

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: P299945

Luminaire Tested: **GLNA-AF-02-LED-E1-SL3-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299945
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-SL3-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7995.6 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

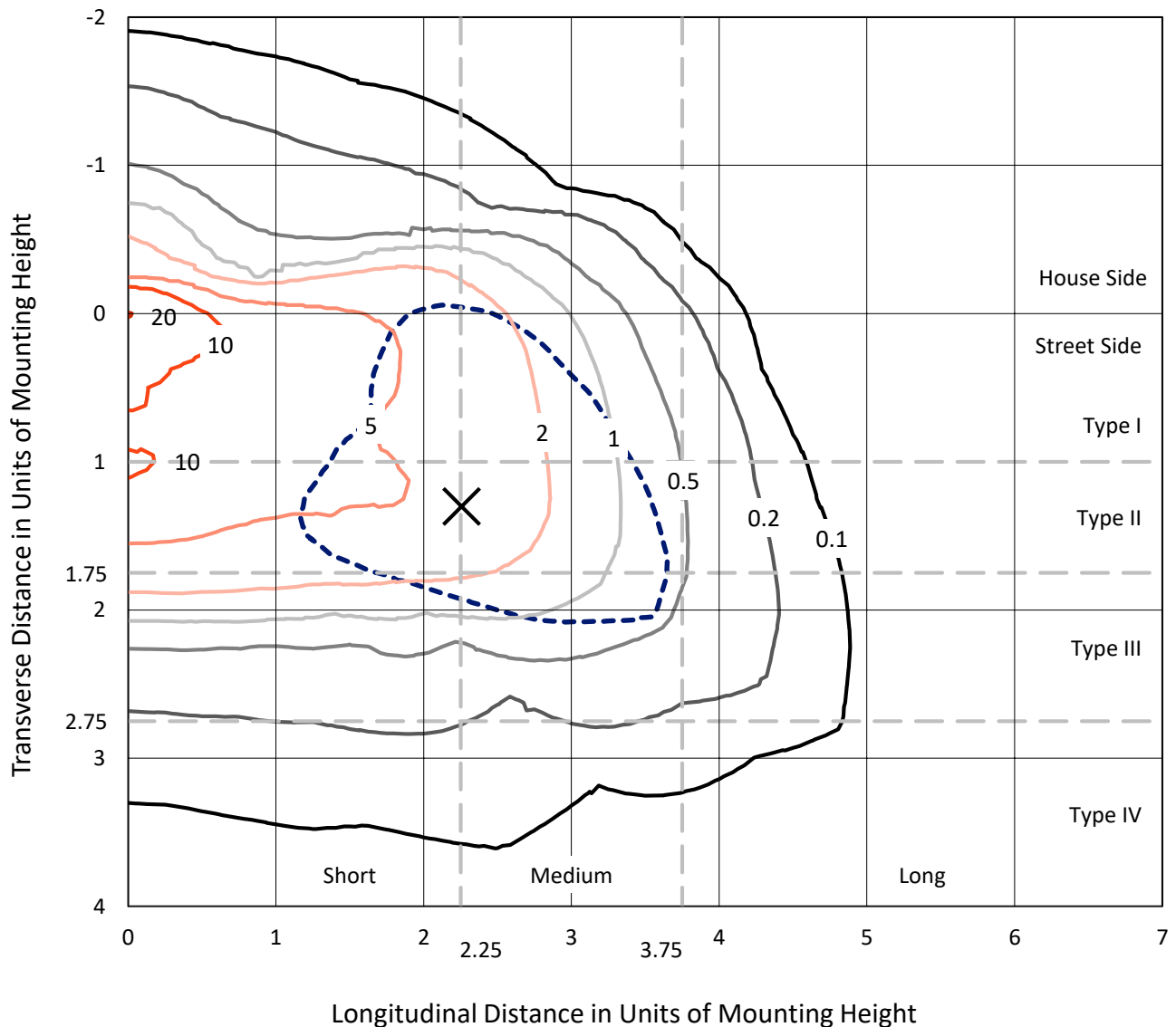
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

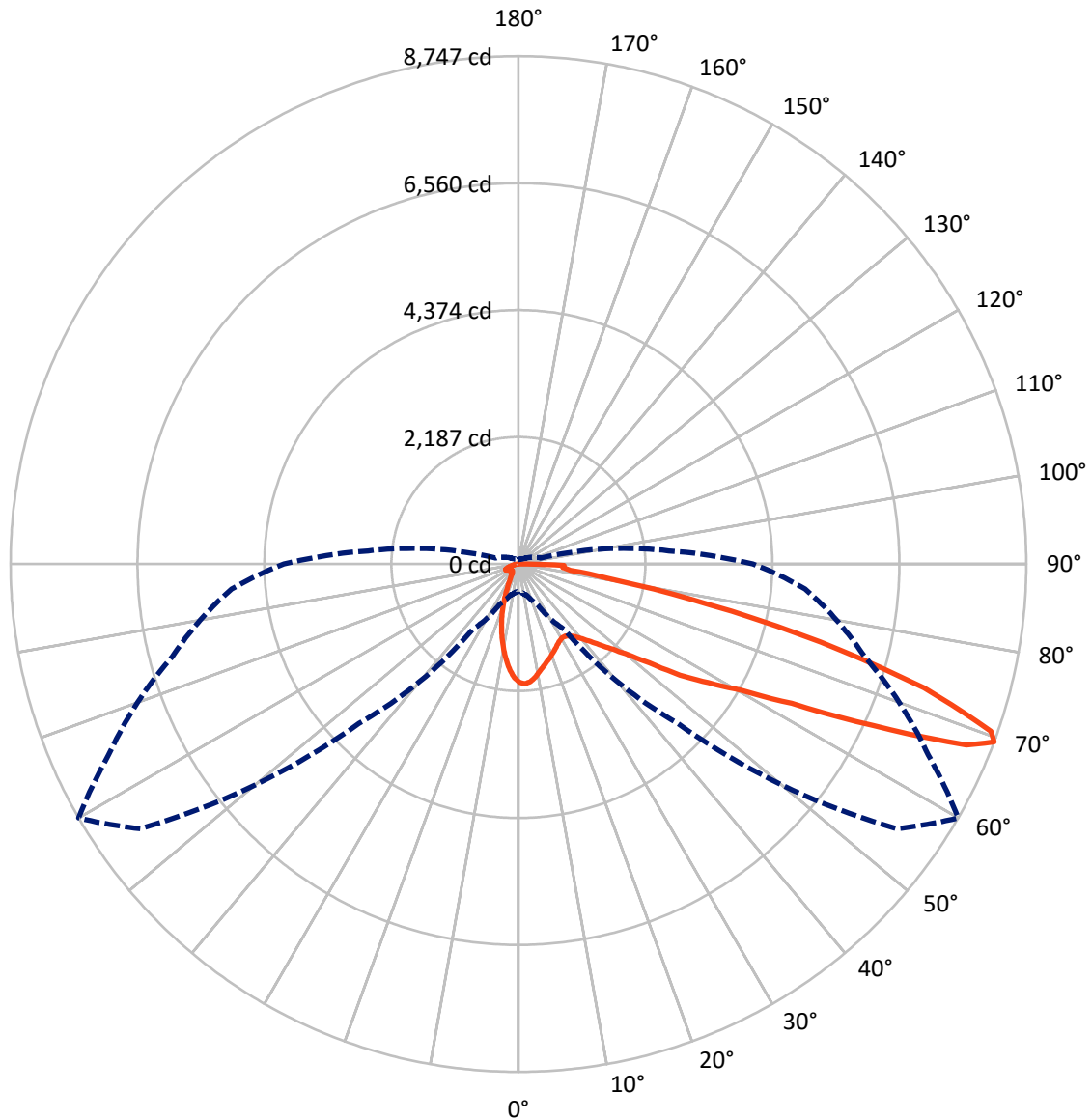
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.4 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1137.5	0.0	1137.5
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	6858.1	0.0	6858.1
	% Fixture	85.8	0.0	85.8
Total	Lumens	7995.6	0.0	7995.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.3	2.2
10°-20°	367.0	4.6
20°-30°	467.7	5.8
30°-40°	642.9	8.0
40°-50°	1043.2	13.0
50°-60°	1673.0	20.9
60°-70°	2226.7	27.8
70°-80°	1202.2	15.0
80°-90°	200.6	2.5
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°	7995.6	100.0
0°-180°	7995.6	100.0

Coefficient of Utilization



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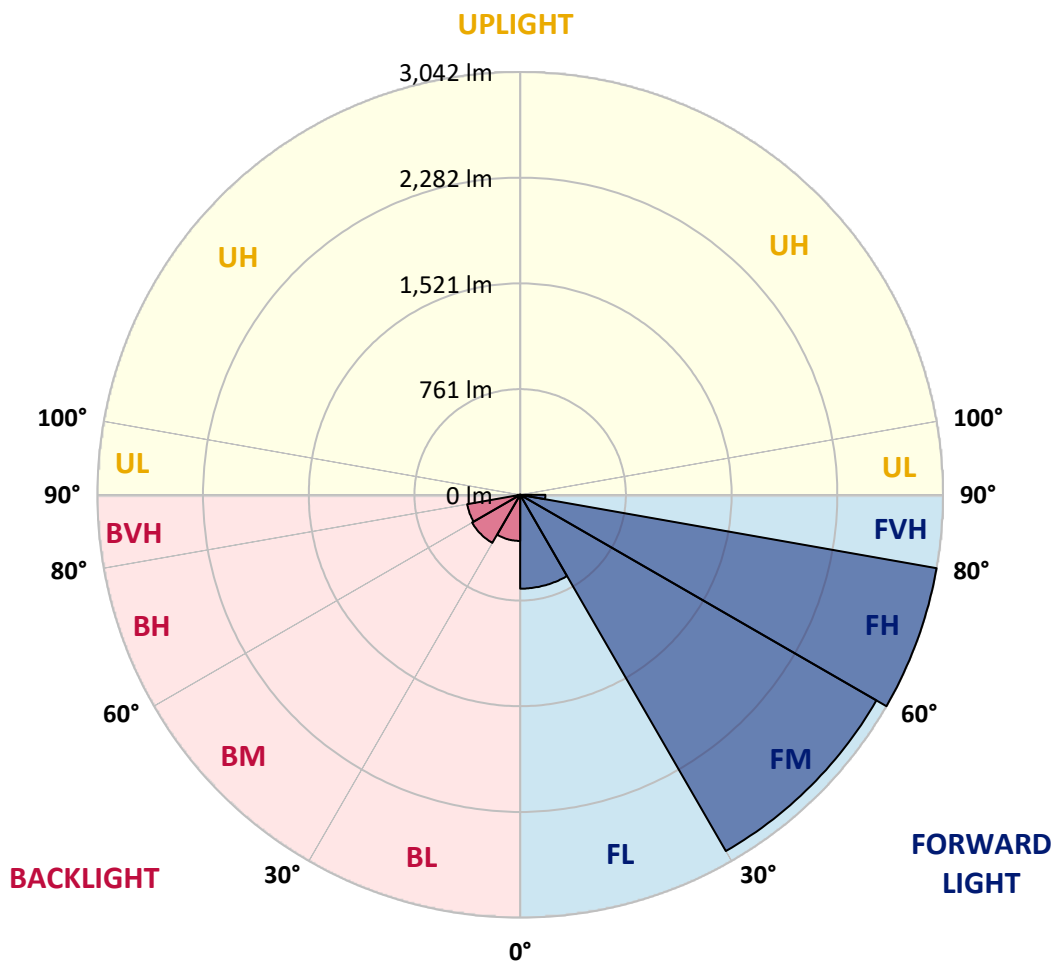
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	675.1	8.4			
FM (30°-60°)	2959.5	37.0			
FH (60°-80°)	3042.2	38.0			G2/5000
FVH (80°-90°)	181.3	2.3			G2/225
BL (0°-30°)	331.9	4.2	B1/500		
BM (30°-60°)	399.6	5.0	B1/1000		
BH (60°-80°)	386.7	4.8	B1/500		G1/500
