

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: P883760

Luminaire Tested: **NAV-SB4B-730-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883760
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-730-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17009 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

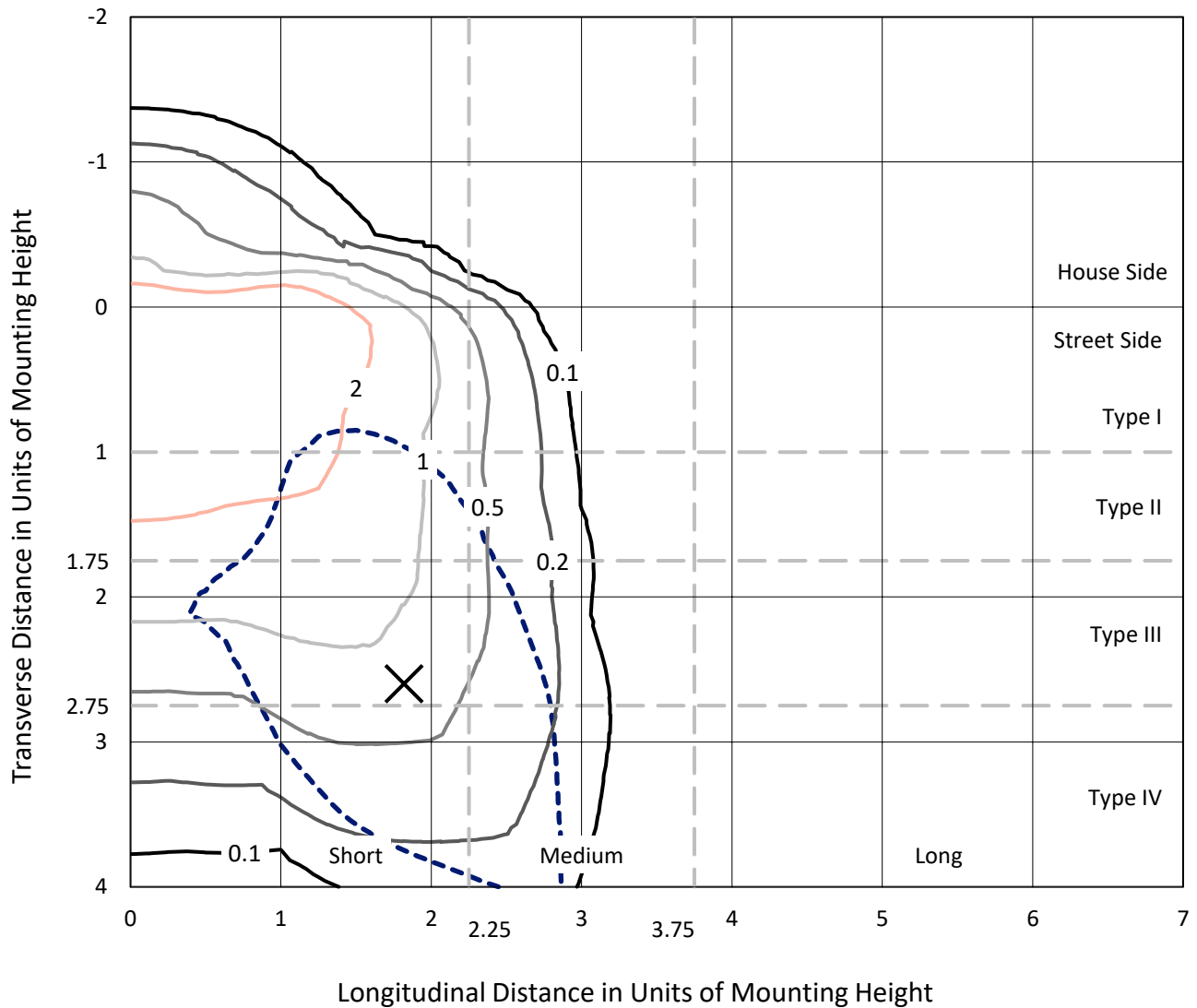
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883760
 CATALOG NUMBER: NAV-SB4B-730-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

