

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: P196585

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196585
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-SL3-7030-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA 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: 3305.1 lumens
Efficiency: N/A
Efficacy: 97.2 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

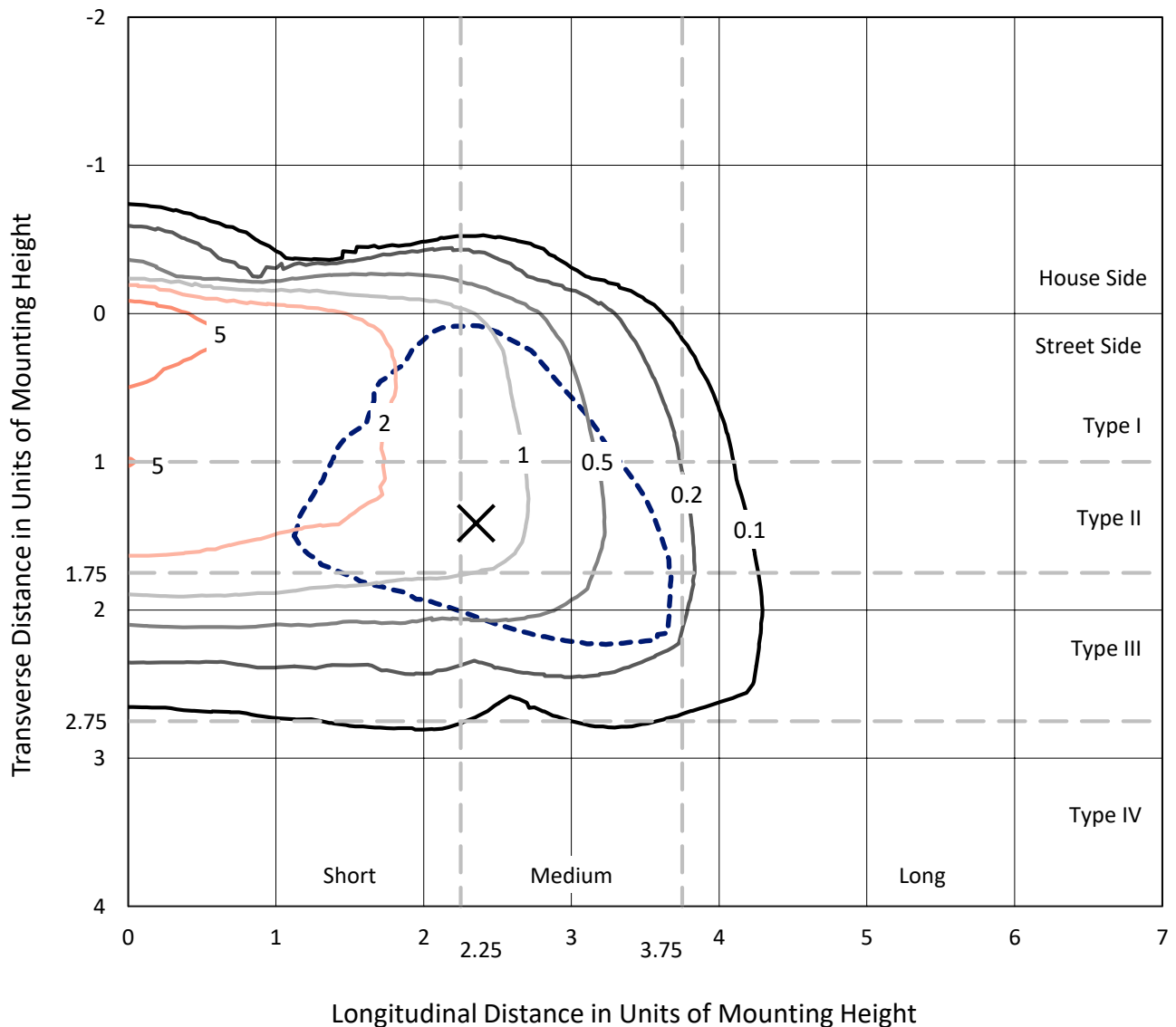
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