BVH (80°-90°)	19.3	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4
2.5°	2079.1	2083.7	2081.8	2080.7	2084.1	2078.7	2067.5	2064.0	2058.6	2045.9	2024.3
5°	2001.1	2015.0	2014.2	2024.6	2042.0	2046.7	2041.6	2042.4	2032.4	2016.5	1980.6
7.5°	1866.3	1872.1	1875.2	1898.0	1929.6	1955.1	1976.8	1983.7	1979.1	1965.6	1919.2
10°	1727.2	1731.9	1739.2	1765.9	1806.0	1841.2	1882.1	1905.7	1915.7	1913.4	1861.7
12.5°	1607.9	1612.5	1622.2	1652.3	1700.2	1743.5	1803.0	1832.3	1856.3	1870.5	1814.9
15°	1500.9	1511.0	1520.2	1555.0	1608.7	1665.4	1732.7	1769.7	1806.8	1838.9	1773.6
17.5°	1417.5	1427.5	1432.9	1464.6	1521.8	1591.3	1670.1	1713.7	1760.1	1812.6	1732.7
20°	1369.2	1373.8	1371.5	1389.3	1440.7	1514.4	1607.9	1658.5	1714.5	1787.9	1691.7
22.5°	1355.7	1356.1	1347.6	1345.6	1378.9	1441.0	1541.5	1602.9	1671.6	1771.7	1656.6
25°	1388.5	1387.4	1364.2	1345.3	1348.7	1385.0	1477.4	1548.8	1635.7	1768.2	1629.5
27.5°	1461.5	1465.0	1430.6	1395.1	1359.9	1358.8	1428.7	1504.0	1606.4	1784.0	1617.9
30°	1563.9	1569.7	1533.0	1487.8	1421.7	1367.3	1409.8	1477.4	1588.2	1816.9	1616.0
32.5°	1675.9	1682.1	1654.2	1606.7	1520.2	1419.8	1422.9	1479.7	1587.4	1862.8	1629.1
35°	1795.2	1802.2	1787.9	1747.7	1651.5	1516.7	1473.1	1517.1	1612.5	1933.1	1664.3
37.5°	1928.5	1939.3	1943.2	1904.9	1802.2	1644.6	1555.4	1588.2	1669.3	2030.8	1728.8
40°	2120.4	2135.5	2134.3	2079.5	1974.8	1817.2	1682.4	1690.9	1757.8	2161.4	1831.9
42.5°	2488.1	2491.2	2395.0	2275.7	2164.9	1998.8	1832.3	1825.4	1879.8	2326.7	1983.7
