

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: LUMARK

Report Number: P270406

Luminaire Tested: **NAV-AF-03-D-UNV-5NQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270406  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-03-D-UNV-5NQ-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10659.9 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

Input Watts (W): 96  
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

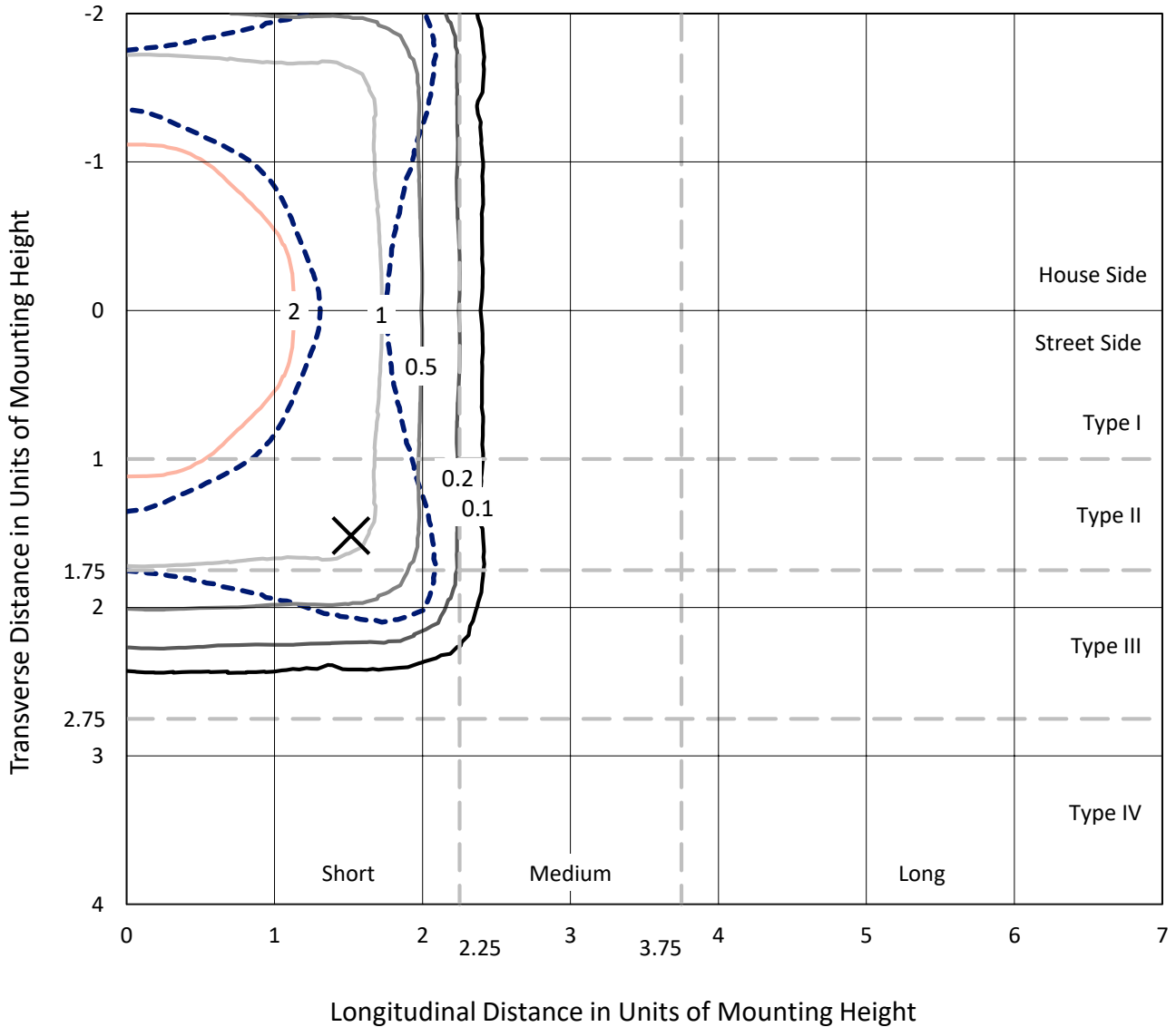


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### Iso-Footcandle Lines of Horizontal Illumination

