

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: P197017

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-8030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197017
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
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-SL2-8030-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2679 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-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

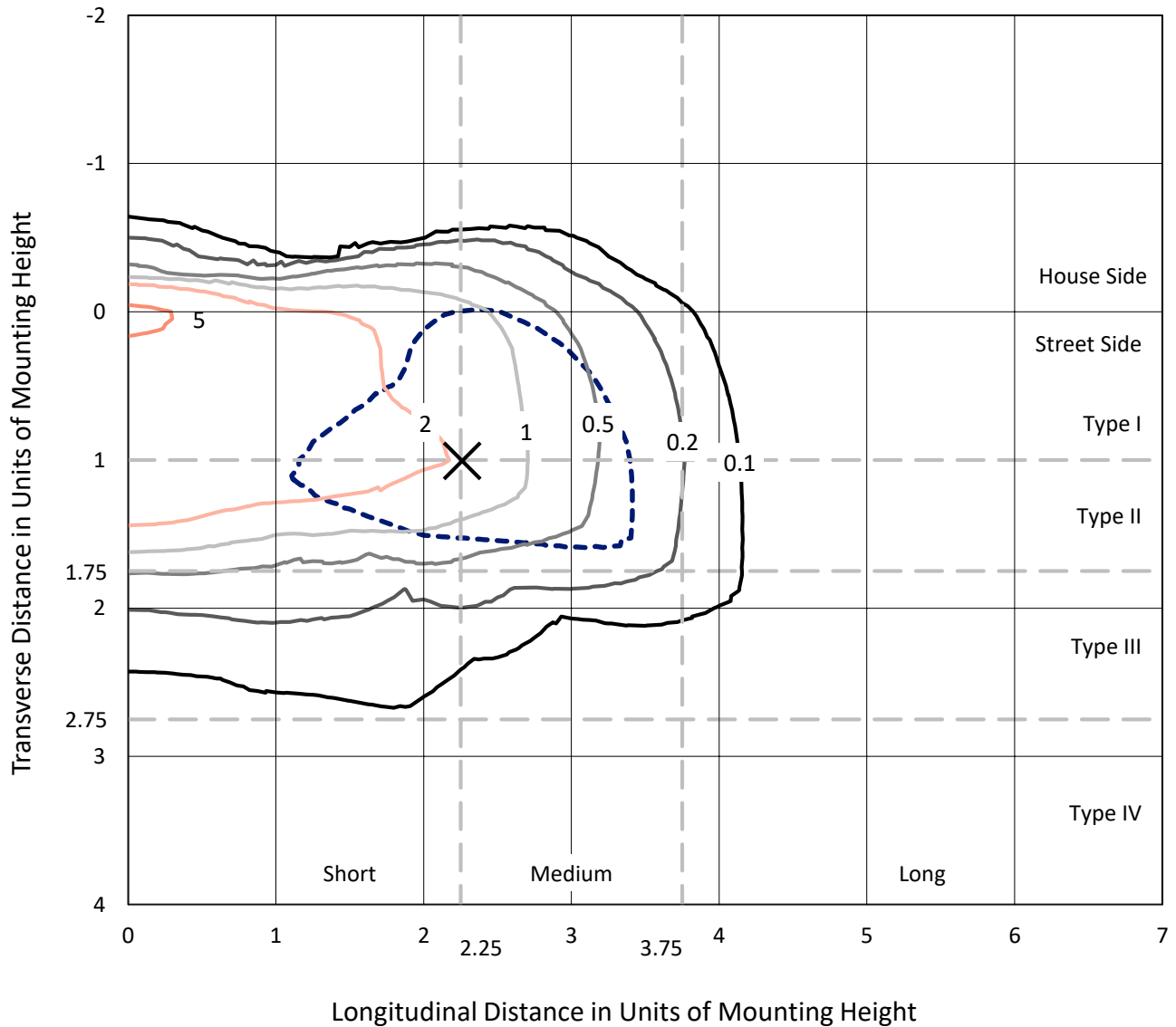


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Iso-Footcandle Lines of Horizontal Illumination

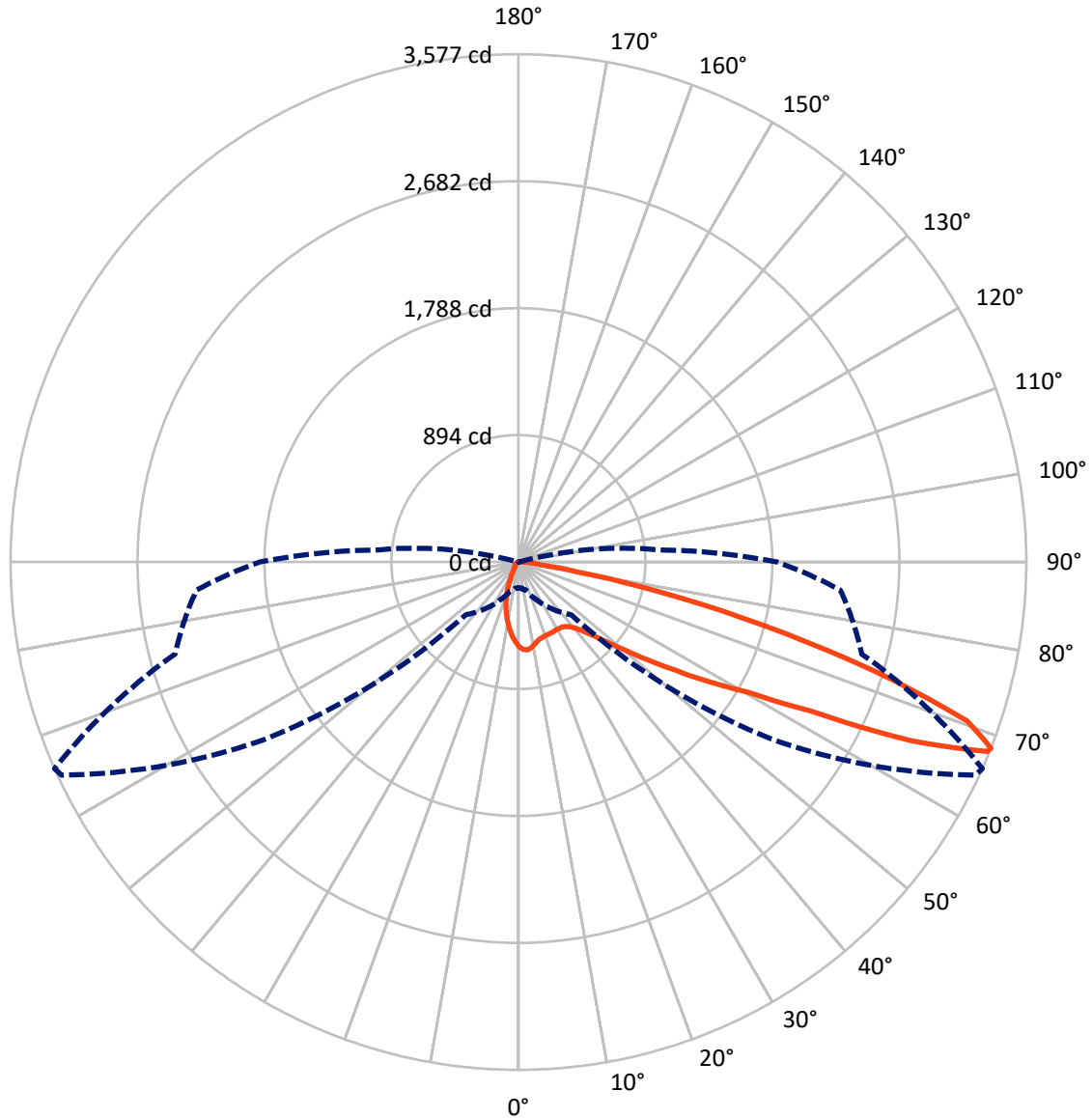
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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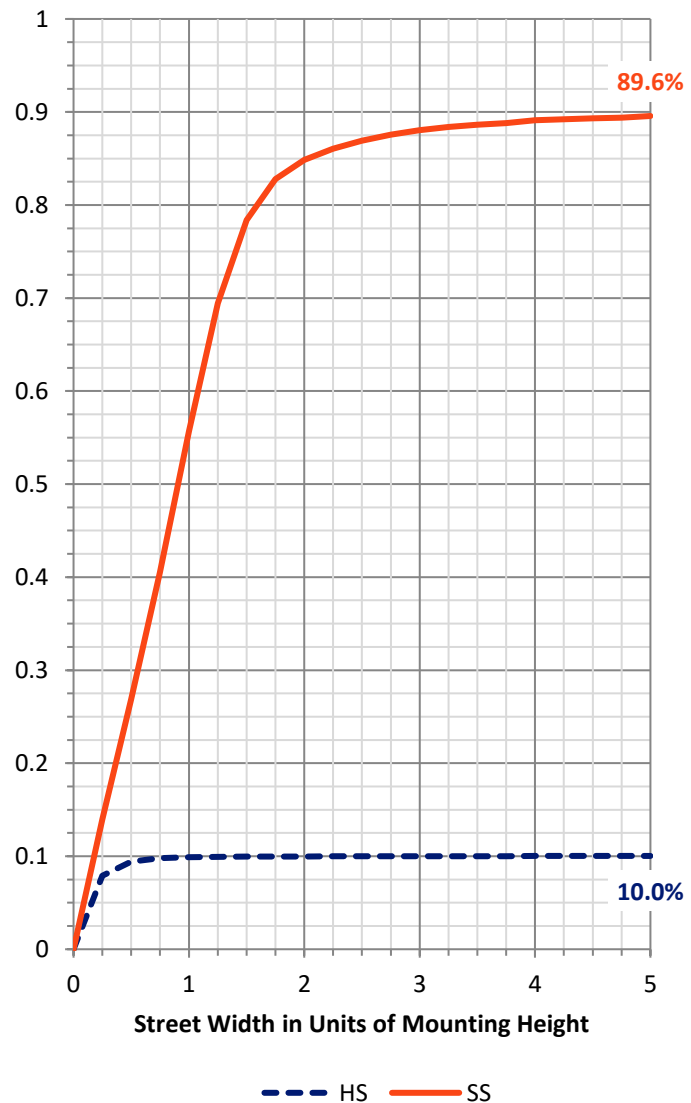
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	271.4	0.0	271.4
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	2407.6	0.0	2407.6
	% Fixture	89.9	0.0	89.9
Total	Lumens	2679.0	0.0	2679.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	1.8
10°-20°	105.3	3.9
20°-30°	152.6	5.7
30°-40°	233.5	8.7
