

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: P459851

Luminaire Tested: **NAV-SA3A-AMB-U-SL2**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA3A-AMB-U-SL2
Description: NAVION AREA AND ROADWAY LUMINAIRE
(3) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3154 lumens
Efficiency: N/A
Efficacy: 51.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

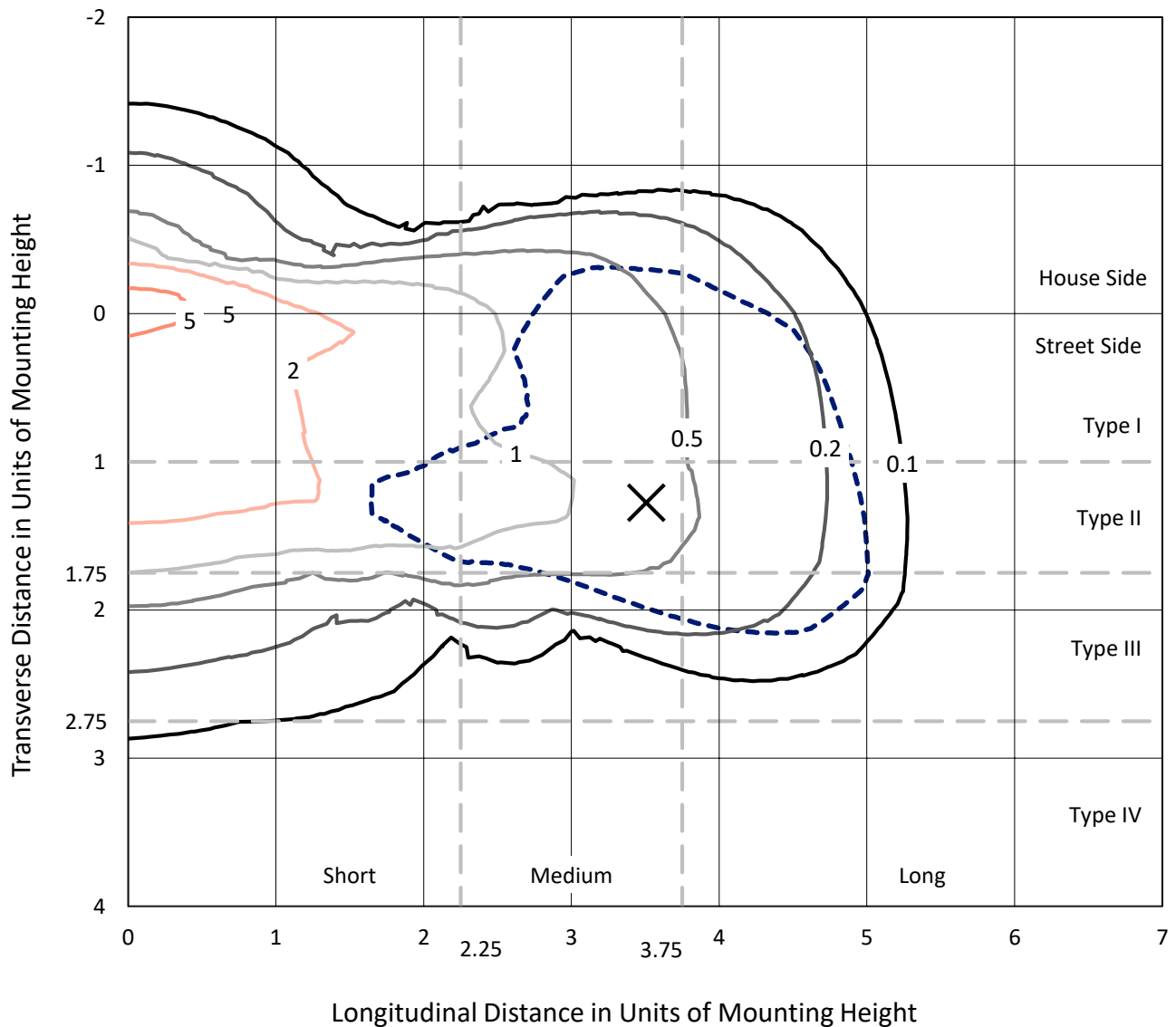
Input Watts (W): 61.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

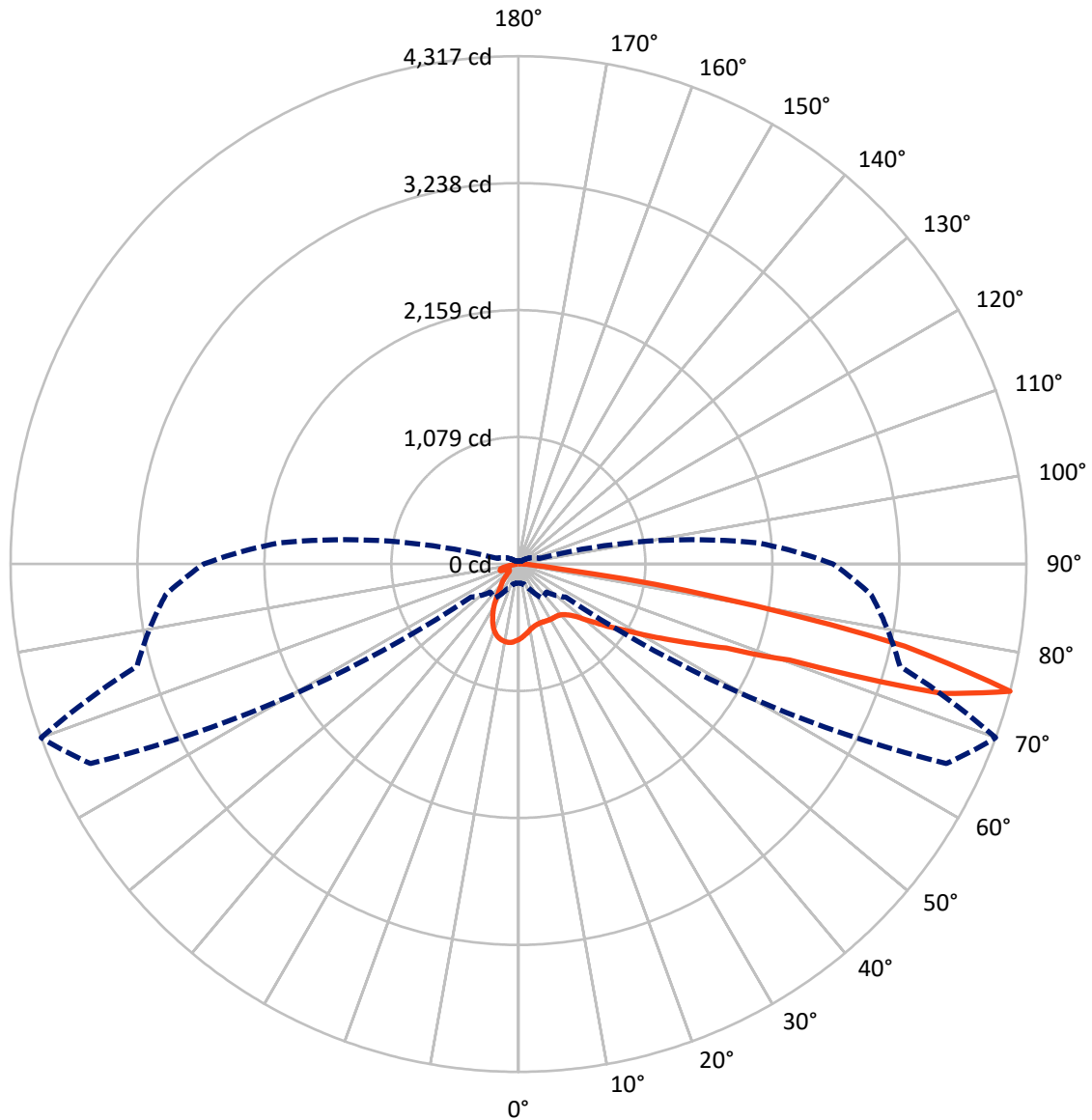
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.4 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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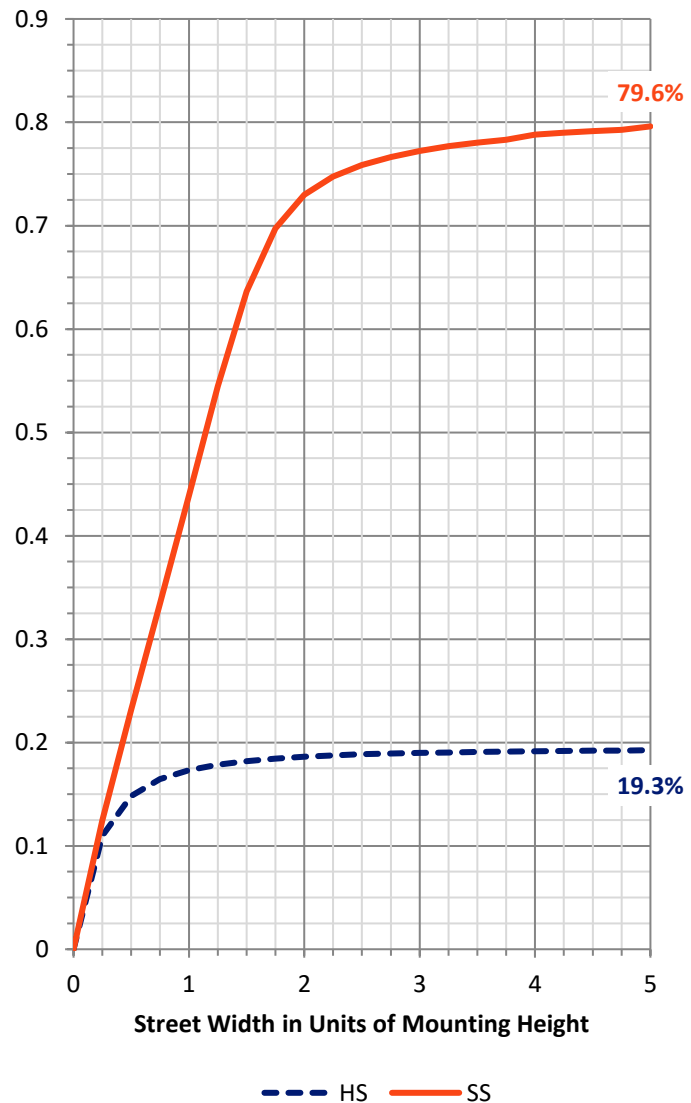
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	615.4	0.0	615.4
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	2538.6	0.0	2538.6
	% Fixture	80.5	0.0	80.5
Total	Lumens	3154.0	0.0	3154.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	1.8
10°-20°	141.1	4.5
20°-30°	189.8	6.0
30°-40°	249.7	7.9
40°-50°	356.2	11.3
50°-60°	554.8	17.6
60°-70°	724.3	23.0
70°-80°	769.7	24.4
80°-90°	110.2	3.5
