

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: P883650

Luminaire Tested: **NAV-SB4A-830-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883650  
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-830-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

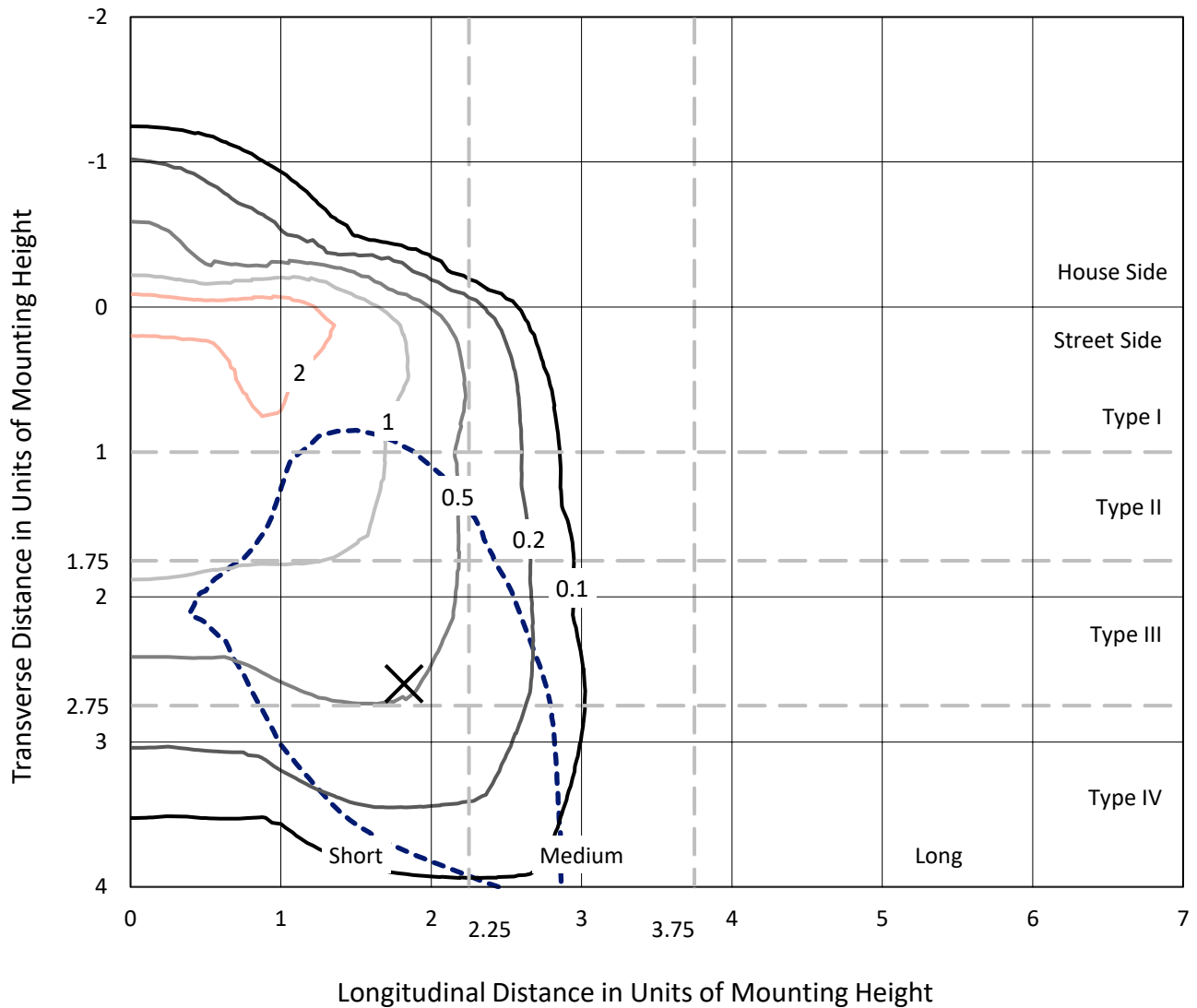
Lumens per Lamp: N/A  
Luminaire Lumens: 12044 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
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

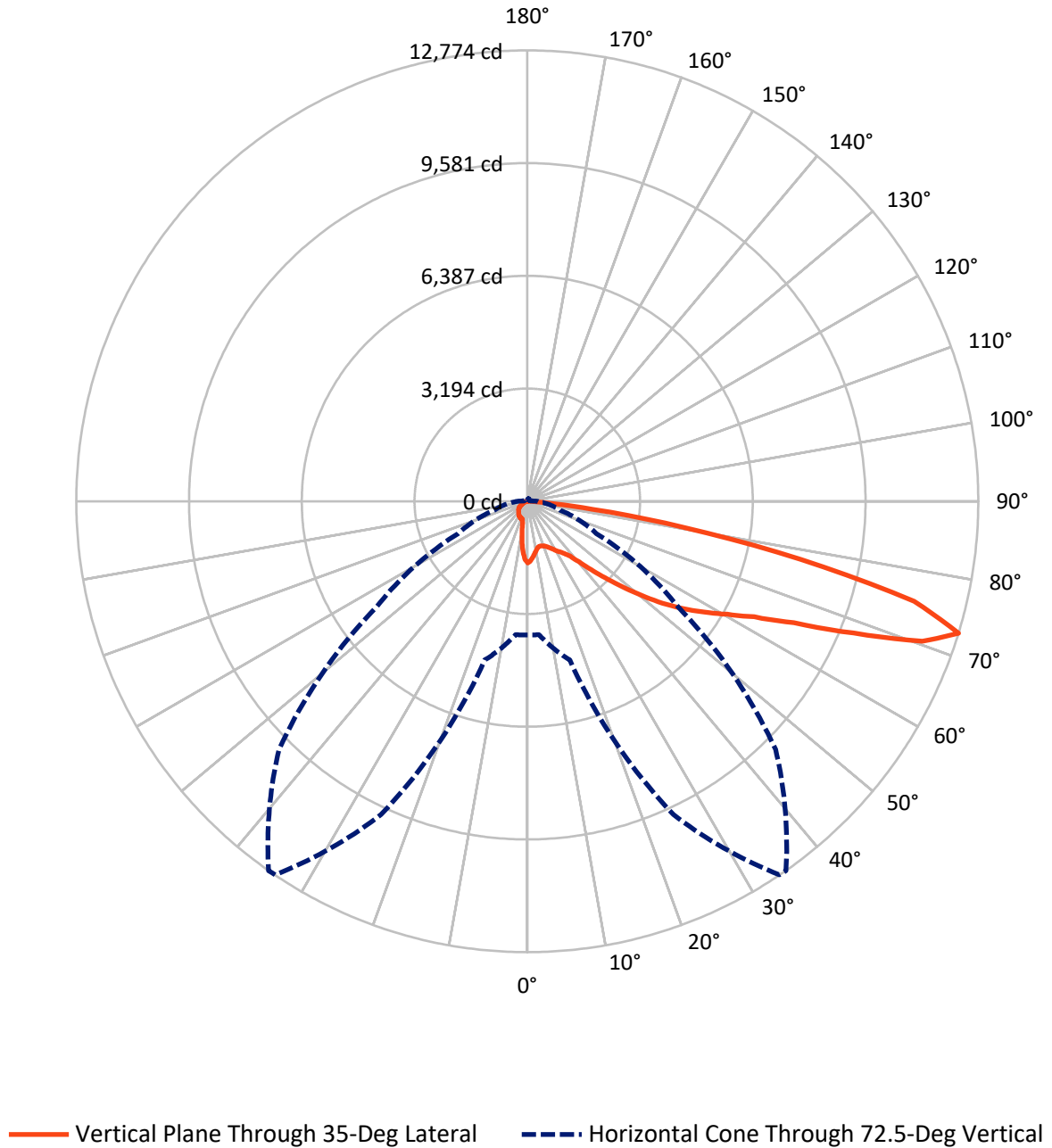
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1355.5	0.0	1355.5
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	10688.5	0.0	10688.5
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	12044.0	0.0	12044.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.4	1.2
10°-20°	335.6	2.8
20°-30°	545.1	4.5
30°-40°	909.5	7.6
40°-50°	1720.8	14.3
50°-60°	2734.4	22.7
60°-70°	3382.6	28.1
70°-80°	2102.7	17.5
80°-90°	169.9	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°	12044.0	100.0
0°-180°	12044.0	100.0

**Coefficient of Utilization**



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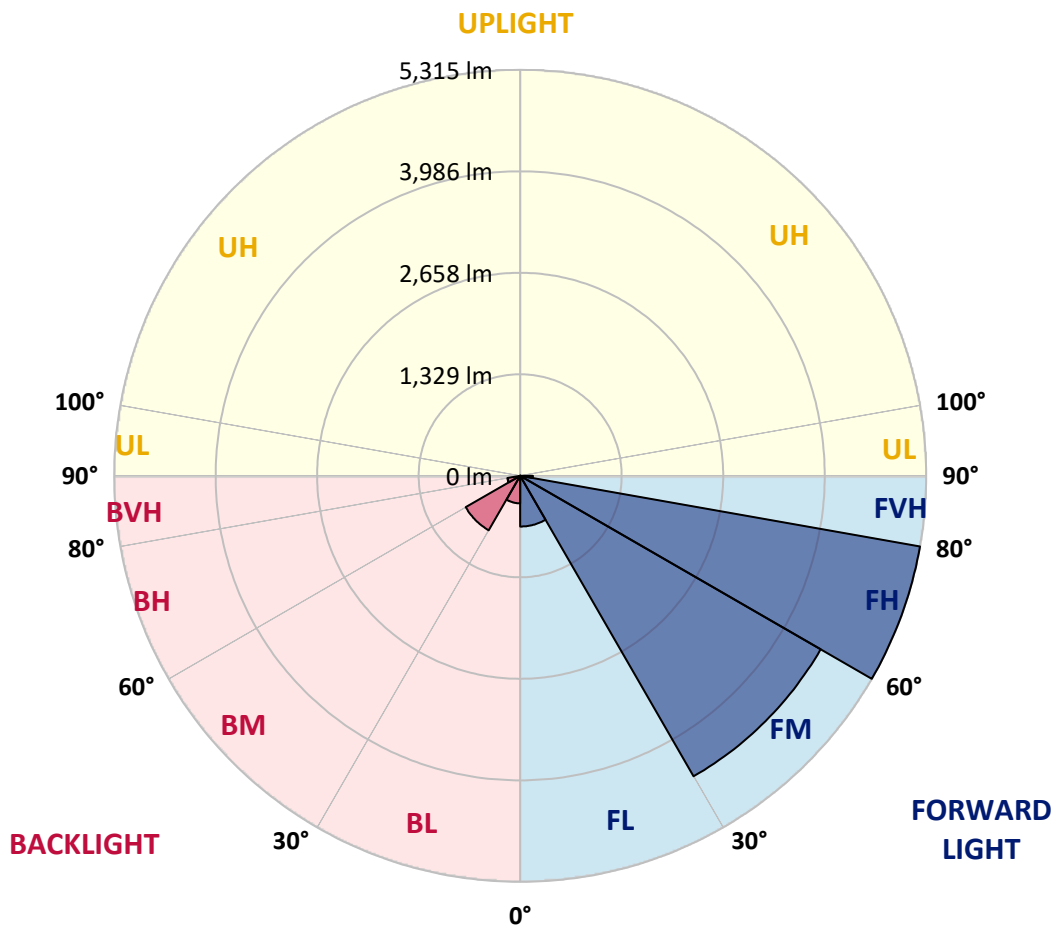
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	663.9	5.5			
FM (30°-60°)	4541.8	37.7			
FH (60°-80°)	5315.2	44.1			G3/7500
FVH (80°-90°)	167.6	1.4			G2/225
BL (0°-30°)	360.2	3.0	B1/500		
BM (30°-60°)	822.9	6.8	B1/1000		
