

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: P882786

Luminaire Tested: **NAV-SB2D-827-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882786  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-827-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

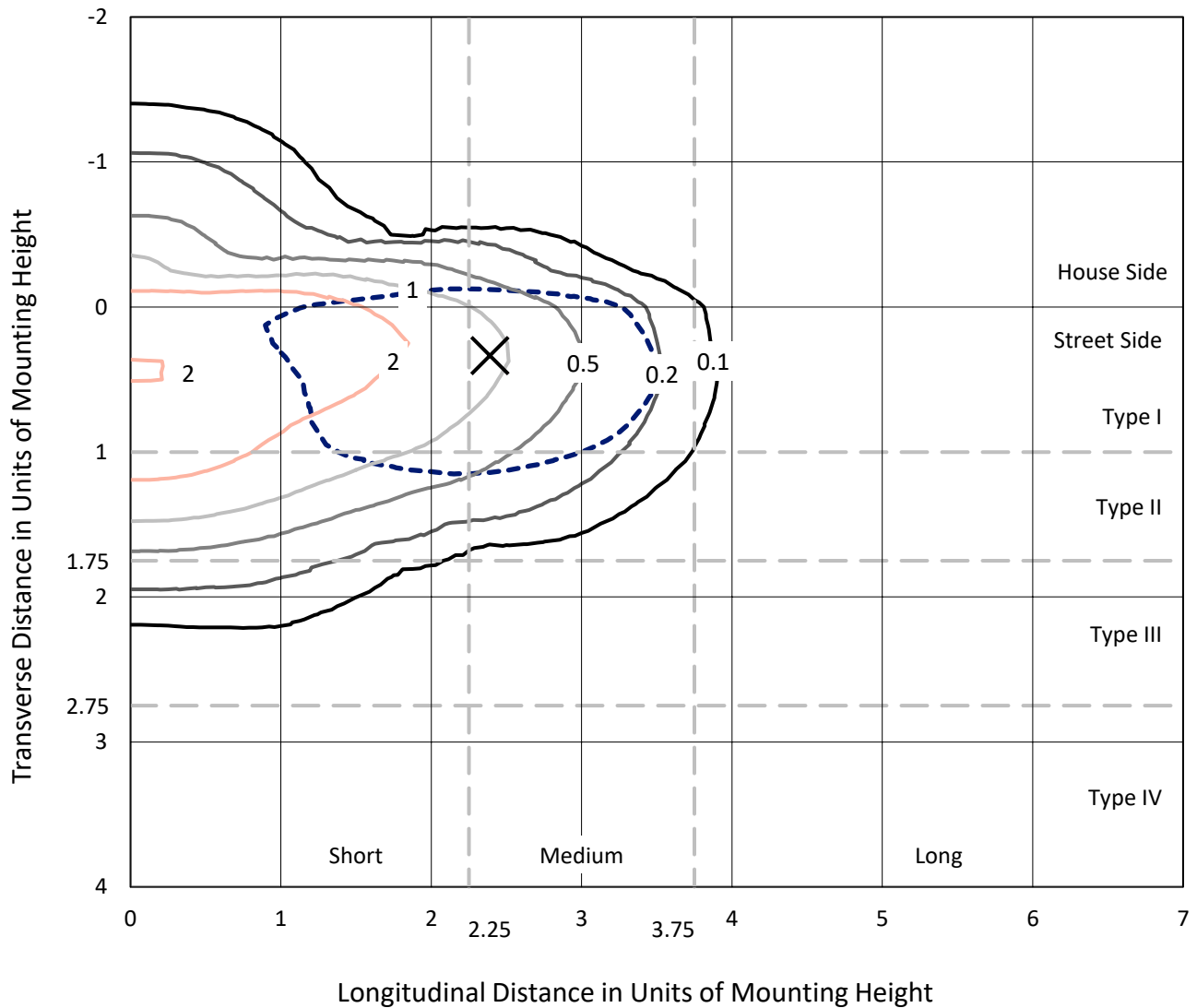
Lumens per Lamp: N/A  
Luminaire Lumens: 12305 lumens  
Efficiency: N/A  
Efficacy: 83.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P882786  
 CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

