

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: P961516

Luminaire Tested: **NAV-SB2A-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961516
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8131.3 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

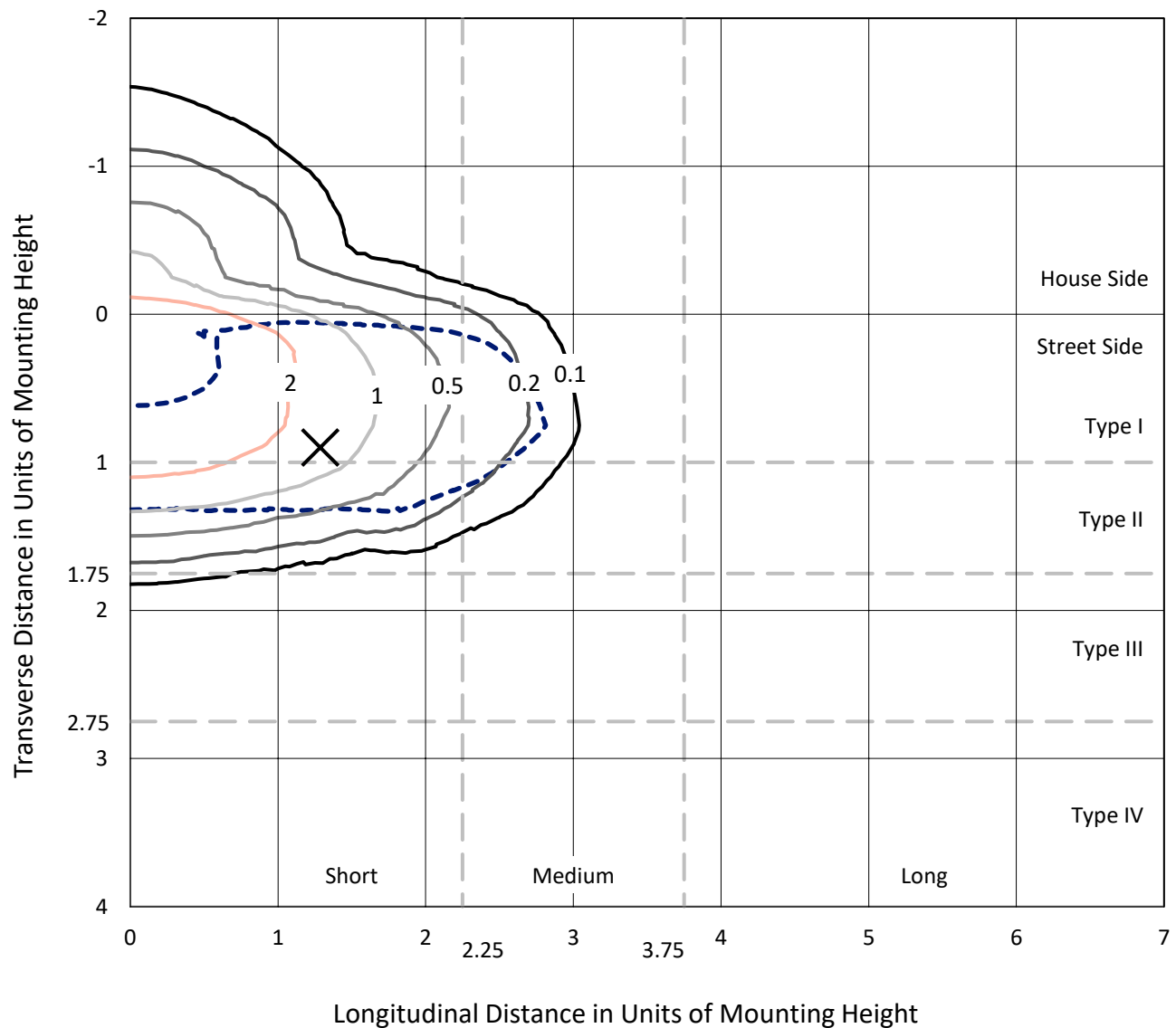
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

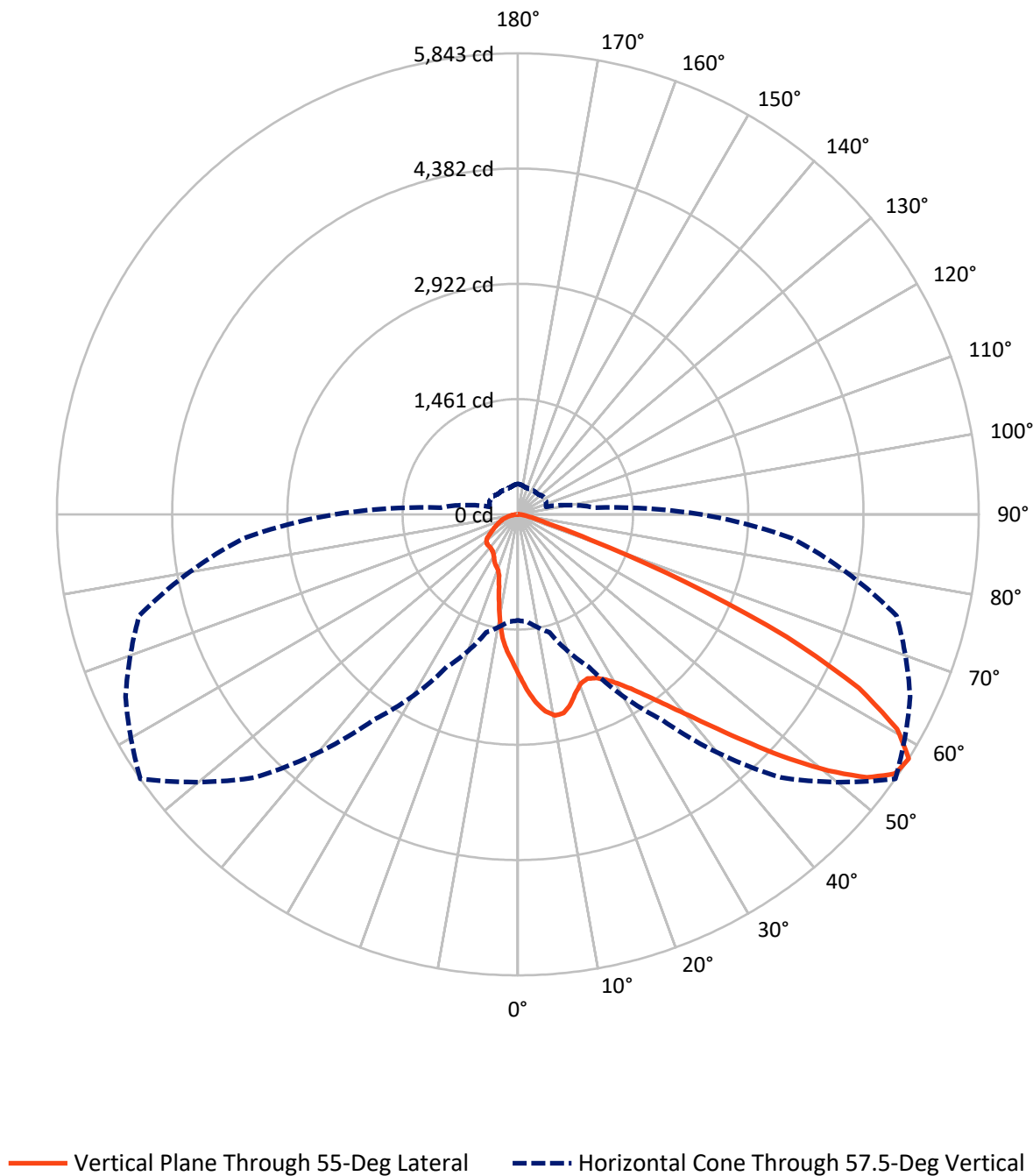
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1471.3	0.0	1471.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	6660.0	0.0	6660.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	8131.3	0.0	8131.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.1	2.3
10°-20°	477.2	5.9
20°-30°	761.5	9.4
30°-40°	1205.6	14.8
40°-50°	1845.3	22.7
50°-60°	1976.5	24.3
60°-70°	1243.4	15.3
70°-80°	367.7	4.5
80°-90°	65.0	0.8
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°	8131.3	100.0
0°-180°	8131.3	100.0

Coefficient of Utilization



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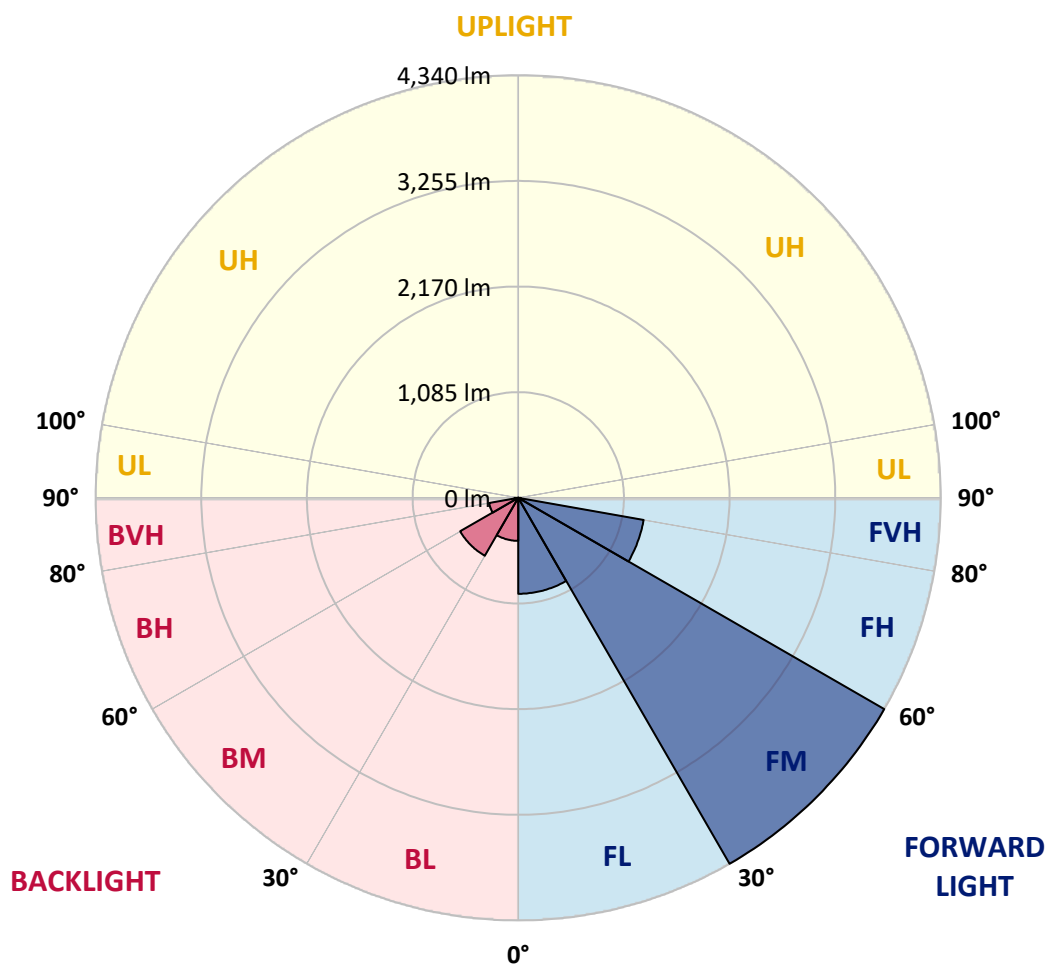
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	985.5	12.1			
FM	(30°-60°)	4339.7	53.4			
FH	(60°-80°)	1307.3	16.1			G1/1800
FVH	(80°-90°)	27.5	0.3			G1/100
BL	(0°-30°)	442.2	5.4	B1/500		
BM	(30°-60°)	687.7	8.5	B1/1000		
BH	(60°-80°)	303.9	3.7	B1/500		G1/500
