

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: P196926

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-5WQ-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20149 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 193
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

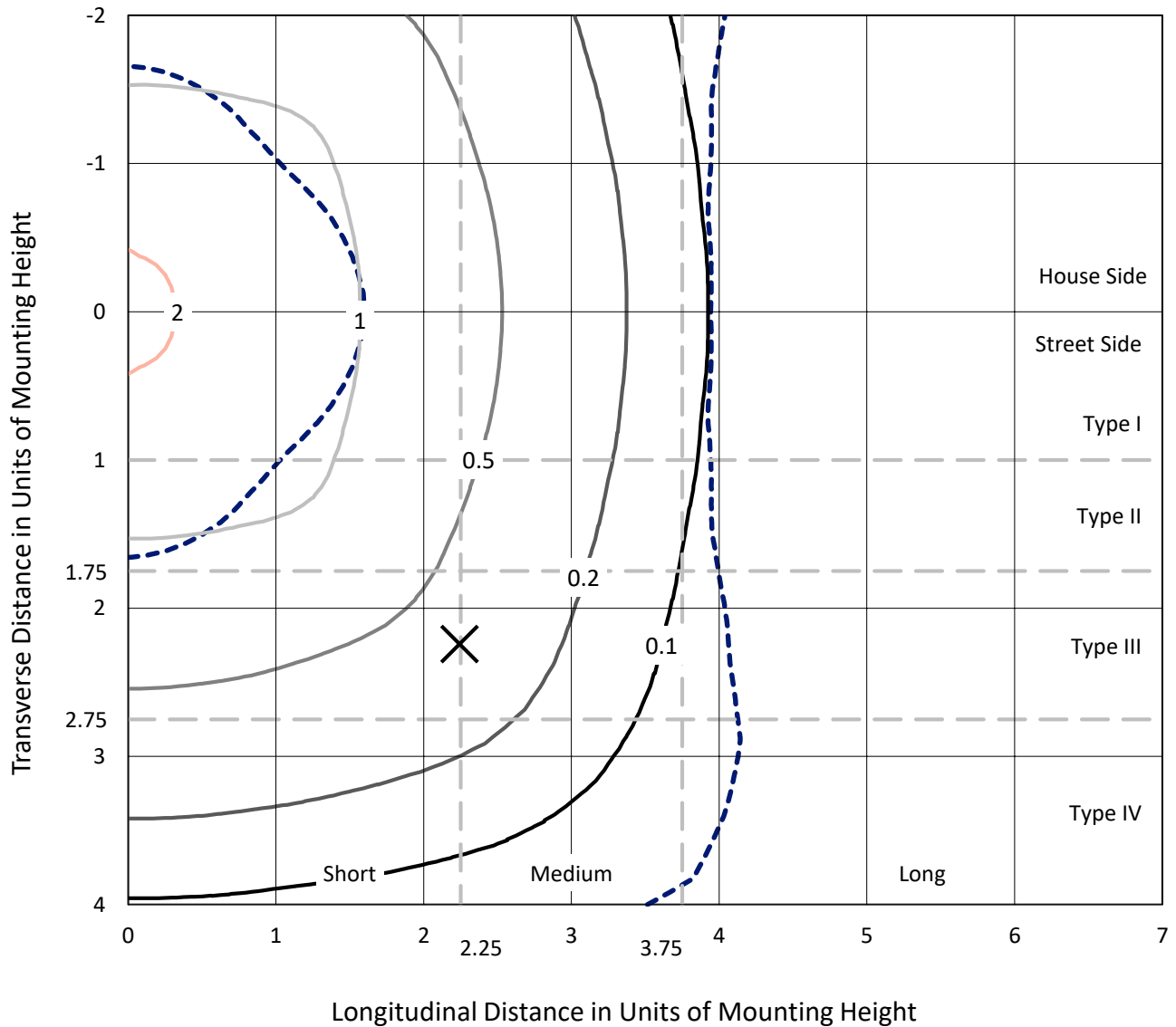


REPORT NUMBER: P196926

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-8030-600

Iso-Footcandle Lines of Horizontal Illumination

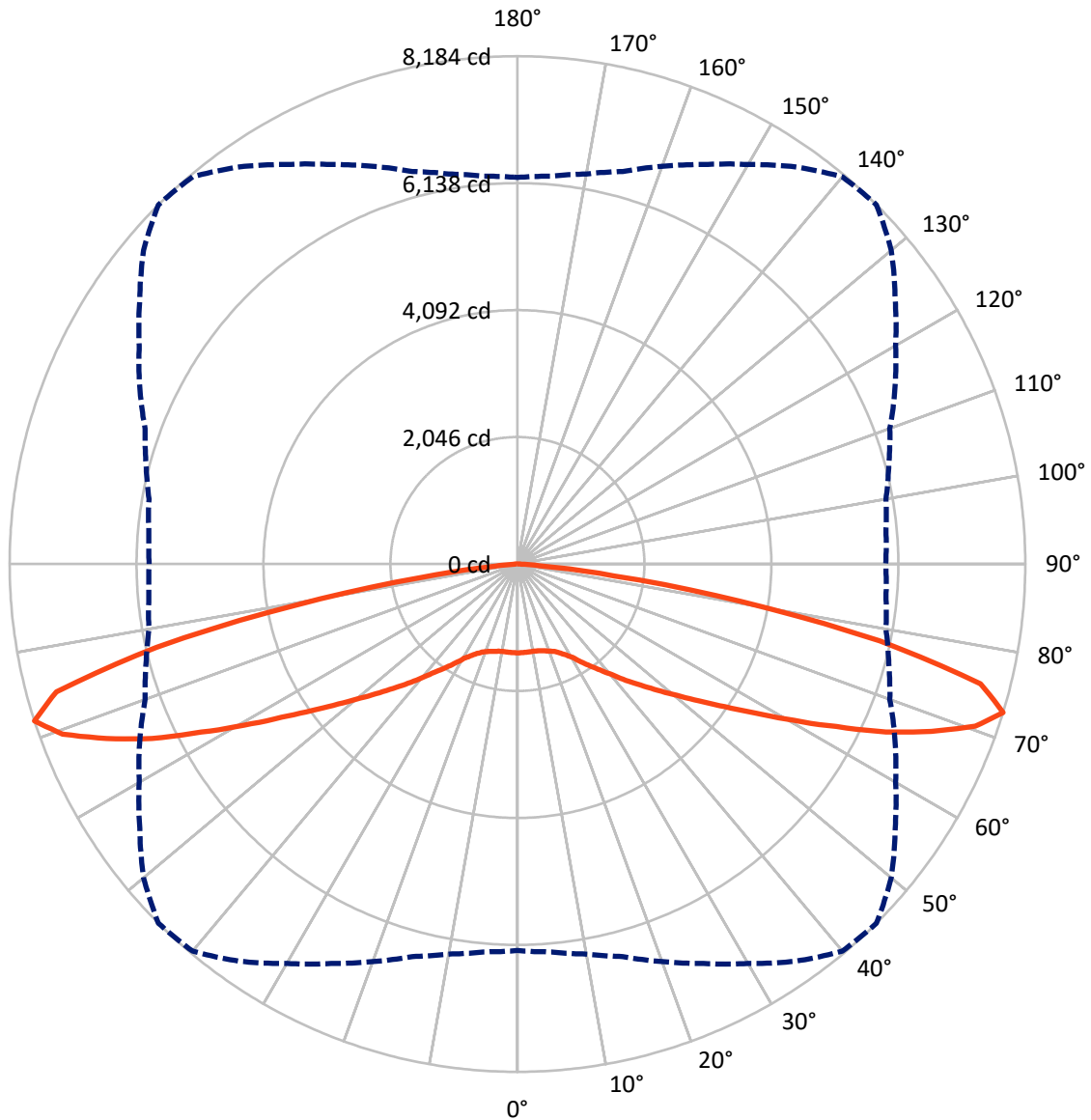
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P196926
CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-8030-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196926

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10074.5	0.0	10074.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10074.5	0.0	10074.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	20149.0	0.0	20149.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	0.7
10°-20°	413.8	2.1
20°-30°	747.0	3.7
30°-40°	1274.2	6.3
40°-50°	2169.3	10.8
50°-60°	3491.2	17.3
60°-70°	5805.9	28.8
70°-80°	5616.5	27.9
80°-90°	494.3	2.5
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°	20149.0	100.0
0°-180°	20149.0	100.0



