

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: P966816

Luminaire Tested: **NAV-SB4C-830-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966816
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-SB4C-830-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA 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: 23569.9 lumens
Efficiency: N/A
Efficacy: 117.4 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): 200.7
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

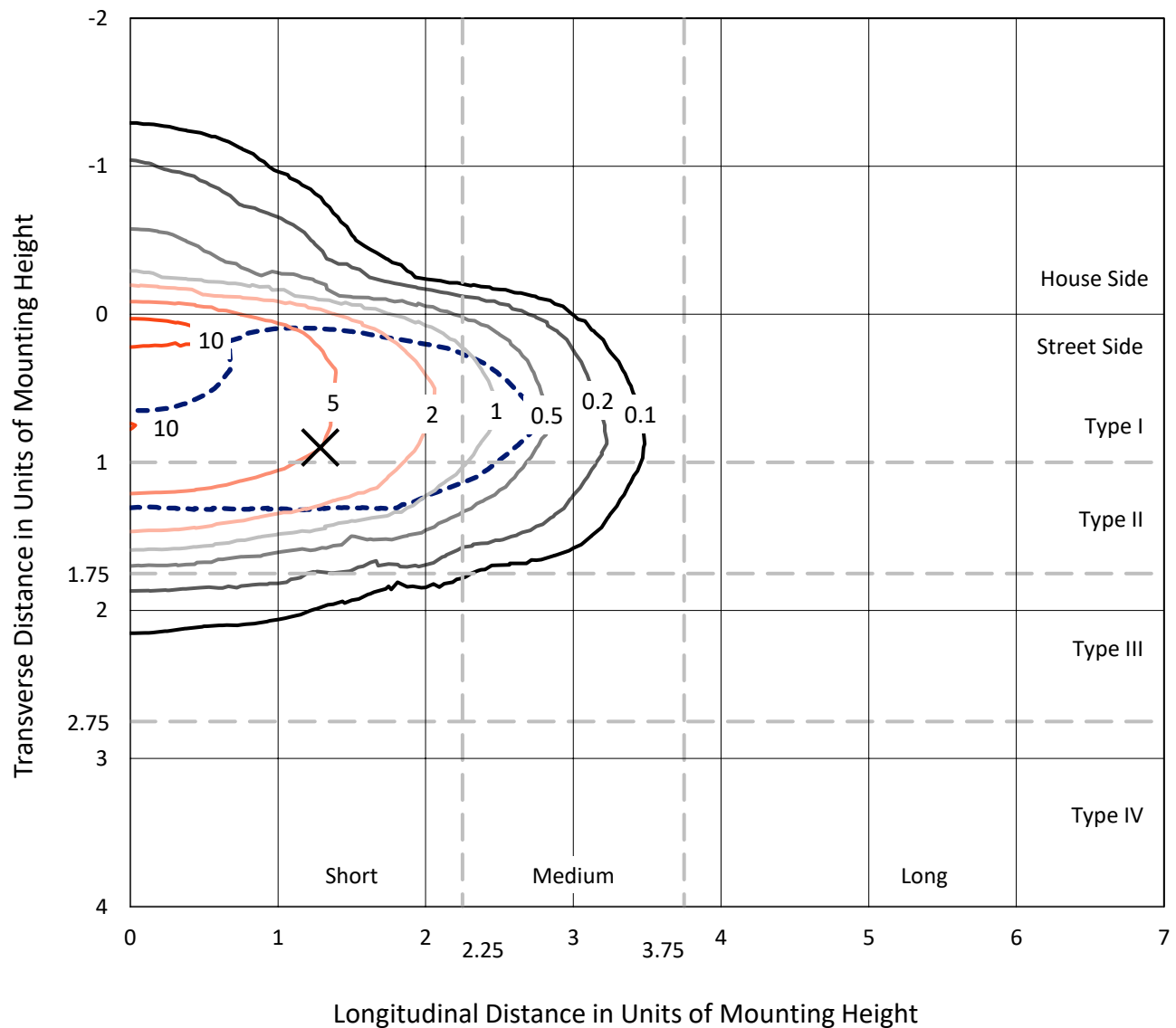


REPORT NUMBER: P966816

CATALOG NUMBER: NAV-SB4C-830-U-AFL-HSS

Iso-Footcandle Lines of Horizontal Illumination

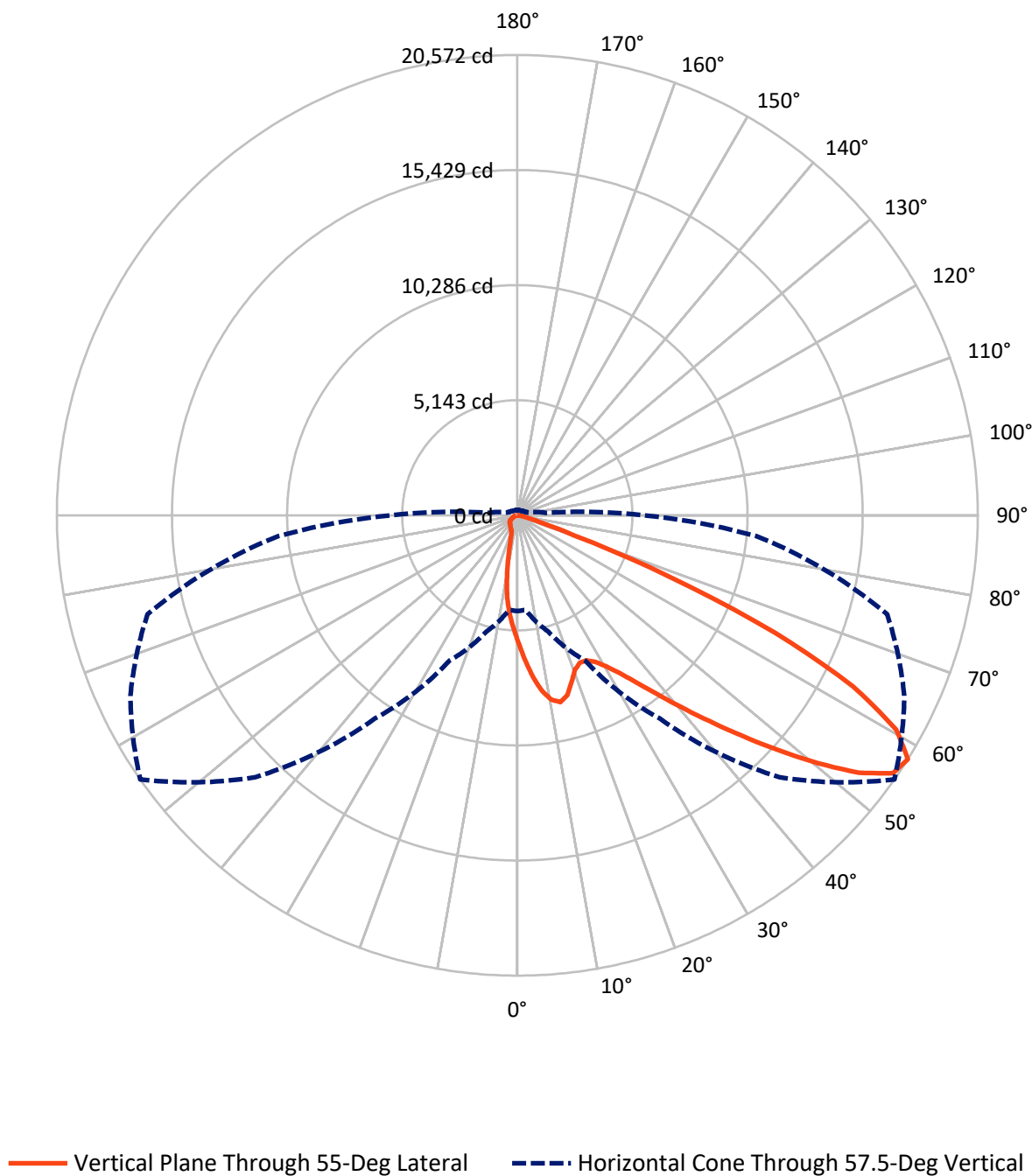
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc
Type II - Short - N/A

REPORT NUMBER: P966816
CATALOG NUMBER: NAV-SB4C-830-U-AFL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P966816

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1840.7	0.0	1840.7
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	21729.2	0.0	21729.2
	% Fixture	92.2	0.0	92.2
Total	Lumens	23569.9	0.0	23569.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	528.5	2.2
10°-20°	1276.5	5.4
20°-30°	2042.4	8.7
30°-40°	3456.9	14.7
40°-50°	5675.5	24.1
50°-60°	6237.8	26.5
60°-70°	3578.0	15.2
70°-80°	731.1	3.1
80°-90°	43.1	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°	23569.9	100.0
0°-180°	23569.9	100.0

