

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: P459834

Luminaire Tested: **NAV-SA1A-AMB-U-SL2-HSS**

Issue Date: 1/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459834  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SA1A-AMB-U-SL2-HSS  
Description: NAVION AREA AND ROADWAY LUMINAIRE  
(1) NARROW BAND AMBER, 500mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

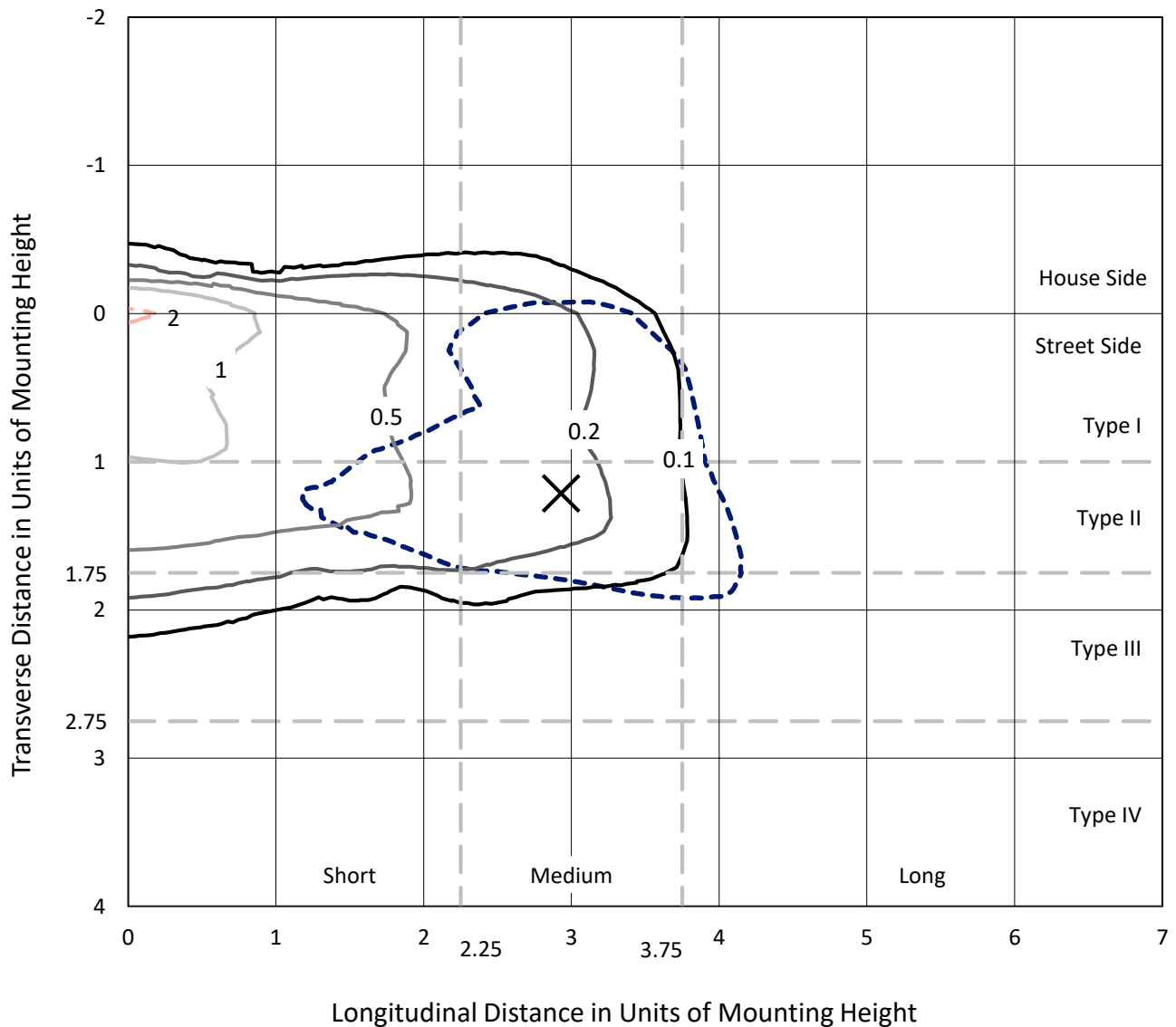
Lumens per Lamp: N/A  
Luminaire Lumens: 888 lumens  
Efficiency: N/A  
Efficacy: 39.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 22.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

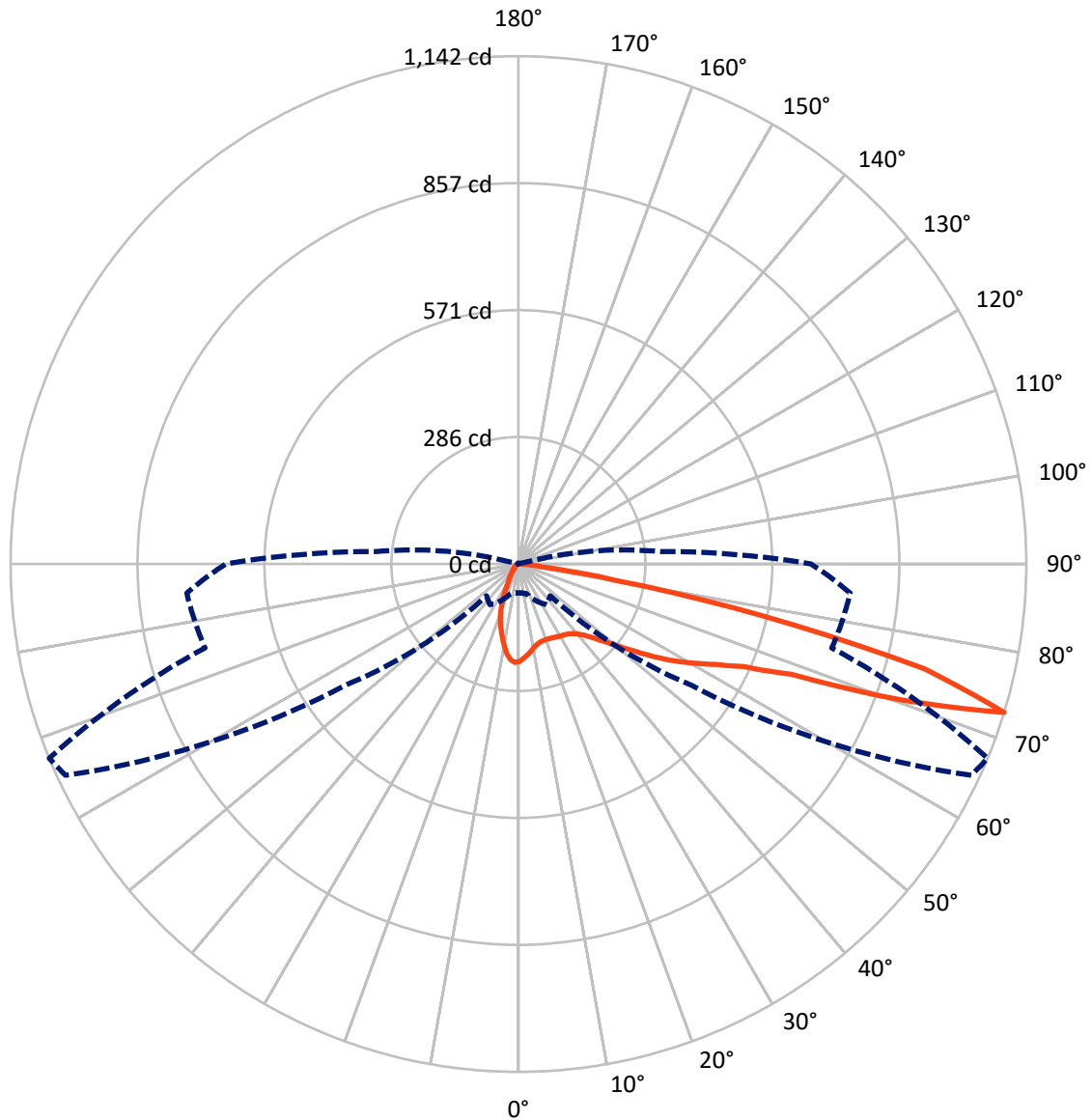


Based on 10 foot mounting height. Maximum calculated value = 2.2 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical



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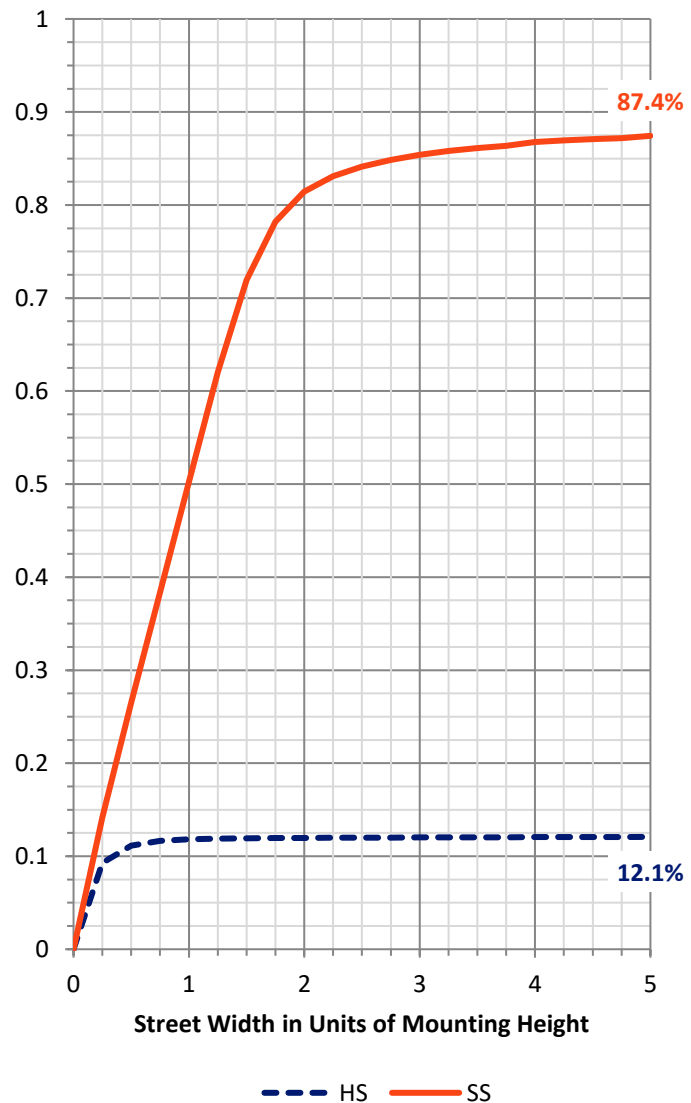
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	108.3	0.0	108.3
	% Fixture	12.2	0.0	12.2
<b>Street Side</b>	Lumens	779.7	0.0	779.7
	% Fixture	87.8	0.0	87.8
