

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: P965813

Luminaire Tested: **NAV-SB4A-835-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965813
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-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 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: 13404.9 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - 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



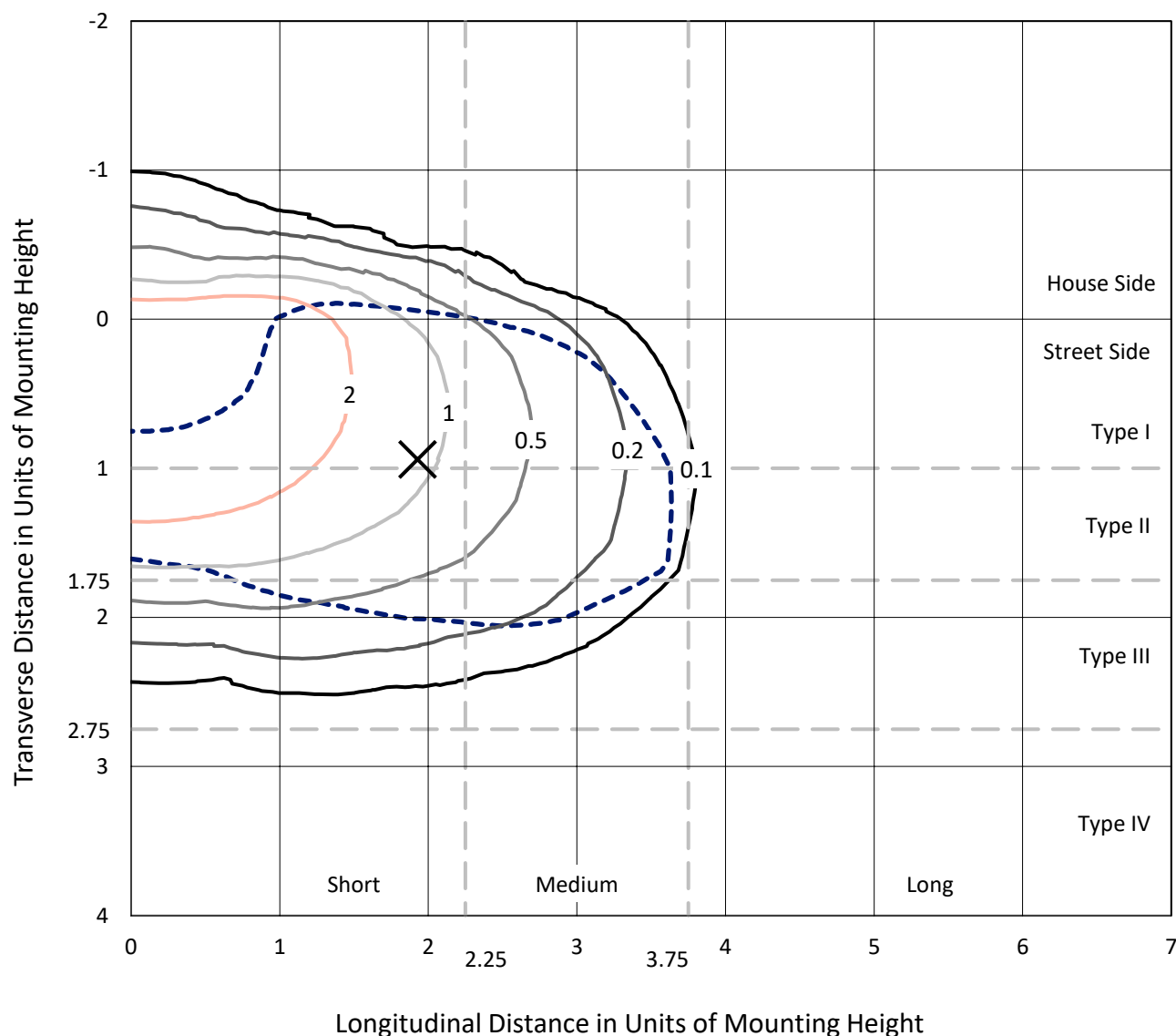
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



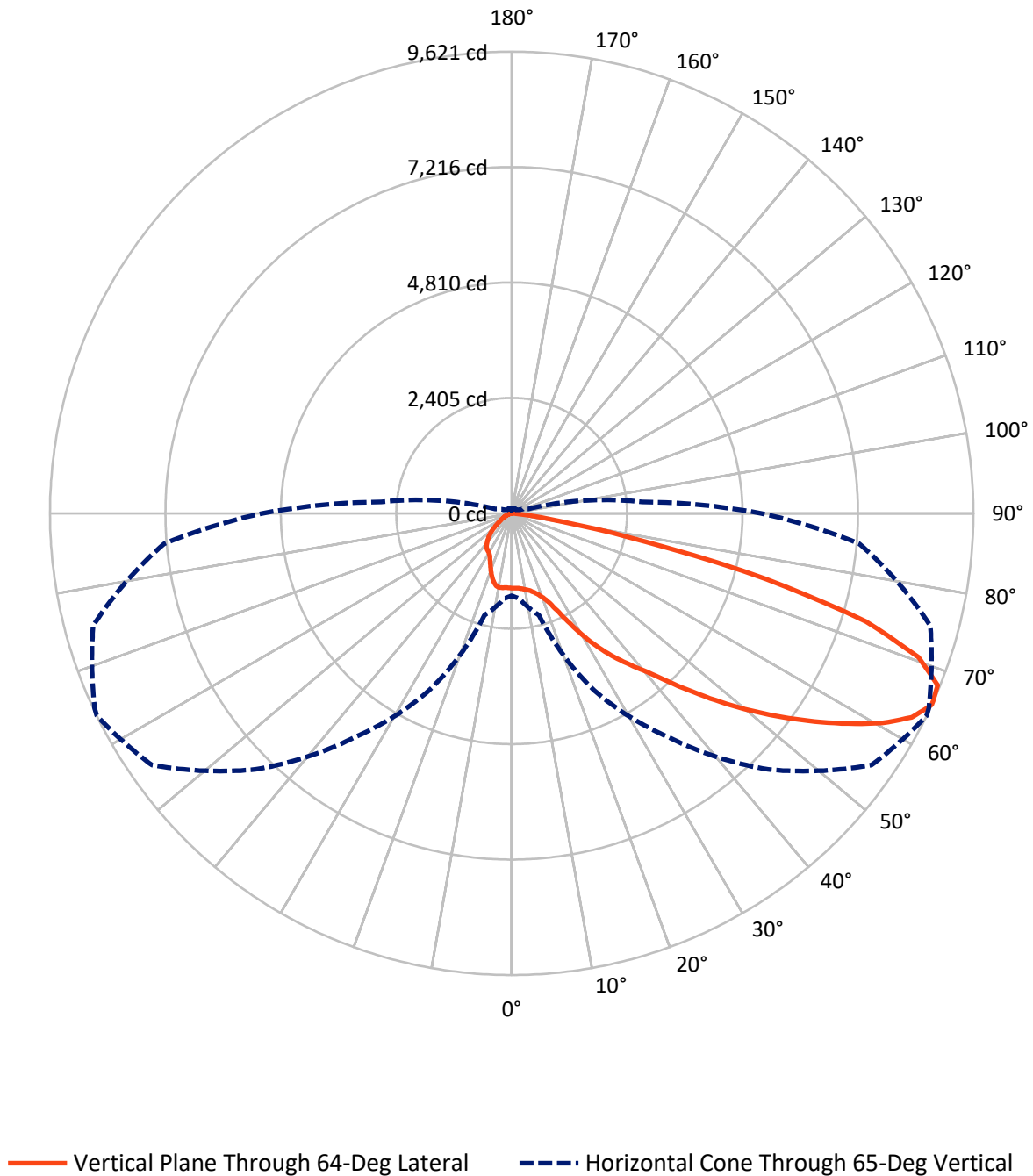
Based on 25 foot mounting height. Maximum calculated value = 3.9 fc

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	1792.6	0.0	1792.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	11612.3	0.0	11612.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	13404.9	0.0	13404.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.8	1.1
10°-20°	390.2	2.9
20°-30°	739.3	5.5
30°-40°	1496.0	11.2
40°-50°	2548.4	19.0
50°-60°	3465.7	25.9
60°-70°	3254.5	24.3
70°-80°	1303.9	9.7
80°-90°	63.2	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°	13404.9	100.0
0°-180°	13404.9	100.0

Coefficient of Utilization



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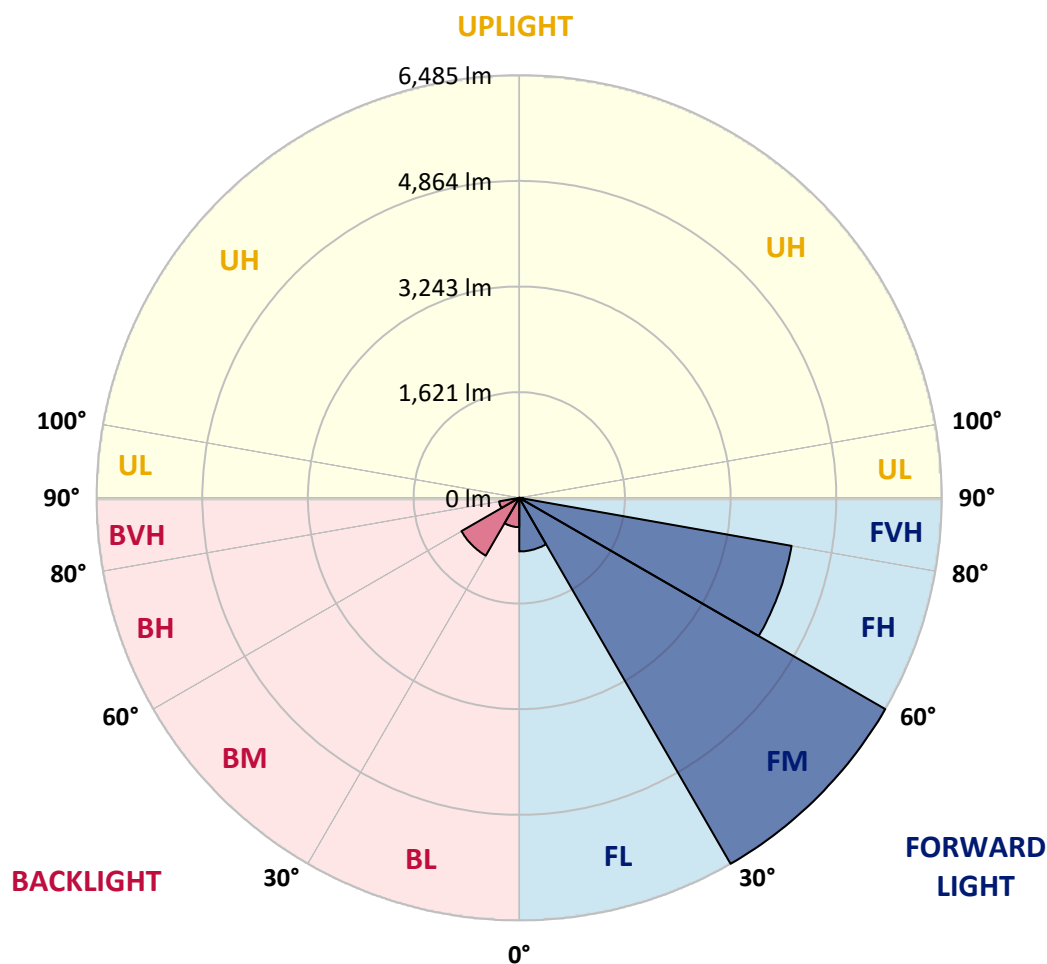
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	823.2	6.1			
FM	(30°-60°)	6485.3	48.4			
FH	(60°-80°)	4243.7	31.7			G2/5000
