

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: P960898

Luminaire Tested: **NAV-SB1D-740-U-SL2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-SL2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8947.2 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - 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



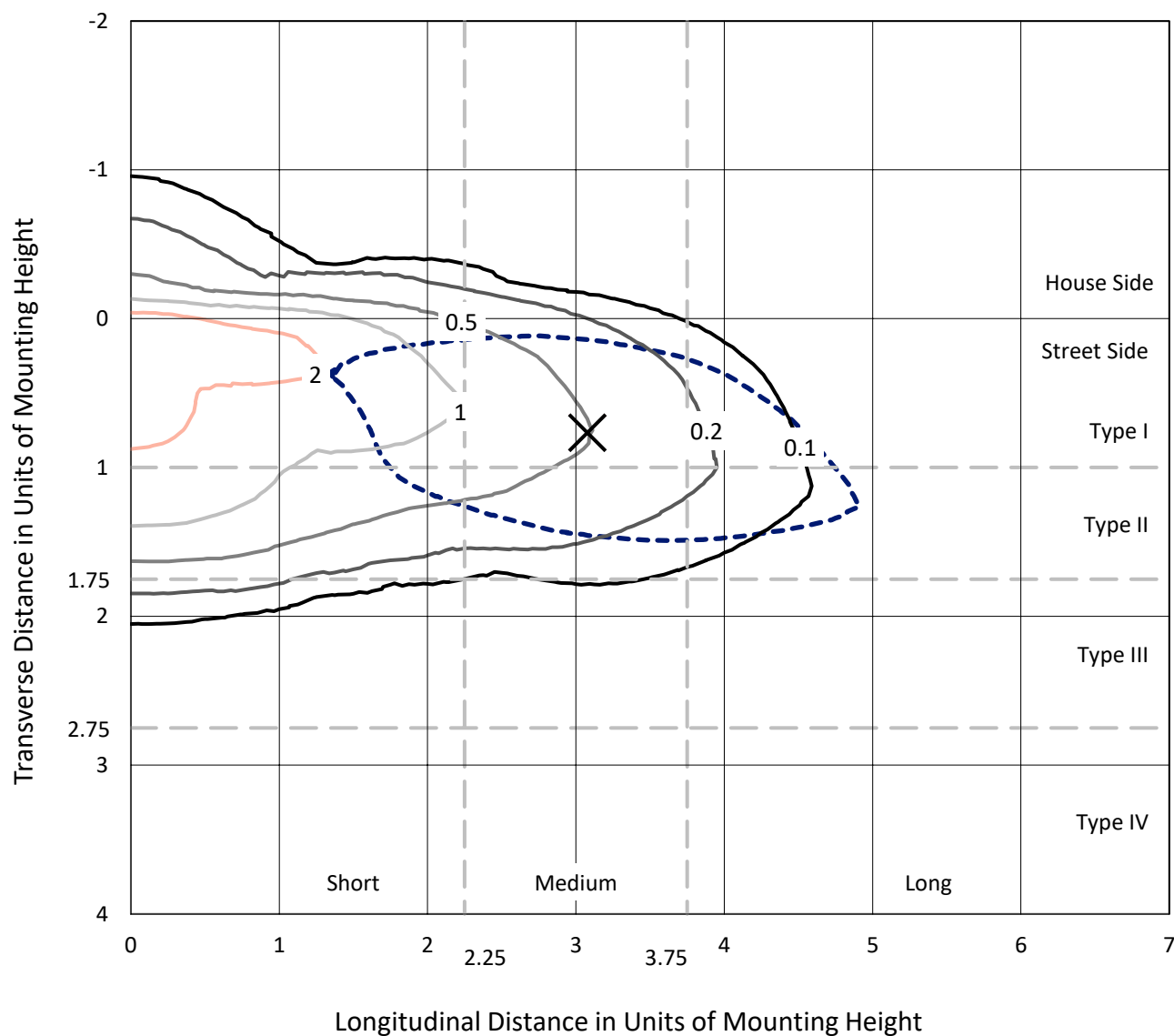
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

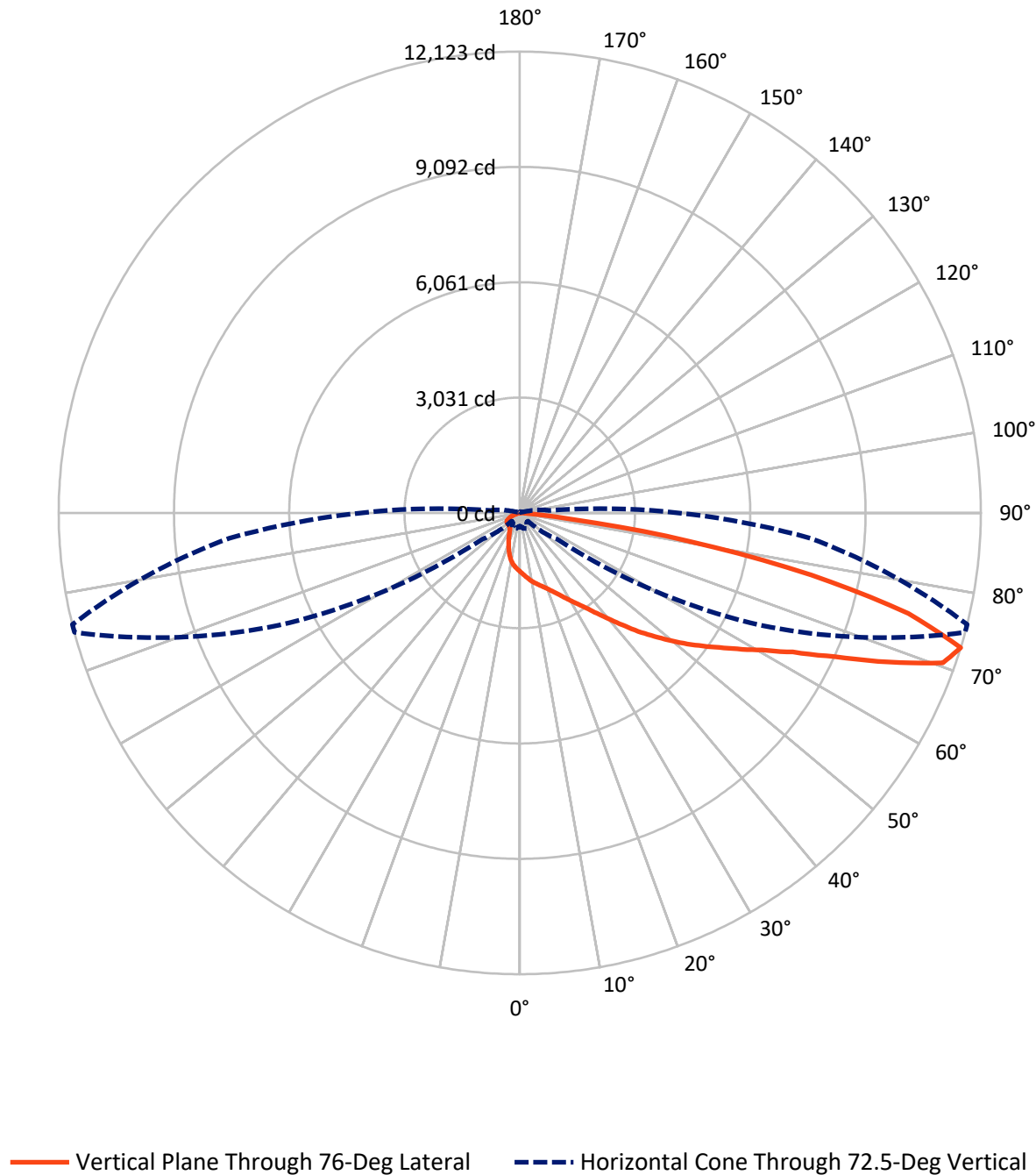
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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	915.7	0.0	915.7
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	8031.5	0.0	8031.5
	% Fixture	89.8	0.0	89.8
Total	Lumens	8947.2	0.0	8947.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	1.6
10°-20°	377.1	4.2
20°-30°	596.8	6.7
30°-40°	923.3	10.3
40°-50°	1402.3	15.7
50°-60°	1933.3	21.6
60°-70°	2042.4	22.8
70°-80°	1401.1	15.7
80°-90°	130.4	1.5
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°	8947.2	100.0
0°-180°	8947.2	100.0

Coefficient of Utilization



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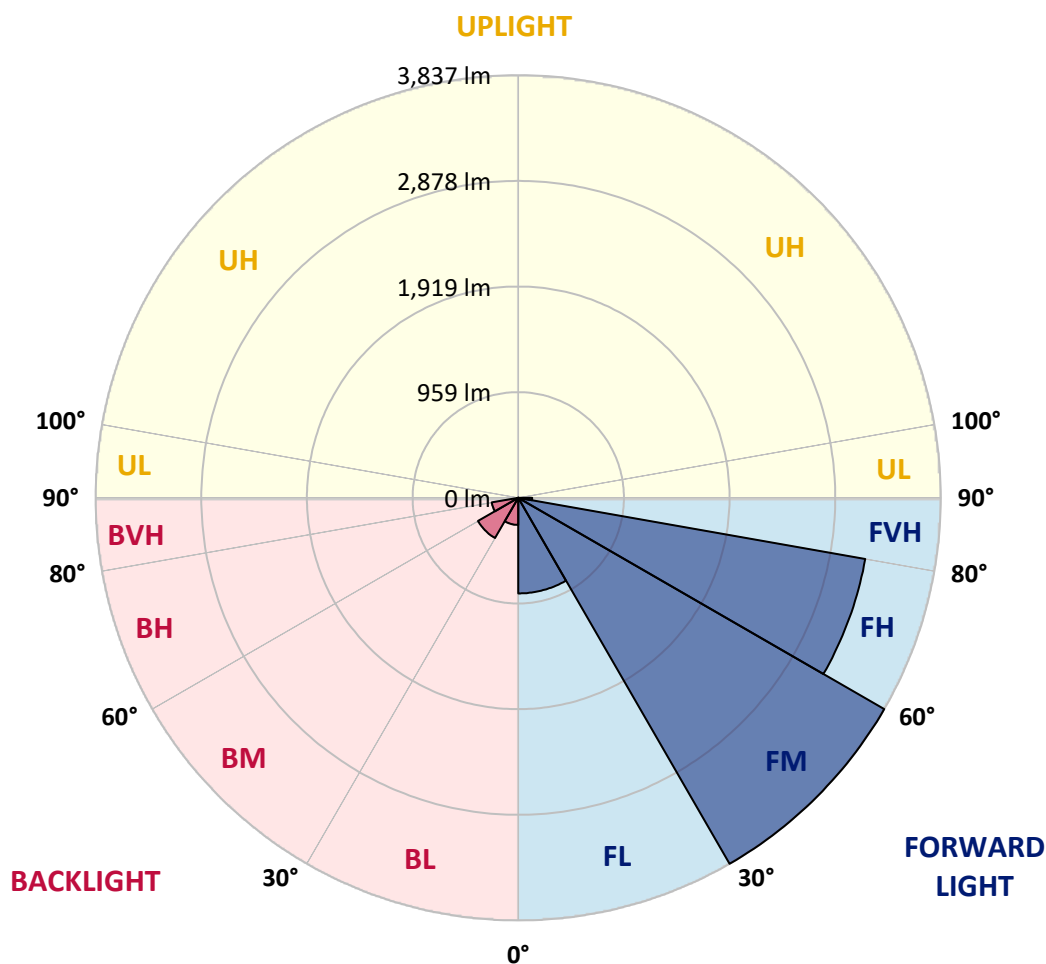
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	868.3	9.7			
FM	(30°-60°)	3837.3	42.9			
FH	(60°-80°)	3199.0	35.8			G2/5000
FVH	(80°-90°)	126.9	1.4			G2/225
BL	(0°-30°)	246.1	2.8	B1/500		
BM	(30°-60°)	421.6	4.7	B1/1000		