<b>Total</b>	Lumens	888.0	0.0	888.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.1	2.0
10°-20°	38.2	4.3
20°-30°	53.9	6.1
30°-40°	77.2	8.7
40°-50°	116.5	13.1
50°-60°	186.8	21.0
60°-70°	220.9	24.9
70°-80°	161.4	18.2
80°-90°	14.9	1.7
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°	888.0	100.0
0°-180°	888.0	100.0



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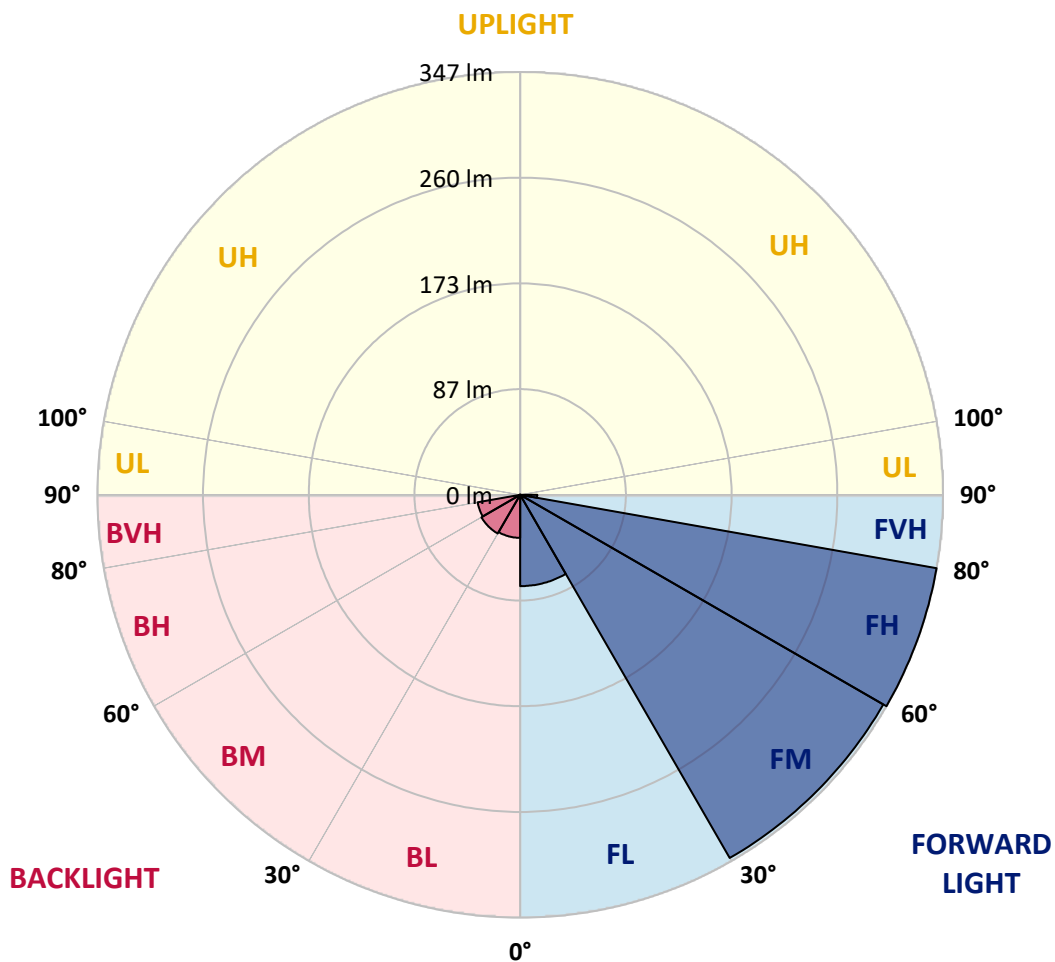
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	74.9	8.4			
FM	(30°-60°)	344.0	38.7			
FH	(60°-80°)	346.8	39.1			G0/660
FVH	(80°-90°)	14.0	1.6			G1/100
BL	(0°-30°)	35.3	4.0	B0/110		
BM	(30°-60°)	36.7	4.1	B0/220		
BH	(60°-80°)	35.4	4.0	B0/110		G0/110
BVH	(80°-90°)	0.9	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67.5°	75°	85°
0°	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5
2.5°	205.8	206.7	206.7	208.2	208.7	209.2	212.1	213.1	212.6	215.5	217.5
5°	192.1	192.1	193.1	195.5	197.5	198.9	202.3	205.3	205.8	209.2	214.6
7.5°	180.8	181.8	181.8	183.3	186.2	188.7	193.1	197.9	198.9	203.3	209.7
10°	172.0	171.6	173.0	174.5	176.9	179.4	184.3	189.6	191.6	196.5	203.8