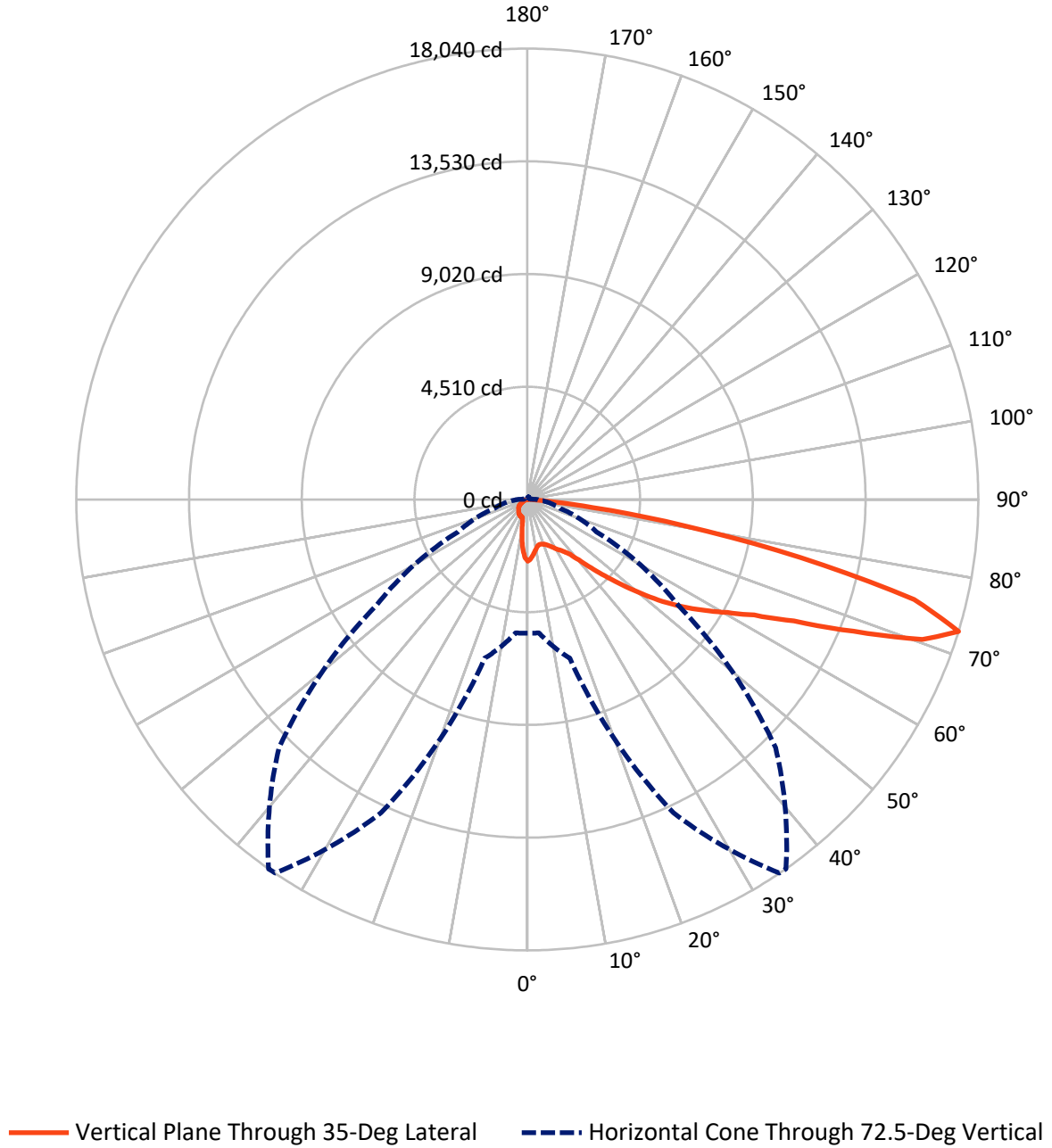
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P883760
CATALOG NUMBER: NAV-SB4B-730-U-T4FT-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1914.3	0.0	1914.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	15094.7	0.0	15094.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	17009.0	0.0	17009.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.6	1.2
10°-20°	473.9	2.8
20°-30°	769.8	4.5
30°-40°	1284.4	7.6
40°-50°	2430.2	14.3
50°-60°	3861.6	22.7
60°-70°	4777.1	28.1
70°-80°	2969.4	17.5
80°-90°	240.0	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°	17009.0	100.0
0°-180°	17009.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883760