BH (60°-80°)	170.1	1.4	B1/500		G1/500
BVH (80°-90°)	2.3	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°	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6
2.5°	1667.9	1682.0	1684.7	1689.1	1689.1	1694.4	1703.2	1715.6	1735.9	1746.5	1753.5
5°	1537.3	1547.9	1561.1	1571.7	1592.0	1594.7	1629.1	1662.6	1709.4	1744.7	1769.4
7.5°	1405.8	1418.2	1435.8	1461.4	1487.9	1495.8	1547.9	1604.4	1678.5	1744.7	1786.2
10°	1313.2	1314.0	1329.9	1355.5	1397.9	1407.6	1471.1	1551.4	1644.1	1734.1	1802.1
12.5°	1261.1	1267.3	1274.3	1293.7	1334.3	1340.5	1408.5	1502.9	1609.7	1727.9	1820.6
15°	1261.1	1265.5	1269.9	1279.6	1312.3	1317.6	1377.6	1472.0	1592.0	1730.6	1850.6
17.5°	1274.3	1281.4	1277.9	1289.3	1323.7	1327.3	1380.2	1463.2	1591.1	1747.3	1896.5
20°	1306.1	1311.4	1304.3	1311.4	1345.8	1352.9	1407.6	1479.9	1606.1	1776.5	1953.8
22.5°	1356.4	1359.0	1342.3	1347.6	1382.9	1391.7	1455.2	1527.6	1642.3	1823.2	2030.6
25°	1419.9	1425.2	1399.6	1405.8	1439.4	1449.9	1523.2	1599.1	1699.7	1887.7	2128.6
27.5°	1493.2	1495.8	1473.8	1472.9	1516.1	1531.1	1605.3	1687.3	1776.5	1968.9	2252.1
30°	1577.0	1585.0	1563.8	1560.3	1615.0	1627.3	1700.6	1795.9	1889.4	2090.6	2427.7
32.5°	1643.2	1649.4	1637.0	1645.9	1701.5	1711.2	1816.2	1949.4	2066.8	2263.6	2666.9
35°	1738.5	1742.0	1713.8	1729.7	1793.2	1817.9	1974.1	2164.8	2290.1	2480.7	2979.3
37.5°	2083.6	2083.6	1963.6	1885.0	1945.9	1968.0	2190.4	2435.7	2565.4	2771.9	3372.9
