

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: P453377

Luminaire Tested: **GALN-SA4B-827-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-827-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16511 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

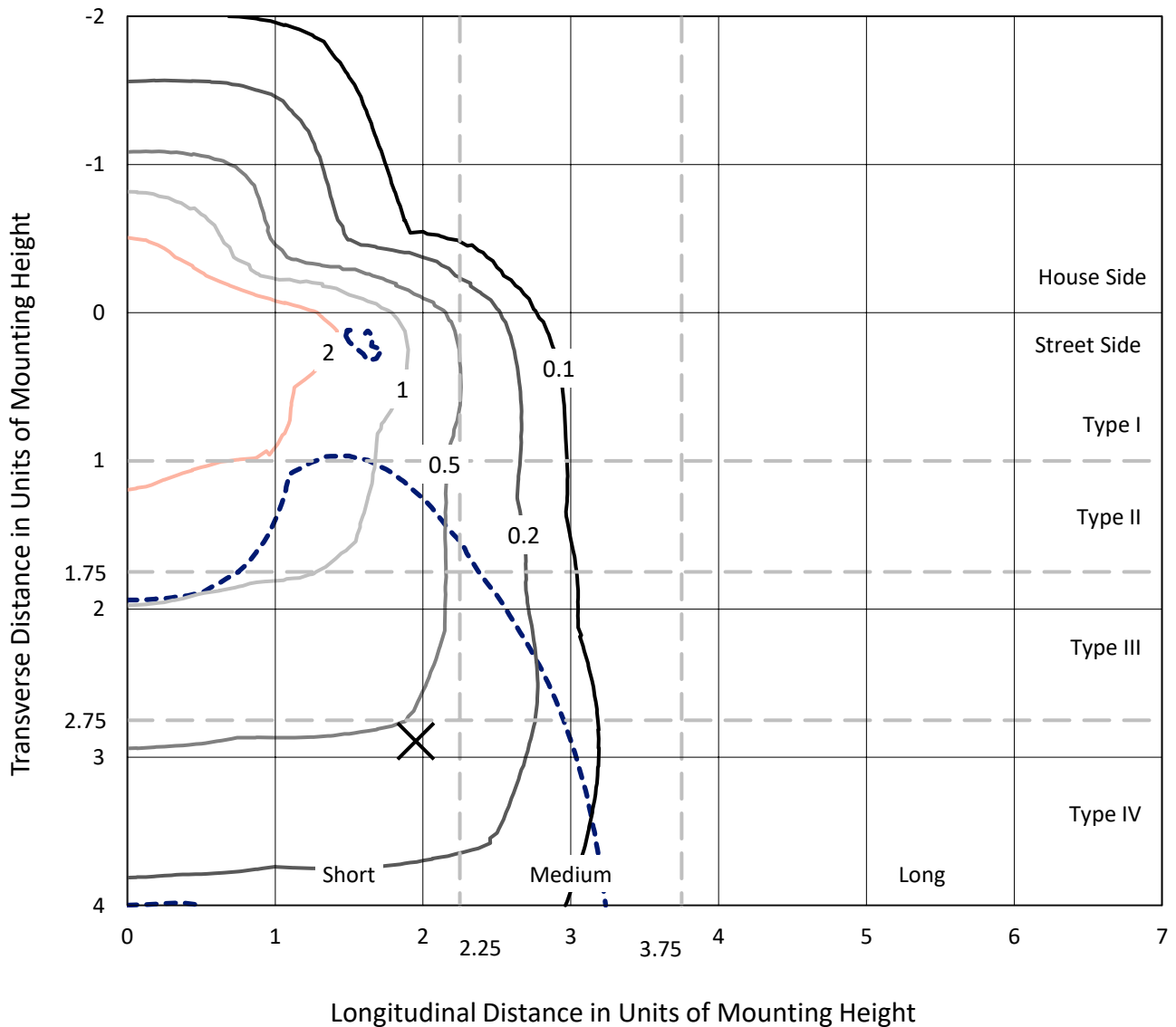
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

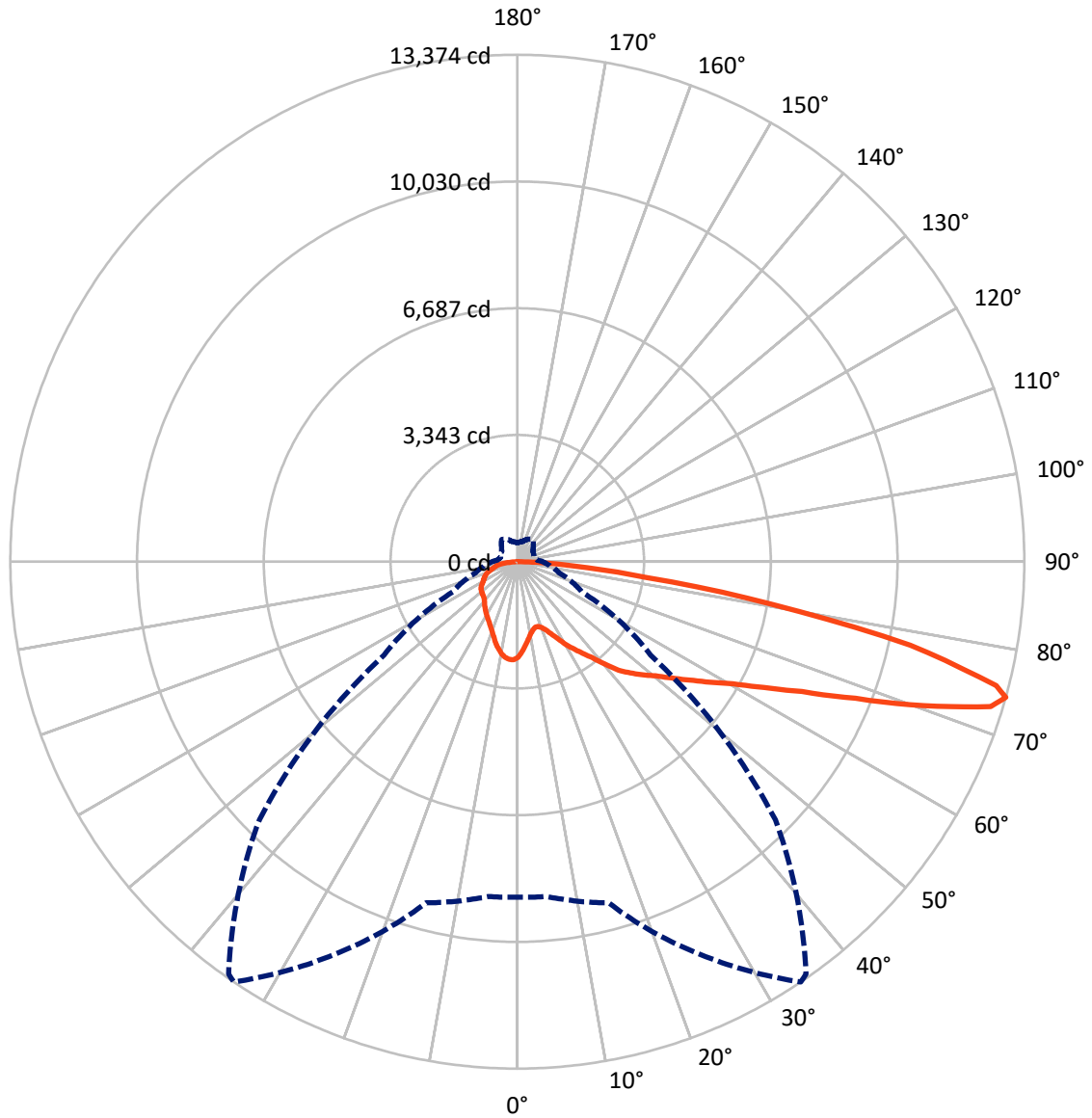
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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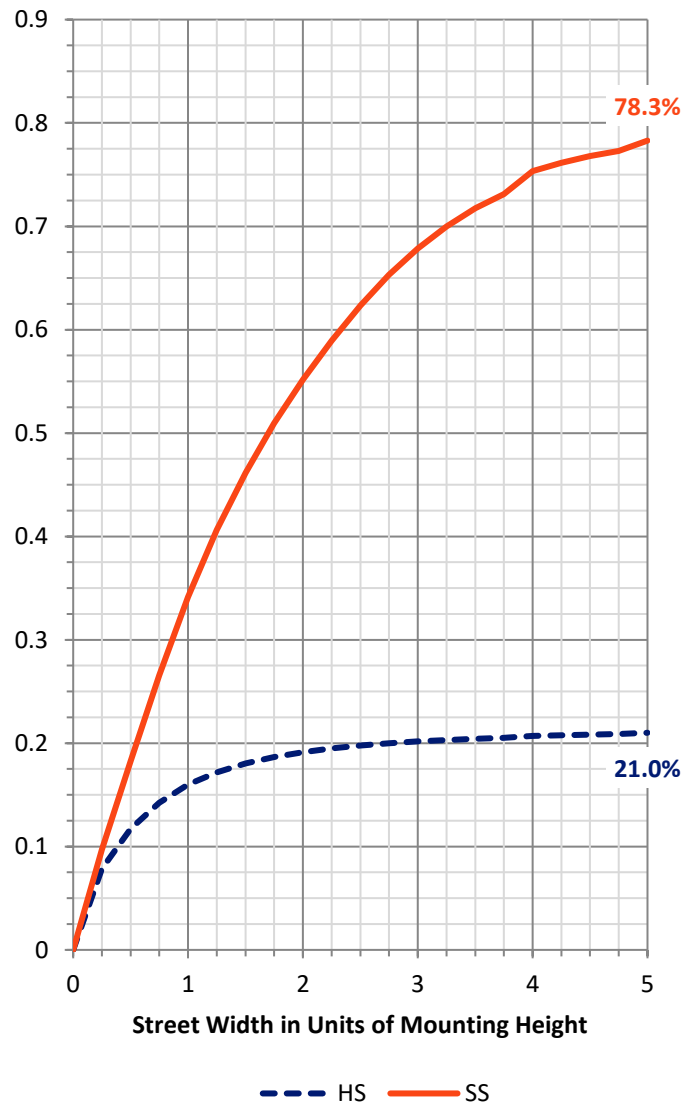
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3513.7	0.0	3513.7
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	12997.3	0.0	12997.3
	% Fixture	78.7	0.0	78.7
Total	Lumens	16511.0	0.0	16511.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.3	1.4
10°-20°	627.6	3.8
20°-30°	1034.8	6.3
30°-40°	1549.9	9.4
40°-50°	2253.2	13.6
50°-60°	3147.2	19.1
60°-70°	3940.1	23.9
70°-80°	3258.2	19.7
80°-90°	470.8	2.9
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°	16511.0	100.0
0°-180°	16511.0	100.0



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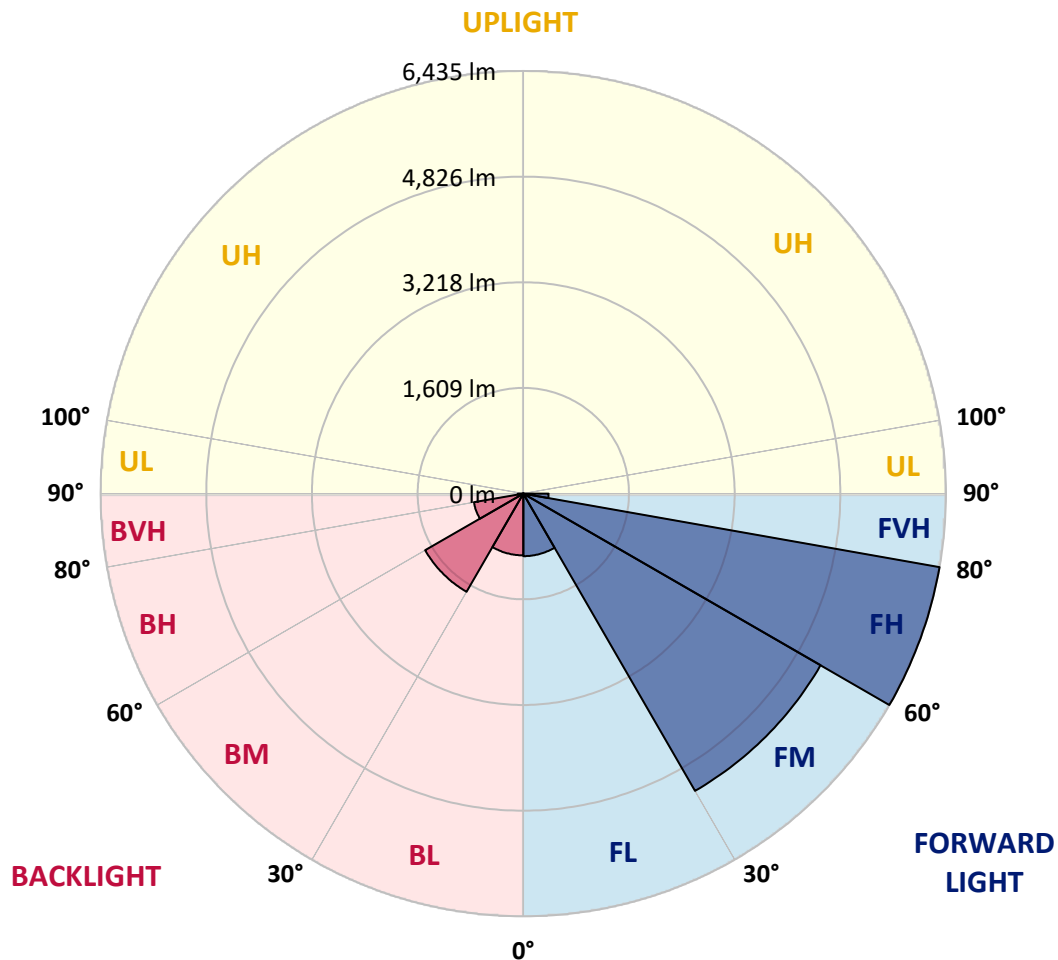
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	951.8	5.8			
