

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: P302774

Luminaire Tested: **GLNA-AF-03-LED-E1-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302774
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-T4W-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15625.2 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 166
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: 25 FT

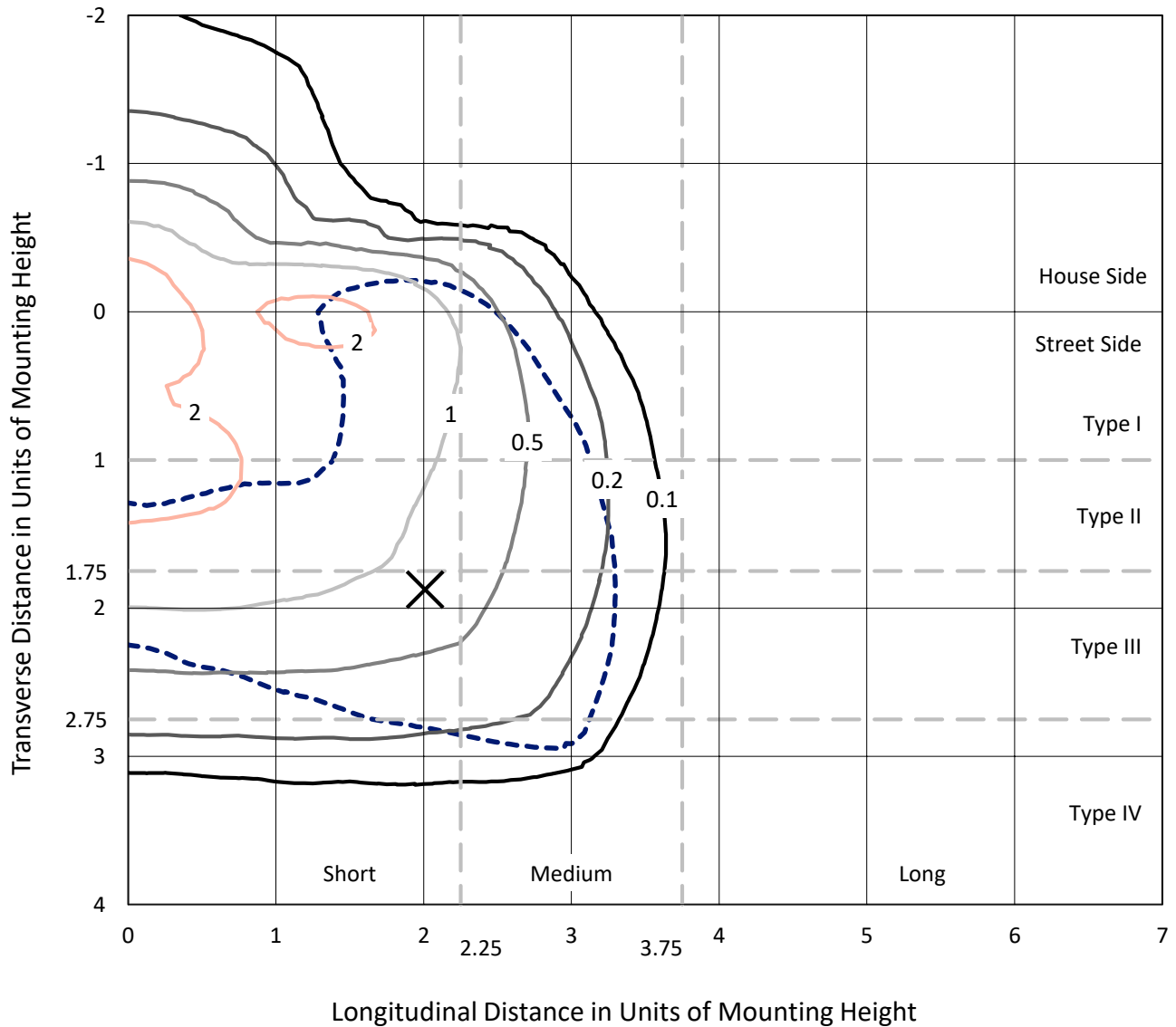


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Iso-Footcandle Lines of Horizontal Illumination

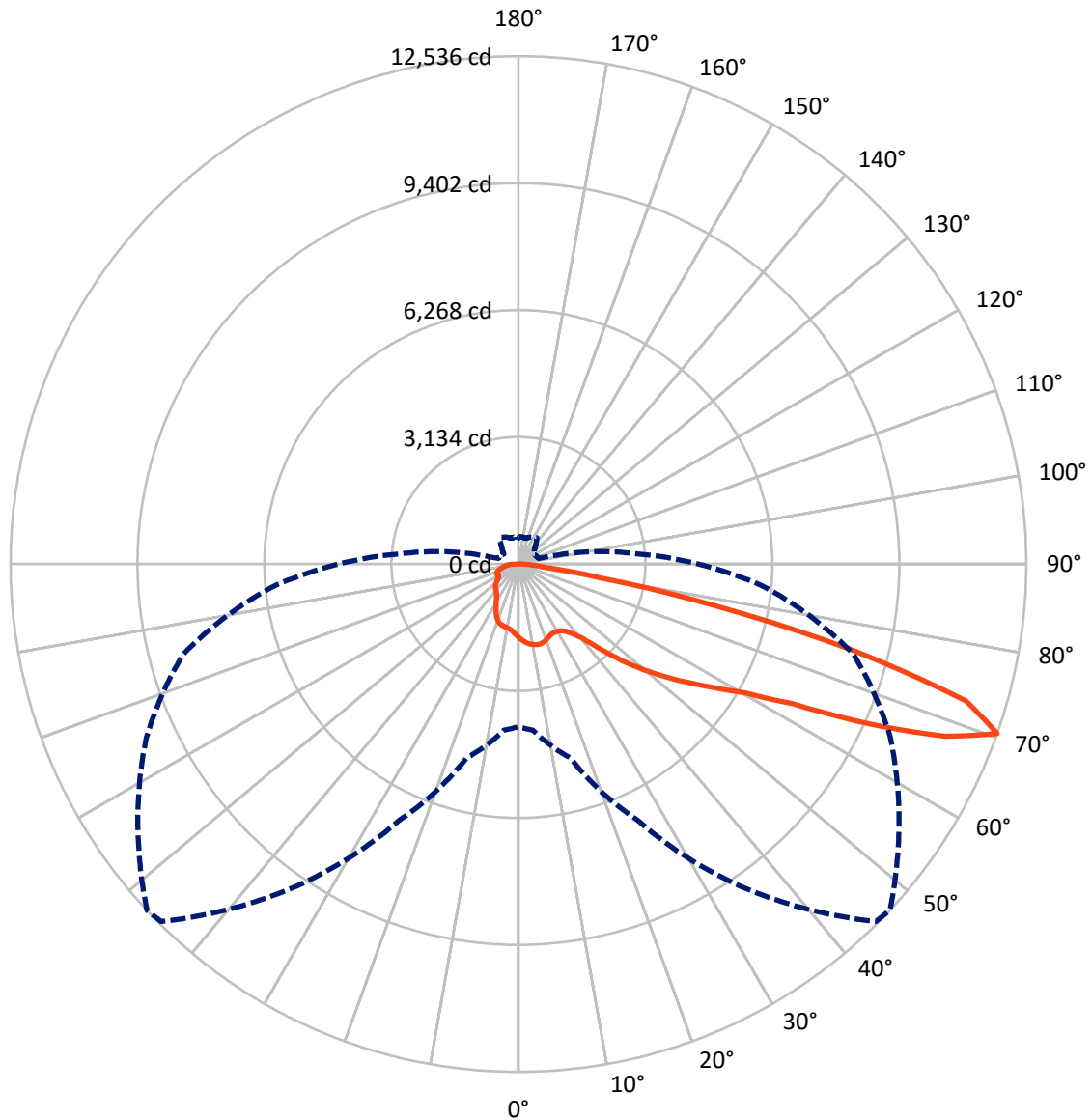
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3259.7	0.0	3259.7
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	12365.5	0.0	12365.5
	% Fixture	79.1	0.0	79.1
Total	Lumens	15625.2	0.0	15625.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.7	1.1
10°-20°	509.6	3.3
20°-30°	752.6	4.8
30°-40°	1093.9	7.0
40°-50°	1968.6	12.6
50°-60°	3410.4	21.8
60°-70°	4867.7	31.2
70°-80°	2498.8	16.0
80°-90°	349.8	2.2
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°	15625.2	100.0
0°-180°	15625.2	100.0

Coefficient of Utilization



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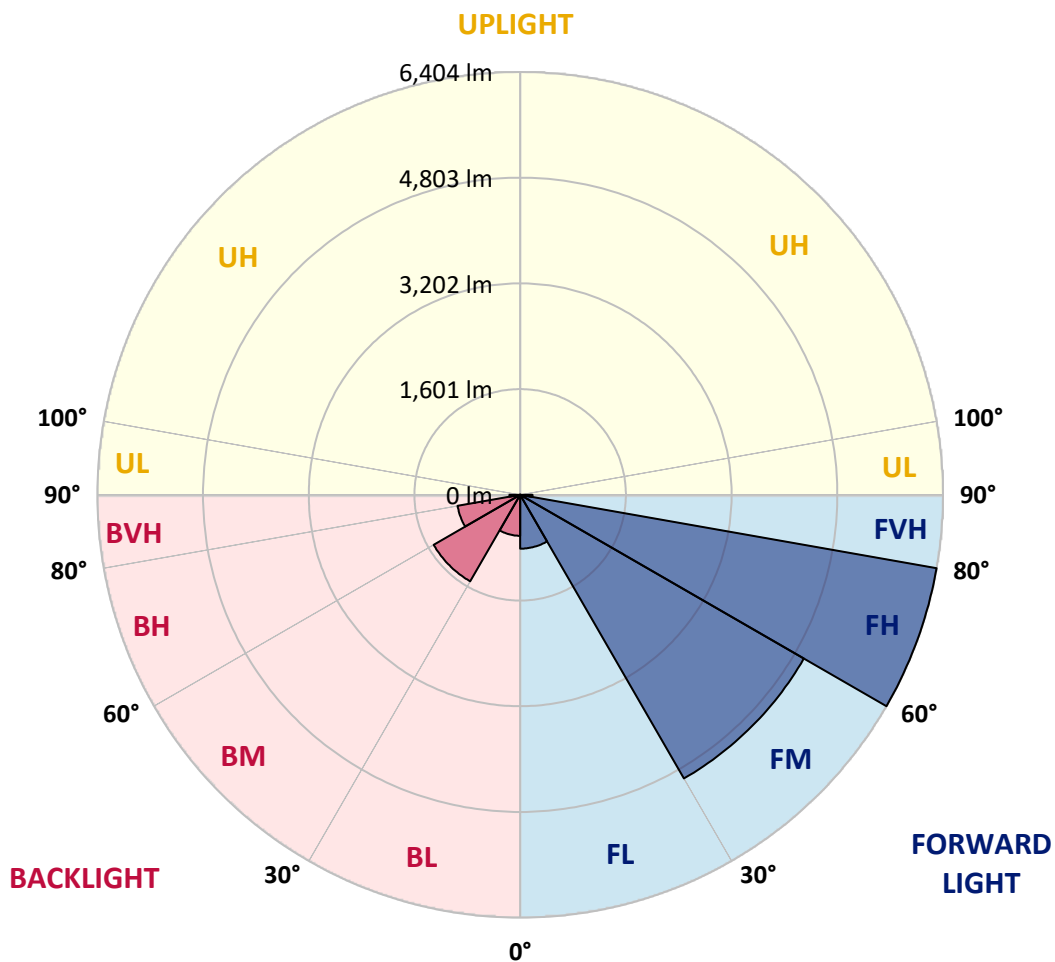
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	815.3	5.2			
FM (30°-60°)	4959.9	31.7			
FH (60°-80°)	6403.6	41.0			G3/7500
FVH (80°-90°)	186.7	1.2			G2/225
BL (0°-30°)	620.7	4.0	B2/1000		
BM (30°-60°)	1513.1	9.7	B2/2500		