FVH	(80°-90°)	60.1	0.4			G1/100
BL	(0°-30°)	450.1	3.4	B1/500		
BM	(30°-60°)	1024.8	7.6	B2/2500		
BH	(60°-80°)	314.6	2.3	B1/500		G1/500
BVH	(80°-90°)	3.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1
2.5°	1553.7	1564.6	1561.8	1559.1	1558.2	1560.0	1561.0	1560.0	1560.0	1560.0	1561.0
5°	1524.1	1533.1	1533.1	1539.3	1548.4	1559.1	1567.2	1569.1	1570.8	1573.5	1572.7
7.5°	1467.5	1474.7	1480.1	1500.7	1523.1	1552.0	1576.2	1588.7	1590.6	1600.4	1604.0
10°	1428.8	1437.9	1446.8	1468.4	1500.7	1543.9	1585.2	1615.7	1620.2	1643.6	1654.4
12.5°	1427.0	1436.0	1447.7	1471.1	1508.8	1554.6	1604.9	1649.0	1657.1	1691.2	1713.7
15°	1445.9	1456.7	1467.5	1496.2	1536.7	1592.3	1646.3	1701.1	1709.2	1757.8	1782.0
17.5°	1484.5	1499.0	1507.1	1535.8	1578.9	1640.9	1711.9	1774.8	1782.0	1838.6	1869.2
20°	1561.0	1578.0	1580.7	1604.0	1646.3	1712.8	1797.2	1875.4	1884.5	1949.1	1983.3
22.5°	1719.1	1743.3	1721.8	1733.5	1771.2	1837.7	1929.4	2028.3	2040.8	2114.5	2145.0
25°	1997.6	2031.9	1976.1	1956.3	1972.5	2041.7	2156.7	2281.6	2296.0	2355.3	2370.6
27.5°	2545.0	2500.9	2416.4	2333.7	2285.2	2324.8	2454.2	2608.7	2626.7	2684.3	2666.2
30°	3146.1	3107.5	2993.4	2810.0	2695.0	2688.7	2808.2	2980.8	3001.4	3056.2	3001.4
32.5°	3748.2	3711.3	3587.4	3361.8	3162.3	3063.4	3146.1	3337.5	3348.4	3383.3	3302.4
35°	4340.5	4302.6	4178.6	3947.7	3702.4	3477.7	3461.5	3677.2	3680.8	3717.7	3597.2
37.5°	4936.2	4904.7	4772.7	4546.2	4304.5	3994.4	3844.4	3998.9	4003.4	4039.4	3914.5
