

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: P882077

Luminaire Tested: **NAV-SB1D-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882077
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10880 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

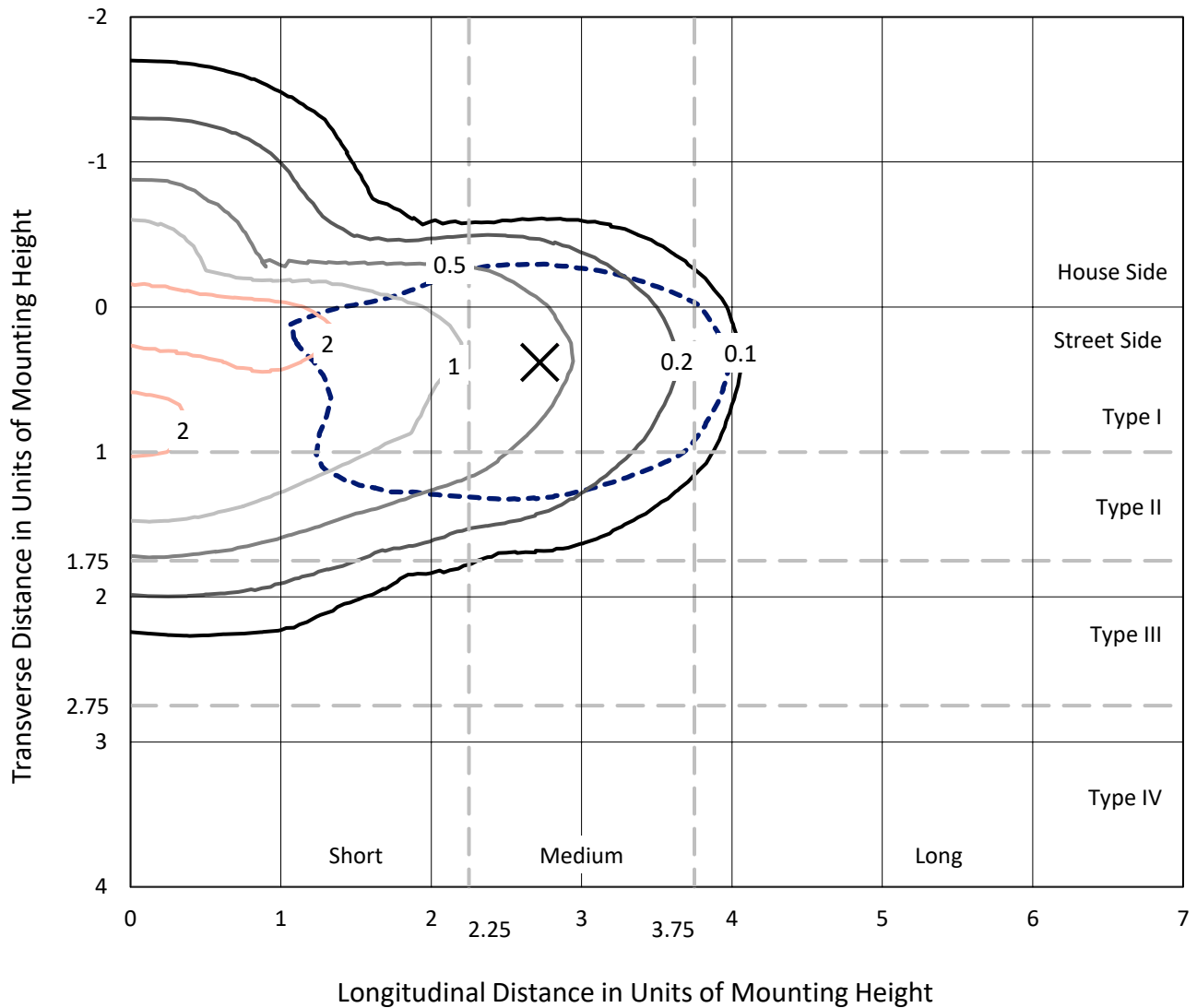
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

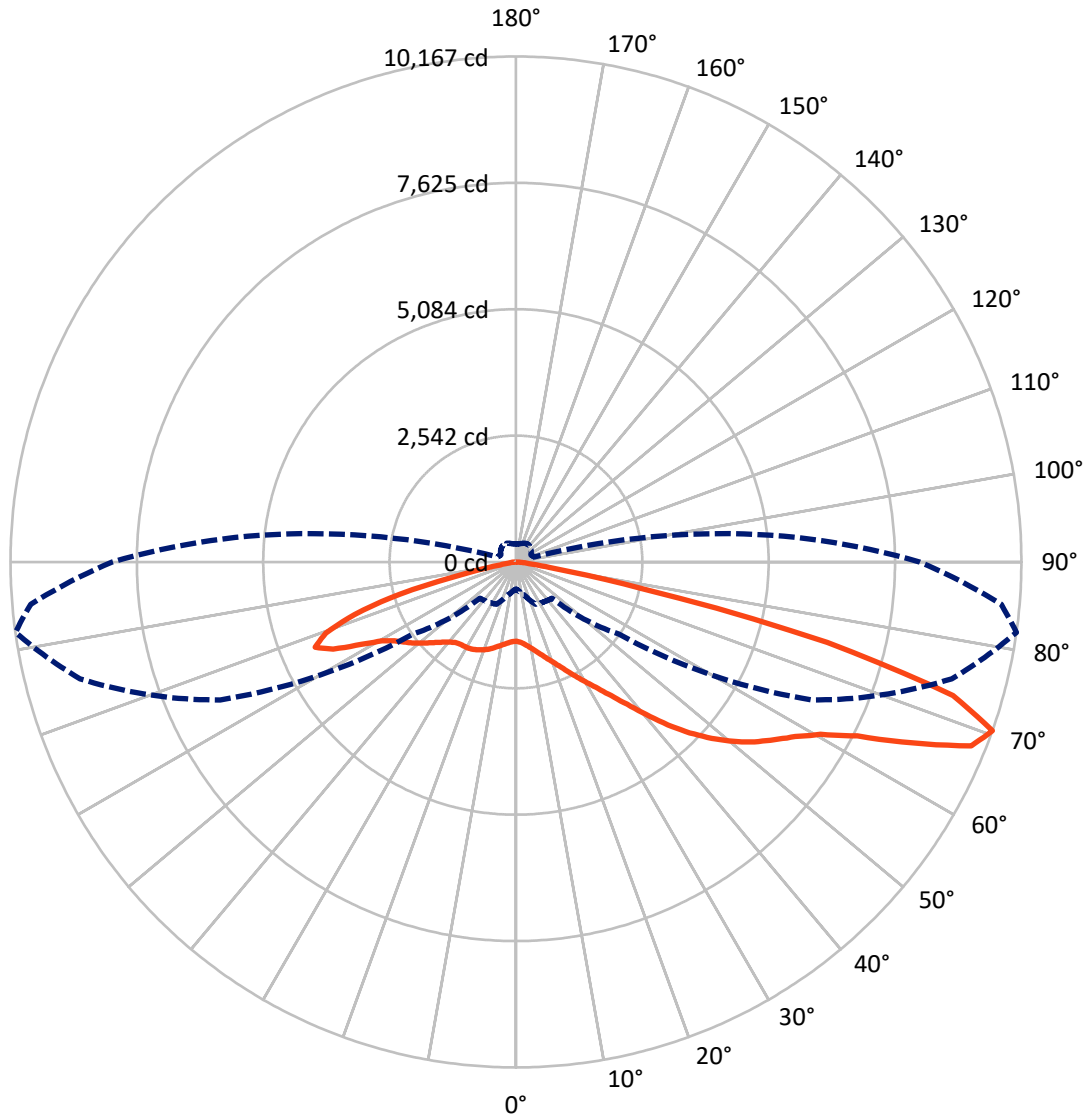
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2682.2	0.0	2682.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	8197.8	0.0	8197.8
	% Fixture	75.3	0.0	75.3
Total	Lumens	10880.0	0.0	10880.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.6	1.4
10°-20°	432.7	4.0
20°-30°	723.9	6.7
30°-40°	1130.9	10.4
40°-50°	1801.1	16.6
50°-60°	2506.4	23.0
60°-70°	2621.8	24.1
70°-80°	1370.3	12.6
80°-90°	142.3	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°	10880.0	100.0
0°-180°	10880.0	100.0

Coefficient of Utilization



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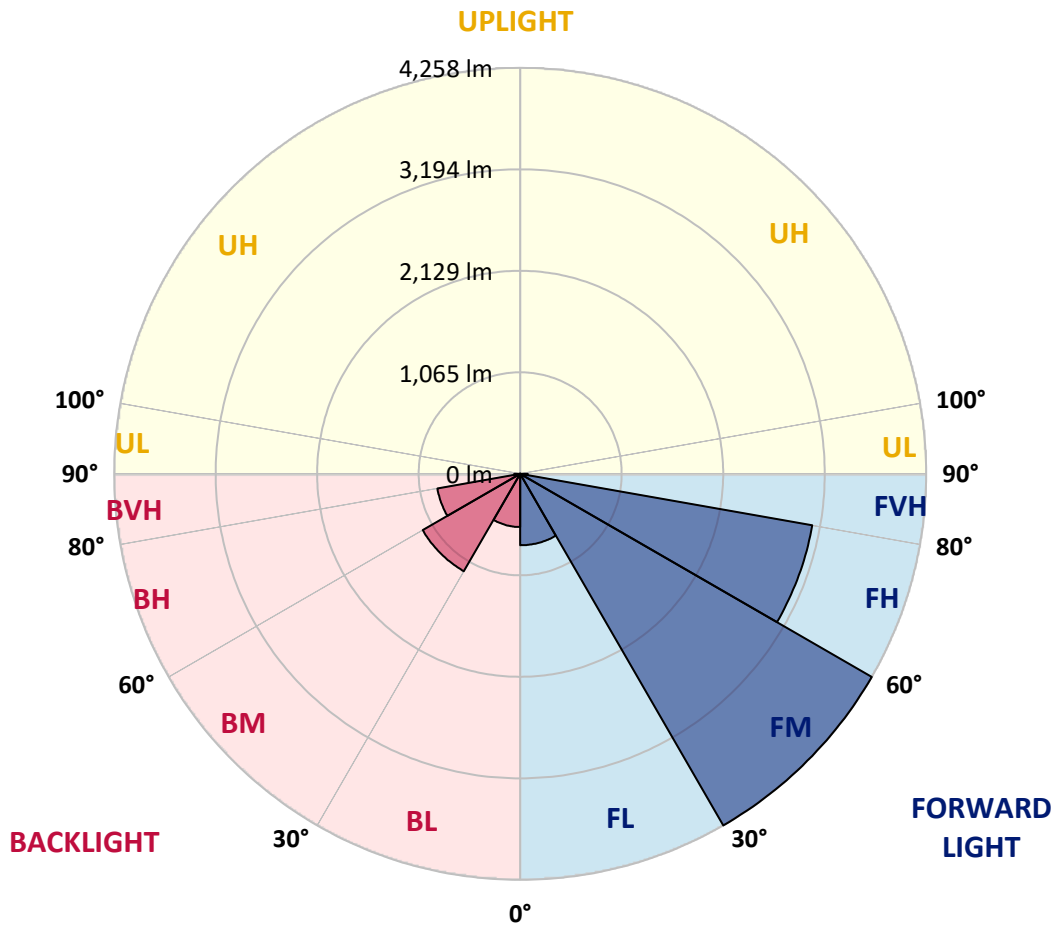
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	749.2	6.9			
FM (30°-60°)	4258.3	39.1			
FH (60°-80°)	3110.6	28.6			G2/5000
FVH (80°-90°)	79.7	0.7			G1/100
BL (0°-30°)	558.0	5.1	B2/1000		
BM (30°-60°)	1180.1	10.8	B2/2500		
BH (60°-80°)	881.5	8.1	B2/1000		G2/1000
BVH (80°-90°)	62.6	0.6			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°	82°	85°
