

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: P302900

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302900  
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-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13600.7 lumens  
Efficiency: N/A  
Efficacy: 105.4 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

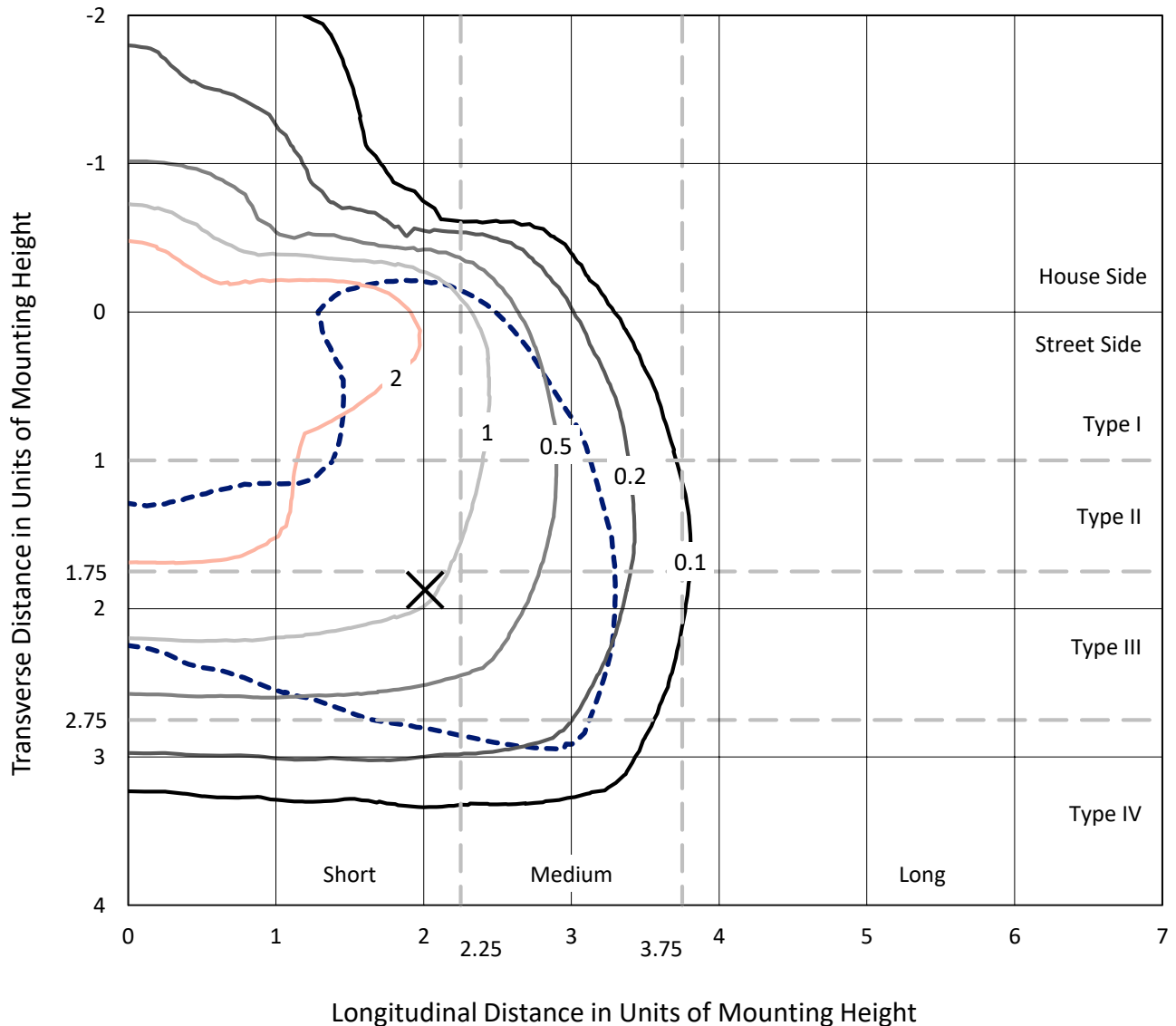
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

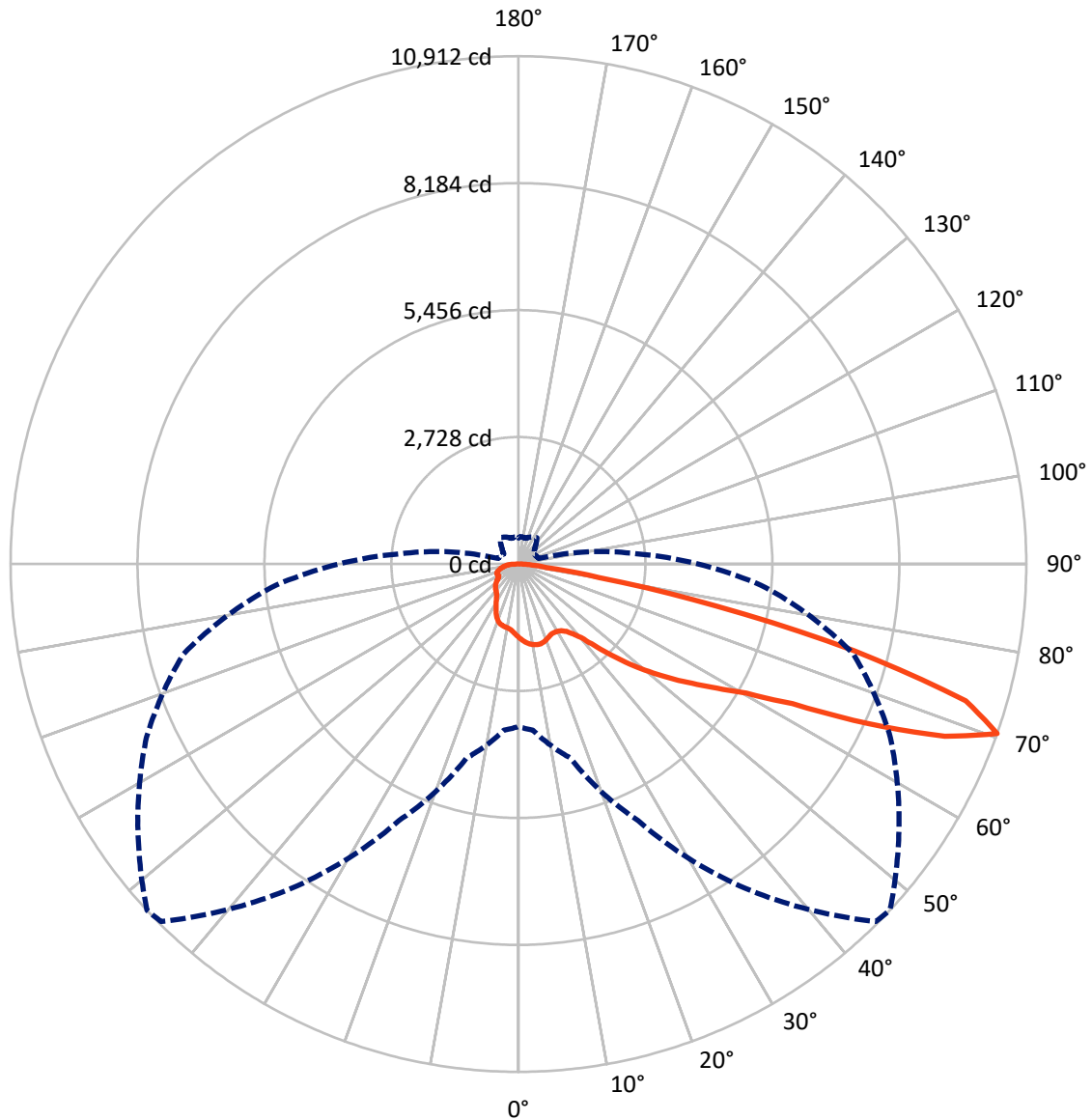
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 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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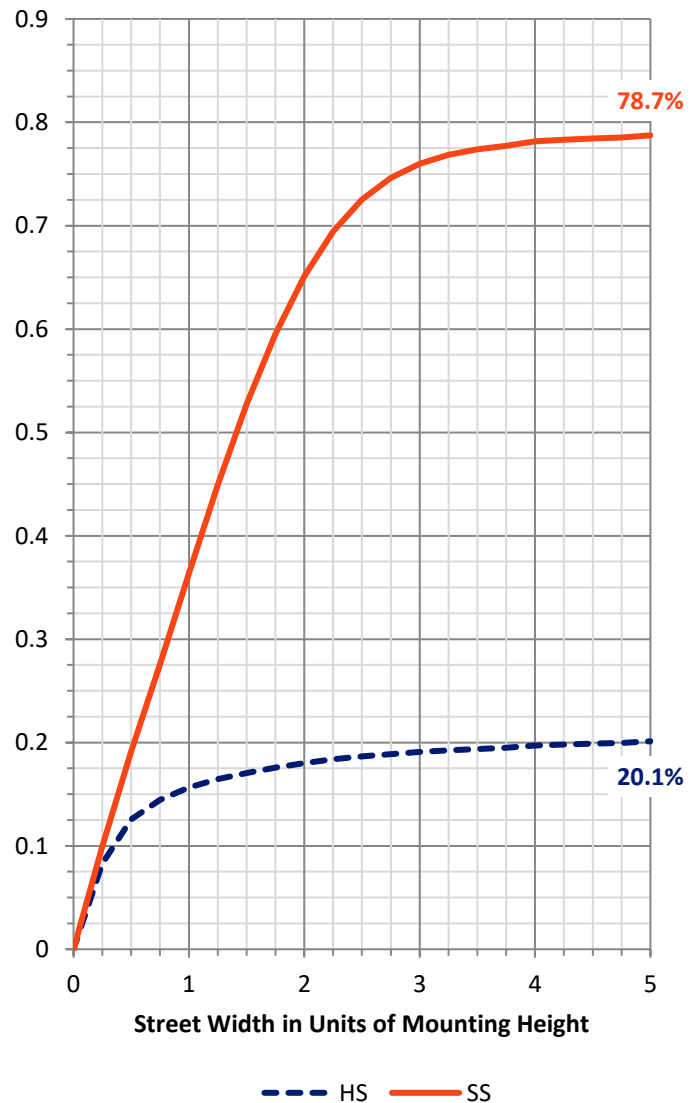
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2837.4	0.0	2837.4
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	10763.4	0.0	10763.4
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	13600.7	0.0	13600.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.2	1.1
10°-20°	443.6	3.3
20°-30°	655.1	4.8
30°-40°	952.2	7.0
40°-50°	1713.5	12.6
50°-60°	2968.6	21.8
60°-70°	4237.0	31.2
70°-80°	2175.0	16.0
80°-90°	304.5	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°	13600.7	100.0
0°-180°	13600.7	100.0



