

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: P299233

Luminaire Tested: **GLNA-AF-04-LED-E1-T3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13698.7 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

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

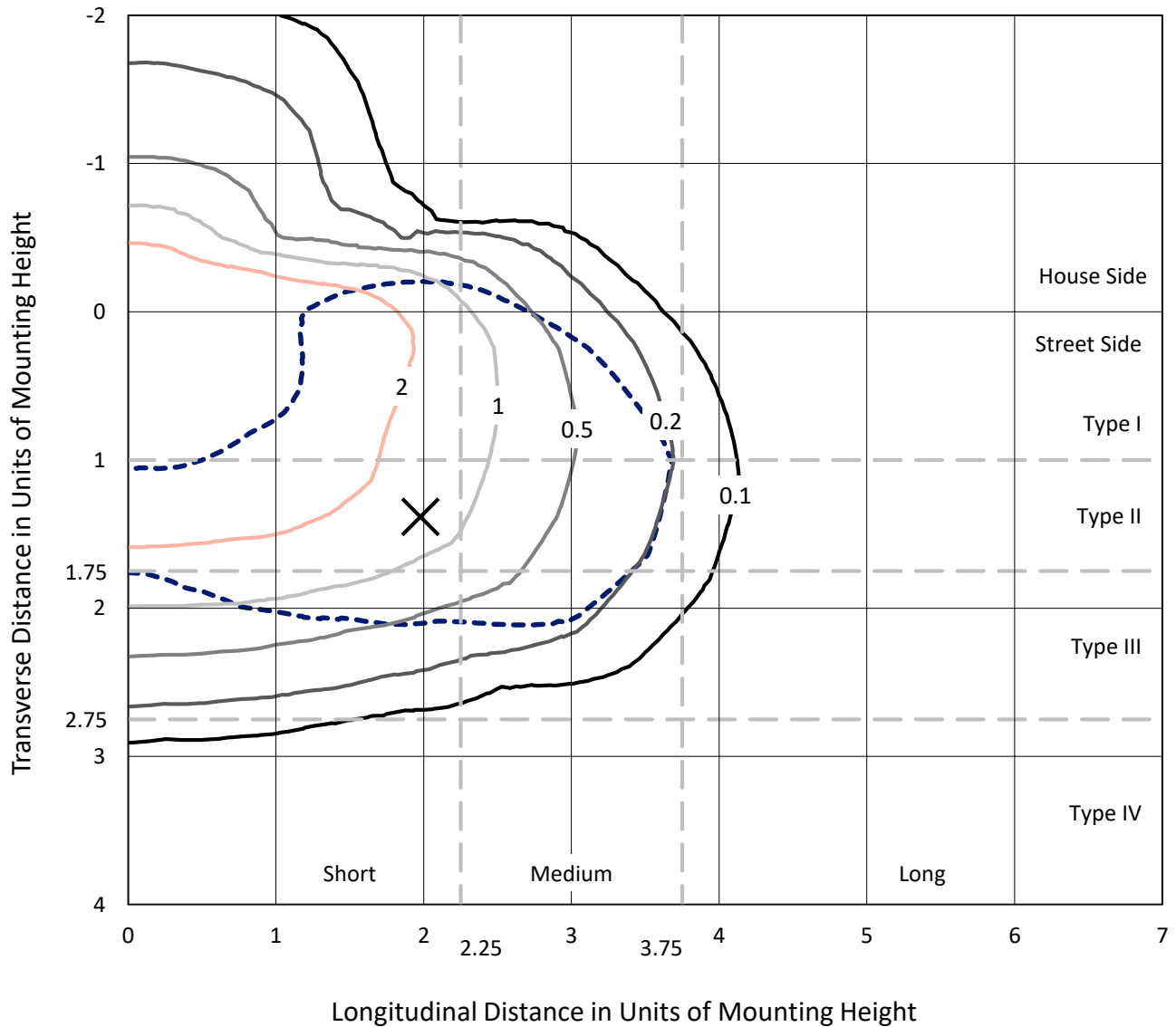


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Iso-Footcandle Lines of Horizontal Illumination

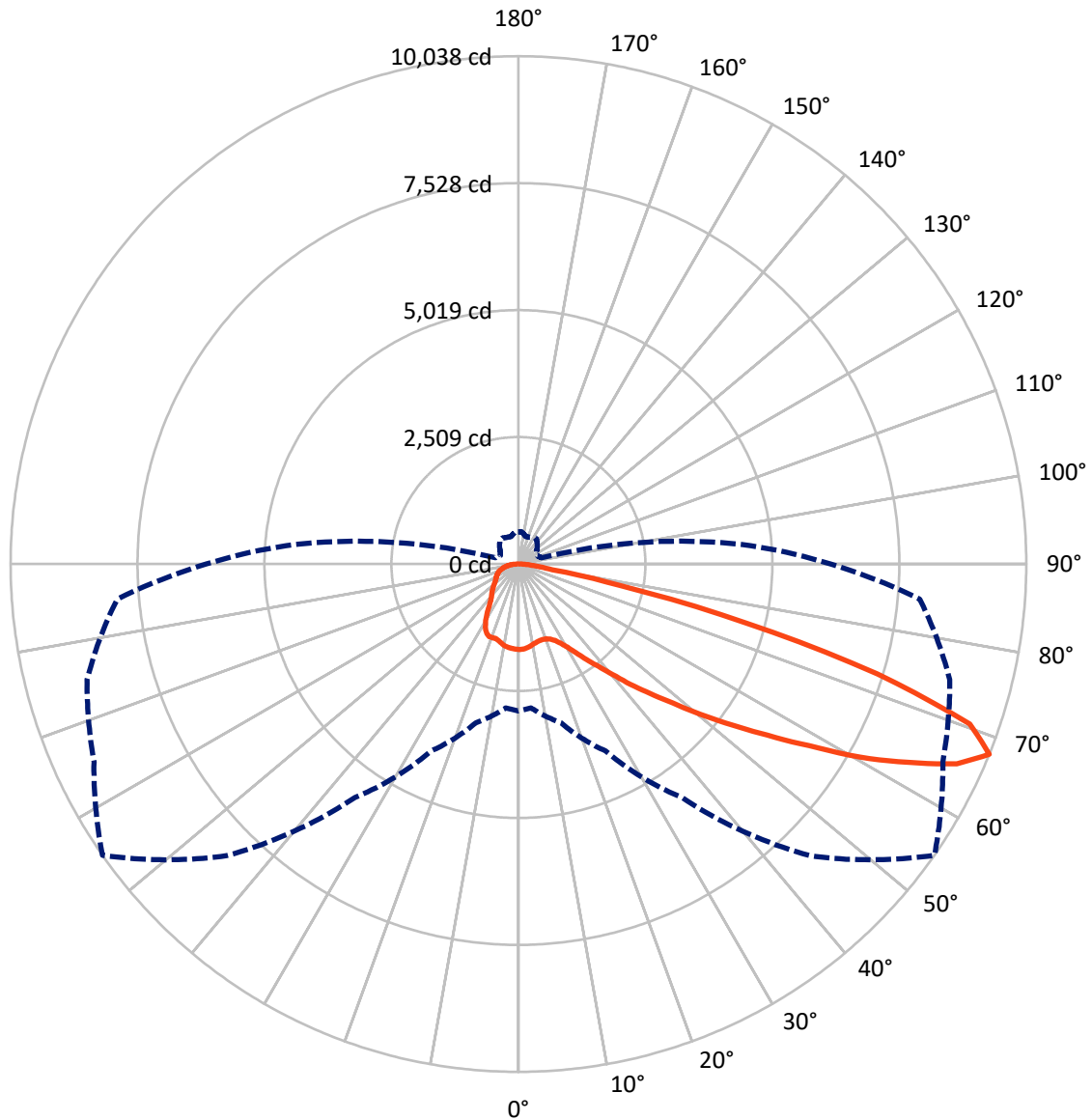
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2959.2	0.0	2959.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	10739.5	0.0	10739.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	13698.7	0.0	13698.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.7	1.2
10°-20°	446.5	3.3
20°-30°	748.0	5.5
30°-40°	1230.1	9.0
40°-50°	2070.6	15.1
50°-60°	3258.9	23.8
60°-70°	3889.2	28.4
70°-80°	1670.1	12.2
80°-90°	227.7	1.7
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°	13698.7	100.0
0°-180°	13698.7	100.0



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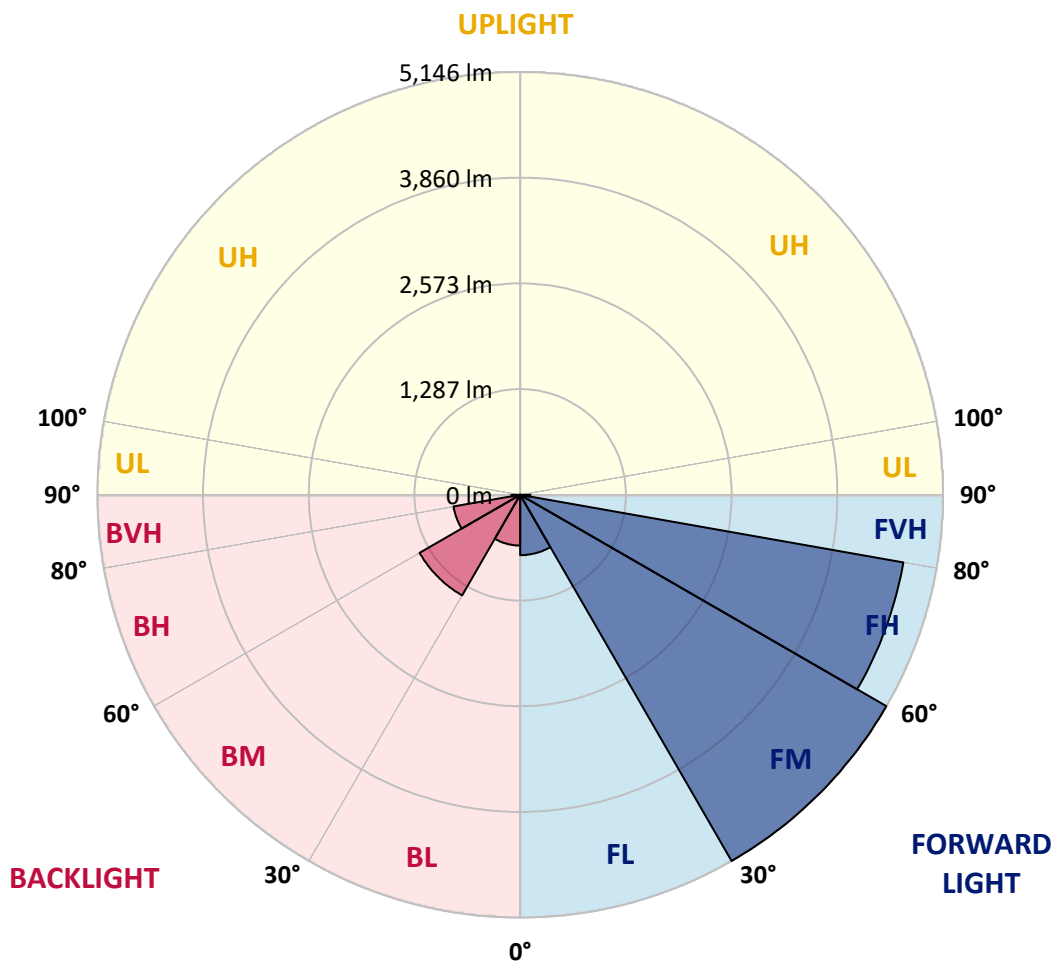
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	734.3	5.4			
FM (30°-60°)	5146.2	37.6			
FH (60°-80°)	4735.7	34.6			G2/5000
FVH (80°-90°)	123.3	0.9			G2/225
BL (0°-30°)	617.9	4.5	B2/1000		
BM (30°-60°)	1413.3	10.3	B2/2500		
BH (60°-80°)	823.5	6.0	B2/1000		G2/1000
