

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: McGRAW-EDISON

Report Number: P324171

Luminaire Tested: **GLEON-SA7C-740-U-SLL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P324171  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA7C-740-U-SLL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37090 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G5

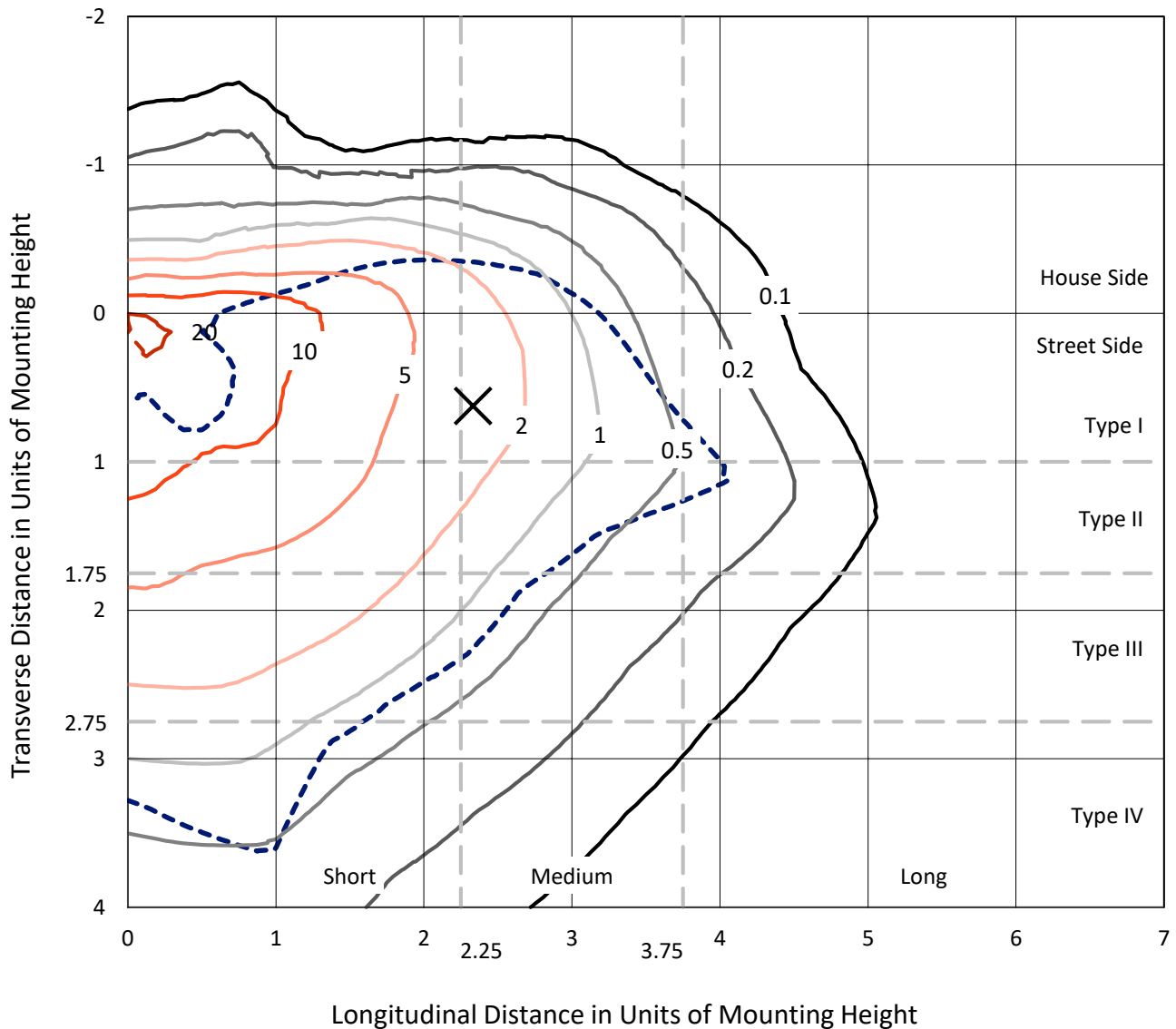
Input Watts (W): 391  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

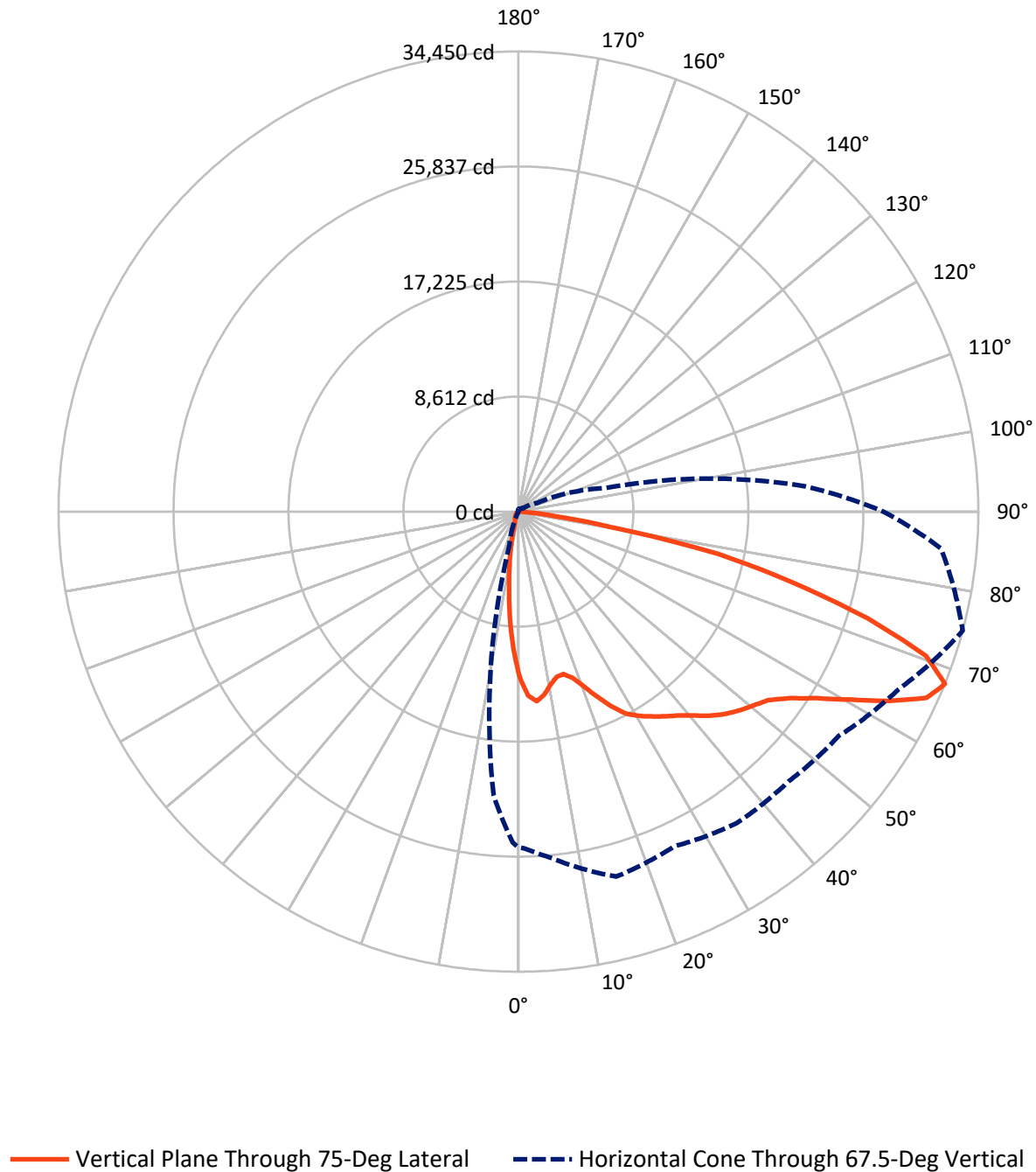
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 25.8 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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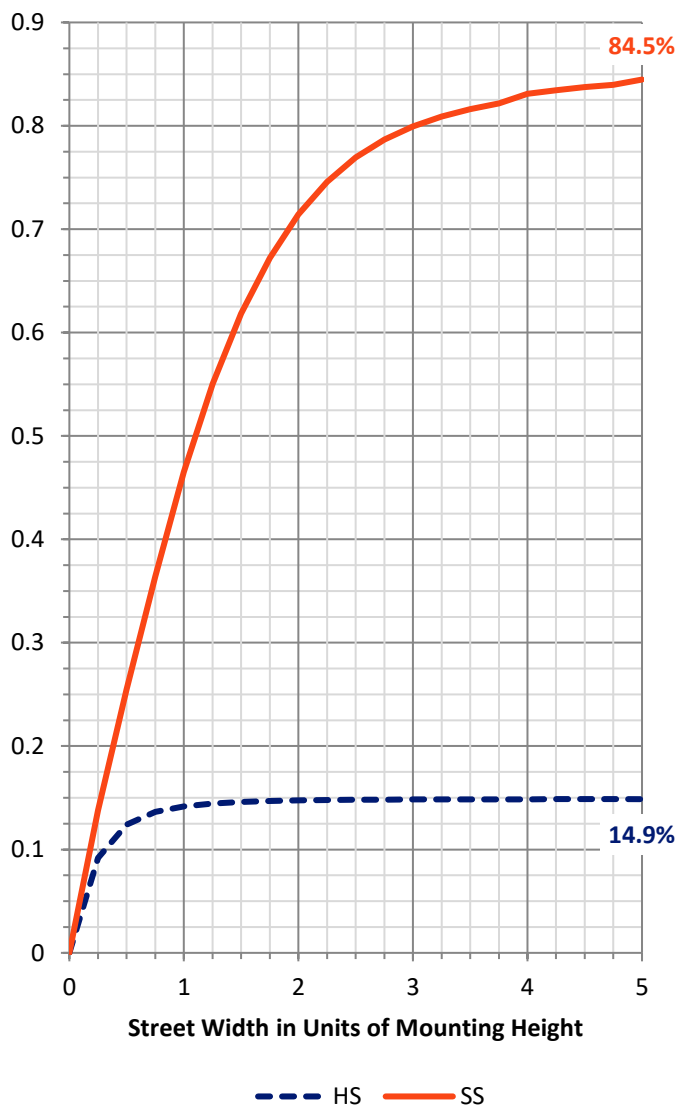
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5565.7   | 0.0    | 5565.7  |
|                    | % Fixture | 15.0     | 0.0    | 15.0    |
| <b>Street Side</b> | Lumens    | 31524.3  | 0.0    | 31524.3 |
|                    | % Fixture | 85.0     | 0.0    | 85.0    |
| <b>Total</b>       | Lumens    | 37090.0  | 0.0    | 37090.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 943.9   | 2.5       |
| 10°-20°   | 1858.5  | 5.0       |
| 20°-30°   | 2629.2  | 7.1       |
| 30°-40°   | 3865.7  | 10.4      |
| 40°-50°   | 5556.3  | 15.0      |
| 50°-60°   | 7821.8  | 21.1      |
| 60°-70°   | 9135.1  | 24.6      |
| 70°-80°   | 4660.4  | 12.6      |
| 80°-90°   | 619.1   | 1.7       |
| 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°    | 37090.0 | 100.0     |
| 0°-180°   | 37090.0 | 100.0     |

