

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: P299828

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299828  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-5WQ-7030  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18450.1 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

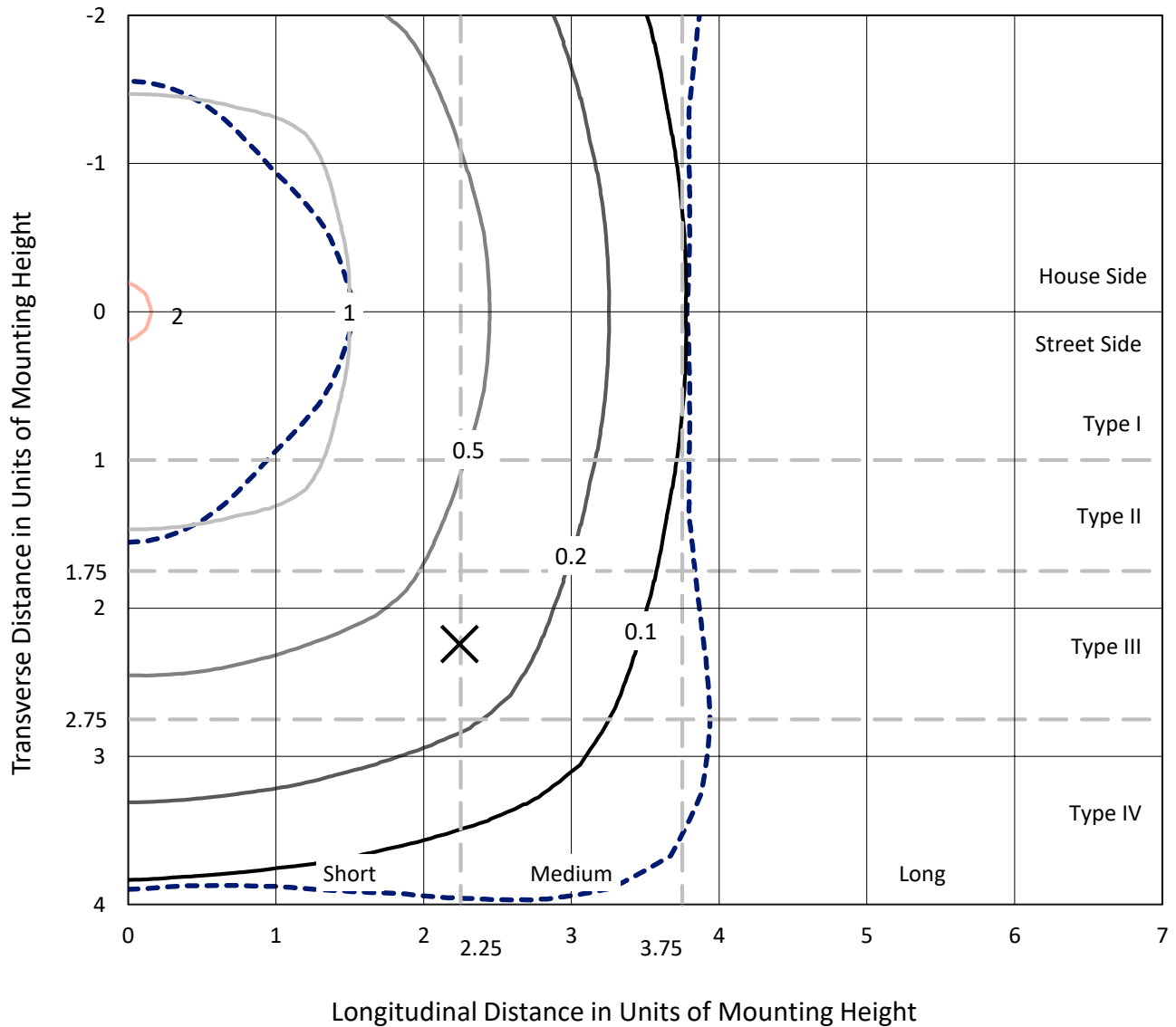
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

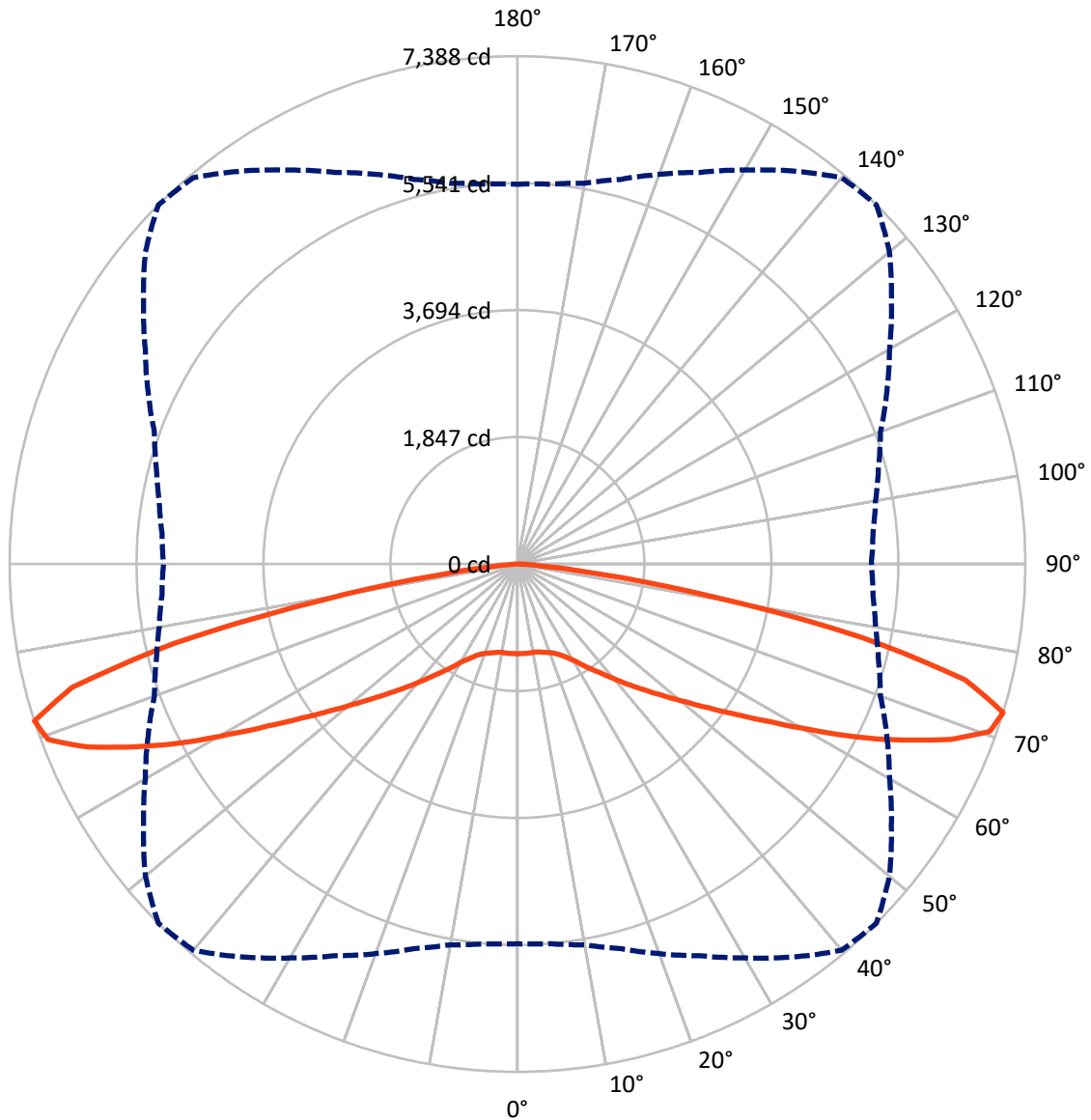
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9225.0	0.0	9225.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9225.0	0.0	9225.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	18450.1	0.0	18450.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.8	0.7
10°-20°	378.9	2.1
20°-30°	692.4	3.8
30°-40°	1193.9	6.5
40°-50°	2040.9	11.1
50°-60°	3308.0	17.9
60°-70°	5487.9	29.7
70°-80°	4833.6	26.2
80°-90°	389.7	2.1
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°	18450.1	100.0
0°-180°	18450.1	100.0



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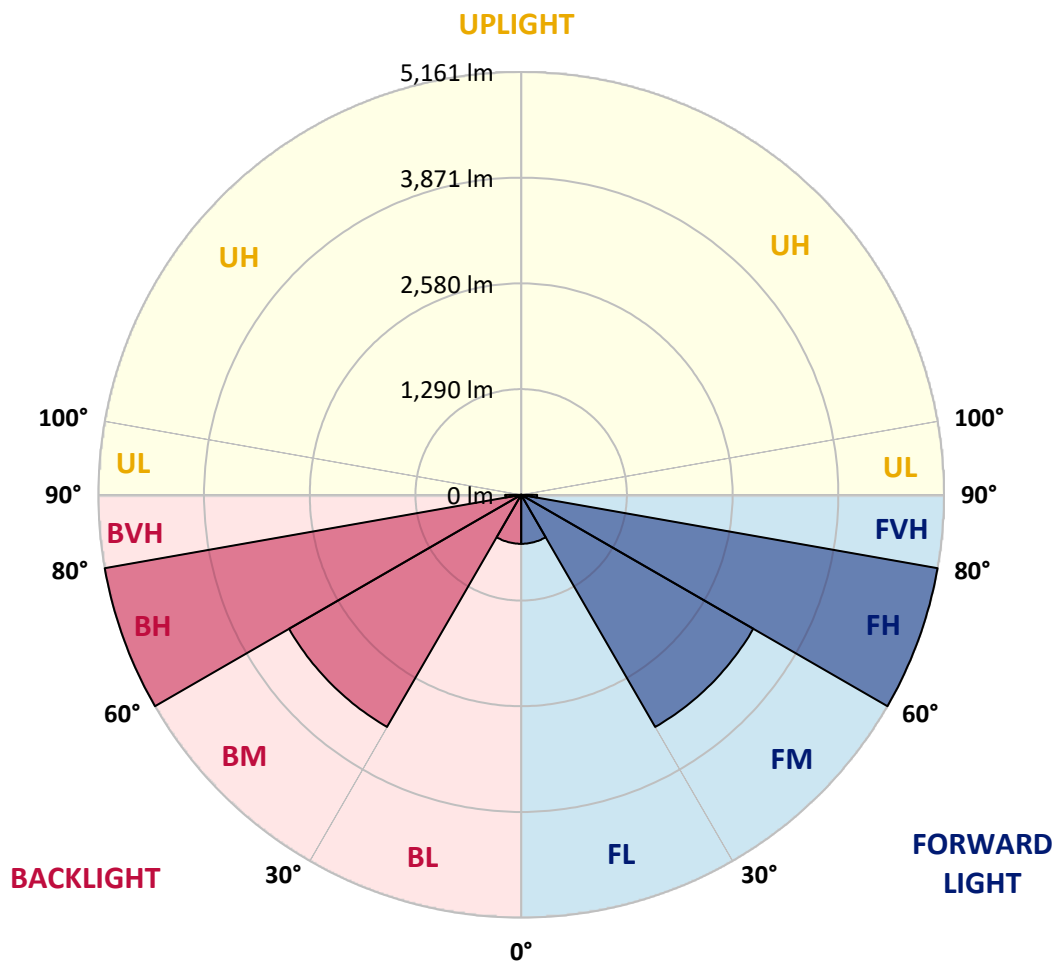
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	598.1	3.2			
FM	(30°-60°)	3271.4	17.7			
FH	(60°-80°)	5160.7	28.0			G3/7500
FVH	(80°-90°)	194.9	1.1			G2/225
BL	(0°-30°)	598.1	3.2	B2/1000		
BM	(30°-60°)	3271.4	17.7	B3/5000		
