

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: P881570

Luminaire Tested: **NAV-SB1A-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881570
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3665 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

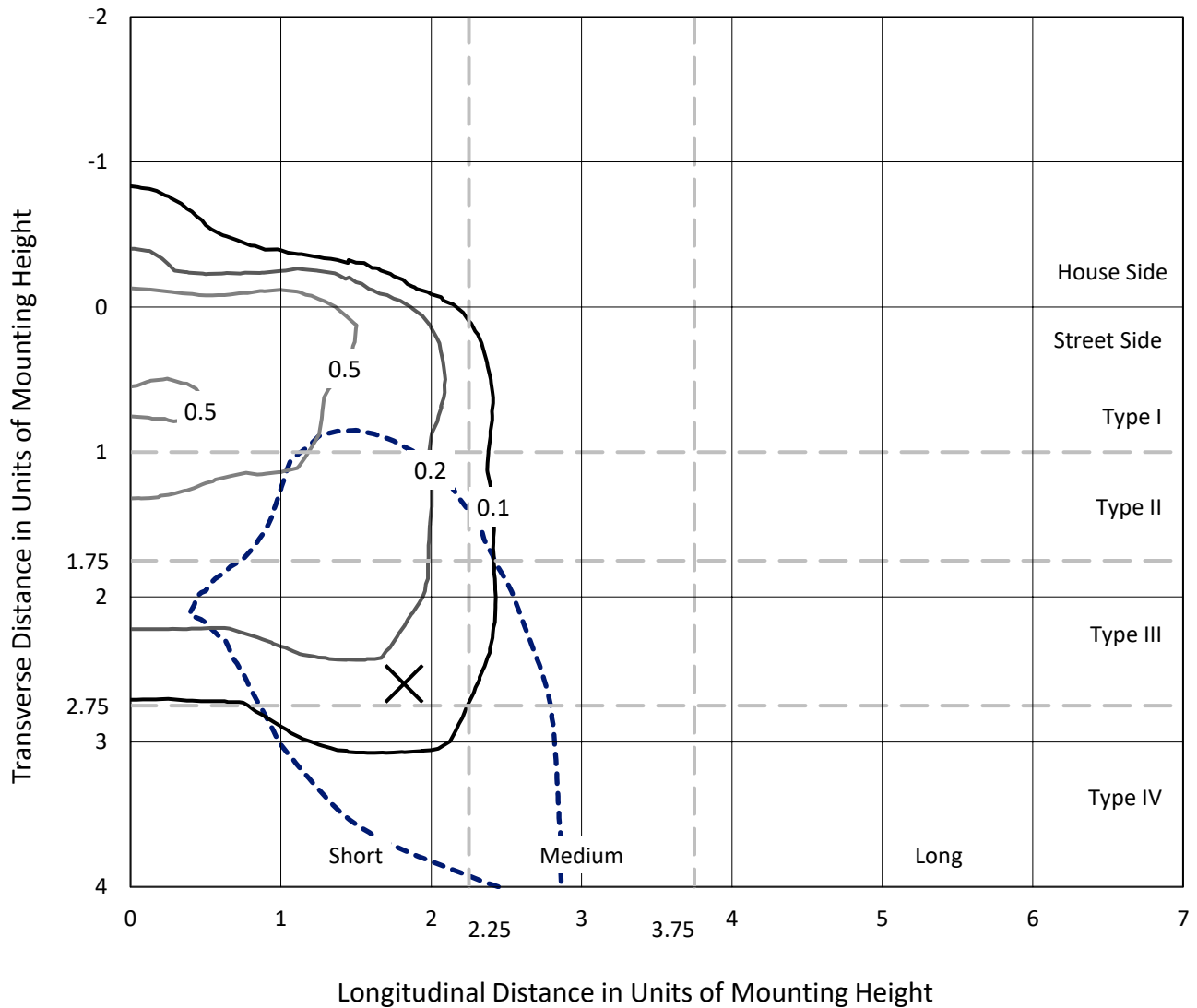
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

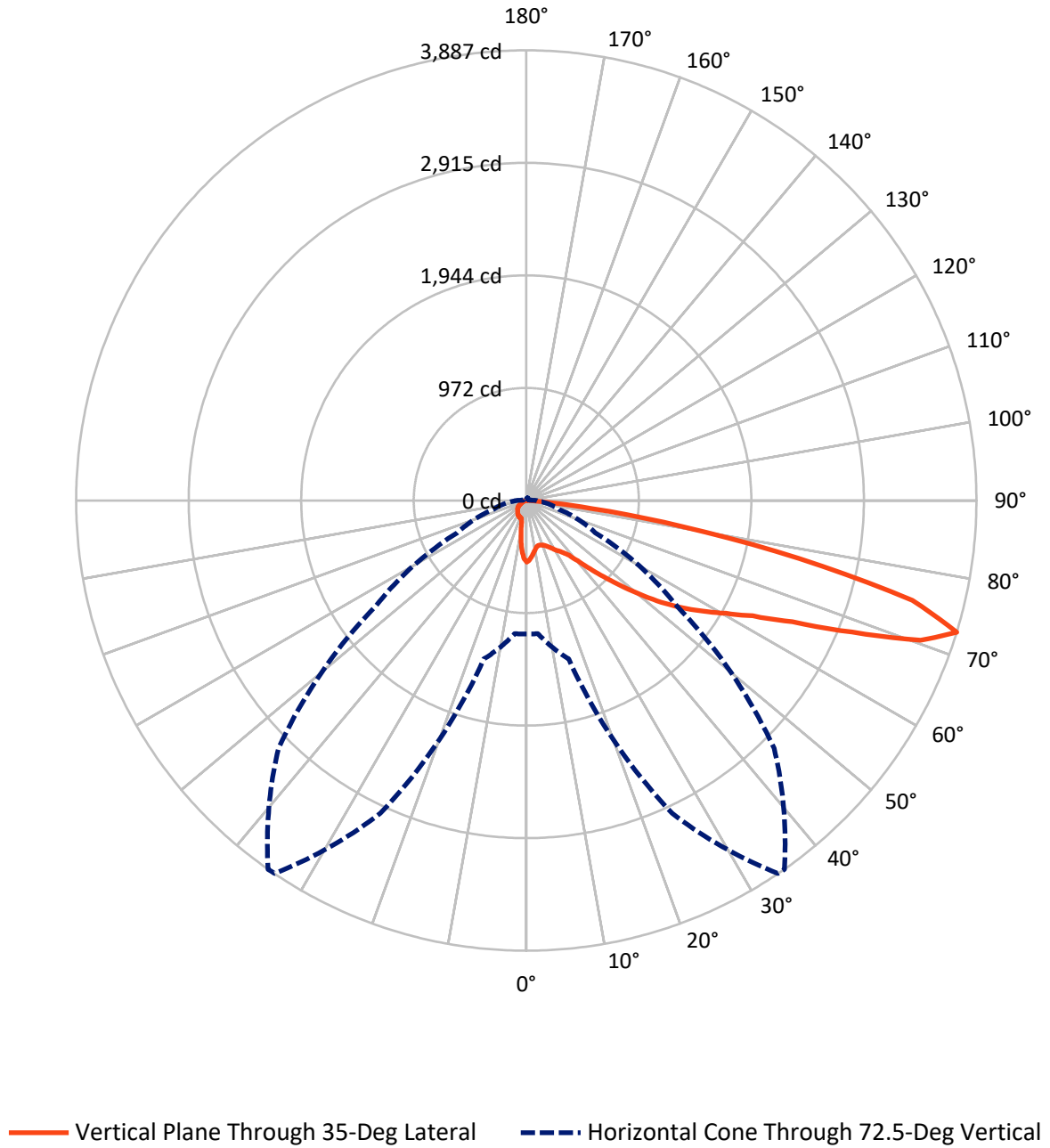
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	412.5	0.0	412.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	3252.5	0.0	3252.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	3665.0	0.0	3665.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	1.2
10°-20°	102.1	2.8
20°-30°	165.9	4.5
30°-40°	276.8	7.6
40°-50°	523.6	14.3
50°-60°	832.1	22.7
60°-70°	1029.3	28.1
70°-80°	639.8	17.5
80°-90°	51.7	1.4
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°	3665.0	100.0
0°-180°	3665.0	100.0

Coefficient of Utilization



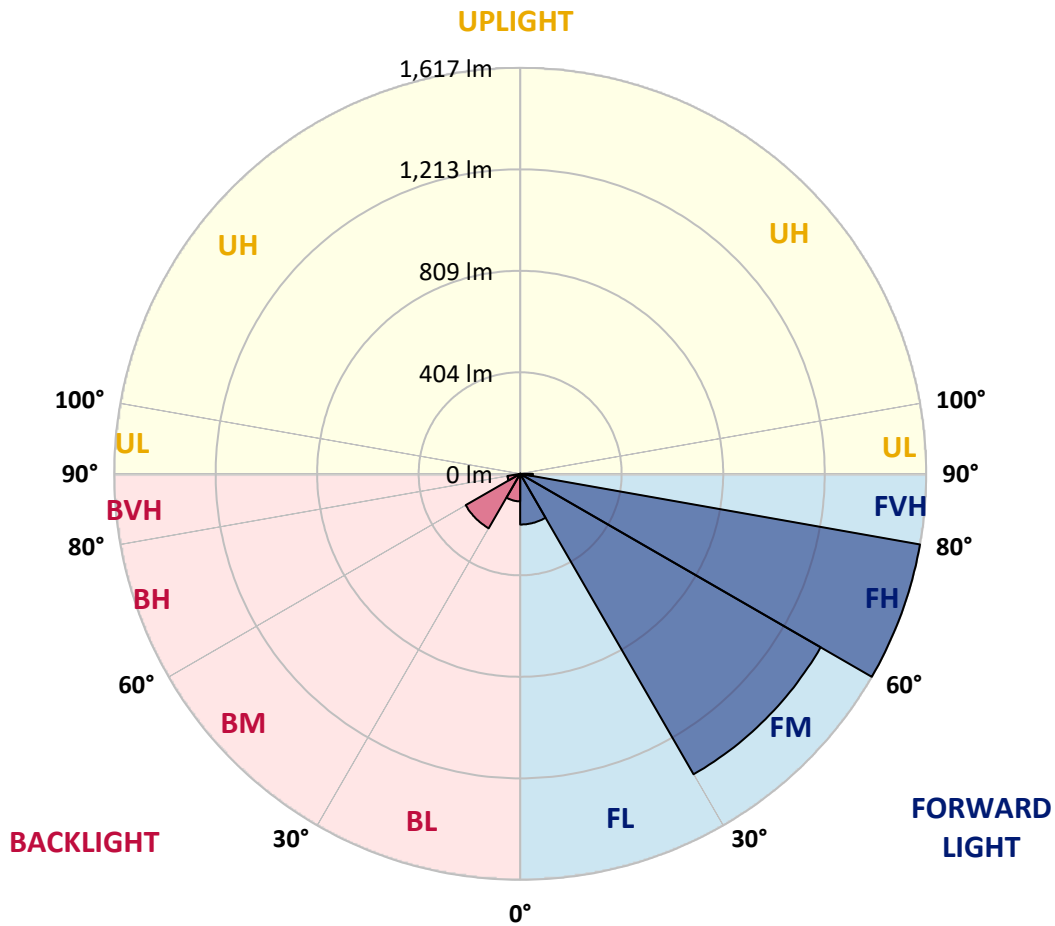
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	202.0	5.5			
FM	(30°-60°)	1382.1	37.7			
FH	(60°-80°)	1617.4	44.1			G1/1800
FVH	(80°-90°)	51.0	1.4			G1/100
BL	(0°-30°)	109.6	3.0	B0/110		
BM	(30°-60°)	250.4	6.8	B1/1000		
BH	(60°-80°)	51.8	1.4	B0/110		G0/110