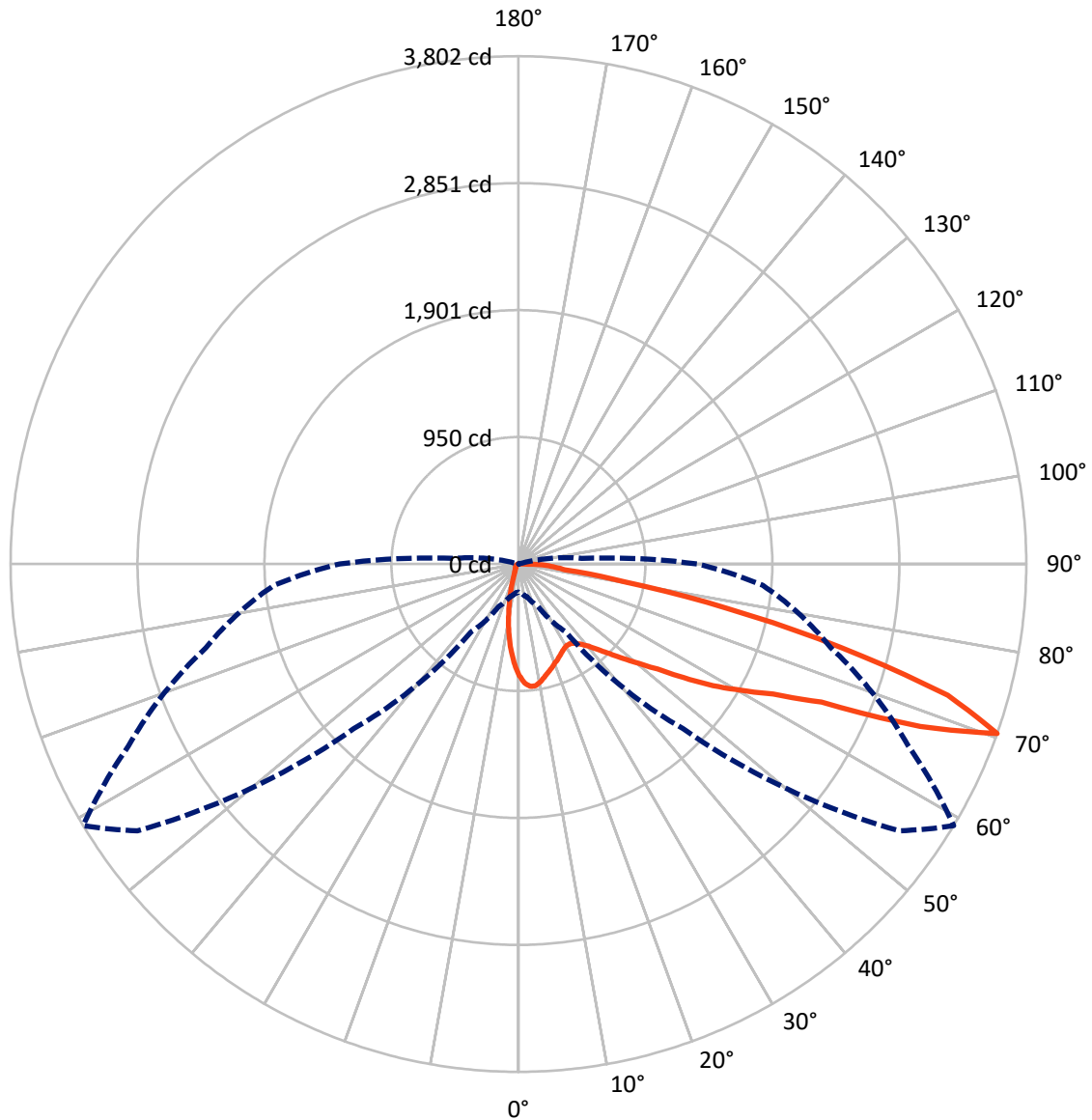
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P196585
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Luminous Intensity Polar Plot



