

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: P194979

Luminaire Tested: **NAV-AF-03-D-UNV-5NQ-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P194979
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-7060-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5700K, 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: 12269 lumens
Efficiency: N/A
Efficacy: 127.8 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 - G2

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

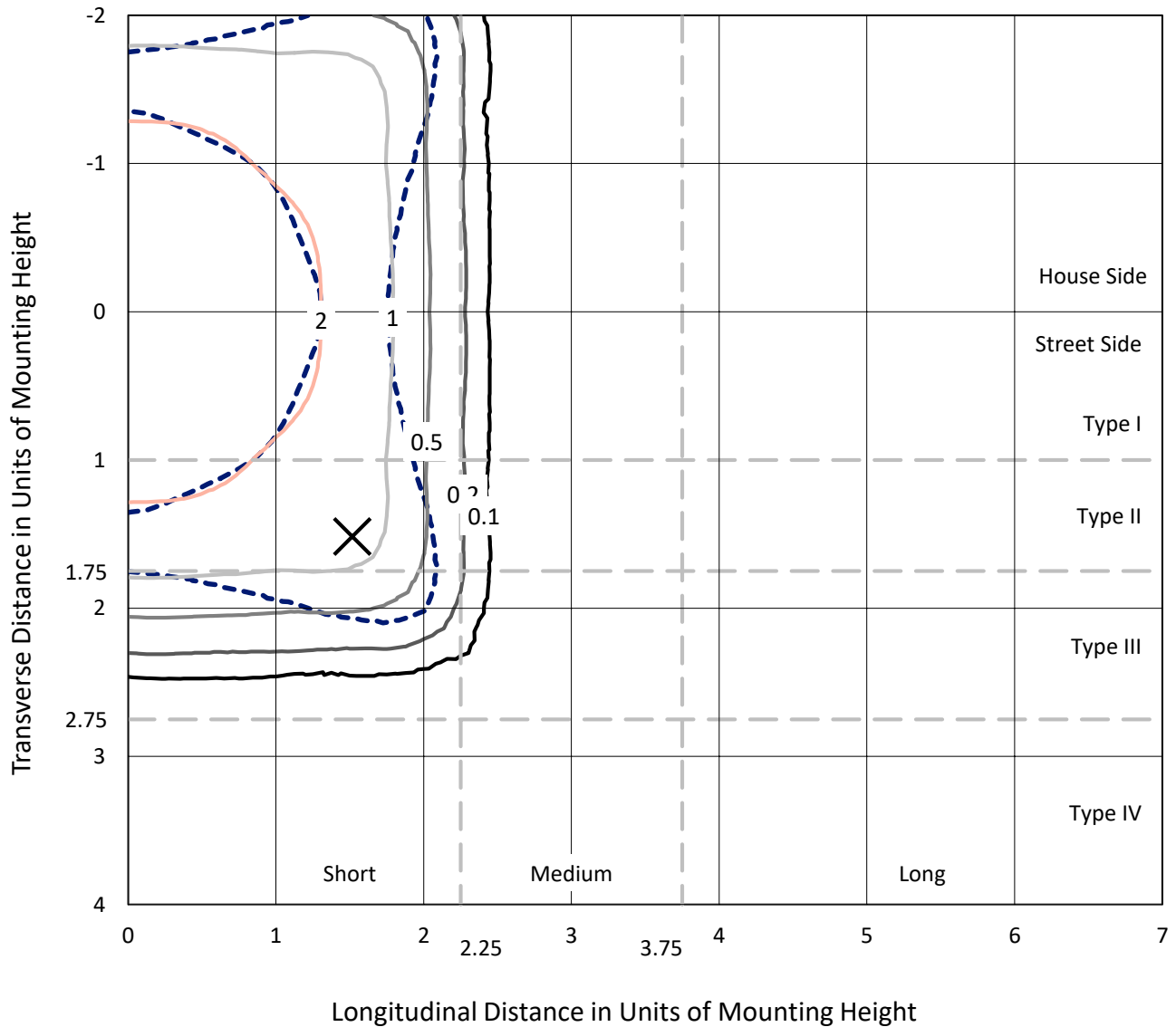


REPORT NUMBER: P194979

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7060-600

Iso-Footcandle Lines of Horizontal Illumination

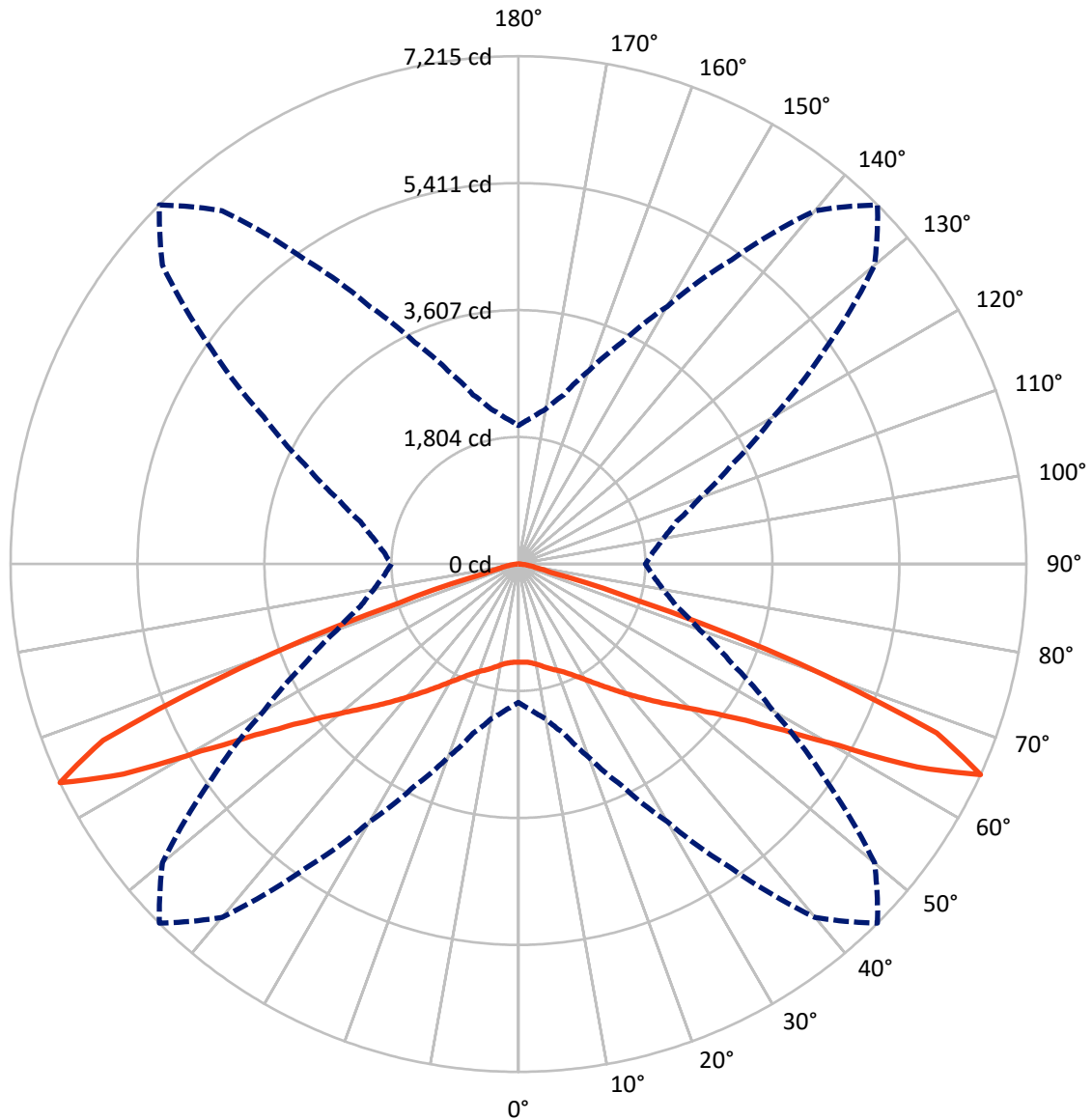
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P194979
CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7060-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P194979

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7060-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6134.5	0.0	6134.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6134.5	0.0	6134.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	12269.0	0.0	12269.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.9	1.1
10°-20°	435.6	3.6
20°-30°	812.5	6.6
30°-40°	1370.1	11.2
40°-50°	2225.4	18.1
50°-60°	3486.9	28.4
60°-70°	3291.4	26.8
70°-80°	443.6	3.6
80°-90°	67.6	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°	12269.0	100.0
0°-180°	12269.0	100.0