### Iso-Footcandle Lines of Horizontal Illumination

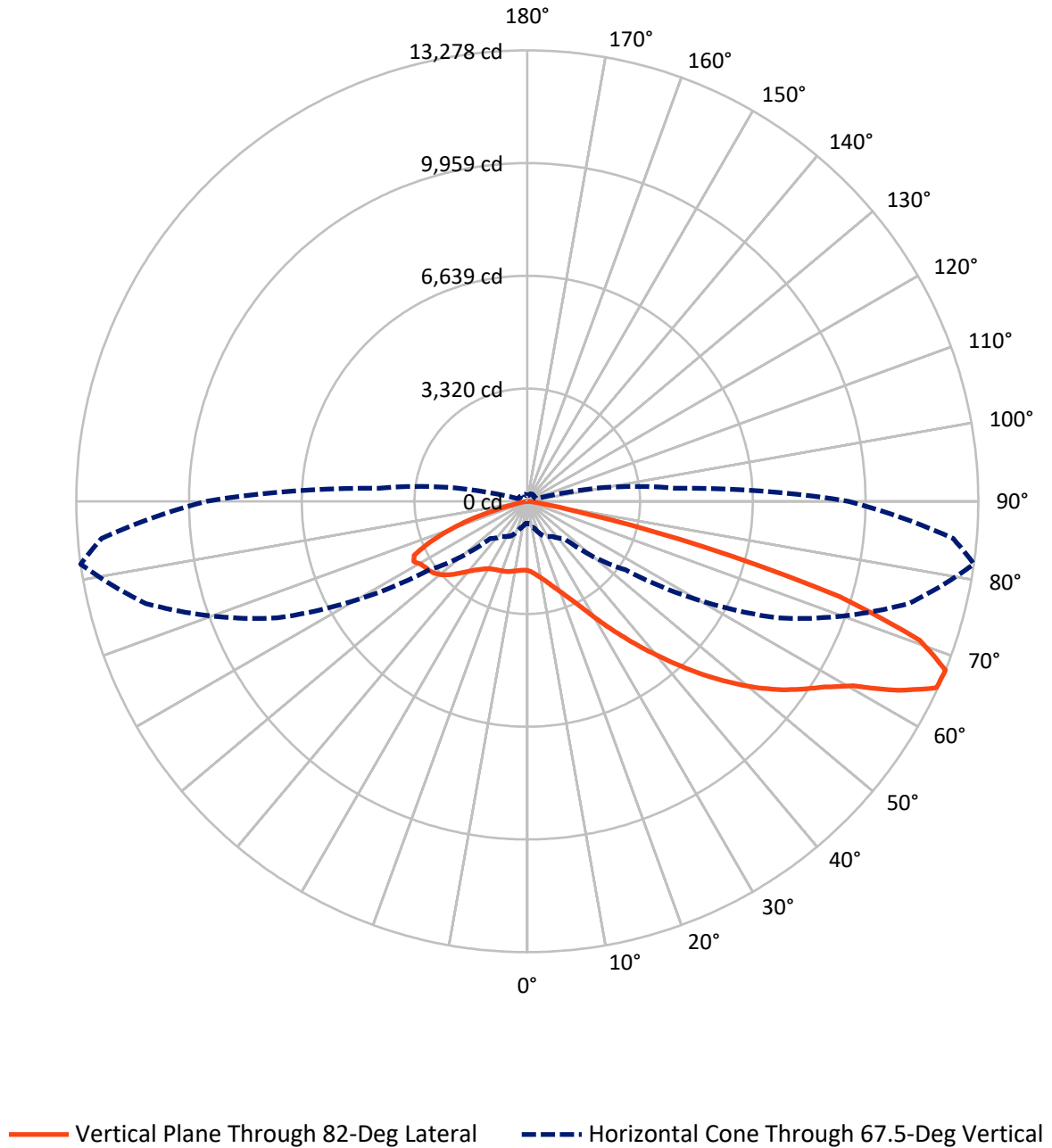
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type II - Medium - N/A

REPORT NUMBER: P882786  
CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

### Luminous Intensity Polar Plot



REPORT NUMBER: P882786

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2228.9	0.0	2228.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	10076.1	0.0	10076.1
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	12305.0	0.0	12305.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.6	1.5
10°-20°	472.0	3.8
20°-30°	755.9	6.1
30°-40°	1336.7	10.9
40°-50°	2342.0	19.0
50°-60°	3123.6	25.4
60°-70°	2907.9	23.6
70°-80°	1116.0	9.1
80°-90°	69.3	0.6
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°	12305.0	100.0
0°-180°	12305.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P882786

