

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: P299719

Luminaire Tested: **GLNA-AF-05-LED-E1-5MQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-5MQ-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17827 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 162
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

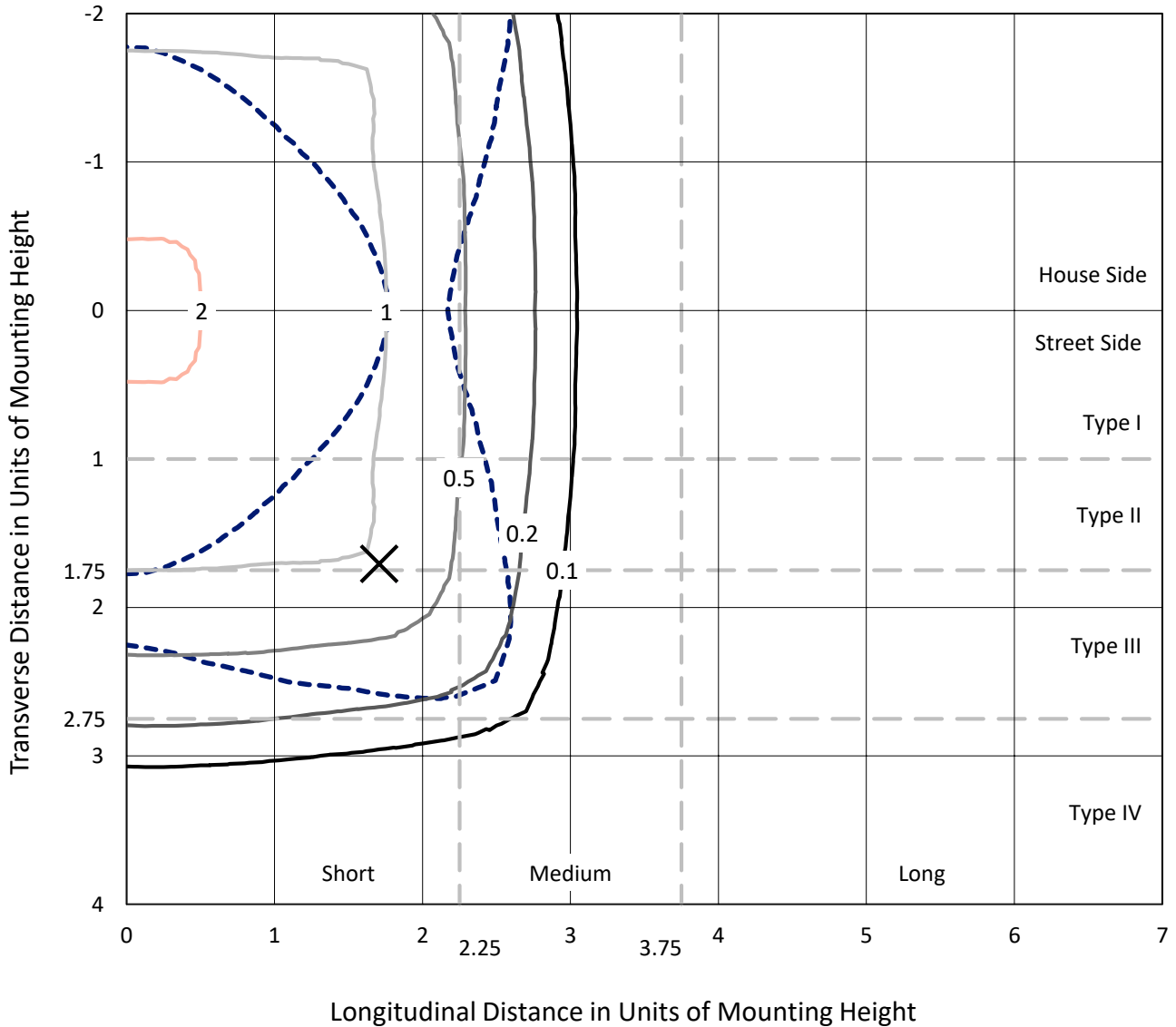


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

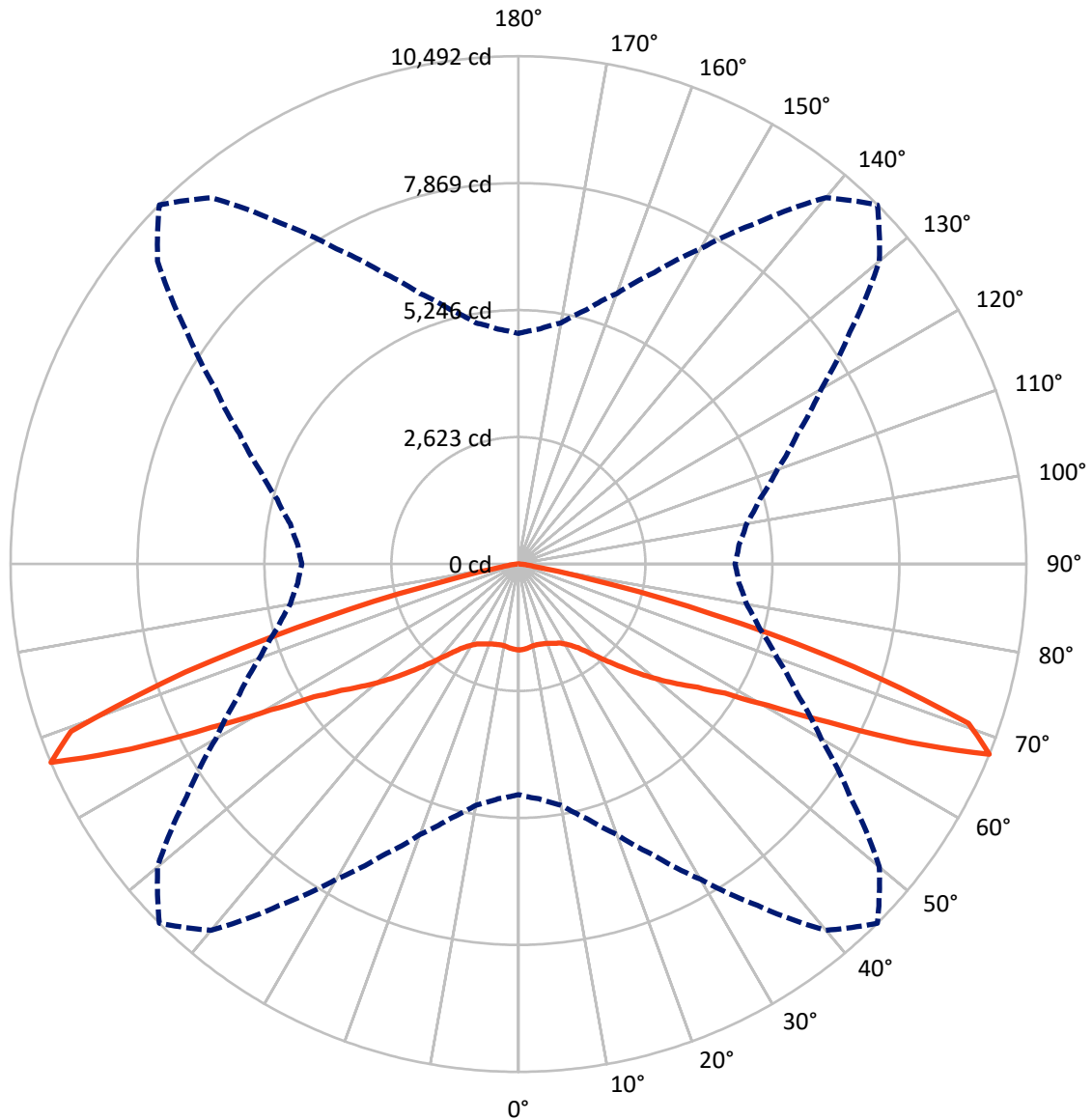


Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8913.5	0.0	8913.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8913.5	0.0	8913.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	17827.0	0.0	17827.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.3	0.9
10°-20°	482.5	2.7
20°-30°	820.2	4.6
30°-40°	1340.8	7.5
40°-50°	2393.6	13.4
50°-60°	4035.7	22.6
60°-70°	6262.9	35.1
70°-80°	2200.5	12.3
80°-90°	124.4	0.7
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°	17827.0	100.0
0°-180°	17827.0	100.0



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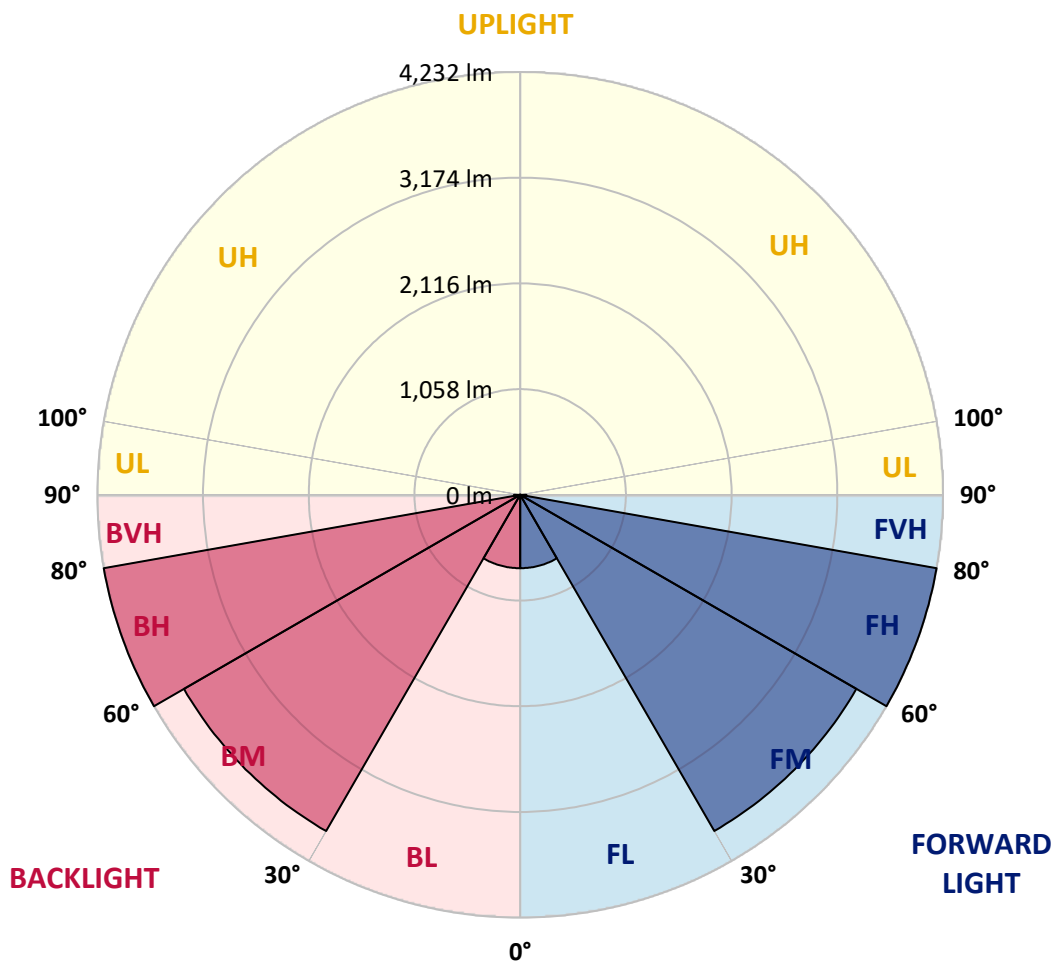
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	734.5	4.1			
FM	(30°-60°)	3885.1	21.8			
FH	(60°-80°)	4231.7	23.7			G2/5000
FVH	(80°-90°)	62.2	0.3			G1/100
BL	(0°-30°)	734.5	4.1	B2/1000		
