

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: P270423

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12992.9 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - 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

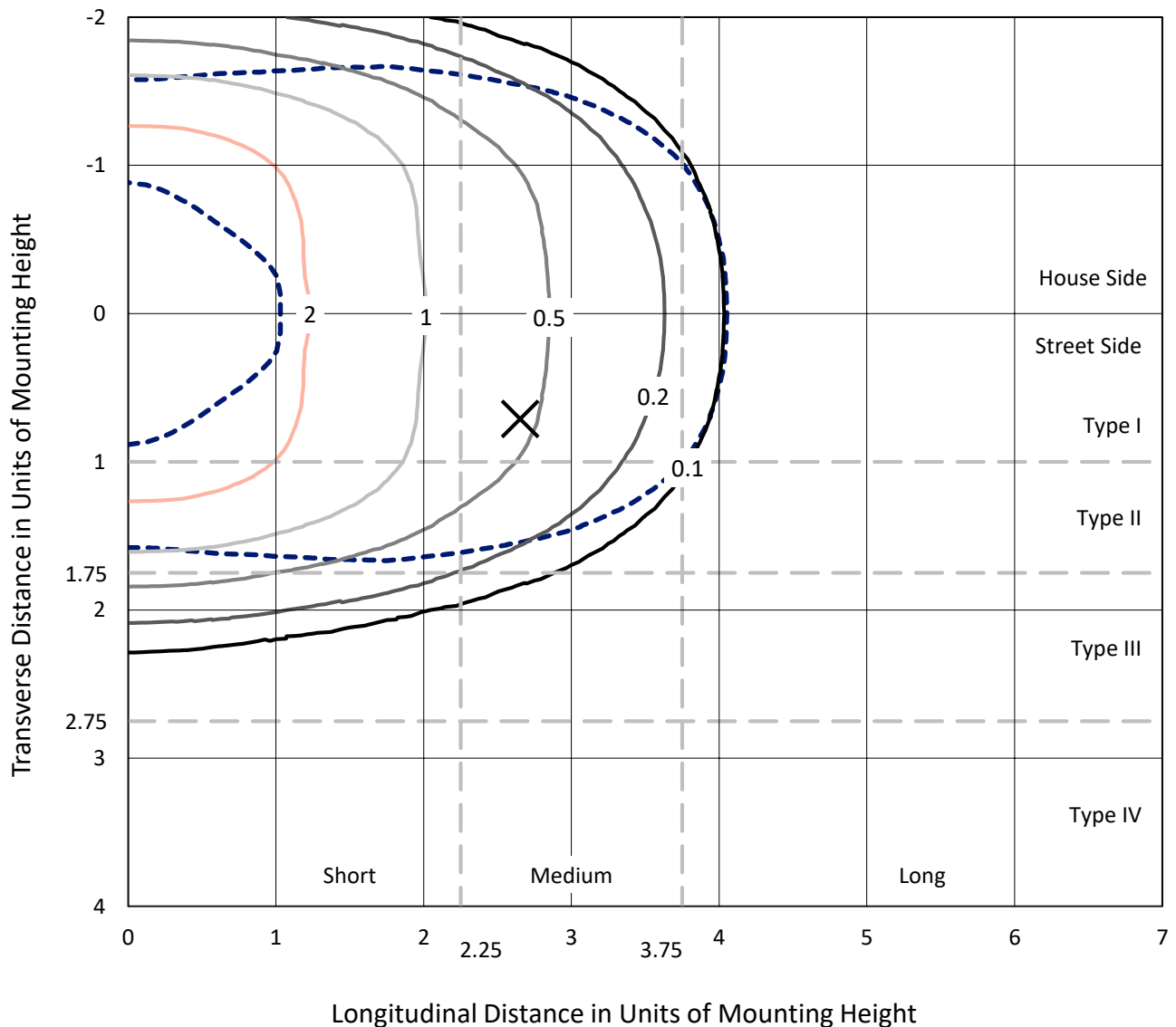


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Iso-Footcandle Lines of Horizontal Illumination

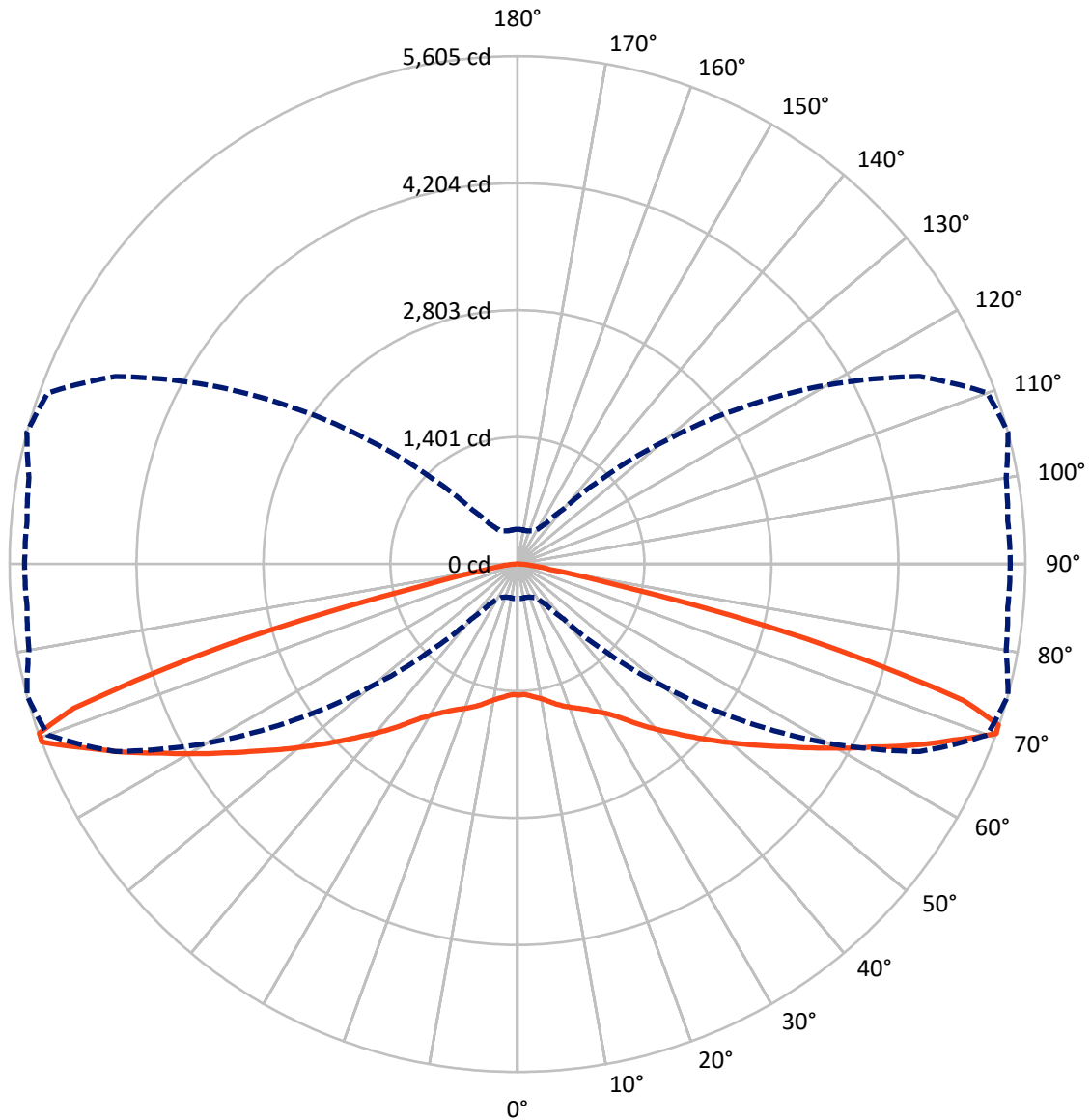
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.6 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6496.4	0.0	6496.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6496.4	0.0	6496.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	12992.9	0.0	12992.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.8	1.1
10°-20°	430.4	3.3
20°-30°	808.4	6.2
30°-40°	1424.0	11.0
40°-50°	2360.0	18.2
50°-60°	3283.1	25.3
60°-70°	3099.3	23.9
70°-80°	1323.8	10.2
80°-90°	125.1	1.0
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°	12992.9	100.0
0°-180°	12992.9	100.0



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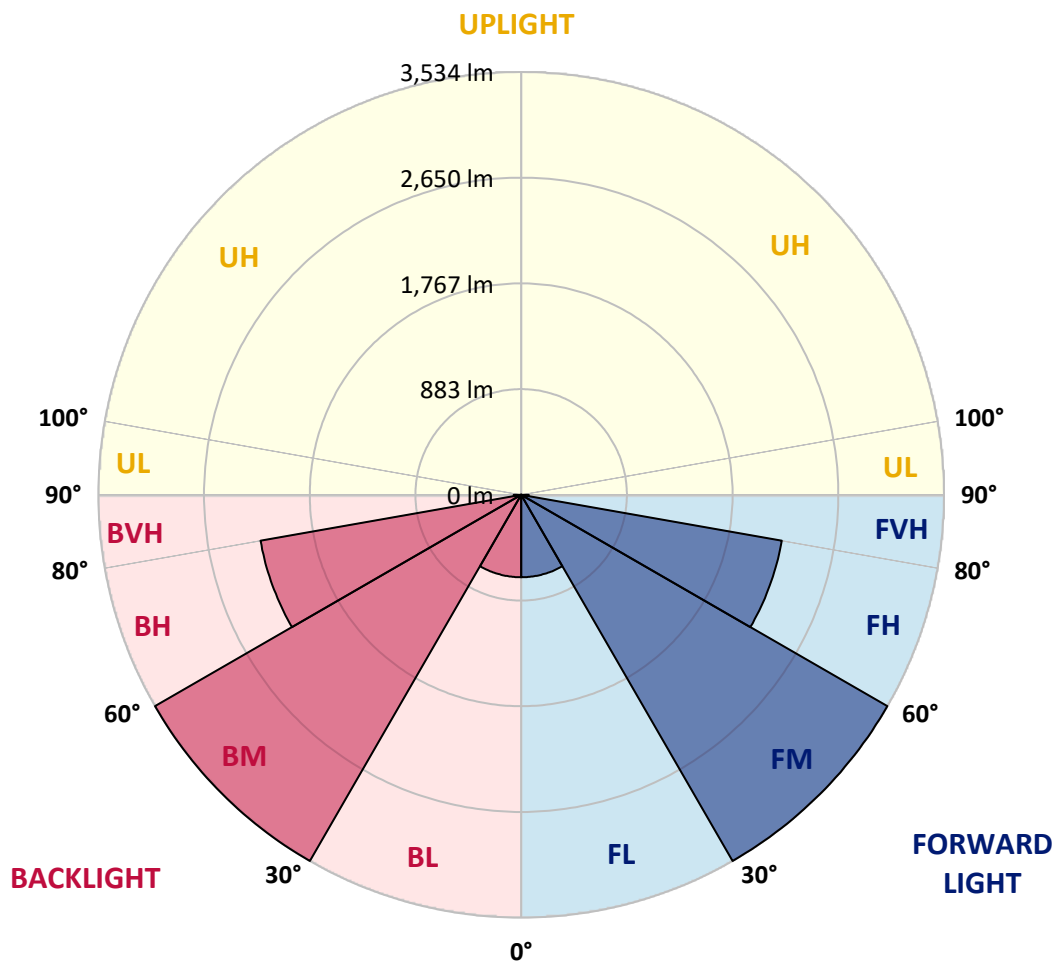
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	688.8	5.3			
FM	(30°-60°)	3533.6	27.2			
FH	(60°-80°)	2211.5	17.0			G2/5000
FVH	(80°-90°)	62.5	0.5			G1/100
BL	(0°-30°)	688.8	5.3	B2/1000		
BM	(30°-60°)	3533.6	27.2	B3/5000		