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2
2.5°	507.5	511.8	512.7	514.0	514.0	515.6	518.3	522.1	528.2	531.4	533.6
5°	467.8	471.0	475.1	478.3	484.5	485.3	495.7	505.9	520.2	530.9	538.4
7.5°	427.8	431.6	436.9	444.7	452.8	455.2	471.0	488.2	510.8	530.9	543.5
10°	399.6	399.9	404.7	412.5	425.4	428.3	447.7	472.1	500.3	527.7	548.4
12.5°	383.8	385.6	387.8	393.7	406.0	407.9	428.6	457.3	489.8	525.8	554.0
15°	383.8	385.1	386.4	389.4	399.3	400.9	419.2	447.9	484.5	526.6	563.1
17.5°	387.8	389.9	388.9	392.3	402.8	403.9	420.0	445.2	484.2	531.7	577.1
20°	397.4	399.1	396.9	399.1	409.5	411.7	428.3	450.3	488.8	540.6	594.6
22.5°	412.8	413.6	408.5	410.1	420.8	423.5	442.8	464.9	499.8	554.8	617.9
25°	432.1	433.7	425.9	427.8	438.0	441.2	463.5	486.6	517.2	574.4	647.7
27.5°	454.4	455.2	448.5	448.2	461.4	465.9	488.5	513.5	540.6	599.1	685.3
30°	479.9	482.3	475.9	474.8	491.4	495.2	517.5	546.5	575.0	636.2	738.8
32.5°	500.0	501.9	498.2	500.8	517.8	520.7	552.7	593.2	628.9	688.8	811.5
35°	529.0	530.1	521.5	526.3	545.7	553.2	600.7	658.7	696.9	754.9	906.6
37.5°	634.0	634.0	597.5	573.6	592.1	598.9	666.5	741.2	780.7	843.5	1026.4
40°	779.3	776.9	723.5	674.6	672.2	685.3	760.2	845.1	888.9	949.8	1161.2
42.5°	934.3	930.5	857.7	809.4	801.3	805.9	868.5	973.2	1017.8	1079.5	1306.2
