

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: P191113

Luminaire Tested: **GAN-AF-05-LED-U-SL3-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24289)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-05-LED-U-SL3-600-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17129.3 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

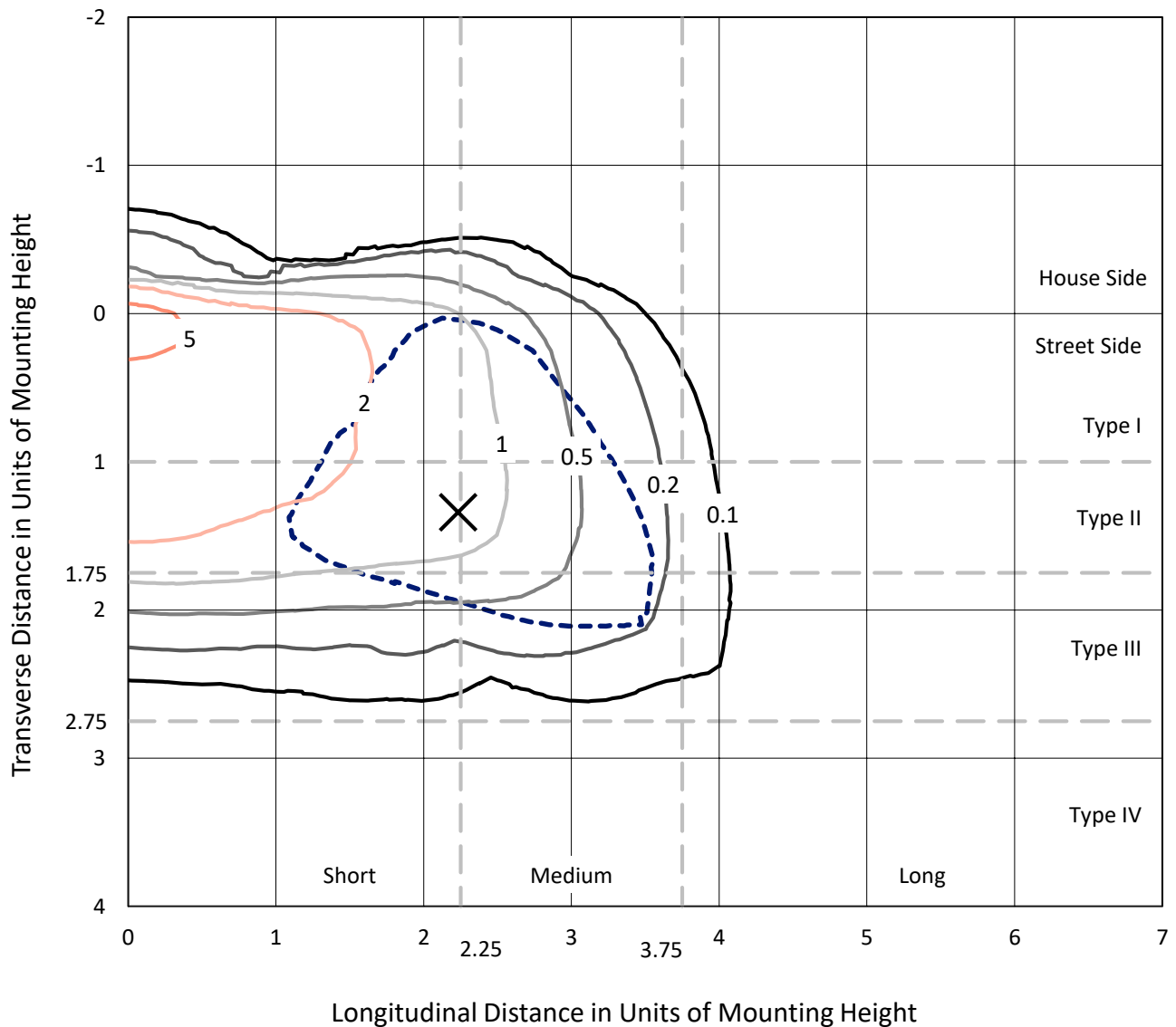
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

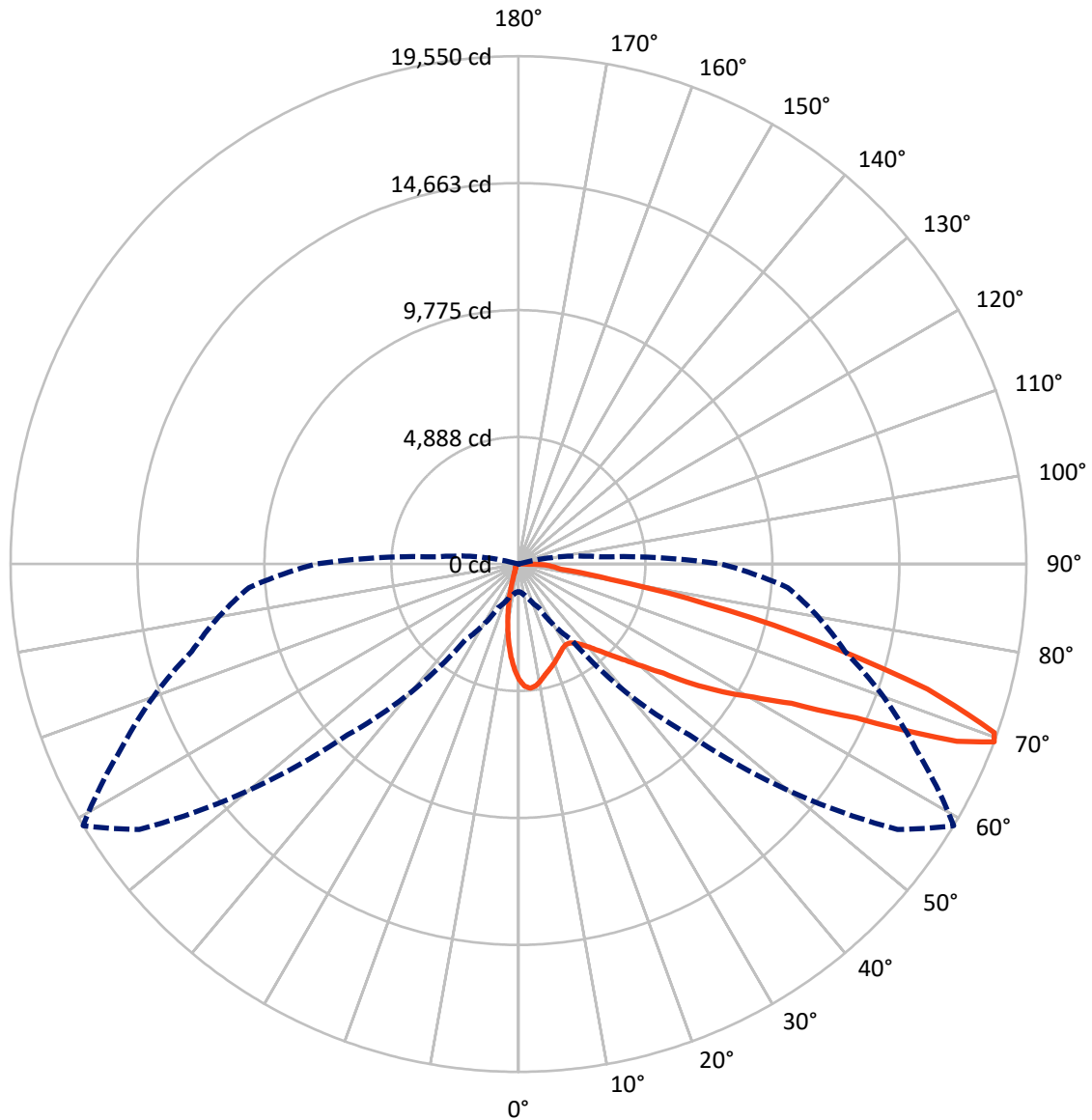
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1395.0 | 0.0 | 1395.0 |
| | % Fixture | 8.1 | 0.0 | 8.1 |
| Street Side | Lumens | 15734.4 | 0.0 | 15734.4 |
| | % Fixture | 91.9 | 0.0 | 91.9 |
| Total | Lumens | 17129.3 | 0.0 | 17129.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 361.9 | 2.1 |
| 10°-20° | 747.8 | 4.4 |
| 20°-30° | 1006.2 | 5.9 |
| 30°-40° | 1461.0 | 8.5 |
| 40°-50° | 2432.7 | 14.2 |
| 50°-60° | 3794.9 | 22.2 |
| 60°-70° | 4695.9 | 27.4 |
| 70°-80° | 2379.8 | 13.9 |
| 80°-90° | 249.0 | 1.5 |
| 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° | 17129.3 | 100.0 |
| 0°-180° | 17129.3 | 100.0 |



REPORT NUMBER: P191113

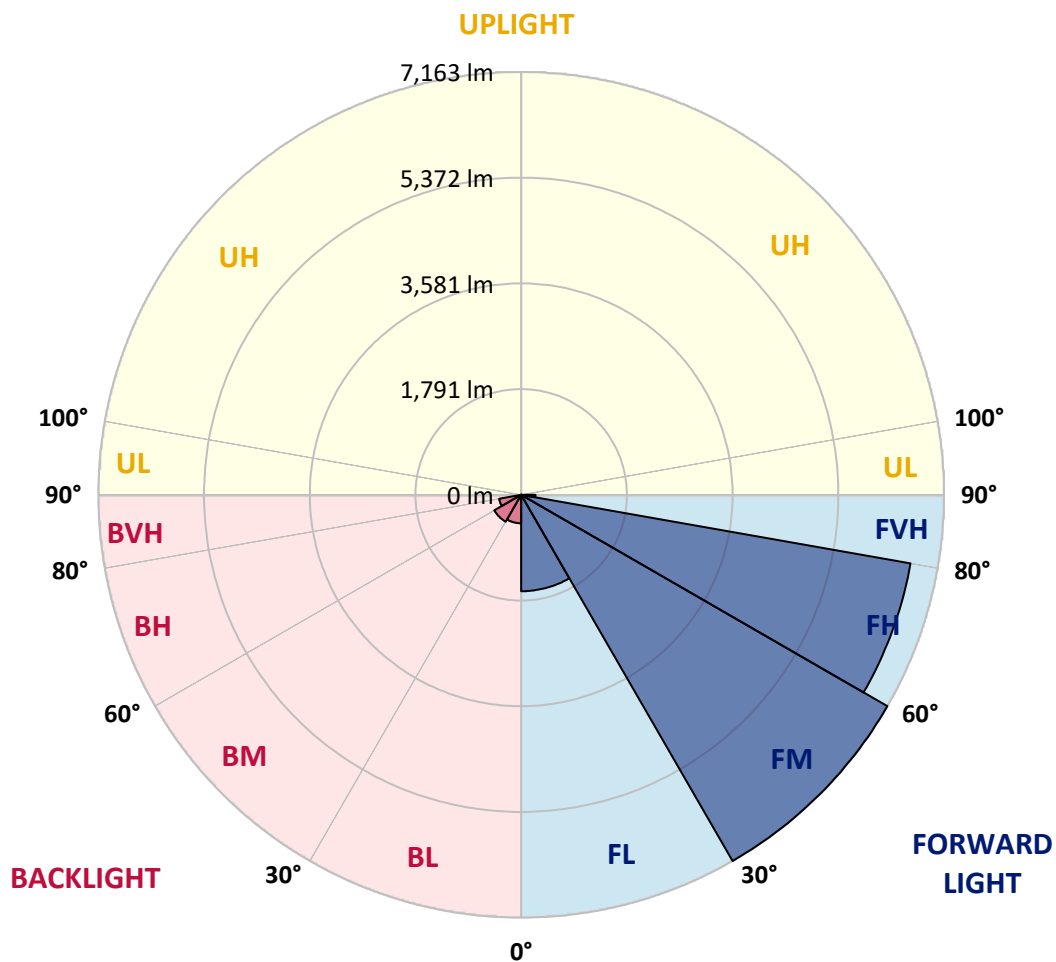
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1633.1 | 9.5 | | | |
| FM | (30°-60°) | 7163.0 | 41.8 | | | |
