

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: P270315

Luminaire Tested: **NAV-AF-01-D-UNV-T4FT-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270315
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-T4FT-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4322.4 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

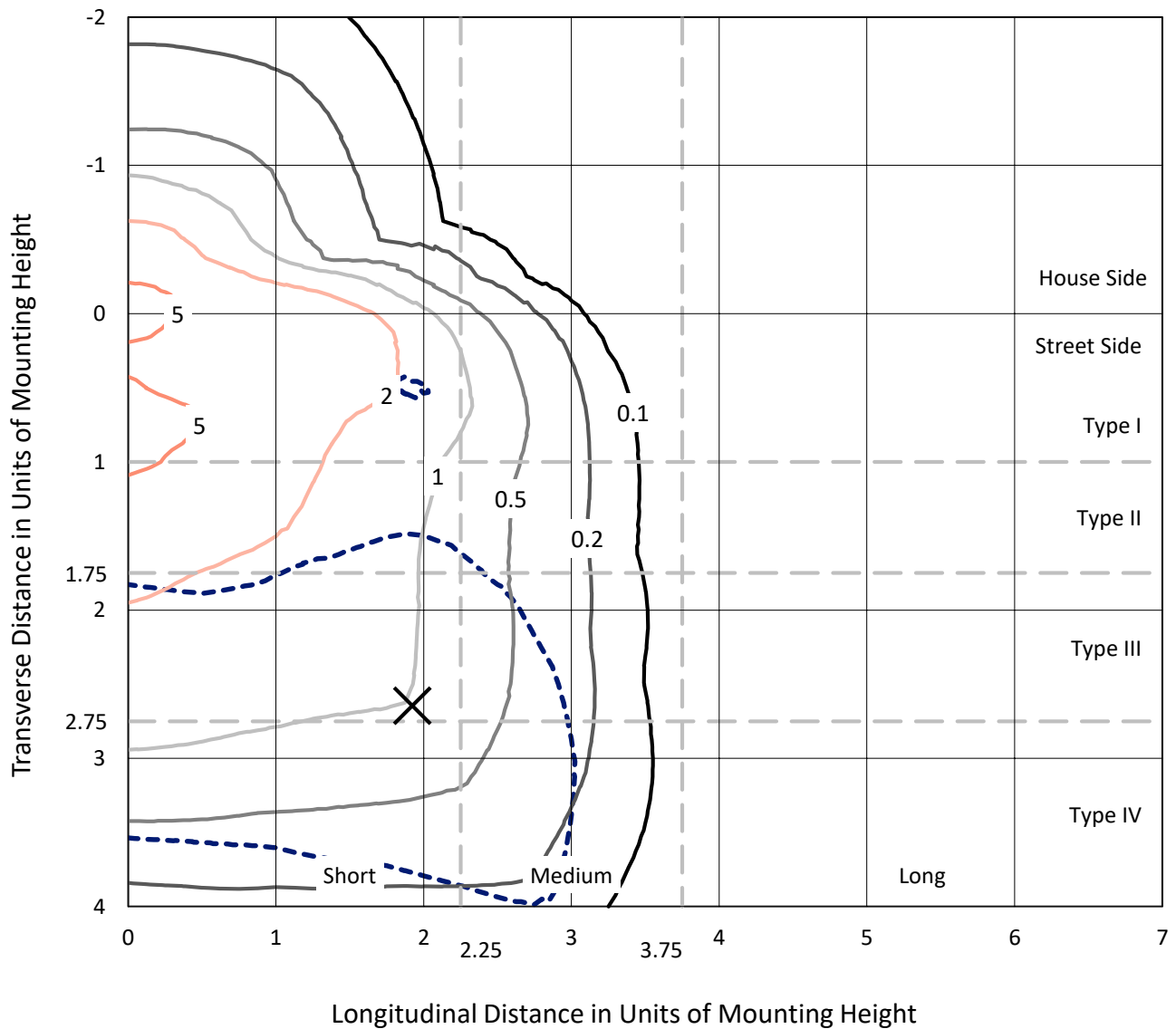
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

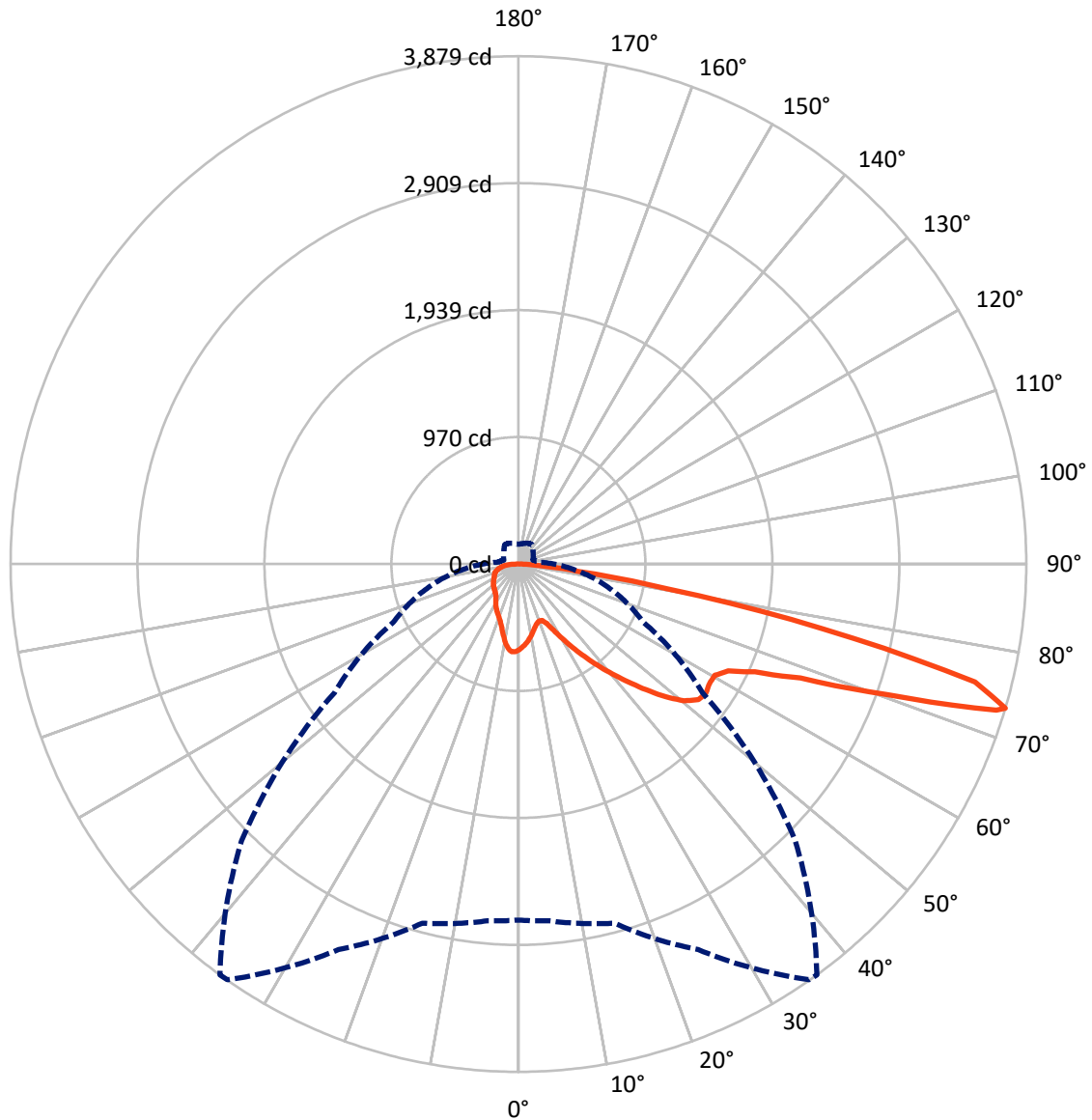
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	833.5	0.0	833.5
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	3489.0	0.0	3489.0
	% Fixture	80.7	0.0	80.7
Total	Lumens	4322.4	0.0	4322.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	1.4
10°-20°	149.4	3.5
20°-30°	239.4	5.5
30°-40°	396.1	9.2
40°-50°	612.9	14.2
50°-60°	820.5	19.0
60°-70°	1071.8	24.8
70°-80°	875.5	20.3
80°-90°	97.4	2.3
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°	4322.4	100.0
0°-180°	4322.4	100.0



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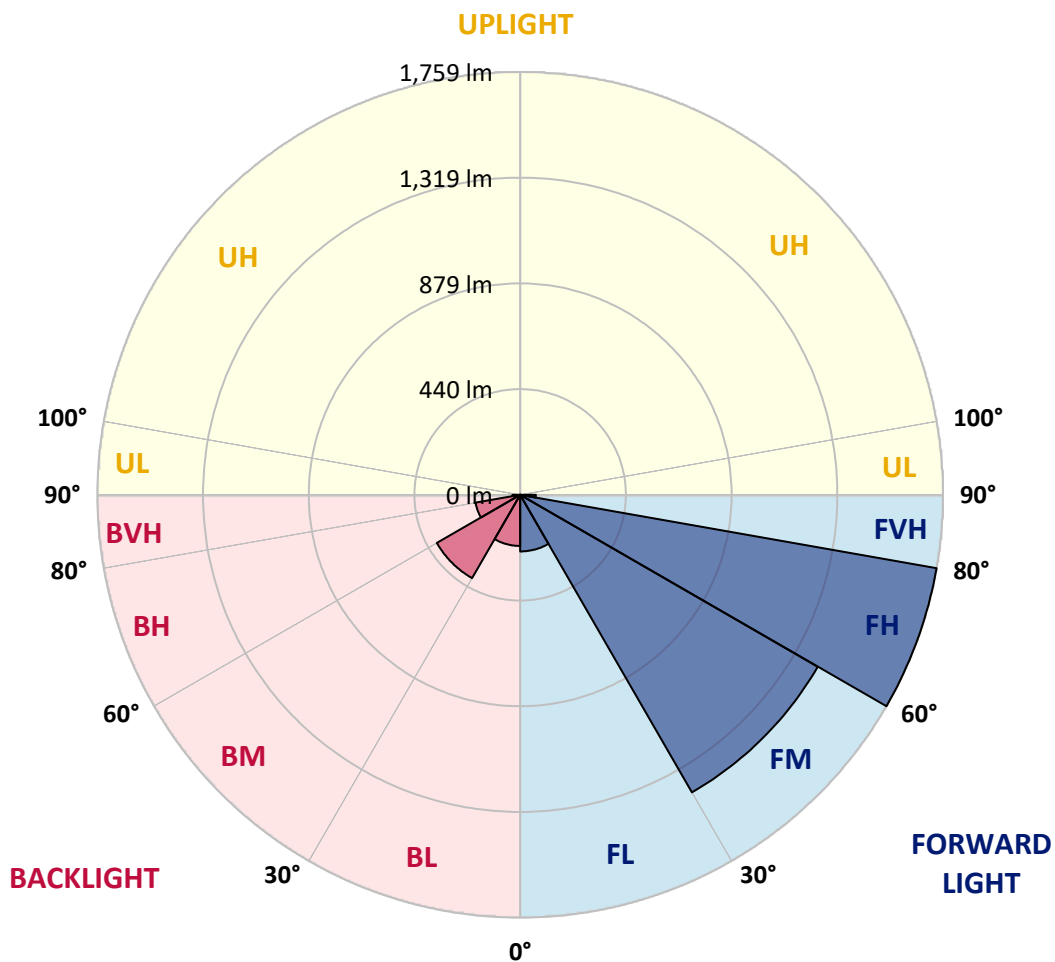
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	235.5	5.4			
FM (30°-60°)	1429.2	33.1			
FH (60°-80°)	1758.9	40.7			G1/1800
FVH (80°-90°)	65.4	1.5			G1/100
BL (0°-30°)	212.8	4.9	B1/500		
BM (30°-60°)	400.3	9.3	B1/1000		
BH (60°-80°)	188.4	4.4	B1/500		G1/500
BVH (80°-90°)	32.1	0.7			G1/100
