

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: P883808

Luminaire Tested: **NAV-SB4B-827-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883808
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-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 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: 14542 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

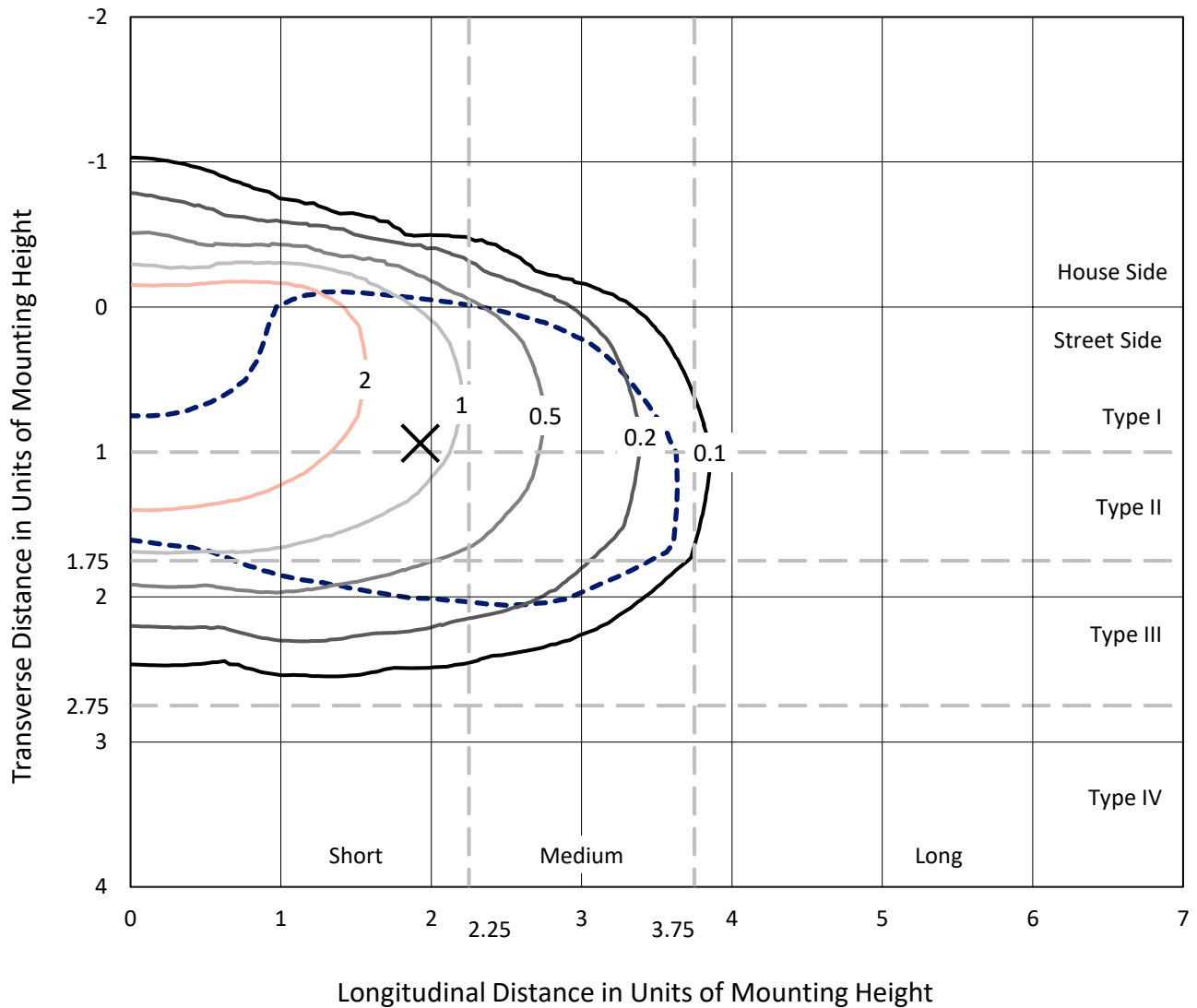
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883808
 CATALOG NUMBER: NAV-SB4B-827-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

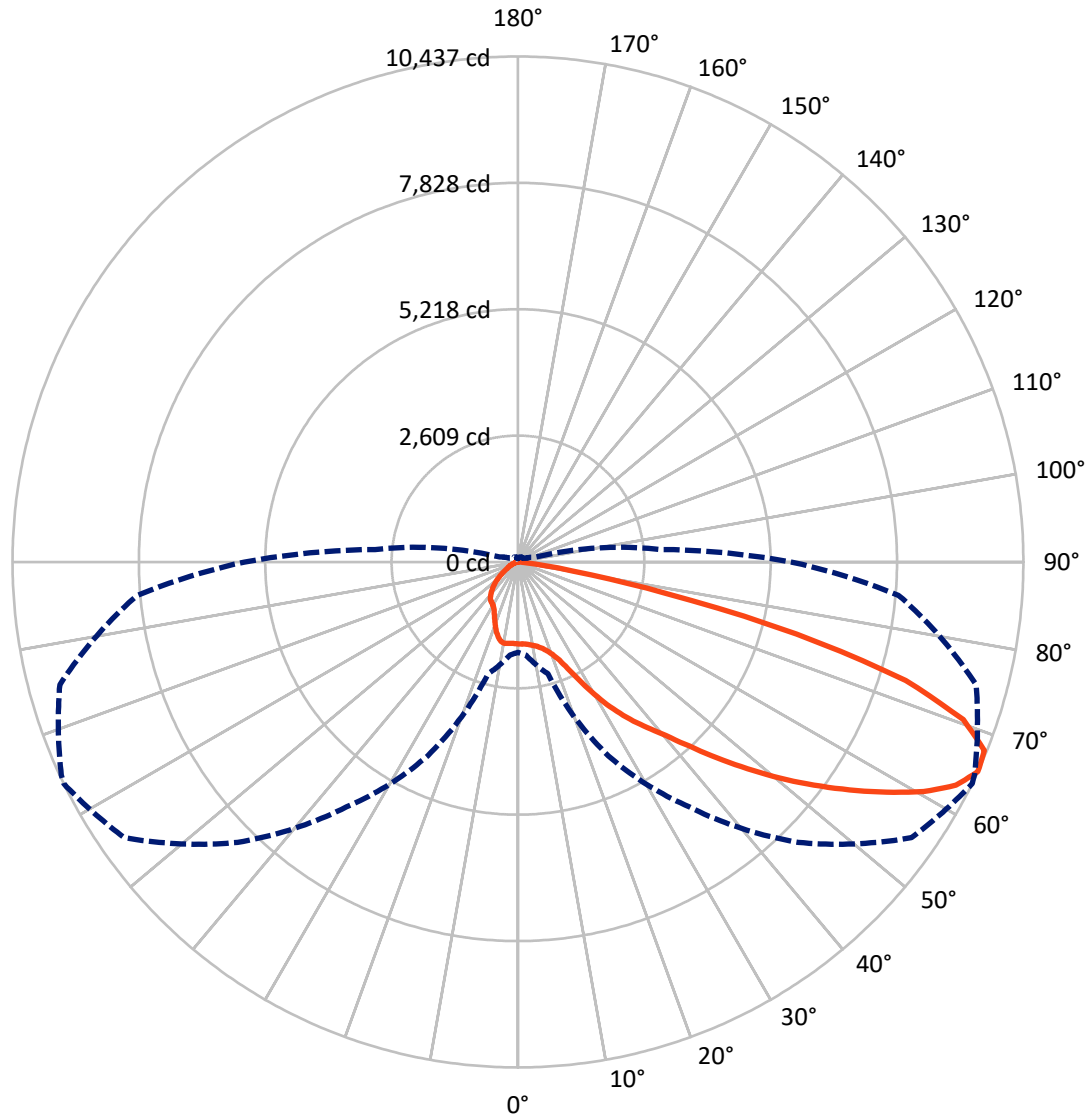
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P883808
CATALOG NUMBER: NAV-SB4B-827-U-T3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P883808

CATALOG NUMBER: NAV-SB4B-827-U-T3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1944.7	0.0	1944.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12597.3	0.0	12597.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	14542.0	0.0	14542.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.0	1.1
10°-20°	423.2	2.9
20°-30°	802.0	5.5
30°-40°	1622.9	11.2
40°-50°	2764.6	19.0
50°-60°	3759.7	25.9
60°-70°	3530.5	24.3
70°-80°	1414.5	9.7
80°-90°	68.5	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°	14542.0	100.0
0°-180°	14542.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883808

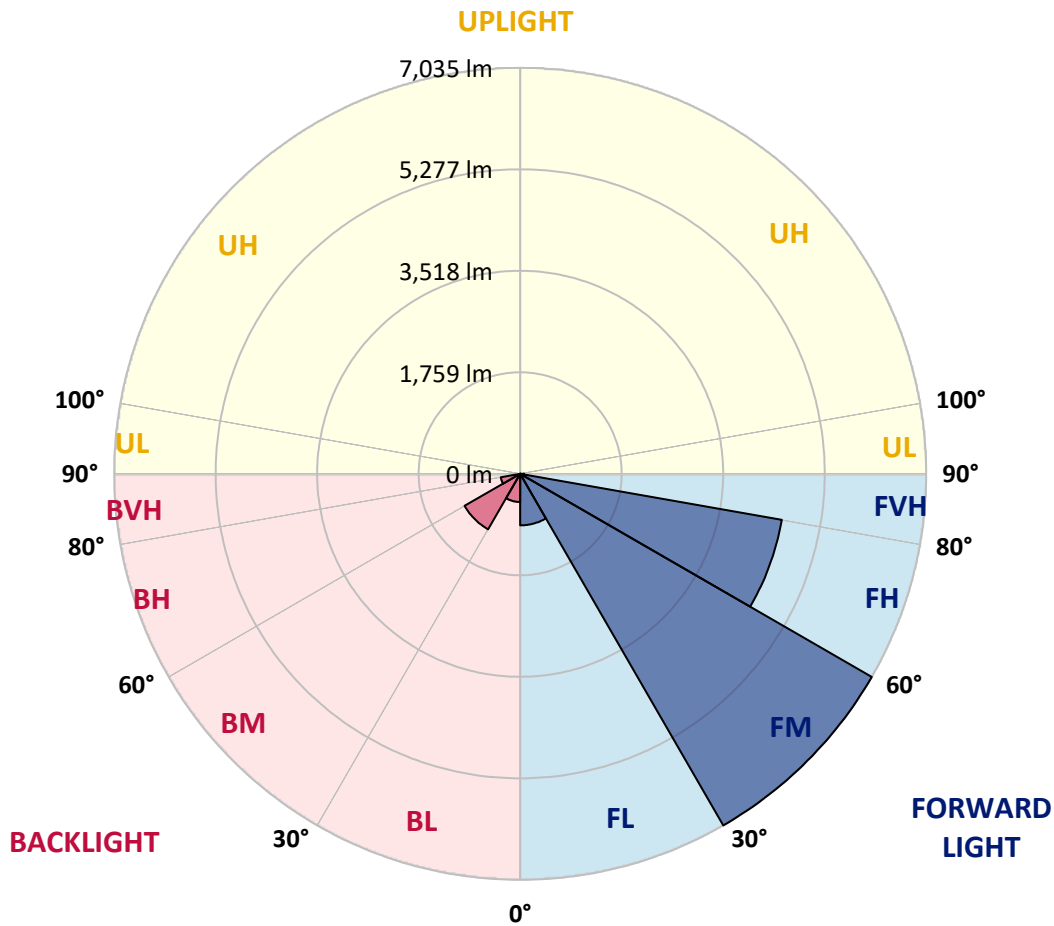
CATALOG NUMBER: NAV-SB4B-827-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	893.0	6.1			
