

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: P884260

Luminaire Tested: **NAV-SB5A-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884260
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-SB5A-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 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: 15619 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

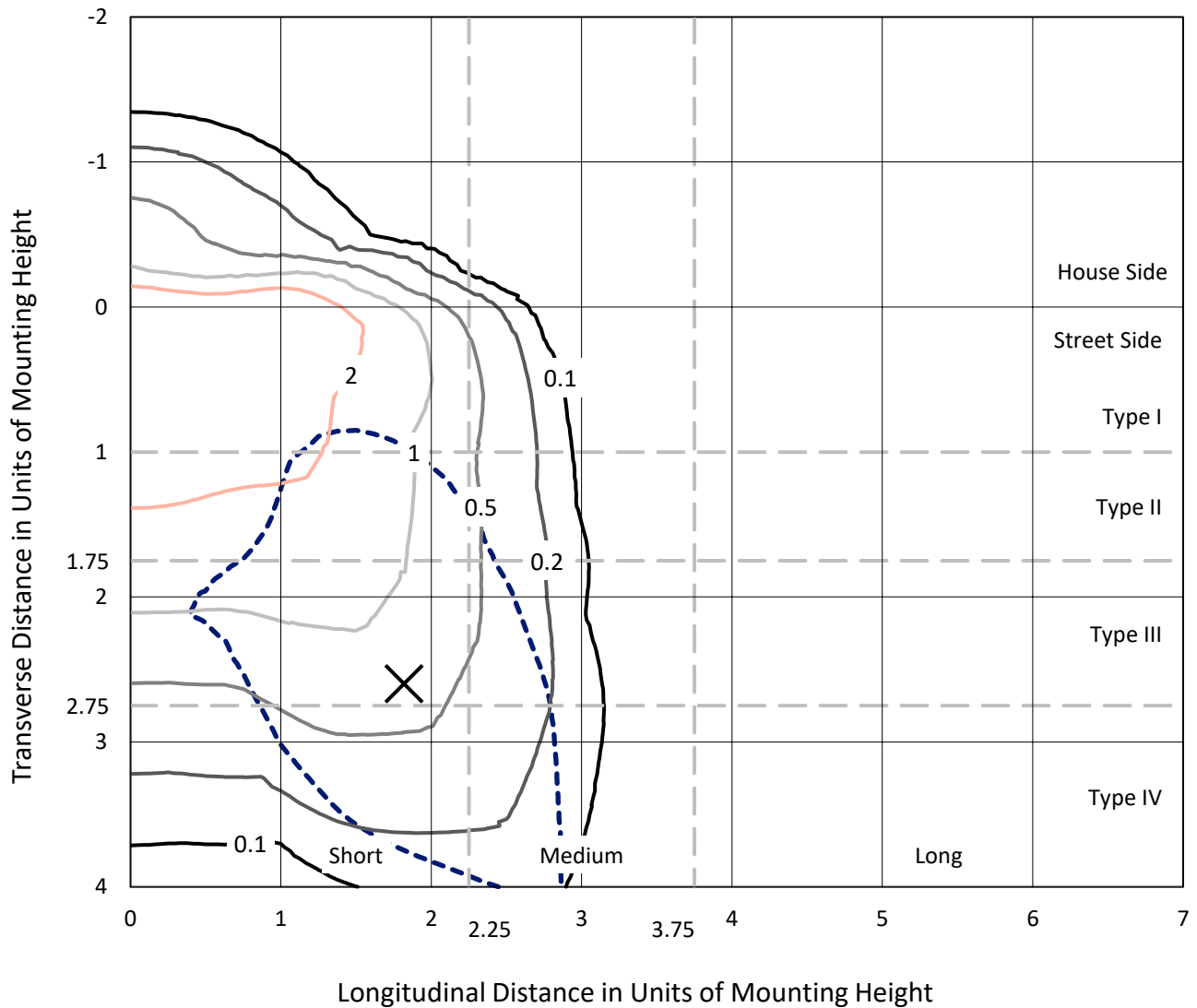
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

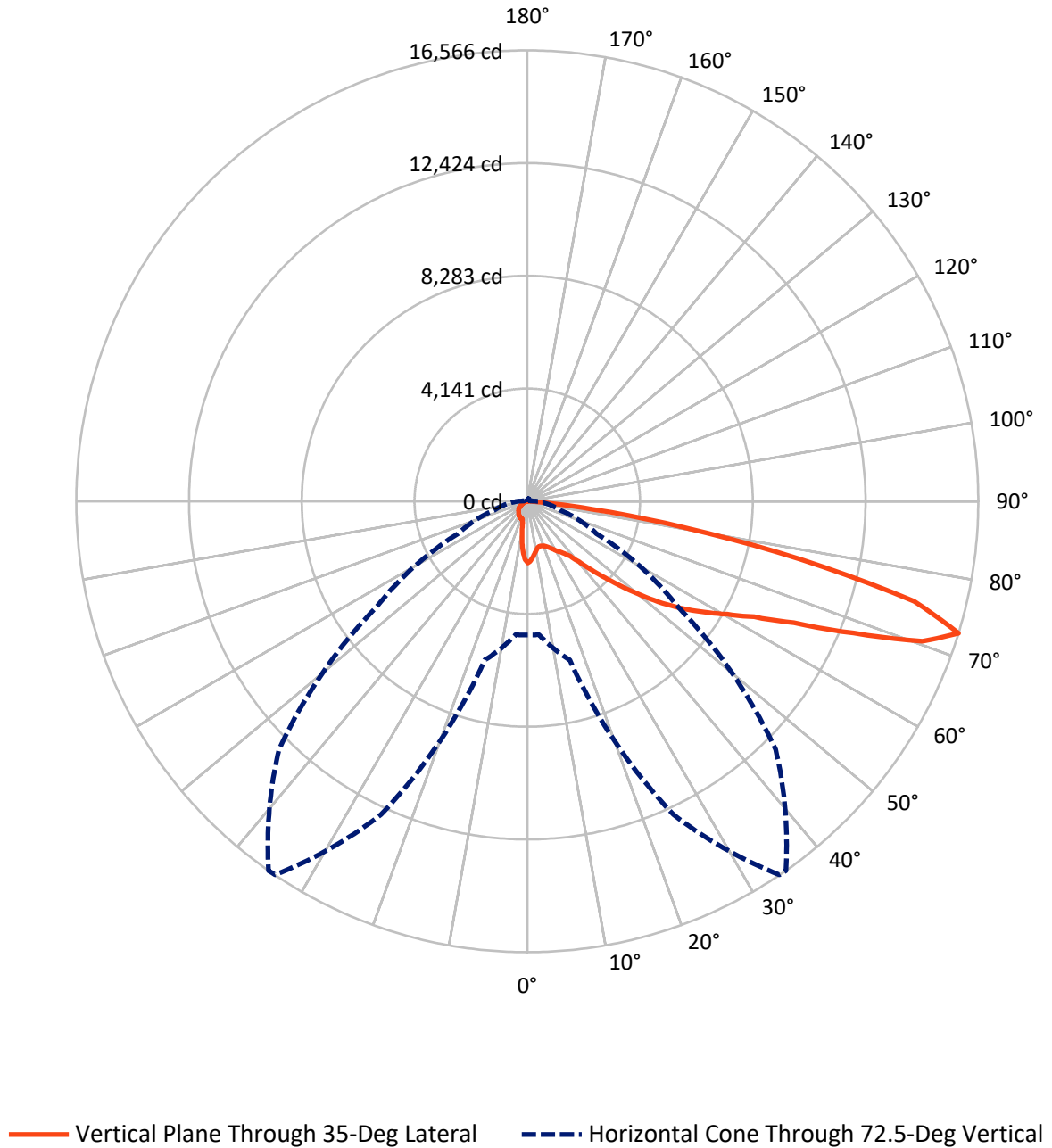
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 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	1757.8	0.0	1757.8
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	13861.2	0.0	13861.2
	% Fixture	88.7	0.0	88.7
Total	Lumens	15619.0	0.0	15619.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	1.2
10°-20°	435.2	2.8
20°-30°	706.9	4.5
30°-40°	1179.5	7.6
40°-50°	2231.6	14.3
50°-60°	3546.0	22.7
60°-70°	4386.7	28.1
70°-80°	2726.8	17.5
80°-90°	220.4	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°	15619.0	100.0
0°-180°	15619.0	100.0

Coefficient of Utilization



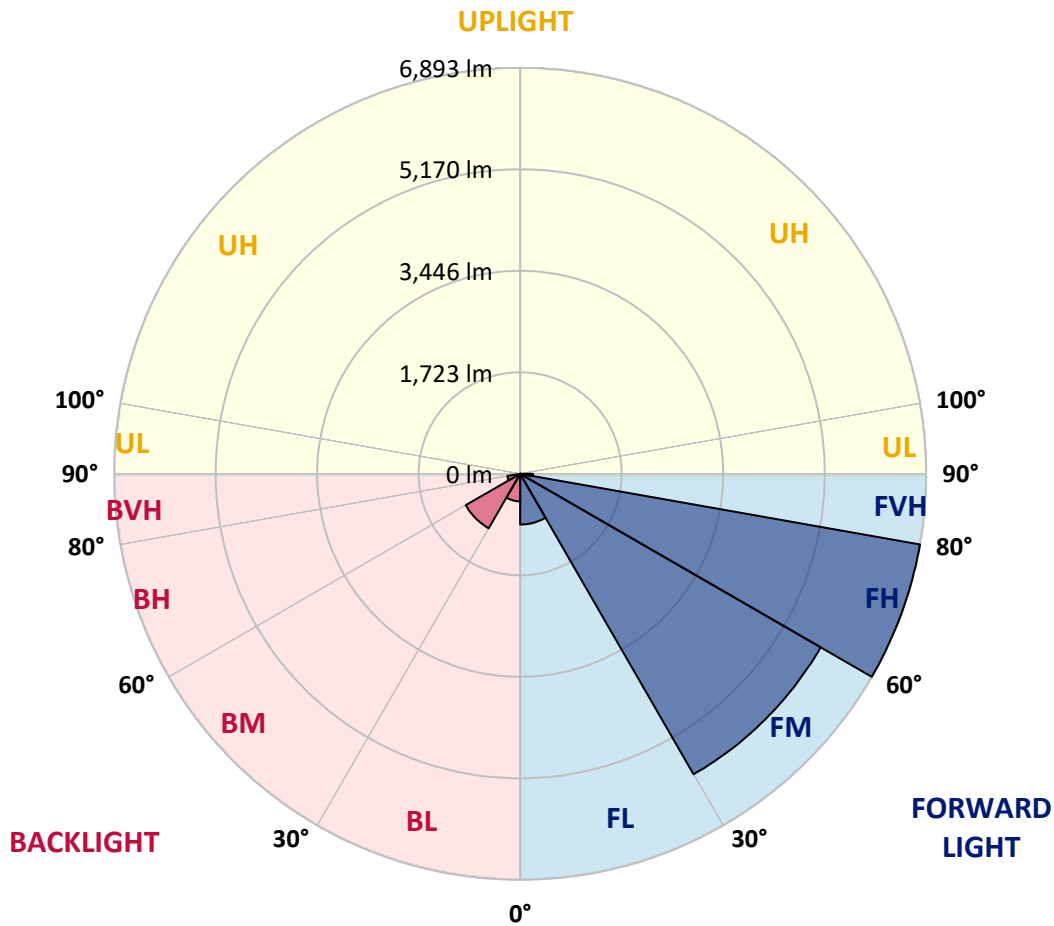
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	861.0	5.5			
FM (30°-60°)	5889.9	37.7			
FH (60°-80°)	6892.9	44.1			G3/7500
FVH (80°-90°)	217.4	1.4			G2/225
BL (0°-30°)	467.1	3.0	B1/500		
BM (30°-60°)	1067.2	6.8	B2/2500		
BH (60°-80°)	220.6	1.4	B1/500		G1/500