BH	(60°-80°)	244.5	2.7	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: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1
2.5°	1797.4	1773.7	1778.3	1754.5	1743.5	1716.8	1688.9	1652.4	1611.7	1611.7	1572.2
5°	1986.7	1971.6	1971.6	1943.7	1922.3	1880.5	1830.5	1766.1	1689.5	1681.9	1607.1
7.5°	2102.8	2093.5	2099.3	2083.0	2065.6	2022.1	1962.9	1878.7	1770.2	1761.0	1648.3
10°	2125.3	2124.8	2141.0	2145.7	2157.3	2135.3	2082.4	1985.5	1849.7	1836.4	1683.7
12.5°	2037.7	2026.7	2066.8	2113.8	2180.0	2209.6	2182.2	2083.0	1922.3	1903.6	1716.8
15°	1893.8	1896.1	1934.5	2007.0	2117.2	2222.9	2258.3	2178.2	1996.0	1973.9	1748.1
17.5°	1811.4	1802.7	1835.8	1900.8	2022.6	2171.8	2293.7	2267.0	2074.3	2049.4	1780.0
20°	1801.5	1800.9	1808.5	1838.1	1931.0	2098.7	2289.6	2353.5	2166.6	2137.5	1825.9
22.5°	1870.0	1868.9	1862.4	1856.7	1882.2	2027.3	2272.2	2435.9	2276.8	2245.6	1890.9
25°	1975.1	1973.3	1963.5	1928.0	1903.1	1989.0	2256.0	2512.5	2407.4	2372.7	1969.8
27.5°	2103.3	2102.2	2084.1	2030.8	1966.4	1992.5	2247.8	2591.4	2558.4	2524.2	2061.0
30°	2260.6	2258.3	2221.2	2145.7	2061.6	2047.6	2258.9	2680.3	2715.6	2689.5	2166.0
32.5°	2458.0	2451.6	2402.8	2289.0	2171.3	2121.3	2279.8	2771.4	2902.0	2877.6	2306.5
35°	2610.6	2600.7	2572.2	2471.9	2298.4	2211.8	2328.5	2879.3	3125.9	3104.5	2485.8
37.5°	2741.8	2731.9	2708.7	2626.3	2480.6	2327.4	2406.9	3023.2	3390.6	3380.1	2704.7