REPORT NUMBER: P194979

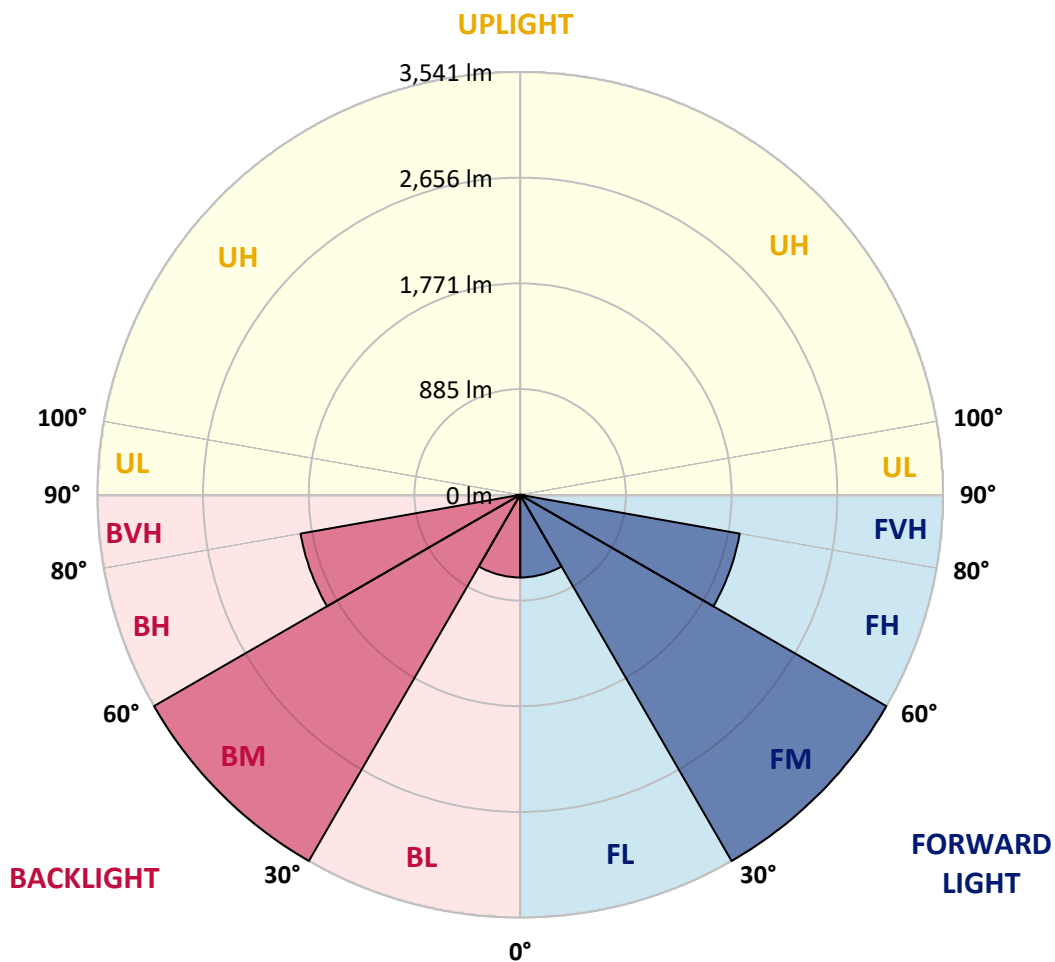
CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7060-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	692.0	5.6			
FM (30°-60°)	3541.2	28.9			
FH (60°-80°)	1867.5	15.2			G2/5000
FVH (80°-90°)	33.8	0.3			G1/100
BL (0°-30°)	692.0	5.6	B2/1000		
BM (30°-60°)	3541.2	28.9	B3/5000		
BH (60°-80°)	1867.5	15.2	B3/2500		G2/5000
BVH (80°-90°)	33.8	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-G2

