

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: P963115

Luminaire Tested: **NAV-SB2D-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963115
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-SB2D-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17972.3 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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



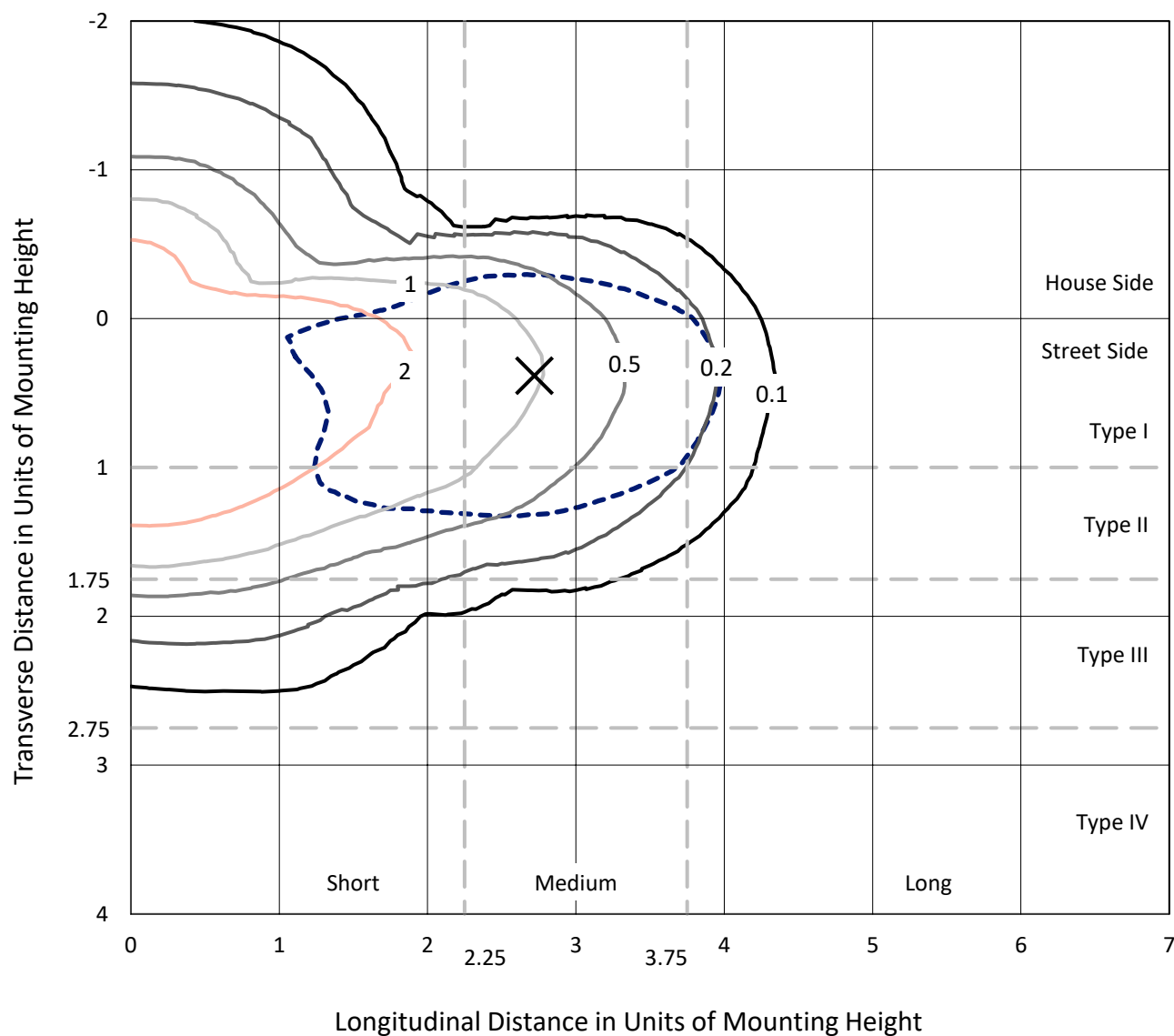
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

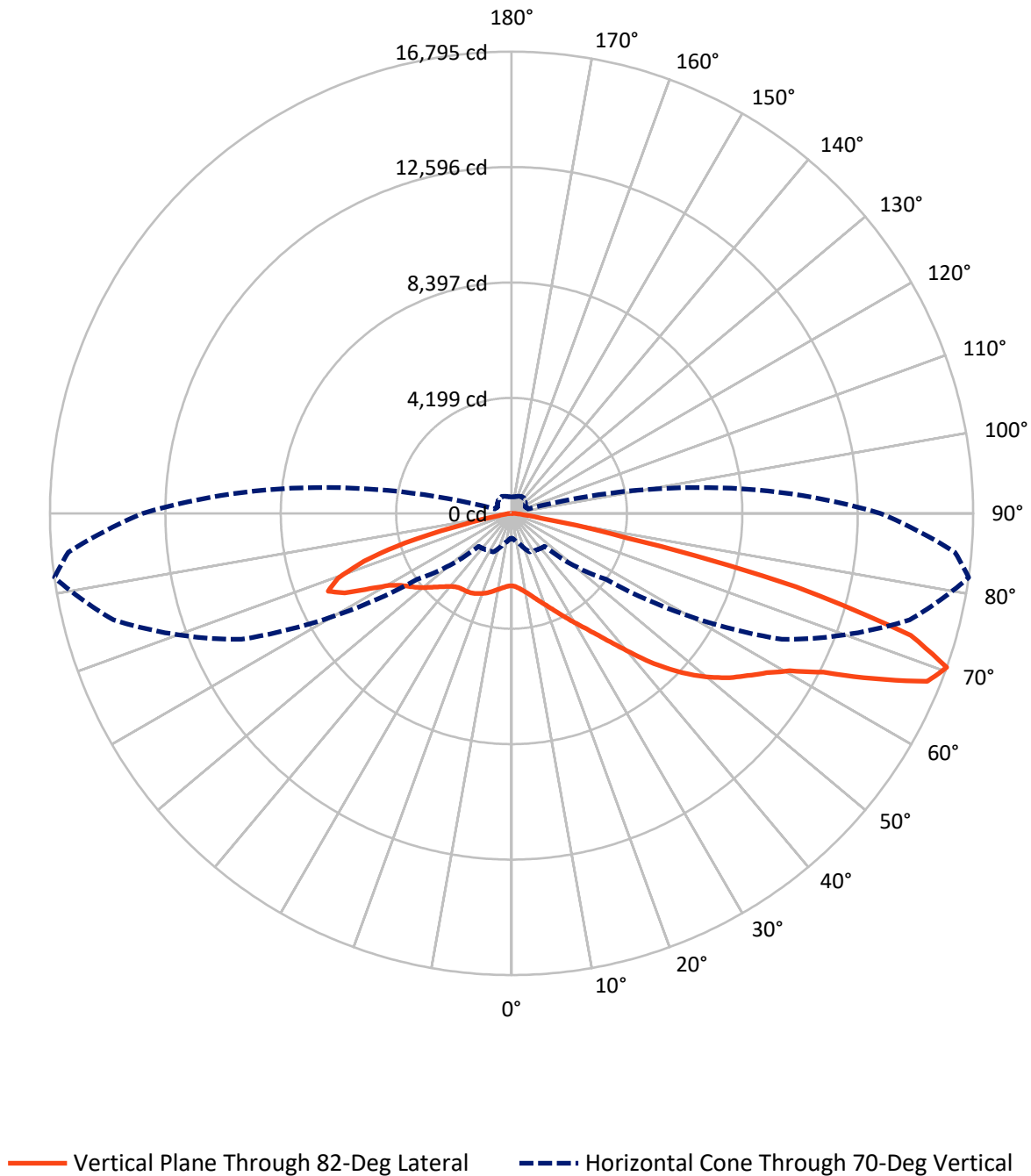
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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	4430.6	0.0	4430.6
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13541.7	0.0	13541.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	17972.3	0.0	17972.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.8	1.4
10°-20°	714.8	4.0
20°-30°	1195.8	6.7
30°-40°	1868.1	10.4
40°-50°	2975.1	16.6
50°-60°	4140.3	23.0
60°-70°	4330.9	24.1
70°-80°	2263.6	12.6
80°-90°	235.1	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°	17972.3	100.0
0°-180°	17972.3	100.0

Coefficient of Utilization



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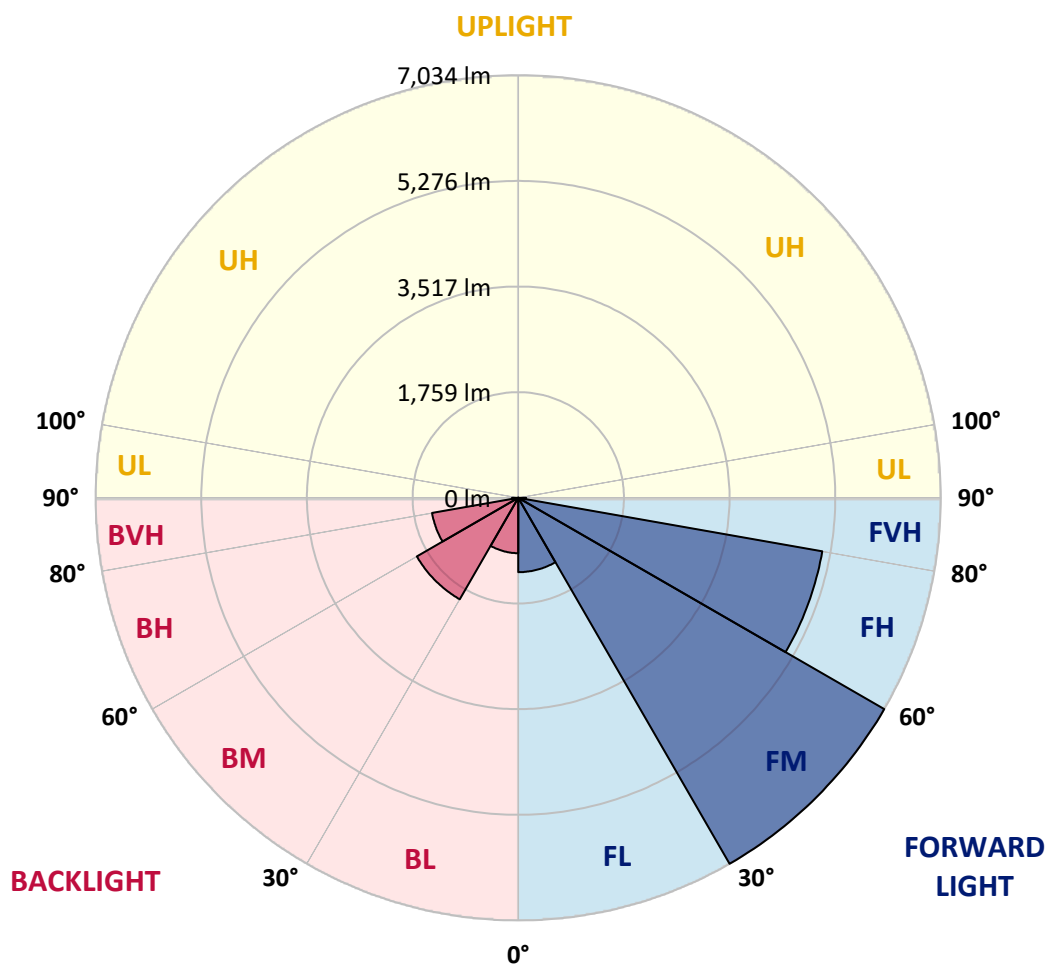
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1237.6	6.9			
FM	(30°-60°)	7034.2	39.1			
FH	(60°-80°)	5138.3	28.6			G3/7500
FVH	(80°-90°)	131.6	0.7			G2/225
BL	(0°-30°)	921.7	5.1	B2/1000		
BM	(30°-60°)	1949.3	10.8	B2/2500		
