

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: P965751

Luminaire Tested: **NAV-SB4A-827-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965751
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12567.5 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - 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



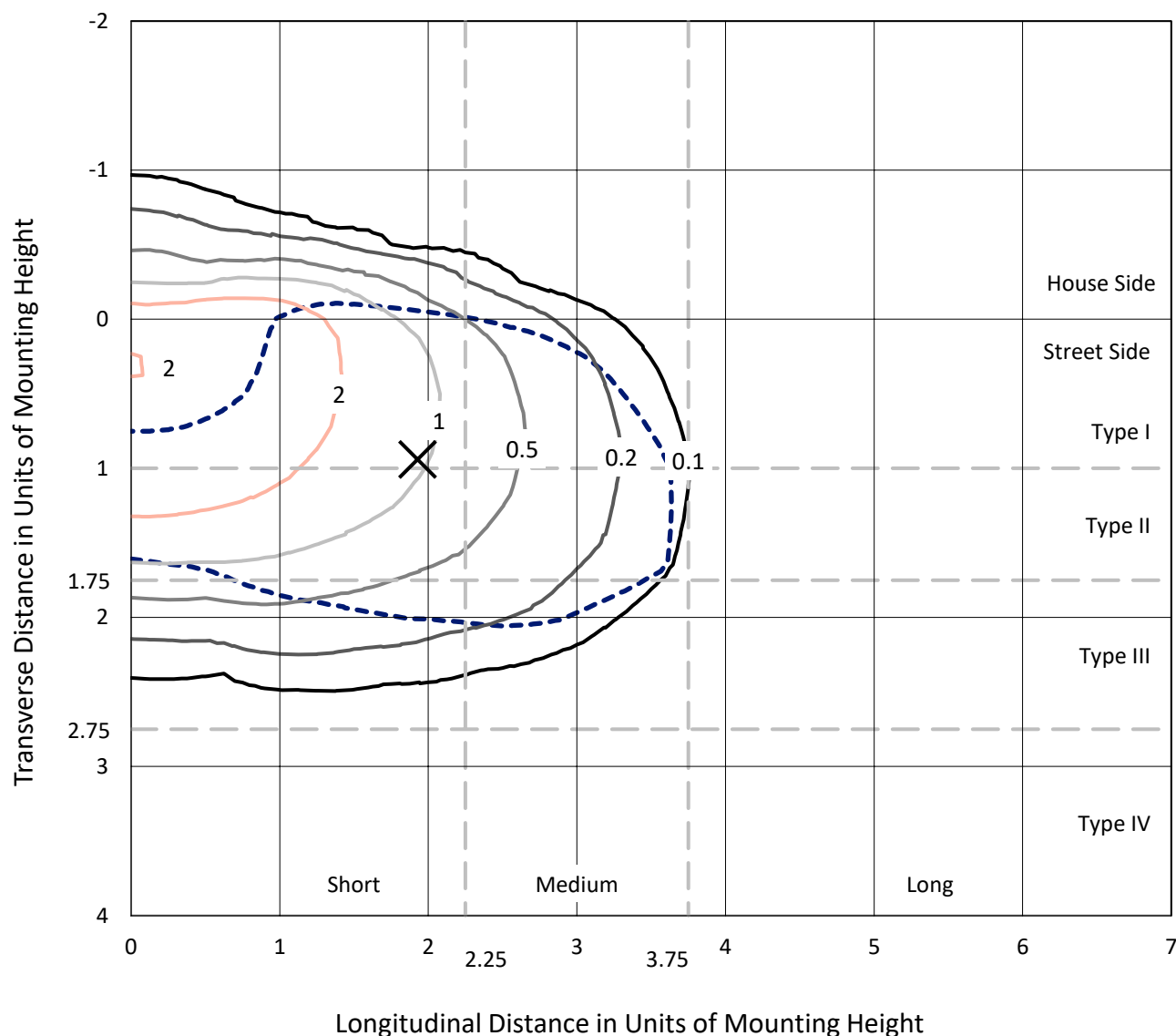
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



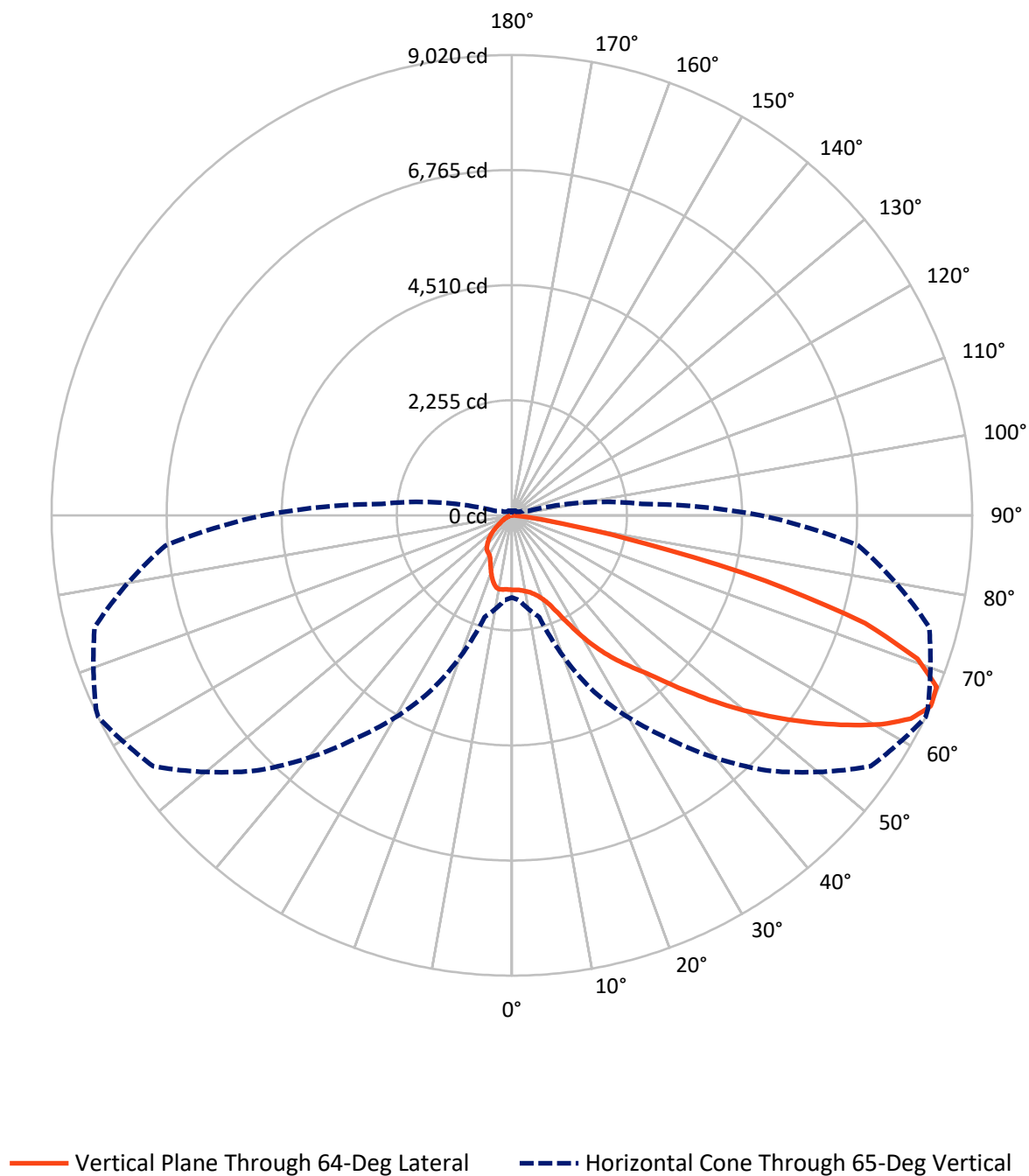
Based on 25 foot mounting height. Maximum calculated value = 3.7 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1680.7	0.0	1680.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	10886.9	0.0	10886.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	12567.5	0.0	12567.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.9	1.1
10°-20°	365.8	2.9
20°-30°	693.1	5.5
30°-40°	1402.5	11.2
40°-50°	2389.2	19.0
50°-60°	3249.2	25.9
60°-70°	3051.2	24.3
70°-80°	1222.4	9.7
80°-90°	59.2	0.5
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°	12567.5	100.0
0°-180°	12567.5	100.0

Coefficient of Utilization



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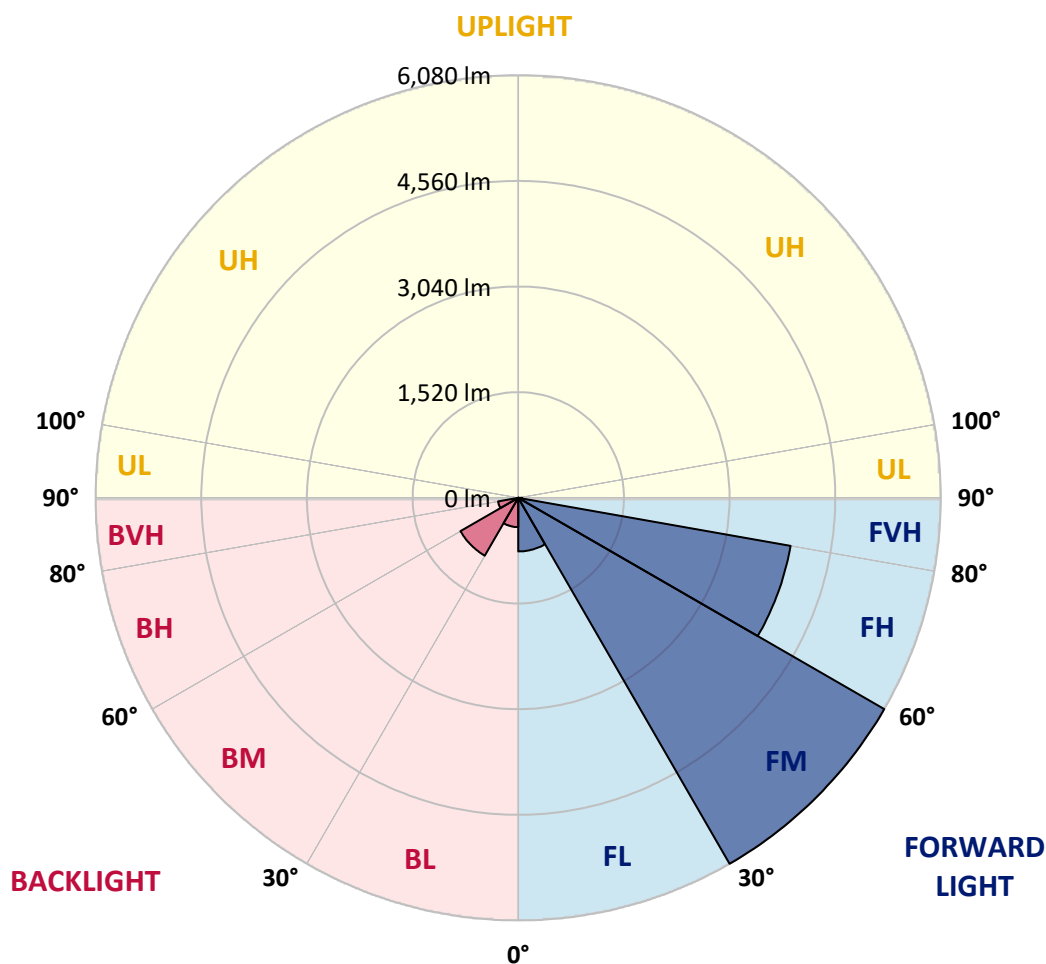
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	771.8	6.1			
FM	(30°-60°)	6080.2	48.4			
FH	(60°-80°)	3978.6	31.7			G2/5000
FVH	(80°-90°)	56.3	0.4			G1/100
BL	(0°-30°)	422.0	3.4	B1/500		
