

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: P196803

Luminaire Tested: **NAV-AF-03-D-UNV-T3R-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196803  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
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-T3R-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11739.9 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G2

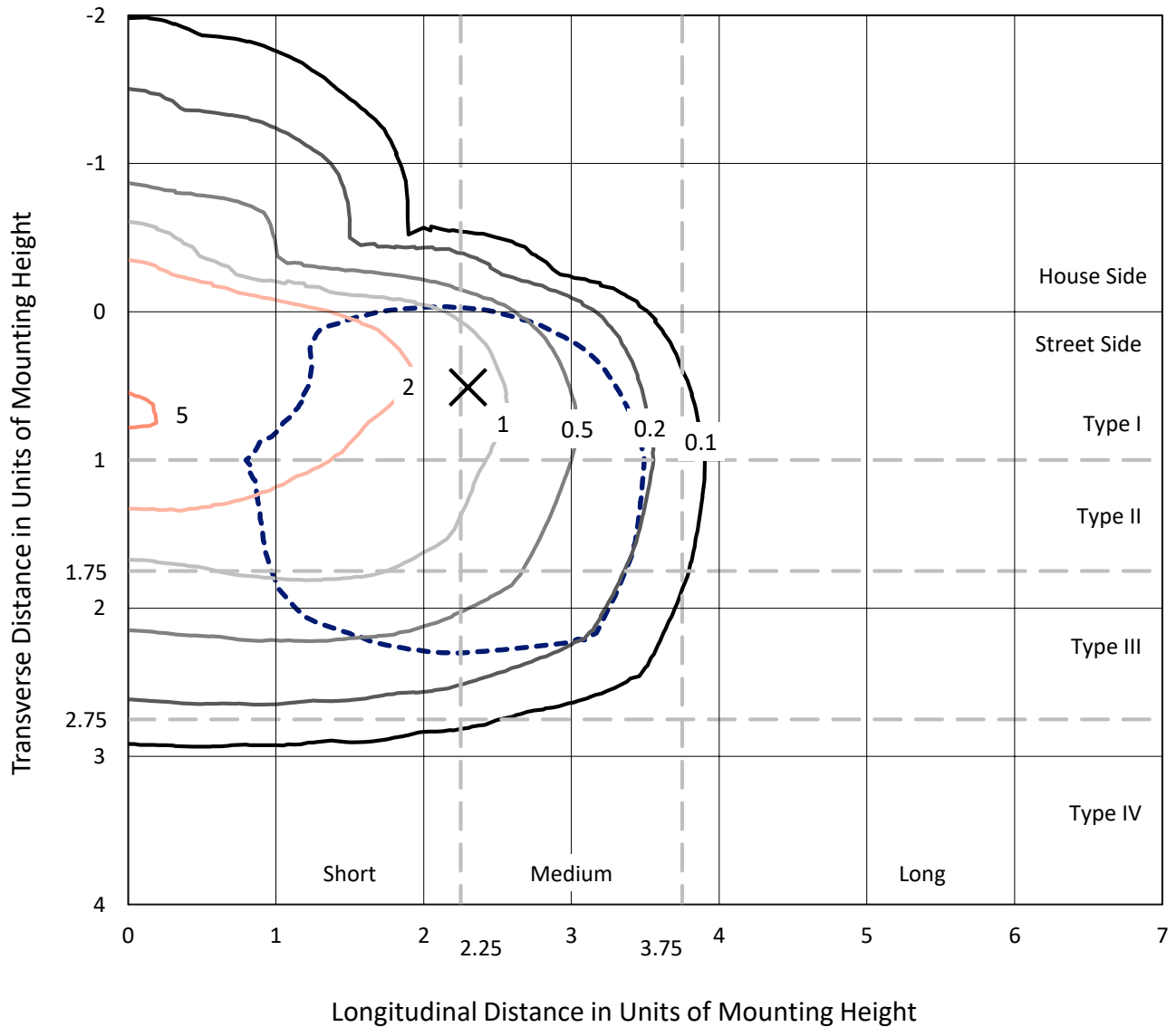
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196803  
 CATALOG NUMBER: NAV-AF-03-D-UNV-T3R-7030-600

