

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: P452215

Luminaire Tested: **GALN-SA3A-827-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452215
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA3A-827-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10270 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G2

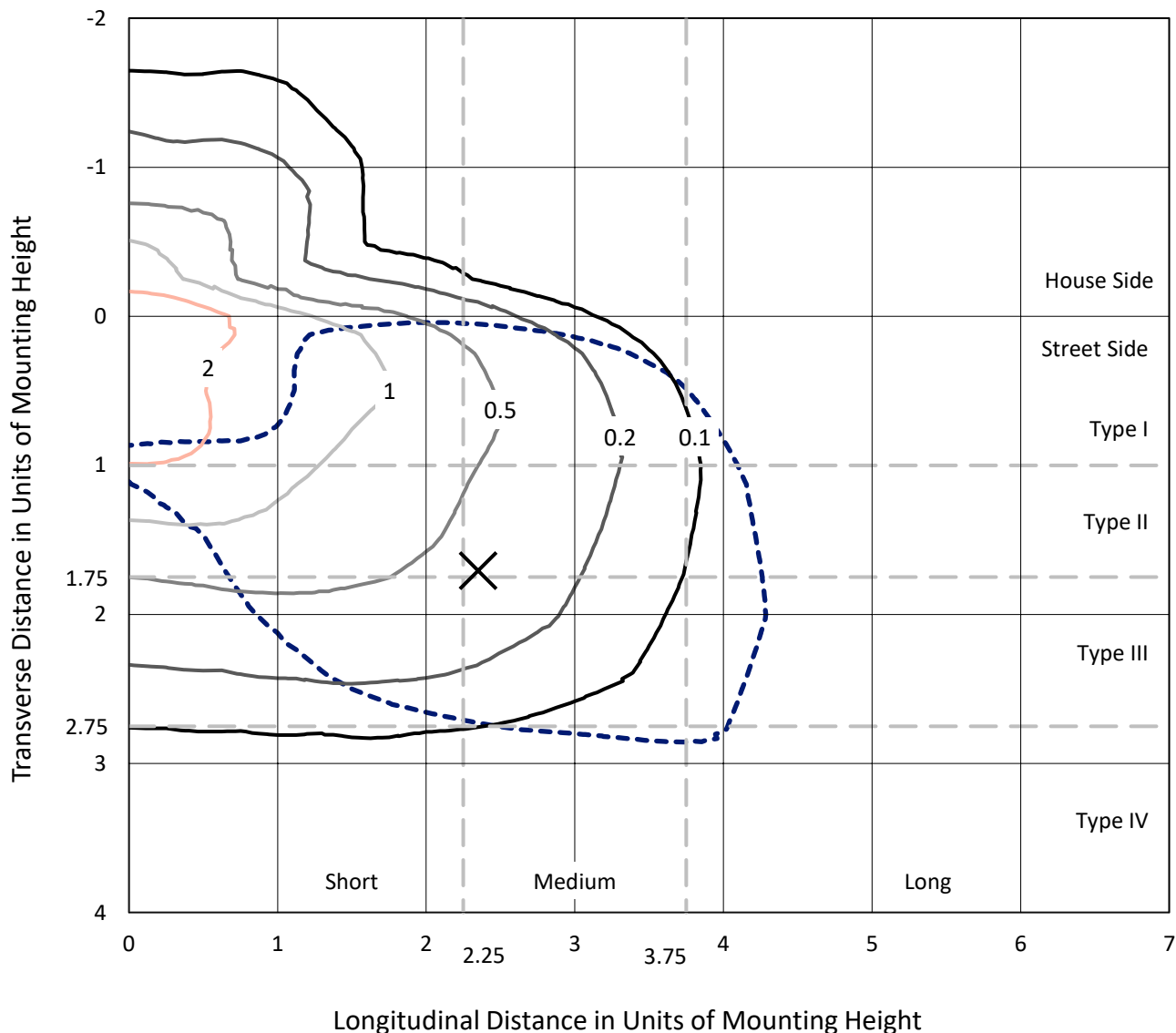
Input Watts (W): 93
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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 CATALOG NUMBER: GALN-SA3A-827-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

