

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: P967925

Luminaire Tested: **NAV-SB5A-835-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16310.8 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 141.7
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



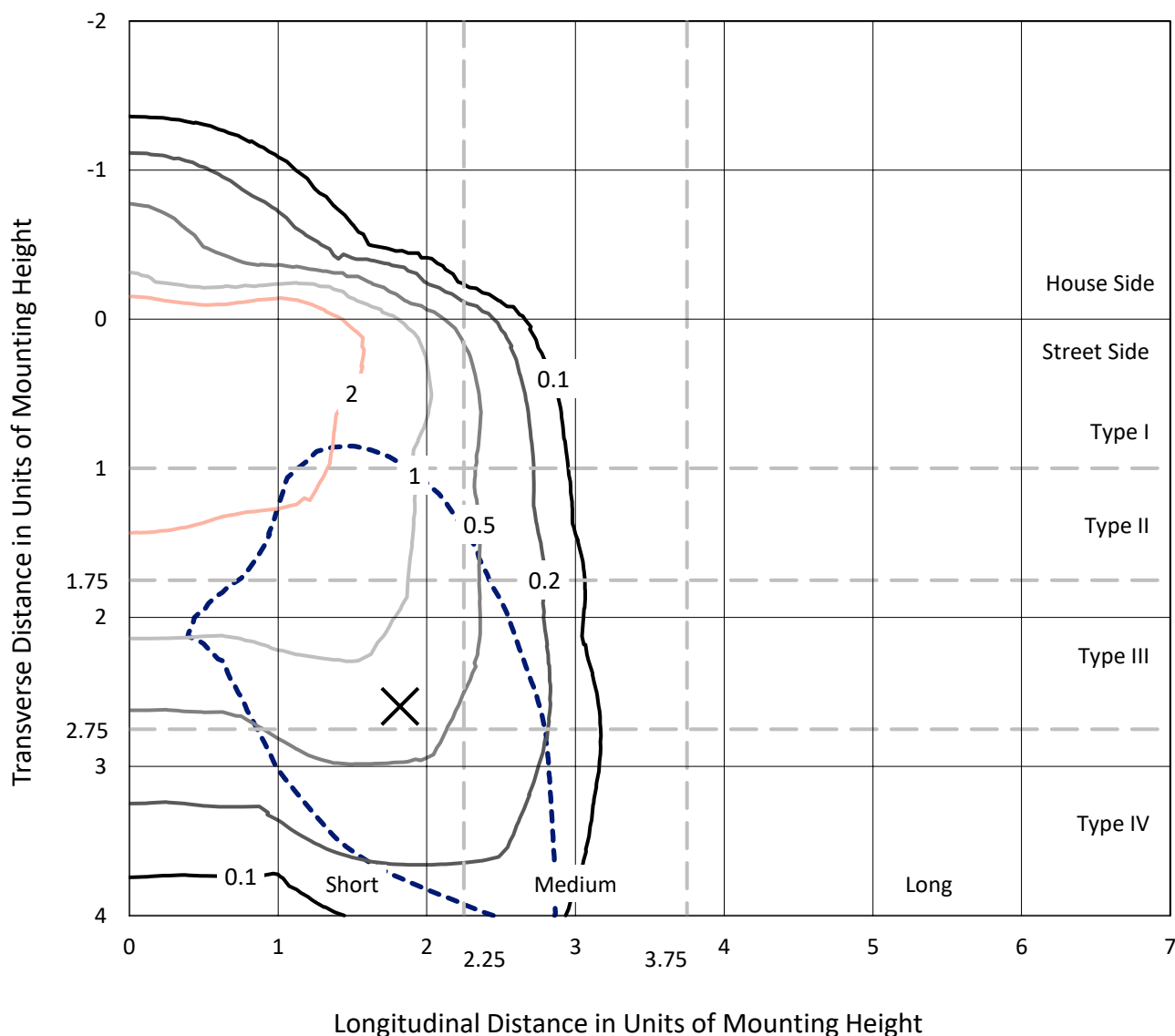
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

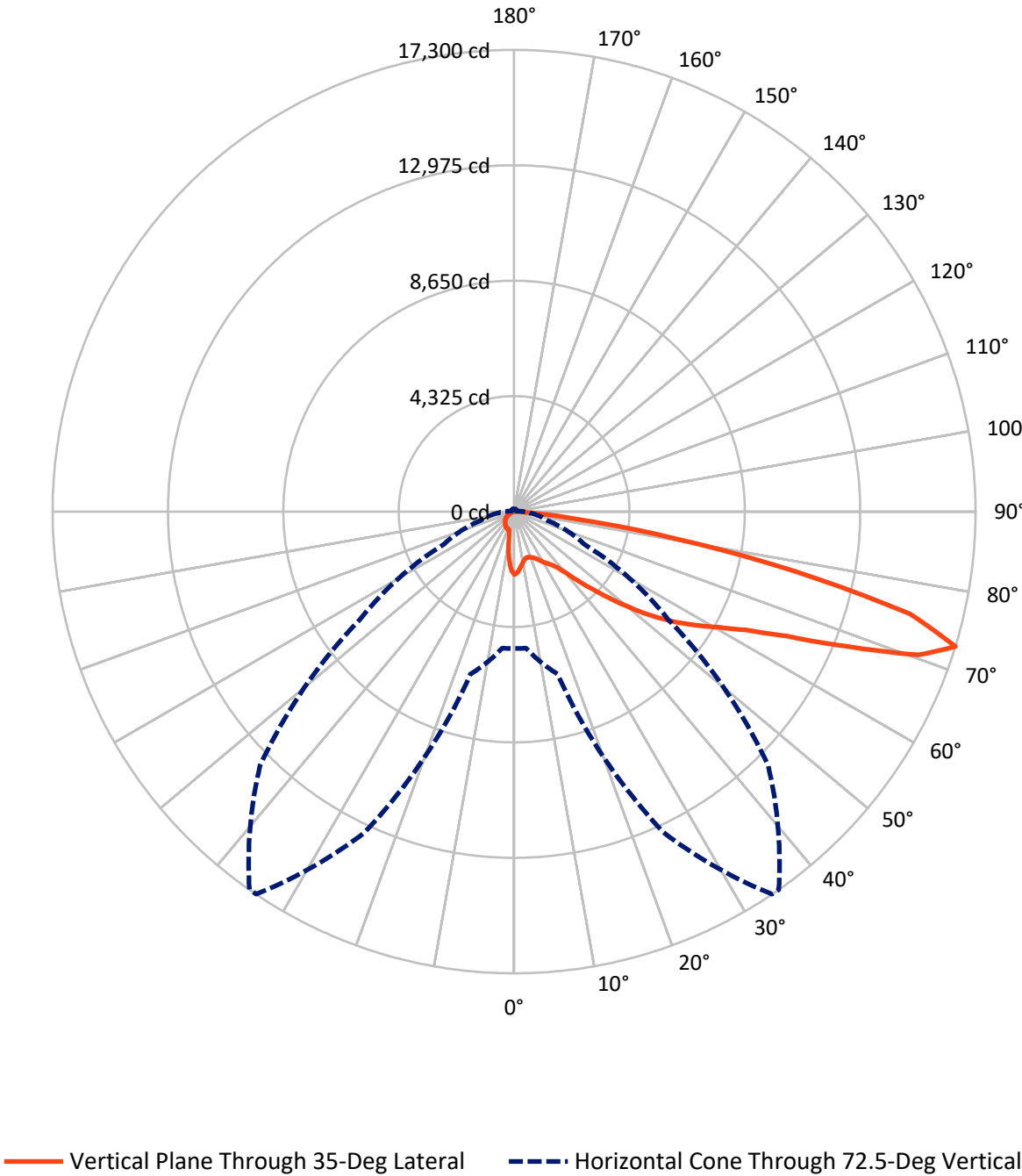


Based on 25 foot mounting height. Maximum calculated value = 3.8 fc

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	1835.7	0.0	1835.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	14475.1	0.0	14475.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	16310.8	0.0	16310.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.3	1.2
10°-20°	454.4	2.8
20°-30°	738.2	4.5
30°-40°	1231.7	7.6
40°-50°	2330.5	14.3
50°-60°	3703.1	22.7
60°-70°	4581.0	28.1
70°-80°	2847.6	17.5
80°-90°	230.1	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°	16310.8	100.0
0°-180°	16310.8	100.0

Coefficient of Utilization



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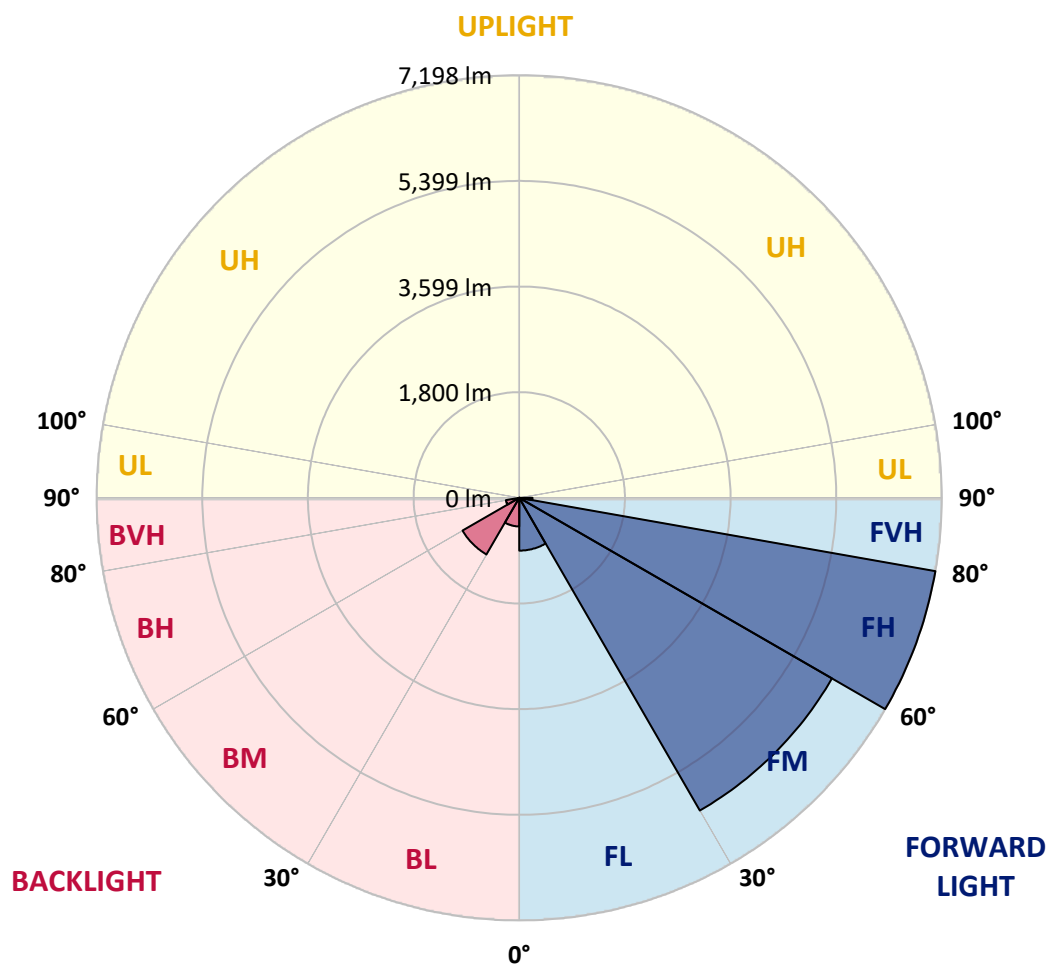
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	899.1	5.5			
FM	(30°-60°)	6150.8	37.7			
FH	(60°-80°)	7198.2	44.1			G3/7500
FVH	(80°-90°)	227.0	1.4			G3/500
BL	(0°-30°)	487.8	3.0	B1/500		
BM	(30°-60°)	1114.4	6.8	B2/2500		
