

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: P302901

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302901
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-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15141.7 lumens
Efficiency: N/A
Efficacy: 117.4 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

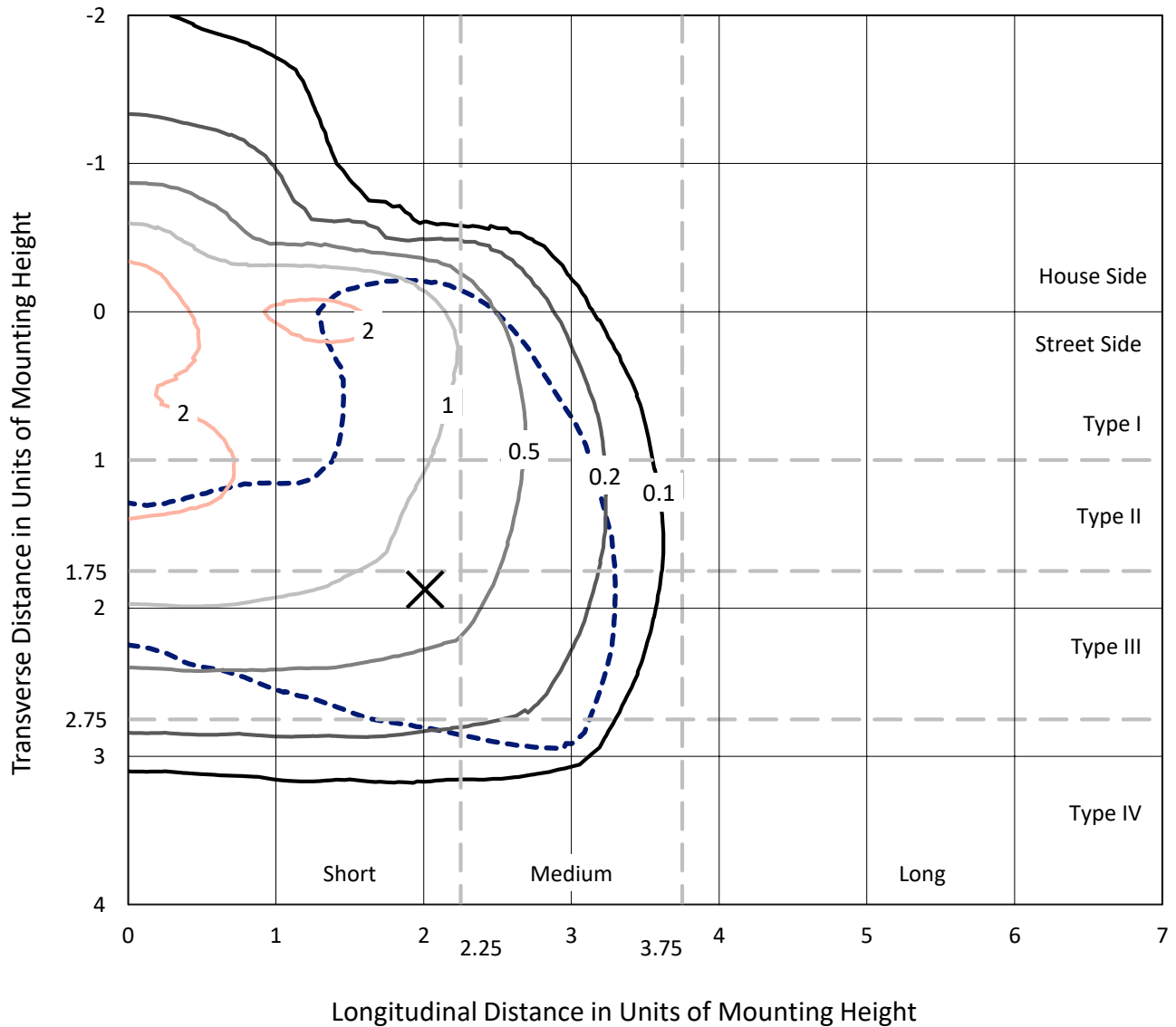
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

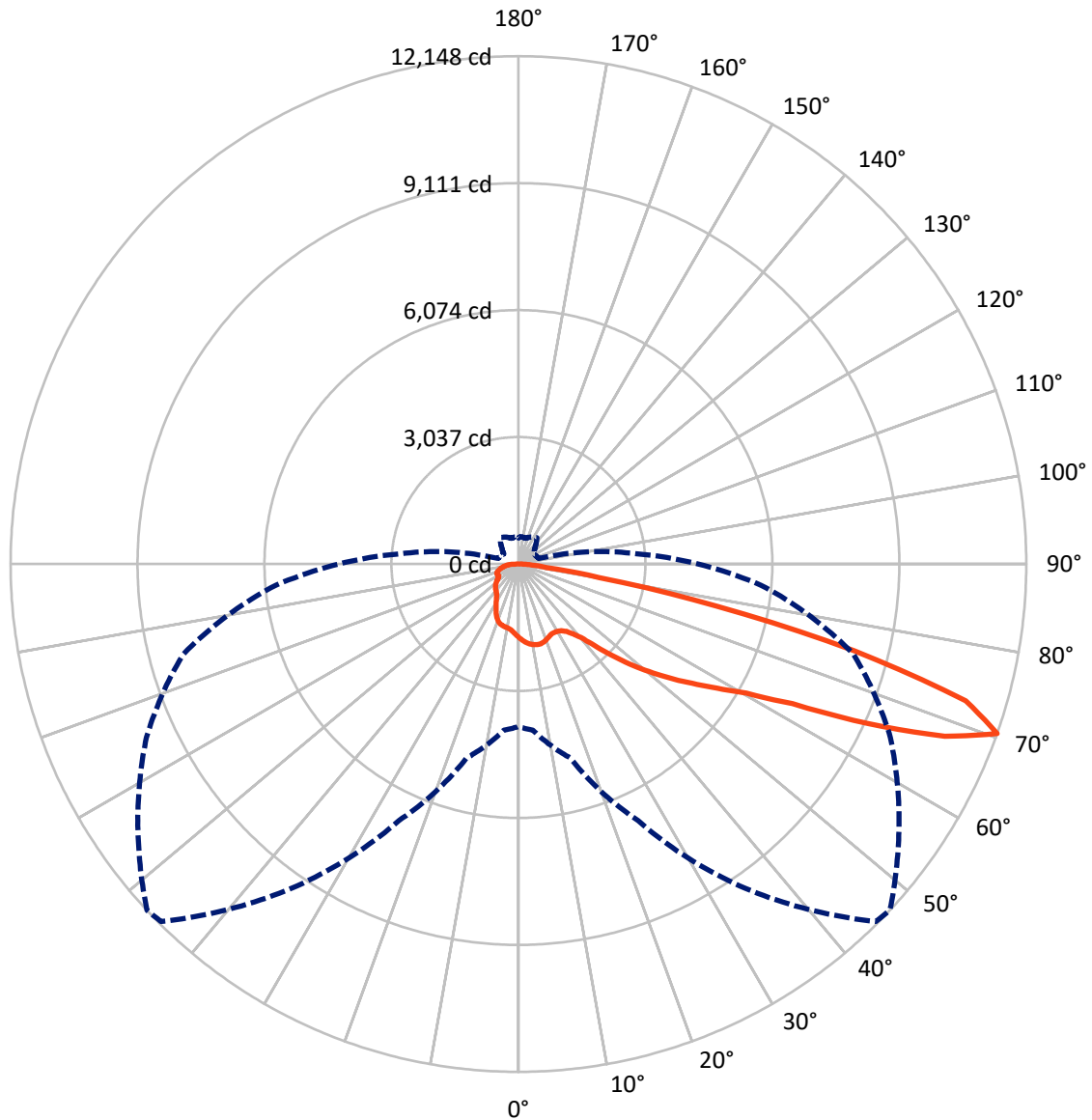
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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	3158.9	0.0	3158.9
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	11982.8	0.0	11982.8
	% Fixture	79.1	0.0	79.1
Total	Lumens	15141.7	0.0	15141.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.3	1.1
10°-20°	493.9	3.3
20°-30°	729.3	4.8
30°-40°	1060.1	7.0
40°-50°	1907.7	12.6
50°-60°	3304.9	21.8
60°-70°	4717.1	31.2
70°-80°	2421.5	16.0
80°-90°	339.0	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°	15141.7	100.0
0°-180°	15141.7	100.0

Coefficient of Utilization



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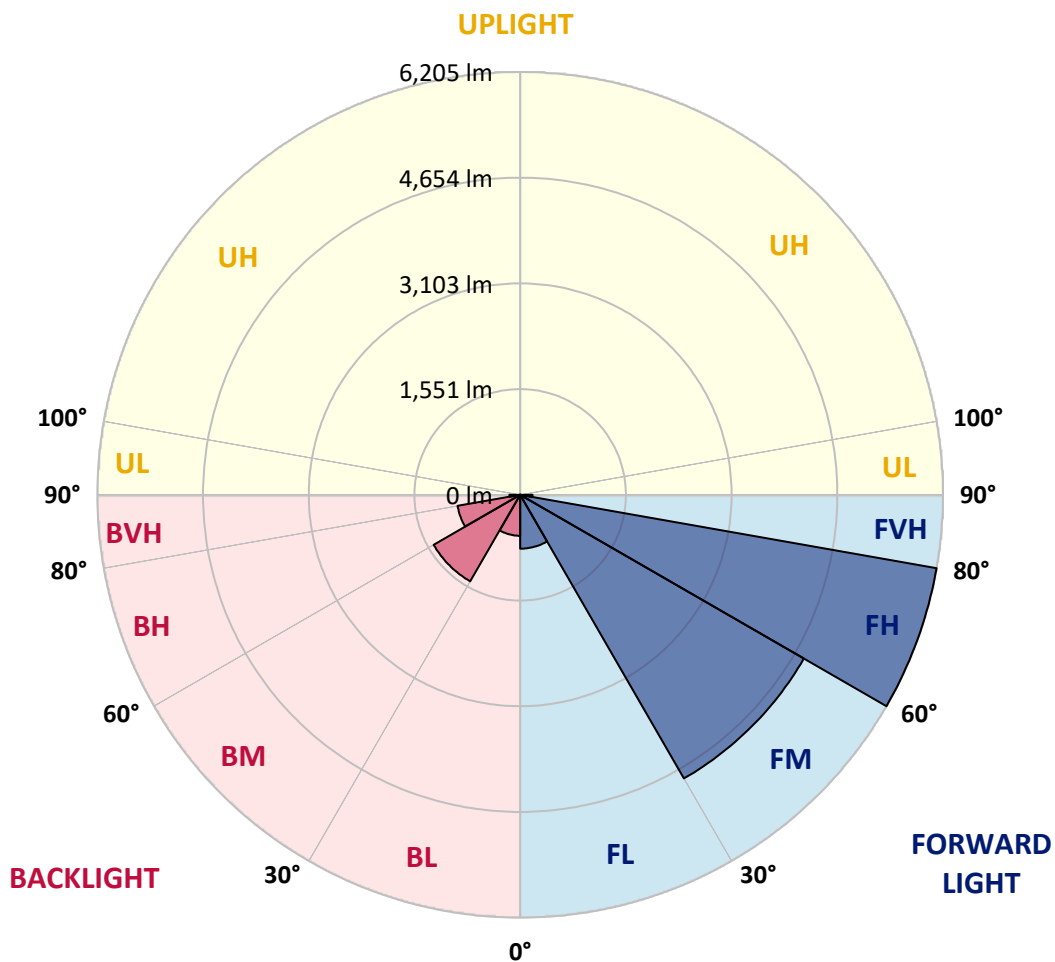
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	790.1	5.2			
FM (30°-60°)	4806.4	31.7			
FH (60°-80°)	6205.5	41.0			G3/7500
FVH (80°-90°)	180.9	1.2			G2/225
BL (0°-30°)	601.5	4.0	B2/1000		
BM (30°-60°)	1466.3	9.7	B2/2500		
BH (60°-80°)	933.0	6.2	B2/1000		G2/1000
