

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: P196609

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196609
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
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
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3888.5 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

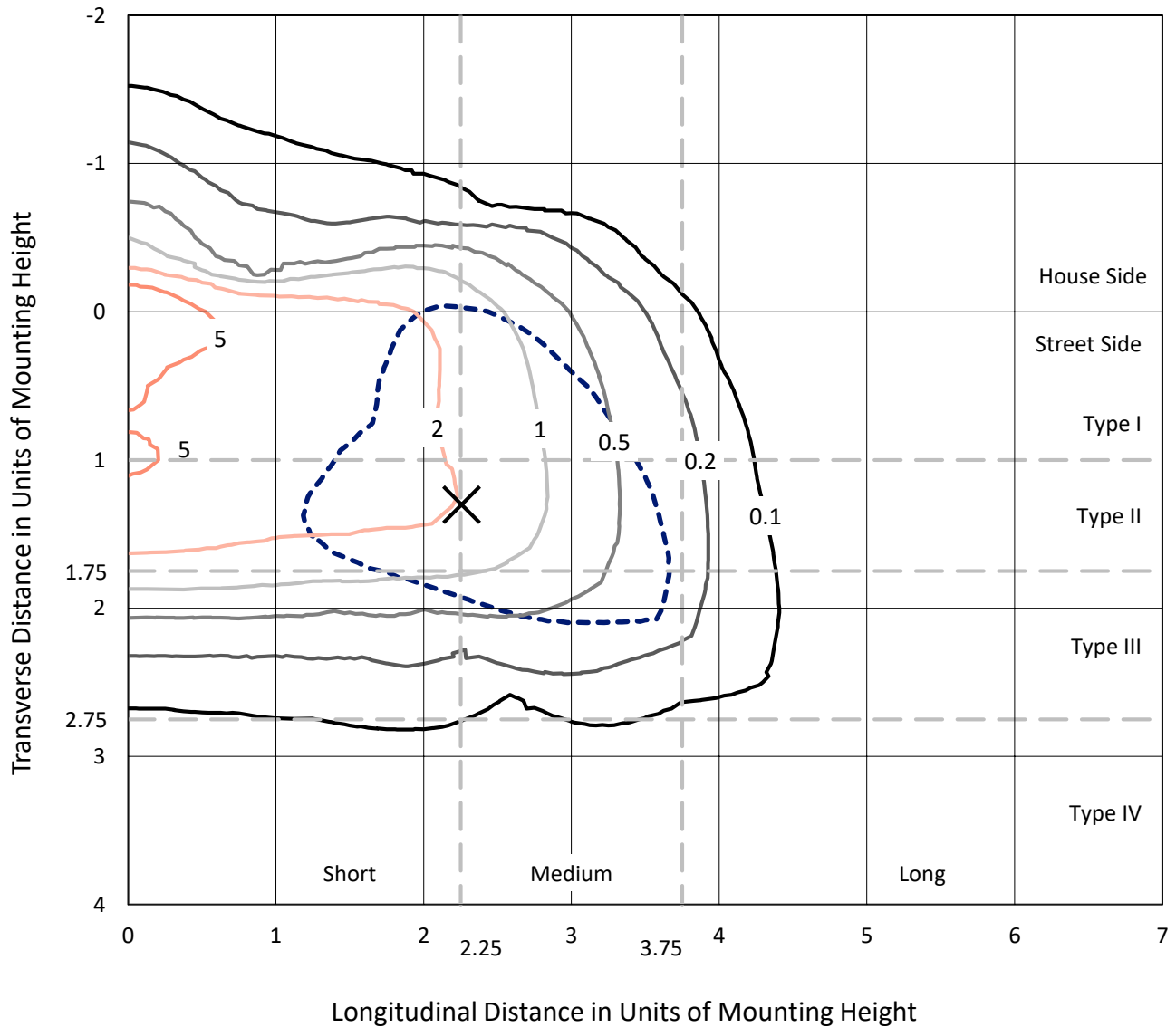
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

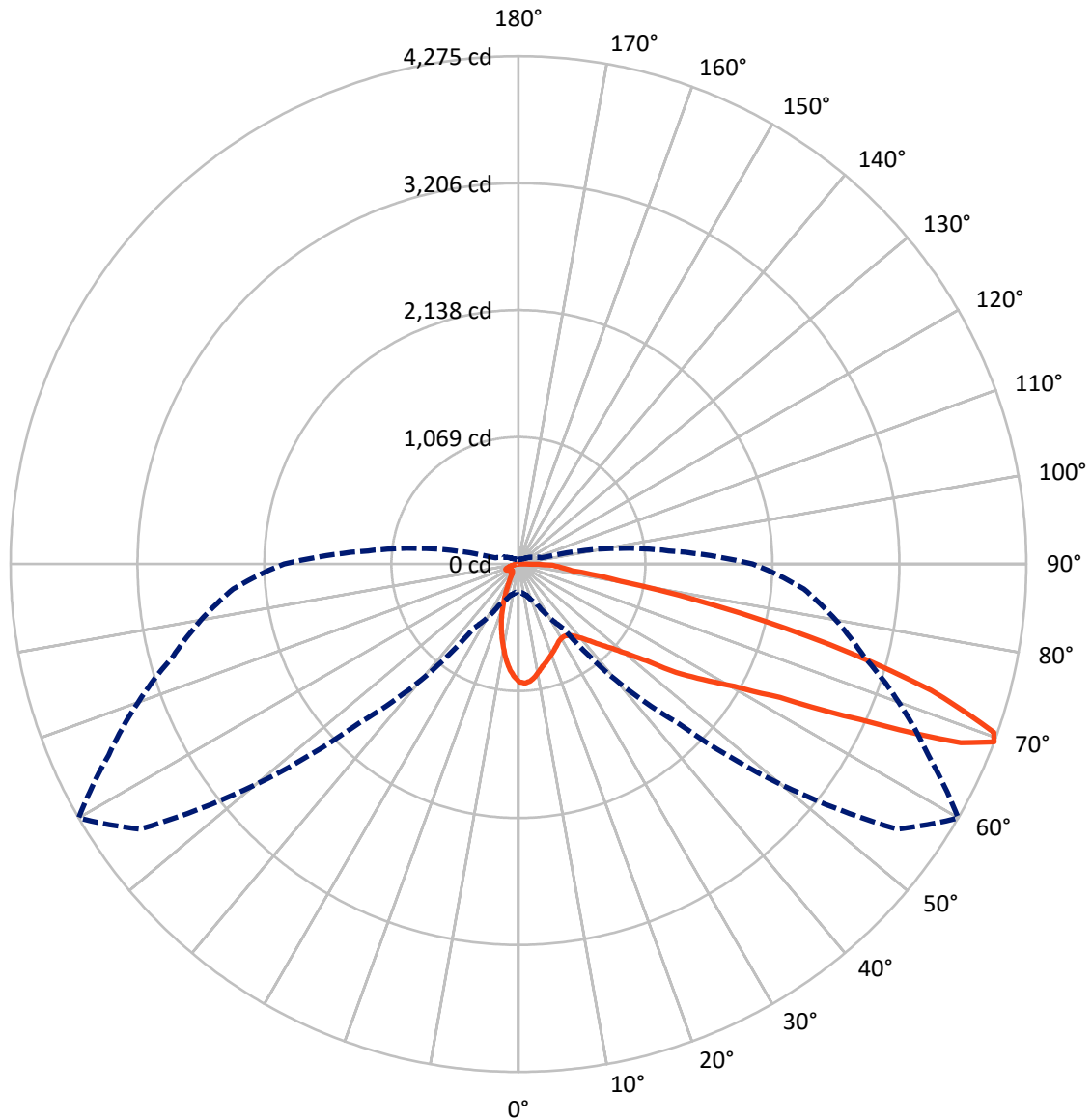
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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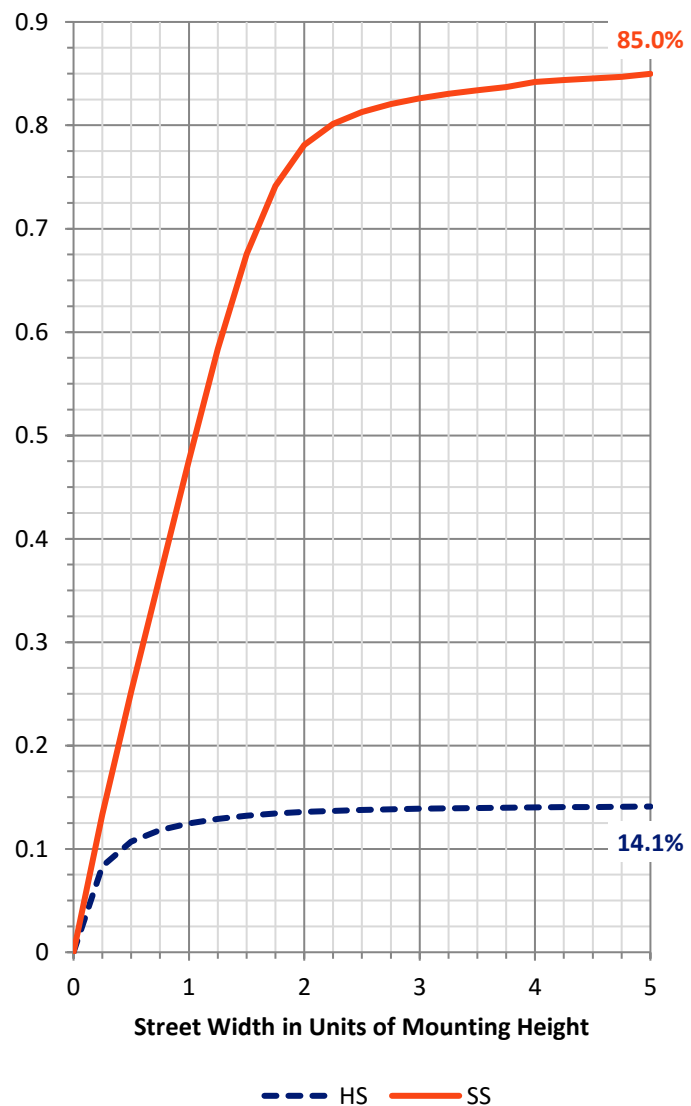
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	554.6	0.0	554.6
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	3333.9	0.0	3333.9
	% Fixture	85.7	0.0	85.7
Total	Lumens	3888.5	0.0	3888.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.2	2.2
10°-20°	180.2	4.6
20°-30°	229.9	5.9
30°-40°	316.4	8.1
40°-50°	512.5	13.2
50°-60°	804.3	20.7
60°-70°	1072.2	27.6
70°-80°	596.4	15.3
80°-90°	92.5	2.4
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°	3888.5	100.0
0°-180°	3888.5	100.0

