

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: P883660

Luminaire Tested: **NAV-SB4A-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883660
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11614 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

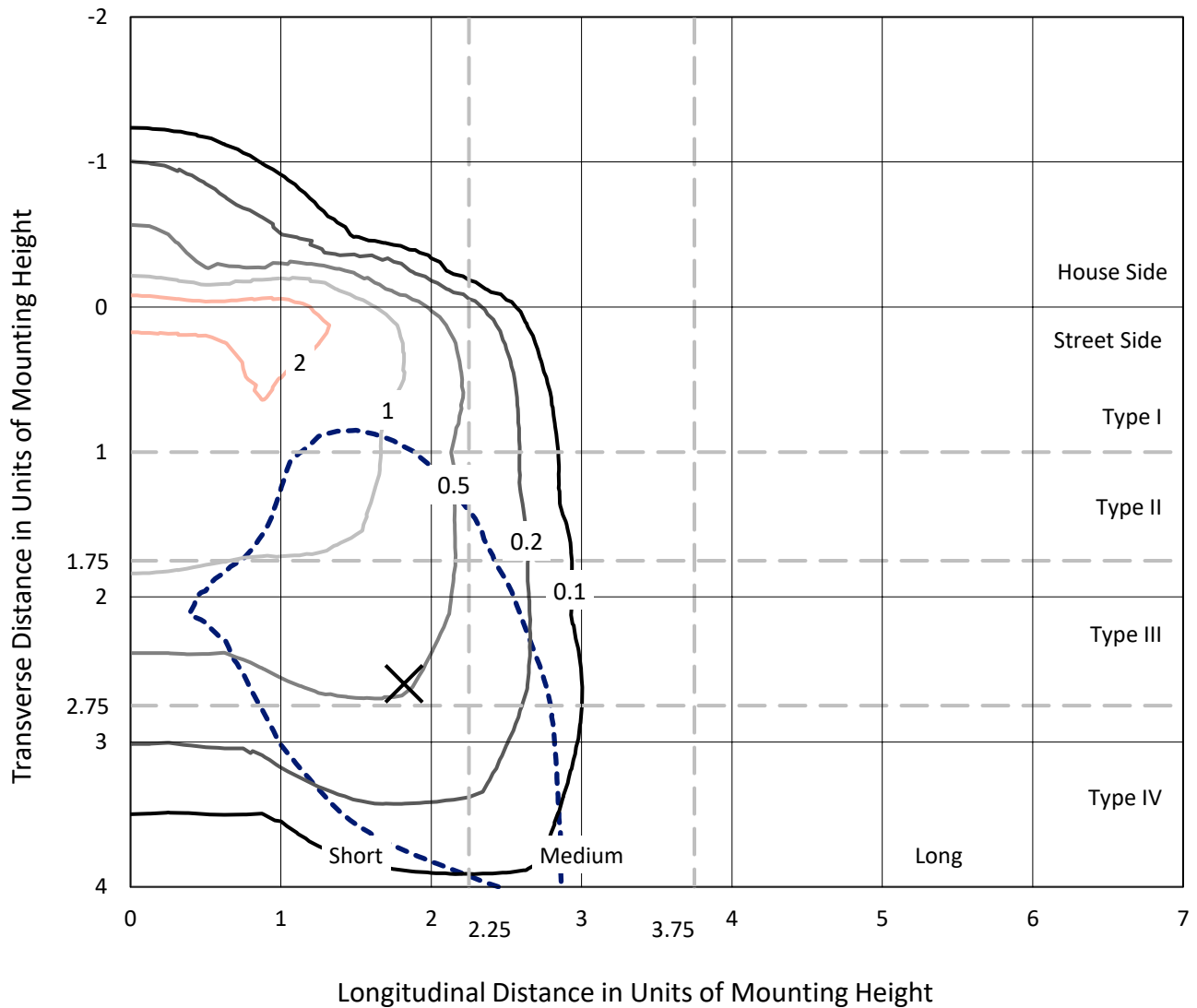
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

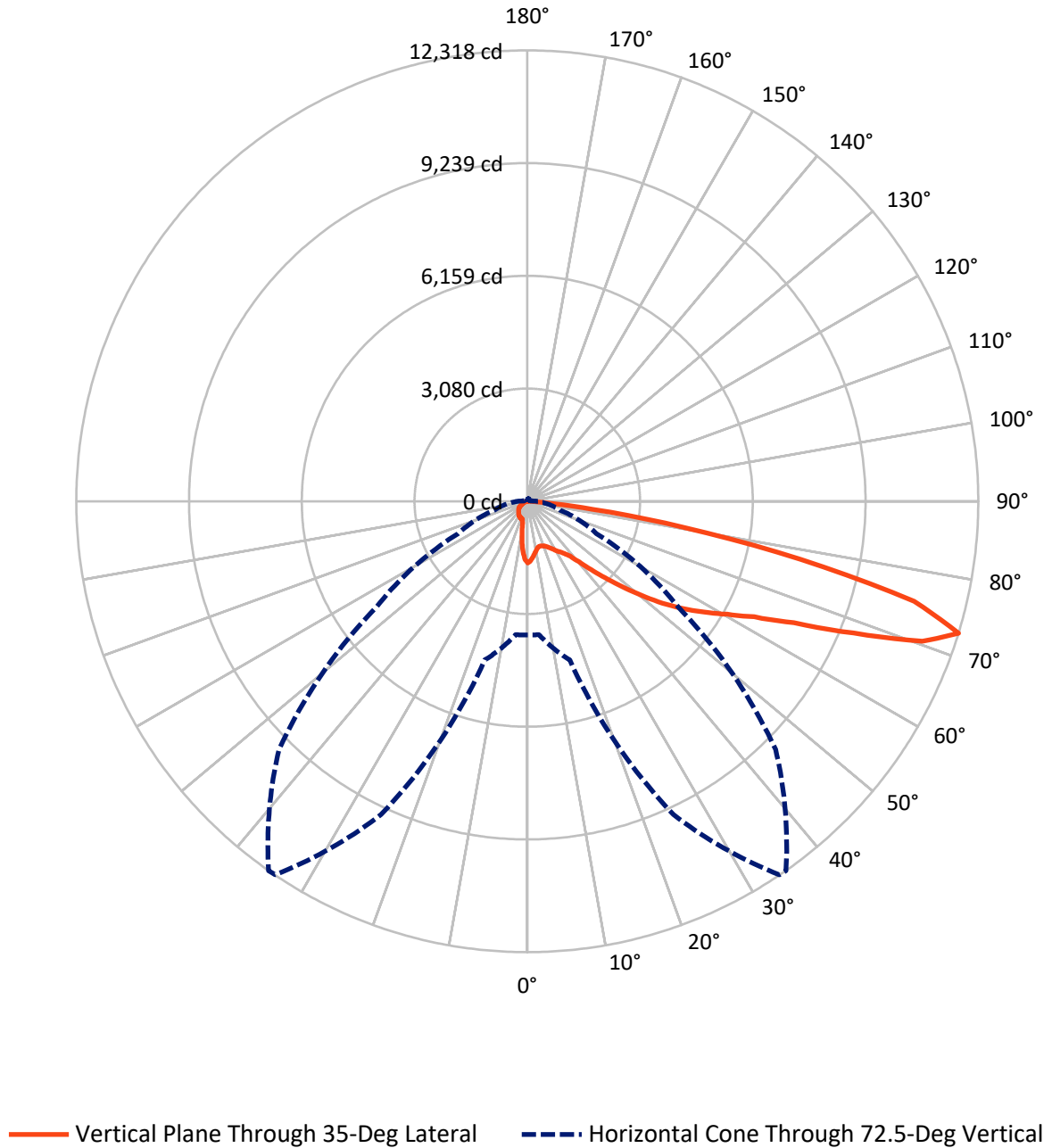
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1307.1	0.0	1307.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	10306.9	0.0	10306.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	11614.0	0.0	11614.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.3	1.2
10°-20°	323.6	2.8
20°-30°	525.7	4.5
30°-40°	877.0	7.6
40°-50°	1659.4	14.3
50°-60°	2636.7	22.7
60°-70°	3261.8	28.1
70°-80°	2027.6	17.5
80°-90°	163.9	1.4
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°	11614.0	100.0
0°-180°	11614.0	100.0

Coefficient of Utilization



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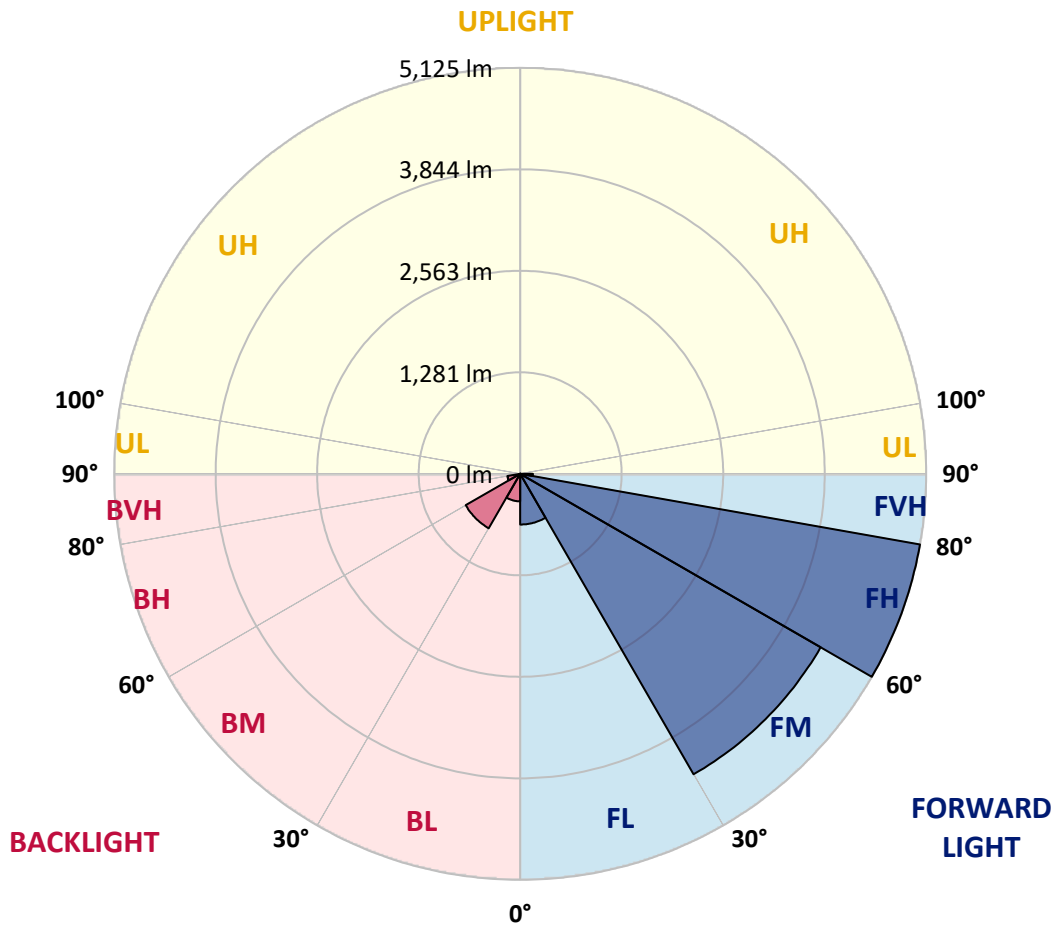
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	640.2	5.5			
FM (30°-60°)	4379.6	37.7			
FH (60°-80°)	5125.4	44.1			G3/7500
FVH (80°-90°)	161.6	1.4			G2/225
BL (0°-30°)	347.3	3.0	B1/500		
BM (30°-60°)	793.5	6.8	B1/1000		
BH (60°-80°)	164.0	1.4	B1/500		G1/500
BVH (80°-90°)	2.2	0.0			G0/10