40°	2883.4	2867.1	2856.1	2767.9	2636.1	2493.9	2518.9	3191.5	3695.3	3696.5	2967.6
42.5°	2992.5	2986.1	2987.3	2919.4	2786.5	2691.2	2667.5	3381.4	4060.4	4071.4	3283.9
45°	3086.0	3080.7	3102.2	3054.6	2938.0	2820.7	2841.6	3596.1	4459.7	4482.3	3637.9
47.5°	3157.9	3163.7	3194.5	3163.7	3095.2	2911.8	2996.0	3827.7	4879.3	4882.3	4003.5
50°	3229.9	3232.2	3283.3	3268.2	3240.3	3027.3	3138.1	4086.6	5321.6	5326.8	4345.4
52.5°	3252.5	3249.0	3330.3	3367.4	3368.6	3170.1	3322.1	4368.5	5755.2	5772.0	4697.1
55°	3136.4	3146.3	3277.4	3428.3	3488.2	3367.4	3570.6	4725.6	6217.1	6224.1	5045.4
57.5°	2568.9	2623.4	2913.6	3263.5	3565.4	3650.0	3927.5	5142.8	6750.5	6744.1	5398.2
60°	1558.9	1623.9	1971.0	2737.2	3313.4	3933.8	4453.3	5789.4	7333.3	7315.2	5755.2
62.5°	871.8	891.4	1002.3	1638.5	2520.1	3753.3	4966.9	6620.0	8115.5	8054.7	6106.2
65°	642.5	648.8	675.0	802.7	1238.5	2886.8	4854.4	7613.0	9214.9	9106.3	6527.1
67.5°	558.3	564.7	590.3	607.6	553.1	1516.6	3999.4	8163.7	10610.7	10468.5	7096.4
70°	470.1	473.6	514.8	526.4	395.9	576.9	2569.4	7993.7	11902.6	11801.0	7707.6
72.5°	350.5	364.5	424.2	452.1	317.4	306.5	1209.5	6989.1	12121.4	12122.6	7666.4
75°	238.0	250.7	319.2	372.1	245.0	214.7	488.1	5218.9	10554.9	10554.9	6720.3
77.5°	162.5	172.9	222.3	291.9	185.7	147.4	253.1	3312.3	7572.4	7838.8	4789.9
80°	72.0	78.3	143.4	211.9	141.0	95.2	143.4	1813.7	4579.3	4523.0	1877.6