BVH (80°-90°)	158.1	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°	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9
2.5°	1860.1	1856.4	1855.0	1852.0	1848.4	1829.8	1826.1	1812.9	1794.5	1775.2	1755.4
5°	1982.4	1981.7	1973.4	1958.7	1935.2	1894.6	1885.1	1852.8	1809.2	1767.1	1725.3
7.5°	2089.8	2083.2	2067.8	2038.2	1997.1	1941.8	1928.6	1883.6	1823.9	1766.4	1709.7
10°	2168.6	2165.0	2131.2	2090.6	2036.8	1975.6	1960.2	1910.0	1844.5	1771.5	1700.8
12.5°	2213.6	2206.3	2167.2	2118.7	2054.6	1994.9	1979.3	1928.6	1855.0	1771.5	1688.4
15°	2210.7	2205.6	2166.4	2113.3	2048.7	1996.4	1982.4	1931.6	1852.8	1764.2	1672.2
17.5°	2151.7	2153.9	2120.9	2068.6	2015.5	1975.6	1963.1	1916.1	1837.9	1749.5	1653.1
20°	2048.7	2059.0	2036.8	1990.5	1960.9	1933.8	1925.7	1885.8	1815.1	1728.2	1632.3
22.5°	1945.5	1955.0	1946.2	1907.1	1902.7	1886.5	1882.1	1853.5	1795.3	1715.0	1619.9
25°	1869.7	1878.5	1877.0	1843.0	1856.4	1855.7	1852.0	1837.9	1790.9	1715.0	1622.1
27.5°	1849.1	1852.0	1849.1	1818.0	1836.4	1851.3	1848.4	1845.9	1804.1	1736.3	1650.2
30°	1919.8	1915.4	1892.4	1829.8	1846.9	1867.5	1864.5	1866.0	1843.7	1792.3	1712.8
32.5°	2201.9	2181.8	2109.7	1933.8	1888.7	1899.7	1901.2	1925.7	1929.4	1878.5	1810.0
35°	2623.9	2601.9	2508.2	2212.2	2019.1	1981.0	1981.0	2017.7	2039.7	2002.3	1960.9
37.5°	3071.2	3046.7	2996.8	2598.2	2293.2	2121.7	2118.0	2143.7	2175.2	2184.3	2194.6
40°	3579.3	3553.6	3567.6	3031.3	2675.6	2365.3	2313.0	2294.6	2380.0	2436.8	2519.5
