

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: P195871

Luminaire Tested: **NAV-AF-01-D-UNV-T4FT-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195871
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-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 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: 4975 lumens
Efficiency: N/A
Efficacy: 113.1 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 - G2

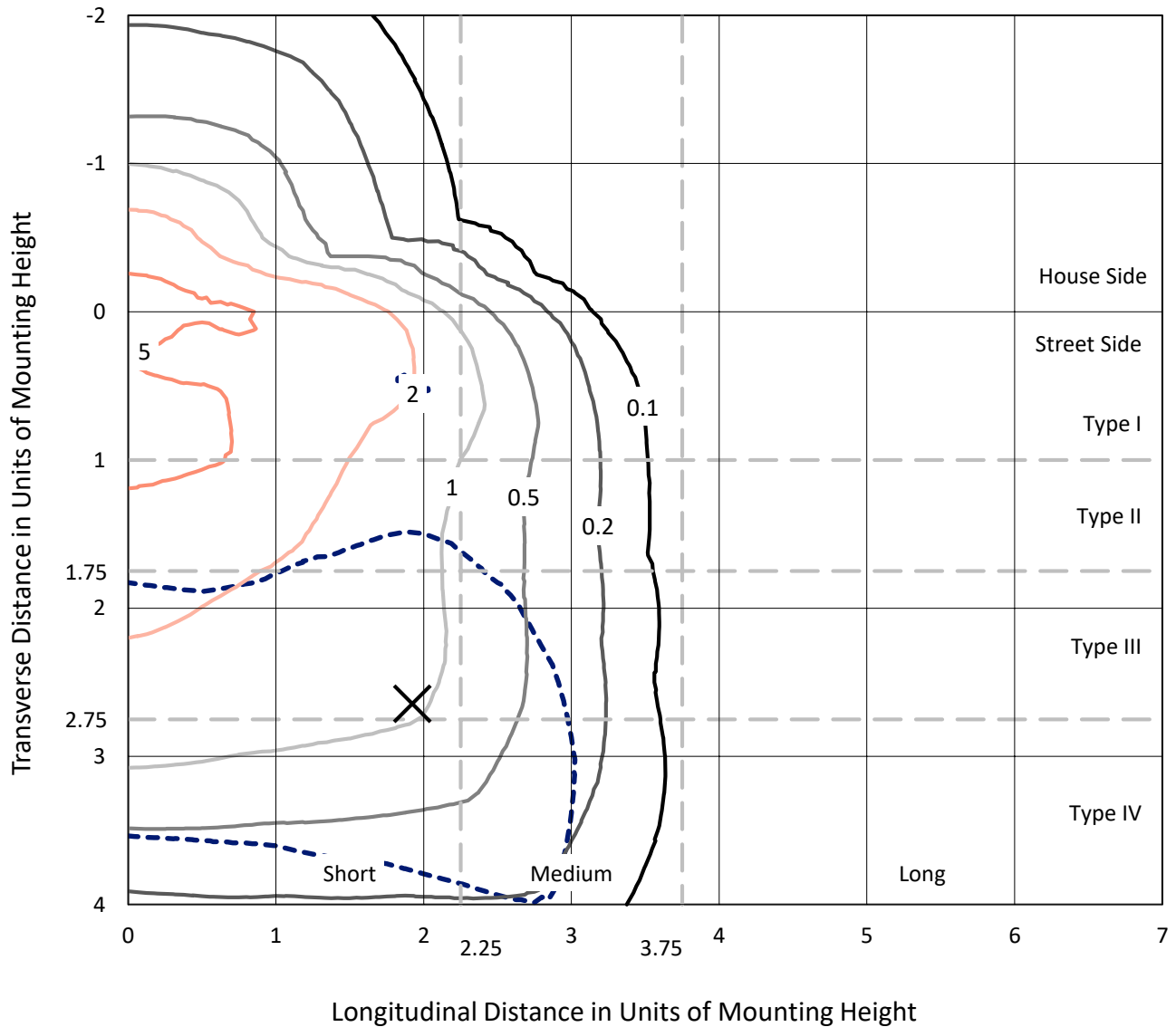
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

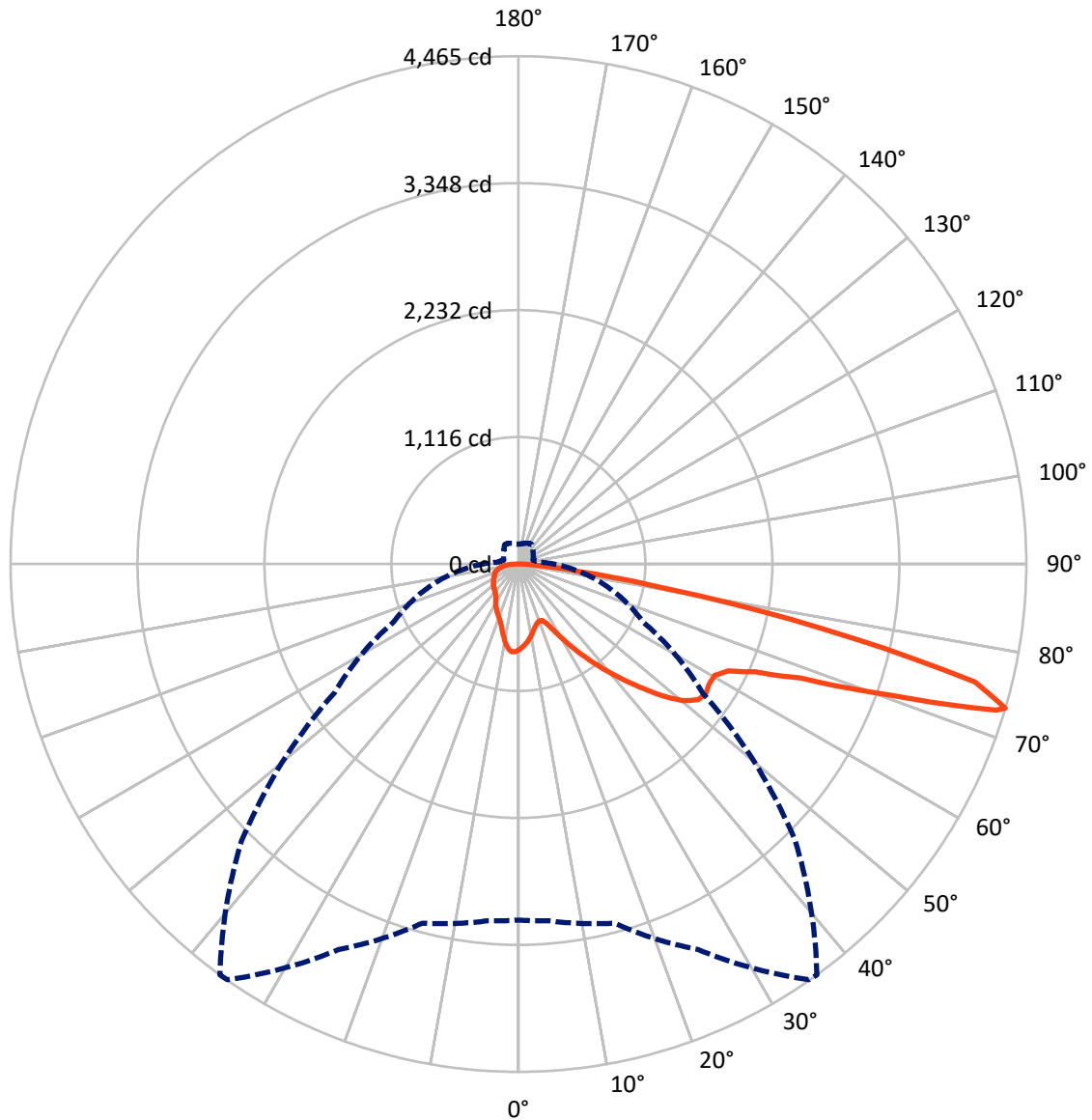
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 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	959.3	0.0	959.3
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	4015.7	0.0	4015.7
	% Fixture	80.7	0.0	80.7
Total	Lumens	4975.0	0.0	4975.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	1.4
10°-20°	171.9	3.5
20°-30°	275.6	5.5
30°-40°	455.9	9.2
40°-50°	705.4	14.2
50°-60°	944.3	19.0
60°-70°	1233.6	24.8
70°-80°	1007.6	20.3
80°-90°	112.2	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°	4975.0	100.0
0°-180°	4975.0	100.0



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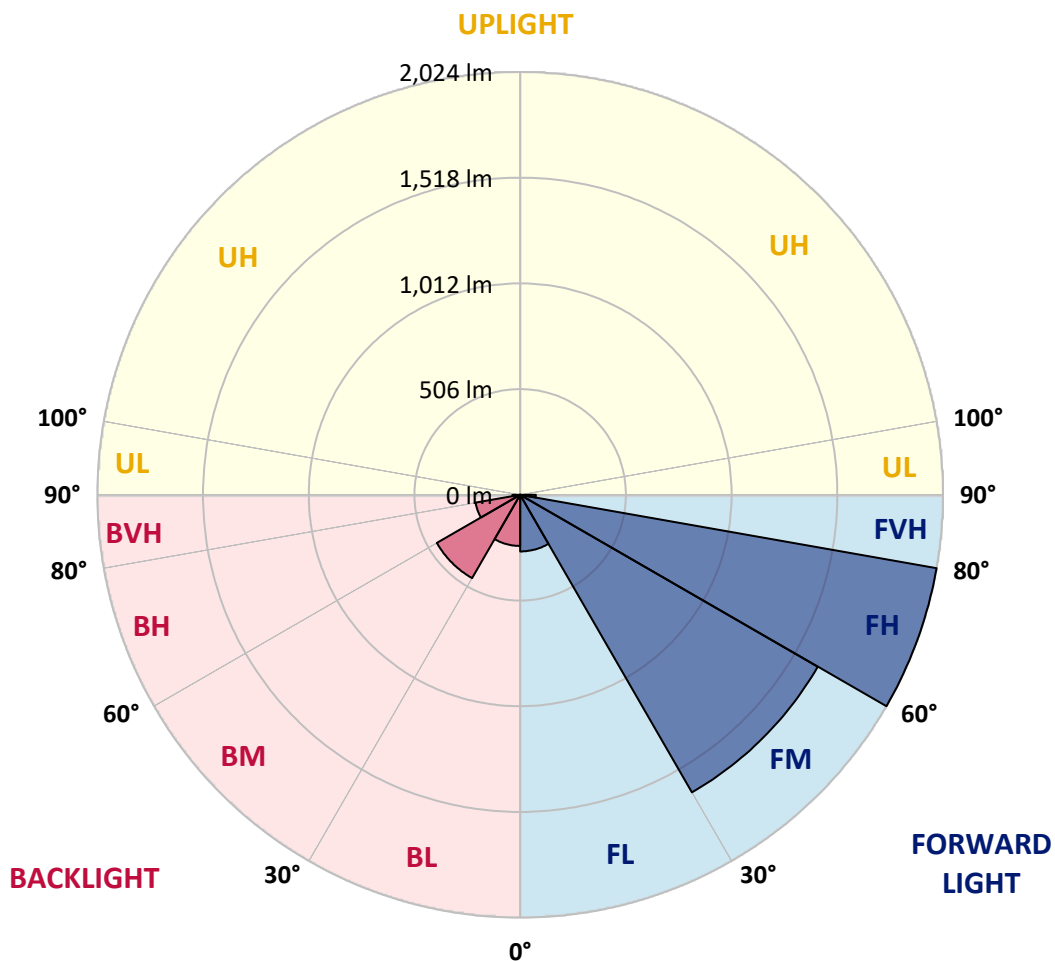
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	271.1	5.4			
FM (30°-60°)	1644.9	33.1			
FH (60°-80°)	2024.5	40.7			G2/5000
FVH (80°-90°)	75.2	1.5			G1/100
BL (0°-30°)	244.9	4.9	B1/500		