BH (60°-80°)	962.8	6.2	B2/1000		G2/1000
BVH (80°-90°)	163.2	1.0			G2/225
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°	35°	45°	47°	55°	65°	75°	85°
0°	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0
2.5°	1919.5	1915.7	1914.2	1911.2	1907.4	1888.2	1884.4	1870.8	1851.9	1831.9	1811.5
5°	2045.7	2045.0	2036.4	2021.3	1997.0	1955.1	1945.3	1911.9	1867.0	1823.6	1780.4
7.5°	2156.6	2149.8	2133.9	2103.3	2060.9	2003.8	1990.2	1943.7	1882.1	1822.8	1764.2
10°	2237.9	2234.1	2199.2	2157.3	2101.8	2038.7	2022.8	1971.0	1903.4	1828.1	1755.2
12.5°	2284.3	2276.8	2236.4	2186.4	2120.2	2058.6	2042.5	1990.2	1914.2	1828.1	1742.3
15°	2281.3	2276.0	2235.6	2180.8	2114.2	2060.1	2045.7	1993.2	1911.9	1820.5	1725.6
17.5°	2220.5	2222.7	2188.6	2134.6	2079.8	2038.7	2025.8	1977.3	1896.5	1805.4	1705.9
20°	2114.2	2124.8	2101.8	2054.1	2023.5	1995.5	1987.2	1946.0	1873.1	1783.4	1684.5
22.5°	2007.6	2017.5	2008.4	1968.0	1963.4	1946.8	1942.2	1912.7	1852.6	1769.8	1671.6
25°	1929.4	1938.4	1936.9	1901.8	1915.7	1915.0	1911.2	1896.5	1848.1	1769.8	1673.9
27.5°	1908.2	1911.2	1908.2	1876.1	1895.0	1910.4	1907.4	1904.9	1861.7	1791.8	1702.9
30°	1981.1	1976.6	1952.8	1888.2	1905.9	1927.1	1924.1	1925.6	1902.6	1849.6	1767.5
32.5°	2272.2	2251.5	2177.0	1995.5	1949.1	1960.4	1961.9	1987.2	1991.0	1938.4	1867.8
35°	2707.7	2685.0	2588.3	2282.8	2083.6	2044.2	2044.2	2082.1	2104.8	2066.2	2023.5
37.5°	3169.2	3144.0	3092.5	2681.2	2366.4	2189.4	2185.6	2212.1	2244.7	2254.0	2264.6
40°	3693.6	3667.1	3681.5	3128.1	2761.0	2440.9	2386.8	2367.9	2456.0	2514.6	2599.9