| FH | (60°-80°) | 6696.9 | 39.1 | | | G3/7500 |
| FVH | (80°-90°) | 241.4 | 1.4 | | | G3/500 |
| BL | (0°-30°) | 482.8 | 2.8 | B1/500 | | |
| BM | (30°-60°) | 525.6 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 378.8 | 2.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 7.7 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type III Short





REPORT NUMBER: P191113
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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 |
| 2.5° | 4886.6 | 4884.7 | 4863.4 | 4853.7 | 4836.3 | 4799.5 | 4742.3 | 4712.3 | 4663.8 | 4579.6 | 4466.3 |
| 5° | 4842.1 | 4865.4 | 4877.9 | 4878.9 | 4891.4 | 4877.9 | 4826.6 | 4801.4 | 4734.6 | 4599.0 | 4395.5 |
| 7.5° | 4539.9 | 4548.7 | 4584.5 | 4615.5 | 4675.5 | 4732.7 | 4751.0 | 4740.4 | 4700.7 | 4555.4 | 4285.1 |
| 10° | 4216.4 | 4225.1 | 4267.8 | 4308.4 | 4389.8 | 4477.9 | 4570.9 | 4590.3 | 4606.8 | 4493.4 | 4178.5 |
| 12.5° | 3937.4 | 3946.1 | 3989.7 | 4043.0 | 4137.9 | 4246.4 | 4390.7 | 4422.7 | 4495.4 | 4434.3 | 4093.3 |
| 15° | 3697.1 | 3701.0 | 3743.7 | 3809.6 | 3922.9 | 4062.3 | 4226.0 | 4277.4 | 4388.8 | 4392.7 | 4018.8 |
| 17.5° | 3492.9 | 3502.5 | 3528.7 | 3591.6 | 3715.6 | 3888.0 | 4078.8 | 4152.5 | 4283.2 | 4357.8 | 3946.1 |
| 20° | 3367.9 | 3377.6 | 3376.6 | 3411.4 | 3522.8 | 3706.9 | 3931.6 | 4019.8 | 4178.5 | 4322.0 | 3881.3 |
