

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: P197071

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-8030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197071
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
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-SL3-8030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3419 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - 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

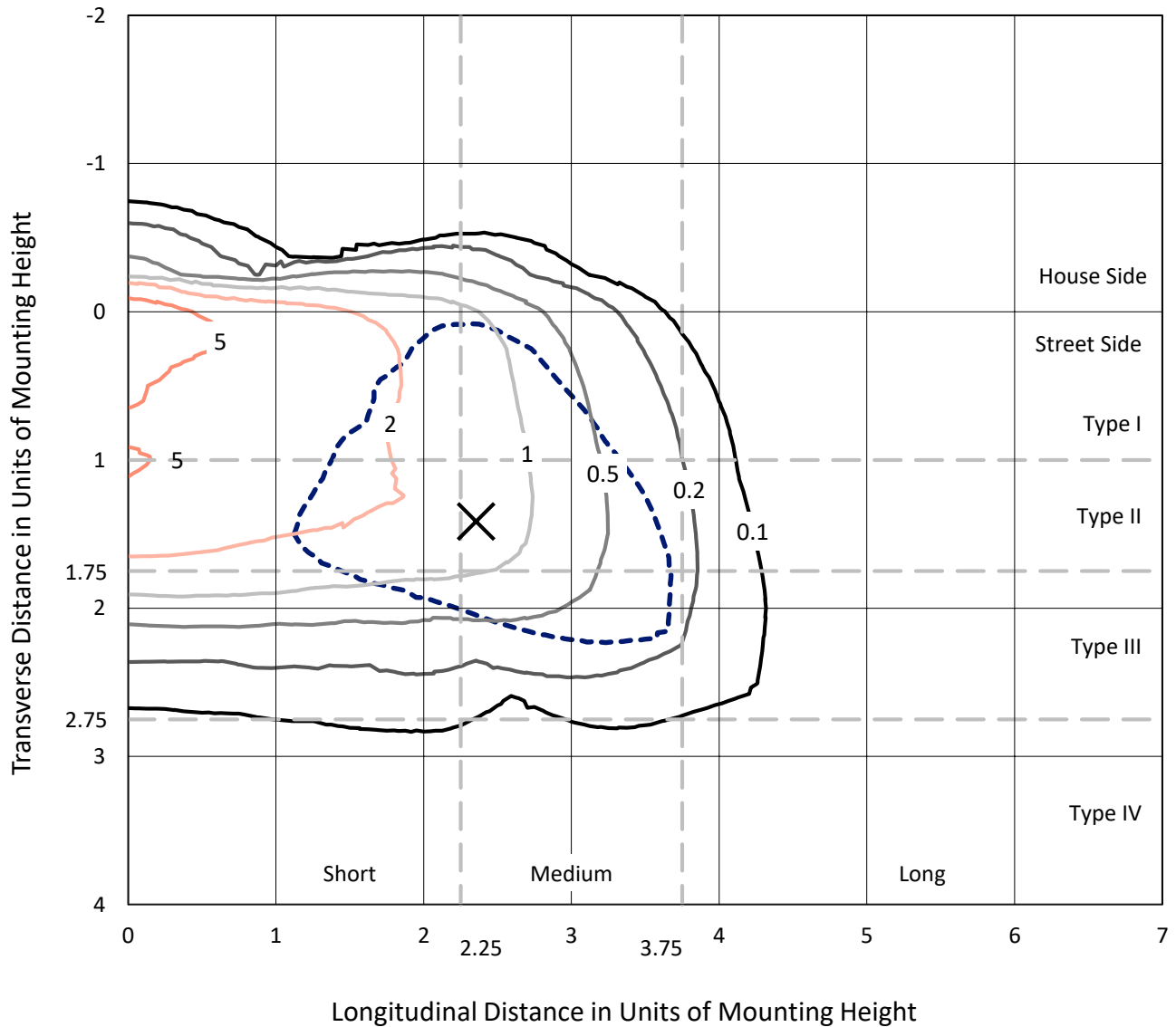


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

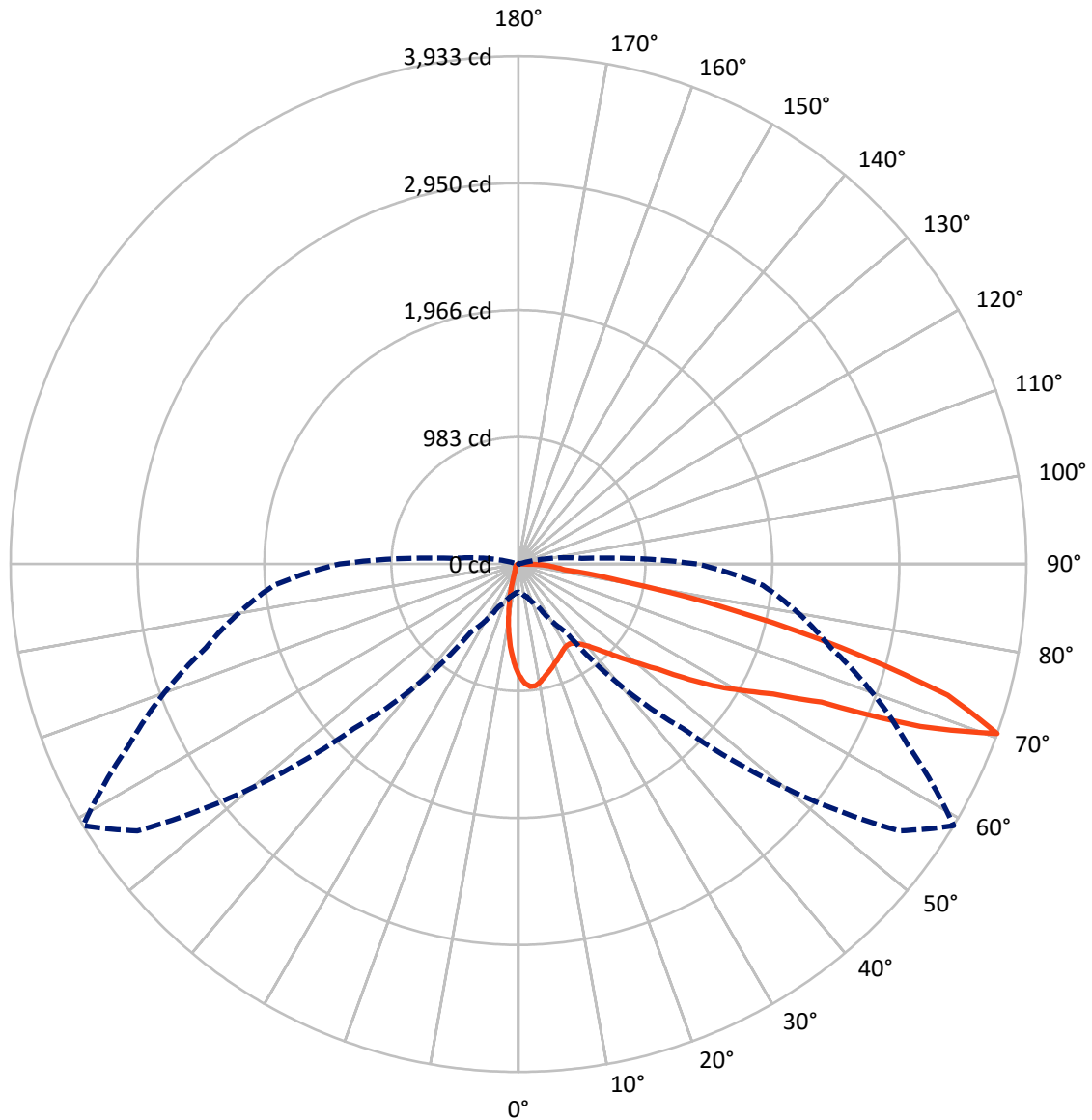


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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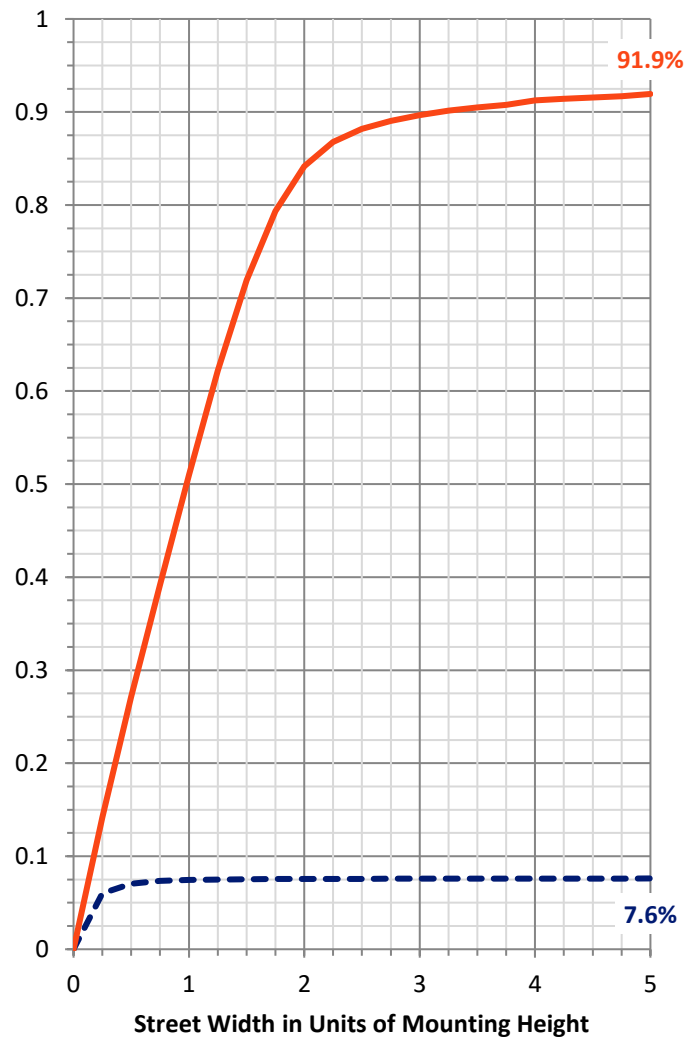
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	262.8	0.0	262.8
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	3156.2	0.0	3156.2
	% Fixture	92.3	0.0	92.3
Total	Lumens	3419.0	0.0	3419.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	2.1
10°-20°	149.1	4.4
20°-30°	201.8	5.9
30°-40°	291.3	8.5
40°-50°	483.8	14.1
