

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P190936

Luminaire Tested: **GAN-AF-08-LED-U-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190936
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-08-LED-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39949.3 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

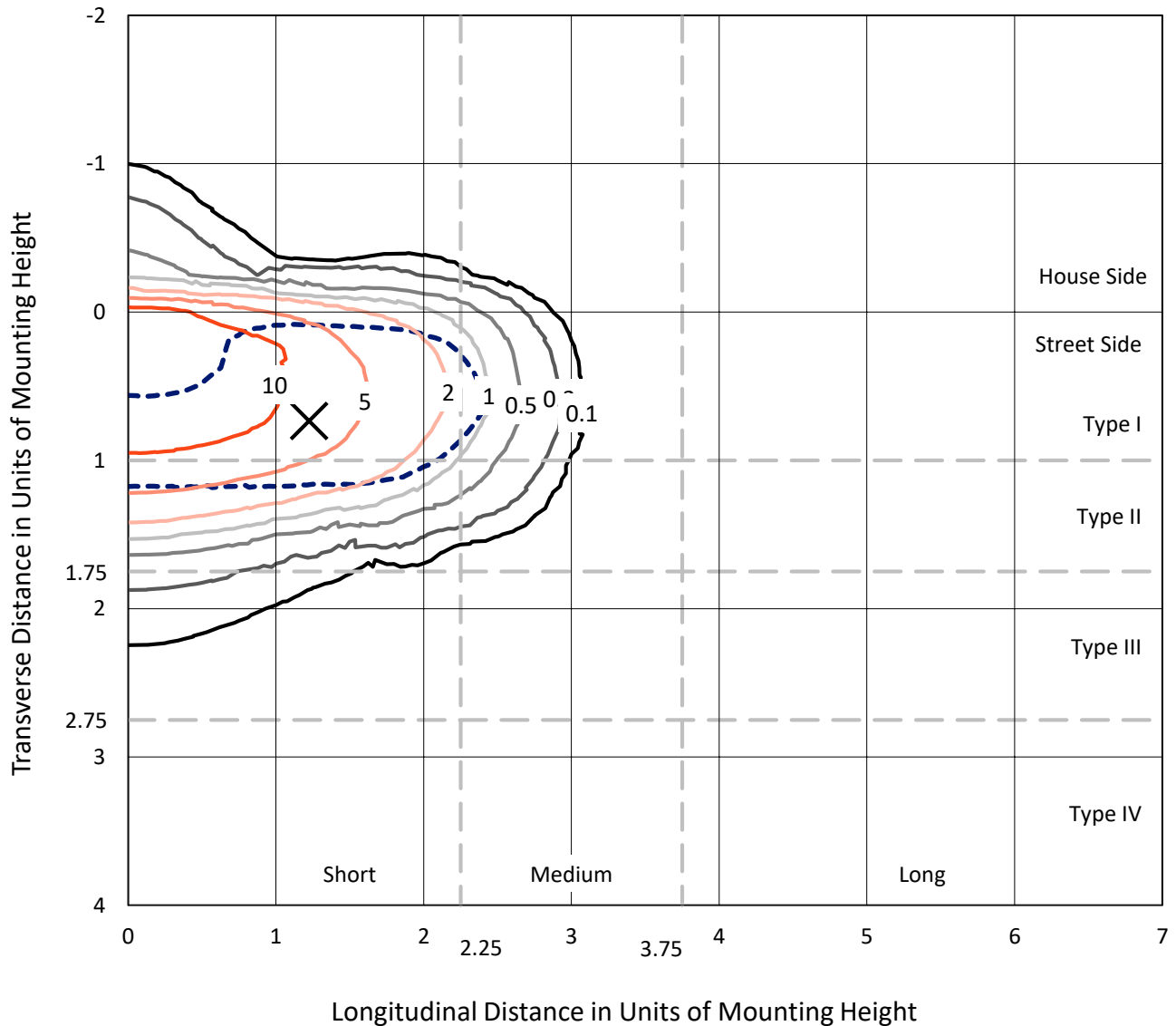
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

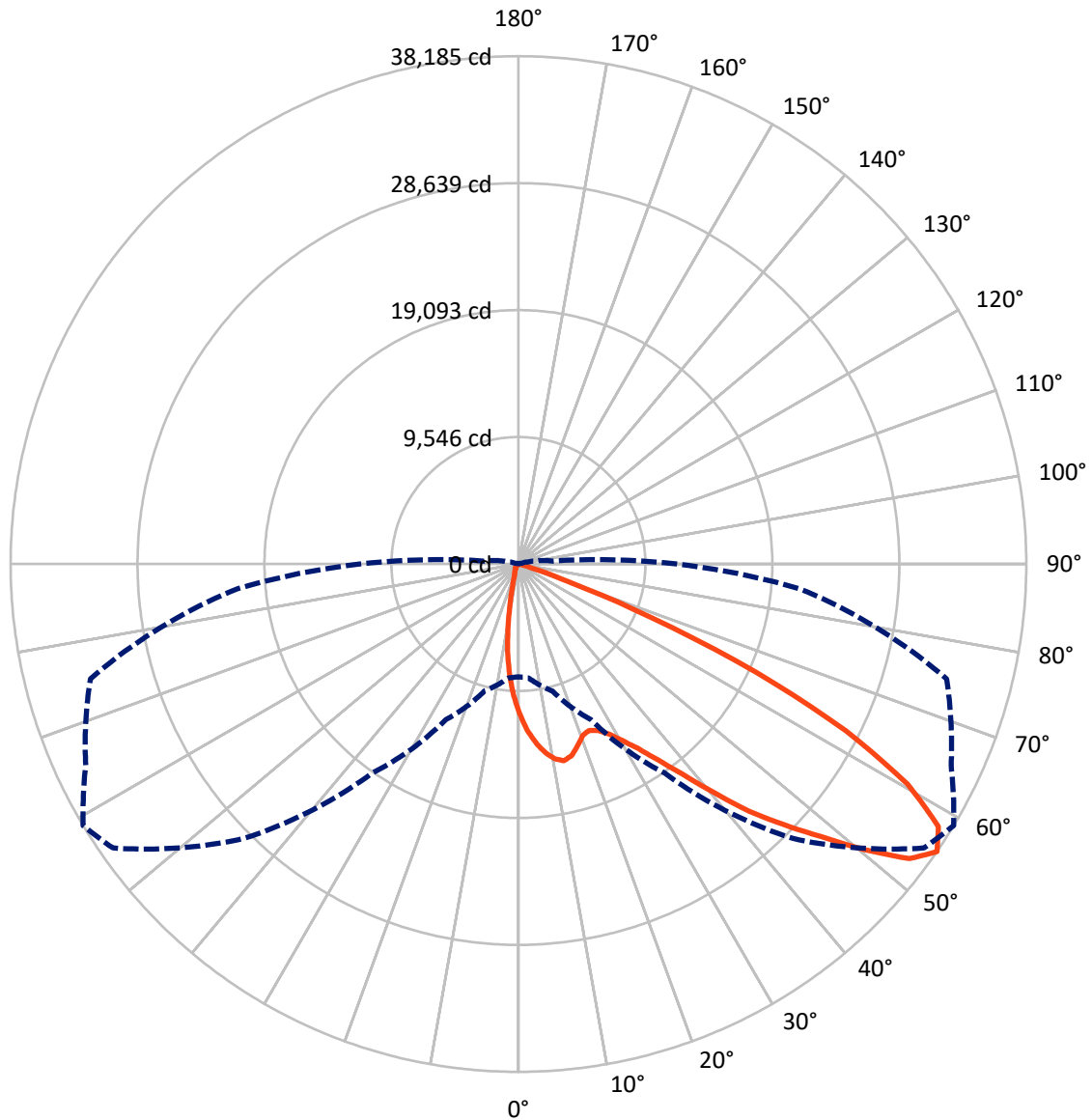
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.5 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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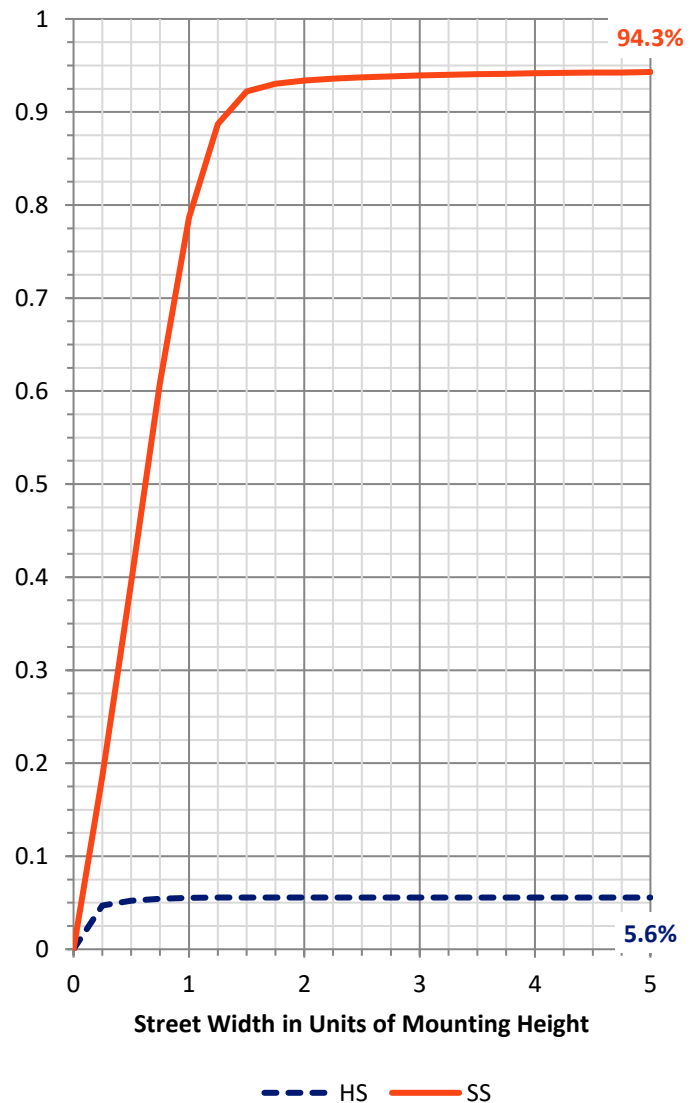
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2231.4 | 0.0 | 2231.4 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 37717.9 | 0.0 | 37717.9 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 39949.3 | 0.0 | 39949.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 941.9 | 2.4 |
| 10°-20° | 2255.3 | 5.6 |
| 20°-30° | 3837.6 | 9.6 |
| 30°-40° | 6599.8 | 16.5 |
| 40°-50° | 10189.4 | 25.5 |
| 50°-60° | 10243.6 | 25.6 |
| 60°-70° | 5253.0 | 13.1 |
| 70°-80° | 569.3 | 1.4 |
| 80°-90° | 59.5 | 0.1 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 39949.3 | 100.0 |
| 0°-180° | 39949.3 | 100.0 |

