

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: P966847

Luminaire Tested: **NAV-SB4C-835-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966847
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-835-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 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: 24330.4 lumens
Efficiency: N/A
Efficacy: 121.2 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

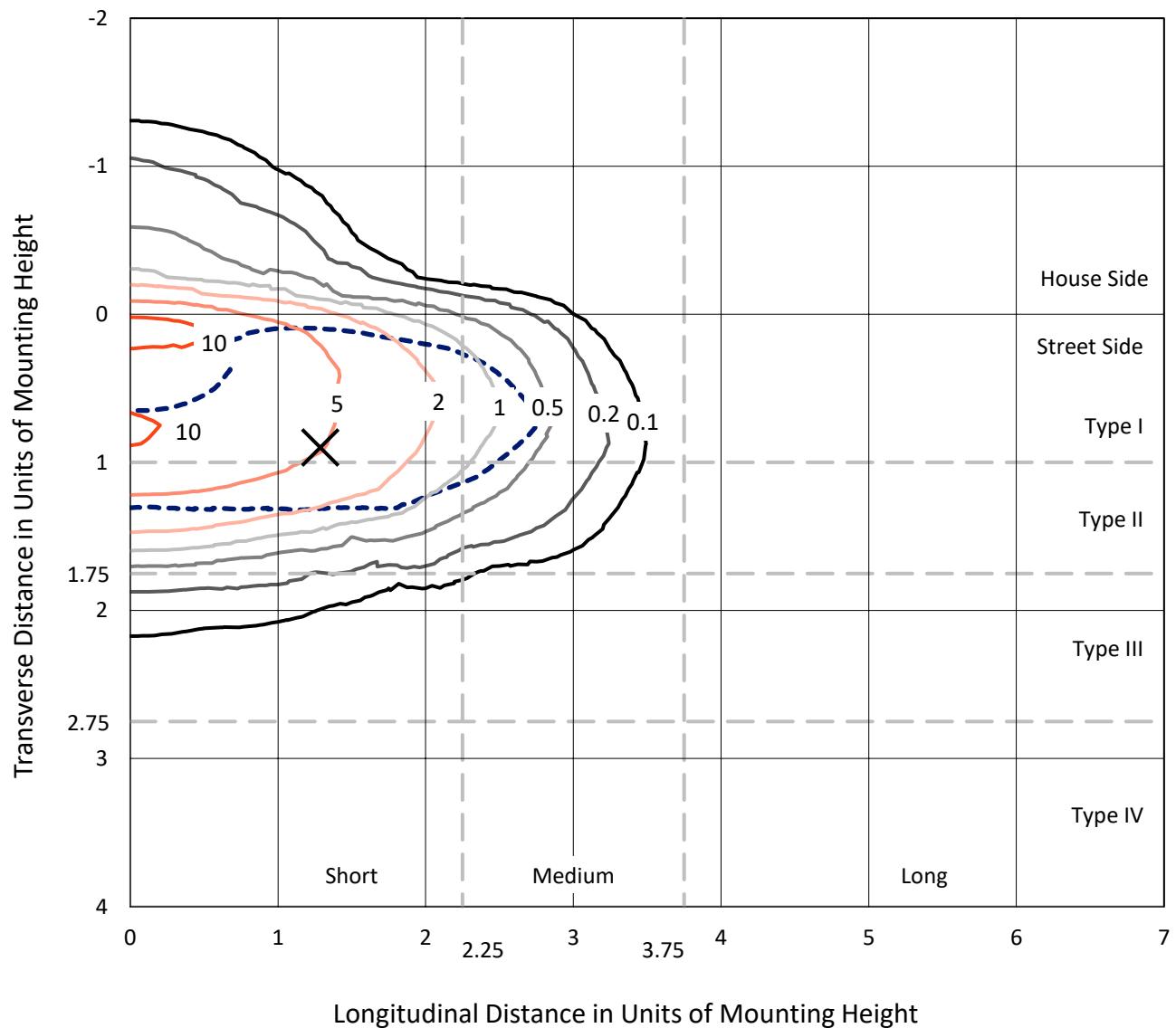


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

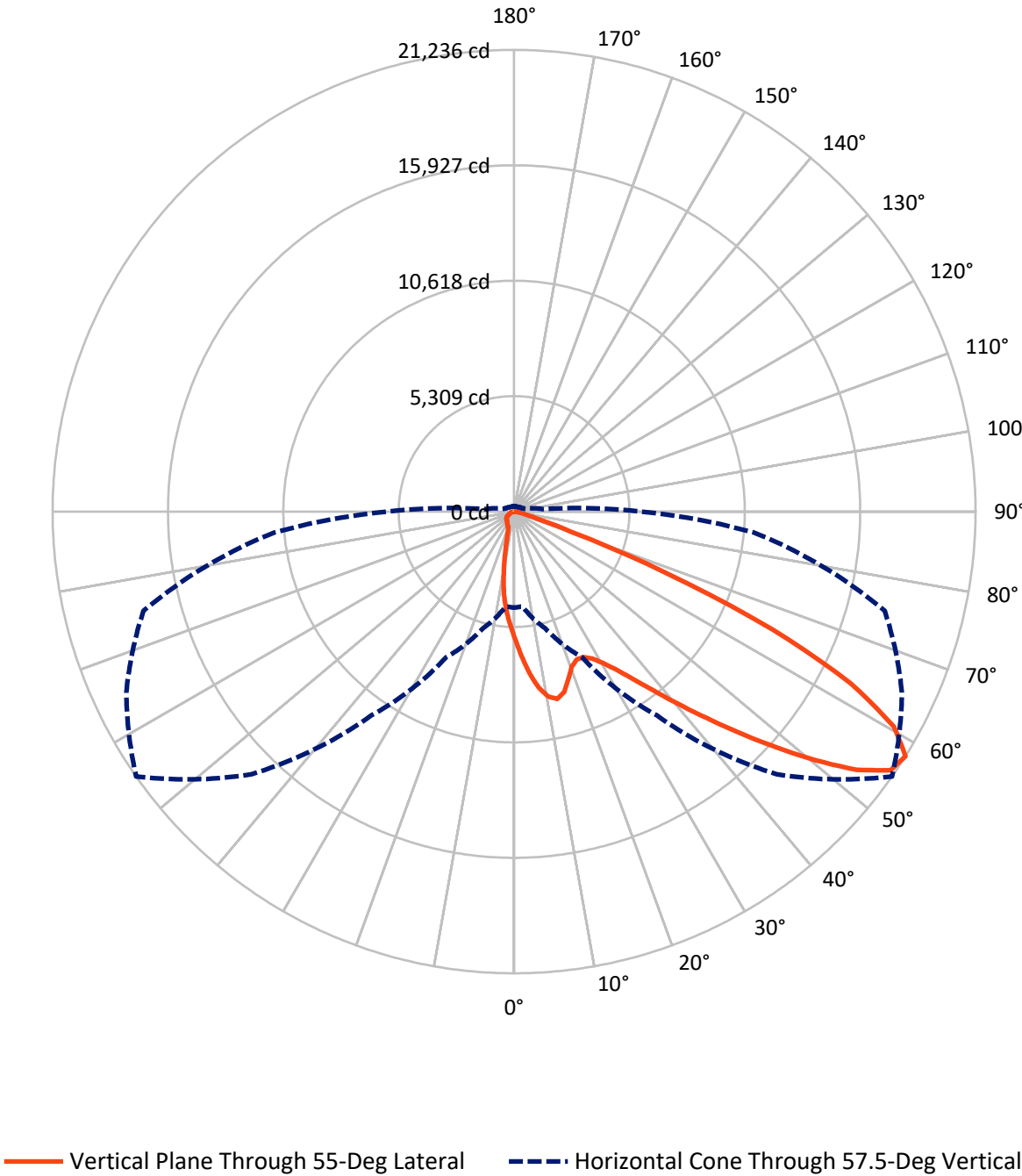


Based on 25 foot mounting height. Maximum calculated value = 13.4 fc

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	1900.1	0.0	1900.1
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	22430.3	0.0	22430.3
	% Fixture	92.2	0.0	92.2
Total	Lumens	24330.4	0.0	24330.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	545.5	2.2
10°-20°	1317.7	5.4
20°-30°	2108.3	8.7
30°-40°	3568.5	14.7
40°-50°	5858.7	24.1
50°-60°	6439.1	26.5
60°-70°	3693.5	15.2
70°-80°	754.7	3.1
80°-90°	44.5	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°	24330.4	100.0
0°-180°	24330.4	100.0

