

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: P882808

Luminaire Tested: **NAV-SB2D-835-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882808
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-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 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: 13724 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

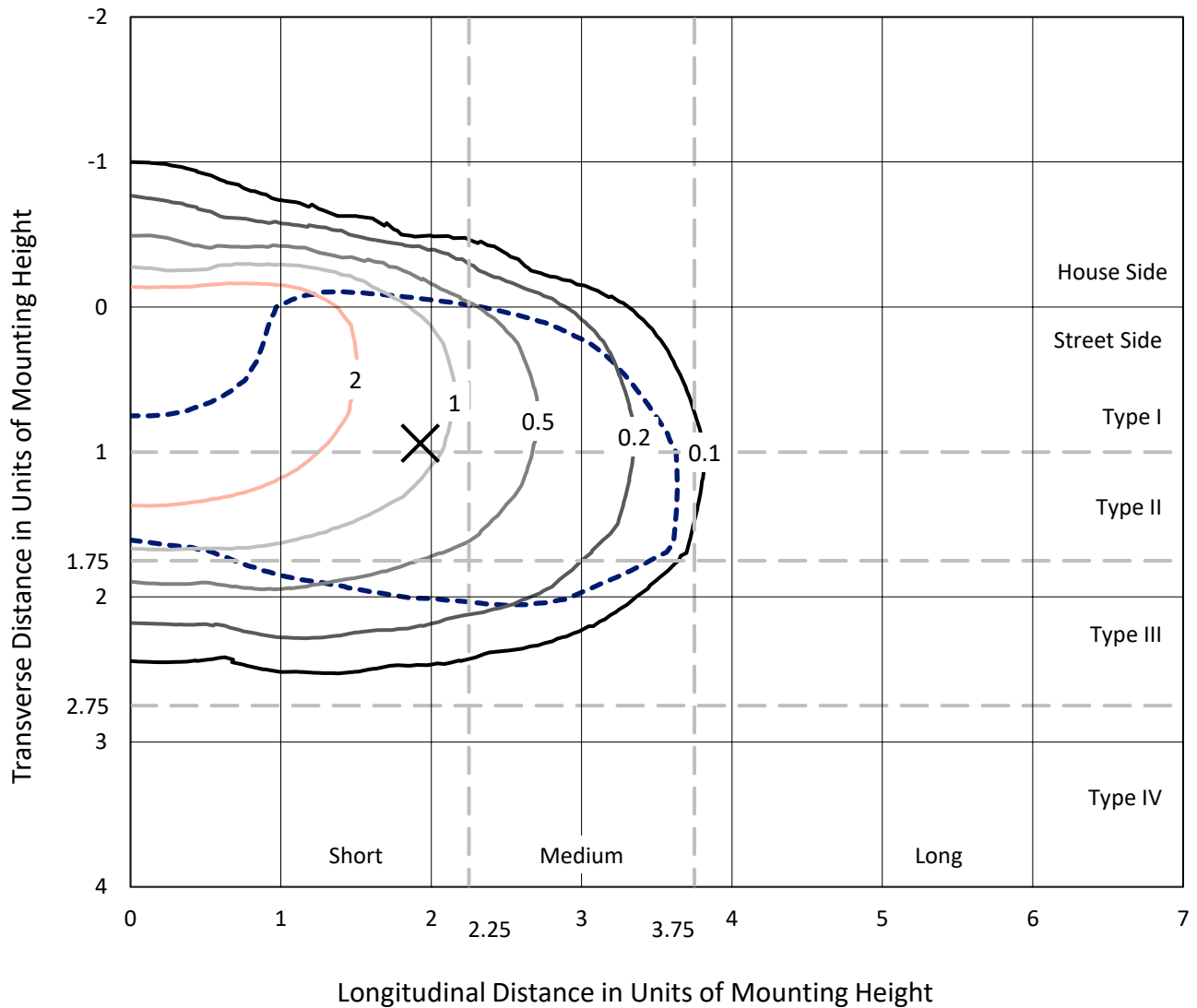
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

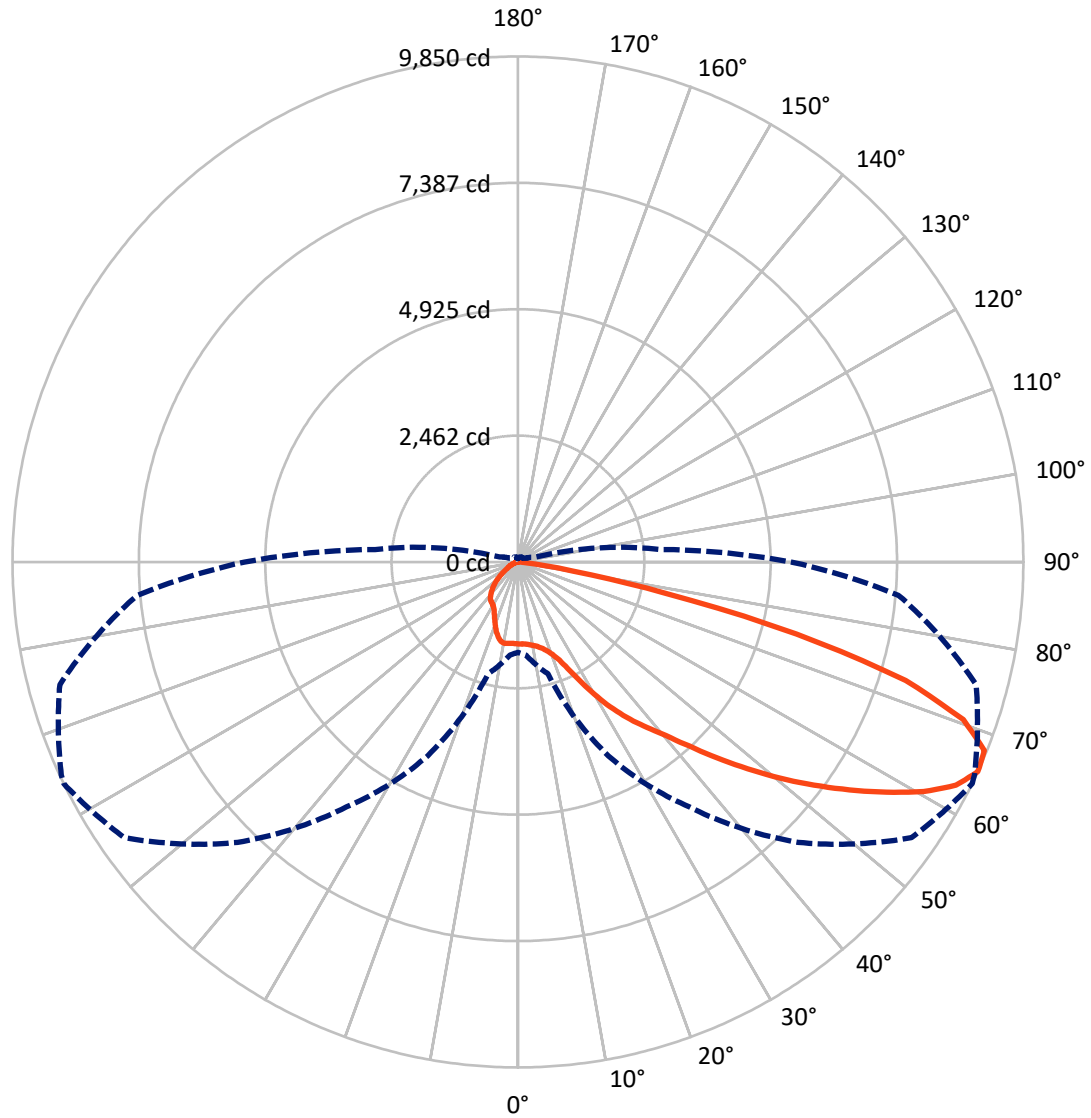
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1835.3	0.0	1835.3
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	11888.7	0.0	11888.7
	% Fixture	86.6	0.0	86.6
Total	Lumens	13724.0	0.0	13724.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.3	1.1
10°-20°	399.4	2.9
20°-30°	756.9	5.5
30°-40°	1531.6	11.2
40°-50°	2609.1	19.0
50°-60°	3548.2	25.9
60°-70°	3331.9	24.3
70°-80°	1334.9	9.7
80°-90°	64.7	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°	13724.0	100.0
0°-180°	13724.0	100.0

Coefficient of Utilization



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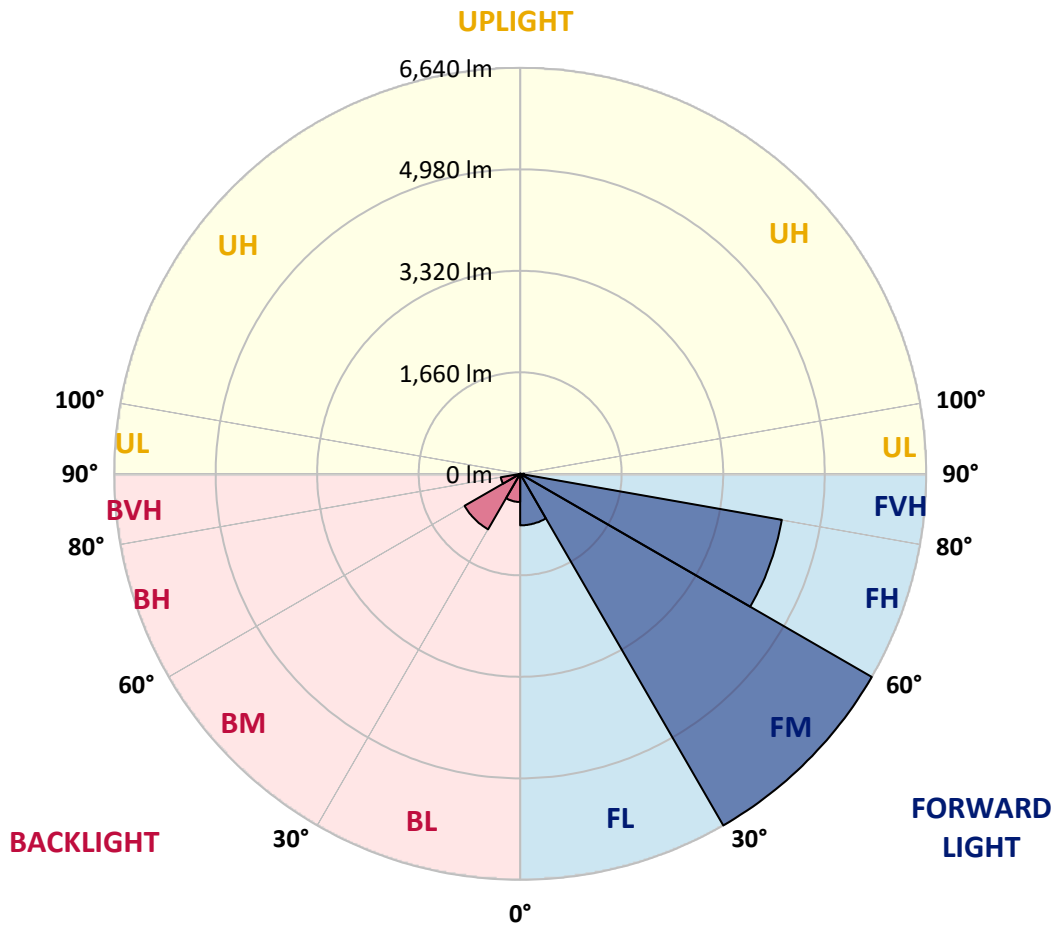
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	842.8	6.1			
FM (30°-60°)	6639.7	48.4			
FH (60°-80°)	4344.7	31.7			G2/5000
FVH (80°-90°)	61.5	0.4			G1/100
BL (0°-30°)	460.8	3.4	B1/500		
BM (30°-60°)	1049.2	7.6	B2/2500		