Coefficient of Utilization



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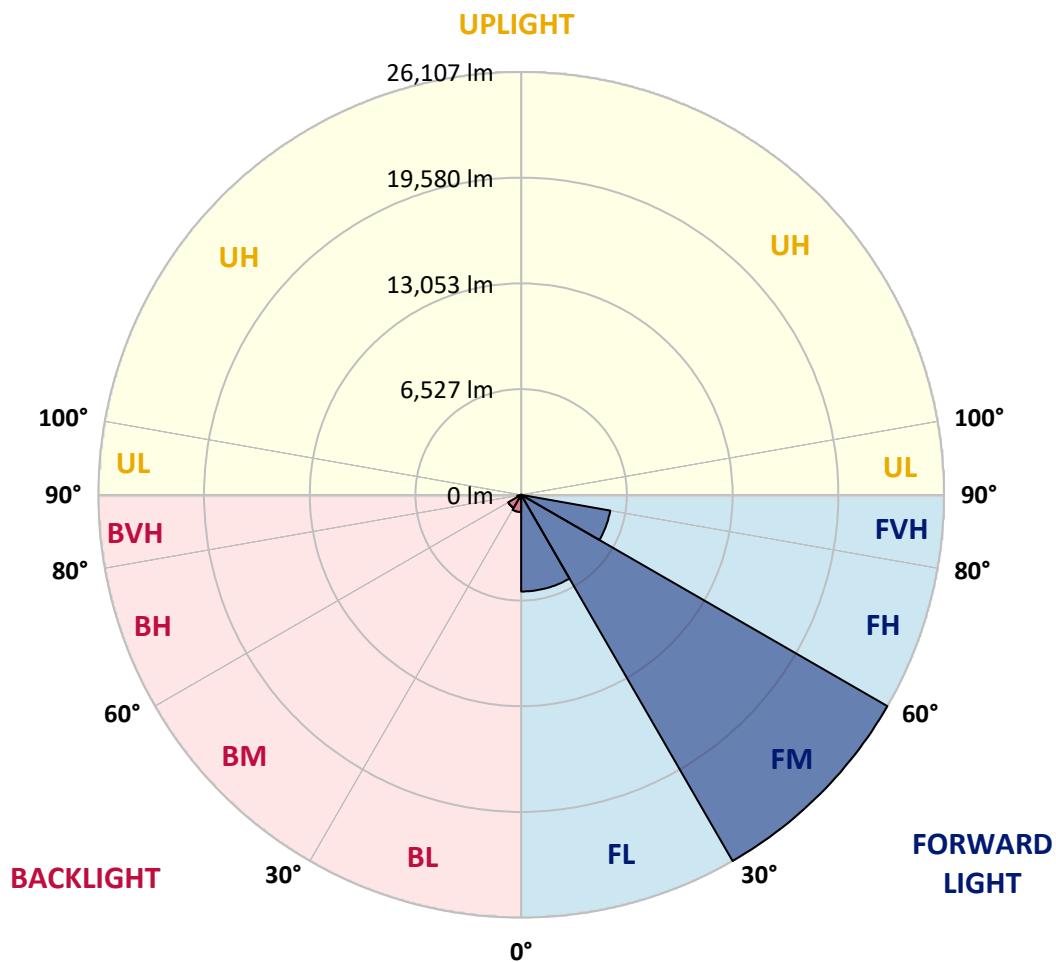
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 5969.7 | 14.9 | | | |
| FM | (30°-60°) | 26106.7 | 65.3 | | | |
| FH | (60°-80°) | 5583.2 | 14.0 | | | G3/7500 |
| FVH | (80°-90°) | 58.3 | 0.1 | | | G1/100 |
| BL | (0°-30°) | 1065.0 | 2.7 | B3/2500 | | |
| BM | (30°-60°) | 926.1 | 2.3 | B1/1000 | | |
| BH | (60°-80°) | 239.1 | 0.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.2 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 |
| 2.5° | 13306.1 | 13164.7 | 13122.2 | 13093.9 | 12964.3 | 12801.6 | 12579.9 | 12476.2 | 12264.1 | 11922.2 | 11502.6 |
| 5° | 14525.0 | 14499.0 | 14404.7 | 14352.8 | 14213.8 | 13982.7 | 13629.1 | 13459.4 | 13122.2 | 12547.0 | 11794.9 |
| 7.5° | 13992.1 | 14154.8 | 14284.5 | 14501.4 | 14774.9 | 14765.5 | 14468.4 | 14291.5 | 13914.4 | 13155.2 | 12120.2 |
| 10° | 11933.9 | 12066.0 | 12278.2 | 12770.9 | 13775.3 | 14661.6 | 15010.6 | 14883.3 | 14581.6 | 13714.0 | 12433.8 |
| 12.5° | 11530.8 | 11516.7 | 11554.4 | 11698.3 | 12224.0 | 13487.6 | 14918.7 | 15175.7 | 15114.3 | 14225.6 | 12730.8 |
| 15° | 11745.4 | 11728.8 | 11724.1 | 11773.7 | 11901.0 | 12433.8 | 14227.9 | 14965.8 | 15439.7 | 14699.4 | 12983.1 |
