

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: P882391

Luminaire Tested: **NAV-SB2B-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10280 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

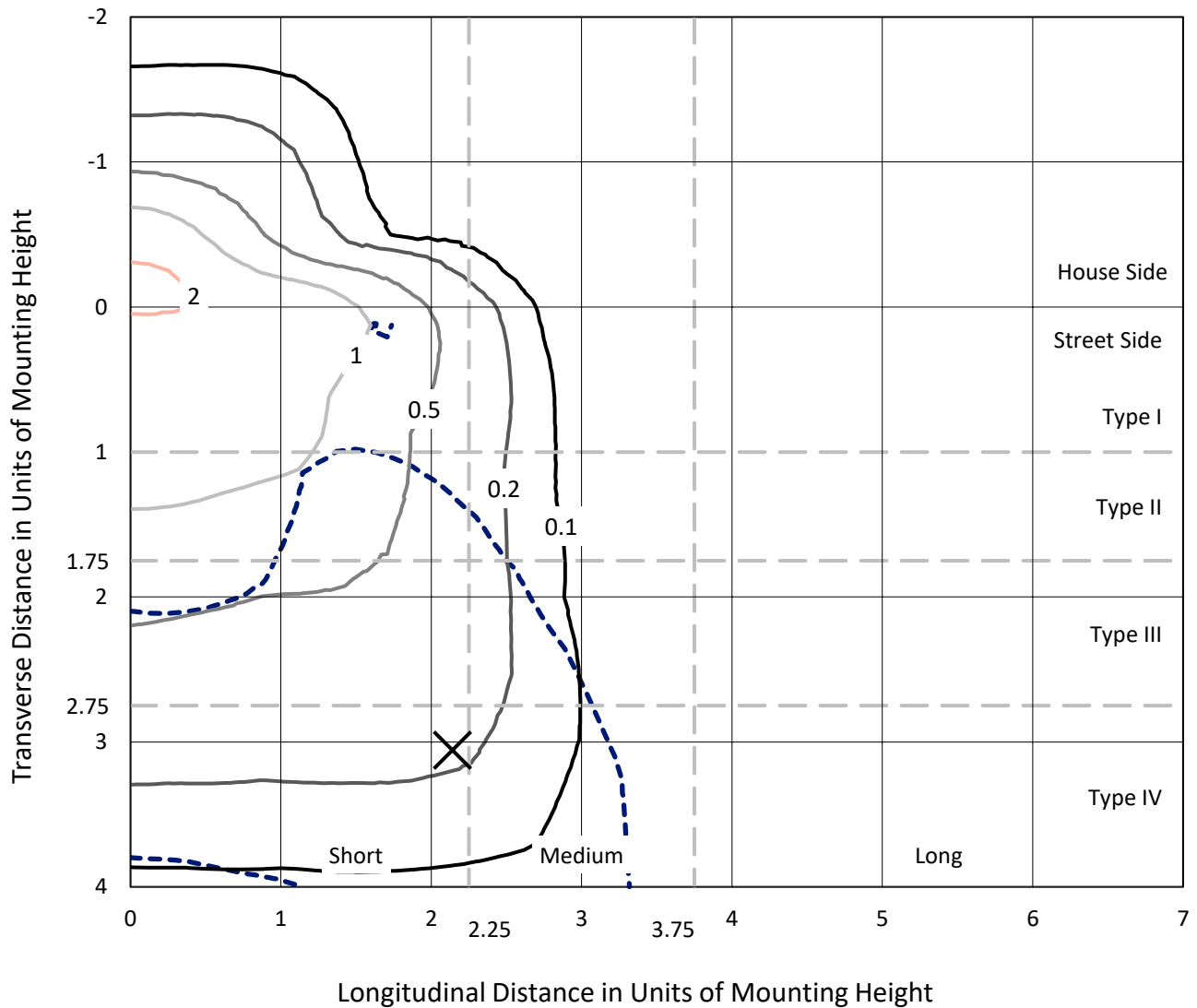
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

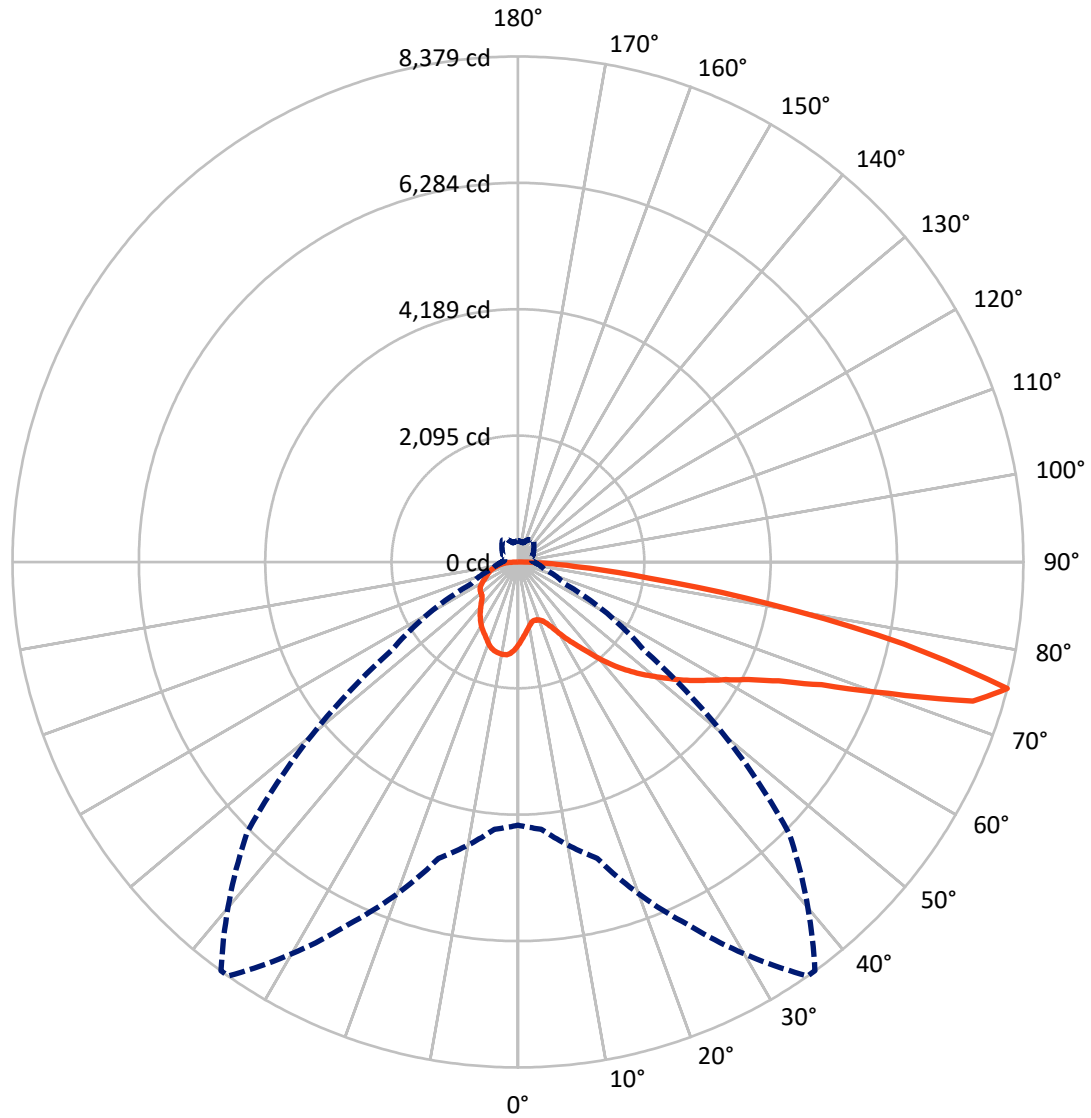
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2446.4	0.0	2446.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	7833.6	0.0	7833.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	10280.0	0.0	10280.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.7	1.3
10°-20°	374.1	3.6
20°-30°	628.2	6.1
30°-40°	976.4	9.5
40°-50°	1449.2	14.1
50°-60°	2000.7	19.5
60°-70°	2427.3	23.6
70°-80°	2006.0	19.5
80°-90°	288.5	2.8
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°	10280.0	100.0
0°-180°	10280.0	100.0

Coefficient of Utilization



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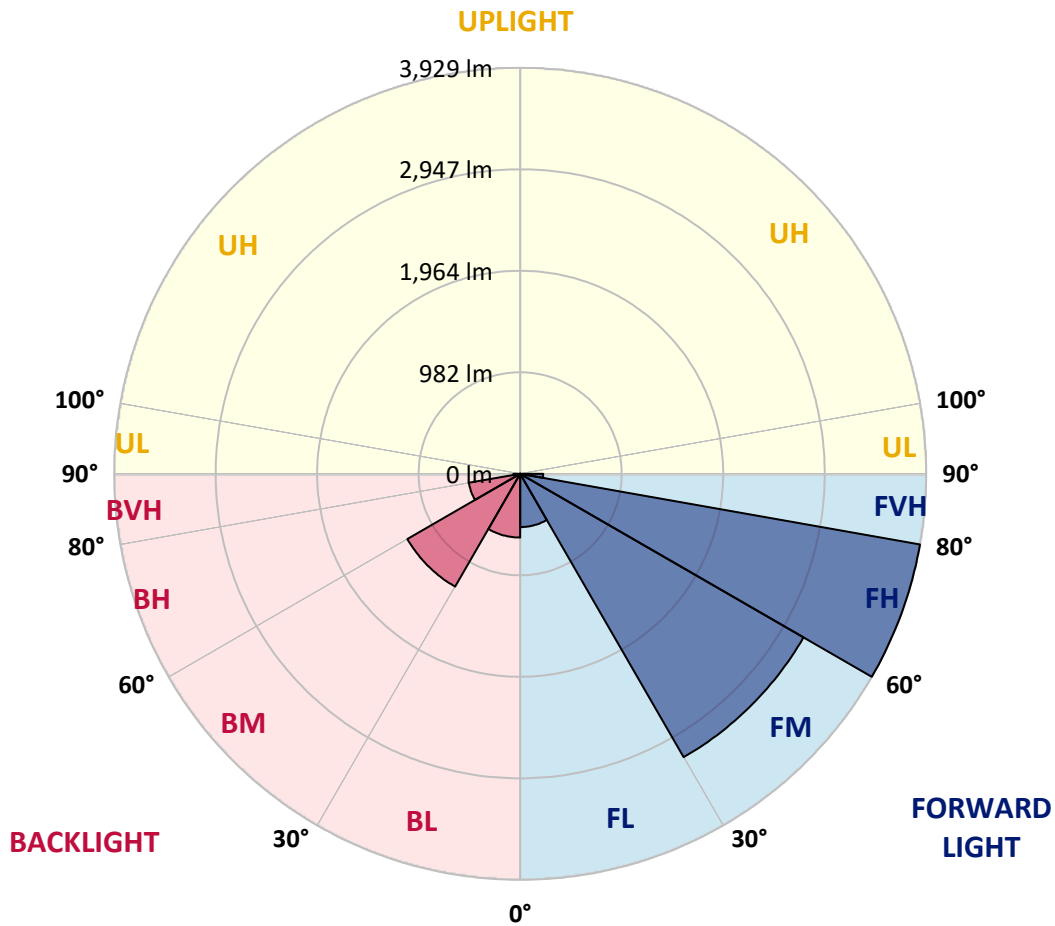
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	515.5	5.0			
FM (30°-60°)	3165.7	30.8			
FH (60°-80°)	3928.9	38.2			G2/5000
FVH (80°-90°)	223.6	2.2			G2/225
BL (0°-30°)	616.5	6.0	B2/1000		
BM (30°-60°)	1260.5	12.3	B2/2500		
BH (60°-80°)	504.4	4.9	B2/1000		G2/1000
BVH (80°-90°)	65.0	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9
2.5°	1263.2	1271.0	1274.3	1272.6	1281.0	1279.9	1291.5	1306.0	1326.0	1345.4	1373.8
