

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: P883567

Luminaire Tested: **NAV-SB4A-722-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883567  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-722-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14354 lumens  
Efficiency: N/A  
Efficacy: 125.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

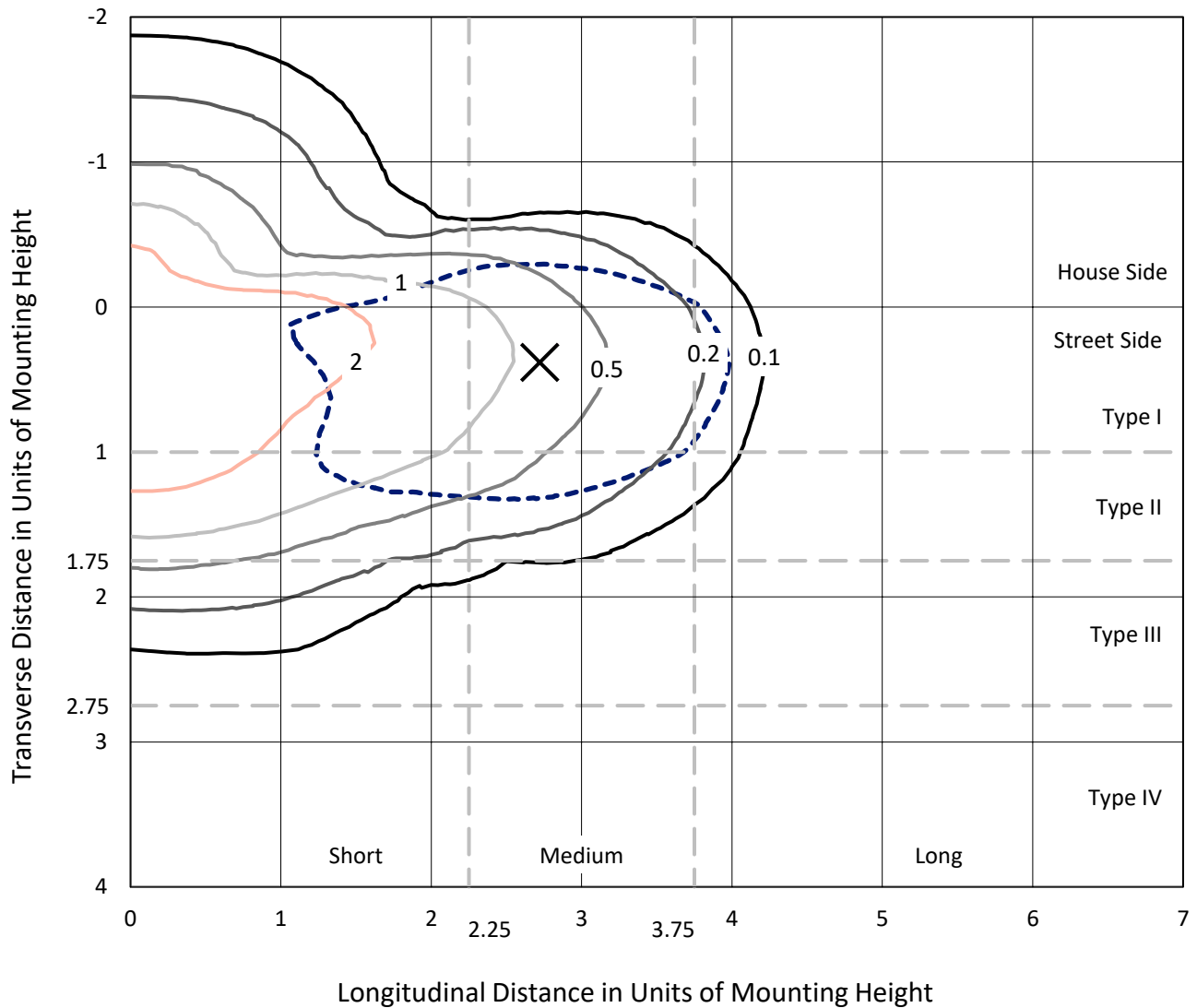
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

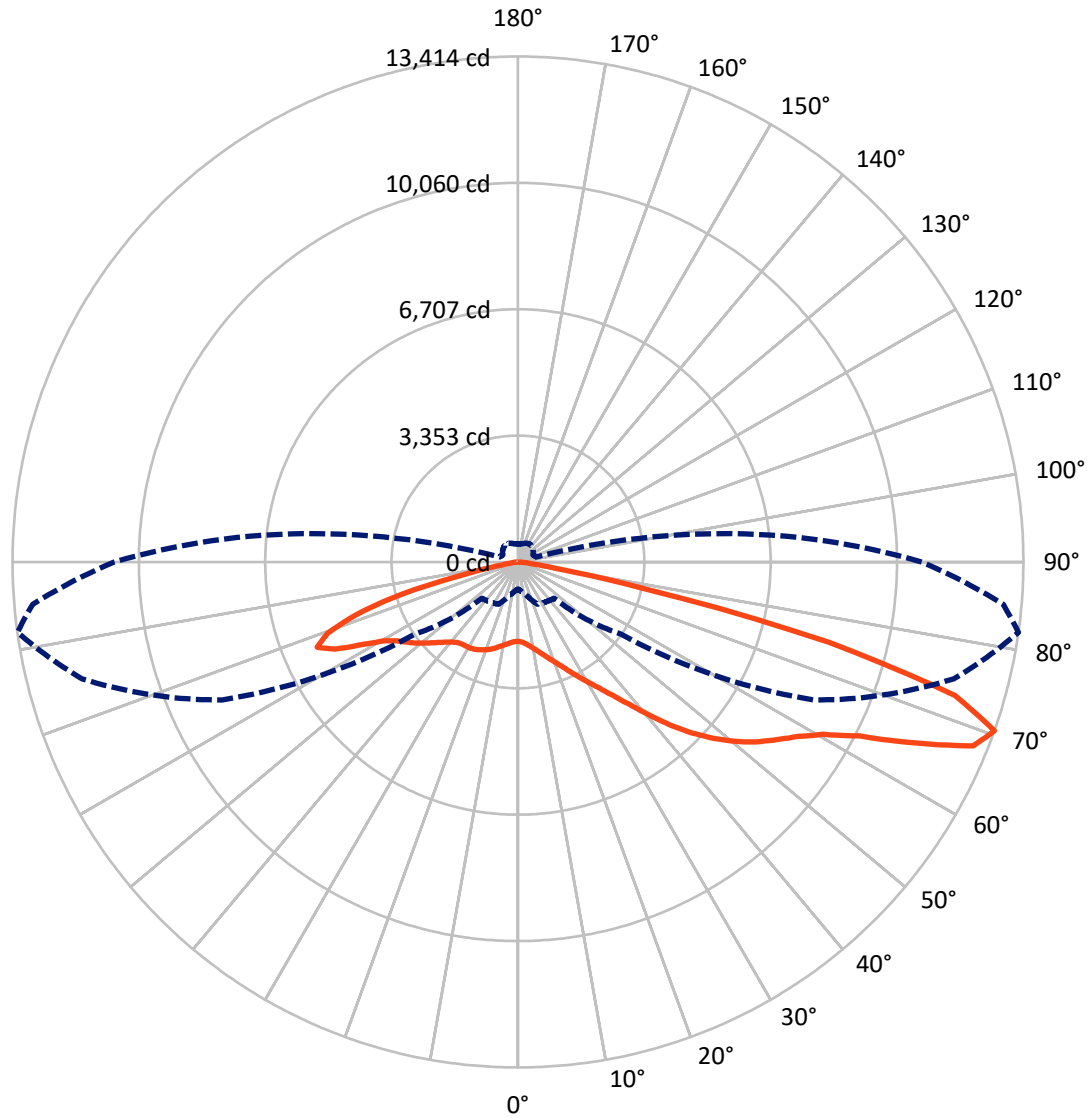
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3538.6	0.0	3538.6
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	10815.4	0.0	10815.4
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	14354.0	0.0	14354.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.7	1.4
10°-20°	570.9	4.0
20°-30°	955.0	6.7
30°-40°	1492.0	10.4
40°-50°	2376.2	16.6
50°-60°	3306.7	23.0
60°-70°	3459.0	24.1
70°-80°	1807.8	12.6
80°-90°	187.7	1.3
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°	14354.0	100.0
0°-180°	14354.0	100.0

**Coefficient of Utilization**

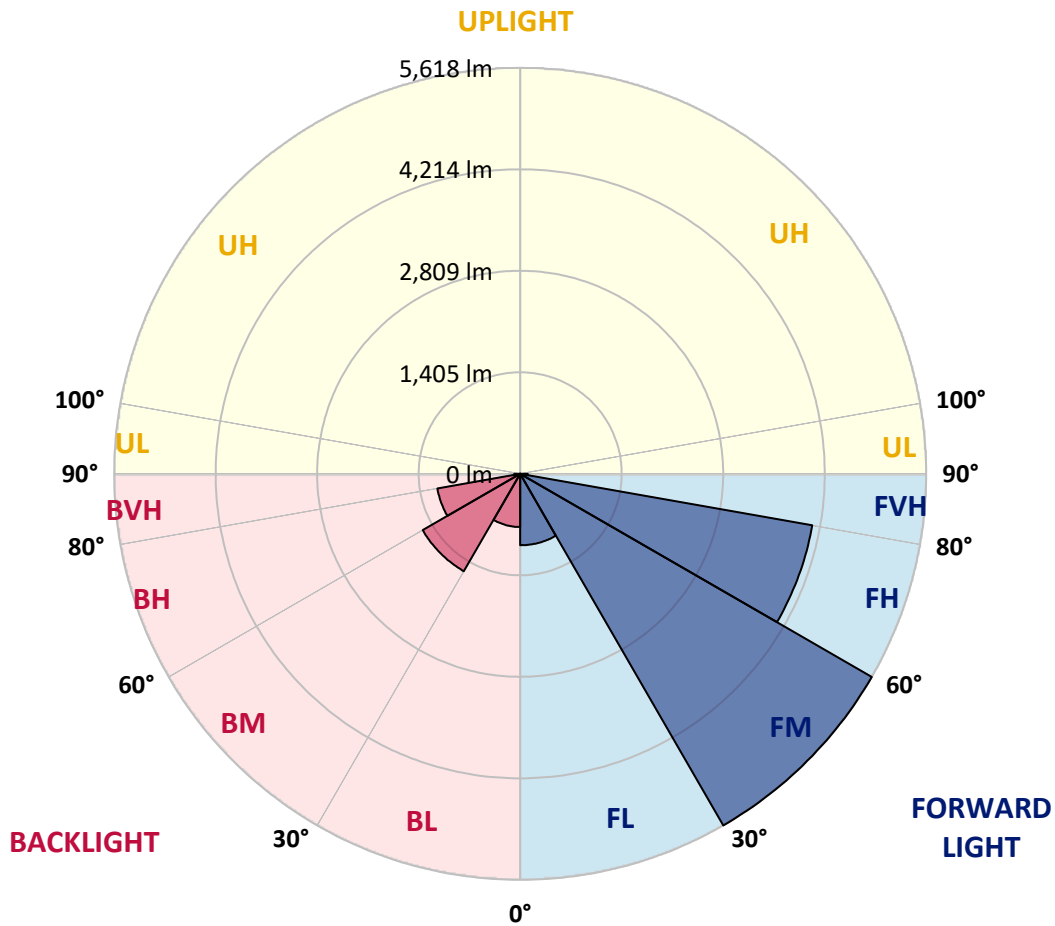


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	988.4	6.9			
FM (30°-60°)	5618.0	39.1			
FH (60°-80°)	4103.8	28.6			G2/5000
FVH (80°-90°)	105.1	0.7			G2/225
BL (0°-30°)	736.2	5.1	B2/1000		
BM (30°-60°)	1556.8	10.8	B2/2500		
BH (60°-80°)	1163.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	82.6	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5