| 17.5° | 12346.6 | 12275.8 | 12238.1 | 12198.1 | 12160.3 | 12292.4 | 13398.0 | 14378.8 | 15489.2 | 15114.3 | 13192.9 |
| 20° | 13376.8 | 13259.0 | 13119.9 | 12893.5 | 12681.3 | 12615.3 | 13049.2 | 13775.3 | 15312.3 | 15430.3 | 13329.7 |
| 22.5° | 14671.2 | 14520.3 | 14279.8 | 13867.2 | 13435.7 | 13185.8 | 13221.2 | 13584.3 | 15048.3 | 15774.5 | 13393.3 |
| 25° | 16125.7 | 15932.5 | 15611.8 | 15038.9 | 14404.7 | 13961.5 | 13730.5 | 13857.8 | 14928.1 | 16177.6 | 13466.4 |
| 27.5° | 17684.1 | 17469.5 | 17049.9 | 16269.5 | 15550.5 | 14951.7 | 14480.2 | 14463.7 | 15133.2 | 16705.7 | 13584.3 |
| 30° | 19228.3 | 19195.3 | 18648.3 | 17823.2 | 16870.7 | 16142.3 | 15463.2 | 15376.1 | 15706.1 | 17436.5 | 13817.7 |
| 32.5° | 21288.8 | 21041.3 | 20371.8 | 19523.0 | 18424.4 | 17549.7 | 16745.8 | 16543.1 | 16585.5 | 18287.6 | 14178.4 |
| 35° | 23886.8 | 23615.7 | 22672.7 | 21501.0 | 20272.7 | 19240.1 | 18351.3 | 18075.4 | 17971.7 | 19681.0 | 14786.7 |
| 37.5° | 25565.4 | 25560.7 | 24969.0 | 23776.0 | 22458.2 | 21319.4 | 20352.8 | 20029.9 | 19820.1 | 21364.2 | 15729.7 |
| 40° | 25610.2 | 25721.1 | 25798.8 | 25787.1 | 24848.7 | 23799.6 | 22941.4 | 22543.1 | 22055.0 | 23613.4 | 16948.6 |
| 42.5° | 24235.8 | 24521.1 | 25207.0 | 26371.7 | 26928.1 | 26510.8 | 25787.1 | 25395.7 | 24669.6 | 26020.4 | 18433.8 |