45°	2955.9	2943.1	2729.1	2498.6	2363.4	2207.3	2027.4	1993.4	2034.7	2528.3	2173.7
47.5°	3344.0	3314.7	3044.3	2726.1	2573.5	2434.1	2256.4	2196.9	2219.7	2757.0	2419.4
50°	3478.8	3456.8	3232.8	2915.3	2772.4	2710.6	2538.3	2454.1	2460.3	3029.6	2707.1
52.5°	3449.9	3446.8	3297.3	3040.1	2958.6	3001.1	2937.7	2823.8	2763.5	3332.4	3017.7
55°	3381.5	3388.1	3334.0	3185.3	3171.4	3281.5	3459.5	3375.3	3188.0	3638.0	3338.6
57.5°	3144.0	3161.0	3279.9	3368.0	3514.0	3677.7	3879.7	3855.8	3644.9	3968.2	3720.2
60°	2532.9	2572.3	2891.4	3332.4	3866.6	4378.8	4469.1	4413.5	4116.1	4378.0	4224.3
62.5°	1774.8	1815.7	2195.0	2885.2	3808.7	5170.5	5522.8	5282.9	4792.8	4981.7	4876.6
65°	950.1	969.8	1259.5	2001.9	3215.4	5333.9	7062.7	6697.7	5864.2	5725.9	5434.7
67.5°	524.1	534.9	645.8	1010.8	2059.4	4697.0	8043.8	8319.5	7203.3	6221.5	5333.1
69°	473.9	484.0	556.6	765.5	1378.1	3883.6	7948.0	8747.1	7790.4	6172.4	4957.7
70°	463.5	472.8	538.0	705.7	1115.4	3201.1	7627.0	8637.8	7930.2	5996.7	4630.2
72.5°	417.1	427.2	490.5	633.8	953.2	1595.9	6041.5	7303.3	7199.8	5199.5	3512.0
75°	388.9	398.2	505.6	620.7	912.7	1010.0	3982.9	5382.6	5292.6	3637.2	1893.7
77.5°	166.5	165.7	234.4	525.3	926.2	977.9	2140.1	3362.6	3067.9	1554.6	543.8
80°	111.2	109.3	111.2	154.5	849.3	983.4	1121.2	1706.8	1289.3	396.3	268.0
82.5°	95.8	94.2	97.7	94.2	298.6	1122.4	953.2	907.7	613.0	225.2	132.9
85°	64.5	61.8	84.2	84.6	141.0	997.3	1073.7	766.7	495.9	133.6	65.7
