

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: P965778

Luminaire Tested: **NAV-SB4A-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965778
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

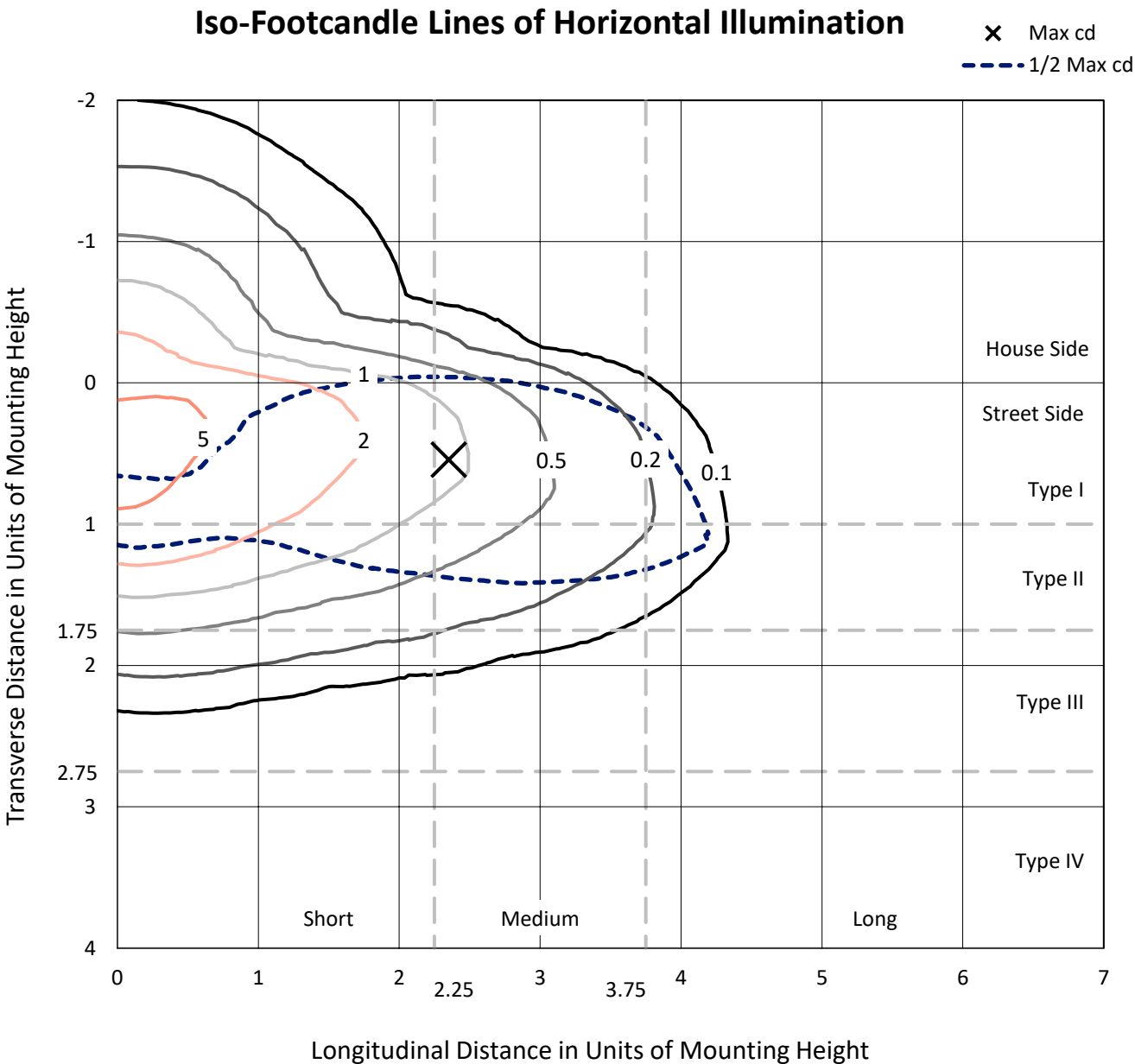
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16865.3 lumens
Efficiency: N/A
Efficacy: 147.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 114
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: 24 FT



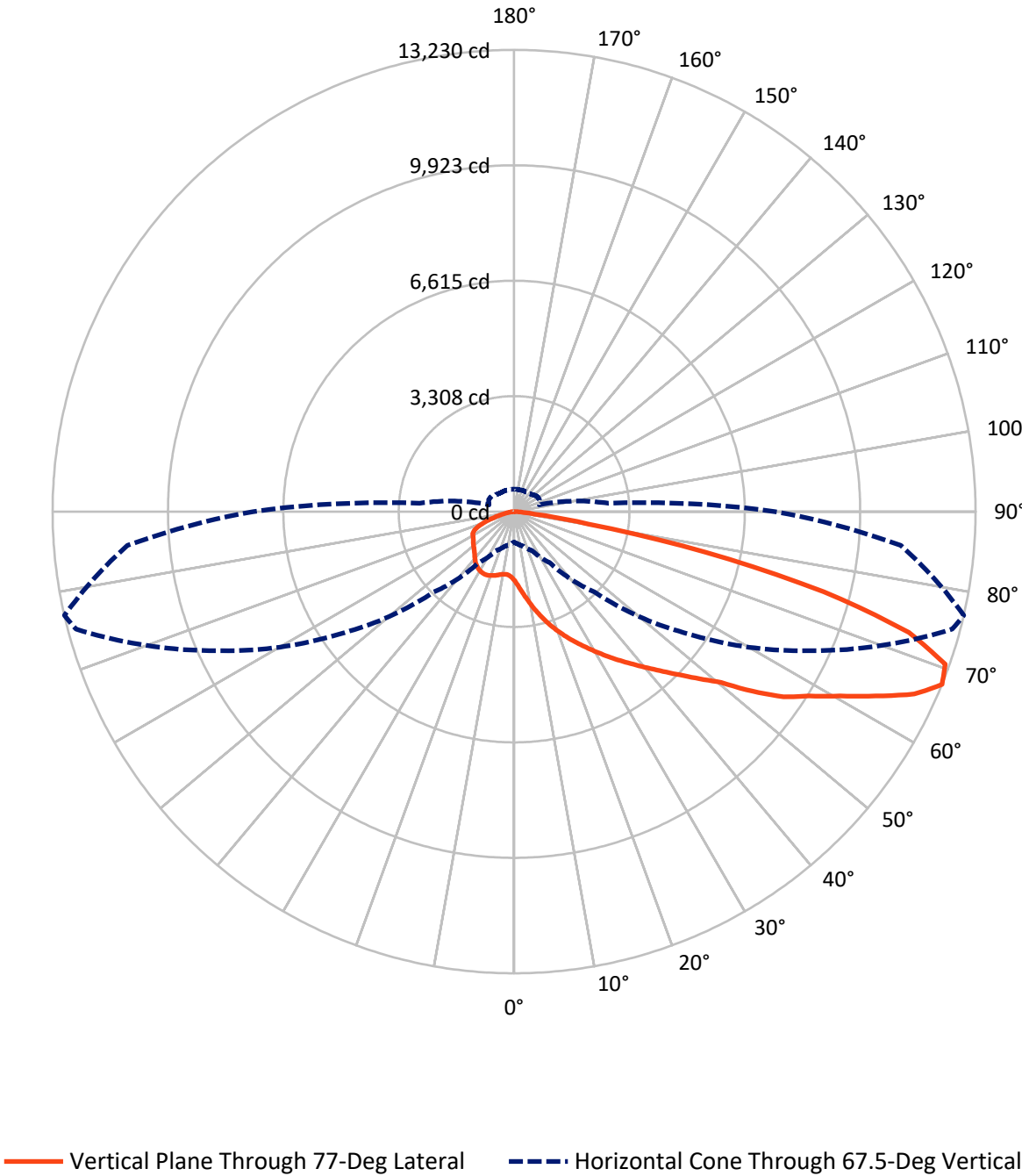
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Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3190.2	0.0	3190.2
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	13675.1	0.0	13675.1
	% Fixture	81.1	0.0	81.1
Total	Lumens	16865.3	0.0	16865.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.1	1.3
10°-20°	762.0	4.5
20°-30°	1438.7	8.5
30°-40°	2317.8	13.7
40°-50°	3170.3	18.8
50°-60°	3576.1	21.2
60°-70°	3337.9	19.8
70°-80°	1829.7	10.8
80°-90°	220.7	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°	16865.3	100.0
0°-180°	16865.3	100.0

Coefficient of Utilization



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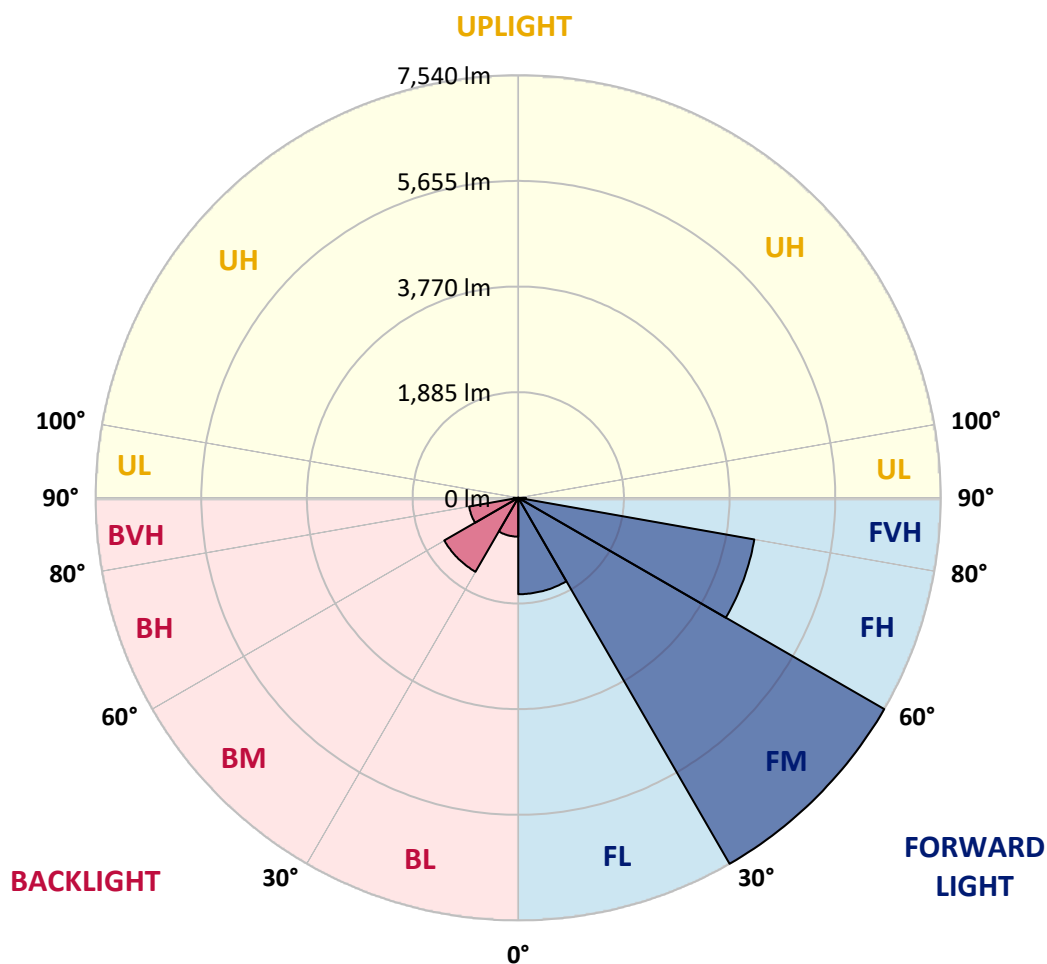
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1719.2	10.2			
FM	(30°-60°)	7540.3	44.7			
FH	(60°-80°)	4277.5	25.4			G2/5000
FVH	(80°-90°)	138.0	0.8			G2/225
BL	(0°-30°)	693.6	4.1	B2/1000		
BM	(30°-60°)	1523.9	9.0	B2/2500		
