

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: P883597

Luminaire Tested: **NAV-SB4A-735-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883597
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-735-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18013 lumens
Efficiency: N/A
Efficacy: 158.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

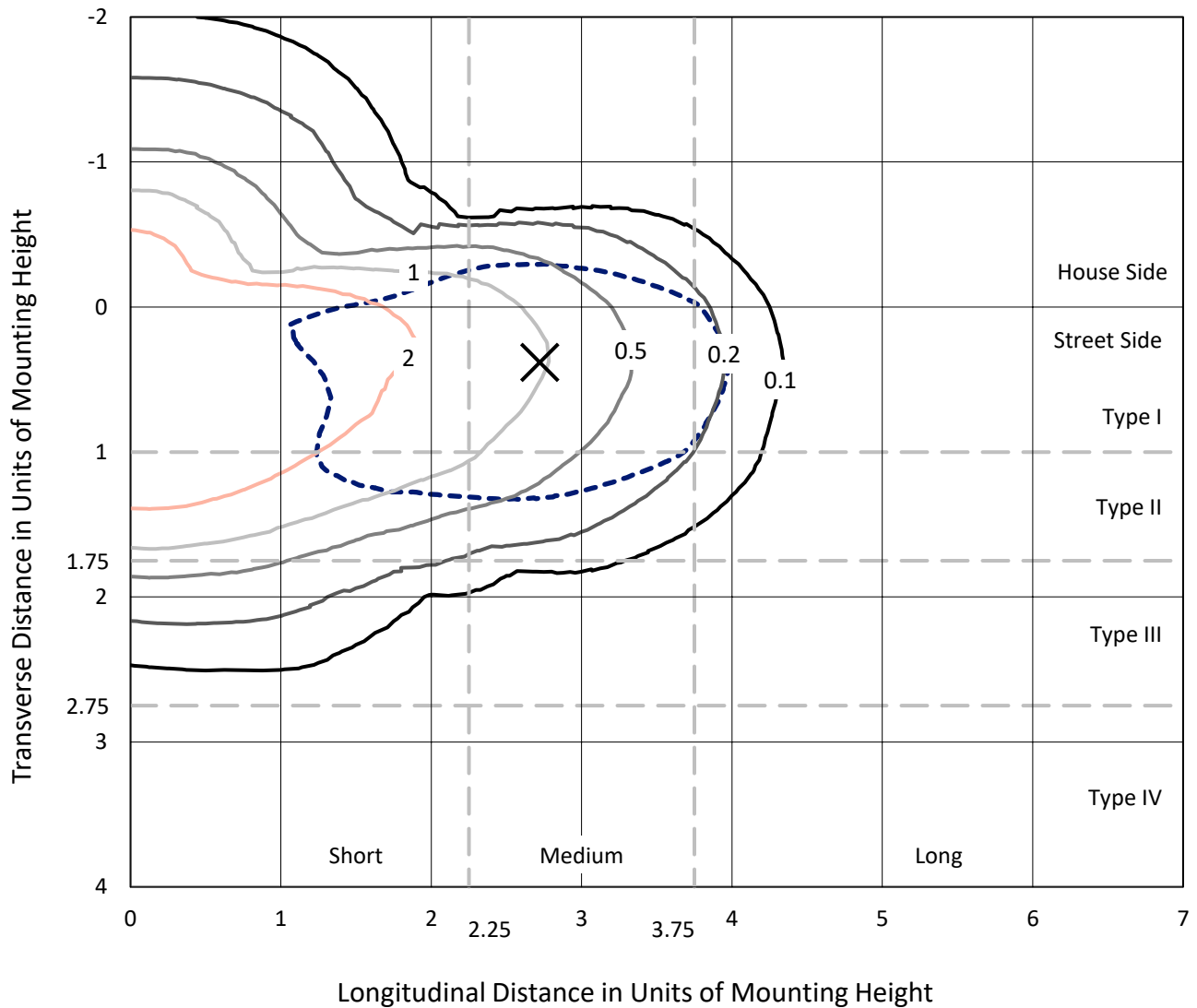
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

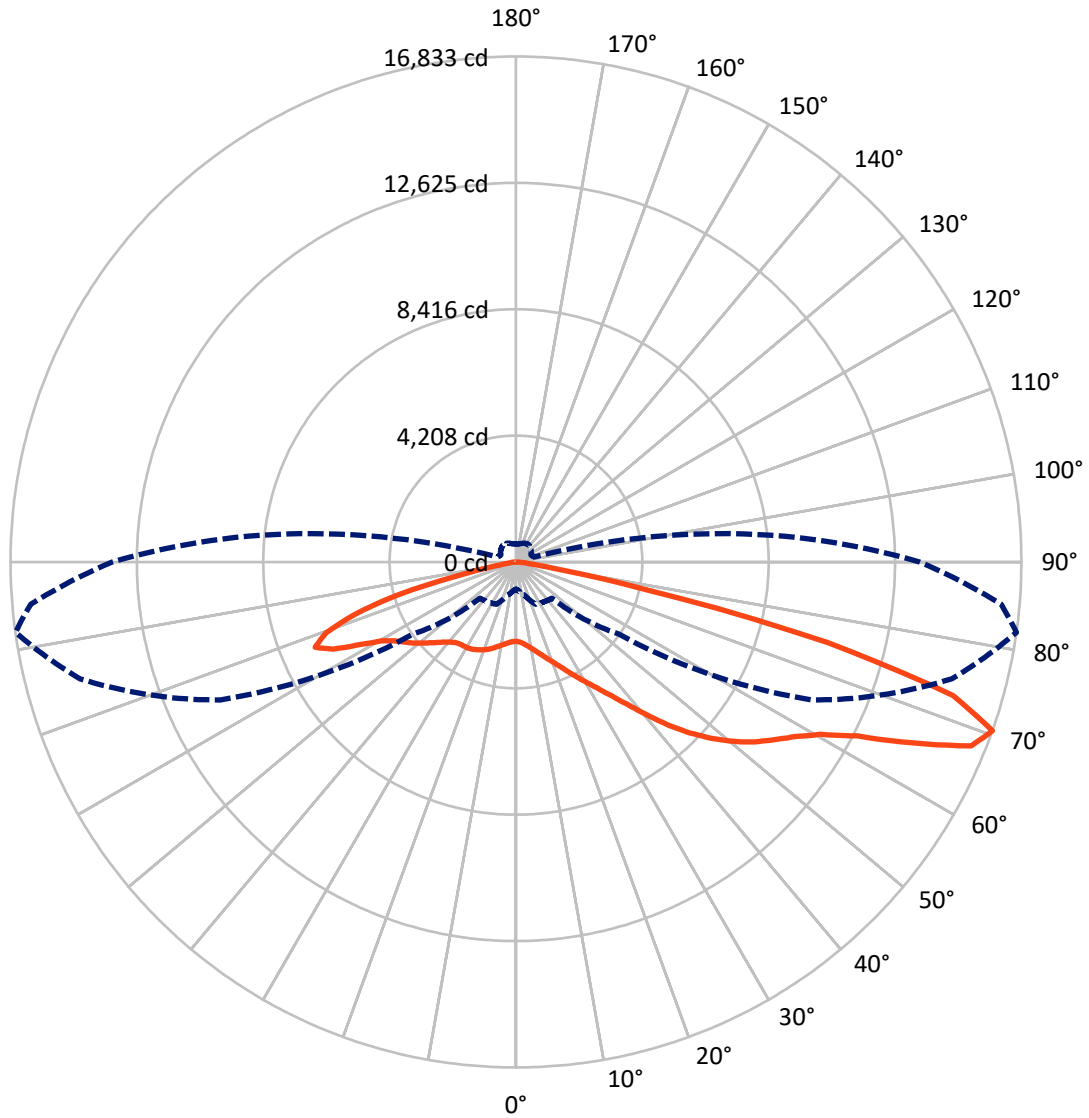
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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
House Side	Lumens	4440.6	0.0	4440.6
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13572.3	0.0	13572.3
	% Fixture	75.3	0.0	75.3
Total	Lumens	18013.0	0.0	18013.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.4	1.4
10°-20°	716.4	4.0
20°-30°	1198.5	6.7
30°-40°	1872.3	10.4
40°-50°	2981.9	16.6
50°-60°	4149.6	23.0
60°-70°	4340.7	24.1
70°-80°	2268.7	12.6
80°-90°	235.6	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°	18013.0	100.0
0°-180°	18013.0	100.0

Coefficient of Utilization



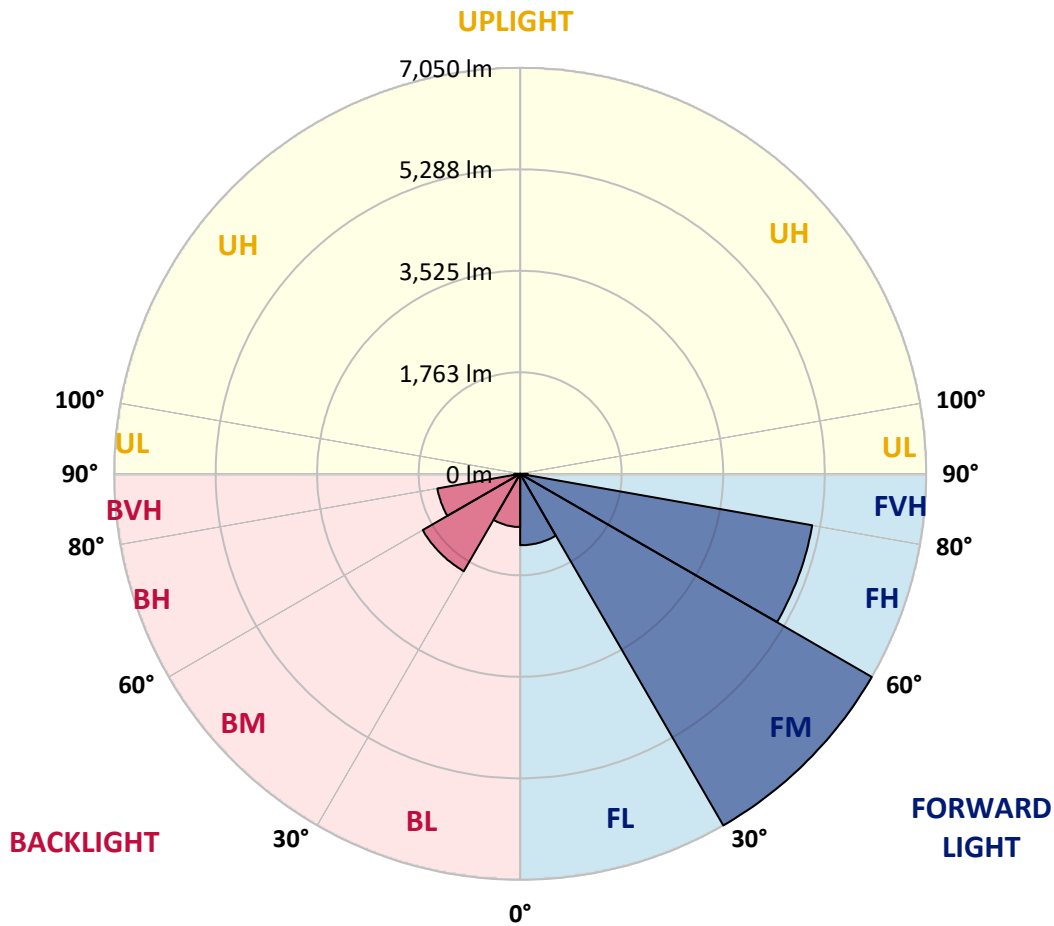
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1240.4	6.9			
FM (30°-60°)	7050.1	39.1			
FH (60°-80°)	5150.0	28.6			G3/7500
FVH (80°-90°)	131.9	0.7			G2/225
BL (0°-30°)	923.8	5.1	B2/1000		
BM (30°-60°)	1953.7	10.8	B2/2500		
BH (60°-80°)	1459.4	8.1	B3/2500		G3/2500
BVH (80°-90°)	103.7	0.6			G2/225