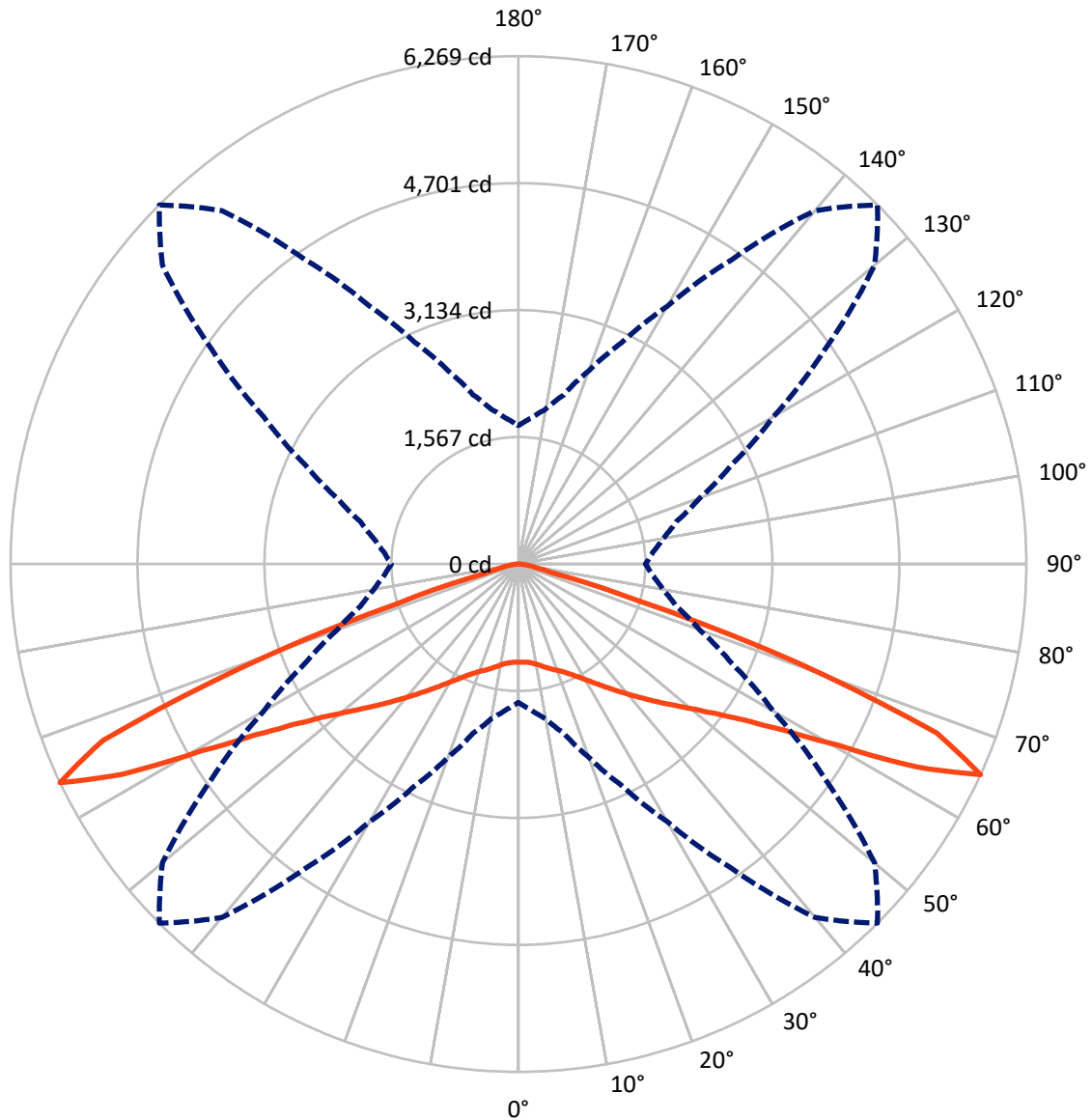
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5330.0	0.0	5330.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5330.0	0.0	5330.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	10659.9	0.0	10659.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.1	1.1
10°-20°	378.4	3.6
20°-30°	706.0	6.6
30°-40°	1190.4	11.2
40°-50°	1933.6	18.1
50°-60°	3029.5	28.4
60°-70°	2859.8	26.8
70°-80°	385.4	3.6
80°-90°	58.7	0.6
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°	10659.9	100.0
0°-180°	10659.9	100.0