BH	(60°-80°)	5160.7	28.0	B5		G3/7500
BVH	(80°-90°)	194.9	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6
2.5°	1306.6	1307.4	1308.2	1307.4	1307.4	1306.6	1305.7	1306.6	1305.7	1304.0	1304.9
5°	1310.8	1312.5	1312.5	1310.8	1311.6	1310.8	1309.1	1309.9	1308.2	1305.7	1305.7
7.5°	1315.9	1316.7	1316.7	1315.0	1315.9	1314.2	1312.5	1311.6	1309.9	1306.6	1304.0
10°	1323.5	1324.3	1323.5	1321.8	1321.8	1319.2	1315.0	1313.3	1309.9	1304.9	1302.3
12.5°	1331.9	1332.8	1331.9	1330.2	1329.4	1325.2	1321.8	1319.2	1316.7	1312.5	1308.2
15°	1343.8	1345.5	1343.8	1340.4	1337.9	1334.5	1332.8	1333.6	1334.5	1331.1	1326.9
17.5°	1365.8	1366.6	1364.1	1356.5	1353.1	1349.7	1349.7	1351.4	1353.9	1352.2	1348.0
20°	1406.4	1403.9	1397.9	1388.6	1384.4	1378.5	1377.6	1378.5	1378.5	1377.6	1374.2
22.5°	1457.2	1455.5	1447.9	1436.0	1430.1	1426.7	1421.6	1417.4	1416.6	1414.0	1410.6
25°	1518.1	1517.3	1508.0	1497.8	1493.6	1489.3	1485.1	1479.2	1474.1	1468.2	1464.8
27.5°	1596.0	1592.6	1579.0	1574.0	1568.0	1565.5	1559.6	1552.8	1548.6	1541.0	1536.7
30°	1681.4	1681.4	1670.4	1668.7	1668.7	1662.8	1656.0	1644.2	1636.6	1629.0	1626.4
32.5°	1766.9	1767.7	1756.7	1760.1	1762.7	1766.9	1768.6	1764.4	1759.3	1758.4	1753.4
35°	1890.4	1887.1	1876.1	1878.6	1877.7	1876.9	1876.9	1886.2	1887.9	1889.6	1879.4
