 0 | 0.0% | 165-170 | 0 | 0.0% |
| 50-55 | 45.96 | 7.9% | 110-115 | 0 | 0.0% | 170-175 | 0 | 0.0% |
| 55-60 | 40.63 | 7.0% | 115-120 | 0 | 0.0% | 175-180 | 0 | 0.0% |

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40 | 290 | 49.8% |
| 0-60 | 479 | 82.3% |
| 0-90 | 582 | 100.0% |
| 90-180 | 0 | 0.0% |



Candela Tabulation

Horizontal Angle (Degrees)

| | 0 | 22.5 | 45 | 67.5 | 90 | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 | 247.5 |
| 5 | 243.2 | 243.7 | 245.2 | 245.8 | 245.6 | 245.8 | 245.2 | 243.7 | 243.2 | 243.7 | 245.2 | 245.8 | 245.6 | 245.8 | 245.2 | 243.7 |
| 10 | 239.0 | 239.4 | 240.2 | 240.5 | 240.1 | 240.5 | 240.2 | 239.4 | 239.0 | 239.4 | 240.2 | 240.5 | 240.1 | 240.5 | 240.2 | 239.4 |
| 15 | 231.6 | 231.7 | 232.1 | 231.4 | 230.5 | 231.4 | 232.1 | 231.7 | 231.6 | 231.7 | 232.1 | 231.4 | 230.5 | 231.4 | 232.1 | 231.7 |
| 20 | 221.9 | 221.5 | 221.0 | 219.4 | 218.0 | 219.4 | 221.0 | 221.5 | 221.9 | 221.5 | 221.0 | 219.4 | 218.0 | 219.4 | 221.0 | 221.5 |
| 25 | 209.1 | 208.1 | 206.6 | 204.1 | 202.2 | 204.1 | 206.6 | 208.1 | 209.1 | 208.1 | 206.6 | 204.1 | 202.2 | 204.1 | 206.6 | 208.1 |
| 30 | 192.8 | 191.6 | 188.9 | 185.5 | 183.3 | 185.5 | 188.9 | 191.6 | 192.8 | 191.6 | 188.9 | 185.5 | 183.3 | 185.5 | 188.9 | 191.6 |
| 35 | 176.3 | 174.6 | 170.8 | 166.6 | 164.0 | 166.6 | 170.8 | 174.6 | 176.3 | 174.6 | 170.8 | 166.6 | 164.0 | 166.6 | 170.8 | 174.6 |
| 40 | 158.3 | 156.5 | 152.2 | 147.0 | 144.6 | 147.0 | 152.2 | 156.5 | 158.3 | 156.5 | 152.2 | 147.0 | 144.6 | 147.0 | 152.2 | 156.5 |
| 45 | 140.4 | 138.3 | 133.7 | 128.1 | 125.8 | 128.1 | 133.7 | 138.3 | 140.4 | 138.3 | 133.7 | 128.1 | 125.8 | 128.1 | 133.7 | 138.3 |
| 50 | 121.7 | 119.9 | 115.1 | 109.7 | 107.4 | 109.7 | 115.1 | 119.9 | 121.7 | 119.9 | 115.1 | 109.7 | 107.4 | 109.7 | 115.1 | 119.9 |
| 55 | 103.5 | 101.6 | 97.0 | 91.9 | 89.7 | 91.9 | 97.0 | 101.6 | 103.5 | 101.6 | 97.0 | 91.9 | 89.7 | 91.9 | 97.0 | 101.6 |
| 60 | 85.4 | 83.7 | 79.5 | 74.9 | 72.9 | 74.9 | 79.5 | 83.7 | 85.4 | 83.7 | 79.5 | 74.9 | 72.9 | 74.9 | 79.5 | 83.7 |
| 65 | 68.0 | 66.5 | 62.7 | 58.6 | 57.0 | 58.6 | 62.7 | 66.5 | 68.0 | 66.5 | 62.7 | 58.6 | 57.0 | 58.6 | 62.7 | 66.5 |
| 70 | 50.5 | 49.5 | 46.2 | 42.9 | 41.6 | 42.9 | 46.2 | 49.5 | 50.5 | 49.5 | 46.2 | 42.9 | 41.6 | 42.9 | 46.2 | 49.5 |
| 75 | 34.1 | 33.3 | 30.7 | 28.3 | 27.4 | 28.3 | 30.7 | 33.3 | 34.1 | 33.3 | 30.7 | 28.3 | 27.4 | 28.3 | 30.7 | 33.3 |
| 80 | 19.1 | 18.8 | 17.1 | 15.7 | 15.2 | 15.7 | 17.1 | 18.8 | 19.1 | 18.8 | 17.1 | 15.7 | 15.2 | 15.7 | 17.1 | 18.8 |
| 85 | 7.0 | 7.3 | 6.7 | 6.4 | 6.3 | 6.4 | 6.7 | 7.3 | 7.0 | 7.3 | 6.7 | 6.4 | 6.3 | 6.4 | 6.7 | 7.3 |
| 90 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