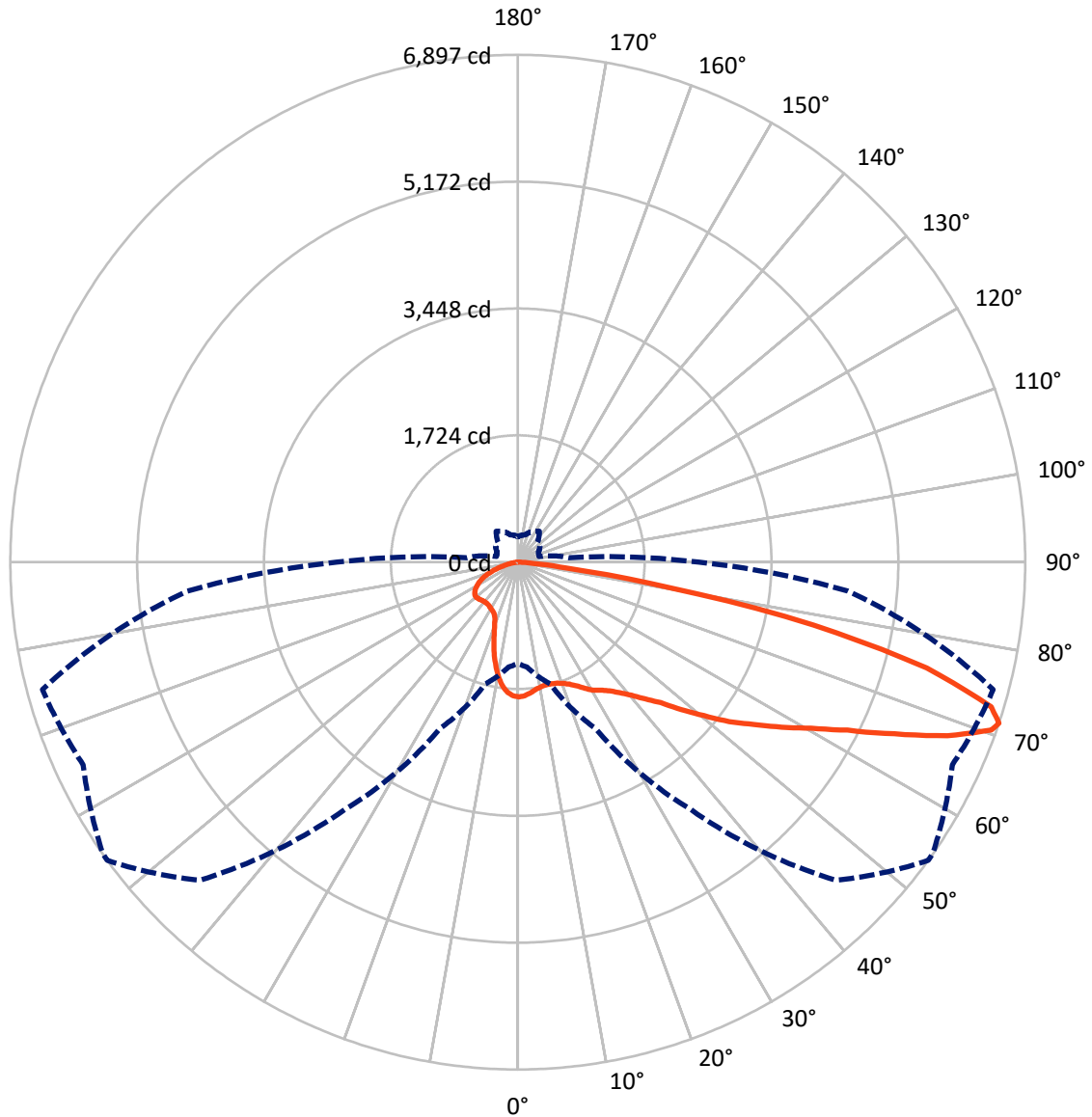
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Medium - N/A

