

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: P967921

Luminaire Tested: **NAV-SB5A-835-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16896.1 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 141.7
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



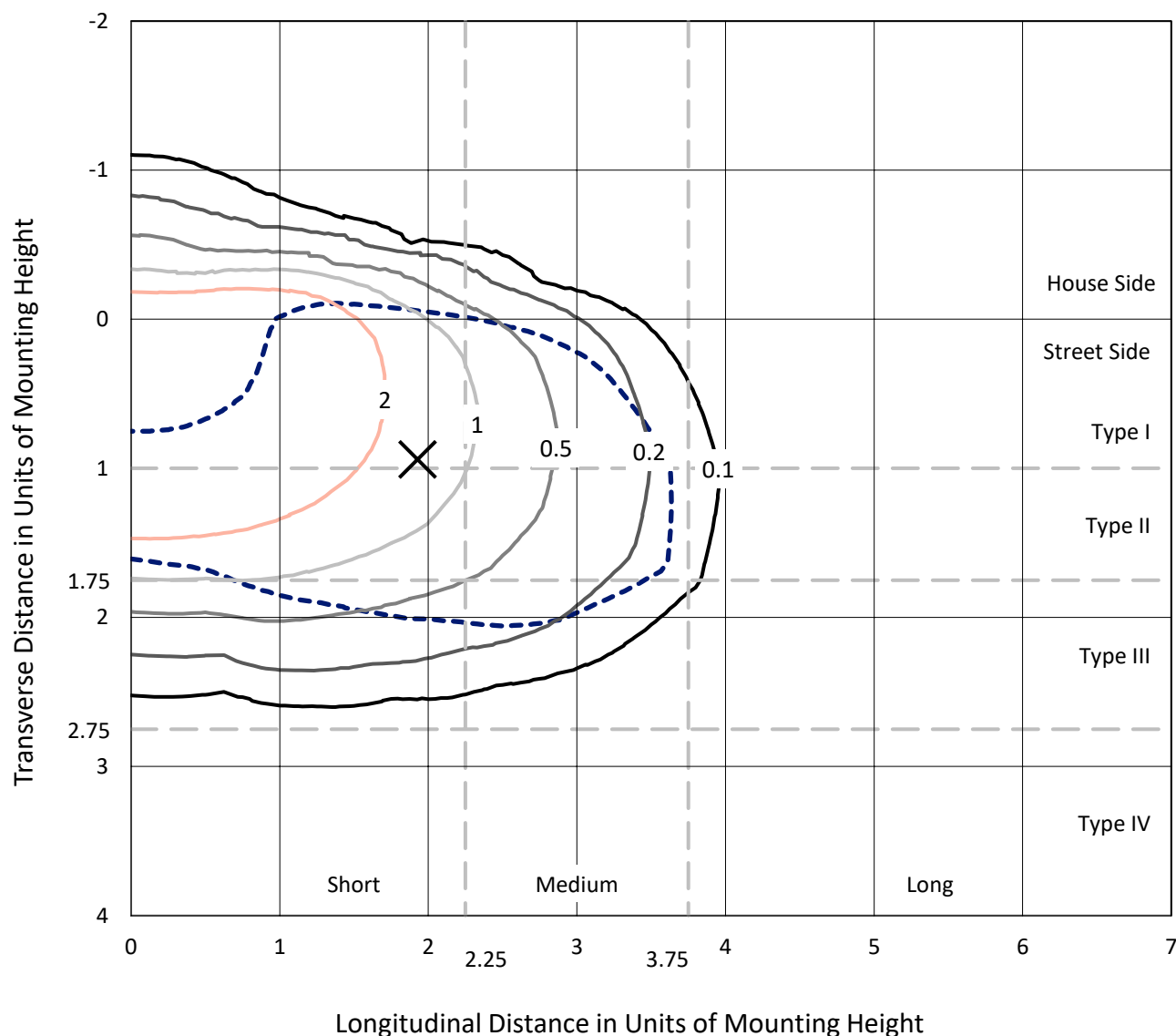
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



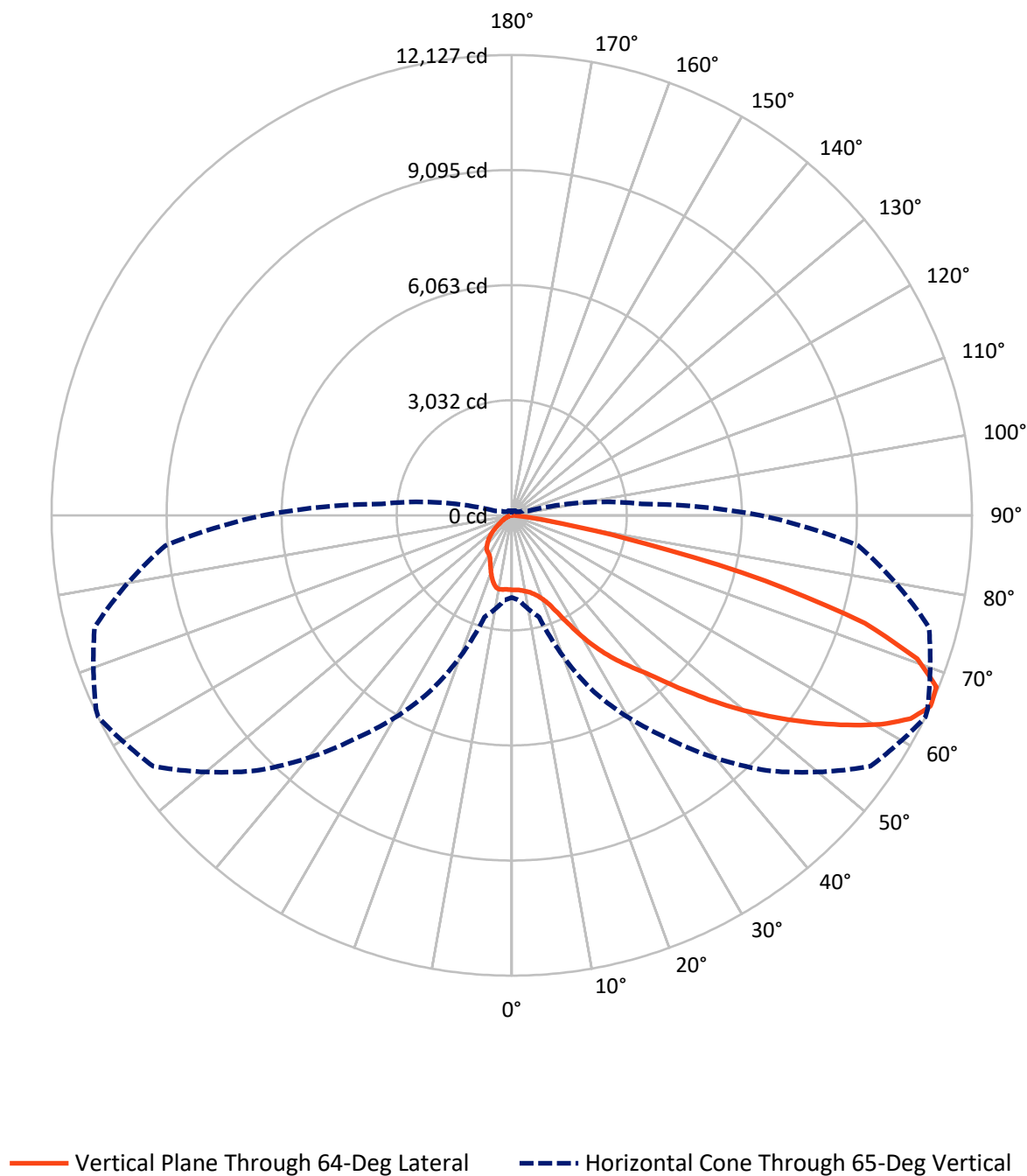
Based on 25 foot mounting height. Maximum calculated value = 4.9 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2259.5	0.0	2259.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14636.6	0.0	14636.6
	% Fixture	86.6	0.0	86.6
Total	Lumens	16896.1	0.0	16896.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.3	1.1
10°-20°	491.8	2.9
20°-30°	931.8	5.5
30°-40°	1885.6	11.2
40°-50°	3212.2	19.0
50°-60°	4368.3	25.9
60°-70°	4102.0	24.3
70°-80°	1643.5	9.7
80°-90°	79.6	0.5
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°	16896.1	100.0
0°-180°	16896.1	100.0

Coefficient of Utilization



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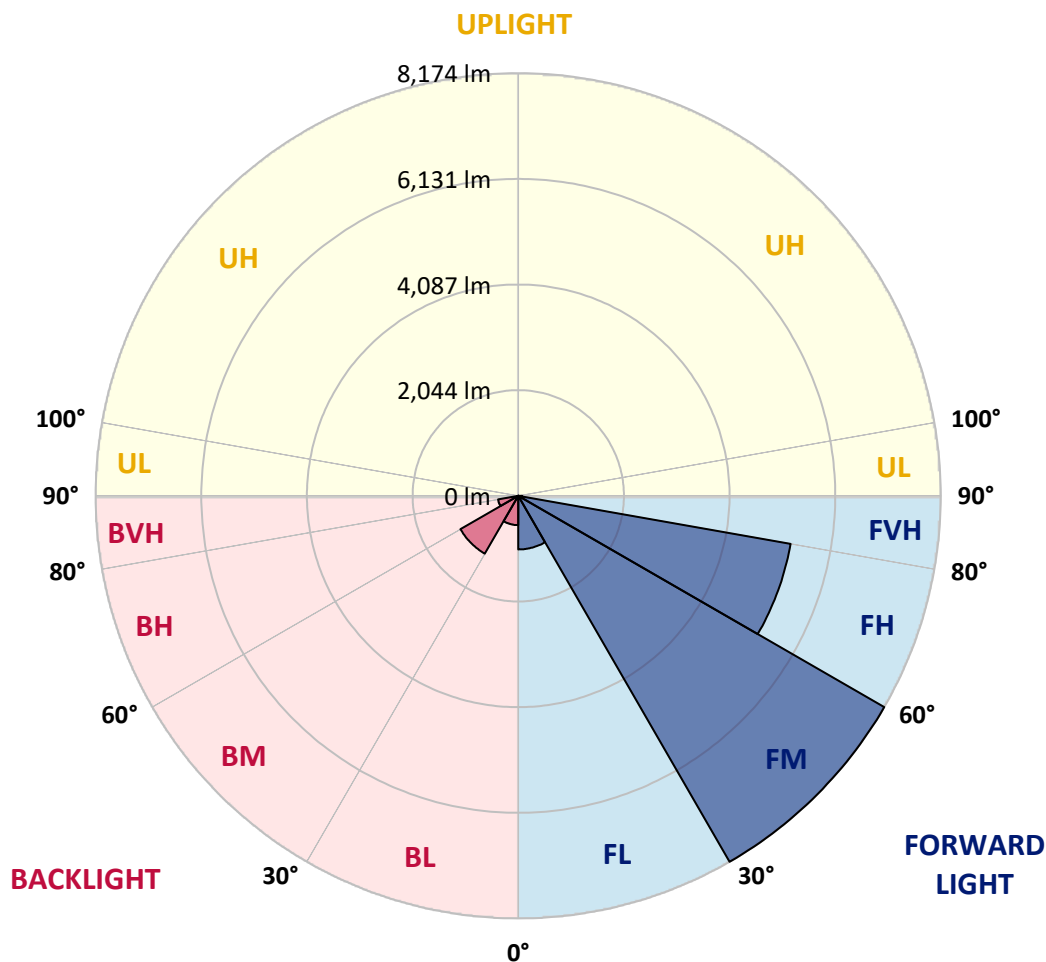
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1037.6	6.1			
FM	(30°-60°)	8174.3	48.4			
FH	(60°-80°)	5348.9	31.7			G3/7500
FVH	(80°-90°)	75.7	0.4			G1/100
BL	(0°-30°)	567.3	3.4	B2/1000		
BM	(30°-60°)	1291.8	7.6	B2/2500		
BH	(60°-80°)	396.6	2.3	B1/500		G1/500