| 22.5° | 3343.6 | 3343.6 | 3318.5 | 3313.6 | 3379.5 | 3533.5 | 3778.6 | 3886.1 | 4084.6 | 4306.4 | 3835.7 |
| 25° | 3429.9 | 3426.0 | 3363.1 | 3311.7 | 3314.6 | 3406.6 | 3630.4 | 3758.2 | 4005.3 | 4317.1 | 3811.5 |
| 27.5° | 3611.9 | 3607.1 | 3527.6 | 3429.9 | 3351.4 | 3350.5 | 3518.0 | 3655.5 | 3942.2 | 4367.5 | 3821.1 |
| 30° | 3863.8 | 3861.8 | 3775.6 | 3652.7 | 3510.3 | 3379.5 | 3479.3 | 3604.2 | 3901.5 | 4458.5 | 3843.4 |
| 32.5° | 4138.9 | 4136.0 | 4071.0 | 3941.3 | 3761.1 | 3510.3 | 3520.0 | 3624.5 | 3913.2 | 4579.6 | 3897.6 |
| 35° | 4430.4 | 4425.6 | 4397.5 | 4284.2 | 4085.6 | 3751.5 | 3653.6 | 3735.0 | 3986.8 | 4760.7 | 4004.2 |
| 37.5° | 4746.2 | 4751.0 | 4771.3 | 4662.9 | 4454.6 | 4089.5 | 3877.4 | 3932.5 | 4135.0 | 5006.7 | 4177.6 |
| 40° | 5212.1 | 5211.1 | 5217.9 | 5075.6 | 4875.1 | 4503.0 | 4190.2 | 4207.6 | 4382.9 | 5333.2 | 4441.0 |
| 42.5° | 6057.7 | 5998.6 | 5819.5 | 5528.8 | 5327.3 | 4975.7 | 4584.5 | 4566.0 | 4686.1 | 5737.1 | 4810.1 |
| 45° | 7193.9 | 7068.0 | 6603.0 | 6046.0 | 5788.5 | 5508.5 | 5069.7 | 5010.6 | 5087.1 | 6222.4 | 5265.3 |
| 47.5° | 8171.2 | 8040.5 | 7382.7 | 6584.6 | 6277.5 | 6014.1 | 5638.3 | 5531.7 | 5557.0 | 6765.8 | 5842.7 |
| 50° | 8503.5 | 8439.5 | 7865.2 | 7053.5 | 6751.3 | 6650.5 | 6297.9 | 6168.1 | 6132.3 | 7394.4 | 6512.0 |
