

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: P196730

Luminaire Tested: **NAV-AF-02-D-UNV-T2-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196730  
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-02-D-UNV-T2-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 70 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: 7596.8 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

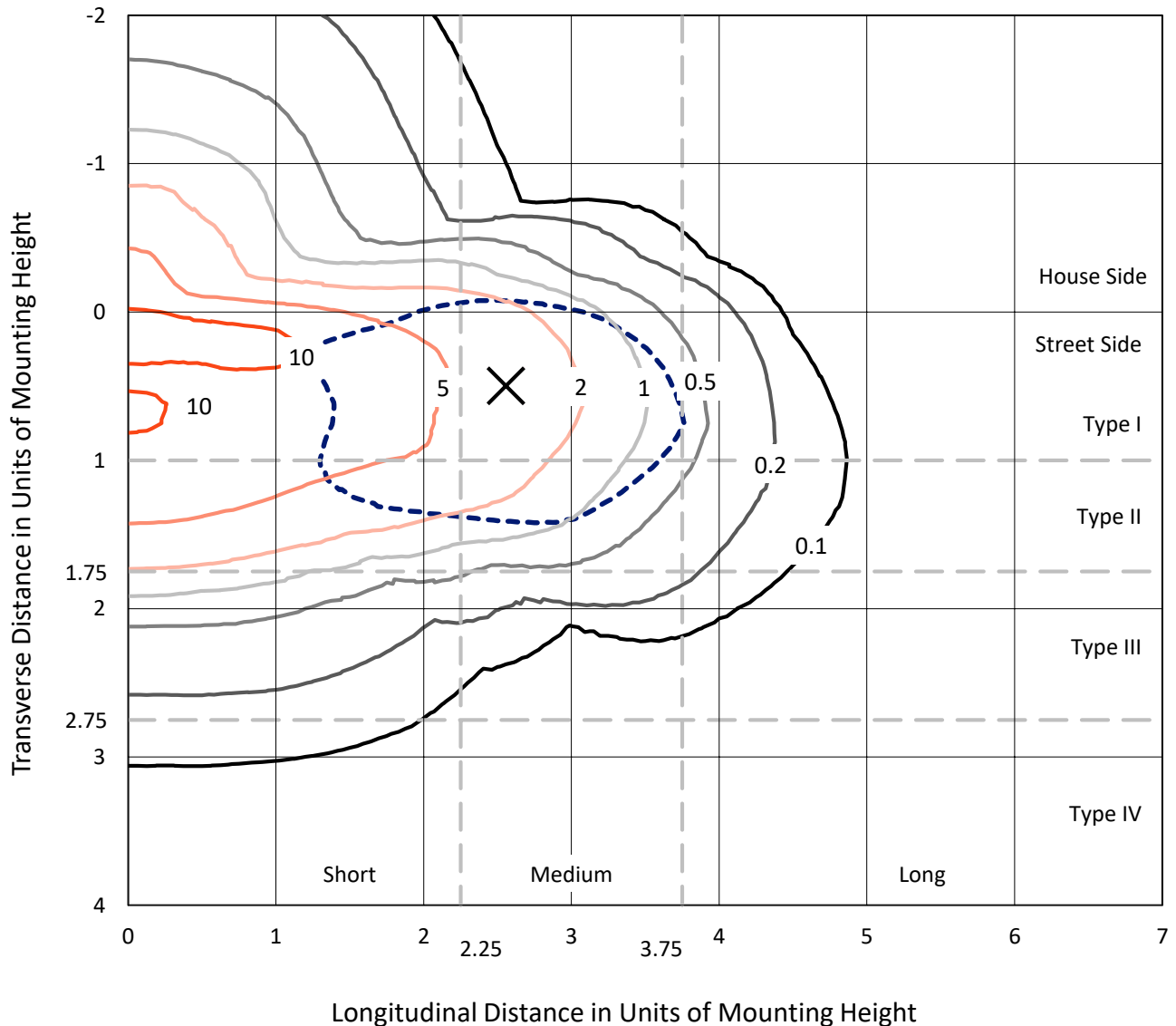
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

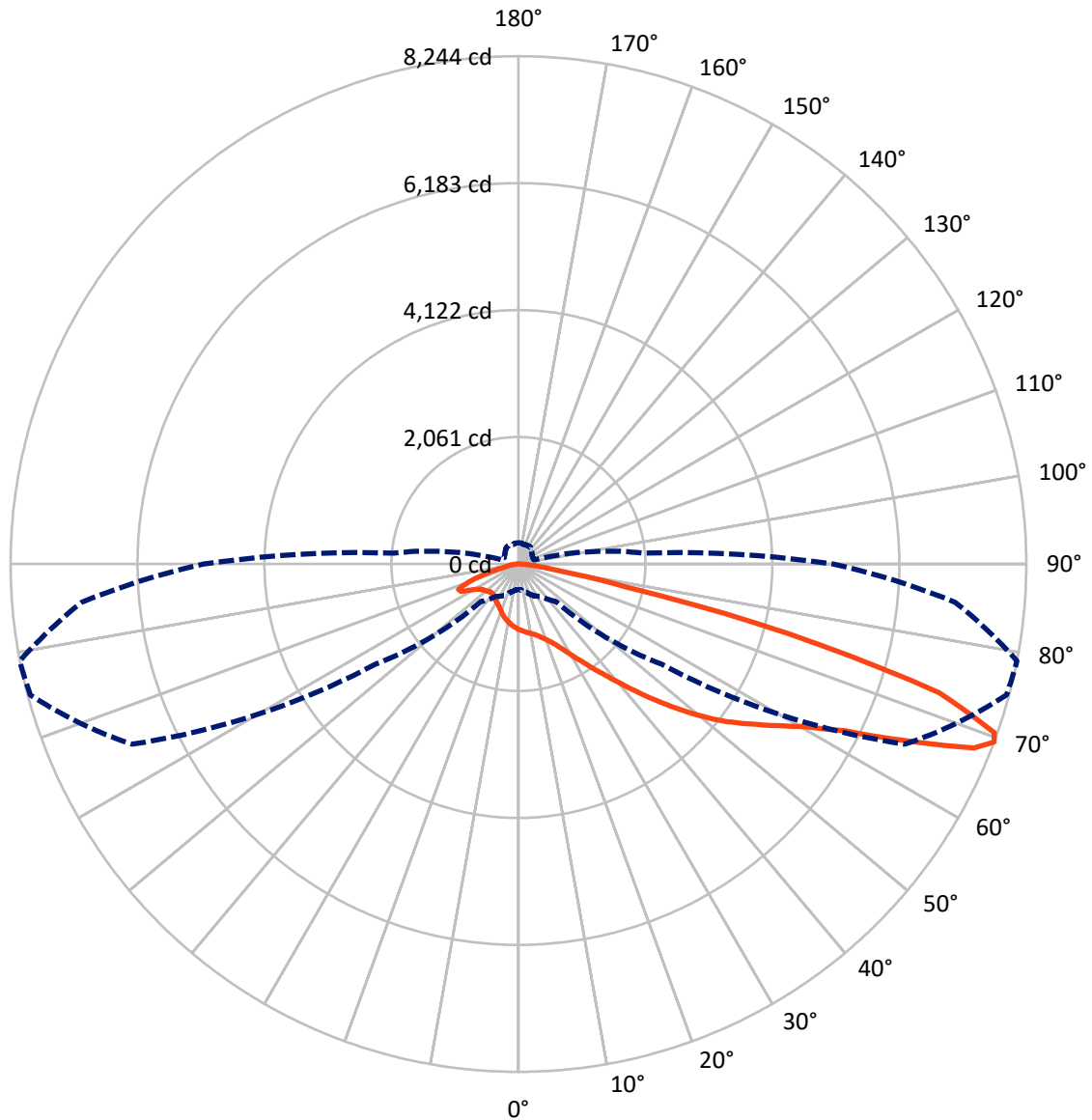
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.9 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	1429.1	0.0	1429.1
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	6167.7	0.0	6167.7
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	7596.8	0.0	7596.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.8	1.3
10°-20°	283.3	3.7
20°-30°	468.2	6.2
30°-40°	758.1	10.0
40°-50°	1211.1	15.9
50°-60°	1734.5	22.8
60°-70°	1932.4	25.4
70°-80°	966.8	12.7
80°-90°	143.5	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°	7596.8	100.0
0°-180°	7596.8	100.0



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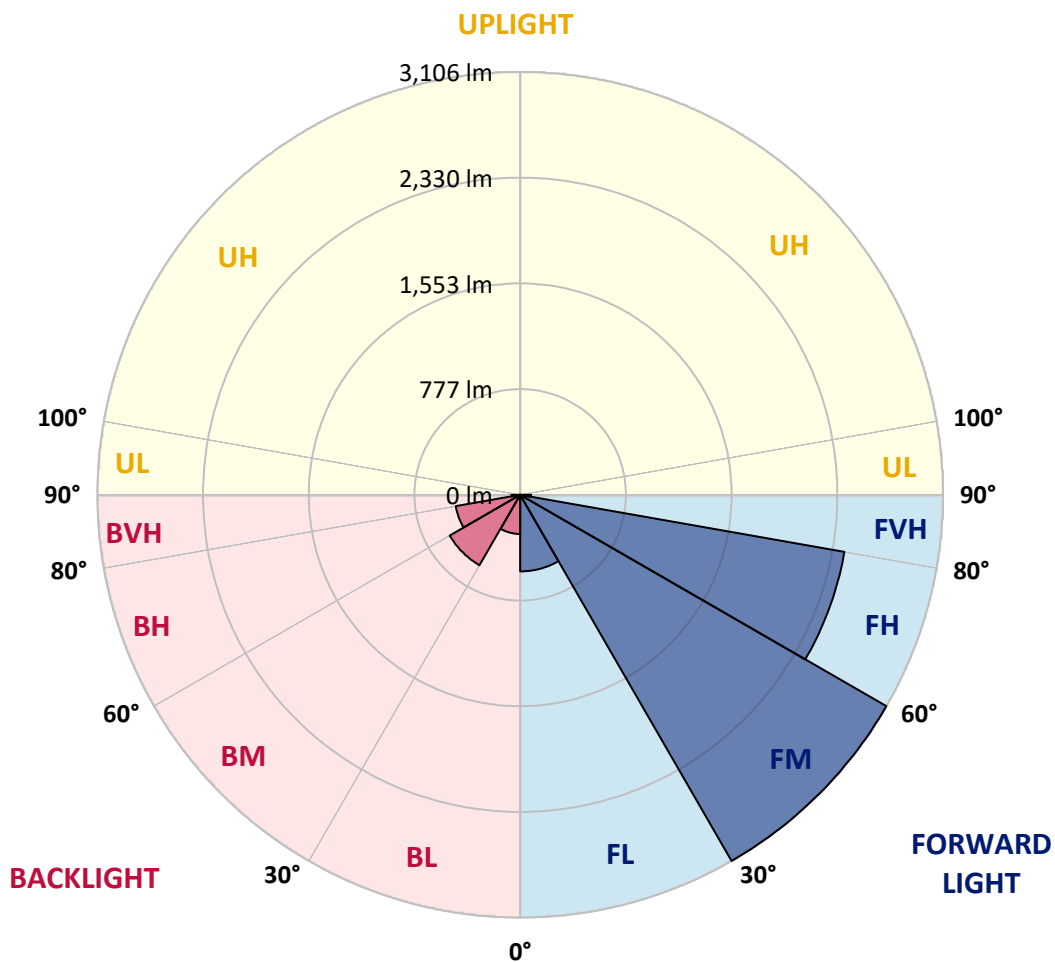
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	562.5	7.4			
FM (30°-60°)	3106.4	40.9			
FH (60°-80°)	2418.7	31.8			G2/5000
FVH (80°-90°)	80.2	1.1			G1/100
BL (0°-30°)	287.9	3.8	B1/500		
BM (30°-60°)	597.4	7.9	B1/1000		
