

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: P965658

Luminaire Tested: **NAV-SB4A-740-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965658
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-SB4A-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 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: 15289.9 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 114
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



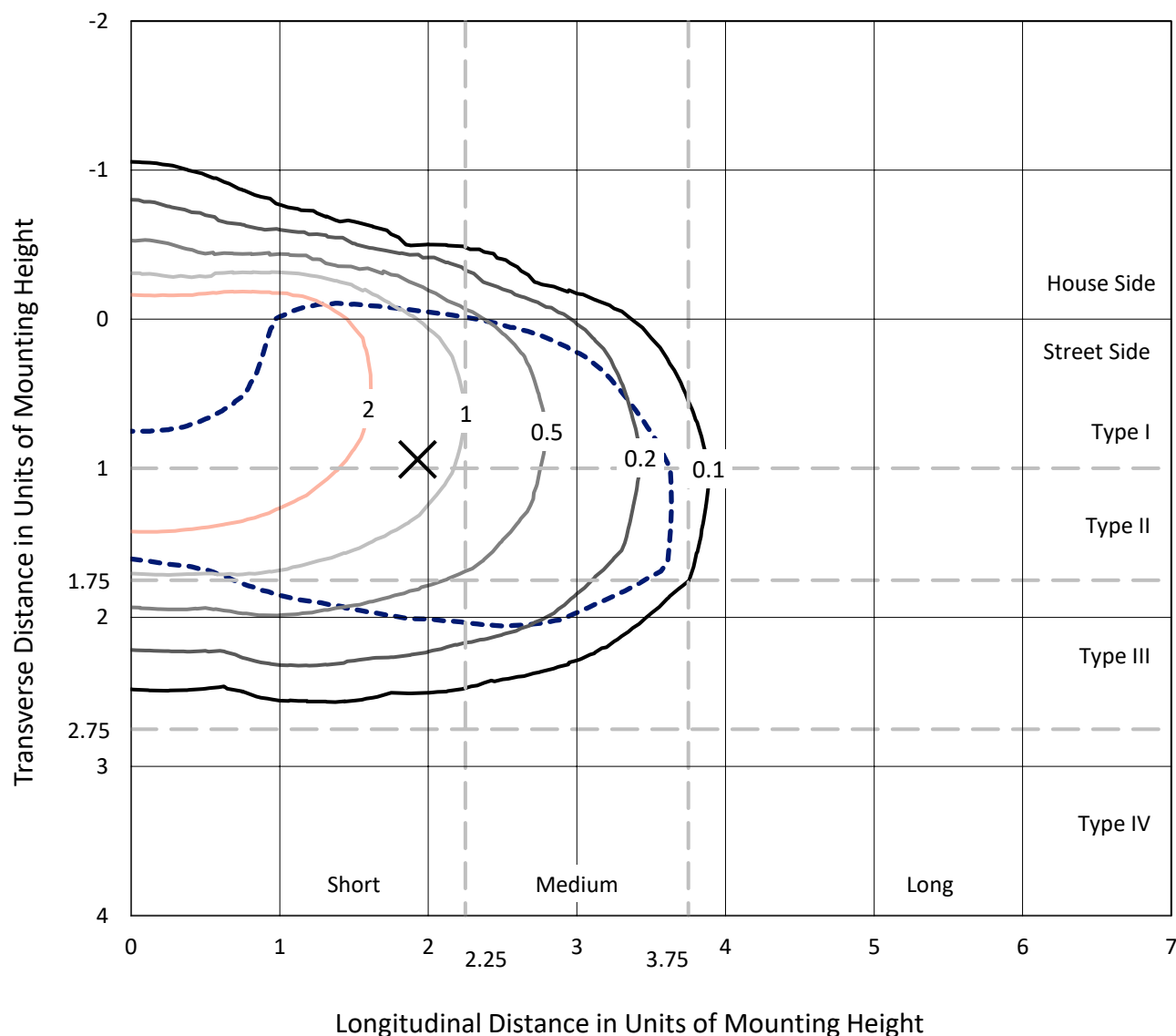
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



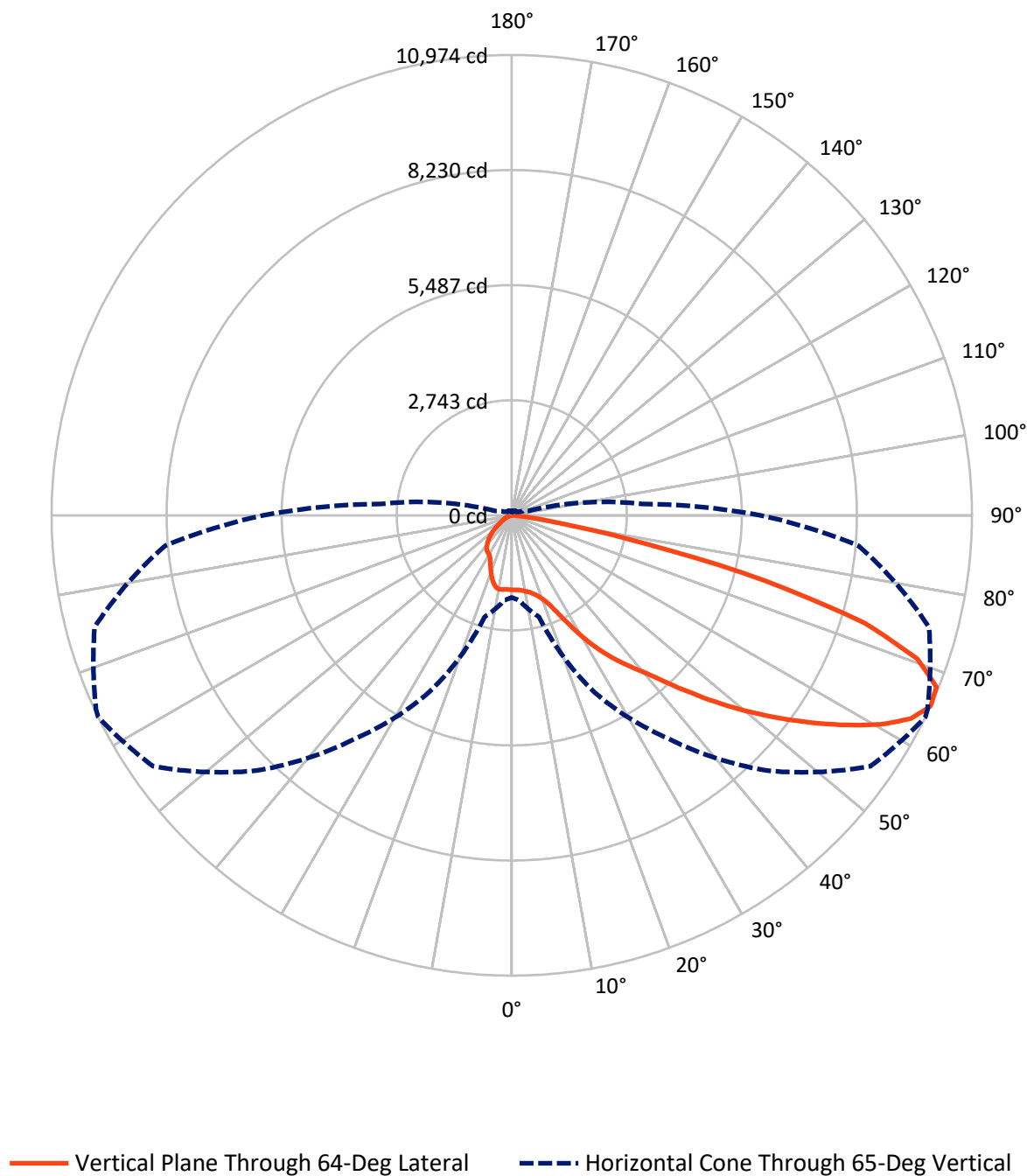
Based on 25 foot mounting height. Maximum calculated value = 4.5 fc

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	2044.7	0.0	2044.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	13245.2	0.0	13245.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	15289.9	0.0	15289.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	1.1
10°-20°	445.0	2.9
20°-30°	843.3	5.5
30°-40°	1706.4	11.2
40°-50°	2906.8	19.0
50°-60°	3953.0	25.9
60°-70°	3712.1	24.3
70°-80°	1487.2	9.7
80°-90°	72.0	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°	15289.9	100.0
0°-180°	15289.9	100.0

Coefficient of Utilization



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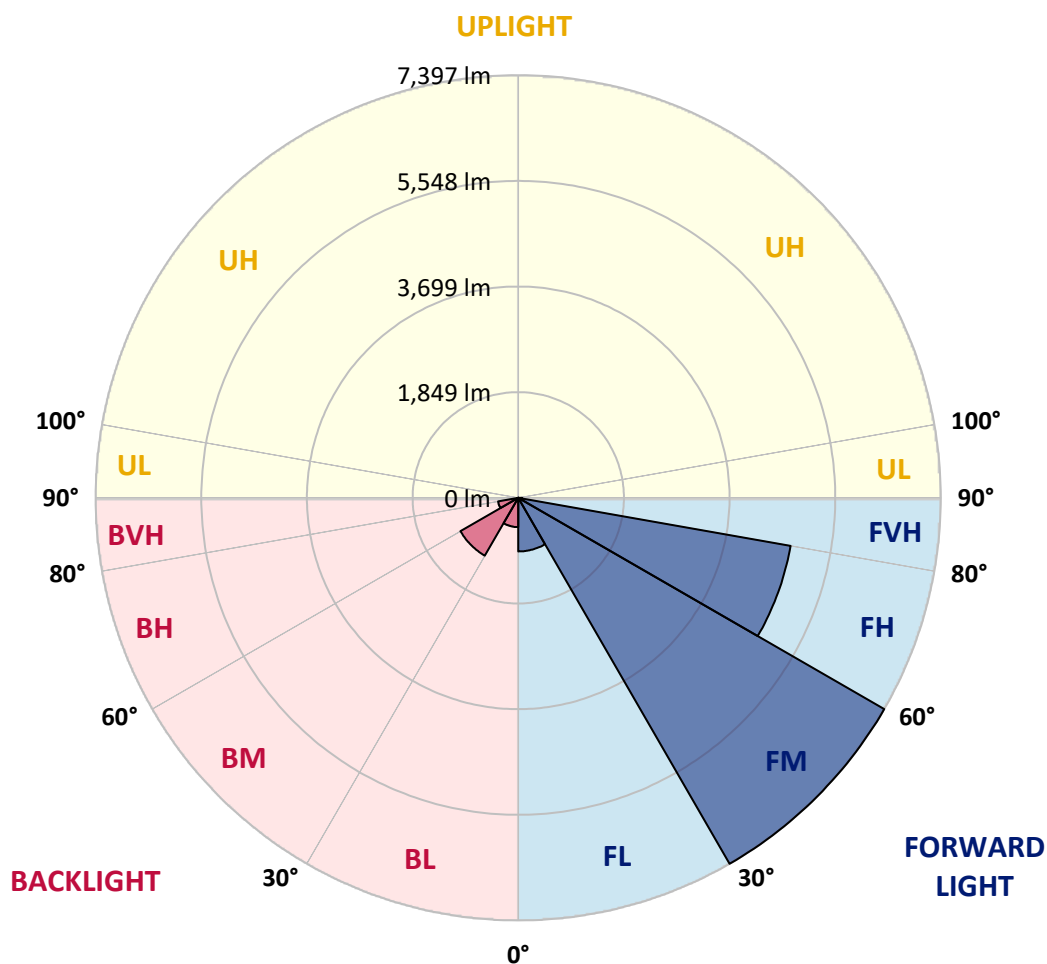
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	939.0	6.1			
FM	(30°-60°)	7397.2	48.4			
FH	(60°-80°)	4840.4	31.7			G2/5000
