

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: P966096

Luminaire Tested: **NAV-SB4B-727-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16245.2 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

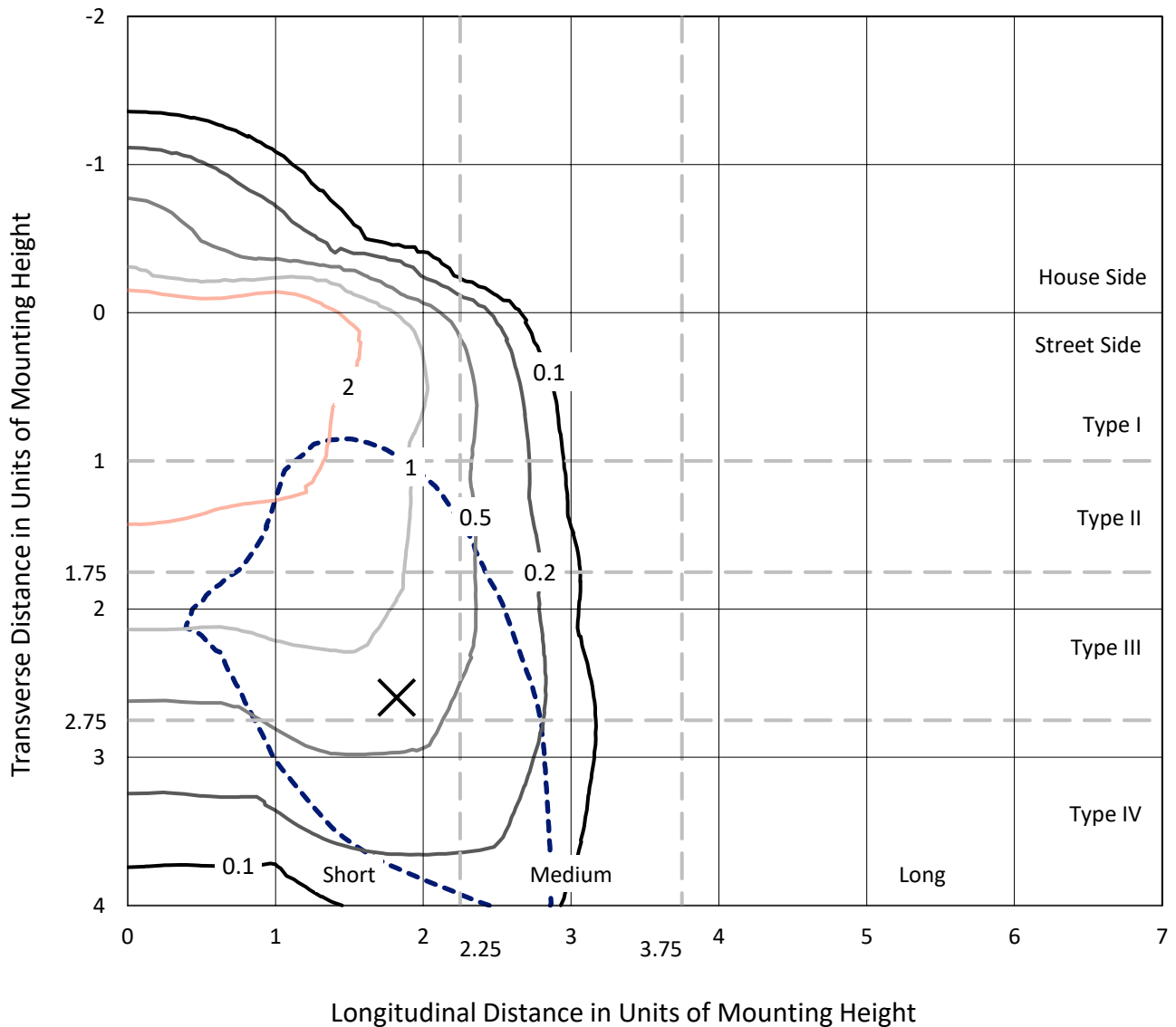
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

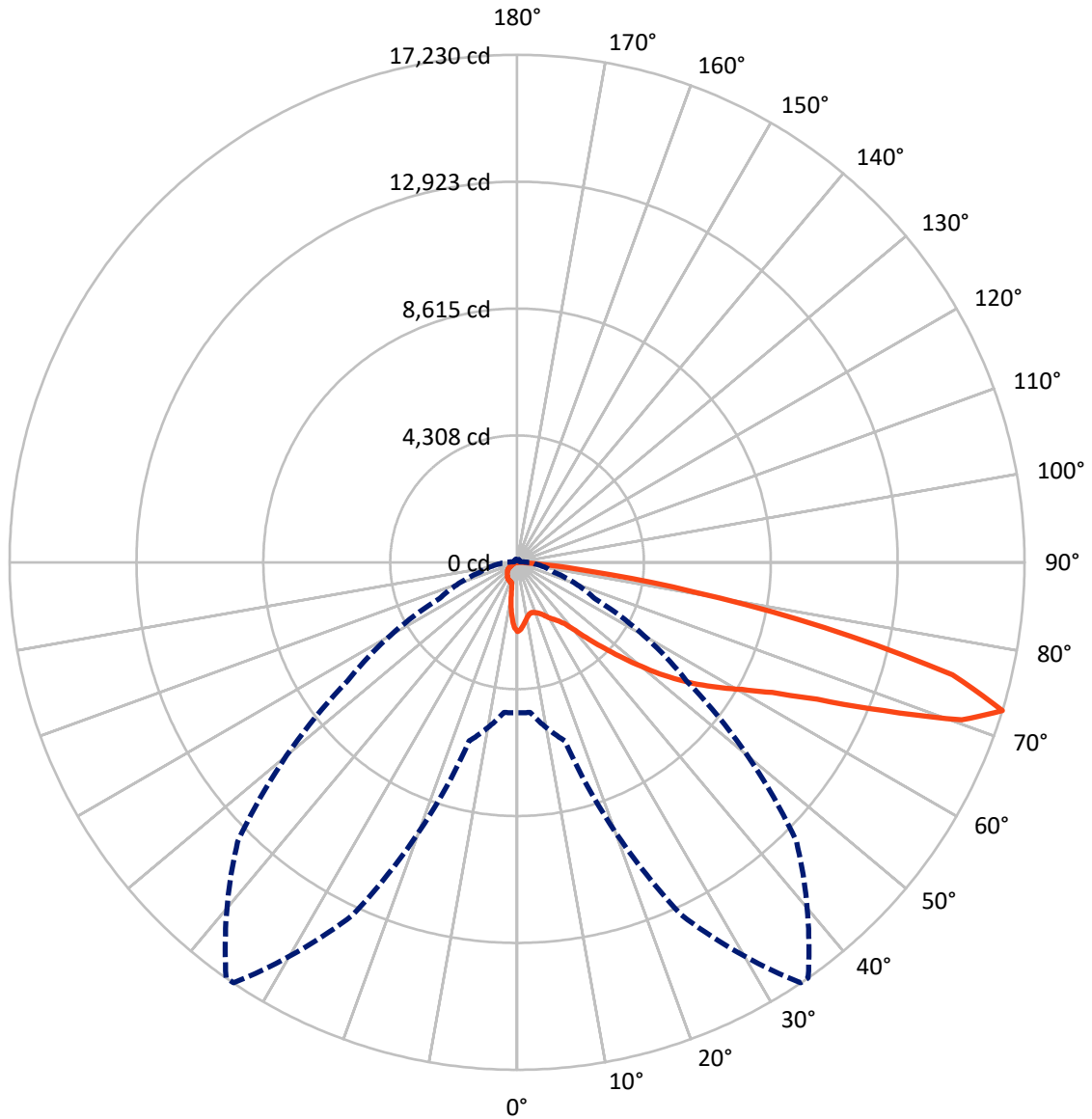
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1828.3	0.0	1828.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	14416.9	0.0	14416.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	16245.2	0.0	16245.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.5	1.2
10°-20°	452.6	2.8
20°-30°	735.3	4.5
30°-40°	1226.8	7.6
40°-50°	2321.1	14.3
50°-60°	3688.2	22.7
60°-70°	4562.5	28.1
70°-80°	2836.1	17.5
80°-90°	229.2	1.4
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°	16245.2	100.0
0°-180°	16245.2	100.0

Coefficient of Utilization



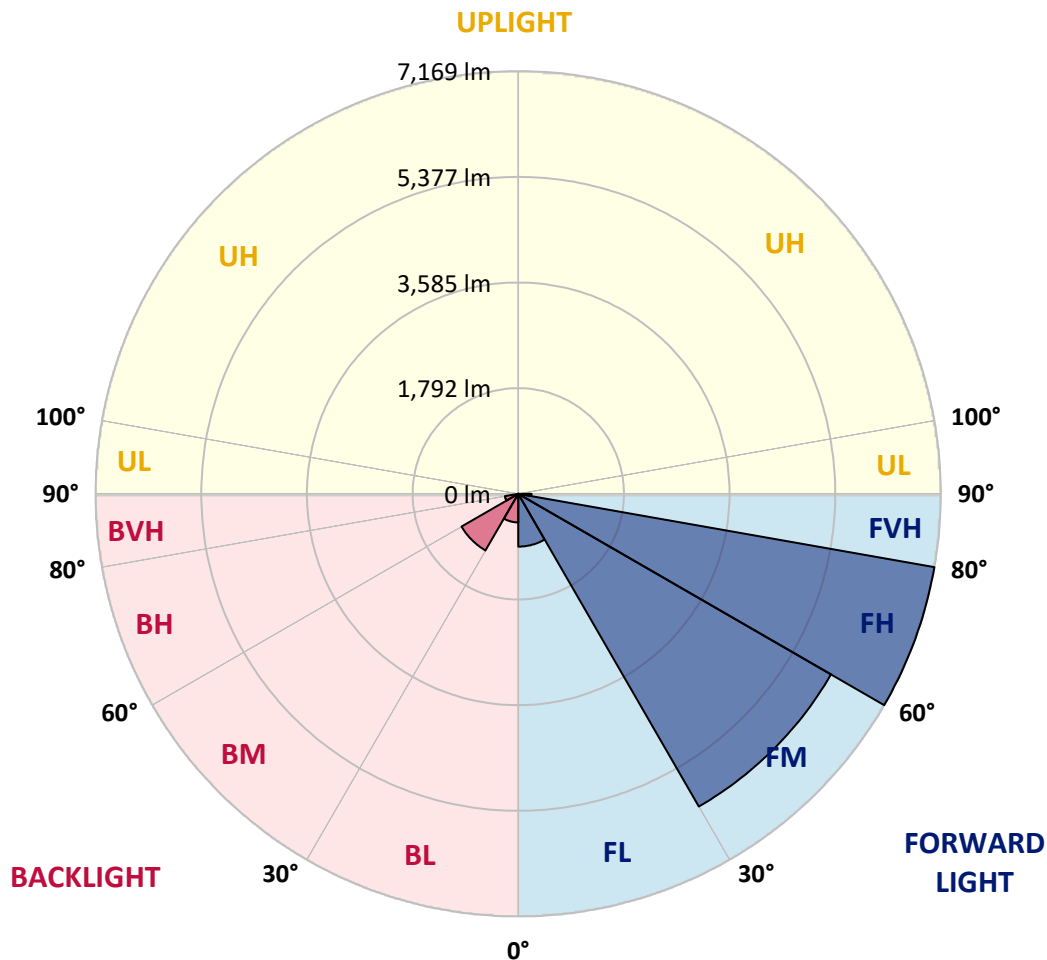
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	895.5	5.5			
FM (30°-60°)	6126.1	37.7			
FH (60°-80°)	7169.2	44.1			G3/7500
FVH (80°-90°)	226.1	1.4			G3/500
BL (0°-30°)	485.8	3.0	B1/500		
BM (30°-60°)	1110.0	6.8	B2/2500		
BH (60°-80°)	229.4	1.4	B1/500		G1/500
BVH (80°-90°)	3.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5
2.5°	2249.8	2268.7	2272.3	2278.3	2278.3	2285.4	2297.3	2314.0	2341.4	2355.7	2365.2