Coefficient of Utilization



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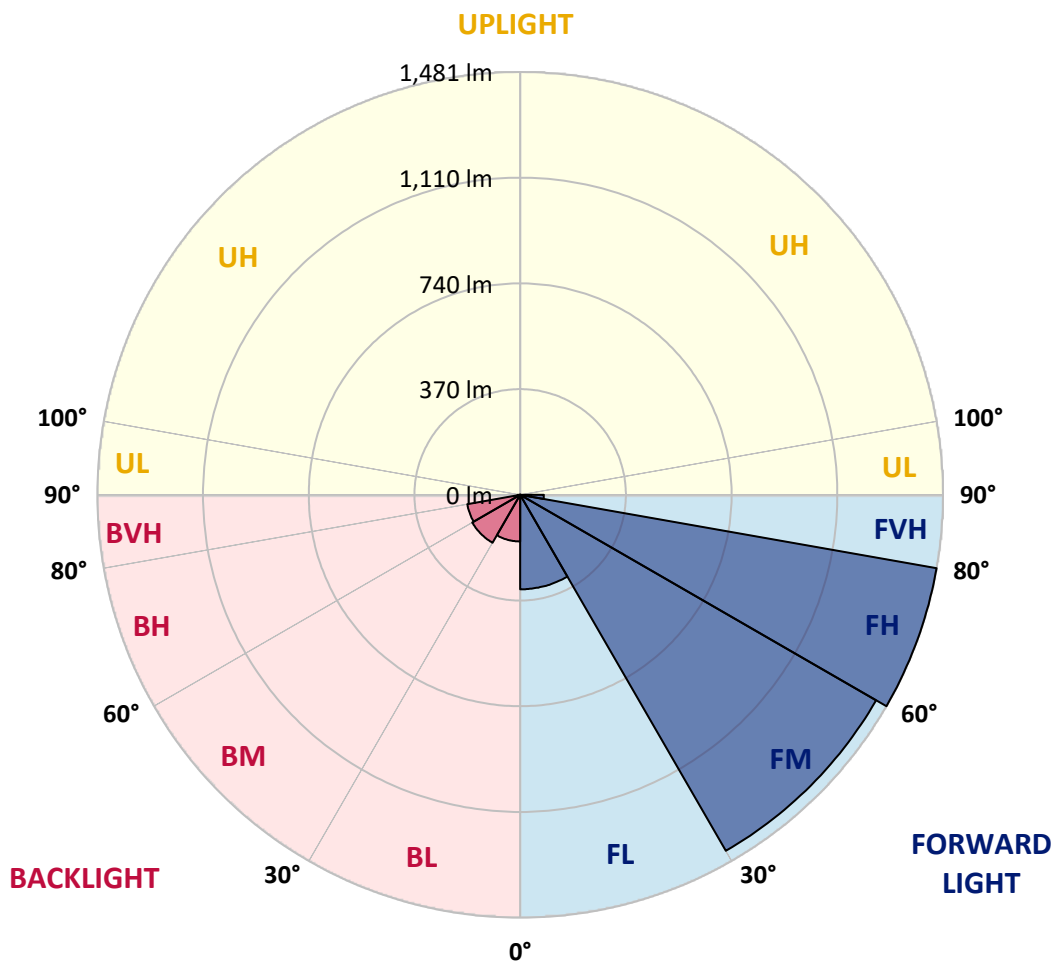
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	330.8	8.5			
FM	(30°-60°)	1439.3	37.0			
FH	(60°-80°)	1480.6	38.1			G1/1800
FVH	(80°-90°)	83.1	2.1			G1/100
BL	(0°-30°)	163.4	4.2	B1/500		
BM	(30°-60°)	193.8	5.0	B0/220		
BH	(60°-80°)	188.1	4.8	B1/500		G1/500
BVH	(80°-90°)	9.4	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2
2.5°	1018.7	1021.3	1021.3	1019.1	1017.9	1010.6	1006.4	1003.4	998.2	988.5	979.7
5°	982.2	987.4	989.7	990.7	997.2	995.0	995.2	993.1	988.7	978.2	964.0
7.5°	915.4	916.3	920.4	927.1	942.8	953.8	962.8	964.5	963.4	955.8	935.8
10°	849.5	851.2	856.0	867.5	882.5	898.2	917.7	925.7	931.6	929.1	903.9
12.5°	795.0	795.2	800.5	813.7	830.4	850.0	876.5	889.0	903.1	908.9	880.7
15°	742.3	745.8	750.8	766.8	787.4	812.4	842.8	860.0	878.7	895.2	862.7
17.5°	702.4	705.2	708.1	721.3	745.3	776.5	814.1	832.5	857.2	882.5	844.3
20°	680.4	681.4	679.3	685.7	706.0	739.5	783.2	805.5	834.8	870.2	825.4
22.5°	676.0	676.0	667.8	666.5	675.4	703.9	751.2	778.5	814.4	861.7	808.4
25°	697.0	695.4	680.0	665.7	662.5	677.0	720.9	754.3	796.9	861.5	795.7
