

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: P459845

Luminaire Tested: **NAV-SA2A-AMB-U-SL3**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA2A-AMB-U-SL3
Description: NAVION AREA AND ROADWAY LUMINAIRE
(2) NARROW BAND AMBER, 500mA LIGHTSQUARES 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: 2137 lumens
Efficiency: N/A
Efficacy: 51.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

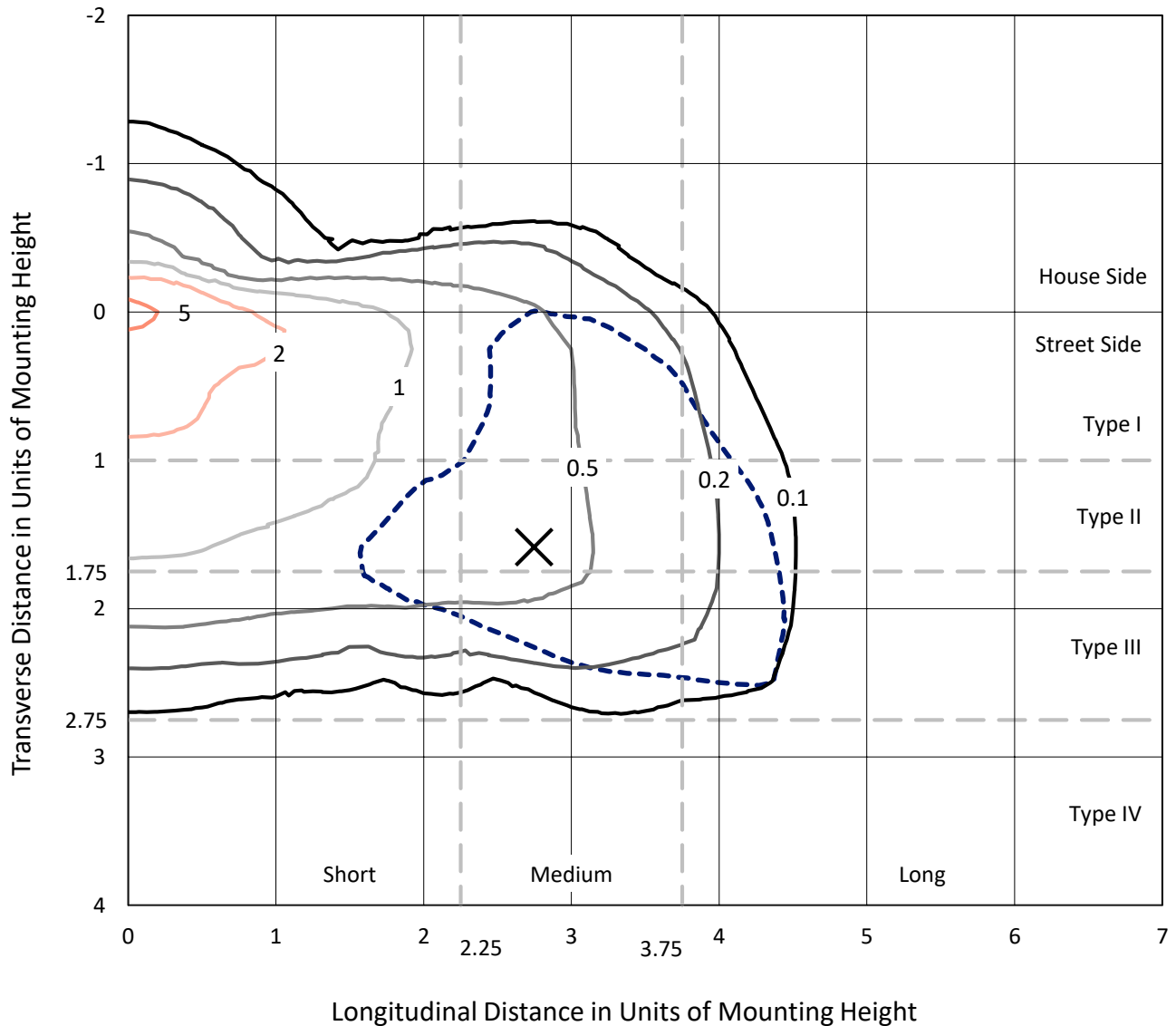
Input Watts (W): 41.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

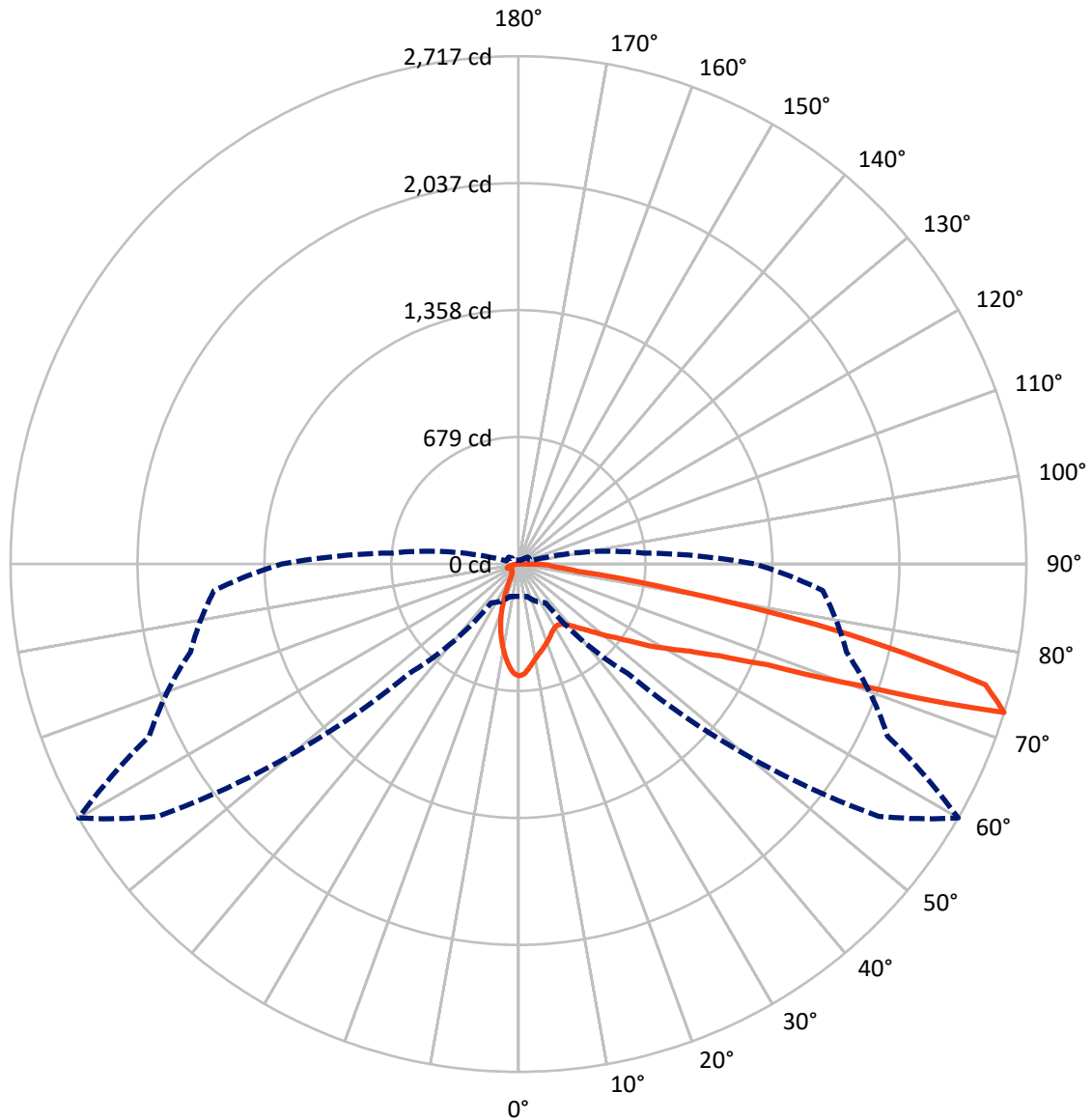
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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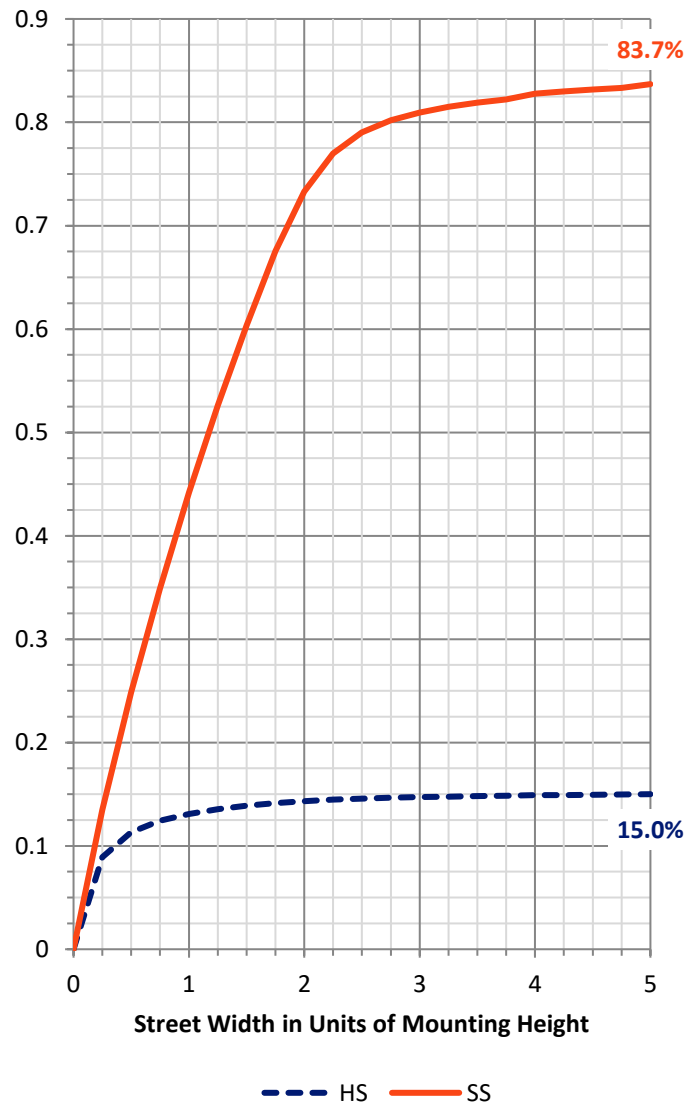
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	324.7	0.0	324.7
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	1812.3	0.0	1812.3
	% Fixture	84.8	0.0	84.8
Total	Lumens	2137.0	0.0	2137.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.2	2.3
10°-20°	106.5	5.0
20°-30°	131.6	6.2
30°-40°	166.4	7.8
40°-50°	236.3	11.1
50°-60°	360.2	16.9
60°-70°	543.3	25.4
70°-80°	478.0	22.4
