

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: P883828

Luminaire Tested: **NAV-SB4B-835-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883828  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-835-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

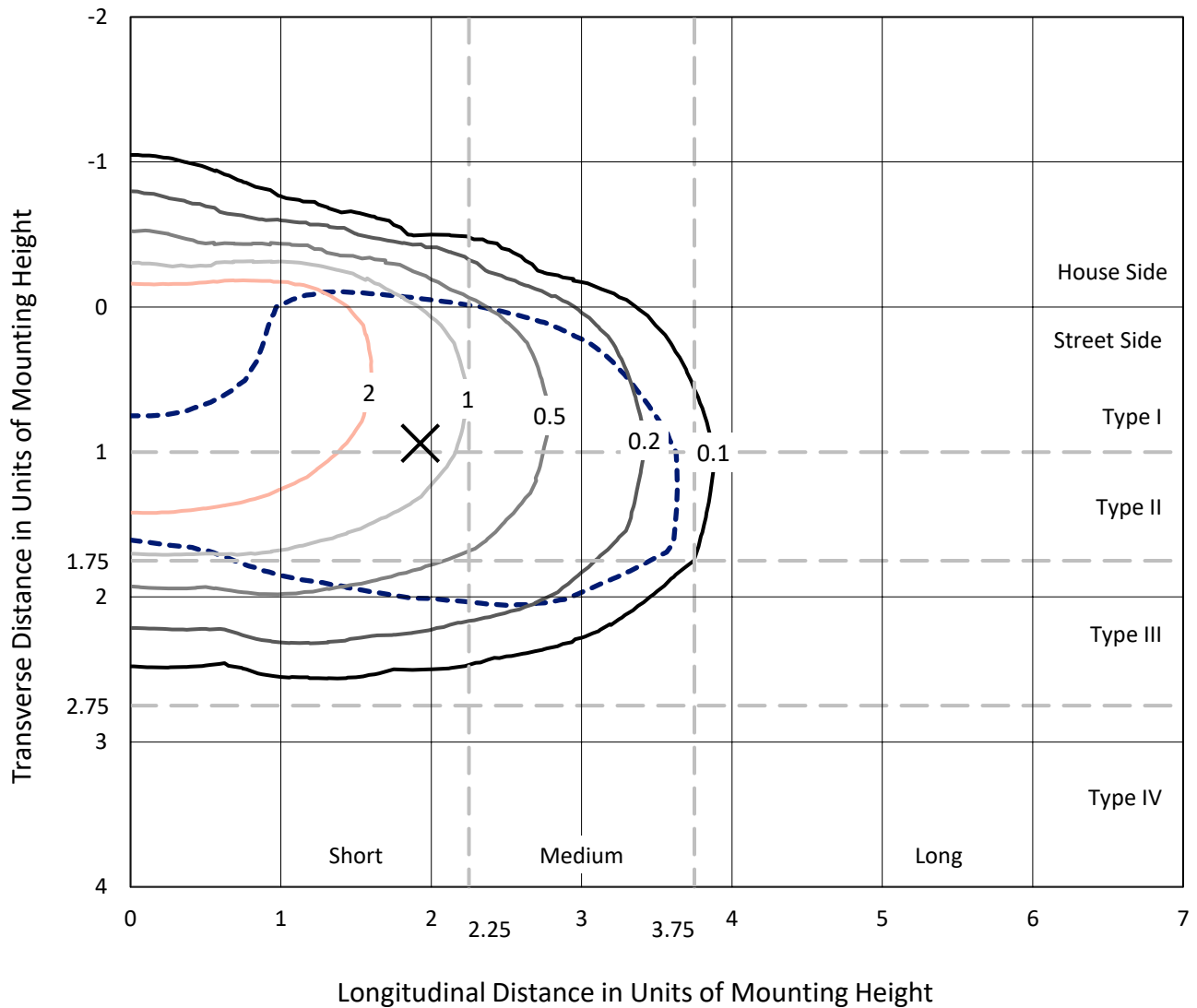
Lumens per Lamp: N/A  
Luminaire Lumens: 15101 lumens  
Efficiency: N/A  
Efficacy: 102.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
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: P883828  
 CATALOG NUMBER: NAV-SB4B-835-U-T3-HSS