50°-60°	740.0	21.6
60°-70°	920.4	26.9
70°-80°	508.8	14.9
80°-90°	52.8	1.5
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°	3419.0	100.0
0°-180°	3419.0	100.0



--- HS — SS

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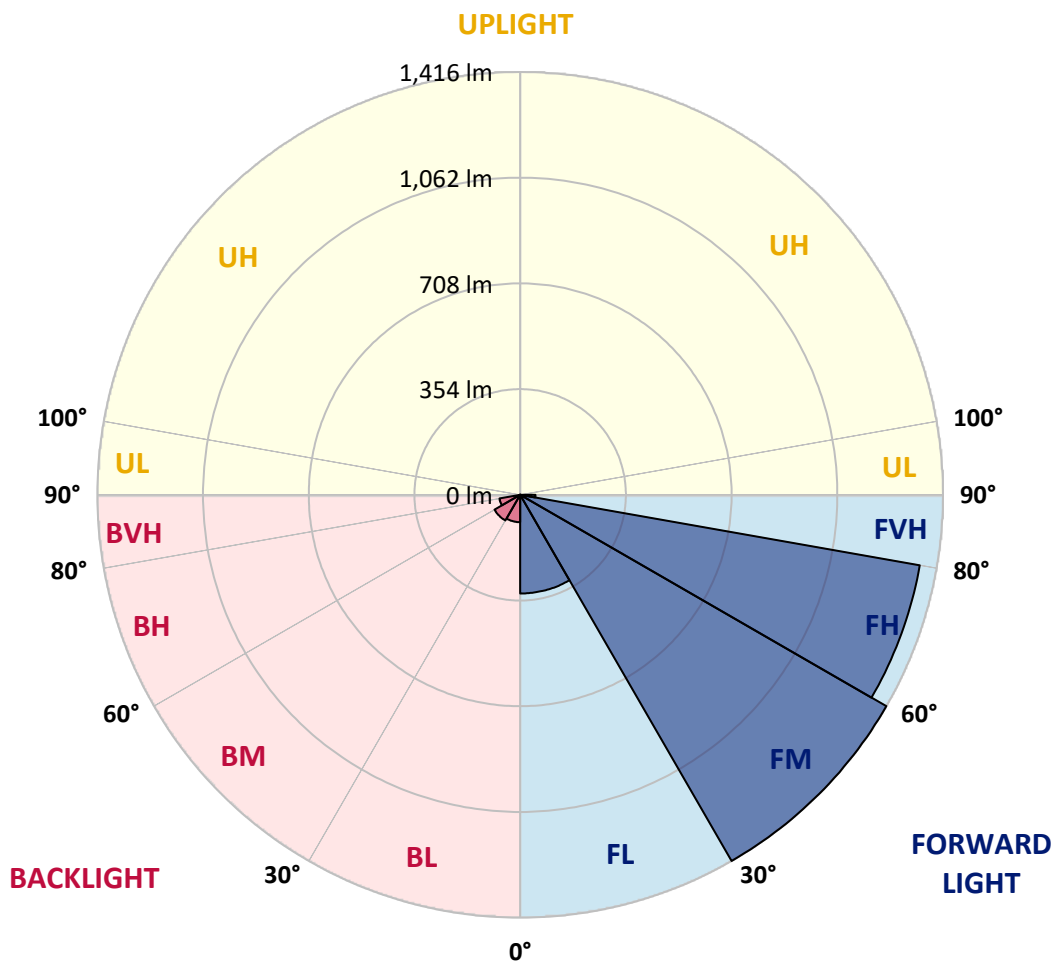
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	330.5	9.7			
FM	(30°-60°)	1415.8	41.4			
FH	(60°-80°)	1358.6	39.7			G1/1800
FVH	(80°-90°)	51.2	1.5			G1/100
BL	(0°-30°)	91.6	2.7	B0/110		
BM	(30°-60°)	99.2	2.9	B0/220		
BH	(60°-80°)	70.5	2.1	B0/110		G0/110
BVH	(80°-90°)	1.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5
2.5°	977.3	975.7	969.3	968.0	960.7	946.3	929.5	922.8	909.2	887.5	863.5
5°	993.5	994.3	994.8	992.0	990.9	979.1	960.5	952.5	934.2	898.6	854.7
7.5°	932.6	934.7	941.1	944.0	956.4	961.0	957.1	952.0	937.5	895.5	833.8
10°	868.4	872.3	879.2	883.9	899.1	911.5	927.2	928.5	925.4	885.2	810.4
12.5°	813.2	816.8	824.6	833.8	849.3	865.3	888.8	897.0	907.4	878.5	793.6
15°	765.8	766.8	774.3	785.9	806.3	828.2	856.0	868.2	888.3	875.9	780.7
17.5°	724.2	724.5	729.4	740.0	764.7	793.6	826.1	842.1	867.6	872.3	769.4
