

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: P882798

Luminaire Tested: **NAV-SB2D-830-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882798
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-SB2D-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA 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: 14232 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

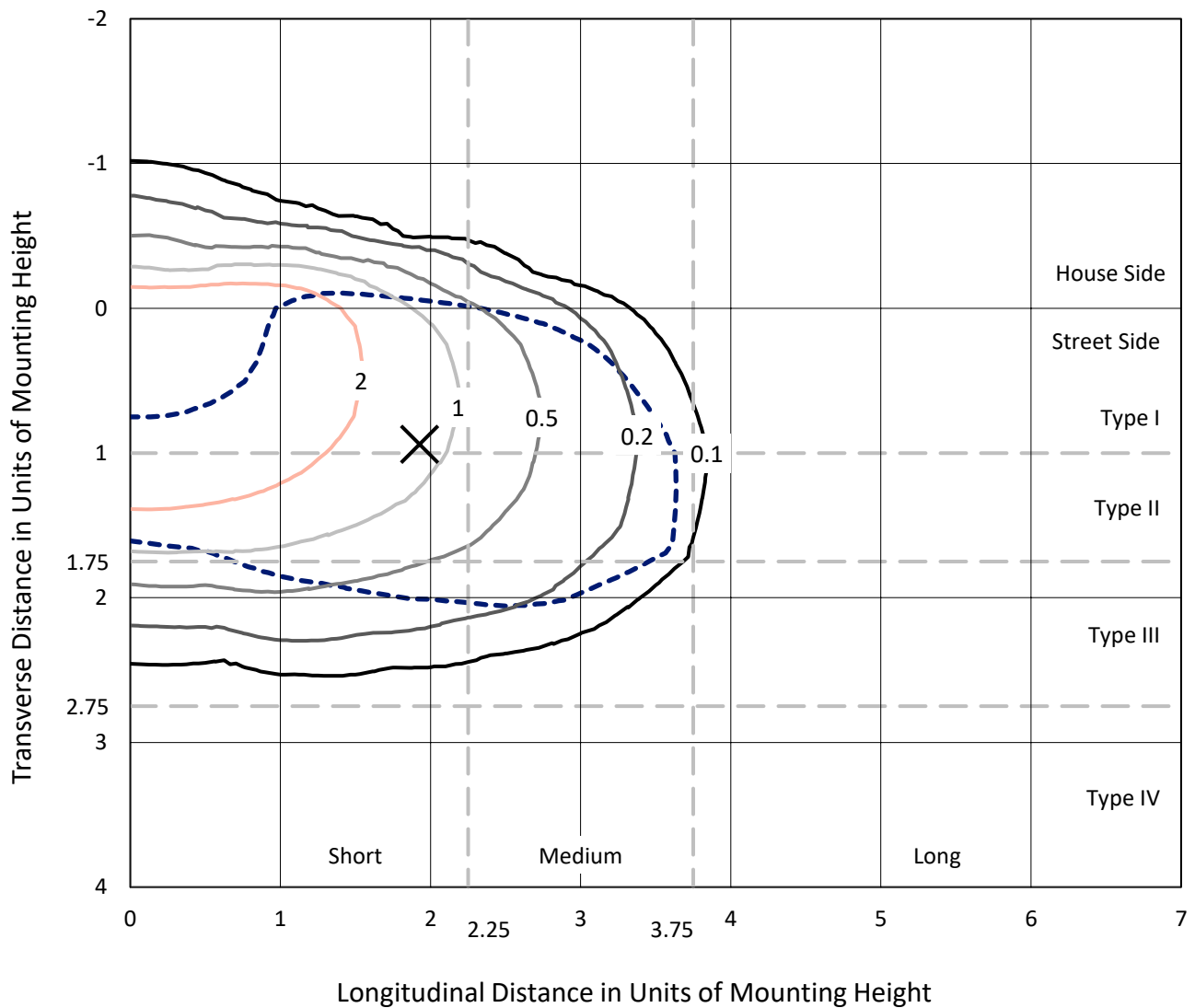
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882798
 CATALOG NUMBER: NAV-SB2D-830-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