FM (30°-60°)	5224.8	31.6			
FH (60°-80°)	6435.1	39.0			G3/7500
FVH (80°-90°)	385.7	2.3			G3/500
BL (0°-30°)	939.8	5.7	B2/1000		
BM (30°-60°)	1725.6	10.5	B2/2500		
BH (60°-80°)	763.1	4.6	B2/1000		G2/1000
BVH (80°-90°)	85.1	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9
2.5°	2329.7	2341.6	2348.0	2370.9	2376.4	2383.7	2402.9	2428.5	2461.4	2490.7	2516.3
5°	2135.8	2154.1	2165.1	2185.2	2224.5	2228.2	2279.4	2338.0	2404.7	2466.9	2518.2
7.5°	1952.0	1972.1	1981.2	2017.8	2070.0	2078.2	2153.2	2245.6	2357.2	2451.4	2530.1
10°	1813.8	1823.9	1844.0	1871.5	1933.7	1939.2	2037.0	2160.5	2305.0	2444.1	2550.2
12.5°	1738.8	1744.3	1748.9	1778.2	1839.5	1847.7	1950.1	2090.1	2263.9	2449.6	2583.1
15°	1749.8	1751.6	1731.5	1737.0	1786.4	1798.3	1899.8	2043.4	2238.3	2463.3	2632.5
17.5°	1842.2	1835.8	1786.4	1760.8	1795.5	1801.0	1889.8	2025.1	2226.4	2488.9	2683.7
20°	1987.6	1978.5	1893.4	1836.7	1856.8	1861.4	1922.7	2038.9	2238.3	2531.0	2763.3
22.5°	2168.7	2165.1	2036.1	1967.5	1966.6	1966.6	1998.6	2088.3	2273.9	2588.6	2846.5
25°	2422.1	2402.9	2234.6	2145.9	2121.2	2119.4	2115.7	2169.7	2319.7	2649.9	2945.3
27.5°	2681.9	2649.0	2499.0	2362.7	2309.6	2303.2	2279.4	2284.9	2378.2	2719.4	3057.8
30°	2915.1	2894.1	2753.2	2602.3	2539.2	2524.6	2458.7	2428.5	2476.1	2844.7	3237.1