BVH (80°-90°)	3.0	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°	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7
2.5°	2163.0	2181.3	2184.7	2190.5	2190.5	2197.3	2208.8	2224.8	2251.1	2264.9	2274.0
5°	1993.6	2007.4	2024.5	2038.3	2064.6	2068.0	2112.6	2156.1	2216.8	2262.6	2294.6
7.5°	1823.1	1839.1	1862.0	1895.2	1929.5	1939.8	2007.4	2080.6	2176.7	2262.6	2316.4
10°	1702.9	1704.1	1724.7	1757.9	1812.8	1825.4	1907.8	2011.9	2132.1	2248.8	2337.0
12.5°	1635.4	1643.4	1652.6	1677.8	1730.4	1738.4	1826.5	1949.0	2087.5	2240.8	2361.0
15°	1635.4	1641.1	1646.9	1659.4	1701.8	1708.7	1786.5	1908.9	2064.6	2244.3	2399.9
17.5°	1652.6	1661.7	1657.2	1672.0	1716.7	1721.2	1789.9	1897.5	2063.4	2266.0	2459.4
20°	1693.8	1700.6	1691.5	1700.6	1745.3	1754.4	1825.4	1919.2	2082.9	2303.8	2533.8
22.5°	1759.0	1762.4	1740.7	1747.6	1793.3	1804.8	1887.2	1981.0	2129.8	2364.4	2633.4
25°	1841.4	1848.3	1815.1	1823.1	1866.6	1880.3	1975.3	2073.7	2204.2	2448.0	2760.4
27.5°	1936.4	1939.8	1911.2	1910.1	1966.2	1985.6	2081.7	2188.2	2303.8	2553.3	2920.6
30°	2045.1	2055.4	2028.0	2023.4	2094.3	2110.4	2205.3	2329.0	2450.3	2711.2	3148.4
32.5°	2131.0	2139.0	2122.9	2134.4	2206.5	2219.1	2355.3	2528.1	2680.3	2935.5	3458.5
35°	2254.6	2259.1	2222.5	2243.1	2325.5	2357.6	2560.1	2807.3	2969.8	3217.0	3863.7
37.5°	2702.0	2702.0	2546.4	2444.5	2523.5	2552.1	2840.5	3158.7	3326.9	3594.7	4374.1