**Coefficient of Utilization**



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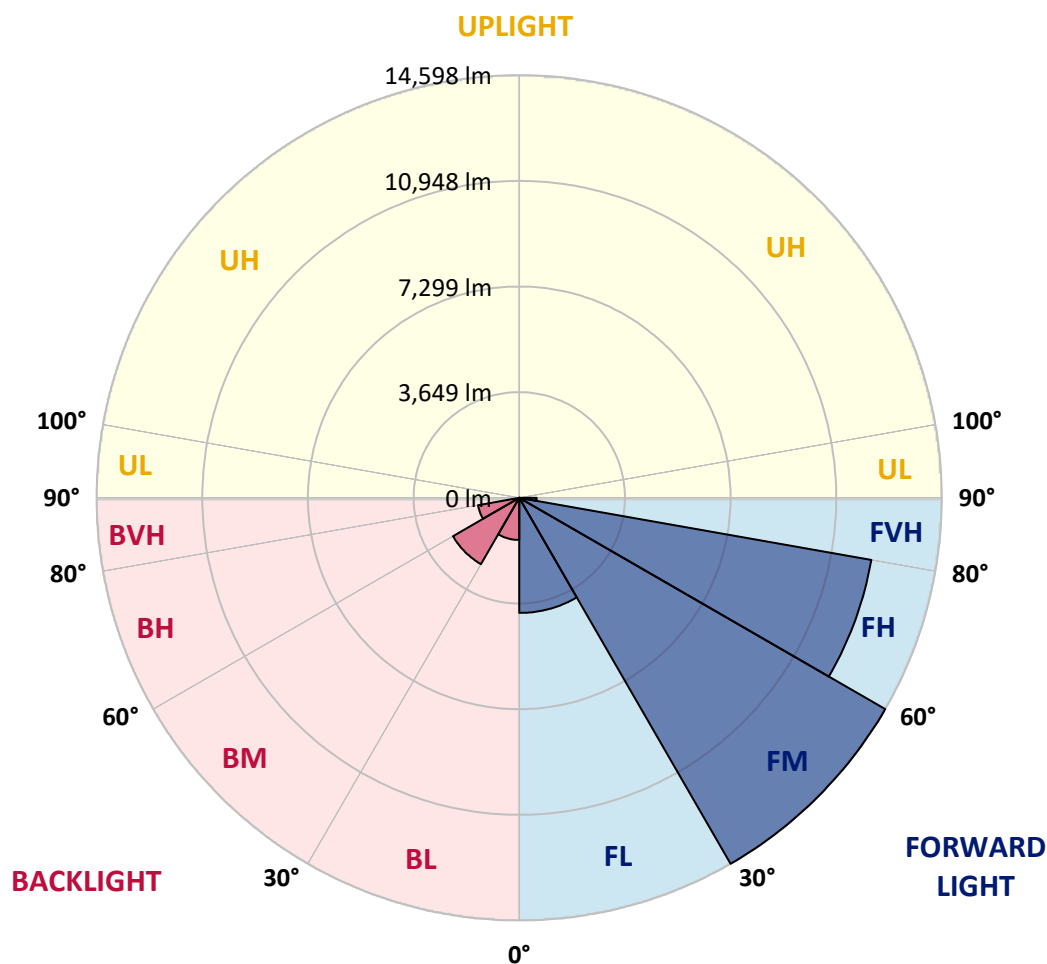
CATALOG NUMBER: GLEON-SA7C-740-U-SLL-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3976.1  | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 14598.0 | 39.4      |                         |      |         |
| FH   | (60°-80°)   | 12349.9 | 33.3      |                         |      | G5      |
| FVH  | (80°-90°)   | 600.3   | 1.6       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1455.5  | 3.9       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2645.8  | 7.1       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1445.7  | 3.9       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 18.8    | 0.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**

