

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: P963642

Luminaire Tested: **NAV-SB3A-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963642
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11885.9 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 84.7
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



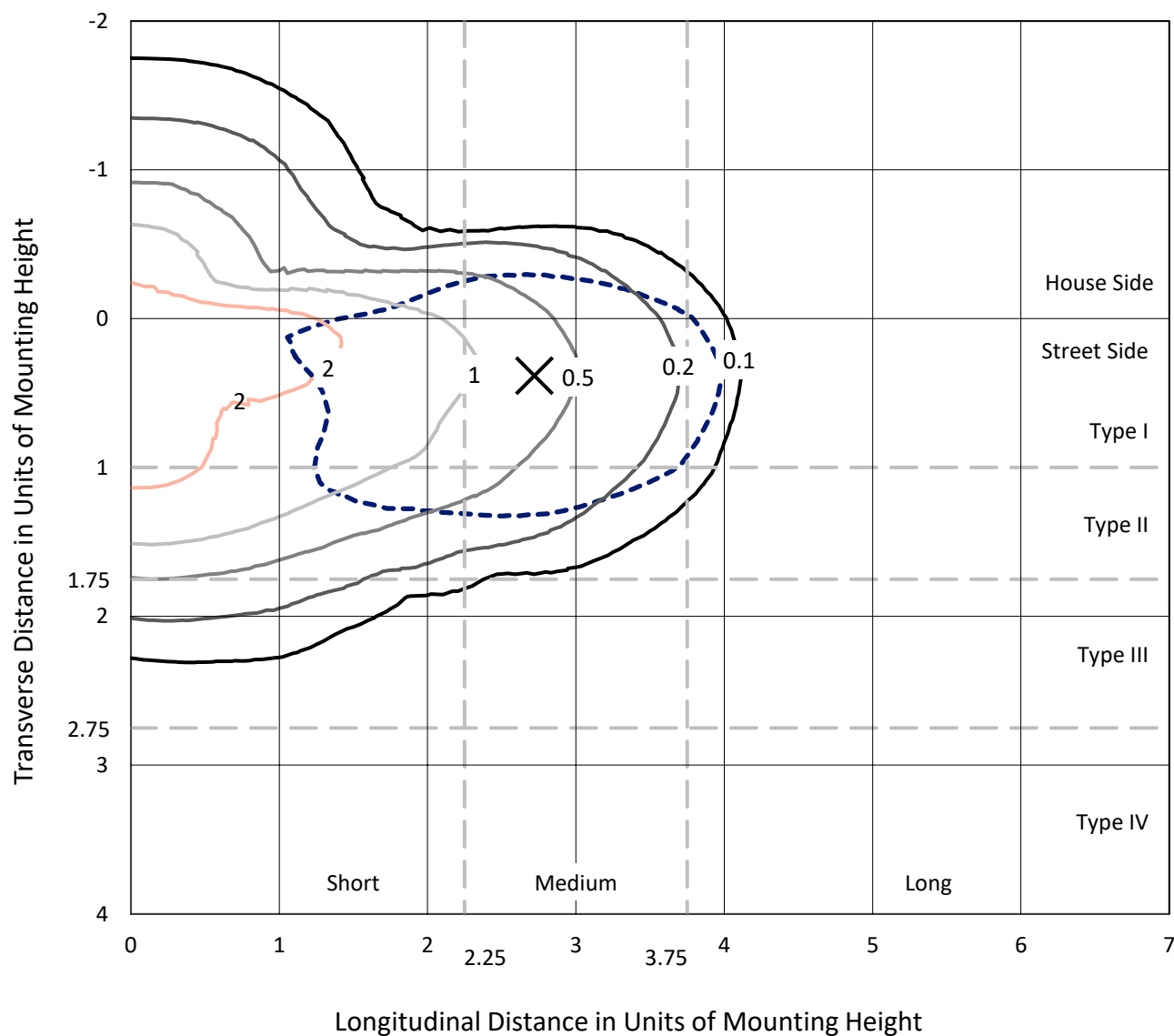
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

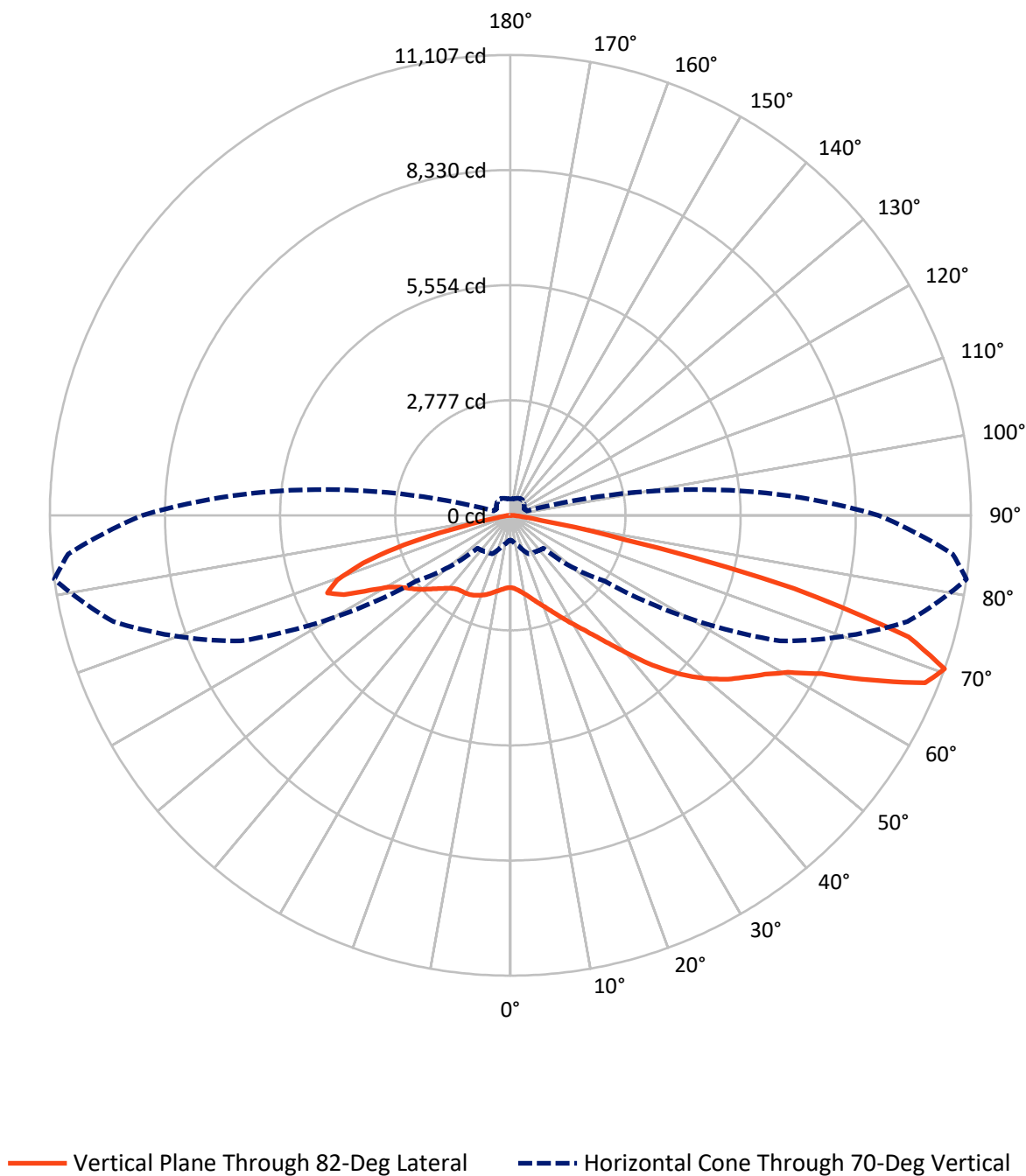
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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	2930.2	0.0	2930.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	8955.7	0.0	8955.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	11885.9	0.0	11885.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.5	1.4
10°-20°	472.7	4.0
20°-30°	790.8	6.7
30°-40°	1235.4	10.4
40°-50°	1967.6	16.6
50°-60°	2738.1	23.0
60°-70°	2864.2	24.1
70°-80°	1497.0	12.6
80°-90°	155.4	1.3
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°	11885.9	100.0
0°-180°	11885.9	100.0

Coefficient of Utilization



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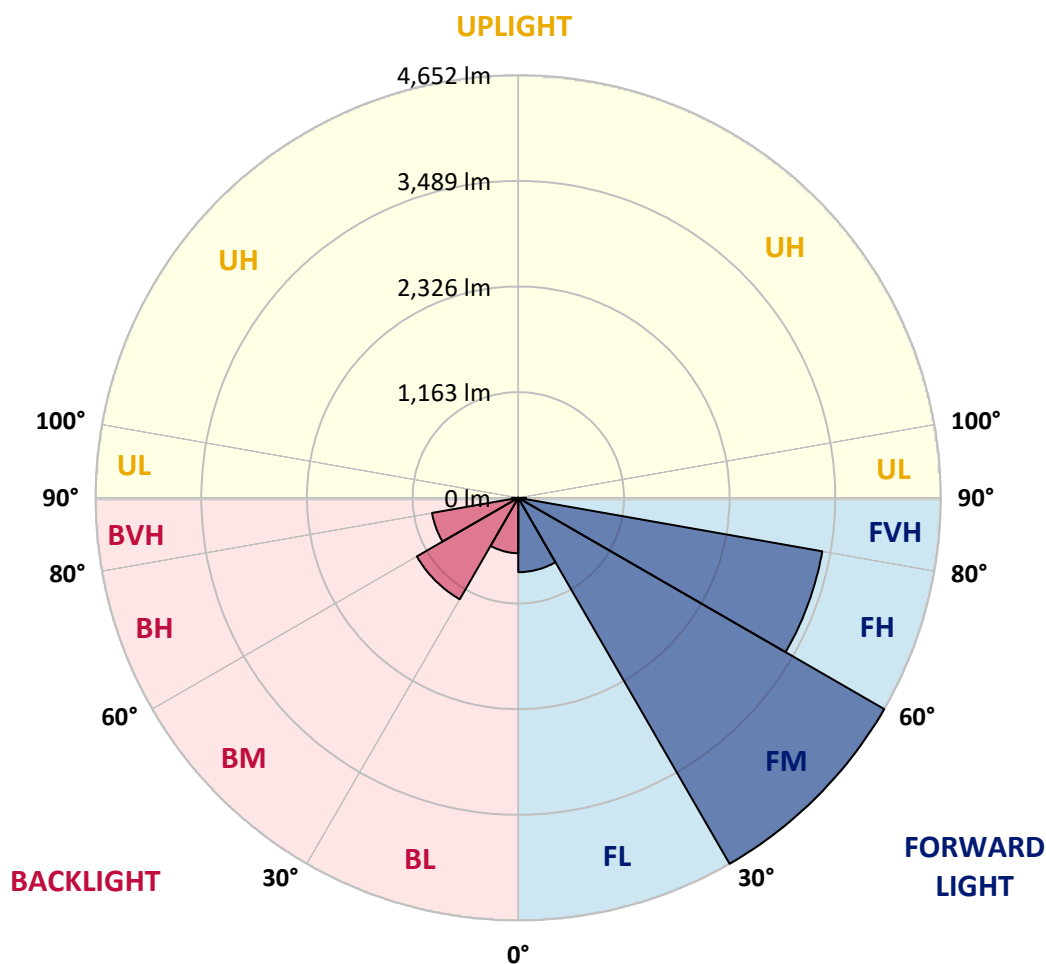
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	818.5	6.9			
FM	(30°-60°)	4652.0	39.1			
FH	(60°-80°)	3398.2	28.6			G2/5000
FVH	(80°-90°)	87.0	0.7			G1/100
BL	(0°-30°)	609.6	5.1	B2/1000		
BM	(30°-60°)	1289.2	10.8	B2/2500		
BH	(60°-80°)	963.0	8.1	B2/1000		G2/1000
