

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: P299225

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299225
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7832.1 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

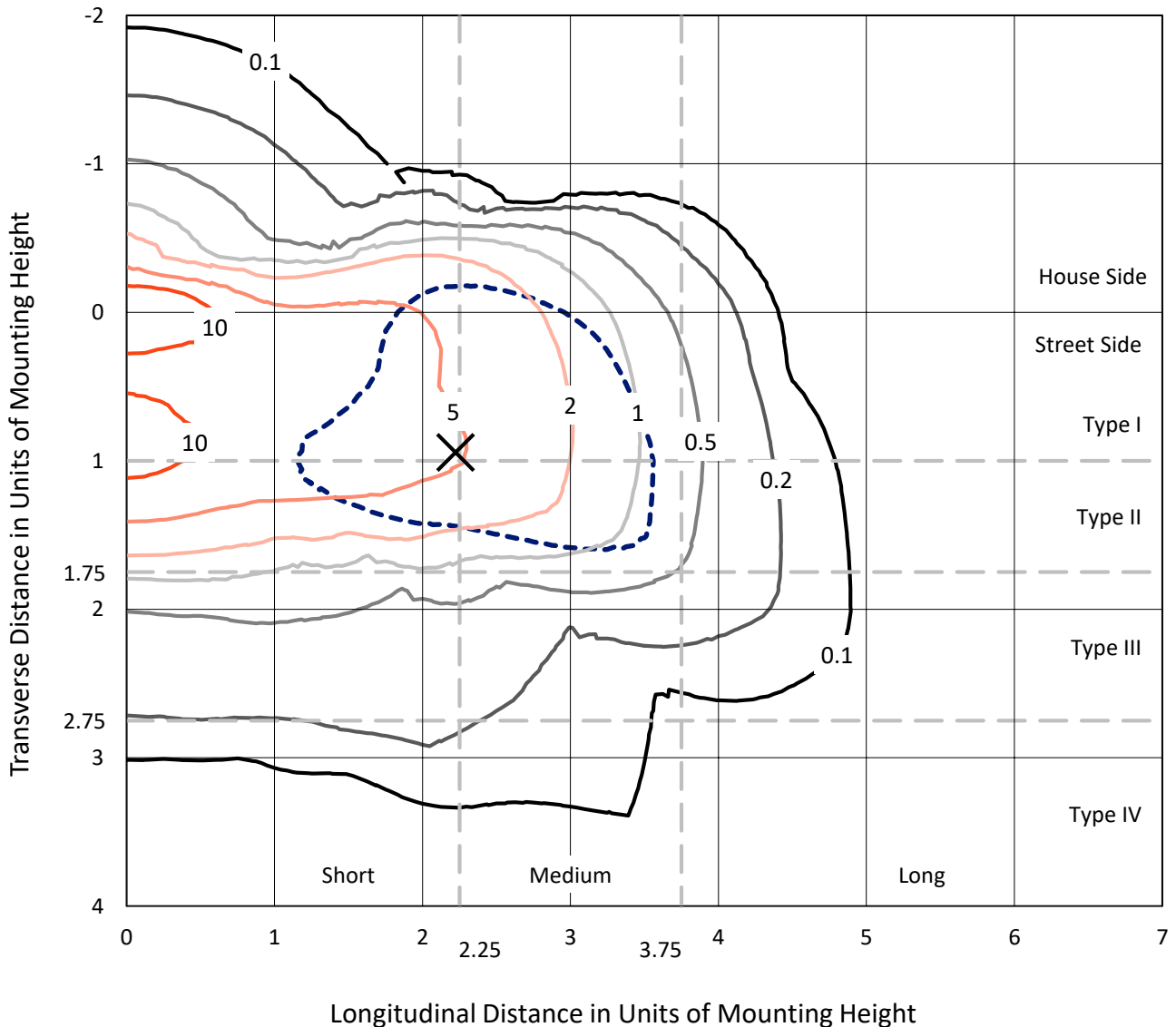
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

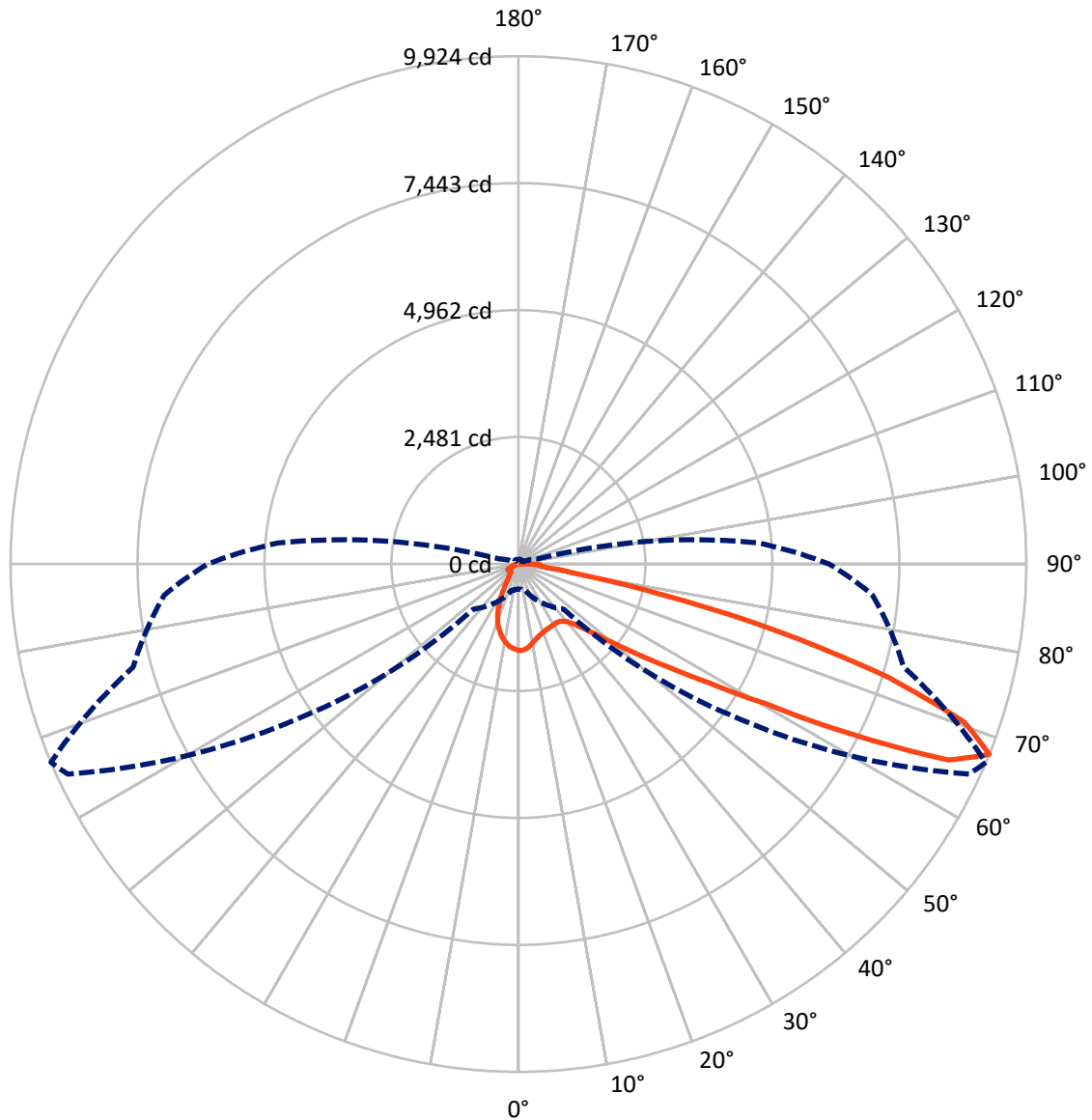
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1297.7	0.0	1297.7
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	6534.4	0.0	6534.4
	% Fixture	83.4	0.0	83.4
Total	Lumens	7832.1	0.0	7832.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	1.8
10°-20°	333.5	4.3
20°-30°	452.0	5.8
30°-40°	642.6	8.2
40°-50°	1075.2	13.7
50°-60°	1700.9	21.7
60°-70°	2166.8	27.7
70°-80°	1135.0	14.5
80°-90°	182.0	2.3
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°	7832.1	100.0
0°-180°	7832.1	100.0



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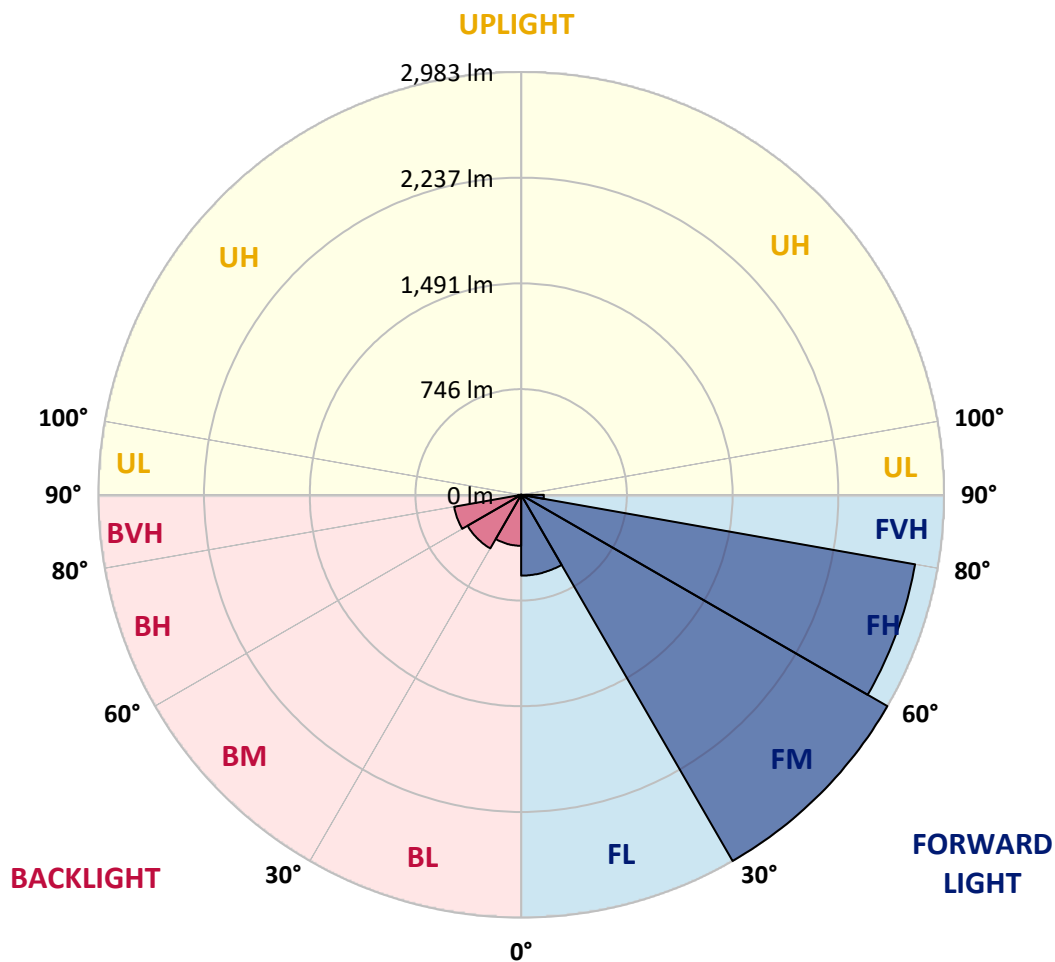
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	570.0	7.3			
FM (30°-60°)	2982.6	38.1			
FH (60°-80°)	2821.7	36.0			G2/5000
FVH (80°-90°)	160.1	2.0			G2/225
BL (0°-30°)	359.7	4.6	B1/500		
BM (30°-60°)	436.1	5.6	B1/1000		
BH (60°-80°)	480.0	6.1	B1/500		G1/500
BVH (80°-90°)	22.0	0.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4
2.5°	1619.8	1622.5	1631.0	1636.5	1660.8	1671.2	1678.6	1685.9	1687.0	1690.5	1687.0