BM	(30°-60°)	960.8	7.6	B1/1000		
BH	(60°-80°)	295.0	2.3	B1/500		G1/500
BVH	(80°-90°)	2.9	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8
2.5°	1456.6	1466.8	1464.2	1461.8	1460.9	1462.6	1463.4	1462.6	1462.6	1462.6	1463.4
5°	1428.8	1437.3	1437.3	1443.2	1451.6	1461.8	1469.3	1471.0	1472.7	1475.2	1474.4
7.5°	1375.8	1382.5	1387.6	1407.0	1428.0	1455.0	1477.7	1489.5	1491.2	1500.5	1503.9
10°	1339.6	1348.0	1356.4	1376.7	1407.0	1447.4	1486.1	1514.8	1519.0	1540.9	1551.0
12.5°	1337.9	1346.3	1357.3	1379.1	1414.6	1457.6	1504.7	1546.0	1553.6	1585.6	1606.7
15°	1355.6	1365.7	1375.8	1402.7	1440.6	1492.9	1543.4	1594.8	1602.4	1647.9	1670.6
17.5°	1391.8	1405.3	1412.9	1439.8	1480.3	1538.4	1604.9	1663.9	1670.6	1723.7	1752.4
20°	1463.4	1479.4	1481.9	1503.9	1543.4	1605.8	1685.0	1758.3	1766.7	1827.4	1859.4
22.5°	1611.7	1634.5	1614.3	1625.1	1660.6	1722.9	1808.8	1901.5	1913.3	1982.4	2011.0
25°	1872.9	1904.9	1852.7	1834.1	1849.3	1914.2	2022.0	2139.1	2152.6	2208.2	2222.5
27.5°	2386.0	2344.7	2265.5	2188.0	2142.5	2179.6	2300.8	2445.8	2462.7	2516.6	2499.7
30°	2949.5	2913.4	2806.3	2634.5	2526.6	2520.8	2632.8	2794.6	2813.9	2865.3	2813.9
32.5°	3514.0	3479.5	3363.2	3151.8	2964.7	2872.0	2949.5	3129.0	3139.2	3172.0	3096.2
35°	4069.2	4033.9	3917.7	3701.1	3471.1	3260.4	3245.3	3447.5	3450.9	3485.4	3372.6
37.5°	4627.9	4598.4	4474.5	4262.2	4035.5	3744.9	3604.2	3749.1	3753.3	3787.1	3669.9
