

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: P882716

Luminaire Tested: **NAV-SB2D-722-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882716
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-SB2D-722-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA 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: 12068 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

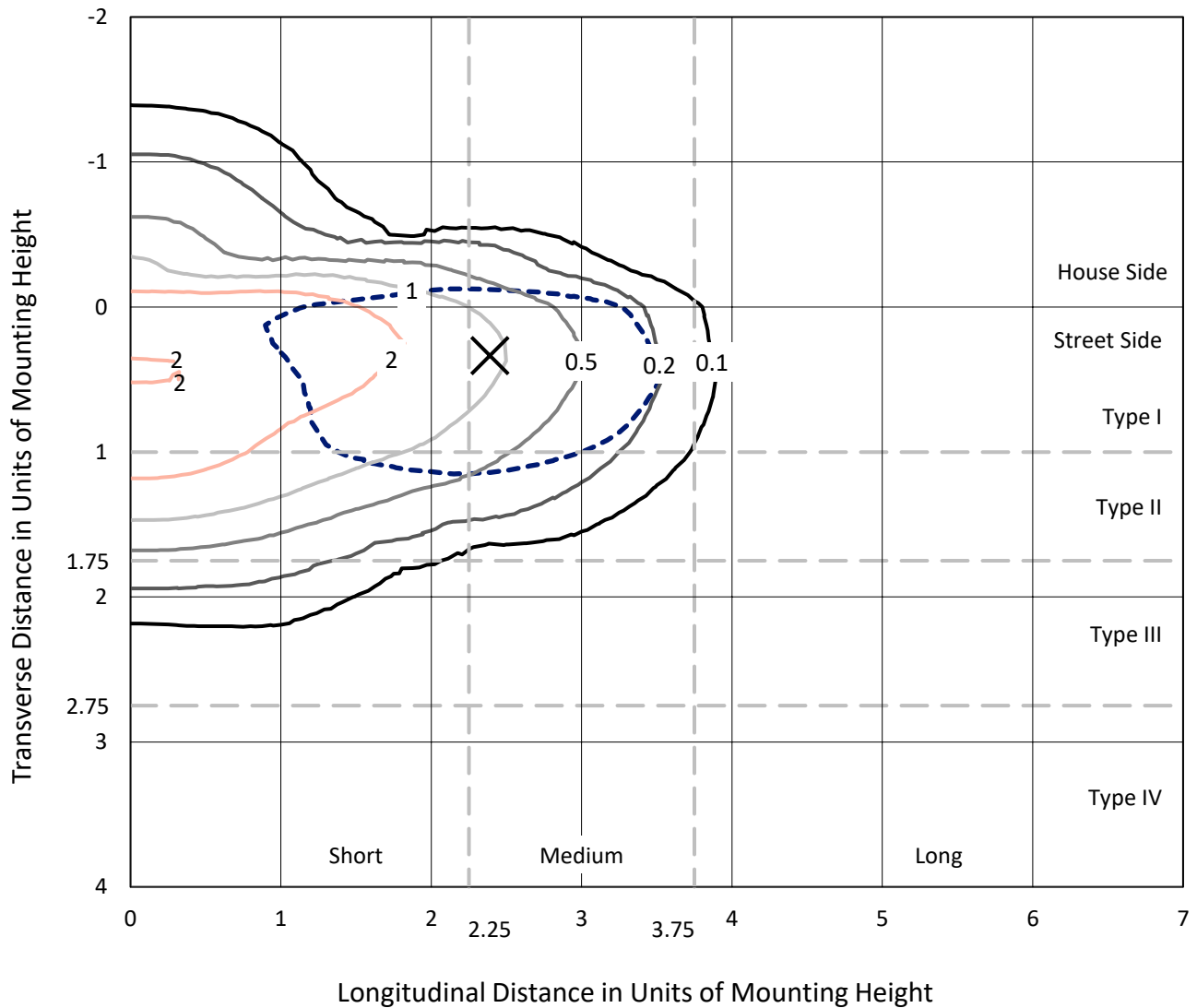
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

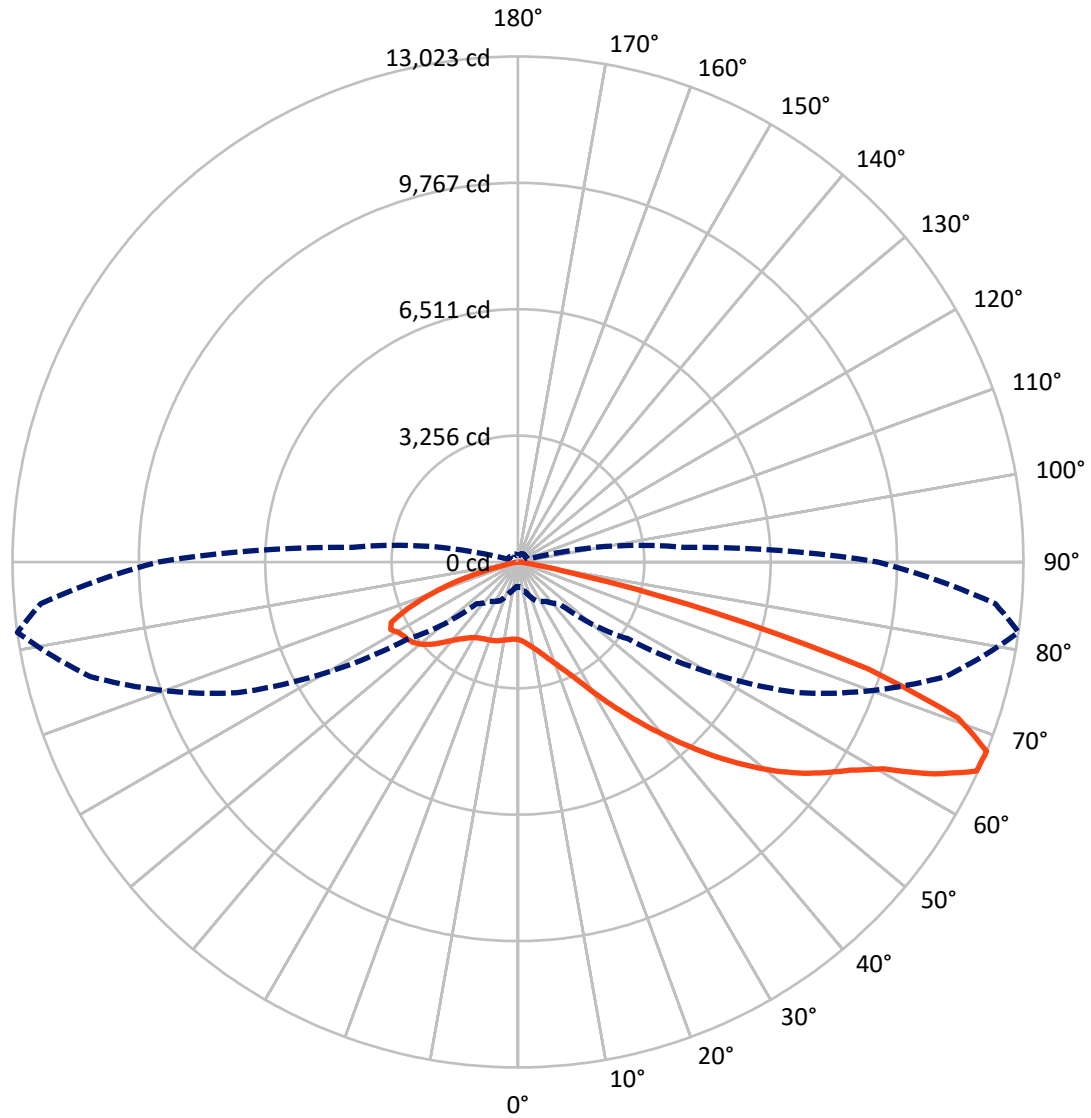
✕ Max cd
 - - - 1/2 Max cd



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	2186.0	0.0	2186.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9882.0	0.0	9882.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	12068.0	0.0	12068.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.1	1.5
10°-20°	462.9	3.8
20°-30°	741.4	6.1
30°-40°	1310.9	10.9
40°-50°	2296.9	19.0
50°-60°	3063.4	25.4
60°-70°	2851.9	23.6
70°-80°	1094.5	9.1
80°-90°	68.0	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°	12068.0	100.0
0°-180°	12068.0	100.0

Coefficient of Utilization



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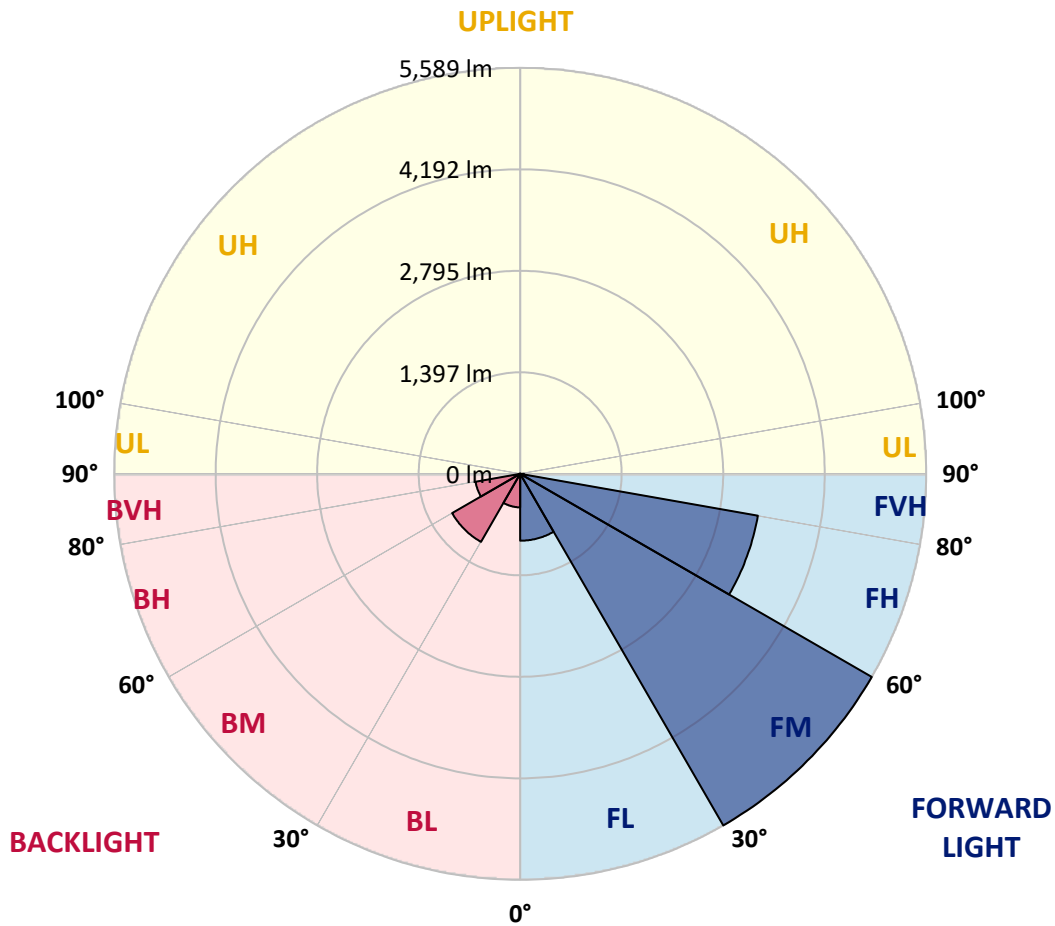
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	920.7	7.6			
FM (30°-60°)	5589.4	46.3			
FH (60°-80°)	3322.5	27.5			G2/5000
FVH (80°-90°)	49.4	0.4			G1/100
BL (0°-30°)	461.7	3.8	B1/500		
BM (30°-60°)	1081.8	9.0	B2/2500		