BM (30°-60°)	460.7	9.3	B1/1000		
BH (60°-80°)	216.8	4.4	B1/500		G1/500
BVH (80°-90°)	36.9	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6
2.5°	724.8	726.7	727.0	729.2	729.2	728.9	729.9	733.7	735.6	740.0	743.8
5°	689.1	691.3	692.2	696.0	700.8	701.1	704.6	711.8	718.8	728.6	736.8
7.5°	648.9	651.5	654.0	661.9	668.9	669.5	676.1	687.8	697.0	709.0	723.9
10°	610.1	610.7	613.2	623.3	632.5	633.5	642.9	656.2	668.5	685.3	702.0
12.5°	578.1	580.0	579.4	587.0	594.9	595.5	608.2	624.9	642.9	661.9	681.8
15°	567.1	566.8	560.1	559.8	563.3	563.9	576.2	595.8	616.1	639.5	665.1
17.5°	574.7	572.1	554.7	544.0	541.8	542.4	551.6	573.1	594.6	621.4	652.1
20°	616.4	606.6	565.8	539.9	532.6	532.6	538.0	555.4	579.1	610.4	648.9
22.5°	715.3	700.1	613.2	567.1	541.5	538.9	534.8	548.1	574.3	612.0	661.9
25°	839.9	832.6	700.1	639.5	586.7	578.5	551.3	556.0	584.1	629.0	697.3
27.5°	955.2	942.6	814.3	744.7	670.1	657.5	599.9	580.7	607.5	660.6	748.5
30°	1022.6	1014.0	931.5	865.1	776.3	760.2	677.7	629.3	649.3	712.8	821.2
32.5°	1095.9	1090.8	1049.1	988.7	891.4	872.7	778.2	708.7	713.1	782.0	908.8
35°	1167.0	1173.7	1149.9	1105.7	1015.3	997.9	913.2	812.4	791.8	859.8	1002.3
37.5°	1252.4	1253.9	1239.1	1210.3	1145.5	1131.3	1061.4	923.0	877.5	942.6	1092.7
40°	1422.7	1397.8	1339.6	1316.8	1278.3	1269.4	1189.8	1024.5	957.1	1027.6	1178.1
42.5°	1607.0	1568.1	1477.1	1439.8	1424.3	1416.1	1296.6	1092.1	1031.7	1112.7	1261.8