Type III Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 1°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 |
| 2.5°  | 13488.5 | 13509.6 | 13618.5 | 13871.5 | 14147.3 | 14168.4 | 14354.7 | 14163.2 | 14098.2 | 13788.9 | 13469.1 |
| 5°    | 13590.4 | 13671.2 | 14045.4 | 14788.7 | 15433.5 | 15640.8 | 15788.4 | 15412.4 | 15017.1 | 14261.6 | 13455.1 |
| 7.5°  | 12769.9 | 12905.2 | 13493.7 | 14888.8 | 16041.4 | 16550.9 | 16647.6 | 16059.0 | 15090.9 | 13846.9 | 12634.6 |
| 10°   | 11719.2 | 11873.8 | 12583.6 | 14298.5 | 15881.5 | 16754.7 | 16888.3 | 16116.9 | 14725.4 | 13175.7 | 11747.3 |
| 12.5° | 10868.8 | 11049.8 | 11775.4 | 13634.3 | 15331.6 | 16297.9 | 16561.5 | 15921.9 | 14409.1 | 12699.6 | 11141.1 |
| 15°   | 10477.0 | 10684.3 | 11446.8 | 13205.6 | 14721.9 | 15482.7 | 15700.5 | 15424.7 | 14233.4 | 12624.0 | 11000.6 |
| 17.5° | 10701.9 | 10926.8 | 11713.9 | 13242.5 | 14149.1 | 14474.2 | 14649.9 | 14762.3 | 14233.4 | 13079.1 | 11411.7 |
| 20°   | 11624.3 | 11866.8 | 12699.6 | 13616.7 | 13674.7 | 13553.5 | 13741.5 | 14136.8 | 14398.6 | 13943.5 | 12399.1 |
| 22.5° | 12899.9 | 13184.5 | 14124.5 | 14258.0 | 13442.8 | 12984.2 | 13008.8 | 13629.0 | 14699.0 | 15039.9 | 13769.6 |
| 25°   | 14454.8 | 14802.7 | 15758.5 | 15213.8 | 13539.4 | 12645.1 | 12636.3 | 13210.9 | 14992.5 | 16138.0 | 15296.4 |
| 27.5° | 15999.2 | 16382.3 | 17222.1 | 16380.5 | 13938.3 | 12583.6 | 12566.1 | 13084.4 | 15278.9 | 17114.9 | 16963.8 |
| 30°   | 17294.1 | 17666.6 | 18390.5 | 17225.6 | 14368.7 | 12727.7 | 12643.4 | 13219.7 | 15449.3 | 17749.2 | 18179.7 |
| 32.5° | 18348.3 | 18647.0 | 19232.1 | 17807.2 | 14829.1 | 13007.1 | 12824.3 | 13581.6 | 15739.2 | 18285.1 | 19297.1 |
| 35°   | 19508.0 | 19822.5 | 20056.1 | 18360.6 | 15345.6 | 13409.4 | 13147.6 | 14156.1 | 16185.5 | 18829.7 | 20521.7 |
| 37.5° | 20831.0 | 21143.7 | 21115.6 | 18866.6 | 16001.0 | 14075.3 | 13908.4 | 15066.3 | 16879.5 | 19369.1 | 21888.7 |
| 40°   | 22125.9 | 22445.7 | 22217.2 | 19420.1 | 16770.5 | 15173.4 | 15050.4 | 16433.2 | 17808.9 | 20059.6 | 23491.1 |
| 42.5° | 23338.2 | 23684.3 | 23195.9 | 19943.7 | 17687.7 | 16558.0 | 16768.8 | 18193.7 | 18972.1 | 20910.0 | 24872.1 |
| 45°   | 24315.1 | 24668.3 | 24016.4 | 20453.2 | 18654.0 | 18237.6 | 18871.9 | 20144.0 | 20370.6 | 21628.6 | 25805.0 |
| 47.5° | 25024.9 | 25358.8 | 24585.7 | 20962.7 | 19891.0 | 20291.6 | 21396.7 | 22189.1 | 21633.9 | 22252.4 | 26467.4 |
| 50°   | 25478.2 | 25738.3 | 24752.6 | 21600.5 | 21514.4 | 22688.1 | 24026.9 | 24413.5 | 22823.4 | 22814.6 | 27272.1 |
| 52.5° | 25766.4 | 25884.1 | 24875.6 | 22266.4 | 23208.2 | 25297.3 | 26602.7 | 26723.9 | 24048.0 | 23433.1 | 28356.2 |
| 55°   | 26759.1 | 26854.0 | 25747.1 | 23072.9 | 24608.5 | 27583.1 | 28932.5 | 28820.0 | 25434.3 | 24643.7 | 29635.3 |
| 57.5° | 28452.8 | 28553.0 | 27548.0 | 24232.5 | 25741.8 | 28995.7 | 30621.0 | 30823.0 | 27059.5 | 26344.4 | 31005.7 |
| 60°   | 29303.2 | 29489.5 | 29131.0 | 25701.4 | 26839.9 | 29898.8 | 31771.8 | 32416.6 | 29090.6 | 28586.4 | 32334.0 |
| 62.5° | 28531.9 | 28802.5 | 29322.5 | 27330.1 | 27931.0 | 30396.1 | 32130.2 | 32987.6 | 31170.9 | 31199.0 | 33152.8 |
| 65°   | 26992.8 | 27208.9 | 28090.9 | 28222.7 | 28563.5 | 30334.6 | 31244.7 | 32190.0 | 32444.7 | 33599.1 | 33108.9 |
| 67.5° | 25133.9 | 25214.7 | 25963.2 | 28292.9 | 27646.4 | 28486.2 | 28584.6 | 29283.9 | 31438.0 | 34449.5 | 31778.8 |
| 70°   | 22457.9 | 22501.9 | 23155.5 | 25940.3 | 23758.1 | 23942.6 | 23796.8 | 23939.1 | 27027.9 | 32378.0 | 28421.2 |
| 72.5° | 18074.2 | 18184.9 | 19114.4 | 21542.6 | 17308.2 | 16775.8 | 17921.4 | 17858.1 | 20815.2 | 27354.7 | 21108.6 |
| 75°   | 13307.5 | 13499.0 | 14902.9 | 17352.1 | 12147.9 | 10988.3 | 11824.6 | 12047.7 | 14797.4 | 21159.5 | 13200.3 |
| 77.5° | 9317.4  | 9459.7  | 10819.6 | 12755.8 | 8792.0  | 7857.3  | 7555.1  | 7820.4  | 9767.2  | 15307.0 | 6650.2  |
| 80°   | 5367.6  | 5420.3  | 6288.3  | 7365.3  | 5924.6  | 6778.5  | 6140.7  | 6323.4  | 5852.6  | 6810.1  | 2860.4  |
| 82.5° | 3512.2  | 3521.0  | 3860.1  | 4383.7  | 3689.7  | 4287.1  | 3173.1  | 4056.9  | 3600.1  | 2735.6  | 931.2   |
| 85°   | 1897.6  | 1908.1  | 2238.4  | 3111.6  | 2089.1  | 1180.7  | 694.0   | 1424.9  | 2226.1  | 627.2   | 254.8   |
| 87.5° | 209.1   | 191.5   | 674.7   | 1131.5  | 579.8   | 107.2   | 36.9    | 159.9   | 356.7   | 40.4    | 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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**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°    | 115°    | 125°    | 135°    | 145°    | 155°    | 165°    | 175°    | 180°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 |
| 2.5°  | 13305.7 | 13159.9 | 12796.2 | 12411.4 | 12102.2 | 11812.3 | 11520.6 | 11164.0 | 10888.1 | 10831.9 | 10740.5 |
| 5°    | 13021.1 | 12559.0 | 11796.5 | 11030.4 | 10413.7 | 9635.4  | 9141.7  | 8756.9  | 8380.9  | 8358.0  | 8282.5  |
| 7.5°  | 12026.7 | 11418.7 | 10345.2 | 9285.7  | 8417.8  | 7676.3  | 6927.8  | 6427.1  | 6033.5  | 5894.7  | 5812.1  |
| 10°   | 11070.8 | 10387.4 | 9046.8  | 7838.0  | 7063.1  | 6407.8  | 5880.7  | 5357.1  | 4882.7  | 4555.9  | 4408.3  |
| 12.5° | 10403.2 | 9647.7  | 8170.0  | 7128.1  | 6572.9  | 5951.0  | 5307.9  | 4654.3  | 4107.9  | 3714.3  | 3473.6  |
| 15°   | 10144.9 | 9338.4  | 7876.6  | 6847.0  | 6161.8  | 5374.7  | 4552.4  | 3805.7  | 3199.5  | 2842.8  | 2626.7  |
| 17.5° | 10452.4 | 9514.1  | 7853.8  | 6504.4  | 5546.8  | 4568.2  | 3659.8  | 2777.8  | 2206.8  | 1936.2  | 1797.4  |
| 20°   | 11232.5 | 10072.9 | 7845.0  | 6084.5  | 4815.9  | 3612.4  | 2479.1  | 1827.3  | 1481.1  | 1330.0  | 1265.0  |
| 22.5° | 12335.9 | 10786.2 | 7915.3  | 5669.8  | 4055.2  | 2581.0  | 1711.3  | 1342.3  | 1164.9  | 1084.1  | 1047.2  |
| 25°   | 13755.5 | 11787.7 | 8113.8  | 5293.8  | 3340.1  | 1925.7  | 1333.6  | 1124.5  | 999.7   | 936.5   | 910.1   |
| 27.5° | 15268.3 | 12940.3 | 8423.0  | 4967.0  | 2758.5  | 1535.6  | 1142.0  | 962.8   | 873.2   | 829.3   | 804.7   |
| 30°   | 16515.8 | 14275.6 | 8735.8  | 4603.3  | 2336.8  | 1338.8  | 1045.4  | 878.5   | 774.8   | 746.7   | 723.9   |
| 32.5° | 17606.9 | 15285.9 | 8957.2  | 4274.8  | 2061.0  | 1189.5  | 945.3   | 785.4   | 715.1   | 660.6   | 636.0   |
| 35°   | 18736.6 | 16127.5 | 8950.1  | 4044.6  | 1871.2  | 1077.0  | 860.9   | 702.8   | 618.5   | 555.2   | 535.9   |
| 37.5° | 19959.5 | 17078.0 | 8797.3  | 3847.8  | 1788.6  | 987.4   | 813.5   | 658.9   | 574.5   | 511.3   | 486.7   |
| 40°   | 21391.5 | 18076.0 | 8640.9  | 3663.3  | 1765.8  | 915.4   | 780.1   | 623.7   | 534.1   | 472.6   | 448.0   |
| 42.5° | 22786.5 | 18975.6 | 8503.9  | 3526.3  | 1667.4  | 913.6   | 750.2   | 597.4   | 502.5   | 442.8   | 414.7   |
| 45°   | 23902.2 | 19813.7 | 8477.5  | 3443.7  | 1563.7  | 945.3   | 734.4   | 579.8   | 477.9   | 418.2   | 391.8   |
| 47.5° | 24829.9 | 20723.8 | 8646.2  | 3385.7  | 1465.3  | 862.7   | 773.1   | 567.5   | 455.1   | 397.1   | 367.2   |
| 50°   | 25933.3 | 21841.2 | 9043.3  | 3290.9  | 1361.7  | 776.6   | 885.5   | 571.0   | 435.7   | 376.0   | 344.4   |
| 52.5° | 27472.4 | 23387.4 | 9626.6  | 3131.0  | 1219.4  | 697.5   | 871.5   | 574.5   | 414.7   | 353.2   | 321.5   |
| 55°   | 29197.8 | 25318.3 | 10253.8 | 2865.7  | 1020.8  | 593.9   | 746.7   | 549.9   | 374.2   | 328.6   | 298.7   |
| 57.5° | 31011.0 | 27070.1 | 10626.3 | 2549.4  | 811.7   | 513.0   | 597.4   | 500.7   | 330.3   | 295.2   | 275.8   |
| 60°   | 31295.7 | 27736.0 | 10455.9 | 2161.1  | 644.8   | 446.3   | 442.8   | 509.5   | 295.2   | 260.0   | 246.0   |
| 62.5° | 30587.6 | 26899.6 | 9631.9  | 1815.0  | 539.4   | 391.8   | 363.7   | 444.5   | 267.1   | 231.9   | 217.9   |
| 65°   | 29225.9 | 24638.4 | 8296.5  | 1635.8  | 500.7   | 335.6   | 302.2   | 312.7   | 233.7   | 202.1   | 189.8   |
| 67.5° | 27331.9 | 21619.9 | 6811.9  | 1533.9  | 495.5   | 288.1   | 258.3   | 237.2   | 202.1   | 175.7   | 165.2   |
| 70°   | 23459.4 | 18011.0 | 5434.4  | 1477.6  | 481.4   | 242.5   | 217.9   | 193.3   | 168.7   | 149.3   | 140.6   |
| 72.5° | 17266.0 | 12762.8 | 4227.3  | 1416.1  | 484.9   | 193.3   | 189.8   | 159.9   | 135.3   | 116.0   | 112.4   |
| 75°   | 9976.2  | 7291.5  | 2772.5  | 1147.3  | 462.1   | 149.3   | 158.1   | 112.4   | 94.9    | 80.8    | 80.8    |
| 77.5° | 5316.7  | 4447.0  | 1056.0  | 477.9   | 168.7   | 94.9    | 89.6    | 66.8    | 59.7    | 49.2    | 47.4    |
| 80°   | 2317.5  | 1957.3  | 318.0   | 133.5   | 93.1    | 51.0    | 33.4    | 29.9    | 26.4    | 21.1    | 19.3    |
| 82.5° | 820.5   | 708.1   | 103.7   | 65.0    | 40.4    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 186.2   | 133.5   | 0.0     | 15.8    | 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     |