BVH (80°-90°)	104.4	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2
2.5°	1674.6	1675.3	1676.6	1681.9	1686.5	1685.2	1685.9	1683.2	1682.6	1678.6	1682.6
5°	1653.5	1655.4	1656.1	1664.7	1670.0	1671.3	1669.3	1666.0	1662.1	1658.1	1660.1
7.5°	1605.2	1610.5	1611.1	1623.0	1631.6	1642.9	1643.5	1644.2	1642.2	1639.6	1643.5
10°	1574.7	1576.1	1575.4	1584.0	1590.6	1603.2	1610.5	1623.0	1628.3	1629.6	1632.3
12.5°	1572.7	1571.4	1569.4	1569.4	1567.4	1572.7	1586.0	1603.8	1616.4	1620.4	1623.7
15°	1593.9	1593.3	1586.6	1576.7	1564.1	1560.2	1571.4	1591.3	1607.8	1616.4	1619.7
17.5°	1641.6	1637.6	1627.0	1604.5	1577.4	1566.8	1568.1	1584.7	1603.8	1615.1	1618.4
20°	1728.9	1728.9	1706.4	1664.0	1615.7	1590.6	1578.7	1588.6	1607.1	1622.4	1627.0
22.5°	1879.7	1881.1	1843.4	1773.9	1692.5	1638.9	1609.1	1607.1	1629.0	1646.2	1651.5
25°	2093.5	2088.2	2035.2	1936.0	1812.3	1723.6	1672.0	1660.1	1678.6	1697.8	1704.4
27.5°	2342.2	2323.1	2260.2	2140.4	1980.3	1850.6	1771.2	1752.0	1769.9	1791.7	1798.4
30°	2588.4	2568.5	2493.8	2362.8	2184.8	2020.7	1906.9	1875.8	1900.9	1932.0	1936.0
32.5°	2834.5	2834.5	2751.1	2598.3	2404.4	2223.8	2087.5	2050.5	2092.1	2129.9	2138.5
35°	3128.9	3130.3	3049.5	2865.6	2657.2	2466.0	2315.8	2288.6	2351.5	2378.0	2398.5
37.5°	3490.9	3498.1	3394.3	3172.0	2943.7	2742.5	2563.9	2526.8	2589.7	2661.8	2728.0
40°	3881.9	3891.2	3776.7	3502.8	3274.5	3064.1	2870.9	2804.1	2908.6	3046.2	3131.6