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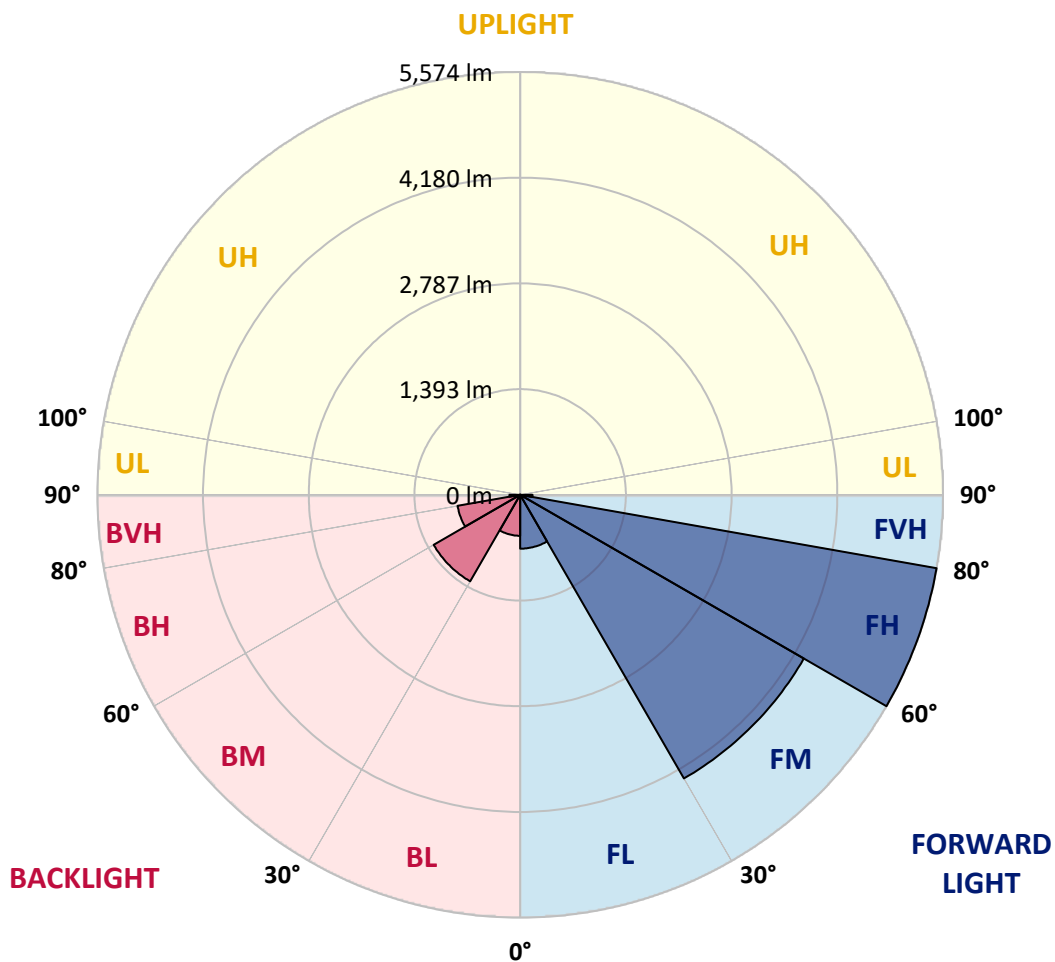
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	709.7	5.2			
FM	(30°-60°)	4317.3	31.7			
FH	(60°-80°)	5573.9	41.0			G3/7500
FVH	(80°-90°)	162.5	1.2			G2/225
BL	(0°-30°)	540.2	4.0	B2/1000		
BM	(30°-60°)	1317.0	9.7	B2/2500		
BH	(60°-80°)	838.1	6.2	B2/1000		G2/1000
BVH	(80°-90°)	142.0	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°	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1
2.5°	1670.8	1667.5	1666.2	1663.6	1660.3	1643.6	1640.3	1628.4	1611.9	1594.6	1576.8
5°	1780.7	1780.0	1772.6	1759.4	1738.3	1701.8	1693.2	1664.2	1625.1	1587.3	1549.7
7.5°	1877.2	1871.2	1857.4	1830.8	1793.9	1744.2	1732.3	1691.9	1638.3	1586.6	1535.7
10°	1947.9	1944.6	1914.3	1877.8	1829.5	1774.5	1760.7	1715.6	1656.7	1591.3	1527.7
12.5°	1988.4	1981.8	1946.6	1903.1	1845.5	1791.9	1777.8	1732.3	1666.2	1591.3	1516.5
15°	1985.7	1981.1	1945.9	1898.3	1840.2	1793.2	1780.7	1735.0	1664.2	1584.7	1502.0
17.5°	1932.8	1934.7	1905.1	1858.0	1810.4	1774.5	1763.3	1721.1	1650.8	1571.5	1484.9
20°	1840.2	1849.5	1829.5	1787.9	1761.3	1737.0	1729.7	1693.9	1630.4	1552.4	1466.2
22.5°	1747.5	1756.1	1748.2	1713.0	1709.0	1694.5	1690.6	1664.9	1612.6	1540.5	1455.0