80°-90°	64.6	3.0
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°	2137.0	100.0
0°-180°	2137.0	100.0

Coefficient of Utilization



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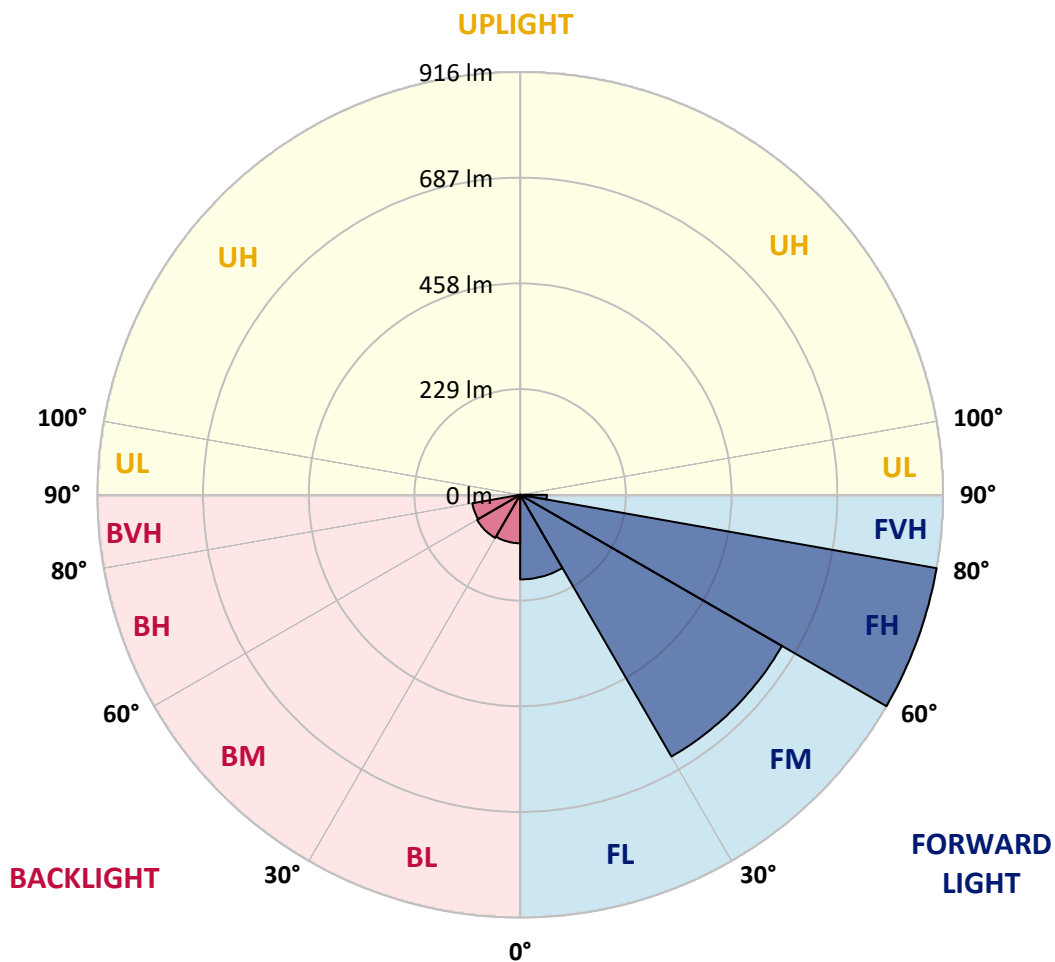
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	183.3	8.6			
FM (30°-60°)	655.0	30.6			
FH (60°-80°)	916.2	42.9			G1/1800
FVH (80°-90°)	57.8	2.7			G1/100
BL (0°-30°)	104.9	4.9	B0/110		
BM (30°-60°)	107.9	5.0	B0/220		
BH (60°-80°)	105.2	4.9	B0/110		G0/110
BVH (80°-90°)	6.7	0.3			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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4
2.5°	580.9	580.9	580.9	584.6	585.5	585.5	589.2	589.2	588.2	591.9	591.0
5°	545.3	547.1	547.1	549.0	554.4	557.2	562.7	563.6	566.3	571.8	575.5
7.5°	501.5	504.2	508.8	516.1	521.6	526.1	536.2	536.2	540.7	549.0	555.4
10°	460.4	461.3	464.9	473.1	484.1	496.0	507.9	511.5	517.0	527.0	537.1
12.5°	432.0	433.9	435.7	443.0	454.9	466.8	485.0	492.3	498.7	510.6	524.3
15°	401.9	402.8	407.4	416.5	431.1	443.9	464.9	475.0	485.0	500.6	515.2
17.5°	381.8	380.9	384.5	390.9	406.5	423.8	446.7	458.5	470.4	491.4	506.9
