

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: P883647

Luminaire Tested: **NAV-SB4A-830-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883647
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-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15761 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

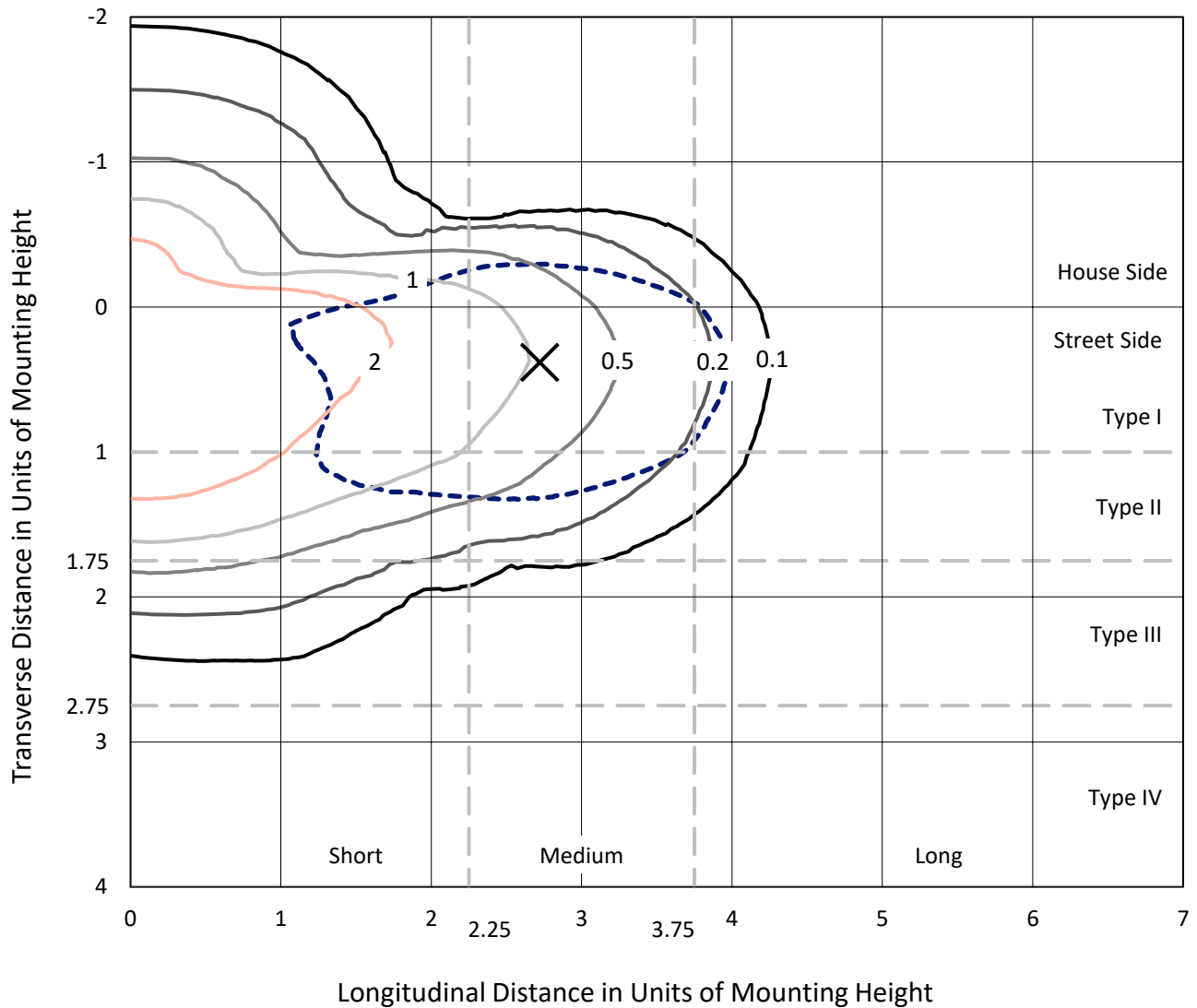
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

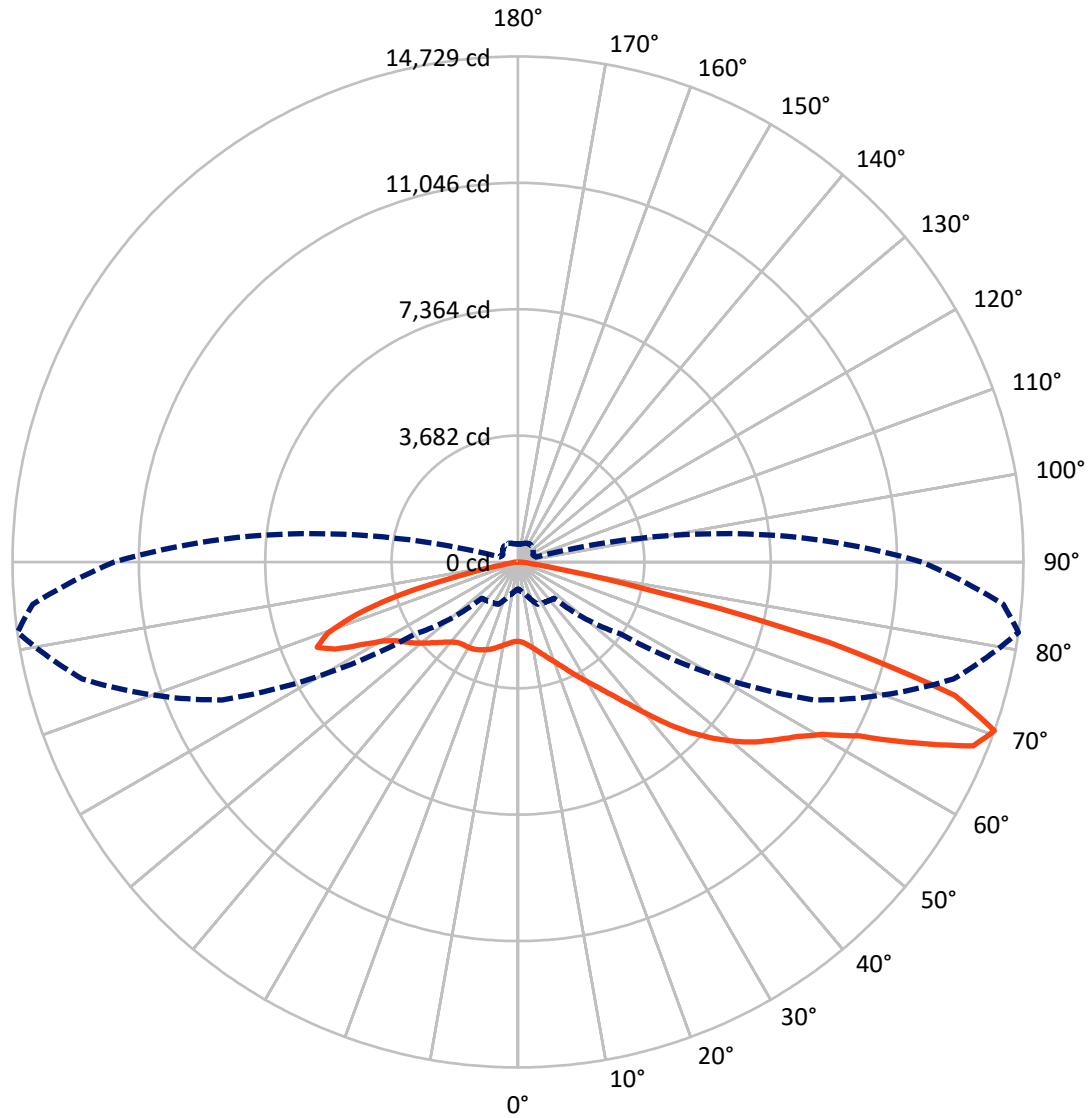
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	3885.5	0.0	3885.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	11875.5	0.0	11875.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	15761.0	0.0	15761.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.2	1.4
10°-20°	626.8	4.0
20°-30°	1048.6	6.7
30°-40°	1638.2	10.4
40°-50°	2609.1	16.6
50°-60°	3630.8	23.0
60°-70°	3798.0	24.1
70°-80°	1985.0	12.6
80°-90°	206.1	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°	15761.0	100.0
0°-180°	15761.0	100.0

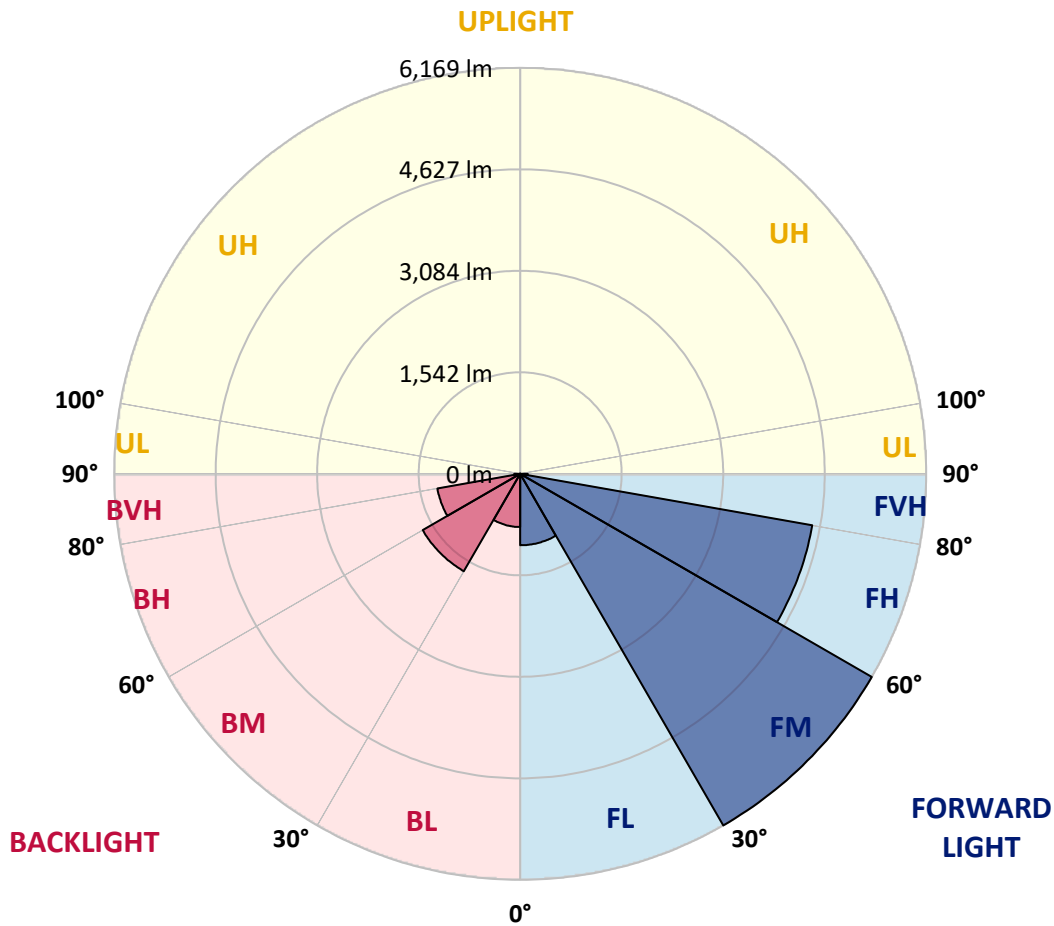


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1085.3	6.9			
FM (30°-60°)	6168.7	39.1			
FH (60°-80°)	4506.1	28.6			G2/5000
FVH (80°-90°)	115.4	0.7			G2/225
BL (0°-30°)	808.3	5.1	B2/1000		
BM (30°-60°)	1709.5	10.8	B2/2500		
BH (60°-80°)	1277.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	90.7	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°	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8