BH (60°-80°)	623.9	5.2	B2/1000		G2/1000
BVH (80°-90°)	18.6	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°	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3
2.5°	2113.1	2125.2	2118.3	2114.8	2108.7	2100.0	2093.1	2071.4	2048.8	2034.0	2028.8
5°	2155.7	2167.8	2167.0	2170.4	2174.8	2177.4	2175.6	2151.3	2119.2	2094.0	2079.2
7.5°	2119.2	2133.1	2144.4	2161.7	2192.1	2224.3	2239.9	2234.7	2201.7	2167.0	2148.7
10°	2015.8	2030.5	2057.5	2098.3	2162.6	2232.1	2290.3	2317.3	2296.4	2258.2	2233.0
12.5°	1826.4	1841.1	1894.1	1982.8	2090.5	2211.3	2322.5	2394.6	2399.8	2361.6	2332.0
15°	1613.5	1628.3	1684.7	1795.9	1960.2	2153.9	2339.9	2476.3	2522.3	2489.3	2453.7
17.5°	1481.4	1494.4	1537.0	1626.5	1797.7	2039.2	2333.8	2563.2	2668.3	2642.2	2599.6
20°	1441.4	1452.7	1472.7	1535.3	1677.8	1920.2	2293.8	2644.8	2825.6	2810.8	2763.0
22.5°	1484.0	1494.4	1500.5	1528.3	1617.8	1842.0	2243.4	2728.2	3008.0	3009.7	2951.5
25°	1582.2	1592.6	1585.7	1603.1	1642.2	1817.7	2224.3	2826.4	3237.4	3256.5	3190.5
27.5°	1743.8	1744.7	1728.2	1727.3	1733.4	1854.2	2244.3	2931.6	3526.7	3562.3	3480.7
30°	2067.9	2054.9	1991.4	1922.8	1891.5	1963.6	2299.9	3055.8	3868.2	3931.6	3829.1
32.5°	2567.5	2548.4	2432.0	2267.7	2102.7	2140.0	2399.8	3197.4	4240.1	4354.8	4229.6
35°	3109.7	3104.5	2982.8	2738.7	2450.2	2391.1	2562.3	3383.4	4645.8	4828.3	4679.7
37.5°	3613.6	3611.0	3541.5	3253.9	2902.9	2741.3	2822.9	3626.6	5080.3	5344.4	5168.9