5°	1449.9	1455.7	1471.5	1489.3	1536.4	1573.5	1612.5	1653.1	1660.4	1686.7	1694.0
7.5°	1318.2	1316.7	1329.8	1351.0	1399.3	1450.7	1519.0	1599.8	1615.6	1674.7	1703.3
10°	1222.0	1220.9	1234.8	1256.8	1302.8	1351.4	1428.7	1539.1	1561.5	1655.8	1712.2
12.5°	1151.0	1151.3	1165.3	1189.6	1236.3	1285.4	1363.8	1480.4	1509.0	1633.7	1721.4
15°	1103.8	1106.9	1118.1	1144.0	1189.6	1238.6	1315.5	1436.4	1468.4	1616.4	1731.9
17.5°	1088.0	1093.0	1096.9	1115.8	1154.8	1203.9	1279.2	1403.9	1437.9	1604.4	1741.1
20°	1102.7	1108.5	1101.1	1107.7	1132.4	1175.7	1250.6	1378.5	1413.2	1590.9	1742.3
22.5°	1165.6	1171.0	1149.4	1130.5	1128.9	1155.2	1227.0	1358.4	1394.3	1580.8	1742.7
25°	1276.5	1280.0	1243.7	1199.6	1156.8	1147.9	1210.4	1344.5	1382.7	1572.0	1735.3
27.5°	1412.4	1415.1	1373.4	1308.5	1222.4	1165.3	1204.6	1336.4	1376.1	1564.2	1723.0
30°	1577.7	1590.5	1534.5	1452.6	1327.1	1216.6	1216.2	1332.1	1368.8	1551.1	1698.6
32.5°	1746.9	1752.3	1713.7	1630.7	1468.1	1307.0	1248.7	1335.2	1366.9	1535.3	1667.7
35°	1918.4	1925.4	1900.2	1833.4	1660.8	1439.5	1312.0	1353.3	1378.8	1529.9	1646.1
37.5°	2140.5	2149.8	2115.0	2037.7	1895.2	1619.1	1417.5	1398.9	1415.5	1545.3	1639.5
40°	2491.6	2487.3	2385.7	2270.6	2151.7	1848.9	1568.1	1476.2	1485.8	1595.1	1659.6
42.5°	2900.2	2889.8	2714.8	2534.0	2433.6	2127.0	1767.4	1610.2	1608.3	1693.2	1730.3
