

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: P883610

Luminaire Tested: **NAV-SB4A-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883610
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14840 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

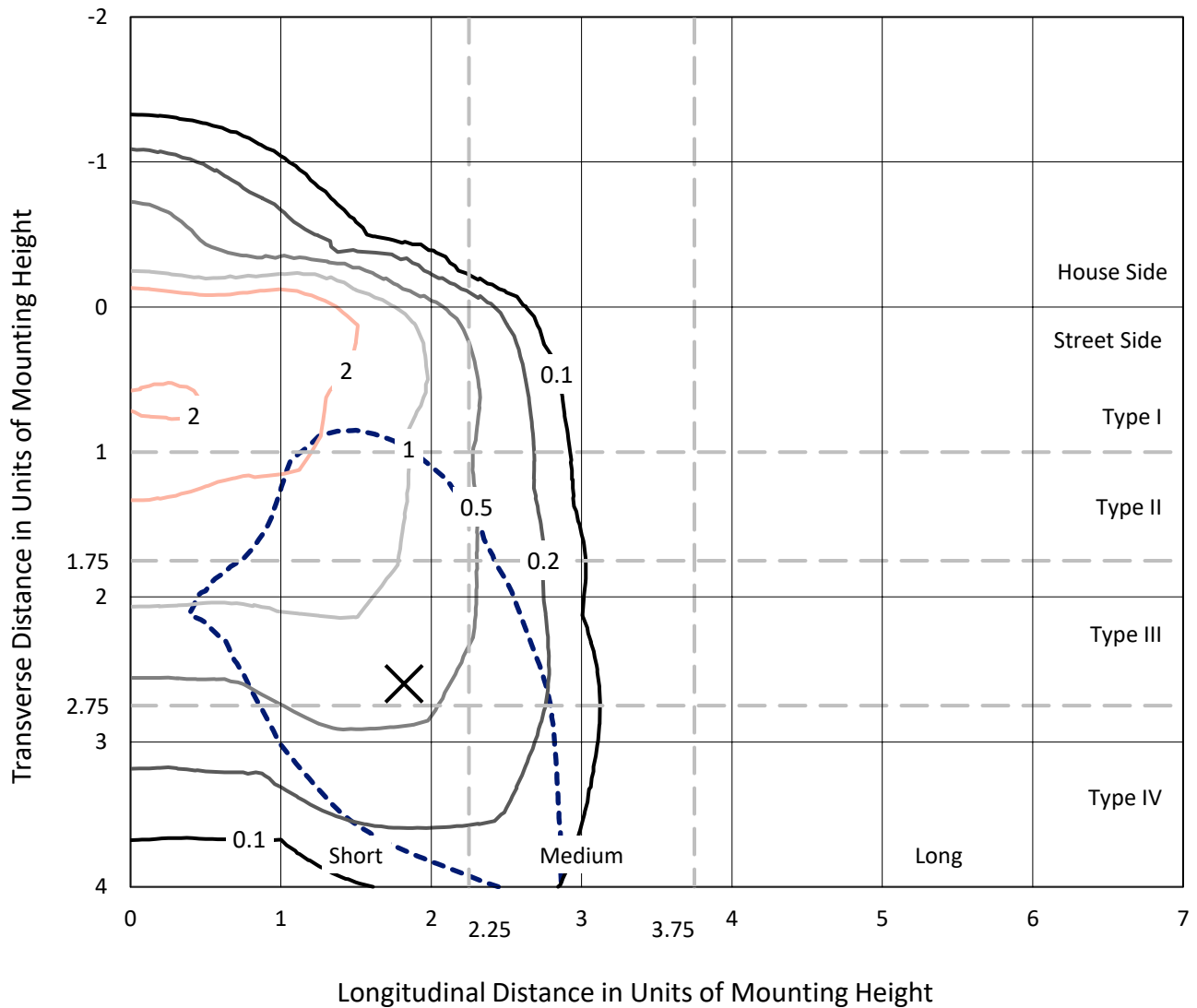
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

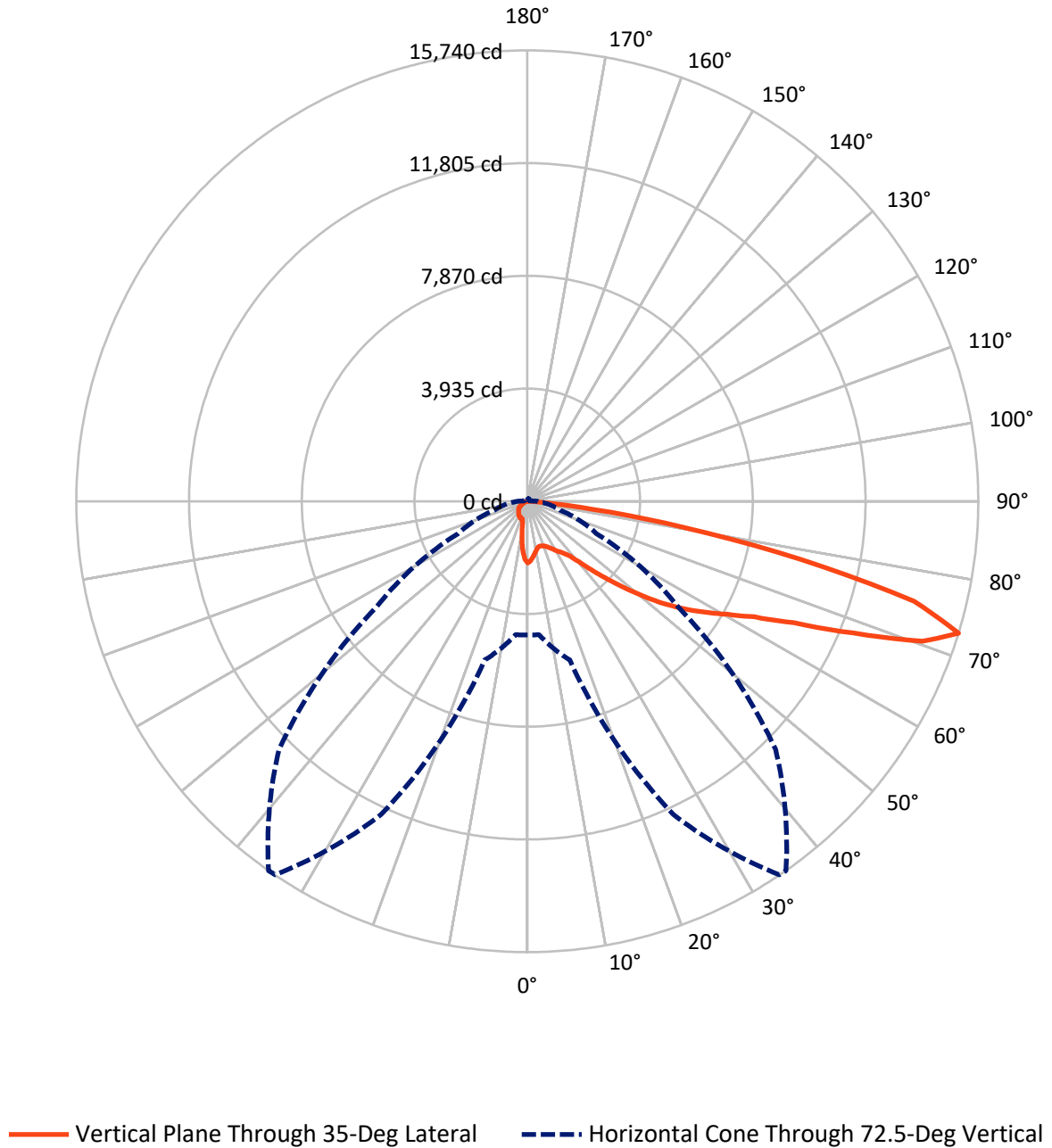
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1670.2	0.0	1670.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	13169.8	0.0	13169.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	14840.0	0.0	14840.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.7	1.2
10°-20°	413.5	2.8
20°-30°	671.7	4.5
30°-40°	1120.7	7.6
40°-50°	2120.3	14.3
50°-60°	3369.2	22.7
60°-70°	4167.9	28.1
70°-80°	2590.8	17.5
80°-90°	209.4	1.4
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°	14840.0	100.0
0°-180°	14840.0	100.0

Coefficient of Utilization



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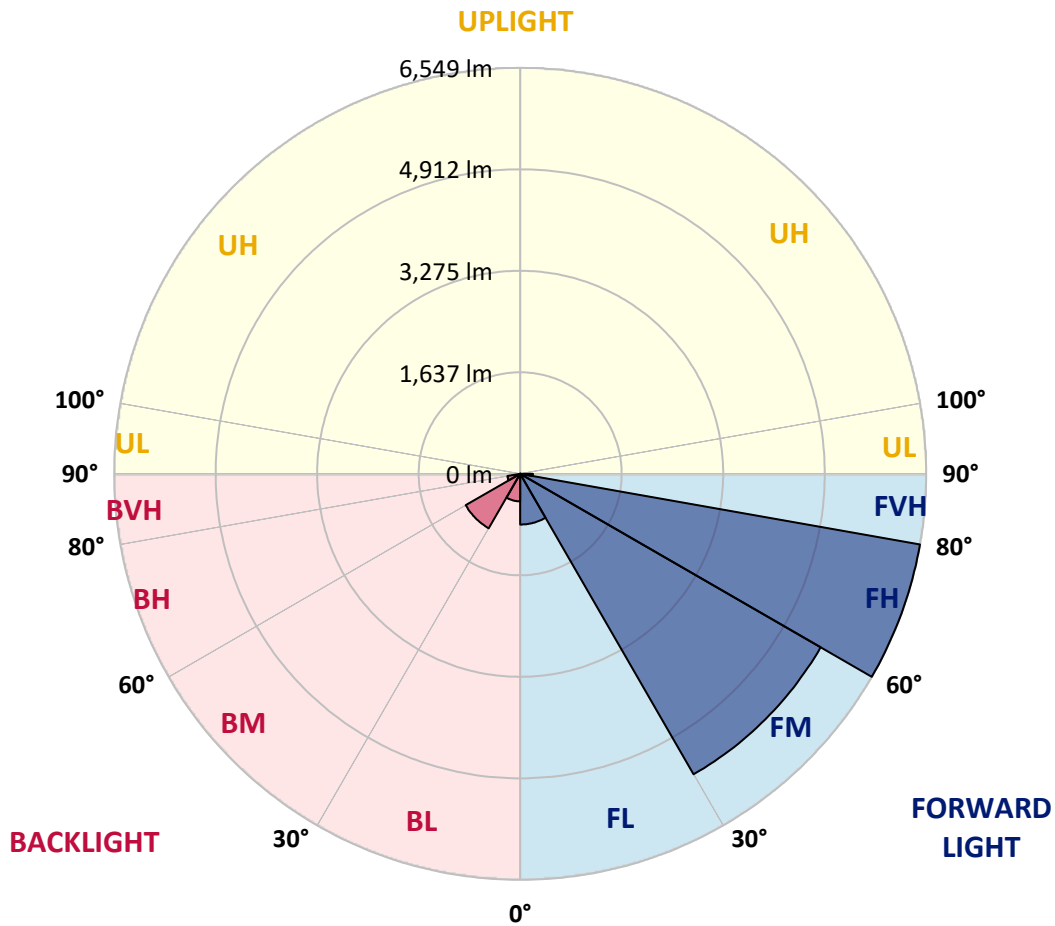
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	818.1	5.5			
FM (30°-60°)	5596.2	37.7			
FH (60°-80°)	6549.1	44.1			G3/7500
FVH (80°-90°)	206.5	1.4			G2/225
BL (0°-30°)	443.8	3.0	B1/500		
BM (30°-60°)	1013.9	6.8	B2/2500		
BH (60°-80°)	209.6	1.4	B1/500		G1/500
BVH (80°-90°)	2.8	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8