Coefficient of Utilization



REPORT NUMBER: P966816

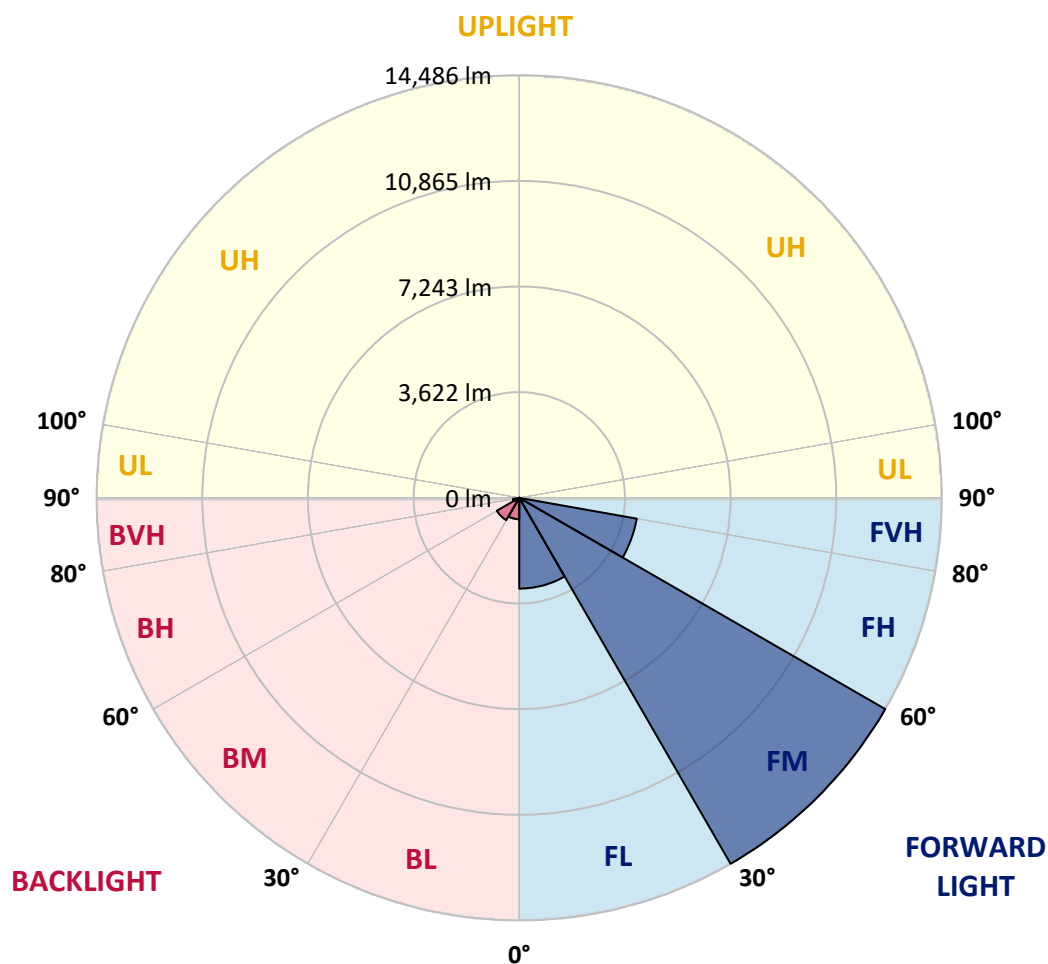
CATALOG NUMBER: NAV-SB4C-830-U-AFL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3112.5	13.2			
FM	(30°-60°)	14486.2	61.5			
FH	(60°-80°)	4090.2	17.4			G2/5000
FVH	(80°-90°)	40.2	0.2			G1/100
BL	(0°-30°)	734.9	3.1	B2/1000		
BM	(30°-60°)	884.0	3.8	B1/1000		
BH	(60°-80°)	218.9	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