32.5°	3093.5	3080.7	2970.9	2833.7	2740.4	2737.7	2641.6	2616.9	2628.8	2996.5	3442.0
35°	3238.0	3242.6	3186.8	3067.9	2960.9	2945.3	2881.3	2850.2	2815.4	3216.1	3699.9
37.5°	3435.6	3445.7	3442.0	3339.6	3208.8	3212.4	3197.8	3146.6	3054.2	3461.2	3986.2
40°	3653.3	3660.6	3659.7	3620.4	3551.8	3555.4	3549.9	3491.4	3353.3	3773.1	4304.6
42.5°	3954.2	3919.5	3828.9	3868.3	3908.5	3925.9	3963.4	3907.6	3718.2	4106.1	4603.7
45°	4290.8	4225.0	4020.1	4038.4	4187.5	4220.4	4427.1	4350.3	4114.3	4488.4	4955.8
47.5°	4503.1	4438.1	4265.2	4261.6	4459.1	4491.2	4857.0	4828.7	4474.7	4900.9	5385.7
50°	4692.4	4683.2	4488.4	4535.1	4728.1	4775.6	5325.4	5298.8	4834.2	5387.6	5854.1
52.5°	4973.2	4899.1	4743.6	4839.7	5094.9	5157.1	5790.0	5712.3	5164.4	5817.5	6308.7
55°	5099.4	5082.1	5072.9	5156.1	5506.5	5551.3	6241.9	6063.5	5446.1	6181.5	6654.4
57.5°	5437.0	5404.9	5495.5	5552.2	5991.3	6059.9	6713.9	6430.3	5693.1	6470.6	6822.7
60°	5874.2	5856.8	5940.0	6042.5	6532.8	6637.0	7251.7	6743.1	5891.6	6616.0	6730.3
62.5°	6527.3	6525.4	6509.9	6729.4	7300.2	7396.2	7869.1	7047.7	5922.7	6507.1	6252.9
65°	7463.9	7431.0	7295.6	7535.3	8255.1	8367.6	8512.2	7217.9	5735.1	5948.3	5265.0
67.5°	8443.6	8441.7	8332.0	8643.0	9626.3	9742.4	9316.2	7180.4	5214.7	4818.6	3739.3