45°	3226.2	3217.7	3060.1	2837.2	2756.9	2443.7	2025.0	1809.9	1795.6	1848.9	1860.9
47.5°	3402.7	3403.1	3312.3	3130.4	3128.5	2846.1	2356.0	2098.8	2074.0	2099.2	2086.4
50°	3340.9	3349.0	3339.3	3281.4	3467.6	3373.7	2788.2	2501.6	2451.8	2476.5	2427.4
52.5°	3041.9	3052.4	3109.5	3198.4	3610.1	4011.4	3423.1	3002.2	2944.2	2935.3	2880.9
55°	2512.0	2524.8	2641.4	2882.8	3491.5	4439.7	4425.0	3640.2	3547.9	3464.1	3440.9
57.5°	1731.5	1752.7	1940.4	2298.8	3108.0	4569.1	5618.1	4549.8	4362.1	4069.3	4074.7
60°	976.0	1000.7	1222.0	1547.6	2334.0	4428.5	6525.7	5927.5	5531.2	4778.0	4818.2
62.5°	620.7	647.3	815.3	1075.3	1400.5	3671.5	6897.7	7842.8	7339.5	5651.7	5691.1
65°	502.5	514.1	593.2	887.6	1016.9	2211.9	6615.3	9420.5	9232.8	6760.6	6576.7
67.5°	490.5	494.4	535.3	745.0	975.2	1243.3	5276.7	9715.6	9923.8	7796.0	6945.6
70°	484.7	498.2	603.3	711.0	933.9	1048.6	3170.9	8906.8	9235.5	8066.8	6454.7
72.5°	235.2	234.4	303.6	643.1	1052.1	1087.6	1629.1	7206.6	7536.5	6988.8	5304.1
75°	189.6	173.4	165.7	235.6	1011.5	1123.2	1038.2	4958.8	5197.5	4685.7	3260.5
77.5°	180.0	160.7	147.2	147.5	427.6	1191.1	879.4	2744.5	2814.1	2116.5	893.3
80°	149.1	131.3	121.7	137.1	207.0	1134.4	950.9	1242.1	1139.8	519.9	297.4
82.5°	103.5	94.2	91.5	115.1	165.7	808.4	1105.8	667.4	559.6	260.3	183.5
85°	66.0	56.4	62.6	83.8	129.0	373.1	1139.0	520.3	413.7	165.3	103.5
87.5°	30.5	24.7	30.9	46.3	84.2	128.6	1083.8	584.4	426.0	87.3	65.3