42.5°	4255.1	4302.7	4192.2	3910.4	3664.9	3447.2	3251.3	3154.1	3285.1	3492.9	3567.0
45°	4794.3	4828.7	4636.2	4380.8	4149.9	3906.4	3647.0	3544.5	3727.7	3989.7	4005.0
47.5°	5153.6	5127.8	5029.9	4871.1	4724.8	4497.2	4106.9	3994.4	4237.9	4546.2	4460.8
50°	5344.8	5352.7	5339.5	5348.8	5354.1	5211.2	4670.6	4516.4	4806.9	5179.4	4982.9
52.5°	5523.5	5470.5	5514.2	5731.2	5993.2	5940.3	5283.9	5123.2	5416.9	5882.1	5534.7
55°	5519.5	5438.8	5581.0	5964.1	6532.5	6593.3	5972.7	5787.5	6062.0	6635.7	6119.6
57.5°	5324.3	5328.3	5547.3	6048.8	6908.3	7207.4	6772.0	6494.1	6746.2	7399.2	6653.6
60°	5055.7	5092.1	5407.7	6034.9	7209.3	7710.9	7752.6	7255.7	7416.4	8093.3	7095.5
62.5°	4622.3	4660.7	5096.0	5890.7	7163.7	8195.9	8639.2	8119.8	8117.1	8514.1	7225.2
65°	3938.8	3927.6	4384.8	5351.4	6780.6	8554.5	9519.8	8866.8	8645.1	8520.7	6964.5
67.5°	2904.6	2854.4	3246.7	4075.8	5635.9	8152.9	10037.9	9255.8	8825.1	7960.3	6167.9
70°	1507.2	1457.0	1774.5	2380.0	3706.6	6363.1	9464.2	9054.7	8427.4	6672.7	4832.0
72.5°	644.4	635.8	764.9	1044.1	1793.1	3670.2	7421.1	7837.2	7231.2	4971.6	3322.1
75°	433.4	430.7	479.0	569.0	806.6	1489.4	4644.1	5563.2	5290.6	3082.6	1868.5
77.5°	340.1	336.8	365.2	408.9	522.7	587.5	2061.0	2986.7	2764.4	1341.8	817.8
80°	266.0	263.3	281.2	305.0	375.8	370.5	678.2	1188.3	919.7	514.1	397.7
