

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: P965204

Luminaire Tested: **NAV-SB3D-827-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965204
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23202.9 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 218.1
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: 24 FT

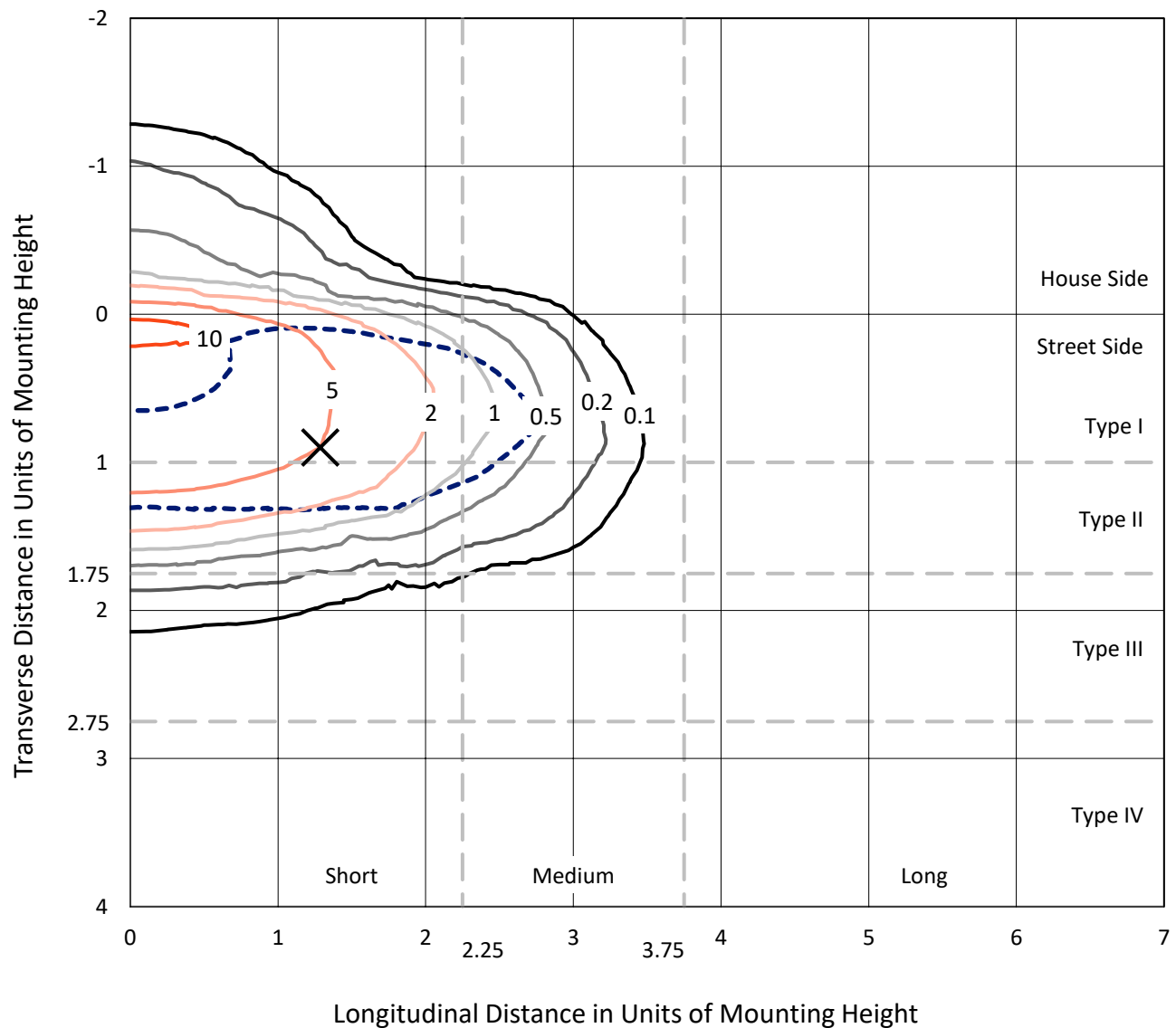


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Iso-Footcandle Lines of Horizontal Illumination

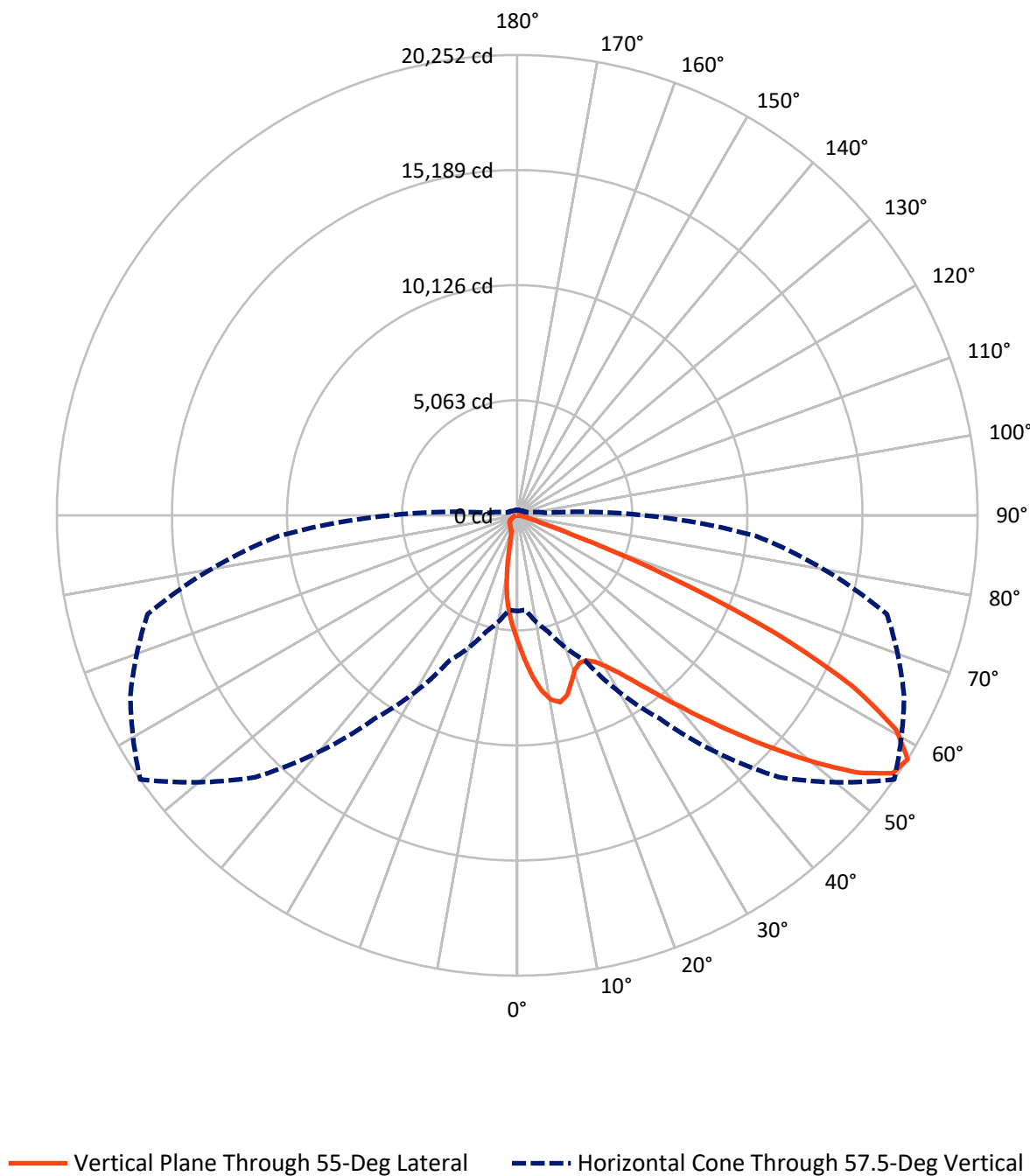
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1812.1	0.0	1812.1
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	21390.9	0.0	21390.9
	% Fixture	92.2	0.0	92.2
Total	Lumens	23202.9	0.0	23202.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	520.2	2.2
10°-20°	1256.6	5.4
20°-30°	2010.6	8.7
30°-40°	3403.1	14.7
40°-50°	5587.2	24.1
50°-60°	6140.7	26.5
60°-70°	3522.3	15.2
70°-80°	719.7	3.1
80°-90°	42.5	0.2
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°	23202.9	100.0
0°-180°	23202.9	100.0

Coefficient of Utilization



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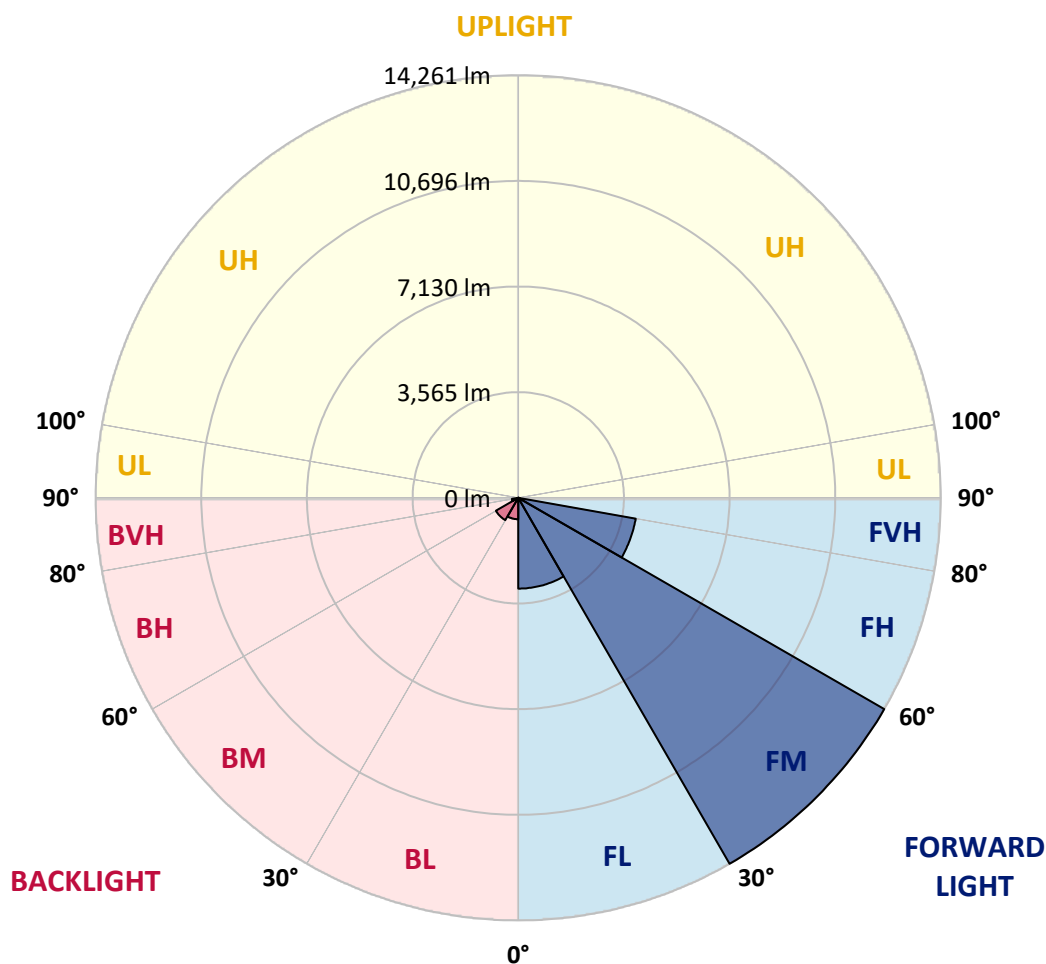
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3064.1	13.2			
FM	(30°-60°)	14260.7	61.5			
FH	(60°-80°)	4026.5	17.4			G2/5000
FVH	(80°-90°)	39.6	0.2			G1/100