REPORT NUMBER: P452215
CATALOG NUMBER: GALN-SA3A-827-U-T3R

Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical



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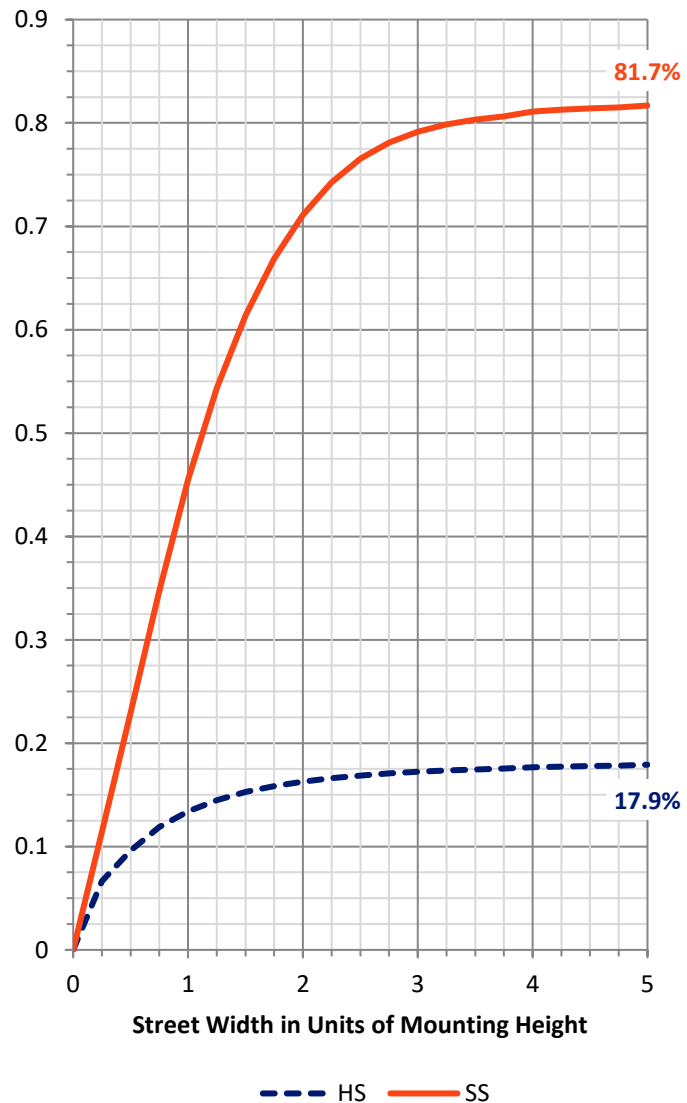
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1854.2	0.0	1854.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	8415.8	0.0	8415.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	10270.0	0.0	10270.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.3	1.6
10°-20°	431.2	4.2
20°-30°	717.9	7.0
30°-40°	1061.5	10.3
40°-50°	1495.2	14.6
50°-60°	2002.2	19.5
60°-70°	2523.6	24.6
70°-80°	1723.6	16.8
80°-90°	151.6	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°	10270.0	100.0
0°-180°	10270.0	100.0