20°	370.8	371.8	371.8	373.6	383.6	401.0	427.5	443.0	458.5	485.9	502.4
22.5°	368.1	368.1	365.4	364.5	369.0	383.6	410.1	427.5	445.7	485.0	499.6
25°	368.1	368.1	365.4	361.7	361.7	369.9	393.7	410.1	432.0	485.9	496.0
27.5°	374.5	374.5	370.8	365.4	360.8	362.6	380.9	398.2	422.9	487.8	493.2
30°	384.5	383.6	380.9	376.3	367.2	360.8	374.5	390.0	413.8	492.3	491.4
32.5°	394.6	395.5	393.7	390.0	380.0	366.3	373.6	388.2	411.9	498.7	491.4
35°	410.1	411.0	411.0	407.4	399.2	380.0	382.7	395.5	417.4	508.8	495.1
37.5°	427.5	427.5	430.2	430.2	420.2	399.2	400.1	410.1	428.4	522.5	504.2
40°	444.8	444.8	449.4	455.8	447.6	425.7	426.6	433.9	450.3	541.7	522.5
42.5°	466.8	464.9	475.0	483.2	479.5	459.4	454.9	464.0	475.9	568.1	549.9
45°	482.3	482.3	497.8	507.9	516.1	496.0	493.2	500.6	512.4	597.4	588.2
47.5°	500.6	501.5	517.9	538.9	551.7	539.8	536.2	546.2	554.4	635.7	636.6
50°	516.1	518.8	540.7	570.9	591.9	592.8	586.4	599.2	599.2	678.7	693.3
52.5°	537.1	541.7	570.0	602.9	637.6	649.4	651.3	654.9	655.8	731.6	756.3
55°	590.1	595.5	619.3	646.7	687.8	715.2	734.4	728.0	720.7	789.2	822.1