BH (60°-80°)	480.5	6.3	B1/500		G1/500
BVH (80°-90°)	63.3	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1
2.5°	1170.5	1168.0	1167.4	1160.0	1156.1	1147.5	1127.7	1107.4	1088.4	1078.5	1068.0
5°	1268.4	1263.4	1260.9	1248.5	1237.6	1218.7	1187.3	1155.0	1121.2	1103.8	1083.0
7.5°	1327.5	1327.9	1327.9	1318.1	1307.1	1284.3	1244.5	1200.2	1150.1	1127.2	1094.4
10°	1332.4	1333.0	1340.4	1342.9	1345.4	1333.5	1296.7	1240.9	1176.4	1146.5	1103.8
12.5°	1283.2	1286.7	1299.2	1317.0	1342.4	1355.4	1339.4	1284.8	1210.1	1173.9	1121.8
15°	1217.1	1220.7	1236.6	1263.9	1304.7	1347.8	1370.2	1334.9	1254.4	1211.6	1148.1
17.5°	1184.8	1188.8	1199.7	1221.6	1261.4	1319.6	1386.6	1388.5	1306.6	1257.5	1179.4
20°	1169.4	1172.5	1186.3	1204.2	1234.5	1290.3	1388.1	1445.3	1368.7	1311.5	1217.7
22.5°	1204.7	1205.6	1212.7	1222.6	1243.1	1285.8	1387.1	1504.0	1446.3	1379.7	1266.9
25°	1308.2	1301.6	1296.7	1284.3	1289.3	1319.6	1403.0	1566.6	1545.7	1469.1	1332.4
27.5°	1430.4	1429.3	1416.4	1387.6	1369.2	1388.5	1448.2	1636.6	1667.4	1582.9	1418.4
30°	1566.6	1567.0	1553.6	1518.3	1481.1	1483.0	1520.4	1717.7	1813.0	1720.2	1524.2
32.5°	1709.2	1718.1	1693.3	1658.0	1612.7	1598.4	1623.7	1815.6	1981.5	1882.1	1647.1
35°	1879.7	1881.1	1853.8	1802.1	1756.9	1734.1	1757.4	1937.8	2175.9	2072.5	1796.7
37.5°	2056.6	2057.6	2029.3	1963.2	1906.0	1891.1	1917.0	2086.5	2381.7	2289.2	1972.5
40°	2201.2	2211.6	2189.3	2127.2	2069.5	2060.5	2097.9	2264.4	2644.5	2545.6	2181.8
