

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: P196639

Luminaire Tested: **NAV-AF-01-D-UNV-SL4-7030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196639  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)  
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-SL4-7030-800-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3889.7 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - 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

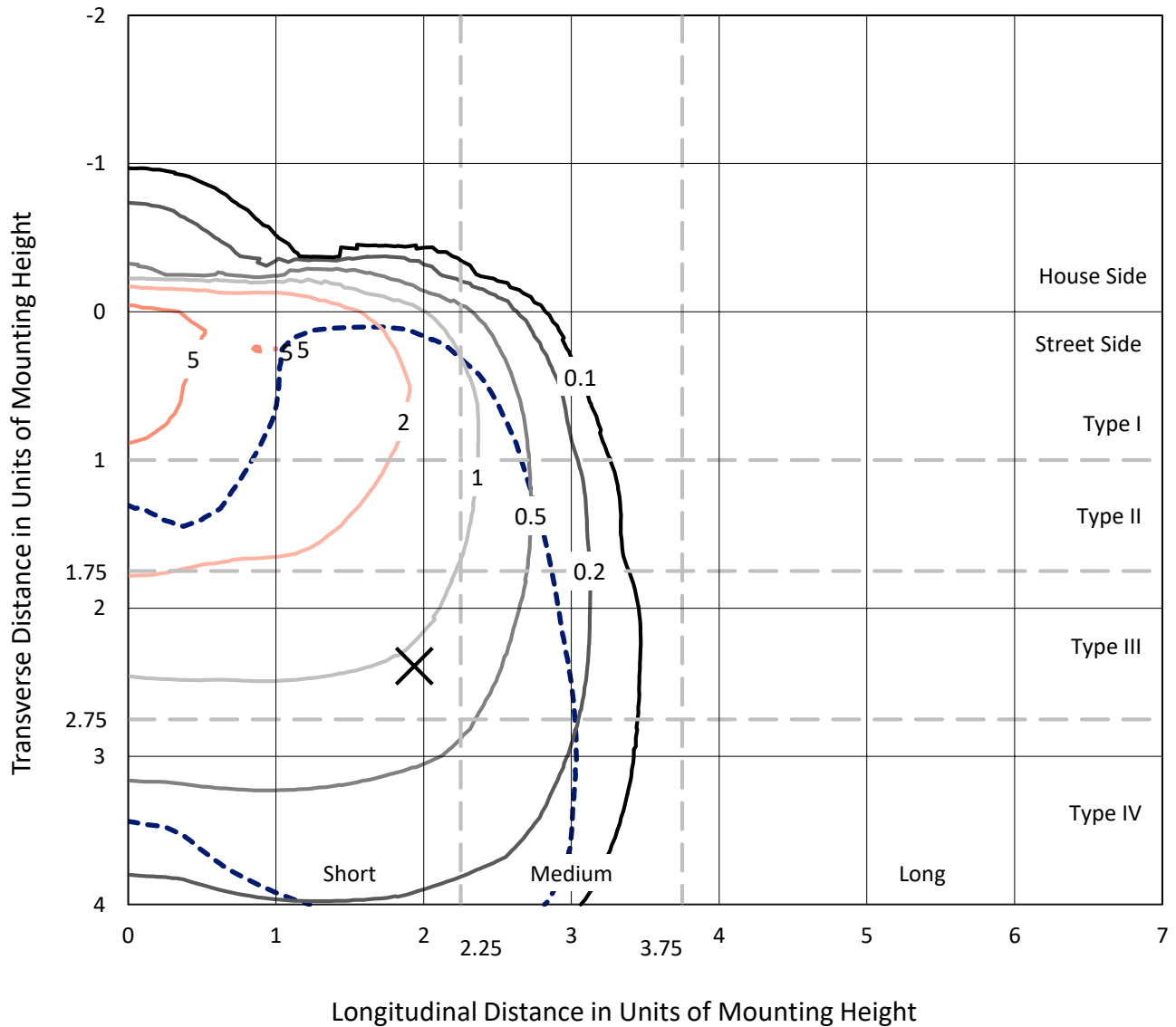


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

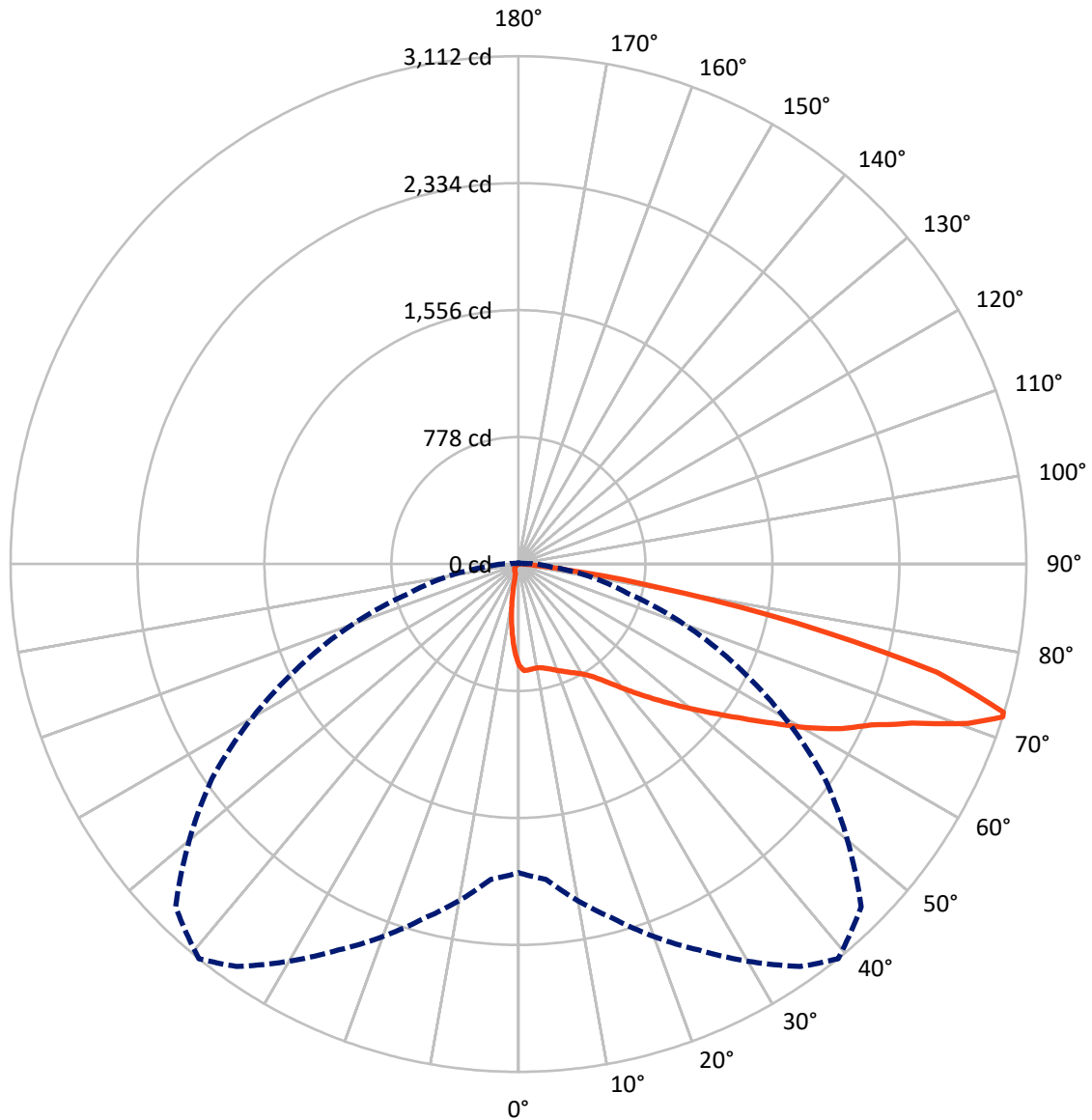


Based on 10 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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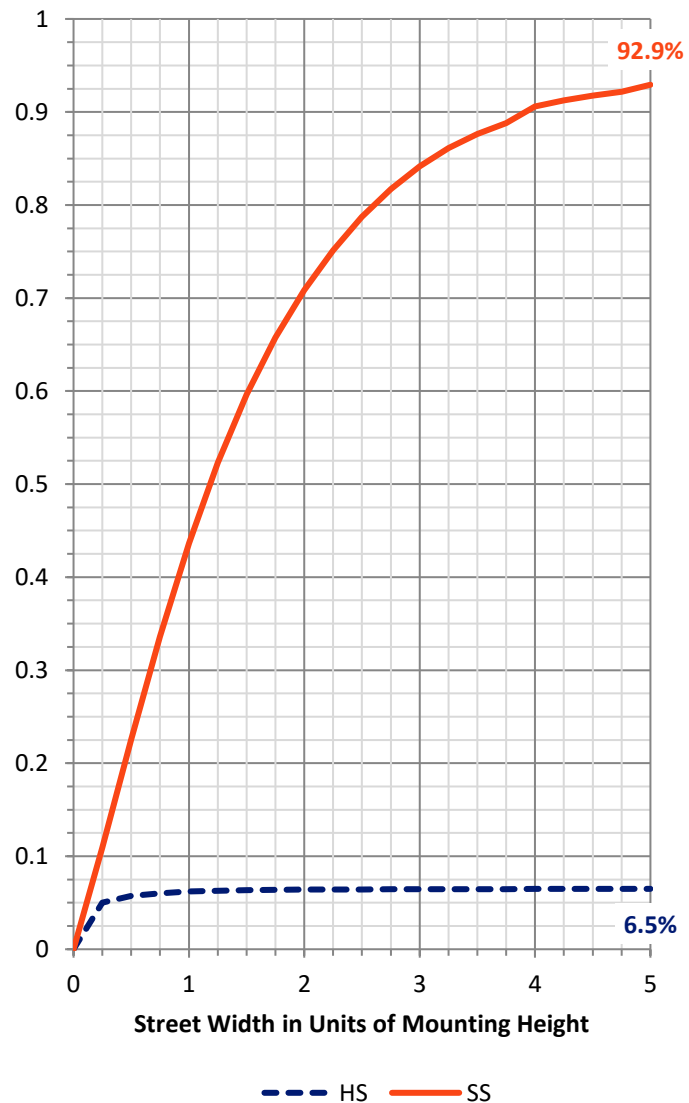
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	254.9	0.0	254.9
	% Fixture	6.6	0.0	6.6
<b>Street Side</b>	Lumens	3634.7	0.0	3634.7
	% Fixture	93.4	0.0	93.4
<b>Total</b>	Lumens	3889.7	0.0	3889.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.6	1.3
10°-20°	122.6	3.2
20°-30°	203.6	5.2
30°-40°	324.5	8.3
40°-50°	535.6	13.8
50°-60°	808.9	20.8
60°-70°	1053.7	27.1