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3
2.5°	1608.4	1622.0	1624.5	1628.8	1628.8	1633.9	1642.4	1654.3	1673.9	1684.1	1690.9
5°	1482.4	1492.6	1505.4	1515.6	1535.2	1537.7	1570.9	1603.3	1648.4	1682.4	1706.2
7.5°	1355.6	1367.5	1384.6	1409.2	1434.8	1442.4	1492.6	1547.1	1618.6	1682.4	1722.4
10°	1266.3	1267.1	1282.4	1307.1	1348.0	1357.3	1418.6	1496.0	1585.4	1672.2	1737.7
12.5°	1216.1	1222.0	1228.8	1247.6	1286.7	1292.7	1358.2	1449.2	1552.2	1666.2	1755.6
15°	1216.1	1220.3	1224.6	1233.9	1265.4	1270.5	1328.4	1419.5	1535.2	1668.8	1784.5
17.5°	1228.8	1235.6	1232.2	1243.3	1276.5	1279.9	1330.9	1410.9	1534.3	1685.0	1828.8
20°	1259.5	1264.6	1257.8	1264.6	1297.8	1304.6	1357.3	1427.1	1548.8	1713.0	1884.1
22.5°	1308.0	1310.5	1294.4	1299.5	1333.5	1342.0	1403.3	1473.1	1583.7	1758.1	1958.1
25°	1369.2	1374.3	1349.7	1355.6	1388.0	1398.2	1468.8	1542.0	1639.0	1820.3	2052.6
27.5°	1439.9	1442.4	1421.2	1420.3	1462.0	1476.5	1548.0	1627.1	1713.0	1898.6	2171.7
30°	1520.7	1528.4	1508.0	1504.6	1557.3	1569.2	1639.9	1731.8	1822.0	2016.0	2341.1
32.5°	1584.5	1590.5	1578.6	1587.1	1640.7	1650.1	1751.3	1879.8	1993.0	2182.8	2571.7
35°	1676.5	1679.9	1652.6	1667.9	1729.2	1753.0	1903.7	2087.5	2208.3	2392.1	2872.9
37.5°	2009.2	2009.2	1893.5	1817.7	1876.4	1897.7	2112.2	2348.7	2473.8	2673.0	3252.5
40°	2469.6	2461.9	2292.6	2137.7	2130.0	2171.7	2409.2	2678.1	2816.8	3010.0	3679.7