REPORT NUMBER: P196926

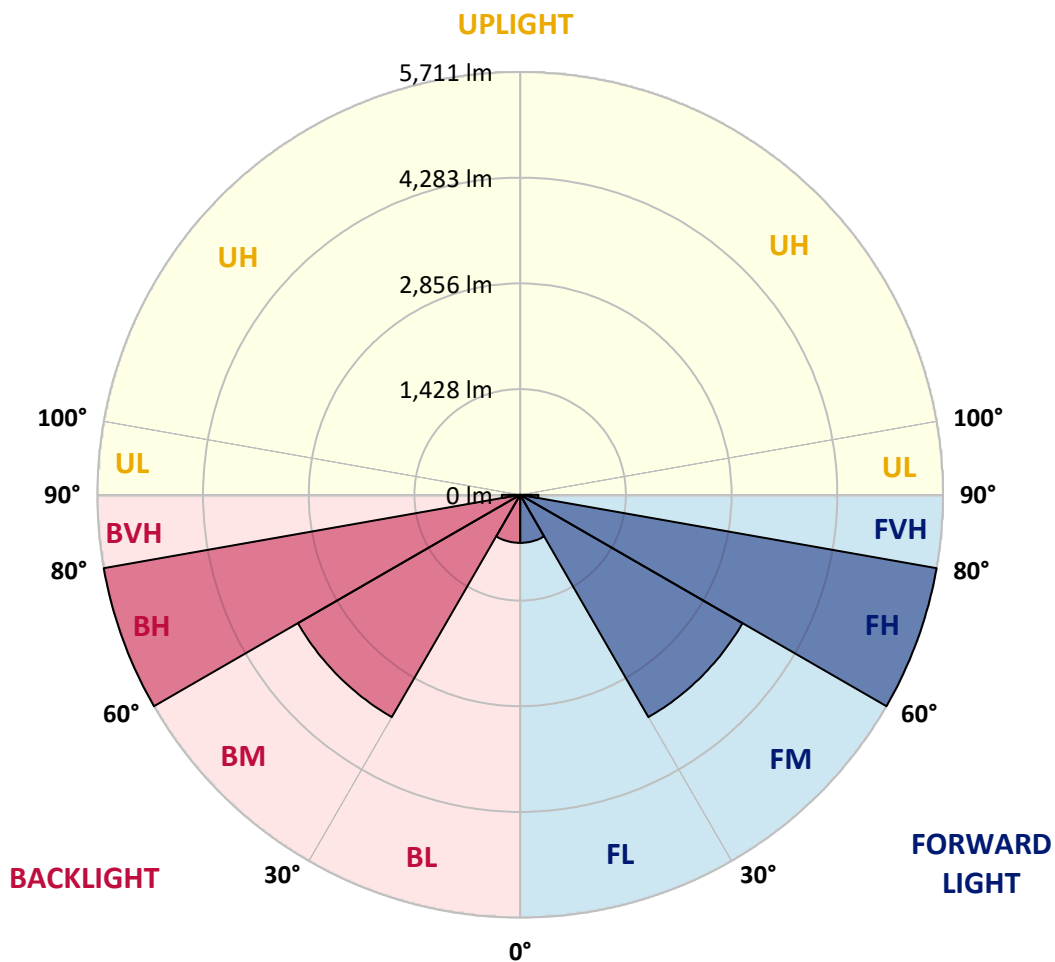
CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	648.8	3.2			
FM (30°-60°)	3467.3	17.2			
FH (60°-80°)	5711.2	28.3			G3/7500
FVH (80°-90°)	247.2	1.2			G3/500
BL (0°-30°)	648.8	3.2	B2/1000		
BM (30°-60°)	3467.3	17.2	B3/5000		
BH (60°-80°)	5711.2	28.3	B5		G3/7500
BVH (80°-90°)	247.2	1.2			G3/500
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