70°-80°	712.0	18.3
80°-90°	78.0	2.0
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°	3889.7	100.0
0°-180°	3889.7	100.0

**Coefficient of Utilization**



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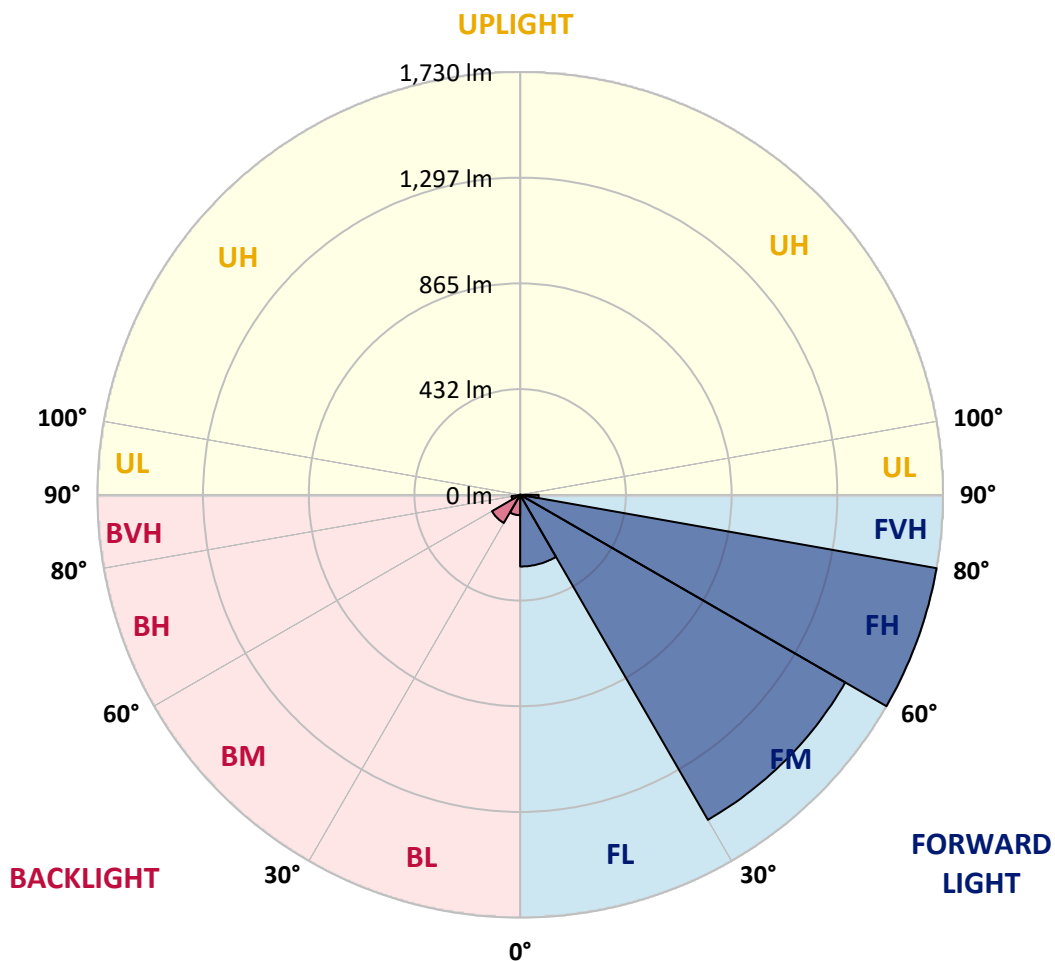
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	293.4	7.5			
FM	(30°-60°)	1535.7	39.5			
FH	(60°-80°)	1729.9	44.5			G1/1800
FVH	(80°-90°)	75.7	1.9			G1/100
BL	(0°-30°)	83.5	2.1	B0/110		
BM	(30°-60°)	133.4	3.4	B0/220		
BH	(60°-80°)	35.8	0.9	B0/110		G0/110
BVH	(80°-90°)	2.3	0.1			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6
2.5°	662.8	664.2	662.6	659.8	655.9	653.5	650.1	642.8	633.6	625.6	616.4
5°	668.1	668.7	666.9	661.7	655.5	652.2	647.9	640.0	630.5	619.5	603.0
7.5°	669.6	669.3	667.2	660.8	651.3	647.1	639.7	629.9	620.1	610.0	591.4
10°	669.0	669.0	667.5	661.3	650.6	646.7	638.5	628.0	615.7	605.8	585.8
12.5°	666.9	668.1	667.2	663.9	655.9	652.9	645.5	635.2	623.5	613.1	591.9
15°	669.6	671.5	673.4	672.1	667.5	664.8	658.1	647.4	637.8	626.8	604.2
17.5°	680.6	684.6	688.9	689.2	684.3	679.5	671.8	660.8	651.6	641.6	617.1