| 52.5° | 8388.2 | 8383.4 | 8000.7 | 7357.6 | 7185.2 | 7309.2 | 7128.0 | 6977.9 | 6846.2 | 8057.0 | 7192.9 |
| 55° | 8203.1 | 8227.4 | 8055.9 | 7624.0 | 7618.1 | 7910.7 | 8263.2 | 8138.3 | 7756.6 | 8776.6 | 7779.8 |
| 57.5° | 7692.7 | 7796.3 | 8024.9 | 8127.7 | 8365.9 | 8665.2 | 9208.6 | 9282.3 | 8830.8 | 9327.8 | 8267.1 |
| 60° | 6241.7 | 6469.3 | 7217.1 | 8200.3 | 9329.7 | 10075.6 | 10349.6 | 10412.6 | 9712.3 | 9785.9 | 8924.8 |
| 62.5° | 4430.4 | 4662.9 | 5611.2 | 7274.3 | 9344.2 | 11928.4 | 12049.5 | 11802.5 | 10682.8 | 10464.9 | 10059.1 |
| 65° | 2351.8 | 2531.0 | 3305.9 | 5250.8 | 8101.5 | 12358.6 | 15022.2 | 14286.0 | 12395.3 | 11800.6 | 11524.6 |
| 67.5° | 1203.0 | 1257.3 | 1565.3 | 2569.8 | 5569.6 | 10977.3 | 17686.8 | 18205.0 | 15346.7 | 13125.7 | 11453.9 |
| 69° | 1064.5 | 1096.5 | 1300.9 | 1857.8 | 3566.4 | 9297.7 | 17816.6 | 19550.4 | 16891.7 | 13015.2 | 10408.7 |
| 70° | 1030.6 | 1058.7 | 1244.6 | 1681.5 | 2787.6 | 7797.3 | 17319.8 | 19432.3 | 17286.8 | 12594.9 | 9628.0 |
| 72.5° | 874.6 | 898.9 | 1108.1 | 1485.8 | 2265.6 | 3870.5 | 14069.1 | 16466.4 | 15512.3 | 10492.0 | 6969.2 |
| 75° | 585.0 | 664.5 | 1063.6 | 1392.8 | 2107.7 | 2198.7 | 9275.4 | 11899.4 | 11053.8 | 7076.7 | 3630.4 |
| 77.5° | 140.5 | 151.1 | 300.2 | 1108.1 | 1927.5 | 1935.3 | 4770.4 | 7397.3 | 6033.5 | 2522.3 | 858.2 |