Coefficient of Utilization



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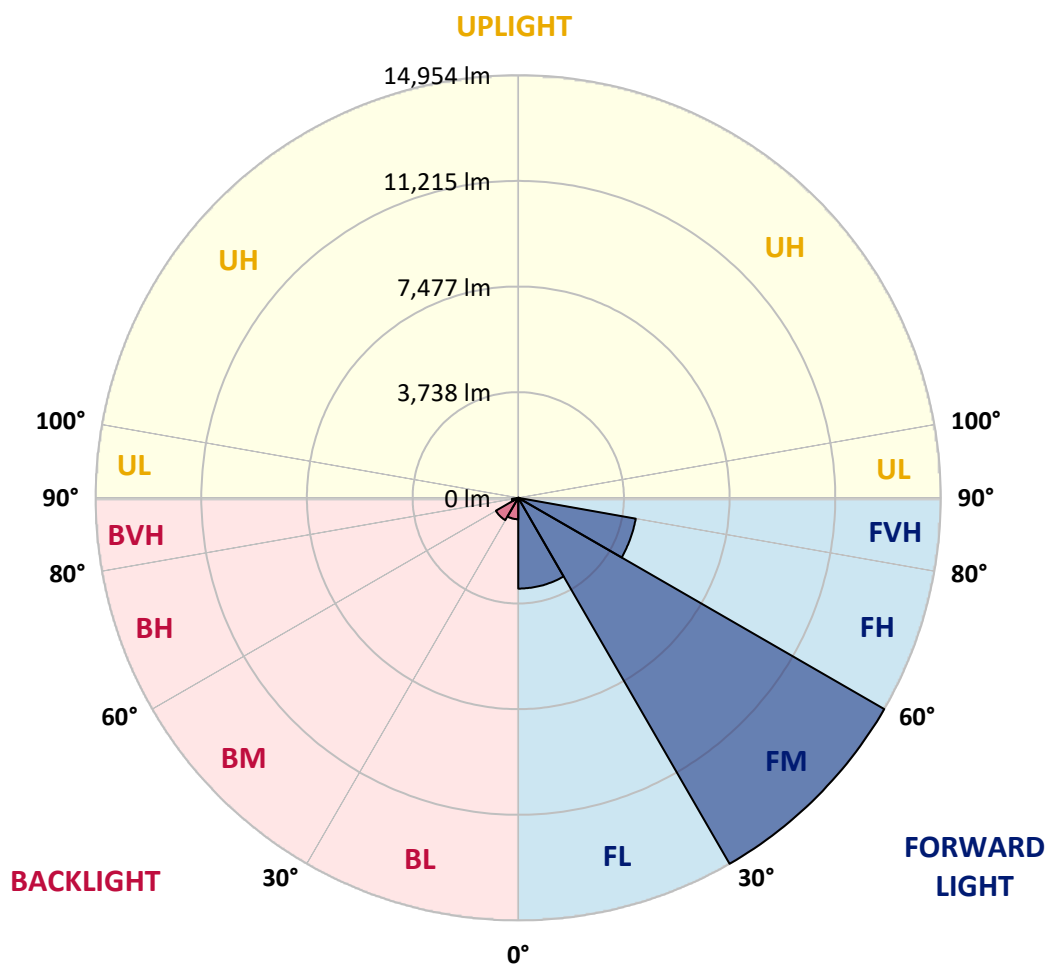
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3213.0	13.2			
FM	(30°-60°)	14953.7	61.5			
FH	(60°-80°)	4222.2	17.4			G2/5000
FVH	(80°-90°)	41.5	0.2			G1/100
BL	(0°-30°)	758.6	3.1	B2/1000		
BM	(30°-60°)	912.5	3.8	B1/1000		
BH	(60°-80°)	226.0	0.9	B1/500		G1/500
BVH	(80°-90°)	3.0	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°	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0
2.5°	7274.7	7183.3	7169.8	7151.7	6977.7	6847.2	6658.2	6451.1	6218.6	5981.6	5876.5
5°	8404.5	8332.4	8319.0	8235.0	8036.9	7814.9	7478.8	7054.3	6620.7	6110.5	5891.5
7.5°	8623.5	8610.0	8671.5	8668.5	8641.6	8466.0	8182.5	7676.8	7025.8	6269.6	5930.5
10°	7646.8	7681.4	7864.4	8024.9	8458.5	8710.6	8649.1	8232.0	7442.8	6451.1	5974.0
12.5°	6757.2	6716.7	6847.2	7028.7	7532.8	8282.9	8842.6	8695.5	7919.9	6656.7	6038.6
15°	6199.1	6182.6	6256.1	6340.1	6724.2	7480.3	8617.5	9072.1	8379.0	6899.7	6136.1
17.5°	6020.5	6007.0	6029.6	6050.6	6299.6	6884.7	8081.9	9303.1	8818.6	7177.3	6244.1
20°	6166.1	6148.1	6145.1	6128.6	6232.1	6631.1	7597.3	9319.6	9213.1	7429.3	6337.2
22.5°	6590.6	6569.6	6496.1	6430.1	6439.2	6665.7	7381.3	9154.6	9510.2	7664.8	6395.6
25°	7360.3	7325.8	7172.7	6950.7	6809.7	6905.7	7414.3	8937.1	9793.8	7849.3	6367.1
27.5°	8323.5	8278.4	8081.9	7751.9	7429.3	7312.2	7652.9	8787.0	10029.3	7990.4	6305.6
30°	9267.1	9208.6	9015.1	8758.5	8287.4	7918.4	8083.5	8853.0	10309.9	8137.5	6224.6
32.5°	10285.8	10230.3	9973.8	9655.7	9265.6	8769.1	8673.0	9175.6	10653.3	8343.0	6167.6
35°	11574.5	11487.5	11123.0	10689.4	10275.3	9772.8	9471.2	9732.2	11111.0	8656.5	6199.1
37.5°	13041.8	12924.7	12531.8	11933.2	11393.0	10830.5	10443.3	10497.3	11781.6	9076.6	6296.6
40°	14425.0	14318.5	13955.5	13391.3	12713.3	12030.6	11618.1	11498.0	12707.2	9588.2	6467.6
42.5°	15254.7	15158.6	15005.7	14767.1	14195.5	13499.4	12978.8	12719.2	13802.4	10200.3	6676.1