42.5°	4135.7	4123.7	4128.8	3513.7	3110.8	2730.1	2655.7	2560.6	2663.8	2764.6	2937.8
45°	4650.4	4660.7	4655.5	4030.2	3595.7	3174.9	3096.1	2911.9	3012.9	3185.9	3468.2
47.5°	5101.3	5058.5	5124.8	4594.4	4138.6	3673.0	3575.6	3329.0	3431.3	3644.9	4122.2
50°	5648.6	5642.7	5545.6	5347.4	4794.8	4173.1	4045.6	3759.9	3918.9	4215.9	4946.7
52.5°	6224.0	6117.1	6028.1	5932.9	5491.0	4685.9	4529.5	4189.2	4492.1	4865.5	5951.5
55°	6341.7	6294.0	6404.3	6564.3	6162.1	5218.5	5036.5	4727.7	5137.5	5608.2	7110.2
57.5°	6593.7	6593.0	6821.5	7106.5	6853.0	5783.4	5599.9	5378.3	5862.9	6458.9	8340.3
60°	6764.0	6811.7	7236.2	7789.3	7531.5	6436.1	6267.3	6128.9	6688.1	7409.9	9486.5
62.5°	6853.0	6917.9	7497.0	8066.3	8490.5	7522.7	7354.1	7154.5	7779.8	8453.1	10156.9
65°	6482.6	6609.9	7456.4	8305.8	9330.4	9283.9	9208.1	8857.5	9144.7	9277.3	9914.7
67.5°	5457.0	5587.4	6573.2	8082.4	9930.1	10982.8	10999.0	10400.1	9984.6	9348.0	8335.9
70°	3888.1	3990.3	4806.0	6776.5	9473.3	12092.8	12148.1	11110.8	9817.3	8290.1	5824.0
72.5°	1845.9	1908.6	2680.7	4410.4	7517.5	11080.0	11186.9	10203.4	8347.6	6137.7	3177.1
75°	678.4	697.5	906.0	1876.3	4360.2	8171.0	8297.0	7314.2	5533.6	3055.7	1210.3
77.5°	406.6	419.1	508.4	791.9	1715.0	4670.5	4856.7	3977.9	2418.4	1137.4	595.2
80°	284.3	293.1	364.5	492.7	810.3	1779.9	1945.5	1623.5	963.5	719.8	433.0
82.5°	192.3	196.7	256.4	333.0	538.5	635.6	685.8	722.0	649.8	535.6	274.7
85°	126.0	130.4	173.9	219.5	342.5	328.6	335.9	425.0	474.4	363.8	152.4