45°	1755.6	1724.0	1634.8	1588.7	1590.6	1577.3	1389.9	1152.5	1112.7	1198.0	1355.4
47.5°	1901.9	1849.1	1749.3	1742.6	1764.8	1745.2	1479.0	1212.9	1197.0	1290.9	1449.0
50°	1911.4	1863.4	1822.9	1876.0	1913.9	1889.6	1559.9	1291.9	1284.6	1403.5	1569.7
52.5°	1796.0	1789.1	1850.7	1940.2	2003.1	1981.3	1626.0	1373.1	1374.1	1544.1	1716.7
55°	1754.0	1745.2	1819.1	1929.1	2014.2	2001.2	1675.3	1464.8	1473.3	1714.8	1874.4
57.5°	1824.8	1802.7	1817.2	1908.3	1988.2	1980.6	1726.5	1566.6	1582.0	1911.4	2020.2
60°	2044.5	1999.3	1922.2	1939.2	1989.2	1984.8	1799.8	1680.0	1706.0	2116.2	2112.5
62.5°	2373.5	2322.3	2165.2	2089.4	2078.3	2069.8	1920.9	1819.4	1832.4	2264.2	2058.7
65°	2734.5	2679.5	2492.7	2368.5	2303.4	2285.0	2116.2	1987.6	1906.4	2263.9	1849.5
67.5°	3139.8	3081.6	2895.4	2776.9	2706.4	2675.1	2433.3	2123.5	1882.3	2072.3	1480.0
70°	3554.8	3499.5	3414.1	3455.5	3486.5	3438.8	2932.7	2168.7	1709.8	1624.7	993.8
72.5°	3334.5	3330.0	3394.8	3787.4	4384.5	4394.0	3431.5	2041.0	1321.0	965.7	529.8
73°	3130.0	3148.6	3268.7	3738.4	4461.3	4464.5	3441.3	1975.0	1212.9	832.0	465.3
75°	1621.6	1748.0	2193.7	3031.3	4131.0	4145.9	3033.6	1495.1	722.9	462.1	313.6
77.5°	434.3	428.6	706.8	1476.8	2754.1	2734.5	1916.8	723.9	346.4	289.9	220.0
80°	148.9	150.8	240.5	540.2	1285.6	1331.4	832.0	315.8	227.9	202.0	155.8
82.5°	75.9	78.4	125.8	229.8	537.7	526.3	267.7	185.9	152.7	122.6	87.2
85°	40.5	41.7	69.2	119.2	197.2	199.5	94.2	99.3	97.0	69.5	43.0