FM (30°-60°)	7035.4	48.4			
FH (60°-80°)	4603.7	31.7			G2/5000
FVH (80°-90°)	65.2	0.4			G1/100
BL (0°-30°)	488.3	3.4	B1/500		
BM (30°-60°)	1111.8	7.6	B2/2500		
BH (60°-80°)	341.3	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: P883808

CATALOG NUMBER: NAV-SB4B-827-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1685.5	1697.2	1694.3	1691.4	1690.4	1692.4	1693.3	1692.4	1692.4	1692.4	1693.3
5°	1653.4	1663.1	1663.1	1669.9	1679.7	1691.4	1700.2	1702.1	1704.1	1707.0	1706.0
7.5°	1591.9	1599.7	1605.6	1628.0	1652.4	1683.6	1709.9	1723.6	1725.5	1736.2	1740.1
10°	1550.0	1559.8	1569.5	1592.9	1628.0	1674.8	1719.7	1752.8	1757.7	1783.0	1794.7
12.5°	1548.1	1557.8	1570.5	1595.8	1636.8	1686.5	1741.1	1788.9	1797.6	1834.7	1859.1
15°	1568.6	1580.3	1591.9	1623.1	1667.0	1727.5	1785.9	1845.4	1854.2	1906.8	1933.2
17.5°	1610.5	1626.1	1634.8	1666.0	1712.8	1780.1	1857.1	1925.4	1933.2	1994.6	2027.7
20°	1693.3	1711.9	1714.8	1740.1	1785.9	1858.1	1949.7	2034.5	2044.3	2114.5	2151.5
22.5°	1864.9	1891.2	1867.8	1880.5	1921.5	1993.6	2093.0	2200.3	2213.9	2293.9	2327.0
25°	2167.1	2204.2	2143.7	2122.3	2139.8	2214.9	2339.7	2475.2	2490.8	2555.1	2571.7
27.5°	2760.8	2713.0	2621.4	2531.7	2479.1	2522.0	2662.3	2830.0	2849.5	2911.9	2892.4
30°	3413.0	3371.1	3247.3	3048.4	2923.6	2916.8	3046.4	3233.6	3256.0	3315.5	3256.0
32.5°	4066.1	4026.2	3891.6	3647.0	3430.5	3323.3	3413.0	3620.6	3632.3	3670.4	3582.6