40°	4074.1	4081.9	4012.4	3755.2	3401.6	3190.5	3177.4	3927.3	5563.3	5906.5	5698.0
42.5°	4472.1	4480.7	4410.4	4220.1	3894.3	3687.5	3612.7	4295.7	6035.1	6510.4	6263.7
45°	4742.3	4796.1	4785.7	4633.7	4399.9	4185.3	4135.8	4757.9	6573.0	7150.8	6861.4
47.5°	4818.7	4868.3	4946.5	4967.3	4824.8	4613.7	4672.8	5314.8	7116.9	7792.0	7462.7
50°	4630.2	4676.2	4838.7	5055.1	5154.1	5088.9	5194.9	5911.8	7673.8	8431.5	8052.6
52.5°	4258.3	4305.2	4510.3	4852.6	5256.6	5461.7	5718.9	6500.0	8213.4	9037.1	8611.3
55°	3720.5	3770.0	4033.3	4420.8	5061.1	5615.5	6155.9	7087.3	8707.8	9581.8	9115.3
57.5°	2988.9	3025.4	3299.1	3841.3	4569.4	5462.6	6478.3	7728.6	9173.5	10117.1	9614.9
60°	1948.0	1980.1	2298.1	2902.9	3754.4	4951.7	6542.6	8443.6	9792.1	10813.0	10288.2
62.5°	1295.5	1317.2	1505.7	1949.7	2644.0	3970.7	6166.3	9014.5	10699.2	12024.2	11443.0
65°	888.8	910.6	1099.1	1408.4	1708.2	2626.6	5084.6	8938.9	11521.2	12986.1	12298.8
67.5°	634.3	652.5	812.4	1104.3	1236.4	1525.7	3446.8	7972.7	11403.0	13022.6	12344.8
70°	454.4	464.8	596.9	860.2	982.7	916.7	1916.7	6097.7	9984.1	12025.1	11404.7
72.5°	318.0	321.5	414.4	655.1	791.5	669.0	912.3	4065.4	7551.3	9438.5	8841.6
75°	215.5	219.8	278.9	480.5	635.1	510.9	483.1	2180.0	4433.0	5224.5	4683.2
77.5°	132.1	133.8	179.9	328.4	475.3	389.3	311.1	923.6	1715.1	1683.9	1435.4
80°	74.7	74.7	114.7	204.2	324.1	251.1	218.1	392.7	543.0	477.0	420.5
82.5°	41.7	42.6	83.4	126.9	214.6	148.6	119.9	181.6	234.6	207.7	180.7