BVH	(80°-90°)	3.9	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2
2.5°	1958.4	1972.0	1968.6	1965.2	1964.1	1966.4	1967.5	1966.4	1966.4	1966.4	1967.5
5°	1921.1	1932.3	1932.3	1940.2	1951.6	1965.2	1975.4	1977.6	1979.9	1983.3	1982.1
7.5°	1849.6	1858.7	1865.5	1891.5	1919.9	1956.1	1986.8	2002.5	2004.8	2017.3	2021.8
10°	1800.9	1812.3	1823.6	1850.8	1891.5	1946.0	1998.0	2036.6	2042.2	2071.6	2085.3
12.5°	1798.7	1810.0	1824.7	1854.2	1901.8	1959.5	2022.9	2078.5	2088.6	2131.7	2160.0
15°	1822.4	1836.1	1849.6	1885.9	1936.8	2007.1	2075.1	2144.2	2154.3	2215.5	2246.1
17.5°	1871.1	1889.3	1899.5	1935.7	1990.1	2068.2	2157.7	2237.1	2246.1	2317.4	2356.0
20°	1967.5	1989.0	1992.4	2021.8	2075.1	2158.9	2265.4	2363.9	2375.2	2456.8	2499.8
22.5°	2166.8	2197.4	2170.2	2184.9	2232.6	2316.3	2431.8	2556.5	2572.3	2665.2	2703.7
25°	2517.9	2561.0	2490.8	2465.8	2486.2	2573.5	2718.4	2875.8	2894.0	2968.7	2988.0
27.5°	3207.7	3152.3	3045.8	2941.5	2880.4	2930.3	3093.3	3288.2	3310.9	3383.3	3360.7
30°	3965.5	3916.8	3772.9	3541.9	3396.8	3389.0	3539.6	3757.0	3783.2	3852.3	3783.2
32.5°	4724.4	4678.0	4521.7	4237.3	3985.9	3861.3	3965.5	4206.8	4220.3	4264.5	4162.6
35°	5470.8	5423.3	5267.0	4975.9	4666.6	4383.4	4363.0	4634.9	4639.5	4685.9	4534.1
37.5°	6221.7	6182.2	6015.6	5730.2	5425.5	5034.7	4845.6	5040.4	5046.1	5091.4	4933.9
40°	6757.5	6774.5	6660.1	6439.3	6177.6	5750.6	5387.0	5472.0	5437.9	5513.9	5419.9