BVH	(80°-90°)	68.4	0.6			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°	82°	85°
0°	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6
2.5°	1784.2	1794.4	1791.2	1788.0	1788.0	1783.6	1783.0	1776.6	1771.6	1763.4	1761.6
5°	1807.0	1817.6	1816.4	1819.0	1827.2	1829.0	1831.0	1827.2	1817.0	1807.0	1802.6
7.5°	1786.8	1798.8	1802.6	1817.6	1843.0	1865.6	1882.6	1889.6	1880.2	1865.6	1858.6
10°	1718.6	1731.9	1745.2	1781.1	1825.8	1879.4	1924.8	1952.0	1950.2	1936.2	1924.2
12.5°	1580.6	1594.4	1622.8	1692.8	1774.8	1869.4	1953.9	2010.6	2030.2	2020.2	1999.4
15°	1470.2	1482.1	1503.6	1575.5	1682.0	1825.8	1964.6	2075.0	2124.8	2119.2	2093.9
17.5°	1467.0	1472.0	1485.3	1519.4	1601.4	1757.8	1953.2	2138.0	2233.3	2232.7	2201.2
20°	1522.5	1524.4	1532.0	1538.9	1585.6	1706.0	1924.2	2190.4	2355.0	2355.0	2321.0
22.5°	1599.4	1598.2	1605.8	1599.4	1622.2	1701.6	1906.0	2236.4	2490.6	2500.7	2457.8
25°	1714.8	1708.6	1706.6	1692.2	1696.6	1742.6	1926.2	2288.8	2651.5	2672.3	2618.7
27.5°	1868.8	1858.6	1851.8	1818.4	1807.0	1827.2	1988.0	2351.9	2830.5	2866.5	2798.5
30°	2069.4	2051.0	2041.0	1983.0	1942.0	1945.0	2081.3	2435.8	3017.9	3075.9	2989.5
32.5°	2343.0	2314.7	2287.6	2192.3	2117.2	2092.6	2201.8	2551.8	3221.0	3313.7	3202.7
35°	2649.5	2626.9	2597.9	2450.9	2335.5	2278.7	2364.5	2713.9	3458.8	3605.7	3461.3
37.5°	2944.7	2925.1	2939.1	2741.1	2592.1	2509.5	2577.7	2931.5	3752.0	3969.0	3785.4
40°	3250.0	3234.9	3236.7	3047.5	2874.1	2781.3	2836.3	3204.6	4088.2	4401.0	4175.2