40°-50°	399.4	14.9
50°-60°	624.9	23.3
60°-70°	719.5	26.9
70°-80°	360.1	13.4
80°-90°	34.9	1.3
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°	2679.0	100.0
0°-180°	2679.0	100.0

Coefficient of Utilization



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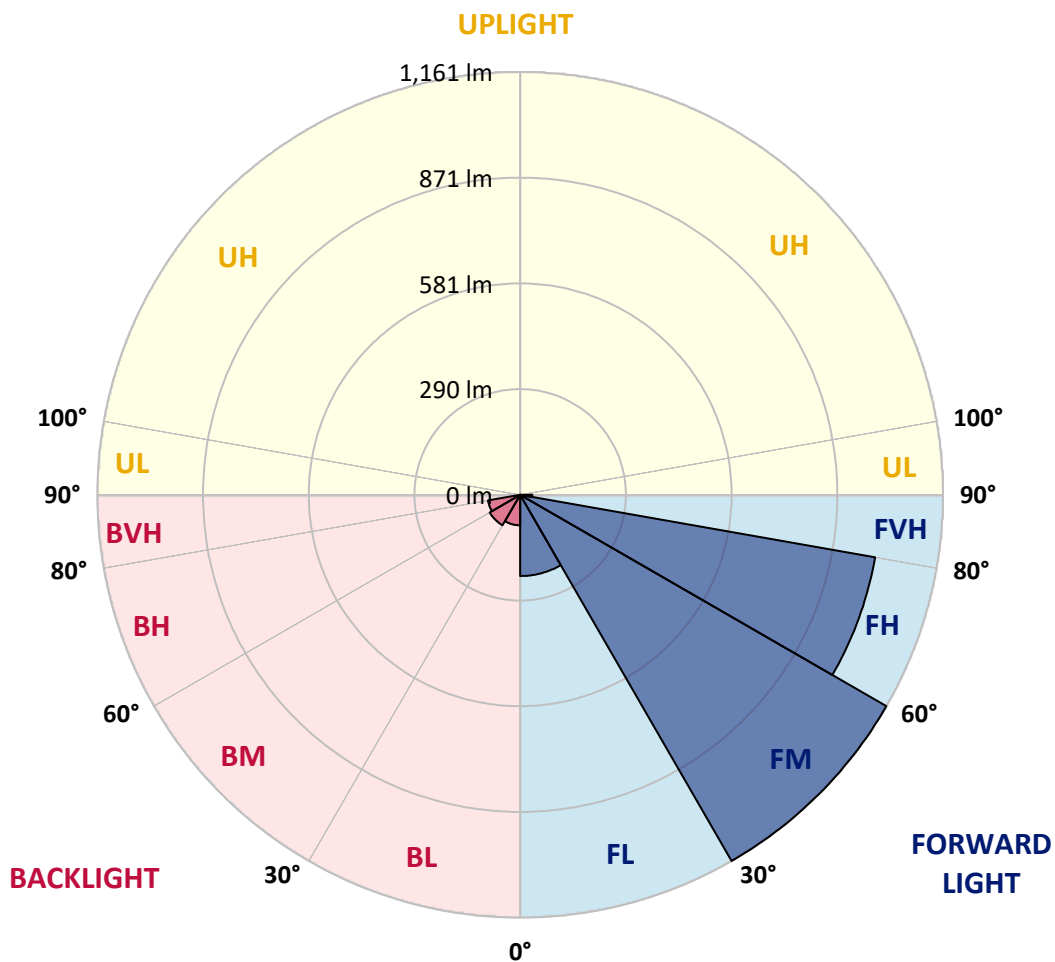
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	223.0	8.3			
FM (30°-60°)	1161.2	43.3			
FH (60°-80°)	989.9	36.9			G1/1800
FVH (80°-90°)	33.5	1.3			G1/100
BL (0°-30°)	83.8	3.1	B0/110		
BM (30°-60°)	96.6	3.6	B0/220		
BH (60°-80°)	89.7	3.3	B0/110		G0/110
BVH (80°-90°)	1.3	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	627.8	628.2	628.0	628.6	628.2	625.0	621.7	614.5	615.2	605.9	595.6
5°	583.6	587.2	590.8	594.3	603.0	610.5	619.6	621.7	621.7	613.7	598.5
7.5°	538.6	538.8	542.8	547.6	559.2	573.1	594.1	613.0	613.5	615.6	599.0
10°	504.7	505.8	508.5	513.8	525.4	539.0	562.6	592.2	594.5	610.1	594.8
12.5°	478.5	479.7	482.7	488.8	499.3	513.4	538.2	572.0	575.2	604.8	593.5
15°	458.3	459.9	462.3	468.4	479.7	494.6	521.8	558.6	562.4	602.7	597.5
17.5°	449.9	449.9	449.6	453.8	465.2	480.3	508.7	551.4	556.3	604.4	604.2
