

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: P196857

Luminaire Tested: **NAV-AF-03-D-UNV-T4W-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)
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-T4W-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13987.4 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

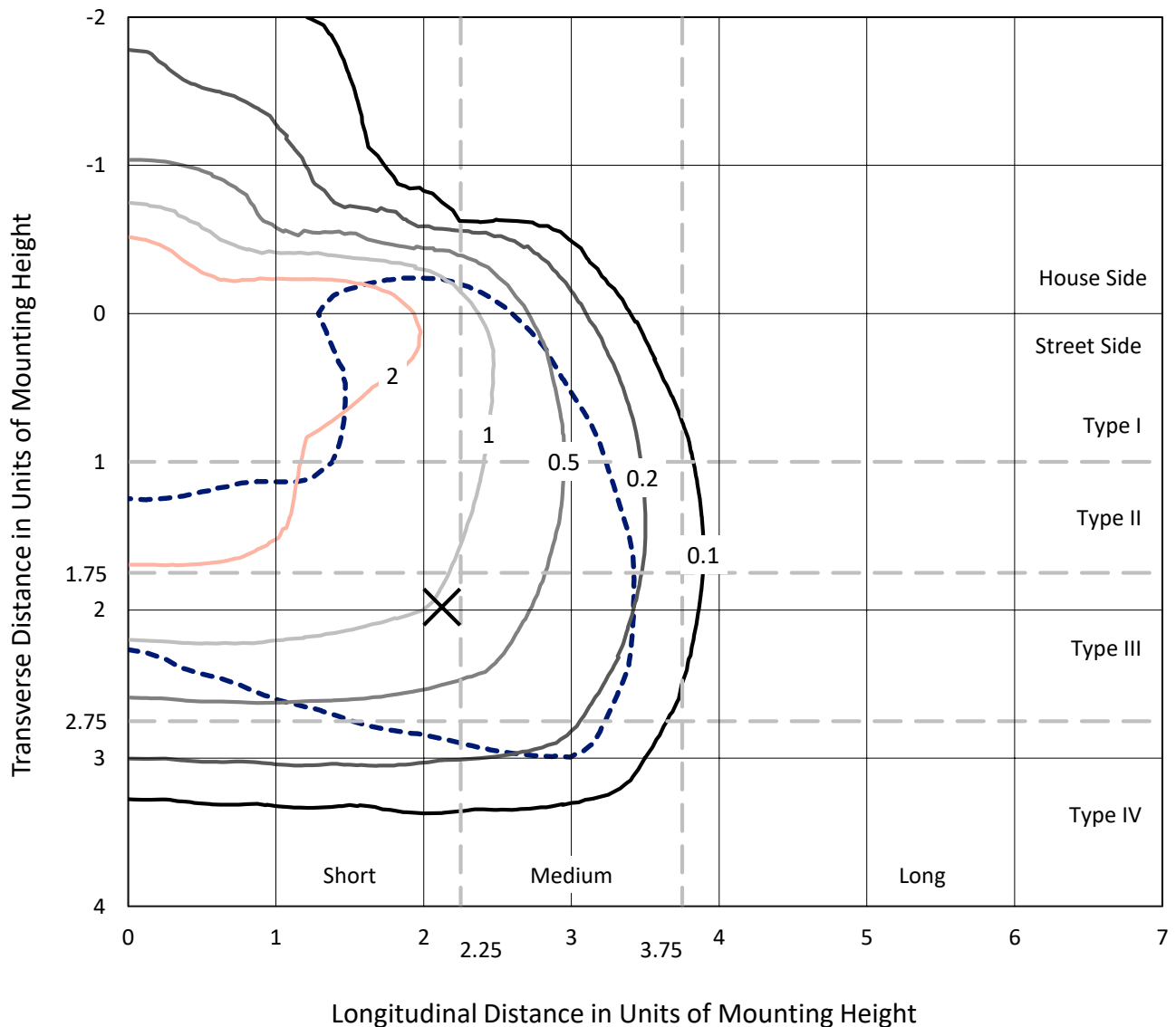
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196857
 CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-7030-800