45°	15301.2	15217.1	15422.8	15700.2	15587.8	15124.2	14489.5	14014.0	14902.2	10774.9	6892.2
47.5°	14557.0	14500.1	15124.2	16093.3	16576.4	16771.5	16186.4	15200.6	15809.8	11187.5	6980.8
50°	12528.7	12507.7	13791.9	15571.3	16953.0	18214.7	17976.1	16304.9	16513.4	11400.5	6896.7
52.5°	10863.5	10786.9	11535.6	13899.9	16405.4	18973.9	19725.5	17388.1	17005.5	11441.0	6700.2
55°	8239.5	8171.9	9111.1	11103.4	14639.6	18703.8	21005.2	18505.8	17358.1	11337.5	6347.6
57.5°	4419.8	4377.8	5564.5	7390.4	11444.0	17083.5	21236.3	19688.0	17655.1	11062.9	5854.0
60°	1720.8	1713.3	2157.4	3585.7	6955.2	13898.5	20070.5	20397.6	17841.1	10725.4	5441.4
62.5°	1041.2	1063.6	1135.7	1609.8	3072.5	8634.0	17383.6	19590.4	17965.7	10416.4	5100.9
65°	861.1	862.6	871.7	1105.7	1471.8	3612.6	13086.8	16934.9	17658.1	9865.7	4617.8
67.5°	738.1	751.6	786.2	877.6	1038.2	1584.2	7534.4	13118.4	15787.3	8584.5	3864.7
70°	582.1	600.1	643.6	721.6	801.1	991.7	2784.5	8728.5	12060.7	6470.6	2922.5
72.5°	490.6	489.1	511.6	586.6	636.1	697.6	1071.2	4890.9	7009.3	3089.0	1446.3
75°	379.6	394.5	423.1	490.6	520.6	505.6	580.6	1786.8	2511.5	936.1	492.1
77.5°	297.0	309.0	334.6	400.6	430.6	358.5	334.6	639.1	807.2	336.1	222.0
80°	133.6	144.0	228.1	295.5	351.1	247.5	181.5	327.1	358.5	153.0	112.5
82.5°	24.0	40.5	133.6	156.0	180.0	160.5	94.5	169.5	175.5	61.5	39.1
85°	1.5	3.0	46.5	57.0	72.1	52.5	28.5	67.5	58.5	21.0	15.0
87.5°	0.0	0.0	0.0	1.5	1.5	7.5	9.0	12.0	9.0	7.5	6.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0	5863.0
2.5°	5768.5	5555.5	5348.4	5178.9	5079.9	4911.9	4800.9	4782.9	4736.3	4776.8
5°	5657.5	5276.4	4890.9	4545.8	4262.3	3896.2	3623.2	3507.7	3407.1	3441.6
7.5°	5605.0	5003.3	4403.3	3813.7	3207.5	2622.5	2187.4	2005.8	1867.9	1887.3
10°	5534.5	4719.8	3779.2	2879.0	2067.3	1489.7	1189.7	1078.7	1017.2	1018.6
12.5°	5480.5	4380.7	3054.5	1951.8	1258.7	951.2	858.1	831.2	813.1	814.7
