

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: P961547

Luminaire Tested: **NAV-SB2A-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961547
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-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8403 lumens
Efficiency: N/A
Efficacy: 146.6 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

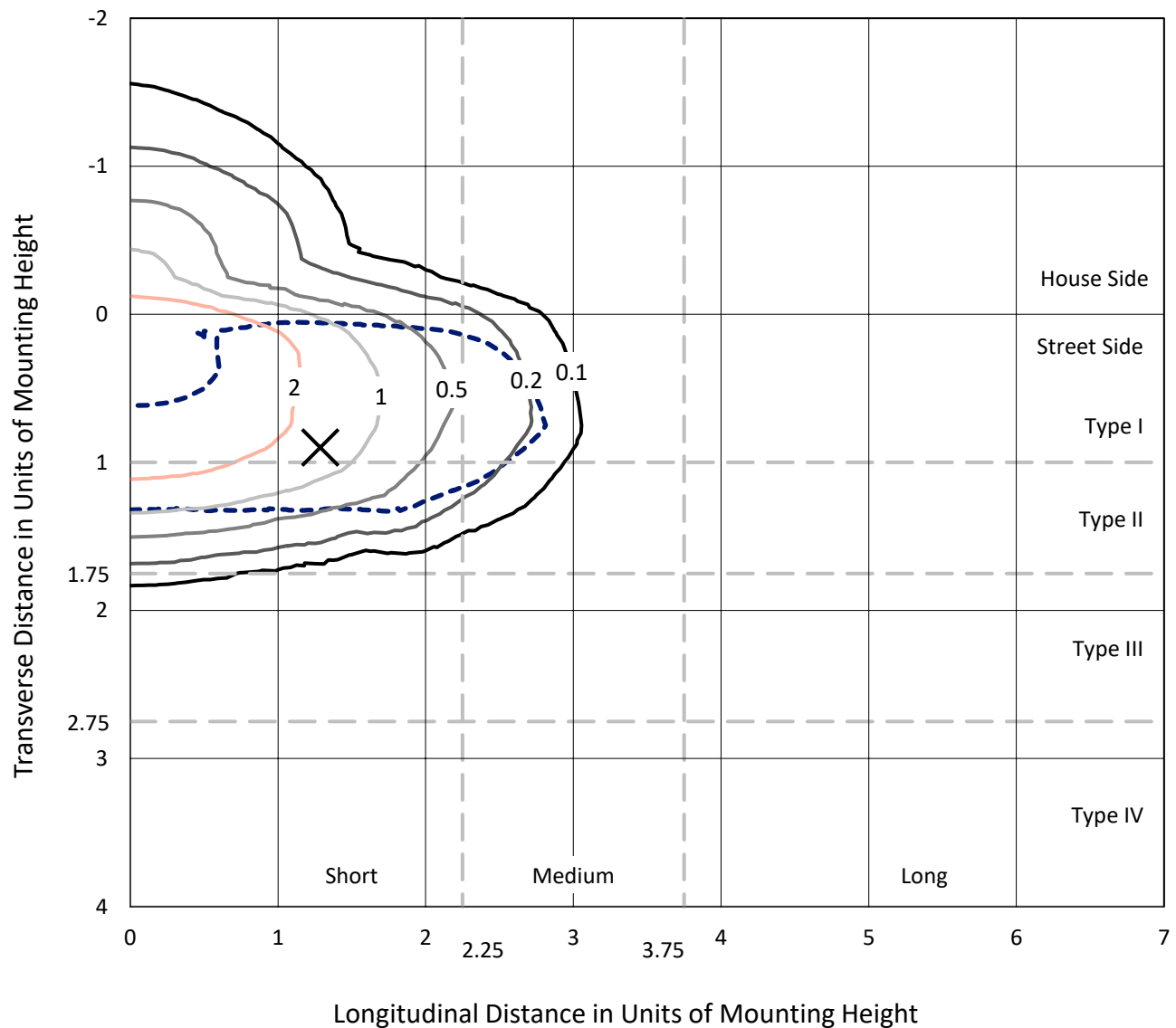


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Iso-Footcandle Lines of Horizontal Illumination

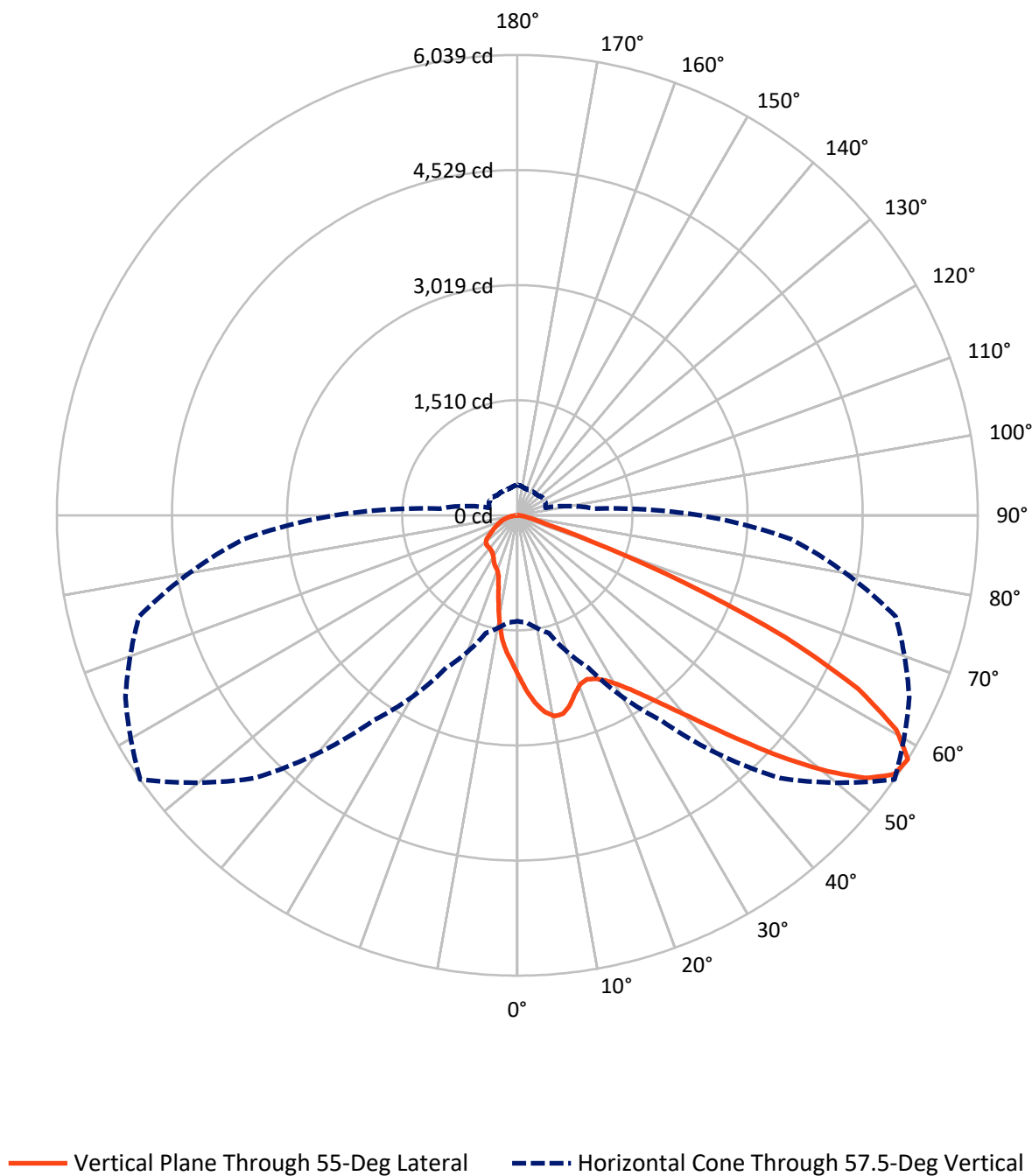
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 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	1520.5	0.0	1520.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	6882.5	0.0	6882.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	8403.0	0.0	8403.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	2.3
10°-20°	493.1	5.9
20°-30°	786.9	9.4
30°-40°	1245.9	14.8
40°-50°	1907.0	22.7
50°-60°	2042.5	24.3
60°-70°	1285.0	15.3
70°-80°	380.0	4.5
80°-90°	67.2	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°	8403.0	100.0
0°-180°	8403.0	100.0

Coefficient of Utilization



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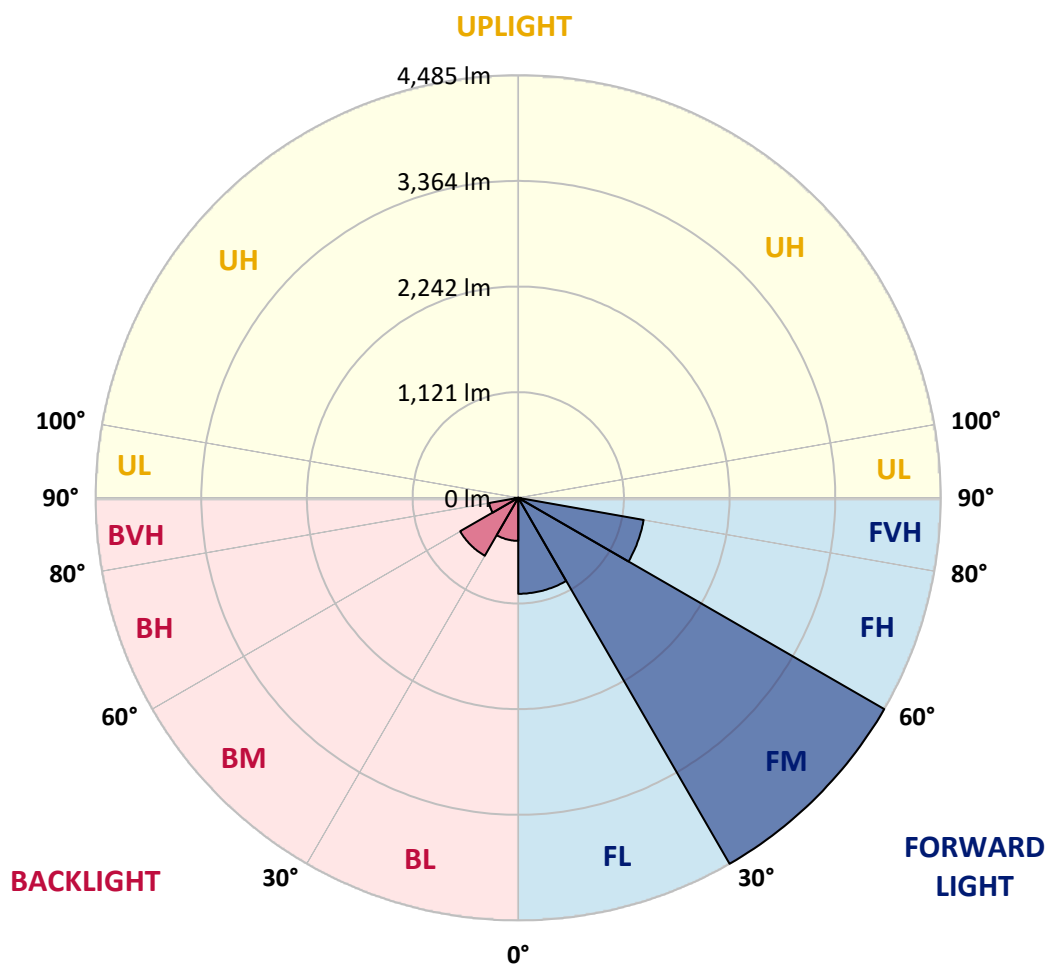
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1018.4	12.1			
FM	(30°-60°)	4484.7	53.4			
FH	(60°-80°)	1350.9	16.1			G1/1800