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°	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4	1689.4
2.5°	1690.1	1682.8	1677.0	1666.2	1654.2	1642.6	1632.2	1619.1	1615.2	1611.7	1617.1
5°	1695.5	1688.2	1667.0	1633.7	1597.1	1562.7	1528.3	1499.0	1480.8	1470.8	1476.6
7.5°	1703.7	1693.2	1649.2	1588.2	1522.1	1461.9	1399.7	1349.9	1313.2	1295.8	1300.8
10°	1711.0	1690.9	1619.1	1527.5	1431.0	1341.4	1243.3	1162.2	1101.9	1070.2	1078.0
12.5°	1714.1	1682.0	1577.0	1451.8	1319.4	1188.0	1043.6	922.3	835.8	804.1	797.6
15°	1717.2	1672.0	1530.6	1365.7	1184.6	998.8	796.4	651.2	579.3	563.5	560.0
17.5°	1717.9	1654.6	1478.1	1272.2	1026.6	773.6	544.6	452.3	452.7	478.2	481.2
20°	1709.8	1628.7	1414.4	1156.0	837.3	534.9	373.9	358.0	416.4	480.1	487.8
22.5°	1691.3	1594.4	1342.1	1020.4	620.7	352.2	289.3	306.7	382.0	460.0	468.9
25°	1667.7	1552.6	1256.8	863.2	410.9	251.8	242.6	263.8	314.8	366.9	371.9
27.5°	1635.7	1503.2	1161.0	683.2	266.9	207.4	213.6	227.9	248.7	271.9	274.2
30°	1594.4	1444.1	1058.7	498.2	201.6	186.5	195.4	203.2	212.0	225.2	226.3
32.5°	1546.8	1387.3	953.6	344.1	178.8	175.7	182.7	186.5	193.5	201.6	202.4
35°	1507.1	1333.3	844.7	243.3	169.2	167.6	172.3	173.8	180.4	189.3	190.0
37.5°	1484.3	1289.2	732.3	196.2	162.6	160.3	163.0	163.0	172.3	185.4	187.3
40°	1485.8	1264.9	619.9	177.3	157.2	154.1	154.5	154.5	166.5	180.8	181.9
