

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SGRTP6LEDOS-45L35KE1-TPSGR6-SSSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TESTLAB] Photopia 2015.1.0 see: [www.ltioptics.com/ies](http://www.ltioptics.com/ies)

[ISSUE DATE]

[TEST DATE] Tue Feb 16 2016

[UPDATE] Fri Mar 17 2017

[TEST] SP-00438\_4\_M-R-Gen3-45L

[MANUFAC] Spectrum Lighting

[LUMCAT] SGRTP6LEDOS-45L-35K-E1-TPSGR6-SS-SO

[LUMINAIRE] 6" Diam. Tamper Resistent Retrofit/Remodel Downlight

[OTHER] Matte White Upper Reflector, Flush Solite Lens

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Total Luminaire Watts is approximate

[OTHER] Output Multipliers: 40K x 1.0, 30K x 1.0, 27K x 0.946

[OTHER] Catalog number designation update: 35W is now called 30L

[OTHER] This report updated by Spectrum Lighting, scaled from Gen2-30L

**CHARACTERISTICS**

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 3077               |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 75                 |
| Total Luminaire Watts           | 41.1               |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 1.04               |
| Spacing Criterion (90-270)      | 1.04               |
| Spacing Criterion (Diagonal)    | 1.00               |
| Basic Luminous Shape            | Circular           |
| Luminous Length (0-180)         | 0.50 ft (Diameter) |
| Luminous Width (90-270)         | 0.50 ft (Diameter) |
| Luminous Height                 | 0.00 ft            |

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**LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 33774            | 35287             | 34774             |
| 55                  | 21617            | 21595             | 21637             |
| 65                  | 13438            | 13039             | 13032             |
| 75                  | 7774             | 7476              | 8351              |
| 85                  | 6095             | 5688              | 5912              |

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**CANDELA TABULATION**

|           | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> | <u>202.5</u> |
|-----------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| <b>0</b>  | 2318.630   | 2318.630    | 2318.630    | 2318.630    | 2318.630    | 2318.630     | 2318.630     | 2318.630     | 2318.630     | 2318.630     |
| <b>5</b>  | 2249.013   | 2294.867    | 2286.920    | 2295.759    | 2283.206    | 2295.759     | 2286.920     | 2294.867     | 2249.013     | 2294.867     |
| <b>10</b> | 2382.958   | 2402.731    | 2375.741    | 2368.360    | 2365.587    | 2368.360     | 2375.741     | 2402.731     | 2382.958     | 2402.731     |
| <b>15</b> | 2346.934   | 2345.312    | 2339.327    | 2360.899    | 2319.490    | 2360.899     | 2339.327     | 2345.312     | 2346.934     | 2345.312     |
| <b>20</b> | 2126.667   | 2184.799    | 2197.791    | 2153.088    | 2155.959    | 2153.088     | 2197.791     | 2184.799     | 2126.667     | 2184.799     |
| <b>25</b> | 1859.086   | 1827.845    | 1867.001    | 1847.261    | 1817.108    | 1847.261     | 1867.001     | 1827.845     | 1859.086     | 1827.845     |
| <b>30</b> | 1401.617   | 1423.189    | 1419.638    | 1422.412    | 1414.090    | 1422.412     | 1419.638     | 1423.189     | 1401.617     | 1423.189     |
| <b>35</b> | 1021.778   | 1014.593    | 1023.302    | 1014.528    | 1000.303    | 1014.528     | 1023.302     | 1014.593     | 1021.778     | 1014.593     |
| <b>40</b> | 676.568    | 677.769     | 687.629     | 667.468     | 664.971     | 667.468      | 687.629      | 677.769      | 676.568      | 677.769      |
| <b>45</b> | 436.042    | 456.009     | 455.587     | 449.861     | 448.953     | 449.861      | 455.587      | 456.009      | 436.042      | 456.009      |
| <b>50</b> | 317.279    | 316.809     | 316.663     | 319.534     | 320.166     | 319.534      | 316.663      | 316.809      | 317.279      | 316.809      |
| <b>55</b> | 226.383    | 224.015     | 226.155     | 225.247     | 226.593     | 225.247      | 226.155      | 224.015      | 226.383      | 224.015      |
| <b>60</b> | 152.889    | 155.323     | 157.090     | 153.442     | 158.826     | 153.442      | 157.090      | 155.323      | 152.889      | 155.323      |
| <b>65</b> | 103.694    | 103.013     | 100.613     | 101.164     | 100.564     | 101.164      | 100.613      | 103.013      | 103.694      | 103.013      |
| <b>70</b> | 64.945     | 62.853      | 63.971      | 66.713      | 61.052      | 66.713       | 63.971       | 62.853       | 64.945       | 62.853       |
| <b>75</b> | 36.738     | 39.755      | 35.327      | 39.706      | 39.464      | 39.706       | 35.327       | 39.755       | 36.738       | 39.755       |
| <b>80</b> | 20.470     | 21.556      | 20.258      | 20.145      | 21.183      | 20.145       | 20.258       | 21.556       | 20.470       | 21.556       |
| <b>85</b> | 9.699      | 8.742       | 9.051       | 9.781       | 9.408       | 9.781        | 9.051        | 8.742        | 9.699        | 8.742        |
| <b>90</b> | 1.882      | 1.573       | 1.833       | 1.688       | 1.621       | 1.688        | 1.833        | 1.573        | 1.882        | 1.573        |