REPORT NUMBER: P452215

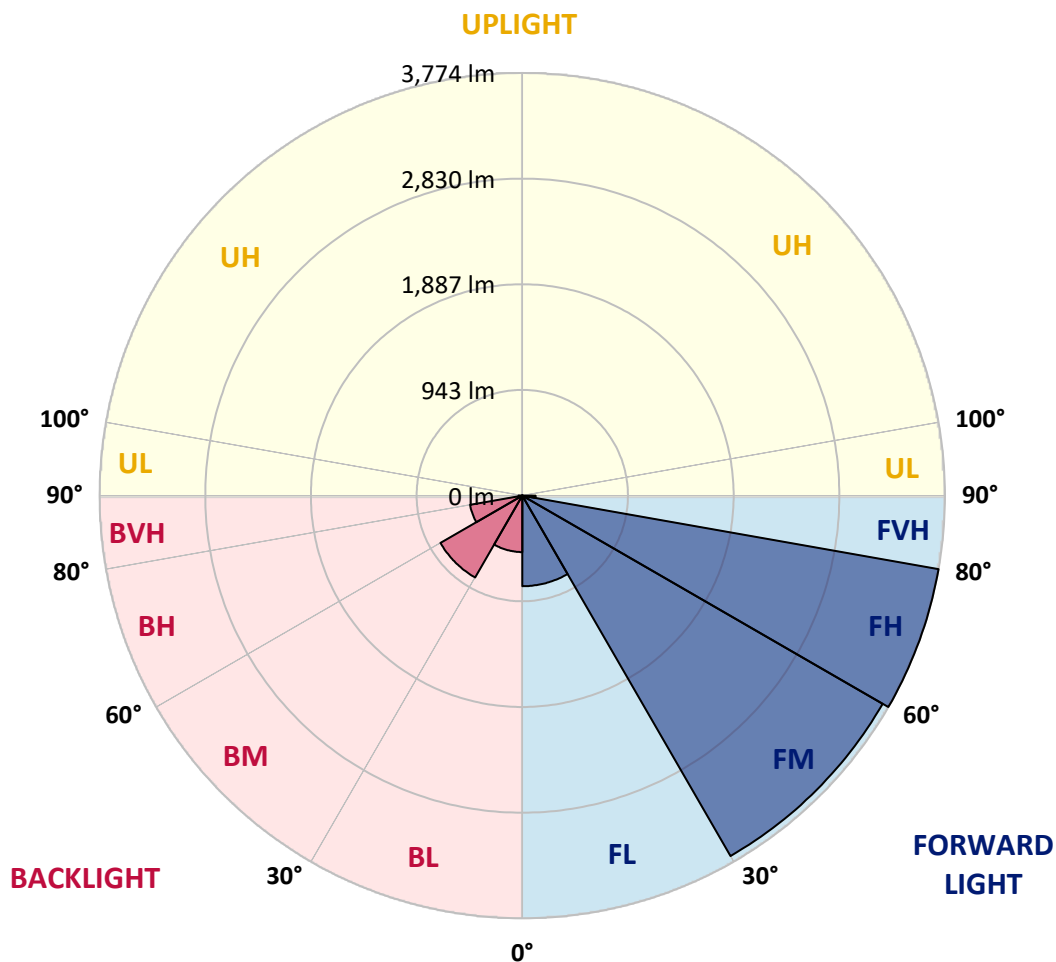
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	808.4	7.9			
FM	(30°-60°)	3715.3	36.2			
FH	(60°-80°)	3773.6	36.7			G2/5000
FVH	(80°-90°)	118.5	1.2			G2/225
BL	(0°-30°)	503.9	4.9	B2/1000		
BM	(30°-60°)	843.6	8.2	B1/1000		
BH	(60°-80°)	473.6	4.6	B1/500		G1/500
BVH	(80°-90°)	33.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Medium





