

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: P883577

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

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883577
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-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16324 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

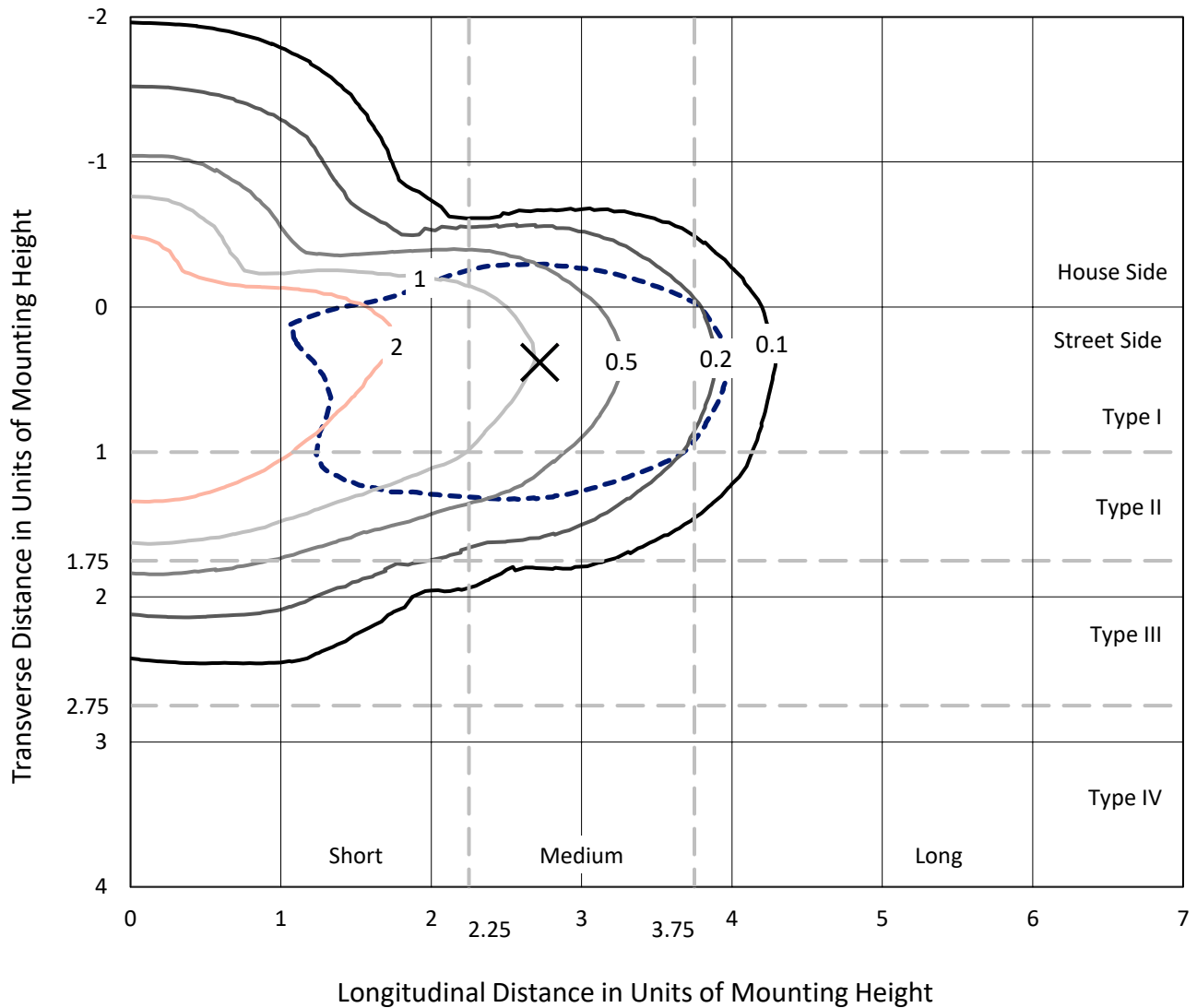
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

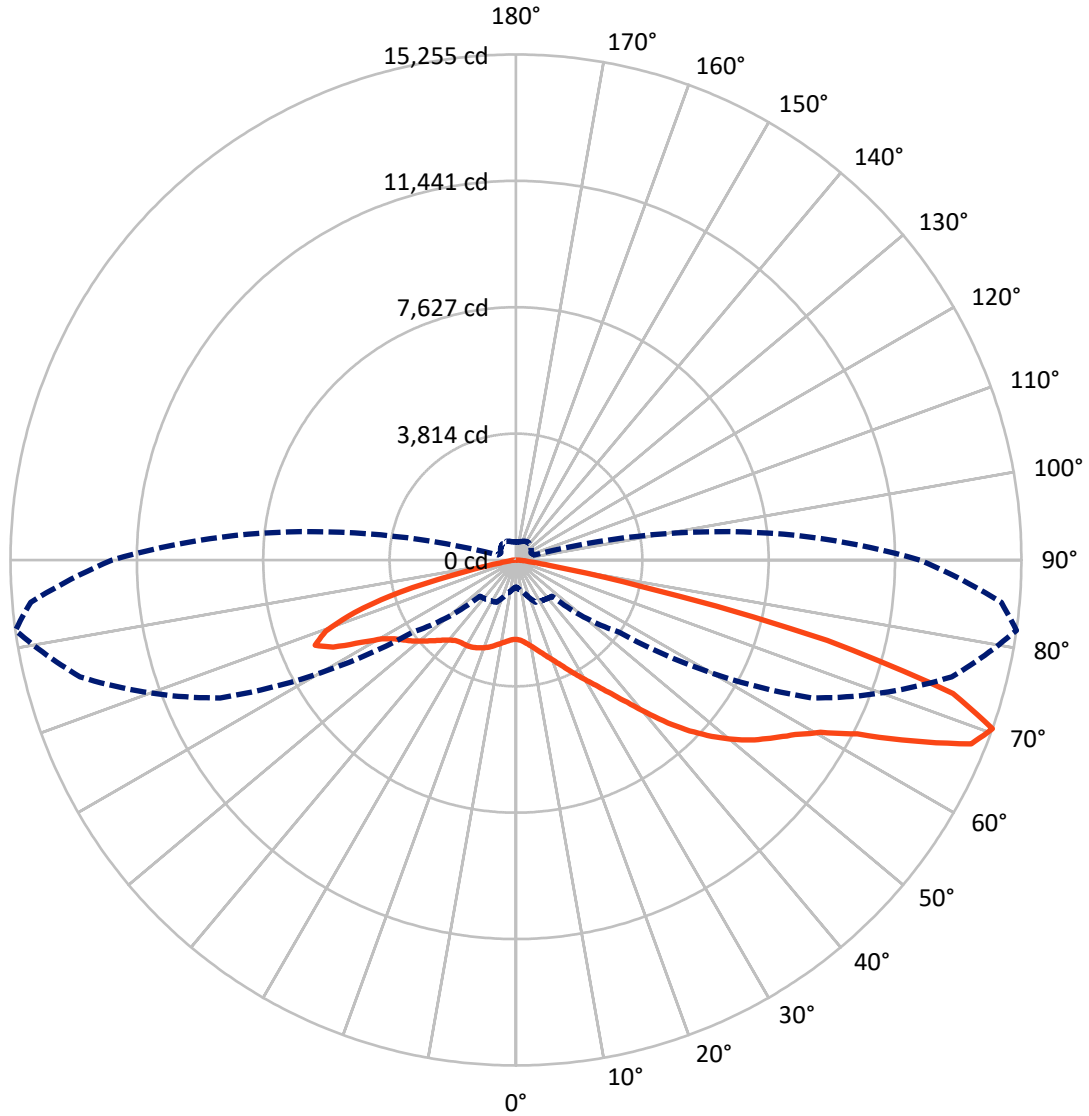
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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	4024.3	0.0	4024.3
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	12299.7	0.0	12299.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	16324.0	0.0	16324.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.0	1.4
10°-20°	649.2	4.0
20°-30°	1086.1	6.7
30°-40°	1696.8	10.4
40°-50°	2702.3	16.6
50°-60°	3760.5	23.0
60°-70°	3933.7	24.1
70°-80°	2056.0	12.6
80°-90°	213.5	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°	16324.0	100.0
0°-180°	16324.0	100.0

Coefficient of Utilization



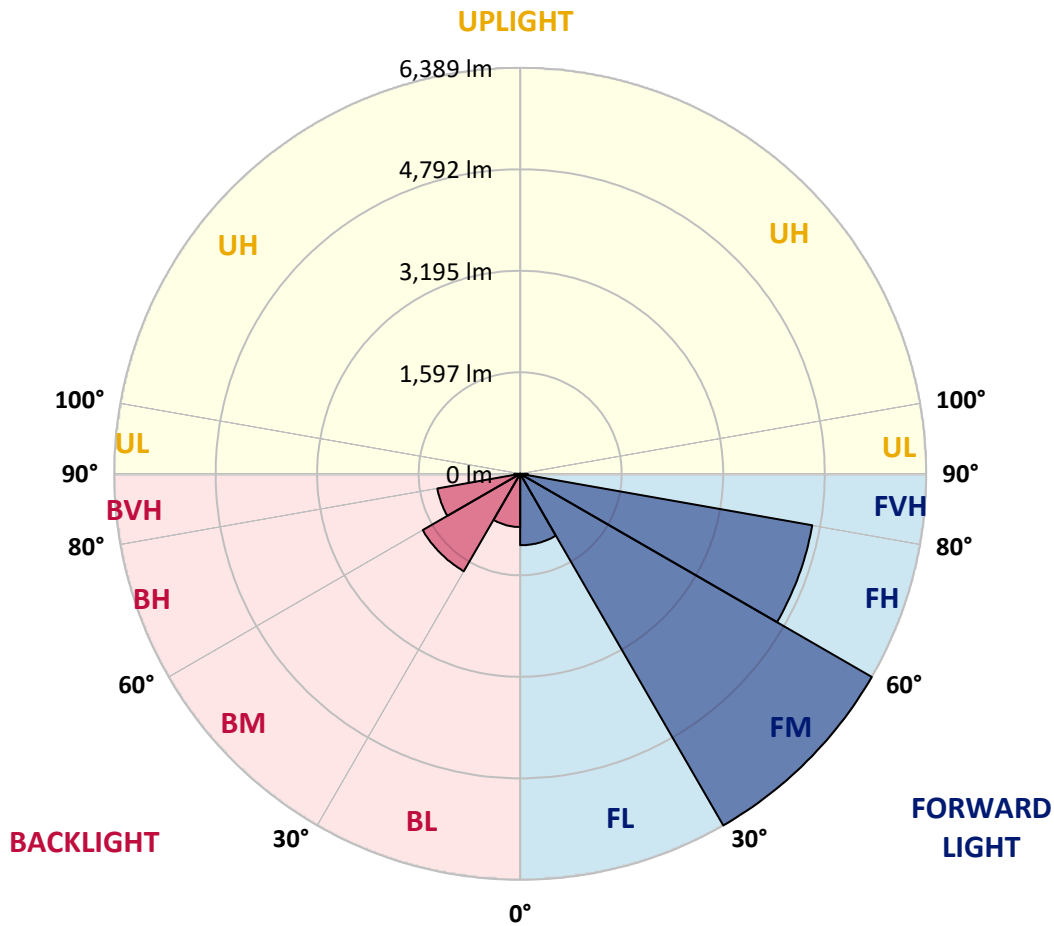
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1124.1	6.9			
FM (30°-60°)	6389.0	39.1			
FH (60°-80°)	4667.1	28.6			G2/5000
FVH (80°-90°)	119.5	0.7			G2/225
BL (0°-30°)	837.2	5.1	B2/1000		
BM (30°-60°)	1770.5	10.8	B2/2500		
BH (60°-80°)	1322.6	8.1	B3/2500		G3/2500