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°	35°	36°	45°	55°	65°	75°	85°
0°	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8
2.5°	629.7	631.4	631.7	633.6	633.6	633.3	634.2	637.3	639.1	642.8	646.2
5°	598.7	600.6	601.4	604.7	608.8	609.1	612.1	618.5	624.5	633.0	640.1
7.5°	563.9	566.0	568.2	575.0	581.2	581.7	587.4	597.6	605.5	616.0	629.0
10°	530.0	530.5	532.8	541.6	549.6	550.3	558.6	570.2	580.8	595.3	609.9
12.5°	502.3	503.9	503.4	510.0	516.9	517.5	528.5	542.9	558.6	575.0	592.4
15°	492.7	492.5	486.6	486.4	489.3	489.9	500.6	517.8	535.3	555.6	577.8
17.5°	499.3	497.1	482.0	472.7	470.7	471.3	479.2	497.9	516.5	539.9	566.7
20°	535.5	527.0	491.6	469.0	462.7	462.7	467.4	482.5	503.1	530.3	563.9
22.5°	621.4	608.3	532.8	492.7	470.4	468.2	464.7	476.2	499.0	531.6	575.0
25°	729.8	723.3	608.3	555.6	509.7	502.6	478.9	483.1	507.5	546.4	605.8
27.5°	829.9	819.0	707.4	647.0	582.2	571.2	521.2	504.5	527.8	573.9	650.4
30°	888.5	881.0	809.4	751.7	674.4	660.6	588.7	546.8	564.0	619.3	713.6
32.5°	952.2	947.7	911.5	859.0	774.5	758.3	676.2	615.7	619.7	679.5	789.6
35°	1013.9	1019.8	999.2	960.6	882.1	867.0	793.5	705.8	687.9	747.0	870.8
37.5°	1088.0	1089.5	1076.6	1051.6	995.2	982.9	922.2	801.9	762.4	819.0	949.4
40°	1236.1	1214.4	1163.9	1144.1	1110.7	1102.8	1033.7	890.1	831.7	892.8	1023.6
42.5°	1396.2	1362.5	1283.4	1251.0	1237.4	1230.4	1126.6	948.9	896.4	966.7	1096.3