REPORT NUMBER: P452215

CATALOG NUMBER: GALN-SA3A-827-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3
2.5°	1770.2	1778.5	1780.7	1786.3	1797.9	1807.4	1816.8	1815.7	1829.0	1834.5	1839.5
5°	1691.4	1693.6	1702.0	1713.1	1733.6	1759.6	1785.2	1785.7	1818.5	1844.5	1857.3
7.5°	1633.7	1640.9	1646.5	1658.1	1679.8	1708.1	1748.6	1751.9	1810.1	1861.7	1888.9
10°	1596.0	1604.3	1610.4	1624.8	1646.5	1678.1	1721.9	1728.0	1804.0	1888.9	1936.6
12.5°	1561.6	1569.9	1575.5	1594.3	1622.6	1661.5	1710.8	1718.0	1806.2	1920.5	1988.8
15°	1582.7	1589.3	1587.1	1592.7	1611.5	1655.9	1715.3	1722.5	1814.6	1951.0	2040.3
17.5°	1676.4	1682.0	1663.7	1642.6	1633.7	1666.5	1729.1	1736.9	1831.2	1982.7	2093.0
20°	1814.6	1829.5	1789.6	1742.5	1699.7	1704.2	1758.0	1766.3	1854.5	2014.3	2146.9
22.5°	1994.3	2005.4	1956.6	1878.9	1800.1	1759.6	1801.3	1806.2	1889.5	2055.3	2205.7
25°	2205.7	2212.3	2144.6	2044.8	1931.1	1854.5	1860.6	1869.5	1947.2	2101.9	2257.8
27.5°	2410.9	2432.0	2353.8	2231.7	2082.0	1954.4	1942.2	1947.7	2009.8	2128.0	2293.9
30°	2654.5	2652.8	2570.1	2428.7	2236.7	2063.1	2019.3	2018.2	2043.7	2140.8	2319.9
32.5°	2848.6	2871.4	2790.4	2636.1	2413.7	2175.7	2072.5	2070.3	2069.8	2162.9	2358.8
35°	3069.4	3072.7	2998.4	2843.1	2605.1	2317.2	2146.9	2135.8	2123.0	2210.7	2411.5
37.5°	3266.9	3282.4	3214.2	3040.0	2793.1	2464.2	2248.9	2241.7	2202.9	2293.3	2495.8
40°	3421.1	3432.8	3391.7	3225.8	2978.4	2622.8	2378.7	2365.4	2318.3	2428.7	2608.4
42.5°	3471.6	3495.4	3511.5	3430.0	3191.4	2810.9	2538.5	2521.9	2485.8	2633.9	2738.2
45°	3475.5	3513.2	3598.1	3602.0	3405.6	3036.1	2724.9	2713.3	2710.5	2896.9	2920.7
47.5°	3446.1	3484.3	3626.9	3704.0	3596.4	3263.6	2994.0	2975.6	2977.3	3222.0	3125.4
50°	3375.1	3420.6	3593.6	3769.5	3745.6	3499.9	3278.0	3271.9	3306.3	3593.1	3337.9
52.5°	3241.4	3296.3	3559.2	3810.5	3856.6	3703.5	3600.8	3583.6	3670.7	3995.8	3570.3
55°	2871.4	2954.0	3433.3	3833.3	3962.0	3898.2	3891.5	3922.6	4038.0	4435.2	3826.1
57.5°	2678.3	2740.4	3159.8	3837.2	4095.1	4124.5	4231.0	4238.8	4440.7	4901.7	4115.1
60°	2572.9	2627.8	3010.0	3811.6	4281.0	4404.7	4578.3	4606.0	4834.0	5407.1	4414.7
62.5°	2480.8	2528.0	2920.2	3723.4	4490.7	4820.2	5028.2	5041.5	5280.6	5965.2	4710.3
65°	2263.9	2317.7	2739.3	3635.2	4671.5	5339.4	5625.1	5609.6	5756.0	6446.7	4895.6
67.5°	1971.6	2039.8	2401.5	3330.7	4760.8	5906.9	6297.5	6278.0	6225.3	6762.3	4948.9
70°	1598.2	1634.8	1969.3	2804.2	4404.1	6204.8	6828.3	6807.8	6516.0	6803.9	4697.0
71°	1375.2	1432.3	1714.7	2490.8	4107.3	6113.8	6896.6	6891.0	6516.6	6689.1	4507.3
72.5°	1073.4	1108.4	1358.0	1930.0	3491.0	5596.8	6727.9	6749.0	6375.1	6370.1	4116.2
75°	679.0	694.5	852.1	1136.1	1915.5	3963.6	5743.3	5800.4	5660.6	5214.0	3061.1
77.5°	394.4	414.4	510.4	669.6	827.7	2151.3	4109.5	4171.7	3933.1	2870.8	1253.2
80°	229.7	251.9	336.2	388.9	380.0	798.3	2092.5	2198.5	1703.1	725.1	351.7
82.5°	127.6	142.6	236.3	236.9	202.5	260.7	658.5	689.0	486.0	292.4	143.7