BH (60°-80°)	322.1	2.3	B1/500		G1/500
BVH (80°-90°)	3.2	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2
2.5°	1590.7	1601.8	1599.0	1596.2	1595.3	1597.2	1598.1	1597.2	1597.2	1597.2	1598.1
5°	1560.4	1569.6	1569.6	1576.0	1585.2	1596.2	1604.5	1606.4	1608.2	1611.0	1610.0
7.5°	1502.4	1509.8	1515.3	1536.4	1559.4	1588.9	1613.7	1626.6	1628.4	1638.6	1642.2
10°	1462.8	1472.0	1481.2	1503.3	1536.4	1580.6	1622.9	1654.2	1658.8	1682.7	1693.8
12.5°	1461.0	1470.2	1482.2	1506.1	1544.7	1591.6	1643.2	1688.2	1696.5	1731.5	1754.5
15°	1480.3	1491.4	1502.4	1531.8	1573.2	1630.3	1685.5	1741.6	1749.9	1799.6	1824.4
17.5°	1519.9	1534.6	1542.9	1572.3	1616.5	1680.0	1752.6	1817.0	1824.4	1882.4	1913.7
20°	1598.1	1615.6	1618.3	1642.2	1685.5	1753.6	1840.1	1920.1	1929.3	1995.5	2030.5
22.5°	1760.0	1784.8	1762.8	1774.7	1813.4	1881.5	1975.3	2076.5	2089.4	2164.8	2196.1
25°	2045.2	2080.2	2023.1	2002.9	2019.5	2090.3	2208.1	2335.9	2350.7	2411.4	2427.0
27.5°	2605.5	2560.4	2473.9	2389.3	2339.6	2380.1	2512.6	2670.8	2689.2	2748.1	2729.7
30°	3221.0	3181.4	3064.6	2876.9	2759.2	2752.7	2875.1	3051.7	3072.9	3129.0	3072.9
32.5°	3837.4	3799.7	3672.7	3441.8	3237.6	3136.4	3221.0	3417.0	3428.0	3463.9	3381.1
35°	4443.7	4405.1	4278.1	4041.7	3790.5	3560.5	3543.9	3764.7	3768.4	3806.1	3682.9
37.5°	5053.7	5021.5	4886.3	4654.4	4406.9	4089.5	3935.9	4094.1	4098.7	4135.5	4007.6
