

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: P884328

Luminaire Tested: **NAV-SB5A-830-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884328
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-SB5A-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA 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: 15620 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

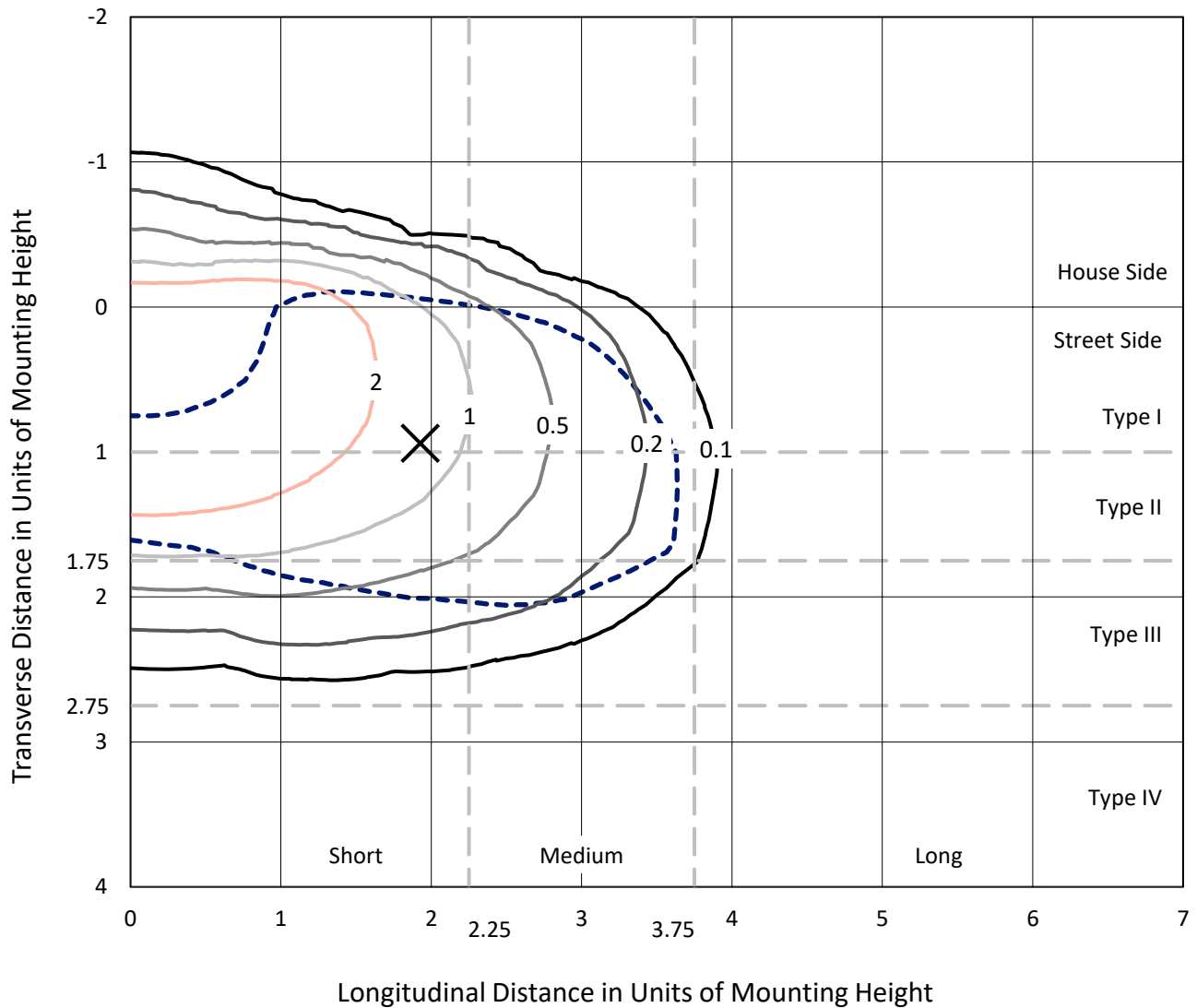
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884328
 CATALOG NUMBER: NAV-SB5A-830-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