40°	5361.3	5374.8	5284.0	5108.7	4901.1	4562.4	4273.9	4341.3	4314.3	4374.6	4300.0
42.5°	5726.2	5753.1	5674.0	5585.9	5465.5	5167.1	4805.9	4794.2	4751.1	4783.5	4706.2
45°	6041.6	6064.0	5993.0	5972.4	5969.6	5760.3	5387.3	5317.2	5257.0	5250.8	5158.2
47.5°	6157.5	6200.6	6231.2	6300.4	6435.2	6347.1	5988.6	5879.8	5812.4	5763.0	5616.5
50°	6201.5	6247.3	6351.5	6552.8	6871.9	6909.6	6587.0	6464.8	6382.2	6292.3	6076.6
52.5°	6142.2	6224.0	6364.1	6702.9	7165.8	7360.7	7161.3	7054.3	6960.0	6813.5	6493.6
55°	5792.6	5874.4	6161.1	6701.1	7312.2	7677.0	7704.0	7656.3	7550.4	7319.4	6830.5
57.5°	5055.7	5177.1	5630.8	6472.9	7309.5	7949.4	8236.0	8270.1	8151.5	7820.9	7095.7
60°	4034.9	4199.3	4752.9	5966.9	7084.0	8096.7	8702.4	8873.1	8747.3	8315.1	7310.4
62.5°	2815.5	3005.9	3529.9	5174.3	6568.1	7990.7	9043.0	9358.5	9263.1	8757.2	7393.1
65°	1717.3	1778.4	2200.8	4071.7	5691.1	7546.8	9148.1	9620.9	9589.4	9027.7	7270.8
67.5°	1144.0	1195.1	1316.5	2792.1	4417.6	6659.8	8896.5	9574.9	9584.0	8983.7	6823.3
70°	689.2	733.3	812.4	1623.8	2863.0	5271.4	8117.4	8990.9	9043.0	8395.1	5975.0
72.5°	283.9	313.6	385.5	735.9	1482.8	3345.6	6463.9	7719.3	7840.6	7058.8	4585.7
75°	160.8	176.1	226.4	369.3	643.4	1559.1	3915.4	5479.9	5658.7	4865.3	2758.8
77.5°	106.9	114.1	146.5	239.0	362.1	532.0	1673.3	2854.9	3196.5	2657.3	1194.3
80°	71.9	78.2	100.7	160.0	235.4	228.3	532.9	1057.7	1301.2	913.0	291.2
