

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: P961038

Luminaire Tested: **NAV-SB1D-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961038
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-SB1D-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9289.6 lumens
Efficiency: N/A
Efficacy: 116.7 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

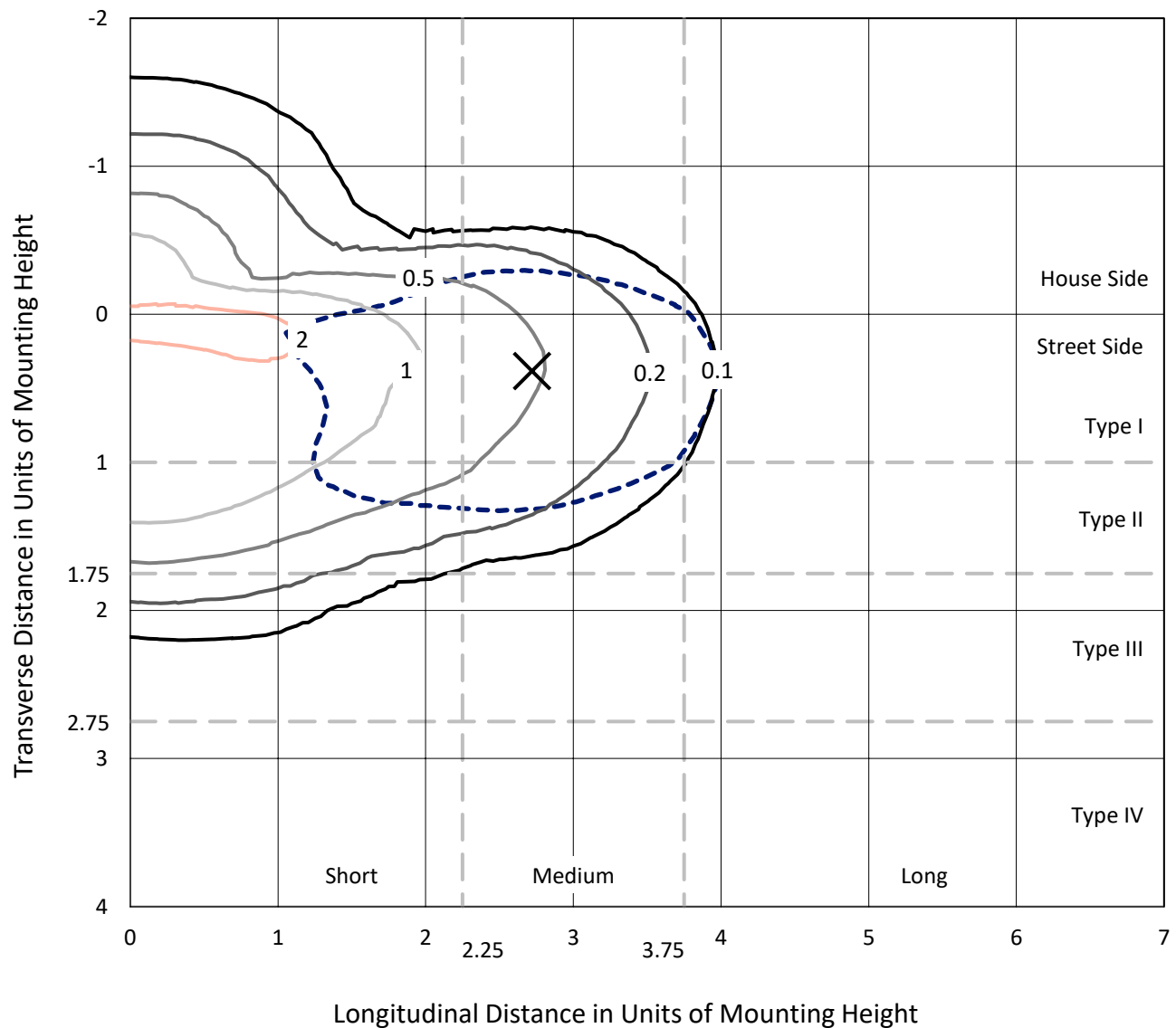
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P961038
CATALOG NUMBER: NAV-SB1D-830-U-T2