BVH	(80°-90°)	37.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5
2.5°	2337.6	2335.9	2345.1	2313.6	2292.2	2263.2	2225.0	2176.2	2123.6	2068.1	2044.2
5°	2548.1	2533.5	2543.1	2519.6	2496.1	2452.3	2395.6	2316.1	2219.0	2108.5	2049.6
7.5°	2514.9	2504.9	2529.7	2550.7	2568.3	2562.9	2521.3	2438.1	2312.8	2152.2	2066.9
10°	2247.2	2235.8	2270.8	2343.5	2450.3	2543.1	2593.6	2541.9	2408.6	2200.2	2083.7
12.5°	2010.9	2005.5	2028.6	2087.5	2206.0	2384.3	2584.3	2632.7	2508.3	2256.8	2106.4
15°	1910.1	1903.3	1918.1	1947.9	2023.6	2189.6	2500.3	2694.8	2606.2	2322.4	2142.6
17.5°	1887.8	1880.3	1886.5	1902.1	1950.9	2077.4	2373.3	2725.6	2708.4	2395.6	2172.8
20°	1928.9	1922.7	1923.5	1922.7	1956.7	2057.2	2285.0	2713.8	2797.4	2462.9	2202.2
22.5°	2028.6	2018.1	2018.5	1996.3	2014.7	2092.5	2261.9	2682.2	2876.9	2521.7	2224.5
25°	2190.8	2172.0	2175.8	2119.0	2114.0	2171.6	2298.0	2657.9	2955.9	2568.8	2228.7
27.5°	2412.8	2391.4	2380.0	2295.6	2255.2	2283.8	2371.6	2666.3	3030.7	2609.5	2218.2
30°	2690.2	2664.2	2641.1	2521.3	2448.1	2437.7	2485.9	2721.8	3119.0	2652.4	2200.2
32.5°	3030.3	3000.1	2958.0	2799.2	2696.2	2641.1	2633.9	2820.6	3222.4	2707.0	2190.8
35°	3435.1	3395.6	3335.9	3130.4	3000.1	2887.4	2829.0	2963.1	3364.0	2789.4	2201.4
37.5°	3852.2	3807.6	3752.9	3508.3	3348.1	3182.1	3066.9	3156.4	3552.9	2901.3	2229.2