BH	(60°-80°)	230.3	1.4	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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0
2.5°	2258.8	2278.0	2281.5	2287.5	2287.5	2294.7	2306.7	2323.4	2350.8	2365.2	2374.7
5°	2082.0	2096.2	2114.2	2128.5	2156.0	2159.6	2206.2	2251.6	2315.0	2362.8	2396.2
7.5°	1903.8	1920.5	1944.5	1979.2	2015.0	2025.8	2096.2	2172.8	2273.1	2362.8	2419.0
10°	1778.4	1779.6	1801.0	1835.8	1893.1	1906.3	1992.3	2101.0	2226.5	2348.5	2440.5
12.5°	1707.9	1716.3	1725.8	1752.0	1807.1	1815.4	1907.4	2035.3	2180.0	2340.1	2465.5
15°	1707.9	1713.8	1719.8	1733.0	1777.1	1784.3	1865.6	1993.5	2156.0	2343.7	2506.2
17.5°	1725.8	1735.3	1730.6	1746.1	1792.7	1797.4	1869.2	1981.5	2154.9	2366.4	2568.3
20°	1768.8	1776.0	1766.4	1776.0	1822.6	1832.2	1906.3	2004.3	2175.2	2405.8	2646.0
22.5°	1836.9	1840.5	1817.8	1825.0	1872.8	1884.8	1970.8	2068.8	2224.1	2469.1	2750.0
25°	1923.0	1930.2	1895.5	1903.8	1949.2	1963.6	2062.8	2165.6	2301.8	2556.5	2882.7
27.5°	2022.2	2025.8	1995.9	1994.6	2053.3	2073.6	2173.9	2285.1	2405.8	2666.3	3050.0
30°	2135.7	2146.5	2117.8	2113.0	2187.1	2203.9	2303.1	2432.1	2558.8	2831.3	3287.8
32.5°	2225.4	2233.7	2217.0	2229.0	2304.2	2317.4	2459.6	2640.1	2799.0	3065.6	3611.7
35°	2354.4	2359.2	2321.0	2342.4	2428.5	2461.9	2673.5	2931.7	3101.3	3359.5	4034.8
37.5°	2821.7	2821.7	2659.2	2552.9	2635.3	2665.2	2966.4	3298.6	3474.2	3754.0	4567.8
40°	3468.3	3457.5	3219.7	3002.2	2991.5	3050.0	3383.4	3761.1	3955.9	4227.2	5167.7