**Vert. Angles**      **Horizontal Angles**

|           | <u>225.0</u> | <u>247.5</u> | <u>270.0</u> | <u>292.5</u> | <u>315.0</u> | <u>337.5</u> | <u>360.0</u> |
|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>0</b>  | 2318.630     | 2318.630     | 2318.630     | 2318.630     | 2318.630     | 2318.630     | 2318.630     |
| <b>5</b>  | 2286.920     | 2295.759     | 2283.206     | 2295.759     | 2286.920     | 2294.867     | 2249.013     |
| <b>10</b> | 2375.741     | 2368.360     | 2365.587     | 2368.360     | 2375.741     | 2402.731     | 2382.958     |
| <b>15</b> | 2339.327     | 2360.899     | 2319.490     | 2360.899     | 2339.327     | 2345.312     | 2346.934     |
| <b>20</b> | 2197.791     | 2153.088     | 2155.959     | 2153.088     | 2197.791     | 2184.799     | 2126.667     |
| <b>25</b> | 1867.001     | 1847.261     | 1817.108     | 1847.261     | 1867.001     | 1827.845     | 1859.086     |
| <b>30</b> | 1419.638     | 1422.412     | 1414.090     | 1422.412     | 1419.638     | 1423.189     | 1401.617     |
| <b>35</b> | 1023.302     | 1014.528     | 1000.303     | 1014.528     | 1023.302     | 1014.593     | 1021.778     |
| <b>40</b> | 687.629      | 667.468      | 664.971      | 667.468      | 687.629      | 677.769      | 676.568      |
| <b>45</b> | 455.587      | 449.861      | 448.953      | 449.861      | 455.587      | 456.009      | 436.042      |
| <b>50</b> | 316.663      | 319.534      | 320.166      | 319.534      | 316.663      | 316.809      | 317.279      |
| <b>55</b> | 226.155      | 225.247      | 226.593      | 225.247      | 226.155      | 224.015      | 226.383      |
| <b>60</b> | 157.090      | 153.442      | 158.826      | 153.442      | 157.090      | 155.323      | 152.889      |
| <b>65</b> | 100.613      | 101.164      | 100.564      | 101.164      | 100.613      | 103.013      | 103.694      |
| <b>70</b> | 63.971       | 66.713       | 61.052       | 66.713       | 63.971       | 62.853       | 64.945       |
| <b>75</b> | 35.327       | 39.706       | 39.464       | 39.706       | 35.327       | 39.755       | 36.738       |
| <b>80</b> | 20.258       | 20.145       | 21.183       | 20.145       | 20.258       | 21.556       | 20.470       |
| <b>85</b> | 9.051        | 9.781        | 9.408        | 9.781        | 9.051        | 8.742        | 9.699        |
| <b>90</b> | 1.833        | 1.688        | 1.621        | 1.688        | 1.833        | 1.573        | 1.882        |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 874.26  | N.A.  | 28.40  |
| 0-30    | 1708.27 | N.A.  | 55.50  |
| 0-40    | 2348.97 | N.A.  | 76.30  |
| 0-60    | 2919.2  | N.A.  | 94.90  |
| 0-80    | 3066.23 | N.A.  | 99.60  |
| 0-90    | 3077.38 | N.A.  | 100.00 |
| 10-90   | 2855.41 | N.A.  | 92.80  |
| 20-40   | 1474.71 | N.A.  | 47.90  |
| 20-50   | 1838.73 | N.A.  | 59.70  |
| 40-70   | 674.74  | N.A.  | 21.90  |
| 60-80   | 147.03  | N.A.  | 4.80   |
| 70-80   | 42.52   | N.A.  | 1.40   |
| 80-90   | 11.16   | N.A.  | 0.40   |
| 90-110  | 0.00    | N.A.  | 0.00   |
| 90-120  | 0.00    | N.A.  | 0.00   |
| 90-130  | 0.00    | N.A.  | 0.00   |
| 90-150  | 0.00    | N.A.  | 0.00   |
| 90-180  | 0.00    | N.A.  | 0.00   |
| 110-180 | 0.00    | N.A.  | 0.00   |
| 0-180   | 3077.38 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 221.97 |
| 10-20   | 652.29 |
| 20-30   | 834.00 |
| 30-40   | 640.70 |
| 40-50   | 364.03 |
| 50-60   | 206.20 |
| 60-70   | 104.51 |
| 70-80   | 42.52  |
| 80-90   | 11.16  |
| 90-100  | 0.00   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