40°	4236.7	4186.7	4135.9	3918.1	3746.2	3546.1	3358.2	3401.1	3783.6	3034.9	2276.2
42.5°	4463.7	4426.8	4407.4	4289.7	4156.9	3953.8	3720.5	3691.1	4042.9	3188.8	2330.0
45°	4453.6	4438.5	4498.2	4546.9	4515.4	4402.8	4145.1	4011.8	4303.2	3322.0	2379.6
47.5°	4215.7	4225.8	4359.0	4633.1	4753.7	4812.6	4628.5	4326.7	4529.3	3421.7	2401.9
50°	3568.3	3576.7	3885.3	4476.3	4815.1	5146.8	5108.1	4633.9	4704.5	3482.6	2396.9
52.5°	3055.9	3061.5	3193.8	4011.4	4612.5	5314.9	5540.2	4923.6	4832.8	3499.5	2368.7
55°	2301.8	2320.8	2469.1	3147.2	4085.4	5181.7	5803.3	5222.1	4914.0	3501.1	2339.3
57.5°	1344.7	1365.3	1548.6	2136.2	3175.3	4717.2	5843.3	5486.8	4969.0	3487.7	2321.6
60°	658.7	667.5	747.4	1122.8	1958.0	3822.2	5522.2	5615.1	4999.6	3480.5	2320.8
62.5°	443.9	442.6	446.0	554.0	964.7	2455.7	4853.0	5390.6	4983.2	3453.2	2312.4
65°	381.7	377.1	364.5	388.8	499.8	1123.2	3749.6	4720.5	4858.4	3384.7	2254.8
67.5°	329.9	330.4	330.8	323.3	356.9	518.3	2291.4	3718.4	4410.4	3060.1	2032.8
70°	273.3	277.1	278.7	278.7	290.9	340.1	978.2	2548.6	3478.8	2399.3	1637.2
72.5°	248.9	240.9	241.7	237.5	237.5	258.9	393.9	1444.7	2191.8	1349.7	999.2
75°	203.1	208.1	208.9	205.9	196.3	197.5	233.7	606.2	937.8	560.0	493.9
77.5°	175.3	175.3	177.0	174.9	167.3	148.0	155.9	234.9	319.1	229.5	246.7
80°	140.8	140.4	147.5	151.7	140.0	109.3	99.6	129.9	141.7	100.9	128.2