35°	4708.6	4667.6	4533.1	4282.6	4016.4	3772.7	3755.2	3989.1	3993.0	4033.0	3902.4
37.5°	5354.9	5320.8	5177.5	4931.8	4669.6	4333.3	4170.5	4338.1	4343.0	4382.0	4246.5
40°	5816.0	5830.6	5732.2	5542.1	5316.9	4949.4	4636.4	4709.6	4680.3	4745.6	4664.7
42.5°	6211.8	6241.1	6155.3	6059.7	5929.1	5605.5	5213.6	5200.9	5154.1	5189.2	5105.4
45°	6554.0	6578.4	6501.4	6478.9	6476.0	6248.9	5844.3	5768.3	5702.9	5696.1	5595.7
47.5°	6679.8	6726.5	6759.7	6834.8	6981.0	6885.5	6496.5	6378.5	6305.4	6251.8	6092.9
50°	6727.5	6777.2	6890.3	7108.7	7454.8	7495.7	7145.7	7013.2	6923.5	6826.0	6592.0
52.5°	6663.2	6751.9	6904.0	7271.5	7773.5	7985.1	7768.7	7652.7	7550.3	7391.4	7044.4
55°	6284.0	6372.7	6683.7	7269.5	7932.5	8328.2	8357.5	8305.8	8190.8	7940.3	7409.9
57.5°	5484.6	5616.2	6108.5	7021.9	7929.5	8623.6	8934.6	8971.7	8843.0	8484.2	7697.5
60°	4377.1	4555.5	5156.0	6473.1	7684.8	8783.5	9440.6	9625.8	9489.3	9020.4	7930.5
62.5°	3054.2	3260.9	3829.3	5613.3	7125.3	8668.5	9810.0	10152.2	10048.9	9500.0	8020.2
65°	1863.0	1929.3	2387.4	4417.1	6173.8	8186.9	9924.1	10436.9	10402.8	9793.5	7887.6
67.5°	1241.0	1296.6	1428.2	3028.9	4792.4	7224.7	9651.1	10387.2	10396.9	9745.7	7402.1
70°	747.7	795.5	881.3	1761.6	3105.9	5718.5	8805.9	9753.5	9810.0	9107.2	6481.9
72.5°	308.1	340.2	418.2	798.4	1608.5	3629.4	7012.2	8374.1	8505.7	7657.5	4974.7
75°	174.5	191.1	245.7	400.7	698.0	1691.4	4247.5	5944.7	6138.7	5277.9	2992.8
77.5°	116.0	123.8	158.9	259.3	392.9	577.1	1815.2	3097.1	3467.6	2882.7	1295.6
