

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: P960901

Luminaire Tested: **NAV-SB1D-740-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960901
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10788.1 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

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



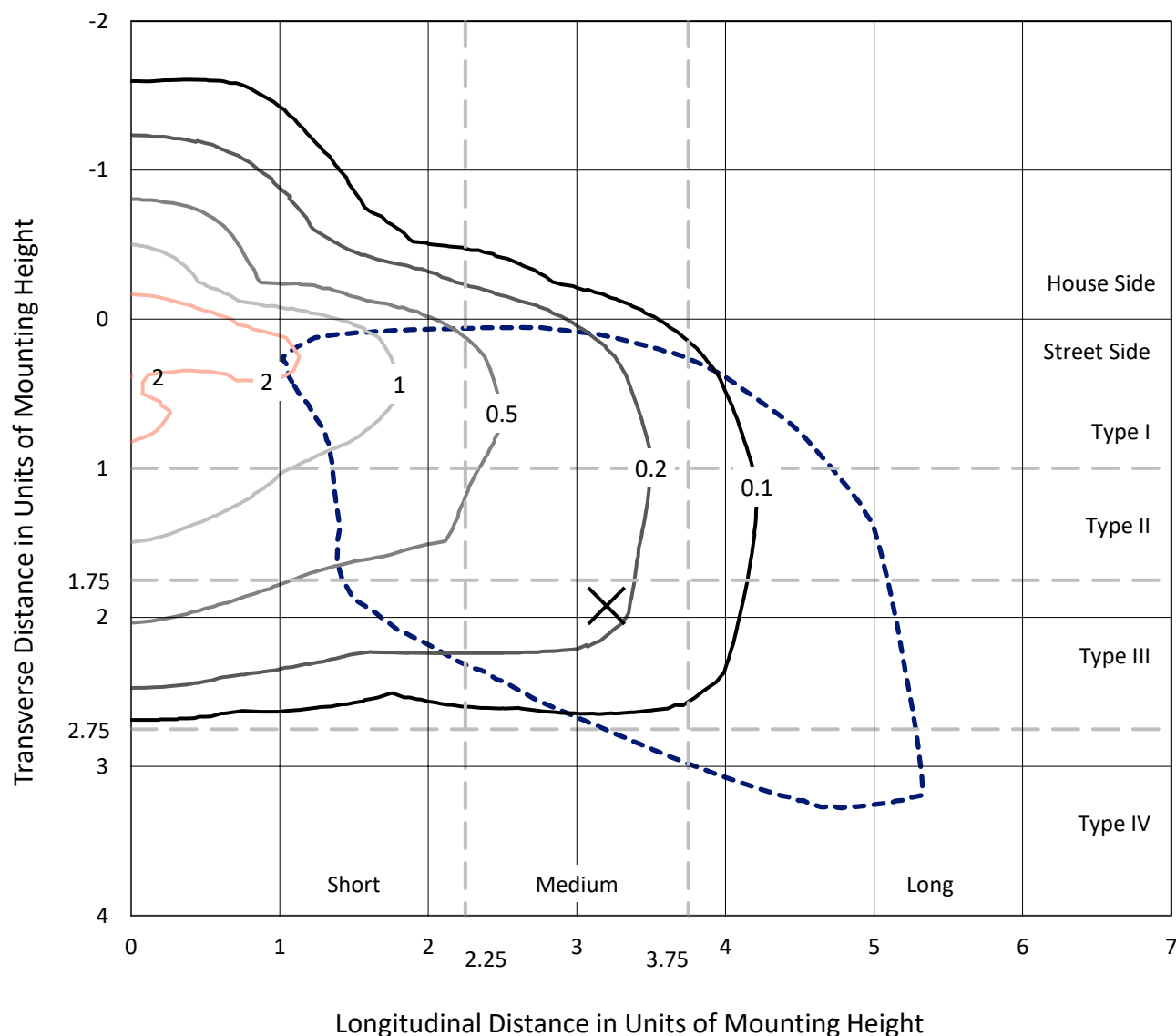
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

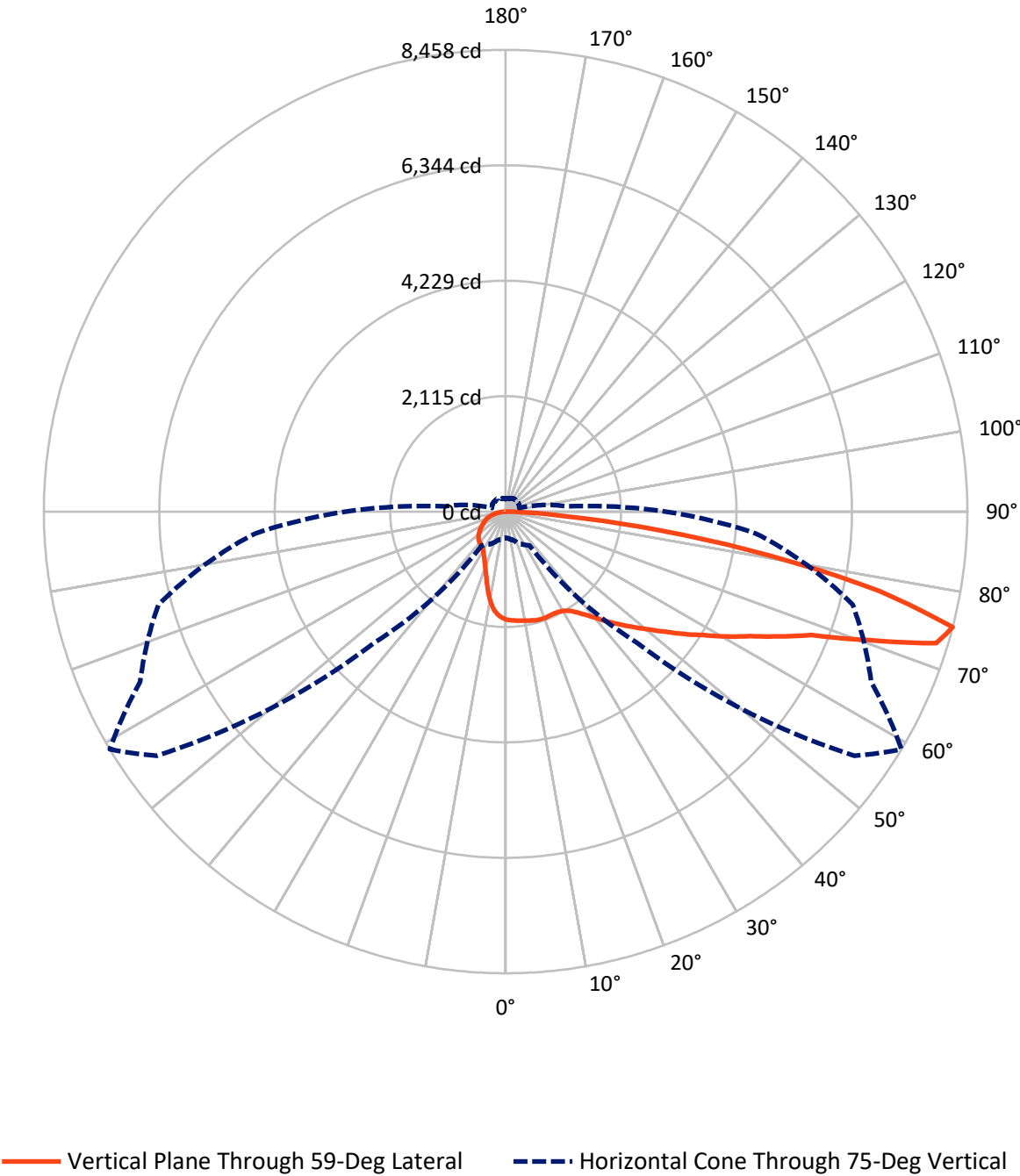
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2023.4	0.0	2023.4
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	8764.7	0.0	8764.7
	% Fixture	81.2	0.0	81.2
Total	Lumens	10788.1	0.0	10788.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.6	1.6
10°-20°	453.8	4.2
20°-30°	689.3	6.4
30°-40°	1024.7	9.5
40°-50°	1523.9	14.1
50°-60°	2068.5	19.2
60°-70°	2525.3	23.4
70°-80°	1981.8	18.4
80°-90°	343.3	3.2
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°	10788.1	100.0
0°-180°	10788.1	100.0

Coefficient of Utilization



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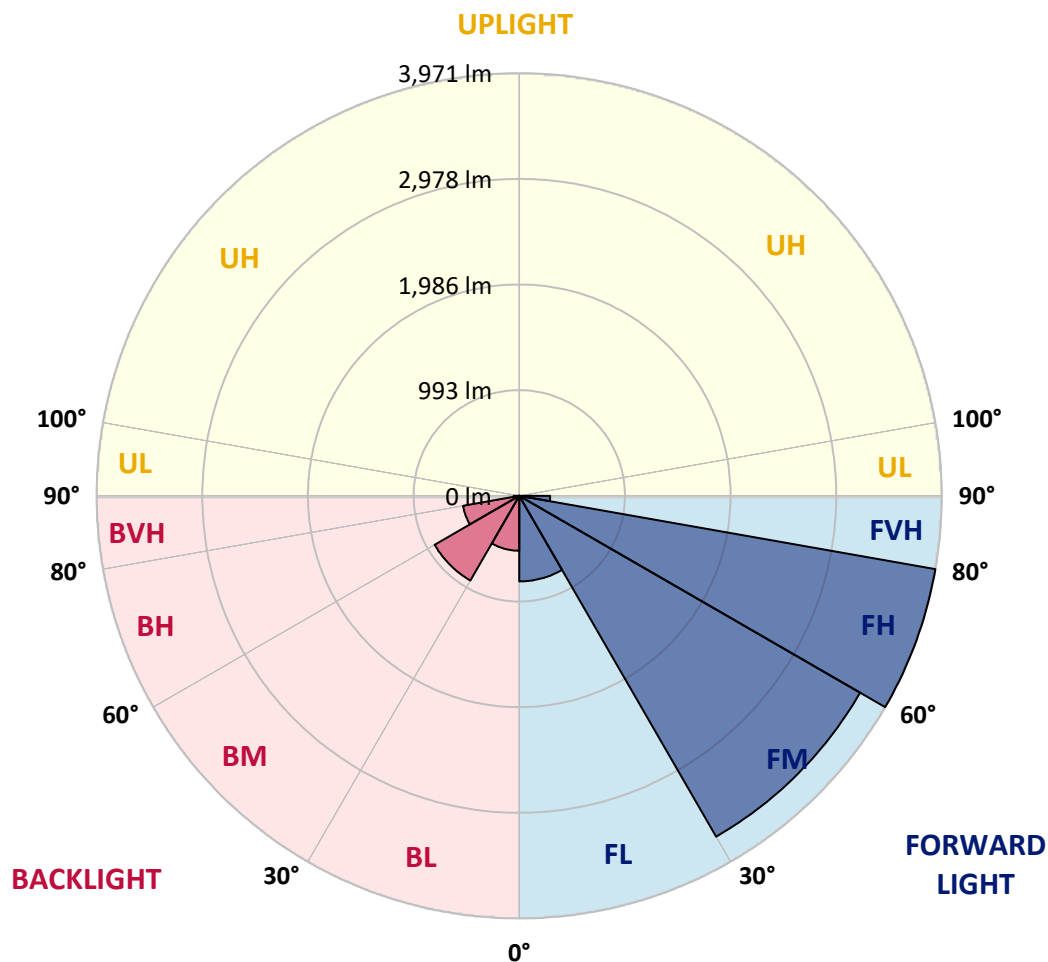
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	804.4	7.5			
FM	(30°-60°)	3698.6	34.3			
FH	(60°-80°)	3971.0	36.8			G2/5000
FVH	(80°-90°)	290.7	2.7			G3/500
BL	(0°-30°)	516.3	4.8	B2/1000		
BM	(30°-60°)	918.4	8.5	B1/1000		
BH	(60°-80°)	536.1	5.0	B2/1000		G2/1000