45°	1525.3	1497.8	1420.4	1380.2	1382.0	1370.5	1207.5	1001.3	966.7	1040.9	1177.6
47.5°	1652.4	1606.6	1519.8	1514.1	1533.2	1516.2	1285.0	1053.7	1040.1	1121.7	1259.0
50°	1660.6	1618.9	1583.8	1630.0	1662.9	1641.7	1355.4	1122.4	1116.1	1219.4	1363.8
52.5°	1560.4	1554.4	1608.0	1685.7	1740.3	1721.4	1412.8	1192.9	1193.8	1341.6	1491.5
55°	1524.0	1516.2	1580.5	1676.1	1750.0	1738.7	1455.6	1272.7	1280.1	1489.8	1628.5
57.5°	1585.5	1566.3	1579.0	1657.9	1727.4	1720.9	1500.0	1361.1	1374.5	1660.6	1755.2
60°	1776.3	1737.1	1670.0	1685.0	1728.2	1724.4	1563.8	1459.7	1482.3	1838.7	1835.3
62.5°	2062.1	2017.8	1881.2	1815.4	1805.8	1798.2	1669.0	1580.7	1592.1	1967.2	1788.6
65°	2375.8	2328.0	2165.8	2057.8	2001.2	1985.3	1838.7	1726.9	1656.4	1966.8	1606.9
67.5°	2728.0	2677.4	2515.7	2412.7	2351.5	2324.3	2114.2	1844.9	1635.5	1800.6	1285.8
70°	3088.6	3040.5	2966.4	3002.2	3029.3	2987.8	2548.0	1884.3	1485.4	1411.5	863.5
72.5°	2897.2	2893.3	2949.6	3290.6	3809.4	3817.6	2981.5	1773.3	1147.7	838.9	460.3
73°	2719.3	2735.6	2840.0	3248.1	3876.1	3878.9	2989.9	1715.9	1053.7	722.9	404.2
75°	1408.8	1518.8	1905.9	2633.7	3589.2	3602.1	2635.6	1298.9	628.0	401.5	272.5
77.5°	377.4	372.3	614.1	1283.0	2392.8	2375.8	1665.4	629.0	301.0	251.9	191.2
80°	129.4	131.1	208.9	469.4	1117.0	1156.7	722.9	274.3	197.9	175.4	135.4
82.5°	65.9	68.1	109.4	199.7	467.2	457.2	232.7	161.4	132.7	106.5	75.7
85°	35.2	36.2	60.1	103.6	171.3	173.4	81.8	86.2	84.4	60.5	37.4