45°	1071.8	1070.7	1004.1	939.1	924.6	939.1	1003.6	1123.1	1155.0	1220.0	1450.9
47.5°	1187.0	1187.0	1138.4	1095.9	1088.4	1097.0	1186.4	1289.3	1286.3	1369.6	1591.9
50°	1319.6	1318.6	1272.4	1254.1	1261.9	1274.0	1397.0	1464.4	1422.2	1516.5	1717.9
52.5°	1412.5	1419.0	1403.1	1400.2	1439.9	1460.9	1610.7	1635.7	1543.9	1655.8	1812.1
55°	1486.1	1493.6	1511.9	1532.6	1609.1	1636.5	1817.8	1798.2	1645.6	1776.7	1866.4
57.5°	1590.3	1579.6	1607.8	1648.6	1772.4	1805.4	2018.4	1951.5	1727.5	1874.7	1872.3
60°	1716.8	1718.4	1723.3	1774.8	1935.4	1977.8	2216.0	2096.5	1780.2	1934.9	1806.8
62.5°	1868.8	1871.2	1881.2	1960.4	2154.3	2194.3	2426.6	2215.2	1804.4	1917.9	1637.6
65°	1858.3	1868.5	1979.4	2250.4	2487.0	2526.5	2672.3	2298.5	1767.8	1763.3	1333.3
67.5°	1692.9	1709.6	1895.1	2596.8	2988.6	3032.7	2969.3	2314.9	1610.2	1371.2	869.8
70°	1475.9	1481.8	1705.0	2908.3	3569.5	3614.1	3235.2	2134.7	1221.9	764.8	389.7
72.5°	1152.6	1153.9	1415.8	2980.6	3884.8	3887.2	3026.5	1584.7	657.1	293.8	135.3
75°	823.4	815.3	948.2	2417.2	3417.8	3445.2	2268.9	743.3	251.1	138.8	67.4
77.5°	441.5	450.3	536.6	1433.5	2361.0	2407.8	1238.0	214.3	127.8	94.5	44.6
80°	136.4	143.9	219.9	656.3	1337.4	1365.5	458.9	95.3	89.2	67.4	29.3
82.5°	43.0	44.6	102.6	275.8	555.1	568.0	132.9	54.0	61.0	44.6	17.2