2.5°	2055.1	2072.5	2075.8	2081.2	2081.2	2087.7	2098.6	2113.8	2138.9	2151.9	2160.6
5°	1894.2	1907.2	1923.6	1936.6	1961.6	1964.9	2007.3	2048.6	2106.2	2149.7	2180.2
7.5°	1732.2	1747.4	1769.1	1800.7	1833.3	1843.1	1907.2	1976.8	2068.2	2149.7	2200.8
10°	1618.0	1619.1	1638.7	1670.2	1722.4	1734.4	1812.6	1911.6	2025.8	2136.7	2220.4
12.5°	1553.8	1561.5	1570.2	1594.1	1644.1	1651.7	1735.4	1851.8	1983.4	2129.1	2243.2
15°	1553.8	1559.3	1564.7	1576.7	1616.9	1623.4	1697.4	1813.7	1961.6	2132.3	2280.2
17.5°	1570.2	1578.9	1574.5	1588.6	1631.1	1635.4	1700.6	1802.9	1960.5	2153.0	2336.8
20°	1609.3	1615.8	1607.1	1615.8	1658.2	1666.9	1734.4	1823.5	1979.0	2188.9	2407.4
22.5°	1671.3	1674.5	1653.9	1660.4	1703.9	1714.8	1793.1	1882.2	2023.6	2246.5	2502.0
25°	1749.6	1756.1	1724.6	1732.2	1773.5	1786.5	1876.8	1970.3	2094.3	2325.9	2622.7
27.5°	1839.8	1843.1	1815.9	1814.8	1868.1	1886.6	1977.9	2079.0	2188.9	2425.9	2775.0
30°	1943.1	1952.9	1926.8	1922.5	1989.9	2005.1	2095.4	2212.8	2328.1	2576.0	2991.3
32.5°	2024.7	2032.3	2017.1	2027.9	2096.4	2108.4	2237.8	2402.0	2546.6	2789.1	3286.0
35°	2142.1	2146.5	2111.7	2131.2	2209.5	2240.0	2432.4	2667.3	2821.7	3056.6	3671.0
37.5°	2567.3	2567.3	2419.4	2322.6	2397.6	2424.8	2698.8	3001.1	3161.0	3415.4	4155.9
40°	3155.5	3145.8	2929.4	2731.5	2721.7	2775.0	3078.3	3421.9	3599.2	3846.0	4701.8