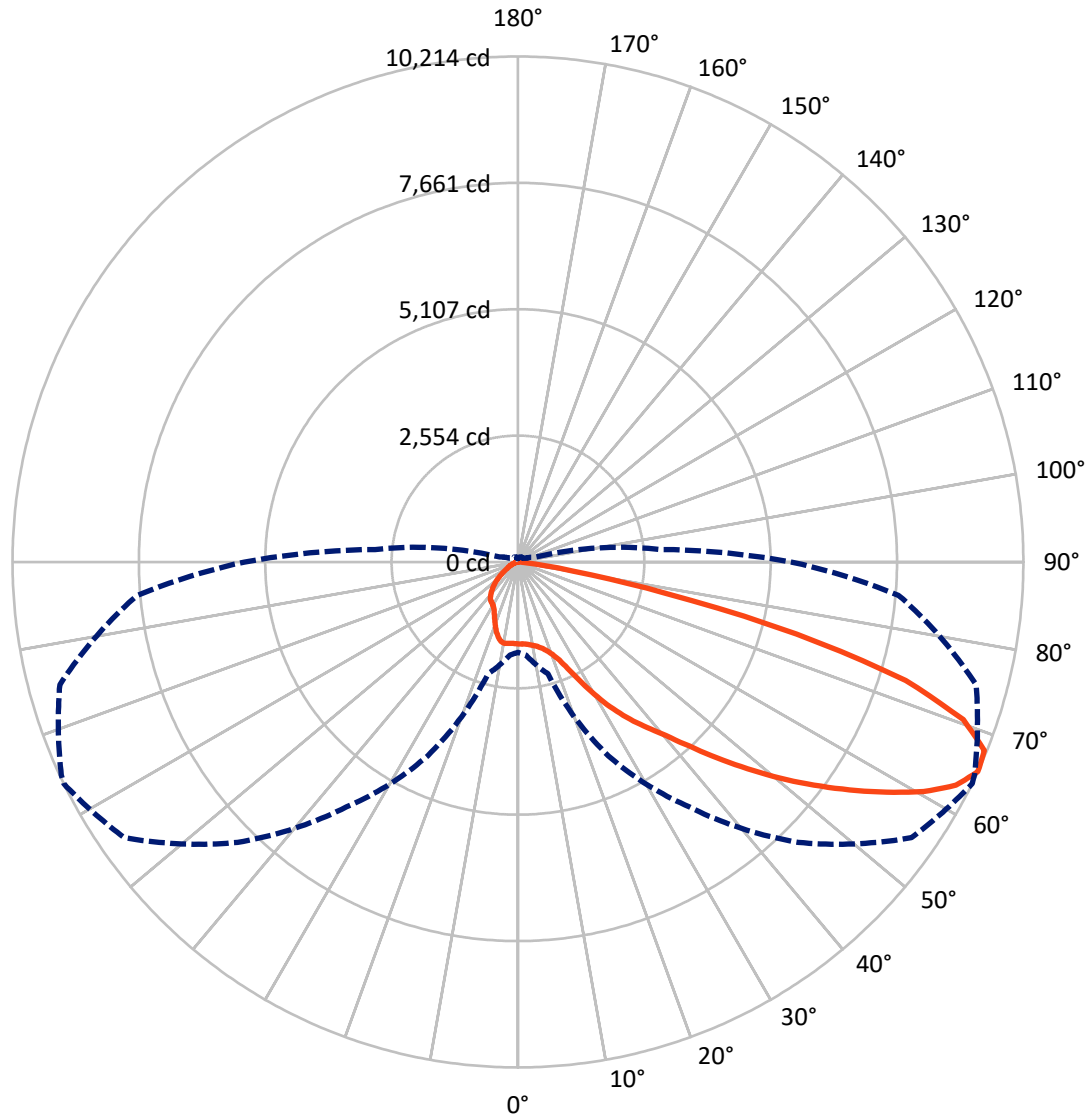
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - N/A

REPORT NUMBER: P882798
CATALOG NUMBER: NAV-SB2D-830-U-T3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P882798

CATALOG NUMBER: NAV-SB2D-830-U-T3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1903.2	0.0	1903.2
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12328.8	0.0	12328.8
	% Fixture	86.6	0.0	86.6
Total	Lumens	14232.0	0.0	14232.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	1.1
10°-20°	414.2	2.9
20°-30°	784.9	5.5
30°-40°	1588.3	11.2
40°-50°	2705.7	19.0
50°-60°	3679.5	25.9
60°-70°	3455.2	24.3
70°-80°	1384.3	9.7
80°-90°	67.1	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°	14232.0	100.0
0°-180°	14232.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882798

