

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: P883576

Luminaire Tested: **NAV-SB4A-727-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12030 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

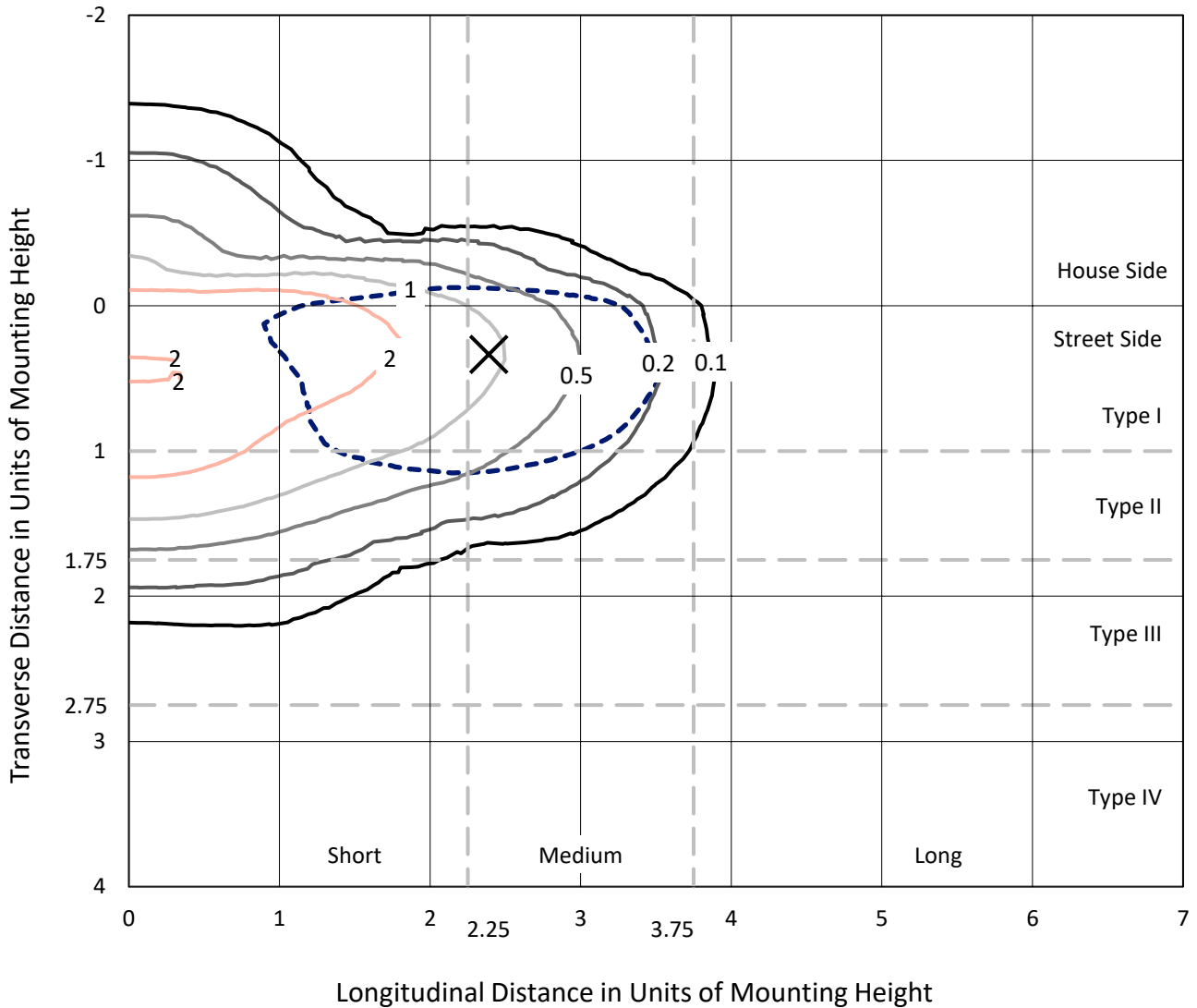
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

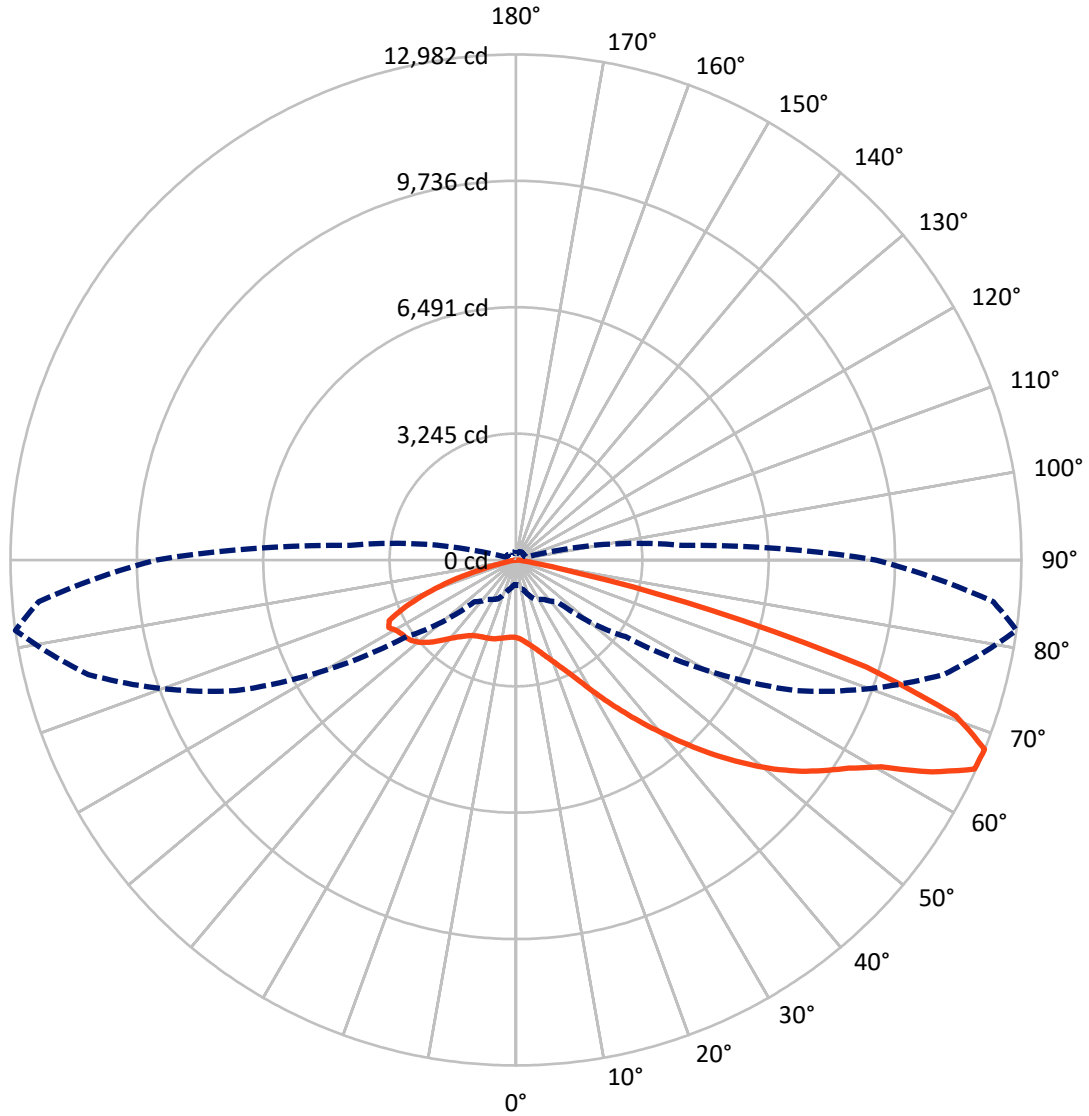
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2179.1	0.0	2179.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9850.9	0.0	9850.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	12030.0	0.0	12030.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.6	1.5
10°-20°	461.4	3.8
20°-30°	739.0	6.1
30°-40°	1306.8	10.9
40°-50°	2289.7	19.0
50°-60°	3053.8	25.4
60°-70°	2842.9	23.6
70°-80°	1091.1	9.1
80°-90°	67.8	0.6
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°	12030.0	100.0
0°-180°	12030.0	100.0

Coefficient of Utilization



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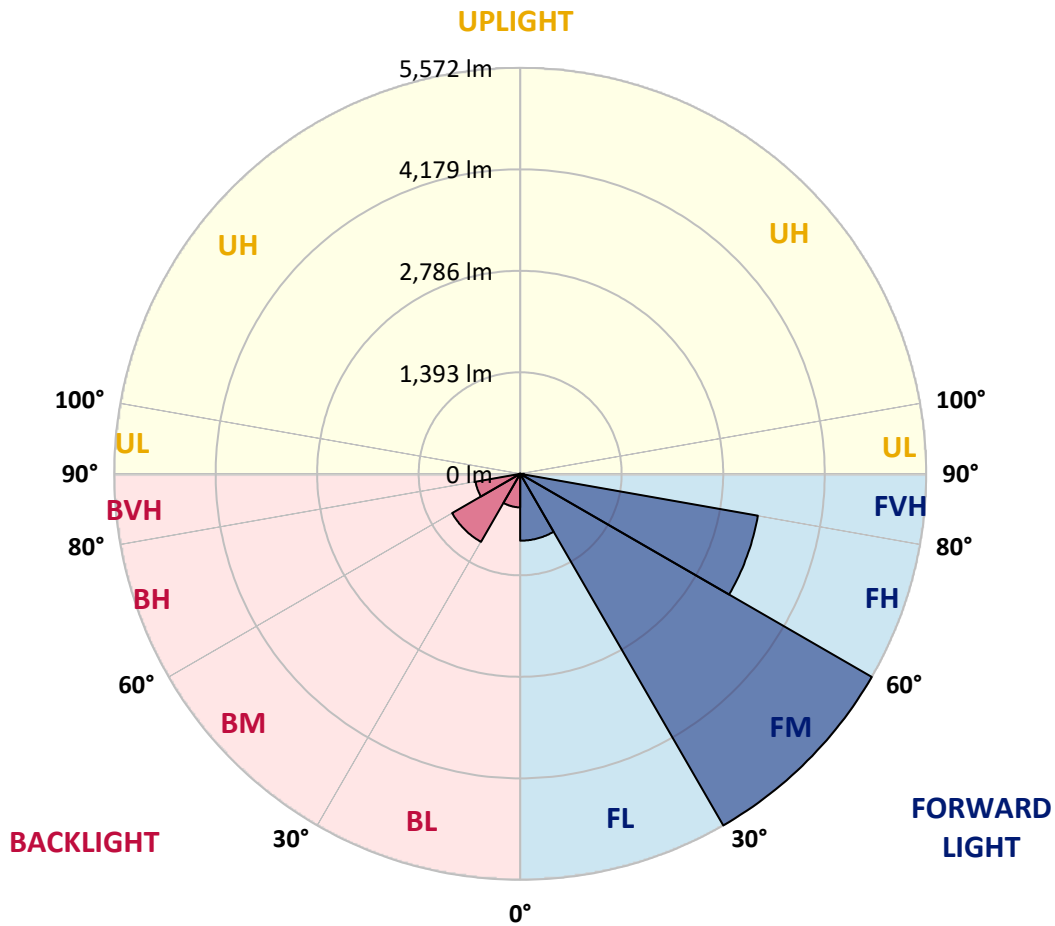
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	917.8	7.6			
FM (30°-60°)	5571.8	46.3			
FH (60°-80°)	3312.0	27.5			G2/5000
FVH (80°-90°)	49.3	0.4			G1/100
BL (0°-30°)	460.2	3.8	B1/500		
BM (30°-60°)	1078.4	9.0	B2/2500		
BH (60°-80°)	622.0	5.2	B2/1000		G2/1000
BVH (80°-90°)	18.5	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0