42.5°	7217.4	7251.4	7151.7	7040.7	6888.9	6512.8	6057.5	6042.8	5988.5	6029.3	5931.8
45°	7614.9	7643.3	7553.8	7527.8	7524.3	7260.5	6790.4	6702.1	6626.1	6618.2	6501.6
47.5°	7761.1	7815.4	7854.0	7941.2	8111.1	8000.1	7548.1	7411.1	7326.2	7263.9	7079.3
50°	7816.5	7874.4	8005.8	8259.4	8661.6	8709.1	8302.5	8148.4	8044.3	7931.0	7659.1
52.5°	7741.8	7844.9	8021.6	8448.7	9032.0	9277.8	9026.3	8891.5	8772.6	8588.0	8184.7
55°	7301.2	7404.3	7765.6	8446.4	9216.6	9676.4	9710.4	9650.4	9516.7	9225.6	8609.5
57.5°	6372.4	6525.4	7097.3	8158.7	9213.2	10019.7	10381.0	10424.0	10274.5	9857.6	8943.6
60°	5085.7	5293.0	5990.7	7520.9	8928.9	10205.4	10968.8	11184.1	11025.4	10480.6	9214.3
62.5°	3548.7	3788.8	4449.1	6522.0	8278.7	10071.8	11398.1	11795.7	11675.6	11037.9	9318.5
65°	2164.5	2241.6	2774.0	5132.2	7173.3	9512.2	11530.6	12126.5	12086.8	11378.8	9164.5
67.5°	1441.9	1506.4	1659.4	3519.2	5568.2	8394.2	11213.5	12068.7	12079.9	11323.4	8600.4
70°	868.8	924.2	1024.0	2046.7	3608.7	6644.3	10231.4	11332.4	11398.1	10581.5	7531.2
72.5°	357.9	395.3	486.0	927.6	1868.9	4217.0	8147.3	9729.7	9882.6	8897.2	5780.1
75°	202.7	222.0	285.5	465.6	811.0	1965.2	4935.1	6907.1	7132.5	6132.3	3477.3
77.5°	134.8	143.8	184.6	301.2	456.4	670.6	2109.0	3598.5	4029.0	3349.3	1505.3
80°	90.6	98.5	126.9	201.6	296.7	287.7	671.7	1333.1	1640.1	1150.8	367.0
82.5°	61.2	62.3	90.6	132.5	188.0	139.3	198.2	414.5	521.0	333.0	139.3