BH	(60°-80°)	2211.5	17.0	B3/2500		G3/2500
BVH	(80°-90°)	62.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9
2.5°	1455.9	1455.1	1455.9	1453.4	1454.1	1453.4	1453.4	1450.1	1450.1	1448.4	1446.1
5°	1439.5	1441.2	1441.2	1441.2	1443.7	1443.7	1446.9	1447.7	1450.1	1452.6	1454.1
7.5°	1412.7	1413.6	1416.0	1417.5	1422.5	1428.9	1435.5	1442.8	1449.3	1457.5	1466.5
10°	1389.9	1391.6	1395.5	1399.6	1408.6	1416.7	1428.1	1439.5	1450.9	1464.7	1478.6
12.5°	1377.7	1380.2	1386.7	1393.1	1406.9	1417.5	1433.1	1450.9	1466.5	1479.5	1494.9
15°	1379.3	1380.2	1389.0	1398.0	1417.5	1432.2	1454.1	1475.3	1494.2	1508.8	1526.7
17.5°	1403.0	1404.5	1413.6	1426.5	1445.3	1464.0	1487.7	1509.6	1534.8	1551.9	1573.1
20°	1449.3	1451.8	1461.5	1475.3	1495.8	1515.4	1539.8	1562.5	1588.6	1609.0	1630.1
22.5°	1509.6	1513.6	1524.2	1541.3	1561.8	1585.2	1610.5	1634.1	1658.6	1678.9	1696.9
25°	1590.2	1595.1	1606.4	1623.5	1643.9	1669.2	1695.2	1719.6	1744.9	1760.4	1775.1
27.5°	1698.4	1706.6	1718.8	1732.7	1750.5	1777.4	1801.9	1822.2	1846.6	1863.8	1873.5
30°	1844.2	1855.5	1865.4	1880.1	1893.1	1921.6	1941.1	1957.3	1976.1	1986.0	1988.4
32.5°	2022.5	2033.1	2042.8	2053.4	2071.4	2097.5	2116.1	2125.1	2134.9	2133.3	2124.3
35°	2223.7	2231.7	2237.5	2256.3	2285.6	2302.6	2316.5	2319.8	2321.4	2304.2	2287.2
37.5°	2435.3	2445.1	2449.9	2479.3	2507.0	2526.6	2533.1	2540.3	2535.5	2507.0	2476.1