2.5°	2154.7	2166.9	2163.1	2159.3	2159.3	2154.0	2153.2	2145.6	2139.5	2129.6	2127.3
5°	2182.2	2195.1	2193.6	2196.6	2206.5	2208.8	2211.1	2206.5	2194.4	2182.2	2176.8
7.5°	2157.8	2172.3	2176.8	2195.1	2225.6	2253.0	2273.6	2281.9	2270.5	2253.0	2244.6
10°	2075.5	2091.5	2107.5	2150.9	2205.0	2269.8	2324.6	2357.3	2355.1	2338.3	2323.8
12.5°	1908.7	1925.5	1959.8	2044.3	2143.3	2257.6	2359.6	2428.2	2451.8	2439.6	2414.5
15°	1775.4	1789.9	1815.8	1902.6	2031.4	2205.0	2372.6	2505.9	2566.0	2559.2	2528.7
17.5°	1771.6	1777.7	1793.7	1834.8	1933.9	2122.8	2358.9	2582.0	2697.0	2696.3	2658.2
20°	1838.7	1840.9	1850.1	1858.5	1914.8	2060.3	2323.8	2645.3	2844.1	2844.1	2802.9
22.5°	1931.6	1930.1	1939.2	1931.6	1959.0	2055.0	2301.7	2700.9	3007.8	3020.0	2968.2
25°	2071.0	2063.3	2061.1	2043.5	2048.9	2104.5	2326.1	2764.1	3202.0	3227.2	3162.4
27.5°	2256.8	2244.6	2236.2	2195.9	2182.2	2206.5	2400.8	2840.2	3418.3	3461.8	3379.5
30°	2499.0	2476.9	2464.7	2394.7	2345.2	2349.0	2513.5	2941.5	3644.6	3714.6	3610.3
32.5°	2829.6	2795.3	2762.6	2647.5	2556.9	2527.2	2659.0	3081.7	3889.8	4001.8	3867.7
35°	3199.7	3172.3	3137.3	2959.8	2820.4	2751.9	2855.5	3277.4	4177.0	4354.4	4180.0
37.5°	3556.2	3532.6	3549.4	3310.2	3130.4	3030.7	3112.9	3540.2	4531.1	4793.1	4571.5
40°	3924.9	3906.6	3908.9	3680.4	3470.9	3358.9	3425.2	3870.0	4937.1	5314.9	5042.2
42.5°	4325.5	4311.8	4266.1	4063.5	3828.1	3723.8	3784.7	4250.8	5372.8	5909.0	5558.6