2.5°	2366.0	2379.3	2375.2	2371.0	2371.0	2365.1	2364.3	2355.9	2349.2	2338.4	2335.8
5°	2396.1	2410.3	2408.6	2412.0	2422.8	2425.3	2427.8	2422.8	2409.4	2396.1	2390.2
7.5°	2369.3	2385.2	2390.2	2410.3	2443.7	2473.8	2496.4	2505.6	2493.1	2473.8	2464.6
10°	2279.0	2296.5	2314.1	2361.8	2421.2	2492.2	2552.5	2588.4	2585.9	2567.5	2551.6
12.5°	2095.8	2114.2	2151.9	2244.7	2353.4	2478.9	2590.9	2666.2	2692.1	2678.7	2651.1
15°	1949.5	1965.4	1993.8	2089.1	2230.5	2421.2	2605.1	2751.5	2817.6	2810.0	2776.6
17.5°	1945.3	1952.0	1969.5	2014.7	2123.4	2330.8	2590.1	2835.1	2961.4	2960.6	2918.8
20°	2018.9	2021.4	2031.4	2040.6	2102.5	2262.3	2551.6	2904.5	3122.8	3122.8	3077.7
22.5°	2120.9	2119.2	2129.3	2120.9	2151.0	2256.4	2527.4	2965.6	3302.6	3316.0	3259.1
25°	2274.0	2265.6	2263.1	2243.9	2249.7	2310.8	2554.1	3035.0	3515.9	3543.5	3472.4
27.5°	2478.0	2464.6	2455.4	2411.1	2396.1	2422.8	2636.1	3118.6	3753.4	3801.1	3710.8
30°	2744.0	2719.7	2706.3	2629.4	2575.0	2579.2	2759.9	3229.9	4001.8	4078.7	3964.2
32.5°	3106.9	3069.3	3033.3	2907.1	2807.5	2774.9	2919.6	3383.8	4271.1	4394.0	4246.8
35°	3513.4	3483.3	3444.8	3250.0	3096.9	3021.6	3135.4	3598.7	4586.4	4781.3	4589.7
37.5°	3904.8	3878.9	3897.3	3634.7	3437.3	3327.7	3418.1	3887.2	4975.3	5263.0	5019.6
40°	4309.6	4289.5	4292.0	4041.1	3811.1	3688.2	3760.9	4249.4	5421.0	5835.9	5536.5
42.5°	4749.5	4734.4	4684.2	4461.8	4203.4	4088.8	4155.7	4667.5	5899.4	6488.2	6103.5