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°	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9
2.5°	2704.0	2719.3	2714.5	2709.8	2709.8	2703.1	2702.1	2692.5	2684.9	2672.5	2669.6
5°	2738.4	2754.7	2752.8	2756.6	2769.0	2771.9	2774.7	2769.0	2753.7	2738.4	2731.7
7.5°	2707.8	2726.0	2731.7	2754.7	2792.9	2827.3	2853.1	2863.6	2849.3	2827.3	2816.8
10°	2604.6	2624.7	2644.8	2699.2	2767.1	2848.3	2917.2	2958.3	2955.4	2934.4	2916.2
12.5°	2395.3	2416.3	2459.3	2565.4	2689.7	2833.1	2961.1	3047.2	3076.8	3061.5	3029.9
15°	2228.0	2246.2	2278.7	2387.6	2549.2	2767.1	2977.4	3144.6	3220.2	3211.6	3173.3
17.5°	2223.2	2230.9	2251.0	2302.6	2426.8	2663.9	2960.2	3240.2	3384.6	3383.6	3335.8
20°	2307.3	2310.2	2321.7	2332.2	2402.9	2585.5	2916.2	3319.6	3569.0	3569.0	3517.4
22.5°	2424.0	2422.0	2433.5	2424.0	2458.4	2578.8	2888.5	3389.3	3774.5	3789.8	3724.8
25°	2598.9	2589.3	2586.4	2564.5	2571.2	2640.9	2919.1	3468.7	4018.3	4049.8	3968.6
27.5°	2832.1	2816.8	2806.3	2755.6	2738.4	2769.0	3012.7	3564.3	4289.7	4344.2	4241.0
30°	3136.0	3108.3	3093.0	3005.1	2943.0	2947.7	3154.2	3691.4	4573.6	4661.5	4530.6
32.5°	3550.9	3507.9	3466.8	3322.4	3208.7	3171.4	3336.8	3867.2	4881.4	5021.9	4853.7
35°	4015.4	3981.0	3937.0	3714.3	3539.4	3453.4	3583.4	4112.9	5241.7	5464.4	5245.5
37.5°	4462.7	4433.1	4454.1	4154.0	3928.4	3803.2	3906.4	4442.7	5686.2	6015.0	5736.8
40°	4925.3	4902.4	4905.3	4618.5	4355.7	4215.2	4298.3	4856.5	6195.6	6669.7	6327.5
42.5°	5428.1	5410.9	5353.5	5099.3	4804.0	4673.0	4749.5	5334.4	6742.4	7415.3	6975.6