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°	3154.0	100.0
0°-180°	3154.0	100.0

Coefficient of Utilization



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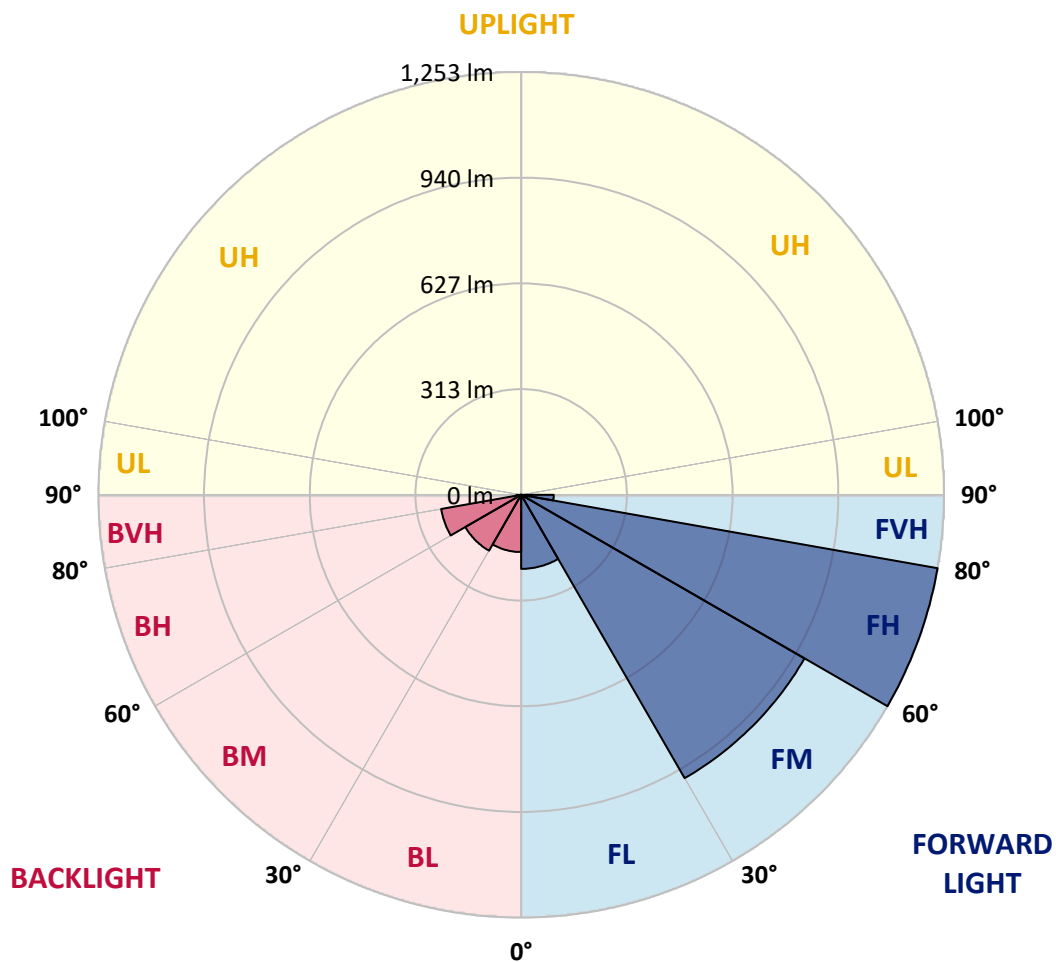
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	219.4	7.0			
FM	(30°-60°)	969.6	30.7			
FH	(60°-80°)	1253.2	39.7			G1/1800
FVH	(80°-90°)	96.4	3.1			G1/100
BL	(0°-30°)	169.6	5.4	B1/500		
BM	(30°-60°)	191.0	6.1	B0/220		
BH	(60°-80°)	240.9	7.6	B1/500		G1/500
BVH	(80°-90°)	13.9	0.4			G1/100
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°	65°	70°	75°	85°
0°	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6
2.5°	601.1	601.1	605.2	605.2	610.6	611.9	617.3	620.0	622.7	626.8	634.9
5°	557.9	556.5	560.6	567.3	574.1	580.8	590.3	599.8	603.8	610.6	624.1
7.5°	525.5	525.5	528.2	532.2	541.7	549.8	564.6	575.4	584.9	594.4	613.3
10°	501.1	501.1	503.9	507.9	517.4	524.1	537.6	556.5	564.6	578.1	602.5
12.5°	478.2	480.9	482.2	487.6	494.4	503.9	517.4	537.6	551.1	567.3	599.8
15°	467.4	467.4	468.7	472.8	479.5	489.0	505.2	526.8	541.7	560.6	601.1
17.5°	464.7	463.3	462.0	463.3	470.1	479.5	495.7	520.1	536.3	557.9	607.9