FVH	(80°-90°)	68.5	0.4			G1/100
BL	(0°-30°)	513.4	3.4	B2/1000		
BM	(30°-60°)	1168.9	7.6	B2/2500		
BH	(60°-80°)	358.9	2.3	B1/500		G1/500
BVH	(80°-90°)	3.5	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4
2.5°	1772.2	1784.5	1781.4	1778.4	1777.4	1779.4	1780.4	1779.4	1779.4	1779.4	1780.4
5°	1738.4	1748.6	1748.6	1755.8	1766.1	1778.4	1787.6	1789.6	1791.7	1794.8	1793.7
7.5°	1673.8	1682.0	1688.2	1711.7	1737.4	1770.2	1797.8	1812.2	1814.2	1825.5	1829.6
10°	1629.7	1640.0	1650.2	1674.8	1711.7	1761.0	1808.1	1843.0	1848.1	1874.7	1887.0
12.5°	1627.7	1637.9	1651.3	1677.9	1721.0	1773.2	1830.6	1880.9	1890.1	1929.0	1954.7
15°	1649.2	1661.5	1673.8	1706.6	1752.7	1816.3	1877.8	1940.3	1949.5	2004.9	2032.6
17.5°	1693.3	1709.7	1718.9	1751.7	1800.9	1871.6	1952.6	2024.4	2032.6	2097.1	2132.0
20°	1780.4	1799.9	1803.0	1829.6	1877.8	1953.6	2050.0	2139.2	2149.4	2223.2	2262.2
22.5°	1960.8	1988.5	1963.9	1977.2	2020.3	2096.1	2200.7	2313.4	2327.8	2411.8	2446.7
25°	2278.6	2317.5	2254.0	2231.4	2249.9	2328.8	2460.0	2602.5	2618.9	2686.5	2704.0
27.5°	2902.8	2852.6	2756.2	2661.9	2606.6	2651.7	2799.3	2975.6	2996.1	3061.7	3041.2
30°	3588.5	3544.4	3414.3	3205.2	3074.0	3066.8	3203.1	3399.9	3423.5	3486.0	3423.5
32.5°	4275.3	4233.2	4091.8	3834.5	3607.0	3494.2	3588.5	3806.8	3819.2	3859.1	3766.9
35°	4950.8	4907.7	4766.2	4502.8	4223.0	3966.7	3948.3	4194.3	4198.4	4240.4	4103.1
37.5°	5630.3	5594.4	5443.8	5185.5	4909.8	4556.1	4385.0	4561.2	4566.4	4607.4	4464.9