40°	5488.9	5502.7	5409.7	5230.3	5017.8	4671.0	4375.6	4444.6	4417.0	4478.7	4402.3
42.5°	5862.4	5890.0	5809.0	5718.9	5595.6	5290.1	4920.3	4908.3	4864.2	4897.3	4818.2
45°	6185.3	6208.3	6135.6	6114.5	6111.7	5897.4	5515.6	5443.8	5382.1	5375.7	5280.9
47.5°	6304.0	6348.2	6379.5	6450.3	6588.3	6498.1	6131.0	6019.7	5950.7	5900.1	5750.2
50°	6349.1	6396.0	6502.7	6708.8	7035.4	7074.1	6743.8	6618.7	6534.0	6442.0	6221.2
52.5°	6288.4	6372.1	6515.6	6862.5	7336.3	7535.9	7331.7	7222.2	7125.6	6975.6	6648.1
55°	5930.5	6014.2	6307.7	6860.6	7486.2	7859.8	7887.4	7838.6	7730.1	7493.6	6993.1
57.5°	5176.1	5300.3	5764.9	6626.9	7483.5	8138.5	8432.0	8467.0	8345.5	8007.0	7264.5
60°	4130.9	4299.3	4866.0	6109.0	7252.6	8289.4	8909.5	9084.3	8955.5	8513.0	7484.4
62.5°	2882.4	3077.5	3613.9	5297.5	6724.5	8180.9	9258.2	9581.1	9483.6	8965.6	7569.0
65°	1758.2	1820.7	2253.1	4168.6	5826.5	7726.4	9365.9	9849.8	9817.6	9242.6	7443.9
67.5°	1171.2	1223.6	1347.8	2858.5	4522.8	6818.3	9108.2	9802.9	9812.1	9197.5	6985.8
70°	705.7	750.7	831.7	1662.5	2931.2	5396.9	8310.6	9204.9	9258.2	8594.9	6117.2
72.5°	290.7	321.1	394.7	753.5	1518.0	3425.3	6617.7	7903.0	8027.2	7226.8	4694.9
75°	164.7	180.3	231.8	378.1	658.7	1596.2	4008.5	5610.3	5793.4	4981.0	2824.5
77.5°	109.5	116.8	150.0	244.7	370.8	544.7	1713.1	2922.9	3272.5	2720.5	1222.7
80°	73.6	80.0	103.0	163.8	241.0	233.7	545.6	1082.9	1332.2	934.7	298.1