BH	(60°-80°)	1456.1	8.1	B3/2500		G3/2500
BVH	(80°-90°)	103.5	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0
2.5°	2697.9	2713.2	2708.4	2703.6	2703.6	2697.0	2696.0	2686.4	2678.8	2666.4	2663.6
5°	2732.2	2748.4	2746.6	2750.4	2762.8	2765.7	2768.5	2762.8	2747.5	2732.2	2725.6
7.5°	2701.7	2719.8	2725.6	2748.4	2786.6	2820.9	2846.7	2857.2	2842.8	2820.9	2810.4
10°	2598.7	2618.8	2638.8	2693.2	2760.8	2841.9	2910.6	2951.6	2948.7	2927.7	2909.7
12.5°	2389.9	2410.9	2453.7	2559.6	2683.7	2826.6	2954.5	3040.3	3069.9	3054.6	3023.1
15°	2223.0	2241.1	2273.6	2382.2	2543.4	2760.8	2970.7	3137.5	3212.9	3204.4	3166.1
17.5°	2218.2	2225.9	2245.9	2297.3	2421.4	2657.8	2953.5	3233.0	3377.0	3375.9	3328.3
20°	2302.1	2305.0	2316.4	2327.0	2397.5	2579.6	2909.7	3312.1	3561.0	3561.0	3509.5
22.5°	2418.5	2416.5	2428.0	2418.5	2452.8	2573.0	2882.0	3381.7	3766.1	3781.2	3716.4
25°	2593.0	2583.5	2580.6	2558.7	2565.4	2635.0	2912.5	3460.8	4009.2	4040.7	3959.6
27.5°	2825.7	2810.4	2800.0	2749.5	2732.2	2762.8	3005.9	3556.2	4280.0	4334.4	4231.4
30°	3129.0	3101.3	3086.1	2998.3	2936.3	2941.1	3147.1	3683.0	4563.3	4651.0	4520.4
32.5°	3542.8	3500.0	3459.0	3315.0	3201.5	3164.3	3329.2	3858.5	4870.4	5010.5	4842.7
35°	4006.3	3972.0	3928.1	3705.9	3531.4	3445.5	3575.3	4103.6	5229.9	5452.1	5233.8
37.5°	4452.7	4423.1	4444.1	4144.6	3919.6	3794.7	3897.7	4432.6	5673.4	6001.4	5723.9
40°	4914.3	4891.3	4894.2	4608.1	4345.8	4205.7	4288.6	4845.6	6181.7	6654.7	6313.3
42.5°	5415.9	5398.7	5341.5	5087.8	4793.1	4662.4	4738.8	5322.4	6727.2	7398.6	6959.9