87.5°	30.9	30.1	49.1	59.9	82.7	405.2	1204.7	785.6	500.2	68.4	31.3
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°	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4	2037.4
2.5°	2017.7	2001.9	1986.4	1967.9	1948.6	1926.9	1916.1	1905.3	1902.6	1899.5	1888.7
5°	1962.1	1939.7	1901.1	1858.6	1813.8	1770.1	1736.9	1716.0	1700.2	1692.1	1677.8
7.5°	1890.2	1857.4	1789.8	1716.4	1641.1	1572.4	1512.9	1475.4	1439.9	1423.3	1404.4
10°	1821.9	1772.8	1667.8	1559.6	1451.5	1347.6	1249.9	1180.7	1119.3	1084.9	1060.6
12.5°	1763.2	1696.0	1550.4	1404.0	1255.7	1107.7	961.3	846.2	750.1	699.5	673.6
15°	1706.0	1624.9	1438.7	1252.9	1062.5	861.3	669.0	538.4	458.8	427.2	416.4
17.5°	1654.2	1550.4	1326.7	1100.8	863.2	619.9	449.6	377.7	347.2	336.8	333.3
20°	1598.2	1475.0	1210.5	941.6	655.4	433.4	351.1	319.4	307.1	304.0	302.4
22.5°	1544.2	1400.9	1099.2	771.3	470.8	334.5	301.7	288.5	286.6	289.3	289.3
25°	1498.2	1334.4	979.1	593.3	345.7	281.6	270.0	266.9	274.2	284.3	286.2
27.5°	1463.8	1280.0	851.3	438.0	275.4	244.9	244.5	249.5	267.7	287.0	290.8
30°	1440.3	1228.2	714.5	315.9	231.0	215.5	221.7	232.5	259.2	286.6	293.9
32.5°	1428.3	1190.0	572.0	244.5	197.8	189.3	199.7	212.8	239.1	264.6	274.2
35°	1437.6	1161.8	437.6	203.9	174.6	168.0	178.8	191.6	207.0	217.8	225.2
37.5°	1472.3	1150.6	330.2	182.7	158.7	152.6	161.1	168.4	174.6	177.7	181.1
40°	1547.3	1162.6	264.6	171.9	149.9	142.1	145.6	148.3	152.2	155.3	156.8