42.5°	1527.9	1271.1	520.3	169.9	152.9	149.5	147.5	148.7	158.7	168.0	168.8
45°	1626.8	1314.7	426.8	165.3	148.7	147.5	143.3	142.9	146.8	151.0	151.0
47.5°	1789.0	1400.9	363.4	162.2	145.2	144.8	139.8	134.8	134.4	136.0	136.0
50°	2052.8	1549.2	321.0	158.7	142.9	139.8	134.0	126.3	123.6	124.8	124.8
52.5°	2448.3	1813.7	304.7	154.1	137.9	132.9	126.3	118.6	116.3	116.6	116.6
55°	2967.0	2220.0	302.4	148.7	132.5	124.4	119.0	113.2	110.5	111.2	111.2
57.5°	3600.8	2782.0	343.7	140.2	125.1	115.9	112.8	108.9	107.0	108.1	107.8
60°	4371.3	3517.4	509.8	131.3	117.8	108.1	108.1	105.1	103.5	104.7	104.3
62.5°	5258.9	4362.1	716.8	124.8	110.1	102.0	103.5	102.0	100.4	101.2	100.8
65°	6046.0	4912.4	671.3	119.7	102.4	96.2	98.9	98.1	96.9	97.7	97.3
67.5°	6068.8	4708.5	377.0	114.3	95.0	90.4	94.2	93.9	93.1	93.9	93.5
70°	5416.1	3975.8	212.4	104.3	87.3	83.4	88.8	88.4	87.7	89.2	88.8
72.5°	4339.3	2885.1	155.3	91.9	79.6	76.1	82.3	81.9	81.9	84.2	83.0
75°	2497.0	1484.7	124.0	78.8	71.5	68.7	74.2	74.5	75.3	78.4	76.1
77.5°	711.8	462.7	101.2	66.8	61.4	60.3	65.7	66.4	66.8	70.3	67.2
80°	264.6	213.2	83.4	56.0	50.2	50.6	55.6	56.8	57.2	60.6	56.8
82.5°	168.8	140.6	67.6	43.3	39.4	39.0	45.2	46.7	46.7	47.1	44.8
85°	98.5	84.2	51.0	31.3	27.8	26.6	33.6	36.3	35.1	34.4	32.8
87.5°	66.0	57.9	31.3	17.4	15.1	14.3	19.7	21.6	20.9	19.7	18.5
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)