40°	2561.0	2553.1	2377.4	2216.8	2208.9	2252.1	2498.3	2777.2	2921.1	3121.4	3815.9
42.5°	3070.2	3057.9	2818.7	2659.8	2633.4	2648.4	2854.0	3198.2	3344.7	3547.6	4292.5
45°	3522.0	3518.5	3299.7	3086.1	3038.4	3086.1	3297.9	3690.6	3795.6	4009.2	4768.1
47.5°	3900.6	3900.6	3740.9	3601.5	3576.8	3605.0	3898.9	4236.9	4227.2	4500.7	5231.4
50°	4336.6	4333.1	4181.3	4121.3	4146.9	4186.6	4590.8	4812.3	4673.7	4983.5	5645.3
52.5°	4641.9	4663.1	4611.0	4601.3	4731.9	4800.8	5293.2	5375.3	5073.5	5441.5	5955.1
55°	4883.7	4908.4	4968.5	5036.4	5287.9	5377.9	5973.6	5909.2	5407.9	5838.6	6133.4
57.5°	5226.1	5190.8	5283.5	5417.7	5824.5	5933.0	6632.8	6413.1	5677.1	6160.7	6152.8
60°	5641.8	5647.1	5663.0	5832.4	6360.2	6499.6	7282.4	6889.7	5850.1	6358.4	5937.4
62.5°	6141.3	6149.2	6181.9	6442.2	7079.4	7210.9	7974.2	7279.7	5929.5	6302.8	5381.5
65°	6106.9	6140.4	6504.9	7395.3	8172.8	8302.5	8781.7	7553.3	5809.5	5794.5	4381.6
67.5°	5563.3	5618.0	6227.8	8533.7	9821.3	9966.0	9757.8	7607.1	5291.5	4506.0	2858.4
70°	4850.2	4869.6	5603.0	9557.4	11730.2	11876.6	10631.4	7015.0	4015.4	2513.4	1280.5
72.5°	3787.7	3792.1	4652.5	9794.8	12766.2	12774.1	9945.7	5207.6	2159.5	965.5	444.8
75°	2705.7	2679.3	3116.1	7943.4	11231.5	11321.6	7456.2	2442.8	825.1	456.3	221.5
77.5°	1450.8	1479.9	1763.2	4710.8	7758.9	7912.5	4068.3	704.2	420.1	310.6	146.5
80°	448.3	473.0	722.8	2156.8	4394.8	4487.5	1508.2	313.3	293.0	221.5	96.2
