

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: P459844

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

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459844
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-7)
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-HSS
Description: NAVION AREA AND ROADWAY LUMINAIRE
(2) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1695 lumens
Efficiency: N/A
Efficacy: 40.6 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

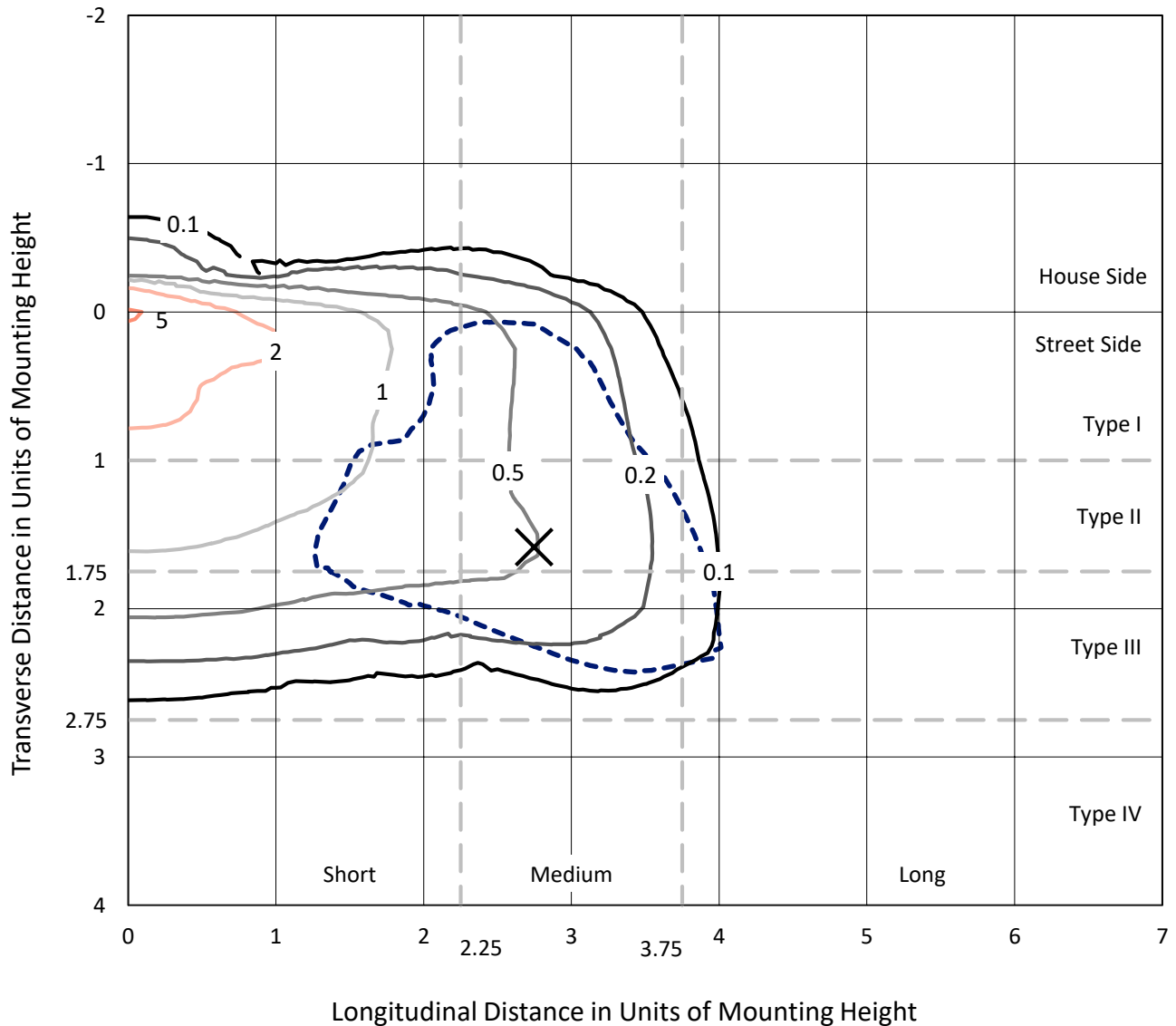
Input Watts (W): 41.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

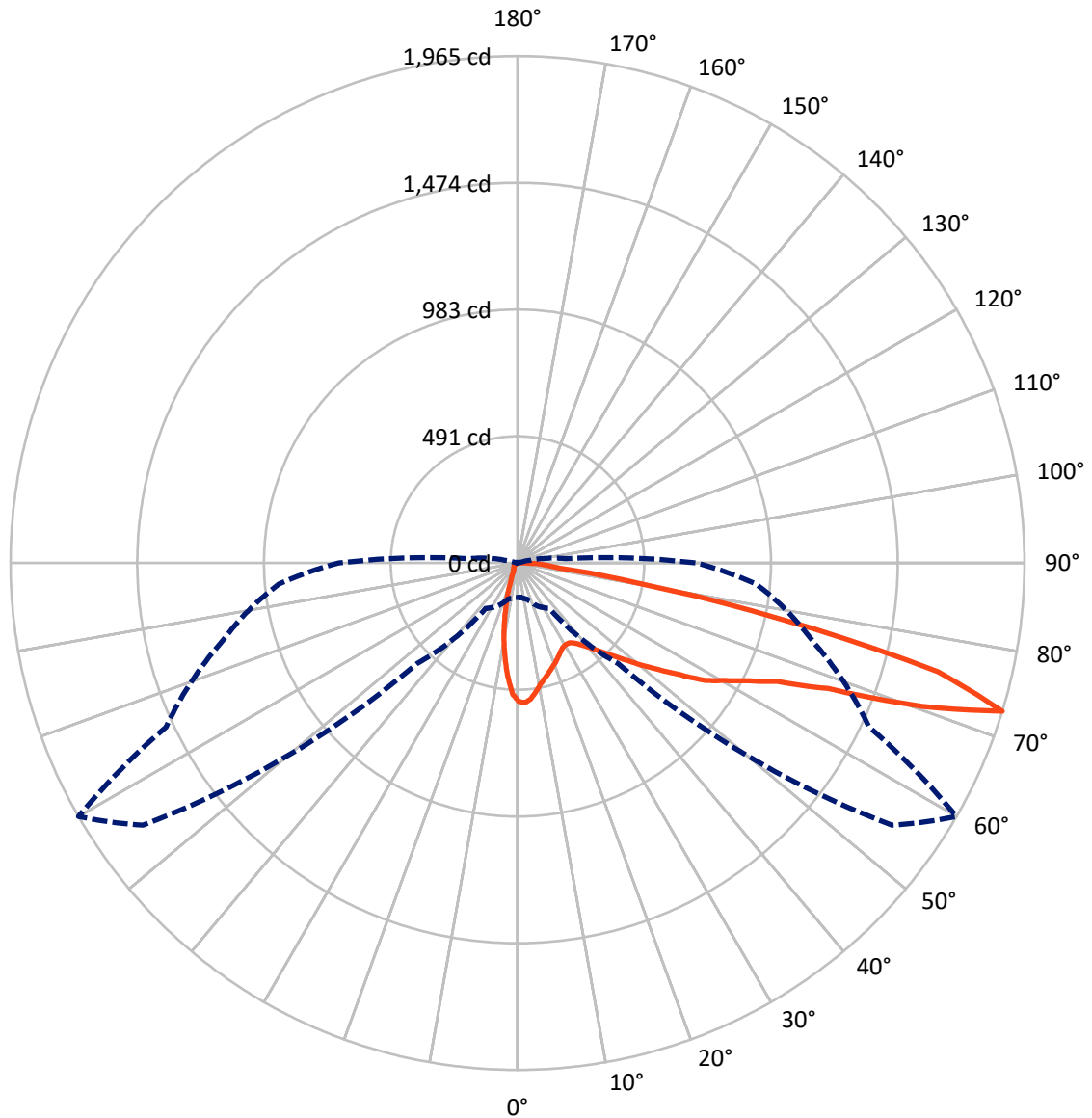


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Medium - Non-Cutoff

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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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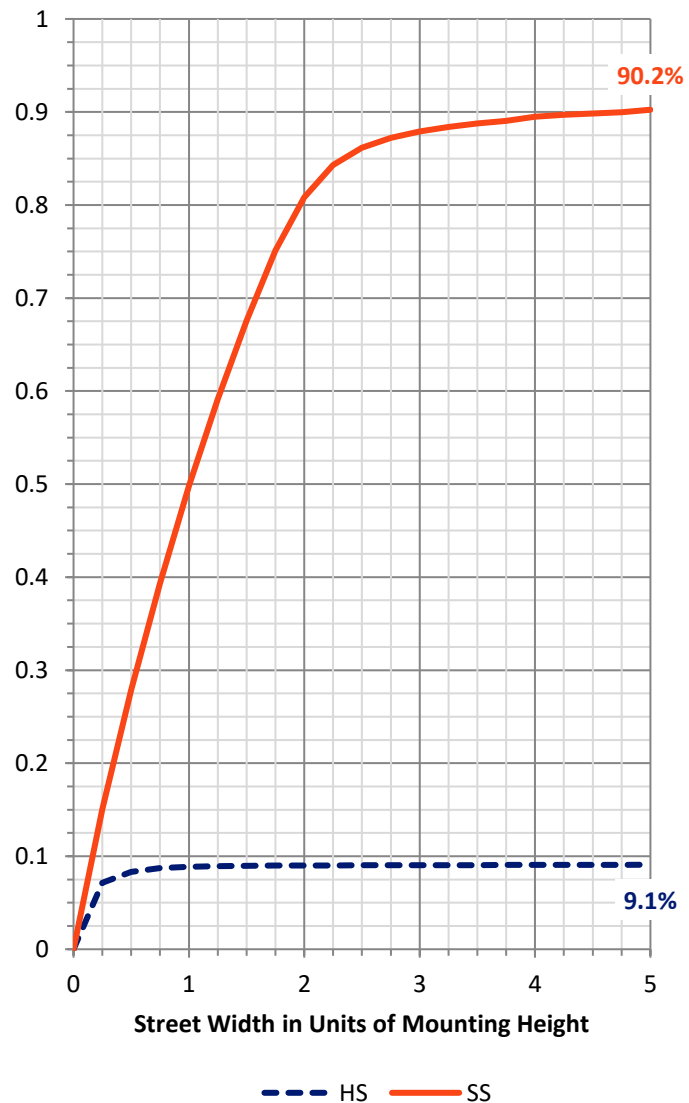
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	155.6	0.0	155.6
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	1539.4	0.0	1539.4
	% Fixture	90.8	0.0	90.8
