

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: P299161

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299161  
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-SL2-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8345.2 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

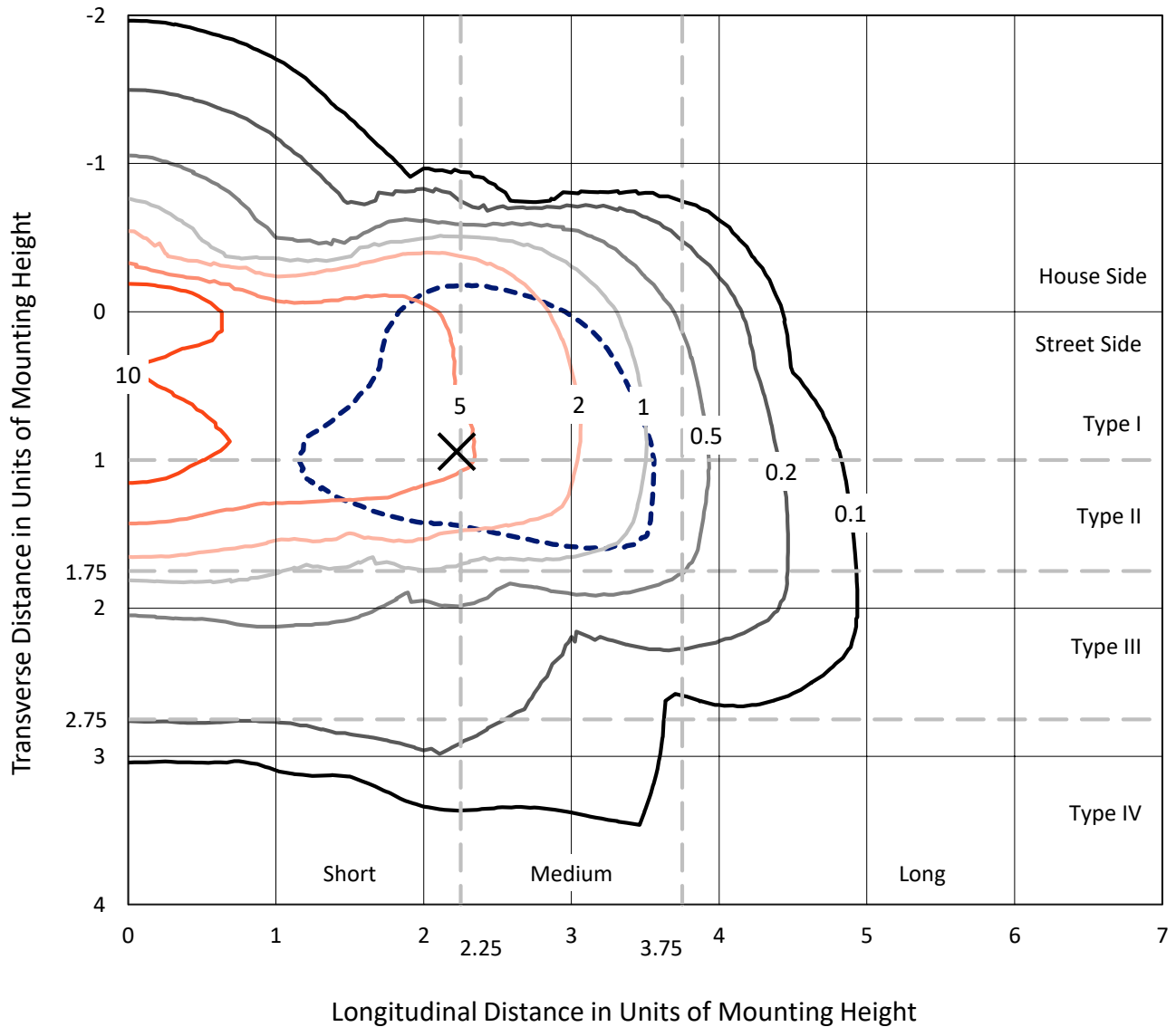
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

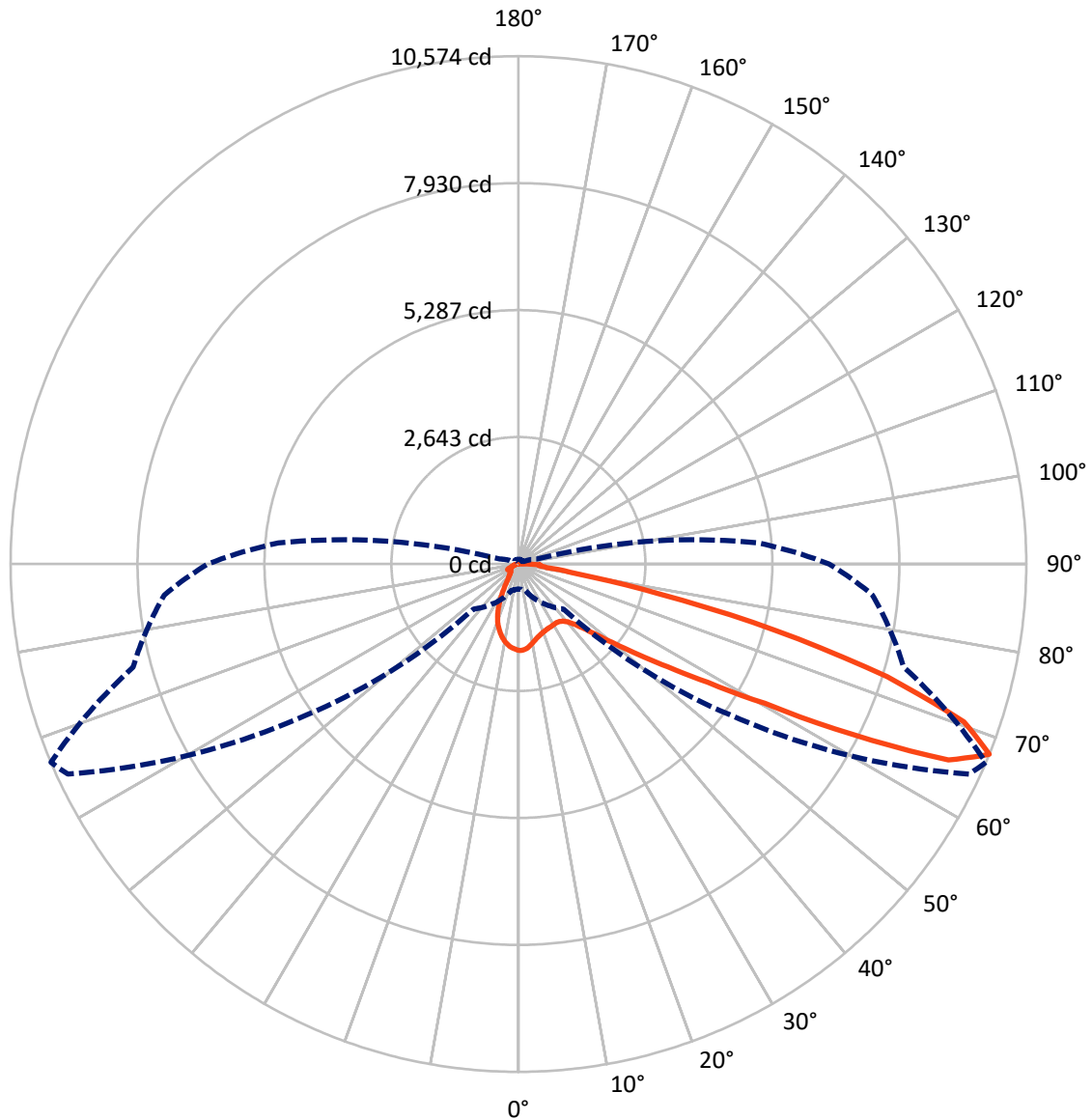
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18 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
<b>House Side</b>	Lumens	1382.7	0.0	1382.7
	% Fixture	16.6	0.0	16.6
<b>Street Side</b>	Lumens	6962.5	0.0	6962.5
	% Fixture	83.4	0.0	83.4
<b>Total</b>	Lumens	8345.2	0.0	8345.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.6	1.8
10°-20°	355.3	4.3
20°-30°	481.7	5.8
30°-40°	684.7	8.2
40°-50°	1145.6	13.7
50°-60°	1812.3	21.7
60°-70°	2308.7	27.7
70°-80°	1209.3	14.5
80°-90°	193.9	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°	8345.2	100.0
0°-180°	8345.2	100.0

**Coefficient of Utilization**



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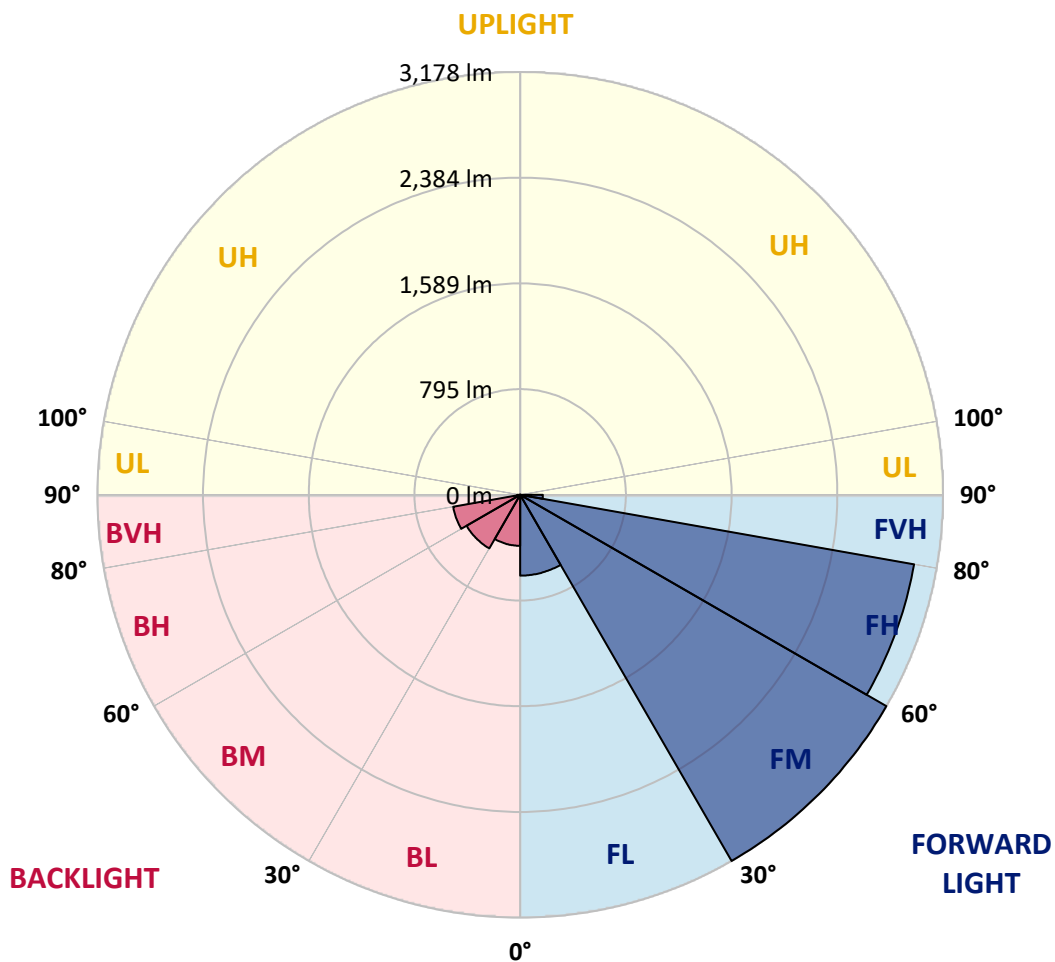
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	607.3	7.3			
FM (30°-60°)	3178.0	38.1			
FH (60°-80°)	3006.6	36.0			G2/5000
FVH (80°-90°)	170.5	2.0			G2/225
BL (0°-30°)	383.2	4.6	B1/500		
BM (30°-60°)	464.6	5.6	B1/1000		
BH (60°-80°)	511.4	6.1	B2/1000		G2/1000
