

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: P302904

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302904
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-04-LED-E1-T4W-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15653.9 lumens
Efficiency: N/A
Efficacy: 121.3 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

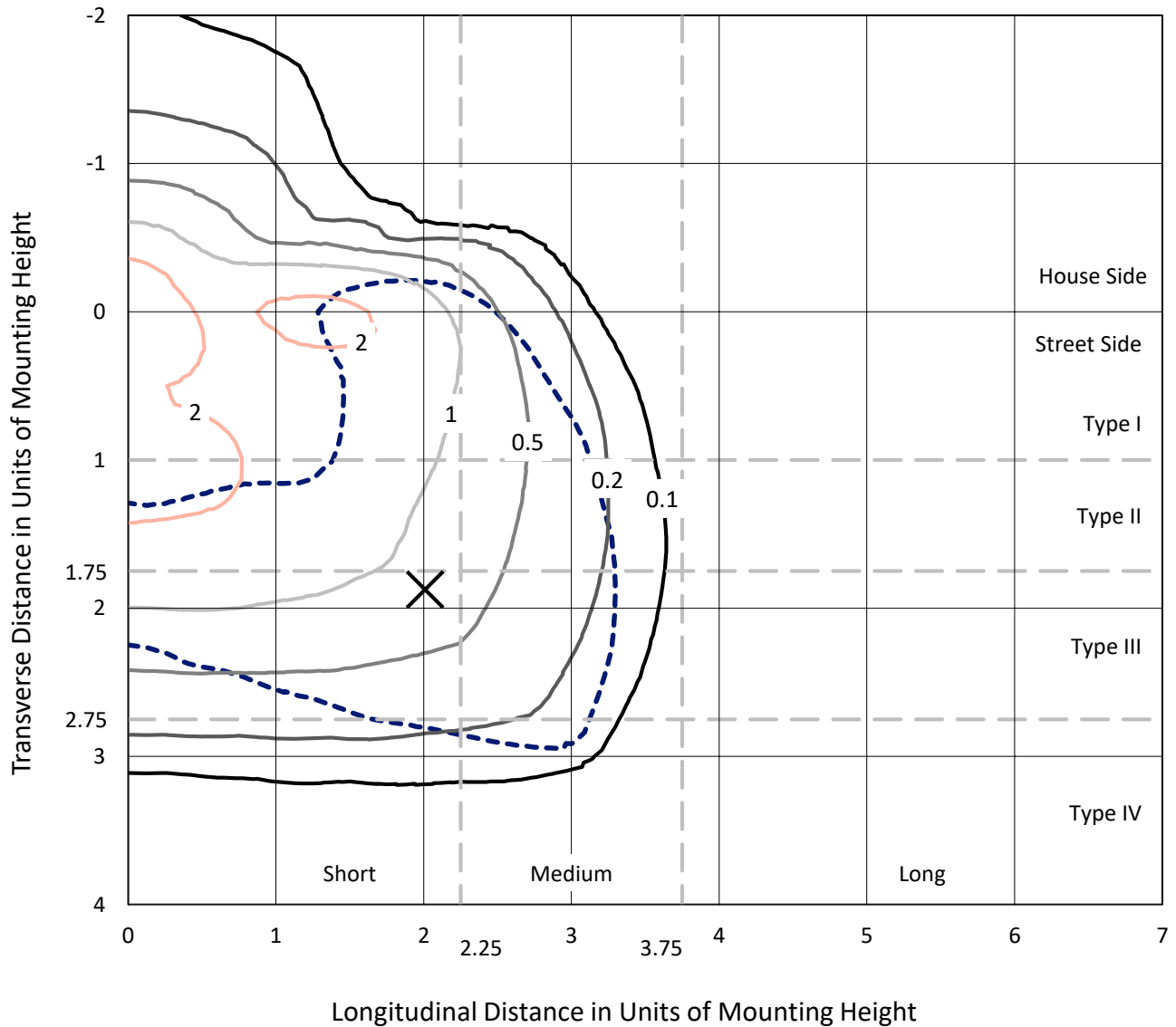
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

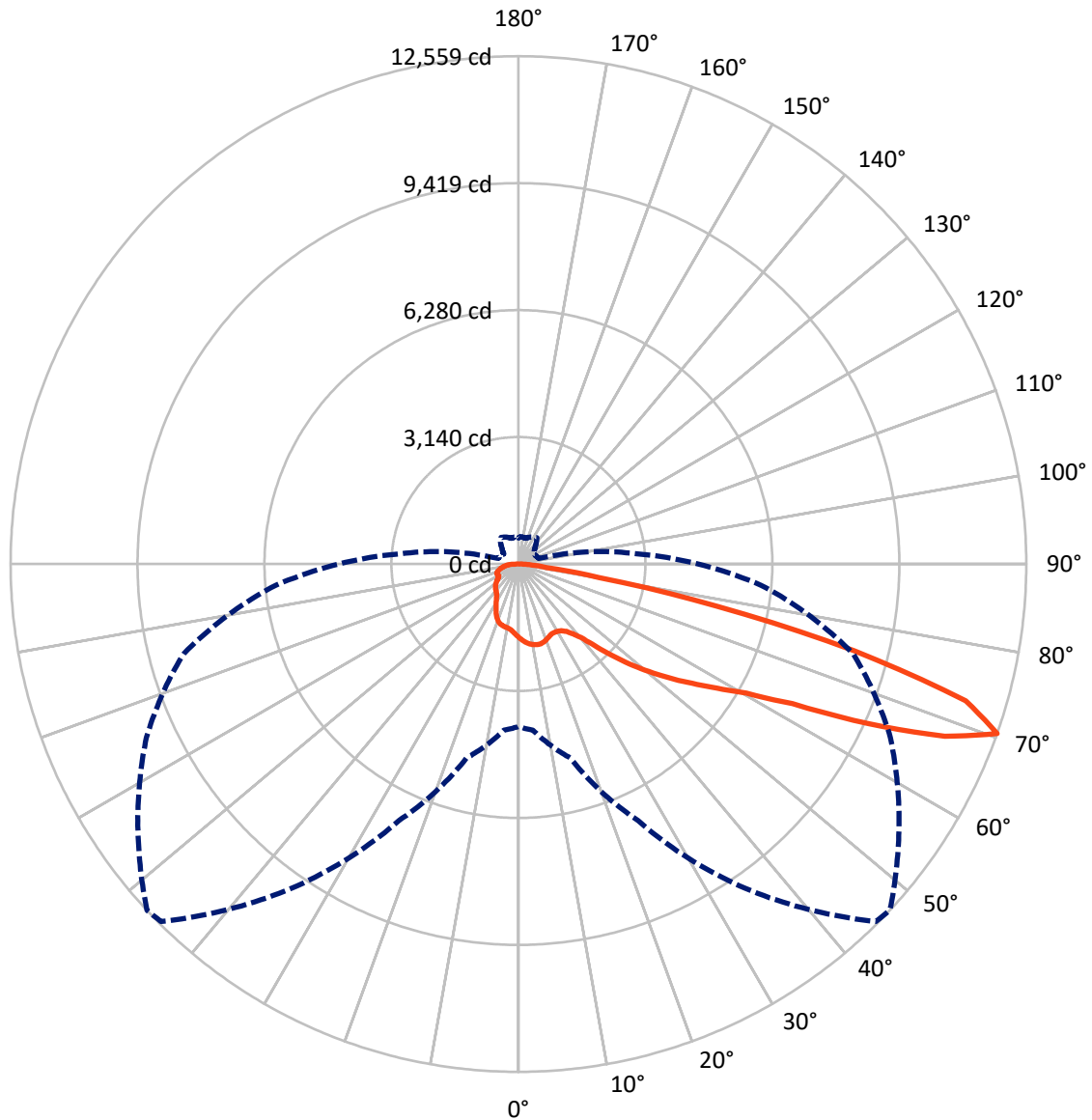
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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	3265.7	0.0	3265.7
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	12388.2	0.0	12388.2
	% Fixture	79.1	0.0	79.1
Total	Lumens	15653.9	0.0	15653.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	1.1
10°-20°	510.6	3.3
20°-30°	754.0	4.8
30°-40°	1095.9	7.0
40°-50°	1972.2	12.6
50°-60°	3416.7	21.8
60°-70°	4876.6	31.2
70°-80°	2503.4	16.0
80°-90°	350.5	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°	15653.9	100.0
0°-180°	15653.9	100.0

Coefficient of Utilization



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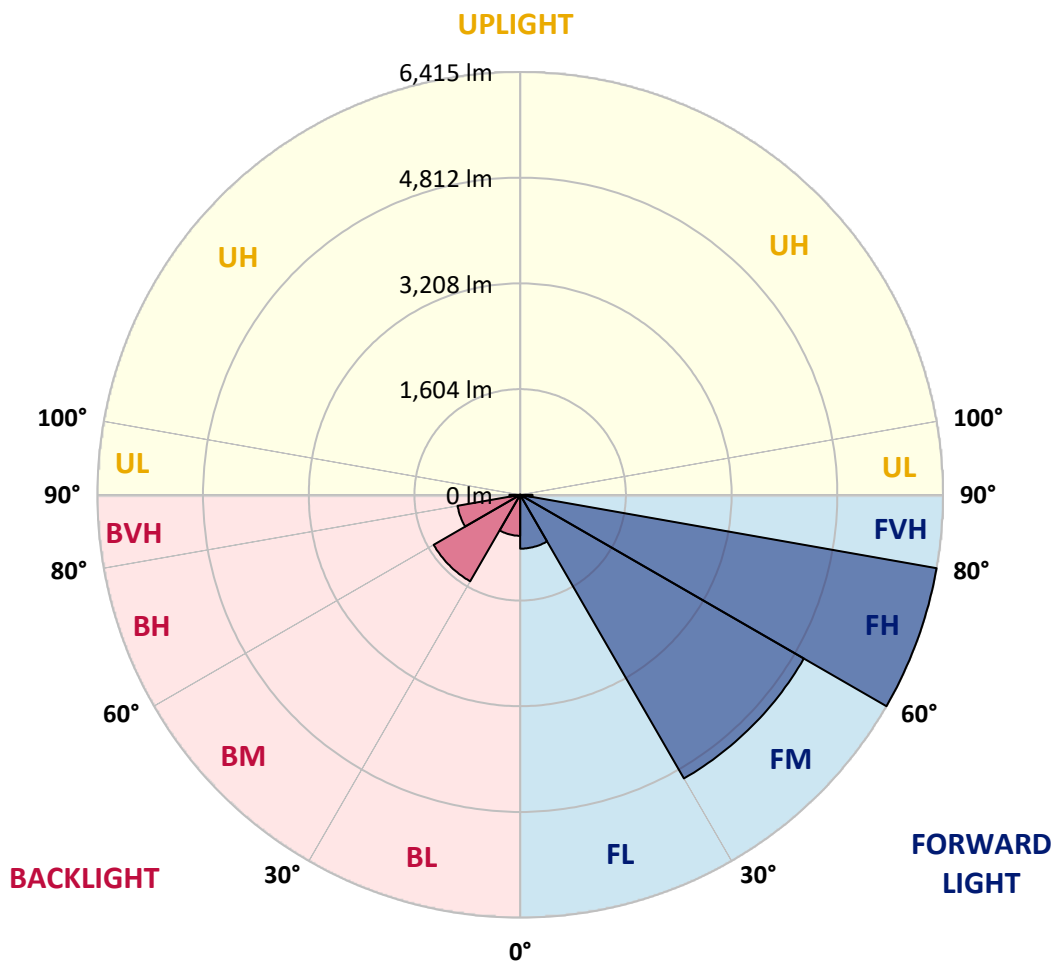
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	816.8	5.2			
FM	(30°-60°)	4969.0	31.7			
FH	(60°-80°)	6415.4	41.0			G3/7500
FVH	(80°-90°)	187.0	1.2			G2/225
BL	(0°-30°)	621.8	4.0	B2/1000		
BM	(30°-60°)	1515.8	9.7	B2/2500		
BH	(60°-80°)	964.6	6.2	B2/1000		G2/1000