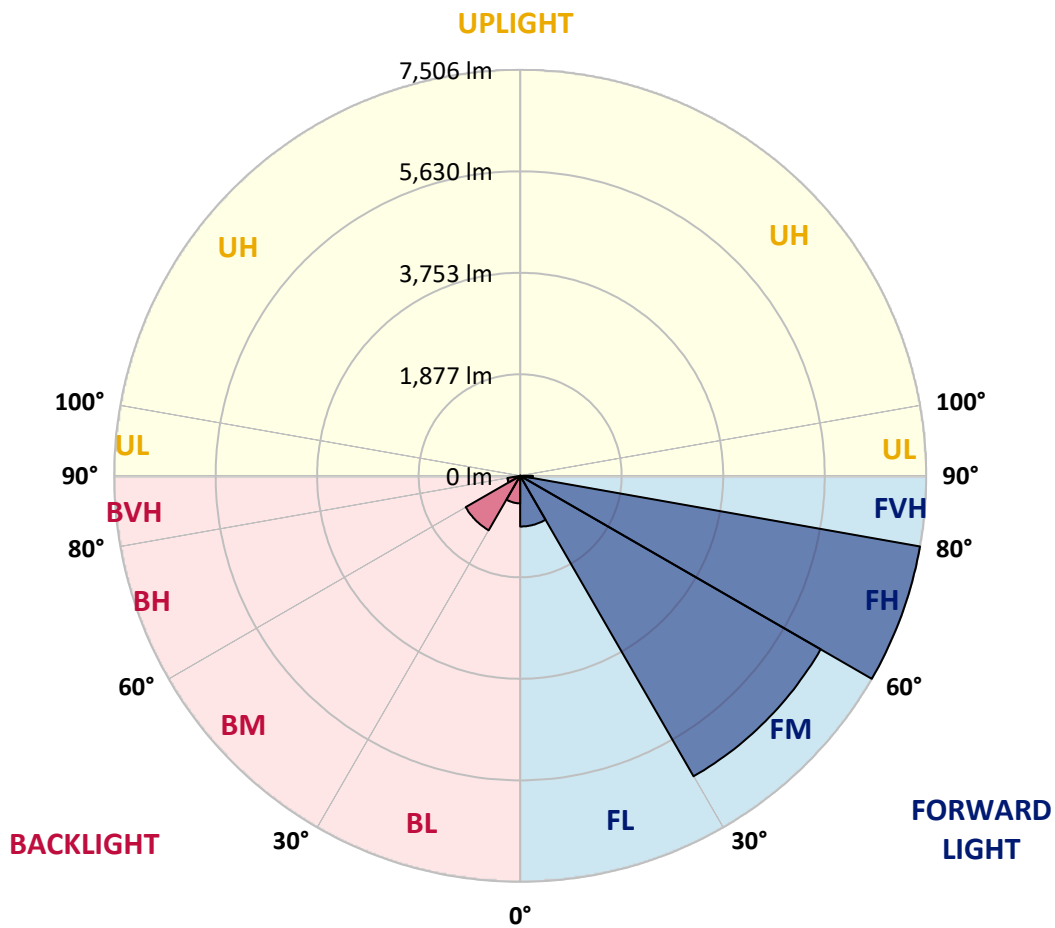
CATALOG NUMBER: NAV-SB4B-730-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	937.6	5.5			
FM (30°-60°)	6414.1	37.7			
FH (60°-80°)	7506.3	44.1			G4/12000
FVH (80°-90°)	236.7	1.4			G3/500
BL (0°-30°)	508.7	3.0	B2/1000		
BM (30°-60°)	1162.1	6.8	B2/2500		
BH (60°-80°)	240.2	1.4	B1/500		G1/500
BVH (80°-90°)	3.3	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-G4