85°	35.2	34.0	66.8	77.0	83.8	57.8	60.1	124.6	163.1	140.4	79.3
87.5°	4.5	6.8	26.0	20.4	11.4	12.5	12.5	21.5	31.7	34.0	17.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2	1965.2
2.5°	1967.5	1966.4	1963.0	1959.5	1951.6	1947.1	1949.3	1947.1	1946.0	1947.1	1951.6
5°	1982.1	1978.8	1969.7	1958.4	1942.6	1923.3	1910.8	1892.7	1875.7	1865.5	1867.8
7.5°	2021.8	2018.4	2005.9	1974.3	1923.3	1842.8	1769.3	1704.7	1656.0	1627.7	1628.8
10°	2085.3	2079.6	2060.4	1990.1	1856.5	1680.9	1534.7	1413.6	1334.2	1296.9	1293.6
12.5°	2160.0	2153.2	2119.2	1975.4	1729.6	1455.5	1253.9	1119.1	1045.5	1012.6	1009.2
15°	2248.3	2239.3	2172.5	1905.2	1545.0	1206.3	1021.7	920.9	873.3	843.9	845.0
17.5°	2358.2	2342.3	2212.2	1799.8	1344.5	1016.0	878.9	803.1	761.2	732.9	730.6
20°	2500.9	2474.9	2243.8	1674.1	1159.9	896.0	782.7	719.2	687.6	662.7	658.0
22.5°	2700.3	2663.0	2282.4	1538.2	1029.6	813.2	711.3	664.9	638.8	610.5	606.0
25°	2947.2	2903.0	2329.9	1412.4	940.1	741.9	659.2	620.7	590.1	557.3	553.9
27.5°	3292.7	3213.4	2386.5	1309.3	863.0	680.7	611.6	568.6	533.5	506.4	500.6
30°	3677.8	3547.5	2436.4	1247.1	792.8	624.1	549.3	506.4	473.4	454.2	450.8
32.5°	4042.5	3865.8	2469.2	1219.9	729.5	559.5	481.3	434.9	410.0	404.4	407.7
35°	4386.9	4153.5	2465.8	1193.8	672.8	495.0	414.5	367.0	347.8	351.2	351.2
37.5°	4783.3	4460.5	2442.1	1153.0	626.4	436.0	356.8	314.9	297.9	299.0	303.6