45°	5977.6	5967.0	5913.6	5622.8	5285.2	5138.3	5241.3	5848.9	7275.4	8098.5	7609.3
47.5°	6462.9	6471.5	6464.9	6219.8	5869.8	5654.3	5777.3	6398.2	7785.7	8756.6	8232.0
50°	6696.6	6741.4	6807.2	6731.0	6513.6	6294.2	6318.0	6928.4	8272.1	9373.5	8829.0
52.5°	6574.6	6659.4	6838.7	6960.8	7044.7	6998.9	6935.0	7454.8	8729.8	9930.5	9393.6
55°	6119.7	6238.9	6536.4	6831.1	7259.3	7592.1	7676.0	8038.5	9176.1	10420.7	9927.6
57.5°	5290.9	5484.5	5751.6	6347.6	7068.5	7879.2	8540.1	8848.1	9649.1	10944.2	10486.5
60°	3870.0	4129.3	4461.2	5348.1	6401.0	7725.6	9275.3	10091.6	10321.5	11622.3	11214.1
62.5°	2476.7	2636.9	2942.1	3777.4	4987.6	6938.8	9500.4	11646.2	11461.1	12734.3	12305.1
65°	1695.7	1798.6	2078.0	2547.2	3224.3	5165.1	8897.7	12811.5	13271.2	14496.7	14170.5
67.5°	1232.2	1310.4	1548.8	1959.8	2100.9	3056.4	6904.5	12758.1	15030.7	16312.4	15805.1
70°	898.3	953.7	1153.9	1548.8	1616.4	1700.4	4182.7	10845.0	14992.6	16794.9	16187.5
72.5°	665.6	703.8	838.2	1201.6	1308.4	1148.2	2070.4	7882.0	12883.0	15190.9	14703.6
75°	481.6	510.2	609.4	919.3	1047.1	874.5	1032.8	4606.1	8986.4	10685.8	10771.6
77.5°	368.1	390.0	454.9	673.3	838.2	656.1	640.8	2119.1	4260.9	4281.9	4522.3
80°	295.6	310.0	345.2	474.0	642.8	491.2	417.7	855.5	1346.5	1139.6	1195.9
82.5°	217.4	241.3	291.8	332.8	459.7	338.6	254.6	432.0	512.1	440.5	444.4
85°	124.0	140.2	176.4	238.4	293.8	206.9	146.0	191.7	238.4	195.5	174.6
87.5°	43.9	57.2	62.0	93.5	127.8	85.8	56.3	55.4	78.2	58.2	48.7