40°	2664.2	2674.8	2689.3	2714.7	2747.1	2765.9	2774.1	2773.2	2769.1	2735.8	2685.4
42.5°	2888.9	2902.0	2914.1	2958.1	2985.0	3016.7	3020.8	3019.9	3010.9	2972.8	2914.1
45°	3079.4	3094.9	3120.2	3169.0	3212.1	3250.3	3265.9	3271.5	3262.6	3222.0	3155.1
47.5°	3236.6	3247.2	3279.0	3338.3	3393.6	3449.9	3480.8	3502.9	3502.0	3472.7	3401.8
50°	3344.0	3356.2	3395.4	3462.1	3531.2	3597.3	3658.3	3708.1	3731.6	3710.4	3644.5
52.5°	3374.9	3390.5	3441.8	3521.5	3602.2	3690.9	3782.0	3870.0	3923.0	3936.0	3884.7
55°	3244.7	3261.7	3336.8	3447.4	3580.1	3711.3	3849.6	3975.1	4084.1	4134.7	4114.2
57.5°	2865.2	2877.5	2972.8	3116.0	3305.8	3536.2	3769.1	3998.6	4185.9	4317.1	4339.8
60°	2266.0	2281.4	2385.7	2537.2	2752.9	3044.4	3370.1	3746.2	4113.5	4413.9	4562.9
62.5°	1529.2	1539.8	1639.9	1778.3	2014.4	2295.3	2658.4	3134.7	3658.3	4194.8	4615.0
65°	802.8	802.8	870.4	967.4	1155.4	1406.9	1779.2	2267.6	2890.4	3560.6	4263.3
67.5°	465.7	465.0	480.5	502.4	561.8	663.6	868.8	1227.9	1817.4	2597.4	3396.9
70°	384.4	381.9	379.4	379.4	388.3	403.9	443.0	541.5	792.2	1339.5	2090.1
71°	367.1	365.6	359.1	356.6	360.7	368.8	385.9	431.5	562.6	913.5	1560.8
72.5°	346.8	342.9	333.0	329.0	329.8	333.0	337.9	355.8	395.8	519.5	890.0
75°	315.9	306.1	293.9	288.3	285.8	285.0	285.0	289.9	298.9	313.5	364.8