12.5°	163.7	164.2	164.7	167.2	170.1	172.5	177.4	183.8	185.7	192.1	200.9
15°	158.8	158.8	159.3	160.8	163.7	167.2	173.0	179.9	182.3	189.6	199.9
17.5°	157.4	157.4	156.9	157.4	159.8	163.2	170.1	178.4	180.8	188.7	201.4
20°	157.9	157.9	156.9	156.4	157.9	161.3	169.1	177.9	180.8	190.1	205.3
22.5°	160.8	160.3	159.3	157.9	157.9	161.3	169.6	178.9	181.8	192.1	208.7
25°	168.1	166.2	165.2	162.3	160.3	161.8	170.1	180.4	183.3	193.5	213.6
27.5°	175.0	174.5	174.5	171.6	165.2	163.7	172.0	182.8	185.2	195.5	219.9
30°	186.7	185.7	185.7	182.3	174.5	167.6	174.0	184.8	187.7	197.0	226.3
32.5°	201.4	201.9	200.9	196.5	186.7	175.0	177.4	187.2	189.6	197.9	232.6
35°	217.5	218.0	220.4	215.5	202.8	186.2	182.8	191.6	193.1	199.9	237.5
37.5°	230.7	230.7	237.0	238.0	222.4	199.9	191.6	198.9	198.4	202.3	242.4
40°	245.4	245.4	252.7	258.6	247.3	218.5	202.8	207.7	206.7	207.7	249.3
42.5°	261.0	262.0	269.8	280.1	274.2	242.4	219.0	221.4	219.5	216.5	256.6
45°	276.1	278.6	289.3	303.0	302.5	270.8	240.0	240.5	237.0	231.2	271.8
47.5°	293.7	295.7	310.9	328.0	332.4	303.0	266.9	264.9	260.5	251.2	292.3