Iso-Footcandle Lines of Horizontal Illumination

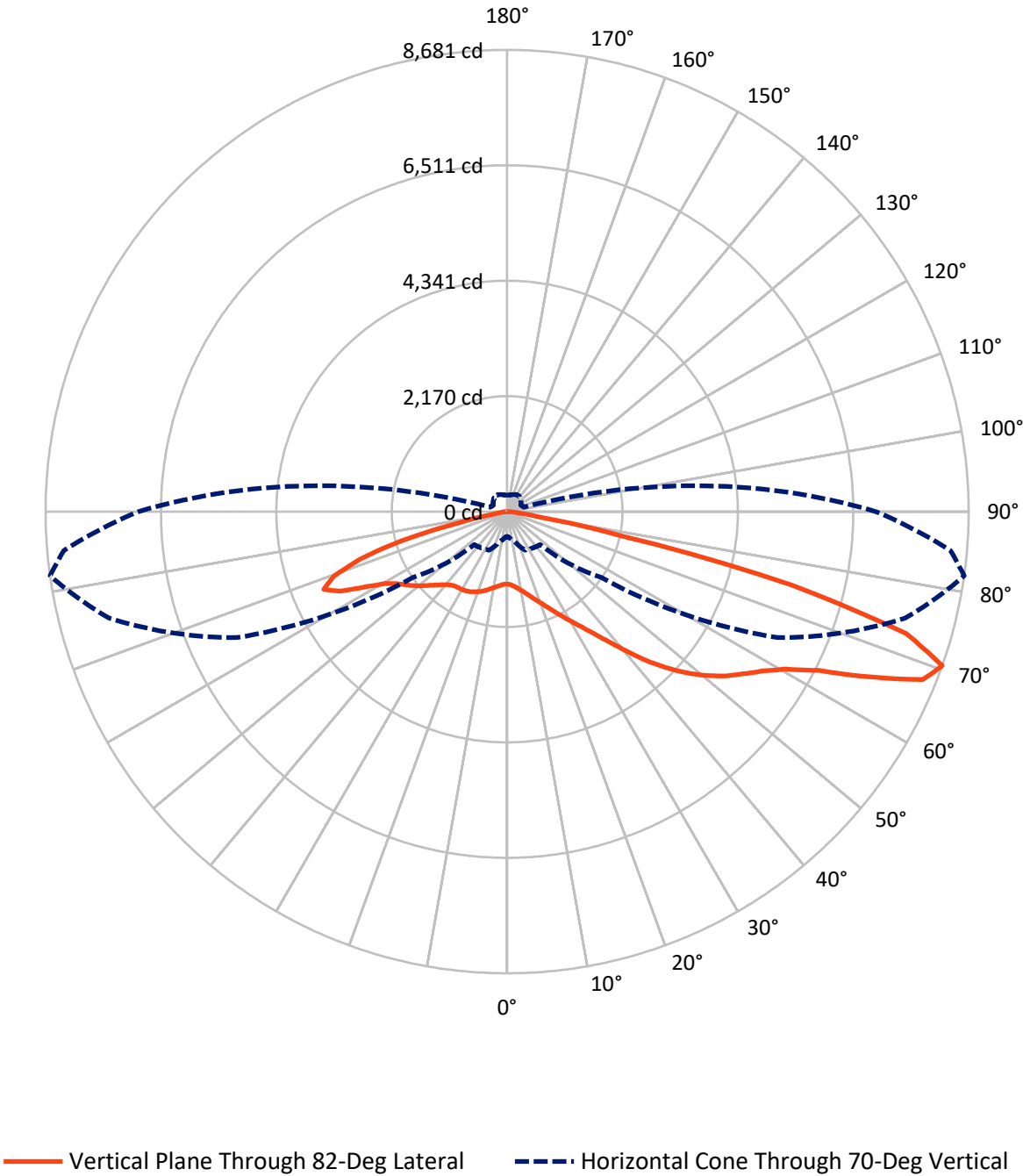
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type II - Medium - N/A

REPORT NUMBER: P961038
CATALOG NUMBER: NAV-SB1D-830-U-T2

Luminous Intensity Polar Plot



REPORT NUMBER: P961038

CATALOG NUMBER: NAV-SB1D-830-U-T2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2290.1	0.0	2290.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	6999.5	0.0	6999.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	9289.6	0.0	9289.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.6	1.4
10°-20°	369.5	4.0
20°-30°	618.1	6.7
30°-40°	965.6	10.4
40°-50°	1537.8	16.6
50°-60°	2140.0	23.0
60°-70°	2238.6	24.1
70°-80°	1170.0	12.6
80°-90°	121.5	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°	9289.6	100.0
0°-180°	9289.6	100.0