42.5°	2365.3	2377.2	2350.2	2285.7	2240.1	2237.0	2295.2	2467.1	2906.0	2842.4	2418.9
45°	2550.1	2567.0	2529.8	2457.1	2418.5	2484.0	2487.5	2691.8	3207.2	3174.3	2685.8
47.5°	2751.9	2765.8	2735.6	2657.5	2615.2	2710.1	2675.9	2934.8	3532.7	3530.1	2974.6
50°	2907.5	2922.9	2925.9	2891.5	2847.3	2859.2	2882.6	3190.3	3857.3	3895.9	3273.3
52.5°	2879.1	2894.1	2961.2	3051.1	3122.2	3091.4	3119.7	3461.7	4170.9	4252.8	3557.1
55°	2650.5	2658.5	2784.3	2998.0	3300.6	3447.6	3449.7	3756.9	4469.0	4583.9	3826.4
57.5°	2238.5	2239.5	2403.0	2718.2	3196.7	3678.8	3970.6	4127.6	4780.2	4949.7	4160.4
60°	1583.9	1588.0	1778.3	2190.3	2824.5	3651.0	4530.7	4791.1	5140.5	5360.7	4590.8
62.5°	940.2	949.3	1092.9	1423.4	2097.9	3293.2	4861.7	5971.4	5671.3	5963.6	5279.6
65°	611.9	619.3	705.3	871.3	1239.5	2396.0	4752.9	7114.6	6675.7	6911.8	6269.8
67.5°	471.1	477.1	544.7	645.0	760.5	1295.2	3800.0	7354.1	7898.4	7971.9	7105.1
69°	414.0	419.0	468.7	565.1	640.1	857.3	2831.9	6919.3	8204.1	8244.2	7115.6
70°	383.7	387.7	434.5	517.9	588.0	684.4	2167.3	6414.3	8092.2	8195.1	6910.3
72.5°	316.1	319.6	352.9	417.0	480.6	487.6	960.2	4683.7	6814.0	7143.0	5847.8
75°	263.9	265.9	287.8	334.5	389.2	388.2	490.6	2653.1	4158.0	4550.1	3610.7
77.5°	220.1	221.7	236.1	265.0	307.1	305.7	345.4	1145.1	1835.9	1771.3	1243.1
80°	194.4	195.3	202.7	210.3	237.1	235.6	256.0	525.9	747.0	690.3	470.2
82.5°	147.6	149.5	187.4	190.8	183.9	177.4	178.4	306.2	382.7	348.4	252.5