50°	323.6	324.5	335.3	355.3	363.6	338.7	297.2	293.7	288.9	277.1	320.1
52.5°	359.2	358.7	363.6	384.7	407.1	380.3	336.8	331.9	324.0	308.9	354.4
55°	374.9	376.3	383.7	409.1	452.6	440.9	381.2	374.4	366.1	346.5	389.5
57.5°	347.5	347.5	362.2	402.2	478.0	521.0	431.1	420.3	410.1	385.1	429.6
60°	278.1	277.6	295.2	343.6	458.9	590.9	500.5	468.2	452.6	419.4	469.7
62.5°	195.0	191.1	198.9	239.5	375.9	591.9	630.0	518.1	497.1	454.5	512.2
65°	139.8	137.3	138.8	150.0	215.5	535.2	773.2	593.8	556.2	491.7	563.5
67.5°	114.4	111.4	110.9	124.6	124.1	354.4	816.2	743.4	661.3	545.9	621.7
70°	91.4	89.9	89.4	109.0	114.9	115.3	761.0	1063.1	917.4	626.6	699.4
72.5°	65.0	65.0	68.9	90.4	111.4	101.2	476.1	1124.1	1142.2	729.7	748.8
75°	39.1	38.6	48.4	71.8	107.5	97.8	147.1	927.7	944.3	683.3	579.2
77.5°	18.6	18.6	26.9	48.4	95.3	91.9	84.1	554.7	558.7	415.0	293.7
80°	7.3	7.3	11.7	29.8	72.3	90.9	78.2	228.7	220.4	114.4	40.6
82.5°	2.9	2.9	4.9	16.6	45.0	74.8	69.4	75.8	56.7	13.2	10.8
85°	0.5	1.0	2.0	9.8	25.4	39.6	56.2	46.9	29.8	7.8	7.8
87.5°	0.0	0.5	1.0	2.9	7.3	16.6	28.3	21.5	13.7	2.4	3.4