BH	(60°-80°)	890.0	5.3	B2/1000		G2/1000
BVH	(80°-90°)	82.7	0.5			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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9
2.5°	2477.6	2495.1	2473.3	2473.3	2400.1	2361.9	2288.7	2233.1	2132.9	2115.5	2049.4
5°	2928.6	2950.4	2919.9	2906.9	2820.7	2741.5	2618.7	2497.7	2319.3	2300.9	2145.1
7.5°	3277.7	3305.6	3278.6	3264.7	3188.1	3099.3	2955.6	2786.8	2535.1	2499.5	2274.0
10°	3562.4	3566.8	3558.1	3563.3	3503.2	3430.1	3283.0	3086.2	2771.9	2723.2	2429.8
12.5°	3723.5	3743.5	3760.9	3792.3	3781.8	3736.5	3604.2	3369.2	3022.6	2960.0	2599.5
15°	3799.2	3834.0	3873.2	3945.4	4003.8	4015.1	3914.2	3673.0	3277.7	3202.0	2771.1
17.5°	3826.2	3859.3	3921.1	4025.6	4150.9	4235.4	4190.1	3968.1	3530.2	3443.2	2951.3
20°	3962.9	3972.5	4009.9	4109.1	4244.9	4385.2	4419.1	4251.9	3780.1	3681.7	3137.5
22.5°	4255.4	4236.2	4246.7	4292.0	4389.5	4525.3	4602.8	4502.6	4036.9	3923.7	3325.6
25°	4738.6	4682.8	4627.2	4574.9	4624.5	4701.2	4789.1	4753.3	4305.9	4162.2	3515.4
27.5°	5348.9	5280.9	5158.2	4986.7	4926.7	4953.6	4992.8	4985.8	4554.9	4409.4	3711.3
30°	5949.5	5870.3	5724.1	5476.0	5317.5	5246.2	5216.5	5196.5	4825.6	4670.6	3908.9
32.5°	6429.2	6366.6	6222.9	5945.2	5715.4	5593.5	5495.1	5423.7	5108.6	4953.6	4117.8
35°	6848.8	6790.5	6626.0	6323.0	6073.1	5943.5	5814.6	5662.3	5402.8	5246.2	4342.4
37.5°	7231.9	7173.6	6948.1	6633.0	6381.3	6291.7	6176.8	5918.2	5698.0	5550.0	4580.1
40°	7473.9	7460.9	7250.2	6893.2	6632.1	6587.7	6549.3	6215.1	6025.3	5887.7	4841.3