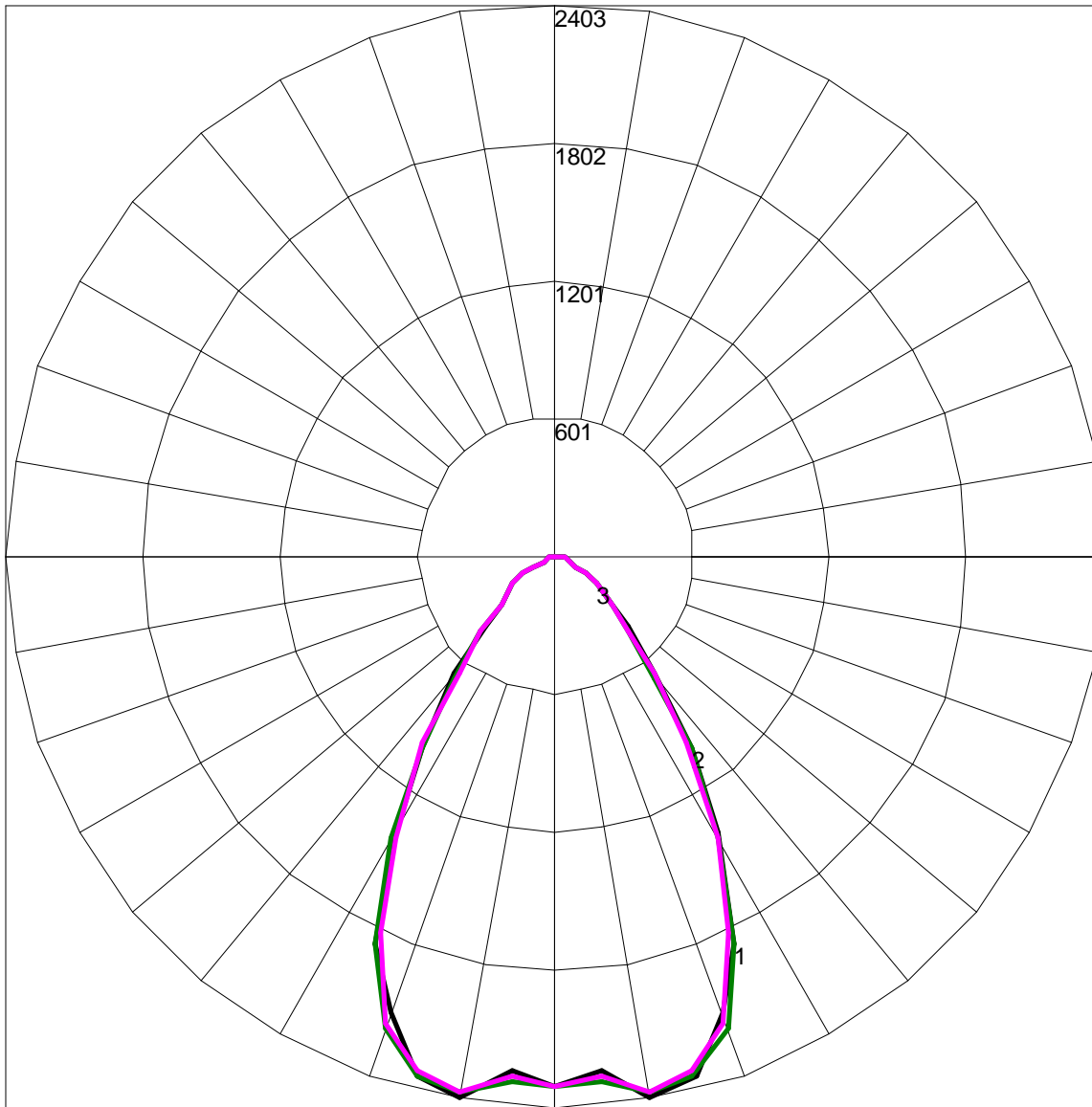
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

