

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: P197211

Luminaire Tested: **NAV-AF-03-D-UNV-T2-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197211  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-03-D-UNV-T2-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9533 lumens  
Efficiency: N/A  
Efficacy: 99.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G2

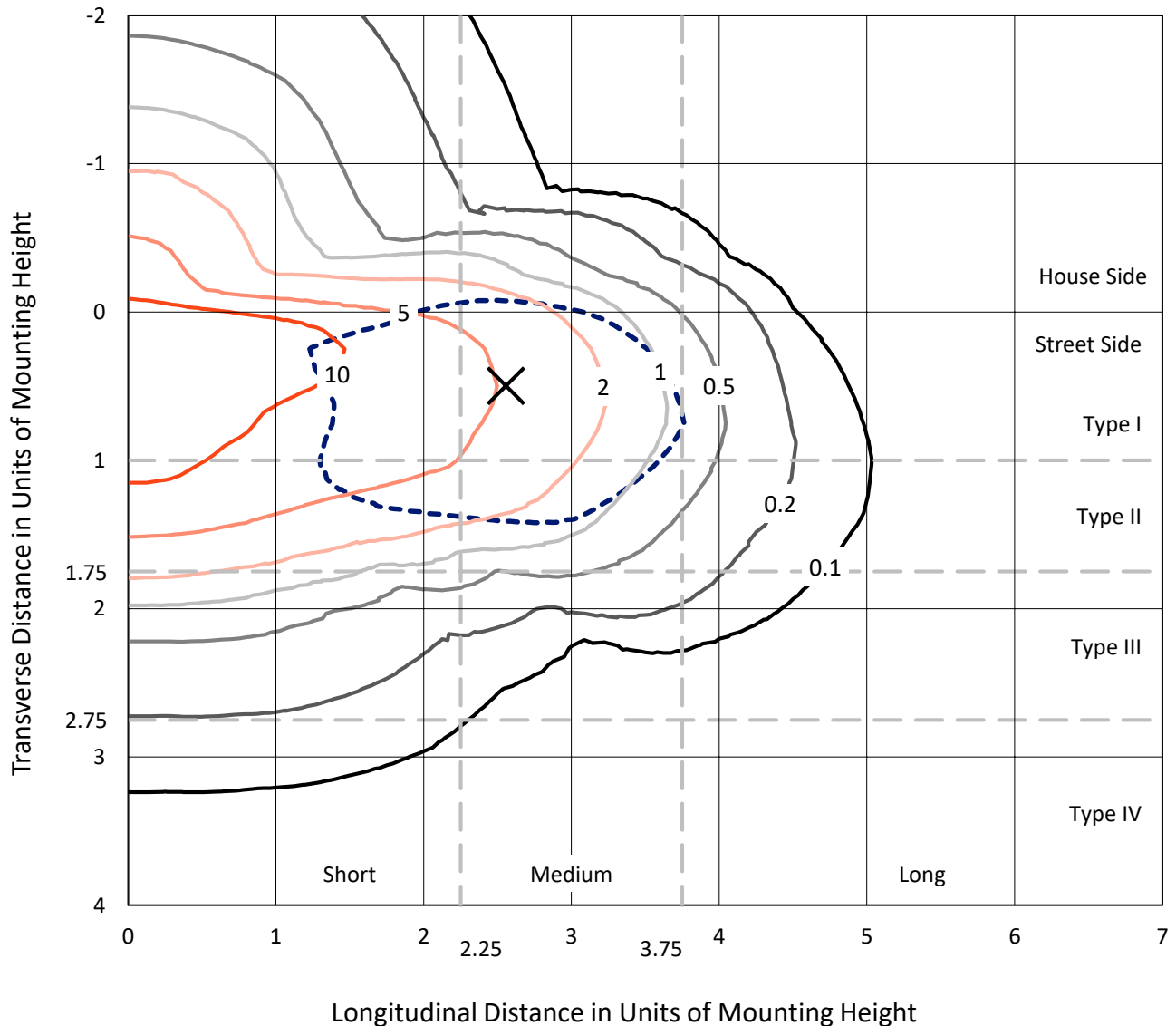
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

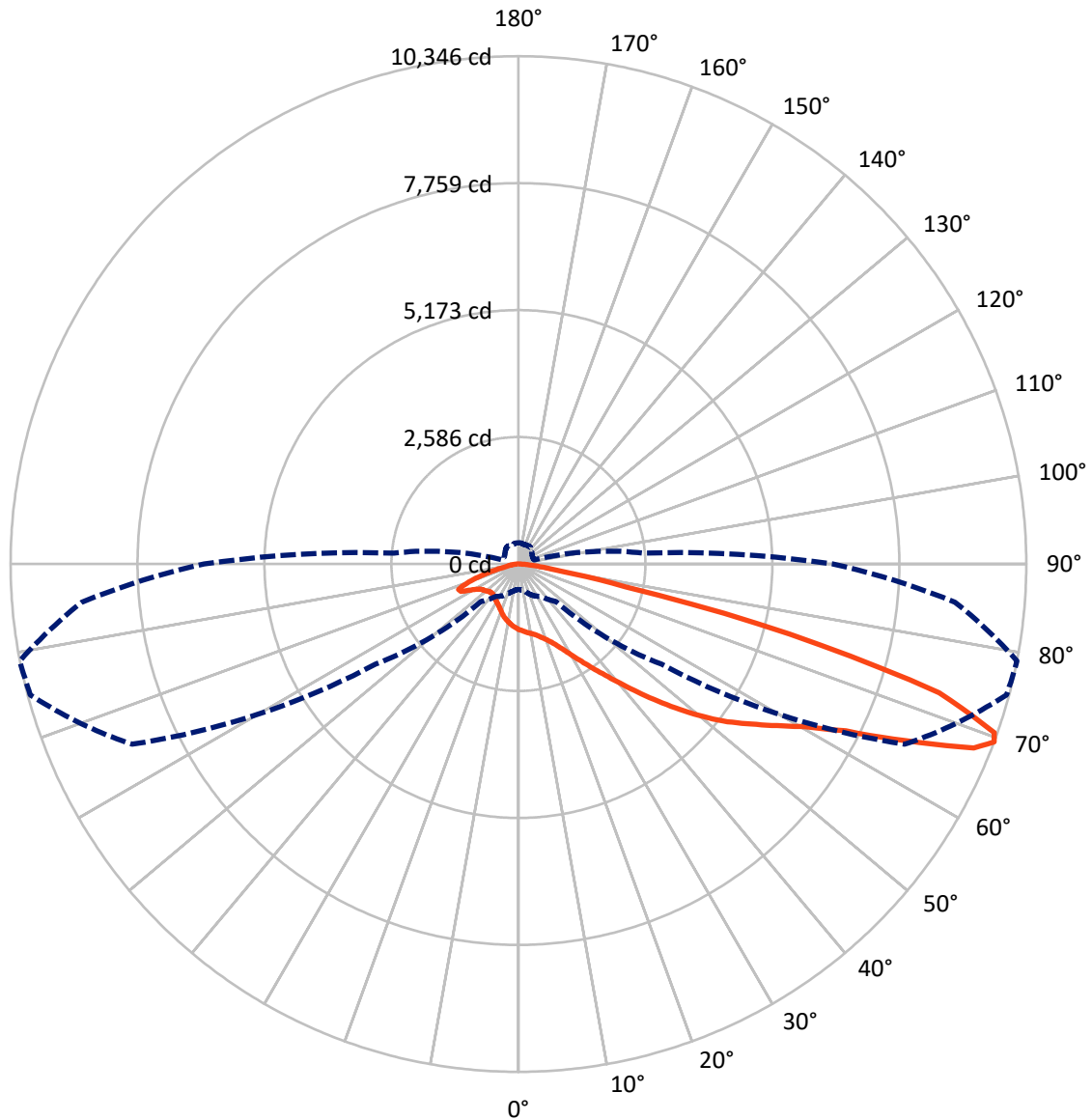
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1793.3	0.0	1793.3
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	7739.7	0.0	7739.7
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	9533.0	0.0	9533.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	1.3
10°-20°	355.6	3.7
20°-30°	587.5	6.2
30°-40°	951.4	10.0
40°-50°	1519.8	15.9
50°-60°	2176.5	22.8
60°-70°	2425.0	25.4
70°-80°	1213.2	12.7
80°-90°	180.0	1.9
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°	9533.0	100.0
0°-180°	9533.0	100.0

**Coefficient of Utilization**



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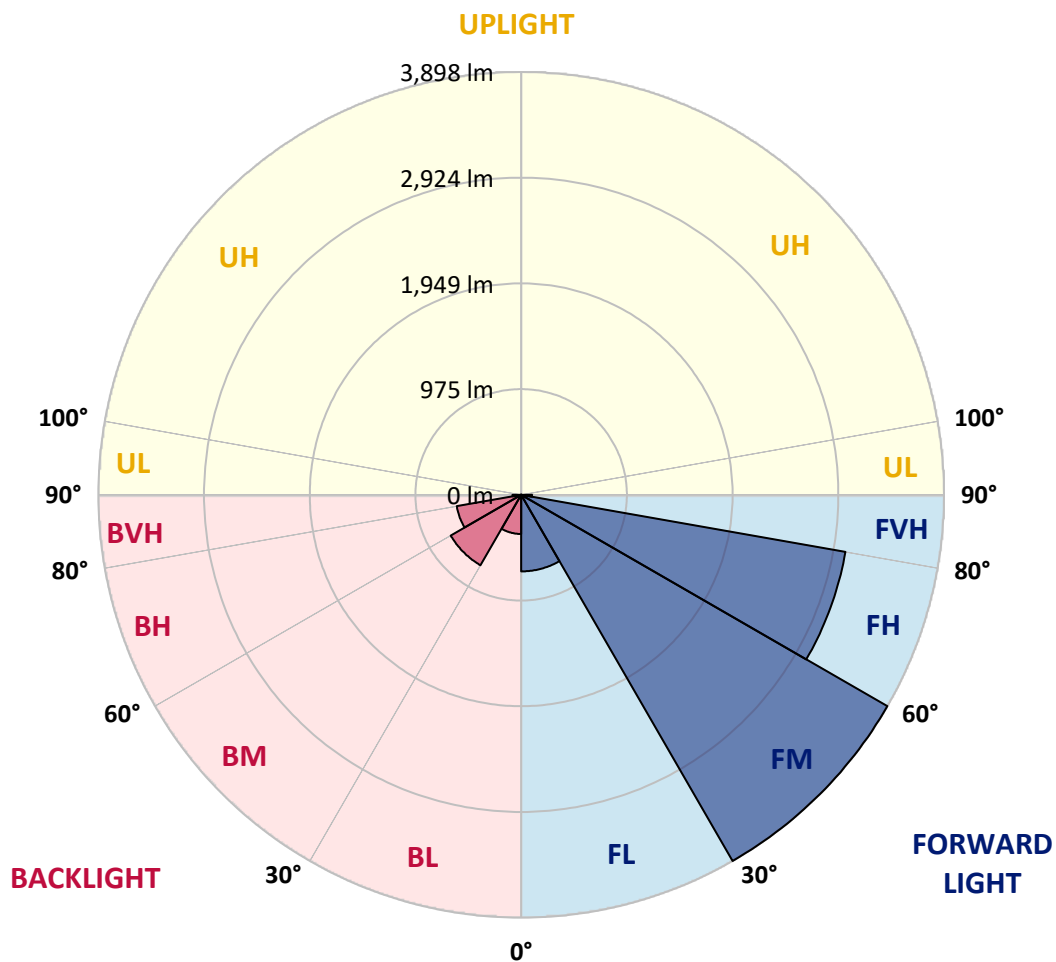
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	705.8	7.4			
FM	(30°-60°)	3898.1	40.9			
FH	(60°-80°)	3035.2	31.8			G2/5000
FVH	(80°-90°)	100.6	1.1			G2/225
BL	(0°-30°)	361.3	3.8	B1/500		
BM	(30°-60°)	749.6	7.9	B1/1000		
BH	(60°-80°)	603.0	6.3	B2/1000		G2/1000