REPORT NUMBER: P966816

CATALOG NUMBER: NAV-SB4C-830-U-AFL-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7
2.5°	7047.4	6958.7	6945.6	6928.2	6759.6	6633.2	6450.0	6249.5	6024.2	5794.5	5692.8
5°	8141.8	8072.0	8059.0	7977.6	7785.7	7570.5	7245.0	6833.8	6413.7	5919.6	5707.4
7.5°	8354.0	8340.8	8400.5	8397.5	8371.4	8201.3	7926.6	7436.9	6806.1	6073.6	5745.1
10°	7407.8	7441.2	7618.5	7774.0	8194.1	8438.2	8378.7	7974.6	7210.2	6249.5	5787.4
12.5°	6546.0	6506.7	6633.2	6809.1	7297.4	8024.0	8566.1	8423.8	7672.3	6448.6	5849.8
15°	6005.3	5989.3	6060.5	6141.9	6514.0	7246.4	8348.1	8788.6	8117.1	6684.0	5944.3
17.5°	5832.4	5819.2	5841.1	5861.5	6102.6	6669.5	7829.3	9012.3	8542.9	6952.9	6048.9
20°	5973.3	5955.9	5953.0	5937.0	6037.2	6423.9	7359.8	9028.3	8925.1	7197.0	6139.0
22.5°	6384.6	6364.3	6293.1	6229.1	6237.8	6457.3	7150.6	8868.4	9212.9	7425.2	6195.7
25°	7130.2	7096.8	6948.6	6733.4	6596.8	6689.9	7182.6	8657.7	9487.6	7604.1	6168.0
27.5°	8063.3	8019.7	7829.3	7509.6	7197.0	7083.7	7413.6	8512.4	9715.8	7740.6	6108.5
30°	8977.5	8920.8	8733.3	8484.7	8028.4	7670.9	7830.7	8576.3	9987.5	7883.1	6030.0
32.5°	9964.3	9910.5	9662.0	9353.8	8976.0	8494.9	8401.9	8888.8	10320.3	8082.1	5974.8
35°	11212.7	11128.4	10775.3	10355.3	9954.1	9467.2	9175.1	9427.9	10763.6	8385.9	6005.3
37.5°	12634.2	12520.8	12140.0	11560.1	11036.9	10491.9	10116.9	10169.2	11413.3	8792.9	6099.8
40°	13974.1	13870.9	13519.2	12972.7	12315.8	11654.6	11254.9	11138.6	12310.0	9288.4	6265.4
42.5°	14777.8	14684.9	14536.6	14305.5	13751.8	13077.4	12573.1	12321.6	13371.0	9881.4	6467.4
45°	14822.9	14741.6	14940.6	15209.5	15100.5	14651.4	14036.7	13575.9	14436.3	10438.1	6676.7
47.5°	14102.1	14046.8	14651.4	15590.2	16058.3	16247.2	15680.3	14725.6	15315.6	10837.7	6762.5
50°	12137.0	12116.7	13360.8	15084.5	16423.1	17645.4	17414.2	15795.1	15997.2	11044.2	6681.2
52.5°	10523.9	10449.7	11175.0	13465.4	15892.5	18380.7	19108.9	16844.5	16473.9	11083.4	6490.7
55°	7981.9	7916.5	8826.3	10756.3	14182.0	18119.1	20348.6	17927.2	16815.4	10983.1	6149.2
57.5°	4281.6	4240.9	5390.6	7159.3	11086.3	16549.4	20572.4	19072.6	17103.3	10717.1	5671.0
60°	1667.1	1659.8	2090.0	3473.5	6737.8	13464.0	19443.1	19759.9	17283.4	10390.1	5271.4
62.5°	1008.6	1030.4	1100.2	1559.4	2976.5	8364.1	16840.1	18978.1	17404.1	10090.7	4941.4
65°	834.2	835.7	844.4	1071.1	1425.8	3499.7	12677.7	16405.6	17106.1	9557.3	4473.5
67.5°	715.0	728.2	761.6	850.2	1005.7	1534.7	7298.8	12708.3	15293.8	8316.1	3743.9
70°	564.0	581.4	623.5	699.0	776.1	960.6	2697.5	8455.7	11683.7	6268.4	2831.2
72.5°	475.3	473.8	495.6	568.3	616.2	675.8	1037.7	4738.0	6790.1	2992.5	1401.1
75°	367.7	382.2	409.9	475.3	504.3	489.7	562.4	1730.9	2432.9	906.9	476.7
77.5°	287.7	299.4	324.1	388.1	417.1	347.4	324.1	619.1	781.9	325.5	215.1
80°	129.4	139.5	220.9	286.3	340.1	239.8	175.9	316.8	347.4	148.2	109.0
82.5°	23.3	39.3	129.4	151.2	174.5	155.5	91.5	164.2	170.0	59.6	37.8
85°	1.4	2.9	45.1	55.2	69.8	50.8	27.6	65.4	56.7	20.4	14.6
87.5°	0.0	0.0	0.0	1.4	1.4	7.3	8.7	11.6	8.7	7.3	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P966816