45°	4774.1	4765.7	4723.1	4490.8	4221.1	4103.8	4186.1	4671.3	5810.7	6468.0	6077.3
47.5°	5161.8	5168.6	5163.3	4967.6	4688.0	4515.9	4614.2	5110.0	6218.2	6993.6	6574.7
50°	5348.4	5384.2	5436.8	5375.8	5202.2	5027.0	5046.0	5533.5	6606.7	7486.4	7051.5
52.5°	5250.9	5318.7	5461.9	5559.4	5626.4	5589.8	5538.8	5953.9	6972.3	7931.2	7502.4
55°	4887.6	4982.8	5220.4	5455.8	5797.8	6063.6	6130.6	6420.1	7328.7	8322.7	7928.9
57.5°	4225.7	4380.3	4593.6	5069.6	5645.4	6292.9	6820.7	7066.7	7706.5	8740.8	8375.3
60°	3090.8	3298.0	3563.1	4271.4	5112.3	6170.2	7407.9	8059.9	8243.5	9282.4	8956.4
62.5°	1978.0	2106.0	2349.7	3016.9	3983.5	5541.9	7587.7	9301.4	9153.7	10170.5	9827.7
65°	1354.2	1436.5	1659.7	2034.4	2575.2	4125.2	7106.3	10232.2	10599.3	11578.0	11317.6
67.5°	984.1	1046.5	1236.9	1565.2	1677.9	2441.1	5514.4	10189.5	12004.6	13028.3	12623.0
70°	717.5	761.7	921.6	1236.9	1291.0	1358.0	3340.7	8661.6	11974.1	13413.7	12928.5
72.5°	531.6	562.1	669.5	959.7	1045.0	917.0	1653.6	6295.1	10289.3	12132.5	11743.3
75°	384.6	407.5	486.7	734.2	836.3	698.4	824.9	3678.8	7177.2	8534.4	8603.0
77.5°	294.0	311.5	363.3	537.7	669.5	524.0	511.8	1692.4	3403.1	3419.9	3611.8
80°	236.1	247.5	275.7	378.5	513.4	392.3	333.6	683.2	1075.5	910.2	955.1
82.5°	173.7	192.7	233.1	265.8	367.1	270.4	203.4	345.0	409.0	351.9	354.9
85°	99.0	112.0	140.9	190.4	234.6	165.3	116.5	153.1	190.4	156.1	139.4
87.5°	35.0	45.7	49.5	74.6	102.1	68.5	44.9	44.2	62.5	46.5	38.8