87.5°	19.9	20.5	33.2	52.5	73.0	70.5	32.9	43.0	47.7	39.2	23.7
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°	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6	753.6
2.5°	748.5	748.5	752.6	759.6	764.6	769.4	772.5	777.6	780.4	780.1	779.8
5°	743.5	746.6	754.8	763.4	769.1	772.8	772.8	775.1	775.1	774.1	772.8
7.5°	731.8	737.1	749.1	756.7	758.3	754.2	746.0	739.7	731.8	727.6	726.1
10°	713.1	720.1	735.2	738.7	730.5	716.0	696.0	679.0	663.8	656.8	654.6
12.5°	694.8	703.9	718.2	712.8	693.2	664.7	634.1	610.7	593.6	587.0	584.8
15°	679.6	690.7	701.7	685.0	650.8	611.3	577.5	555.7	542.7	537.7	536.4
17.5°	669.5	682.4	686.2	654.9	607.5	563.3	533.3	519.0	513.3	511.1	510.5
20°	670.1	684.7	675.5	625.9	565.8	521.2	501.3	497.2	497.2	497.2	496.9
22.5°	687.5	700.1	671.1	598.7	525.7	485.8	477.3	480.8	483.3	483.3	483.0
25°	723.5	730.5	674.2	572.4	488.0	455.2	455.5	462.1	464.3	464.3	463.7
27.5°	778.5	772.8	679.9	543.4	451.1	427.4	431.8	437.8	439.4	438.4	438.1
30°	847.4	824.7	684.7	509.2	416.3	401.4	405.2	408.7	407.4	405.2	404.9
32.5°	924.6	877.5	681.8	471.0	385.6	374.6	376.8	378.7	376.8	371.4	371.4
35°	1001.1	925.2	666.3	429.3	361.3	348.7	348.3	354.3	354.0	347.7	348.0
37.5°	1068.1	962.8	636.3	391.0	340.4	329.7	331.0	334.7	336.6	328.1	327.2
40°	1126.6	988.7	593.9	358.5	323.7	324.3	320.8	314.8	312.6	308.8	308.2
42.5°	1181.6	1006.8	549.1	331.3	315.1	322.4	310.7	296.5	290.5	294.0	296.2