5°	2073.6	2087.8	2105.7	2120.0	2147.4	2151.0	2197.4	2242.6	2305.6	2353.3	2386.6
7.5°	1896.2	1912.9	1936.6	1971.2	2007.0	2017.6	2087.8	2164.0	2264.0	2353.3	2409.3
10°	1771.2	1772.4	1793.9	1828.4	1885.5	1898.6	1984.3	2092.6	2217.6	2339.0	2430.7
12.5°	1701.0	1709.3	1718.8	1745.1	1799.8	1808.1	1899.7	2027.1	2171.2	2330.6	2455.7
15°	1701.0	1706.9	1712.9	1726.0	1770.1	1777.1	1858.1	1985.4	2147.4	2334.2	2496.1
17.5°	1718.8	1728.4	1723.6	1739.1	1785.6	1790.3	1861.7	1973.5	2146.1	2356.9	2558.0
20°	1761.7	1768.8	1759.3	1768.8	1815.3	1824.8	1898.6	1996.2	2166.4	2396.1	2635.4
22.5°	1829.5	1833.1	1810.5	1817.6	1865.3	1877.2	1962.9	2060.5	2215.2	2459.2	2739.0
25°	1915.2	1922.4	1887.8	1896.2	1941.5	1955.7	2054.5	2156.9	2292.6	2546.1	2871.1
27.5°	2014.0	2017.6	1987.9	1986.7	2045.0	2065.3	2165.2	2275.9	2396.1	2655.7	3037.7
30°	2127.1	2137.8	2109.2	2104.5	2178.3	2194.9	2293.7	2422.3	2548.5	2819.9	3274.6
32.5°	2216.4	2224.8	2208.1	2219.9	2295.0	2308.1	2449.8	2629.4	2787.8	3053.2	3597.1
35°	2345.0	2349.7	2311.6	2333.0	2418.8	2452.1	2662.7	2919.9	3088.9	3346.0	4018.5
37.5°	2810.3	2810.3	2648.5	2542.5	2624.7	2654.4	2954.4	3285.3	3460.3	3738.8	4549.5
40°	3454.4	3443.6	3206.7	2990.1	2979.4	3037.7	3369.8	3746.0	3940.0	4210.2	5147.0
42.5°	4141.2	4124.5	3801.9	3587.7	3551.9	3572.2	3849.5	4313.8	4511.3	4785.1	5789.8