57.5°	684.1	679.6	688.7	695.1	735.3	780.1	827.6	824.8	802.9	855.9	892.4
60°	765.4	767.3	779.1	763.6	790.1	860.4	916.2	917.1	879.6	927.1	957.3
62.5°	772.7	784.6	834.9	869.6	909.8	953.6	1038.6	1026.7	978.3	996.5	1033.1
65°	629.3	644.9	727.1	840.3	1047.7	1234.0	1188.4	1182.9	1098.8	1093.4	1139.9
67.5°	324.3	336.1	380.0	589.2	942.6	1523.6	1553.7	1435.9	1265.1	1241.3	1298.0
70°	222.0	222.9	222.9	268.5	460.4	1396.6	2210.5	1961.1	1595.7	1488.0	1559.2
72.5°	173.5	173.5	179.9	219.2	253.0	828.5	2353.0	2716.5	2179.4	1815.9	1634.1
75°	129.7	130.6	142.5	182.7	246.6	247.5	1968.4	2580.4	2461.7	1791.2	1269.6
77.5°	98.6	96.8	112.3	150.7	240.2	225.6	1062.3	1803.1	1742.8	1217.6	460.4
80°	62.1	64.9	75.8	126.1	230.2	225.6	371.8	879.6	704.2	291.4	77.6
82.5°	35.6	37.4	47.5	78.6	206.4	224.7	232.0	318.8	174.5	72.2	36.5
85°	21.0	21.0	30.1	49.3	149.8	222.0	225.6	191.8	96.8	37.4	19.2
87.5°	9.1	11.0	17.4	23.7	67.6	187.2	204.6	162.6	70.3	21.0	10.0
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°	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4	597.4
2.5°	590.1	590.1	588.2	588.2	589.2	584.6	583.7	580.9	582.8	581.8	578.2