BVH (80°-90°)	94.0	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°	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3
2.5°	2450.5	2464.3	2460.0	2455.7	2455.7	2449.6	2448.7	2440.1	2433.1	2421.9	2419.3
5°	2481.7	2496.4	2494.6	2498.1	2509.4	2512.0	2514.6	2509.4	2495.5	2481.7	2475.6
7.5°	2453.9	2470.4	2475.6	2496.4	2531.0	2562.2	2585.6	2595.1	2582.1	2562.2	2552.7
10°	2360.4	2378.6	2396.8	2446.1	2507.6	2581.3	2643.6	2680.9	2678.3	2659.2	2642.8
12.5°	2170.7	2189.7	2228.7	2324.9	2437.5	2567.4	2683.5	2761.4	2788.3	2774.4	2745.8
15°	2019.1	2035.6	2065.0	2163.8	2310.1	2507.6	2698.2	2849.8	2918.2	2910.4	2875.8
17.5°	2014.8	2021.7	2039.9	2086.7	2199.3	2414.1	2682.6	2936.4	3067.2	3066.3	3023.0
20°	2091.0	2093.6	2104.0	2113.5	2177.6	2343.1	2642.8	3008.3	3234.4	3234.4	3187.6
22.5°	2196.7	2194.9	2205.3	2196.7	2227.9	2337.0	2617.6	3071.5	3420.6	3434.5	3375.6
25°	2355.2	2346.5	2343.9	2324.0	2330.1	2393.3	2645.4	3143.4	3641.5	3670.1	3596.5
27.5°	2566.5	2552.7	2543.2	2497.2	2481.7	2509.4	2730.3	3230.0	3887.5	3936.9	3843.3
30°	2842.0	2816.9	2803.0	2723.3	2667.0	2671.4	2858.5	3345.3	4144.8	4224.4	4105.8
32.5°	3217.9	3178.9	3141.7	3010.9	2907.8	2874.0	3023.9	3504.6	4423.7	4551.0	4398.5
35°	3638.9	3607.7	3567.9	3366.0	3207.5	3129.6	3247.4	3727.2	4750.2	4952.0	4753.7
37.5°	4044.3	4017.4	4036.5	3764.5	3560.1	3446.6	3540.1	4026.1	5153.0	5451.0	5198.9
40°	4463.5	4442.7	4445.3	4185.5	3947.3	3819.9	3895.3	4401.1	5614.7	6044.3	5734.2
42.5°	4919.1	4903.5	4851.6	4621.2	4353.5	4234.8	4304.1	4834.2	6110.2	6720.0	6321.5