BVH	(80°-90°)	163.5	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°	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3
2.5°	1923.0	1919.2	1917.7	1914.7	1910.9	1891.7	1887.9	1874.2	1855.3	1835.3	1814.8
5°	2049.5	2048.7	2040.1	2025.0	2000.7	1958.7	1948.8	1915.4	1870.4	1826.9	1783.7
7.5°	2160.5	2153.7	2137.8	2107.2	2064.7	2007.5	1993.9	1947.3	1885.6	1826.2	1767.5
10°	2242.0	2238.2	2203.3	2161.3	2105.7	2042.4	2026.5	1974.6	1906.8	1831.5	1758.4
12.5°	2288.5	2280.9	2240.5	2190.4	2124.1	2062.4	2046.2	1993.9	1917.7	1831.5	1745.5
15°	2285.5	2280.2	2239.7	2184.8	2118.0	2063.9	2049.5	1996.9	1915.4	1823.9	1728.8
17.5°	2224.5	2226.8	2192.7	2138.5	2083.6	2042.4	2029.5	1981.0	1900.0	1808.7	1709.1
20°	2118.0	2128.7	2105.7	2057.9	2027.2	1999.2	1990.8	1949.6	1876.5	1786.7	1687.6
22.5°	2011.3	2021.2	2012.1	1971.6	1967.0	1950.4	1945.8	1916.2	1856.0	1773.0	1674.7
25°	1932.9	1942.0	1940.5	1905.3	1919.2	1918.5	1914.7	1900.0	1851.5	1773.0	1676.9
27.5°	1911.7	1914.7	1911.7	1879.5	1898.5	1913.9	1910.9	1908.4	1865.1	1795.1	1706.0
30°	1984.8	1980.2	1956.4	1891.7	1909.4	1930.6	1927.6	1929.1	1906.1	1853.0	1770.8
32.5°	2276.4	2255.6	2181.0	1999.2	1952.6	1964.0	1965.5	1990.8	1994.6	1942.0	1871.2
35°	2712.7	2689.9	2593.1	2287.0	2087.4	2048.0	2048.0	2085.9	2108.7	2070.0	2027.2
37.5°	3175.0	3149.8	3098.2	2686.1	2370.7	2193.4	2189.6	2216.2	2248.8	2258.2	2268.8
40°	3700.4	3673.8	3688.2	3133.8	2766.1	2445.3	2391.2	2372.2	2460.5	2519.2	2604.7