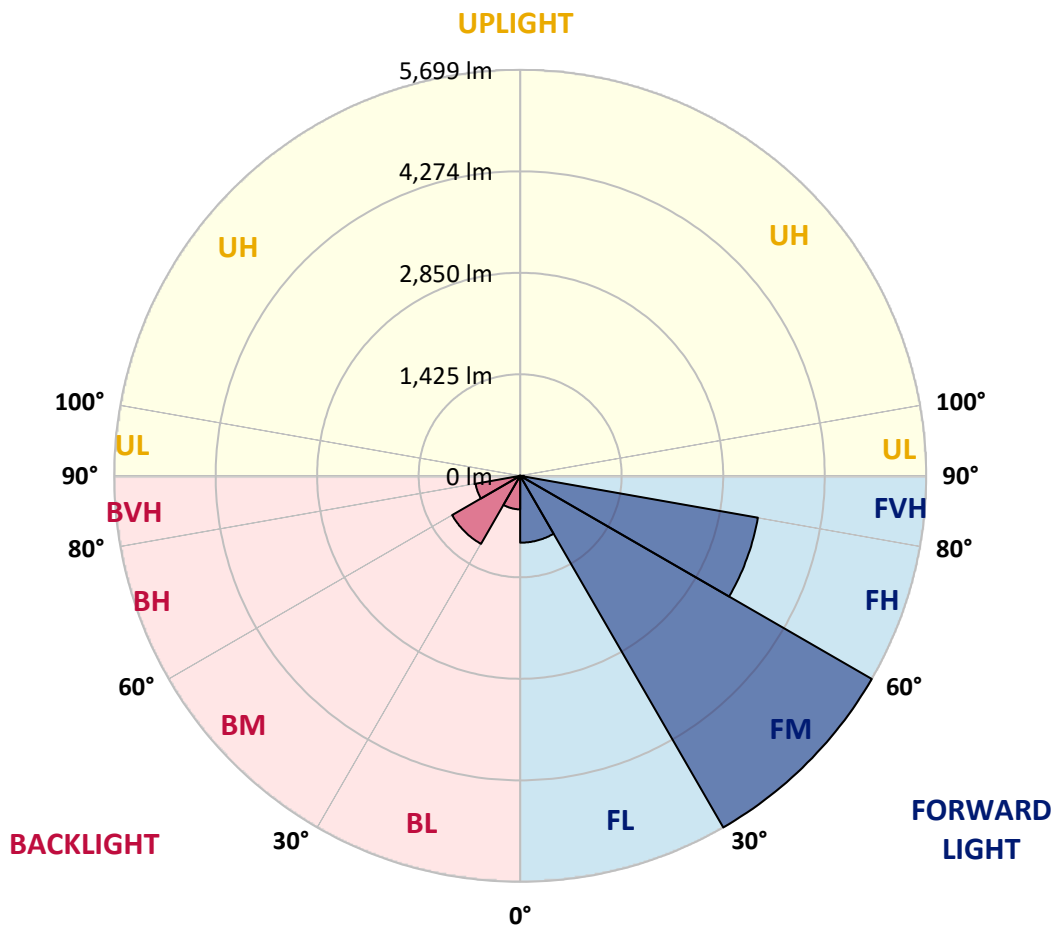
CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	938.7	7.6			
FM (30°-60°)	5699.2	46.3			
FH (60°-80°)	3387.8	27.5			G2/5000
FVH (80°-90°)	50.4	0.4			G1/100
BL (0°-30°)	470.7	3.8	B1/500		
BM (30°-60°)	1103.1	9.0	B2/2500		
BH (60°-80°)	636.2	5.2	B2/1000		G2/1000
BVH (80°-90°)	18.9	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium



REPORT NUMBER: P882786

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2154.6	2167.0	2159.9	2156.4	2150.1	2141.3	2134.2	2112.1	2089.0	2074.0	2068.6
5°	2198.0	2210.4	2209.5	2213.1	2217.5	2220.1	2218.4	2193.6	2160.8	2135.1	2120.0
7.5°	2160.8	2175.0	2186.5	2204.2	2235.2	2268.0	2283.9	2278.6	2244.9	2209.5	2190.9
10°	2055.4	2070.4	2097.9	2139.5	2205.1	2276.0	2335.3	2362.8	2341.5	2302.5	2276.8
12.5°	1862.2	1877.3	1931.3	2021.7	2131.5	2254.7	2368.1	2441.6	2446.9	2408.0	2377.8
15°	1645.2	1660.2	1717.8	1831.2	1998.7	2196.2	2385.8	2524.9	2571.9	2538.2	2501.9
17.5°	1510.5	1523.8	1567.2	1658.5	1833.0	2079.3	2379.6	2613.5	2720.7	2694.1	2650.7
20°	1469.8	1481.3	1501.6	1565.4	1710.7	1957.9	2338.9	2696.8	2881.0	2866.0	2817.3
22.5°	1513.2	1523.8	1530.0	1558.3	1649.6	1878.2	2287.5	2781.8	3067.1	3068.9	3009.5
25°	1613.3	1623.9	1616.8	1634.5	1674.4	1853.4	2268.0	2881.9	3301.0	3320.5	3253.1
27.5°	1778.1	1778.9	1762.1	1761.2	1767.4	1890.6	2288.4	2989.1	3596.0	3632.3	3549.0
30°	2108.5	2095.2	2030.5	1960.6	1928.7	2002.2	2345.1	3115.8	3944.2	4008.8	3904.3
32.5°	2617.9	2598.4	2479.7	2312.3	2143.9	2182.0	2446.9	3260.2	4323.3	4440.3	4312.7
35°	3170.7	3165.4	3041.4	2792.4	2498.3	2438.1	2612.6	3449.8	4737.1	4923.1	4771.6
37.5°	3684.6	3681.9	3611.0	3317.8	2959.9	2795.1	2878.4	3697.9	5180.0	5449.3	5270.4
40°	4154.1	4162.1	4091.2	3829.0	3468.4	3253.1	3239.8	4004.4	5672.6	6022.5	5809.9
42.5°	4559.9	4568.7	4497.0	4303.0	3970.7	3759.9	3683.7	4380.0	6153.7	6638.3	6386.7
45°	4835.4	4890.3	4879.7	4724.7	4486.3	4267.5	4217.0	4851.3	6702.1	7291.2	6996.2
47.5°	4913.4	4963.9	5043.6	5064.9	4919.6	4704.3	4764.5	5419.2	7256.6	7945.0	7609.2
50°	4721.1	4768.1	4933.7	5154.3	5255.3	5188.9	5297.0	6027.9	7824.5	8597.1	8210.8
52.5°	4341.9	4389.8	4598.9	4947.9	5359.9	5568.9	5831.2	6627.6	8374.7	9214.5	8780.4
55°	3793.5	3844.0	4112.5	4507.6	5160.5	5725.8	6276.8	7226.5	8878.8	9770.0	9294.3
57.5°	3047.6	3084.8	3363.9	3916.7	4659.1	5569.8	6605.5	7880.3	9353.6	10315.8	9803.7
60°	1986.3	2019.0	2343.3	2959.9	3828.1	5048.9	6671.0	8609.5	9984.4	11025.4	10490.3
62.5°	1320.9	1343.1	1535.3	1988.0	2695.9	4048.7	6287.4	9191.5	10909.3	12260.4	11667.7
65°	906.3	928.5	1120.7	1436.1	1741.7	2678.2	5184.5	9114.4	11747.4	13241.1	12540.3
67.5°	646.7	665.3	828.3	1126.0	1260.7	1555.7	3514.5	8129.3	11626.9	13278.3	12587.3
70°	463.3	474.0	608.6	877.1	1002.0	934.7	1954.4	6217.4	10180.2	12261.3	11628.7
72.5°	324.2	327.8	422.6	668.0	807.1	682.2	930.2	4145.3	7699.6	9623.8	9015.2
75°	219.7	224.1	284.4	489.9	647.6	520.9	492.6	2222.8	4520.0	5327.1	4775.2
77.5°	134.7	136.4	183.4	334.9	484.6	396.9	317.2	941.7	1748.8	1716.9	1463.6
80°	76.2	76.2	116.9	208.2	330.5	256.0	222.4	400.4	553.7	486.4	428.8
82.5°	42.5	43.4	85.0	129.3	218.8	151.5	122.3	185.2	239.2	211.7	184.3
85°	17.7	19.5	52.3	61.1	104.5	75.3	49.6	78.0	88.6	78.8	57.6
87.5°	1.8	2.7	15.9	11.5	12.4	15.1	7.1	15.1	12.4	12.4	8.9
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: P882786