20°	466.0	464.7	463.3	460.6	463.3	472.8	493.0	517.4	533.6	556.5	618.7
22.5°	472.8	472.8	470.1	464.7	463.3	470.1	491.7	517.4	534.9	557.9	629.5
25°	491.7	490.3	487.6	476.8	468.7	471.4	491.7	520.1	537.6	560.6	638.9
27.5°	512.0	512.0	509.3	499.8	483.6	476.8	494.4	524.1	541.7	563.3	649.7
30°	544.4	543.0	540.3	529.5	509.3	487.6	499.8	528.2	544.4	564.6	659.2
32.5°	583.5	583.5	584.9	571.4	541.7	506.6	505.2	530.9	545.7	566.0	670.0
35°	629.5	630.8	634.9	624.1	587.6	534.9	518.7	537.6	548.4	567.3	680.8
37.5°	663.2	664.6	679.5	682.2	638.9	572.7	540.3	551.1	553.8	570.0	691.6
40°	702.4	702.4	724.0	740.2	711.9	625.4	570.0	567.3	566.0	580.8	705.1
42.5°	745.6	751.0	770.0	797.0	784.8	686.2	611.9	595.7	589.0	599.8	726.7
45°	786.2	788.9	824.0	855.1	856.4	768.6	671.3	640.3	621.4	633.5	765.9
47.5°	830.7	834.8	878.0	928.0	937.5	856.4	738.9	695.7	671.3	683.5	822.6
50°	895.6	902.3	938.8	999.6	1025.3	960.4	825.3	772.7	745.6	751.0	902.3
52.5°	999.6	998.2	1015.8	1075.2	1137.4	1075.2	941.5	867.2	830.7	838.8	1005.0
55°	1061.7	1060.4	1084.7	1149.5	1263.0	1219.8	1069.8	979.3	945.6	941.5	1123.9