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

REPORT NUMBER: P196585

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-600-HSS

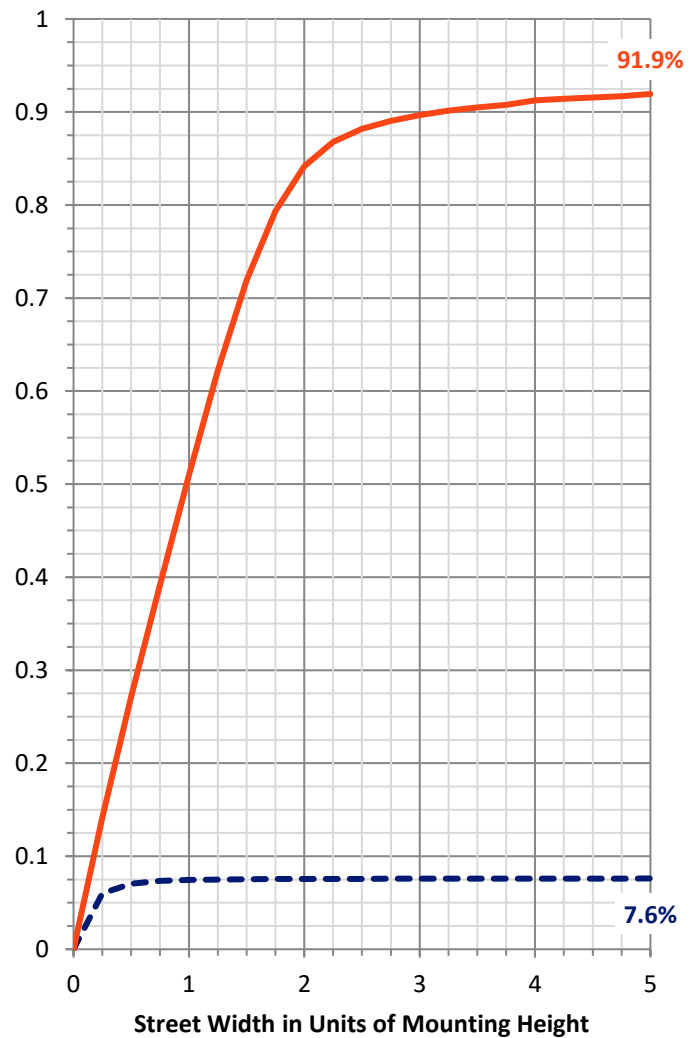
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	254.1	0.0	254.1
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	3051.0	0.0	3051.0
	% Fixture	92.3	0.0	92.3
Total	Lumens	3305.1	0.0	3305.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	2.1
10°-20°	144.1	4.4
20°-30°	195.1	5.9
30°-40°	281.6	8.5
40°-50°	467.7	14.1
50°-60°	715.3	21.6
60°-70°	889.7	26.9
70°-80°	491.8	14.9
80°-90°	51.0	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°	3305.1	100.0
0°-180°	3305.1	100.0