77.5°	280.1	266.3	253.2	247.6	243.4	241.0	239.4	236.2	234.5	241.0	259.7
80°	237.0	222.3	211.7	208.4	206.0	201.1	194.7	188.0	184.1	187.2	198.6
82.5°	183.3	168.5	170.1	170.9	166.9	158.8	152.3	144.9	137.6	136.0	141.7
85°	145.7	138.3	133.6	144.1	135.1	125.5	116.4	104.3	87.1	71.7	78.2
87.5°	62.7	63.5	91.2	137.6	120.6	96.8	80.6	65.1	41.5	30.9	31.8
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°	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9	1446.9
2.5°	1445.3	1445.3	1442.8	1441.2	1441.2	1441.2	1439.5	1440.3
5°	1455.1	1456.6	1458.3	1457.5	1459.9	1462.4	1461.5	1460.7
7.5°	1471.3	1476.2	1481.0	1483.6	1486.8	1490.0	1490.8	1488.4
10°	1487.7	1497.4	1504.8	1511.2	1515.4	1518.6	1521.0	1520.1
12.5°	1508.0	1521.8	1534.8	1547.8	1556.9	1561.8	1566.6	1564.9
15°	1541.3	1556.9	1573.1	1590.2	1604.1	1611.4	1618.7	1617.0
17.5°	1586.9	1600.8	1613.7	1631.0	1648.0	1656.1	1664.3	1663.5
20°	1643.9	1654.5	1661.9	1671.6	1687.8	1696.9	1704.2	1701.7
22.5°	1709.0	1712.3	1713.2	1716.4	1729.3	1739.9	1749.8	1752.2
25°	1779.9	1777.4	1772.5	1770.1	1779.2	1790.5	1802.7	1806.0
27.5°	1867.8	1859.8	1847.5	1837.8	1840.2	1854.8	1868.7	1871.9
30°	1978.5	1959.8	1933.8	1915.0	1911.9	1927.3	1942.0	1946.7
32.5°	2104.8	2079.5	2043.7	2015.2	2003.0	2016.9	2029.9	2037.1
35°	2254.6	2226.9	2183.8	2147.0	2127.5	2136.4	2159.3	2167.5