25°	1679.4	1687.3	1686.0	1655.4	1667.5	1666.9	1663.6	1650.8	1608.6	1540.5	1457.0
27.5°	1660.9	1663.6	1660.9	1633.0	1649.5	1662.9	1660.3	1658.1	1620.5	1559.6	1482.3
30°	1724.4	1720.5	1699.8	1643.6	1658.9	1677.4	1674.8	1676.1	1656.1	1609.9	1538.5
32.5°	1977.8	1959.8	1895.0	1737.0	1696.5	1706.4	1707.7	1729.7	1733.0	1687.3	1625.8
35°	2356.9	2337.1	2252.9	1987.0	1813.7	1779.4	1779.4	1812.3	1832.1	1798.5	1761.3
37.5°	2758.6	2736.6	2691.8	2333.8	2059.8	1905.7	1902.4	1925.5	1953.9	1962.0	1971.2
40°	3215.0	3192.0	3204.5	2722.8	2403.3	2124.6	2077.6	2061.1	2137.8	2188.8	2263.1
42.5°	3714.8	3704.0	3708.6	3156.1	2794.2	2452.3	2385.5	2300.0	2392.7	2483.2	2638.8
45°	4177.1	4186.4	4181.7	3620.1	3229.8	2851.8	2781.0	2615.5	2706.3	2861.7	3115.3
47.5°	4582.1	4543.7	4603.2	4126.8	3717.4	3299.2	3211.7	2990.2	3082.1	3273.9	3702.7
50°	5073.7	5068.5	4981.2	4803.2	4306.8	3748.4	3633.9	3377.2	3520.1	3786.8	4443.3
52.5°	5590.6	5494.6	5414.6	5329.1	4932.2	4209.0	4068.6	3762.9	4035.0	4370.3	5345.8
55°	5696.3	5653.5	5752.6	5896.3	5535.0	4687.4	4523.9	4246.6	4614.7	5037.5	6386.6
57.5°	5922.7	5922.0	6127.3	6383.3	6155.6	5194.8	5030.0	4830.9	5266.2	5801.6	7491.5
60°	6075.6	6118.5	6499.7	6996.6	6765.0	5781.1	5629.5	5505.1	6007.5	6655.8	8521.1