--- HS — SS

REPORT NUMBER: P196585

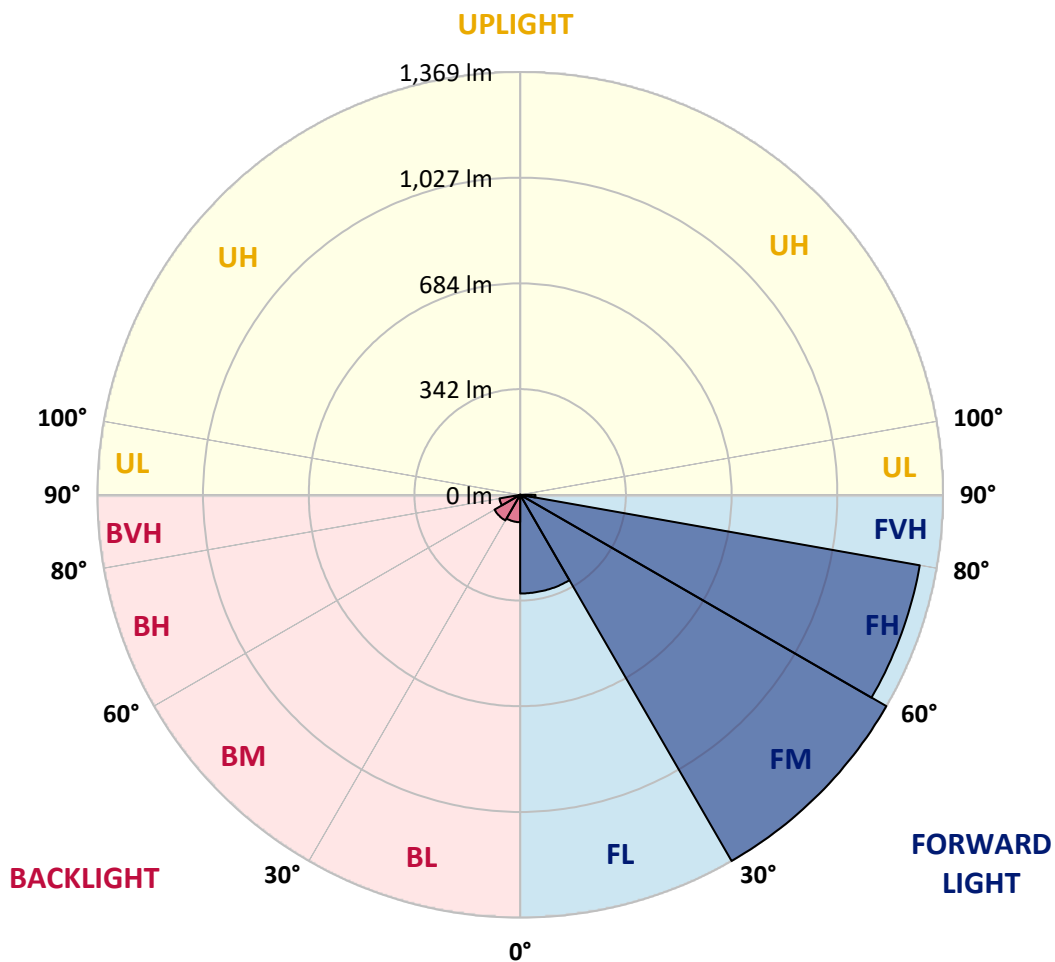
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	319.4	9.7			
FM	(30°-60°)	1368.7	41.4			
FH	(60°-80°)	1313.4	39.7			G1/1800
FVH	(80°-90°)	49.5	1.5			G1/100
BL	(0°-30°)	88.5	2.7	B0/110		
BM	(30°-60°)	95.9	2.9	B0/220		
BH	(60°-80°)	68.2	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