82.5°	35.4	40.6	91.7	132.3	91.1	58.6	75.4	862.4	1484.1	1410.3	293.0
85°	7.0	9.3	49.3	56.3	42.3	26.1	28.4	265.3	178.8	204.3	62.1
87.5°	0.0	0.0	15.1	10.5	4.6	5.8	5.8	23.8	13.9	16.3	16.3
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°	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1	1546.1
2.5°	1551.3	1529.9	1482.9	1436.4	1388.9	1345.3	1315.2	1284.9	1266.4	1258.3	1259.4
5°	1563.5	1520.1	1421.4	1318.0	1216.0	1116.1	1041.2	971.0	948.9	912.4	914.7
7.5°	1582.7	1511.9	1356.4	1182.2	1016.3	870.0	764.3	680.2	646.6	614.1	613.5
10°	1595.5	1496.8	1270.5	1037.7	813.1	648.8	547.9	487.0	464.9	445.2	444.5
12.5°	1600.7	1468.9	1171.8	875.8	632.6	494.5	434.1	405.7	398.1	391.1	391.1
15°	1605.4	1441.7	1061.5	719.7	499.7	413.8	390.0	380.7	375.6	370.8	370.8
17.5°	1609.5	1406.9	935.6	585.1	422.0	381.3	369.7	359.9	355.8	350.5	350.5
20°	1623.4	1373.2	823.0	482.9	379.6	358.1	345.3	334.9	331.4	327.9	328.5
22.5°	1649.4	1345.9	713.9	413.8	354.0	334.4	318.1	306.5	304.1	301.8	300.0
25°	1680.8	1312.3	611.1	369.1	329.1	307.0	289.0	279.2	276.9	277.5	276.2
27.5°	1720.9	1275.1	523.0	340.7	307.0	281.5	261.2	253.6	254.8	257.1	255.9
30°	1764.9	1240.9	453.9	320.9	287.3	258.8	238.5	233.3	237.4	240.9	239.7
32.5°	1830.5	1210.7	405.7	305.2	269.9	240.3	224.1	217.6	222.3	226.9	225.8
35°	1919.9	1195.6	378.4	291.9	254.8	225.8	209.5	204.9	209.5	210.6	210.1
37.5°	2029.6	1194.4	366.8	281.0	240.9	213.6	195.6	193.8	197.3	197.9	196.8