42.5°	3581.8	3570.4	3532.6	3364.8	3169.9	3083.5	3133.9	3520.0	4448.9	4892.9	4602.9
45°	3953.2	3946.2	3911.0	3718.6	3495.4	3398.2	3466.3	3868.0	4811.6	5355.9	5032.3
47.5°	4274.2	4279.9	4275.5	4113.4	3882.0	3739.4	3820.8	4231.4	5149.0	5791.0	5444.2
50°	4428.8	4458.4	4501.9	4451.5	4307.7	4162.6	4178.4	4582.1	5470.7	6199.1	5839.0
52.5°	4348.0	4404.2	4522.7	4603.5	4658.9	4628.7	4586.5	4930.1	5773.4	6567.5	6212.4
55°	4047.2	4126.0	4322.8	4517.7	4800.9	5021.0	5076.5	5316.2	6068.6	6891.7	6565.5
57.5°	3499.1	3627.2	3803.8	4197.9	4674.7	5210.8	5648.0	5851.6	6381.4	7237.9	6935.2
60°	2559.4	2730.9	2950.4	3537.0	4233.2	5109.3	6134.2	6674.1	6826.1	7686.4	7416.4
62.5°	1637.9	1743.8	1945.8	2498.2	3298.6	4588.9	6283.0	7702.1	7579.8	8421.7	8137.9
65°	1121.4	1189.5	1374.3	1684.6	2132.4	3415.9	5884.4	8472.9	8776.8	9587.2	9371.6
67.5°	814.9	866.5	1024.3	1296.1	1389.4	2021.4	4566.3	8437.5	9940.4	10788.1	10452.5
70°	594.1	630.7	763.1	1024.3	1069.1	1124.5	2766.3	7172.3	9915.2	11107.2	10705.5
72.5°	440.2	465.5	554.4	794.7	865.3	759.3	1369.3	5212.7	8520.1	10046.4	9724.1
75°	318.5	337.4	403.0	608.0	692.5	578.3	683.1	3046.3	5943.1	7067.0	7123.7
77.5°	243.4	258.0	300.8	445.3	554.4	433.9	423.8	1401.4	2817.9	2831.9	2990.7
80°	195.5	205.0	228.3	313.4	425.1	324.8	276.2	565.7	890.5	753.7	790.9
82.5°	143.8	159.6	193.0	220.1	304.0	223.9	168.4	285.7	338.7	291.4	293.9
85°	82.0	92.8	116.6	157.6	194.2	136.8	96.5	126.8	157.6	129.3	115.4