42.5°	7535.7	7564.5	7397.3	7104.0	6855.0	6819.2	6908.9	6551.1	6392.7	6261.2	5137.3
45°	7386.9	7469.6	7359.9	7160.5	7013.4	6994.3	7227.6	6918.5	6799.2	6679.1	5494.2
47.5°	7009.9	7150.1	7104.8	7076.9	7056.1	7138.7	7507.9	7308.6	7259.8	7155.3	5901.6
50°	6249.0	6514.6	6593.8	6769.6	6971.6	7251.1	7762.9	7734.2	7797.8	7692.4	6397.8
52.5°	4933.5	5299.2	5758.9	6199.4	6712.2	7213.6	8043.3	8345.3	8613.5	8556.1	7186.7
55°	4072.5	4237.1	4590.6	5398.5	6208.9	7056.1	8169.6	8839.0	9423.1	9371.8	7784.8
57.5°	3410.9	3558.1	3775.7	4450.4	5448.1	6698.3	8247.9	9140.2	9977.8	9972.5	8375.0
60°	2701.4	2857.3	3080.1	3558.1	4559.2	6080.1	8230.4	9483.2	10685.5	10729.1	9094.9
62.5°	1900.5	2071.9	2319.3	2764.9	3651.3	5279.2	7875.3	9731.3	11518.6	11637.0	9961.2
65°	1249.3	1362.4	1548.8	1933.6	2720.6	4249.3	7197.1	9763.5	12410.1	12610.4	10774.3
67.5°	875.8	919.3	1029.0	1238.0	1793.4	3258.6	6116.7	9430.1	13004.7	13230.2	11126.9
70°	683.4	705.2	760.9	844.5	1126.6	2191.2	4687.2	8563.1	12877.6	13112.7	10758.6
72.5°	590.3	611.1	632.0	642.5	755.6	1352.9	3175.0	7159.6	11680.6	11839.9	9354.4
75°	535.4	540.6	558.0	554.5	576.4	877.5	1832.6	5216.5	9216.0	9161.1	6905.4
77.5°	450.1	457.0	485.7	481.4	511.9	599.8	951.5	3366.5	5974.8	5602.1	3843.6
80°	381.3	384.8	416.2	410.9	444.8	434.4	485.7	1716.0	2534.2	2146.9	1108.2
82.5°	132.3	163.7	317.8	327.4	339.5	262.9	280.3	700.0	774.0	592.9	232.5
85°	64.5	68.8	162.0	229.8	229.0	132.3	136.6	249.9	243.7	191.6	77.5