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°	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5	2104.5
2.5°	2119.7	2115.9	2100.7	2080.1	2058.8	2038.2	2031.4	2016.9	2007.0	2001.7	2007.7
5°	2162.4	2150.2	2114.4	2068.7	2020.7	1968.9	1932.3	1898.8	1874.5	1851.6	1860.7
7.5°	2223.3	2202.0	2140.3	2060.3	1975.0	1888.9	1824.9	1776.2	1743.4	1722.1	1726.7
10°	2294.1	2261.4	2166.9	2047.4	1915.6	1792.2	1716.8	1674.9	1654.3	1642.9	1646.0
12.5°	2375.6	2329.2	2194.4	2017.6	1824.9	1684.0	1632.2	1620.1	1620.8	1621.6	1623.1
15°	2476.2	2411.4	2216.4	1952.9	1706.9	1601.0	1591.9	1611.7	1632.2	1642.1	1641.4
17.5°	2589.7	2498.3	2220.2	1846.3	1591.1	1547.7	1576.6	1619.3	1650.5	1664.2	1667.3
20°	2711.5	2586.6	2192.8	1695.5	1495.9	1504.3	1556.1	1610.9	1645.2	1662.7	1667.3
22.5°	2850.9	2681.1	2127.3	1537.0	1418.2	1457.1	1518.0	1571.3	1607.1	1624.6	1629.2
25°	3010.1	2786.9	2024.5	1403.7	1351.2	1403.7	1464.7	1508.9	1537.8	1553.8	1558.4
27.5°	3186.8	2897.4	1887.4	1297.9	1292.5	1348.9	1399.2	1433.5	1448.7	1460.9	1465.4
30°	3364.3	2997.9	1721.4	1217.9	1241.5	1294.8	1330.6	1345.9	1350.4	1352.7	1358.0
32.5°	3556.2	3084.7	1546.9	1151.6	1192.8	1242.3	1263.6	1270.5	1249.1	1234.7	1239.2
35°	3788.5	3177.7	1376.3	1099.1	1144.8	1187.4	1194.3	1188.2	1163.1	1133.4	1134.9
37.5°	4075.7	3293.4	1240.0	1061.8	1099.8	1128.0	1119.6	1118.1	1120.4	1085.4	1087.7
40°	4427.5	3444.2	1140.2	1032.8	1063.3	1069.4	1045.8	1058.7	1070.1	1016.8	1018.3