40°	3321.2	3310.9	3083.1	2874.9	2864.6	2920.6	3239.9	3601.6	3788.1	4047.9	4948.6
42.5°	3981.5	3965.5	3655.4	3449.4	3415.0	3434.5	3701.1	4147.5	4337.5	4600.7	5566.6
45°	4567.5	4562.9	4279.1	4002.1	3940.3	4002.1	4276.8	4786.1	4922.3	5199.2	6183.4
47.5°	5058.5	5058.5	4851.3	4670.5	4638.4	4675.1	5056.2	5494.5	5481.9	5836.7	6784.3
50°	5623.8	5619.2	5422.4	5344.6	5377.8	5429.3	5953.4	6240.7	6061.0	6462.7	7321.0
52.5°	6019.8	6047.3	5979.7	5967.1	6136.5	6225.8	6864.4	6970.8	6579.4	7056.7	7722.7
55°	6333.4	6365.4	6443.2	6531.4	6857.5	6974.3	7746.8	7663.2	7013.2	7571.7	7953.9
57.5°	6777.4	6731.6	6851.8	7025.8	7553.4	7694.1	8601.7	8316.7	7362.2	7989.4	7979.1
60°	7316.5	7323.3	7343.9	7563.7	8248.0	8428.9	9444.0	8934.7	7586.5	8245.7	7699.8
62.5°	7964.2	7974.5	8016.9	8354.5	9180.8	9351.3	10341.2	9440.5	7689.5	8173.6	6978.8
65°	7919.6	7963.1	8435.7	9590.5	10598.7	10767.0	11388.4	9795.3	7533.9	7514.4	5682.2
67.5°	7214.6	7285.6	8076.4	11066.8	12736.6	12924.2	12654.2	9865.1	6862.1	5843.5	3706.9
70°	6289.9	6315.1	7266.1	12394.4	15212.0	15402.0	13787.2	9097.2	5207.2	3259.4	1660.6
72.5°	4912.0	4917.7	6033.5	12702.2	16555.6	16565.9	12897.9	6753.4	2800.5	1252.0	576.8
75°	3508.9	3474.5	4041.0	10301.2	14565.4	14682.1	9669.4	3167.8	1070.1	591.7	287.3
77.5°	1881.5	1919.2	2286.6	6109.1	10062.0	10261.1	5275.9	913.3	544.8	402.8	190.0
80°	581.4	613.4	937.3	2797.0	5699.3	5819.5	1955.9	406.3	380.0	287.3	124.7