45°	5242.1	5232.9	5186.0	4931.0	4634.9	4506.1	4596.4	5129.2	6380.3	7102.1	6673.0
47.5°	5667.8	5675.3	5669.4	5454.5	5147.6	4958.6	5066.4	5610.9	6827.7	7679.1	7219.1
50°	5872.7	5912.0	5969.7	5902.8	5712.1	5519.7	5540.6	6075.9	7254.3	8220.2	7742.7
52.5°	5765.6	5840.0	5997.3	6104.3	6177.9	6137.8	6081.7	6537.5	7655.7	8708.6	8237.8
55°	5366.7	5471.2	5732.2	5990.6	6366.1	6658.0	6731.6	7049.4	8047.1	9138.5	8706.1
57.5°	4639.9	4809.7	5043.9	5566.6	6198.8	6909.7	7489.3	7759.4	8461.9	9597.6	9196.2
60°	3393.8	3621.3	3912.3	4690.1	5613.4	6775.1	8134.1	8850.0	9051.5	10192.3	9834.3
62.5°	2171.9	2312.4	2580.1	3312.7	4374.0	6085.1	8331.4	10213.2	10050.9	11167.4	10791.1
65°	1487.0	1577.3	1822.3	2233.8	2827.6	4529.5	7802.9	11235.2	11638.3	12712.9	12426.9
67.5°	1080.5	1149.1	1358.2	1718.6	1842.4	2680.4	6055.0	11188.3	13181.3	14305.3	13860.4
70°	787.8	836.3	1012.0	1358.2	1417.6	1491.2	3668.1	9510.7	13147.8	14728.5	14195.7
72.5°	583.8	617.2	735.1	1053.8	1147.4	1006.9	1815.7	6912.2	11297.9	13321.8	12894.4
75°	422.3	447.4	534.4	806.2	918.3	766.9	905.7	4039.4	7880.7	9371.0	9446.3
77.5°	322.8	342.1	398.9	590.4	735.1	575.4	562.0	1858.3	3736.7	3755.1	3965.8
80°	259.3	271.8	302.7	415.7	563.7	430.7	366.3	750.2	1180.9	999.4	1048.7
82.5°	190.7	211.6	255.9	291.9	403.1	296.9	223.3	378.9	449.1	386.4	389.7
85°	108.7	122.9	154.7	209.1	257.6	181.5	128.0	168.1	209.1	171.4	153.0
87.5°	38.5	50.2	54.4	82.0	112.1	75.3	49.3	48.5	68.6	51.0	42.7