| 80° | 75.6 | 72.6 | 84.3 | 219.8 | 1794.9 | 1816.1 | 2147.4 | 3590.7 | 2154.2 | 418.5 | 282.8 |
| 82.5° | 53.3 | 50.3 | 54.2 | 92.1 | 564.7 | 1654.4 | 1553.7 | 1625.4 | 893.0 | 160.8 | 126.8 |
| 85° | 19.3 | 18.4 | 30.1 | 83.3 | 177.3 | 951.1 | 1596.3 | 1340.6 | 723.5 | 73.7 | 93.0 |
| 87.5° | 6.8 | 5.8 | 11.7 | 45.5 | 54.2 | 404.9 | 985.1 | 1013.1 | 284.8 | 44.6 | 43.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P191113

CATALOG NUMBER: GAN-AF-05-LED-U-SL3-600-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 | 4458.5 |
| 2.5° | 4418.8 | 4358.8 | 4248.3 | 4135.0 | 4030.4 | 3904.5 | 3841.5 | 3779.5 | 3753.4 | 3743.7 | 3698.2 |
| 5° | 4291.0 | 4189.3 | 3954.8 | 3719.4 | 3502.5 | 3272.0 | 3119.9 | 2997.9 | 2926.2 | 2891.3 | 2836.1 |
| 7.5° | 4127.3 | 3960.7 | 3605.2 | 3241.9 | 2903.9 | 2570.7 | 2323.7 | 2133.9 | 2003.0 | 1940.1 | 1882.9 |
| 10° | 3968.4 | 3746.6 | 3241.0 | 2746.0 | 2286.9 | 1845.2 | 1504.2 | 1257.3 | 1099.4 | 1026.7 | 980.2 |
| 12.5° | 3826.0 | 3538.4 | 2889.3 | 2262.7 | 1686.3 | 1169.1 | 822.4 | 625.7 | 527.8 | 494.0 | 477.5 |
| 15° | 3699.1 | 3346.6 | 2557.2 | 1803.6 | 1142.0 | 668.3 | 449.5 | 382.6 | 367.1 | 367.1 | 365.2 |
| 17.5° | 3579.0 | 3158.7 | 2236.5 | 1372.5 | 716.8 | 408.8 | 341.9 | 333.2 | 333.2 | 337.1 | 337.1 |
| 20° | 3463.7 | 2979.4 | 1926.5 | 985.1 | 451.3 | 324.5 | 309.0 | 307.1 | 309.0 | 313.8 | 313.8 |