Total	Lumens	1695.0	0.0	1695.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.7	2.5
10°-20°	81.5	4.8
20°-30°	106.9	6.3
30°-40°	144.2	8.5
40°-50°	214.6	12.7
50°-60°	332.9	19.6
60°-70°	456.6	26.9
70°-80°	287.9	17.0
80°-90°	28.8	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°	1695.0	100.0
0°-180°	1695.0	100.0

Coefficient of Utilization



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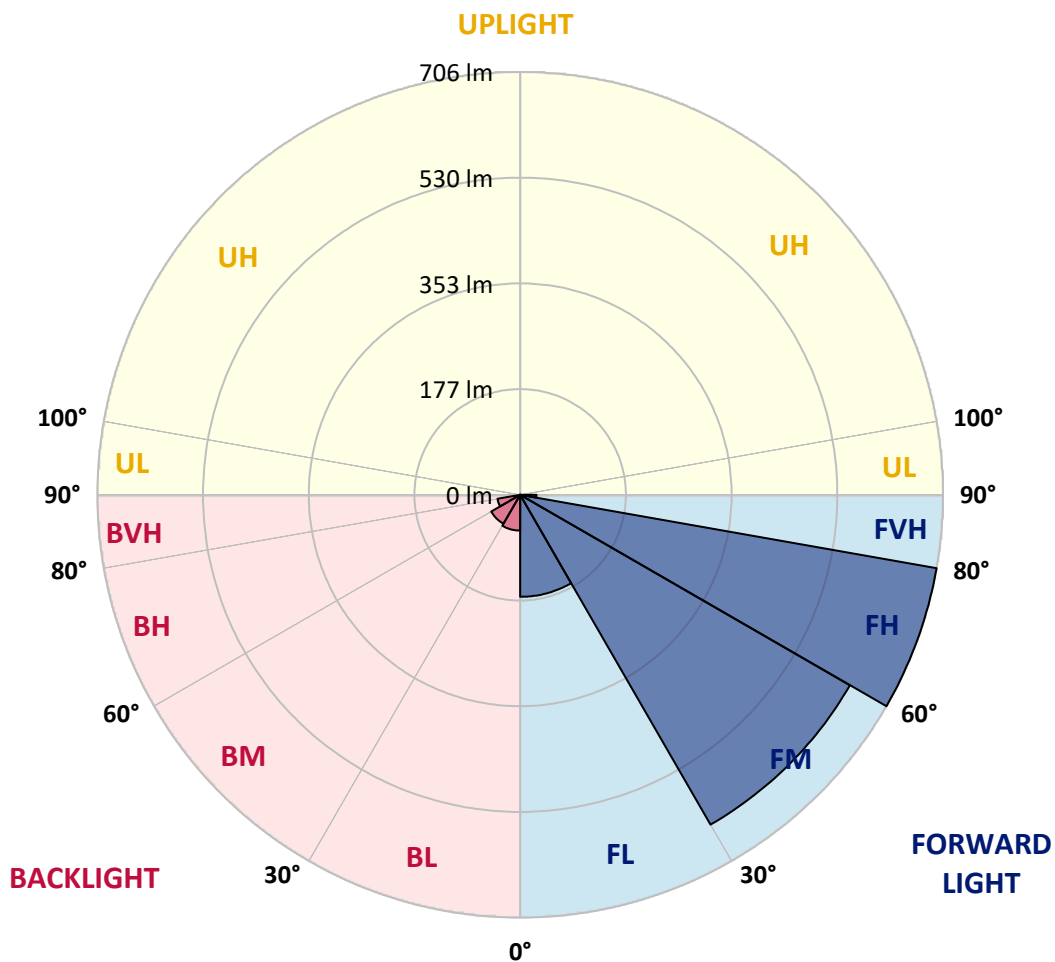
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	170.3	10.0			
FM (30°-60°)	635.8	37.5			
FH (60°-80°)	706.0	41.7			G1/1800
FVH (80°-90°)	27.3	1.6			G1/100
BL (0°-30°)	59.7	3.5	B0/110		
BM (30°-60°)	55.9	3.3	B0/220		
BH (60°-80°)	38.5	2.3	B0/110		G0/110
BVH (80°-90°)	1.6	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°	60°	65°	75°	85°
0°	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
2.5°	545.2	544.2	544.2	545.2	546.1	543.3	543.3	542.4	539.7	538.8	533.3
5°	510.5	513.2	513.2	516.8	520.5	522.3	529.6	529.6	528.7	528.7	520.5
7.5°	468.4	468.4	474.8	481.2	490.4	493.1	501.3	505.0	506.8	511.4	504.1