Type V Short





REPORT NUMBER: P194979

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7060-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6
2.5°	1407.0	1407.0	1409.3	1408.6	1405.5	1403.2	1400.9	1397.9	1396.3	1394.8	1394.1
5°	1414.7	1414.7	1417.0	1416.2	1413.9	1410.9	1409.3	1407.0	1404.8	1403.2	1404.0
7.5°	1433.8	1434.6	1435.3	1434.6	1432.3	1430.0	1426.9	1426.2	1423.1	1420.8	1422.3
10°	1462.8	1462.8	1463.6	1464.4	1462.8	1457.5	1457.5	1456.0	1452.9	1449.8	1450.6
12.5°	1494.9	1494.9	1495.7	1495.7	1495.7	1492.6	1493.4	1492.6	1488.8	1487.3	1488.8
15°	1526.3	1527.0	1527.0	1528.6	1528.6	1529.3	1532.4	1532.4	1530.9	1530.1	1530.1
17.5°	1563.0	1564.5	1565.3	1567.5	1568.3	1569.8	1572.9	1573.7	1574.4	1572.1	1572.9
20°	1611.9	1612.6	1614.9	1615.7	1618.8	1618.8	1620.3	1619.5	1618.0	1614.9	1614.9
22.5°	1666.9	1668.4	1673.0	1673.0	1676.8	1674.5	1675.3	1673.0	1669.2	1667.7	1666.1
25°	1738.7	1741.0	1744.9	1743.3	1744.9	1741.0	1741.0	1741.0	1738.7	1736.5	1735.7
27.5°	1829.7	1825.9	1829.7	1826.6	1825.9	1822.8	1823.6	1822.1	1819.8	1819.0	1815.9
30°	1924.5	1919.9	1922.2	1922.9	1921.4	1920.6	1917.6	1915.3	1911.5	1912.2	1909.9
32.5°	2033.0	2028.4	2030.7	2031.5	2029.9	2031.5	2030.7	2025.4	2020.8	2023.8	2023.8
35°	2162.2	2159.1	2165.2	2167.5	2162.9	2160.6	2157.6	2151.5	2144.6	2149.2	2149.9
37.5°	2317.3	2313.5	2318.1	2324.2	2315.8	2311.2	2299.0	2289.8	2285.2	2287.5	2290.6
40°	2478.6	2479.3	2492.3	2493.9	2484.7	2479.3	2467.1	2453.4	2440.4	2440.4	2444.2
42.5°	2648.2	2650.5	2665.8	2671.2	2668.1	2658.2	2641.4	2624.6	2607.7	2610.8	2615.4
45°	2840.1	2837.0	2853.1	2866.1	2863.8	2860.7	2844.7	2814.1	2798.8	2798.0	2805.7
47.5°	3041.9	3048.0	3064.8	3086.9	3086.2	3078.5	3057.9	3029.6	3001.3	3003.6	3012.8
50°	3277.3	3285.7	3313.9	3336.1	3339.2	3336.9	3312.4	3279.5	3239.8	3242.1	3254.3
52.5°	3488.2	3500.4	3533.3	3579.1	3607.4	3620.4	3604.4	3573.8	3533.3	3535.6	3548.6
55°	3679.3	3698.4	3747.3	3810.0	3866.5	3919.3	3942.9	3942.2	3912.4	3919.3	3936.1
57.5°	3799.3	3826.0	3900.1	4001.0	4113.4	4219.6	4311.3	4397.7	4416.8	4452.7	4452.7
60°	3638.0	3700.7	3799.3	3972.0	4192.9	4431.3	4689.7	4941.1	5103.1	5230.8	5162.0
62.5°	3038.0	3130.5	3268.8	3496.6	3840.5	4266.2	4785.2	5369.9	5979.8	6352.7	6079.1
65°	1965.7	2081.9	2232.5	2488.5	2921.9	3469.9	4225.7	5276.6	6553.0	7214.8	6603.4
67.5°	778.8	857.5	949.2	1131.1	1507.2	2045.2	2893.6	4189.8	5786.4	6410.8	5725.3
70°	372.2	385.2	402.8	441.8	535.8	723.0	1162.5	2064.3	3548.6	4206.6	3463.7
72.5°	269.0	271.3	279.7	292.7	320.2	358.4	435.6	631.3	1223.6	1779.3	1225.1
75°	204.1	207.1	211.7	218.6	233.1	251.4	280.5	336.3	418.8	483.0	418.1
77.5°	155.1	158.2	162.0	168.9	176.5	189.5	200.2	222.4	257.6	271.3	269.8
80°	113.1	118.5	124.6	130.7	136.0	142.2	142.9	153.6	173.5	186.5	182.7
82.5°	71.8	76.4	92.5	99.4	100.1	101.6	100.9	101.6	112.3	121.5	118.5
85°	45.9	48.9	57.3	65.0	63.4	66.5	66.5	65.0	60.4	52.0	61.9
87.5°	22.9	23.7	27.5	34.4	32.9	29.0	28.3	28.3	20.6	17.6	19.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P194979

