

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: P960994

Luminaire Tested: **NAV-SB1D-827-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960994
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8867.3 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G3

Input Watts (W): 79.6
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

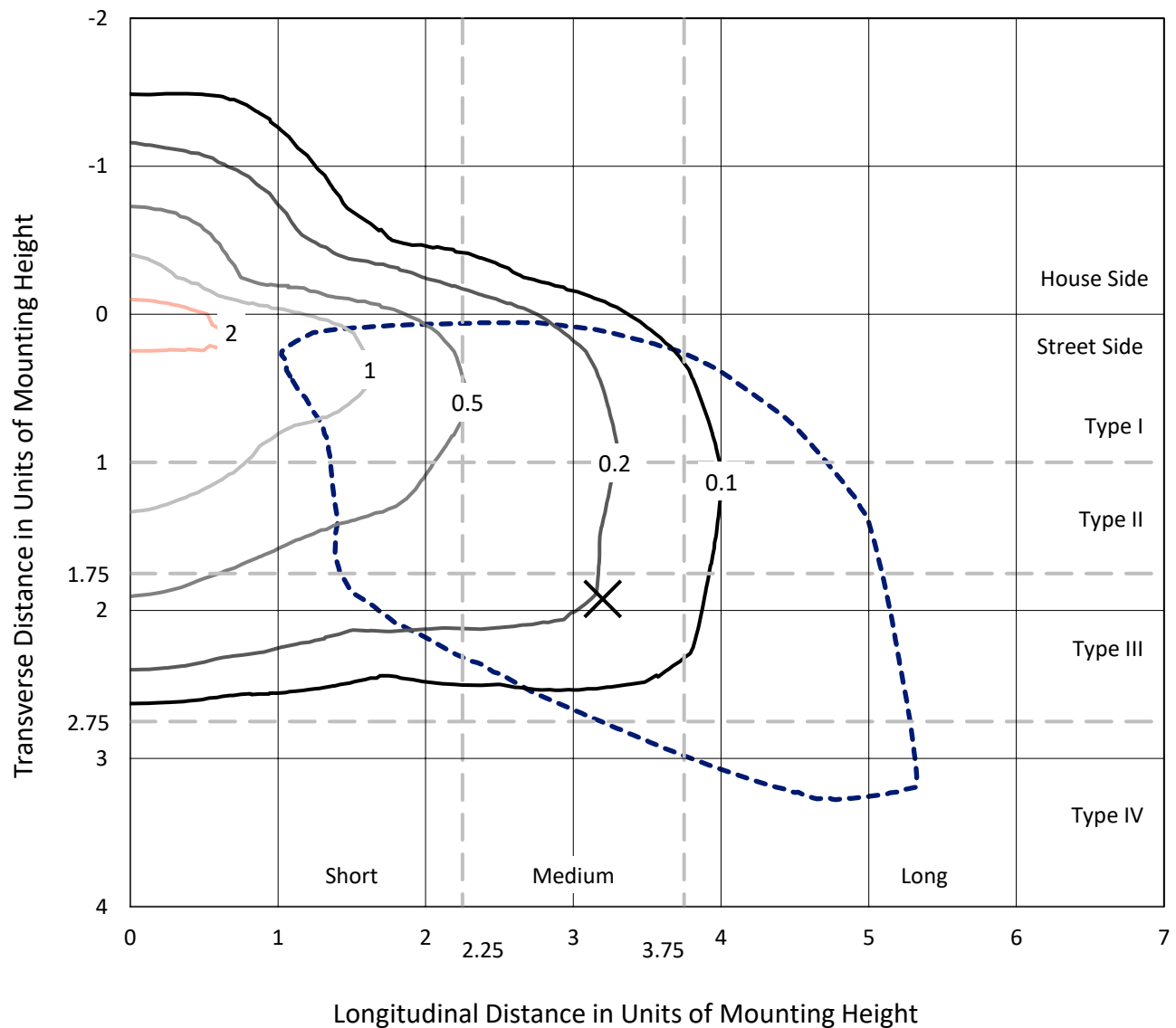


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Iso-Footcandle Lines of Horizontal Illumination

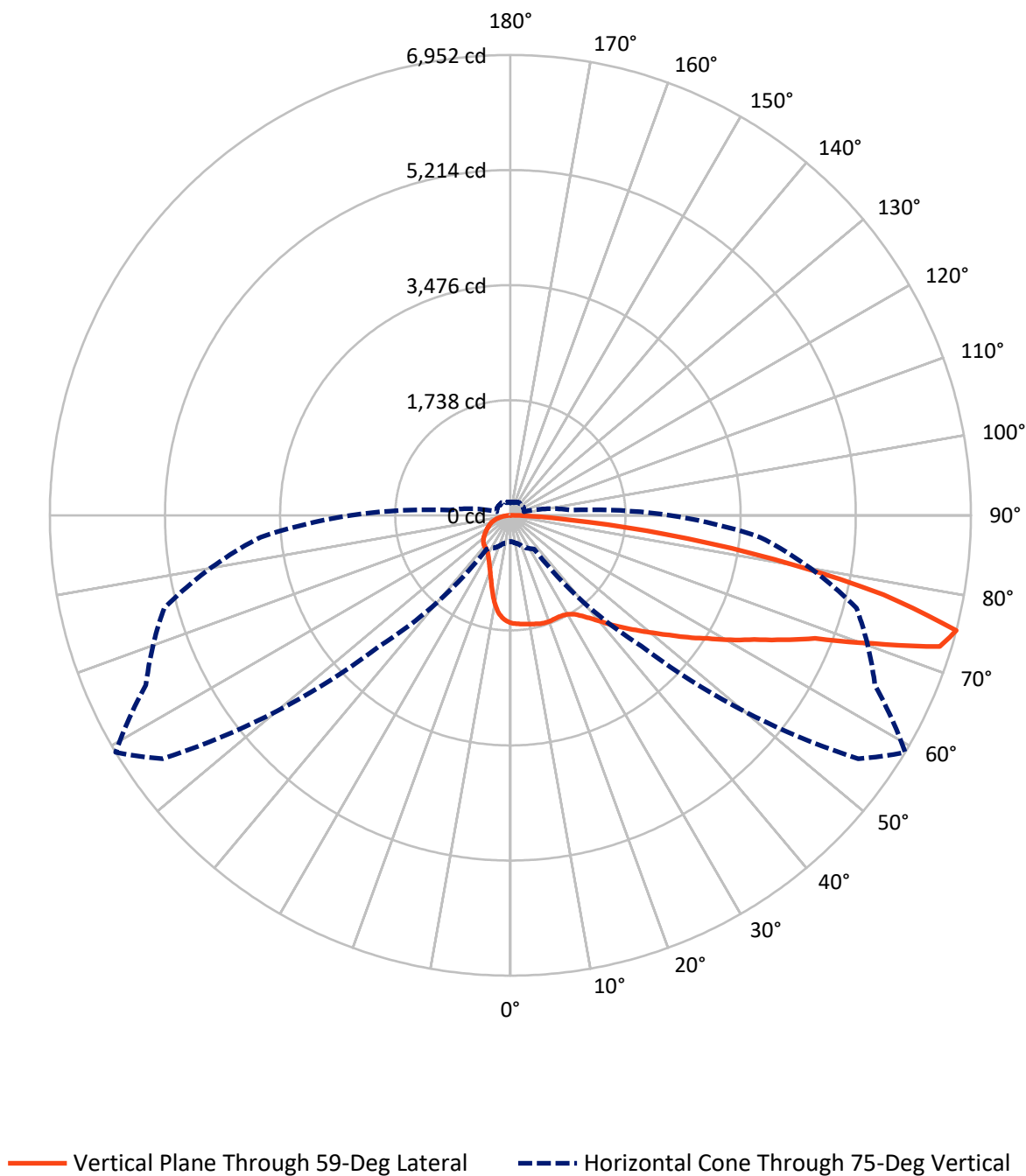
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1663.1	0.0	1663.1
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	7204.2	0.0	7204.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	8867.3	0.0	8867.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.9	1.6
10°-20°	373.0	4.2
20°-30°	566.6	6.4
30°-40°	842.2	9.5
40°-50°	1252.5	14.1
50°-60°	1700.2	19.2
60°-70°	2075.6	23.4
70°-80°	1628.9	18.4
80°-90°	282.2	3.2
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°	8867.3	100.0
0°-180°	8867.3	100.0

Coefficient of Utilization



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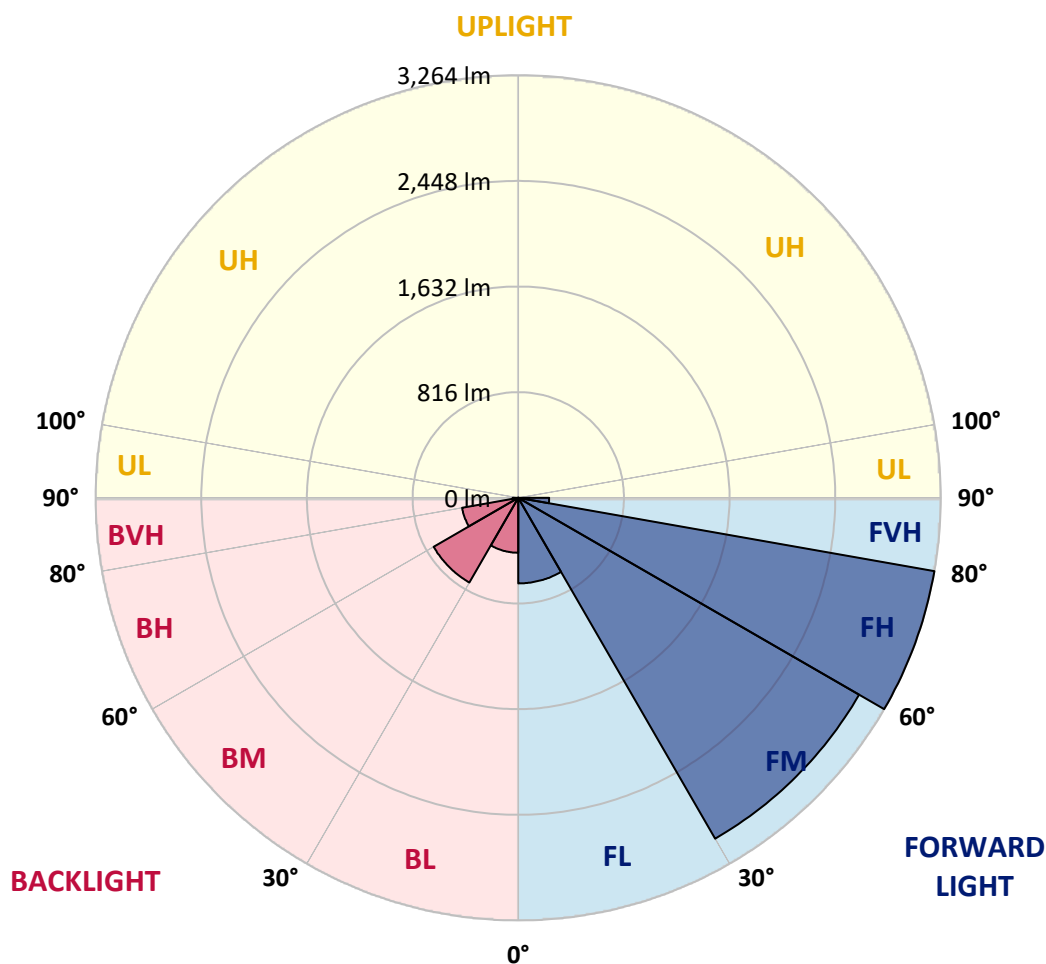
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	661.2	7.5			
FM	(30°-60°)	3040.1	34.3			
FH	(60°-80°)	3264.0	36.8			G2/5000
FVH	(80°-90°)	239.0	2.7			G3/500
BL	(0°-30°)	424.4	4.8	B1/500		
BM	(30°-60°)	754.9	8.5	B1/1000		