27.5°	736.6	734.6	715.4	691.5	670.8	664.6	697.4	731.6	783.2	870.0	789.2
30°	786.0	785.2	765.8	735.9	701.7	669.5	688.3	719.9	774.0	885.6	789.0
32.5°	840.1	836.6	824.6	794.7	750.3	697.2	693.7	720.3	771.5	908.6	794.7
35°	897.7	895.2	892.2	862.0	812.2	746.0	717.9	737.6	783.7	940.5	810.9
37.5°	971.0	968.2	973.2	940.2	885.6	810.1	758.8	772.0	808.6	986.9	841.1
40°	1101.5	1093.3	1079.5	1028.7	971.5	888.8	818.0	819.9	851.2	1049.0	889.5
42.5°	1315.6	1290.0	1220.9	1127.8	1062.0	979.9	895.0	885.4	910.1	1131.1	959.8
45°	1530.2	1501.3	1384.7	1235.8	1155.8	1078.0	990.2	967.5	983.5	1226.6	1050.3
47.5°	1668.9	1654.7	1523.1	1343.8	1254.0	1184.7	1099.1	1061.8	1073.3	1334.8	1162.0
50°	1709.6	1697.4	1593.9	1428.2	1346.7	1313.7	1234.1	1184.4	1186.4	1461.3	1296.0
52.5°	1679.1	1674.2	1605.6	1480.7	1432.1	1449.5	1420.8	1351.7	1335.2	1599.9	1441.0
55°	1638.5	1640.2	1613.8	1533.2	1518.8	1576.2	1665.2	1609.6	1539.8	1744.3	1592.1
57.5°	1510.6	1511.8	1581.1	1633.5	1684.3	1753.7	1855.4	1832.0	1750.7	1900.0	1761.5
60°	1216.4	1226.1	1380.4	1612.7	1873.7	2103.6	2128.5	2088.1	1975.1	2079.6	1981.6