BL	(0°-30°)	723.4	3.1	B2/1000		
BM	(30°-60°)	870.3	3.8	B1/1000		
BH	(60°-80°)	215.5	0.9	B1/500		G1/500
BVH	(80°-90°)	2.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4
2.5°	6937.6	6850.4	6837.5	6820.4	6654.4	6529.9	6349.7	6152.2	5930.4	5704.3	5604.2
5°	8015.0	7946.3	7933.5	7853.3	7664.4	7452.8	7132.3	6727.4	6313.9	5827.4	5618.5
7.5°	8223.9	8211.0	8269.7	8266.8	8241.1	8073.6	7803.2	7321.1	6700.1	5979.0	5655.7
10°	7292.5	7325.4	7499.9	7653.1	8066.5	8306.9	8248.2	7850.5	7097.9	6152.2	5697.3
12.5°	6444.1	6405.4	6529.9	6703.0	7183.7	7899.2	8432.8	8292.6	7552.9	6348.2	5758.8
15°	5911.8	5896.1	5966.2	6046.3	6412.6	7133.7	8218.1	8651.7	7990.7	6580.0	5851.7
17.5°	5741.5	5728.7	5750.1	5770.1	6007.6	6565.6	7707.4	8872.0	8409.9	6844.6	5954.7
20°	5880.3	5863.2	5860.3	5844.5	5943.3	6323.8	7245.3	8887.8	8786.2	7085.0	6043.4
22.5°	6285.2	6265.2	6195.1	6132.2	6140.8	6356.7	7039.3	8730.3	9069.5	7309.7	6099.3
25°	7019.2	6986.3	6840.3	6628.6	6494.1	6585.7	7070.8	8522.9	9339.9	7485.7	6072.1
27.5°	7937.7	7894.9	7707.4	7392.6	7085.0	6973.4	7298.2	8379.9	9564.5	7620.2	6013.4
30°	8837.7	8781.9	8597.3	8352.6	7903.4	7551.5	7708.8	8442.8	9832.0	7760.4	5936.2
32.5°	9809.1	9756.3	9511.6	9208.3	8836.2	8362.7	8271.1	8750.4	10159.7	7956.4	5881.8
35°	11038.1	10955.2	10607.5	10194.0	9799.1	9319.8	9032.3	9281.2	10596.0	8255.3	5911.8