Coefficient of Utilization



REPORT NUMBER: P961038

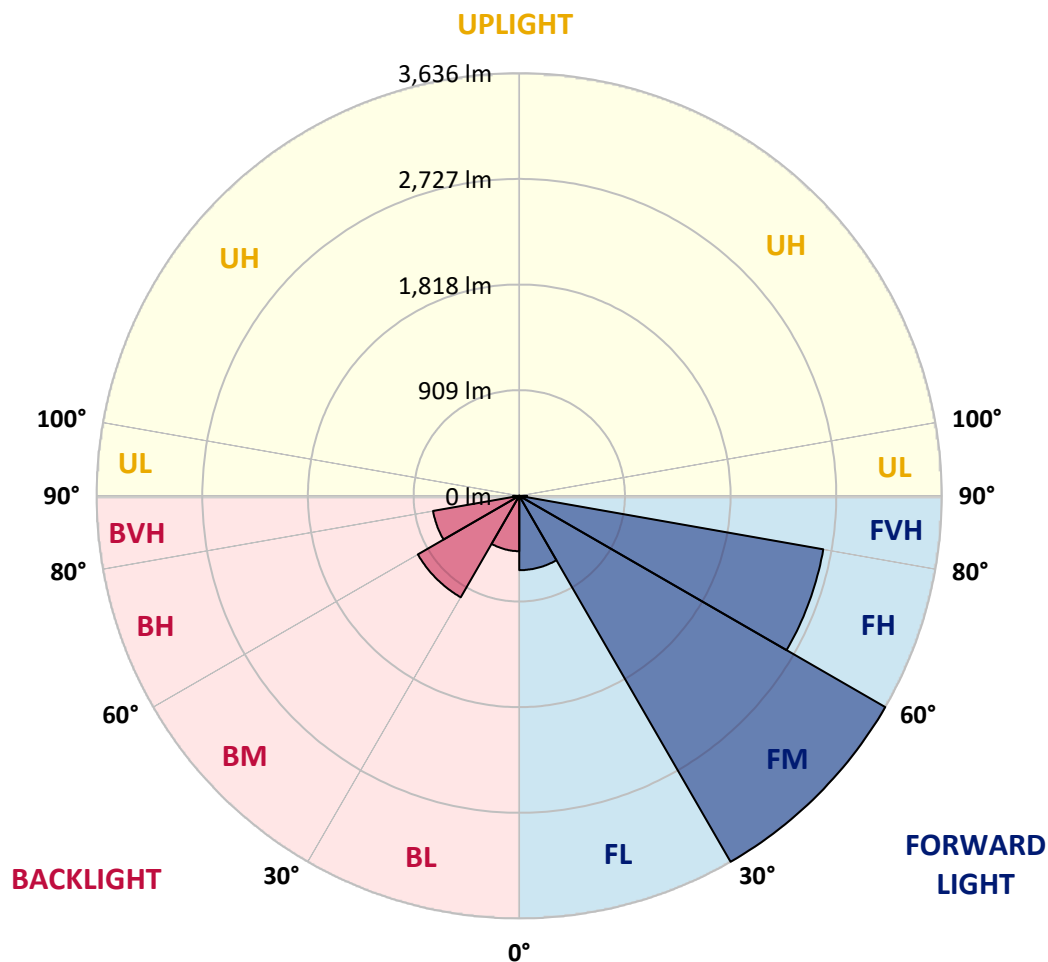
CATALOG NUMBER: NAV-SB1D-830-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	639.7	6.9			
FM	(30°-60°)	3635.8	39.1			
FH	(60°-80°)	2655.9	28.6			G2/5000
FVH	(80°-90°)	68.0	0.7			G1/100
BL	(0°-30°)	476.4	5.1	B1/500		
BM	(30°-60°)	1007.6	10.8	B2/2500		
BH	(60°-80°)	752.7	8.1	B2/1000		G2/1000
BVH	(80°-90°)	53.5	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