42.5°	4267.7	4255.3	4260.6	3625.9	3210.1	2817.3	2740.5	2642.3	2748.9	2852.9	3031.6
45°	4798.9	4809.5	4804.2	4158.9	3710.5	3276.3	3195.0	3004.9	3109.1	3287.6	3579.0
47.5°	5264.2	5220.0	5288.4	4741.1	4270.7	3790.3	3689.8	3435.3	3540.9	3761.3	4253.8
50°	5829.0	5822.9	5722.7	5518.2	4947.9	4306.3	4174.8	3879.9	4044.0	4350.5	5104.6
52.5°	6422.8	6312.5	6220.6	6122.3	5666.4	4835.5	4674.2	4323.0	4635.6	5020.8	6141.5
55°	6544.2	6495.0	6608.8	6774.0	6358.9	5385.1	5197.3	4878.7	5301.6	5787.3	7337.2
57.5°	6804.3	6803.5	7039.3	7333.4	7071.9	5968.1	5778.7	5550.0	6050.1	6665.2	8606.6
60°	6980.0	7029.2	7467.2	8038.1	7772.0	6641.7	6467.5	6324.6	6901.7	7646.5	9789.4
62.5°	7071.9	7138.8	7736.4	8323.9	8761.6	7762.9	7588.9	7382.9	8028.2	8723.0	10481.2
65°	6689.6	6820.9	7694.5	8571.0	9628.4	9580.4	9502.1	9140.3	9436.7	9573.6	10231.3
67.5°	5631.3	5765.9	6783.1	8340.5	10247.2	11333.5	11350.2	10732.2	10303.5	9646.5	8602.1
70°	4012.2	4117.7	4959.5	6992.9	9775.8	12479.0	12536.0	11465.6	10130.8	8554.9	6010.0
72.5°	1904.9	1969.5	2766.3	4551.2	7757.6	11433.8	11544.1	10529.2	8614.2	6333.7	3278.5
75°	700.1	719.8	934.9	1936.2	4499.5	8431.9	8561.9	7547.8	5710.3	3153.3	1249.0
77.5°	419.6	432.5	524.6	817.2	1769.8	4819.6	5011.7	4104.9	2495.6	1173.7	614.3
80°	293.4	302.5	376.2	508.5	836.2	1836.7	2007.6	1675.4	994.2	742.8	446.9
82.5°	198.4	203.0	264.6	343.6	555.7	655.9	707.7	745.0	670.6	552.7	283.5
85°	130.0	134.6	179.5	226.5	353.5	339.1	346.6	438.5	489.5	375.4	157.3