70°	9255.8	9216.5	9356.4	10185.1	11377.9	11512.4	10019.6	6738.6	4153.6	3182.2	2221.8
72.5°	9450.6	9452.5	9743.3	11374.2	13060.0	13081.1	10273.0	5461.7	2779.8	1755.3	1111.4
74°	8850.6	8866.2	9317.1	11433.7	13373.8	13278.6	9625.3	4292.7	1879.7	1146.1	801.3
75°	8078.6	7980.7	8632.9	11037.6	13048.1	12945.7	8867.1	3444.7	1434.2	915.6	701.6
77.5°	4319.2	4418.9	5425.1	8236.8	10600.4	10482.4	6012.3	1651.9	774.7	637.5	504.9
80°	1537.6	1695.8	2383.7	4310.0	6796.2	6832.8	2869.4	757.4	545.2	470.2	356.7
82.5°	627.5	644.9	1023.5	1912.6	3451.1	3484.1	1171.7	450.0	389.7	323.8	213.1
85°	245.1	252.5	452.8	859.8	1472.7	1568.7	405.2	237.8	239.7	185.7	108.8
87.5°	82.3	93.3	185.7	286.3	500.3	490.3	118.0	70.4	86.0	80.5	33.8
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°	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9	2520.9
2.5°	2529.1	2546.5	2558.4	2571.2	2583.1	2586.8	2584.0	2592.2	2593.2	2594.1	2595.0
5°	2543.8	2567.6	2590.4	2603.2	2608.7	2604.1	2588.6	2580.4	2573.0	2567.6	2569.4
7.5°	2563.9	2597.7	2618.8	2624.3	2609.6	2588.6	2550.2	2520.0	2500.8	2488.0	2487.1
10°	2595.0	2627.9	2645.3	2629.8	2589.5	2538.3	2477.9	2421.2	2378.2	2365.4	2364.5
12.5°	2634.3	2671.8	2670.9	2625.2	2554.7	2463.3	2365.4	2299.5	2241.0	2211.7	2223.6