### Iso-Footcandle Lines of Horizontal Illumination

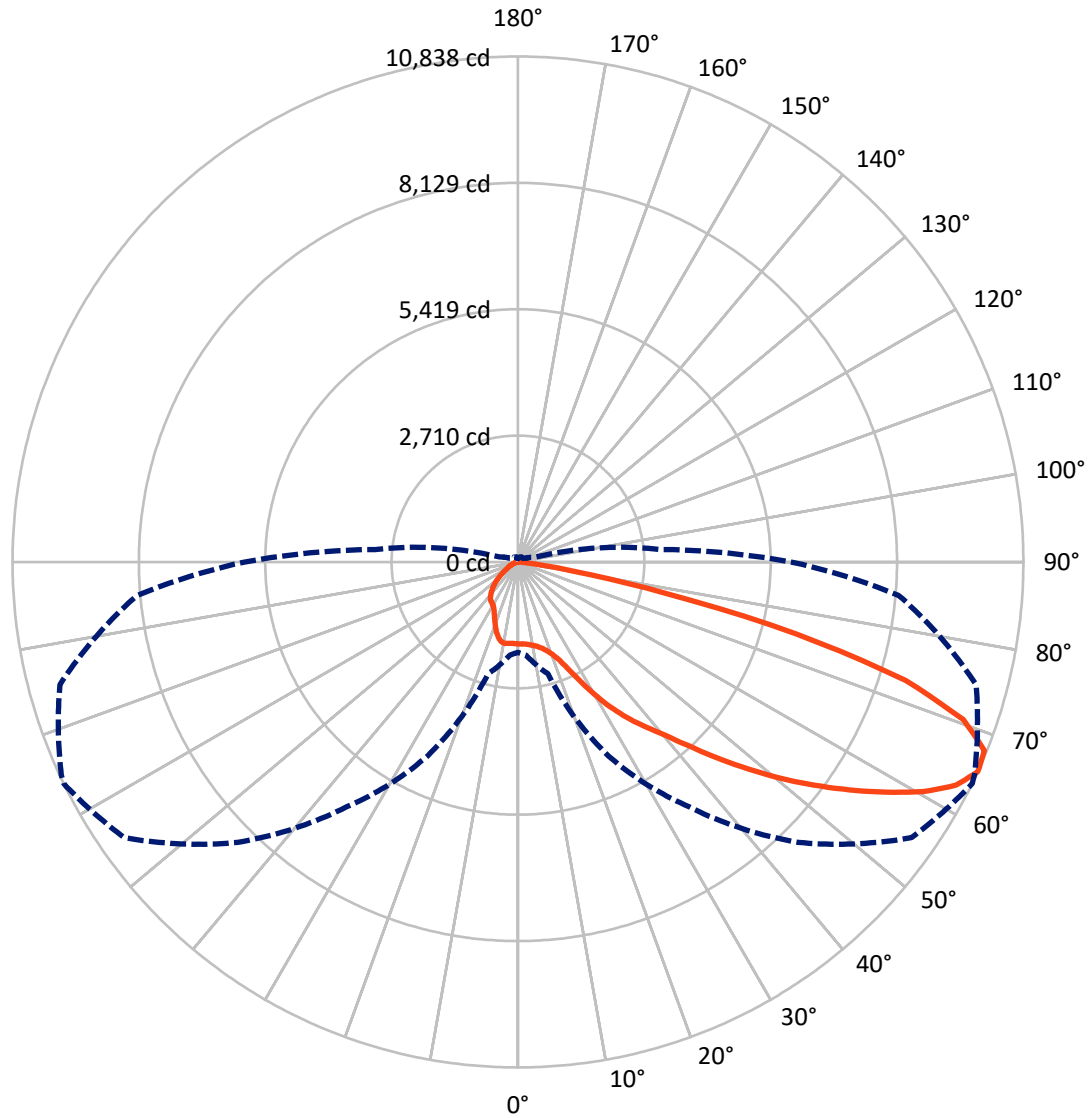
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type III - Short - N/A

REPORT NUMBER: P883828  
CATALOG NUMBER: NAV-SB4B-835-U-T3-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P883828

CATALOG NUMBER: NAV-SB4B-835-U-T3-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2019.5	0.0	2019.5
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	13081.5	0.0	13081.5
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	15101.0	0.0	15101.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.0	1.1
10°-20°	439.5	2.9
20°-30°	832.8	5.5
30°-40°	1685.3	11.2
40°-50°	2870.9	19.0
50°-60°	3904.2	25.9
60°-70°	3666.2	24.3
70°-80°	1468.8	9.7
80°-90°	71.2	0.5
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°	15101.0	100.0
0°-180°	15101.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P883828