0°	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1
2.5°	1633.2	1642.5	1639.6	1636.7	1636.7	1632.7	1632.1	1626.3	1621.7	1614.2	1612.5
5°	1654.0	1663.8	1662.7	1665.0	1672.5	1674.2	1676.0	1672.5	1663.3	1654.0	1650.0
7.5°	1635.6	1646.5	1650.0	1663.8	1686.9	1707.7	1723.3	1729.7	1721.0	1707.7	1701.4
10°	1573.2	1585.3	1597.5	1630.4	1671.4	1720.4	1762.0	1786.8	1785.1	1772.4	1761.4
12.5°	1446.8	1459.5	1485.5	1549.5	1624.6	1711.2	1788.5	1840.5	1858.4	1849.2	1830.1
15°	1345.7	1356.7	1376.3	1442.2	1539.7	1671.4	1798.4	1899.4	1945.0	1939.8	1916.7
17.5°	1342.9	1347.5	1359.6	1390.8	1465.8	1609.0	1788.0	1957.1	2044.3	2043.7	2014.9
20°	1393.7	1395.4	1402.3	1408.7	1451.4	1561.7	1761.4	2005.0	2155.7	2155.7	2124.5
22.5°	1464.1	1462.9	1469.9	1464.1	1484.9	1557.6	1744.7	2047.2	2279.8	2289.1	2249.8
25°	1569.7	1564.0	1562.2	1549.0	1553.0	1595.1	1763.1	2095.1	2427.1	2446.1	2397.0
27.5°	1710.6	1701.4	1695.0	1664.4	1654.0	1672.5	1819.7	2152.8	2591.0	2623.9	2561.6
30°	1894.2	1877.5	1868.2	1815.1	1777.6	1780.5	1905.2	2229.6	2762.5	2815.6	2736.5
32.5°	2144.8	2118.8	2094.0	2006.8	1938.1	1915.6	2015.4	2335.8	2948.4	3033.3	2931.6
35°	2425.3	2404.6	2378.0	2243.5	2137.8	2085.9	2164.4	2484.2	3166.0	3300.6	3168.3
37.5°	2695.5	2677.6	2690.3	2509.0	2372.8	2297.2	2359.5	2683.4	3434.5	3633.1	3465.1
40°	2974.9	2961.1	2962.8	2789.6	2630.9	2546.0	2596.2	2933.4	3742.2	4028.6	3821.9
42.5°	3278.6	3268.2	3233.6	3080.0	2901.6	2822.5	2868.7	3222.0	4072.4	4478.9	4213.3