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-7060-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6	1395.6
2.5°	1391.8	1393.3	1391.0	1391.0	1390.2	1391.8	1389.5	1389.5
5°	1402.5	1404.8	1404.0	1404.0	1405.5	1407.0	1406.3	1405.5
7.5°	1421.6	1423.1	1424.6	1425.4	1426.9	1426.2	1427.7	1426.9
10°	1450.6	1449.1	1451.4	1449.1	1449.8	1448.3	1449.1	1449.1
12.5°	1487.3	1485.0	1483.5	1481.9	1481.9	1478.9	1478.9	1479.7
15°	1529.3	1525.5	1522.5	1520.9	1519.4	1519.4	1517.1	1518.6
17.5°	1570.6	1566.8	1561.4	1561.4	1559.1	1557.6	1556.1	1559.9
20°	1614.2	1610.3	1607.3	1606.5	1601.9	1600.4	1601.2	1605.8
22.5°	1664.6	1662.3	1662.3	1660.8	1657.7	1655.4	1655.4	1660.8
25°	1732.6	1728.0	1728.8	1729.6	1728.0	1728.0	1726.5	1730.3
27.5°	1815.9	1812.1	1814.4	1815.9	1814.4	1816.7	1814.4	1817.5
30°	1913.8	1911.5	1913.8	1916.1	1912.2	1912.2	1910.7	1913.0
32.5°	2030.7	2027.6	2029.2	2029.2	2023.8	2019.2	2013.1	2017.7
35°	2159.1	2155.3	2158.3	2160.6	2154.5	2149.9	2140.8	2144.6
37.5°	2300.5	2302.0	2305.8	2315.8	2314.3	2306.6	2299.7	2302.8
40°	2458.7	2466.3	2483.2	2490.0	2488.5	2480.9	2471.7	2473.2
42.5°	2637.5	2647.5	2665.1	2676.5	2671.2	2660.5	2649.0	2653.6
45°	2832.4	2847.7	2870.7	2882.1	2875.2	2863.8	2847.7	2856.1
47.5°	3038.8	3069.4	3099.9	3115.2	3112.9	3096.9	3076.2	3078.5
50°	3285.7	3326.2	3365.1	3380.4	3369.0	3344.5	3315.5	3314.7
52.5°	3592.9	3636.5	3668.6	3664.7	3636.5	3598.3	3565.4	3563.9
55°	3976.6	3991.1	3986.5	3953.6	3904.0	3844.4	3802.3	3795.4
57.5°	4440.5	4391.6	4319.7	4220.4	4108.8	3995.7	3919.3	3891.0
60°	5007.6	4786.7	4529.9	4259.4	4012.5	3827.5	3710.6	3639.5
62.5°	5476.1	4836.4	4262.4	3792.4	3407.9	3179.4	3019.7	2921.1
65°	5315.6	4178.3	3346.8	2740.7	2321.1	2085.0	1916.1	1803.7
67.5°	4106.5	2791.9	1942.8	1346.7	1021.1	864.4	755.1	684.0
70°	2070.4	1070.8	648.9	457.8	391.3	363.8	345.5	334.8
72.5°	607.6	405.8	337.0	298.1	274.4	257.6	246.9	241.5
75°	336.3	274.4	242.3	220.1	204.8	193.4	186.5	181.9
77.5°	231.6	199.5	183.4	168.9	156.7	148.3	142.9	138.3
80°	162.0	146.0	139.1	131.5	122.3	115.4	107.8	104.7
82.5°	107.8	100.9	99.4	93.2	87.9	80.2	66.5	61.9
85°	63.4	62.7	62.7	60.4	56.6	49.7	39.7	39.7
87.5°	22.2	22.9	23.7	25.2	24.5	20.6	16.8	16.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)