20°	696.9	696.6	696.9	702.6	724.5	758.8	798.3	815.0	847.8	867.9	757.8
22.5°	687.6	686.3	680.4	678.3	692.3	722.4	769.6	791.6	830.0	866.6	749.3
25°	699.0	698.2	685.5	673.7	675.0	693.8	740.5	767.3	816.1	871.2	747.2
27.5°	735.6	734.0	714.7	691.5	676.8	680.1	718.8	746.9	805.0	882.6	750.0
30°	783.6	783.8	763.2	735.1	700.5	681.4	707.2	733.8	797.5	899.6	756.2
32.5°	836.9	836.7	822.0	789.5	745.4	705.1	712.4	734.8	798.5	924.6	768.1
35°	892.1	889.3	884.4	855.8	804.2	746.7	735.8	752.3	809.3	957.7	788.2
37.5°	955.8	954.8	959.7	929.5	876.9	807.8	777.1	788.2	836.7	1006.4	820.7
40°	1057.2	1051.5	1053.9	1012.8	958.9	890.1	834.9	837.7	880.3	1070.9	872.0
42.5°	1250.4	1227.4	1184.4	1107.5	1049.2	981.4	910.5	905.6	941.9	1149.0	939.6
45°	1481.2	1454.9	1346.3	1212.0	1139.5	1079.4	1003.8	990.7	1017.7	1242.1	1026.8
47.5°	1673.9	1645.5	1501.6	1321.1	1231.3	1180.5	1107.2	1091.8	1108.5	1350.2	1131.5
50°	1739.7	1723.9	1597.5	1411.8	1323.9	1294.0	1237.0	1211.2	1215.3	1466.8	1253.7
52.5°	1709.5	1704.1	1619.5	1474.0	1409.5	1419.3	1379.1	1352.0	1347.4	1594.2	1388.9
