

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: P962095

Luminaire Tested: **NAV-SB2B-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10647.7 lumens
Efficiency: N/A
Efficacy: 144.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 73.9
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

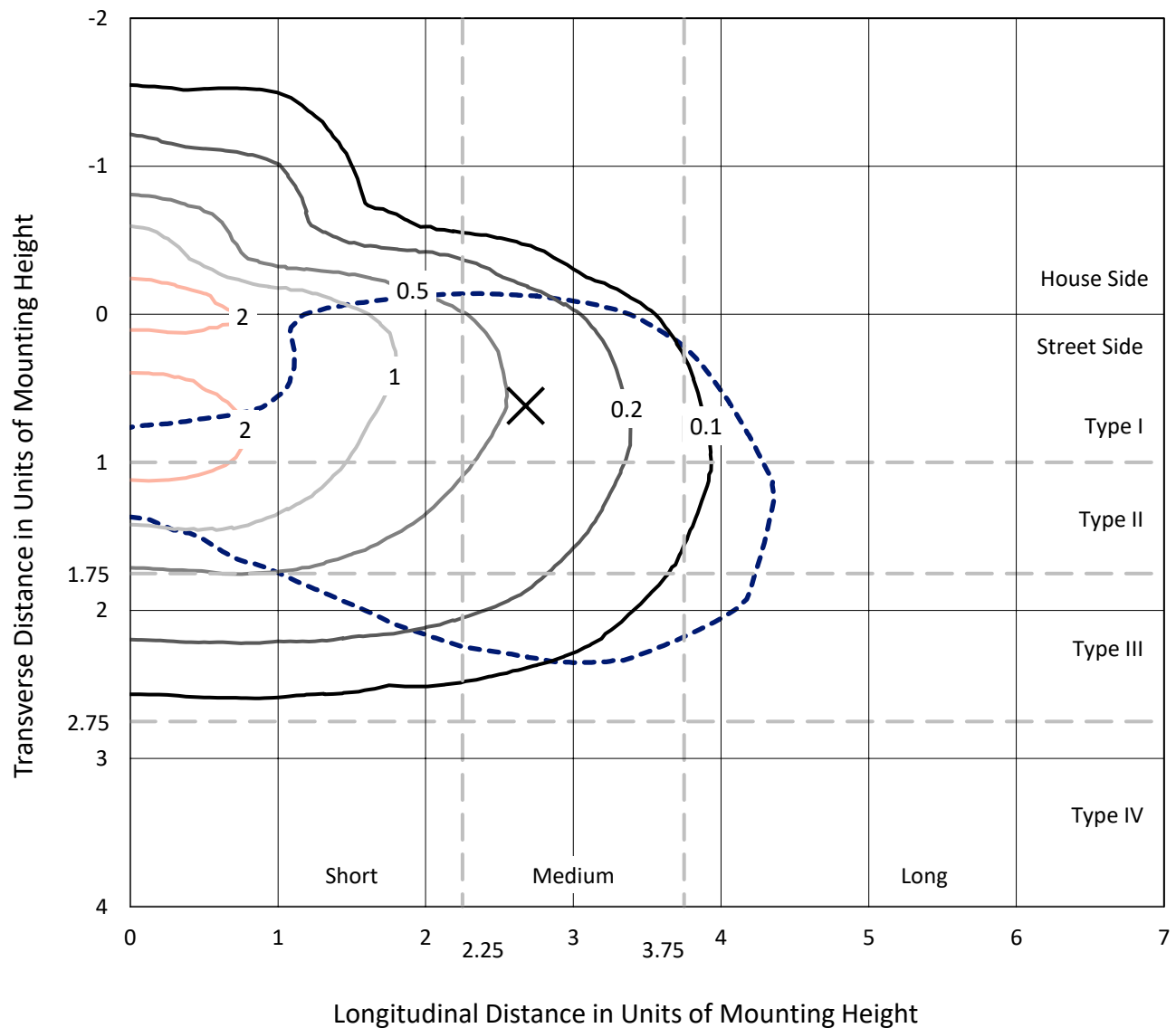


REPORT NUMBER: P962095

CATALOG NUMBER: NAV-SB2B-830-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