Iso-Footcandle Lines of Horizontal Illumination

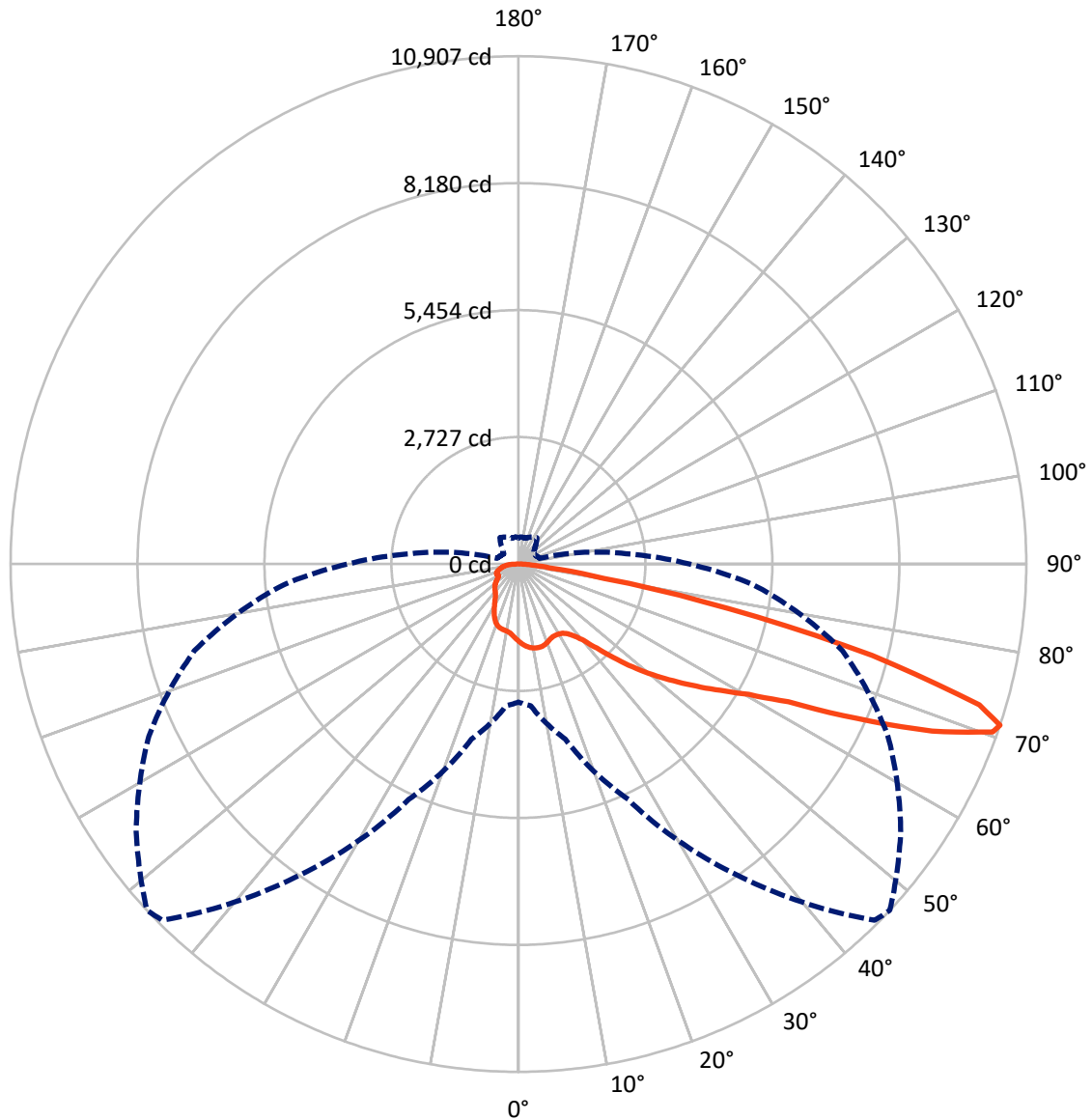
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P196857
CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P196857

CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2997.7	0.0	2997.7
	% Fixture	21.4	0.0	21.4
Street Side	Lumens	10989.7	0.0	10989.7
	% Fixture	78.6	0.0	78.6
Total	Lumens	13987.4	0.0	13987.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	1.1
10°-20°	464.6	3.3
20°-30°	690.4	4.9
30°-40°	991.3	7.1
40°-50°	1757.7	12.6
50°-60°	3007.6	21.5
60°-70°	4269.8	30.5
70°-80°	2338.5	16.7
80°-90°	308.7	2.2
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°	13987.4	100.0
0°-180°	13987.4	100.0