5°	574.5	573.6	571.8	561.7	556.3	542.6	542.6	534.3	531.6	531.6	526.1
7.5°	555.4	552.6	540.7	524.3	508.8	494.2	480.5	470.4	463.1	456.7	457.6
10°	537.1	531.6	512.4	484.1	459.4	432.0	411.0	387.3	374.5	356.2	363.5
12.5°	522.5	514.3	483.2	443.0	406.5	366.3	324.3	288.6	259.4	241.1	230.2
15°	510.6	496.9	451.2	401.0	351.7	293.2	236.6	188.2	151.6	140.7	141.6
17.5°	499.6	480.5	422.9	358.1	291.4	220.1	155.3	123.3	111.4	106.0	106.0
20°	489.6	461.3	386.4	310.6	224.7	148.0	111.4	100.5	95.9	93.2	92.3
22.5°	476.8	443.9	350.8	261.2	160.8	106.9	92.3	86.8	85.9	85.9	85.9
25°	466.8	422.9	313.3	200.0	111.4	86.8	79.5	78.6	79.5	80.4	80.4
27.5°	454.9	401.9	275.9	140.7	84.9	73.1	70.3	72.2	74.0	75.8	75.8
30°	443.9	381.8	235.7	98.6	70.3	63.9	63.9	65.8	68.5	70.3	70.3
32.5°	436.6	367.2	188.2	77.6	62.1	58.5	59.4	60.3	63.0	63.9	63.9
35°	431.1	352.6	141.6	65.8	56.6	54.8	55.7	56.6	57.5	58.5	58.5
37.5°	432.0	344.4	101.4	58.5	53.0	52.1	53.0	53.0	53.0	53.9	53.9
40°	443.0	340.7	80.4	53.9	51.2	50.2	50.2	49.3	49.3	50.2	50.2
42.5°	459.4	341.6	71.2	52.1	49.3	48.4	47.5	46.6	46.6	46.6	46.6
45°	485.9	350.8	65.8	50.2	48.4	46.6	44.8	43.8	43.8	45.7	45.7