85°	12.4	12.6	45.7	102.9	137.2	139.9	37.3	20.9	34.9	27.7	8.9
87.5°	1.3	4.3	17.2	17.2	12.1	11.8	4.0	4.6	9.9	3.5	1.6
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°	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2	531.2
2.5°	532.3	532.5	529.0	523.1	516.7	511.3	504.6	499.2	495.5	494.4	496.3
5°	536.0	534.1	524.2	506.2	484.7	466.2	445.5	429.1	418.4	413.8	415.4
7.5°	541.7	536.3	514.5	479.1	438.0	401.5	364.4	335.7	317.4	308.3	309.6
10°	546.5	535.7	498.4	439.9	377.0	321.7	271.8	237.1	217.8	208.7	208.9
12.5°	551.1	535.5	477.5	393.4	308.3	240.6	194.2	177.0	171.6	169.7	169.2
15°	559.6	536.3	451.2	340.2	239.8	181.8	164.9	164.6	165.7	165.2	164.9
17.5°	571.5	537.1	421.3	283.9	185.0	160.3	159.5	161.9	163.5	162.7	162.5
20°	586.8	540.3	389.7	228.0	159.0	155.0	156.8	159.0	160.3	159.0	158.7
22.5°	608.3	546.0	355.0	183.1	150.7	151.7	153.3	155.8	157.1	155.2	155.0
25°	634.6	554.8	320.9	159.2	146.6	148.0	150.4	153.1	154.7	152.8	152.5
27.5°	668.7	569.0	289.5	153.9	142.6	143.4	146.9	150.9	153.1	150.7	150.7
30°	718.1	592.4	262.4	156.3	140.2	138.3	143.1	148.8	151.2	149.0	148.8
32.5°	783.6	625.4	245.7	160.1	139.1	132.4	137.0	144.2	148.2	146.9	146.9
35°	869.5	675.7	239.3	164.3	138.3	126.2	129.4	137.2	144.2	145.6	145.6
37.5°	973.7	745.5	241.2	166.2	135.9	121.1	122.7	129.4	138.6	142.9	143.9