42.5°	3783.0	3767.7	3473.1	3277.3	3244.7	3263.2	3516.5	3940.6	4121.1	4371.2	5289.0
45°	4339.7	4335.3	4065.7	3802.5	3743.8	3802.5	4063.5	4547.4	4676.8	4939.9	5875.0
47.5°	4806.2	4806.2	4609.4	4437.5	4407.1	4441.9	4804.0	5220.5	5208.5	5545.6	6445.9
50°	5343.3	5339.0	5151.9	5078.0	5109.5	5158.5	5656.5	5929.4	5758.7	6140.4	6955.9
52.5°	5719.6	5745.7	5681.5	5669.5	5830.5	5915.3	6522.0	6623.2	6251.3	6704.7	7337.6
55°	6017.5	6047.9	6121.9	6205.6	6515.5	6626.4	7360.4	7281.0	6663.4	7194.0	7557.2
57.5°	6439.4	6395.9	6510.1	6675.4	7176.6	7310.4	8172.7	7901.9	6995.0	7590.9	7581.1
60°	6951.5	6958.1	6977.6	7186.4	7836.7	8008.5	8973.0	8489.1	7208.2	7834.5	7315.8
62.5°	7567.0	7576.8	7617.0	7937.8	8722.9	8884.9	9825.5	8969.7	7306.0	7766.0	6630.8
65°	7524.6	7565.9	8015.0	9112.1	10070.1	10230.0	10820.4	9306.8	7158.1	7139.7	5398.8
67.5°	6854.8	6922.2	7673.6	10514.8	12101.3	12279.6	12023.0	9373.1	6519.9	5552.1	3522.0
70°	5976.2	6000.1	6903.7	11776.2	14453.3	14633.8	13099.5	8643.5	4947.5	3096.8	1577.8
72.5°	4667.0	4672.4	5732.6	12068.7	15729.9	15739.6	12254.6	6416.6	2660.8	1189.6	548.0
75°	3333.9	3301.2	3839.5	9787.4	13838.9	13949.8	9187.2	3009.8	1016.7	562.2	272.9
77.5°	1787.6	1823.5	2172.6	5804.4	9560.1	9749.3	5012.8	867.7	517.6	382.8	180.5
80°	552.4	582.8	890.6	2657.5	5415.1	5529.3	1858.3	386.0	361.0	272.9	118.5
82.5°	174.0	180.5	415.4	1116.7	2247.6	2299.8	538.2	218.6	246.8	180.5	69.6