BH	(60°-80°)	440.6	5.0	B1/500		G1/500
BVH	(80°-90°)	43.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6
2.5°	1641.4	1635.7	1641.4	1639.0	1638.1	1636.1	1636.6	1640.0	1638.1	1640.4	1632.3
5°	1630.5	1627.1	1632.8	1631.4	1637.5	1638.6	1644.7	1648.5	1651.0	1651.4	1645.2
7.5°	1612.3	1608.9	1617.0	1623.7	1637.1	1640.9	1653.8	1660.0	1663.4	1669.1	1660.0
10°	1546.0	1544.6	1564.6	1589.9	1621.3	1640.9	1660.5	1671.0	1676.2	1691.5	1681.0
12.5°	1428.6	1430.6	1456.8	1505.4	1568.5	1631.4	1668.1	1683.4	1691.5	1710.5	1705.8
15°	1316.5	1316.1	1344.7	1396.7	1484.9	1589.4	1672.0	1698.1	1712.0	1740.1	1736.4
17.5°	1251.7	1249.8	1269.8	1309.4	1391.4	1525.0	1662.3	1706.3	1735.8	1771.2	1767.8
20°	1239.7	1235.9	1246.4	1266.0	1324.2	1454.4	1637.5	1706.3	1754.9	1800.7	1798.8
22.5°	1283.2	1276.9	1272.6	1270.3	1296.0	1396.3	1609.5	1700.6	1783.1	1843.2	1839.9
25°	1370.4	1360.9	1339.0	1317.5	1309.8	1370.0	1584.6	1699.1	1825.0	1900.5	1888.0
27.5°	1511.7	1499.8	1455.4	1403.8	1357.6	1383.3	1573.7	1707.8	1871.3	1961.0	1936.2
30°	1686.7	1673.8	1618.1	1538.8	1455.8	1432.9	1587.5	1733.0	1930.5	2041.6	1993.0
32.5°	1843.7	1829.3	1781.7	1701.0	1589.0	1518.8	1631.4	1781.1	2023.5	2153.7	2078.4
35°	1983.0	1966.3	1923.3	1848.9	1752.0	1639.5	1710.5	1866.5	2155.6	2336.0	2194.2
37.5°	2119.4	2099.8	2053.1	1974.4	1906.6	1800.2	1819.8	1976.3	2331.2	2557.3	2347.9
40°	2272.0	2243.8	2187.1	2109.3	2043.5	1988.7	1963.4	2110.8	2509.6	2804.4	2539.6