REPORT NUMBER: P196585

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-600-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8
2.5°	944.6	943.2	937.0	935.7	928.7	914.8	898.5	892.1	878.9	857.9	834.7
5°	960.4	961.2	961.7	958.9	957.8	946.4	928.4	920.7	903.0	868.6	826.2
7.5°	901.6	903.6	909.8	912.6	924.6	929.0	925.2	920.3	906.3	865.7	806.2
10°	839.4	843.3	849.9	854.4	869.1	881.0	896.4	897.6	894.7	855.7	783.4
12.5°	786.1	789.6	797.0	806.2	821.1	836.5	859.3	867.2	877.2	849.2	767.2
15°	740.2	741.3	748.4	759.7	779.3	800.6	827.5	839.2	858.7	846.8	754.7
17.5°	700.2	700.4	705.0	715.3	739.2	767.2	798.5	814.1	838.8	843.3	743.7
20°	673.7	673.5	673.7	679.1	700.4	733.5	771.7	787.9	819.6	839.0	732.5
22.5°	664.8	663.4	657.7	655.8	669.2	698.3	743.9	765.2	802.3	837.7	724.3
25°	675.7	674.9	662.6	651.1	652.5	670.7	715.8	741.8	788.9	842.2	722.3
27.5°	711.1	709.5	690.8	668.4	654.3	657.5	694.9	722.1	778.2	853.2	725.1
30°	757.5	757.7	737.7	710.6	677.2	658.8	683.6	709.3	771.0	869.6	731.1
32.5°	809.1	808.8	794.7	763.1	720.6	681.7	688.7	710.3	771.9	893.8	742.5
35°	862.4	859.7	855.0	827.3	777.4	721.7	711.3	727.2	782.4	925.8	762.0
37.5°	924.0	923.0	927.7	898.5	847.8	780.8	751.2	762.0	808.8	972.9	793.3
40°	1022.0	1016.5	1018.8	979.1	926.9	860.4	807.1	809.8	850.9	1035.2	842.9
42.5°	1208.7	1186.5	1144.9	1070.6	1014.3	948.7	880.1	875.3	910.5	1110.7	908.3
45°	1431.9	1406.5	1301.5	1171.6	1101.6	1043.4	970.3	957.6	983.9	1200.8	992.5
47.5°	1618.1	1590.7	1451.6	1277.0	1190.3	1141.2	1070.3	1055.5	1071.7	1305.2	1093.8
50°	1681.7	1666.5	1544.3	1364.7	1279.8	1250.9	1195.8	1170.8	1174.9	1417.9	1212.0
52.5°	1652.5	1647.3	1565.4	1424.8	1362.6	1372.1	1333.2	1307.0	1302.5	1541.1	1342.6
55°	1591.0	1588.4	1548.5	1458.3	1435.6	1482.9	1526.0	1503.2	1460.8	1672.0	1450.5
57.5°	1503.0	1512.3	1541.1	1522.6	1525.4	1600.2	1704.9	1716.6	1653.3	1776.2	1530.6
60°	1267.9	1293.3	1424.6	1591.7	1719.6	1795.1	1896.6	1918.6	1816.3	1847.5	1623.1
62.5°	937.2	973.6	1160.9	1467.8	1826.6	2165.8	2151.7	2141.9	1971.9	1942.9	1791.5
65°	550.5	593.2	751.4	1146.9	1665.2	2404.2	2627.9	2493.3	2209.0	2141.5	2059.4
67.5°	274.2	274.5	346.1	605.4	1230.7	2237.9	3323.0	3245.2	2713.1	2434.0	2165.2
70°	211.0	216.7	256.1	351.9	622.3	1743.0	3482.3	3801.6	3219.8	2420.9	1836.9
72.5°	178.7	182.5	228.0	306.2	465.2	956.9	3014.6	3360.4	3072.5	2045.5	1354.0
75°	128.6	131.6	201.7	277.7	428.3	474.7	2068.0	2492.2	2305.3	1438.8	745.2
77.5°	31.9	31.6	70.4	225.4	383.2	395.4	1186.5	1598.1	1322.7	589.1	191.5
80°	14.2	13.7	16.0	47.4	356.5	373.2	521.8	807.1	507.4	95.5	58.6
82.5°	10.0	9.5	10.0	17.5	119.2	346.4	315.4	349.8	185.7	32.7	24.9
85°	3.3	2.9	5.5	14.7	33.5	199.7	307.7	261.2	138.1	13.9	16.7
87.5°	0.5	0.5	1.9	7.9	9.8	66.5	180.5	181.1	62.1	8.2	7.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196585

