

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: P961023

Luminaire Tested: **NAV-SB1D-830-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9318.3 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

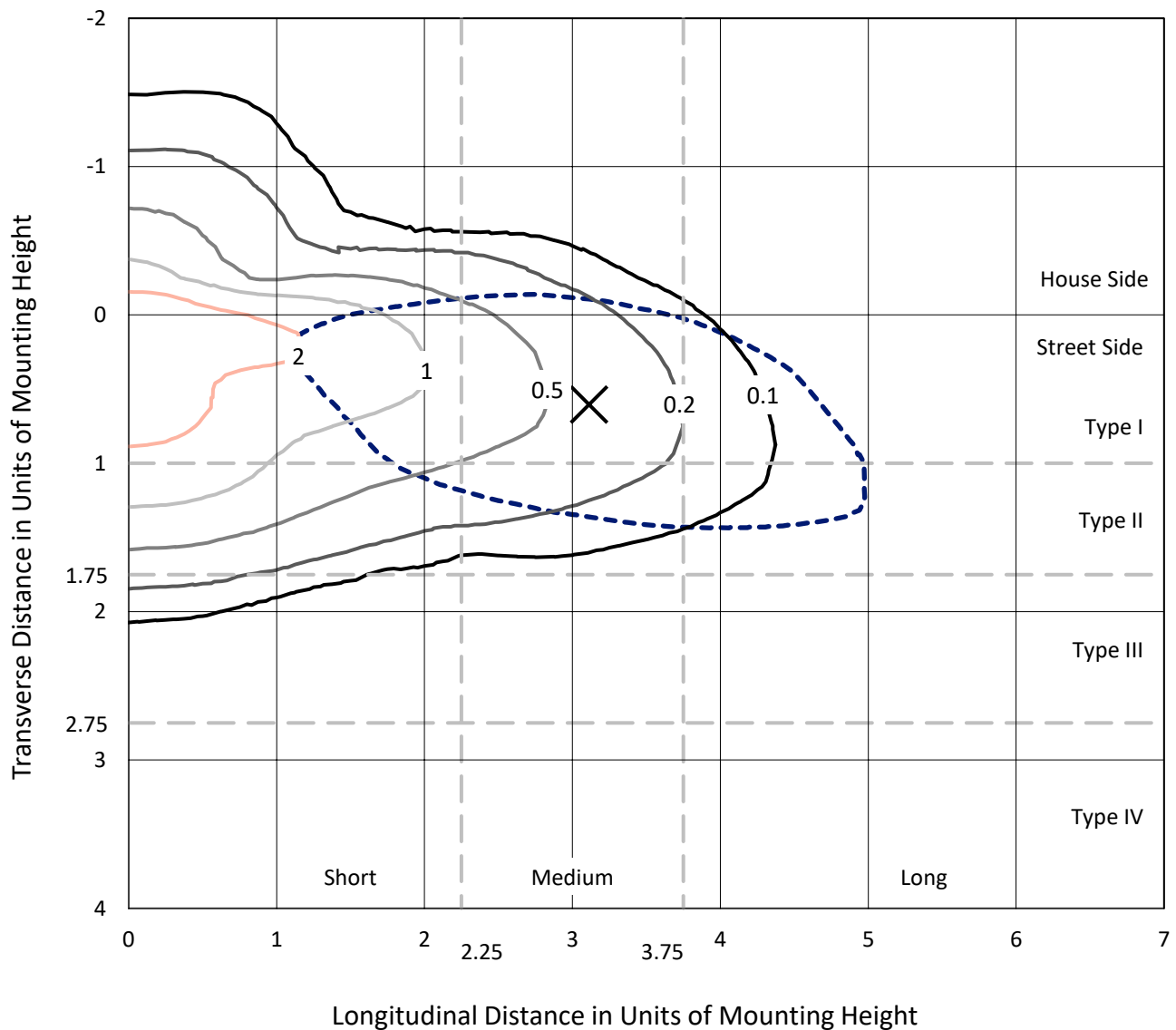
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

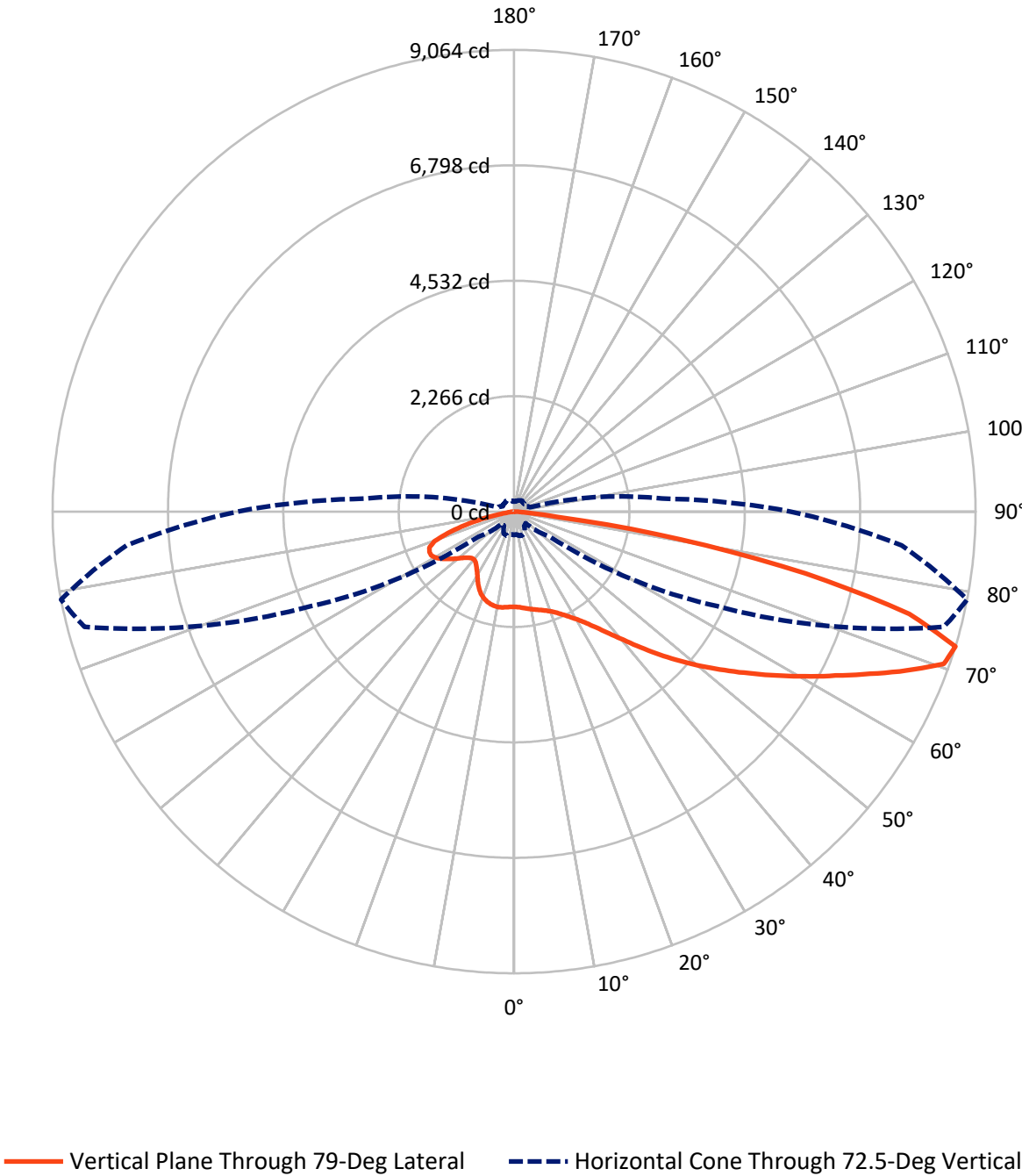
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2050.5	0.0	2050.5
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	7267.7	0.0	7267.7
	% Fixture	78.0	0.0	78.0
Total	Lumens	9318.3	0.0	9318.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.8	1.8
10°-20°	443.9	4.8
20°-30°	716.3	7.7
30°-40°	1075.1	11.5
40°-50°	1525.1	16.4
50°-60°	1925.9	20.7
60°-70°	1956.1	21.0
70°-80°	1333.1	14.3
80°-90°	173.0	1.9
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°	9318.3	100.0
0°-180°	9318.3	100.0

Coefficient of Utilization



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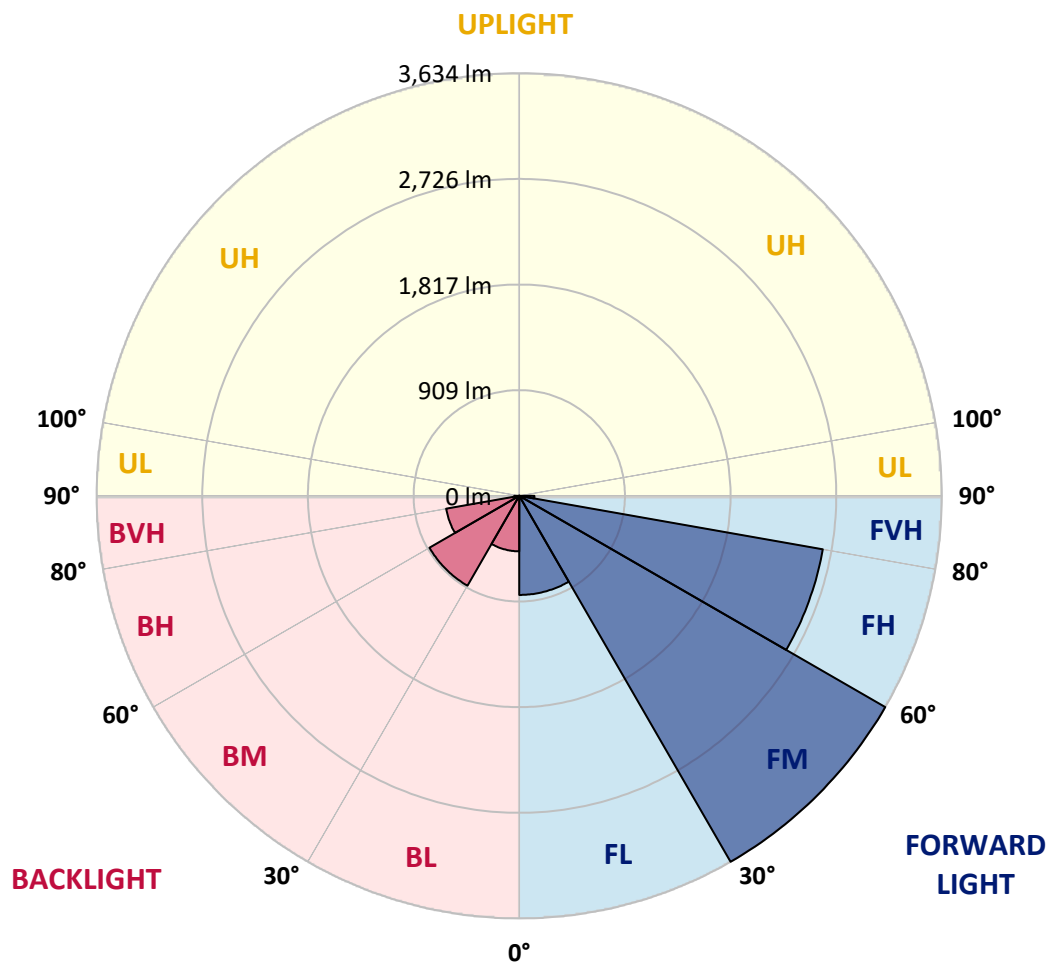
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	852.4	9.1			
FM	(30°-60°)	3634.3	39.0			
FH	(60°-80°)	2650.7	28.4			G2/5000
FVH	(80°-90°)	130.3	1.4			G2/225
BL	(0°-30°)	477.6	5.1	B1/500		
BM	(30°-60°)	891.8	9.6	B1/1000		
BH	(60°-80°)	638.5	6.9	B2/1000		G2/1000
BVH	(80°-90°)	42.7	0.5			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5
2.5°	1871.5	1862.6	1868.1	1866.1	1868.6	1871.5	1872.6	1874.0	1878.9	1878.4	1877.9