### Iso-Footcandle Lines of Horizontal Illumination

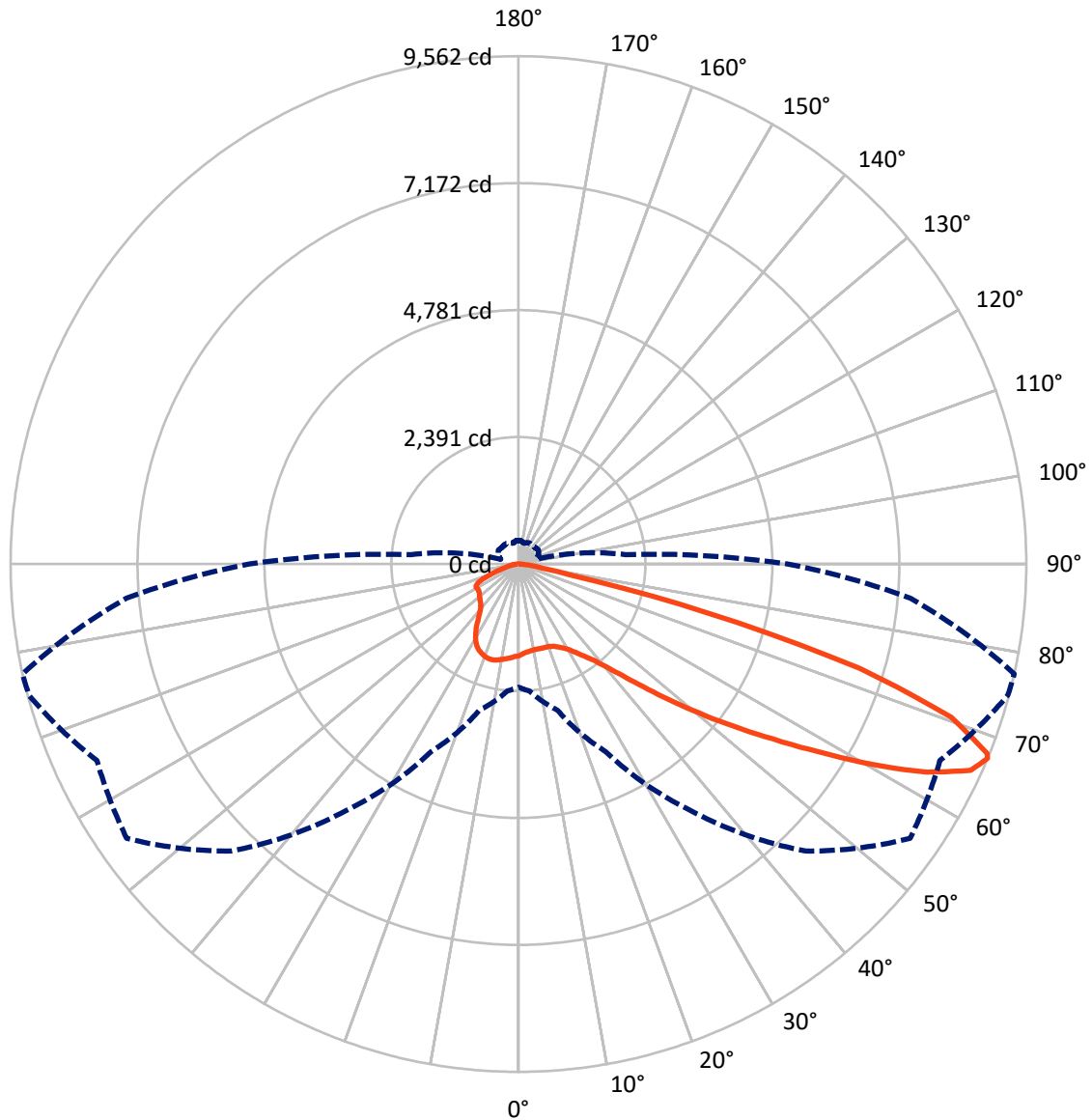
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Medium - Full Cutoff

REPORT NUMBER: P196803  
CATALOG NUMBER: NAV-AF-03-D-UNV-T3R-7030-600

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P196803

CATALOG NUMBER: NAV-AF-03-D-UNV-T3R-7030-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2017.5	0.0	2017.5
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	9722.4	0.0	9722.4
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	11739.9	0.0	11739.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.9	1.3
10°-20°	426.2	3.6
20°-30°	724.1	6.2
30°-40°	1158.4	9.9
40°-50°	1783.3	15.2
50°-60°	2474.2	21.1
60°-70°	3300.4	28.1
70°-80°	1570.7	13.4
80°-90°	148.7	1.3
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°	11739.9	100.0
0°-180°	11739.9	100.0