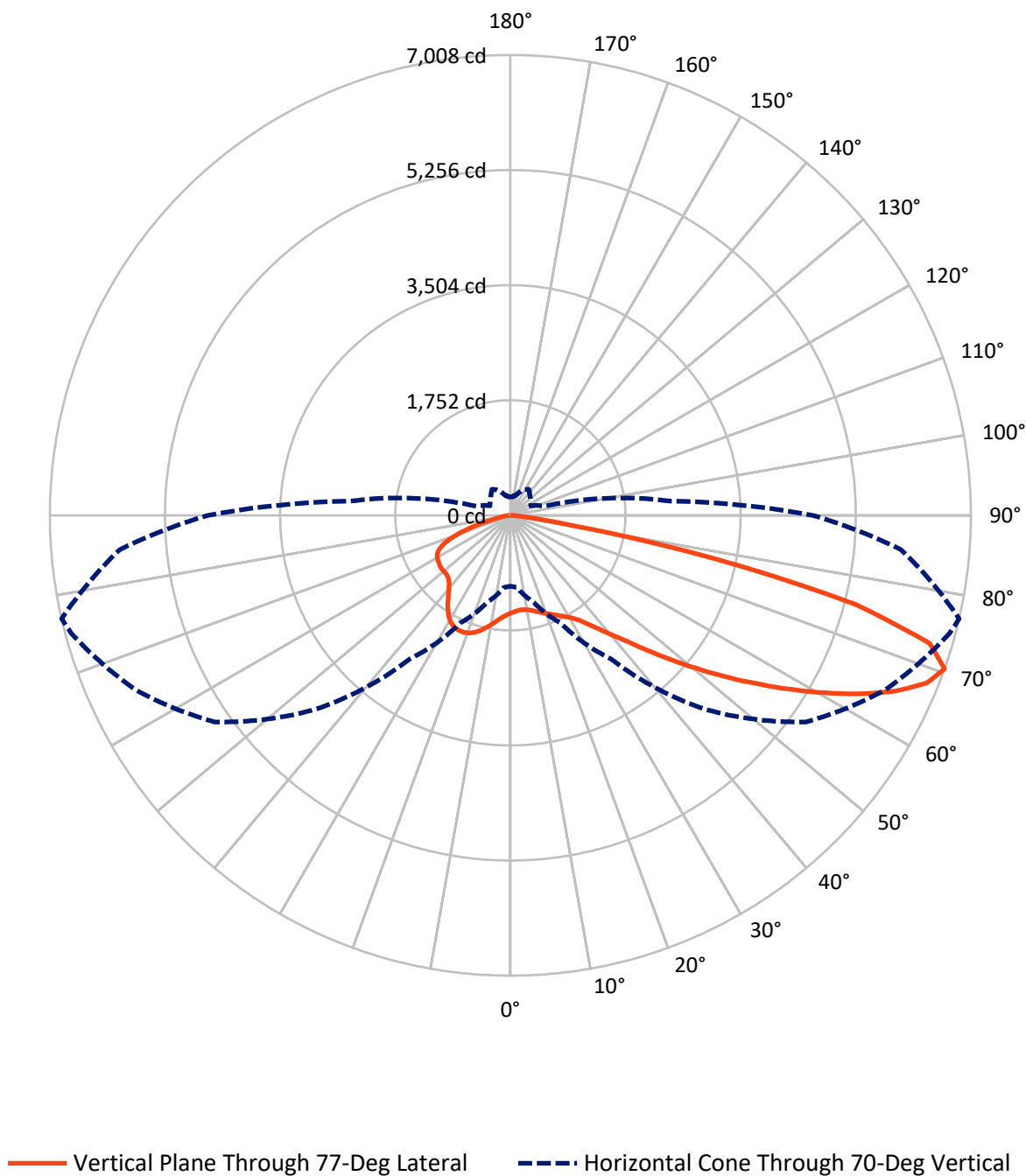
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
Type III - Medium - N/A

REPORT NUMBER: P962095
CATALOG NUMBER: NAV-SB2B-830-U-T3R

Luminous Intensity Polar Plot



REPORT NUMBER: P962095

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2331.7	0.0	2331.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	8316.0	0.0	8316.0
	% Fixture	78.1	0.0	78.1
Total	Lumens	10647.7	0.0	10647.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.7	1.3
10°-20°	408.9	3.8
20°-30°	699.2	6.6
30°-40°	1124.5	10.6
40°-50°	1755.6	16.5
50°-60°	2345.0	22.0
60°-70°	2499.4	23.5
70°-80°	1538.6	14.5
80°-90°	134.8	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°	10647.7	100.0
0°-180°	10647.7	100.0