BVH (80°-90°)	23.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0
2.5°	1726.0	1728.8	1737.9	1743.7	1769.6	1780.7	1788.5	1796.3	1797.6	1801.3	1797.6
5°	1544.9	1551.1	1567.9	1586.9	1637.1	1676.6	1718.1	1761.3	1769.2	1797.2	1805.0
7.5°	1404.6	1402.9	1416.9	1439.5	1491.0	1545.7	1618.5	1704.6	1721.4	1784.4	1814.8
10°	1302.1	1300.8	1315.7	1339.1	1388.1	1439.9	1522.2	1639.9	1663.8	1764.2	1824.3
12.5°	1226.4	1226.8	1241.6	1267.5	1317.3	1369.6	1453.1	1577.4	1607.8	1740.8	1834.2
15°	1176.2	1179.4	1191.4	1219.0	1267.5	1319.8	1401.7	1530.5	1564.6	1722.3	1845.3
17.5°	1159.3	1164.6	1168.7	1188.9	1230.5	1282.7	1363.0	1495.9	1532.1	1709.5	1855.2
20°	1174.9	1181.1	1173.3	1180.3	1206.6	1252.7	1332.5	1468.8	1505.8	1695.1	1856.4
22.5°	1242.0	1247.8	1224.7	1204.5	1202.9	1230.9	1307.4	1447.4	1485.6	1684.4	1856.8
25°	1360.1	1363.8	1325.1	1278.2	1232.5	1223.1	1289.7	1432.5	1473.3	1674.9	1849.0
27.5°	1505.0	1507.8	1463.4	1394.3	1302.5	1241.6	1283.6	1423.9	1466.3	1666.7	1835.8
30°	1681.1	1694.7	1635.0	1547.8	1414.0	1296.3	1295.9	1419.4	1458.5	1652.7	1809.9
32.5°	1861.4	1867.1	1826.0	1737.5	1564.2	1392.6	1330.5	1422.7	1456.4	1635.8	1777.0
35°	2044.1	2051.5	2024.7	1953.5	1769.6	1533.8	1398.0	1442.0	1469.2	1630.1	1753.9
37.5°	2280.7	2290.6	2253.5	2171.2	2019.4	1725.1	1510.3	1490.6	1508.3	1646.5	1746.9
40°	2654.8	2650.3	2542.0	2419.4	2292.6	1970.0	1670.8	1572.9	1583.2	1699.6	1768.3