62.5°	6155.6	6213.8	6734.0	7245.4	7626.4	6757.1	6605.7	6426.3	6988.0	7592.8	9123.2
65°	5822.9	5937.2	6697.5	7460.5	8380.9	8339.1	8271.0	7956.1	8214.1	8333.2	8905.6
67.5°	4901.7	5018.8	5904.2	7259.9	8919.5	9865.1	9879.6	9341.6	8968.5	8396.7	7487.5
70°	3492.4	3584.2	4316.9	6086.8	8509.2	10862.1	10911.8	9980.0	8818.2	7446.5	5231.3
72.5°	1658.1	1714.3	2407.9	3961.6	6752.5	9952.3	10048.4	9164.9	7498.1	5513.0	2853.8
75°	609.4	626.5	813.8	1685.3	3916.5	7339.4	7452.6	6569.8	4970.5	2744.8	1087.1
77.5°	365.2	376.4	456.7	711.4	1540.5	4195.2	4362.4	3573.0	2172.3	1021.6	534.7
80°	255.4	263.3	327.4	442.6	727.8	1598.7	1747.5	1458.3	865.4	646.5	389.0
82.5°	172.7	176.7	230.3	299.1	483.7	570.9	616.0	648.5	583.7	481.0	246.8
85°	113.2	117.1	156.2	197.1	307.7	295.1	301.7	381.7	426.1	326.8	136.9
87.5°	64.8	67.5	94.1	105.3	151.0	125.0	126.4	201.1	272.7	220.4	83.3
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°	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1	1578.1
2.5°	1572.1	1563.6	1544.4	1532.4	1521.2	1518.5	1513.9	1513.2	1512.6	1512.6	1510.6
5°	1537.0	1522.5	1492.8	1476.1	1462.3	1460.9	1460.3	1463.6	1464.9	1466.2	1464.2
7.5°	1514.6	1494.8	1457.6	1433.9	1417.4	1413.3	1420.1	1435.2	1445.1	1449.1	1447.1