47.5°	525.2	364.5	60.3	49.3	46.6	43.8	42.9	42.0	42.9	43.8	44.8
50°	570.9	376.3	57.5	48.4	46.6	42.0	41.1	40.2	41.1	43.8	43.8
52.5°	623.9	393.7	56.6	48.4	45.7	41.1	39.3	39.3	40.2	42.9	42.9
55°	683.2	420.2	57.5	48.4	44.8	40.2	38.4	37.4	39.3	41.1	41.1
57.5°	745.3	455.8	59.4	48.4	42.9	40.2	37.4	35.6	36.5	38.4	38.4
60°	807.5	504.2	62.1	47.5	42.0	39.3	36.5	33.8	33.8	35.6	35.6
62.5°	881.4	564.5	71.2	49.3	42.0	37.4	33.8	31.1	31.1	32.0	32.0
65°	978.3	652.2	84.9	55.7	45.7	35.6	31.1	28.3	28.3	28.3	28.3
67.5°	1138.1	791.9	90.4	62.1	52.1	35.6	29.2	26.5	25.6	25.6	24.7
70°	1346.4	883.3	80.4	64.9	62.1	36.5	27.4	23.7	22.8	22.8	21.9
72.5°	1264.2	673.2	68.5	63.0	63.0	37.4	26.5	22.8	21.0	20.1	20.1
75°	868.7	312.4	60.3	58.5	54.8	32.0	24.7	21.0	19.2	17.4	17.4
77.5°	255.8	84.0	50.2	51.2	42.0	26.5	22.8	19.2	17.4	15.5	15.5
80°	60.3	48.4	36.5	37.4	28.3	20.1	18.3	17.4	15.5	13.7	13.7
82.5°	34.7	31.1	25.6	23.7	17.4	13.7	14.6	14.6	13.7	11.9	11.0
85°	17.4	18.3	15.5	13.7	11.0	9.1	9.1	10.0	9.1	7.3	7.3
87.5°	10.0	9.1	10.0	7.3	5.5	4.6	5.5	5.5	5.5	3.7	3.7
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)