20°	701.5	704.5	712.5	714.0	704.1	697.2	686.4	673.6	664.4	655.9	629.0
22.5°	732.4	735.8	742.1	740.0	723.6	715.2	701.8	687.1	677.6	672.7	642.8
25°	779.1	780.0	781.5	772.1	744.8	735.8	719.2	702.6	695.0	694.5	662.3
27.5°	834.2	835.4	828.6	807.5	768.7	756.8	738.1	723.2	719.5	724.1	687.1
30°	897.1	897.4	878.8	844.6	796.3	783.1	763.8	747.4	750.7	762.0	718.9
32.5°	961.7	958.6	933.0	888.3	833.8	818.0	801.4	784.9	794.8	817.7	765.4
35°	1020.7	1019.5	989.3	937.2	882.9	868.7	856.8	839.3	855.3	892.5	828.6
37.5°	1079.7	1078.8	1044.2	990.1	943.0	933.0	924.0	910.5	936.6	991.3	913.4
40°	1144.8	1143.3	1100.8	1048.8	1013.1	1007.5	1002.4	996.6	1040.9	1116.9	1018.9
42.5°	1225.3	1218.6	1160.8	1112.7	1090.1	1091.6	1091.9	1097.7	1167.1	1266.6	1143.3
45°	1317.5	1302.6	1221.0	1181.2	1174.7	1184.0	1193.1	1217.2	1314.3	1438.7	1280.8
47.5°	1407.1	1383.0	1290.4	1255.0	1268.1	1287.0	1309.0	1356.1	1479.4	1618.7	1405.6
50°	1484.3	1459.4	1359.1	1329.8	1371.8	1399.8	1439.0	1510.2	1653.6	1771.1	1484.3
52.5°	1544.8	1525.3	1432.0	1412.4	1486.7	1525.3	1586.7	1680.2	1818.2	1871.4	1539.3
55°	1589.4	1579.7	1501.7	1504.4	1614.6	1670.1	1746.6	1852.4	1957.0	1949.3	1580.6