45°	1235.6	1027.0	505.8	308.8	304.4	316.7	300.6	284.8	277.8	279.4	281.6
47.5°	1301.7	1055.1	453.6	284.8	288.0	306.3	294.3	277.2	266.8	260.5	258.6
50°	1388.6	1095.9	386.0	258.9	270.6	294.9	288.9	266.2	254.8	242.1	239.0
52.5°	1497.3	1134.5	317.7	238.0	256.4	285.1	280.1	256.7	242.8	227.6	225.1
55°	1605.8	1139.8	258.9	220.0	240.2	271.8	269.3	249.1	229.5	217.2	214.6
57.5°	1681.6	1088.9	219.4	204.8	224.7	255.4	259.5	239.9	218.4	208.9	207.4
60°	1682.9	967.2	195.3	194.7	213.0	241.2	249.4	229.2	211.5	205.1	203.9
62.5°	1549.2	779.5	179.9	187.1	204.5	229.5	241.8	223.2	209.9	207.4	206.1
65°	1298.5	575.9	167.5	180.2	196.6	219.7	235.5	221.3	209.3	208.3	207.4
67.5°	958.7	394.8	157.1	171.3	187.8	209.6	229.5	218.4	205.5	209.3	208.0
70°	603.1	263.6	147.3	161.2	176.1	197.9	221.6	213.4	200.7	198.5	194.4
72.5°	340.4	190.6	135.6	148.2	160.9	182.4	210.8	204.8	190.0	181.1	177.0
73°	307.6	180.5	132.8	145.1	157.4	179.2	208.3	202.3	186.8	177.0	173.2
75°	225.1	147.6	119.8	132.1	142.9	164.7	196.3	189.7	172.9	161.2	158.7
77.5°	163.1	113.8	103.0	114.1	123.6	144.5	178.3	170.7	154.3	147.9	145.4
80°	117.6	86.3	85.3	96.1	104.3	125.5	159.0	151.1	135.3	153.9	149.8
82.5°	70.2	55.3	62.6	74.6	83.1	105.3	138.1	129.0	113.8	115.1	98.0
85°	33.5	31.3	38.9	49.0	55.0	72.1	115.1	107.8	91.0	74.6	73.0
87.5°	14.9	14.2	18.6	21.8	29.4	43.3	78.7	69.9	66.1	39.5	31.0
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)