82.5°	48.5	49.4	71.9	105.2	149.1	110.5	157.2	328.9	413.4	264.2	110.5
85°	27.9	27.0	53.0	61.1	66.5	45.8	47.7	98.8	129.4	111.4	62.9
87.5°	3.6	5.4	20.7	16.2	9.0	9.8	9.8	17.1	25.1	27.0	13.5
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°	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1	1559.1
2.5°	1561.0	1560.0	1557.4	1554.6	1548.4	1544.8	1546.5	1544.8	1543.9	1544.8	1548.4
5°	1572.7	1569.9	1562.7	1553.7	1541.2	1525.9	1516.0	1501.6	1488.1	1480.1	1481.8
7.5°	1604.0	1601.4	1591.5	1566.3	1525.9	1462.1	1403.6	1352.5	1313.8	1291.3	1292.2
10°	1654.4	1649.9	1634.7	1578.9	1472.8	1333.6	1217.7	1121.5	1058.6	1028.9	1026.2
12.5°	1713.7	1708.3	1681.3	1567.2	1372.2	1154.8	994.8	887.9	829.4	803.4	800.7
15°	1783.8	1776.6	1723.5	1511.5	1225.7	957.0	810.6	730.6	692.9	669.5	670.3
17.5°	1870.9	1858.4	1755.0	1427.9	1066.7	806.1	697.3	637.1	603.9	581.4	579.6
20°	1984.2	1963.5	1780.2	1328.2	920.2	710.8	620.9	570.6	545.5	525.7	522.1
22.5°	2142.4	2112.7	1810.8	1220.4	816.8	645.2	564.4	527.5	506.9	484.4	480.7
25°	2338.2	2303.2	1848.5	1120.6	745.9	588.7	523.1	492.4	468.2	442.1	439.4
27.5°	2612.3	2549.5	1893.4	1038.8	684.8	540.1	485.2	451.1	423.2	401.7	397.2
30°	2917.9	2814.5	1932.9	989.4	629.0	495.2	435.8	401.7	375.7	360.4	357.6
32.5°	3207.2	3067.0	1959.0	967.8	578.7	443.9	381.9	345.1	325.3	320.8	323.5
35°	3480.4	3295.3	1956.3	947.2	533.8	392.7	328.9	291.2	275.9	278.6	278.6