40°	5026.3	5039.0	4953.9	4789.6	4595.0	4277.3	4006.9	4070.1	4044.9	4101.2	4031.3
42.5°	5368.4	5393.7	5319.5	5236.9	5124.1	4844.4	4505.7	4494.7	4454.2	4484.6	4412.1
45°	5664.2	5685.2	5618.6	5599.3	5596.7	5400.4	5050.8	4985.1	4928.6	4922.7	4836.0
47.5°	5772.8	5813.2	5841.9	5906.8	6033.2	5950.5	5614.4	5512.4	5449.3	5403.0	5265.6
50°	5814.1	5857.1	5954.7	6143.5	6442.5	6478.0	6175.5	6060.9	5983.4	5899.2	5697.0
52.5°	5758.4	5835.1	5966.5	6284.2	6718.1	6900.9	6713.9	6613.6	6525.2	6387.8	6087.9
55°	5430.8	5507.4	5776.2	6282.5	6855.4	7197.4	7222.8	7178.1	7078.6	6862.2	6403.8
57.5°	4739.9	4853.6	5279.1	6068.5	6852.8	7452.8	7721.5	7753.5	7642.3	7332.2	6652.4
60°	3782.9	3937.0	4456.0	5594.1	6641.4	7590.9	8158.8	8318.8	8200.9	7795.6	6853.8
62.5°	2639.6	2818.1	3309.3	4851.1	6157.8	7491.5	8478.1	8773.8	8684.5	8210.1	6931.3
65°	1610.0	1667.3	2063.3	3817.4	5335.5	7075.3	8576.6	9019.8	8990.3	8463.7	6816.7
67.5°	1072.5	1120.5	1234.3	2617.6	4141.7	6243.8	8340.7	8976.8	8985.3	8422.4	6397.1
70°	646.2	687.5	761.6	1522.4	2684.2	4942.1	7610.3	8429.2	8478.1	7870.6	5601.7
72.5°	266.2	294.1	361.4	690.0	1390.1	3136.6	6060.1	7237.0	7350.8	6617.8	4299.3
75°	150.8	165.1	212.3	346.2	603.2	1461.8	3670.7	5137.5	5305.2	4561.2	2586.5
77.5°	100.2	107.0	137.4	224.1	339.5	498.8	1568.8	2676.6	2996.8	2491.3	1119.7
80°	67.4	73.3	94.4	150.0	220.8	214.0	499.6	991.6	1220.0	856.0	273.0
82.5°	45.5	46.3	67.4	98.6	139.8	103.6	147.4	308.3	387.6	247.7	103.6