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°	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0	2635.0
2.5°	2654.0	2649.3	2630.3	2604.4	2577.8	2552.0	2543.4	2525.3	2512.9	2506.2	2513.8
5°	2707.4	2692.2	2647.4	2590.2	2530.1	2465.2	2419.4	2377.5	2346.9	2318.3	2329.8
7.5°	2783.7	2757.0	2679.8	2579.6	2472.8	2365.1	2284.9	2223.9	2182.9	2156.2	2161.9
10°	2872.5	2831.5	2713.2	2563.4	2398.5	2243.9	2149.5	2097.1	2071.3	2057.1	2060.9
12.5°	2974.4	2916.3	2747.5	2526.2	2284.9	2108.5	2043.7	2028.5	2029.4	2030.3	2032.3
15°	3100.3	3019.3	2775.2	2445.2	2137.1	2004.6	1993.1	2017.9	2043.7	2056.0	2055.1
17.5°	3242.5	3128.0	2779.9	2311.7	1992.2	1937.9	1974.0	2027.4	2066.6	2083.7	2087.6
20°	3395.0	3238.6	2745.6	2122.9	1873.0	1883.4	1948.3	2017.0	2059.9	2081.9	2087.6
22.5°	3569.6	3356.9	2663.6	1924.5	1775.7	1824.4	1900.7	1967.4	2012.3	2034.1	2039.9
25°	3768.9	3489.4	2534.8	1757.6	1691.8	1757.6	1833.9	1889.2	1925.5	1945.4	1951.2
27.5°	3990.1	3627.8	2363.1	1625.0	1618.4	1688.9	1751.9	1794.8	1813.8	1829.1	1834.9
30°	4212.3	3753.7	2155.3	1524.9	1554.5	1621.2	1666.0	1685.1	1690.8	1693.7	1700.4
32.5°	4452.7	3862.3	1936.8	1442.0	1493.4	1555.4	1582.1	1590.7	1564.0	1545.9	1551.6
35°	4743.5	3978.6	1723.2	1376.2	1433.4	1486.8	1495.4	1487.7	1456.2	1419.0	1421.0
37.5°	5103.1	4123.7	1552.6	1329.4	1377.1	1412.3	1401.9	1399.9	1402.8	1358.9	1361.8
40°	5543.6	4312.5	1427.6	1293.1	1331.3	1339.0	1309.3	1325.6	1339.9	1273.2	1275.0