57.5°	1006.3	1009.1	1050.9	1152.2	1348.1	1445.4	1210.3	1115.8	1057.7	1064.4	1268.4
60°	841.6	825.3	872.6	1010.4	1322.4	1698.0	1410.2	1280.6	1219.8	1207.6	1450.8
62.5°	567.3	572.7	603.8	693.0	1132.0	1766.9	1920.8	1485.9	1402.1	1380.5	1622.3
65°	426.9	425.5	426.9	441.7	613.3	1702.0	2449.0	1758.7	1627.7	1556.1	1803.3
67.5°	356.6	352.6	351.2	385.0	382.3	1071.2	2624.6	2378.8	1904.6	1753.3	1978.9
70°	302.6	294.5	291.8	345.8	355.3	379.6	2604.4	3532.4	2446.3	2028.9	2211.3
72.5°	229.6	228.3	233.7	294.5	349.9	332.3	1568.3	4037.6	3762.0	2561.1	2690.8
75°	163.4	162.1	177.0	239.1	355.3	337.7	490.3	4013.2	4317.2	3356.7	3010.9
77.5°	108.1	106.7	120.2	171.6	333.6	339.1	320.1	2905.6	3356.7	3144.7	2467.9
80°	71.6	68.9	78.3	118.9	267.5	363.4	313.4	1438.6	1711.5	1456.2	819.9
82.5°	41.9	40.5	50.0	82.4	175.6	359.3	316.1	452.5	370.1	189.1	102.7
85°	21.6	23.0	32.4	50.0	113.5	317.4	337.7	232.3	108.1	77.0	51.3
87.5°	6.8	9.5	17.6	27.0	63.5	218.8	299.9	179.7	78.3	50.0	28.4
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°	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6
2.5°	637.6	641.6	649.7	659.2	668.6	672.7	678.1	679.5	682.2	683.5	682.2