**Coefficient of Utilization**



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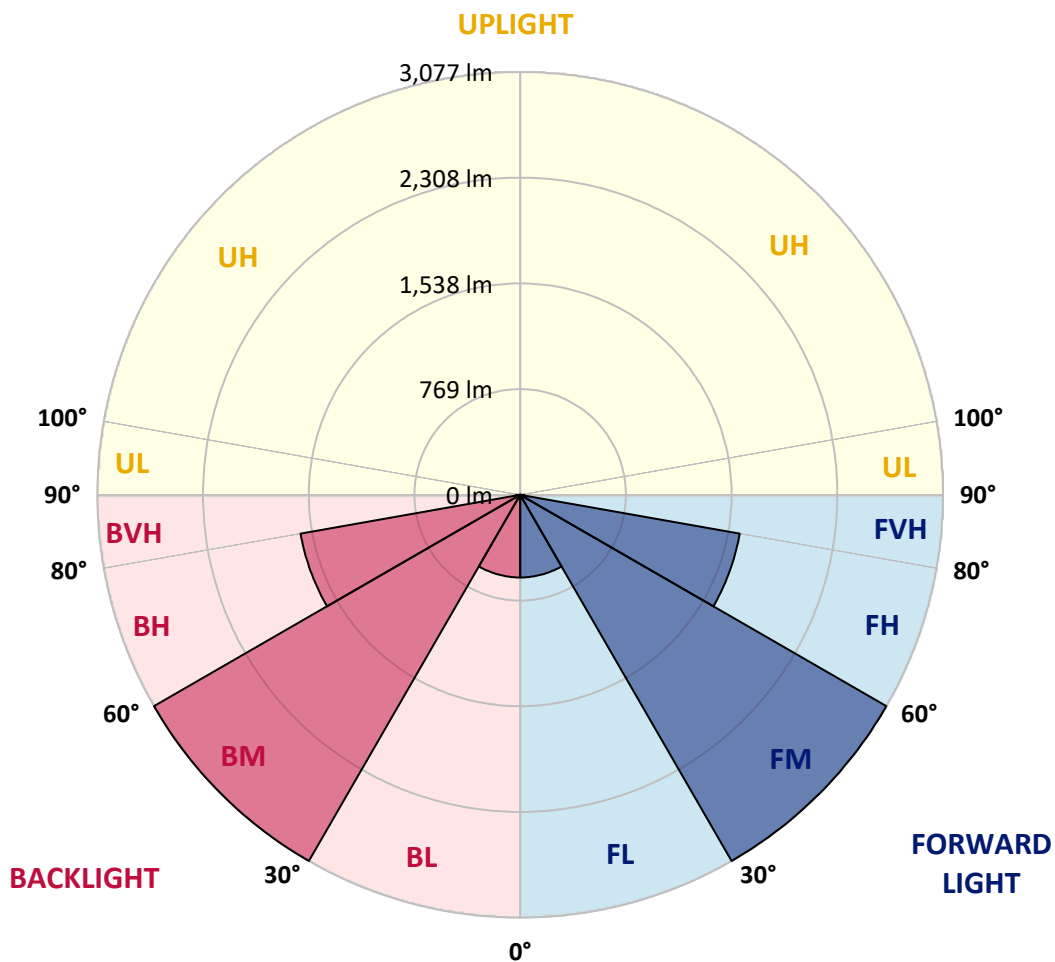
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	601.3	5.6			
FM	(30°-60°)	3076.7	28.9			
FH	(60°-80°)	1622.6	15.2			G1/1800
FVH	(80°-90°)	29.4	0.3			G1/100
BL	(0°-30°)	601.3	5.6	B2/1000		
BM	(30°-60°)	3076.7	28.9	B3/5000		
BH	(60°-80°)	1622.6	15.2	B3/2500		G1/1800
BVH	(80°-90°)	29.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5
2.5°	1222.6	1222.6	1224.5	1223.9	1221.2	1219.2	1217.3	1214.6	1213.3	1211.9	1211.3
5°	1229.2	1229.2	1231.1	1230.5	1228.5	1225.8	1224.5	1222.6	1220.4	1219.2	1219.9
7.5°	1245.8	1246.4	1247.0	1246.4	1244.4	1242.4	1239.8	1239.1	1236.4	1234.5	1235.8
10°	1271.0	1271.0	1271.6	1272.3	1271.0	1266.3	1266.3	1265.1	1262.4	1259.8	1260.3
12.5°	1298.9	1298.9	1299.6	1299.6	1299.6	1297.0	1297.5	1297.0	1293.6	1292.2	1293.6
15°	1326.1	1326.7	1326.7	1328.1	1328.1	1328.8	1331.4	1331.4	1330.1	1329.4	1329.4
17.5°	1358.0	1359.2	1359.9	1362.0	1362.5	1363.9	1366.6	1367.3	1367.8	1366.0	1366.6
20°	1400.5	1401.1	1403.2	1403.8	1406.4	1406.4	1407.7	1407.1	1405.8	1403.2	1403.2
22.5°	1448.2	1449.7	1453.5	1453.5	1457.0	1455.0	1455.7	1453.5	1450.3	1449.0	1447.6
25°	1510.7	1512.7	1516.0	1514.7	1516.0	1512.7	1512.7	1512.7	1510.7	1508.8	1508.1
27.5°	1589.7	1586.3	1589.7	1587.0	1586.3	1583.7	1584.4	1583.2	1581.0	1580.4	1577.8
30°	1672.0	1668.2	1670.0	1670.8	1669.4	1668.7	1666.0	1664.1	1660.7	1661.4	1659.4
32.5°	1766.3	1762.4	1764.5	1765.0	1763.7	1765.0	1764.5	1759.7	1755.7	1758.4	1758.4
35°	1878.5	1875.9	1881.2	1883.2	1879.3	1877.3	1874.7	1869.4	1863.4	1867.2	1867.9
37.5°	2013.5	2010.0	2014.1	2019.4	2012.1	2008.2	1997.4	1989.4	1985.6	1987.5	1990.1
40°	2153.4	2154.1	2165.5	2166.8	2158.7	2154.1	2143.5	2131.6	2120.3	2120.3	2123.7