42.5°	3090.2	3079.1	2892.6	2700.0	2593.1	2266.3	1883.2	1715.7	1713.6	1804.1	1843.7
45°	3437.5	3428.5	3260.6	3023.1	2937.5	2603.8	2157.7	1928.4	1913.2	1970.0	1982.8
47.5°	3625.6	3626.0	3529.3	3335.5	3333.4	3032.6	2510.3	2236.3	2209.9	2236.7	2223.1
50°	3559.7	3568.4	3558.1	3496.4	3694.7	3594.7	2970.8	2665.5	2612.4	2638.7	2586.5
52.5°	3241.2	3252.3	3313.2	3407.9	3846.6	4274.2	3647.4	3198.8	3137.1	3127.6	3069.6
55°	2676.6	2690.2	2814.5	3071.7	3720.2	4730.5	4714.9	3878.7	3780.3	3691.0	3666.3
57.5°	1844.9	1867.5	2067.5	2449.4	3311.6	4868.4	5986.1	4847.8	4647.8	4335.9	4341.6
60°	1039.9	1066.3	1302.1	1649.0	2486.9	4718.6	6953.2	6315.8	5893.5	5091.0	5133.8
62.5°	661.3	689.7	868.7	1145.7	1492.2	3912.0	7349.5	8356.5	7820.3	6021.9	6063.9
65°	535.4	547.7	632.1	945.7	1083.6	2356.8	7048.7	10037.6	9837.6	7203.4	7007.5
67.5°	522.6	526.8	570.4	793.8	1039.1	1324.7	5622.3	10352.0	10573.9	8306.7	7400.5
70°	516.5	530.9	642.8	757.6	995.1	1117.3	3378.7	9490.3	9840.5	8595.2	6877.5
72.5°	250.6	249.8	323.5	685.2	1121.0	1158.9	1735.8	7678.7	8030.2	7446.6	5651.5
75°	202.1	184.8	176.5	251.0	1077.8	1196.7	1106.2	5283.6	5538.0	4992.7	3474.1
77.5°	191.8	171.2	156.8	157.2	455.6	1269.2	937.1	2924.3	2998.4	2255.2	951.9
80°	158.9	139.9	129.6	146.1	220.6	1208.7	1013.2	1323.5	1214.4	553.9	316.9
82.5°	110.3	100.4	97.5	122.6	176.5	861.3	1178.2	711.1	596.3	277.4	195.5
85°	70.4	60.1	66.7	89.3	137.5	397.5	1213.6	554.3	440.7	176.1	110.3