| 45° | 22378.0 | 22576.0 | 23776.0 | 25921.5 | 28055.0 | 29198.4 | 28646.8 | 27946.6 | 26989.4 | 28531.2 | 19765.9 |
| 47.5° | 21545.8 | 21581.2 | 22356.8 | 24712.0 | 28139.8 | 31400.4 | 31735.2 | 30596.5 | 29097.0 | 30554.0 | 20807.8 |
| 50° | 19058.6 | 19122.2 | 20192.5 | 22616.1 | 27145.0 | 32440.1 | 34837.7 | 33758.0 | 31395.7 | 32112.4 | 21187.5 |
| 52.5° | 14364.7 | 14454.2 | 15812.2 | 19171.7 | 24410.3 | 31996.9 | 37058.5 | 36796.9 | 33913.6 | 32873.9 | 21208.6 |
| 55° | 8475.5 | 8593.3 | 9890.0 | 12905.3 | 19200.0 | 29177.2 | 37223.5 | 38185.4 | 35901.0 | 33324.2 | 21175.7 |
| 57.5° | 3958.3 | 4040.9 | 4783.5 | 6648.4 | 11941.1 | 23059.4 | 34738.7 | 37233.1 | 36997.3 | 33562.3 | 21409.0 |
| 60° | 2103.0 | 2126.5 | 2305.7 | 2878.6 | 5396.5 | 14621.6 | 29889.2 | 33621.2 | 35997.6 | 33892.3 | 21694.3 |
| 62.5° | 1607.9 | 1614.9 | 1605.5 | 1673.9 | 2268.0 | 6490.4 | 22592.6 | 27640.1 | 31973.2 | 33644.9 | 21378.4 |
| 65° | 1393.4 | 1405.1 | 1339.1 | 1322.6 | 1454.6 | 2315.1 | 13421.6 | 19702.1 | 25124.6 | 30304.1 | 19226.0 |
| 67.5° | 1249.5 | 1254.2 | 1174.0 | 1105.7 | 1129.2 | 1251.9 | 5295.1 | 10785.9 | 16630.2 | 22213.0 | 13935.6 |
| 70° | 1150.5 | 1145.8 | 1058.5 | 950.1 | 919.4 | 855.8 | 1683.3 | 3953.6 | 7947.3 | 11264.4 | 6480.9 |