80°	78.0	84.8	109.2	173.5	255.4	247.6	578.1	1147.4	1411.6	990.5	315.9
82.5°	52.6	53.6	78.0	114.1	161.8	119.9	170.6	356.8	448.4	286.6	119.9
85°	30.2	29.2	57.5	66.3	72.1	49.7	51.7	107.2	140.4	120.9	68.2
87.5°	3.9	5.8	22.4	17.5	9.7	10.7	10.7	18.5	27.3	29.2	14.6
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: P883808

CATALOG NUMBER: NAV-SB4B-827-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1693.3	1692.4	1689.4	1686.5	1679.7	1675.8	1677.7	1675.8	1674.8	1675.8	1679.7
5°	1706.0	1703.1	1695.3	1685.5	1671.9	1655.3	1644.6	1629.0	1614.4	1605.6	1607.5
7.5°	1740.1	1737.2	1726.5	1699.2	1655.3	1586.1	1522.7	1467.2	1425.2	1400.9	1401.9
10°	1794.7	1789.8	1773.3	1712.8	1597.8	1446.7	1320.9	1216.6	1148.4	1116.2	1113.3
12.5°	1859.1	1853.2	1824.0	1700.2	1488.6	1252.7	1079.2	963.2	899.8	871.5	868.6
15°	1935.1	1927.3	1869.8	1639.7	1329.7	1038.2	879.3	792.6	751.6	726.3	727.2
17.5°	2029.7	2016.0	1903.9	1549.1	1157.2	874.5	756.5	691.2	655.1	630.7	628.8
20°	2152.5	2130.1	1931.2	1440.8	998.3	771.1	673.6	619.0	591.7	570.3	566.4
22.5°	2324.1	2291.9	1964.3	1323.9	886.1	700.0	612.2	572.2	549.8	525.5	521.6
25°	2536.6	2498.6	2005.3	1215.7	809.1	638.5	567.4	534.2	507.9	479.6	476.7
27.5°	2833.9	2765.7	2054.0	1126.9	742.8	585.9	526.4	489.4	459.2	435.8	430.9
30°	3165.4	3053.3	2096.9	1073.3	682.4	537.1	472.8	435.8	407.5	390.9	388.0
32.5°	3479.3	3327.2	2125.2	1049.9	627.8	481.6	414.3	374.3	352.9	348.0	351.0
35°	3775.6	3574.8	2122.3	1027.5	579.1	426.0	356.8	315.9	299.3	302.2	302.2