82.5°	49.7	50.6	73.6	107.6	152.7	113.2	161.0	336.7	423.2	270.5	113.2
85°	28.5	27.6	54.3	62.6	68.1	46.9	48.8	101.2	132.5	114.1	64.4
87.5°	3.7	5.5	21.2	16.6	9.2	10.1	10.1	17.5	25.8	27.6	13.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2	1596.2
2.5°	1598.1	1597.2	1594.4	1591.6	1585.2	1581.5	1583.4	1581.5	1580.6	1581.5	1585.2
5°	1610.0	1607.3	1599.9	1590.7	1577.8	1562.2	1552.1	1537.4	1523.6	1515.3	1517.1
7.5°	1642.2	1639.5	1629.4	1603.6	1562.2	1496.9	1437.1	1384.6	1345.1	1322.1	1323.0
10°	1693.8	1689.2	1673.5	1616.5	1507.9	1365.3	1246.6	1148.2	1083.8	1053.4	1050.7
12.5°	1754.5	1749.0	1721.4	1604.5	1404.9	1182.2	1018.5	909.0	849.2	822.5	819.7
15°	1826.3	1818.9	1764.6	1547.5	1254.9	979.8	829.9	748.0	709.3	685.4	686.3
17.5°	1915.5	1902.6	1796.8	1461.9	1092.1	825.3	713.9	652.3	618.3	595.3	593.4
20°	2031.4	2010.3	1822.6	1359.8	942.1	727.7	635.7	584.2	558.5	538.2	534.5
22.5°	2193.3	2163.0	1853.9	1249.4	836.3	660.6	577.8	540.1	518.9	495.9	492.2
25°	2393.9	2358.0	1892.5	1147.3	763.6	602.6	535.5	504.2	479.3	452.7	449.9
27.5°	2674.5	2610.1	1938.5	1063.5	701.1	552.9	496.8	461.9	433.3	411.3	406.7
30°	2987.3	2881.5	1979.0	1012.9	644.0	506.9	446.2	411.3	384.6	368.9	366.2
32.5°	3283.6	3140.0	2005.7	990.9	592.5	454.5	391.0	353.3	333.0	328.4	331.2
35°	3563.3	3373.7	2002.9	969.7	546.5	402.1	336.7	298.1	282.4	285.2	285.2
37.5°	3885.3	3623.1	1983.6	936.6	508.8	354.2	289.8	255.8	242.0	242.9	246.6