37.5°	3795.0	3538.8	1937.5	914.8	496.9	345.9	283.1	249.8	236.4	237.3	240.9
40°	4160.7	3820.1	1925.8	853.7	456.5	302.9	245.3	218.3	208.5	204.9	204.0
42.5°	4550.7	4092.4	1927.6	784.5	406.2	264.2	219.2	196.8	187.8	185.1	184.2
45°	4942.5	4352.0	1930.3	712.6	353.2	234.5	200.4	181.5	176.1	172.5	172.5
47.5°	5310.9	4573.1	1880.0	635.3	301.0	212.1	185.1	172.5	168.0	163.6	163.6
50°	5654.2	4720.5	1758.6	545.5	259.7	194.1	173.4	164.4	160.0	155.5	155.5
52.5°	5921.1	4743.9	1558.2	452.9	230.9	180.6	166.3	158.2	152.7	148.3	147.4
55°	6039.7	4597.4	1273.4	366.6	208.5	168.9	159.1	151.0	144.7	140.2	139.3
57.5°	6009.2	4289.2	993.0	294.8	187.0	157.2	150.1	144.7	137.5	130.3	129.4
60°	5859.1	3876.8	748.6	245.3	167.2	144.7	140.2	135.7	125.8	115.0	113.3
62.5°	5599.4	3358.2	533.8	203.1	145.5	130.3	128.5	124.9	110.5	90.7	89.0
65°	5202.2	2728.2	359.5	168.9	124.9	114.1	115.0	108.8	89.9	67.4	65.6
67.5°	4621.7	1995.0	230.0	138.4	104.2	95.2	96.1	92.6	76.4	57.5	54.8
70°	3882.1	1321.0	150.1	105.2	83.5	73.7	79.1	79.9	64.7	46.7	44.9
72.5°	2846.0	780.0	105.2	78.2	61.1	51.2	64.7	66.5	52.1	35.1	33.2
75°	1622.1	370.2	79.1	56.6	37.7	36.0	50.3	50.3	36.0	23.4	21.5
77.5°	681.2	154.6	55.8	36.8	21.5	20.7	34.1	31.5	17.9	10.8	10.8
80°	196.8	69.2	29.6	17.9	9.0	8.1	13.5	9.8	4.5	1.8	1.8
82.5°	77.3	30.5	11.7	7.2	3.6	3.6	1.8	0.0	0.0	0.0	0.0
85°	45.8	12.6	5.4	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.7	2.7	1.8	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)