85°	17.4	19.1	51.3	60.0	102.5	73.9	48.7	76.5	86.9	77.3	56.5
87.5°	1.7	2.6	15.6	11.3	12.2	14.8	7.0	14.8	12.2	12.2	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°	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3	1999.3
2.5°	2012.3	1999.3	1966.2	1928.0	1877.6	1853.3	1820.3	1797.7	1778.6	1780.3	1762.9
5°	2051.4	2018.4	1944.5	1852.4	1737.7	1656.1	1569.2	1509.2	1460.6	1450.1	1426.7
7.5°	2105.3	2053.1	1923.7	1757.7	1564.0	1417.1	1285.9	1201.6	1141.7	1122.6	1103.5
10°	2174.8	2099.2	1896.7	1638.7	1359.8	1173.0	1032.2	966.2	925.3	911.4	901.0
12.5°	2255.6	2152.2	1861.1	1493.6	1149.5	969.7	880.2	847.1	834.1	829.8	827.2
15°	2357.2	2218.2	1807.2	1321.5	971.4	845.4	807.2	802.8	804.6	802.8	802.0
17.5°	2478.0	2290.3	1719.5	1144.3	851.5	782.0	768.1	771.6	775.9	775.0	773.3
20°	2610.1	2361.6	1607.4	987.0	769.8	736.8	729.0	732.5	735.9	734.2	733.3
22.5°	2760.4	2438.0	1483.2	864.5	715.1	695.1	686.4	687.3	687.3	683.8	682.1
25°	2940.2	2522.3	1352.8	777.6	673.4	657.7	647.3	643.8	638.6	628.2	626.5
27.5°	3154.9	2611.8	1227.7	716.8	640.4	625.6	613.4	604.7	591.7	574.3	572.6
30°	3396.4	2720.4	1121.7	678.6	614.3	599.5	585.6	572.6	553.5	531.7	530.0
32.5°	3680.5	2836.8	1044.4	653.4	590.8	575.2	558.7	543.0	522.2	500.5	501.3
35°	4019.4	2977.6	999.2	636.0	572.6	551.7	533.5	516.1	500.5	481.4	479.6
37.5°	4386.9	3127.0	985.3	627.3	560.4	528.3	507.4	495.3	493.5	482.2	481.4