| RC | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0   |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RW | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| 0  | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1  | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 93  | 91  |
| 2  | 105 | 99  | 95  | 90  | 103 | 98  | 93  | 89  | 94  | 91  | 87  | 91  | 88  | 85  | 88  | 86  | 84  | 82  |
| 3  | 99  | 91  | 85  | 80  | 97  | 90  | 84  | 80  | 87  | 82  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 74  |
| 4  | 93  | 84  | 77  | 72  | 91  | 82  | 76  | 72  | 80  | 75  | 71  | 78  | 73  | 70  | 76  | 72  | 69  | 67  |
| 5  | 87  | 77  | 70  | 65  | 85  | 76  | 70  | 65  | 74  | 69  | 64  | 72  | 68  | 64  | 71  | 66  | 63  | 61  |
| 6  | 82  | 71  | 64  | 59  | 80  | 71  | 64  | 59  | 69  | 63  | 59  | 67  | 62  | 58  | 66  | 61  | 58  | 56  |
| 7  | 77  | 66  | 59  | 55  | 76  | 66  | 59  | 54  | 64  | 58  | 54  | 63  | 58  | 54  | 62  | 57  | 53  | 52  |
| 8  | 73  | 62  | 55  | 50  | 71  | 61  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 49  | 48  |
| 9  | 69  | 58  | 51  | 47  | 68  | 57  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 54  | 50  | 46  | 44  |
| 10 | 65  | 54  | 48  | 43  | 64  | 54  | 47  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 51  | 46  | 43  | 41  |

POLAR GRAPH



Maximum Candela = 2402.731 Located At Horizontal Angle = 22.5, Vertical Angle = 10

- # 1 - Vertical Plane Through Horizontal Angles (0 - 180)
- # 2 - Vertical Plane Through Horizontal Angles (45 - 225)
- # 3 - Vertical Plane Through Horizontal Angles (90 - 270)