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°	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8	2310.8
2.5°	2327.5	2323.3	2306.6	2284.0	2260.6	2238.0	2230.5	2214.6	2203.7	2197.9	2204.5
5°	2374.3	2360.9	2321.6	2271.5	2218.8	2161.9	2121.8	2085.0	2058.2	2033.1	2043.1
7.5°	2441.2	2417.8	2350.1	2262.3	2168.6	2074.1	2003.8	1950.3	1914.3	1890.9	1895.9
10°	2519.0	2483.0	2379.3	2248.0	2103.4	1967.9	1885.1	1839.1	1816.5	1803.9	1807.3
12.5°	2608.5	2557.5	2409.4	2215.4	2003.8	1849.1	1792.2	1778.9	1779.7	1780.5	1782.2
15°	2718.9	2647.8	2433.7	2144.3	1874.2	1758.0	1747.9	1769.7	1792.2	1803.1	1802.3
17.5°	2843.5	2743.1	2437.9	2027.2	1747.1	1699.4	1731.2	1778.0	1812.3	1827.4	1830.7
20°	2977.3	2840.2	2407.8	1861.7	1642.5	1651.7	1708.6	1768.8	1806.5	1825.7	1830.7
22.5°	3130.4	2943.9	2335.8	1687.7	1557.2	1599.9	1666.8	1725.3	1764.6	1783.9	1788.9
25°	3305.1	3060.1	2222.9	1541.3	1483.6	1541.3	1608.2	1656.8	1688.5	1706.1	1711.1
27.5°	3499.2	3181.4	2072.4	1425.1	1419.2	1481.1	1536.3	1574.0	1590.7	1604.1	1609.1
30°	3694.0	3291.8	1890.1	1337.3	1363.2	1421.7	1461.1	1477.8	1482.8	1485.3	1491.2
32.5°	3904.8	3387.1	1698.6	1264.5	1309.7	1364.0	1387.5	1395.0	1371.6	1355.7	1360.7
35°	4159.9	3489.1	1511.2	1206.8	1257.0	1303.8	1311.4	1304.7	1277.1	1244.4	1246.1
37.5°	4475.2	3616.3	1361.5	1165.8	1207.7	1238.6	1229.4	1227.7	1230.2	1191.8	1194.3
40°	4861.5	3781.9	1252.0	1134.1	1167.5	1174.2	1148.3	1162.5	1175.0	1116.5	1118.2