Coefficient of Utilization



REPORT NUMBER: P962095

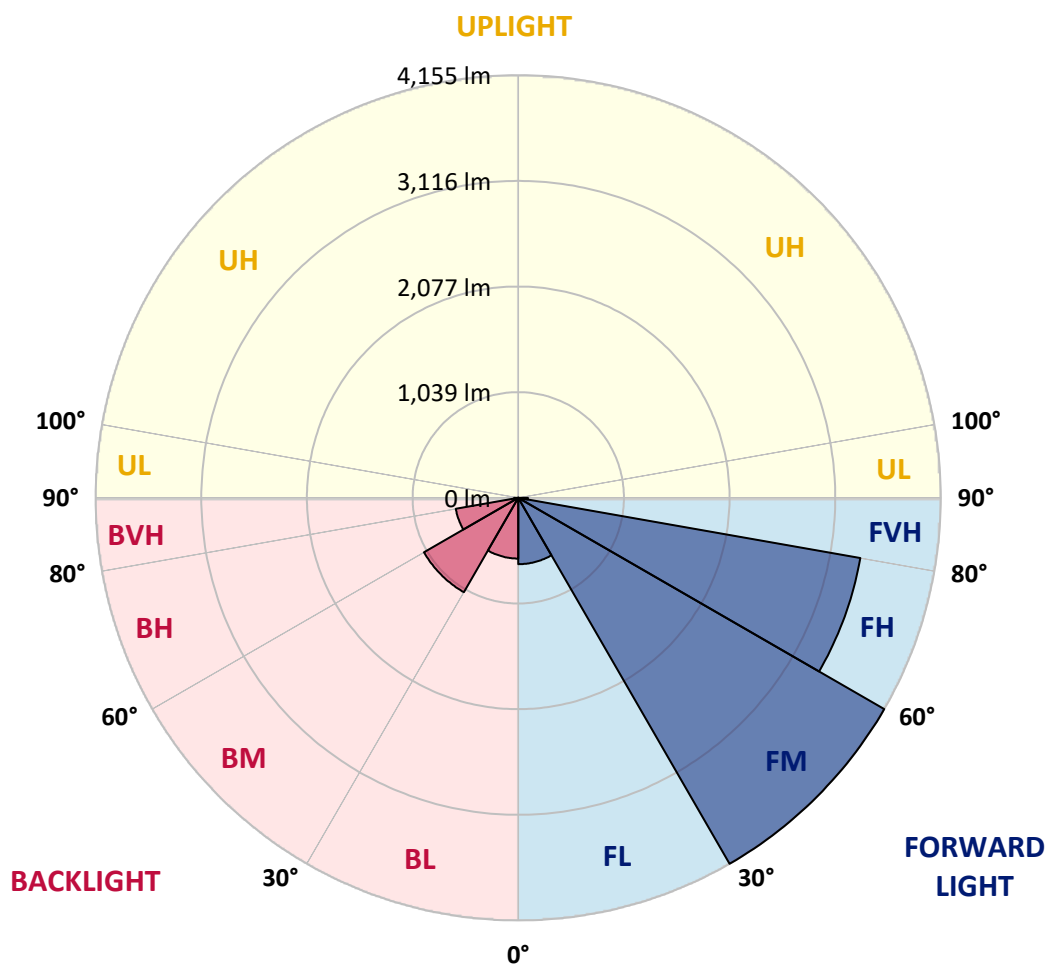
CATALOG NUMBER: NAV-SB2B-830-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	652.3	6.1			
FM	(30°-60°)	4154.5	39.0			
FH	(60°-80°)	3414.9	32.1			G2/5000
FVH	(80°-90°)	94.3	0.9			G1/100
BL	(0°-30°)	597.5	5.6	B2/1000		
BM	(30°-60°)	1070.5	10.1	B2/2500		
BH	(60°-80°)	623.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	40.5	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: P962095