42.5°	4157.9	4141.2	3817.3	3602.2	3566.3	3586.6	3865.1	4331.1	4529.6	4804.5	5813.2
45°	4769.8	4765.0	4468.6	4179.4	4114.9	4179.4	4466.2	4998.1	5140.3	5429.5	6457.3
47.5°	5282.5	5282.5	5066.2	4877.4	4843.9	4882.2	5280.1	5737.8	5724.7	6095.2	7084.8
50°	5872.9	5868.1	5662.6	5581.3	5616.0	5669.8	6217.1	6517.1	6329.5	6748.9	7645.3
52.5°	6286.4	6315.1	6244.6	6231.5	6408.3	6501.6	7168.4	7279.6	6870.9	7369.2	8064.8
55°	6613.9	6647.3	6728.6	6820.7	7161.3	7283.1	8089.9	8002.7	7323.8	7907.1	8306.2
57.5°	7077.6	7029.9	7155.3	7337.0	7887.9	8034.9	8982.7	8685.0	7688.3	8343.3	8332.5
60°	7640.6	7647.7	7669.3	7898.6	8613.4	8802.2	9862.2	9330.5	7922.5	8611.0	8040.9
62.5°	8317.0	8327.7	8372.0	8724.5	9587.4	9765.5	10799.3	9858.7	8030.2	8535.7	7288.0
65°	8270.3	8315.8	8809.4	10015.3	11068.2	11243.8	11892.9	10229.2	7867.6	7847.3	5933.8
67.5°	7534.2	7608.3	8434.1	11557.0	13300.7	13496.7	13214.6	10302.1	7166.1	6102.3	3871.0
70°	6568.5	6594.7	7588.0	12943.4	15885.8	16084.2	14397.9	9500.2	5437.9	3403.7	1734.2
72.5°	5129.5	5135.6	6300.8	13264.8	17288.9	17299.6	13469.2	7052.5	2924.5	1307.5	602.4
75°	3664.3	3628.4	4220.0	10757.5	15210.5	15332.5	10097.7	3308.2	1117.5	617.9	300.0
77.5°	1964.8	2004.3	2387.8	6379.7	10507.7	10715.7	5509.6	953.8	568.9	420.7	198.4
80°	607.1	640.6	978.8	2920.9	5951.8	6077.3	2042.5	424.2	396.8	300.0	130.3
82.5°	191.3	198.4	456.5	1227.4	2470.4	2527.8	591.6	240.3	271.3	198.4	76.5