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**CANDELA DISTRIBUTION (continued):**

|       | 185°    | 195°    | 205°    | 215°    | 225°    | 235°    | 245°    | 255°    | 265°    | 270°    | 275°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 |
| 2.5°  | 10554.3 | 10515.6 | 10287.2 | 10296.0 | 10336.4 | 10394.4 | 10257.4 | 10320.6 | 10491.0 | 10654.4 | 10715.9 |
| 5°    | 8161.3  | 8170.0  | 8031.2  | 8117.3  | 8194.6  | 8247.3  | 8026.0  | 8029.5  | 8164.8  | 8349.3  | 8445.9  |
| 7.5°  | 5750.7  | 5736.6  | 5743.6  | 5949.2  | 6095.0  | 5989.6  | 6072.2  | 5785.8  | 5803.4  | 5935.1  | 5836.7  |
| 10°   | 4274.8  | 4081.5  | 3972.6  | 4127.2  | 4287.1  | 4229.1  | 4086.8  | 3993.7  | 4058.7  | 4204.5  | 4194.0  |
| 12.5° | 3359.4  | 3081.8  | 2918.4  | 2807.7  | 2939.5  | 2830.5  | 2827.0  | 2746.2  | 2658.3  | 2674.2  | 2907.8  |
| 15°   | 2526.6  | 2324.5  | 2131.2  | 1953.8  | 1950.3  | 1913.4  | 1725.4  | 1514.5  | 1497.0  | 1507.5  | 1628.7  |
| 17.5° | 1737.7  | 1669.1  | 1590.1  | 1437.2  | 1396.8  | 1242.2  | 1059.5  | 975.1   | 933.0   | 952.3   | 992.7   |
| 20°   | 1221.1  | 1194.8  | 1203.5  | 1121.0  | 1063.0  | 915.4   | 808.2   | 774.8   | 767.8   | 787.1   | 806.5   |
| 22.5° | 1012.0  | 964.6   | 959.3   | 922.4   | 864.4   | 757.3   | 699.3   | 680.0   | 671.2   | 688.7   | 702.8   |
| 25°   | 885.5   | 838.1   | 818.8   | 795.9   | 734.4   | 660.6   | 625.5   | 607.9   | 599.1   | 609.7   | 618.5   |
| 27.5° | 780.1   | 736.2   | 718.6   | 702.8   | 643.1   | 590.4   | 562.2   | 546.4   | 539.4   | 542.9   | 551.7   |
| 30°   | 701.0   | 662.4   | 639.5   | 620.2   | 569.3   | 532.4   | 507.8   | 492.0   | 484.9   | 484.9   | 493.7   |
| 32.5° | 618.5   | 597.4   | 576.3   | 551.7   | 504.3   | 479.7   | 455.1   | 437.5   | 430.5   | 432.2   | 439.2   |
| 35°   | 514.8   | 507.8   | 513.0   | 490.2   | 449.8   | 428.7   | 404.1   | 384.8   | 379.5   | 381.3   | 388.3   |
| 37.5° | 456.8   | 425.2   | 444.5   | 432.2   | 409.4   | 381.3   | 349.6   | 332.1   | 323.3   | 328.6   | 332.1   |
| 40°   | 419.9   | 381.3   | 367.2   | 379.5   | 376.0   | 330.3   | 302.2   | 284.6   | 277.6   | 279.4   | 282.9   |
| 42.5° | 388.3   | 342.6   | 311.0   | 309.2   | 330.3   | 288.1   | 258.3   | 242.5   | 233.7   | 233.7   | 237.2   |
| 45°   | 358.4   | 309.2   | 270.6   | 240.7   | 277.6   | 244.2   | 216.1   | 202.1   | 191.5   | 191.5   | 193.3   |
| 47.5° | 335.6   | 281.1   | 235.4   | 196.8   | 209.1   | 200.3   | 177.5   | 163.4   | 152.9   | 152.9   | 154.6   |
| 50°   | 314.5   | 253.0   | 203.8   | 165.2   | 156.4   | 165.2   | 144.1   | 128.3   | 121.2   | 119.5   | 123.0   |
| 52.5° | 291.7   | 224.9   | 173.9   | 140.6   | 123.0   | 124.7   | 112.4   | 101.9   | 93.1    | 93.1    | 96.6    |
| 55°   | 268.8   | 202.1   | 151.1   | 119.5   | 101.9   | 93.1    | 89.6    | 82.6    | 75.6    | 75.6    | 79.1    |
| 57.5° | 246.0   | 177.5   | 128.3   | 98.4    | 80.8    | 73.8    | 73.8    | 68.5    | 63.3    | 63.3    | 66.8    |
| 60°   | 224.9   | 152.9   | 105.4   | 80.8    | 63.3    | 61.5    | 63.3    | 58.0    | 54.5    | 54.5    | 58.0    |
| 62.5° | 200.3   | 130.0   | 86.1    | 66.8    | 51.0    | 49.2    | 54.5    | 51.0    | 47.4    | 47.4    | 51.0    |
| 65°   | 170.4   | 110.7   | 68.5    | 51.0    | 38.7    | 38.7    | 45.7    | 42.2    | 38.7    | 38.7    | 42.2    |
| 67.5° | 144.1   | 93.1    | 52.7    | 36.9    | 28.1    | 29.9    | 38.7    | 35.1    | 33.4    | 33.4    | 36.9    |
| 70°   | 119.5   | 72.0    | 36.9    | 22.8    | 15.8    | 22.8    | 29.9    | 29.9    | 29.9    | 29.9    | 33.4    |
| 72.5° | 89.6    | 49.2    | 21.1    | 8.8     | 7.0     | 15.8    | 24.6    | 28.1    | 26.4    | 26.4    | 31.6    |
| 75°   | 58.0    | 28.1    | 7.0     | 0.0     | 0.0     | 8.8     | 19.3    | 22.8    | 22.8    | 21.1    | 26.4    |
| 77.5° | 33.4    | 8.8     | 0.0     | 0.0     | 0.0     | 0.0     | 12.3    | 10.5    | 8.8     | 7.0     | 12.3    |
| 80°   | 8.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 0.0     | 0.0     | 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     |