85°	92.6	104.8	152.6	138.1	97.1	112.1	229.1	240.2	196.4	123.2	46.6
87.5°	32.7	46.6	83.8	66.6	26.6	23.3	66.0	53.8	49.9	34.4	10.5
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°	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3	1832.3
2.5°	1842.3	1843.4	1837.9	1827.9	1817.9	1805.1	1790.7	1779.6	1774.6	1774.1	1773.5
5°	1862.3	1865.0	1844.0	1812.9	1778.5	1736.3	1700.3	1659.2	1648.7	1632.1	1637.1
7.5°	1894.5	1892.8	1851.2	1785.2	1704.7	1615.4	1540.0	1496.1	1450.7	1437.9	1438.5
10°	1940.5	1930.0	1851.2	1728.6	1594.3	1461.8	1356.3	1289.8	1253.7	1223.8	1212.7
12.5°	1989.3	1962.7	1833.4	1649.3	1452.3	1289.8	1176.6	1086.7	1063.4	1039.0	1039.6
15°	2035.9	1991.5	1798.5	1537.8	1299.2	1106.2	996.3	942.5	935.3	938.1	937.5
17.5°	2078.1	2012.1	1745.2	1413.5	1120.6	948.6	890.4	894.2	913.7	927.5	929.2
20°	2120.8	2024.3	1665.9	1247.1	951.9	853.2	855.4	885.9	915.3	934.2	937.0
22.5°	2161.3	2029.8	1572.7	1086.2	829.9	812.7	845.4	878.2	907.0	925.3	928.1
25°	2187.9	2017.0	1440.7	918.1	770.0	798.3	832.7	860.4	884.8	903.7	908.1
27.5°	2195.1	1976.0	1277.0	782.2	742.2	784.4	816.0	836.6	855.4	873.2	876.5
30°	2191.2	1915.5	1097.3	702.3	726.2	768.3	792.7	807.7	830.5	844.3	847.1
32.5°	2185.1	1845.1	909.8	659.6	712.8	753.3	767.8	781.1	780.5	775.0	778.9
35°	2187.4	1760.8	757.8	634.1	701.2	742.2	754.5	737.8	690.1	687.9	685.7
37.5°	2199.0	1677.5	647.4	616.3	695.1	740.6	747.2	670.7	628.5	609.1	604.1
40°	2229.0	1580.5	574.7	603.0	694.5	753.3	714.5	636.8	555.9	518.1	515.4
42.5°	2268.9	1485.1	530.3	594.7	701.2	772.8	701.2	589.1	500.9	478.7	475.4
45°	2328.3	1375.8	505.9	590.8	711.2	780.0	696.8	554.2	478.7	461.0	461.0
47.5°	2395.4	1271.5	492.6	588.0	723.9	775.0	657.4	543.1	468.2	470.4	481.0
50°	2462.0	1181.1	482.6	581.9	735.0	772.2	641.3	542.5	471.0	499.3	518.1
52.5°	2539.1	1117.3	470.4	571.9	735.0	754.5	636.3	553.6	478.7	487.1	495.4
55°	2632.3	1097.3	454.9	550.3	721.7	710.1	633.5	569.7	484.3	464.9	468.2
57.5°	2755.4	1129.5	439.9	523.1	691.2	664.0	632.4	574.2	471.5	455.4	452.1
60°	2898.5	1193.3	435.5	495.4	649.6	624.6	625.8	561.4	453.8	437.1	439.9
62.5°	2998.9	1231.5	432.7	474.3	604.1	581.4	609.7	545.9	446.0	431.6	434.4
65°	2998.9	1184.9	407.2	442.1	545.3	529.2	590.2	526.5	436.0	419.4	416.6
67.5°	2885.2	1049.0	368.4	393.9	480.4	469.9	563.1	503.2	421.1	408.3	401.6
70°	2589.0	795.5	319.5	337.3	398.3	407.7	528.1	471.5	396.1	380.6	370.6
71°	2458.6	692.9	299.0	308.4	366.7	380.6	511.5	458.2	385.0	362.8	345.1
72.5°	2207.3	583.6	267.9	271.8	313.4	338.4	476.5	432.7	363.9	332.3	312.3
75°	1677.0	426.0	215.8	213.6	231.9	268.5	403.3	385.5	319.0	276.3	264.6
77.5°	724.5	231.9	161.4	163.1	157.5	203.6	317.3	331.2	273.5	224.7	214.1
80°	219.7	133.7	110.4	112.6	105.4	136.5	223.6	259.6	219.7	174.7	160.3
82.5°	112.6	79.9	75.4	74.3	67.1	77.1	135.4	177.5	157.0	109.3	96.5
85°	48.8	42.7	37.2	36.1	31.6	27.7	48.3	88.8	83.2	61.0	58.2
87.5°	12.2	11.1	7.2	6.7	3.9	0.6	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)