FVH	(80°-90°)	28.4	0.3			G1/100
BL	(0°-30°)	457.0	5.4	B1/500		
BM	(30°-60°)	710.7	8.5	B1/1000		
BH	(60°-80°)	314.0	3.7	B1/500		G1/500
BVH	(80°-90°)	38.8	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°	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6
2.5°	2415.6	2413.9	2423.5	2390.9	2368.8	2338.7	2299.3	2248.8	2194.5	2137.2	2112.4
5°	2633.3	2618.1	2628.1	2603.7	2579.4	2534.2	2475.6	2393.5	2293.1	2178.9	2118.1
7.5°	2599.0	2588.5	2614.2	2635.9	2654.1	2648.5	2605.4	2519.4	2390.0	2224.0	2135.9
10°	2322.2	2310.6	2346.6	2421.8	2532.1	2628.1	2680.2	2626.8	2489.1	2273.7	2153.3
12.5°	2078.2	2072.4	2096.4	2157.2	2279.7	2463.9	2670.6	2720.7	2592.0	2332.3	2176.8
15°	1973.8	1967.0	1982.1	2013.0	2091.2	2262.8	2583.8	2784.9	2693.3	2400.0	2214.1
17.5°	1950.9	1943.1	1949.5	1965.6	2016.1	2146.8	2452.6	2816.6	2798.8	2475.6	2245.4
20°	1993.4	1987.0	1987.8	1987.0	2022.1	2126.0	2361.4	2804.4	2890.9	2545.1	2275.8
22.5°	2096.4	2085.6	2086.0	2062.9	2082.1	2162.4	2337.5	2771.9	2973.0	2606.0	2298.8
25°	2264.0	2244.5	2248.4	2189.8	2184.6	2244.0	2374.8	2746.7	3054.7	2654.5	2303.2
27.5°	2493.4	2471.3	2459.5	2372.3	2330.5	2360.1	2450.9	2755.4	3132.0	2696.7	2292.3
30°	2780.1	2753.1	2729.3	2605.4	2529.9	2519.0	2569.0	2812.7	3223.2	2741.1	2273.7
32.5°	3131.6	3100.3	3056.9	2892.7	2786.2	2729.3	2721.9	2914.8	3330.0	2797.5	2264.0