82.5°	68.5	72.7	101.3	115.6	106.4	79.0	61.0	80.7	75.6	44.6	57.6
85°	40.0	37.8	45.4	64.3	61.0	43.8	29.4	42.0	39.5	22.7	23.2
87.5°	12.6	11.8	9.2	21.8	17.6	12.2	8.0	12.2	11.0	5.0	5.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5	2037.5
2.5°	2014.3	1964.7	1915.5	1870.5	1843.3	1825.6	1807.9	1788.2	1780.6	1769.3
5°	1994.1	1898.3	1813.0	1739.4	1672.6	1620.0	1567.1	1524.2	1504.9	1517.9
7.5°	1982.4	1843.7	1712.1	1577.2	1447.3	1343.5	1253.1	1189.6	1161.0	1168.2
10°	1971.9	1781.9	1581.4	1368.3	1181.6	1053.0	960.5	912.1	894.1	897.9
12.5°	1962.2	1712.5	1423.7	1143.4	944.9	860.1	833.5	833.9	837.3	839.9
15°	1960.5	1628.8	1247.6	946.6	817.1	811.7	840.3	858.3	868.1	870.9
17.5°	1958.0	1528.8	1068.2	812.5	786.1	823.1	849.5	861.3	868.9	869.3
20°	1947.9	1401.9	902.5	748.7	779.3	811.3	827.7	836.9	843.3	845.3
22.5°	1916.9	1260.6	773.5	720.1	752.5	778.1	797.4	807.9	811.7	814.3
25°	1860.9	1102.6	684.3	692.7	715.0	747.4	762.9	765.1	763.8	767.5
27.5°	1787.8	933.2	628.8	655.8	684.3	712.1	720.5	719.2	716.7	720.9
30°	1699.4	781.0	593.6	614.2	653.2	678.4	686.0	683.1	678.0	682.6
32.5°	1606.2	656.6	564.6	585.2	627.6	652.4	660.0	657.0	653.2	657.0
35°	1519.2	569.6	537.6	565.8	607.4	631.8	641.4	641.9	641.9	646.5
37.5°	1439.3	518.8	515.4	553.6	593.6	615.4	629.2	630.1	612.0	613.3