40°	6115.2	6130.5	6027.0	5827.1	5590.3	5203.9	4874.9	4951.8	4921.0	4989.7	4904.6
42.5°	6531.3	6562.0	6471.8	6371.4	6234.0	5893.7	5481.7	5468.4	5419.2	5456.1	5367.9
45°	6891.1	6916.7	6835.7	6812.2	6809.1	6570.2	6144.9	6064.9	5996.2	5989.1	5883.5
47.5°	7023.3	7072.5	7107.4	7186.3	7340.0	7239.6	6830.6	6706.6	6629.7	6573.3	6406.2
50°	7073.5	7125.8	7244.7	7474.3	7838.2	7881.2	7513.2	7373.8	7279.6	7177.0	6931.0
52.5°	7005.9	7099.2	7259.0	7645.5	8173.4	8395.8	8168.2	8046.2	7938.6	7771.6	7406.6
55°	6607.2	6700.4	7027.4	7643.4	8340.4	8756.6	8787.3	8733.0	8612.0	8348.6	7791.0
57.5°	5766.6	5905.0	6422.6	7383.1	8337.3	9067.2	9394.1	9433.1	9297.8	8920.6	8093.4
60°	4602.2	4789.8	5421.2	6806.0	8080.1	9235.2	9926.1	10120.8	9977.3	9484.3	8338.4
62.5°	3211.3	3428.6	4026.2	5902.0	7491.7	9114.3	10314.6	10674.3	10565.7	9988.6	8432.7
65°	1958.8	2028.5	2510.2	4644.3	6491.3	8607.9	10434.5	10973.6	10937.8	10297.2	8293.3
67.5°	1304.8	1363.2	1501.6	3184.7	5038.9	7596.3	10147.5	10921.4	10931.6	10246.9	7782.8
70°	786.2	836.4	926.6	1852.2	3265.6	6012.6	9258.8	10255.1	10314.6	9575.6	6815.2
72.5°	323.9	357.7	439.7	839.5	1691.2	3816.1	7372.8	8804.8	8943.1	8051.4	5230.6
75°	183.5	200.9	258.3	421.3	733.9	1778.4	4465.9	6250.4	6454.4	5549.3	3146.7
77.5°	122.0	130.2	167.1	272.6	413.1	606.8	1908.5	3256.4	3645.9	3030.9	1362.2
80°	82.0	89.2	114.8	182.4	268.5	260.3	607.8	1206.4	1484.2	1041.4	332.1