87.5°	10.5	13.0	19.2	89.7	71.3	34.8	47.0	48.8	50.5	43.6	17.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9	1978.9
2.5°	2000.6	1957.0	1865.7	1781.2	1715.0	1651.5	1615.8	1585.4	1567.9	1564.5	1564.5
5°	2054.6	1964.9	1798.7	1658.4	1567.0	1499.2	1463.5	1440.8	1429.5	1422.5	1421.7
7.5°	2132.1	2000.6	1763.8	1604.4	1508.7	1460.0	1441.7	1438.2	1437.4	1438.2	1440.8
10°	2239.1	2058.9	1760.3	1591.4	1511.4	1484.3	1483.5	1484.3	1487.8	1488.7	1489.5
12.5°	2354.9	2119.0	1774.3	1602.7	1544.4	1529.6	1527.0	1526.1	1528.8	1530.5	1531.4
15°	2481.1	2198.2	1797.7	1627.1	1581.0	1565.3	1562.7	1557.5	1556.6	1555.7	1554.8
17.5°	2610.9	2276.5	1823.9	1653.2	1604.4	1582.7	1573.2	1561.0	1551.3	1548.8	1551.3
20°	2742.3	2354.0	1842.1	1666.2	1606.2	1575.7	1556.6	1535.7	1519.2	1509.6	1513.1
22.5°	2882.5	2435.0	1853.5	1662.9	1590.6	1548.8	1513.9	1489.5	1464.3	1447.8	1448.6
25°	3019.1	2505.5	1852.6	1644.5	1560.0	1507.0	1462.6	1431.2	1396.5	1379.0	1379.0
27.5°	3150.6	2569.1	1830.9	1612.3	1516.6	1457.3	1404.2	1366.8	1332.9	1316.3	1315.5
30°	3286.5	2622.2	1796.9	1565.3	1465.2	1399.8	1341.5	1309.3	1278.9	1263.2	1262.4
32.5°	3421.3	2670.9	1749.0	1507.0	1406.0	1343.3	1285.9	1256.2	1238.0	1238.0	1238.8
35°	3564.1	2704.9	1685.4	1439.1	1343.3	1283.2	1238.0	1220.6	1218.8	1208.4	1205.7
37.5°	3714.8	2726.7	1607.9	1369.4	1281.5	1224.9	1210.9	1190.1	1172.7	1150.0	1146.6
40°	3873.2	2748.4	1514.8	1297.1	1216.2	1184.9	1178.8	1150.9	1101.3	1045.6	1037.7