82.5°	209.7	209.7	224.3	225.0	266.6	252.8	354.0	523.4	459.2	299.7	243.5
85°	191.9	191.9	207.1	168.1	174.0	159.5	219.7	310.3	291.1	123.1	105.9
87.5°	96.6	94.0	174.0	148.9	94.6	84.7	107.2	150.2	161.4	68.1	52.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2	1689.2
2.5°	1681.3	1680.6	1681.9	1682.6	1687.9	1695.1	1698.5	1703.1	1705.7	1704.4
5°	1661.4	1662.7	1668.0	1672.0	1681.3	1693.2	1699.8	1705.1	1709.7	1707.7
7.5°	1644.9	1648.2	1656.1	1659.4	1664.7	1668.0	1667.4	1669.3	1673.3	1668.7
10°	1635.6	1639.6	1645.5	1640.9	1628.3	1610.5	1593.9	1585.3	1588.0	1584.7
12.5°	1626.3	1631.6	1627.0	1605.2	1570.1	1546.9	1534.4	1535.7	1541.6	1543.0
15°	1621.0	1623.0	1603.2	1562.2	1526.4	1523.1	1529.7	1528.4	1529.1	1529.1
17.5°	1621.0	1615.7	1578.7	1537.7	1522.5	1516.5	1496.0	1470.2	1458.9	1455.0
20°	1629.6	1615.7	1570.8	1543.6	1510.5	1459.6	1405.3	1357.7	1336.5	1330.6
22.5°	1655.4	1631.6	1593.3	1546.3	1452.3	1367.0	1281.0	1224.1	1185.7	1179.1
25°	1707.7	1681.3	1637.6	1511.2	1359.7	1237.9	1140.0	1076.5	1038.1	1032.8
27.5°	1799.0	1781.8	1661.4	1433.8	1236.6	1106.3	1015.6	966.7	938.2	936.2
30°	1936.6	1928.0	1649.5	1319.3	1085.1	978.6	934.9	906.5	885.3	884.6
32.5°	2156.3	2086.8	1610.5	1179.7	946.8	887.9	870.1	852.9	836.3	836.3
35°	2438.8	2215.2	1536.4	1030.2	862.8	837.6	815.2	788.0	766.2	764.9
37.5°	2771.0	2294.6	1403.4	909.8	823.1	803.9	770.8	730.5	692.1	685.5