10°	1500.7	1476.1	1433.3	1407.3	1393.5	1391.5	1400.1	1418.1	1438.5	1446.4	1445.8
12.5°	1484.9	1457.0	1411.3	1384.2	1376.3	1380.3	1391.5	1408.0	1429.3	1441.8	1442.5
15°	1468.9	1436.5	1389.5	1365.8	1362.5	1367.8	1378.3	1390.8	1407.3	1420.1	1421.4
17.5°	1449.7	1415.9	1369.1	1344.5	1341.8	1344.5	1345.1	1351.7	1362.5	1374.4	1377.7
20°	1429.3	1394.8	1345.8	1321.4	1309.5	1299.0	1286.9	1288.2	1291.5	1303.6	1306.2
22.5°	1414.6	1380.3	1328.0	1294.1	1262.5	1230.6	1206.9	1203.6	1204.9	1214.8	1218.1
25°	1415.9	1379.6	1323.4	1265.1	1195.7	1144.7	1112.8	1107.6	1106.9	1114.2	1119.0
27.5°	1441.8	1405.3	1340.5	1235.3	1123.0	1047.4	1013.7	1009.8	1004.5	1006.5	1011.8
30°	1499.4	1465.6	1382.3	1204.9	1044.1	952.2	917.0	913.1	905.8	902.5	906.5
32.5°	1593.2	1565.5	1443.1	1175.7	965.4	870.7	835.1	826.5	821.9	817.9	821.2
35°	1749.5	1737.6	1524.5	1144.1	895.9	807.8	775.5	762.3	755.7	763.0	768.3
37.5°	1994.3	2000.9	1631.0	1094.4	842.3	766.3	739.0	723.9	714.0	719.9	725.9
40°	2341.1	2345.7	1748.8	1024.3	796.0	741.7	712.7	698.8	684.8	674.2	673.6
42.5°	2796.2	2749.4	1864.6	948.2	742.3	726.5	694.2	676.9	655.8	626.5	620.6
45°	3336.1	3171.5	1952.5	860.8	682.1	708.1	673.6	649.8	616.6	585.0	581.7
47.5°	3958.3	3624.7	1995.6	770.2	625.9	680.8	648.5	610.7	568.9	553.1	551.1
