

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: P966098

Luminaire Tested: **NAV-SB4B-727-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966098  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-727-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16527.1 lumens  
Efficiency: N/A  
Efficacy: 112.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G4

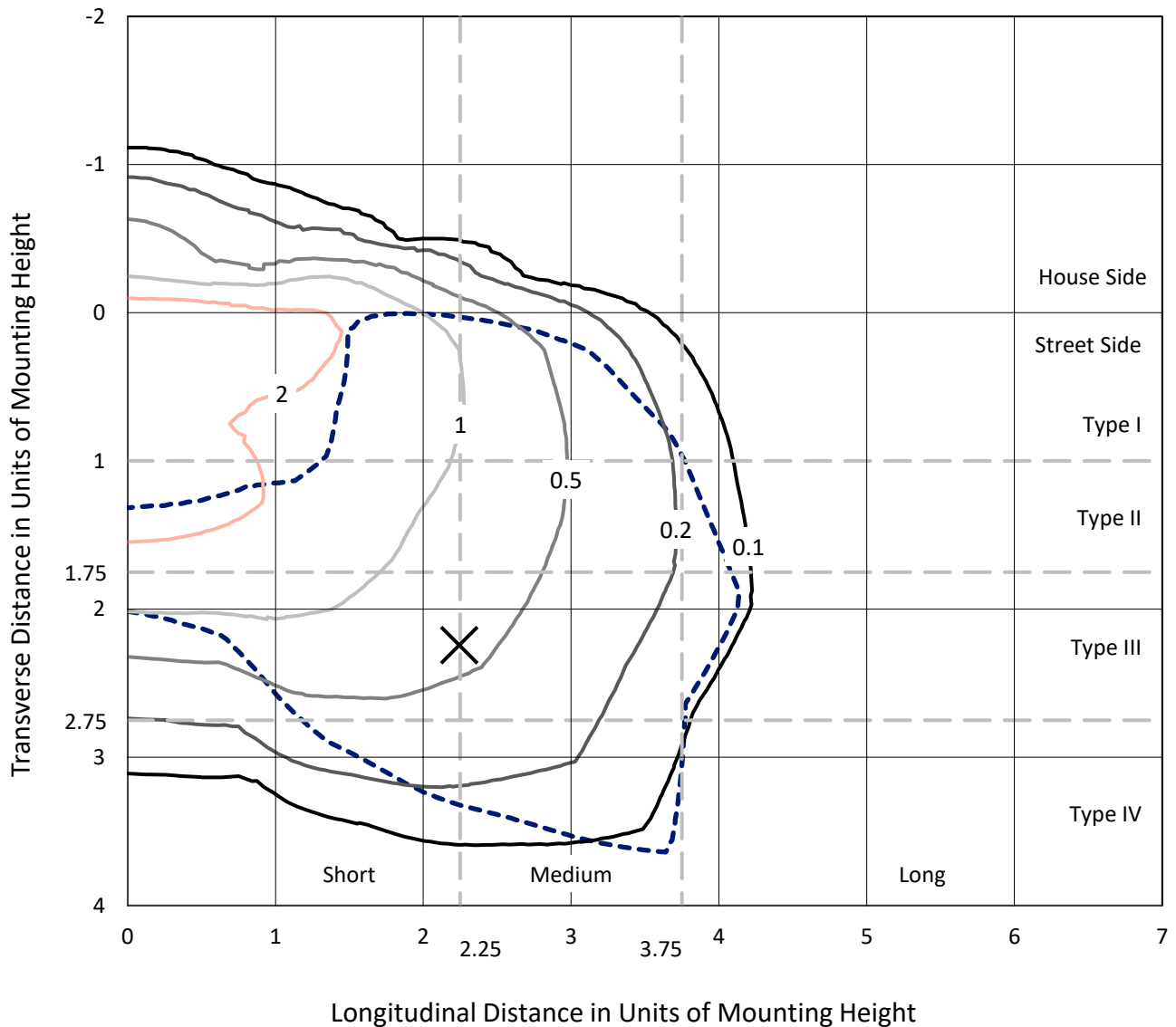
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

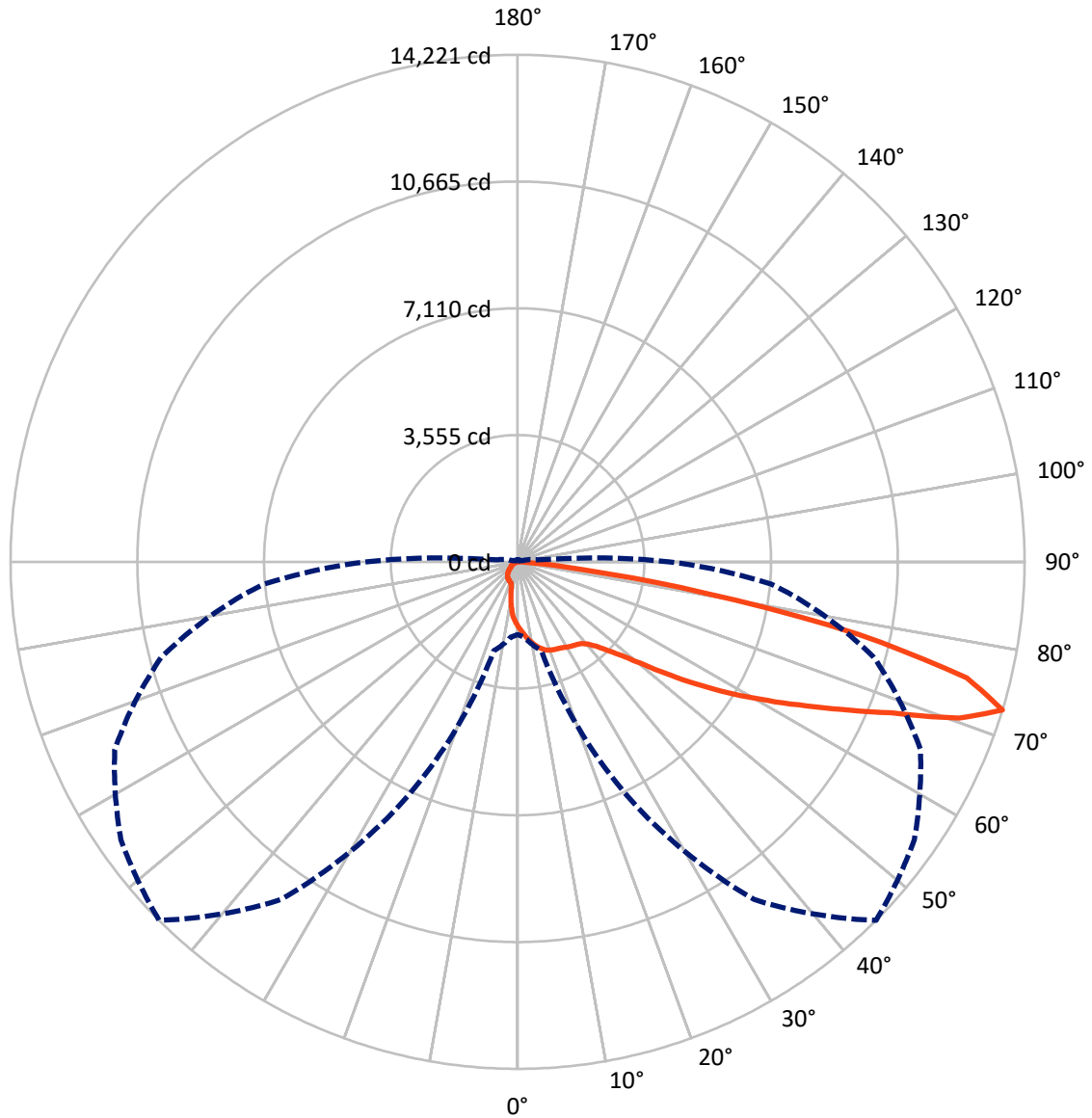
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1736.5	0.0	1736.5
	% Fixture	10.5	0.0	10.5
<b>Street Side</b>	Lumens	14790.5	0.0	14790.5
	% Fixture	89.5	0.0	89.5
<b>Total</b>	Lumens	16527.1	0.0	16527.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.6	1.0
10°-20°	498.6	3.0
20°-30°	818.7	5.0
30°-40°	1161.1	7.0
40°-50°	1919.3	11.6
50°-60°	3447.7	20.9
60°-70°	4787.4	29.0
70°-80°	3472.6	21.0
80°-90°	251.1	1.5
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°	16527.1	100.0
0°-180°	16527.1	100.0

**Coefficient of Utilization**

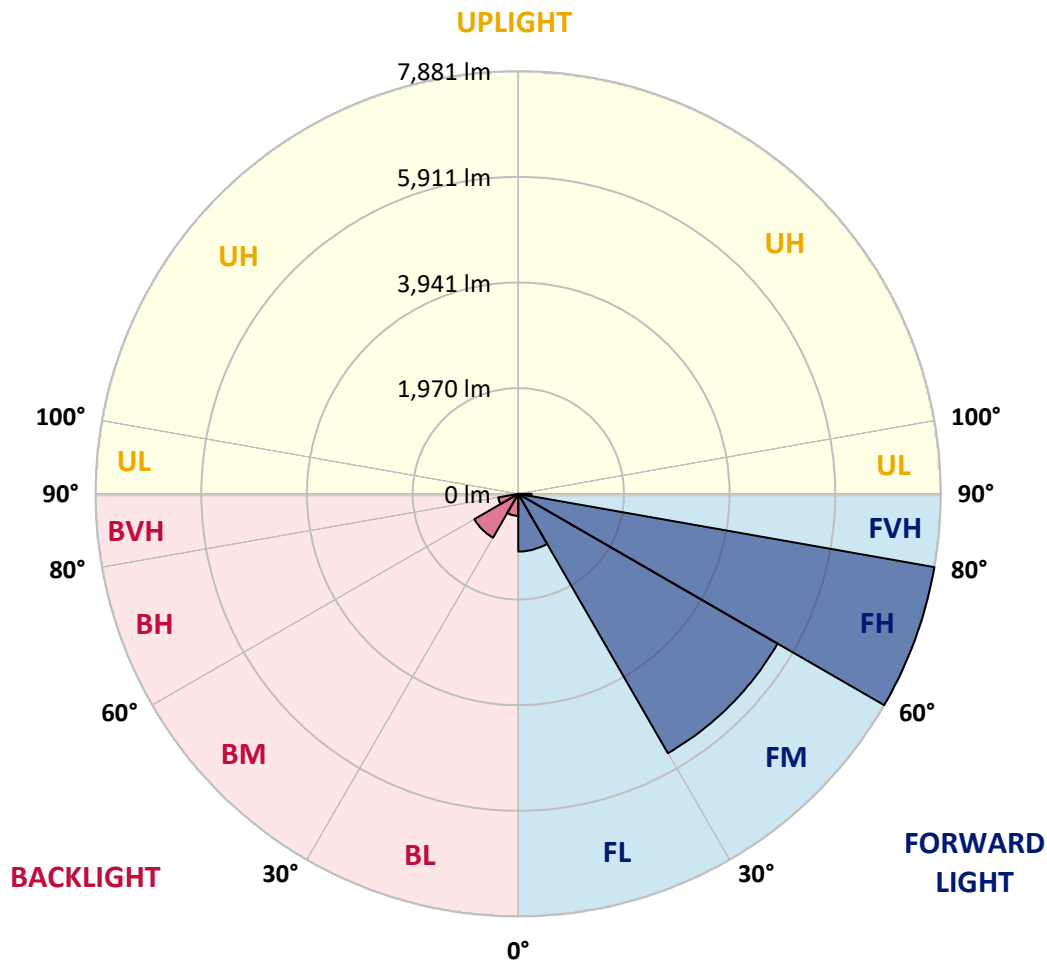


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1076.6	6.5			
FM (30°-60°)	5583.7	33.8			
FH (60°-80°)	7881.3	47.7			G4/12000
FVH (80°-90°)	248.9	1.5			G3/500
BL (0°-30°)	411.3	2.5	B1/500		
BM (30°-60°)	944.4	5.7	B1/1000		
BH (60°-80°)	378.7	2.3	B1/500		G1/500