5°	1867.5	1858.7	1866.1	1863.7	1870.1	1877.0	1882.9	1888.3	1896.1	1899.6	1894.7
7.5°	1859.2	1853.3	1860.7	1868.1	1880.0	1890.3	1898.6	1911.0	1922.3	1924.2	1927.7
10°	1810.5	1805.9	1823.3	1842.4	1875.0	1903.1	1921.4	1935.6	1947.9	1950.0	1954.9
12.5°	1759.6	1754.2	1773.5	1799.6	1852.3	1903.1	1941.6	1960.3	1971.1	1977.5	1984.9
15°	1751.3	1746.8	1757.7	1780.3	1824.2	1889.8	1955.3	1989.8	1999.2	2006.6	2009.5
17.5°	1791.7	1783.3	1787.7	1795.6	1821.2	1877.5	1966.2	2023.4	2037.6	2045.5	2045.5
20°	1885.4	1873.5	1866.6	1850.8	1846.4	1879.4	1965.2	2063.7	2082.5	2092.3	2094.8
22.5°	2010.0	2002.1	1987.4	1947.4	1904.0	1903.6	1983.9	2115.5	2150.6	2159.9	2153.9
25°	2160.9	2149.0	2130.4	2076.1	1992.8	1951.4	2015.5	2181.6	2240.2	2242.7	2225.5
27.5°	2334.3	2316.6	2291.0	2219.5	2107.2	2026.3	2063.7	2257.5	2343.3	2342.2	2306.8
30°	2517.2	2499.5	2472.4	2385.6	2244.1	2127.4	2130.8	2339.3	2465.5	2460.1	2399.4
32.5°	2650.9	2637.5	2632.1	2565.1	2401.9	2246.6	2207.7	2430.0	2616.3	2611.4	2526.6
35°	2753.4	2736.1	2742.5	2708.5	2573.9	2380.3	2301.8	2537.9	2799.7	2799.2	2693.7
37.5°	2854.8	2839.6	2845.0	2822.3	2733.2	2549.8	2416.6	2670.0	3026.9	3037.8	2895.8
40°	2947.6	2931.3	2952.9	2931.8	2856.9	2730.2	2547.3	2819.4	3290.1	3310.9	3140.3
42.5°	3003.2	2990.4	3026.4	3026.9	2964.3	2882.5	2690.7	2984.0	3594.7	3641.0	3440.9