| | 0 | 45 | 90 |
|----|-------|-------|-------|
| 0 | 21320 | 21320 | 21320 |
| 45 | 17090 | 16280 | 15320 |
| 55 | 15530 | 14570 | 13460 |
| 65 | 13850 | 12770 | 11610 |
| 75 | 11330 | 10200 | 9115 |
| 85 | 6952 | 6638 | 6264 |

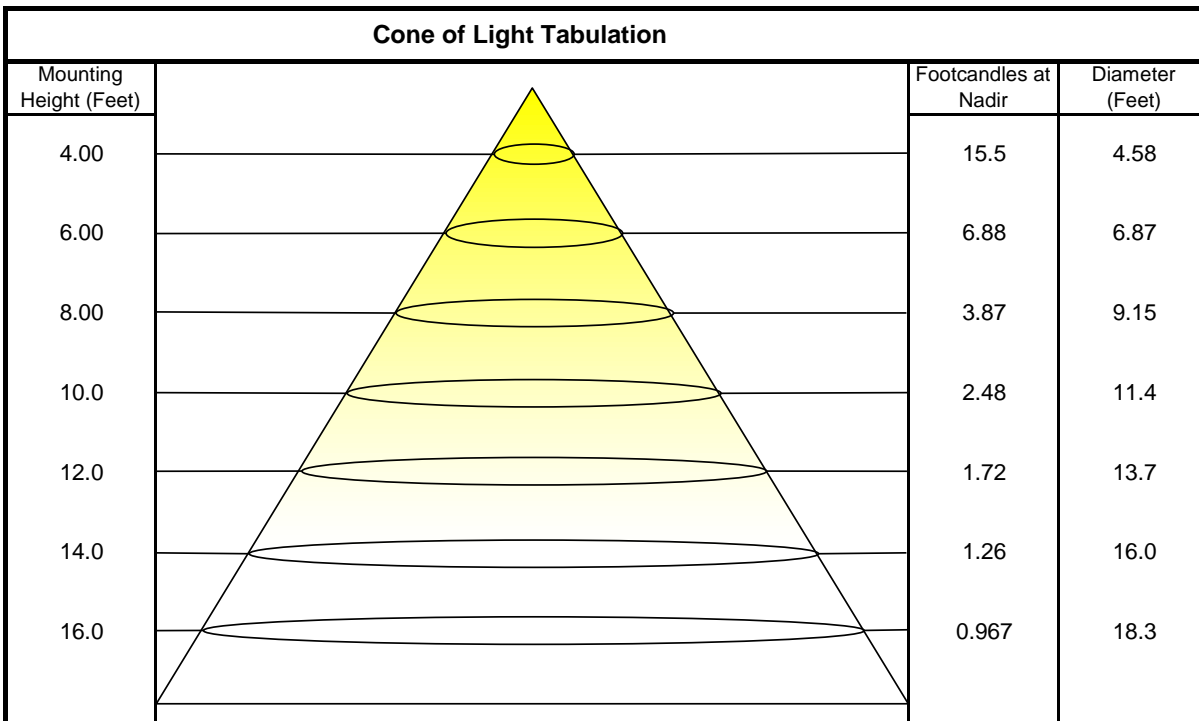


Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

| Ceiling Cavity Reflectance | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----------------------------|-------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Wall Reflectance | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| Room Cavity Ratio (RCR) | ** Values are expressed as percent of total lumen output delivered to the task surface ** | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | 84 | 79 | 76 | 81 | 77 | 74 | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 74 | 69 | 65 | 72 | 67 | 64 | 61 |
| 4 | 84 | 73 | 64 | 58 | 82 | 71 | 63 | 57 | 69 | 62 | 57 | 67 | 61 | 56 | 64 | 59 | 55 | 53 |
| 5 | 78 | 65 | 57 | 50 | 76 | 64 | 56 | 50 | 62 | 55 | 49 | 60 | 54 | 49 | 58 | 53 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 50 | 44 | 56 | 49 | 44 | 55 | 48 | 43 | 53 | 47 | 43 | 41 |
| 7 | 67 | 54 | 45 | 39 | 65 | 53 | 45 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 36 |
| 8 | 62 | 49 | 41 | 35 | 61 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 33 |
| 9 | 58 | 45 | 37 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 30 |
| 10 | 55 | 42 | 34 | 29 | 54 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 39 | 33 | 29 | 27 |