BVH (80°-90°)	2.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G4**  
 Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6
2.5°	1977.5	1980.9	1978.7	1965.1	1942.6	1930.2	1923.4	1900.9	1886.2	1860.2	1833.1
5°	2159.2	2172.7	2164.8	2137.7	2094.9	2064.4	2055.3	2009.1	1967.4	1918.9	1862.4
7.5°	2352.1	2358.8	2344.2	2309.2	2251.6	2199.8	2191.9	2127.6	2061.0	1986.6	1909.9
10°	2519.0	2526.9	2504.4	2453.5	2388.1	2323.9	2312.6	2241.5	2162.5	2071.2	1973.0
12.5°	2658.8	2666.8	2637.4	2576.5	2504.4	2437.8	2426.5	2352.1	2265.1	2163.7	2041.8
15°	2764.9	2779.6	2740.1	2674.7	2596.8	2530.3	2524.7	2451.3	2366.7	2253.9	2124.2
17.5°	2827.0	2841.6	2804.4	2725.5	2658.8	2602.5	2595.7	2534.8	2455.8	2347.6	2204.3
20°	2837.1	2850.6	2811.2	2742.4	2687.1	2641.9	2638.6	2594.6	2537.1	2433.2	2291.2
22.5°	2806.7	2823.6	2787.5	2732.2	2693.9	2670.2	2665.7	2640.8	2608.1	2520.2	2372.4
25°	2775.1	2788.6	2761.6	2713.1	2692.8	2690.5	2693.9	2689.4	2682.6	2608.1	2467.2
27.5°	2772.8	2787.5	2757.0	2710.8	2699.5	2723.2	2726.6	2748.0	2753.7	2688.3	2558.5
30°	2792.0	2802.1	2772.8	2724.3	2718.7	2772.8	2774.0	2812.3	2821.3	2755.9	2648.7
32.5°	2833.7	2845.0	2815.7	2744.6	2736.7	2812.3	2815.7	2866.5	2881.2	2828.1	2743.5
35°	2931.9	2945.4	2911.6	2801.0	2772.8	2849.5	2859.7	2919.5	2948.8	2904.8	2841.6
37.5°	3176.7	3137.2	3091.0	2915.0	2855.1	2908.2	2925.1	2995.0	3046.9	2996.2	2959.0