BVH	(80°-90°)	79.4	0.8			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°	79°	85°
0°	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8
2.5°	1468.8	1465.6	1465.0	1455.7	1450.7	1440.1	1415.1	1389.5	1365.8	1353.4	1340.3
5°	1591.6	1585.4	1582.3	1566.7	1552.9	1529.2	1490.0	1449.4	1407.0	1385.2	1359.0
7.5°	1665.8	1666.5	1666.5	1654.0	1640.3	1611.6	1561.7	1506.2	1443.2	1414.5	1373.3
10°	1672.1	1672.7	1682.0	1685.2	1688.3	1673.3	1627.2	1557.3	1476.2	1438.8	1385.2
12.5°	1610.3	1614.7	1630.3	1652.7	1684.5	1700.8	1680.8	1612.2	1518.6	1473.1	1407.6
15°	1527.4	1531.7	1551.7	1586.0	1637.1	1691.4	1719.5	1675.2	1574.2	1520.5	1440.7
17.5°	1486.8	1491.8	1505.5	1533.0	1582.9	1655.9	1740.1	1742.5	1639.6	1577.9	1480.0
20°	1467.5	1471.2	1488.7	1511.2	1549.2	1619.1	1741.9	1813.6	1717.6	1645.9	1528.0
22.5°	1511.8	1513.0	1521.8	1534.2	1559.8	1613.4	1740.7	1887.2	1814.9	1731.3	1589.7
25°	1641.5	1633.4	1627.2	1611.6	1617.8	1655.9	1760.6	1965.8	1939.6	1843.6	1672.1
27.5°	1794.9	1793.7	1777.5	1741.3	1718.2	1742.5	1817.4	2053.8	2092.4	1986.4	1780.0
30°	1965.8	1966.4	1949.6	1905.3	1858.5	1861.0	1907.8	2155.4	2275.2	2158.5	1912.8
32.5°	2144.8	2156.0	2124.9	2080.6	2023.8	2005.7	2037.5	2278.3	2486.6	2361.9	2066.9
35°	2358.7	2360.6	2326.3	2261.4	2204.7	2176.0	2205.3	2431.7	2730.4	2600.7	2254.6
37.5°	2580.8	2582.0	2546.5	2463.5	2391.8	2373.1	2405.5	2618.2	2988.6	2872.6	2475.4
40°	2762.3	2775.4	2747.3	2669.3	2597.0	2585.8	2632.5	2841.5	3318.6	3194.5	2737.9