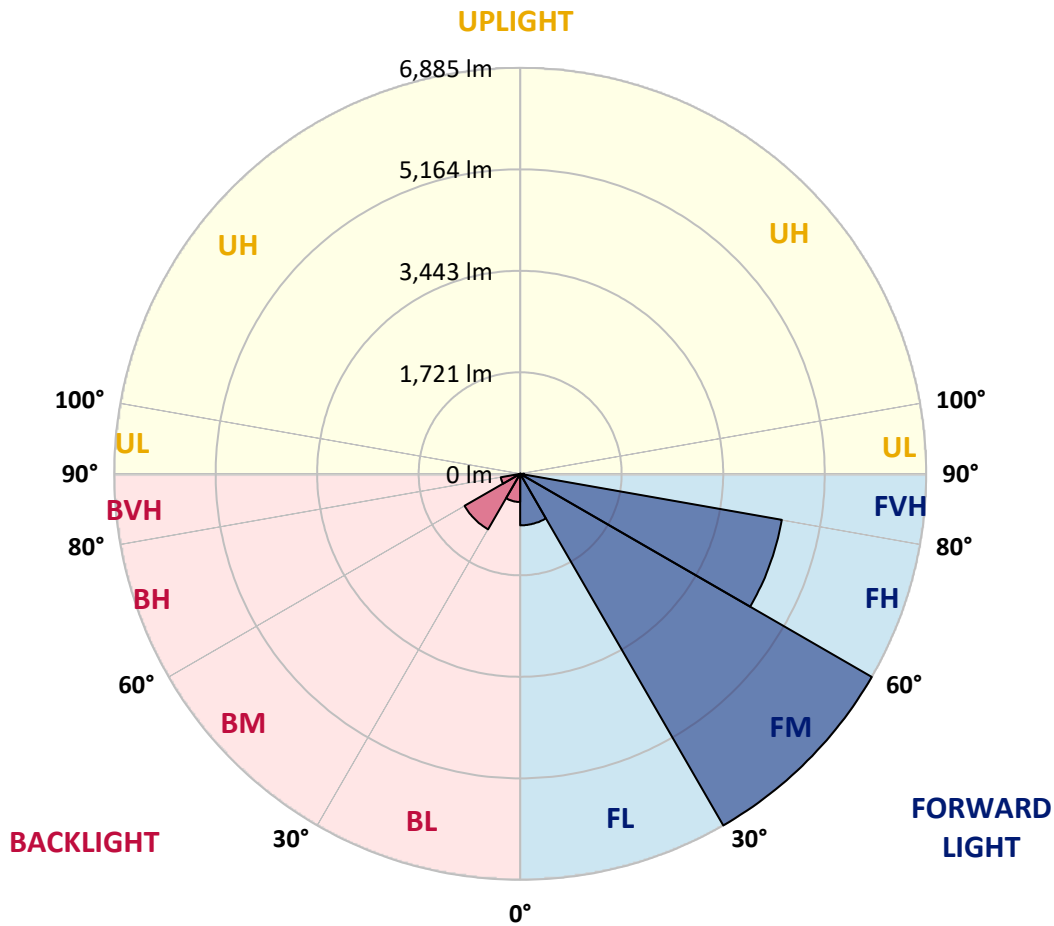
CATALOG NUMBER: NAV-SB2D-830-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	874.0	6.1			
FM (30°-60°)	6885.4	48.4			
FH (60°-80°)	4505.5	31.7			G2/5000
FVH (80°-90°)	63.8	0.4			G1/100
BL (0°-30°)	477.8	3.4	B1/500		
BM (30°-60°)	1088.1	7.6	B2/2500		
BH (60°-80°)	334.1	2.3	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-G2