37.5°	4116.8	3839.0	2101.8	992.4	539.1	375.3	307.1	271.0	256.4	257.4	261.3
40°	4513.6	4144.1	2089.1	926.1	495.2	328.5	266.1	236.9	226.2	222.3	221.3
42.5°	4936.7	4439.5	2091.1	851.1	440.6	286.6	237.9	213.5	203.7	200.8	199.8
45°	5361.7	4721.3	2094.0	773.1	383.1	254.4	217.4	196.9	191.1	187.2	187.2
47.5°	5761.4	4961.1	2039.4	689.2	326.6	230.1	200.8	187.2	182.3	177.4	177.4
50°	6133.8	5121.0	1907.8	591.7	281.7	210.6	188.1	178.4	173.5	168.7	168.7
52.5°	6423.4	5146.3	1690.4	491.3	250.5	195.9	180.3	171.6	165.7	160.9	159.9
55°	6552.0	4987.4	1381.4	397.7	226.2	183.3	172.6	163.8	157.0	152.1	151.1
57.5°	6518.9	4653.0	1077.2	319.8	202.8	170.6	162.8	157.0	149.2	141.4	140.4
60°	6356.1	4205.6	812.1	266.1	181.3	157.0	152.1	147.2	136.5	124.8	122.8
62.5°	6074.4	3643.1	579.1	220.3	157.9	141.4	139.4	135.5	119.9	98.5	96.5
65°	5643.5	2959.7	389.9	183.3	135.5	123.8	124.8	118.0	97.5	73.1	71.2
67.5°	5013.7	2164.2	249.6	150.1	113.1	103.3	104.3	100.4	82.9	62.4	59.5
70°	4211.4	1433.0	162.8	114.1	90.7	79.9	85.8	86.8	70.2	50.7	48.7
72.5°	3087.4	846.2	114.1	84.8	66.3	55.6	70.2	72.1	56.5	38.0	36.1
75°	1759.6	401.6	85.8	61.4	40.9	39.0	54.6	54.6	39.0	25.3	23.4
77.5°	738.9	167.7	60.4	40.0	23.4	22.4	37.0	34.1	19.5	11.7	11.7
80°	213.5	75.1	32.2	19.5	9.7	8.8	14.6	10.7	4.9	1.9	1.9
82.5°	83.8	33.1	12.7	7.8	3.9	3.9	1.9	0.0	0.0	0.0	0.0
85°	49.7	13.6	5.8	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.7	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)