40°	3784.7	3660.7	3516.3	3109.0	2999.6	3033.4	3046.9	3116.9	3188.0	3138.3	3120.3
42.5°	4697.4	4550.7	4318.3	3555.7	3217.3	3234.2	3244.3	3305.3	3405.7	3366.2	3370.7
45°	5510.7	5457.7	5220.7	4318.3	3624.5	3541.1	3553.5	3585.0	3732.8	3718.2	3747.5
47.5°	6135.6	6105.2	5922.4	5193.7	4312.7	3916.7	3951.7	3966.3	4179.5	4231.4	4310.4
50°	6616.3	6605.0	6441.4	5972.1	5211.7	4470.6	4483.0	4451.5	4770.7	4899.3	5049.4
52.5°	7069.7	7108.1	6987.3	6695.2	6171.7	5195.9	5193.7	5044.8	5475.8	5669.8	5925.8
55°	7479.2	7492.7	7505.2	7433.0	7137.4	6021.8	6000.2	5756.6	6293.6	6494.4	6771.9
57.5°	7863.9	7869.5	7980.0	8127.8	8142.5	6908.4	6868.9	6576.7	7187.0	7330.3	7500.6
60°	8122.2	8148.1	8381.7	8792.3	8971.7	7823.3	7801.9	7504.0	8096.3	8162.8	8131.2
62.5°	7749.9	7907.9	8496.7	9311.2	9754.5	8837.4	8827.3	8547.5	9052.9	8998.8	8728.0
65°	6273.3	6540.6	7576.2	9662.1	10522.8	9970.1	9984.7	9686.9	10035.5	9859.5	9213.1
67.5°	4388.2	4670.3	5895.4	9690.2	11381.3	11300.0	11384.7	10917.6	11078.9	10684.1	9328.1
70°	3034.5	3180.1	3977.6	9083.3	12050.2	13132.1	13129.8	12429.3	12116.7	11059.7	8741.5
72.5°	2040.7	2116.3	2583.3	7206.3	11558.4	14220.6	14155.2	13584.4	12466.5	10343.4	7141.9
75°	860.7	916.0	1195.8	4049.9	9144.2	13010.2	12833.1	12005.1	11076.7	8144.8	4456.0
77.5°	273.0	296.7	471.5	1449.6	5037.0	9779.4	9592.2	7497.3	7424.0	4086.0	1628.9
80°	129.8	151.2	265.1	582.1	1982.0	5318.9	5293.0	3401.2	3193.6	1103.3	327.2