87.5°	17.2	17.8	28.8	45.5	63.4	61.3	28.6	37.4	41.5	34.0	20.7
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°	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8	654.8
2.5°	650.4	650.4	653.8	660.0	664.3	668.5	671.3	675.5	678.1	677.9	677.5
5°	645.9	648.7	655.9	663.3	668.2	671.5	671.5	673.4	673.4	672.7	671.5
7.5°	635.8	640.4	650.9	657.5	658.8	655.3	648.1	642.6	635.8	632.1	630.8
10°	619.7	625.6	638.8	641.7	634.7	622.0	604.7	589.8	576.7	570.8	568.7
12.5°	603.7	611.6	624.0	619.3	602.3	577.6	550.9	530.5	515.7	510.0	508.1
15°	590.5	600.1	609.7	595.1	565.5	531.2	501.8	482.7	471.5	467.2	466.0
17.5°	581.7	592.9	596.3	569.0	527.8	489.3	463.3	450.9	446.0	444.1	443.6
20°	582.2	594.9	587.0	543.7	491.6	452.8	435.6	431.9	431.9	431.9	431.7
22.5°	597.4	608.3	583.0	520.2	456.7	422.2	414.7	417.7	419.9	419.9	419.7
25°	628.6	634.7	585.8	497.3	424.0	395.4	395.8	401.5	403.3	403.3	402.9
27.5°	676.5	671.5	590.7	472.1	391.9	371.3	375.1	380.3	381.7	380.9	380.6
30°	736.3	716.5	594.9	442.4	361.7	348.8	352.0	355.1	354.0	352.0	351.7
32.5°	803.4	762.4	592.4	409.2	335.1	325.5	327.3	329.0	327.3	322.8	322.8
35°	869.7	803.9	578.9	372.9	313.9	302.9	302.6	307.8	307.6	302.1	302.4
37.5°	927.9	836.5	552.8	339.6	295.8	286.4	287.5	290.8	292.5	285.0	284.3
40°	978.9	859.0	516.0	311.4	281.2	281.8	278.7	273.5	271.6	268.4	267.8
42.5°	1026.6	874.7	477.0	287.7	273.9	280.1	270.0	257.6	252.3	255.4	257.4