BM	(30°-60°)	3885.1	21.8	B3/5000		
BH	(60°-80°)	4231.7	23.7	B4/5000		G2/5000
BVH	(80°-90°)	62.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5
2.5°	1770.0	1771.6	1771.6	1771.6	1770.8	1770.8	1769.2	1770.8	1770.0	1767.5	1768.3
5°	1755.2	1756.9	1756.9	1756.0	1758.5	1757.7	1755.2	1756.9	1756.0	1754.4	1755.2
7.5°	1733.9	1736.4	1736.4	1735.5	1738.0	1737.2	1735.5	1736.4	1736.4	1733.9	1733.9
10°	1710.1	1711.8	1711.8	1710.9	1715.0	1715.0	1714.2	1716.7	1717.5	1715.0	1713.4
12.5°	1688.0	1690.5	1690.5	1693.7	1697.8	1699.5	1703.6	1706.8	1710.1	1709.3	1706.0
15°	1674.9	1676.5	1679.8	1683.9	1690.5	1696.2	1702.8	1710.1	1716.7	1718.3	1713.4
17.5°	1666.7	1669.1	1674.1	1679.8	1688.8	1698.7	1708.5	1718.3	1727.3	1730.6	1724.9
20°	1664.2	1665.9	1670.8	1680.6	1692.9	1707.7	1721.6	1733.1	1745.4	1749.5	1745.4
22.5°	1669.1	1672.4	1678.2	1689.6	1706.0	1724.9	1741.3	1756.9	1772.4	1779.8	1774.1
25°	1691.3	1694.6	1701.9	1716.7	1734.7	1754.4	1773.3	1791.3	1805.2	1812.6	1808.5
27.5°	1732.3	1736.4	1745.4	1760.1	1779.8	1801.1	1821.6	1836.4	1847.9	1850.3	1845.4
30°	1793.8	1802.8	1813.4	1829.8	1852.8	1870.8	1891.3	1904.4	1918.4	1918.4	1914.3
32.5°	1889.7	1898.7	1910.2	1925.7	1943.8	1963.5	1981.5	1993.0	2007.7	2008.5	1998.7
35°	2033.1	2037.2	2047.1	2056.9	2073.3	2090.5	2106.1	2113.5	2125.8	2126.6	2117.6