85°	54.9	56.2	203.2	457.8	610.7	622.7	166.2	93.2	155.4	123.1	39.5
87.5°	5.9	19.2	76.5	76.5	53.8	52.6	17.9	20.3	44.2	15.6	7.2
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°	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0	2364.0
2.5°	2368.8	2370.0	2354.4	2328.1	2299.5	2275.5	2245.7	2221.8	2205.1	2200.3	2208.6
5°	2385.5	2377.2	2332.9	2252.8	2157.2	2074.8	1982.8	1909.9	1862.0	1841.7	1848.9
7.5°	2410.6	2386.7	2289.8	2132.1	1949.2	1786.8	1621.8	1493.9	1412.7	1372.1	1378.0
10°	2432.1	2384.3	2218.2	1957.6	1677.9	1431.8	1209.5	1055.3	969.2	928.6	929.8
12.5°	2452.4	2383.1	2124.9	1750.9	1372.1	1070.8	864.1	787.6	763.7	755.3	753.0
15°	2490.6	2386.7	2007.9	1514.2	1067.2	809.1	733.8	732.7	737.4	735.0	733.8
17.5°	2543.2	2390.3	1875.1	1263.3	823.5	713.5	709.9	720.7	727.9	724.3	723.0
20°	2611.4	2404.6	1734.2	1014.6	707.6	689.6	697.9	707.6	713.5	707.6	706.3
22.5°	2707.0	2429.8	1579.9	815.1	670.5	675.3	682.4	693.2	699.2	690.7	689.6
25°	2824.1	2469.1	1428.2	708.7	652.5	658.6	669.3	681.2	688.4	680.0	678.9
27.5°	2975.9	2532.5	1288.3	684.8	634.6	638.2	653.7	671.7	681.2	670.5	670.5
30°	3195.8	2636.5	1167.7	695.6	623.8	615.5	637.0	662.2	672.9	663.3	662.2
32.5°	3487.5	2783.5	1093.6	712.3	619.1	589.2	609.6	641.8	659.7	653.7	653.7
35°	3869.9	3006.9	1064.9	731.4	615.5	561.7	576.0	610.7	641.8	647.8	647.8
37.5°	4333.6	3317.7	1073.3	739.7	604.8	539.0	546.2	576.0	616.7	635.8	640.6