| 22.5° | 3365.0 | 2816.7 | 1636.9 | 676.1 | 335.1 | 292.6 | 284.8 | 281.8 | 282.8 | 285.7 | 287.7 |
| 25° | 3291.3 | 2679.2 | 1363.8 | 458.2 | 288.7 | 266.4 | 257.7 | 252.8 | 248.9 | 248.9 | 250.8 |
| 27.5° | 3244.9 | 2562.9 | 1099.4 | 333.2 | 259.6 | 242.1 | 228.6 | 220.9 | 212.2 | 207.2 | 209.2 |
| 30° | 3210.9 | 2452.5 | 851.4 | 272.2 | 232.5 | 215.0 | 197.6 | 185.1 | 172.4 | 166.6 | 168.6 |
| 32.5° | 3198.4 | 2363.4 | 636.4 | 240.2 | 208.3 | 188.8 | 167.6 | 151.1 | 137.6 | 132.7 | 133.7 |
| 35° | 3232.2 | 2292.7 | 465.9 | 217.0 | 188.8 | 164.7 | 140.5 | 122.0 | 111.4 | 108.5 | 109.5 |
| 37.5° | 3321.4 | 2254.9 | 348.7 | 197.6 | 171.4 | 144.3 | 117.2 | 99.7 | 93.0 | 93.0 | 93.9 |
| 40° | 3489.9 | 2254.0 | 279.9 | 184.0 | 155.9 | 124.9 | 96.9 | 84.3 | 80.4 | 82.3 | 83.3 |
| 42.5° | 3735.9 | 2305.3 | 244.1 | 171.4 | 142.4 | 106.6 | 80.4 | 71.7 | 70.7 | 72.6 | 73.7 |
| 45° | 4072.1 | 2399.2 | 224.7 | 160.8 | 127.9 | 89.1 | 67.8 | 62.0 | 62.0 | 64.9 | 65.9 |
| 47.5° | 4483.7 | 2536.8 | 208.3 | 150.2 | 113.3 | 74.6 | 58.1 | 54.2 | 55.2 | 58.1 | 59.1 |
| 50° | 4979.6 | 2710.2 | 191.8 | 138.5 | 102.7 | 62.0 | 50.3 | 47.5 | 48.4 | 52.3 | 53.3 |
| 52.5° | 5544.3 | 2943.6 | 178.2 | 127.9 | 89.1 | 51.4 | 42.7 | 40.7 | 42.7 | 46.5 | 47.5 |
| 55° | 6028.7 | 3152.8 | 161.7 | 119.2 | 71.7 | 42.7 | 34.9 | 34.9 | 36.8 | 41.6 | 42.7 |