55°	1645.8	1643.2	1601.9	1508.6	1485.1	1534.1	1578.5	1555.0	1511.1	1729.6	1500.6
57.5°	1554.7	1564.5	1594.2	1575.1	1577.9	1655.3	1763.6	1775.8	1710.3	1837.4	1583.4
60°	1311.5	1337.8	1473.7	1646.6	1778.9	1857.0	1962.0	1984.7	1878.9	1911.2	1679.0
62.5°	969.5	1007.2	1200.9	1518.4	1889.5	2240.5	2225.8	2215.8	2039.9	2010.0	1853.1
65°	569.5	613.6	777.4	1186.4	1722.6	2487.1	2718.5	2579.2	2285.2	2215.3	2130.4
67.5°	283.7	284.0	358.0	626.2	1273.1	2315.1	3437.5	3357.1	2806.7	2517.8	2239.8
70°	218.2	224.1	264.9	363.9	643.8	1803.1	3602.3	3932.7	3330.8	2504.4	1900.3
72.5°	184.9	188.8	235.7	316.7	481.3	989.9	3118.5	3476.2	3178.3	2116.0	1400.8
75°	133.1	136.2	208.7	287.3	443.1	491.1	2139.2	2578.2	2384.7	1488.4	770.9
77.5°	33.0	32.8	72.7	233.2	396.4	409.1	1227.4	1653.3	1368.3	609.5	198.1
80°	14.7	14.2	16.5	49.0	368.8	386.1	539.8	834.9	524.9	98.8	60.6
82.5°	10.3	9.8	10.3	18.1	123.3	358.2	326.3	361.9	192.1	33.8	25.8
85°	3.4	3.1	5.7	15.2	34.6	206.6	318.3	270.3	142.9	14.4	17.3
87.5°	0.5	0.5	2.1	8.3	10.1	68.9	186.7	187.2	64.2	8.5	7.7
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°	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5	864.5