35°	3549.9	3509.0	3447.4	3234.9	3100.3	2983.9	2923.5	3062.1	3476.5	2882.6	2274.9
37.5°	3980.8	3934.8	3878.3	3625.4	3460.0	3288.4	3169.3	3261.9	3671.4	2998.2	2303.6
40°	4378.3	4326.5	4274.0	4049.0	3871.3	3664.6	3470.3	3514.7	3910.0	3136.3	2352.3
42.5°	4612.8	4574.6	4554.6	4433.0	4295.7	4086.0	3844.8	3814.4	4178.0	3295.3	2407.8
45°	4602.4	4586.8	4648.5	4698.8	4666.2	4549.9	4283.6	4145.8	4446.9	3433.0	2459.1
47.5°	4356.6	4366.9	4504.7	4787.9	4912.5	4973.4	4783.1	4471.3	4680.6	3535.9	2482.1
50°	3687.5	3696.3	4015.1	4625.8	4976.0	5318.7	5278.7	4788.8	4861.8	3599.0	2476.9
52.5°	3158.0	3163.7	3300.5	4145.4	4766.6	5492.5	5725.3	5088.1	4994.2	3616.3	2447.8
55°	2378.7	2398.3	2551.6	3252.3	4221.9	5354.8	5997.3	5396.5	5078.1	3618.0	2417.4
57.5°	1389.6	1410.9	1600.3	2207.5	3281.4	4874.8	6038.5	5670.1	5134.9	3604.2	2399.1
60°	680.7	689.8	772.3	1160.3	2023.5	3949.9	5706.6	5802.6	5166.7	3596.8	2398.3
62.5°	458.7	457.5	460.9	572.6	996.9	2537.7	5015.1	5570.7	5149.7	3568.5	2389.6
65°	394.4	389.6	376.6	401.8	516.5	1160.7	3874.8	4878.3	5020.8	3497.7	2330.1
67.5°	341.0	341.4	341.8	334.0	368.8	535.6	2367.9	3842.6	4557.7	3162.4	2100.7
70°	282.4	286.3	288.0	288.0	300.6	351.5	1010.9	2633.7	3595.1	2479.5	1692.0
72.5°	257.2	248.9	249.8	245.4	245.4	267.6	407.0	1493.0	2264.9	1394.8	1032.6
75°	209.8	215.0	215.9	212.9	202.8	204.2	241.5	626.4	969.1	578.6	510.4