42.5°	2419.9	2393.2	2325.4	2259.1	2176.6	2160.9	2129.8	2268.2	2704.7	3075.8	2734.3
45°	2579.2	2547.2	2465.2	2381.3	2329.2	2275.4	2291.1	2425.7	2895.9	3352.5	2938.4
47.5°	2728.5	2692.8	2595.9	2502.4	2473.8	2371.7	2439.0	2598.8	3094.9	3632.9	3140.7
50°	2809.1	2773.9	2693.2	2608.8	2586.4	2490.4	2599.2	2789.1	3303.3	3912.4	3334.8
52.5°	2876.4	2838.2	2732.9	2686.0	2679.4	2619.8	2796.7	3006.6	3511.8	4159.6	3522.3
55°	2947.9	2905.5	2771.0	2729.0	2759.5	2764.7	3030.9	3253.2	3732.1	4400.4	3699.2
57.5°	3030.5	2976.6	2807.7	2765.2	2837.7	2934.6	3300.0	3508.9	3948.7	4623.7	3856.7
60°	3108.2	3053.9	2878.3	2823.0	2922.2	3131.6	3608.6	3818.5	4193.9	4822.6	4005.5
62.5°	3123.5	3078.7	2934.6	2934.1	3036.7	3361.5	3974.0	4131.0	4408.1	5019.1	4139.1
65°	2859.2	2831.0	2745.7	2929.9	3200.8	3692.6	4380.8	4530.7	4680.5	5190.8	4256.4
67.5°	2176.2	2180.0	2173.7	2529.1	3068.1	4168.2	4970.0	4958.5	5016.8	5383.6	4391.4
70°	995.1	1017.5	1163.5	1745.9	2458.1	4223.0	5944.1	5795.7	5438.9	5633.1	4508.3
72.5°	537.6	554.7	614.4	845.7	1477.7	3754.6	6672.0	6777.4	6000.3	5801.0	4379.9
75°	394.5	404.1	445.6	537.6	620.6	2790.6	6411.1	6952.0	6070.5	5409.3	3782.2
77.5°	295.3	299.6	333.4	426.0	317.6	1471.1	5122.6	5757.5	5196.5	4444.3	2793.8
80°	214.2	218.9	244.3	319.6	222.7	538.0	3517.5	4041.3	3559.0	2833.0	1392.4
82.5°	147.9	149.8	160.7	217.5	155.5	208.9	1995.8	2369.8	1986.8	994.0	375.9
85°	89.2	91.6	96.4	126.9	88.3	99.2	861.5	891.0	593.9	237.6	116.8