45°	3618.7	3612.3	3580.0	3403.9	3199.5	3110.6	3173.0	3540.7	4404.4	4902.6	4606.5
47.5°	3912.5	3917.7	3913.7	3765.3	3553.4	3422.9	3497.4	3873.3	4713.3	5301.0	4983.5
50°	4054.0	4081.1	4120.9	4074.7	3943.1	3810.3	3824.8	4194.3	5007.7	5674.5	5344.9
52.5°	3980.1	4031.4	4140.0	4213.9	4264.7	4237.0	4198.3	4512.9	5284.8	6011.7	5686.6
55°	3704.7	3776.8	3957.0	4135.4	4394.6	4596.1	4646.9	4866.3	5555.0	6308.4	6009.9
57.5°	3203.0	3320.2	3481.8	3842.7	4279.1	4769.8	5169.9	5356.4	5841.4	6625.4	6348.2
60°	2342.8	2499.8	2700.7	3237.6	3875.0	4676.9	5615.0	6109.2	6248.4	7035.8	6788.7
62.5°	1499.3	1596.3	1781.0	2286.8	3019.4	4200.6	5751.3	7050.3	6938.3	7709.0	7449.2
65°	1026.5	1088.8	1258.0	1542.0	1951.9	3126.8	5386.4	7755.8	8034.0	8775.9	8578.4
67.5°	745.9	793.2	937.6	1186.4	1271.8	1850.3	4179.8	7723.4	9099.2	9875.1	9568.0
70°	543.8	577.3	698.6	937.6	978.6	1029.4	2532.1	6565.3	9076.1	10167.2	9799.5
72.5°	403.0	426.1	507.5	727.4	792.1	695.1	1253.4	4771.6	7799.1	9196.2	8901.2
75°	291.5	308.9	368.9	556.5	633.9	529.4	625.2	2788.5	5440.1	6468.9	6520.9
77.5°	222.8	236.1	275.4	407.6	507.5	397.2	388.0	1282.8	2579.5	2592.2	2737.7
80°	179.0	187.6	209.0	286.9	389.1	297.3	252.9	517.9	815.2	689.9	724.0
82.5°	131.6	146.1	176.7	201.5	278.3	204.9	154.1	261.5	310.0	266.7	269.0
85°	75.1	84.9	106.8	144.3	177.8	125.3	88.3	116.0	144.3	118.4	105.7
87.5°	26.6	34.6	37.5	56.6	77.4	52.0	34.1	33.5	47.3	35.2	29.4