82.5°	55.4	56.4	82.0	119.9	170.1	126.1	179.4	375.2	471.5	301.3	126.1
85°	31.8	30.7	60.5	69.7	75.8	52.3	54.3	112.7	147.6	127.1	71.8
87.5°	4.1	6.1	23.6	18.4	10.2	11.3	11.3	19.5	28.7	30.7	15.4
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°	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4	1778.4
2.5°	1780.4	1779.4	1776.3	1773.2	1766.1	1762.0	1764.0	1762.0	1761.0	1762.0	1766.1
5°	1793.7	1790.7	1782.5	1772.2	1757.9	1740.4	1729.2	1712.8	1697.4	1688.2	1690.2
7.5°	1829.6	1826.6	1815.3	1786.6	1740.4	1667.7	1601.0	1542.6	1498.6	1472.9	1473.9
10°	1887.0	1881.9	1864.5	1800.9	1680.0	1521.1	1388.9	1279.2	1207.4	1173.6	1170.6
12.5°	1954.7	1948.5	1917.8	1787.6	1565.2	1317.1	1134.7	1012.7	946.1	916.4	913.3
15°	2034.6	2026.4	1966.0	1724.0	1398.1	1091.6	924.6	833.3	790.3	763.6	764.6
17.5°	2134.0	2119.7	2001.8	1628.7	1216.7	919.4	795.4	726.7	688.8	663.2	661.1
20°	2263.2	2239.6	2030.5	1514.9	1049.6	810.8	708.3	650.9	622.2	599.6	595.5
22.5°	2443.6	2409.8	2065.4	1391.9	931.7	735.9	643.7	601.7	578.1	552.5	548.4
25°	2667.0	2627.1	2108.4	1278.2	850.7	671.4	596.6	561.7	534.0	504.3	501.2
27.5°	2979.7	2907.9	2159.7	1184.9	781.0	616.0	553.5	514.6	482.8	458.2	453.0
30°	3328.2	3210.3	2204.8	1128.5	717.5	564.8	497.1	458.2	428.4	411.0	408.0
32.5°	3658.2	3498.3	2234.5	1103.9	660.1	506.4	435.6	393.6	371.0	365.9	369.0
35°	3969.8	3758.7	2231.4	1080.4	608.8	447.9	375.2	332.1	314.7	317.8	317.8