87.5°	36.7	39.2	42.9	53.4	34.8	27.7	142.2	178.5	111.1	69.6	36.3
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°	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6	1627.6
2.5°	1630.0	1626.6	1617.6	1605.1	1593.7	1579.4	1573.2	1567.9	1563.1	1554.1	1549.8
5°	1640.0	1630.9	1606.6	1575.1	1539.3	1500.2	1462.1	1435.8	1413.4	1396.7	1382.8
7.5°	1655.3	1638.1	1593.7	1529.3	1447.3	1363.4	1287.5	1233.6	1193.0	1178.2	1152.5
10°	1671.0	1650.5	1573.2	1459.7	1317.9	1188.7	1088.0	1032.7	1000.3	989.8	973.5
12.5°	1689.6	1659.6	1541.2	1362.8	1173.4	1031.8	944.0	911.5	894.9	889.2	890.6
15°	1716.8	1667.2	1493.0	1241.7	1035.6	917.3	860.5	838.1	829.5	829.0	831.0
17.5°	1737.3	1668.6	1418.2	1111.9	929.7	848.1	801.3	792.8	798.5	807.1	810.5
20°	1760.1	1655.7	1319.9	993.6	855.3	787.5	768.0	773.7	787.5	799.9	804.2
22.5°	1776.4	1632.3	1201.1	901.6	790.9	752.8	751.7	763.7	771.3	777.6	780.8
25°	1790.7	1592.7	1075.2	824.3	737.9	731.7	742.2	738.4	733.2	738.4	741.8
27.5°	1801.2	1530.2	962.6	756.6	700.7	717.4	711.2	702.6	702.1	705.0	709.8
30°	1797.8	1446.8	870.1	692.2	674.4	690.7	675.9	674.4	673.0	674.4	679.8
32.5°	1797.8	1351.9	799.0	647.8	657.8	651.6	650.2	646.9	641.1	640.6	646.9
35°	1807.9	1257.0	737.9	623.9	644.0	629.1	630.2	622.1	610.1	604.3	610.1
37.5°	1828.4	1180.6	677.3	612.4	619.6	619.2	615.3	601.5	580.6	562.4	568.6
40°	1878.0	1158.1	635.8	607.2	608.2	613.9	603.9	577.2	529.5	499.9	503.7