REPORT NUMBER: P961038

CATALOG NUMBER: NAV-SB1D-830-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9
2.5°	1394.5	1402.4	1399.9	1397.5	1397.5	1394.0	1393.5	1388.6	1384.7	1378.2	1376.8
5°	1412.2	1420.6	1419.6	1421.6	1428.0	1429.5	1431.0	1428.0	1420.1	1412.2	1408.8
7.5°	1396.5	1405.8	1408.8	1420.6	1440.3	1458.1	1471.4	1476.8	1469.4	1458.1	1452.6
10°	1343.3	1353.6	1364.0	1392.1	1427.0	1468.9	1504.4	1525.6	1524.2	1513.3	1504.0
12.5°	1235.3	1246.1	1268.3	1323.1	1387.1	1461.0	1527.1	1571.4	1586.7	1578.8	1562.6
15°	1149.0	1158.4	1175.2	1231.3	1314.7	1427.0	1535.4	1621.8	1660.7	1656.3	1636.5
17.5°	1146.6	1150.5	1160.8	1187.5	1251.5	1373.8	1526.6	1671.1	1745.5	1745.0	1720.4
20°	1189.9	1191.5	1197.3	1202.7	1239.2	1333.4	1504.0	1712.0	1840.6	1840.6	1813.9
22.5°	1250.1	1249.1	1255.0	1250.1	1267.8	1329.9	1489.6	1747.9	1946.6	1954.5	1921.0
25°	1340.3	1335.4	1333.8	1322.6	1325.9	1361.9	1505.4	1788.8	2072.2	2088.5	2046.6
27.5°	1460.5	1452.6	1447.2	1421.2	1412.2	1428.0	1553.7	1838.1	2212.3	2240.3	2187.1
30°	1617.3	1603.0	1595.1	1549.8	1517.7	1520.2	1626.7	1903.7	2358.6	2404.0	2336.5
32.5°	1831.3	1809.0	1787.9	1713.4	1654.8	1635.6	1720.9	1994.4	2517.4	2589.9	2503.2
35°	2070.8	2053.1	2030.4	1915.5	1825.3	1780.9	1848.0	2121.0	2703.2	2818.1	2705.2
37.5°	2301.5	2286.3	2297.0	2142.2	2025.9	1961.3	2014.6	2291.2	2932.4	3102.1	2958.6
40°	2540.1	2528.3	2529.7	2381.8	2246.3	2173.8	2216.7	2504.6	3195.1	3439.7	3263.2
42.5°	2799.4	2790.5	2760.9	2629.7	2477.4	2410.0	2449.3	2751.0	3477.1	3824.2	3597.4
45°	3089.7	3084.2	3056.7	2906.3	2731.8	2655.9	2709.2	3023.1	3760.5	4186.0	3933.1
47.5°	3340.6	3345.0	3341.6	3214.9	3034.0	2922.6	2986.1	3307.1	4024.3	4526.1	4255.0
50°	3461.3	3484.5	3518.5	3479.1	3366.7	3253.4	3265.6	3581.1	4275.7	4845.0	4563.5
52.5°	3398.3	3442.2	3534.8	3597.9	3641.3	3617.6	3584.6	3853.3	4512.3	5132.9	4855.3
55°	3163.1	3224.8	3378.5	3530.8	3752.2	3924.2	3967.6	4154.9	4743.0	5386.3	5131.5
57.5°	2734.8	2834.8	2972.9	3280.9	3653.6	4072.6	4414.2	4573.4	4987.4	5656.9	5420.3
60°	2000.3	2134.4	2305.9	2764.3	3308.6	3993.2	4794.2	5216.2	5335.0	6007.3	5796.4
62.5°	1280.1	1362.9	1520.7	1952.5	2578.0	3586.6	4910.6	6019.6	5924.1	6582.1	6360.3
65°	876.5	929.7	1074.1	1316.6	1666.6	2669.7	4599.1	6622.0	6859.6	7493.1	7324.4
67.5°	636.8	677.3	800.5	1013.0	1085.9	1579.8	3568.8	6594.4	7769.1	8431.5	8169.4
70°	464.3	492.9	596.4	800.5	835.5	878.9	2162.0	5605.6	7749.4	8681.0	8367.0
72.5°	344.1	363.8	433.3	621.0	676.3	593.5	1070.2	4074.1	6659.0	7851.9	7600.0
75°	249.0	263.7	315.0	475.2	541.2	452.0	533.8	2380.9	4644.9	5523.3	5567.7
77.5°	190.2	201.6	235.1	348.0	433.3	339.2	331.3	1095.3	2202.4	2213.3	2337.5
80°	152.8	160.2	178.5	245.0	332.2	253.9	215.9	442.2	696.0	589.1	618.2
82.5°	112.3	124.7	150.9	172.0	237.6	175.0	131.6	223.3	264.7	227.8	229.7
85°	64.1	72.5	91.2	123.2	151.8	107.0	75.4	99.1	123.2	101.1	90.2
87.5°	22.7	29.6	32.1	48.3	66.0	44.4	29.1	28.6	40.4	30.0	25.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P961038