50°	4717.7	4162.6	2016.0	682.1	577.1	645.2	612.0	567.6	532.7	529.4	527.4
52.5°	5582.7	4809.8	2022.9	610.0	536.6	598.8	582.4	539.3	511.4	514.2	514.2
55°	6487.9	5478.1	1932.8	557.7	499.5	551.1	562.4	528.1	504.8	515.5	519.5
57.5°	7318.8	6070.3	1649.5	517.5	464.6	514.9	555.1	538.6	522.8	565.7	568.3
60°	7956.7	6420.2	1232.0	481.0	438.6	502.1	574.4	579.1	583.0	685.4	699.5
62.5°	8090.3	6303.9	846.9	452.7	426.8	512.9	609.4	610.0	605.4	676.9	685.4
65°	7477.0	5567.3	616.0	436.7	416.9	532.0	639.3	625.2	594.9	649.2	633.1
67.5°	5937.8	4194.5	512.9	424.8	402.4	530.7	670.9	639.3	588.9	636.0	610.0
70°	3854.3	2536.2	456.7	414.9	385.0	505.4	689.4	638.0	571.6	591.6	561.0
72.5°	1880.5	1134.2	418.9	400.4	367.2	470.5	688.7	625.9	553.8	552.5	536.0
75°	735.7	519.5	384.4	378.4	336.9	430.7	670.3	608.7	532.7	511.4	505.4
77.5°	430.7	370.5	340.8	346.1	300.4	390.9	643.2	579.1	503.5	478.4	471.8
80°	313.6	277.3	290.5	299.1	256.7	351.4	606.7	542.6	471.2	483.7	474.5
82.5°	201.1	178.7	235.6	244.1	213.8	311.0	567.0	504.1	425.4	386.3	377.1
85°	102.6	113.2	175.4	185.9	164.8	255.4	518.8	453.4	373.8	321.5	326.8
87.5°	57.6	77.4	111.9	125.0	116.5	196.5	420.8	373.8	305.0	248.1	218.4
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)