85°	50.0	51.1	184.9	416.5	555.6	566.5	151.1	84.8	141.4	112.0	35.9
87.5°	5.4	17.4	69.6	69.6	48.9	47.8	16.3	18.5	40.2	14.1	6.5
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°	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8	2150.8
2.5°	2155.2	2156.3	2142.1	2118.2	2092.1	2070.3	2043.2	2021.4	2006.2	2001.8	2009.5
5°	2170.4	2162.8	2122.5	2049.7	1962.7	1887.7	1803.9	1737.6	1694.1	1675.6	1682.2
7.5°	2193.2	2171.5	2083.4	1939.9	1773.5	1625.6	1475.6	1359.2	1285.3	1248.3	1253.7
10°	2212.8	2169.3	2018.2	1781.1	1526.7	1302.7	1100.4	960.1	881.9	844.9	846.0
12.5°	2231.3	2168.2	1933.3	1593.0	1248.3	974.3	786.2	716.6	694.8	687.2	685.0
15°	2266.1	2171.5	1826.8	1377.7	971.0	736.1	667.6	666.6	670.9	668.7	667.6
17.5°	2313.9	2174.7	1706.1	1149.3	749.2	649.2	645.9	655.7	662.2	658.9	657.9
20°	2375.9	2187.8	1577.8	923.2	643.7	627.4	635.0	643.7	649.2	643.7	642.6
22.5°	2462.9	2210.6	1437.5	741.6	610.0	614.4	620.9	630.7	636.1	628.5	627.4
25°	2569.5	2246.5	1299.4	644.8	593.7	599.1	608.9	619.8	626.3	618.7	617.6
27.5°	2707.5	2304.1	1172.2	623.1	577.4	580.7	594.8	611.1	619.8	610.0	610.0
30°	2907.6	2398.7	1062.4	632.8	567.6	560.0	579.6	602.4	612.2	603.5	602.4
32.5°	3172.9	2532.5	994.9	648.1	563.3	536.1	554.6	583.9	600.2	594.8	594.8
35°	3520.9	2735.8	968.8	665.5	560.0	511.1	524.1	555.6	583.9	589.4	589.4
37.5°	3942.8	3018.5	976.5	673.1	550.2	490.4	496.9	524.1	561.1	578.5	582.8