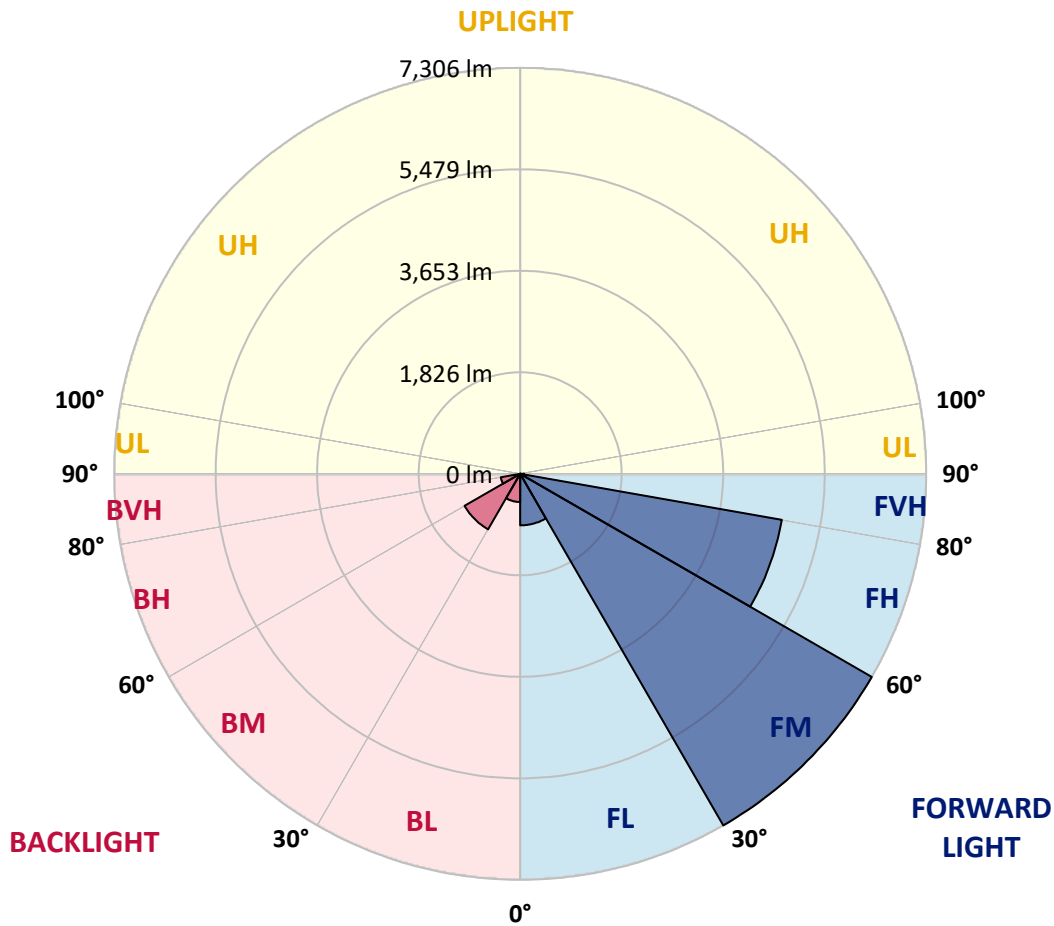
CATALOG NUMBER: NAV-SB4B-835-U-T3-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	927.4	6.1			
FM (30°-60°)	7305.8	48.4			
FH (60°-80°)	4780.6	31.7			G2/5000
FVH (80°-90°)	67.7	0.4			G1/100
BL (0°-30°)	507.0	3.4	B2/1000		
BM (30°-60°)	1154.5	7.6	B2/2500		
BH (60°-80°)	354.4	2.3	B1/500		G1/500
BVH (80°-90°)	3.5	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-G2**