CATALOG NUMBER: NAV-SB4C-830-U-AFL-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7	5679.7
2.5°	5588.2	5381.9	5181.3	5017.1	4921.1	4758.4	4650.7	4633.3	4588.3	4627.6
5°	5480.7	5111.5	4738.0	4403.7	4129.0	3774.4	3509.9	3398.0	3300.6	3334.0
7.5°	5429.7	4847.0	4265.6	3694.5	3107.3	2540.5	2119.0	1943.2	1809.4	1828.3
10°	5361.5	4572.3	3661.0	2789.0	2002.7	1443.2	1152.5	1045.0	985.3	986.9
12.5°	5309.2	4243.8	2959.1	1890.8	1219.3	921.5	831.3	805.1	787.7	789.1
15°	5283.0	3857.3	2265.8	1260.0	872.1	780.4	758.7	747.0	735.4	733.9
17.5°	5239.4	3427.1	1658.2	919.9	763.0	731.0	712.2	699.0	684.5	681.6
20°	5174.0	2938.7	1212.1	777.6	715.0	690.3	664.2	646.8	629.3	626.4
22.5°	5053.4	2422.8	931.6	719.4	680.2	652.5	620.6	600.2	582.8	579.8
25°	4829.5	1938.8	784.8	683.1	649.6	616.2	581.4	553.7	537.7	534.8
27.5°	4546.2	1523.1	712.2	649.6	610.4	579.8	540.7	514.4	500.0	497.0
30°	4211.8	1172.9	670.0	611.8	564.0	537.7	502.9	481.0	472.3	472.3
32.5°	3851.4	937.5	652.5	574.1	523.3	494.2	466.6	457.8	454.9	453.5
35°	3512.8	813.8	643.8	543.6	486.9	459.3	447.6	449.1	454.9	454.9
37.5°	3211.9	774.7	639.5	521.7	454.9	430.2	437.5	450.6	444.7	444.7
40°	2940.2	779.0	636.5	505.7	428.8	414.2	428.8	418.6	404.1	402.6
42.5°	2732.3	815.4	630.8	492.7	412.8	402.6	396.8	380.8	379.4	382.2
45°	2581.2	847.3	629.3	486.9	395.3	376.4	369.2	353.2	382.2	389.5
47.5°	2402.4	847.3	629.3	466.6	366.2	359.0	347.4	329.9	359.0	366.2
50°	2171.4	793.6	604.6	443.3	343.0	338.7	318.3	296.5	290.7	295.0
52.5°	1879.2	696.2	542.1	411.3	319.7	311.0	286.3	270.3	266.0	266.0
55°	1546.4	582.8	457.8	364.8	295.0	279.0	261.6	254.3	250.0	247.0
57.5°	1257.2	478.2	367.7	324.1	271.8	251.4	245.6	236.9	229.6	225.3
60°	1031.9	376.4	303.7	287.7	248.6	229.6	228.2	216.6	197.6	194.7
62.5°	796.4	276.1	255.8	250.0	225.3	209.3	206.3	183.2	154.1	148.2
65°	562.4	215.1	206.3	219.5	200.6	186.0	178.8	143.9	113.4	109.0
67.5°	395.3	180.2	162.8	191.9	174.5	155.5	151.2	122.1	94.5	91.5
70°	282.0	146.8	133.7	164.2	139.5	136.6	127.9	101.8	77.0	74.1
72.5°	199.2	111.9	103.2	142.5	95.9	117.8	104.7	78.5	58.1	55.2
75°	146.8	79.9	72.7	82.8	69.8	88.7	74.1	52.3	36.3	34.8
77.5°	107.5	50.8	43.6	40.7	40.7	55.2	40.7	21.8	16.0	14.6
80°	75.5	23.3	20.4	17.4	16.0	13.1	5.8	2.9	1.4	1.4
82.5°	45.1	10.1	10.1	7.3	4.4	0.0	0.0	0.0	0.0	0.0
85°	10.1	4.4	4.4	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)