REPORT NUMBER: P196926

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4
2.5°	1443.6	1443.6	1444.8	1443.6	1441.1	1439.9	1436.2	1433.7	1431.2	1430.0	1427.5
5°	1444.8	1444.8	1446.1	1444.8	1442.4	1439.9	1437.4	1433.7	1431.2	1428.7	1427.5
7.5°	1449.8	1451.0	1452.3	1451.0	1446.1	1443.6	1439.9	1436.2	1431.2	1428.7	1426.2
10°	1459.7	1459.7	1459.7	1458.5	1454.8	1449.8	1444.8	1441.1	1434.9	1428.7	1425.0
12.5°	1467.2	1468.4	1468.4	1465.9	1461.0	1454.8	1449.8	1446.1	1441.1	1436.2	1432.4
15°	1478.3	1478.3	1477.1	1472.1	1464.7	1459.7	1457.2	1456.0	1454.8	1452.3	1448.6
17.5°	1500.7	1499.4	1495.7	1488.3	1479.6	1475.9	1473.4	1473.4	1473.4	1472.1	1469.6
20°	1532.9	1532.9	1527.9	1515.5	1508.1	1504.4	1500.7	1500.7	1500.7	1496.9	1493.2
22.5°	1585.0	1586.2	1578.8	1563.9	1554.0	1546.5	1541.6	1537.9	1534.1	1531.7	1525.5
25°	1655.7	1654.4	1645.8	1627.2	1619.7	1612.3	1602.4	1596.2	1591.2	1587.5	1580.0
27.5°	1730.1	1728.9	1718.9	1702.8	1697.8	1686.7	1679.2	1670.6	1664.4	1658.2	1650.7
30°	1825.6	1819.4	1811.9	1799.5	1797.1	1788.4	1778.5	1766.1	1756.1	1746.2	1737.5
32.5°	1911.2	1911.2	1900.0	1893.8	1898.8	1895.0	1896.3	1888.8	1882.6	1878.9	1870.2
35°	2030.2	2030.2	2025.3	2017.8	2019.1	2010.4	2009.1	2010.4	2015.3	2015.3	2005.4
37.5°	2189.0	2191.5	2175.3	2172.8	2166.6	2154.2	2148.0	2150.5	2161.7	2167.9	2154.2
40°	2386.2	2391.1	2386.2	2370.0	2362.6	2341.5	2329.1	2329.1	2337.8	2344.0	2339.0
42.5°	2580.9	2589.6	2580.9	2568.5	2562.3	2546.2	2540.0	2544.9	2556.1	2563.5	2556.1
45°	2797.9	2804.1	2793.0	2778.1	2770.6	2761.9	2758.2	2761.9	2774.3	2781.8	2779.3
47.5°	3011.2	3019.9	3006.3	3000.1	3000.1	2991.4	3001.3	3011.2	3022.4	3039.8	3032.3
50°	3219.6	3230.7	3222.1	3223.3	3233.2	3249.4	3268.0	3287.8	3307.6	3326.2	3328.7
52.5°	3405.6	3423.0	3424.2	3446.5	3477.5	3502.4	3554.4	3597.8	3645.0	3661.1	3653.7
55°	3601.6	3625.1	3656.1	3690.9	3740.5	3791.3	3879.4	3957.5	4019.5	4058.0	4051.8
57.5°	3881.9	3905.4	3937.7	3994.7	4069.1	4138.6	4258.9	4380.4	4474.7	4533.0	4504.4
60°	4245.2	4270.0	4312.2	4373.0	4469.7	4564.0	4728.9	4903.8	5050.1	5117.1	5065.0
62.5°	4726.4	4750.0	4777.3	4857.9	4965.8	5087.3	5294.5	5518.9	5705.0	5769.5	5696.3
65°	5412.3	5440.8	5449.5	5515.2	5620.6	5733.5	5956.7	6209.7	6421.8	6527.2	6380.9
67.5°	6184.9	6196.1	6230.8	6307.7	6415.6	6517.3	6693.4	6932.8	7136.2	7194.5	7038.2
70°	6637.6	6659.9	6720.7	6827.4	6956.3	7116.3	7308.6	7566.5	7797.2	7824.5	7626.1
72.5°	6228.3	6274.2	6382.1	6548.3	6818.7	7102.7	7433.8	7814.6	8145.7	8184.1	7865.4
75°	4995.6	5047.7	5176.6	5358.9	5678.9	6100.6	6579.3	7151.1	7647.1	7710.4	7288.7
77.5°	2662.7	2727.2	2914.5	3160.1	3616.5	4174.5	4751.2	5403.6	5825.3	5967.9	5664.0
80°	671.0	705.7	796.2	940.1	1248.9	1699.1	2196.4	2898.4	3421.7	3643.7	3421.7
82.5°	260.4	286.5	311.3	328.7	358.4	420.4	580.4	946.3	1274.9	1570.1	1359.3
85°	100.5	106.7	153.8	174.9	174.9	192.2	220.8	260.4	322.5	352.2	295.2
87.5°	39.7	43.4	53.3	81.9	84.3	74.4	79.4	89.3	68.2	57.0	64.5
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: P196926

