

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: P195787

Luminaire Tested: **NAV-AF-01-D-UNV-T2-7050-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195787  
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-01-D-UNV-T2-7050-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6560 lumens  
Efficiency: N/A  
Efficacy: 97.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 67  
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

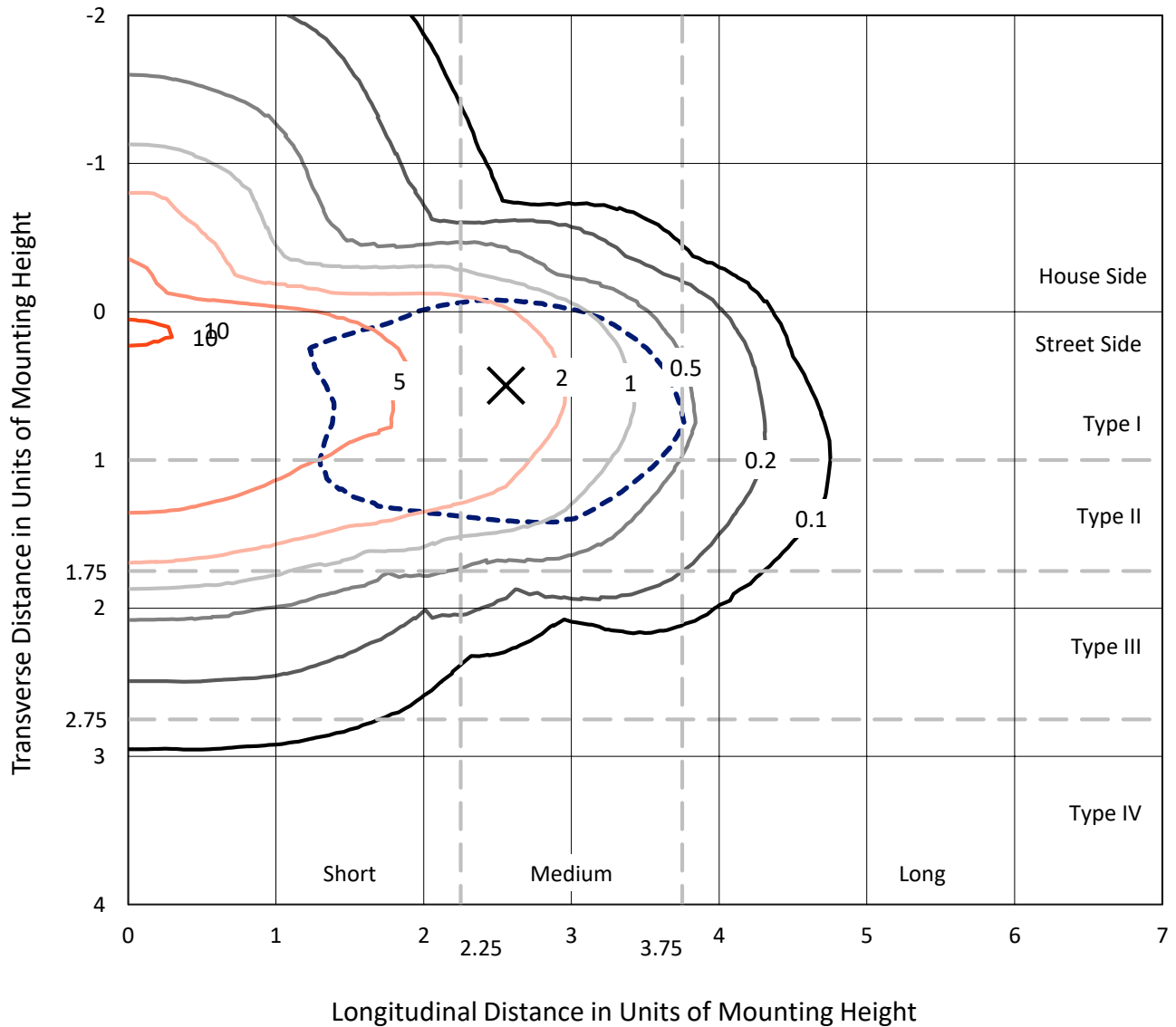


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### Iso-Footcandle Lines of Horizontal Illumination