REPORT NUMBER: P196857

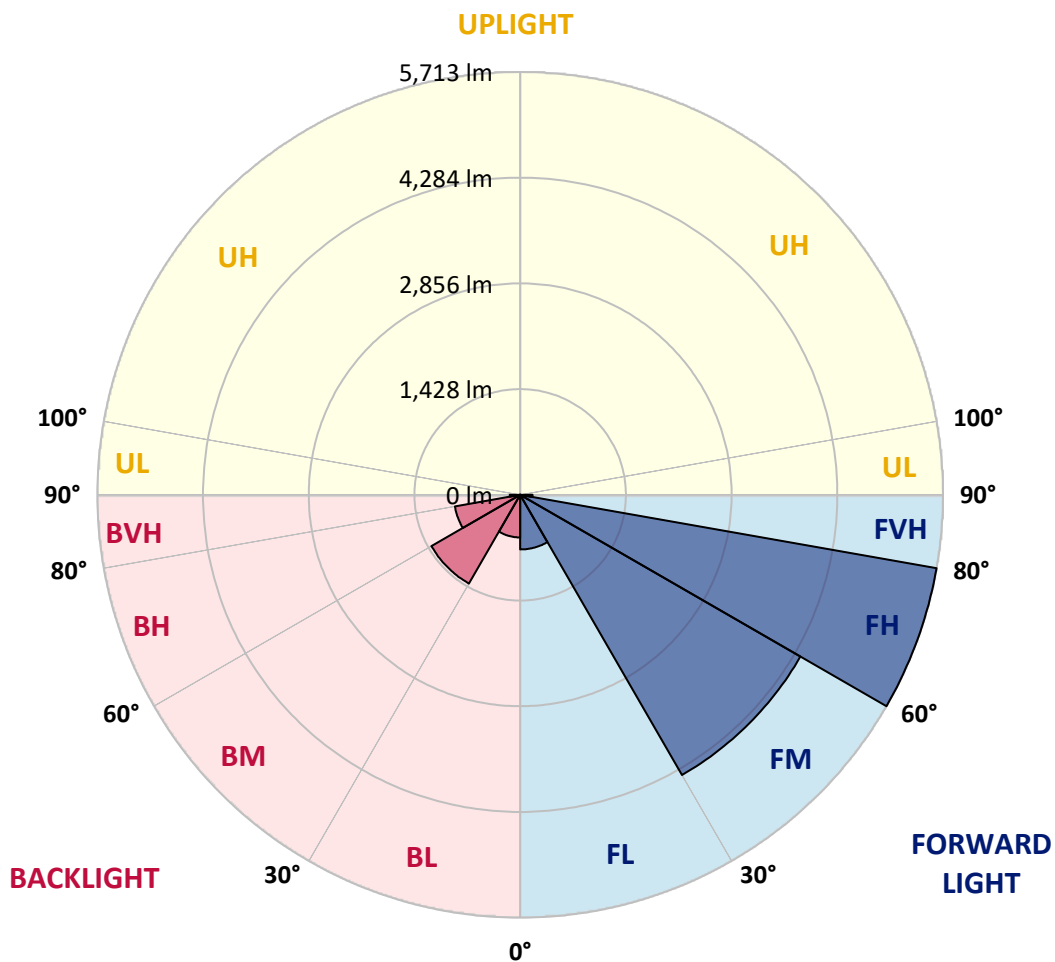
CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	738.2	5.3			
FM	(30°-60°)	4371.5	31.3			
FH	(60°-80°)	5712.6	40.8			G3/7500
FVH	(80°-90°)	167.4	1.2			G2/225
BL	(0°-30°)	575.7	4.1	B2/1000		
BM	(30°-60°)	1385.1	9.9	B2/2500		
BH	(60°-80°)	895.7	6.4	B2/1000		G2/1000
BVH	(80°-90°)	141.3	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