87.5°	32.5	26.3	32.9	49.4	89.7	137.0	1154.8	622.6	453.9	93.0	69.5
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°	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0	1800.0
2.5°	1800.9	1793.0	1786.9	1775.3	1762.6	1750.2	1739.1	1725.1	1721.0	1717.3	1723.1
5°	1806.6	1798.8	1776.2	1740.8	1701.7	1665.1	1628.4	1597.1	1577.8	1567.1	1573.3
7.5°	1815.3	1804.1	1757.2	1692.2	1621.8	1557.6	1491.4	1438.3	1399.2	1380.7	1386.0
10°	1823.1	1801.7	1725.1	1627.6	1524.7	1429.2	1324.7	1238.3	1174.1	1140.3	1148.6
12.5°	1826.4	1792.2	1680.3	1546.9	1405.8	1265.9	1112.0	982.7	890.6	856.8	849.8
15°	1829.7	1781.5	1630.9	1455.2	1262.2	1064.2	848.6	693.8	617.3	600.4	596.7
17.5°	1830.5	1763.0	1574.9	1355.6	1093.8	824.3	580.3	481.9	482.3	509.5	512.8
20°	1821.8	1735.4	1507.0	1231.7	892.2	570.0	398.4	381.5	443.6	511.5	519.8
22.5°	1802.1	1698.8	1430.1	1087.3	661.3	375.3	308.2	326.8	407.0	490.1	499.6
25°	1777.0	1654.4	1339.1	919.8	437.9	268.3	258.4	281.1	335.4	391.0	396.3
27.5°	1742.8	1601.7	1237.1	728.0	284.4	221.0	227.6	242.8	265.0	289.7	292.2
30°	1698.8	1538.7	1128.0	530.9	214.8	198.8	208.2	216.5	225.9	239.9	241.2
32.5°	1648.2	1478.2	1016.1	366.7	190.5	187.2	194.7	198.8	206.2	214.8	215.6
35°	1605.8	1420.6	900.0	259.3	180.3	178.6	183.5	185.2	192.2	201.6	202.5
37.5°	1581.5	1373.7	780.3	209.1	173.3	170.8	173.7	173.7	183.5	197.5	199.6
40°	1583.2	1347.8	660.5	188.9	167.5	164.2	164.6	164.6	177.4	192.6	193.8