37.5°	2043.6	2043.6	2032.6	2032.6	2027.5	2022.4	2015.7	2021.6	2030.9	2033.4	2026.7
40°	2218.8	2224.7	2211.2	2210.3	2212.0	2195.9	2188.3	2197.6	2203.5	2213.7	2206.1
42.5°	2425.2	2421.0	2407.5	2405.8	2396.5	2391.4	2384.6	2392.2	2401.6	2408.3	2410.9
45°	2623.3	2619.9	2604.6	2604.6	2595.3	2591.1	2594.5	2607.2	2611.4	2620.7	2630.0
47.5°	2818.7	2814.5	2804.3	2808.6	2809.4	2817.0	2828.0	2839.9	2851.7	2864.4	2868.7
50°	3018.4	3019.3	3008.3	3018.4	3031.1	3052.3	3081.9	3101.4	3125.9	3142.0	3147.1
52.5°	3200.4	3203.8	3215.6	3239.3	3264.7	3306.2	3356.9	3404.3	3444.9	3472.0	3470.3
55°	3418.7	3423.8	3452.5	3493.2	3534.6	3597.3	3672.6	3756.3	3824.0	3863.0	3838.4
57.5°	3697.9	3709.0	3741.1	3796.1	3857.9	3939.1	4042.4	4168.4	4273.4	4325.8	4286.1
60°	4081.3	4088.1	4127.0	4187.9	4262.4	4363.1	4501.0	4670.2	4818.3	4887.7	4842.0
62.5°	4586.5	4599.2	4630.5	4692.3	4768.4	4882.6	5051.0	5262.6	5447.1	5543.5	5440.3
65°	5189.8	5230.4	5256.7	5319.3	5390.4	5511.4	5687.4	5914.2	6112.2	6175.7	6056.3
67.5°	5787.2	5822.8	5868.5	5940.4	6012.3	6148.6	6311.9	6531.9	6749.4	6806.9	6621.6
70°	6048.7	6069.0	6140.1	6238.3	6376.2	6537.0	6725.7	6972.8	7241.9	7289.3	7054.0
72.5°	5524.9	5545.2	5624.8	5791.5	6031.8	6287.4	6616.5	6979.6	7335.0	7388.3	7064.2
75°	4178.6	4145.6	4263.2	4484.1	4808.2	5164.4	5624.8	6145.2	6658.8	6725.7	6339.0