| 72.5° | 1018.4 | 1020.8 | 978.4 | 837.0 | 763.8 | 598.8 | 780.3 | 1152.9 | 2371.7 | 3069.6 | 1518.3 |
| 75° | 903.0 | 891.2 | 839.3 | 749.7 | 629.4 | 393.7 | 386.7 | 513.9 | 730.8 | 726.1 | 327.7 |
| 77.5° | 653.1 | 641.3 | 657.8 | 615.3 | 483.3 | 254.6 | 193.3 | 247.6 | 297.1 | 287.7 | 92.0 |
| 80° | 478.5 | 471.5 | 424.3 | 511.6 | 426.7 | 174.4 | 120.2 | 132.1 | 153.2 | 129.7 | 28.3 |
| 82.5° | 327.7 | 325.3 | 299.4 | 282.9 | 242.8 | 106.1 | 75.4 | 82.6 | 99.0 | 73.0 | 14.1 |
| 85° | 51.9 | 58.9 | 216.9 | 172.1 | 143.8 | 47.2 | 51.9 | 56.6 | 66.0 | 40.1 | 4.7 |
| 87.5° | 0.0 | 0.0 | 101.4 | 89.6 | 28.3 | 18.8 | 30.7 | 33.0 | 33.0 | 21.2 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: GAN-AF-08-LED-U-AFL-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 | 11245.6 |
| 2.5° | 11288.1 | 11052.3 | 10616.1 | 10165.8 | 9748.5 | 9251.1 | 8909.3 | 8652.2 | 8355.3 | 8275.1 | 8449.5 |
| 5° | 11365.8 | 10920.2 | 9982.0 | 8961.2 | 8001.6 | 6938.3 | 6124.9 | 5481.4 | 4899.0 | 4701.0 | 4880.2 |
| 7.5° | 11488.5 | 10825.9 | 9295.9 | 7614.9 | 5945.8 | 4286.1 | 3149.7 | 2402.4 | 1926.1 | 1784.6 | 1860.1 |
| 10° | 11611.0 | 10689.2 | 8501.3 | 6021.2 | 3739.1 | 2086.4 | 1358.0 | 1084.4 | 983.1 | 961.9 | 973.6 |
| 12.5° | 11712.4 | 10505.3 | 7532.4 | 4281.4 | 1999.3 | 1117.5 | 888.8 | 844.0 | 829.8 | 829.8 | 834.6 |