45°	5991.1	5980.6	5927.0	5635.5	5297.2	5150.0	5253.2	5862.0	7292.0	8116.8	7626.5
47.5°	6477.6	6486.2	6479.5	6233.9	5883.1	5667.1	5790.4	6412.6	7803.3	8776.3	8250.6
50°	6711.8	6756.7	6822.6	6746.2	6528.3	6308.4	6332.3	6944.0	8290.8	9394.8	8849.0
52.5°	6589.4	6674.5	6854.2	6976.5	7060.6	7014.8	6950.7	7471.6	8749.6	9953.0	9414.8
55°	6133.5	6253.0	6551.2	6846.5	7275.7	7609.3	7693.4	8056.6	9196.9	10444.2	9950.1
57.5°	5302.9	5496.9	5764.6	6361.9	7084.5	7897.0	8559.4	8868.1	9671.0	10969.0	10510.2
60°	3878.7	4138.7	4471.3	5360.2	6415.5	7743.1	9296.3	10114.5	10344.8	11648.6	11239.5
62.5°	2482.3	2642.8	2948.7	3786.0	4998.9	6954.5	9521.9	11672.5	11487.0	12763.1	12332.9
65°	1699.4	1802.7	2082.7	2553.0	3231.6	5176.7	8917.8	12840.5	13301.2	14529.4	14202.5
67.5°	1234.9	1313.3	1552.3	1964.2	2105.7	3063.4	6920.1	12787.0	15064.7	16349.3	15840.8
70°	900.4	955.8	1156.5	1552.3	1620.1	1704.2	4192.2	10869.6	15026.4	16832.9	16224.1
72.5°	667.2	705.4	840.2	1204.3	1311.4	1150.8	2075.1	7899.9	12912.2	15225.3	14736.8
75°	482.7	511.4	610.8	921.4	1049.5	876.5	1035.2	4616.6	9006.7	10710.0	10796.0
77.5°	368.9	390.9	455.9	674.8	840.2	657.6	642.3	2123.8	4270.6	4291.6	4532.5
80°	296.3	310.6	346.0	475.0	644.2	492.2	418.6	857.4	1349.6	1142.2	1198.6
82.5°	217.9	241.8	292.5	333.6	460.7	339.3	255.2	433.0	513.3	441.6	445.4
85°	124.3	140.5	176.8	239.0	294.4	207.4	146.2	192.1	239.0	195.9	174.9
87.5°	44.0	57.3	62.1	93.7	128.1	86.0	56.4	55.4	78.4	58.3	48.7