10°	431.0	433.7	434.7	443.8	452.0	462.1	475.8	480.3	484.9	494.0	486.7
12.5°	402.7	404.5	407.3	415.5	425.5	436.5	452.9	461.1	465.7	478.5	473.0
15°	373.5	375.3	380.8	388.1	401.8	415.5	433.7	444.7	452.9	467.5	463.0
17.5°	354.3	355.2	356.1	362.5	376.2	394.5	417.3	428.3	439.2	457.5	455.7
20°	345.2	346.1	345.2	348.8	357.0	372.6	400.0	414.6	426.4	452.9	450.2
22.5°	342.4	343.3	341.5	340.6	344.3	358.0	382.6	399.0	415.5	452.0	448.4
25°	344.3	344.3	341.5	338.8	338.8	346.1	367.1	384.4	404.5	453.8	446.5
27.5°	351.6	350.6	347.9	342.4	337.9	340.6	357.0	372.6	394.5	456.6	446.5
30°	360.7	359.8	358.9	354.3	346.1	340.6	352.5	367.1	389.0	463.0	447.4
32.5°	370.7	371.7	371.7	368.0	358.9	347.0	355.2	368.9	389.9	472.1	450.2
35°	389.0	387.2	389.9	388.1	378.0	362.5	368.9	380.8	399.0	482.1	456.6
37.5°	406.4	406.4	410.0	410.9	401.8	382.6	390.8	402.7	413.7	498.6	468.4
40°	426.4	425.5	431.0	436.5	429.2	412.7	421.0	431.0	441.1	523.2	488.5
42.5°	442.9	444.7	452.9	462.1	464.8	442.0	455.7	466.6	471.2	550.6	518.7
45°	458.4	461.1	476.7	491.3	500.4	482.1	497.7	509.5	514.1	585.3	555.2
47.5°	474.8	478.5	497.7	520.5	536.9	527.8	545.2	559.8	562.5	628.2	610.0