CATALOG NUMBER: NAV-AF-06-D-UNV-5WQ-8030-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4	1432.4
2.5°	1426.2	1425.0	1422.5	1423.8	1422.5	1422.5	1422.5	1422.5
5°	1425.0	1425.0	1422.5	1422.5	1422.5	1423.8	1422.5	1422.5
7.5°	1423.8	1422.5	1420.0	1418.8	1418.8	1417.6	1417.6	1417.6
10°	1421.3	1418.8	1416.3	1415.1	1415.1	1412.6	1412.6	1412.6
12.5°	1427.5	1423.8	1421.3	1420.0	1420.0	1420.0	1421.3	1421.3
15°	1444.8	1437.4	1433.7	1432.4	1433.7	1436.2	1437.4	1438.6
17.5°	1463.4	1456.0	1449.8	1447.3	1448.6	1452.3	1456.0	1458.5
20°	1487.0	1480.8	1473.4	1470.9	1470.9	1475.9	1478.3	1482.1
22.5°	1520.5	1515.5	1509.3	1505.6	1503.1	1509.3	1513.1	1515.5
25°	1573.8	1568.9	1563.9	1560.2	1558.9	1565.1	1567.6	1568.9
27.5°	1644.5	1639.6	1637.1	1635.8	1632.1	1634.6	1638.3	1637.1
30°	1736.3	1740.0	1736.3	1736.3	1730.1	1732.6	1730.1	1727.6
32.5°	1859.1	1855.4	1844.2	1836.8	1828.1	1828.1	1824.3	1820.6
35°	1981.9	1969.5	1963.3	1967.0	1963.3	1965.7	1959.5	1953.3
37.5°	2127.0	2119.5	2118.3	2129.4	2127.0	2129.4	2129.4	2120.8
40°	2319.2	2314.2	2322.9	2341.5	2349.0	2347.7	2350.2	2339.0
42.5°	2540.0	2531.3	2535.0	2551.1	2559.8	2562.3	2561.0	2551.1
45°	2760.7	2763.2	2763.2	2780.6	2789.2	2794.2	2785.5	2781.8
47.5°	3010.0	3013.7	3005.0	3016.2	3018.7	3027.4	3019.9	3013.7
50°	3297.7	3284.1	3264.2	3268.0	3268.0	3265.5	3256.8	3249.4
52.5°	3618.9	3587.9	3550.7	3538.3	3524.7	3511.0	3493.7	3480.0
55°	3984.8	3931.5	3864.5	3833.5	3807.4	3776.4	3736.8	3723.1
57.5°	4408.9	4317.2	4227.9	4172.1	4105.1	4064.2	4013.3	4010.8
60°	4912.5	4788.5	4630.9	4547.9	4480.9	4432.5	4394.1	4379.2
62.5°	5494.1	5280.8	5110.9	5021.6	4943.5	4913.7	4865.3	4871.5
65°	6090.7	5873.6	5708.7	5636.8	5563.6	5543.7	5499.1	5515.2
67.5°	6736.8	6558.2	6377.2	6310.2	6243.2	6223.4	6177.5	6191.1
70°	7316.0	7089.0	6883.2	6751.7	6637.6	6545.8	6487.5	6464.0
72.5°	7431.3	7038.2	6714.5	6385.8	6196.1	6029.9	5961.7	5935.6
75°	6677.3	6067.1	5605.7	5220.0	5006.7	4764.9	4738.8	4702.9
77.5°	5194.0	4499.5	3941.4	3445.3	3158.8	2863.6	2761.9	2685.1
80°	3098.0	2381.2	1845.4	1293.5	1055.4	849.5	798.7	745.4
82.5°	1108.7	710.6	478.7	373.3	333.6	307.6	287.7	261.7
85°	267.9	225.7	213.3	193.5	191.0	162.5	115.3	102.9
87.5°	85.6	78.1	79.4	75.7	79.4	59.5	48.4	43.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)