45°	1073.6	892.2	439.5	268.4	264.6	275.2	261.1	247.5	241.5	242.8	244.7
47.5°	1131.0	916.7	394.0	247.5	250.2	266.1	255.7	240.8	231.9	226.4	224.7
50°	1206.5	952.2	335.3	224.9	235.0	256.2	251.0	231.3	221.3	210.4	207.6
52.5°	1300.9	985.7	276.0	206.8	222.7	247.8	243.4	223.0	210.9	197.7	195.6
55°	1395.2	990.3	224.9	191.2	208.8	236.2	234.0	216.4	199.3	188.6	186.5
57.5°	1461.1	946.2	190.6	178.0	195.2	221.9	225.5	208.4	189.8	181.5	180.2
60°	1462.1	840.4	169.7	169.2	185.1	209.6	216.8	199.2	183.8	178.3	177.1
62.5°	1346.0	677.2	156.2	162.7	177.7	199.3	210.2	193.9	182.4	180.2	179.0
65°	1128.2	500.4	145.5	156.6	170.8	190.9	204.6	192.2	181.7	181.0	180.2
67.5°	833.0	343.1	136.5	148.8	163.1	182.0	199.3	189.8	178.6	181.7	180.6
70°	524.0	229.1	128.0	140.0	153.0	171.9	192.5	185.4	174.5	172.5	168.9
72.5°	295.8	165.6	117.8	128.7	139.7	158.6	183.2	178.0	165.1	157.4	153.8
73°	267.2	156.8	115.3	126.0	136.7	155.8	181.0	175.8	162.4	153.8	150.5
75°	195.6	128.3	104.1	114.9	124.1	143.1	170.6	164.7	150.2	140.0	137.9
77.5°	141.8	98.9	89.6	99.2	107.3	125.6	154.9	148.3	133.9	128.5	126.3
80°	102.1	75.0	74.1	83.5	90.5	109.1	138.1	131.3	117.6	133.8	130.2
82.5°	60.9	48.1	54.3	64.8	72.3	91.4	120.1	112.1	98.9	100.0	85.1
85°	29.1	27.2	33.7	42.6	47.8	62.6	100.0	93.7	79.1	64.8	63.4
87.5°	12.9	12.3	16.2	19.0	25.5	37.5	68.5	60.6	57.4	34.3	26.9
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)