2.5°	2106.4	2118.6	2111.6	2108.2	2102.1	2093.4	2086.5	2064.9	2042.3	2027.6	2022.4
5°	2148.9	2161.0	2160.1	2163.6	2167.9	2170.5	2168.8	2144.5	2112.5	2087.4	2072.6
7.5°	2112.5	2126.3	2137.6	2154.9	2185.2	2217.3	2232.9	2227.7	2194.8	2160.1	2141.9
10°	2009.4	2024.1	2051.0	2091.7	2155.8	2225.1	2283.1	2310.0	2289.2	2251.1	2226.0
12.5°	1820.6	1835.3	1888.2	1976.5	2083.9	2204.3	2315.2	2387.1	2392.2	2354.1	2324.7
15°	1608.4	1623.1	1679.4	1790.3	1954.0	2147.1	2332.5	2468.5	2514.4	2481.5	2445.9
17.5°	1476.8	1489.7	1532.2	1621.4	1792.0	2032.8	2326.4	2555.1	2659.9	2633.9	2591.5
20°	1436.9	1448.2	1468.1	1530.5	1672.5	1914.1	2286.6	2636.5	2816.7	2801.9	2754.3
22.5°	1479.3	1489.7	1495.8	1523.5	1612.7	1836.2	2236.3	2719.6	2998.5	3000.3	2942.2
25°	1577.2	1587.6	1580.7	1598.0	1637.0	1811.9	2217.3	2817.5	3227.2	3246.3	3180.4
27.5°	1738.3	1739.2	1722.7	1721.9	1727.9	1848.3	2237.2	2922.3	3515.6	3551.1	3469.7
30°	2061.4	2048.4	1985.2	1916.7	1885.6	1957.5	2292.6	3046.2	3856.0	3919.2	3817.0
32.5°	2559.4	2540.4	2424.3	2260.6	2096.0	2133.3	2392.2	3187.4	4226.7	4341.0	4216.3
35°	3099.9	3094.7	2973.4	2730.0	2442.5	2383.6	2554.2	3372.7	4631.2	4813.1	4665.0
37.5°	3602.2	3599.6	3530.3	3243.7	2893.7	2732.6	2814.1	3615.2	5064.3	5327.6	5152.6
40°	4061.3	4069.1	3999.8	3743.4	3390.9	3180.4	3167.4	3914.9	5545.8	5887.9	5680.1
42.5°	4458.0	4466.6	4396.5	4206.8	3882.0	3675.9	3601.4	4282.1	6016.1	6489.9	6243.9