REPORT NUMBER: P324171

CATALOG NUMBER: GLEON-SA7C-740-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°    | 295°    | 305°    | 315°    | 325°    | 335°    | 345°    | 355°    | 359°    | 360°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 | 12443.1 |
| 2.5°  | 10963.7 | 11171.0 | 11462.7 | 11771.9 | 12248.0 | 12625.8 | 12996.5 | 13314.5 | 13437.5 | 13488.5 |
| 5°    | 8677.8  | 8981.8  | 9408.7  | 9956.9  | 10816.1 | 11589.2 | 12372.8 | 13161.7 | 13504.3 | 13590.4 |
| 7.5°  | 6226.8  | 6615.1  | 7158.0  | 7845.0  | 8851.8  | 9853.2  | 10947.9 | 12105.7 | 12636.3 | 12769.9 |
| 10°   | 4608.6  | 5083.0  | 5705.0  | 6428.9  | 7389.9  | 8419.5  | 9612.5  | 10935.6 | 11541.7 | 11719.2 |
| 12.5° | 3269.8  | 3911.1  | 4743.9  | 5624.2  | 6457.0  | 7375.9  | 8582.9  | 10041.2 | 10677.3 | 10868.8 |
| 15°   | 1920.4  | 2540.6  | 3526.3  | 4705.2  | 5771.7  | 6702.9  | 7929.3  | 9582.7  | 10283.7 | 10477.0 |
| 17.5° | 1101.6  | 1410.9  | 2155.8  | 3470.1  | 4917.8  | 6207.5  | 7723.8  | 9696.9  | 10522.7 | 10701.9 |
| 20°   | 841.6   | 940.0   | 1242.2  | 2234.9  | 3919.9  | 5720.8  | 7723.8  | 10343.4 | 11360.7 | 11624.3 |
| 22.5° | 736.2   | 808.2   | 931.2   | 1333.6  | 2885.0  | 5199.0  | 7813.4  | 11278.2 | 12608.2 | 12899.9 |
| 25°   | 653.6   | 718.6   | 824.0   | 1003.2  | 1967.8  | 4578.7  | 8026.0  | 12425.5 | 14077.1 | 14454.8 |
| 27.5° | 585.1   | 646.6   | 741.5   | 878.5   | 1345.9  | 3830.3  | 8312.4  | 13771.4 | 15697.0 | 15999.2 |
| 30°   | 523.6   | 581.6   | 667.7   | 764.3   | 1038.4  | 2981.6  | 8556.6  | 15039.9 | 16969.1 | 17294.1 |
| 32.5° | 465.6   | 518.3   | 595.6   | 667.7   | 850.4   | 2205.0  | 8582.9  | 16044.9 | 18025.0 | 18348.3 |
| 35°   | 411.1   | 458.6   | 528.9   | 585.1   | 704.6   | 1741.2  | 8173.6  | 16916.4 | 19081.0 | 19508.0 |
| 37.5° | 358.4   | 404.1   | 465.6   | 507.8   | 620.2   | 1419.7  | 7548.1  | 17888.0 | 20435.6 | 20831.0 |
| 40°   | 309.2   | 349.6   | 412.9   | 441.0   | 586.8   | 1091.1  | 6868.1  | 18907.1 | 21763.9 | 22125.9 |
| 42.5° | 263.5   | 302.2   | 363.7   | 418.2   | 514.8   | 815.2   | 6133.7  | 19862.9 | 22958.7 | 23338.2 |
| 45°   | 219.6   | 260.0   | 321.5   | 442.8   | 427.0   | 609.7   | 5348.3  | 20497.1 | 23902.2 | 24315.1 |
| 47.5° | 177.5   | 223.1   | 307.5   | 421.7   | 340.9   | 448.0   | 4726.3  | 21098.0 | 24617.3 | 25024.9 |
| 50°   | 142.3   | 188.0   | 346.1   | 376.0   | 279.4   | 342.6   | 4466.3  | 21635.7 | 25086.4 | 25478.2 |
| 52.5° | 116.0   | 158.1   | 326.8   | 288.1   | 233.7   | 282.9   | 4606.8  | 22507.1 | 25520.4 | 25766.4 |
| 55°   | 96.6    | 124.7   | 196.8   | 200.3   | 198.5   | 240.7   | 4780.8  | 23758.1 | 26643.1 | 26759.1 |
| 57.5° | 84.3    | 100.1   | 137.0   | 154.6   | 166.9   | 214.4   | 4784.3  | 25553.8 | 28380.8 | 28452.8 |
| 60°   | 72.0    | 87.8    | 114.2   | 124.7   | 144.1   | 191.5   | 4610.4  | 26181.0 | 29064.3 | 29303.2 |
| 62.5° | 63.3    | 77.3    | 94.9    | 103.7   | 121.2   | 172.2   | 4202.7  | 25272.7 | 28126.0 | 28531.9 |
| 65°   | 56.2    | 70.3    | 79.1    | 87.8    | 107.2   | 154.6   | 3531.6  | 23455.9 | 26569.3 | 26992.8 |
| 67.5° | 49.2    | 61.5    | 70.3    | 79.1    | 96.6    | 137.0   | 2600.4  | 21345.8 | 24782.5 | 25133.9 |
| 70°   | 43.9    | 54.5    | 63.3    | 70.3    | 84.3    | 116.0   | 1577.8  | 18112.9 | 22312.1 | 22457.9 |
| 72.5° | 42.2    | 49.2    | 58.0    | 63.3    | 73.8    | 101.9   | 799.4   | 13311.0 | 17837.0 | 18074.2 |
| 75°   | 36.9    | 43.9    | 52.7    | 56.2    | 65.0    | 87.8    | 325.0   | 8742.8  | 12926.2 | 13307.5 |
| 77.5° | 29.9    | 40.4    | 47.4    | 51.0    | 56.2    | 72.0    | 165.2   | 5587.3  | 9071.4  | 9317.4  |
| 80°   | 10.5    | 29.9    | 40.4    | 42.2    | 47.4    | 52.7    | 108.9   | 3058.9  | 5262.2  | 5367.6  |
| 82.5° | 0.0     | 19.3    | 31.6    | 29.9    | 33.4    | 40.4    | 70.3    | 1454.8  | 3473.6  | 3512.2  |
| 85°   | 0.0     | 8.8     | 24.6    | 19.3    | 14.1    | 28.1    | 24.6    | 318.0   | 1822.0  | 1897.6  |
| 87.5° | 0.0     | 0.0     | 1.8     | 8.8     | 7.0     | 10.5    | 3.5     | 1.8     | 165.2   | 209.1   |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

LM-79-08: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW, INVUE, LUMARK AND STREETWORKS

DATA VALID FOR LUMINAIRES UTILIZING SA LIGHT ENGINES

Report Number: SP1-2101-121-2

Luminaire Tested: IFLD-S-SA2A-740-U-T3R-HSS

Test Date: 03/05/2021

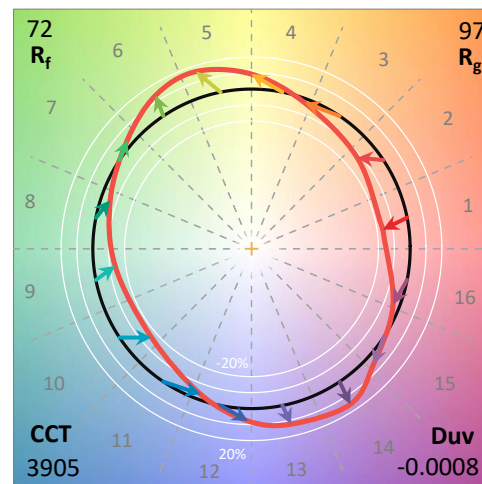
### Test Information

Test Method: LM-79-08  
 Report Number: SP1-2101-121-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1  
 Measurement Geometry:  $4\pi$   
 Issue Date: 03/05/2021  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: STREETWORKS  
 Catalog Number: **IFLD-S-SA2A-740-U-T3R-HSS**  
 Description: STREETWORKS INF FLOOD

SHIELD, DRIVER PROGRAMMED @ 615mA.