82.5°	56.4	66.5	146.7	311.4	886.6	1897.5	1935.8	1157.4	957.8	418.5	100.4
85°	18.0	23.7	67.6	143.3	374.5	471.5	465.9	275.2	385.8	227.9	35.0
87.5°	0.0	0.0	22.5	32.7	38.3	27.1	30.4	23.7	107.2	63.1	12.4
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°	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6	1810.6
2.5°	1819.6	1801.5	1770.0	1740.7	1714.7	1688.8	1672.9	1650.4	1648.1	1648.1	1653.7
5°	1832.0	1802.7	1746.3	1686.5	1617.7	1552.3	1486.9	1423.6	1403.3	1388.7	1395.4
7.5°	1868.1	1821.8	1732.8	1618.8	1488.0	1344.7	1244.2	1136.0	1094.3	1071.6	1075.0
10°	1920.0	1856.8	1721.5	1521.8	1309.7	1114.6	971.3	853.9	808.8	789.7	789.7
12.5°	1977.5	1899.7	1701.2	1401.1	1114.6	881.0	741.2	687.0	680.2	680.2	680.2
15°	2046.3	1951.6	1666.1	1258.9	910.4	697.2	647.5	649.7	656.5	661.0	661.0
17.5°	2117.4	2006.8	1610.9	1099.9	729.9	627.2	628.3	631.7	637.3	641.9	641.9
20°	2194.1	2062.1	1537.6	930.7	626.1	606.9	610.3	613.7	618.2	620.4	621.6
22.5°	2276.5	2114.1	1450.7	764.9	591.1	590.0	591.1	594.5	600.1	600.1	602.4
25°	2364.5	2171.6	1351.5	644.1	573.1	573.1	575.3	577.6	582.1	582.1	583.2
27.5°	2454.7	2224.6	1246.5	581.0	557.3	556.2	556.2	559.5	561.8	562.9	564.1
30°	2554.0	2286.7	1141.6	567.4	544.9	539.3	535.9	538.1	540.4	541.5	543.8
32.5°	2655.5	2346.4	1048.0	573.1	532.5	522.3	511.1	508.8	508.8	513.3	516.7
35°	2768.3	2411.8	975.8	592.2	525.7	497.5	479.4	469.2	470.4	477.1	480.5