77.5°	2159.5	2155.3	2244.2	2518.3	2905.0	3310.4	3817.3	4405.4	4908.0	5111.1	4796.3
80°	608.4	615.2	657.5	793.7	1019.7	1312.5	1708.5	2259.4	2670.6	2880.5	2704.5
82.5°	238.6	257.2	273.3	298.7	328.3	371.5	495.9	737.9	990.1	1183.0	968.9
85°	85.5	91.4	129.5	153.2	155.7	164.2	187.0	218.3	263.2	313.9	258.1
87.5°	32.2	35.5	41.5	68.5	67.7	61.8	75.3	78.7	59.2	54.2	66.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6	1306.6
2.5°	1303.2	1304.0	1304.0	1304.9	1305.7	1305.7	1307.4	1307.4
5°	1304.0	1304.0	1302.3	1303.2	1302.3	1302.3	1303.2	1303.2
7.5°	1302.3	1301.5	1299.8	1298.9	1297.2	1297.2	1297.2	1297.2
10°	1299.8	1298.9	1297.2	1296.4	1295.6	1295.6	1295.6	1295.6
12.5°	1306.6	1304.0	1302.3	1301.5	1301.5	1301.5	1301.5	1301.5
15°	1324.3	1318.4	1314.2	1314.2	1315.0	1316.7	1316.7	1318.4
17.5°	1346.3	1339.6	1335.3	1331.9	1333.6	1336.2	1337.9	1339.6
20°	1372.6	1369.2	1363.2	1359.9	1359.9	1363.2	1364.9	1365.8
22.5°	1408.9	1406.4	1403.9	1399.6	1399.6	1401.3	1404.7	1404.7
25°	1463.1	1461.4	1459.7	1456.3	1455.5	1455.5	1457.2	1458.9
27.5°	1530.8	1531.6	1530.0	1529.1	1526.6	1525.7	1528.3	1527.4
30°	1621.3	1625.6	1629.8	1626.4	1622.2	1619.7	1617.1	1613.7
32.5°	1744.0	1739.0	1735.6	1729.7	1722.0	1715.3	1710.2	1704.3
35°	1860.0	1851.5	1848.1	1853.2	1852.4	1848.1	1842.2	1837.1