45°	3022.4	3018.0	3072.2	3083.6	3059.4	2970.8	2819.9	3163.5	3923.0	4005.8	3783.5
47.5°	3001.7	2993.4	3068.3	3110.2	3129.4	3012.1	2926.9	3357.6	4258.2	4379.4	4157.1
50°	2897.3	2881.0	2992.4	3080.6	3149.1	3039.2	3034.8	3581.9	4639.2	4771.8	4532.8
52.5°	2709.5	2697.2	2823.8	2977.1	3105.7	3052.6	3156.1	3826.8	5001.0	5172.5	4917.6
55°	2469.4	2453.1	2592.6	2792.8	2997.8	3048.0	3277.3	4100.9	5427.8	5601.8	5315.4
57.5°	2089.0	2056.4	2232.9	2469.4	2821.8	3042.7	3403.5	4373.5	5861.6	6070.0	5739.8
60°	1533.9	1485.6	1702.0	1982.5	2477.8	2989.9	3559.7	4679.1	6382.1	6569.8	6203.1
62.5°	893.2	865.0	1006.6	1268.2	1867.5	2679.5	3647.5	5034.5	6893.7	7090.8	6658.6
65°	693.5	685.6	697.9	718.1	1039.6	2006.1	3376.9	5380.9	7544.3	7682.4	7133.3
67.5°	634.4	628.4	633.9	595.9	527.4	1117.5	2671.6	5468.7	8241.3	8325.0	7548.7
70°	563.9	557.0	574.7	542.2	415.0	508.2	1726.1	5150.3	8795.8	8953.1	7864.7
72.5°	459.4	451.5	492.9	478.2	349.4	326.3	867.0	4393.7	8737.6	9064.0	7638.5
75°	352.9	348.5	397.8	410.1	284.8	256.8	416.0	3266.0	7689.2	8018.0	6583.2
77.5°	274.1	270.6	295.7	340.6	229.7	199.2	255.8	2071.6	5794.5	5852.2	4536.6
80°	205.5	195.7	218.8	263.7	179.0	145.4	173.5	1208.1	3662.7	3320.2	1974.6
82.5°	128.6	123.7	143.0	176.0	126.2	100.0	112.9	667.4	1467.9	864.6	381.0
85°	73.5	71.4	77.9	100.6	68.5	57.7	64.6	294.8	268.1	184.3	114.8
87.5°	29.6	28.6	35.5	44.9	25.1	21.2	22.7	70.9	59.1	54.7	37.9