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°	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5	219.5
2.5°	218.0	219.0	220.9	221.9	222.4	220.4	220.4	218.5	218.0	218.0	218.0
5°	215.5	217.5	219.0	215.5	210.2	203.3	195.5	190.6	185.7	186.7	184.8
7.5°	212.6	215.1	213.1	201.9	188.2	175.5	161.8	154.0	144.7	143.7	141.3
10°	208.2	210.7	203.3	183.8	162.8	144.2	124.1	111.9	102.2	94.3	92.4
12.5°	207.2	208.7	191.6	164.7	137.3	110.9	85.0	62.1	48.4	41.5	41.5
15°	207.7	207.7	180.8	145.7	110.0	73.3	41.1	29.8	24.9	24.4	23.9
17.5°	210.2	207.2	170.1	127.1	80.6	38.1	24.4	22.5	21.5	21.5	21.5
20°	214.6	207.2	160.8	107.5	50.8	23.9	21.0	20.0	19.6	19.1	19.1
22.5°	219.0	205.3	149.1	85.0	29.3	20.0	18.6	18.1	17.1	16.6	16.6
25°	223.9	203.3	137.8	61.1	20.5	17.6	16.1	15.2	14.2	13.7	13.7
27.5°	228.3	201.4	124.6	38.6	18.1	15.6	14.2	12.7	11.2	10.8	10.8
30°	231.2	197.9	111.9	24.4	16.1	14.2	12.2	10.3	8.8	8.3	8.3
32.5°	231.7	193.5	96.3	18.1	14.7	12.2	9.8	8.3	7.3	6.8	6.8
35°	230.2	188.2	79.2	16.1	13.2	10.8	8.3	6.8	5.9	5.9	5.9
37.5°	228.3	182.8	61.6	14.7	11.7	9.3	6.8	5.9	5.4	4.9	4.9
40°	227.8	177.4	41.1	13.7	10.8	7.8	5.9	4.9	4.4	3.9	3.9