57.5°	1639.9	1632.3	1574.8	1613.0	1768.3	1840.2	1928.5	2013.5	2057.9	2012.0	1621.0
60°	1691.6	1693.9	1663.5	1744.5	1958.5	2038.0	2115.0	2136.1	2144.4	2075.6	1663.5
62.5°	1730.6	1741.0	1743.9	1886.4	2153.6	2221.5	2254.8	2239.9	2237.9	2160.9	1660.0
65°	1775.7	1802.9	1848.1	2041.9	2330.9	2375.7	2399.5	2421.1	2375.3	2186.3	1496.8
67.5°	1853.2	1896.0	1998.0	2232.8	2535.8	2601.9	2669.4	2646.5	2395.7	1928.5	1140.2
70°	1957.9	2010.2	2190.0	2482.0	2813.8	2924.5	2981.0	2628.4	2034.0	1332.5	601.5
72°	1891.9	1939.3	2249.3	2609.2	3010.6	3112.1	2970.6	2292.7	1474.5	690.7	201.5
72.5°	1827.6	1876.5	2230.3	2607.7	3030.2	3107.9	2903.0	2160.3	1304.8	537.5	138.9
75°	1268.1	1329.8	1912.0	2344.0	2736.4	2651.0	2221.1	1308.2	472.8	92.4	45.9
77.5°	655.5	703.3	1159.8	1656.4	1907.1	1746.6	1312.8	567.5	130.9	48.9	30.3
80°	406.3	429.9	542.5	816.1	990.8	866.5	579.2	229.3	83.8	29.1	24.1
82.5°	210.4	228.5	341.6	329.3	366.0	304.3	213.7	192.1	51.7	18.0	24.8
85°	69.1	73.4	209.8	218.9	156.6	105.2	94.8	183.1	15.0	11.6	21.1
87.5°	9.2	10.7	73.6	125.3	77.0	47.7	57.0	64.6	5.3	6.4	5.8
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°	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6