40°	1092.2	826.8	251.9	164.3	133.2	116.8	117.1	122.2	130.2	136.7	138.8
42.5°	1214.4	921.9	271.8	157.4	130.8	113.1	112.3	115.7	121.1	125.7	127.6
45°	1330.6	1019.7	291.4	147.7	127.8	109.3	107.4	108.8	109.8	111.7	112.8
47.5°	1432.1	1088.4	285.7	138.8	123.8	105.0	101.8	101.2	98.0	97.8	97.5
50°	1502.2	1103.5	253.8	130.0	117.9	100.2	95.1	91.8	86.2	83.5	83.8
52.5°	1524.5	1044.1	207.3	121.1	108.2	93.7	86.5	81.4	74.4	72.0	71.7
55°	1495.0	927.8	165.7	110.4	94.8	85.1	77.1	70.4	64.7	61.8	61.8
57.5°	1422.7	779.9	131.0	97.8	80.6	75.5	67.4	60.7	55.9	52.9	52.4
60°	1303.0	619.3	103.7	82.7	68.7	65.0	56.7	52.4	48.1	44.6	43.8
62.5°	1121.2	442.0	81.4	65.5	57.5	53.2	48.3	45.1	40.0	35.2	34.4
65°	874.9	270.4	62.8	48.1	46.2	44.0	41.1	38.1	32.0	27.1	26.3
67.5°	551.9	128.1	44.8	36.3	36.5	35.4	34.1	31.7	27.1	22.8	22.3
70°	243.0	62.0	29.5	27.7	27.1	27.1	28.2	27.4	23.1	19.1	18.3
72.5°	82.7	33.3	22.0	20.9	19.6	19.3	23.6	22.8	18.5	14.8	14.0
75°	43.2	22.3	16.1	15.0	11.8	14.2	18.8	17.7	13.2	9.7	8.9
77.5°	28.2	15.8	11.0	9.7	6.7	9.4	14.0	12.4	7.8	4.8	4.3
80°	17.7	10.5	6.4	4.6	3.2	5.1	7.5	5.4	3.0	1.1	0.8
82.5°	9.4	5.4	2.4	1.6	1.3	1.6	1.9	1.3	0.5	0.0	0.0
85°	3.8	1.9	0.8	0.5	0.3	0.0	0.5	0.3	0.0	0.0	0.0
87.5°	1.3	0.3	0.0	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)