37.5°	2002.1	2000.4	2002.1	2011.4	2009.8	2014.0	2002.1	2001.3
40°	2181.5	2183.2	2195.1	2206.1	2212.0	2217.9	2211.2	2204.4
42.5°	2389.7	2388.9	2393.1	2408.3	2418.5	2425.2	2410.9	2409.2
45°	2609.7	2603.8	2607.2	2619.9	2630.0	2637.6	2621.6	2621.6
47.5°	2851.7	2841.6	2830.6	2845.0	2850.9	2856.0	2843.3	2839.0
50°	3121.7	3100.5	3076.8	3082.8	3082.8	3081.1	3065.0	3064.1
52.5°	3431.4	3392.5	3349.3	3333.2	3323.9	3313.8	3285.8	3272.3
55°	3787.6	3729.3	3661.6	3620.1	3598.1	3570.2	3523.6	3510.9
57.5°	4204.0	4112.6	3995.8	3945.0	3896.0	3850.3	3798.6	3784.3
60°	4697.3	4562.8	4407.9	4314.0	4260.7	4216.7	4163.4	4160.8
62.5°	5247.4	5035.0	4859.8	4775.2	4736.3	4697.3	4646.6	4653.3
65°	5806.7	5585.0	5420.8	5352.3	5315.9	5283.8	5233.0	5240.6
67.5°	6358.4	6154.5	5974.3	5904.0	5863.4	5822.8	5777.1	5784.7
70°	6754.5	6501.5	6298.4	6142.7	6045.3	5935.3	5864.3	5846.5
72.5°	6641.1	6251.0	5928.6	5619.7	5438.6	5291.4	5191.5	5148.4
75°	5747.5	5214.4	4799.7	4420.6	4207.4	4033.9	3907.8	3829.1
77.5°	4268.3	3669.2	3179.2	2742.6	2397.3	2165.5	2002.1	1896.4
80°	2336.4	1777.0	1298.9	913.1	671.0	557.7	492.5	461.2
82.5°	727.7	469.6	346.1	298.7	277.6	265.7	246.2	214.9
85°	231.9	203.1	188.7	180.2	171.8	149.8	103.2	93.9
87.5°	89.7	92.2	91.4	86.3	88.0	63.5	50.8	44.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)