45°	4750.6	4745.9	4450.7	4162.6	4098.4	4162.6	4448.3	4978.0	5119.7	5407.7	6431.4
47.5°	5261.2	5261.2	5045.9	4857.8	4824.4	4862.5	5258.9	5714.8	5701.7	6070.7	7056.3
50°	5849.3	5844.5	5639.8	5558.9	5593.3	5646.9	6192.1	6490.9	6304.0	6721.8	7614.5
52.5°	6261.1	6289.7	6219.5	6206.4	6382.6	6475.4	7139.6	7250.3	6843.2	7339.6	8032.4
55°	6587.3	6620.7	6701.6	6793.2	7132.5	7253.9	8057.3	7970.5	7294.3	7875.3	8272.8
57.5°	7049.1	7001.6	7126.5	7307.4	7856.2	8002.6	8946.5	8650.2	7657.4	8309.7	8299.0
60°	7609.8	7617.0	7638.4	7866.9	8578.7	8766.8	9822.6	9293.0	7890.8	8576.4	8008.5
62.5°	8283.5	8294.2	8338.3	8689.4	9548.8	9726.2	10755.8	9819.1	7997.9	8501.3	7258.6
65°	8237.1	8282.3	8773.9	9975.0	11023.7	11198.6	11845.0	10188.1	7835.9	7815.7	5910.0
67.5°	7503.8	7577.6	8400.2	11510.5	13247.2	13442.5	13161.5	10260.7	7137.3	6077.8	3855.5
70°	6542.1	6568.3	7557.4	12891.3	15821.9	16019.5	14340.0	9462.0	5416.0	3390.1	1727.1
72.5°	5108.9	5114.9	6275.5	13211.5	17219.4	17230.0	13415.1	7024.1	2912.7	1302.3	599.9
75°	3649.5	3613.8	4203.1	10714.2	15149.4	15270.8	10057.1	3294.9	1112.9	615.4	298.8
77.5°	1956.9	1996.2	2378.3	6354.0	10465.4	10672.5	5487.4	949.9	566.6	419.0	197.6
80°	604.6	638.1	974.9	2909.2	5927.9	6052.8	2034.3	422.6	395.2	298.8	129.8
82.5°	190.4	197.6	454.7	1222.5	2460.4	2517.5	589.2	239.2	270.2	197.6	76.2
85°	54.7	56.0	202.3	455.9	608.2	620.1	165.4	92.9	154.8	122.6	39.3