45°	4727.3	4781.0	4770.6	4619.1	4386.1	4172.1	4122.8	4742.9	6552.3	7128.2	6839.8
47.5°	4803.6	4852.9	4930.9	4951.7	4809.6	4599.1	4658.0	5298.1	7094.5	7767.4	7439.2
50°	4615.6	4661.5	4823.5	5039.1	5137.9	5072.9	5178.6	5893.1	7649.7	8404.9	8027.3
52.5°	4244.9	4291.7	4496.1	4837.3	5240.1	5444.5	5700.9	6479.5	8187.5	9008.6	8584.2
55°	3708.8	3758.1	4020.6	4406.9	5045.2	5597.8	6136.5	7065.0	8680.3	9551.7	9086.6
57.5°	2979.5	3015.9	3288.7	3829.2	4555.0	5445.4	6457.9	7704.2	9144.6	10085.2	9584.6
60°	1941.9	1973.9	2290.9	2893.7	3742.5	4936.1	6522.0	8417.0	9761.3	10779.0	10255.8
62.5°	1291.4	1313.1	1501.0	1943.6	2635.6	3958.2	6146.9	8986.1	10665.5	11986.4	11406.9
65°	886.1	907.7	1095.7	1404.0	1702.8	2618.3	5068.6	8910.7	11484.9	12945.2	12260.1
67.5°	632.3	650.5	809.8	1100.9	1232.5	1520.9	3435.9	7947.6	11367.1	12981.5	12306.0
70°	453.0	463.4	595.0	857.5	979.6	913.8	1910.7	6078.5	9952.7	11987.2	11368.8
72.5°	317.0	320.5	413.1	653.1	789.0	666.9	909.4	4052.6	7527.5	9408.8	8813.7
75°	214.8	219.1	278.0	479.0	633.1	509.3	481.6	2173.1	4419.0	5208.0	4668.4
77.5°	131.7	133.4	179.3	327.4	473.8	388.0	310.1	920.7	1709.7	1678.6	1430.8
80°	74.5	74.5	114.3	203.5	323.1	250.3	217.4	391.5	541.3	475.5	419.2
82.5°	41.6	42.4	83.1	126.5	213.9	148.1	119.5	181.0	233.9	207.0	180.2
85°	17.3	19.1	51.1	59.8	102.2	73.6	48.5	76.2	86.6	77.1	56.3
87.5°	1.7	2.6	15.6	11.3	12.1	14.7	6.9	14.7	12.1	12.1	8.7