42.5°	229.2	173.5	28.8	12.7	9.3	6.8	5.4	4.4	3.4	3.4	2.9
45°	236.6	172.5	21.0	11.7	8.3	5.9	4.4	3.4	2.9	2.4	2.4
47.5°	248.8	174.5	17.1	10.8	7.3	4.9	3.9	2.9	2.4	2.0	2.0
50°	266.4	181.8	15.6	9.8	5.9	4.4	2.9	2.4	2.0	2.0	2.0
52.5°	293.7	193.5	14.7	8.8	4.9	3.4	2.4	2.0	1.5	1.5	1.5
55°	323.1	207.2	14.2	7.8	4.4	2.9	2.0	1.5	1.5	1.0	1.0
57.5°	356.8	225.3	13.2	6.8	3.9	2.9	2.0	1.5	1.0	1.0	1.0
60°	399.3	249.8	11.7	5.9	3.4	2.4	1.5	1.0	1.0	1.0	1.0
62.5°	443.3	275.2	10.3	4.9	2.9	2.0	1.5	1.0	1.0	1.0	1.0
65°	497.1	304.5	8.8	3.9	2.4	2.0	1.5	1.0	1.0	0.5	0.5
67.5°	562.1	334.3	6.8	3.4	2.4	1.5	1.5	1.0	1.0	0.5	0.5
70°	645.2	372.4	5.9	2.9	2.0	1.5	1.5	1.0	1.0	0.5	0.5
72.5°	657.9	321.6	4.9	2.9	2.0	1.5	1.5	1.0	1.0	0.5	0.5
75°	449.7	153.5	4.4	2.4	2.0	2.0	1.5	1.0	1.0	0.5	0.5
77.5°	196.0	36.2	3.9	2.4	2.0	2.0	2.0	1.5	1.0	0.5	0.5
80°	23.0	6.8	3.4	2.4	2.0	2.4	2.0	1.5	1.0	0.5	0.5
82.5°	9.3	4.4	3.4	2.9	2.4	2.0	2.0	1.5	1.0	0.5	0.5
85°	6.8	3.4	3.4	3.4	2.4	1.5	1.5	1.0	1.0	0.5	0.5
87.5°	3.4	1.5	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
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)