42.5°	2960.6	2948.7	2718.1	2564.9	2539.4	2553.8	2752.1	3084.0	3225.3	3421.0	4139.2
45°	3396.3	3392.9	3181.9	2975.9	2930.0	2975.9	3180.1	3558.8	3660.1	3866.0	4597.9
47.5°	3761.4	3761.4	3607.3	3472.9	3449.1	3476.3	3759.7	4085.6	4076.2	4340.0	5044.7
50°	4181.8	4178.4	4032.0	3974.1	3998.8	4037.1	4426.8	4640.4	4506.8	4805.5	5443.8
52.5°	4476.2	4496.6	4446.4	4437.1	4563.0	4629.4	5104.2	5183.4	4892.3	5247.2	5742.5
55°	4709.4	4733.2	4791.1	4856.6	5099.1	5185.9	5760.4	5698.2	5214.9	5630.1	5914.4
57.5°	5039.6	5005.5	5094.9	5224.2	5616.5	5721.2	6396.0	6184.1	5474.4	5940.8	5933.1
60°	5440.4	5445.5	5460.8	5624.2	6133.1	6267.5	7022.4	6643.7	5641.2	6131.4	5725.5
62.5°	5922.0	5929.7	5961.2	6212.2	6826.6	6953.4	7689.5	7019.8	5717.8	6077.8	5189.3
65°	5888.9	5921.2	6272.6	7131.3	7881.0	8006.1	8468.2	7283.6	5602.1	5587.6	4225.2
67.5°	5364.6	5417.4	6005.4	8229.1	9470.7	9610.2	9409.4	7335.5	5102.5	4345.2	2756.4
70°	4677.0	4695.8	5402.9	9216.2	11311.4	11452.6	10251.9	6764.5	3872.0	2423.6	1234.8
72.5°	3652.4	3656.7	4486.4	9445.1	12310.4	12318.1	9590.7	5021.7	2082.4	931.0	428.9
75°	2609.1	2583.6	3004.8	7659.8	10830.5	10917.3	7190.0	2355.5	795.7	440.0	213.6
77.5°	1399.0	1427.1	1700.3	4542.6	7481.9	7630.0	3923.1	679.1	405.1	299.5	141.3
80°	432.3	456.1	697.0	2079.8	4237.9	4327.3	1454.3	302.1	282.5	213.6	92.8
82.5°	136.2	141.3	325.1	874.0	1759.0	1799.8	421.2	171.0	193.2	141.3	54.5