BVH	(80°-90°)	52.6	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-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1
2.5°	1997.0	1990.0	1997.0	1994.0	1992.9	1990.5	1991.2	1995.3	1992.9	1995.8	1985.9
5°	1983.6	1979.6	1986.6	1984.8	1992.3	1993.5	2001.0	2005.7	2008.6	2009.1	2001.6
7.5°	1961.5	1957.5	1967.4	1975.5	1991.8	1996.4	2012.1	2019.6	2023.7	2030.6	2019.6
10°	1880.9	1879.1	1903.5	1934.3	1972.6	1996.4	2020.2	2033.0	2039.3	2057.9	2045.2
12.5°	1738.1	1740.4	1772.3	1831.6	1908.1	1984.8	2029.5	2048.1	2057.9	2081.2	2075.3
15°	1601.8	1601.2	1636.0	1699.2	1806.6	1933.7	2034.1	2066.0	2082.9	2117.1	2112.4
17.5°	1522.8	1520.5	1544.9	1593.1	1692.9	1855.4	2022.5	2075.9	2111.9	2154.9	2150.8
20°	1508.3	1503.7	1516.5	1540.3	1611.0	1769.5	1992.3	2075.9	2135.1	2190.8	2188.5
22.5°	1561.2	1553.6	1548.4	1545.5	1576.8	1698.6	1958.1	2069.0	2169.3	2242.5	2238.4
25°	1667.4	1655.7	1629.0	1602.9	1593.7	1666.8	1927.9	2067.2	2220.4	2312.1	2297.0
27.5°	1839.2	1824.6	1770.6	1708.0	1651.7	1683.0	1914.6	2077.7	2276.7	2385.8	2355.7
30°	2052.0	2036.5	1968.5	1872.2	1771.2	1743.3	1931.4	2108.4	2348.7	2483.9	2424.6
32.5°	2243.0	2225.6	2167.6	2069.5	1933.2	1847.8	1984.8	2167.1	2461.8	2620.2	2528.6
35°	2412.5	2392.1	2340.0	2249.5	2131.6	1994.6	2081.2	2270.9	2622.6	2841.9	2669.6
37.5°	2578.5	2554.7	2497.8	2402.1	2319.7	2190.2	2214.0	2404.3	2836.2	3111.2	2856.5
40°	2764.2	2730.0	2660.9	2566.3	2486.2	2419.4	2388.7	2568.0	3053.2	3411.8	3089.8