42.5°	2968.1	2983.0	2949.4	2868.3	2810.9	2807.2	2880.1	3095.9	3646.6	3566.8	3035.4
45°	3200.1	3221.3	3174.5	3083.4	3034.8	3117.1	3121.5	3377.8	4024.6	3983.4	3370.3
47.5°	3453.3	3470.7	3432.7	3334.8	3281.8	3400.9	3357.9	3682.8	4433.1	4430.0	3732.7
50°	3648.5	3667.8	3671.6	3628.5	3573.0	3588.0	3617.3	4003.4	4840.3	4889.0	4107.5
52.5°	3612.9	3631.7	3715.9	3828.7	3917.9	3879.3	3914.8	4343.9	5233.9	5336.8	4463.6
55°	3326.1	3336.0	3493.8	3762.0	4141.8	4326.4	4328.9	4714.4	5608.1	5752.1	4801.7
57.5°	2809.0	2810.3	3015.5	3410.9	4011.5	4616.4	4982.5	5179.6	5998.5	6211.2	5220.8
60°	1987.6	1992.6	2231.5	2748.5	3544.3	4581.5	5685.4	6012.2	6450.7	6726.9	5760.9
62.5°	1180.0	1191.2	1371.5	1786.2	2632.5	4132.5	6100.8	7493.4	7116.7	7483.5	6625.3
65°	767.7	777.1	885.0	1093.3	1555.4	3006.7	5964.2	8927.9	8377.2	8673.4	7867.7
67.5°	591.2	598.7	683.5	809.5	954.2	1625.3	4768.6	9228.5	9911.4	10003.7	8916.0
69°	519.5	525.8	588.1	709.1	803.3	1075.8	3553.7	8682.8	10295.0	10345.5	8929.1
70°	481.5	486.5	545.1	649.9	737.8	858.8	2719.8	8049.1	10154.7	10283.8	8671.6
72.5°	396.7	401.0	442.8	523.3	603.1	611.8	1204.9	5877.5	8550.6	8963.4	7338.2
75°	331.2	333.7	361.1	419.7	488.3	487.1	615.6	3329.2	5217.7	5709.7	4531.0
77.5°	276.3	278.2	296.2	332.4	385.4	383.6	433.5	1436.9	2303.9	2222.8	1559.8
80°	243.9	245.1	254.5	263.8	297.5	295.6	321.2	659.8	937.4	866.3	590.0
82.5°	185.2	187.7	235.1	239.5	230.8	222.7	223.9	384.2	480.2	437.2	316.8