CATALOG NUMBER: NAV-SB2B-830-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4
2.5°	1369.3	1368.8	1375.9	1378.0	1391.1	1400.4	1417.9	1436.3	1460.3	1463.1	1477.8
5°	1290.3	1290.3	1298.4	1307.2	1324.0	1342.5	1369.3	1401.5	1442.9	1449.5	1486.0
7.5°	1223.1	1227.5	1234.6	1251.5	1271.1	1297.9	1338.8	1384.6	1439.1	1449.5	1508.4
10°	1169.1	1174.0	1182.8	1196.5	1225.9	1263.0	1316.4	1375.3	1448.3	1464.7	1541.1
12.5°	1152.3	1157.1	1162.0	1172.4	1199.7	1243.3	1307.2	1379.6	1470.8	1487.1	1585.8
15°	1191.6	1197.5	1193.7	1190.9	1205.2	1245.0	1311.5	1395.4	1498.6	1522.0	1640.8
17.5°	1282.1	1284.2	1275.5	1249.9	1247.7	1268.9	1332.2	1417.3	1533.4	1559.0	1696.5
20°	1428.2	1424.3	1406.4	1355.7	1326.8	1322.4	1367.7	1450.0	1569.5	1596.7	1756.4
22.5°	1626.7	1622.4	1586.3	1506.1	1441.9	1399.3	1418.9	1492.5	1609.8	1640.3	1814.9
25°	1874.3	1868.3	1815.4	1706.3	1606.5	1501.2	1488.7	1548.7	1659.4	1687.8	1875.9
27.5°	2163.3	2158.3	2101.1	1957.1	1813.2	1640.8	1575.4	1614.7	1711.2	1743.4	1944.6
30°	2474.1	2488.3	2386.8	2232.0	2049.9	1823.0	1692.2	1696.0	1778.3	1807.2	2028.1
32.5°	2839.5	2864.1	2741.9	2545.6	2296.9	2021.0	1839.4	1809.3	1875.9	1899.9	2133.3
35°	3201.6	3229.4	3128.0	2910.9	2624.6	2254.4	1993.1	1939.7	2005.7	2031.9	2272.9
37.5°	3514.6	3551.6	3499.4	3310.6	2975.3	2535.7	2193.8	2092.9	2165.4	2198.2	2460.5
40°	3761.6	3818.3	3814.5	3696.8	3388.6	2877.1	2448.5	2282.2	2364.0	2399.4	2687.9
42.5°	3962.3	4011.3	4053.9	4047.9	3820.0	3264.8	2747.8	2528.1	2590.3	2631.2	2943.6
45°	4100.8	4153.2	4244.7	4343.4	4235.0	3679.9	3090.9	2819.9	2876.6	2938.2	3248.4
47.5°	4224.6	4284.0	4402.9	4559.4	4587.2	4096.4	3466.6	3159.6	3211.4	3275.2	3554.4
50°	4235.5	4286.8	4471.0	4693.1	4837.5	4496.7	3870.1	3540.8	3589.3	3657.5	3882.1
52.5°	3972.1	4052.8	4374.6	4689.2	4952.6	4831.5	4271.0	3937.2	3991.8	4073.6	4221.4
55°	3083.2	3201.6	4091.5	4543.1	4911.7	5048.0	4652.2	4358.7	4428.5	4514.2	4562.7
57.5°	2655.7	2707.5	3247.9	4276.9	4725.1	5104.2	4973.8	4784.6	4896.9	4990.7	4923.7
60°	2386.8	2430.0	2749.5	3863.0	4479.8	5015.3	5222.5	5181.6	5375.7	5487.5	5292.9
62.5°	2098.9	2139.8	2430.5	3225.6	4165.7	4867.5	5379.6	5548.1	5866.6	5988.7	5640.8
65°	1813.2	1848.1	2126.8	2710.2	3766.6	4719.7	5460.8	5864.9	6320.8	6447.4	5929.8
67.5°	1494.8	1523.7	1787.0	2286.6	3281.2	4517.4	5501.2	6114.1	6716.2	6824.7	6072.7
70°	1078.6	1101.0	1373.1	1808.3	2672.1	4169.5	5484.9	6290.8	6921.2	7007.9	5964.7
72.5°	509.8	530.0	849.6	1174.0	1887.3	3492.3	5153.8	6150.6	6712.9	6669.8	5303.8
75°	272.1	289.6	488.1	644.0	996.8	2394.0	4217.5	5298.3	5637.0	5427.6	3919.8
77.5°	184.3	197.9	302.1	386.6	455.3	1136.4	2710.8	3668.4	3529.3	3183.5	1963.2
80°	146.2	160.3	247.5	261.8	220.3	410.6	1120.1	1698.1	1219.9	975.6	558.4
82.5°	112.3	128.1	208.3	189.7	119.9	168.5	326.1	537.1	312.4	237.8	135.2
85°	68.7	85.6	163.6	121.1	67.6	76.9	110.7	149.4	95.4	79.6	48.5
87.5°	34.8	49.1	82.9	44.2	30.5	18.0	29.4	29.4	25.1	21.8	12.5
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: P962095