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°	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9
2.5°	2660.0	2655.3	2636.2	2610.3	2583.6	2557.8	2549.2	2531.0	2518.6	2511.9	2519.5
5°	2713.6	2698.3	2653.4	2596.0	2535.8	2470.8	2424.9	2382.9	2352.3	2323.6	2335.1
7.5°	2790.0	2763.3	2685.9	2585.5	2478.4	2370.4	2290.1	2229.0	2187.9	2161.1	2166.8
10°	2878.9	2837.8	2719.3	2569.2	2403.9	2249.0	2154.4	2101.8	2076.0	2061.7	2065.5
12.5°	2981.2	2922.9	2753.7	2532.0	2290.1	2113.3	2048.3	2033.0	2034.0	2034.9	2036.9
15°	3107.4	3026.1	2781.4	2450.7	2142.0	2009.1	1997.7	2022.5	2048.3	2060.7	2059.8
17.5°	3249.8	3135.1	2786.2	2316.9	1996.7	1942.2	1978.5	2032.1	2071.3	2088.5	2092.3
20°	3402.7	3246.0	2751.8	2127.7	1877.2	1887.7	1952.7	2021.6	2064.6	2086.6	2092.3
22.5°	3577.6	3364.5	2669.6	1928.8	1779.7	1828.5	1904.9	1971.9	2016.8	2038.8	2044.5
25°	3777.4	3497.3	2540.6	1761.6	1695.6	1761.6	1838.0	1893.5	1929.8	1949.9	1955.6
27.5°	3999.2	3635.9	2368.5	1628.7	1622.0	1692.8	1755.8	1798.9	1818.0	1833.3	1839.0
30°	4221.9	3762.1	2160.2	1528.4	1558.0	1624.9	1669.8	1688.9	1694.7	1697.5	1704.2
32.5°	4462.7	3871.1	1941.3	1445.2	1496.8	1558.9	1585.7	1594.3	1567.5	1549.4	1555.1
35°	4754.2	3987.7	1727.2	1379.2	1436.6	1490.1	1498.7	1491.1	1459.5	1422.3	1424.2
37.5°	5114.6	4133.0	1556.1	1332.4	1380.2	1415.6	1405.1	1403.1	1406.0	1362.0	1364.9
40°	5556.2	4322.2	1430.9	1296.1	1334.3	1342.0	1312.3	1328.6	1342.9	1276.0	1277.9