| 15° | 11773.7 | 10227.2 | 6384.2 | 2723.0 | 1150.5 | 844.0 | 775.6 | 761.5 | 761.5 | 763.8 | 768.5 |
| 17.5° | 11766.6 | 9873.5 | 5127.7 | 1648.0 | 860.5 | 747.4 | 707.3 | 695.5 | 693.2 | 697.9 | 700.2 |
| 20° | 11679.3 | 9411.4 | 3866.4 | 1086.9 | 749.7 | 681.3 | 641.3 | 620.0 | 617.7 | 622.4 | 627.1 |
| 22.5° | 11514.3 | 8840.9 | 2765.4 | 837.0 | 676.6 | 617.7 | 568.1 | 549.3 | 549.3 | 554.0 | 558.7 |
| 25° | 11313.9 | 8143.0 | 1890.7 | 709.6 | 610.6 | 549.3 | 502.2 | 485.7 | 490.4 | 502.2 | 504.5 |
| 27.5° | 11064.0 | 7358.0 | 1284.8 | 608.2 | 530.5 | 481.0 | 445.6 | 433.8 | 445.6 | 462.1 | 466.8 |
| 30° | 10849.5 | 6539.9 | 917.1 | 525.7 | 450.3 | 414.9 | 393.7 | 393.7 | 410.2 | 440.9 | 448.0 |
| 32.5° | 10684.5 | 5747.8 | 707.3 | 464.4 | 391.4 | 360.7 | 348.9 | 360.7 | 386.7 | 417.3 | 424.3 |
| 35° | 10663.2 | 5094.7 | 598.8 | 414.9 | 348.9 | 318.2 | 313.5 | 334.8 | 360.7 | 384.3 | 389.0 |
| 37.5° | 10825.9 | 4491.2 | 539.9 | 374.8 | 311.2 | 282.9 | 278.2 | 304.1 | 330.1 | 358.3 | 365.4 |
| 40° | 11134.8 | 4017.3 | 497.5 | 337.2 | 280.6 | 249.9 | 240.5 | 259.3 | 294.7 | 332.5 | 341.9 |
| 42.5° | 11535.6 | 3626.0 | 450.3 | 299.4 | 249.9 | 207.5 | 195.7 | 216.9 | 254.6 | 294.7 | 306.5 |
| 45° | 11917.5 | 3288.8 | 398.4 | 257.0 | 209.8 | 160.3 | 155.6 | 183.9 | 202.7 | 242.8 | 252.3 |