REPORT NUMBER: P196803

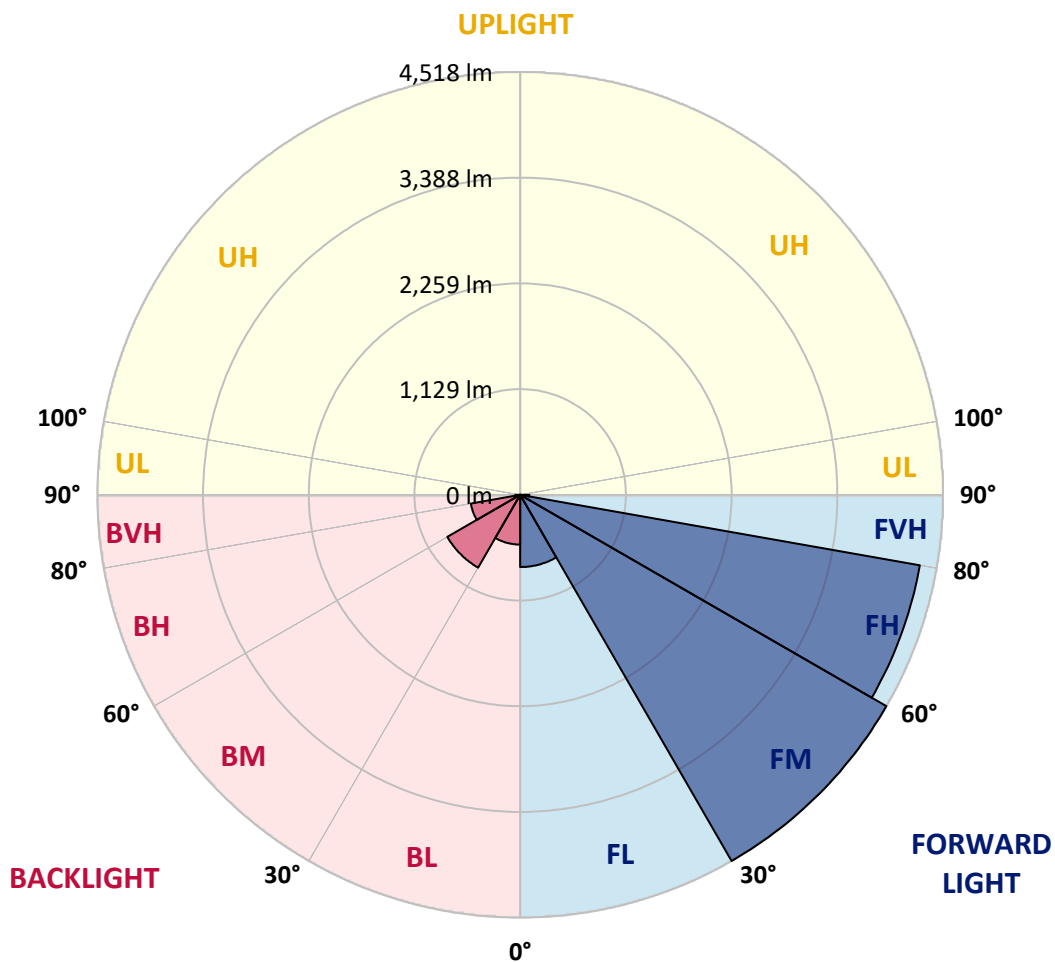
CATALOG NUMBER: NAV-AF-03-D-UNV-T3R-7030-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	772.0	6.6			
FM	(30°-60°)	4517.6	38.5			
FH	(60°-80°)	4336.2	36.9			G2/5000
FVH	(80°-90°)	96.6	0.8			G1/100
BL	(0°-30°)	532.1	4.5	B2/1000		
BM	(30°-60°)	898.3	7.7	B1/1000		
BH	(60°-80°)	534.9	4.6	B2/1000		G2/1000
BVH	(80°-90°)	52.1	0.4			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 III Medium