### Spectral Parameters

|                           |         |           |      |      |       |
|---------------------------|---------|-----------|------|------|-------|
| CCT (K):                  | 3905    | CRI (Ra): | 71.2 |      |       |
| CIE u':                   | 0.2273  | R1:       | 68.9 | R9:  | -29.7 |
| CIE v':                   | 0.5024  | R2:       | 77.0 | R10: | 46.2  |
| Duv:                      | -0.0008 | R3:       | 84.0 | R11: | 68.8  |
| CIE x:                    | 0.3841  | R4:       | 71.6 | R12: | 45.6  |
| CIE y:                    | 0.3774  | R5:       | 68.9 | R13: | 69.5  |
| CIE z:                    | 0.2385  | R6:       | 68.3 | R14: | 90.7  |
| Peak Wavelength (nm):     | 443     | R7:       | 78.7 |      |       |
| Dominant Wavelength (nm): | 579     | R8:       | 52.2 |      |       |
| Purity:                   | 28.7    |           |      |      |       |
| Rf:                       | 71.7    |           |      |      |       |
| Rg:                       | 96.9    |           |      |      |       |



### Test Conditions

Stabilization Time: 211M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 24.8/312%  
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2101-121-2

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 1/31/2021        | 7/31/2021            |
| Power Meter                    | IN0071                | 12/1/2020        | 12/1/2021            |
| AC Power Source                | IN0063                | 12/1/2020        | 12/1/2021            |
| DC Power Source                | IN0208                | 12/1/2020        | 12/1/2021            |
| Sphere Thermometer             | IN0085                | 12/1/2020        | 12/1/2021            |
| Room Thermometer               | IN0046                | 12/1/2020        | 12/1/2021            |

REPORT NUMBER: SP1-2101-121-2

**CIE 1931 Chromaticity Diagram**



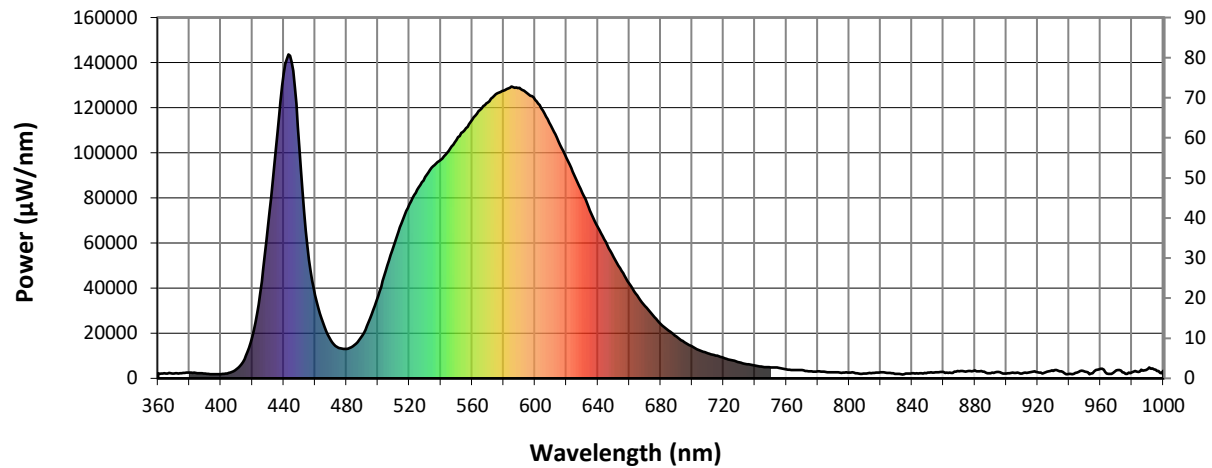
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2101-121-2

### Photopic Flux vs. Wavelength

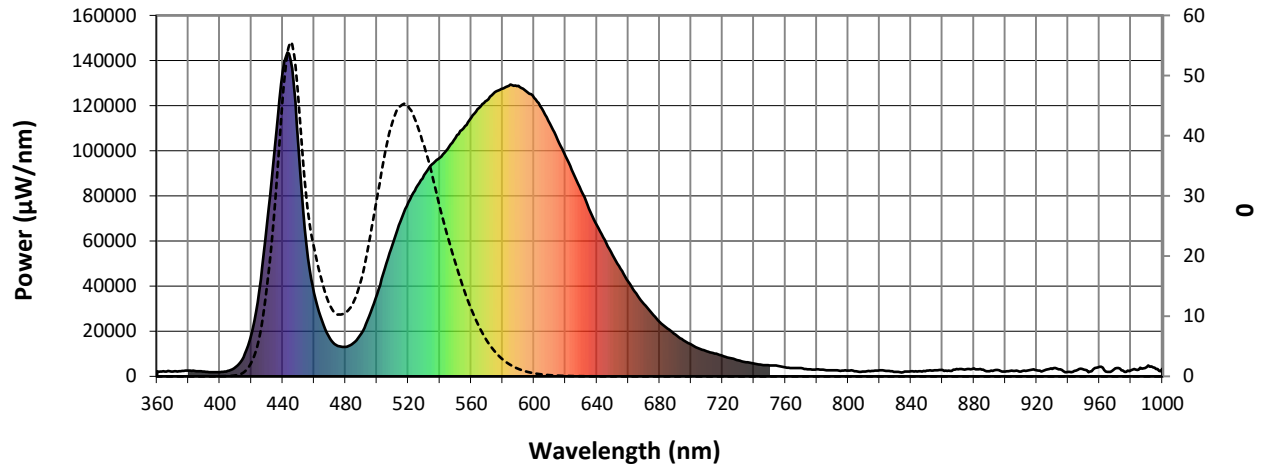


#####

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 2304             | 0.0              | 490       | 19043            | 2.7              | 620       | 97577            | 25.4             | 750       | 4830             | 0.0              | 880       | 3505             | 0.0              |
| 365       | 2150             | 0.0              | 495       | 26606            | 4.8              | 625       | 90158            | 19.9             | 755       | 4664             | 0.0              | 885       | 2991             | 0.0              |
| 370       | 2146             | 0.0              | 500       | 36376            | 8.0              | 630       | 82240            | 14.9             | 760       | 4006             | 0.0              | 890       | 2327             | 0.0              |
| 375       | 2332             | 0.0              | 505       | 47714            | 13.3             | 635       | 74361            | 11.2             | 765       | 3715             | 0.0              | 895       | 2775             | 0.0              |
| 380       | 2527             | 0.0              | 510       | 58741            | 20.2             | 640       | 66994            | 8.0              | 770       | 3696             | 0.0              | 900       | 2141             | 0.0              |
| 385       | 2304             | 0.0              | 515       | 68716            | 28.5             | 645       | 60405            | 5.8              | 775       | 3117             | 0.0              | 905       | 2421             | 0.0              |
| 390       | 2064             | 0.0              | 520       | 77136            | 37.4             | 650       | 53806            | 3.9              | 780       | 3062             | 0.0              | 910       | 2200             | 0.0              |
| 395       | 1856             | 0.0              | 525       | 83567            | 44.9             | 655       | 47610            | 2.7              | 785       | 2907             | 0.0              | 915       | 2716             | 0.0              |
| 400       | 1856             | 0.0              | 530       | 89283            | 52.6             | 660       | 42018            | 1.8              | 790       | 2655             | 0.0              | 920       | 2656             | 0.0              |
| 405       | 2374             | 0.0              | 535       | 94097            | 58.4             | 665       | 36742            | 1.2              | 795       | 2467             | 0.0              | 925       | 2671             | 0.0              |
| 410       | 4084             | 0.0              | 540       | 96845            | 63.1             | 670       | 32105            | 0.7              | 800       | 2609             | 0.0              | 930       | 3292             | 0.0              |
| 415       | 8543             | 0.0              | 545       | 100829           | 67.1             | 675       | 27946            | 0.5              | 805       | 2293             | 0.0              | 935       | 3188             | 0.0              |
| 420       | 18394            | 0.1              | 550       | 105648           | 71.8             | 680       | 24146            | 0.3              | 810       | 2188             | 0.0              | 940       | 1997             | 0.0              |
| 425       | 37987            | 0.2              | 555       | 110017           | 75.1             | 685       | 21191            | 0.2              | 815       | 2386             | 0.0              | 945       | 2623             | 0.0              |
| 430       | 67605            | 0.5              | 560       | 114586           | 77.9             | 690       | 18544            | 0.1              | 820       | 2712             | 0.0              | 950       | 2969             | 0.0              |
| 435       | 102160           | 1.2              | 565       | 118987           | 79.1             | 695       | 16058            | 0.1              | 825       | 2473             | 0.0              | 955       | 2277             | 0.0              |
| 440       | 135103           | 2.1              | 570       | 122326           | 79.5             | 700       | 14133            | 0.0              | 830       | 1969             | 0.0              | 960       | 4267             | 0.0              |
| 445       | 140126           | 2.9              | 575       | 125968           | 78.4             | 705       | 12309            | 0.0              | 835       | 1917             | 0.0              | 965       | 2034             | 0.0              |
| 450       | 102339           | 2.7              | 580       | 127613           | 75.8             | 710       | 11142            | 0.0              | 840       | 2248             | 0.0              | 970       | 3586             | 0.0              |
| 455       | 58751            | 2.0              | 585       | 129466           | 71.9             | 715       | 10143            | 0.0              | 845       | 2266             | 0.0              | 975       | 2505             | 0.0              |
| 460       | 36892            | 1.5              | 590       | 128813           | 66.6             | 720       | 9072             | 0.0              | 850       | 2558             | 0.0              | 980       | 2666             | 0.0              |
| 465       | 24637            | 1.3              | 595       | 126387           | 59.9             | 725       | 8130             | 0.0              | 855       | 2767             | 0.0              | 985       | 2934             | 0.0              |
| 470       | 16738            | 1.0              | 600       | 123477           | 53.2             | 730       | 7149             | 0.0              | 860       | 2826             | 0.0              | 990       | 4120             | 0.0              |
| 475       | 13456            | 1.1              | 605       | 118718           | 46.0             | 735       | 6311             | 0.0              | 865       | 2385             | 0.0              | 995       | 3858             | 0.0              |
| 480       | 13081            | 1.2              | 610       | 112091           | 38.5             | 740       | 5711             | 0.0              | 870       | 3194             | 0.0              | 1000      | 3405             | 0.0              |
| 485       | 14734            | 1.7              | 615       | 105039           | 31.7             | 745       | 5111             | 0.0              | 875       | 3189             | 0.0              |           |                  |                  |