42.5°	6032.8	4540.3	1348.5	1268.3	1293.1	1275.0	1229.3	1247.4	1245.5	1157.7	1156.8
45°	6531.6	4788.4	1320.8	1250.3	1257.9	1221.6	1171.1	1175.9	1135.8	1056.7	1059.5
47.5°	7027.5	5054.4	1338.0	1235.0	1214.0	1173.0	1133.9	1112.9	1053.8	994.7	994.7
50°	7513.9	5333.8	1401.0	1204.5	1153.9	1130.1	1101.5	1064.3	1001.3	950.8	947.0
52.5°	7965.0	5615.2	1471.5	1153.9	1078.6	1092.9	1074.8	1031.9	969.9	918.4	919.3
55°	8392.2	5896.5	1499.2	1084.3	1008.0	1060.5	1050.0	970.9	896.5	854.4	850.6
57.5°	8857.6	6235.1	1468.6	995.6	950.8	1023.3	983.2	895.4	852.6	821.1	818.3
60°	9502.3	6766.2	1402.8	885.9	896.5	968.0	899.3	863.0	816.3	781.0	779.1
62.5°	10573.3	7757.1	1296.9	777.3	832.5	885.9	859.3	823.0	775.3	741.0	741.0
65°	12156.3	9134.2	1097.7	692.4	761.1	805.9	816.3	780.1	730.5	694.2	696.2
67.5°	13491.5	9998.2	830.7	621.8	687.6	741.0	770.6	735.2	682.9	647.5	648.5
70°	13418.1	9370.7	634.2	552.2	622.8	677.1	715.2	687.6	631.3	598.0	600.9
72.5°	11917.9	7839.1	513.1	481.6	557.0	610.4	656.1	635.1	577.9	545.5	545.5
75°	8755.6	5564.6	410.1	410.1	474.9	540.7	591.2	577.9	525.5	502.6	495.9
77.5°	3690.7	2334.5	321.3	340.5	394.8	464.4	527.4	532.2	486.4	515.0	467.3
80°	981.3	643.7	245.1	267.9	310.0	383.3	458.7	456.8	407.2	380.5	353.8
82.5°	373.8	253.7	174.6	188.8	224.1	293.8	363.4	374.7	325.2	281.4	281.4
85°	144.0	108.8	107.7	113.5	130.7	194.5	274.7	284.2	245.1	207.9	214.5
87.5°	37.2	32.4	40.1	38.1	60.1	103.9	157.3	163.1	149.8	86.8	124.0
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)