87.5°	72.2	75.1	104.7	117.2	168.1	139.2	140.7	223.9	303.6	245.4	92.7
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°	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9	1756.9
2.5°	1750.3	1740.7	1719.4	1706.0	1693.5	1690.6	1685.4	1684.7	1684.0	1684.0	1681.8
5°	1711.1	1695.0	1661.9	1643.3	1627.9	1626.5	1625.7	1629.4	1630.9	1632.3	1630.1
7.5°	1686.2	1664.1	1622.8	1596.4	1578.0	1573.4	1581.0	1597.8	1608.9	1613.3	1611.1
10°	1670.8	1643.3	1595.6	1566.8	1551.4	1549.2	1558.7	1578.8	1601.5	1610.3	1609.6
12.5°	1653.1	1622.1	1571.2	1541.1	1532.3	1536.7	1549.2	1567.5	1591.2	1605.2	1605.9
15°	1635.3	1599.3	1547.0	1520.5	1516.9	1522.7	1534.5	1548.4	1566.8	1581.0	1582.4
17.5°	1614.0	1576.3	1524.2	1496.8	1493.9	1496.8	1497.5	1504.9	1516.9	1530.1	1533.7
20°	1591.2	1552.8	1498.3	1471.1	1457.9	1446.2	1432.7	1434.2	1437.8	1451.3	1454.2
22.5°	1574.8	1536.7	1478.5	1440.8	1405.5	1370.1	1343.6	1340.0	1341.4	1352.5	1356.1
25°	1576.3	1535.9	1473.3	1408.5	1331.2	1274.4	1238.9	1233.1	1232.3	1240.4	1245.8
27.5°	1605.2	1564.6	1492.4	1375.2	1250.2	1166.0	1128.6	1124.2	1118.3	1120.5	1126.4
30°	1669.3	1631.6	1538.9	1341.4	1162.4	1060.1	1020.9	1016.5	1008.5	1004.8	1009.2
32.5°	1773.8	1742.9	1606.7	1308.9	1074.8	969.3	929.7	920.1	915.0	910.6	914.3
35°	1947.7	1934.5	1697.2	1273.7	997.5	899.4	863.4	848.7	841.4	849.4	855.3
37.5°	2220.2	2227.6	1815.8	1218.4	937.8	853.1	822.8	805.9	794.9	801.5	808.1
40°	2606.3	2611.5	1947.0	1140.3	886.1	825.7	793.4	778.0	762.3	750.6	749.9