20°	453.4	452.8	448.4	447.3	454.3	469.4	498.4	546.8	552.3	607.6	612.4
22.5°	472.4	471.1	461.2	453.0	450.9	461.0	491.5	543.6	550.2	614.1	623.4
25°	512.5	508.7	495.1	476.6	459.9	458.9	486.7	542.0	548.9	621.7	635.3
27.5°	564.7	563.6	541.8	516.9	485.0	465.8	485.2	540.7	547.6	627.1	645.0
30°	629.5	629.9	604.6	572.2	523.9	485.4	489.8	540.1	547.2	627.6	649.2
32.5°	696.3	696.8	675.7	641.0	577.1	519.0	502.8	543.0	549.5	625.9	649.0
35°	760.7	761.3	748.7	720.7	648.2	565.7	527.5	553.1	557.7	626.9	648.6
37.5°	842.1	844.6	829.0	803.0	737.3	634.3	567.6	573.5	577.3	635.6	651.7
40°	980.9	977.5	932.9	888.8	834.1	717.8	625.7	608.6	609.9	657.8	663.7
42.5°	1142.6	1138.4	1062.1	985.9	933.6	818.5	699.9	662.5	662.3	695.3	689.8
45°	1281.8	1279.3	1199.0	1097.4	1043.8	929.8	791.4	740.1	737.6	760.1	737.3
47.5°	1380.7	1378.6	1317.8	1216.0	1171.2	1052.2	905.6	845.9	840.6	844.8	814.5
50°	1390.4	1388.0	1366.8	1301.4	1320.1	1231.8	1046.7	984.5	977.7	971.2	931.2
52.5°	1299.9	1299.7	1310.9	1306.6	1424.4	1462.9	1219.8	1155.9	1147.9	1131.3	1091.5
55°	1115.1	1114.0	1156.3	1217.7	1422.1	1701.4	1483.7	1359.9	1349.3	1316.1	1264.0