45°	5429.3	5419.8	5371.3	5107.1	4800.5	4667.1	4760.6	5312.4	6608.2	7355.7	6911.4
47.5°	5870.2	5878.0	5871.9	5649.3	5331.4	5135.7	5247.4	5811.3	7071.6	7953.4	7477.0
50°	6082.4	6123.1	6182.9	6113.6	5916.1	5716.9	5738.6	6292.9	7513.4	8513.9	8019.3
52.5°	5971.6	6048.7	6211.5	6322.4	6398.6	6357.0	6299.0	6771.1	7929.2	9019.7	8532.0
55°	5558.4	5666.7	5936.9	6204.6	6593.5	6895.8	6972.0	7301.2	8334.5	9464.9	9017.1
57.5°	4805.7	4981.5	5224.0	5765.4	6420.3	7156.5	7756.8	8036.6	8764.2	9940.5	9524.7
60°	3515.0	3750.6	4052.1	4857.6	5813.9	7017.1	8424.6	9166.1	9374.9	10556.3	10185.6
62.5°	2249.5	2395.0	2672.2	3431.0	4530.2	6302.4	8629.1	10578.0	10410.0	11566.3	11176.5
65°	1540.1	1633.6	1887.4	2313.6	2928.6	4691.3	8081.6	11636.5	12054.0	13167.1	12870.8
67.5°	1119.1	1190.2	1406.7	1780.0	1908.2	2776.2	6271.3	11588.0	13652.1	14816.3	14355.5
70°	816.0	866.2	1048.1	1406.7	1468.2	1544.4	3799.1	9850.4	13617.5	15254.6	14702.8
72.5°	604.6	639.3	761.4	1091.4	1188.4	1042.9	1880.5	7159.1	11701.5	13797.7	13355.0
75°	437.4	463.4	553.5	835.0	951.1	794.3	938.1	4183.7	8162.2	9705.7	9783.7
77.5°	334.4	354.3	413.2	611.5	761.4	595.9	582.1	1924.7	3870.2	3889.2	4107.5
80°	268.5	281.5	313.6	430.5	583.8	446.1	379.4	777.0	1223.1	1035.1	1086.2
82.5°	197.5	219.1	265.1	302.3	417.5	307.5	231.3	392.4	465.1	400.2	403.6
85°	112.6	127.3	160.2	216.5	266.8	188.0	132.5	174.1	216.5	177.6	158.5
87.5°	39.8	52.0	56.3	84.9	116.1	78.0	51.1	50.2	71.0	52.8	44.2