42.5°	6046.5	4550.7	1351.5	1271.2	1296.1	1277.9	1232.1	1250.2	1248.3	1160.4	1159.4
45°	6546.4	4799.2	1323.8	1253.1	1260.7	1224.4	1173.7	1178.5	1138.4	1059.0	1061.9
47.5°	7043.4	5065.8	1341.0	1237.8	1216.8	1175.7	1136.5	1115.4	1056.2	996.9	996.9
50°	7530.9	5345.9	1404.1	1207.2	1156.5	1132.6	1104.0	1066.7	1003.6	953.0	949.1
52.5°	7983.0	5627.9	1474.8	1156.5	1081.0	1095.4	1077.2	1034.2	972.1	920.5	921.4
55°	8411.2	5909.8	1502.5	1086.8	1010.3	1062.9	1052.4	973.0	898.5	856.4	852.6
57.5°	8877.7	6249.2	1472.0	997.9	953.0	1025.6	985.5	897.5	854.5	823.0	820.1
60°	9523.8	6781.5	1406.0	888.0	898.5	970.2	901.3	865.0	818.2	782.8	780.9
62.5°	10597.2	7774.6	1299.9	779.0	834.4	888.0	861.2	824.9	777.1	742.7	742.7
65°	12183.8	9154.8	1100.1	693.9	762.7	807.7	818.2	781.9	732.2	695.8	697.7
67.5°	13522.0	10020.8	832.5	623.2	689.1	742.7	772.3	736.9	684.4	649.0	650.0
70°	13448.4	9391.9	635.6	553.4	624.2	678.6	716.9	689.1	632.8	599.3	602.2
72.5°	11944.9	7856.8	514.2	482.7	558.2	611.7	657.6	636.6	579.2	546.7	546.7
75°	8775.4	5577.2	411.0	411.0	476.0	542.0	592.6	579.2	526.7	503.7	497.0
77.5°	3699.0	2339.8	322.1	341.2	395.7	465.5	528.6	533.3	487.5	516.1	468.4
80°	983.5	645.2	245.6	268.6	310.6	384.2	459.7	457.8	408.1	381.4	354.6
82.5°	374.7	254.2	174.9	189.3	224.6	294.4	364.2	375.6	325.9	282.0	282.0
85°	144.3	109.0	108.0	113.7	130.9	195.0	275.3	284.8	245.6	208.4	215.1
87.5°	37.3	32.5	40.1	38.2	60.2	104.2	157.7	163.4	150.1	87.0	124.3
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)