82.5°	141.2	146.5	337.1	906.3	1824.1	1866.5	436.8	177.4	200.3	146.5	56.5
85°	40.6	41.5	150.0	338.0	451.0	459.8	122.7	68.8	114.7	90.9	29.1
87.5°	4.4	14.1	56.5	56.5	39.7	38.8	13.2	15.0	32.7	11.5	5.3
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°	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6	1745.6
2.5°	1749.1	1750.0	1738.5	1719.1	1697.9	1680.3	1658.2	1640.6	1628.2	1624.7	1630.9
5°	1761.5	1755.3	1722.6	1663.5	1592.9	1532.0	1464.1	1410.2	1374.9	1359.9	1365.2
7.5°	1780.0	1762.3	1690.9	1574.4	1439.4	1319.3	1197.5	1103.1	1043.1	1013.1	1017.5
10°	1795.9	1760.6	1637.9	1445.5	1239.0	1057.2	893.1	779.2	715.7	685.7	686.6
12.5°	1810.9	1759.7	1569.1	1292.9	1013.1	790.7	638.0	581.6	563.9	557.7	556.0
15°	1839.1	1762.3	1482.6	1118.1	788.1	597.5	541.9	541.0	544.5	542.7	541.9
17.5°	1878.0	1765.0	1384.6	932.8	608.0	526.9	524.2	532.1	537.4	534.8	533.9
20°	1928.3	1775.6	1280.5	749.2	522.4	509.2	515.4	522.4	526.9	522.4	521.6
22.5°	1998.9	1794.1	1166.7	601.9	495.1	498.6	503.9	511.8	516.3	510.1	509.2
25°	2085.3	1823.2	1054.6	523.3	481.8	486.3	494.2	503.0	508.3	502.1	501.3
27.5°	2197.4	1870.0	951.3	505.7	468.6	471.3	482.7	496.0	503.0	495.1	495.1
30°	2359.8	1946.8	862.2	513.6	460.7	454.5	470.4	488.9	496.8	489.8	488.9
32.5°	2575.1	2055.3	807.5	526.0	457.1	435.1	450.1	473.9	487.1	482.7	482.7
35°	2857.5	2220.4	786.3	540.1	454.5	414.8	425.4	451.0	473.9	478.3	478.3