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°	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3	2393.3
2.5°	2410.6	2406.3	2389.0	2365.6	2341.3	2317.9	2310.1	2293.7	2282.4	2276.4	2283.3
5°	2459.1	2445.3	2404.6	2352.6	2298.0	2239.1	2197.5	2159.4	2131.7	2105.7	2116.1
7.5°	2528.4	2504.2	2434.0	2343.1	2246.0	2148.2	2075.4	2020.0	1982.7	1958.5	1963.7
10°	2609.0	2571.7	2464.3	2328.3	2178.5	2038.2	1952.4	1904.8	1881.4	1868.4	1871.9
12.5°	2701.7	2648.8	2495.5	2294.6	2075.4	1915.2	1856.3	1842.4	1843.3	1844.1	1845.9
15°	2816.0	2742.4	2520.6	2220.9	1941.1	1820.7	1810.4	1832.9	1856.3	1867.5	1866.7
17.5°	2945.1	2841.1	2525.0	2099.7	1809.5	1760.1	1793.0	1841.5	1877.0	1892.6	1896.1
20°	3083.7	2941.6	2493.8	1928.2	1701.2	1710.7	1769.6	1832.0	1871.0	1890.9	1896.1
22.5°	3242.2	3049.0	2419.3	1748.0	1612.9	1657.0	1726.3	1787.0	1827.7	1847.6	1852.8
25°	3423.2	3169.4	2302.4	1596.4	1536.6	1596.4	1665.7	1715.9	1748.9	1767.0	1772.2
27.5°	3624.2	3295.0	2146.4	1476.0	1469.9	1534.0	1591.2	1630.2	1647.5	1661.4	1666.6
30°	3826.0	3409.4	1957.6	1385.0	1411.9	1472.5	1513.2	1530.6	1535.8	1538.4	1544.4
32.5°	4044.3	3508.1	1759.2	1309.7	1356.5	1412.8	1437.0	1444.8	1420.6	1404.1	1409.3
35°	4308.5	3613.8	1565.2	1249.9	1301.9	1350.4	1358.2	1351.3	1322.7	1288.9	1290.6
37.5°	4635.0	3745.4	1410.2	1207.5	1250.8	1282.8	1273.3	1271.6	1274.2	1234.3	1236.9
40°	5035.2	3916.9	1296.7	1174.6	1209.2	1216.1	1189.3	1204.0	1217.0	1156.4	1158.1