40°	2171.3	1202.0	358.1	272.8	226.3	199.7	182.9	181.1	182.2	186.3	185.7
42.5°	2350.5	1233.3	345.9	262.3	210.6	185.7	172.4	168.3	167.7	172.4	171.8
45°	2575.7	1302.4	329.6	245.5	196.8	174.1	160.7	156.1	154.4	155.6	157.2
47.5°	2821.3	1387.1	313.4	229.8	186.9	164.8	151.5	145.7	142.8	142.8	142.8
50°	3059.2	1482.9	302.4	213.6	179.9	156.1	141.7	135.8	131.2	130.0	129.5
52.5°	3294.9	1577.0	293.7	197.3	171.8	145.1	132.3	126.0	120.7	118.4	117.3
55°	3509.6	1666.3	278.6	181.6	161.3	133.5	123.0	116.6	110.3	106.2	104.4
57.5°	3715.6	1740.6	250.7	165.4	145.1	122.5	113.2	106.2	98.7	93.5	91.1
60°	3903.1	1778.9	215.9	148.0	128.8	110.9	102.2	95.7	85.9	77.2	74.8
62.5°	4045.9	1763.8	178.1	128.2	112.0	100.4	89.4	83.0	71.3	61.0	56.9
65°	4192.1	1681.4	142.2	107.4	98.1	86.5	74.8	68.5	55.1	44.1	41.2
67.5°	4382.0	1505.5	112.0	89.4	84.8	68.5	58.6	54.5	45.3	34.8	32.5
70°	4503.8	1169.5	87.0	72.6	69.6	49.9	45.3	44.7	36.0	26.6	23.8
72.5°	4169.5	766.7	66.7	55.1	49.9	32.5	34.8	34.8	26.1	18.0	15.7
75°	3480.6	448.6	48.2	39.5	28.4	20.9	23.8	23.8	16.3	8.7	7.0
77.5°	2485.8	239.1	31.9	24.4	14.6	9.3	12.8	12.2	5.2	0.6	0.0
80°	950.7	82.4	15.1	9.8	4.1	1.7	1.1	0.6	0.6	0.0	0.0
82.5°	145.1	21.5	2.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	26.1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.8	0.0	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)