50°	492.2	495.8	517.8	548.8	576.2	581.7	603.6	620.9	618.2	671.2	665.7
52.5°	514.1	518.7	548.8	583.5	620.9	637.4	671.2	686.7	678.5	726.9	716.8
55°	571.6	573.5	594.5	630.1	668.4	701.3	750.6	764.3	743.3	768.0	768.9
57.5°	669.3	669.3	673.9	684.9	720.5	768.9	847.4	859.3	820.0	810.0	814.5
60°	727.8	736.9	756.1	777.1	793.5	841.9	924.1	924.1	868.4	853.8	855.6
62.5°	713.2	720.5	777.1	824.6	898.5	960.6	1007.2	1005.4	923.2	894.9	907.7
65°	522.3	535.1	608.2	757.0	939.6	1125.0	1146.0	1105.8	990.8	957.0	1009.0
67.5°	280.3	290.4	351.6	484.9	741.5	1237.3	1430.9	1299.4	1112.2	1083.9	1112.2
70°	184.5	182.6	187.2	238.3	405.4	1025.5	1812.6	1662.8	1314.0	1185.3	1113.1
72.5°	133.3	133.3	145.2	184.5	214.6	550.6	1771.5	1965.1	1503.0	1188.0	927.8
75°	89.5	91.3	110.5	148.8	200.0	180.8	1377.9	1683.8	1477.5	892.1	484.0
77.5°	46.6	49.3	73.1	117.8	183.5	161.6	771.6	1042.8	868.4	410.0	107.8
80°	21.0	21.9	32.0	88.6	168.0	149.8	252.0	464.8	274.9	49.3	18.3
82.5°	10.0	10.0	13.7	43.8	138.8	128.8	155.2	165.3	64.8	15.5	12.8
85°	3.7	3.7	7.3	24.7	82.2	77.6	132.4	110.5	36.5	10.0	9.1