85°	26.1	25.3	49.7	57.3	62.3	42.9	44.7	92.7	121.4	104.4	58.9
87.5°	3.4	5.0	19.4	15.2	8.4	9.2	9.2	16.0	23.6	25.3	12.6
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°	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8	1461.8
2.5°	1463.4	1462.6	1460.0	1457.6	1451.6	1448.2	1450.0	1448.2	1447.4	1448.2	1451.6
5°	1474.4	1471.8	1465.1	1456.6	1444.8	1430.6	1421.3	1407.8	1395.1	1387.6	1389.3
7.5°	1503.9	1501.3	1492.1	1468.5	1430.6	1370.7	1316.0	1267.9	1231.7	1210.6	1211.6
10°	1551.0	1546.8	1532.5	1480.3	1380.9	1250.3	1141.5	1051.4	992.5	964.6	962.2
12.5°	1606.7	1601.6	1576.3	1469.3	1286.5	1082.6	932.6	832.4	777.7	753.2	750.7
15°	1672.4	1665.6	1615.9	1417.1	1149.1	897.3	759.9	684.9	649.5	627.7	628.5
17.5°	1754.1	1742.3	1645.4	1338.8	1000.1	755.7	653.7	597.4	566.1	545.1	543.5
20°	1860.3	1840.9	1669.0	1245.2	862.7	666.5	582.2	534.9	511.4	492.8	489.5
22.5°	2008.5	1980.7	1697.6	1144.1	765.9	605.0	529.1	494.6	475.2	454.1	450.7
25°	2192.2	2159.4	1733.0	1050.6	699.3	551.9	490.4	461.7	438.9	414.5	411.9
27.5°	2449.1	2390.2	1775.1	974.0	642.0	506.4	455.0	422.9	396.8	376.6	372.4
30°	2735.6	2638.7	1812.2	927.6	589.8	464.2	408.6	376.6	352.2	337.8	335.3
32.5°	3006.8	2875.4	1836.6	907.3	542.5	416.2	358.0	323.5	304.9	300.7	303.3
35°	3263.0	3089.5	1834.1	888.0	500.4	368.2	308.3	273.0	258.6	261.2	261.2
37.5°	3557.9	3317.7	1816.4	857.6	465.9	324.4	265.4	234.2	221.6	222.4	225.8