42.5°	2300.9	2303.0	2316.2	2320.9	2318.2	2309.5	2294.9	2280.3	2265.7	2268.4	2272.4
45°	2467.6	2464.9	2479.0	2490.2	2488.1	2485.5	2471.5	2444.9	2431.7	2431.1	2437.7
47.5°	2643.0	2648.3	2662.8	2682.1	2681.4	2674.8	2656.8	2632.3	2607.7	2609.7	2617.8
50°	2847.4	2854.8	2879.2	2898.6	2901.3	2899.2	2878.0	2849.5	2814.8	2816.8	2827.5
52.5°	3030.7	3041.3	3069.9	3109.8	3134.2	3145.5	3131.6	3105.1	3069.9	3071.8	3083.2
55°	3196.7	3213.2	3255.7	3310.3	3359.4	3405.2	3425.7	3425.1	3399.2	3405.2	3419.8
57.5°	3301.0	3324.2	3388.6	3476.4	3573.8	3666.3	3745.9	3820.9	3837.5	3868.7	3868.7
60°	3160.9	3215.4	3301.0	3451.1	3642.9	3850.1	4074.6	4293.1	4433.9	4544.7	4485.0
62.5°	2639.6	2720.0	2840.1	3038.0	3336.8	3706.6	4157.5	4665.5	5195.4	5519.5	5281.9
65°	1707.9	1808.8	1939.7	2162.1	2538.6	3014.8	3671.6	4584.6	5693.5	6268.6	5737.4
67.5°	676.7	745.1	824.7	982.7	1309.5	1776.9	2514.0	3640.3	5027.5	5570.0	4974.4
70°	323.4	334.7	350.0	383.8	465.5	628.2	1010.1	1793.6	3083.2	3654.9	3009.4
72.5°	233.7	235.7	243.0	254.3	278.3	311.4	378.5	548.5	1063.1	1546.0	1064.4
75°	177.2	180.0	184.0	189.9	202.6	218.5	243.7	292.2	364.0	419.7	363.3
77.5°	134.7	137.5	140.8	146.8	153.4	164.7	174.0	193.2	223.8	235.7	234.4
80°	98.3	102.9	108.2	113.5	118.1	123.4	124.1	133.5	150.7	162.1	158.7
82.5°	62.4	66.5	80.4	86.3	87.0	88.4	87.7	88.4	97.6	105.6	102.9
85°	39.9	42.5	49.8	56.5	55.2	57.9	57.9	56.5	52.5	45.2	53.8
87.5°	19.9	20.7	24.0	29.9	28.6	25.2	24.6	24.6	18.0	15.4	16.6
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°	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5	1212.5
2.5°	1209.2	1210.6	1208.6	1208.6	1208.0	1209.2	1207.2	1207.2
5°	1218.6	1220.4	1219.9	1219.9	1221.2	1222.6	1221.9	1221.2
7.5°	1235.1	1236.4	1237.8	1238.5	1239.8	1239.1	1240.4	1239.8
10°	1260.3	1259.1	1261.0	1259.1	1259.8	1258.3	1259.1	1259.1
12.5°	1292.2	1290.2	1288.9	1287.6	1287.6	1284.9	1284.9	1285.6