57.5°	814.7	809.3	897.6	1027.8	1322.2	1805.7	1902.9	1613.3	1595.8	1490.5	1410.1
60°	449.9	452.0	565.5	719.7	1085.6	1785.1	2288.6	1908.8	1862.9	1640.8	1559.9
62.5°	252.2	257.4	342.0	467.7	692.1	1617.9	2495.5	2417.3	2306.9	1816.2	1749.1
65°	190.7	193.9	236.4	360.9	436.4	1130.6	2528.5	3128.3	3033.1	2082.1	2050.5
67.5°	179.6	182.1	202.9	299.3	397.5	586.3	2280.0	3549.0	3560.9	2444.6	2284.0
68°	180.9	184.0	204.8	287.9	396.9	524.5	2174.0	3551.1	3576.5	2503.1	2276.0
70°	166.1	167.0	216.6	282.4	384.7	413.3	1572.7	3307.7	3353.4	2572.7	2066.1
72.5°	63.5	63.7	97.2	244.6	403.0	415.6	792.2	2614.3	2616.7	2238.9	1610.8
75°	33.0	27.8	30.5	76.6	384.9	405.1	397.5	1785.1	1774.0	1514.2	987.0
77.5°	22.7	19.3	20.4	26.5	160.0	404.8	287.1	1026.5	1024.2	644.2	281.6
80°	12.8	11.1	12.2	22.3	56.2	380.0	267.5	441.2	415.8	113.1	45.6
82.5°	6.5	5.5	6.5	18.7	34.9	239.1	260.2	173.1	154.2	26.9	29.7
85°	1.7	1.7	3.2	13.0	21.7	78.4	233.2	124.9	112.3	11.8	21.0
87.5°	0.4	0.2	1.3	4.8	7.8	17.0	129.3	69.6	59.9	6.1	12.2
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°	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.9