85°	104.8	105.4	150.9	176.5	200.8	150.9	145.3	198.3	237.0	207.7	138.5
87.5°	46.8	48.6	72.3	83.6	108.5	88.6	82.9	84.2	102.3	84.8	54.9
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°	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8
2.5°	1327.8	1317.2	1292.3	1266.7	1241.1	1224.9	1208.1	1192.5	1186.2	1185.6	1173.8
5°	1333.4	1308.5	1251.7	1189.3	1130.1	1083.9	1045.3	1020.3	996.0	991.6	981.0
7.5°	1335.3	1294.7	1202.4	1102.7	1012.2	948.6	909.9	893.1	881.3	878.1	874.4
10°	1334.7	1277.3	1147.6	1011.0	908.1	860.0	845.7	849.4	854.4	856.9	856.9
12.5°	1344.6	1269.2	1092.7	924.9	840.7	817.6	828.9	848.2	863.2	869.4	870.6
15°	1362.7	1264.2	1032.2	850.1	793.3	798.9	826.4	854.4	875.6	885.0	887.5
17.5°	1385.2	1257.3	962.3	788.3	765.9	785.2	820.8	856.3	881.9	893.7	895.6
20°	1410.1	1247.3	890.0	742.2	741.5	765.9	801.4	841.3	868.8	881.9	881.3
22.5°	1443.8	1238.0	822.6	708.5	714.7	737.2	766.5	802.7	828.2	840.1	837.6
25°	1488.7	1229.3	762.1	678.6	684.2	699.1	719.7	747.2	765.2	771.5	767.1
27.5°	1549.2	1222.4	714.7	651.1	650.5	657.4	669.8	684.8	693.5	691.7	684.8
30°	1623.4	1215.5	679.8	626.8	618.1	617.4	623.1	631.8	637.4	626.2	620.6
32.5°	1706.4	1203.7	648.6	605.6	590.0	584.4	586.9	598.7	621.8	610.6	606.2
35°	1804.3	1190.0	617.4	582.5	570.7	560.1	561.9	587.5	657.4	649.2	644.9
37.5°	1922.2	1177.5	588.7	557.6	556.9	543.8	542.6	573.2	666.7	649.2	645.5
40°	2063.7	1175.0	563.2	530.1	540.1	535.1	530.7	549.5	614.9	579.4	572.5
42.5°	2234.6	1186.2	544.5	503.9	520.8	532.6	524.5	528.9	555.7	523.9	518.3