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°	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5	1870.5
2.5°	1876.0	1876.0	1869.1	1858.2	1845.9	1838.0	1825.2	1821.7	1808.4	1804.5	1810.9
5°	1898.6	1894.7	1873.5	1843.0	1801.0	1762.6	1720.3	1693.6	1656.1	1642.9	1652.7
7.5°	1927.2	1916.4	1880.0	1812.9	1725.2	1638.9	1549.2	1481.1	1416.1	1393.0	1395.8
10°	1953.3	1938.1	1876.0	1758.7	1606.9	1457.6	1314.6	1214.5	1138.6	1107.5	1114.5
12.5°	1979.5	1951.4	1849.8	1668.5	1438.8	1236.1	1083.9	1006.0	959.2	921.7	934.1
15°	2004.1	1964.7	1809.4	1547.7	1254.4	1048.9	936.5	874.4	836.9	812.3	816.7
17.5°	2032.7	1976.0	1748.9	1394.4	1078.9	919.2	827.6	790.1	782.7	779.7	781.8
20°	2072.7	1986.3	1669.0	1222.9	949.9	815.8	768.4	765.0	764.4	763.0	767.9
22.5°	2115.5	1998.7	1563.4	1067.1	839.9	751.2	742.8	735.9	731.4	730.9	736.4
25°	2166.3	2002.6	1431.4	939.5	746.2	720.6	710.7	700.4	697.4	697.4	700.4
27.5°	2215.5	1989.3	1277.6	828.6	693.5	692.5	679.7	676.3	675.8	677.2	681.2
30°	2264.8	1964.2	1124.8	726.0	663.0	663.0	658.6	661.0	663.0	667.9	671.4
32.5°	2331.5	1937.6	997.1	650.2	636.3	631.4	635.8	640.7	642.8	649.1	654.6
35°	2429.0	1918.9	895.6	608.7	608.7	602.3	604.8	603.8	599.3	596.4	603.3
37.5°	2558.2	1917.9	811.8	589.5	585.6	584.6	585.1	578.7	561.4	540.7	541.2
40°	2713.4	1944.5	747.2	576.2	573.3	579.1	576.2	558.9	511.7	475.6	474.7
42.5°	2921.9	2020.4	705.8	560.0	568.8	576.2	564.4	504.7	472.7	448.5	447.5