87.5°	1.8	1.8	2.7	7.3	21.9	63.0	91.3	73.1	15.5	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
2.5°	530.5	527.8	520.5	514.1	505.9	494.9	493.1	482.1	473.0	472.1	469.4
5°	515.9	507.7	489.4	463.0	438.3	418.2	396.3	382.6	375.3	367.1	372.6
7.5°	495.8	482.1	445.6	404.5	364.3	329.6	295.9	271.2	261.2	246.6	249.3
10°	474.8	455.7	402.7	340.6	288.6	237.4	193.6	157.1	137.9	131.5	131.5
12.5°	460.2	432.8	358.9	281.3	212.8	147.0	106.8	77.6	58.4	52.0	52.0
15°	445.6	411.8	318.7	224.6	140.6	84.9	51.1	43.8	42.9	42.9	42.9
17.5°	432.8	387.2	276.7	171.7	92.2	47.5	42.0	41.1	40.2	40.2	40.2
20°	420.0	365.3	241.1	123.3	51.1	40.2	38.4	38.4	38.4	38.4	37.4
22.5°	408.2	346.1	202.7	84.9	39.3	36.5	35.6	35.6	35.6	34.7	34.7
25°	399.0	328.7	168.0	53.9	34.7	33.8	32.9	32.0	31.0	31.0	31.0
27.5°	389.9	312.3	131.5	37.4	32.0	30.1	29.2	28.3	26.5	26.5	25.6
30°	383.5	295.9	105.0	32.0	29.2	27.4	25.6	23.7	21.9	21.0	21.0
32.5°	379.9	283.1	78.5	29.2	26.5	23.7	21.9	20.1	18.3	16.4	16.4
35°	377.1	270.3	53.9	26.5	23.7	21.0	19.2	16.4	13.7	12.8	12.8
37.5°	381.7	261.2	36.5	24.7	21.9	19.2	15.5	13.7	11.9	11.0	11.0
40°	391.7	253.9	29.2	22.8	20.1	16.4	13.7	11.0	9.1	8.2	8.2