40°	3106.4	2318.4	1216.1	835.7	797.9	770.2	729.8	682.2	645.1	643.1
42.5°	3414.1	2272.8	1017.6	784.7	772.8	735.8	693.4	651.1	622.0	621.3
45°	3672.2	2154.3	850.9	736.4	746.3	704.7	666.9	632.5	610.0	605.4
47.5°	3915.0	1986.9	733.8	685.5	719.9	687.5	655.7	623.3	601.4	598.1
50°	4196.8	1806.3	651.7	635.8	696.7	681.5	665.0	631.2	594.8	590.9
52.5°	4538.3	1650.2	587.5	592.2	678.9	689.4	688.8	653.7	590.2	584.9
55°	4919.4	1476.8	539.2	556.4	671.6	704.0	694.7	674.9	594.2	586.2
57.5°	5294.5	1274.3	505.5	529.3	661.0	702.7	666.3	637.8	603.4	592.2
60°	5575.7	1002.4	479.7	505.5	637.8	680.8	635.2	597.5	601.4	592.8
62.5°	5594.3	774.8	448.6	485.0	602.8	659.0	614.7	579.6	610.0	602.1
65°	5265.4	585.6	418.8	460.5	565.0	645.1	594.8	569.7	627.9	619.3
67.5°	4433.1	471.1	393.7	435.4	527.3	616.0	577.0	560.4	643.8	628.6
70°	3200.4	401.6	369.2	404.9	493.6	582.9	561.1	543.9	600.8	577.0
72.5°	1970.4	348.0	341.4	364.6	467.8	548.5	537.3	512.8	541.2	522.0
75°	983.9	301.7	310.3	324.9	431.4	509.5	497.6	473.1	477.0	473.1
77.5°	471.1	258.0	273.9	285.2	384.4	465.1	452.6	427.4	422.8	423.5
80°	298.4	215.7	230.9	238.9	343.4	413.5	401.0	375.8	428.7	397.7
82.5°	186.6	175.3	179.3	193.9	299.1	359.9	343.4	320.9	386.4	305.7
85°	103.2	122.4	127.7	140.3	230.3	301.1	284.5	256.1	229.6	225.6
87.5°	61.5	72.8	74.8	84.0	154.8	217.7	192.5	182.6	151.5	150.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)