40°	4789.2	3304.3	995.7	622.1	547.4	505.7	483.1	480.5	484.8	464.8	465.7
42.5°	5214.9	3514.6	1013.1	616.0	529.1	483.1	461.4	461.4	457.9	430.1	430.1
45°	5675.4	3757.0	1030.5	601.3	507.4	460.5	444.0	437.9	423.1	396.2	395.3
47.5°	6139.4	4003.7	1043.5	574.3	481.4	441.4	426.6	412.7	391.0	366.7	365.8
50°	6579.9	4225.3	1029.6	534.4	451.8	423.1	407.5	388.4	364.9	348.4	345.8
52.5°	6973.5	4417.3	970.5	487.4	420.5	404.0	390.1	370.1	351.0	333.6	331.9
55°	7315.8	4572.8	866.3	443.1	392.7	387.5	373.6	348.4	322.3	307.6	305.8
57.5°	7644.3	4691.0	735.9	406.6	367.5	369.3	348.4	325.8	301.5	285.9	284.1
60°	8081.3	4849.1	603.9	372.7	340.6	345.8	323.2	306.7	276.3	256.3	253.7
62.5°	8779.9	5095.0	479.6	331.0	309.3	311.1	301.5	281.5	245.0	221.6	219.8
65°	9334.2	5004.7	378.0	285.9	273.7	276.3	276.3	254.6	215.5	188.5	185.9
67.5°	9271.7	4285.2	301.5	241.5	239.8	241.5	247.6	229.4	191.2	169.4	166.0
70°	8540.9	3408.6	241.5	200.7	208.5	204.2	221.6	209.4	172.0	150.3	147.7
72.5°	6969.2	2455.4	184.2	166.0	159.9	166.8	199.8	188.5	143.4	119.0	116.4
75°	4072.4	1310.2	137.3	131.2	115.6	139.0	177.2	160.7	109.5	87.8	85.1
77.5°	1325.9	457.0	100.8	96.4	86.0	112.1	151.2	135.5	89.5	69.5	66.9
80°	355.4	138.1	68.6	63.4	55.6	83.4	119.9	107.7	64.3	45.2	44.3
82.5°	142.5	58.2	40.0	35.6	30.4	57.3	94.7	86.9	47.8	28.7	28.7
85°	46.0	19.1	14.8	11.3	13.9	35.6	56.5	59.1	33.9	14.8	11.3
87.5°	6.1	2.6	2.6	3.5	2.6	6.1	17.4	16.5	9.6	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)