5°	633.5	643.0	660.5	672.7	680.8	679.5	678.1	674.1	672.7	671.3	668.6
7.5°	625.4	641.6	667.3	678.1	672.7	656.5	643.0	626.8	621.4	614.6	613.3
10°	621.4	644.3	670.0	668.6	647.0	616.0	589.0	563.3	545.7	534.9	529.5
12.5°	625.4	653.8	675.4	651.1	613.3	566.0	518.7	479.5	440.4	426.9	420.1
15°	637.6	668.6	675.4	628.1	570.0	502.5	430.9	368.8	322.8	299.9	295.8
17.5°	652.4	680.8	665.9	599.8	520.1	422.8	337.7	258.0	222.9	213.4	212.1
20°	670.0	695.7	651.1	564.6	455.2	340.4	229.6	189.1	185.1	186.4	187.8
22.5°	684.9	702.4	626.8	517.4	378.2	228.3	160.7	152.6	160.7	171.6	174.3
25°	695.7	698.4	599.8	457.9	290.4	145.9	127.0	125.6	137.8	156.7	162.1
27.5°	702.4	684.9	563.3	394.4	178.3	113.5	104.0	108.1	117.5	131.0	133.7
30°	706.5	671.3	528.2	328.2	113.5	95.9	94.6	97.3	101.3	108.1	109.4
32.5°	707.8	657.8	490.3	244.5	95.9	87.8	87.8	90.5	91.9	95.9	95.9
35°	705.1	641.6	452.5	154.0	87.8	85.1	83.7	83.7	83.7	85.1	85.1
37.5°	698.4	625.4	407.9	102.7	83.7	81.0	79.7	79.7	78.3	78.3	78.3
40°	694.3	611.9	366.1	89.2	79.7	78.3	77.0	74.3	72.9	72.9	72.9
42.5°	698.4	605.2	314.7	85.1	77.0	75.6	72.9	70.2	70.2	70.2	70.2
45°	715.9	606.5	249.9	82.4	75.6	72.9	68.9	66.2	66.2	67.5	67.5