Type IV Short



REPORT NUMBER: P883760

CATALOG NUMBER: NAV-SB4B-730-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2
2.5°	2355.5	2375.4	2379.2	2385.4	2385.4	2392.9	2405.4	2422.8	2451.5	2466.4	2476.4
5°	2171.0	2186.0	2204.7	2219.7	2248.3	2252.1	2300.7	2348.0	2414.1	2463.9	2498.8
7.5°	1985.4	2002.8	2027.7	2063.9	2101.3	2112.5	2186.0	2265.8	2370.5	2463.9	2522.5
10°	1854.5	1855.7	1878.2	1914.3	1974.1	1987.8	2077.6	2191.0	2321.9	2449.0	2544.9
12.5°	1781.0	1789.7	1799.7	1827.1	1884.4	1893.1	1989.1	2122.4	2273.2	2440.2	2571.1
15°	1781.0	1787.2	1793.4	1807.1	1853.2	1860.7	1945.5	2078.8	2248.3	2444.0	2613.5
17.5°	1799.7	1809.6	1804.6	1820.8	1869.4	1874.4	1949.2	2066.4	2247.1	2467.7	2678.3
20°	1844.5	1852.0	1842.0	1852.0	1900.6	1910.6	1987.8	2090.0	2268.3	2508.8	2759.3
22.5°	1915.6	1919.3	1895.6	1903.1	1952.9	1965.4	2055.1	2157.3	2319.4	2574.8	2867.7
25°	2005.3	2012.8	1976.6	1985.4	2032.7	2047.7	2151.1	2258.3	2400.4	2665.8	3006.1
27.5°	2108.7	2112.5	2081.3	2080.1	2141.1	2162.3	2267.0	2382.9	2508.8	2780.5	3180.5
30°	2227.1	2238.3	2208.4	2203.5	2280.7	2298.2	2401.6	2536.2	2668.3	2952.5	3428.6
32.5°	2320.6	2329.3	2311.9	2324.3	2402.9	2416.6	2564.9	2753.1	2918.8	3196.8	3766.3
35°	2455.2	2460.2	2420.3	2442.7	2532.5	2567.4	2788.0	3057.2	3234.1	3503.3	4207.5
37.5°	2942.5	2942.5	2773.0	2662.1	2748.1	2779.2	3093.3	3439.8	3623.0	3914.6	4763.3
40°	3616.8	3605.5	3357.5	3130.7	3119.5	3180.5	3528.3	3922.1	4125.2	4408.2	5389.0
42.5°	4335.9	4318.4	3980.7	3756.3	3718.9	3740.1	4030.5	4516.6	4723.5	5010.1	6062.0
45°	4974.0	4969.0	4659.9	4358.3	4291.0	4358.3	4657.4	5212.0	5360.3	5661.9	6733.7
47.5°	5508.6	5508.6	5283.1	5086.1	5051.2	5091.1	5506.1	5983.5	5969.8	6356.1	7388.0
50°	6124.3	6119.3	5905.0	5820.2	5856.3	5912.4	6483.2	6796.1	6600.4	7037.8	7972.6
52.5°	6555.5	6585.4	6511.9	6498.2	6682.6	6779.9	7475.3	7591.2	7165.0	7684.7	8410.0
55°	6897.0	6931.9	7016.6	7112.6	7467.8	7594.9	8436.2	8345.2	7637.3	8245.5	8661.8
57.5°	7380.6	7330.7	7461.6	7651.0	8225.6	8378.9	9367.2	9056.8	8017.4	8700.4	8689.2
60°	7967.6	7975.1	7997.5	8236.8	8982.1	9179.0	10284.4	9729.8	8261.7	8979.6	8385.1
62.5°	8673.0	8684.2	8730.3	9098.0	9997.8	10183.5	11261.5	10280.7	8373.9	8901.0	7599.9
65°	8624.4	8671.7	9186.5	10444.0	11542.0	11725.2	12401.9	10667.1	8204.4	8183.2	6187.9
67.5°	7856.7	7933.9	8795.1	12051.7	13870.0	14074.4	13780.3	10743.1	7472.8	6363.6	4036.8
70°	6849.6	6877.1	7912.7	13497.4	16565.8	16772.7	15014.1	9906.8	5670.6	3549.5	1808.4
72.5°	5349.1	5355.3	6570.5	13832.6	18028.9	18040.1	14045.8	7354.4	3049.7	1363.4	628.1
75°	3821.1	3783.8	4400.7	11217.9	15861.6	15988.7	10530.0	3449.7	1165.3	644.3	312.8
77.5°	2048.9	2090.0	2490.1	6652.7	10957.4	11174.3	5745.4	994.5	593.2	438.7	206.9
80°	633.1	668.0	1020.7	3045.9	6206.6	6337.4	2129.9	442.4	413.8	312.8	135.8
82.5°	199.4	206.9	476.1	1279.9	2576.1	2635.9	616.9	250.5	282.9	206.9	79.8
85°	57.3	58.6	211.9	477.3	636.9	649.3	173.2	97.2	162.0	128.4	41.1
87.5°	6.2	19.9	79.8	79.8	56.1	54.8	18.7	21.2	46.1	16.2	7.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883760