42.5°	4275.6	4263.2	4268.5	3632.6	3216.0	2822.5	2745.6	2647.2	2753.9	2858.1	3037.2
45°	4807.7	4818.3	4813.0	4166.5	3717.3	3282.3	3200.8	3010.4	3114.9	3293.7	3585.6
47.5°	5273.9	5229.6	5298.2	4749.8	4278.6	3797.3	3696.6	3441.6	3547.4	3768.2	4261.6
50°	5839.7	5833.6	5733.2	5528.3	4956.9	4314.3	4182.5	3887.1	4051.5	4358.5	5114.0
52.5°	6434.6	6324.0	6232.0	6133.6	5676.8	4844.4	4682.8	4330.9	4644.1	5030.0	6152.8
55°	6556.2	6506.9	6621.0	6786.4	6370.6	5395.0	5206.8	4887.6	5311.3	5797.9	7350.7
57.5°	6816.8	6816.0	7052.2	7346.9	7084.9	5979.0	5789.3	5560.2	6061.2	6677.4	8622.4
60°	6992.8	7042.1	7481.0	8052.8	7786.2	6653.9	6479.3	6336.2	6914.4	7660.5	9807.4
62.5°	7084.9	7151.9	7750.6	8339.1	8777.7	7777.1	7602.9	7396.5	8043.0	8739.0	10500.4
65°	6701.9	6833.4	7708.6	8586.8	9646.0	9598.0	9519.6	9157.1	9454.1	9591.2	10250.0
67.5°	5641.6	5776.4	6795.5	8355.8	10266.0	11354.3	11371.0	10751.9	10322.4	9664.3	8617.9
70°	4019.6	4125.3	4968.6	7005.7	9793.8	12501.9	12559.1	11486.6	10149.4	8570.6	6021.0
72.5°	1908.4	1973.1	2771.4	4559.6	7771.8	11454.8	11565.3	10548.5	8630.0	6345.3	3284.6
75°	701.4	721.1	936.6	1939.7	4507.7	8447.4	8577.7	7561.6	5720.8	3159.1	1251.3
77.5°	420.4	433.3	525.6	818.7	1773.0	4828.5	5020.9	4112.4	2500.2	1175.9	615.4
80°	293.9	303.0	376.9	509.4	837.7	1840.1	2011.3	1678.5	996.0	744.1	447.7
82.5°	198.8	203.4	265.1	344.2	556.7	657.1	709.0	746.4	671.8	553.7	284.0
85°	130.3	134.8	179.8	226.9	354.1	339.7	347.3	439.3	490.4	376.1	157.6