2.5°	851.4	836.2	814.8	793.4	774.0	754.2	738.2	730.7	727.3	722.7	712.6
5°	831.8	804.2	757.2	711.1	668.0	626.7	591.4	571.3	549.6	548.6	538.0
7.5°	800.3	761.1	687.1	615.4	549.6	486.7	432.5	397.5	373.5	358.5	348.2
10°	765.2	714.9	616.9	516.1	426.6	342.5	272.9	227.5	199.9	186.0	178.0
12.5°	737.4	674.2	547.8	420.9	308.7	212.3	147.5	114.5	99.8	94.1	91.6
15°	713.4	636.8	483.1	335.8	206.1	122.0	85.4	74.5	72.2	72.2	72.0
17.5°	689.2	600.7	420.1	252.2	129.7	80.0	67.3	65.8	66.0	66.8	66.8
20°	666.2	566.4	359.5	179.8	85.1	64.0	61.1	60.6	61.4	62.4	62.2
22.5°	647.6	536.2	302.8	123.5	65.5	58.0	56.2	55.5	56.0	56.7	56.5
25°	634.5	510.4	250.7	86.1	57.0	52.9	50.8	49.8	49.3	49.8	49.5
27.5°	626.5	488.8	201.7	64.7	51.1	47.7	45.1	43.1	41.8	41.8	41.3
30°	621.3	468.4	158.1	53.6	46.2	42.6	38.9	36.1	34.0	33.5	33.3
32.5°	621.1	450.8	118.1	47.5	41.5	37.4	33.0	29.4	27.1	26.6	26.3
35°	627.5	436.7	86.9	42.8	37.4	32.5	27.6	23.7	21.7	21.7	21.4
37.5°	644.3	428.4	65.8	39.2	34.0	28.4	23.2	19.6	17.8	18.3	18.3
40°	675.5	426.9	53.6	36.4	31.2	24.8	18.8	16.0	15.2	16.0	16.0