REPORT NUMBER: P196803

CATALOG NUMBER: NAV-AF-03-D-UNV-T3R-7030-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8
2.5°	1549.3	1556.5	1557.3	1578.4	1587.7	1611.7	1637.8	1661.1	1681.4	1688.6	1701.7
5°	1394.0	1394.0	1396.3	1410.0	1436.9	1475.3	1529.7	1589.1	1651.6	1666.9	1705.3
7.5°	1312.8	1314.2	1315.6	1329.4	1350.5	1384.6	1439.0	1520.3	1624.0	1649.5	1716.9
10°	1320.0	1317.7	1310.6	1307.7	1316.3	1338.1	1385.3	1468.8	1600.8	1640.0	1738.0
12.5°	1433.9	1429.5	1405.6	1370.7	1338.9	1330.9	1363.5	1442.7	1589.9	1640.0	1773.5
15°	1629.2	1632.0	1584.8	1512.2	1428.8	1372.2	1367.9	1433.2	1586.3	1644.4	1814.9
17.5°	1883.1	1884.5	1819.2	1714.1	1575.4	1458.6	1397.7	1433.2	1586.3	1648.7	1854.7
20°	2153.1	2142.9	2068.9	1936.8	1756.8	1578.4	1452.0	1441.9	1590.7	1655.3	1892.5
22.5°	2384.6	2375.1	2297.5	2158.9	1952.8	1719.8	1525.4	1470.9	1614.7	1682.0	1945.5
25°	2587.0	2592.8	2517.4	2361.3	2147.9	1879.5	1634.9	1537.8	1664.7	1730.6	2010.8
27.5°	2833.0	2822.0	2735.0	2586.2	2349.0	2044.9	1772.0	1621.9	1724.2	1789.4	2090.6
30°	3117.5	3112.4	2994.8	2841.8	2570.4	2230.0	1907.7	1712.5	1801.8	1870.1	2190.7
32.5°	3462.9	3462.1	3335.9	3148.0	2819.2	2439.0	2068.2	1836.6	1915.0	1983.9	2323.6
35°	3854.0	3853.2	3722.7	3474.5	3105.8	2670.4	2256.9	1987.7	2055.0	2127.6	2481.9
37.5°	4125.4	4121.0	4052.9	3811.9	3423.0	2939.6	2492.6	2190.7	2214.0	2295.3	2672.6
40°	4177.6	4203.8	4262.5	4120.2	3769.1	3238.7	2729.2	2409.1	2431.0	2535.5	2912.9
42.5°	4121.0	4155.1	4350.3	4390.2	4115.2	3600.7	3025.3	2711.9	2739.3	2869.2	3195.1
45°	4071.6	4101.5	4346.0	4539.7	4457.0	3995.5	3394.6	3081.2	3133.4	3294.5	3517.3
47.5°	3987.5	4015.1	4260.3	4566.6	4652.3	4375.8	3839.5	3525.2	3615.3	3810.4	3884.5
50°	3983.1	3995.5	4143.5	4476.6	4719.7	4664.6	4332.2	4044.9	4182.8	4407.7	4290.8
52.5°	3872.9	3959.2	4093.5	4332.9	4721.2	4833.0	4817.7	4614.4	4827.1	5075.9	4736.4
55°	3198.0	3297.5	3926.6	4262.5	4712.5	4977.3	5261.1	5220.4	5552.8	5814.8	5235.7
57.5°	2986.0	3028.2	3444.7	4283.6	4785.0	5216.0	5704.4	5871.4	6382.9	6668.8	5834.3
60°	2928.0	2972.3	3348.2	4293.8	4981.6	5650.8	6306.0	6606.5	7358.9	7662.3	6514.2
62.5°	2863.4	2920.8	3355.5	4303.1	5327.2	6293.7	7104.2	7404.0	8361.1	8631.8	7151.4
65°	2674.7	2751.0	3221.2	4243.6	5705.2	7100.6	8159.4	8235.5	9189.0	9361.2	7536.0
67°	2317.1	2400.5	2852.5	3899.7	5670.3	7644.1	9003.3	8755.8	9541.1	9562.1	7411.2
67.5°	2203.9	2290.2	2727.7	3756.8	5570.9	7715.3	9152.7	8827.7	9538.2	9515.0	7295.1
70°	1484.0	1581.2	1931.7	2758.2	4468.6	7180.4	9116.5	8606.4	8912.6	8646.3	6267.5
72.5°	736.5	739.4	963.6	1510.8	2707.5	5150.1	7605.0	7362.6	7224.7	6721.8	4599.3
75°	354.9	361.4	454.9	667.6	1141.4	2658.9	5186.3	4967.9	4229.9	3662.5	2301.8
77.5°	270.6	277.2	353.4	434.7	476.1	867.2	2568.9	2076.2	1225.7	979.0	648.8
80°	209.0	221.4	298.3	333.8	314.8	347.6	807.7	635.7	476.8	437.6	321.4
82.5°	163.3	170.6	253.3	253.3	217.8	232.9	375.9	367.2	296.1	267.0	172.7
85°	115.4	129.9	203.9	188.7	142.9	144.4	225.0	215.6	152.4	122.6	67.5
87.5°	51.6	66.0	145.1	123.4	76.2	58.8	92.1	79.1	60.2	46.4	31.2
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: P196803