5°	1165.9	1174.3	1181.5	1188.2	1204.3	1209.3	1227.6	1255.4	1292.1	1329.3	1376.0
7.5°	1075.3	1082.6	1093.7	1105.9	1133.1	1138.1	1168.7	1212.1	1263.2	1317.6	1382.1
10°	1001.4	1008.7	1020.3	1034.2	1068.1	1074.2	1113.1	1170.9	1237.6	1306.5	1388.8
12.5°	969.8	972.0	978.6	992.5	1022.0	1025.9	1068.7	1134.8	1212.6	1298.2	1398.8
15°	968.1	972.5	973.1	980.3	1004.8	1006.4	1045.9	1111.5	1197.0	1296.5	1413.8
17.5°	984.8	988.1	983.1	987.5	1008.1	1010.9	1042.0	1100.3	1192.0	1303.7	1439.3
20°	1029.2	1032.0	1017.0	1010.9	1025.9	1028.1	1058.7	1107.6	1197.0	1318.8	1474.4
22.5°	1123.7	1125.4	1088.7	1063.7	1064.8	1065.9	1092.6	1137.0	1216.5	1346.0	1518.8
25°	1271.0	1269.8	1211.5	1163.1	1135.4	1129.2	1147.0	1184.8	1249.3	1382.1	1576.1
27.5°	1443.2	1434.9	1376.5	1304.3	1243.7	1234.8	1230.9	1247.1	1296.0	1429.9	1646.1
30°	1637.7	1630.0	1567.2	1472.7	1388.8	1374.3	1337.6	1329.3	1365.4	1494.9	1743.3
32.5°	1851.1	1846.1	1771.1	1656.6	1544.4	1527.7	1466.0	1443.8	1472.1	1593.3	1878.9
35°	2030.1	2025.6	1963.4	1845.6	1708.3	1687.8	1625.0	1600.0	1614.4	1719.4	2056.2
37.5°	2191.8	2189.6	2136.2	2043.4	1901.7	1876.7	1806.1	1797.8	1795.0	1885.6	2271.3
40°	2341.9	2336.3	2280.7	2231.8	2126.8	2104.0	2041.8	2034.5	2013.4	2090.1	2514.7
42.5°	2508.0	2493.6	2413.0	2390.2	2361.9	2343.0	2305.7	2306.8	2260.2	2320.7	2772.5
45°	2643.6	2635.3	2552.5	2539.1	2569.7	2561.9	2594.2	2602.5	2511.9	2562.5	3040.4