37.5°	4328.6	4036.4	2209.9	1043.4	566.8	394.6	322.9	285.0	269.6	270.6	274.7
40°	4745.8	4357.3	2196.6	973.7	520.7	345.4	279.8	249.1	237.8	233.7	232.7
42.5°	5190.6	4667.8	2198.6	894.8	463.3	301.3	250.1	224.5	214.2	211.2	210.1
45°	5637.5	4964.1	2201.7	812.8	402.8	267.5	228.6	207.0	200.9	196.8	196.8
47.5°	6057.7	5216.2	2144.3	724.7	343.4	241.9	211.2	196.8	191.7	186.5	186.5
50°	6449.3	5384.3	2005.9	622.2	296.2	221.4	197.8	187.6	182.4	177.3	177.3
52.5°	6753.7	5411.0	1777.4	516.6	263.4	206.0	189.6	180.4	174.2	169.1	168.1
55°	6889.0	5243.9	1452.4	418.2	237.8	192.7	181.4	172.2	165.0	159.9	158.9
57.5°	6854.2	4892.3	1132.6	336.2	213.2	179.4	171.2	165.0	156.8	148.6	147.6
60°	6683.0	4421.8	853.8	279.8	190.6	165.0	159.9	154.8	143.5	131.2	129.1
62.5°	6386.8	3830.4	608.8	231.6	166.0	148.6	146.6	142.5	126.1	103.5	101.5
65°	5933.7	3111.9	410.0	192.7	142.5	130.2	131.2	124.0	102.5	76.9	74.8
67.5°	5271.6	2275.5	262.4	157.8	118.9	108.6	109.7	105.6	87.1	65.6	62.5
70°	4428.0	1506.7	171.2	119.9	95.3	84.0	90.2	91.2	73.8	53.3	51.2
72.5°	3246.2	889.7	119.9	89.2	69.7	58.4	73.8	75.8	59.4	40.0	37.9
75°	1850.1	422.3	90.2	64.6	43.0	41.0	57.4	57.4	41.0	26.6	24.6
77.5°	776.9	176.3	63.6	42.0	24.6	23.6	38.9	35.9	20.5	12.3	12.3
80°	224.5	78.9	33.8	20.5	10.2	9.2	15.4	11.3	5.1	2.0	2.0
82.5°	88.1	34.8	13.3	8.2	4.1	4.1	2.0	0.0	0.0	0.0	0.0
85°	52.3	14.3	6.1	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.3	3.1	2.0	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)