Type III Short



REPORT NUMBER: P883828

CATALOG NUMBER: NAV-SB4B-835-U-T3-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4
2.5°	1750.3	1762.5	1759.4	1756.4	1755.4	1757.4	1758.4	1757.4	1757.4	1757.4	1758.4
5°	1716.9	1727.0	1727.0	1734.1	1744.3	1756.4	1765.5	1767.5	1769.6	1772.6	1771.6
7.5°	1653.1	1661.2	1667.3	1690.6	1715.9	1748.3	1775.6	1789.8	1791.8	1803.0	1807.0
10°	1609.6	1619.7	1629.9	1654.2	1690.6	1739.2	1785.8	1820.2	1825.2	1851.6	1863.7
12.5°	1607.6	1617.7	1630.9	1657.2	1699.7	1751.3	1808.0	1857.6	1866.7	1905.2	1930.5
15°	1628.8	1641.0	1653.1	1685.5	1731.1	1793.9	1854.6	1916.4	1925.5	1980.1	2007.5
17.5°	1672.4	1688.6	1697.7	1730.1	1778.7	1848.5	1928.5	1999.4	2007.5	2071.2	2105.7
20°	1758.4	1777.7	1780.7	1807.0	1854.6	1929.5	2024.7	2112.7	2122.9	2195.8	2234.2
22.5°	1936.6	1963.9	1939.6	1952.8	1995.3	2070.2	2173.5	2284.8	2299.0	2382.0	2416.4
25°	2250.4	2288.9	2226.1	2203.9	2222.1	2300.0	2429.6	2570.3	2586.5	2653.3	2670.5
27.5°	2866.9	2817.3	2722.2	2629.0	2574.4	2618.9	2764.7	2938.8	2959.1	3023.8	3003.6
30°	3544.2	3500.7	3372.1	3165.6	3036.0	3028.9	3163.6	3357.9	3381.2	3443.0	3381.2
32.5°	4222.5	4180.9	4041.2	3787.1	3562.4	3451.1	3544.2	3759.8	3772.0	3811.4	3720.3
35°	4889.6	4847.1	4707.4	4447.2	4170.8	3917.7	3899.5	4142.5	4146.5	4188.0	4052.4
37.5°	5560.8	5525.3	5376.5	5121.4	4849.1	4499.8	4330.8	4504.9	4510.0	4550.5	4409.7
40°	6039.6	6054.8	5952.5	5755.1	5521.3	5139.6	4814.7	4890.6	4860.2	4928.1	4844.0
42.5°	6450.6	6481.0	6391.9	6292.7	6157.0	5820.9	5414.0	5400.8	5352.2	5388.7	5301.6
45°	6805.9	6831.2	6751.3	6728.0	6724.9	6489.1	6069.0	5990.0	5922.2	5915.1	5810.8
47.5°	6936.5	6985.1	7019.5	7097.5	7249.3	7150.1	6746.2	6623.7	6547.8	6492.1	6327.1
50°	6986.1	7037.8	7155.2	7382.0	7741.3	7783.9	7420.4	7282.7	7189.6	7088.4	6845.4
52.5°	6919.3	7011.4	7169.4	7551.0	8072.4	8292.0	8067.3	7946.8	7840.5	7675.5	7315.1
55°	6525.5	6617.6	6940.6	7549.0	8237.4	8648.4	8678.8	8625.1	8505.6	8245.5	7694.8
57.5°	5695.4	5832.1	6343.3	7291.9	8234.3	8955.1	9278.1	9316.5	9182.9	8810.4	7993.4
60°	4545.4	4730.6	5354.2	6721.9	7980.2	9121.1	9803.5	9995.8	9854.1	9367.1	8235.4
62.5°	3171.6	3386.3	3976.5	5829.0	7399.2	9001.7	10187.1	10542.5	10435.2	9865.2	8328.5
65°	1934.6	2003.4	2479.2	4586.9	6411.1	8501.6	10305.6	10838.1	10802.6	10169.9	8190.8
67.5°	1288.7	1346.4	1483.1	3145.3	4976.6	7502.4	10022.1	10786.4	10796.6	10120.3	7686.7
70°	776.5	826.1	915.2	1829.3	3225.3	5938.4	9144.4	10128.4	10187.1	9457.2	6731.0
72.5°	319.9	353.3	434.3	829.1	1670.4	3768.9	7281.7	8696.0	8832.6	7951.9	5166.0
75°	181.2	198.4	255.1	416.1	724.8	1756.4	4410.7	6173.2	6374.7	5480.8	3107.9
77.5°	120.5	128.6	165.0	269.3	408.0	599.3	1885.0	3216.2	3600.9	2993.5	1345.4
80°	81.0	88.1	113.4	180.2	265.2	257.1	600.3	1191.5	1465.9	1028.5	328.0
82.5°	54.7	55.7	81.0	118.4	168.0	124.5	177.2	370.5	465.7	297.6	124.5
85°	31.4	30.4	59.7	68.8	74.9	51.6	53.7	111.4	145.8	125.5	70.9
87.5°	4.0	6.1	23.3	18.2	10.1	11.1	11.1	19.2	28.3	30.4	15.2
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: P883828