62.5°	868.9	877.7	1056.5	1400.1	1851.4	2499.6	2632.7	2472.1	2279.5	2348.2	2291.2
65°	456.6	455.1	593.5	967.5	1559.4	2591.3	3427.1	3153.8	2792.4	2717.4	2590.5
67.5°	255.1	263.4	317.0	488.0	1016.3	2280.6	3934.5	4015.1	3505.7	3010.4	2577.5
69°	235.9	238.6	274.6	377.3	662.5	1881.7	3890.9	4275.1	3806.4	3011.6	2411.5
70°	229.1	232.1	264.9	347.6	556.5	1541.7	3732.1	4244.7	3879.5	2944.9	2260.3
72.5°	205.5	209.4	241.1	312.5	469.0	794.7	3006.2	3633.1	3514.1	2573.8	1752.7
75°	175.3	182.0	229.9	310.2	444.3	505.3	2004.8	2706.7	2615.4	1840.7	994.4
77.5°	72.5	73.3	100.5	227.2	466.3	483.5	1077.4	1714.5	1517.8	807.2	299.5
80°	50.6	49.6	50.1	66.3	376.3	486.7	552.9	872.0	677.7	212.9	140.2
82.5°	42.6	42.2	44.1	41.6	127.4	552.3	462.2	454.5	319.1	114.7	66.8
85°	28.2	27.5	36.2	37.9	60.6	438.5	497.2	357.3	237.8	61.3	28.4
87.5°	13.7	13.9	20.6	25.6	32.1	138.9	476.3	282.6	183.8	26.7	11.5
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°	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2	992.2
2.5°	976.2	968.7	962.0	953.5	947.1	941.6	934.0	933.8	932.5	934.2	934.8
5°	954.5	942.1	923.1	901.9	886.9	867.3	848.1	841.6	834.3	833.5	835.9