37.5°	12437.5	12325.8	11951.0	11380.1	10865.0	10328.5	9959.4	10010.9	11235.6	8656.0	6004.9
40°	13756.5	13654.9	13308.7	12770.8	12124.1	11473.1	11079.6	10965.1	12118.4	9143.8	6167.9
42.5°	14547.7	14456.2	14310.2	14082.8	13537.7	12873.8	12377.3	12129.8	13162.8	9727.6	6366.8
45°	14592.1	14512.0	14708.0	14972.7	14865.4	14423.3	13818.1	13364.6	14211.5	10275.6	6572.8
47.5°	13882.5	13828.1	14423.3	15347.5	15808.3	15994.2	15436.3	14496.3	15077.1	10669.0	6657.3
50°	11948.1	11928.1	13152.8	14849.7	16167.3	17370.6	17143.1	15549.2	15748.2	10872.2	6577.1
52.5°	10360.0	10287.0	11000.9	13255.8	15645.2	18094.5	18811.4	16582.2	16217.4	10910.8	6389.6
55°	7857.6	7793.3	8688.9	10588.9	13961.1	17837.0	20031.8	17648.1	16553.6	10812.1	6053.4
57.5°	4215.0	4174.9	5306.6	7047.8	10913.7	16291.9	20252.2	18775.6	16837.0	10550.3	5582.8
60°	1641.0	1634.0	2057.4	3419.5	6632.9	13254.4	19140.4	19452.3	17014.4	10228.4	5189.3
62.5°	992.9	1014.4	1083.1	1535.1	2930.2	8233.9	16577.9	18682.6	17133.1	9933.6	4864.5
65°	821.2	822.7	831.3	1054.4	1403.5	3445.2	12480.3	16150.2	16839.8	9408.6	4403.8
67.5°	704.0	716.8	749.7	837.0	990.0	1510.8	7185.1	12510.4	15055.7	8186.7	3685.6
70°	555.1	572.3	613.8	688.2	764.0	945.8	2655.5	8324.0	11501.7	6170.8	2787.1
72.5°	467.8	466.4	487.9	559.4	606.6	665.3	1021.5	4664.3	6684.4	2945.8	1379.2