Type III Short



REPORT NUMBER: P882798

CATALOG NUMBER: NAV-SB2D-830-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3
2.5°	1649.6	1661.1	1658.2	1655.3	1654.4	1656.3	1657.2	1656.3	1656.3	1656.3	1657.2
5°	1618.1	1627.7	1627.7	1634.3	1643.9	1655.3	1663.9	1665.8	1667.7	1670.6	1669.6
7.5°	1558.0	1565.6	1571.4	1593.3	1617.2	1647.7	1673.5	1686.8	1688.7	1699.2	1703.0
10°	1517.0	1526.5	1536.1	1559.0	1593.3	1639.1	1683.0	1715.4	1720.2	1745.0	1756.5
12.5°	1515.1	1524.6	1537.0	1561.8	1601.9	1650.6	1704.0	1750.7	1759.3	1795.6	1819.4
15°	1535.1	1546.6	1558.0	1588.5	1631.5	1690.6	1747.9	1806.1	1814.7	1866.2	1891.9
17.5°	1576.1	1591.4	1600.0	1630.5	1676.3	1742.2	1817.5	1884.3	1891.9	1952.0	1984.5
20°	1657.2	1675.4	1678.2	1703.0	1747.9	1818.5	1908.2	1991.2	2000.7	2069.4	2105.7
22.5°	1825.2	1850.9	1828.0	1840.4	1880.5	1951.1	2048.4	2153.4	2166.7	2245.0	2277.4
25°	2120.9	2157.2	2098.0	2077.0	2094.2	2167.7	2289.8	2422.4	2437.7	2500.6	2516.9
27.5°	2702.0	2655.2	2565.5	2477.7	2426.2	2468.2	2605.6	2769.7	2788.8	2849.8	2830.8
30°	3340.2	3299.2	3178.0	2983.4	2861.3	2854.6	2981.5	3164.7	3186.6	3244.8	3186.6
32.5°	3979.5	3940.4	3808.7	3569.2	3357.4	3252.5	3340.2	3543.5	3554.9	3592.1	3506.2
35°	4608.2	4568.1	4436.5	4191.3	3930.8	3692.3	3675.1	3904.1	3907.9	3947.0	3819.2
37.5°	5240.8	5207.4	5067.1	4826.7	4570.0	4240.9	4081.6	4245.7	4250.4	4288.6	4156.0
40°	5692.0	5706.4	5610.0	5423.9	5203.6	4843.9	4537.6	4609.2	4580.5	4644.5	4565.3
42.5°	6079.4	6108.0	6024.1	5930.6	5802.7	5486.0	5102.4	5090.0	5044.2	5078.6	4996.5
45°	6414.3	6438.1	6362.8	6340.8	6338.0	6115.7	5719.7	5645.3	5581.4	5574.7	5476.4
47.5°	6537.4	6583.2	6615.6	6689.1	6832.2	6738.7	6358.0	6242.5	6171.0	6118.5	5963.0
50°	6584.1	6632.8	6743.4	6957.2	7295.9	7335.9	6993.4	6863.7	6775.9	6680.5	6451.5
52.5°	6521.1	6608.0	6756.8	7116.5	7607.8	7814.9	7603.1	7489.5	7389.4	7233.8	6894.2
55°	6150.0	6236.8	6541.2	7114.6	7763.4	8150.7	8179.3	8128.8	8016.2	7771.0	7252.0
57.5°	5367.7	5496.5	5978.3	6872.2	7760.5	8439.8	8744.1	8780.4	8654.5	8303.4	7533.4
60°	4283.8	4458.4	5046.1	6335.1	7521.0	8596.3	9239.3	9420.6	9287.0	8828.1	7761.4
62.5°	2989.1	3191.4	3747.6	5493.6	6973.4	8483.7	9600.9	9935.8	9834.7	9297.5	7849.2
65°	1823.2	1888.1	2336.5	4322.9	6042.2	8012.4	9712.5	10214.4	10181.0	9584.7	7719.5
67.5°	1214.5	1268.9	1397.7	2964.3	4690.3	7070.7	9445.4	10165.7	10175.3	9537.9	7244.3
70°	731.8	778.5	862.5	1724.0	3039.7	5596.6	8618.2	9545.6	9600.9	8913.0	6343.7
72.5°	301.5	333.0	409.3	781.4	1574.2	3552.0	6862.7	8195.6	8324.4	7494.3	4868.7
75°	170.8	187.0	240.4	392.1	683.1	1655.3	4156.9	5818.0	6007.8	5165.4	2929.0
77.5°	113.5	121.2	155.5	253.8	384.5	564.8	1776.5	3031.1	3393.7	2821.2	1268.0
80°	76.3	83.0	106.9	169.8	250.0	242.3	565.8	1123.0	1381.5	969.3	309.1
82.5°	51.5	52.5	76.3	111.6	158.4	117.4	167.0	349.2	438.9	280.5	117.4
85°	29.6	28.6	56.3	64.9	70.6	48.7	50.6	104.9	137.4	118.3	66.8
87.5°	3.8	5.7	21.9	17.2	9.5	10.5	10.5	18.1	26.7	28.6	14.3
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: P882798