42.5°	723.2	435.1	47.7	34.3	28.6	21.1	15.7	13.7	13.4	14.2	14.2
45°	785.4	451.4	44.4	32.5	25.8	17.5	13.2	11.9	11.6	12.6	12.6
47.5°	860.7	473.3	41.3	30.4	23.0	14.4	11.1	10.1	10.1	11.1	11.3
50°	949.9	502.9	38.2	28.4	20.6	12.1	9.3	8.5	8.8	9.8	10.1
52.5°	1052.6	539.3	35.3	26.6	18.1	9.8	7.7	7.2	7.5	8.5	8.8
55°	1141.0	571.0	32.0	24.8	14.7	8.0	6.4	6.2	6.4	7.7	7.7
57.5°	1218.1	601.5	28.9	21.9	11.6	6.4	5.2	5.2	5.7	7.0	7.2
60°	1320.5	649.4	26.3	18.6	8.8	4.9	4.1	4.4	5.2	6.2	6.4
62.5°	1501.9	730.9	23.0	15.5	6.4	3.9	3.4	3.6	4.6	5.9	6.2
65°	1728.8	808.1	19.1	12.9	4.9	2.8	2.6	3.4	4.6	5.9	6.2
67.5°	1705.6	702.8	15.0	10.3	3.6	2.3	2.1	3.1	4.4	5.9	6.2
70°	1383.2	492.6	11.1	7.0	2.8	2.1	2.1	3.1	4.4	5.7	5.9
72.5°	959.5	274.2	8.5	4.6	2.6	2.1	1.8	2.8	4.1	5.7	5.9
75°	456.5	84.1	6.7	3.4	2.3	1.8	1.5	2.8	4.1	5.7	5.9
77.5°	87.7	21.4	5.4	2.8	2.1	1.8	1.5	2.6	4.1	5.4	5.7
80°	29.7	9.5	4.4	2.6	2.1	1.8	1.5	2.6	3.9	5.2	5.4
82.5°	16.2	5.4	3.9	2.3	2.1	1.5	1.3	2.3	3.6	5.2	5.4
85°	12.6	3.9	3.1	2.3	2.1	1.5	1.3	2.3	3.6	4.9	5.2
87.5°	6.4	2.8	2.6	2.3	2.1	1.5	1.3	2.1	3.4	4.6	5.2
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)