42.5°	2944.1	2911.6	2829.2	2748.5	2648.1	2628.9	2591.2	2759.5	3290.6	3742.1	3326.5
45°	3137.9	3099.1	2999.3	2897.1	2833.8	2768.2	2787.4	2951.1	3523.2	4078.7	3574.9
47.5°	3319.6	3276.0	3158.2	3044.5	3009.7	2885.5	2967.3	3161.7	3765.2	4419.9	3821.0
50°	3417.7	3374.7	3276.6	3173.9	3146.6	3030.0	3162.3	3393.3	4018.9	4760.0	4057.2
52.5°	3499.5	3453.0	3324.8	3267.9	3259.8	3187.2	3402.6	3657.9	4272.5	5060.6	4285.2
55°	3586.6	3534.9	3371.2	3320.2	3357.3	3363.6	3687.5	3957.9	4540.6	5353.7	4500.6
57.5°	3686.9	3621.3	3415.9	3364.3	3452.5	3570.3	4014.8	4269.0	4804.1	5625.3	4692.0
60°	3781.5	3715.3	3501.8	3434.5	3555.2	3809.9	4390.3	4645.7	5102.3	5867.3	4873.2
62.5°	3800.1	3745.6	3570.3	3569.7	3694.5	4089.6	4834.8	5025.8	5363.0	6106.4	5035.6
65°	3478.5	3444.3	3340.5	3564.4	3894.1	4492.5	5329.9	5512.1	5694.4	6315.3	5178.4
67.5°	2647.6	2652.2	2644.6	3076.9	3732.7	5071.1	6046.6	6032.6	6103.5	6549.7	5342.6
70°	1210.6	1237.9	1415.4	2124.1	2990.5	5137.8	7231.7	7051.2	6617.1	6853.3	5484.9
72.5°	654.1	675.0	747.5	1029.0	1798.0	4567.9	8117.3	8245.5	7300.2	7057.5	5328.8
75°	479.9	491.6	542.0	654.1	755.0	3395.0	7799.8	8458.0	7385.4	6581.1	4601.5
77.5°	359.3	364.5	405.7	518.2	386.5	1789.8	6232.3	7004.7	6322.3	5407.1	3399.1
80°	260.6	266.4	297.1	388.8	271.0	654.7	4279.5	4916.7	4329.9	3446.7	1694.0
82.5°	179.9	182.2	195.6	264.7	189.2	254.2	2428.1	2883.1	2417.2	1209.4	457.4
85°	108.5	111.4	117.3	154.4	107.3	120.7	1048.1	1084.0	722.5	289.0	142.2