REPORT NUMBER: SP1-2101-121-2

### Scotopic Flux vs. Wavelength



Scotopic Lumens: 10425.8

S/P: 1.47

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 2304             | 0.0              | 490       | 19043            | 29.3             | 620       | 97577            | 1.2              | 750       | 4830             | 0.0              | 880       | 3505             | 0.0              |
| 365       | 2150             | 0.0              | 495       | 26606            | 43.0             | 625       | 90158            | 0.8              | 755       | 4664             | 0.0              | 885       | 2991             | 0.0              |
| 370       | 2146             | 0.0              | 500       | 36376            | 60.8             | 630       | 82240            | 0.5              | 760       | 4006             | 0.0              | 890       | 2327             | 0.0              |
| 375       | 2332             | 0.0              | 505       | 47714            | 81.1             | 635       | 74361            | 0.3              | 765       | 3715             | 0.0              | 895       | 2775             | 0.0              |
| 380       | 2527             | 0.0              | 510       | 58741            | 99.6             | 640       | 66994            | 0.2              | 770       | 3696             | 0.0              | 900       | 2141             | 0.0              |
| 385       | 2304             | 0.0              | 515       | 68716            | 113.9            | 645       | 60405            | 0.1              | 775       | 3117             | 0.0              | 905       | 2421             | 0.0              |
| 390       | 2064             | 0.0              | 520       | 77136            | 122.6            | 650       | 53806            | 0.1              | 780       | 3062             | 0.0              | 910       | 2200             | 0.0              |
| 395       | 1856             | 0.0              | 525       | 83567            | 125.0            | 655       | 47610            | 0.0              | 785       | 2907             | 0.0              | 915       | 2716             | 0.0              |
| 400       | 1856             | 0.0              | 530       | 89283            | 123.1            | 660       | 42018            | 0.0              | 790       | 2655             | 0.0              | 920       | 2656             | 0.0              |
| 405       | 2374             | 0.1              | 535       | 94097            | 117.3            | 665       | 36742            | 0.0              | 795       | 2467             | 0.0              | 925       | 2671             | 0.0              |
| 410       | 4084             | 0.2              | 540       | 96845            | 107.0            | 670       | 32105            | 0.0              | 800       | 2609             | 0.0              | 930       | 3292             | 0.0              |
| 415       | 8543             | 0.9              | 545       | 100829           | 96.7             | 675       | 27946            | 0.0              | 805       | 2293             | 0.0              | 935       | 3188             | 0.0              |
| 420       | 18394            | 3.0              | 550       | 105648           | 86.4             | 680       | 24146            | 0.0              | 810       | 2188             | 0.0              | 940       | 1997             | 0.0              |
| 425       | 37987            | 9.3              | 555       | 110017           | 75.2             | 685       | 21191            | 0.0              | 815       | 2386             | 0.0              | 945       | 2623             | 0.0              |
| 430       | 67605            | 23.0             | 560       | 114586           | 64.0             | 690       | 18544            | 0.0              | 820       | 2712             | 0.0              | 950       | 2969             | 0.0              |
| 435       | 102160           | 45.7             | 565       | 118987           | 53.4             | 695       | 16058            | 0.0              | 825       | 2473             | 0.0              | 955       | 2277             | 0.0              |
| 440       | 135103           | 75.5             | 570       | 122326           | 43.2             | 700       | 14133            | 0.0              | 830       | 1969             | 0.0              | 960       | 4267             | 0.0              |
| 445       | 140126           | 93.8             | 575       | 125968           | 34.3             | 705       | 12309            | 0.0              | 835       | 1917             | 0.0              | 965       | 2034             | 0.0              |
| 450       | 102339           | 79.3             | 580       | 127613           | 26.3             | 710       | 11142            | 0.0              | 840       | 2248             | 0.0              | 970       | 3586             | 0.0              |
| 455       | 58751            | 51.3             | 585       | 129466           | 19.8             | 715       | 10143            | 0.0              | 845       | 2266             | 0.0              | 975       | 2505             | 0.0              |
| 460       | 36892            | 35.6             | 590       | 128813           | 14.3             | 720       | 9072             | 0.0              | 850       | 2558             | 0.0              | 980       | 2666             | 0.0              |
| 465       | 24637            | 26.0             | 595       | 126387           | 10.1             | 725       | 8130             | 0.0              | 855       | 2767             | 0.0              | 985       | 2934             | 0.0              |
| 470       | 16738            | 19.3             | 600       | 123477           | 7.0              | 730       | 7149             | 0.0              | 860       | 2826             | 0.0              | 990       | 4120             | 0.0              |
| 475       | 13456            | 16.8             | 605       | 118718           | 4.7              | 735       | 6311             | 0.0              | 865       | 2385             | 0.0              | 995       | 3858             | 0.0              |
| 480       | 13081            | 17.7             | 610       | 112091           | 3.0              | 740       | 5711             | 0.0              | 870       | 3194             | 0.0              | 1000      | 3405             | 0.0              |
| 485       | 14734            | 21.4             | 615       | 105039           | 1.9              | 745       | 5111             | 0.0              | 875       | 3189             | 0.0              |           |                  |                  |

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### Melanopic Flux vs. Wavelength