40°	4860.7	3679.9	1121.0	731.4	592.8	519.9	521.1	543.8	579.6	608.3	617.9
42.5°	5404.4	4102.9	1209.5	700.4	582.0	503.2	499.6	515.1	539.0	559.3	567.6
45°	5921.9	4538.0	1296.7	657.3	568.9	486.5	478.1	484.0	488.8	497.2	501.9
47.5°	6373.7	4843.9	1271.6	617.9	550.9	467.3	452.9	450.6	436.2	435.0	433.9
50°	6685.6	4910.9	1129.4	578.4	524.7	445.8	423.1	408.8	383.7	371.7	372.9
52.5°	6784.8	4646.7	922.6	539.0	481.6	417.1	384.8	362.1	331.1	320.3	319.1
55°	6653.4	4129.2	737.4	491.2	421.9	378.8	343.0	313.1	288.0	274.9	274.9
57.5°	6331.8	3470.6	583.2	435.0	358.5	335.8	300.0	270.1	248.6	235.4	233.1
60°	5798.8	2756.0	461.4	368.1	306.0	289.3	252.2	233.1	213.9	198.4	194.9
62.5°	4989.7	1967.2	362.1	291.6	255.7	236.7	215.1	200.8	178.0	156.5	152.9
65°	3893.8	1203.6	279.6	213.9	205.6	196.0	182.9	169.7	142.3	120.7	117.2
67.5°	2456.0	570.1	199.6	161.3	162.6	157.7	151.8	141.0	120.7	101.6	99.2
70°	1081.6	276.0	131.5	123.1	120.7	120.7	125.5	121.9	102.8	84.9	81.3
72.5°	368.1	148.2	98.0	93.2	87.2	86.1	105.2	101.6	82.5	65.7	62.1
75°	192.4	99.2	71.8	66.9	52.6	63.3	83.6	78.9	58.5	43.0	39.5
77.5°	125.5	70.5	49.0	43.0	29.8	41.8	62.1	54.9	34.6	21.5	19.2
80°	78.9	46.6	28.7	20.3	14.3	22.8	33.4	23.9	13.1	4.8	3.6
82.5°	41.8	23.9	10.8	7.2	5.9	7.2	8.4	5.9	2.4	0.0	0.0
85°	16.7	8.4	3.6	2.4	1.2	0.0	2.4	1.2	0.0	0.0	0.0
87.5°	5.9	1.2	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)