87.5°	5.9	19.1	76.2	76.2	53.6	52.4	17.8	20.2	44.1	15.5	7.2
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°	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5	2354.5
2.5°	2359.2	2360.5	2345.0	2318.8	2290.2	2266.4	2236.7	2212.9	2196.2	2191.4	2199.8
5°	2376.0	2367.5	2323.6	2243.8	2148.5	2066.4	1974.8	1902.2	1854.5	1834.3	1841.4
7.5°	2400.9	2377.1	2280.7	2123.6	1941.5	1779.5	1615.3	1487.9	1407.0	1366.5	1372.5
10°	2422.3	2374.7	2209.3	1949.8	1671.3	1426.0	1204.6	1051.0	965.3	924.9	926.1
12.5°	2442.6	2373.5	2116.4	1743.8	1366.5	1066.5	860.6	784.4	760.7	752.2	749.9
15°	2480.6	2377.1	1999.8	1508.2	1062.9	805.9	730.8	729.7	734.4	732.1	730.8
17.5°	2533.0	2380.7	1867.7	1258.2	820.1	710.6	707.0	717.8	724.9	721.3	720.2
20°	2600.8	2394.9	1727.1	1010.5	704.7	686.9	695.2	704.7	710.6	704.7	703.5
22.5°	2696.1	2419.9	1573.6	811.8	667.8	672.5	679.7	690.4	696.4	688.0	686.9
25°	2812.8	2459.2	1422.5	705.9	650.0	655.9	666.6	678.4	685.6	677.3	676.1
27.5°	2963.9	2522.3	1283.2	682.0	632.1	635.6	651.1	669.0	678.4	667.8	667.8
30°	3182.9	2625.8	1163.0	692.8	621.4	613.1	634.5	659.5	670.1	660.6	659.5
32.5°	3473.4	2772.3	1089.2	709.4	616.6	586.8	607.1	639.2	657.0	651.1	651.1
35°	3854.3	2994.8	1060.6	728.5	613.1	559.4	573.7	608.2	639.2	645.1	645.1
37.5°	4316.2	3304.4	1068.9	736.8	602.3	536.8	544.0	573.7	614.2	633.2	638.1