CATALOG NUMBER: NAV-AF-03-D-UNV-T3R-7030-600

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8
2.5°	1716.3	1727.8	1746.0	1756.8	1771.3	1777.1	1783.0	1793.2	1801.1	1799.0	1795.2
5°	1732.2	1751.8	1774.3	1781.5	1781.5	1774.3	1769.9	1770.6	1768.5	1766.9	1762.7
7.5°	1755.4	1782.2	1798.2	1791.0	1768.5	1740.2	1713.3	1697.4	1682.0	1672.6	1675.6
10°	1788.0	1817.7	1818.5	1786.6	1732.9	1671.2	1618.2	1584.1	1551.5	1537.0	1541.3
12.5°	1835.2	1864.9	1839.6	1770.6	1676.2	1579.8	1482.5	1412.1	1349.1	1333.7	1329.4
15°	1886.1	1909.2	1852.6	1736.5	1594.9	1436.1	1272.8	1167.6	1097.2	1084.8	1080.5
17.5°	1930.3	1943.2	1846.1	1675.6	1466.6	1216.2	1026.1	954.9	940.5	947.8	947.8
20°	1969.4	1965.1	1817.7	1581.2	1264.1	972.4	862.0	861.4	880.9	899.1	900.6
22.5°	2018.8	1984.7	1772.8	1441.1	1022.4	811.2	792.4	811.2	833.1	853.5	855.6
25°	2077.6	2006.4	1712.5	1241.6	822.1	736.5	744.5	760.5	774.3	790.3	790.9
27.5°	2136.3	2023.2	1627.6	1007.3	713.4	688.7	697.4	703.8	707.6	717.8	717.8
30°	2204.6	2036.3	1505.0	807.0	663.2	646.6	641.5	638.6	641.5	655.2	656.0
32.5°	2290.2	2059.4	1337.5	692.2	640.0	616.8	590.6	576.2	586.2	611.0	615.3
35°	2387.5	2087.0	1136.4	646.6	632.1	602.3	554.4	531.9	535.6	558.0	561.7
37.5°	2509.3	2122.6	938.3	635.7	640.0	600.8	537.7	505.8	489.8	490.6	489.8
40°	2665.4	2158.1	781.5	638.6	657.4	604.5	529.7	479.6	446.4	447.8	450.5
42.5°	2828.6	2181.4	682.1	647.3	678.5	609.5	526.8	454.3	425.2	449.9	472.4
45°	3019.5	2174.8	630.7	655.2	694.5	611.8	515.9	451.4	427.4	501.4	543.6
47.5°	3238.7	2146.5	601.6	659.0	698.8	611.0	507.9	460.7	445.6	574.0	621.9
50°	3476.6	2102.2	578.3	653.2	696.6	608.1	516.7	472.4	452.8	590.0	626.9
52.5°	3737.2	2061.6	554.4	640.0	685.7	599.4	527.5	467.3	432.4	543.6	571.9
55°	4045.6	2052.2	527.5	617.6	667.6	590.0	521.7	451.4	410.0	481.9	499.2
57.5°	4398.2	2111.0	492.8	590.0	643.0	571.1	507.9	442.6	402.0	438.3	447.8
60°	4845.9	2240.8	455.7	560.9	612.5	542.8	495.6	444.8	404.2	431.8	434.0
62.5°	5195.8	2357.7	422.3	525.4	571.9	508.7	482.6	447.0	410.7	440.5	436.8
65°	5322.8	2300.4	381.0	472.4	514.5	470.9	464.5	448.5	410.7	445.6	437.6
67°	5062.2	2026.8	341.8	419.4	460.1	437.6	447.0	442.6	403.5	444.8	431.0
67.5°	4938.2	1930.3	331.6	410.7	445.6	427.4	442.6	439.8	401.3	443.4	427.4
70°	4072.4	1384.6	280.1	344.7	373.0	376.6	415.8	420.8	383.8	416.5	387.6
72.5°	2897.5	866.4	241.7	267.0	301.1	322.2	379.5	395.5	360.7	362.0	338.1
75°	1433.9	465.1	215.6	206.1	234.4	268.4	330.9	360.7	326.5	301.9	293.9
77.5°	484.0	263.5	182.1	166.2	182.1	215.6	274.3	314.8	288.1	255.4	250.3
80°	250.3	191.5	142.2	133.6	143.6	166.9	214.8	262.0	246.1	247.5	203.9
82.5°	156.0	116.8	102.2	101.6	108.8	127.8	158.2	212.6	211.2	180.8	131.3
85°	72.5	67.5	65.3	67.5	69.7	72.5	103.0	151.7	160.4	97.2	86.4
87.5°	30.5	29.7	26.1	28.3	31.2	30.5	41.4	64.6	90.0	60.9	55.8
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)