37.5°	2222.5	2223.3	2229.9	2233.2	2247.9	2266.8	2281.5	2286.5	2297.9	2296.3	2287.3
40°	2443.0	2447.1	2449.6	2454.5	2470.1	2488.1	2503.7	2506.2	2518.5	2516.0	2504.5
42.5°	2698.0	2699.6	2713.6	2721.0	2735.7	2744.7	2764.4	2766.9	2781.6	2775.1	2761.9
45°	2984.1	2998.9	3012.0	3026.7	3042.3	3053.0	3068.6	3065.3	3075.1	3065.3	3057.9
47.5°	3285.0	3295.6	3325.2	3348.1	3373.5	3382.5	3404.7	3394.8	3404.7	3390.7	3388.3
50°	3616.2	3635.0	3660.5	3686.7	3713.8	3728.5	3757.2	3744.9	3758.0	3744.9	3737.5
52.5°	3942.5	3947.4	4003.1	4041.7	4079.4	4096.6	4113.8	4108.1	4108.9	4108.1	4100.7
55°	4252.4	4263.8	4319.6	4372.1	4437.6	4486.0	4515.5	4512.2	4504.9	4497.5	4485.2
57.5°	4601.6	4613.1	4677.0	4741.8	4816.4	4885.3	4945.1	5006.6	5030.4	5036.9	5009.9
60°	5073.8	5073.0	5158.3	5237.0	5343.5	5446.0	5577.2	5710.8	5864.1	5935.4	5841.2
62.5°	5554.2	5573.9	5696.9	5836.2	6056.0	6269.9	6511.8	6749.5	6992.2	7189.8	6979.9
65°	5496.8	5572.3	5755.1	6070.7	6476.5	6958.6	7480.0	8031.7	8530.2	8872.8	8488.3
67.5°	4763.9	4871.3	5057.4	5441.1	5948.6	6643.8	7519.3	8610.5	9878.7	10492.0	9732.0
70°	3453.1	3574.4	3769.5	4144.2	4646.7	5307.5	6258.4	7568.5	9247.5	9865.6	9028.6
72.5°	1718.3	1783.9	1904.4	2143.0	2523.4	3059.5	3922.0	5181.2	6666.7	7234.0	6469.1
75°	583.7	614.0	634.5	712.4	832.9	1043.6	1472.4	2265.1	3455.5	4142.5	3406.3