87.5°	29.0	37.8	41.0	61.8	84.6	56.8	37.2	36.6	51.8	38.4	32.2
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°	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6
2.5°	1755.2	1752.0	1739.4	1722.4	1704.8	1687.8	1682.0	1670.1	1661.9	1657.5	1662.6
5°	1790.6	1780.4	1750.8	1713.0	1673.2	1630.4	1600.1	1572.4	1552.2	1533.2	1540.8
7.5°	1841.0	1823.4	1772.2	1706.0	1635.4	1564.1	1511.2	1470.8	1443.7	1426.0	1429.8
10°	1899.6	1872.6	1794.4	1695.4	1586.2	1484.0	1421.6	1386.9	1369.9	1360.4	1362.9
12.5°	1967.2	1928.6	1817.0	1670.7	1511.2	1394.5	1351.6	1341.5	1342.1	1342.7	1344.0
15°	2050.4	1996.8	1835.4	1617.1	1413.4	1325.7	1318.1	1334.6	1351.6	1359.8	1359.1
17.5°	2144.4	2068.7	1838.4	1528.8	1317.5	1281.6	1305.5	1340.9	1366.7	1378.1	1380.6
20°	2245.3	2141.8	1815.8	1403.9	1238.7	1245.6	1288.5	1333.9	1362.3	1376.8	1380.6
22.5°	2360.7	2220.0	1761.6	1272.7	1174.3	1206.5	1257.0	1301.1	1330.8	1345.3	1349.1
25°	2492.5	2307.7	1676.4	1162.4	1118.9	1162.4	1212.9	1249.4	1273.4	1286.6	1290.4
27.5°	2638.9	2399.2	1562.9	1074.7	1070.3	1116.9	1158.6	1186.9	1199.6	1209.7	1213.5
30°	2785.8	2482.4	1425.4	1008.5	1028.1	1072.1	1101.9	1114.5	1118.3	1120.1	1124.5
32.5°	2944.7	2554.3	1280.9	953.7	987.7	1028.7	1046.3	1052.0	1034.3	1022.3	1026.1
35°	3137.1	2631.3	1139.7	910.1	947.9	983.3	988.9	983.9	963.1	938.5	939.7
37.5°	3374.9	2727.1	1026.7	879.2	910.7	934.1	927.1	925.9	927.7	898.7	900.7
40°	3666.2	2852.1	944.1	855.3	880.5	885.5	865.9	876.7	886.1	841.9	843.3