47.5°	749.7	618.7	193.2	79.7	72.9	70.2	64.8	63.5	63.5	63.5	63.5
50°	801.0	643.0	152.6	77.0	71.6	67.5	63.5	60.8	60.8	60.8	59.4
52.5°	874.0	687.6	120.2	75.6	70.2	66.2	60.8	58.1	56.7	56.7	55.4
55°	975.3	757.8	110.8	75.6	67.5	63.5	58.1	54.0	52.7	51.3	51.3
57.5°	1110.4	857.8	109.4	74.3	63.5	59.4	54.0	50.0	48.6	48.6	47.3
60°	1275.2	991.5	110.8	71.6	60.8	55.4	50.0	47.3	44.6	44.6	44.6
62.5°	1460.2	1137.4	110.8	70.2	59.4	52.7	47.3	43.2	41.9	40.5	40.5
65°	1648.0	1315.7	118.9	68.9	56.7	47.3	43.2	40.5	37.8	37.8	37.8
67.5°	1854.7	1533.2	162.1	68.9	54.0	43.2	39.2	36.5	35.1	35.1	35.1
70°	2122.1	1892.5	245.8	86.5	55.4	40.5	35.1	33.8	32.4	32.4	32.4
72.5°	2671.9	2307.2	195.9	120.2	64.8	36.5	31.1	29.7	29.7	28.4	28.4
75°	2674.6	2046.5	186.4	128.3	70.2	33.8	28.4	27.0	25.7	25.7	25.7
77.5°	1977.6	1335.9	159.4	100.0	60.8	29.7	25.7	24.3	23.0	23.0	23.0
80°	583.5	344.5	100.0	72.9	39.2	24.3	21.6	20.3	18.9	18.9	18.9
82.5°	100.0	90.5	45.9	39.2	24.3	18.9	17.6	16.2	14.9	14.9	14.9
85°	48.6	47.3	25.7	21.6	16.2	13.5	13.5	12.2	10.8	10.8	10.8
87.5°	29.7	27.0	18.9	12.2	9.5	6.8	8.1	6.8	6.8	5.4	5.4
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)