**Melanopic Lumens: 3927.2**      **M/P: 0.55**

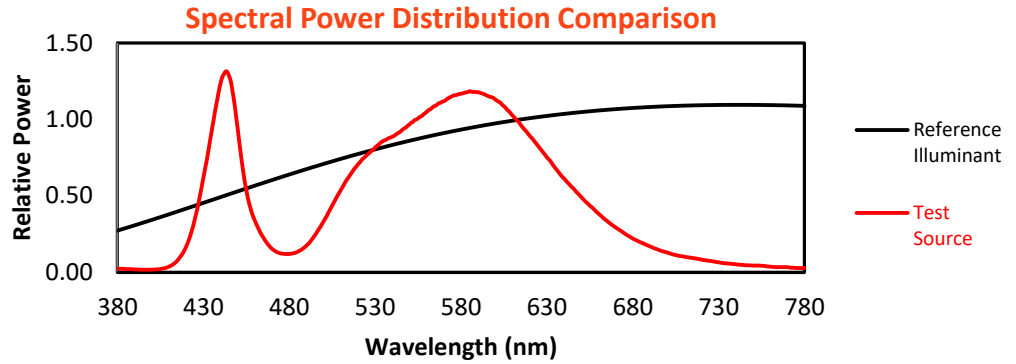
| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(Φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 2304             | 0.0              | 490       | 19043            | 15.8             | 620       | 97577            | 0.1              | 750       | 4830             | 0.0              | 880       | 3505             | 0.0              |
| 365       | 2150             | 0.0              | 495       | 26606            | 22.0             | 625       | 90158            | 0.0              | 755       | 4664             | 0.0              | 885       | 2991             | 0.0              |
| 370       | 2146             | 0.0              | 500       | 36376            | 29.2             | 630       | 82240            | 0.0              | 760       | 4006             | 0.0              | 890       | 2327             | 0.0              |
| 375       | 2332             | 0.0              | 505       | 47714            | 36.6             | 635       | 74361            | 0.0              | 765       | 3715             | 0.0              | 895       | 2775             | 0.0              |
| 380       | 2527             | 0.0              | 510       | 58741            | 42.2             | 640       | 66994            | 0.0              | 770       | 3696             | 0.0              | 900       | 2141             | 0.0              |
| 385       | 2304             | 0.0              | 515       | 68716            | 44.9             | 645       | 60405            | 0.0              | 775       | 3117             | 0.0              | 905       | 2421             | 0.0              |
| 390       | 2064             | 0.0              | 520       | 77136            | 44.9             | 650       | 53806            | 0.0              | 780       | 3062             | 0.0              | 910       | 2200             | 0.0              |
| 395       | 1856             | 0.0              | 525       | 83567            | 42.4             | 655       | 47610            | 0.0              | 785       | 2907             | 0.0              | 915       | 2716             | 0.0              |
| 400       | 1856             | 0.0              | 530       | 89283            | 38.6             | 660       | 42018            | 0.0              | 790       | 2655             | 0.0              | 920       | 2656             | 0.0              |
| 405       | 2374             | 0.0              | 535       | 94097            | 33.9             | 665       | 36742            | 0.0              | 795       | 2467             | 0.0              | 925       | 2671             | 0.0              |
| 410       | 4084             | 0.2              | 540       | 96845            | 28.3             | 670       | 32105            | 0.0              | 800       | 2609             | 0.0              | 930       | 3292             | 0.0              |
| 415       | 8543             | 0.6              | 545       | 100829           | 23.4             | 675       | 27946            | 0.0              | 805       | 2293             | 0.0              | 935       | 3188             | 0.0              |
| 420       | 18394            | 2.1              | 550       | 105648           | 19.0             | 680       | 24146            | 0.0              | 810       | 2188             | 0.0              | 940       | 1997             | 0.0              |
| 425       | 37987            | 5.9              | 555       | 110017           | 14.8             | 685       | 21191            | 0.0              | 815       | 2386             | 0.0              | 945       | 2623             | 0.0              |
| 430       | 67605            | 14.3             | 560       | 114586           | 11.3             | 690       | 18544            | 0.0              | 820       | 2712             | 0.0              | 950       | 2969             | 0.0              |
| 435       | 102160           | 27.3             | 565       | 118987           | 8.4              | 695       | 16058            | 0.0              | 825       | 2473             | 0.0              | 955       | 2277             | 0.0              |
| 440       | 135103           | 45.1             | 570       | 122326           | 6.0              | 700       | 14133            | 0.0              | 830       | 1969             | 0.0              | 960       | 4267             | 0.0              |
| 445       | 140126           | 55.3             | 575       | 125968           | 4.2              | 705       | 12309            | 0.0              | 835       | 1917             | 0.0              | 965       | 2034             | 0.0              |
| 450       | 102339           | 47.2             | 580       | 127613           | 2.9              | 710       | 11142            | 0.0              | 840       | 2248             | 0.0              | 970       | 3586             | 0.0              |
| 455       | 58751            | 30.8             | 585       | 129466           | 1.9              | 715       | 10143            | 0.0              | 845       | 2266             | 0.0              | 975       | 2505             | 0.0              |
| 460       | 36892            | 21.7             | 590       | 128813           | 1.3              | 720       | 9072             | 0.0              | 850       | 2558             | 0.0              | 980       | 2666             | 0.0              |
| 465       | 24637            | 16.1             | 595       | 126387           | 0.8              | 725       | 8130             | 0.0              | 855       | 2767             | 0.0              | 985       | 2934             | 0.0              |
| 470       | 16738            | 12.0             | 600       | 123477           | 0.5              | 730       | 7149             | 0.0              | 860       | 2826             | 0.0              | 990       | 4120             | 0.0              |
| 475       | 13456            | 10.3             | 605       | 118718           | 0.3              | 735       | 6311             | 0.0              | 865       | 2385             | 0.0              | 995       | 3858             | 0.0              |
| 480       | 13081            | 10.5             | 610       | 112091           | 0.2              | 740       | 5711             | 0.0              | 870       | 3194             | 0.0              | 1000      | 3405             | 0.0              |
| 485       | 14734            | 12.1             | 615       | 105039           | 0.1              | 745       | 5111             | 0.0              | 875       | 3189             | 0.0              |           |                  |                  |

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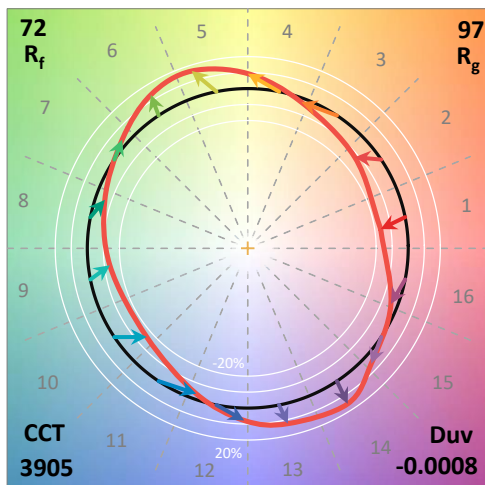
TM-30-18

### Summary

$R_f = 71.7$   
 $R_g = 96.9$   
 CIE  $R_a = 71.2$   
 $R_g = -29.7$



### Color Vector Graphics



**Individual Sample Fidelity Index ( $R_{f,i}$ )**

|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 55 | CES51 = 86 | CES76 = 45 |
| CES02 = 61 | CES27 = 80 | CES52 = 87 | CES77 = 68 |
| CES03 = 30 | CES28 = 79 | CES53 = 74 | CES78 = 49 |
| CES04 = 70 | CES29 = 51 | CES54 = 81 | CES79 = 77 |
| CES05 = 47 | CES30 = 60 | CES55 = 80 | CES80 = 75 |
| CES06 = 50 | CES31 = 56 | CES56 = 69 | CES81 = 75 |
| CES07 = 40 | CES32 = 52 | CES57 = 67 | CES82 = 90 |
| CES08 = 39 | CES33 = 62 | CES58 = 69 | CES83 = 85 |
| CES09 = 29 | CES34 = 65 | CES59 = 86 | CES84 = 87 |
| CES10 = 74 | CES35 = 81 | CES60 = 91 | CES85 = 83 |
| CES11 = 57 | CES36 = 92 | CES61 = 85 | CES86 = 72 |
| CES12 = 63 | CES37 = 74 | CES62 = 81 | CES87 = 77 |
| CES13 = 42 | CES38 = 69 | CES63 = 72 | CES88 = 77 |
| CES14 = 74 | CES39 = 92 | CES64 = 69 | CES89 = 72 |
| CES15 = 71 | CES40 = 86 | CES65 = 64 | CES90 = 75 |
| CES16 = 46 | CES41 = 84 | CES66 = 63 | CES91 = 91 |
| CES17 = 49 | CES42 = 75 | CES67 = 60 | CES92 = 66 |
| CES18 = 56 | CES43 = 70 | CES68 = 67 | CES93 = 80 |
| CES19 = 72 | CES44 = 98 | CES69 = 77 | CES94 = 56 |
| CES20 = 65 | CES45 = 80 | CES70 = 57 | CES95 = 72 |
| CES21 = 86 | CES46 = 77 | CES71 = 53 | CES96 = 78 |
| CES22 = 78 | CES47 = 74 | CES72 = 84 | CES97 = 83 |
| CES23 = 92 | CES48 = 66 | CES73 = 47 | CES98 = 73 |
| CES24 = 91 | CES49 = 76 | CES74 = 96 | CES99 = 63 |
| CES25 = 72 | CES50 = 85 | CES75 = 52 |            |



Color Rendition by Hue-Angle Bin



**Measure Comparisons**



(END OF REPORT)