87.5°	74.5	77.5	108.1	120.9	173.4	143.7	145.2	231.0	313.3	253.2	95.7
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°	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0	1813.0
2.5°	1806.2	1796.3	1774.3	1760.5	1747.6	1744.6	1739.3	1738.5	1737.7	1737.7	1735.5
5°	1765.8	1749.1	1715.0	1695.8	1679.9	1678.4	1677.6	1681.4	1683.0	1684.5	1682.2
7.5°	1740.0	1717.3	1674.6	1647.4	1628.4	1623.6	1631.4	1648.9	1660.2	1664.8	1662.5
10°	1724.1	1695.8	1646.6	1616.8	1600.9	1598.6	1608.5	1629.2	1652.7	1661.7	1661.0
12.5°	1705.9	1673.9	1621.3	1590.3	1581.2	1585.8	1598.6	1617.6	1642.1	1656.4	1657.2
15°	1687.5	1650.4	1596.4	1569.1	1565.3	1571.4	1583.5	1597.9	1616.8	1631.4	1633.0
17.5°	1665.5	1626.7	1572.9	1544.6	1541.6	1544.6	1545.4	1552.9	1565.3	1578.9	1582.7
20°	1642.1	1602.4	1546.1	1518.1	1504.5	1492.3	1478.5	1480.0	1483.8	1497.6	1500.7
22.5°	1625.1	1585.8	1525.7	1486.8	1450.4	1413.8	1386.6	1382.8	1384.3	1395.6	1399.4
25°	1626.7	1585.0	1520.4	1453.5	1373.7	1315.1	1278.5	1272.4	1271.7	1280.0	1285.6
27.5°	1656.4	1614.5	1540.1	1419.1	1290.1	1203.3	1164.6	1160.1	1154.0	1156.3	1162.4
30°	1722.6	1683.7	1588.0	1384.3	1199.5	1093.9	1053.5	1049.0	1040.7	1036.9	1041.4
32.5°	1830.4	1798.6	1658.0	1350.7	1109.1	1000.3	959.4	949.5	944.2	939.7	943.5
35°	2009.9	1996.3	1751.4	1314.3	1029.3	928.1	891.0	875.8	868.2	876.6	882.6
37.5°	2291.1	2298.7	1873.8	1257.3	967.7	880.4	849.0	831.6	820.3	827.1	833.9
40°	2689.5	2694.8	2009.1	1176.8	914.4	852.1	818.8	802.8	786.7	774.6	773.8