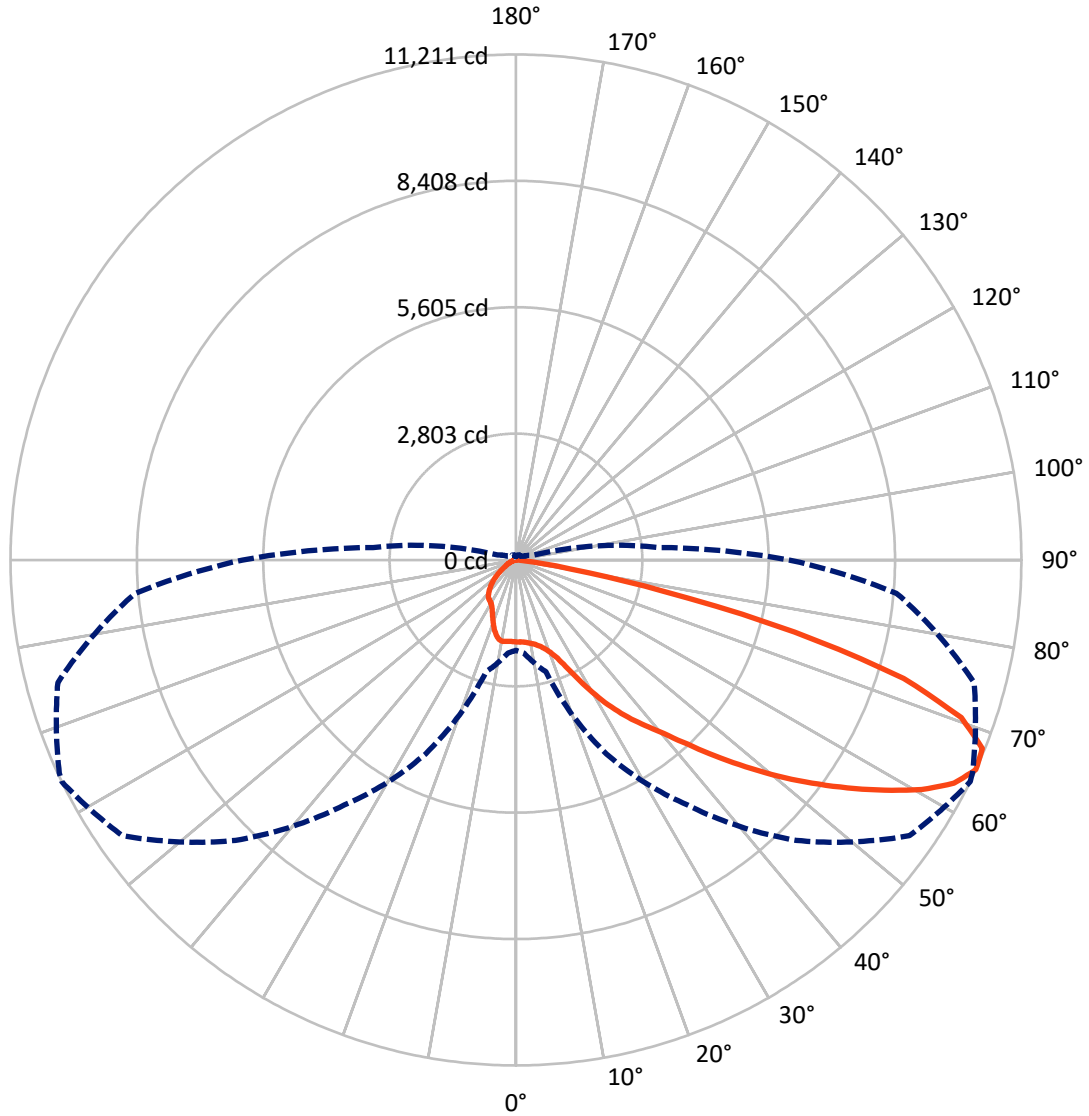
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - N/A

REPORT NUMBER: P884328
CATALOG NUMBER: NAV-SB5A-830-U-T3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P884328

CATALOG NUMBER: NAV-SB5A-830-U-T3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2088.9	0.0	2088.9
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	13531.1	0.0	13531.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	15620.0	0.0	15620.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.6	1.1
10°-20°	454.6	2.9
20°-30°	861.5	5.5
30°-40°	1743.2	11.2
40°-50°	2969.6	19.0
50°-60°	4038.4	25.9
60°-70°	3792.2	24.3
70°-80°	1519.3	9.7
80°-90°	73.6	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°	15620.0	100.0
0°-180°	15620.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884328