77.5°	181.1	181.1	182.9	180.7	172.9	152.9	161.1	242.8	329.7	237.2	255.0
80°	145.5	145.0	152.5	156.8	144.6	113.0	102.9	134.3	146.4	104.2	132.5
82.5°	70.8	75.1	104.7	119.4	109.9	81.7	63.0	83.4	78.2	46.0	59.6
85°	41.3	39.1	46.9	66.4	63.0	45.2	30.4	43.5	40.8	23.5	23.9
87.5°	13.0	12.2	9.5	22.5	18.2	12.6	8.3	12.6	11.3	5.2	5.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6	2105.6
2.5°	2081.6	2030.3	1979.6	1933.0	1904.9	1886.6	1868.4	1847.9	1840.1	1828.4
5°	2060.8	1961.7	1873.5	1797.5	1728.5	1674.1	1619.4	1575.1	1555.1	1568.6
7.5°	2048.6	1905.3	1769.3	1629.9	1495.6	1388.4	1294.9	1229.4	1199.8	1207.1
10°	2037.7	1841.4	1634.2	1414.0	1221.1	1088.1	992.6	942.6	923.9	927.8
12.5°	2027.8	1769.8	1471.3	1181.5	976.5	888.8	861.4	861.8	865.3	867.9
15°	2026.0	1683.3	1289.2	978.3	844.5	838.9	868.4	887.0	897.0	900.1
17.5°	2023.5	1579.9	1103.8	839.7	812.3	850.5	877.9	890.1	897.9	898.3
20°	2013.0	1448.7	932.6	773.7	805.3	838.3	855.4	864.9	871.4	873.6
22.5°	1980.8	1302.8	799.3	744.2	777.6	804.1	824.0	834.9	838.9	841.4
25°	1923.1	1139.4	707.1	715.9	738.9	772.3	788.4	790.6	789.2	793.2
27.5°	1847.5	964.3	649.8	677.6	707.1	735.8	744.6	743.2	740.7	745.0
30°	1756.2	807.1	613.4	634.7	675.1	701.1	708.9	705.9	700.7	705.4
32.5°	1659.8	678.6	583.4	604.6	648.5	674.1	682.0	679.0	675.1	679.0
35°	1569.9	588.6	555.6	584.7	627.7	652.9	662.9	663.3	663.3	668.1
37.5°	1487.4	536.1	532.6	572.1	613.4	635.9	650.3	651.2	632.5	633.8