42.5°	5479.6	4124.0	1224.8	1152.0	1174.6	1158.1	1116.5	1133.0	1131.3	1051.6	1050.7
45°	5932.6	4349.2	1199.7	1135.6	1142.5	1109.6	1063.7	1068.0	1031.6	959.7	962.3
47.5°	6383.0	4590.8	1215.3	1121.7	1102.7	1065.4	1029.9	1010.9	957.1	903.4	903.4
50°	6824.8	4844.6	1272.4	1094.0	1048.1	1026.4	1000.5	966.7	909.5	863.6	860.1
52.5°	7234.5	5100.2	1336.5	1048.1	979.7	992.7	976.2	937.2	880.9	834.1	835.0
55°	7622.5	5355.7	1361.7	984.9	915.6	963.2	953.7	881.8	814.2	776.1	772.6
57.5°	8045.2	5663.2	1333.9	904.3	863.6	929.4	893.0	813.4	774.4	745.8	743.2
60°	8630.8	6145.7	1274.2	804.7	814.2	879.2	816.8	783.9	741.5	709.4	707.7
62.5°	9603.5	7045.6	1178.0	706.0	756.2	804.7	780.4	747.5	704.2	673.0	673.0
65°	11041.4	8296.4	997.0	628.9	691.2	731.9	741.5	708.5	663.5	630.6	632.3
67.5°	12254.1	9081.2	754.5	564.8	624.5	673.0	699.9	667.8	620.2	588.1	589.0
70°	12187.4	8511.3	576.0	501.5	565.6	615.0	649.6	624.5	573.4	543.1	545.7
72.5°	10824.9	7120.1	466.0	437.4	505.9	554.4	595.9	576.9	524.9	495.5	495.5
75°	7952.6	5054.3	372.5	372.5	431.4	491.1	537.0	524.9	477.3	456.5	450.4
77.5°	3352.2	2120.5	291.9	309.2	358.6	421.8	479.0	483.3	441.8	467.7	424.4
80°	891.3	584.7	222.6	243.4	281.5	348.2	416.6	414.9	369.9	345.6	321.4
82.5°	339.5	230.4	158.5	171.5	203.6	266.8	330.0	340.4	295.4	255.5	255.5
85°	130.8	98.7	97.9	103.1	118.7	176.7	249.5	258.1	222.6	188.8	194.9
87.5°	33.8	29.5	36.4	34.6	54.6	94.4	142.9	148.1	136.0	78.8	112.6
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)