47.5°	2789.2	2781.4	2711.4	2702.0	2784.8	2787.0	2900.9	2903.7	2757.5	2813.7	3308.8
50°	2968.7	2957.6	2888.1	2899.8	2992.6	3001.0	3209.4	3190.5	2983.7	3068.8	3575.0
52.5°	3087.1	3093.8	3078.8	3097.7	3224.4	3232.1	3512.8	3464.4	3207.7	3320.5	3836.2
55°	3174.3	3187.7	3234.4	3277.7	3468.9	3476.7	3799.0	3725.1	3393.3	3553.9	4081.9
57.5°	3286.6	3267.7	3355.0	3439.4	3701.2	3721.7	4077.4	3976.3	3557.8	3755.1	4250.2
60°	3447.8	3434.4	3502.2	3627.3	3961.3	3994.0	4371.9	4202.4	3678.4	3914.6	4283.0
62.5°	3774.5	3741.2	3751.7	3862.3	4289.1	4332.5	4704.3	4399.7	3738.4	3976.8	4107.4
65°	4263.0	4205.8	4152.4	4229.1	4751.0	4793.7	5079.4	4554.8	3716.2	3856.2	3641.2
67.5°	4878.2	4821.5	4756.0	4828.2	5431.2	5465.1	5542.3	4642.0	3541.1	3391.6	2817.0
70°	5385.6	5364.5	5442.8	5740.2	6517.6	6518.7	6135.8	4569.8	3061.5	2404.7	1630.0
72.5°	5318.4	5305.6	5718.5	6637.7	7886.9	7857.5	6697.7	4022.9	2062.3	1084.8	610.7
75°	4363.1	4445.9	5085.5	6621.5	8378.8	8374.9	6353.7	2557.5	853.0	449.6	315.7
77.5°	2339.6	2470.8	3301.6	4888.8	6541.0	6639.3	4467.0	894.7	366.2	287.9	218.4
80°	763.0	877.5	1316.0	2489.1	4250.2	4231.9	1914.5	351.2	250.6	204.0	151.2
82.5°	324.0	337.3	588.0	1175.4	2181.2	2147.3	609.6	201.7	176.2	139.5	93.4
85°	126.7	141.7	259.5	543.5	944.7	924.2	220.1	100.0	112.8	91.1	55.6
87.5°	41.7	50.6	92.8	186.2	294.0	283.4	53.9	34.5	48.9	41.7	20.0