15°	2685.5	2713.9	2687.4	2605.1	2493.5	2368.1	2247.4	2157.8	2091.9	2060.8	2062.6
17.5°	2745.0	2769.7	2699.3	2569.4	2407.5	2246.5	2106.5	2021.5	1969.3	1946.5	1944.6
20°	2819.1	2826.4	2699.3	2507.2	2296.8	2104.7	1971.2	1911.7	1882.4	1870.6	1874.2
22.5°	2898.7	2884.0	2684.6	2419.4	2151.4	1956.5	1866.9	1840.4	1825.7	1823.9	1825.7
25°	2988.3	2947.2	2654.4	2300.5	1999.5	1828.5	1776.3	1780.9	1783.7	1783.7	1790.1
27.5°	3098.1	3015.8	2604.1	2150.5	1822.1	1709.6	1694.9	1726.9	1741.6	1744.3	1748.9
30°	3242.6	3090.8	2520.9	1962.9	1671.2	1602.5	1628.2	1671.2	1687.6	1697.7	1695.8
32.5°	3414.6	3173.1	2408.4	1775.4	1549.5	1527.5	1558.6	1602.5	1620.8	1626.3	1619.0
35°	3616.7	3266.4	2260.2	1599.8	1443.4	1456.2	1492.8	1506.5	1523.0	1523.0	1526.6
37.5°	3834.4	3341.4	2079.1	1438.8	1361.1	1407.7	1434.2	1421.4	1414.1	1405.0	1409.5
40°	4055.8	3397.2	1844.0	1279.7	1278.7	1357.4	1364.7	1328.1	1298.9	1289.7	1285.1
42.5°	4248.8	3431.9	1631.8	1156.2	1201.0	1308.0	1313.5	1255.0	1208.3	1180.9	1171.7
45°	4476.5	3472.2	1424.2	1053.7	1128.7	1268.7	1282.4	1203.7	1135.1	1077.5	1062.9
47.5°	4788.4	3563.7	1260.5	974.2	1076.6	1244.0	1263.2	1161.7	1071.1	996.1	984.2
50°	5140.6	3689.0	1133.3	920.2	1036.4	1222.0	1245.8	1118.7	1011.7	928.4	919.3