42.5°	3212.4	3158.6	2142.2	1089.4	852.8	834.7	797.5	777.6	753.4	719.8	713.0
45°	3832.7	3643.6	2243.2	988.9	783.7	813.5	773.8	746.5	708.4	672.1	668.3
47.5°	4547.5	4164.2	2292.7	884.9	719.0	782.1	745.0	701.6	653.6	635.5	633.2
50°	5420.0	4782.2	2316.1	783.7	663.0	741.2	703.1	652.1	612.0	608.2	605.9
52.5°	6413.7	5525.8	2324.0	700.9	616.5	688.0	669.0	619.6	587.5	590.8	590.8
55°	7453.6	6293.5	2220.5	640.8	573.9	633.2	646.1	606.7	579.9	592.3	596.8
57.5°	8408.2	6973.9	1895.0	594.6	533.7	591.5	637.7	618.8	600.6	649.9	652.9
60°	9141.1	7375.8	1415.3	552.7	503.9	576.9	660.0	665.3	669.8	787.4	803.6
62.5°	9294.6	7242.3	973.0	520.1	490.3	589.3	700.1	700.9	695.5	777.6	787.4
65°	8590.0	6396.0	707.7	501.7	478.9	611.2	734.4	718.3	683.4	745.8	727.4
67.5°	6821.7	4818.9	589.3	488.0	462.3	609.7	770.8	734.4	676.6	730.6	700.9
70°	4428.0	2913.7	524.6	476.7	442.3	580.7	792.0	732.9	656.7	679.6	644.6
72.5°	2160.4	1303.0	481.2	460.0	421.9	540.5	791.2	719.0	636.2	634.7	615.8
75°	845.3	596.8	441.6	434.7	387.0	494.8	770.0	699.3	612.0	587.5	580.7
77.5°	494.8	425.7	391.6	397.6	345.1	449.1	739.0	665.3	578.4	549.6	542.0
80°	360.3	318.6	333.8	343.6	294.9	403.7	697.1	623.3	541.3	555.7	545.1
82.5°	231.0	205.3	270.6	280.5	245.7	357.2	651.4	579.2	488.8	443.8	433.2
85°	117.9	130.0	201.5	213.6	189.4	293.4	596.1	520.8	429.4	369.4	375.4
87.5°	66.1	88.9	128.5	143.7	133.8	225.7	483.5	429.4	350.4	285.0	251.0
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)