42.5°	5290.6	3981.7	1182.6	1112.3	1134.1	1118.2	1078.0	1093.9	1092.2	1015.3	1014.5
45°	5728.0	4199.2	1158.3	1096.4	1103.1	1071.3	1027.0	1031.2	996.1	926.6	929.2
47.5°	6162.9	4432.5	1173.4	1083.0	1064.6	1028.7	994.4	976.0	924.1	872.3	872.3
50°	6589.4	4677.6	1228.6	1056.3	1012.0	991.0	966.0	933.3	878.1	833.8	830.5
52.5°	6985.0	4924.3	1290.4	1012.0	945.9	958.4	942.5	904.9	850.5	805.4	806.2
55°	7359.6	5171.0	1314.7	950.9	884.0	930.0	920.8	851.4	786.1	749.3	746.0
57.5°	7767.8	5467.9	1287.9	873.1	833.8	897.4	862.2	785.3	747.7	720.1	717.6
60°	8333.1	5933.7	1230.2	776.9	786.1	848.9	788.7	756.9	715.9	684.9	683.3
62.5°	9272.3	6802.6	1137.4	681.6	730.1	776.9	753.5	721.7	679.9	649.8	649.8
65°	10660.6	8010.3	962.6	607.2	667.4	706.7	715.9	684.1	640.6	608.8	610.5
67.5°	11831.5	8768.0	728.4	545.3	603.0	649.8	675.7	644.8	598.8	567.9	568.7
70°	11767.1	8217.7	556.2	484.2	546.1	593.8	627.2	603.0	553.6	524.4	526.9
72.5°	10451.5	6874.6	449.9	422.3	488.4	535.2	575.4	557.0	506.8	478.4	478.4
75°	7678.3	4879.9	359.6	359.6	416.5	474.2	518.5	506.8	460.8	440.7	434.9
77.5°	3236.6	2047.3	281.8	298.6	346.2	407.3	462.5	466.7	426.5	451.6	409.8
80°	860.6	564.5	214.9	235.0	271.8	336.2	402.3	400.6	357.1	333.7	310.3
82.5°	327.8	222.5	153.0	165.6	196.5	257.6	318.6	328.7	285.2	246.7	246.7
85°	126.3	95.3	94.5	99.5	114.6	170.6	240.9	249.2	214.9	182.3	188.2
87.5°	32.6	28.4	35.1	33.5	52.7	91.2	138.0	143.0	131.3	76.1	108.7
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)