37.5°	2903.7	2490.9	922.8	609.2	521.2	469.2	439.9	427.5	419.6	427.5	425.3
40°	3080.8	2607.0	884.4	622.7	515.6	436.5	397.1	376.8	362.1	366.6	364.4
42.5°	3341.4	2789.7	869.7	623.8	503.2	398.2	353.1	326.1	304.6	305.8	301.2
45°	3706.9	3078.6	945.4	609.2	476.0	356.5	306.9	270.7	257.2	253.8	249.3
47.5°	4207.7	3499.4	1120.2	578.7	436.5	315.9	261.7	231.2	221.1	215.5	212.1
50°	4879.0	4039.6	1314.3	544.9	397.1	277.5	224.5	205.3	198.5	192.9	191.8
52.5°	5657.4	4587.9	1473.2	511.1	357.6	243.6	200.8	189.5	183.9	179.4	178.2
55°	6371.4	4965.8	1464.2	474.9	319.3	216.6	183.9	177.1	170.4	165.8	163.6
57.5°	6815.9	5018.8	1207.0	435.4	275.2	195.2	168.1	163.6	155.7	150.1	148.9
60°	7020.1	4716.5	846.0	383.6	231.2	174.9	151.2	148.9	138.8	130.9	128.6
62.5°	7057.3	4154.7	564.1	319.3	192.9	155.7	134.3	130.9	117.4	103.8	97.0
65°	6906.1	3351.5	390.3	249.3	164.7	135.4	115.1	108.3	93.6	80.1	75.5
67.5°	6427.9	2353.2	271.8	179.4	139.9	107.2	91.3	89.1	77.8	66.5	63.1
70°	5551.3	1341.3	181.6	134.3	110.6	73.3	72.2	74.4	63.1	54.1	49.6
72.5°	4256.3	613.7	112.9	98.1	75.5	49.6	57.5	58.6	48.5	40.6	36.1
75°	2505.5	262.8	71.0	63.1	38.3	32.7	41.7	42.8	32.7	25.9	22.5
77.5°	852.8	99.3	45.1	37.2	19.2	18.0	27.1	27.1	18.0	10.1	7.9
80°	194.0	37.2	22.5	14.7	9.0	7.9	9.0	7.9	4.5	1.1	0.0
82.5°	55.2	14.7	9.0	5.6	3.4	3.4	1.1	0.0	0.0	0.0	0.0
85°	15.8	6.8	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)