40°	1365.3	497.2	505.2	545.6	580.0	601.1	602.0	554.8	521.6	520.8
42.5°	1304.7	493.0	508.2	544.8	570.4	571.2	512.0	475.4	466.2	466.6
45°	1248.0	491.8	515.0	544.8	556.2	493.5	453.6	443.9	444.7	448.1
47.5°	1184.6	486.8	516.2	537.2	515.0	438.8	427.1	422.9	421.2	422.0
50°	1115.2	468.7	500.2	522.0	444.3	415.3	400.6	399.3	401.4	402.7
52.5°	1042.0	439.3	472.9	494.8	411.9	394.7	378.3	381.3	390.5	393.5
55°	994.1	404.8	436.8	440.1	389.3	375.4	361.5	368.2	385.5	390.9
57.5°	981.5	368.2	395.5	391.8	360.3	358.5	350.1	356.1	377.9	385.9
60°	977.7	335.5	355.2	352.3	332.1	340.1	337.9	340.9	348.5	351.0
62.5°	948.3	309.3	319.1	314.9	306.9	320.7	325.7	319.5	325.3	328.3
65°	873.5	288.3	283.7	280.7	284.1	296.7	306.9	294.3	299.7	308.1
67.5°	749.9	259.7	247.1	250.5	261.1	267.7	280.7	266.5	271.1	285.5
70°	606.6	223.7	212.3	221.9	232.1	245.9	248.0	238.3	249.3	265.3
72.5°	429.2	187.1	179.1	198.8	202.2	220.3	215.7	211.0	226.1	231.6
75°	297.7	150.9	146.3	161.4	173.6	189.1	185.8	191.3	223.2	225.7
77.5°	188.3	117.3	114.3	124.0	140.8	158.1	163.5	225.7	381.3	396.4
80°	109.3	87.4	84.0	91.6	106.4	122.3	157.6	277.1	251.3	248.5
82.5°	61.0	60.1	55.9	58.0	71.0	88.3	222.8	195.1	158.5	163.5
85°	28.6	35.3	30.2	29.0	40.0	103.4	148.8	111.4	74.0	72.3
87.5°	7.6	6.8	6.8	7.6	16.8	89.1	59.2	47.5	28.2	27.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)