CATALOG NUMBER: NAV-SB4B-730-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2	2465.2
2.5°	2470.2	2471.4	2455.2	2427.8	2397.9	2372.9	2341.8	2316.9	2299.4	2294.4	2303.2
5°	2487.6	2478.9	2432.8	2349.3	2249.6	2163.6	2067.6	1991.6	1941.7	1920.5	1928.0
7.5°	2513.8	2488.9	2387.9	2223.4	2032.7	1863.2	1691.2	1557.9	1473.1	1430.7	1437.0
10°	2536.2	2486.4	2313.1	2041.4	1749.8	1493.1	1261.3	1100.5	1010.7	968.4	969.6
12.5°	2557.4	2485.1	2215.9	1825.8	1430.7	1116.7	901.1	821.3	796.4	787.7	785.2
15°	2597.3	2488.9	2093.8	1579.1	1112.9	843.7	765.2	764.0	769.0	766.5	765.2
17.5°	2652.1	2492.6	1955.4	1317.3	858.7	744.0	740.3	751.5	759.0	755.3	754.0
20°	2723.2	2507.5	1808.4	1058.1	737.8	719.1	727.8	737.8	744.0	737.8	736.6
22.5°	2822.9	2533.7	1647.6	850.0	699.2	704.2	711.6	722.9	729.1	720.4	719.1
25°	2945.0	2574.8	1489.3	739.1	680.5	686.7	697.9	710.4	717.9	709.1	707.9
27.5°	3103.3	2640.9	1343.5	714.1	661.8	665.5	681.7	700.4	710.4	699.2	699.2
30°	3332.6	2749.3	1217.6	725.3	650.6	641.8	664.3	690.4	701.7	691.7	690.4
32.5°	3636.7	2902.6	1140.4	742.8	645.6	614.4	635.6	669.3	688.0	681.7	681.7
35°	4035.5	3135.7	1110.5	762.7	641.8	585.8	600.7	636.9	669.3	675.5	675.5
37.5°	4519.1	3459.7	1119.2	771.5	630.6	562.1	569.6	600.7	643.1	663.0	668.0
40°	5068.7	3837.3	1169.0	762.7	618.2	542.1	543.4	567.1	604.5	634.4	644.3
42.5°	5635.8	4278.5	1261.3	730.3	606.9	524.7	521.0	537.2	562.1	583.3	592.0
45°	6175.4	4732.2	1352.2	685.5	593.2	507.2	498.5	504.8	509.7	518.5	523.4
47.5°	6646.5	5051.2	1326.1	644.3	574.5	487.3	472.3	469.9	454.9	453.7	452.4
50°	6971.8	5121.0	1177.8	603.2	547.1	464.9	441.2	426.2	400.1	387.6	388.8
52.5°	7075.2	4845.6	962.1	562.1	502.3	435.0	401.3	377.6	345.2	334.0	332.8
55°	6938.1	4306.0	769.0	512.2	439.9	395.1	357.7	326.5	300.4	286.6	286.6
57.5°	6602.9	3619.2	608.2	453.7	373.9	350.2	312.8	281.7	259.2	245.5	243.0
60°	6047.0	2874.0	481.1	383.9	319.1	301.6	263.0	243.0	223.1	206.9	203.1
62.5°	5203.3	2051.4	377.6	304.1	266.7	246.8	224.3	209.4	185.7	163.3	159.5
65°	4060.4	1255.0	291.6	223.1	214.4	204.4	190.7	177.0	148.3	125.9	122.1
67.5°	2561.1	594.5	208.1	168.3	169.5	164.5	158.3	147.1	125.9	105.9	103.4
70°	1127.9	287.9	137.1	128.4	125.9	125.9	130.9	127.1	107.2	88.5	84.7
72.5°	383.9	154.5	102.2	97.2	91.0	89.7	109.7	105.9	86.0	68.5	64.8
75°	200.7	103.4	74.8	69.8	54.8	66.1	87.2	82.3	61.1	44.9	41.1
77.5°	130.9	73.5	51.1	44.9	31.2	43.6	64.8	57.3	36.1	22.4	19.9
80°	82.3	48.6	29.9	21.2	15.0	23.7	34.9	24.9	13.7	5.0	3.7
82.5°	43.6	24.9	11.2	7.5	6.2	7.5	8.7	6.2	2.5	0.0	0.0
85°	17.4	8.7	3.7	2.5	1.2	0.0	2.5	1.2	0.0	0.0	0.0
87.5°	6.2	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)