77.5°	336.9	337.8	351.7	365.6	386.1	409.1	466.5	612.4	1059.2	1504.4	1096.1
80°	218.1	217.3	228.7	239.4	253.3	264.8	268.1	283.7	327.1	387.8	346.8
82.5°	113.1	127.1	152.5	166.4	192.7	197.6	191.0	185.3	195.9	203.3	208.2
85°	62.3	54.1	81.2	104.9	116.4	118.1	118.1	111.5	115.6	113.1	123.0
87.5°	28.7	26.2	32.0	51.6	54.9	46.7	49.2	43.5	31.2	30.3	34.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5	1776.5
2.5°	1768.3	1769.2	1769.2	1771.6	1772.4	1774.1	1775.7	1776.5
5°	1754.4	1756.9	1755.2	1757.7	1757.7	1759.3	1759.3	1760.1
7.5°	1733.9	1736.4	1736.4	1736.4	1735.5	1738.0	1738.0	1738.0
10°	1712.6	1714.2	1713.4	1711.8	1710.1	1712.6	1711.8	1710.9
12.5°	1706.0	1701.9	1698.7	1697.0	1693.7	1694.6	1692.1	1692.1
15°	1710.1	1702.8	1697.0	1694.6	1691.3	1689.6	1688.0	1688.8
17.5°	1720.8	1711.8	1704.4	1700.3	1696.2	1693.7	1690.5	1691.3
20°	1739.6	1729.0	1718.3	1710.1	1702.8	1698.7	1696.2	1695.4
22.5°	1767.5	1751.9	1736.4	1724.1	1714.2	1708.5	1706.0	1704.4
25°	1799.5	1782.3	1764.2	1750.3	1740.5	1733.1	1728.2	1728.2
27.5°	1839.7	1825.7	1809.3	1792.9	1783.9	1776.5	1773.3	1771.6
30°	1906.9	1893.8	1880.7	1865.1	1853.6	1846.2	1840.5	1835.6
32.5°	1993.0	1982.3	1971.6	1960.2	1949.5	1939.7	1930.7	1926.6
35°	2114.3	2106.1	2098.7	2085.6	2081.5	2075.8	2070.8	2066.7