7.5°	921.8	902.4	870.0	837.6	805.1	772.0	740.6	724.6	709.2	704.4	706.7
10°	885.4	860.8	811.1	758.3	712.7	663.3	615.3	584.4	556.3	544.3	547.3
12.5°	857.0	825.6	755.7	687.2	618.9	548.1	485.0	423.9	377.8	357.1	358.4
15°	832.5	792.4	703.9	612.6	527.1	430.2	342.6	271.8	231.4	216.5	215.9
17.5°	806.2	757.5	649.8	543.3	432.3	312.5	229.5	187.5	171.5	166.6	166.6
20°	777.9	721.6	593.2	467.7	332.5	218.2	172.5	156.3	150.3	148.8	148.6
22.5°	751.8	686.4	536.4	387.3	240.6	165.5	146.9	140.6	139.7	140.8	140.8
25°	731.1	655.5	478.8	302.4	175.1	138.6	130.7	129.9	133.7	138.1	138.9
27.5°	715.6	627.9	421.8	220.9	137.6	120.7	117.9	121.2	129.9	138.9	140.6
30°	704.9	604.2	353.8	158.9	114.7	105.8	107.0	112.7	125.9	139.7	143.3
32.5°	700.2	585.0	285.2	122.0	98.0	93.0	96.2	103.7	117.5	131.1	135.7
35°	704.7	571.0	221.9	101.3	85.8	82.1	85.8	93.5	102.4	109.3	112.0
37.5°	720.9	566.1	167.0	89.8	77.8	74.1	77.0	82.3	86.4	88.7	90.0
40°	755.1	571.3	130.9	83.8	73.3	69.1	69.8	72.3	75.1	77.0	77.2
42.5°	809.4	588.5	116.5	81.5	70.6	65.1	63.8	65.5	68.7	71.3	71.8
45°	881.7	617.1	114.9	82.3	69.3	61.8	59.3	61.0	65.1	69.6	70.4
47.5°	975.2	662.5	122.0	86.4	70.0	60.1	56.4	58.1	63.4	69.3	70.4