| 57.5° | 6494.5 | 3371.7 | 147.2 | 102.7 | 56.2 | 33.9 | 29.1 | 30.1 | 32.9 | 37.7 | 38.8 |
| 60° | 7178.4 | 3742.7 | 129.8 | 86.2 | 42.7 | 27.1 | 24.2 | 25.2 | 29.1 | 33.9 | 34.9 |
| 62.5° | 8339.7 | 4307.4 | 112.3 | 71.7 | 32.9 | 21.3 | 19.3 | 21.3 | 26.2 | 31.9 | 32.9 |
| 65° | 9387.8 | 4537.0 | 92.1 | 60.0 | 25.2 | 16.5 | 16.5 | 19.3 | 25.2 | 31.0 | 31.9 |
| 67.5° | 8803.7 | 3819.3 | 71.7 | 47.5 | 19.3 | 12.6 | 13.6 | 18.4 | 24.2 | 31.0 | 31.9 |
| 69° | 7785.7 | 3122.8 | 61.1 | 37.7 | 16.5 | 11.7 | 12.6 | 18.4 | 24.2 | 30.1 | 31.0 |
| 70° | 6992.4 | 2636.6 | 54.2 | 31.9 | 14.5 | 11.7 | 12.6 | 17.4 | 24.2 | 30.1 | 31.0 |
| 72.5° | 4683.3 | 1423.8 | 43.6 | 23.2 | 13.6 | 10.6 | 10.6 | 17.4 | 23.2 | 29.1 | 30.1 |
| 75° | 2012.8 | 393.2 | 34.9 | 16.5 | 11.7 | 9.7 | 9.7 | 16.5 | 22.3 | 28.1 | 30.1 |
| 77.5° | 368.1 | 99.7 | 28.1 | 14.5 | 11.7 | 9.7 | 8.7 | 15.5 | 21.3 | 27.1 | 28.1 |
| 80° | 146.3 | 49.4 | 22.3 | 12.6 | 10.6 | 8.7 | 7.8 | 14.5 | 20.4 | 26.2 | 27.1 |
| 82.5° | 88.2 | 28.1 | 18.4 | 11.7 | 10.6 | 7.8 | 6.8 | 12.6 | 19.3 | 25.2 | 26.2 |
| 85° | 71.7 | 19.3 | 14.5 | 11.7 | 9.7 | 7.8 | 5.8 | 11.7 | 17.4 | 24.2 | 25.2 |
| 87.5° | 34.9 | 13.6 | 13.6 | 10.6 | 9.7 | 7.8 | 5.8 | 10.6 | 16.5 | 23.2 | 24.2 |
| 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)