2.5°	610.3	606.4	593.9	581.3	566.9	553.7	543.3	536.7	539.7	529.6	531.1
5°	592.9	582.8	555.2	525.6	493.6	463.6	439.7	422.0	418.6	403.2	403.9
7.5°	576.2	559.5	514.9	466.0	412.8	369.8	330.5	296.3	284.1	271.5	264.2
10°	566.9	544.3	481.0	409.7	334.8	271.5	216.5	173.4	155.3	142.1	135.8
12.5°	569.7	539.7	455.6	358.7	260.2	179.8	122.3	90.8	79.8	73.6	71.6
15°	578.8	540.7	432.6	308.8	189.2	108.8	71.9	61.5	60.5	60.2	60.0
17.5°	587.4	541.5	408.5	256.9	126.6	69.4	57.8	57.0	57.0	57.0	57.0
20°	596.2	541.8	381.9	202.4	83.1	57.0	54.4	53.9	54.4	54.4	54.4
22.5°	606.6	544.0	356.1	149.5	61.5	53.5	52.0	51.7	52.0	52.0	51.7
25°	619.5	548.6	328.5	107.1	55.6	51.4	49.8	49.5	49.8	49.5	49.5
27.5°	636.7	554.7	296.0	76.7	53.2	49.2	47.7	47.7	47.7	47.4	47.4
30°	658.7	562.0	252.6	60.5	50.8	47.1	45.9	45.9	45.6	45.3	45.3
32.5°	690.2	573.9	205.2	54.7	48.0	44.4	43.1	43.3	43.1	42.8	42.5
35°	734.8	592.6	158.4	51.7	45.3	41.6	40.3	40.3	40.3	39.8	39.8
37.5°	798.0	621.0	118.6	48.6	42.5	38.8	37.2	37.2	37.0	36.4	36.7
40°	876.4	656.7	85.9	45.9	39.8	35.7	34.5	34.0	33.4	32.7	32.7
42.5°	970.6	691.7	64.6	43.1	37.0	33.4	31.8	31.1	29.9	29.4	29.1