15°	1328.8	1325.4	1322.8	1321.4	1320.1	1320.1	1318.2	1319.5
17.5°	1364.6	1361.3	1356.6	1356.6	1354.6	1353.3	1351.9	1355.4
20°	1402.4	1399.1	1396.4	1395.8	1391.8	1390.4	1391.1	1395.2
22.5°	1446.4	1444.4	1444.4	1442.9	1440.3	1438.4	1438.4	1442.9
25°	1505.4	1501.3	1502.1	1502.8	1501.3	1501.3	1500.1	1503.5
27.5°	1577.8	1574.5	1576.4	1577.8	1576.4	1578.4	1576.4	1579.1
30°	1662.8	1660.7	1662.8	1664.7	1661.4	1661.4	1660.1	1662.1
32.5°	1764.5	1761.8	1763.1	1763.1	1758.4	1754.4	1749.1	1753.1
35°	1875.9	1872.5	1875.2	1877.3	1872.0	1867.9	1860.0	1863.4
37.5°	1998.8	2000.0	2003.4	2012.1	2010.8	2004.1	1998.1	2000.7
40°	2136.2	2142.8	2157.5	2163.5	2162.1	2155.6	2147.5	2148.8
42.5°	2291.7	2300.3	2315.6	2325.5	2320.9	2311.6	2301.5	2305.6
45°	2460.9	2474.2	2494.1	2504.1	2498.1	2488.1	2474.2	2481.6
47.5°	2640.3	2666.8	2693.4	2706.7	2704.6	2690.8	2672.7	2674.8
50°	2854.8	2889.9	2923.9	2937.1	2927.0	2905.8	2880.7	2880.0
52.5°	3121.7	3159.5	3187.5	3184.1	3159.5	3126.3	3097.7	3096.5
55°	3455.1	3467.6	3463.7	3435.1	3391.9	3340.2	3303.6	3297.7
57.5°	3858.1	3815.6	3753.2	3666.8	3570.0	3471.6	3405.2	3380.6
60°	4350.9	4159.0	3935.8	3700.7	3486.2	3325.5	3223.9	3162.2
62.5°	4758.0	4202.1	3703.4	3295.1	2961.0	2762.5	2623.6	2538.0
65°	4618.5	3630.3	2907.9	2381.2	2016.8	1811.5	1664.7	1567.2
67.5°	3567.9	2425.8	1688.1	1170.0	887.2	751.1	656.1	594.3
70°	1798.9	930.4	563.7	397.8	340.0	316.1	300.2	290.8
72.5°	527.9	352.7	292.8	259.0	238.4	223.8	214.4	209.8
75°	292.2	238.4	210.6	191.2	178.0	168.1	162.1	158.0
77.5°	201.2	173.4	159.4	146.8	136.2	128.8	124.1	120.3
80°	140.8	126.8	120.8	114.3	106.3	100.3	93.7	91.0
82.5°	93.7	87.7	86.3	80.9	76.4	69.7	57.9	53.8
85°	55.2	54.4	54.4	52.5	49.1	43.2	34.6	34.6
87.5°	19.3	19.9	20.7	21.9	21.3	18.0	14.6	14.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)