37.5°	2281.5	2278.3	2278.3	2264.3	2261.0	2258.6	2253.7	2254.5
40°	2501.2	2504.5	2500.4	2495.5	2493.1	2486.5	2486.5	2492.2
42.5°	2761.1	2763.6	2772.6	2764.4	2773.4	2765.2	2760.3	2764.4
45°	3062.8	3071.8	3089.9	3081.7	3087.4	3073.5	3056.3	3057.1
47.5°	3401.4	3409.6	3417.0	3411.2	3412.1	3389.1	3366.2	3360.4
50°	3753.1	3756.4	3760.5	3752.3	3753.9	3728.5	3702.3	3703.1
52.5°	4100.7	4116.3	4132.7	4110.5	4105.6	4076.9	4040.0	4025.3
55°	4498.3	4520.4	4501.6	4463.1	4424.5	4386.0	4337.6	4329.4
57.5°	4988.6	4950.8	4891.8	4818.9	4765.6	4711.5	4662.3	4641.8
60°	5670.6	5528.8	5422.2	5314.0	5246.0	5179.6	5114.8	5105.0
62.5°	6634.7	6389.6	6177.3	5953.5	5770.7	5628.0	5514.1	5482.1
65°	7843.1	7263.5	6761.0	6292.1	5884.6	5577.2	5383.7	5298.4
67.5°	8362.9	7218.5	6356.8	5691.1	5158.3	4786.1	4577.0	4472.9
70°	7348.8	5986.3	5049.2	4382.7	3897.4	3500.6	3311.2	3199.7
72.5°	5055.8	3808.0	3011.2	2457.8	2070.0	1738.0	1606.8	1597.0
75°	2270.1	1503.5	1036.2	798.5	672.2	584.5	557.5	537.0
77.5°	635.4	469.8	418.9	391.9	365.6	335.3	323.8	326.3
80°	309.1	291.9	280.4	263.2	239.4	214.0	202.5	207.4
82.5°	205.0	202.5	209.9	197.6	163.1	138.5	116.4	106.6
85°	124.6	126.3	128.7	129.5	109.9	77.1	52.5	59.0
87.5°	49.2	56.6	61.5	63.9	59.8	36.9	29.5	30.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)