82.5°	183.1	190.0	437.2	1175.3	2365.6	2420.5	566.5	230.0	259.8	190.0	73.2
85°	52.6	53.8	194.6	438.3	584.8	596.3	159.1	89.3	148.8	117.9	37.8
87.5°	5.7	18.3	73.2	73.2	51.5	50.4	17.2	19.5	42.3	14.9	6.9
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°	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7	2263.7
2.5°	2268.3	2269.4	2254.6	2229.4	2201.9	2179.0	2150.4	2127.5	2111.5	2106.9	2114.9
5°	2284.3	2276.3	2234.0	2157.3	2065.7	1986.8	1898.6	1828.8	1783.0	1763.6	1770.5
7.5°	2308.4	2285.5	2192.8	2041.7	1866.6	1710.9	1553.0	1430.6	1352.7	1313.8	1319.5
10°	2329.0	2283.2	2124.1	1874.6	1606.8	1371.0	1158.2	1010.5	928.1	889.2	890.4
12.5°	2348.4	2282.0	2034.8	1676.6	1313.8	1025.4	827.4	754.2	731.3	723.3	721.0
15°	2385.0	2285.5	1922.7	1450.0	1022.0	774.8	702.7	701.5	706.1	703.8	702.7
17.5°	2435.4	2288.9	1795.6	1209.7	788.5	683.2	679.8	690.1	697.0	693.5	692.4
20°	2500.6	2302.6	1660.6	971.6	677.5	660.3	668.4	677.5	683.2	677.5	676.4
22.5°	2592.2	2326.7	1513.0	780.5	642.0	646.6	653.5	663.8	669.5	661.5	660.3
25°	2704.3	2364.4	1367.6	678.7	624.9	630.6	640.9	652.3	659.2	651.2	650.0
27.5°	2849.7	2425.1	1233.7	655.8	607.7	611.1	626.0	643.2	652.3	642.0	642.0
30°	3060.3	2524.7	1118.1	666.1	597.4	589.4	610.0	634.0	644.3	635.2	634.0
32.5°	3339.5	2665.4	1047.2	682.1	592.8	564.2	583.7	614.6	631.7	626.0	626.0
35°	3705.7	2879.4	1019.7	700.4	589.4	537.9	551.6	584.8	614.6	620.3	620.3