85°	83.5	84.0	120.3	140.6	160.1	120.3	115.9	158.1	188.9	165.5	110.4
87.5°	37.2	38.8	57.7	66.6	86.5	70.6	66.1	67.0	81.5	67.6	43.7
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°	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1	1066.1
2.5°	1058.0	1049.7	1029.8	1009.4	989.1	976.1	962.7	950.2	945.3	944.8	935.4
5°	1062.5	1042.7	997.5	947.9	900.6	863.8	833.0	813.1	793.7	790.3	781.7
7.5°	1064.0	1031.7	958.2	878.7	806.7	756.0	725.2	711.8	702.3	699.8	696.7
10°	1063.6	1017.9	914.5	805.7	723.7	685.4	673.9	677.0	680.9	682.9	682.9
12.5°	1071.5	1011.4	870.8	737.1	670.0	651.6	660.5	675.9	687.9	692.8	693.8
15°	1085.9	1007.4	822.5	677.4	632.2	636.7	658.5	680.9	697.8	705.3	707.2
17.5°	1103.8	1001.9	766.9	628.2	610.3	625.7	654.0	682.5	702.7	712.2	713.7
20°	1123.7	994.0	709.2	591.4	591.0	610.3	638.6	670.5	692.3	702.7	702.3
22.5°	1150.6	986.5	655.5	564.6	569.6	587.5	610.9	639.6	660.0	669.4	667.5
25°	1186.3	979.6	607.4	540.8	545.2	557.1	573.5	595.5	609.7	614.8	611.3
27.5°	1234.5	974.1	569.6	518.9	518.3	523.8	533.7	545.8	552.7	551.2	545.8
30°	1293.7	968.7	541.7	499.6	492.5	492.0	496.5	503.4	507.9	499.0	494.5
32.5°	1359.8	959.2	516.9	482.6	470.2	465.7	467.6	477.1	495.5	486.5	483.0
35°	1437.9	948.3	492.0	464.3	454.7	446.4	447.9	468.1	523.8	517.4	513.8
37.5°	1531.9	938.3	469.2	444.3	443.8	433.4	432.3	456.7	531.3	517.4	514.4
40°	1644.6	936.4	448.8	422.5	430.4	426.4	423.0	437.9	490.0	461.7	456.2
42.5°	1780.7	945.3	433.9	401.5	414.9	424.5	418.0	421.4	442.8	417.5	413.0