50°	1085.9	725.4	134.9	92.3	73.5	60.1	55.0	56.6	62.1	68.9	69.8
52.5°	1216.4	812.9	148.4	98.3	78.5	62.4	55.6	55.4	60.3	66.5	67.8
55°	1360.2	921.6	161.3	103.5	81.3	65.3	56.9	53.9	57.8	62.9	63.8
57.5°	1529.5	1070.5	184.0	108.5	82.8	67.5	58.4	52.3	54.6	58.1	58.9
60°	1759.2	1289.1	228.2	116.9	85.5	68.7	58.6	51.0	50.6	53.1	53.3
62.5°	2058.7	1545.3	270.3	127.0	91.0	68.9	57.6	49.8	47.4	48.1	48.1
65°	2271.6	1639.6	258.1	135.4	96.0	68.7	56.6	49.1	44.9	43.6	43.6
67.5°	2150.4	1448.2	219.2	137.6	96.4	65.9	54.4	47.4	42.6	39.7	39.7
69°	1972.3	1269.5	201.2	133.7	92.6	62.6	51.9	45.7	41.2	37.7	37.7
70°	1827.3	1134.0	190.2	128.9	87.7	59.9	49.6	43.9	39.7	36.6	36.4
72.5°	1364.2	756.7	162.6	111.2	72.1	50.6	43.3	39.2	35.6	33.7	33.7
75°	719.9	379.2	133.2	90.8	55.6	40.4	35.6	32.9	30.9	30.7	30.4
77.5°	235.9	171.5	95.7	68.3	40.9	31.4	28.4	26.7	26.4	27.5	27.5
80°	127.4	102.4	61.6	46.1	28.4	23.5	22.0	21.8	22.4	23.9	23.9
82.5°	61.8	50.6	36.6	28.4	19.4	17.2	17.2	17.5	18.5	20.2	20.2
85°	26.7	23.9	21.2	16.0	12.0	10.7	12.2	13.4	14.2	15.4	16.0
87.5°	12.7	11.3	9.8	6.2	5.3	5.5	6.4	7.9	9.5	10.5	10.7
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)