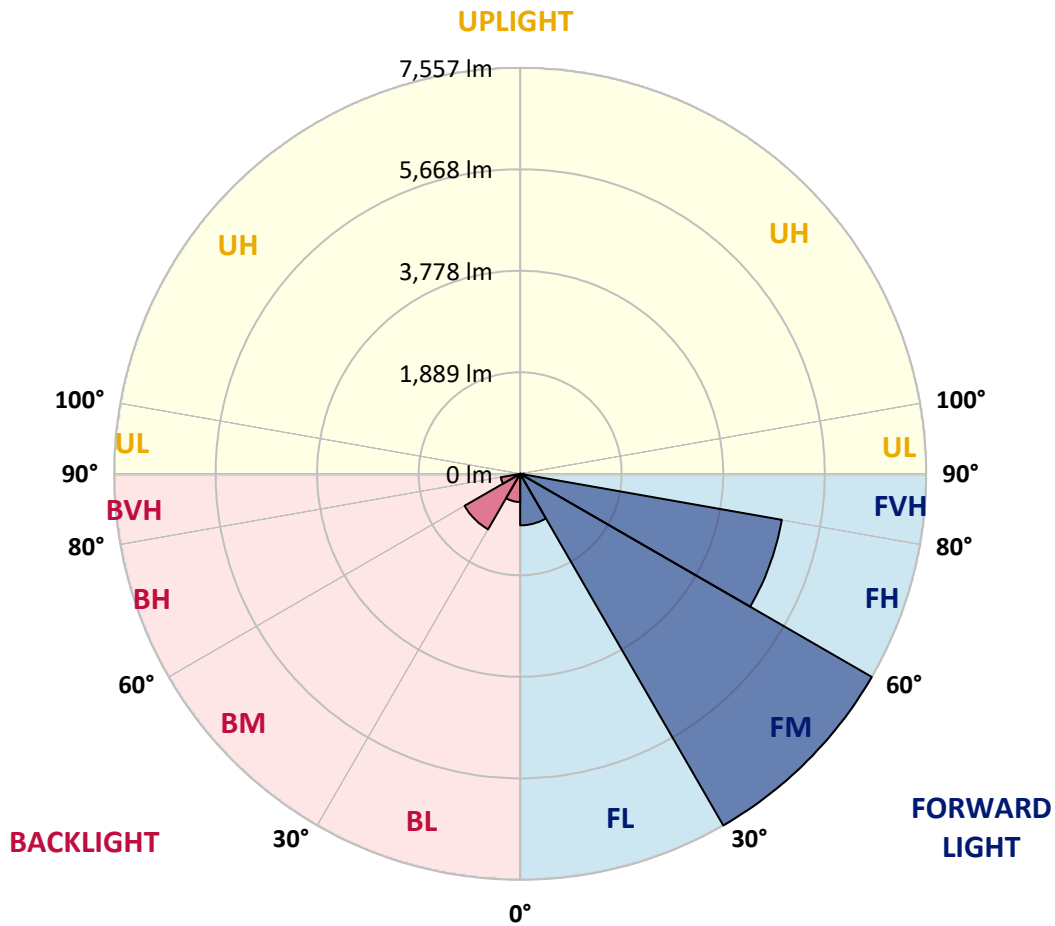
CATALOG NUMBER: NAV-SB5A-830-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	959.2	6.1			
FM (30°-60°)	7556.9	48.4			
FH (60°-80°)	4944.9	31.7			G2/5000
FVH (80°-90°)	70.0	0.4			G1/100
BL (0°-30°)	524.5	3.4	B2/1000		
BM (30°-60°)	1194.2	7.6	B2/2500		
BH (60°-80°)	366.6	2.3	B1/500		G1/500
BVH (80°-90°)	3.6	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: P884328