42.5°	3113.0	3060.9	2075.9	1055.7	826.4	808.8	772.9	753.5	730.1	697.5	690.9
45°	3714.1	3530.9	2173.8	958.3	759.4	788.3	749.9	723.4	686.5	651.3	647.6
47.5°	4406.7	4035.3	2221.7	857.5	696.8	757.9	722.0	679.9	633.4	615.8	613.6
50°	5252.3	4634.3	2244.5	759.4	642.5	718.3	681.4	631.9	593.0	589.4	587.2
52.5°	6215.2	5354.8	2252.1	679.2	597.4	666.7	648.3	600.4	569.3	572.5	572.5
55°	7223.0	6098.8	2151.7	620.9	556.1	613.6	626.1	587.9	562.0	574.0	578.4
57.5°	8148.0	6758.1	1836.4	576.2	517.2	573.2	618.0	599.7	582.0	629.7	632.7
60°	8858.2	7147.6	1371.5	535.6	488.3	559.0	639.5	644.7	649.1	763.1	778.7
62.5°	9007.0	7018.2	942.9	504.0	475.1	571.0	678.4	679.2	674.0	753.5	763.1
65°	8324.2	6198.1	685.8	486.1	464.1	592.3	711.7	696.0	662.3	722.7	704.9
67.5°	6610.6	4669.7	571.0	472.9	448.0	590.8	746.9	711.7	655.7	708.0	679.2
70°	4291.0	2823.6	508.4	461.9	428.6	562.7	767.5	710.2	636.3	658.6	624.6
72.5°	2093.5	1262.7	466.3	445.8	408.8	523.8	766.7	696.8	616.5	615.1	596.7
75°	819.1	578.4	427.9	421.3	375.1	479.5	746.2	677.7	593.0	569.3	562.7
77.5°	479.5	412.5	379.5	385.3	334.4	435.2	716.1	644.7	560.5	532.6	525.3
80°	349.1	308.8	323.4	333.0	285.8	391.2	675.5	604.1	524.5	538.5	528.2
82.5°	223.9	198.9	262.3	271.8	238.0	346.2	631.2	561.2	473.7	430.1	419.8
85°	114.3	126.0	195.2	207.0	183.5	284.3	577.6	504.7	416.2	357.9	363.8
87.5°	64.1	86.1	124.5	139.2	129.7	218.7	468.5	416.2	339.6	276.2	243.2
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)