42.5°	1628.0	1354.3	554.3	181.1	163.0	159.3	157.2	158.4	169.1	179.0	179.8
45°	1733.4	1400.8	454.7	176.1	158.4	157.2	152.7	152.3	156.4	160.9	160.9
47.5°	1906.2	1492.6	387.2	172.8	154.7	154.3	149.0	143.6	143.2	144.9	144.9
50°	2187.3	1650.6	342.0	169.1	152.3	149.0	142.8	134.6	131.7	132.9	132.9
52.5°	2608.7	1932.5	324.7	164.2	146.9	141.6	134.6	126.3	123.9	124.3	124.3
55°	3161.4	2365.5	322.2	158.4	141.2	132.5	126.8	120.6	117.7	118.5	118.5
57.5°	3836.7	2964.3	366.3	149.4	133.3	123.5	120.2	116.1	114.0	115.2	114.8
60°	4657.7	3747.8	543.2	139.9	125.5	115.2	115.2	111.9	110.3	111.5	111.1
62.5°	5603.4	4647.8	763.8	132.9	117.3	108.6	110.3	108.6	107.0	107.8	107.4
65°	6442.1	5234.3	715.2	127.6	109.1	102.5	105.4	104.5	103.3	104.1	103.7
67.5°	6466.4	5017.0	401.7	121.8	101.2	96.3	100.4	100.0	99.2	100.0	99.6
70°	5770.9	4236.3	226.3	111.1	93.0	88.9	94.7	94.2	93.4	95.1	94.7
72.5°	4623.5	3074.1	165.4	97.9	84.8	81.1	87.7	87.2	87.2	89.7	88.5
75°	2660.5	1581.9	132.1	84.0	76.1	73.3	79.0	79.4	80.2	83.5	81.1
77.5°	758.4	493.0	107.8	71.2	65.4	64.2	70.0	70.8	71.2	74.9	71.6
80°	281.9	227.2	88.9	59.7	53.5	53.9	59.3	60.5	60.9	64.6	60.5
82.5°	179.8	149.8	72.0	46.1	42.0	41.6	48.1	49.8	49.8	50.2	47.7
85°	104.9	89.7	54.3	33.3	29.6	28.4	35.8	38.7	37.4	36.6	35.0
87.5°	70.4	61.7	33.3	18.5	16.0	15.2	21.0	23.0	22.2	21.0	19.8
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)