42.5°	4818.3	3626.3	1077.0	1013.0	1032.8	1018.3	981.8	996.3	994.7	924.7	923.9
45°	5216.6	3824.3	1054.9	998.5	1004.6	975.7	935.3	939.1	907.1	843.9	846.2
47.5°	5612.7	4036.8	1068.6	986.4	969.6	936.8	905.6	888.9	841.6	794.4	794.4
50°	6001.1	4260.0	1118.9	962.0	921.6	902.6	879.7	850.0	799.7	759.4	756.3
52.5°	6361.4	4484.7	1175.2	921.6	861.4	872.9	858.4	824.1	774.6	733.5	734.2
55°	6702.6	4709.4	1197.3	866.0	805.1	847.0	838.6	775.4	716.0	682.5	679.4
57.5°	7074.3	4979.8	1173.0	795.2	759.4	817.3	785.3	715.2	680.9	655.8	653.5
60°	7589.2	5404.0	1120.4	707.6	716.0	773.1	718.2	689.3	652.0	623.8	622.3
62.5°	8444.6	6195.4	1035.9	620.8	664.9	707.6	686.3	657.3	619.2	591.8	591.8
65°	9708.9	7295.2	876.7	553.0	607.8	643.6	652.0	623.0	583.4	554.5	556.0
67.5°	10775.3	7985.3	663.4	496.6	549.2	591.8	615.4	587.2	545.4	517.2	517.9
70°	10716.6	7484.1	506.5	441.0	497.4	540.8	571.2	549.2	504.2	477.6	479.8
72.5°	9518.5	6260.9	409.8	384.6	444.8	487.5	524.0	507.3	461.6	435.7	435.7
75°	6992.8	4444.3	327.5	327.5	379.3	431.9	472.2	461.6	419.7	401.4	396.1
77.5°	2947.6	1864.6	256.7	271.9	315.3	370.9	421.2	425.0	388.4	411.3	373.2
80°	783.8	514.1	195.7	214.0	247.5	306.2	366.4	364.8	325.2	303.9	282.6
82.5°	298.6	202.6	139.4	150.8	179.0	234.6	290.2	299.3	259.7	224.7	224.7
85°	115.0	86.8	86.1	90.6	104.3	155.4	219.4	227.0	195.7	166.0	171.4
87.5°	29.7	25.9	32.0	30.5	48.0	83.0	125.7	130.2	119.6	69.3	99.0
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)