15°	5453.4	3981.7	2338.9	1300.7	900.2	805.6	783.1	771.1	759.1	757.7
17.5°	5408.4	3537.6	1711.9	949.7	787.6	754.6	735.1	721.6	706.6	703.7
20°	5341.0	3033.5	1251.2	802.7	738.1	712.6	685.6	667.6	649.6	646.6
22.5°	5216.4	2500.9	961.7	742.6	702.1	673.6	640.6	619.6	601.6	598.6
25°	4985.4	2001.3	810.2	705.1	670.7	636.1	600.1	571.6	555.1	552.1
27.5°	4692.9	1572.2	735.1	670.7	630.1	598.6	558.1	531.1	516.1	513.1
30°	4347.7	1210.7	691.7	631.6	582.1	555.1	519.1	496.6	487.6	487.6
32.5°	3975.7	967.7	673.6	592.7	540.1	510.0	481.5	472.6	469.6	468.1
35°	3626.1	840.2	664.6	561.1	502.6	474.1	462.1	463.6	469.6	469.6
37.5°	3315.6	799.6	660.1	538.6	469.6	444.0	451.6	465.0	459.1	459.1
40°	3035.0	804.1	657.1	522.1	442.6	427.5	442.6	432.0	417.1	415.5
42.5°	2820.5	841.6	651.1	508.6	426.1	415.5	409.6	393.1	391.5	394.5
45°	2664.5	874.6	649.6	502.6	408.1	388.6	381.1	364.6	394.5	402.1
47.5°	2480.0	874.6	649.6	481.5	378.0	370.5	358.5	340.6	370.5	378.0
50°	2241.4	819.2	624.1	457.6	354.0	349.5	328.5	306.1	300.0	304.5
52.5°	1939.8	718.6	559.5	424.6	330.0	321.0	295.5	279.0	274.6	274.6
55°	1596.2	601.6	472.6	376.6	304.5	288.0	270.1	262.5	258.1	255.0
57.5°	1297.8	493.5	379.6	334.6	280.5	259.5	253.6	244.6	237.1	232.6
60°	1065.2	388.6	313.5	297.0	256.6	237.1	235.5	223.6	204.1	201.0
62.5°	822.2	285.1	264.0	258.1	232.6	216.1	213.0	189.0	159.0	153.0
65°	580.6	222.0	213.0	226.5	207.0	192.1	184.5	148.5	117.1	112.5
67.5°	408.1	186.0	168.0	198.0	180.0	160.5	156.0	126.0	97.5	94.5
70°	291.1	151.5	138.1	169.5	144.0	141.0	132.0	105.1	79.5	76.5
72.5°	205.5	115.5	106.5	147.0	99.0	121.6	108.0	81.0	60.0	57.0
75°	151.5	82.5	75.0	85.5	72.1	91.5	76.5	54.0	37.5	36.0
77.5°	111.0	52.5	45.0	42.0	42.0	57.0	42.0	22.5	16.5	15.0
80°	78.0	24.0	21.0	18.0	16.5	13.5	6.0	3.0	1.5	1.5
82.5°	46.5	10.5	10.5	7.5	4.5	0.0	0.0	0.0	0.0	0.0
85°	10.5	4.5	4.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	1.5	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)