40°	4422.3	3348.0	1020.0	665.5	539.3	473.0	474.1	494.8	527.4	553.5	562.2
42.5°	4917.1	3732.9	1100.4	637.2	529.5	457.8	454.5	468.7	490.4	508.9	516.5
45°	5387.9	4128.7	1179.8	598.1	517.6	442.6	434.9	440.4	444.7	452.3	456.7
47.5°	5798.9	4407.1	1157.0	562.2	501.3	425.2	412.1	409.9	396.9	395.8	394.7
50°	6082.7	4468.0	1027.6	526.3	477.4	405.6	384.9	371.9	349.0	338.2	339.3
52.5°	6173.0	4227.7	839.4	490.4	438.2	379.5	350.1	329.5	301.2	291.4	290.3
55°	6053.4	3756.9	670.9	446.9	383.8	344.7	312.1	284.9	262.1	250.1	250.1
57.5°	5760.9	3157.7	530.6	395.8	326.2	305.6	272.9	245.7	226.2	214.2	212.0
60°	5275.9	2507.5	419.7	334.9	278.4	263.1	229.4	212.0	194.6	180.5	177.2
62.5°	4539.8	1789.8	329.5	265.3	232.7	215.3	195.7	182.7	162.0	142.4	139.2
65°	3542.6	1095.0	254.4	194.6	187.0	178.3	166.4	154.4	129.4	109.8	106.6
67.5°	2234.5	518.7	181.6	146.8	147.9	143.5	138.1	128.3	109.8	92.4	90.3
70°	984.1	251.2	119.6	112.0	109.8	109.8	114.2	110.9	93.5	77.2	73.9
72.5°	334.9	134.8	89.2	84.8	79.4	78.3	95.7	92.4	75.0	59.8	56.5
75°	175.1	90.3	65.2	60.9	47.8	57.6	76.1	71.8	53.3	39.1	35.9
77.5°	114.2	64.2	44.6	39.1	27.2	38.1	56.5	50.0	31.5	19.6	17.4
80°	71.8	42.4	26.1	18.5	13.0	20.7	30.4	21.7	12.0	4.3	3.3
82.5°	38.1	21.7	9.8	6.5	5.4	6.5	7.6	5.4	2.2	0.0	0.0
85°	15.2	7.6	3.3	2.2	1.1	0.0	2.2	1.1	0.0	0.0	0.0
87.5°	5.4	1.1	0.0	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)