2.5°	591.4	585.5	573.9	560.9	551.6	541.5	535.7	528.5	523.0	518.2	521.8
5°	589.3	577.9	552.3	523.5	499.3	476.1	458.9	442.5	430.1	422.3	425.5
7.5°	583.8	567.0	525.4	480.3	440.8	403.6	373.3	346.2	325.1	313.8	317.4
10°	574.6	550.8	494.9	432.4	377.1	324.5	279.5	239.1	208.6	194.3	197.7
12.5°	567.8	536.5	463.3	386.1	313.4	238.7	179.0	132.7	108.9	94.6	95.9
15°	564.9	525.4	433.9	337.3	243.7	153.3	96.7	70.0	61.8	58.9	59.1
17.5°	565.3	516.5	405.9	286.7	173.5	88.1	59.3	53.4	52.2	51.5	51.5
20°	566.4	507.7	376.9	233.9	111.0	56.8	49.4	47.5	46.9	46.1	46.3
22.5°	569.5	501.0	347.6	180.9	68.4	46.3	43.7	42.1	41.0	39.7	40.0
25°	574.4	495.9	318.8	130.2	48.2	40.4	38.1	35.8	33.9	32.4	32.6
27.5°	577.3	488.8	288.1	88.8	40.0	35.3	32.2	29.0	26.9	25.7	25.4
30°	575.2	477.2	253.2	58.3	35.3	30.5	26.7	23.1	21.0	20.0	20.0
32.5°	569.5	462.3	214.7	42.5	31.3	26.3	21.7	18.5	17.0	16.4	16.6
35°	563.0	446.7	173.7	36.0	28.2	22.3	17.7	15.1	14.5	14.3	14.3
37.5°	559.4	433.2	134.4	32.6	25.2	18.5	14.5	13.0	12.4	12.4	12.4
40°	563.4	422.9	99.5	30.1	22.3	15.4	12.2	11.1	10.9	10.9	10.9
42.5°	580.5	419.4	72.8	28.0	19.3	12.8	10.5	9.7	9.5	9.7	9.7