42.5°	3989.8	3002.7	891.9	838.9	855.3	843.3	812.9	824.9	823.7	765.7	765.1
45°	4319.7	3166.7	873.5	826.9	831.9	807.9	774.5	777.7	751.1	698.8	700.7
47.5°	4647.7	3342.7	884.9	816.7	802.9	775.7	749.9	736.1	696.9	657.8	657.8
50°	4969.3	3527.5	926.5	796.5	763.1	747.3	728.5	703.9	662.3	628.8	626.3
52.5°	5267.6	3713.6	973.1	763.1	713.3	722.8	710.8	682.4	641.4	607.3	608.0
55°	5550.2	3899.6	991.5	717.1	666.7	701.3	694.4	642.1	592.9	565.1	562.6
57.5°	5858.0	4123.5	971.3	658.5	628.8	676.7	650.3	592.2	563.9	543.0	541.1
60°	6284.3	4474.8	927.7	585.9	592.9	640.1	594.7	570.8	539.9	516.5	515.3
62.5°	6992.6	5130.1	857.7	514.0	550.6	585.9	568.3	544.3	512.8	490.1	490.1
65°	8039.5	6040.8	725.9	457.9	503.3	532.9	539.9	515.9	483.1	459.2	460.4
67.5°	8922.5	6612.3	549.3	411.2	454.7	490.1	509.6	486.3	451.6	428.2	428.9
70°	8873.9	6197.3	419.4	365.2	411.8	447.8	473.0	454.7	417.5	395.4	397.3
72.5°	7881.8	5184.3	339.3	318.5	368.3	403.6	433.9	420.0	382.2	360.8	360.8
75°	5790.4	3680.2	271.2	271.2	314.1	357.6	391.0	382.2	347.5	332.4	328.0
77.5°	2440.8	1544.0	212.6	225.2	261.1	307.2	348.8	351.9	321.6	340.6	309.0
80°	649.0	425.7	162.1	177.2	205.0	253.6	303.4	302.1	269.3	251.6	234.0
82.5°	247.2	167.8	115.4	124.8	148.2	194.2	240.3	247.8	215.0	186.0	186.0
85°	95.2	71.9	71.2	75.0	86.4	128.6	181.6	188.0	162.1	137.5	141.9
87.5°	24.6	21.4	26.4	25.2	39.8	68.8	104.0	107.8	99.0	57.4	82.0
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)