42.5°	4065.6	2763.2	1418.2	1224.9	1147.4	1136.9	1145.6	1097.8	1018.5	976.8	977.6
45°	4288.5	2787.6	1329.4	1153.5	1076.9	1076.9	1113.5	1050.8	985.5	959.4	963.7
47.5°	4577.5	2844.2	1246.7	1075.1	1011.6	1029.0	1042.1	994.2	957.7	925.5	924.6
50°	4995.4	2980.0	1161.3	996.0	962.0	996.8	978.6	950.7	908.0	881.9	879.2
52.5°	5514.3	3060.1	1085.6	924.6	919.3	954.2	928.0	901.9	869.7	834.9	827.9
55°	5867.7	3074.9	1022.0	872.3	890.6	887.1	877.5	854.0	836.6	790.5	791.4
57.5°	6263.0	3104.5	969.9	841.0	872.3	834.0	830.6	810.5	787.9	756.6	746.1
60°	6735.7	3150.6	924.6	828.8	856.7	799.2	781.8	774.0	751.3	735.6	739.9
62.5°	7251.1	3192.5	878.4	830.6	838.3	765.3	739.1	736.5	722.6	717.4	717.4
65°	7602.7	3078.4	820.9	828.8	809.6	730.4	697.3	696.5	685.1	683.4	682.5
67.5°	7480.0	2717.1	743.4	804.4	780.0	695.6	659.1	655.6	640.7	641.6	641.6
70°	6865.3	2201.7	636.4	744.4	743.4	664.3	619.0	607.6	587.6	591.1	594.6
72.5°	5712.7	1631.5	492.7	644.2	685.1	635.5	572.9	554.5	529.3	532.8	532.0
75°	4125.7	1109.2	358.6	490.2	596.3	601.6	527.6	496.2	465.8	471.0	472.7
77.5°	2111.2	628.5	263.8	337.7	468.3	546.7	486.7	444.8	437.9	486.7	479.7
80°	688.6	315.2	182.9	236.8	307.3	447.5	426.6	378.7	377.0	388.3	333.4
82.5°	205.4	133.2	117.6	155.8	169.7	343.0	368.3	286.4	246.4	259.4	268.1
85°	70.5	64.5	67.0	77.5	81.0	201.1	257.7	189.8	179.4	197.6	195.1
87.5°	16.5	22.7	19.2	17.4	17.4	48.8	100.1	79.2	109.7	73.1	70.5
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)