87.5°	74.6	77.6	108.3	121.2	173.8	143.9	145.4	231.4	313.9	253.7	95.9
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°	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3	1816.3
2.5°	1809.5	1799.6	1777.6	1763.7	1750.8	1747.8	1742.4	1741.7	1740.9	1740.9	1738.7
5°	1769.0	1752.3	1718.2	1698.9	1683.0	1681.5	1680.7	1684.5	1686.0	1687.6	1685.3
7.5°	1743.2	1720.4	1677.7	1650.4	1631.4	1626.6	1634.4	1651.9	1663.3	1667.8	1665.6
10°	1727.3	1698.9	1649.6	1619.8	1603.8	1601.6	1611.4	1632.2	1655.7	1664.8	1664.0
12.5°	1709.1	1676.9	1624.3	1593.2	1584.1	1588.7	1601.6	1620.5	1645.1	1659.5	1660.2
15°	1690.6	1653.4	1599.3	1572.0	1568.2	1574.2	1586.4	1600.8	1619.8	1634.4	1636.0
17.5°	1668.6	1629.6	1575.8	1547.4	1544.4	1547.4	1548.2	1555.8	1568.2	1581.8	1585.6
20°	1645.1	1605.4	1549.0	1520.9	1507.2	1495.1	1481.2	1482.7	1486.5	1500.4	1503.4
22.5°	1628.1	1588.7	1528.5	1489.5	1453.1	1416.4	1389.1	1385.3	1386.8	1398.2	1402.0
25°	1629.6	1587.9	1523.2	1456.1	1376.2	1317.5	1280.8	1274.8	1274.0	1282.4	1287.9
27.5°	1659.5	1617.5	1542.9	1421.7	1292.5	1205.5	1166.8	1162.2	1156.1	1158.4	1164.5
30°	1725.8	1686.8	1590.9	1386.8	1201.7	1096.0	1055.5	1050.9	1042.6	1038.8	1043.3
32.5°	1833.8	1801.9	1661.0	1353.2	1111.1	1002.1	961.1	951.3	946.0	941.4	945.2
35°	2013.6	1999.9	1754.6	1316.8	1031.2	929.8	892.6	877.4	869.8	878.2	884.2
37.5°	2295.4	2302.9	1877.3	1259.6	969.5	882.0	850.6	833.2	821.8	828.6	835.4
40°	2694.5	2699.8	2012.8	1178.9	916.1	853.6	820.3	804.3	788.1	776.0	775.2