42.5°	409.1	251.1	25.6	21.9	18.3	14.6	11.0	9.1	8.2	7.3	7.3
45°	441.1	250.2	23.7	20.1	16.4	11.9	9.1	7.3	6.4	5.5	5.5
47.5°	476.7	252.0	22.8	19.2	14.6	11.0	8.2	6.4	5.5	4.6	4.6
50°	520.5	259.3	21.0	17.3	13.7	9.1	6.4	5.5	3.7	3.7	3.7
52.5°	562.5	266.6	20.1	16.4	11.9	8.2	5.5	3.7	3.7	2.7	2.7
55°	603.6	283.1	18.3	16.4	11.0	6.4	4.6	3.7	2.7	1.8	1.8
57.5°	644.7	294.9	17.3	14.6	9.1	5.5	3.7	2.7	1.8	1.8	1.8
60°	686.7	305.9	15.5	12.8	7.3	4.6	2.7	1.8	1.8	1.8	1.8
62.5°	739.7	324.2	13.7	11.0	6.4	3.7	2.7	1.8	0.9	0.9	0.9
65°	839.2	355.2	11.9	9.1	4.6	3.7	2.7	1.8	0.9	0.9	0.9
67.5°	903.1	350.6	10.0	7.3	4.6	2.7	1.8	1.8	0.9	0.9	0.9
70°	890.3	316.9	8.2	6.4	3.7	2.7	1.8	1.8	0.9	0.9	0.9
72.5°	692.2	192.7	7.3	5.5	3.7	2.7	1.8	1.8	0.9	0.9	0.9
75°	315.9	42.9	6.4	4.6	2.7	2.7	1.8	1.8	0.9	0.9	0.9
77.5°	55.7	11.0	5.5	3.7	3.7	2.7	2.7	1.8	0.9	0.9	0.9
80°	14.6	7.3	5.5	3.7	3.7	4.6	3.7	2.7	0.9	0.9	0.9
82.5°	10.0	5.5	5.5	4.6	4.6	5.5	4.6	2.7	0.9	0.9	0.9
85°	7.3	4.6	5.5	5.5	3.7	4.6	4.6	2.7	0.9	0.9	0.9
87.5°	3.7	1.8	1.8	1.8	1.8	2.7	2.7	0.9	0.9	0.9	0.9
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)