REPORT NUMBER: P196857

CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4
2.5°	1764.9	1761.3	1763.0	1756.7	1741.3	1724.9	1724.9	1707.7	1689.5	1671.4	1651.6
5°	1874.6	1869.1	1864.6	1844.7	1814.7	1781.2	1775.7	1741.3	1704.1	1667.0	1630.7
7.5°	1966.1	1960.6	1947.0	1910.8	1867.2	1817.4	1811.1	1765.7	1716.8	1665.1	1614.5
10°	2031.3	2027.8	2001.4	1955.2	1904.5	1845.5	1834.7	1788.5	1730.4	1666.1	1601.7
12.5°	2067.6	2062.2	2030.5	1976.1	1916.2	1856.5	1845.5	1801.1	1734.9	1664.2	1588.9
15°	2053.1	2050.4	2020.4	1965.1	1905.4	1853.7	1844.7	1799.3	1732.2	1657.9	1577.2
17.5°	1991.5	1997.8	1974.2	1919.9	1870.9	1834.7	1824.6	1782.1	1718.6	1642.5	1559.1
20°	1906.2	1913.5	1901.7	1846.5	1818.3	1794.8	1789.3	1754.9	1695.9	1619.8	1537.4
22.5°	1815.7	1822.0	1822.9	1771.2	1762.2	1753.1	1748.5	1724.1	1676.0	1606.2	1522.8
25°	1753.1	1760.2	1762.2	1716.8	1722.3	1724.9	1724.1	1706.8	1672.4	1606.2	1524.6
27.5°	1736.7	1740.4	1738.6	1696.9	1706.8	1722.3	1723.1	1719.5	1686.9	1624.3	1550.1
30°	1793.0	1794.8	1772.0	1709.6	1719.5	1739.5	1740.4	1738.6	1717.8	1671.4	1607.1
32.5°	2035.9	2034.1	1956.1	1794.8	1760.2	1767.6	1770.3	1786.6	1788.5	1749.5	1689.5
35°	2405.7	2404.8	2314.1	2038.6	1876.3	1838.3	1841.9	1867.2	1889.9	1863.6	1829.2
37.5°	2812.7	2815.4	2760.1	2386.7	2126.5	1967.9	1964.3	1983.3	2024.1	2033.2	2037.6
40°	3264.1	3277.7	3275.0	2786.4	2477.4	2189.1	2152.9	2131.1	2209.9	2259.8	2324.2
42.5°	3780.0	3776.2	3778.0	3225.2	2878.0	2537.1	2470.1	2368.5	2460.1	2546.2	2687.7
45°	4223.1	4237.6	4248.5	3692.0	3326.6	2935.0	2867.1	2682.2	2764.7	2893.4	3109.1
47.5°	4669.0	4643.7	4663.6	4211.4	3826.2	3389.2	3301.3	3052.0	3129.0	3310.3	3638.5
50°	5188.5	5176.7	5086.1	4889.4	4429.8	3849.6	3734.6	3438.2	3550.6	3792.6	4292.0
52.5°	5654.3	5591.1	5520.4	5422.4	5023.5	4315.6	4169.7	3839.7	4046.4	4346.5	5103.3
55°	5824.8	5782.2	5867.4	5994.3	5651.7	4790.6	4627.4	4308.3	4605.8	4980.0	6057.8
57.5°	6006.1	6020.6	6212.8	6469.3	6246.4	5297.3	5120.6	4863.1	5219.4	5688.9	7124.7
60°	6096.7	6154.8	6538.2	7019.6	6812.0	5852.9	5683.4	5500.3	5900.1	6472.1	8188.9
62.5°	6112.2	6190.1	6733.1	7212.6	7590.6	6704.0	6508.2	6309.8	6750.4	7337.8	8959.4
65°	5829.4	5949.0	6715.8	7450.1	8300.3	8126.2	8002.1	7655.9	7888.8	8100.1	9090.8
67.5°	4998.2	5128.7	6051.5	7352.2	8869.5	9602.0	9578.4	9067.2	8768.0	8394.6	8116.4
70°	3668.4	3773.6	4660.0	6285.3	8621.2	10760.4	10802.1	9981.8	9013.7	7769.2	6035.2
71°	2966.8	3057.4	3893.2	5580.1	8137.2	10820.3	10907.3	10022.6	8758.1	7204.4	5052.5
72.5°	1846.5	1897.2	2585.2	4211.4	7006.8	10203.9	10350.7	9500.5	7953.2	6089.6	3571.3
75°	697.1	717.0	959.0	1857.3	4182.3	7665.8	7843.5	7180.0	5587.3	3476.2	1494.7
77.5°	374.3	384.4	476.0	772.3	1676.0	4394.4	4622.9	4095.4	2680.3	1216.5	611.0
80°	251.1	257.5	329.1	457.8	770.5	1673.3	1863.6	1644.3	1003.4	694.4	435.1
82.5°	162.2	165.8	223.9	300.9	497.6	588.3	671.7	701.6	626.4	497.6	262.9
85°	107.0	109.7	147.7	192.2	308.2	290.1	297.3	388.9	426.9	328.1	134.2
87.5°	61.6	63.5	88.8	98.8	138.6	108.8	117.9	184.8	253.8	213.9	77.0
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: P196857