85°	39.1	40.0	144.7	325.9	434.9	443.4	118.3	66.4	110.6	87.7	28.1
87.5°	4.3	13.6	54.5	54.5	38.3	37.4	12.8	14.5	31.5	11.1	5.1
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°	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3	1683.3
2.5°	1686.7	1687.5	1676.5	1657.7	1637.3	1620.3	1599.0	1582.0	1570.1	1566.7	1572.6
5°	1698.6	1692.6	1661.1	1604.1	1536.0	1477.3	1411.8	1359.9	1325.8	1311.4	1316.5
7.5°	1716.4	1699.4	1630.5	1518.2	1388.0	1272.2	1154.8	1063.7	1005.9	976.9	981.2
10°	1731.8	1697.7	1579.4	1393.9	1194.8	1019.5	861.2	751.4	690.2	661.2	662.1
12.5°	1746.2	1696.9	1513.1	1246.7	976.9	762.5	615.3	560.8	543.8	537.8	536.1
15°	1773.5	1699.4	1429.7	1078.2	759.9	576.1	522.5	521.7	525.1	523.4	522.5
17.5°	1810.9	1702.0	1335.2	899.5	586.3	508.0	505.5	513.1	518.3	515.7	514.8
20°	1859.4	1712.2	1234.8	722.5	503.8	491.0	497.0	503.8	508.0	503.8	502.9
22.5°	1927.5	1730.1	1125.0	580.4	477.4	480.8	485.9	493.6	497.8	491.9	491.0
25°	2010.9	1758.1	1016.9	504.6	464.6	468.9	476.6	485.1	490.2	484.2	483.4
27.5°	2119.0	1803.2	917.4	487.6	451.9	454.4	465.5	478.3	485.1	477.4	477.4
30°	2275.5	1877.3	831.4	495.3	444.2	438.3	453.6	471.4	479.1	472.3	471.4
32.5°	2483.2	1982.0	778.7	507.2	440.8	419.5	434.0	457.0	469.7	465.5	465.5
35°	2755.5	2141.1	758.2	520.8	438.3	400.0	410.2	434.9	457.0	461.2	461.2
37.5°	3085.7	2362.3	764.2	526.8	430.6	383.8	388.9	410.2	439.1	452.7	456.1