40°	5244.3	4815.0	2427.3	1076.0	575.4	381.7	309.2	275.2	262.8	258.3	257.1
42.5°	5735.9	5158.2	2429.6	988.8	512.0	333.0	276.3	248.0	236.8	233.3	232.2
45°	6229.7	5485.6	2432.9	898.2	445.2	295.6	252.6	228.8	222.0	217.5	217.5
47.5°	6694.1	5764.2	2369.6	800.8	379.5	267.3	233.3	217.5	211.8	206.1	206.1
50°	7126.8	5949.9	2216.7	687.6	327.4	244.7	218.6	207.3	201.6	196.0	196.0
52.5°	7463.2	5979.4	1964.1	570.8	291.1	227.7	209.5	199.4	192.6	186.9	185.7
55°	7612.7	5794.7	1605.0	462.2	262.8	212.9	200.5	190.2	182.3	176.7	175.6
57.5°	7574.2	5406.3	1251.6	371.6	235.6	198.2	189.1	182.3	173.3	164.2	163.1
60°	7385.0	4886.4	943.5	309.2	210.6	182.3	176.7	171.1	158.6	144.9	142.7
62.5°	7057.7	4232.8	672.8	255.9	183.5	164.2	162.0	157.4	139.3	114.4	112.1
65°	6557.0	3438.8	453.0	212.9	157.4	143.8	144.9	137.0	113.3	85.0	82.7
67.5°	5825.4	2514.5	290.0	174.5	131.4	120.0	121.2	116.6	96.2	72.5	69.1
70°	4893.1	1665.0	189.1	132.5	105.4	92.9	99.6	100.8	81.6	58.9	56.7
72.5°	3587.2	983.2	132.5	98.5	77.0	64.6	81.6	83.8	65.7	44.2	41.9
75°	2044.5	466.7	99.6	71.3	47.6	45.3	63.4	63.4	45.3	29.4	27.2
77.5°	858.5	194.9	70.2	46.4	27.2	26.0	43.0	39.7	22.7	13.6	13.6
80°	248.0	87.2	37.4	22.7	11.4	10.1	17.0	12.5	5.6	2.3	2.3
82.5°	97.4	38.5	14.8	9.0	4.5	4.5	2.3	0.0	0.0	0.0	0.0
85°	57.8	15.9	6.8	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	14.8	3.4	2.3	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	0.0

(END OF REPORT)