75°	361.9	376.3	403.4	467.8	496.5	482.2	553.7	1704.1	2395.0	892.8	469.2
77.5°	283.3	294.7	319.1	382.0	410.6	341.9	319.1	609.5	769.8	320.5	211.8
80°	127.3	137.4	217.5	281.9	334.8	236.1	173.1	311.9	341.9	146.0	107.3
82.5°	22.9	38.6	127.3	148.8	171.7	153.1	90.1	161.6	167.4	58.6	37.2
85°	1.4	2.9	44.4	54.3	68.7	50.1	27.2	64.4	55.8	20.0	14.3
87.5°	0.0	0.0	0.0	1.4	1.4	7.2	8.6	11.5	8.6	7.2	5.7
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4	5591.4
2.5°	5501.2	5298.0	5100.6	4939.0	4844.5	4684.2	4578.4	4561.2	4516.9	4555.5
5°	5395.3	5031.9	4664.3	4335.1	4064.7	3715.6	3455.3	3345.1	3249.2	3282.2
7.5°	5345.3	4771.5	4199.2	3636.9	3058.9	2500.9	2086.0	1912.9	1781.2	1799.9
10°	5278.0	4501.1	3604.0	2745.6	1971.6	1420.8	1134.6	1028.7	970.1	971.5
12.5°	5226.5	4177.8	2912.9	1861.4	1200.4	907.1	818.4	792.6	775.4	776.8
15°	5200.7	3797.2	2230.5	1240.5	858.4	768.3	746.8	735.4	724.0	722.5
17.5°	5157.8	3373.7	1632.5	905.7	751.1	719.7	701.1	688.2	673.8	671.1
20°	5093.4	2893.0	1193.2	765.5	704.0	679.6	653.8	636.7	619.5	616.6
22.5°	4974.7	2385.1	917.1	708.2	669.6	642.4	610.9	590.9	573.7	570.8
25°	4754.4	1908.7	772.6	672.4	639.5	606.6	572.3	545.1	529.4	526.5
27.5°	4475.4	1499.4	701.1	639.5	601.0	570.8	532.3	506.5	492.2	489.3
30°	4146.3	1154.6	659.6	602.4	555.1	529.4	495.1	473.6	464.9	464.9
32.5°	3791.5	922.8	642.4	565.2	515.1	486.5	459.3	450.7	447.8	446.4