CATALOG NUMBER: NAV-SB4B-835-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4	1756.4
2.5°	1758.4	1757.4	1754.4	1751.3	1744.3	1740.2	1742.2	1740.2	1739.2	1740.2	1744.3
5°	1771.6	1768.6	1760.5	1750.3	1736.2	1718.9	1707.8	1691.6	1676.4	1667.3	1669.3
7.5°	1807.0	1804.0	1792.8	1764.5	1718.9	1647.1	1581.3	1523.6	1480.0	1454.7	1455.7
10°	1863.7	1858.6	1841.4	1778.7	1659.2	1502.3	1371.7	1263.4	1192.5	1159.1	1156.1
12.5°	1930.5	1924.5	1894.1	1765.5	1545.8	1300.9	1120.7	1000.2	934.4	905.0	902.0
15°	2009.5	2001.4	1941.7	1702.7	1380.8	1078.1	913.1	823.0	780.5	754.2	755.2
17.5°	2107.7	2093.5	1977.1	1608.6	1201.6	908.1	785.6	717.7	680.3	655.0	653.0
20°	2235.2	2212.0	2005.4	1496.2	1036.6	800.8	699.5	642.8	614.5	592.2	588.2
22.5°	2413.4	2380.0	2039.9	1374.8	920.2	726.9	635.7	594.2	571.0	545.6	541.6
25°	2634.1	2594.6	2082.4	1262.4	840.2	663.1	589.2	554.8	527.4	498.1	495.0
27.5°	2942.9	2872.0	2133.0	1170.3	771.4	608.4	546.7	508.2	476.8	452.5	447.5
30°	3287.1	3170.6	2177.5	1114.6	708.6	557.8	491.0	452.5	423.2	405.9	402.9
32.5°	3613.0	3455.1	2206.9	1090.3	651.9	500.1	430.2	388.7	366.5	361.4	364.4
35°	3920.8	3712.2	2203.9	1067.0	601.3	442.4	370.5	328.0	310.8	313.8	313.8
37.5°	4275.1	3986.6	2182.6	1030.6	559.8	389.7	318.9	281.4	266.2	267.3	271.3
40°	4687.1	4303.4	2169.4	961.7	514.3	341.2	276.4	246.0	234.9	230.8	229.8
42.5°	5126.5	4610.2	2171.5	883.8	457.6	297.6	247.0	221.7	211.6	208.5	207.5
45°	5567.8	4902.7	2174.5	802.8	397.8	264.2	225.8	204.5	198.4	194.4	194.4
47.5°	5982.9	5151.8	2117.8	715.7	339.1	238.9	208.5	194.4	189.3	184.2	184.2
50°	6369.6	5317.8	1981.1	614.5	292.6	218.7	195.4	185.3	180.2	175.1	175.1
52.5°	6670.3	5344.1	1755.4	510.2	260.2	203.5	187.3	178.2	172.1	167.0	166.0
55°	6803.9	5179.1	1434.5	413.0	234.9	190.3	179.2	170.1	163.0	157.9	156.9
57.5°	6769.5	4831.9	1118.6	332.0	210.6	177.2	169.1	163.0	154.9	146.8	145.8
60°	6600.4	4367.2	843.3	276.4	188.3	163.0	157.9	152.9	141.7	129.6	127.6
62.5°	6307.9	3783.1	601.3	228.8	164.0	146.8	144.8	140.7	124.5	102.2	100.2
65°	5860.4	3073.5	404.9	190.3	140.7	128.6	129.6	122.5	101.2	75.9	73.9
67.5°	5206.4	2247.4	259.2	155.9	117.4	107.3	108.3	104.3	86.0	64.8	61.8
70°	4373.3	1488.1	169.1	118.4	94.1	83.0	89.1	90.1	72.9	52.6	50.6
72.5°	3206.1	878.7	118.4	88.1	68.8	57.7	72.9	74.9	58.7	39.5	37.5
75°	1827.3	417.1	89.1	63.8	42.5	40.5	56.7	56.7	40.5	26.3	24.3
77.5°	767.4	174.1	62.8	41.5	24.3	23.3	38.5	35.4	20.2	12.1	12.1
80°	221.7	77.9	33.4	20.2	10.1	9.1	15.2	11.1	5.1	2.0	2.0
82.5°	87.1	34.4	13.2	8.1	4.0	4.0	2.0	0.0	0.0	0.0	0.0
85°	51.6	14.2	6.1	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.2	3.0	2.0	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)