CATALOG NUMBER: NAV-SB5A-830-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8
2.5°	1810.5	1823.1	1819.9	1816.8	1815.7	1817.8	1818.9	1817.8	1817.8	1817.8	1818.9
5°	1775.9	1786.4	1786.4	1793.7	1804.2	1816.8	1826.2	1828.3	1830.4	1833.5	1832.5
7.5°	1710.0	1718.3	1724.6	1748.7	1774.9	1808.4	1836.7	1851.3	1853.4	1864.9	1869.1
10°	1664.9	1675.4	1685.9	1711.0	1748.7	1799.0	1847.1	1882.7	1888.0	1915.2	1927.8
12.5°	1662.8	1673.3	1686.9	1714.1	1758.1	1811.5	1870.2	1921.5	1930.9	1970.7	1996.9
15°	1684.8	1697.4	1710.0	1743.5	1790.6	1855.5	1918.3	1982.2	1991.6	2048.2	2076.5
17.5°	1729.9	1746.6	1756.0	1789.5	1839.8	1912.1	1994.8	2068.1	2076.5	2142.4	2178.0
20°	1818.9	1838.8	1841.9	1869.1	1918.3	1995.8	2094.3	2185.4	2195.8	2271.2	2311.0
22.5°	2003.2	2031.4	2006.3	2019.9	2063.9	2141.4	2248.2	2363.4	2378.0	2463.9	2499.5
25°	2327.8	2367.6	2302.6	2279.6	2298.4	2379.1	2513.1	2658.7	2675.4	2744.5	2762.3
27.5°	2965.5	2914.2	2815.7	2719.4	2662.8	2708.9	2859.7	3039.8	3060.8	3127.8	3106.8
30°	3666.0	3621.0	3488.0	3274.4	3140.3	3133.0	3272.3	3473.3	3497.4	3561.3	3497.4
32.5°	4367.6	4324.6	4180.1	3917.3	3684.8	3569.7	3666.0	3889.0	3901.6	3942.4	3848.2
35°	5057.6	5013.7	4869.1	4600.0	4314.2	4052.4	4033.5	4284.9	4289.0	4332.0	4191.7
37.5°	5751.9	5715.2	5561.3	5297.4	5015.7	4654.5	4479.6	4659.7	4665.0	4706.8	4561.3
40°	6247.2	6262.9	6157.1	5952.9	5711.0	5316.3	4980.1	5058.7	5027.3	5097.4	5010.5
42.5°	6672.3	6703.7	6611.6	6509.0	6368.6	6021.0	5600.0	5586.4	5536.2	5573.9	5483.8
45°	7039.8	7066.0	6983.3	6959.2	6956.1	6712.1	6277.5	6195.9	6125.7	6118.4	6010.5
47.5°	7174.9	7225.2	7260.8	7341.4	7498.5	7395.9	6978.1	6851.4	6772.8	6715.2	6544.6
50°	7226.2	7279.6	7401.1	7635.7	8007.4	8051.4	7675.5	7533.0	7436.7	7332.0	7080.7
52.5°	7157.1	7252.4	7415.8	7810.5	8349.8	8577.0	8344.6	8220.0	8110.0	7939.3	7566.6
55°	6749.8	6845.1	7179.1	7808.4	8520.5	8945.6	8977.0	8921.5	8798.0	8528.9	7959.2
57.5°	5891.1	6032.5	6561.3	7542.5	8517.3	9262.9	9596.9	9636.7	9498.5	9113.2	8268.1
60°	4701.6	4893.2	5538.3	6952.9	8254.5	9434.6	10140.4	10339.3	10192.8	9689.1	8518.4
62.5°	3280.7	3502.6	4113.1	6029.4	7653.5	9311.1	10537.3	10904.8	10793.8	10204.3	8614.7
65°	2001.1	2072.3	2564.4	4744.5	6631.5	8793.8	10659.8	11210.6	11173.9	10519.5	8472.3
67.5°	1333.0	1392.7	1534.0	3253.4	5147.7	7760.3	10366.6	11157.2	11167.6	10468.1	7950.8
70°	803.1	854.5	946.6	1892.2	3336.2	6142.5	9458.7	10476.5	10537.3	9782.3	6962.4
72.5°	330.9	365.4	449.2	857.6	1727.8	3898.5	7532.0	8994.8	9136.2	8225.2	5343.5
75°	187.4	205.2	263.9	430.4	749.7	1816.8	4562.3	6385.4	6593.8	5669.2	3214.7
77.5°	124.6	133.0	170.7	278.5	422.0	619.9	1949.8	3326.7	3724.6	3096.4	1391.6
80°	83.8	91.1	117.3	186.4	274.3	266.0	620.9	1232.5	1516.2	1063.9	339.3
82.5°	56.5	57.6	83.8	122.5	173.8	128.8	183.2	383.2	481.7	307.9	128.8
85°	32.5	31.4	61.8	71.2	77.5	53.4	55.5	115.2	150.8	129.8	73.3
87.5°	4.2	6.3	24.1	18.8	10.5	11.5	11.5	19.9	29.3	31.4	15.7
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: P884328