CATALOG NUMBER: NAV-SB2D-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3	1655.3
2.5°	1657.2	1656.3	1653.4	1650.6	1643.9	1640.1	1642.0	1640.1	1639.1	1640.1	1643.9
5°	1669.6	1666.8	1659.1	1649.6	1636.2	1620.0	1609.5	1594.3	1580.0	1571.4	1573.3
7.5°	1703.0	1700.2	1689.7	1663.0	1620.0	1552.3	1490.3	1435.9	1394.9	1371.0	1372.0
10°	1756.5	1751.7	1735.5	1676.3	1563.7	1415.9	1292.8	1190.7	1123.9	1092.4	1089.6
12.5°	1819.4	1813.7	1785.1	1663.9	1456.9	1226.0	1056.2	942.6	880.6	852.9	850.1
15°	1893.8	1886.2	1829.9	1604.8	1301.4	1016.1	860.6	775.7	735.6	710.8	711.7
17.5°	1986.4	1973.0	1863.3	1516.0	1132.5	855.8	740.4	676.4	641.1	617.3	615.4
20°	2106.6	2084.7	1890.0	1410.1	977.0	754.7	659.3	605.8	579.1	558.1	554.3
22.5°	2274.5	2243.0	1922.5	1295.6	867.3	685.0	599.2	560.0	538.1	514.2	510.4
25°	2482.5	2445.3	1962.5	1189.7	791.9	624.9	555.3	522.8	497.1	469.4	466.5
27.5°	2773.5	2706.7	2010.2	1102.9	727.0	573.4	515.2	478.9	449.4	426.5	421.7
30°	3097.9	2988.2	2052.2	1050.4	667.9	525.7	462.7	426.5	398.8	382.6	379.7
32.5°	3405.1	3256.3	2079.9	1027.5	614.4	471.3	405.5	366.4	345.4	340.6	343.5
35°	3695.2	3498.6	2077.0	1005.6	566.7	416.9	349.2	309.1	292.9	295.8	295.8
37.5°	4029.1	3757.2	2057.0	971.3	527.6	367.3	300.5	265.2	250.9	251.9	255.7
40°	4417.4	4055.8	2044.6	906.4	484.7	321.5	260.5	231.8	221.3	217.5	216.6
42.5°	4831.5	4344.9	2046.5	832.9	431.2	280.5	232.8	208.9	199.4	196.5	195.6
45°	5247.4	4620.6	2049.4	756.6	375.0	249.0	212.8	192.7	187.0	183.2	183.2
47.5°	5638.6	4855.3	1995.9	674.5	319.6	225.2	196.5	183.2	178.4	173.6	173.6
50°	6003.1	5011.8	1867.1	579.1	275.7	206.1	184.1	174.6	169.8	165.1	165.1
52.5°	6286.4	5036.6	1654.4	480.9	245.2	191.8	176.5	167.9	162.2	157.4	156.5
55°	6412.4	4881.1	1351.9	389.3	221.3	179.4	168.9	160.3	153.6	148.8	147.9
57.5°	6379.9	4553.8	1054.3	312.9	198.4	167.0	159.3	153.6	146.0	138.3	137.4
60°	6220.6	4115.9	794.7	260.5	177.5	153.6	148.8	144.1	133.6	122.1	120.2
62.5°	5944.9	3565.4	566.7	215.6	154.6	138.3	136.4	132.6	117.4	96.4	94.5
65°	5523.2	2896.6	381.6	179.4	132.6	121.2	122.1	115.4	95.4	71.6	69.6
67.5°	4906.8	2118.1	244.2	146.9	110.7	101.1	102.1	98.3	81.1	61.1	58.2
70°	4121.6	1402.5	159.3	111.6	88.7	78.2	84.0	84.9	68.7	49.6	47.7
72.5°	3021.6	828.1	111.6	83.0	64.9	54.4	68.7	70.6	55.3	37.2	35.3
75°	1722.1	393.1	84.0	60.1	40.1	38.2	53.4	53.4	38.2	24.8	22.9
77.5°	723.2	164.1	59.2	39.1	22.9	21.9	36.3	33.4	19.1	11.4	11.4
80°	208.9	73.5	31.5	19.1	9.5	8.6	14.3	10.5	4.8	1.9	1.9
82.5°	82.1	32.4	12.4	7.6	3.8	3.8	1.9	0.0	0.0	0.0	0.0
85°	48.7	13.4	5.7	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.4	2.9	1.9	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)