42.5°	1955.8	1195.9	626.8	594.4	600.5	606.3	586.7	524.7	490.9	473.2	473.2
45°	2054.5	1261.7	646.4	575.7	582.4	592.4	534.2	504.7	489.4	489.8	492.3
47.5°	2179.5	1330.9	682.6	559.5	556.2	561.9	499.5	481.3	460.3	465.6	478.9
50°	2324.0	1401.0	717.0	537.6	527.1	508.5	477.0	459.8	433.2	420.8	424.0
52.5°	2480.5	1468.7	730.8	510.9	495.6	474.2	461.8	440.7	408.4	387.9	387.3
55°	2628.8	1530.2	715.6	478.9	464.1	447.4	445.6	432.7	397.8	369.2	369.2
57.5°	2769.0	1581.8	677.3	446.5	432.1	422.2	435.0	428.9	385.0	348.2	346.3
60°	2887.8	1617.0	622.1	413.6	403.5	398.3	417.9	415.9	366.8	325.8	324.4
62.5°	2982.2	1630.9	561.0	382.1	379.7	370.1	394.0	394.0	343.9	303.8	302.5
65°	3056.2	1617.6	499.0	351.1	355.9	341.5	364.9	362.0	319.6	284.3	282.4
67.5°	3121.5	1573.7	430.3	320.5	331.5	313.4	334.4	327.7	292.8	264.8	262.8
70°	3150.6	1471.6	352.0	290.1	303.4	285.8	303.8	291.4	262.8	243.7	240.0
72.5°	2916.9	1223.0	277.2	258.1	269.5	255.2	270.9	256.7	230.4	221.8	214.6
75°	2413.3	917.8	213.2	223.2	231.9	220.9	231.3	220.9	197.0	203.3	185.5
77.5°	1752.5	619.6	163.2	186.5	190.3	184.6	193.6	181.7	160.3	158.9	151.7
80°	871.5	363.1	127.8	147.4	146.0	142.2	152.6	146.9	128.8	136.4	135.0
82.5°	252.4	155.5	93.0	103.5	100.7	101.6	109.3	112.1	167.9	166.5	170.3
85°	79.2	61.1	55.8	57.7	54.8	56.3	64.4	127.8	118.3	69.2	74.9
87.5°	20.5	21.0	13.8	14.8	15.3	18.1	20.5	77.8	37.2	24.3	25.7
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)