45°	2434.2	1216.8	530.7	480.9	500.2	530.7	521.4	517.6	522.0	504.6	500.8
47.5°	2666.8	1271.0	521.4	461.5	480.9	525.8	520.1	512.7	510.8	500.8	498.3
50°	2915.7	1344.0	515.2	444.1	463.4	517.0	519.5	508.9	505.8	501.4	500.2
52.5°	3162.7	1423.2	507.7	429.1	449.0	506.4	520.1	505.2	500.8	498.3	497.1
55°	3408.4	1505.5	493.9	416.0	438.4	493.9	519.5	500.2	495.2	495.2	495.2
57.5°	3727.1	1630.9	475.9	405.4	424.7	477.7	511.4	494.6	487.7	488.3	489.0
60°	4187.3	1841.1	455.9	393.5	406.6	459.0	498.9	484.6	476.5	479.0	479.6
62.5°	4956.3	2208.4	428.5	376.7	387.9	439.1	482.7	470.9	463.4	467.8	468.4
65°	5981.7	2653.1	392.3	355.5	368.6	416.6	462.1	454.7	446.6	457.2	456.5
67.5°	6607.2	2783.5	354.2	333.0	349.9	392.9	436.6	433.5	427.8	446.6	445.3
69°	6402.0	2547.7	332.4	318.7	336.8	376.7	420.4	419.1	414.7	432.8	431.6
70°	6083.3	2327.6	318.7	309.3	329.9	366.7	409.8	409.8	405.4	421.0	417.9
72.5°	4886.5	1726.3	286.9	285.6	306.2	339.3	381.1	384.2	381.7	387.3	384.2
75°	2868.9	1040.3	255.7	259.4	277.5	310.0	349.3	351.8	349.3	348.6	349.3
77.5°	994.8	466.5	225.8	231.4	247.0	280.0	314.3	319.3	315.6	311.2	312.5
80°	389.2	271.3	193.3	201.4	214.5	246.4	279.4	282.5	276.9	276.3	271.3
82.5°	233.9	165.3	150.3	163.4	179.6	213.9	241.4	240.1	235.7	261.3	228.9
85°	101.7	91.7	109.8	122.9	131.0	160.3	203.9	198.3	187.7	165.3	161.5
87.5°	41.2	47.4	60.5	73.0	78.6	103.5	139.7	134.7	136.6	112.3	111.6
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)