87.5°	44.7	47.6	52.3	65.0	42.3	33.6	172.9	217.1	135.2	84.8	44.1
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°	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1	1980.1
2.5°	1983.1	1979.0	1968.0	1952.8	1938.9	1921.6	1914.0	1907.6	1901.8	1890.7	1885.6
5°	1995.3	1984.2	1954.6	1916.3	1872.8	1825.2	1778.8	1746.8	1719.5	1699.2	1682.4
7.5°	2013.8	1992.9	1938.9	1860.6	1760.7	1658.7	1566.3	1500.8	1451.4	1433.5	1402.1
10°	2033.0	2008.0	1914.0	1775.8	1603.5	1446.2	1323.8	1256.4	1217.0	1204.2	1184.5
12.5°	2055.5	2019.0	1875.1	1658.0	1427.6	1255.3	1148.5	1109.0	1088.8	1081.8	1083.5
15°	2088.6	2028.3	1816.5	1510.6	1259.9	1116.0	1046.9	1019.7	1009.2	1008.6	1011.0
17.5°	2113.7	2030.0	1725.4	1352.8	1131.1	1031.9	975.0	964.5	971.5	982.0	986.0
20°	2141.4	2014.3	1605.8	1208.9	1040.6	958.2	934.4	941.4	958.2	973.2	978.5
22.5°	2161.2	1985.9	1461.3	1096.9	962.2	915.7	914.6	929.2	938.4	946.0	950.1
25°	2178.6	1937.8	1308.1	1002.9	897.8	890.2	903.0	898.4	892.0	898.4	902.4
27.5°	2191.3	1861.7	1171.2	920.4	852.5	872.8	865.3	854.8	854.2	857.7	863.6
30°	2187.4	1760.2	1058.5	842.0	820.6	840.3	822.4	820.6	818.9	820.6	827.0
32.5°	2187.4	1644.7	972.1	788.1	800.3	792.7	791.0	787.0	780.0	779.4	787.0
35°	2199.5	1529.2	897.8	759.1	783.5	765.5	766.6	756.8	742.3	735.3	742.3
37.5°	2224.5	1436.3	824.1	745.2	753.9	753.3	748.7	731.8	706.3	684.2	691.8
40°	2284.8	1409.1	773.6	738.8	739.9	746.9	734.7	702.2	644.2	608.2	612.8