45°	613.7	427.1	55.1	25.9	16.6	10.5	9.0	8.4	8.4	8.6	8.6
47.5°	670.0	447.1	45.2	23.8	13.9	8.8	7.8	7.4	7.4	7.6	7.6
50°	757.5	484.1	40.6	21.5	11.6	7.6	6.5	6.3	6.3	6.5	6.7
52.5°	890.4	554.6	38.3	19.1	9.5	6.3	5.5	5.3	5.5	5.7	5.7
55°	1038.3	644.8	35.5	16.8	8.0	5.3	4.4	4.4	4.6	5.0	5.0
57.5°	1176.0	731.9	33.0	13.9	6.9	4.2	3.6	3.6	4.0	4.4	4.4
60°	1321.6	817.3	29.7	11.1	5.9	3.4	2.9	2.9	3.6	4.0	4.2
62.5°	1501.4	916.5	25.2	8.8	4.6	2.5	2.1	2.7	3.4	4.0	4.0
65°	1761.3	1040.0	19.8	6.9	3.6	1.9	1.7	2.5	3.2	3.8	4.0
67.5°	1855.8	1024.2	14.9	5.7	2.7	1.5	1.5	2.3	3.2	3.8	3.8
68°	1821.3	989.7	14.3	5.5	2.5	1.5	1.5	2.3	3.2	3.8	3.8
70°	1587.0	809.1	11.8	4.2	2.1	1.3	1.3	2.1	3.2	3.6	3.8
72.5°	1188.2	537.5	10.1	2.7	1.9	1.3	1.1	2.1	2.9	3.6	3.6
75°	681.6	223.1	8.6	2.1	1.7	1.1	1.1	1.9	2.9	3.6	3.6
77.5°	192.6	52.2	6.9	1.7	1.5	1.1	0.8	1.9	2.7	3.4	3.4
80°	35.3	15.6	5.5	1.5	1.3	1.1	0.8	1.9	2.7	3.4	3.4
82.5°	23.3	7.4	4.0	1.5	1.3	1.1	0.8	1.7	2.5	3.2	3.2
85°	17.5	5.3	2.5	1.5	1.3	1.1	0.8	1.7	2.5	3.2	3.2
87.5°	9.7	2.3	1.9	1.7	1.5	1.1	0.8	1.5	2.3	2.9	2.9
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)