40°	3900.7	3581.5	1805.4	800.4	428.0	283.9	230.0	204.7	195.5	192.1	191.3
42.5°	4266.5	3836.8	1807.2	735.5	380.8	247.7	205.6	184.5	176.1	173.5	172.7
45°	4633.7	4080.2	1809.6	668.1	331.1	219.9	187.9	170.1	165.1	161.7	161.7
47.5°	4979.1	4287.5	1762.5	595.6	282.3	198.8	173.5	161.7	157.5	153.3	153.3
50°	5301.0	4425.6	1648.8	511.4	243.4	181.9	162.6	154.2	150.0	145.8	145.8
52.5°	5551.2	4447.6	1460.9	424.7	216.5	169.3	155.9	148.3	143.2	139.0	138.2
55°	5662.4	4310.2	1193.8	343.8	195.5	158.4	149.1	141.6	135.6	131.4	130.6
57.5°	5633.8	4021.3	931.0	276.3	175.3	147.4	140.7	135.6	128.9	122.2	121.4
60°	5493.1	3634.5	701.8	230.0	156.7	135.6	131.4	127.2	118.0	107.8	106.2
62.5°	5249.6	3148.4	500.4	190.4	136.5	122.2	120.4	117.2	103.6	85.1	83.4
65°	4877.3	2557.8	337.0	158.4	117.2	107.0	107.8	102.0	84.3	63.1	61.5
67.5°	4333.0	1870.3	215.7	129.8	97.7	89.3	90.1	86.8	71.6	53.9	51.4
70°	3639.6	1238.5	140.7	98.6	78.3	69.1	74.1	75.0	60.7	43.8	42.1
72.5°	2668.2	731.3	98.6	73.3	57.3	48.1	60.7	62.3	48.9	32.9	31.2
75°	1520.7	347.1	74.1	53.1	35.4	33.7	47.2	47.2	33.7	21.9	20.2
77.5°	638.6	144.9	52.3	34.5	20.2	19.4	32.0	29.5	16.8	10.1	10.1
80°	184.5	64.9	27.8	16.8	8.4	7.6	12.6	9.2	4.2	1.6	1.6
82.5°	72.5	28.6	11.0	6.8	3.4	3.4	1.6	0.0	0.0	0.0	0.0
85°	42.9	11.8	5.0	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.0	2.6	1.6	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)