40°	4841.1	3665.0	1116.5	728.5	590.4	517.8	519.0	541.6	577.3	605.9	615.4
42.5°	5382.7	4086.4	1204.6	697.5	579.7	501.1	497.5	513.0	536.8	557.1	565.4
45°	5898.1	4519.7	1291.5	654.7	566.6	484.4	476.1	482.1	486.9	495.2	499.9
47.5°	6348.0	4824.4	1266.5	615.4	548.8	465.5	451.1	448.7	434.5	433.3	432.1
50°	6658.7	4891.1	1124.8	576.2	522.5	444.0	421.4	407.1	382.1	370.2	371.4
52.5°	6757.5	4628.0	918.9	536.8	479.7	415.4	383.2	360.7	329.7	319.0	317.9
55°	6626.6	4112.6	734.4	489.2	420.1	377.3	341.6	311.9	286.9	273.8	273.8
57.5°	6306.4	3456.7	580.9	433.3	357.1	334.5	298.8	269.1	247.6	234.5	232.2
60°	5775.5	2745.0	459.5	366.6	304.7	288.0	251.1	232.2	213.1	197.6	194.0
62.5°	4969.6	1959.3	360.7	290.5	254.7	235.6	214.2	200.0	177.3	155.9	152.3
65°	3878.1	1198.6	278.5	213.1	204.7	195.3	182.1	169.0	141.7	120.2	116.6
67.5°	2446.2	567.7	198.7	160.7	161.8	157.1	151.2	140.4	120.2	101.2	98.8
70°	1077.3	275.0	130.9	122.6	120.2	120.2	124.9	121.5	102.4	84.6	81.0
72.5°	366.6	147.6	97.6	92.9	86.9	85.7	104.8	101.2	82.1	65.5	61.9
75°	191.7	98.8	71.4	66.6	52.4	63.0	83.3	78.5	58.3	42.8	39.3
77.5°	124.9	70.2	48.8	42.8	29.7	41.6	61.9	54.7	34.5	21.4	19.1
80°	78.5	46.4	28.6	20.2	14.2	22.7	33.3	23.8	13.1	4.7	3.6
82.5°	41.6	23.8	10.8	7.2	5.9	7.2	8.3	5.9	2.4	0.0	0.0
85°	16.7	8.3	3.6	2.4	1.2	0.0	2.4	1.2	0.0	0.0	0.0
87.5°	5.9	1.2	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)