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°	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9	1369.9
2.5°	1381.5	1390.4	1401.0	1416.6	1429.9	1441.0	1452.7	1459.9	1462.7	1471.0	1470.5
5°	1391.6	1411.0	1437.1	1462.7	1487.7	1502.7	1516.0	1522.7	1528.8	1533.3	1534.4
7.5°	1408.2	1433.2	1474.4	1507.7	1528.8	1541.0	1549.9	1547.7	1549.9	1551.0	1552.7
10°	1422.7	1457.7	1506.6	1538.3	1554.4	1554.9	1552.7	1544.9	1541.0	1541.6	1542.7
12.5°	1439.9	1478.8	1531.6	1558.3	1562.7	1550.5	1541.0	1527.7	1522.7	1520.5	1519.4
15°	1463.2	1507.7	1558.8	1568.8	1557.7	1542.2	1526.0	1504.4	1493.3	1484.4	1487.1
17.5°	1491.6	1540.5	1579.9	1572.7	1548.8	1523.3	1497.1	1464.4	1441.6	1432.1	1432.7
20°	1531.0	1574.9	1596.1	1564.4	1528.3	1489.4	1444.9	1404.9	1383.8	1374.3	1373.2
22.5°	1578.8	1621.1	1611.6	1549.9	1498.8	1436.6	1381.0	1351.5	1341.0	1334.3	1335.4
25°	1636.1	1672.2	1622.7	1528.8	1450.5	1366.5	1323.8	1314.3	1309.3	1304.3	1304.3
27.5°	1710.5	1730.0	1631.1	1497.7	1374.9	1292.1	1276.5	1278.2	1276.5	1268.2	1269.8
30°	1808.9	1805.0	1638.9	1447.1	1288.2	1224.8	1225.9	1233.2	1234.3	1228.7	1231.5
32.5°	1938.4	1898.9	1642.7	1381.5	1205.4	1165.9	1167.0	1174.8	1180.4	1170.9	1175.4
35°	2095.1	2008.4	1636.6	1299.3	1141.5	1109.8	1101.5	1103.7	1105.4	1096.5	1102.6
37.5°	2277.9	2131.2	1609.4	1208.2	1088.7	1054.8	1037.0	1022.0	1013.1	1004.8	1010.3
40°	2478.6	2265.2	1559.4	1119.2	1029.8	996.4	969.8	941.4	911.4	900.3	905.3