40°	3461.0	2620.2	798.2	520.8	422.1	370.2	371.0	387.2	412.7	433.2	440.0
42.5°	3848.2	2921.4	861.2	498.7	414.4	358.3	355.7	366.8	383.8	398.3	404.2
45°	4216.7	3231.2	923.3	468.0	405.1	346.4	340.4	344.7	348.1	354.0	357.4
47.5°	4538.3	3449.1	905.5	440.0	392.3	332.7	322.5	320.8	310.6	309.8	308.9
50°	4760.4	3496.7	804.2	411.9	373.6	317.4	301.3	291.0	273.2	264.7	265.5
52.5°	4831.1	3308.6	657.0	383.8	342.9	297.0	274.0	257.8	235.7	228.1	227.2
55°	4737.5	2940.2	525.1	349.8	300.4	269.8	244.2	223.0	205.1	195.7	195.7
57.5°	4508.5	2471.3	415.3	309.8	255.3	239.1	213.6	192.3	177.0	167.6	165.9
60°	4129.0	1962.4	328.5	262.1	217.9	205.9	179.6	165.9	152.3	141.3	138.7
62.5°	3552.9	1400.7	257.8	207.6	182.1	168.5	153.2	143.0	126.8	111.5	108.9
65°	2772.5	856.9	199.1	152.3	146.4	139.6	130.2	120.8	101.3	85.9	83.4
67.5°	1748.8	405.9	142.1	114.9	115.7	112.3	108.1	100.4	85.9	72.3	70.6
70°	770.1	196.6	93.6	87.7	85.9	85.9	89.4	86.8	73.2	60.4	57.9
72.5°	262.1	105.5	69.8	66.4	62.1	61.3	74.9	72.3	58.7	46.8	44.3
75°	137.0	70.6	51.1	47.7	37.4	45.1	59.6	56.2	41.7	30.6	28.1
77.5°	89.4	50.2	34.9	30.6	21.3	29.8	44.3	39.1	24.7	15.3	13.6
80°	56.2	33.2	20.4	14.5	10.2	16.2	23.8	17.0	9.4	3.4	2.6
82.5°	29.8	17.0	7.7	5.1	4.3	5.1	6.0	4.3	1.7	0.0	0.0
85°	11.9	6.0	2.6	1.7	0.9	0.0	1.7	0.9	0.0	0.0	0.0
87.5°	4.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)