CATALOG NUMBER: NAV-SB1D-830-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9	1361.9
2.5°	1371.9	1369.4	1359.5	1346.2	1332.4	1319.1	1314.7	1305.2	1298.9	1295.4	1299.4
5°	1399.4	1391.5	1368.4	1338.8	1307.7	1274.2	1250.6	1228.9	1213.1	1198.3	1204.3
7.5°	1438.9	1425.1	1385.2	1333.4	1278.2	1222.5	1181.1	1149.5	1128.3	1114.5	1117.5
10°	1484.7	1463.5	1402.4	1325.0	1239.7	1159.9	1111.1	1083.9	1070.6	1063.2	1065.2
12.5°	1537.5	1507.4	1420.1	1305.7	1181.1	1089.9	1056.4	1048.5	1049.0	1049.5	1050.4
15°	1602.5	1560.7	1434.4	1263.8	1104.6	1036.2	1030.2	1043.0	1056.4	1062.7	1062.3
17.5°	1676.0	1616.8	1436.8	1194.8	1029.7	1001.6	1020.4	1048.0	1068.2	1077.1	1079.0
20°	1754.8	1674.0	1419.1	1097.3	968.1	973.5	1007.1	1042.5	1064.8	1076.0	1079.0
22.5°	1845.0	1735.1	1376.8	994.8	917.9	943.0	982.4	1016.9	1040.1	1051.4	1054.4
25°	1948.0	1803.6	1310.3	908.5	874.4	908.5	947.9	976.5	995.3	1005.6	1008.5
27.5°	2062.4	1875.1	1221.5	840.0	836.5	873.0	905.5	927.7	937.6	945.5	948.4
30°	2177.3	1940.2	1114.1	788.2	803.5	837.9	861.1	871.0	874.0	875.5	878.9
32.5°	2301.5	1996.4	1001.1	745.3	771.9	804.0	817.7	822.3	808.4	799.1	802.0
35°	2451.8	2056.5	890.7	711.3	740.9	768.4	773.0	769.0	752.7	733.5	734.5
37.5°	2637.6	2131.4	802.5	687.2	711.8	730.0	724.6	723.6	725.1	702.4	703.9
40°	2865.4	2229.1	737.9	668.4	688.1	692.1	676.8	685.2	692.6	658.0	659.1
42.5°	3118.3	2346.8	697.0	655.6	668.4	659.1	635.4	644.7	643.8	598.4	597.9
45°	3376.0	2475.0	682.8	646.3	650.2	631.4	605.4	607.8	587.1	546.1	547.7
47.5°	3632.4	2612.5	691.6	638.4	627.5	606.3	586.1	575.2	544.7	514.1	514.1
50°	3883.8	2756.9	724.2	622.6	596.4	584.1	569.3	550.1	517.6	491.5	489.4
52.5°	4116.9	2902.4	760.6	596.4	557.5	564.9	555.6	533.3	501.3	474.7	475.2
55°	4337.8	3047.8	774.9	560.5	521.0	548.2	542.7	501.8	463.4	441.7	439.7
57.5°	4578.4	3222.8	759.1	514.7	491.5	528.9	508.2	462.9	440.6	424.5	422.9
60°	4911.6	3497.3	725.1	458.0	463.4	500.3	464.8	446.1	422.0	403.7	402.7
62.5°	5465.1	4009.5	670.3	401.7	430.3	458.0	444.1	425.4	400.8	383.0	383.0
65°	6283.4	4721.3	567.3	357.8	393.4	416.6	422.0	403.2	377.6	358.9	359.9
67.5°	6973.5	5167.8	429.4	321.4	355.4	383.0	398.3	380.1	352.9	334.7	335.2
70°	6935.6	4843.5	327.8	285.4	321.8	349.9	369.7	355.4	326.4	309.0	310.6
72.5°	6160.1	4051.9	265.2	249.0	287.9	315.5	339.2	328.3	298.7	282.0	282.0
75°	4525.6	2876.3	212.0	212.0	245.5	279.5	305.7	298.7	271.6	259.7	256.4
77.5°	1907.6	1206.7	166.2	176.0	204.1	240.1	272.5	275.0	251.4	266.2	241.5
80°	507.3	332.7	126.7	138.5	160.2	198.1	237.1	236.2	210.4	196.7	182.9
82.5°	193.2	131.1	90.2	97.6	115.8	151.8	187.8	193.7	168.1	145.4	145.4
85°	74.4	56.2	55.7	58.6	67.5	100.6	142.0	146.9	126.7	107.4	110.9
87.5°	19.3	16.8	20.7	19.7	31.1	53.7	81.3	84.3	77.4	44.9	64.1
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)