40°	1410.9	513.9	522.1	563.9	599.4	621.2	622.1	573.4	539.0	538.2
42.5°	1348.4	509.5	525.2	562.9	589.5	590.3	529.1	491.3	481.7	482.2
45°	1289.8	508.2	532.2	562.9	574.7	509.9	468.7	458.7	459.6	463.1
47.5°	1224.2	503.1	533.4	555.1	532.2	453.5	441.4	437.0	435.2	436.1
50°	1152.4	484.3	516.9	539.6	459.2	429.2	414.0	412.7	414.8	416.2
52.5°	1076.9	454.0	488.7	511.3	425.7	407.8	390.9	394.0	403.5	406.6
55°	1027.4	418.3	451.3	454.8	402.2	388.0	373.6	380.5	398.3	404.0
57.5°	1014.3	380.5	408.8	404.9	372.3	370.5	361.8	368.0	390.5	398.7
60°	1010.4	346.7	367.1	364.0	343.2	351.5	349.2	352.3	360.1	362.7
62.5°	980.0	319.7	329.7	325.3	317.1	331.5	336.6	330.2	336.2	339.3
65°	902.7	298.0	293.3	290.2	293.7	306.7	317.1	304.1	309.8	318.4
67.5°	775.0	268.4	255.4	258.9	269.8	276.8	290.2	275.4	280.2	295.0
70°	626.8	231.1	219.4	229.4	239.7	254.1	256.2	246.3	257.6	274.1
72.5°	443.5	193.3	185.0	205.5	208.9	227.7	222.8	218.0	233.7	239.3
75°	307.5	155.9	151.2	166.8	179.4	195.5	192.0	197.6	230.6	233.3
77.5°	194.6	121.2	118.2	128.1	145.5	163.3	169.0	233.3	394.0	409.6
80°	113.0	90.4	86.9	94.7	109.9	126.4	162.9	286.3	259.7	256.8
82.5°	63.0	62.1	57.8	60.0	73.4	91.2	230.2	201.5	163.8	169.0
85°	29.5	36.5	31.3	29.9	41.3	106.9	153.8	115.1	76.5	74.7
87.5°	7.8	7.0	7.0	7.8	17.4	92.0	61.3	49.1	29.1	28.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)