35°	3458.1	801.2	633.9	535.0	479.3	452.1	440.6	442.1	447.8	447.8
37.5°	3161.9	762.6	629.6	513.6	447.8	423.5	430.6	443.5	437.8	437.8
40°	2894.4	766.9	626.7	497.9	422.1	407.7	422.1	412.0	397.7	396.3
42.5°	2689.8	802.7	620.9	485.0	406.3	396.3	390.6	374.8	373.4	376.3
45°	2541.0	834.1	619.5	479.3	389.2	370.5	363.4	347.7	376.3	383.5
47.5°	2365.0	834.1	619.5	459.3	360.6	353.4	341.9	324.8	353.4	360.6
50°	2137.5	781.2	595.2	436.3	337.6	333.3	313.3	291.9	286.2	290.5
52.5°	1849.9	685.3	533.6	404.9	314.8	306.2	281.9	266.1	261.8	261.8
55°	1522.3	573.7	450.7	359.2	290.5	274.7	257.6	250.4	246.1	243.2
57.5°	1237.6	470.7	361.9	319.1	267.5	247.5	241.8	233.2	226.0	221.8
60°	1015.8	370.5	299.0	283.3	244.7	226.0	224.6	213.2	194.5	191.7
62.5°	784.0	271.8	251.8	246.1	221.8	206.0	203.2	180.3	151.7	146.0
65°	553.7	211.8	203.2	216.1	197.4	183.2	176.0	141.7	111.6	107.3
67.5°	389.2	177.4	160.2	188.9	171.7	153.1	148.8	120.2	93.0	90.1
70°	277.6	144.5	131.6	161.6	137.4	134.5	125.9	100.1	75.8	73.0
72.5°	196.0	110.2	101.6	140.2	94.4	115.9	103.0	77.3	57.2	54.3
75°	144.5	78.7	71.5	81.6	68.7	87.2	73.0	51.6	35.8	34.3
77.5°	105.9	50.1	42.9	40.1	40.1	54.3	40.1	21.4	15.8	14.3
80°	74.4	22.9	20.0	17.2	15.8	12.9	5.7	2.9	1.4	1.4
82.5°	44.4	10.0	10.0	7.2	4.3	0.0	0.0	0.0	0.0	0.0
85°	10.0	4.3	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)