42.5°	2688.6	2403.0	1498.8	1034.2	962.0	934.7	906.4	865.3	820.3	797.5	800.3
45°	2906.5	2544.1	1439.3	950.3	892.5	880.8	848.0	798.6	749.7	720.8	718.6
47.5°	3119.9	2677.5	1352.1	865.8	827.5	840.3	814.7	769.1	714.7	669.1	664.1
50°	3323.8	2802.6	1209.3	780.2	774.7	828.0	803.6	738.0	675.8	617.4	612.4
52.5°	3526.1	2903.7	1026.4	702.4	746.3	824.7	789.1	716.9	640.8	579.6	573.0
55°	3697.8	2955.9	850.3	635.8	705.2	796.4	771.9	691.9	591.3	526.3	520.7
57.5°	3795.7	2913.7	703.6	570.2	648.5	749.7	742.5	638.5	532.4	482.4	475.7
60°	3753.4	2742.5	583.5	512.9	594.6	699.1	691.3	585.7	487.4	440.1	433.5
62.5°	3520.6	2416.3	488.5	462.9	545.7	647.4	640.2	545.2	452.9	407.4	400.1
65°	3051.5	1965.6	414.6	421.2	496.3	585.2	595.7	511.3	425.7	381.2	374.0
67.5°	2327.4	1423.8	356.8	385.1	447.9	524.1	554.6	486.8	402.9	360.7	354.0
70°	1326.5	808.6	307.9	350.1	405.1	467.4	522.9	467.4	378.5	343.4	339.0
72.5°	502.9	371.2	266.2	315.1	364.0	419.6	487.9	436.8	350.1	324.0	319.5
75°	268.4	226.2	224.0	274.0	316.8	372.9	444.0	406.8	329.0	342.3	353.4
77.5°	182.8	160.1	187.3	234.5	265.1	321.2	397.3	361.2	285.1	284.0	261.7
80°	126.7	113.4	152.3	188.9	205.1	270.1	346.8	310.1	232.3	216.7	207.3
82.5°	76.1	73.9	113.9	141.2	145.0	208.4	287.3	260.1	190.1	165.6	166.7
85°	41.7	43.9	72.8	82.8	84.5	145.6	225.1	201.2	146.2	122.8	123.9
87.5°	11.7	15.0	26.7	32.8	40.6	75.6	133.9	119.5	73.4	51.1	51.1
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)