37.5°	2432.2	2393.9	2345.7	2299.4	2266.9	2268.4	2292.8	2302.6
40°	2628.4	2572.9	2511.9	2454.1	2406.9	2403.5	2425.6	2432.9
42.5°	2832.6	2761.8	2690.2	2614.4	2555.9	2545.3	2573.7	2574.6
45°	3052.5	2961.4	2872.6	2784.7	2723.7	2704.8	2732.6	2735.8
47.5°	3287.1	3173.1	3068.0	2972.8	2906.7	2877.5	2904.3	2909.3
50°	3531.2	3413.2	3291.1	3185.3	3107.9	3072.1	3103.9	3107.1
52.5°	3773.2	3661.6	3540.3	3418.9	3325.3	3284.7	3322.0	3333.4
55°	4016.6	3909.2	3795.1	3673.8	3555.8	3519.9	3560.6	3572.7
57.5°	4269.9	4166.3	4063.0	3940.9	3826.1	3771.5	3815.6	3832.6
60°	4549.0	4457.8	4360.3	4237.2	4124.1	4060.6	4098.0	4117.6
62.5°	4823.4	4804.8	4716.0	4588.2	4444.9	4381.4	4413.2	4426.9
65°	4846.3	5150.1	5145.9	5018.9	4818.6	4711.9	4721.0	4727.4
67.5°	4229.8	4926.8	5372.3	5412.2	5189.1	5022.2	5002.7	5006.7
70°	2994.7	3951.5	4896.8	5517.2	5605.2	5475.7	5433.4	5439.9
71°	2399.6	3390.5	4431.0	5265.7	5598.6	5561.1	5537.5	5554.7
72.5°	1531.6	2498.0	3510.9	4509.2	5148.4	5331.6	5358.4	5369.0
75°	556.1	1074.8	1819.0	2606.3	3303.2	3782.9	4046.8	4067.9
77.5°	298.9	385.2	595.1	889.1	1117.1	1239.2	1253.9	1259.7
80°	219.8	254.8	291.5	333.0	359.1	364.0	355.0	336.2
82.5°	155.5	175.9	190.5	205.3	215.8	206.8	171.8	131.2
85°	90.4	99.4	107.4	114.9	116.4	110.0	72.5	59.5
87.5°	35.8	39.0	38.3	43.2	41.5	38.3	28.4	24.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)