42.5°	1657.7	1198.5	237.1	167.6	145.2	134.0	133.3	134.4	139.4	145.2	146.4
45°	1812.2	1261.8	235.2	170.3	142.9	127.5	124.0	125.5	133.3	142.1	143.7
47.5°	2009.6	1358.4	250.7	178.4	144.8	124.0	118.2	120.1	129.8	141.7	143.7
50°	2248.7	1493.2	276.5	190.4	153.3	124.8	116.3	117.4	127.5	140.6	142.5
52.5°	2531.0	1684.4	304.7	202.0	162.2	129.8	117.8	115.1	124.4	136.0	138.3
55°	2845.0	1929.6	333.7	212.4	166.9	136.0	120.9	112.0	118.6	128.2	130.2
57.5°	3230.5	2272.6	383.9	222.5	169.9	140.2	124.0	108.9	111.2	118.2	119.7
60°	3752.3	2757.7	472.4	239.1	176.9	141.7	123.6	106.2	103.9	107.8	108.5
62.5°	4377.6	3284.6	546.1	259.9	188.5	142.9	121.3	104.3	97.7	97.7	98.5
65°	4748.8	3425.5	505.2	277.3	198.1	141.7	118.6	102.4	93.1	88.8	89.2
67.5°	4434.0	3012.6	433.0	280.8	197.8	136.3	114.3	98.9	88.4	81.9	81.5
69°	4039.6	2599.4	400.5	271.5	188.5	129.4	108.9	95.0	85.0	78.0	77.6
70°	3721.8	2347.2	379.3	261.5	178.4	124.4	104.7	91.5	82.3	75.7	74.9
72.5°	2706.0	1538.0	324.1	224.8	147.2	104.3	90.4	80.3	73.4	69.5	68.8
75°	1352.2	733.5	263.0	182.3	112.8	83.4	74.2	67.2	63.7	63.0	62.6
77.5°	444.2	336.0	188.1	136.0	83.8	65.3	59.9	54.8	54.1	56.4	55.6
80°	244.1	195.4	119.3	90.0	57.2	47.9	47.1	44.4	45.6	49.4	48.7
82.5°	124.4	101.6	73.8	54.1	38.6	34.4	37.5	35.9	37.5	40.9	40.6
85°	61.4	55.6	46.7	32.8	25.5	22.0	26.7	27.8	28.6	31.3	31.3
87.5°	35.5	32.8	24.7	15.4	12.7	11.6	15.4	15.1	17.8	19.3	18.9
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)