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2051.8	2038.5	2004.9	1965.9	1914.5	1889.7	1856.0	1833.0	1813.5	1815.3	1797.5
5°	2091.7	2058.0	1982.7	1888.8	1771.9	1688.6	1600.0	1538.9	1489.2	1478.6	1454.7
7.5°	2146.6	2093.4	1961.4	1792.2	1594.7	1444.9	1311.2	1225.2	1164.1	1144.6	1125.1
10°	2217.5	2140.4	1934.0	1670.9	1386.5	1196.0	1052.5	985.2	943.5	929.3	918.7
12.5°	2299.9	2194.4	1897.7	1522.9	1172.1	988.7	897.4	863.8	850.5	846.1	843.4
15°	2403.5	2261.8	1842.7	1347.5	990.5	862.0	823.0	818.6	820.4	818.6	817.7
17.5°	2526.7	2335.3	1753.3	1166.8	868.2	797.3	783.2	786.7	791.1	790.2	788.5
20°	2661.3	2408.0	1639.0	1006.4	784.9	751.3	743.3	746.8	750.4	748.6	747.7
22.5°	2814.6	2485.9	1512.3	881.5	729.1	708.7	699.9	700.8	700.8	697.2	695.5
25°	2998.0	2571.9	1379.4	792.9	686.6	670.6	660.0	656.5	651.2	640.5	638.8
27.5°	3216.8	2663.1	1251.8	730.9	652.9	637.9	625.5	616.6	603.3	585.6	583.8
30°	3463.1	2773.8	1143.7	691.9	626.4	611.3	597.1	583.8	564.3	542.2	540.4
32.5°	3752.8	2892.6	1064.9	666.2	602.4	586.5	569.7	553.7	532.4	510.3	511.2
35°	4098.3	3036.1	1018.8	648.5	583.8	562.6	544.0	526.2	510.3	490.8	489.0
37.5°	4473.1	3188.5	1004.6	639.6	571.4	538.6	517.4	505.0	503.2	491.7	490.8
40°	4883.2	3369.2	1015.3	634.3	558.1	515.6	492.6	489.9	494.3	474.0	474.9
42.5°	5317.3	3583.6	1033.0	628.1	539.5	492.6	470.4	470.4	466.9	438.5	438.5
45°	5786.9	3830.8	1050.7	613.1	517.4	469.5	452.7	446.5	431.4	404.0	403.1
47.5°	6260.0	4082.4	1064.0	585.6	490.8	450.1	435.0	420.8	398.7	373.9	373.0
50°	6709.1	4308.3	1049.8	544.8	460.7	431.4	415.5	396.0	372.1	355.3	352.6
52.5°	7110.5	4504.1	989.6	497.0	428.8	412.0	397.8	377.4	357.9	340.2	338.4
55°	7459.5	4662.6	883.3	451.8	400.4	395.1	380.9	355.3	328.7	313.6	311.8
57.5°	7794.4	4783.1	750.4	414.6	374.7	376.5	355.3	332.2	307.4	291.5	289.7
60°	8240.0	4944.4	615.7	380.1	347.3	352.6	329.6	312.7	281.7	261.3	258.7
62.5°	8952.3	5195.1	489.0	337.5	315.4	317.2	307.4	287.0	249.8	225.9	224.1
65°	9517.5	5102.9	385.4	291.5	279.1	281.7	281.7	259.6	219.7	192.2	189.6
67.5°	9453.7	4369.4	307.4	246.3	244.5	246.3	252.5	233.9	194.9	172.8	169.2
70°	8708.7	3475.5	246.3	204.6	212.6	208.2	225.9	213.5	175.4	153.3	150.6
72.5°	7106.0	2503.6	187.8	169.2	163.0	170.1	203.8	192.2	146.2	121.4	118.7
75°	4152.3	1336.0	140.0	133.8	117.8	141.7	180.7	163.9	111.6	89.5	86.8
77.5°	1351.9	466.0	102.8	98.3	87.7	114.3	154.2	138.2	91.3	70.9	68.2
80°	362.3	140.9	70.0	64.7	56.7	85.0	122.3	109.9	65.6	46.1	45.2
82.5°	145.3	59.4	40.8	36.3	31.0	58.5	96.6	88.6	48.7	29.2	29.2
85°	47.0	19.5	15.1	11.5	14.2	36.3	57.6	60.2	34.6	15.1	11.5
87.5°	6.2	2.7	2.7	3.5	2.7	6.2	17.7	16.8	9.7	1.8	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)