37.5°	4149.8	3177.0	1027.7	708.4	579.1	516.1	523.0	551.6	590.5	608.8	613.4
40°	4654.5	3523.8	1073.5	700.4	567.6	497.8	499.0	520.7	555.1	582.5	591.7
42.5°	5175.2	3928.9	1158.2	670.6	557.3	481.8	478.4	493.3	516.1	535.6	543.6
45°	5670.7	4345.5	1241.7	629.4	544.8	465.8	457.8	463.5	468.1	476.1	480.7
47.5°	6103.3	4638.4	1217.7	591.7	527.6	447.5	433.7	431.5	417.7	416.6	415.4
50°	6402.0	4702.5	1081.5	553.9	502.4	426.9	405.1	391.4	367.4	355.9	357.1
52.5°	6497.0	4449.6	883.5	516.1	461.2	399.4	368.5	346.8	317.0	306.7	305.6
55°	6371.1	3954.1	706.1	470.4	404.0	362.8	328.5	299.8	275.8	263.2	263.2
57.5°	6063.3	3323.5	558.5	416.6	343.3	321.6	287.3	258.6	238.0	225.5	223.2
60°	5552.9	2639.1	441.8	352.5	293.0	277.0	241.5	223.2	204.9	190.0	186.5
62.5°	4778.1	1883.8	346.8	279.2	244.9	226.6	206.0	192.3	170.5	149.9	146.5
65°	3728.6	1152.5	267.8	204.9	196.8	187.7	175.1	162.5	136.2	115.6	112.2
67.5°	2351.8	545.9	191.1	154.5	155.6	151.1	145.3	135.0	115.6	97.3	95.0
70°	1035.7	264.4	125.9	117.9	115.6	115.6	120.2	116.7	98.4	81.3	77.8
72.5°	352.5	141.9	93.8	89.3	83.5	82.4	100.7	97.3	79.0	62.9	59.5
75°	184.3	95.0	68.7	64.1	50.4	60.7	80.1	75.5	56.1	41.2	37.8
77.5°	120.2	67.5	46.9	41.2	28.6	40.1	59.5	52.6	33.2	20.6	18.3
80°	75.5	44.6	27.5	19.5	13.7	21.7	32.0	22.9	12.6	4.6	3.4
82.5°	40.1	22.9	10.3	6.9	5.7	6.9	8.0	5.7	2.3	0.0	0.0
85°	16.0	8.0	3.4	2.3	1.1	0.0	2.3	1.1	0.0	0.0	0.0
87.5°	5.7	1.1	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)