| 47.5° | 12127.3 | 2991.7 | 353.6 | 209.8 | 162.6 | 129.7 | 129.7 | 136.8 | 155.6 | 202.7 | 212.2 |
| 50° | 12056.6 | 2753.7 | 306.5 | 155.6 | 113.1 | 99.0 | 99.0 | 96.7 | 124.9 | 162.6 | 169.7 |
| 52.5° | 11915.1 | 2616.9 | 264.0 | 120.2 | 77.8 | 70.7 | 63.6 | 70.7 | 87.3 | 103.7 | 106.1 |
| 55° | 11894.0 | 2593.3 | 221.6 | 96.7 | 54.2 | 47.2 | 35.4 | 35.4 | 35.4 | 33.0 | 28.3 |
| 57.5° | 12059.0 | 2631.0 | 186.3 | 77.8 | 40.1 | 30.7 | 18.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 12228.7 | 2671.1 | 160.3 | 54.2 | 28.3 | 16.5 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 11945.8 | 2581.5 | 134.4 | 33.0 | 21.2 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 10493.5 | 2197.3 | 106.1 | 23.5 | 14.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 7464.1 | 1471.1 | 70.7 | 14.1 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 3406.6 | 615.3 | 44.8 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 728.4 | 191.0 | 30.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 148.5 | 139.1 | 11.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 47.2 | 219.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 28.3 | 157.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 4.7 | 23.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)