42.5°	3218.3	3164.4	2146.1	1091.4	854.4	836.2	799.0	779.0	754.7	721.1	714.3
45°	3839.8	3650.3	2247.3	990.7	785.1	814.9	775.2	747.9	709.7	673.3	669.5
47.5°	4555.8	4171.9	2296.9	886.5	720.3	783.6	746.4	702.9	654.8	636.6	634.4
50°	5429.9	4791.0	2320.4	785.1	664.2	742.6	704.4	653.3	613.1	609.3	607.0
52.5°	6425.5	5535.9	2328.2	702.1	617.7	689.2	670.3	620.7	588.6	591.9	591.9
55°	7467.3	6305.1	2224.5	641.9	574.9	634.4	647.3	607.8	581.0	593.4	597.9
57.5°	8423.6	6986.7	1898.5	595.7	534.7	592.6	638.9	619.9	601.7	651.0	654.1
60°	9157.9	7389.4	1417.9	553.7	504.9	577.9	661.2	666.5	671.0	788.9	805.1
62.5°	9311.7	7255.6	974.8	521.0	491.2	590.3	701.4	702.1	696.8	779.0	788.9
65°	8605.7	6407.8	709.0	502.6	479.8	612.3	735.8	719.6	684.7	747.2	728.7
67.5°	6834.2	4827.7	590.3	488.9	463.1	610.8	772.2	735.8	677.9	732.0	702.1
70°	4436.2	2919.1	525.6	477.5	443.1	581.7	793.4	734.3	657.9	680.9	645.7
72.5°	2164.3	1305.4	482.1	460.8	422.6	541.5	792.7	720.3	637.4	635.9	616.9
75°	846.8	597.9	442.4	435.5	387.7	495.7	771.4	700.6	613.1	588.6	581.7
77.5°	495.7	426.4	392.3	398.4	345.8	450.0	740.3	666.5	579.5	550.6	543.0
80°	360.9	319.2	334.4	344.2	295.4	404.4	698.3	624.5	542.3	556.7	546.1
82.5°	231.4	205.6	271.1	281.0	246.1	357.9	652.6	580.2	489.7	444.7	434.0
85°	118.1	130.3	201.8	214.0	189.7	293.9	597.2	521.8	430.2	370.0	376.1
87.5°	66.3	89.0	128.7	143.9	134.1	226.1	484.4	430.2	351.1	285.6	251.4
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)