CATALOG NUMBER: NAV-SB5A-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8	1816.8
2.5°	1818.9	1817.8	1814.7	1811.5	1804.2	1800.0	1802.1	1800.0	1799.0	1800.0	1804.2
5°	1832.5	1829.3	1821.0	1810.5	1795.8	1778.0	1766.5	1749.8	1734.0	1724.6	1726.7
7.5°	1869.1	1866.0	1854.5	1825.1	1778.0	1703.7	1635.6	1575.9	1530.9	1504.7	1505.8
10°	1927.8	1922.5	1904.7	1839.8	1716.2	1553.9	1418.9	1306.8	1233.5	1199.0	1195.8
12.5°	1996.9	1990.6	1959.2	1826.2	1599.0	1345.6	1159.2	1034.6	966.5	936.1	933.0
15°	2078.6	2070.2	2008.4	1761.3	1428.3	1115.2	944.5	851.3	807.3	780.1	781.2
17.5°	2180.1	2165.5	2045.0	1663.9	1242.9	939.3	812.6	742.4	703.7	677.5	675.4
20°	2312.1	2288.0	2074.4	1547.7	1072.3	828.3	723.6	664.9	635.6	612.6	608.4
22.5°	2496.4	2461.8	2110.0	1422.0	951.8	751.8	657.6	614.7	590.6	564.4	560.2
25°	2724.6	2683.8	2153.9	1305.8	869.1	685.9	609.4	573.8	545.6	515.2	512.0
27.5°	3044.0	2970.7	2206.3	1210.5	797.9	629.3	565.4	525.7	493.2	468.1	462.8
30°	3400.0	3279.6	2252.4	1152.9	733.0	577.0	507.9	468.1	437.7	419.9	416.8
32.5°	3737.2	3573.9	2282.7	1127.8	674.4	517.3	445.0	402.1	379.1	373.8	377.0
35°	4055.5	3839.8	2279.6	1103.7	622.0	457.6	383.2	339.3	321.5	324.6	324.6
37.5°	4422.0	4123.6	2257.6	1066.0	579.1	403.1	329.8	291.1	275.4	276.4	280.6
40°	4848.2	4451.3	2244.0	994.8	531.9	352.9	285.9	254.5	242.9	238.7	237.7
42.5°	5302.7	4768.6	2246.1	914.1	473.3	307.9	255.5	229.3	218.8	215.7	214.7
45°	5759.2	5071.2	2249.2	830.4	411.5	273.3	233.5	211.5	205.2	201.0	201.0
47.5°	6188.5	5328.8	2190.6	740.3	350.8	247.1	215.7	201.0	195.8	190.6	190.6
50°	6588.5	5500.6	2049.2	635.6	302.6	226.2	202.1	191.6	186.4	181.2	181.2
52.5°	6899.5	5527.8	1815.7	527.8	269.1	210.5	193.7	184.3	178.0	172.8	171.7
55°	7037.8	5357.1	1483.8	427.2	242.9	196.9	185.3	175.9	168.6	163.4	162.3
57.5°	7002.1	4997.9	1157.1	343.5	217.8	183.2	174.9	168.6	160.2	151.8	150.8
60°	6827.3	4517.3	872.3	285.9	194.8	168.6	163.4	158.1	146.6	134.0	131.9
62.5°	6524.7	3913.1	622.0	236.7	169.6	151.8	149.7	145.6	128.8	105.8	103.7
65°	6061.8	3179.1	418.9	196.9	145.6	133.0	134.0	126.7	104.7	78.5	76.4
67.5°	5385.4	2324.6	268.1	161.3	121.5	111.0	112.0	107.9	89.0	67.0	63.9
70°	4523.6	1539.3	174.9	122.5	97.4	85.9	92.1	93.2	75.4	54.5	52.4
72.5°	3316.3	908.9	122.5	91.1	71.2	59.7	75.4	77.5	60.7	40.8	38.7
75°	1890.1	431.4	92.1	66.0	44.0	41.9	58.6	58.6	41.9	27.2	25.1
77.5°	793.7	180.1	64.9	42.9	25.1	24.1	39.8	36.6	20.9	12.6	12.6
80°	229.3	80.6	34.6	20.9	10.5	9.4	15.7	11.5	5.2	2.1	2.1
82.5°	90.1	35.6	13.6	8.4	4.2	4.2	2.1	0.0	0.0	0.0	0.0
85°	53.4	14.7	6.3	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.6	3.1	2.1	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)