CATALOG NUMBER: NAV-AF-03-D-UNV-T4W-7030-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4	1663.4
2.5°	1642.5	1635.3	1618.9	1609.0	1604.4	1602.7	1600.7	1604.4	1604.4	1602.7	1599.0
5°	1612.5	1599.0	1571.8	1552.8	1542.7	1540.0	1543.8	1548.2	1550.9	1550.9	1548.2
7.5°	1590.9	1570.8	1534.6	1508.4	1492.9	1488.4	1498.4	1514.7	1525.6	1530.9	1532.0
10°	1572.7	1545.5	1505.6	1478.4	1465.7	1464.0	1476.6	1497.4	1520.2	1530.0	1532.0
12.5°	1556.4	1525.6	1482.0	1456.7	1447.5	1452.2	1469.3	1488.4	1514.7	1529.2	1530.0
15°	1541.0	1509.2	1463.0	1436.8	1434.9	1442.1	1458.5	1473.9	1493.8	1511.9	1511.9
17.5°	1522.8	1488.4	1440.4	1415.9	1415.9	1422.2	1433.1	1441.2	1453.9	1471.1	1470.3
20°	1501.1	1465.7	1416.8	1391.4	1386.0	1382.3	1382.3	1384.1	1395.0	1410.4	1413.2
22.5°	1484.8	1448.4	1396.9	1366.1	1341.6	1318.0	1308.1	1304.3	1314.4	1328.8	1332.5
25°	1484.8	1448.4	1390.6	1338.9	1279.0	1233.6	1214.6	1209.2	1219.3	1232.8	1238.2
27.5°	1509.2	1473.0	1405.0	1314.4	1204.7	1132.2	1109.5	1104.9	1114.0	1125.0	1130.3
30°	1566.3	1530.9	1446.7	1286.2	1122.2	1027.0	1001.6	997.1	1001.6	1006.2	1012.5
32.5°	1661.5	1631.6	1514.7	1260.9	1038.8	931.9	901.1	893.7	895.6	896.5	901.9
35°	1816.6	1802.9	1605.3	1231.0	960.0	853.9	822.1	807.7	806.8	811.2	817.6
37.5°	2054.0	2062.2	1722.3	1187.4	894.7	798.5	766.9	752.4	745.1	754.2	761.4
40°	2389.4	2408.4	1857.3	1128.5	841.2	765.9	732.4	718.8	708.9	706.2	709.7
42.5°	2825.5	2820.0	1995.1	1053.3	783.2	744.2	708.9	694.4	678.1	657.2	652.6
45°	3342.0	3264.1	2110.3	960.8	717.0	723.3	687.1	667.1	641.8	611.0	607.4
47.5°	3952.1	3737.3	2181.0	862.0	655.3	696.2	662.6	631.8	594.6	574.7	572.0
50°	4687.2	4291.1	2230.7	761.4	600.1	661.7	628.1	587.4	551.1	545.6	544.7
52.5°	5557.5	4944.6	2292.4	670.8	556.5	617.4	593.8	552.0	523.1	525.7	525.7
55°	6482.9	5620.9	2294.2	599.2	518.4	565.6	568.3	534.9	512.1	521.1	523.9
57.5°	7326.8	6211.9	2113.8	548.4	482.3	524.9	560.2	541.2	523.9	555.7	558.5
60°	8062.9	6666.9	1725.9	506.8	452.4	509.4	578.3	580.1	576.5	662.6	669.0
62.5°	8332.1	6671.5	1225.6	471.4	436.1	518.4	616.3	619.1	619.1	698.8	710.6
65°	7954.9	6115.8	815.8	450.4	425.1	538.4	647.3	635.5	607.4	662.6	649.9
67.5°	6626.1	4760.7	596.4	436.9	409.7	539.3	674.3	644.5	596.4	643.5	621.8
70°	4554.0	3029.3	499.5	424.3	391.5	515.8	688.9	641.8	580.1	600.1	571.1
71°	3665.6	2417.5	474.0	419.7	384.4	502.1	690.7	638.2	572.0	584.6	558.5
72.5°	2414.7	1489.3	443.3	409.7	373.4	478.5	686.1	630.0	561.0	562.0	544.7
75°	952.6	617.4	398.8	387.1	342.6	440.6	666.3	612.7	540.3	522.1	514.8
77.5°	481.3	403.3	350.8	355.3	306.4	401.5	638.2	584.6	511.3	486.7	481.3
80°	351.7	306.4	300.0	308.2	265.6	363.5	602.8	546.7	474.0	499.5	488.6
82.5°	213.9	186.8	234.8	254.7	222.2	324.5	561.0	502.1	426.9	393.5	380.7
85°	101.5	109.7	169.5	187.6	164.1	259.3	513.1	453.2	372.6	321.8	327.2
87.5°	49.8	60.7	97.0	112.4	107.8	190.3	387.1	351.7	293.7	242.0	236.5
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)