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°	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1	1595.1
2.5°	1606.7	1603.8	1592.3	1576.7	1560.5	1544.9	1539.7	1528.8	1521.2	1517.2	1521.8
5°	1639.0	1629.8	1602.6	1568.0	1531.6	1492.4	1464.7	1439.3	1420.8	1403.5	1410.4
7.5°	1685.2	1669.0	1622.3	1561.7	1497.0	1431.8	1383.3	1346.3	1321.5	1305.3	1308.8
10°	1738.9	1714.1	1642.5	1551.8	1452.0	1358.4	1301.3	1269.5	1253.9	1245.3	1247.6
12.5°	1800.7	1765.5	1663.3	1529.3	1383.3	1276.5	1237.2	1228.0	1228.5	1229.1	1230.3
15°	1876.9	1827.8	1680.0	1480.3	1293.8	1213.5	1206.6	1221.6	1237.2	1244.7	1244.1
17.5°	1962.9	1893.6	1682.9	1399.4	1206.0	1173.1	1195.1	1227.4	1251.1	1261.5	1263.8
20°	2055.3	1960.6	1662.1	1285.1	1133.9	1140.2	1179.5	1221.0	1247.0	1260.3	1263.8
22.5°	2160.9	2032.2	1612.5	1165.0	1075.0	1104.4	1150.6	1191.0	1218.2	1231.4	1234.9
25°	2281.6	2112.4	1534.5	1064.0	1024.2	1064.0	1110.2	1143.7	1165.6	1177.7	1181.2
27.5°	2415.5	2196.1	1430.6	983.8	979.7	1022.4	1060.5	1086.5	1098.1	1107.3	1110.8
30°	2550.0	2272.3	1304.8	923.1	941.0	981.4	1008.6	1020.1	1023.6	1025.3	1029.4
32.5°	2695.5	2338.2	1172.5	872.9	904.1	941.6	957.8	963.0	946.8	935.8	939.3
35°	2871.6	2408.6	1043.2	833.1	867.7	900.0	905.2	900.6	881.6	859.1	860.2
37.5°	3089.3	2496.3	939.9	804.8	833.7	855.0	848.7	847.5	849.2	822.7	824.4
40°	3356.0	2610.7	864.3	782.9	805.9	810.6	792.7	802.5	811.1	770.7	771.9