45°	1075.9	728.6	53.5	39.8	34.0	30.6	29.4	28.1	26.6	25.6	25.3
47.5°	1165.0	751.2	47.7	36.4	30.9	27.9	26.6	24.8	23.0	22.3	22.3
50°	1218.6	741.8	42.8	33.0	27.9	25.0	23.5	21.1	19.8	19.2	19.0
52.5°	1248.5	713.7	38.8	30.3	25.0	22.1	19.8	17.7	17.2	16.5	16.5
55°	1268.9	673.0	34.5	27.6	22.6	19.2	16.8	15.3	14.6	14.4	14.1
57.5°	1288.5	623.5	30.6	25.0	20.2	17.2	14.4	13.7	12.6	12.2	12.2
60°	1294.4	555.2	26.9	22.3	18.0	15.0	12.6	11.6	10.4	10.1	10.1
62.5°	1220.3	441.9	23.8	19.0	16.0	12.9	11.0	9.9	8.5	8.5	8.5
65°	1019.7	299.9	20.5	16.5	14.1	11.0	9.5	7.9	7.3	7.3	7.3
67.5°	710.3	167.2	17.5	14.1	11.9	9.2	7.9	6.8	6.4	6.8	6.8
70°	320.1	66.3	14.6	11.6	9.9	7.6	6.8	5.8	6.4	6.4	6.4
72°	96.0	35.5	12.2	9.5	7.9	6.8	5.8	5.5	6.1	6.4	6.4
72.5°	71.2	31.8	11.6	9.2	7.9	6.4	5.5	5.5	6.1	6.4	6.4
75°	36.7	21.8	8.8	6.8	5.8	5.3	4.6	5.3	6.1	6.1	6.1
77.5°	28.7	17.7	7.3	5.3	4.9	4.6	4.3	4.9	5.5	5.5	5.5
80°	26.9	11.6	5.8	4.9	4.3	4.0	4.0	4.3	4.9	5.3	5.3
82.5°	27.2	9.5	5.3	4.6	4.0	3.8	3.8	4.0	4.6	4.9	4.9
85°	17.5	6.4	4.6	4.0	3.8	3.4	3.4	3.8	4.3	4.6	4.6
87.5°	5.8	4.9	4.0	3.8	3.1	3.1	3.1	3.1	3.8	4.0	4.3
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)