45°	3167.4	2143.6	684.6	542.6	560.5	569.3	512.1	486.0	460.3	431.3	429.3
47.5°	3445.3	2298.9	679.7	526.4	541.7	547.1	489.9	478.2	449.1	417.5	415.0
50°	3748.0	2482.8	693.0	507.2	514.6	495.9	482.6	471.7	441.7	410.6	407.1
52.5°	4061.0	2685.3	719.7	481.0	487.5	466.8	479.6	470.3	437.2	395.3	392.4
55°	4368.5	2889.4	745.3	450.5	459.9	440.6	471.2	464.3	417.0	369.7	367.3
57.5°	4681.1	3092.4	770.4	423.4	433.3	415.5	457.9	448.5	394.3	346.0	345.0
60°	5005.9	3289.6	782.3	397.3	404.2	392.4	437.7	421.5	368.7	321.8	320.4
62.5°	5310.0	3453.7	763.0	371.2	375.6	370.6	411.1	389.4	343.1	294.8	294.3
65°	5615.2	3551.3	703.9	345.5	346.6	344.1	373.6	354.9	313.0	271.1	268.1
67.5°	5891.6	3606.1	609.7	318.0	315.5	314.5	338.7	317.4	283.9	247.4	244.5
70°	5950.3	3467.1	465.8	285.4	285.4	282.9	300.2	278.5	251.8	222.3	221.3
72.5°	5434.8	2916.5	330.8	248.5	252.4	247.4	261.7	243.5	219.4	199.7	193.7
75°	4382.4	2138.7	240.6	210.4	217.4	209.0	222.3	209.5	188.8	188.3	169.5
77.5°	3011.1	1322.5	174.5	173.5	178.5	167.6	182.9	176.0	157.2	148.8	139.5
80°	1284.9	527.4	127.2	134.1	134.1	124.2	142.0	143.9	127.6	123.7	123.7
82.5°	255.8	149.9	89.2	92.1	86.7	83.7	100.6	111.4	153.8	171.1	171.5
85°	76.9	55.2	53.7	50.2	44.4	44.9	59.1	111.9	138.0	78.8	68.1
87.5°	21.2	13.8	14.2	11.4	9.3	12.3	20.2	84.8	46.3	19.7	16.7
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)