42.5°	2379.4	1454.9	762.6	723.1	730.6	737.6	713.8	638.4	597.2	575.7	575.7
45°	2499.6	1535.0	786.4	700.5	708.6	720.8	650.0	614.0	595.4	596.0	598.9
47.5°	2651.6	1619.2	830.5	680.7	676.7	683.7	607.6	585.6	560.1	566.4	582.7
50°	2827.5	1704.5	872.3	654.1	641.2	618.7	580.4	559.4	527.0	511.9	515.9
52.5°	3017.8	1786.9	889.1	621.6	603.0	576.9	561.8	536.3	496.8	471.8	471.2
55°	3198.3	1861.7	870.5	582.7	564.7	544.4	542.0	526.3	484.0	449.2	449.2
57.5°	3368.9	1924.4	824.1	543.2	525.8	513.6	529.3	521.7	468.3	423.6	421.4
60°	3513.4	1967.4	756.8	503.2	491.0	484.6	508.4	506.0	446.3	396.4	394.6
62.5°	3628.3	1984.2	682.4	464.8	462.0	450.4	479.4	479.4	418.4	369.7	368.0
65°	3718.3	1968.0	607.0	427.1	433.0	415.5	443.9	440.4	388.8	345.8	343.6
67.5°	3797.7	1914.6	523.5	390.0	403.3	381.3	406.8	398.7	356.3	322.1	319.8
70°	3833.2	1790.4	428.2	352.8	369.1	347.6	369.7	354.5	319.8	296.5	291.9
72.5°	3548.9	1488.0	337.2	314.0	327.9	310.5	329.6	312.2	280.3	269.9	261.2
75°	2936.0	1116.5	259.4	271.6	282.1	268.7	281.5	268.7	239.6	247.2	225.7
77.5°	2132.2	753.9	198.4	226.9	231.5	224.6	235.6	221.1	195.0	193.2	184.5
80°	1060.3	441.7	155.5	179.4	177.6	172.9	185.7	178.8	156.7	165.9	164.2
82.5°	307.0	189.2	113.2	126.0	122.5	123.6	132.9	136.4	204.3	202.5	207.2
85°	96.4	74.3	67.9	70.2	66.7	68.5	78.3	155.5	143.9	84.2	91.1
87.5°	24.9	25.5	16.8	18.0	18.6	22.0	24.9	94.6	45.3	29.6	31.4
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)