37.5°	3199.9	2449.8	792.5	546.3	446.5	398.0	403.3	425.4	455.4	469.5	473.0
40°	3589.1	2717.2	827.8	540.1	437.7	383.9	384.8	401.5	428.0	449.2	456.3
42.5°	3990.7	3029.6	893.1	517.1	429.8	371.5	368.9	380.4	398.0	413.0	419.2
45°	4372.8	3350.8	957.5	485.4	420.1	359.2	353.0	357.4	360.9	367.1	370.6
47.5°	4706.4	3576.8	939.0	456.3	406.8	345.1	334.5	332.7	322.1	321.2	320.3
50°	4936.7	3626.2	834.0	427.1	387.4	329.2	312.4	301.8	283.3	274.5	275.3
52.5°	5009.9	3431.1	681.3	398.0	355.6	308.0	284.2	267.4	244.5	236.5	235.6
55°	4912.9	3049.0	544.5	362.7	311.5	279.8	253.3	231.2	212.7	203.0	203.0
57.5°	4675.5	2562.8	430.7	321.2	264.7	248.0	221.5	199.4	183.6	173.9	172.1
60°	4281.9	2035.0	340.6	271.8	225.9	213.6	186.2	172.1	158.0	146.5	143.8
62.5°	3684.4	1452.6	267.4	215.3	188.9	174.7	158.8	148.3	131.5	115.6	113.0
65°	2875.2	888.7	206.5	158.0	151.8	144.7	135.0	125.3	105.0	89.1	86.5
67.5°	1813.5	421.0	147.4	119.1	120.0	116.5	112.1	104.1	89.1	75.0	73.2
70°	798.7	203.9	97.1	90.9	89.1	89.1	92.7	90.0	75.9	62.7	60.0
72.5°	271.8	109.4	72.4	68.8	64.4	63.5	77.7	75.0	60.9	48.5	45.9
75°	142.1	73.2	52.9	49.4	38.8	46.8	61.8	58.2	43.2	31.8	29.1
77.5°	92.7	52.1	36.2	31.8	22.1	30.9	45.9	40.6	25.6	15.9	14.1
80°	58.2	34.4	21.2	15.0	10.6	16.8	24.7	17.6	9.7	3.5	2.6
82.5°	30.9	17.6	7.9	5.3	4.4	5.3	6.2	4.4	1.8	0.0	0.0
85°	12.4	6.2	2.6	1.8	0.9	0.0	1.8	0.9	0.0	0.0	0.0
87.5°	4.4	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)