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°	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0	1993.0
2.5°	2006.0	1993.0	1960.1	1921.9	1871.7	1847.5	1814.5	1792.0	1773.0	1774.7	1757.4
5°	2044.9	2012.0	1938.4	1846.6	1732.3	1650.8	1564.2	1504.5	1456.0	1445.6	1422.2
7.5°	2098.6	2046.7	1917.6	1752.2	1559.0	1412.7	1281.9	1197.9	1138.1	1119.0	1100.0
10°	2167.9	2092.6	1890.8	1633.5	1355.5	1169.3	1029.0	963.1	922.4	908.6	898.2
12.5°	2248.5	2145.4	1855.2	1488.9	1145.9	966.6	877.4	844.5	831.5	827.2	824.6
15°	2349.8	2211.2	1801.5	1317.4	968.3	842.7	804.6	800.3	802.0	800.3	799.4
17.5°	2470.2	2283.1	1714.1	1140.7	848.8	779.5	765.7	769.1	773.5	772.6	770.9
20°	2601.9	2354.1	1602.3	983.9	767.4	734.5	726.7	730.1	733.6	731.9	731.0
22.5°	2751.7	2430.4	1478.5	861.8	712.8	692.9	684.2	685.1	685.1	681.6	679.9
25°	2931.0	2514.4	1348.6	775.2	671.3	655.7	645.3	641.8	636.6	626.2	624.5
27.5°	3144.9	2603.6	1223.8	714.6	638.3	623.6	611.5	602.8	589.8	572.5	570.8
30°	3385.7	2711.9	1118.2	676.4	612.4	597.6	583.8	570.8	551.7	530.1	528.3
32.5°	3668.9	2827.9	1041.1	651.3	589.0	573.4	556.9	541.3	520.5	498.9	499.8
35°	4006.7	2968.2	996.0	634.0	570.8	550.0	531.8	514.5	498.9	479.8	478.1
37.5°	4373.1	3117.2	982.2	625.3	558.7	526.6	505.8	493.7	492.0	480.7	479.8
40°	4774.1	3293.9	992.6	620.1	545.7	504.1	481.6	479.0	483.3	463.4	464.2