52.5°	5463.5	3756.7	1023.5	871.7	997.0	1181.8	1222.9	1087.6	953.1	860.7	852.5
55°	5640.0	3646.9	915.6	824.1	943.1	1129.6	1190.9	1044.6	896.4	825.1	813.2
57.5°	5663.8	3420.0	817.7	772.9	886.3	1065.6	1131.5	992.4	859.8	800.4	790.3
60°	5479.9	3081.6	741.8	730.8	828.7	993.4	1064.7	946.7	822.3	772.9	762.9
62.5°	5022.6	2713.9	688.8	692.4	770.2	917.4	1015.3	902.8	786.6	742.7	733.6
65°	4236.0	2240.1	637.5	653.1	718.0	858.0	970.5	866.2	751.0	719.9	711.6
67.5°	2942.6	1617.2	595.5	611.9	668.6	797.6	918.4	826.9	710.7	694.3	681.4
70°	1629.1	995.2	546.1	565.3	617.4	729.9	859.8	767.4	652.2	644.9	626.6
72.5°	856.2	633.9	490.3	511.3	547.9	643.0	770.2	702.5	594.6	563.5	539.7
74°	668.6	519.5	452.8	474.7	499.4	591.8	717.1	655.8	553.4	516.8	498.5
75°	582.7	462.8	420.8	449.1	471.1	557.1	676.0	622.9	530.5	495.8	479.3
77.5°	411.6	346.7	343.9	377.8	389.7	488.4	609.2	567.1	472.9	436.3	420.8
80°	289.0	259.8	272.6	293.6	310.1	431.7	565.3	490.3	387.8	344.8	339.4
82.5°	188.4	170.1	194.8	214.0	219.5	318.3	456.4	372.3	282.6	229.6	213.1
85°	86.9	85.1	111.6	108.8	107.9	155.5	270.8	217.7	162.8	121.7	114.3
87.5°	22.0	21.0	27.4	22.9	27.4	23.8	24.7	6.4	0.9	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)