CATALOG NUMBER: NAV-SB2B-830-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4	1485.4
2.5°	1490.9	1501.8	1520.4	1537.8	1551.4	1564.6	1577.6	1584.6	1586.9	1595.6	1600.5
5°	1508.4	1528.6	1564.6	1598.3	1619.6	1632.7	1641.9	1647.4	1648.5	1651.3	1655.6
7.5°	1540.6	1572.7	1622.9	1656.7	1672.5	1671.4	1667.6	1653.9	1648.5	1643.6	1644.7
10°	1585.8	1628.3	1689.9	1713.4	1703.6	1677.4	1643.6	1603.8	1585.3	1567.2	1561.8
12.5°	1641.9	1696.0	1756.4	1755.4	1706.8	1639.8	1561.3	1500.2	1461.4	1433.7	1427.1
15°	1710.1	1772.3	1818.7	1781.6	1675.3	1554.7	1439.6	1360.1	1325.1	1294.6	1291.3
17.5°	1780.4	1846.9	1868.3	1773.4	1595.6	1428.7	1298.4	1235.7	1201.3	1185.0	1189.9
20°	1849.2	1915.2	1897.7	1726.5	1474.6	1285.9	1169.7	1135.4	1128.2	1132.1	1130.5
22.5°	1921.7	1980.6	1903.7	1636.0	1320.2	1139.7	1075.9	1077.0	1092.9	1104.2	1107.0
25°	1995.9	2035.6	1887.9	1505.1	1154.5	1032.3	1016.5	1033.9	1065.0	1087.3	1093.4
27.5°	2067.3	2084.7	1853.5	1343.2	1012.1	955.4	958.2	994.1	1041.0	1072.1	1079.7
30°	2148.0	2128.4	1787.6	1161.0	913.4	889.4	912.4	954.3	1001.2	1029.0	1035.6
32.5°	2239.1	2166.0	1682.8	992.5	843.6	836.5	874.1	901.4	922.1	930.3	934.7
35°	2352.5	2218.9	1548.7	874.1	780.9	797.8	833.8	820.2	812.0	807.6	812.0
37.5°	2499.8	2290.4	1391.6	797.2	730.2	770.0	784.7	742.2	710.0	694.2	698.0
40°	2677.0	2395.0	1240.6	737.8	698.0	746.0	720.4	669.1	628.2	605.9	607.5
42.5°	2873.8	2504.7	1113.6	693.1	680.0	726.3	672.9	611.8	545.9	538.7	545.9
45°	3080.5	2617.5	1026.8	658.8	671.3	709.5	645.6	546.9	500.1	529.0	544.3
47.5°	3287.2	2721.2	974.5	633.1	667.0	690.3	621.7	511.0	477.6	519.7	539.4
50°	3517.3	2813.8	951.0	614.6	662.0	682.8	585.7	501.7	454.3	482.1	502.8
52.5°	3745.8	2885.8	933.6	596.0	655.0	676.7	568.3	490.8	425.9	427.5	439.0
55°	3973.7	2932.7	914.5	571.5	639.1	663.7	566.6	478.8	404.7	397.0	402.4
57.5°	4217.0	2959.5	891.0	544.3	611.8	630.4	565.0	469.6	398.1	385.5	387.1
60°	4464.5	2998.7	860.5	511.0	575.3	590.6	561.1	466.3	394.3	373.0	374.6
62.5°	4686.5	3012.4	824.0	479.3	528.4	551.3	553.0	463.5	383.9	347.4	347.4
65°	4832.1	2953.4	760.1	443.3	477.6	511.0	537.1	454.3	365.4	328.8	328.8
67.5°	4826.1	2785.5	660.4	397.0	428.7	466.3	514.2	438.4	343.0	306.0	307.6
70°	4601.4	2454.0	533.8	343.0	374.6	418.3	484.8	415.0	316.3	280.8	284.1
72.5°	3946.5	1920.6	387.8	279.7	311.9	368.6	446.6	386.6	289.0	258.5	256.9
75°	2819.3	1215.5	262.8	214.8	242.6	312.4	399.1	353.3	263.9	259.5	244.9
77.5°	1440.2	580.8	173.9	157.0	169.0	246.5	335.4	315.7	267.7	214.3	190.9
80°	468.4	214.3	109.6	106.9	112.3	164.1	259.5	259.0	202.8	145.5	128.7
82.5°	149.4	92.1	71.4	68.7	66.0	103.1	181.0	205.0	136.8	92.1	91.6
85°	59.4	55.0	42.0	38.7	27.8	48.5	94.9	136.3	102.0	66.5	68.2
87.5°	21.8	21.8	11.5	8.2	6.0	16.4	25.6	40.9	58.3	34.3	33.8
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)