42.5°	5198.5	3503.5	1009.9	614.1	527.5	481.6	459.9	459.9	456.5	428.7	428.7
45°	5657.6	3745.1	1027.2	599.4	505.8	459.0	442.6	436.5	421.8	395.0	394.1
47.5°	6120.1	3991.1	1040.2	572.5	479.8	440.0	425.3	411.4	389.8	365.5	364.6
50°	6559.2	4212.0	1026.4	532.7	450.4	421.8	406.2	387.2	363.8	347.3	344.7
52.5°	6951.6	4403.4	967.5	485.9	419.2	402.8	388.9	369.0	349.9	332.6	330.9
55°	7292.8	4558.4	863.5	441.7	391.5	386.3	372.4	347.3	321.3	306.6	304.9
57.5°	7620.2	4676.2	733.6	405.3	366.4	368.1	347.3	324.8	300.5	285.0	283.2
60°	8055.9	4833.9	602.0	371.6	339.5	344.7	322.2	305.7	275.4	255.5	252.9
62.5°	8752.2	5079.0	478.1	330.0	308.3	310.1	300.5	280.6	244.2	220.9	219.1
65°	9304.8	4988.9	376.8	285.0	272.8	275.4	275.4	253.8	214.8	188.0	185.4
67.5°	9242.5	4271.8	300.5	240.8	239.1	240.8	246.8	228.7	190.5	168.9	165.4
70°	8514.1	3397.8	240.8	200.1	207.9	203.5	220.9	208.7	171.5	149.8	147.2
72.5°	6947.2	2447.7	183.6	165.4	159.4	166.3	199.2	188.0	142.9	118.7	116.1
75°	4059.5	1306.1	136.8	130.8	115.2	138.6	176.7	160.2	109.1	87.5	84.9
77.5°	1321.7	455.6	100.5	96.1	85.7	111.7	150.7	135.1	89.2	69.3	66.7
80°	354.2	137.7	68.4	63.2	55.4	83.1	119.5	107.4	64.1	45.0	44.2
82.5°	142.0	58.0	39.8	35.5	30.3	57.2	94.4	86.6	47.6	28.6	28.6
85°	45.9	19.1	14.7	11.3	13.9	35.5	56.3	58.9	33.8	14.7	11.3
87.5°	6.1	2.6	2.6	3.5	2.6	6.1	17.3	16.5	9.5	1.7	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)