40°	4259.7	3911.0	1971.6	874.0	467.4	310.0	251.2	223.6	213.4	209.8	208.8
42.5°	4659.0	4189.8	1973.5	803.2	415.9	270.5	224.5	201.5	192.3	189.5	188.6
45°	5060.1	4455.7	1976.2	729.6	361.6	240.1	205.2	185.8	180.3	176.6	176.6
47.5°	5437.3	4682.0	1924.7	650.5	308.2	217.1	189.5	176.6	172.0	167.4	167.4
50°	5788.8	4832.9	1800.5	558.5	265.9	198.7	177.6	168.4	163.8	159.2	159.2
52.5°	6062.0	4856.8	1595.3	463.7	236.4	184.9	170.2	161.9	156.4	151.8	150.9
55°	6183.5	4706.8	1303.7	375.4	213.4	173.0	162.8	154.6	148.1	143.5	142.6
57.5°	6152.2	4391.3	1016.6	301.8	191.4	161.0	153.6	148.1	140.8	133.4	132.5
60°	5998.6	3969.0	766.4	251.2	171.1	148.1	143.5	138.9	128.8	117.8	115.9
62.5°	5732.7	3438.1	546.5	207.9	149.0	133.4	131.6	127.9	113.2	92.9	91.1
65°	5326.0	2793.2	368.0	173.0	127.9	116.8	117.8	111.3	92.0	69.0	67.2
67.5°	4731.7	2042.5	235.5	141.7	106.7	97.5	98.4	94.8	78.2	58.9	56.1
70°	3974.5	1352.4	153.6	107.6	85.6	75.4	81.0	81.9	66.2	47.8	46.0
72.5°	2913.7	798.6	107.6	80.0	62.6	52.4	66.2	68.1	53.4	35.9	34.0
75°	1660.6	379.1	81.0	58.0	38.6	36.8	51.5	51.5	36.8	23.9	22.1
77.5°	697.4	158.2	57.0	37.7	22.1	21.2	35.0	32.2	18.4	11.0	11.0
80°	201.5	70.8	30.4	18.4	9.2	8.3	13.8	10.1	4.6	1.8	1.8
82.5°	79.1	31.3	12.0	7.4	3.7	3.7	1.8	0.0	0.0	0.0	0.0
85°	46.9	12.9	5.5	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.0	2.8	1.8	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)