45°	1939.8	969.6	423.0	383.2	398.6	423.0	415.5	412.6	415.9	402.1	399.2
47.5°	2125.2	1013.0	415.5	367.7	383.2	419.0	414.5	408.5	407.0	399.2	397.1
50°	2323.5	1071.1	410.5	353.9	369.3	412.0	414.0	405.6	403.0	399.6	398.6
52.5°	2520.3	1134.1	404.6	342.0	357.9	403.6	414.5	402.6	399.2	397.1	396.1
55°	2716.0	1199.7	393.7	331.5	349.4	393.7	414.0	398.6	394.7	394.7	394.7
57.5°	2970.1	1299.6	379.2	323.1	338.4	380.7	407.5	394.1	388.6	389.2	389.6
60°	3336.9	1467.2	363.3	313.6	324.1	365.8	397.6	386.1	379.6	381.8	382.2
62.5°	3949.7	1759.8	341.4	300.1	309.1	349.8	384.7	375.2	369.3	372.8	373.2
65°	4766.8	2114.2	312.6	283.3	293.7	332.0	368.3	362.3	355.8	364.3	363.9
67.5°	5265.2	2218.1	282.3	265.4	278.8	313.1	347.9	345.4	341.0	355.8	354.9
69°	5101.8	2030.2	265.0	253.9	268.3	300.1	335.0	334.0	330.5	344.9	343.9
70°	4847.8	1854.7	253.9	246.5	262.9	292.3	326.5	326.5	323.1	335.4	333.0
72.5°	3894.0	1375.7	228.6	227.6	243.9	270.4	303.6	306.2	304.2	308.6	306.2
75°	2286.2	829.0	203.8	206.7	221.1	247.0	278.3	280.4	278.3	277.8	278.3
77.5°	792.6	371.8	180.0	184.4	196.7	223.1	250.5	254.5	251.6	248.0	249.0
80°	310.1	216.3	154.0	160.5	171.0	196.3	222.7	225.2	220.7	220.1	216.3
82.5°	186.4	131.6	119.7	130.2	143.1	170.5	192.3	191.3	187.8	208.2	182.4
85°	81.0	73.1	87.5	97.9	104.4	127.8	162.5	158.1	149.5	131.6	128.7
87.5°	32.8	37.8	48.2	58.1	62.6	82.5	111.3	107.4	108.8	89.5	88.9
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)