42.5°	3652.1	2748.6	816.3	767.8	782.9	771.9	744.2	755.1	754.0	700.9	700.3
45°	3954.1	2898.7	799.6	756.9	761.5	739.6	709.0	711.8	687.6	639.7	641.4
47.5°	4254.3	3059.8	810.0	747.6	734.9	710.1	686.4	673.7	637.9	602.1	602.1
50°	4548.7	3229.0	848.1	729.2	698.6	684.1	666.8	644.3	606.2	575.6	573.3
52.5°	4821.8	3399.3	890.8	698.6	653.0	661.6	650.6	624.7	587.1	556.0	556.5
55°	5080.4	3569.6	907.6	656.4	610.2	642.0	635.6	587.7	542.7	517.3	515.0
57.5°	5362.2	3774.5	889.1	602.7	575.6	619.5	595.2	542.1	516.1	497.1	495.3
60°	5752.4	4096.1	849.2	536.3	542.7	586.0	544.4	522.5	494.2	472.8	471.7
62.5°	6400.8	4695.9	785.2	470.5	504.0	536.3	520.2	498.2	469.4	448.6	448.6
65°	7359.1	5529.6	664.5	419.1	460.7	487.8	494.2	472.3	442.2	420.3	421.4
67.5°	8167.4	6052.7	502.8	376.4	416.3	448.6	466.5	445.1	413.4	392.0	392.6
70°	8122.9	5672.8	383.9	334.3	377.0	409.9	433.0	416.3	382.2	362.0	363.7
72.5°	7214.8	4745.6	310.6	291.5	337.2	369.5	397.2	384.5	349.9	330.2	330.2
75°	5300.4	3368.7	248.2	248.2	287.5	327.3	357.9	349.9	318.1	304.2	300.2
77.5°	2234.2	1413.3	194.6	206.1	239.0	281.2	319.3	322.1	294.4	311.8	282.9
80°	594.1	389.7	148.4	162.2	187.6	232.1	277.7	276.5	246.5	230.4	214.2
82.5°	226.3	153.6	105.7	114.3	135.7	177.8	220.0	226.9	196.9	170.3	170.3
85°	87.2	65.8	65.2	68.7	79.1	117.8	166.3	172.0	148.4	125.9	129.9
87.5°	22.5	19.6	24.2	23.1	36.4	62.9	95.3	98.7	90.6	52.5	75.1
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)