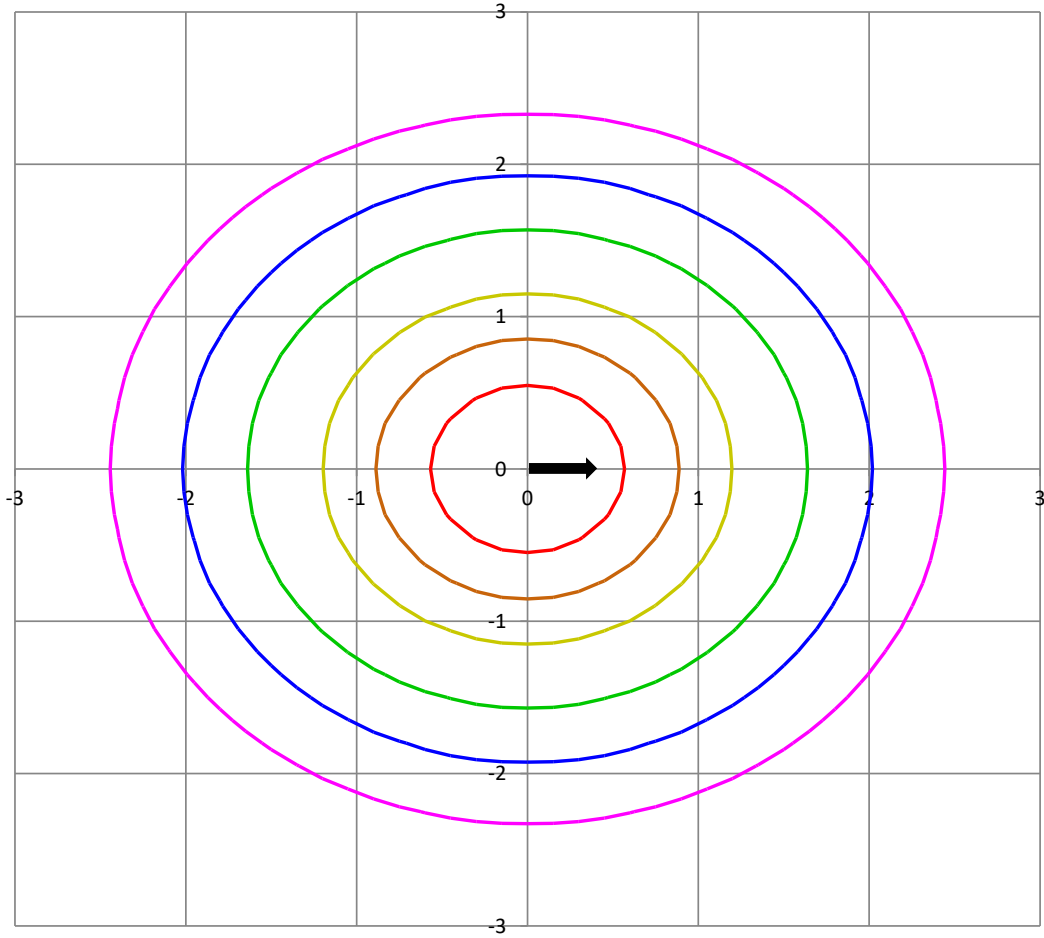
| Beam and Field Information | |
|----------------------------|---------------|
| CIE Type: | Direct |
| Center Beam Intensity: | 247.5 Candela |
| Central Cone Intensity: | 246 Candela |
| Beam Flux: | 368.9 Lumens |
| Beam Angle (0-180): | 98.9 Degrees |
| Beam Angle (90-270): | 91.1 Degrees |
| Field Angle (0-180): | 156.1 Degrees |
| Field Angle (90-270): | 152.0 Degrees |





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