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-600-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8
2.5°	823.0	808.3	787.6	766.9	748.2	729.0	713.6	706.4	703.1	698.6	688.9
5°	804.0	777.4	732.0	687.4	645.7	605.9	571.8	552.3	531.3	530.4	520.1
7.5°	773.7	735.8	664.2	594.9	531.3	470.5	418.1	384.3	361.0	346.6	336.6
10°	739.8	691.2	596.3	498.9	412.4	331.0	263.8	219.9	193.3	179.7	172.1
12.5°	712.8	651.7	529.6	406.9	298.5	205.2	142.6	110.7	96.4	91.0	88.5
15°	689.7	615.5	467.0	324.6	199.2	117.9	82.5	72.0	69.8	69.8	69.6
17.5°	666.2	580.7	406.1	243.8	125.4	77.2	65.1	63.6	63.8	64.6	64.6
20°	644.0	547.5	347.6	173.8	82.3	61.8	59.1	58.6	59.3	60.3	60.1
22.5°	626.0	518.3	292.7	119.4	63.4	56.0	54.3	53.6	54.1	54.8	54.6
25°	613.4	493.5	242.3	83.2	55.0	51.2	49.1	48.1	47.6	48.1	47.8
27.5°	605.7	472.4	194.9	62.6	49.3	46.1	43.6	41.6	40.4	40.4	39.9
30°	600.6	452.8	152.9	51.9	44.6	41.2	37.7	34.9	32.9	32.4	32.1
32.5°	600.4	435.8	114.1	45.9	40.1	36.2	31.9	28.4	26.2	25.6	25.4
35°	606.6	422.1	84.0	41.4	36.2	31.4	26.7	23.0	21.0	21.0	20.6
37.5°	622.8	414.1	63.6	37.9	32.9	27.5	22.4	18.9	17.2	17.7	17.7
40°	653.0	412.7	51.9	35.2	30.1	23.9	18.2	15.4	14.7	15.4	15.4
42.5°	699.1	420.6	46.1	33.3	27.7	20.4	15.2	13.2	13.0	13.7	13.7
45°	759.3	436.3	42.8	31.4	24.9	16.9	12.7	11.5	11.3	12.2	12.2
47.5°	832.0	457.5	39.9	29.4	22.2	13.9	10.7	9.8	9.8	10.7	10.9
50°	918.3	486.2	36.9	27.5	20.0	11.7	9.0	8.2	8.5	9.5	9.8
52.5°	1017.5	521.3	34.2	25.6	17.5	9.5	7.4	7.0	7.2	8.2	8.5
55°	1103.0	552.0	30.9	23.9	14.2	7.7	6.2	6.0	6.2	7.4	7.4
57.5°	1177.6	581.5	28.0	21.2	11.3	6.2	5.0	5.0	5.5	6.8	7.0
60°	1276.5	627.8	25.4	17.9	8.5	4.7	4.1	4.3	5.0	6.0	6.2
62.5°	1451.8	706.6	22.2	15.0	6.2	3.8	3.3	3.5	4.5	5.7	6.0
65°	1671.2	781.1	18.5	12.4	4.7	2.7	2.5	3.3	4.5	5.7	6.0
67.5°	1648.8	679.4	14.4	10.0	3.5	2.3	1.9	2.9	4.3	5.7	6.0
70°	1337.2	476.3	10.7	6.8	2.7	1.9	1.9	2.9	4.3	5.5	5.7
72.5°	927.5	265.1	8.2	4.5	2.5	1.9	1.7	2.7	4.1	5.5	5.7
75°	441.3	81.3	6.4	3.3	2.3	1.7	1.5	2.7	4.1	5.5	5.7
77.5°	84.7	20.6	5.3	2.7	1.9	1.7	1.5	2.5	4.1	5.3	5.5
80°	28.6	9.2	4.3	2.5	1.9	1.7	1.5	2.5	3.8	5.0	5.3
82.5°	15.8	5.3	3.8	2.3	1.9	1.5	1.2	2.3	3.5	5.0	5.3
85°	12.2	3.8	2.9	2.3	1.9	1.5	1.2	2.3	3.5	4.7	5.0
87.5°	6.2	2.7	2.5	2.3	1.9	1.5	1.2	1.9	3.3	4.5	5.0
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)