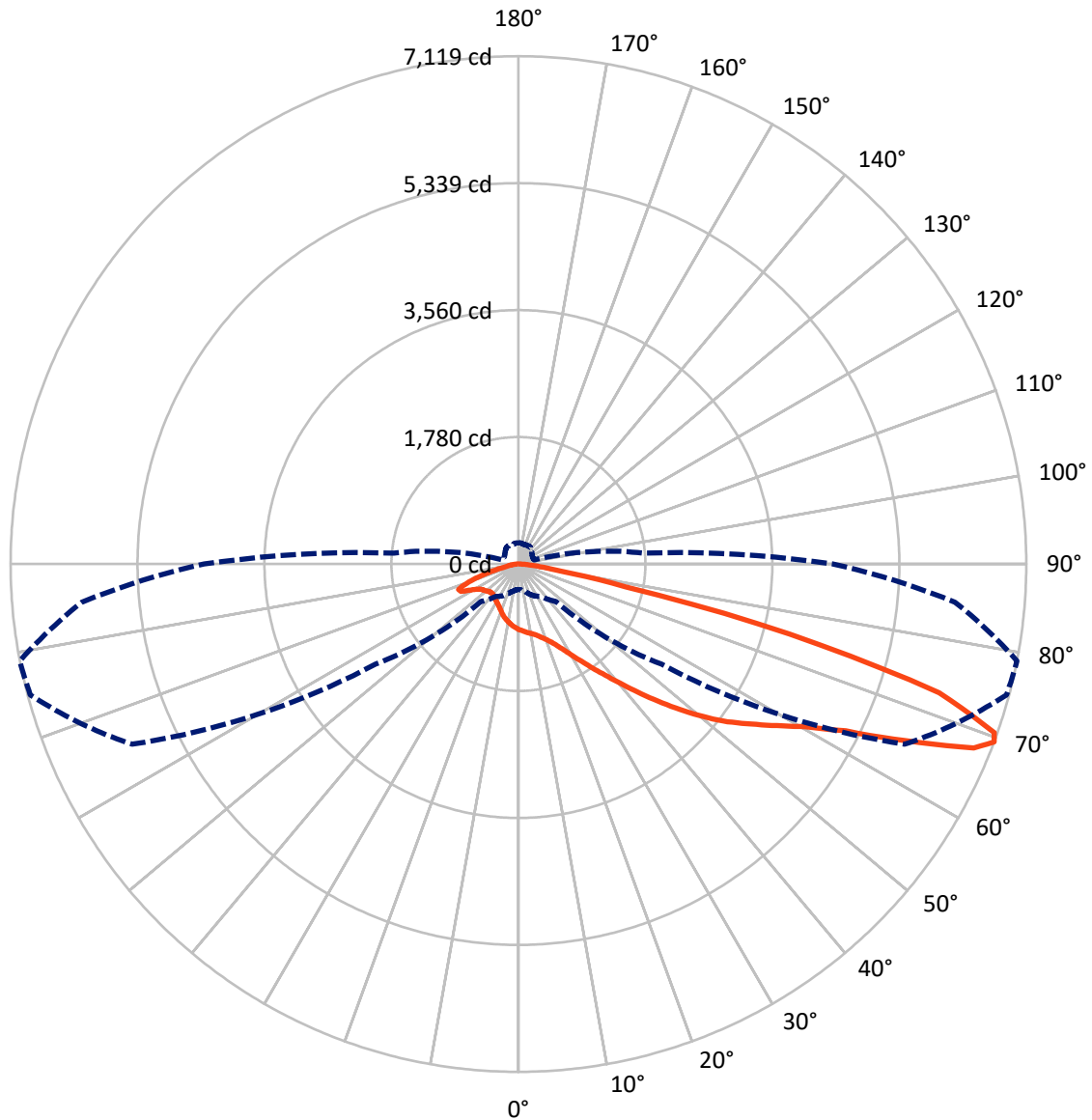
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.1 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	1234.1	0.0	1234.1
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	5326.0	0.0	5326.0
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	6560.0	0.0	6560.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	1.3
10°-20°	244.7	3.7
20°-30°	404.3	6.2
30°-40°	654.7	10.0
40°-50°	1045.8	15.9
50°-60°	1497.7	22.8
60°-70°	1668.7	25.4
70°-80°	834.8	12.7
80°-90°	123.9	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°	6560.0	100.0
0°-180°	6560.0	100.0



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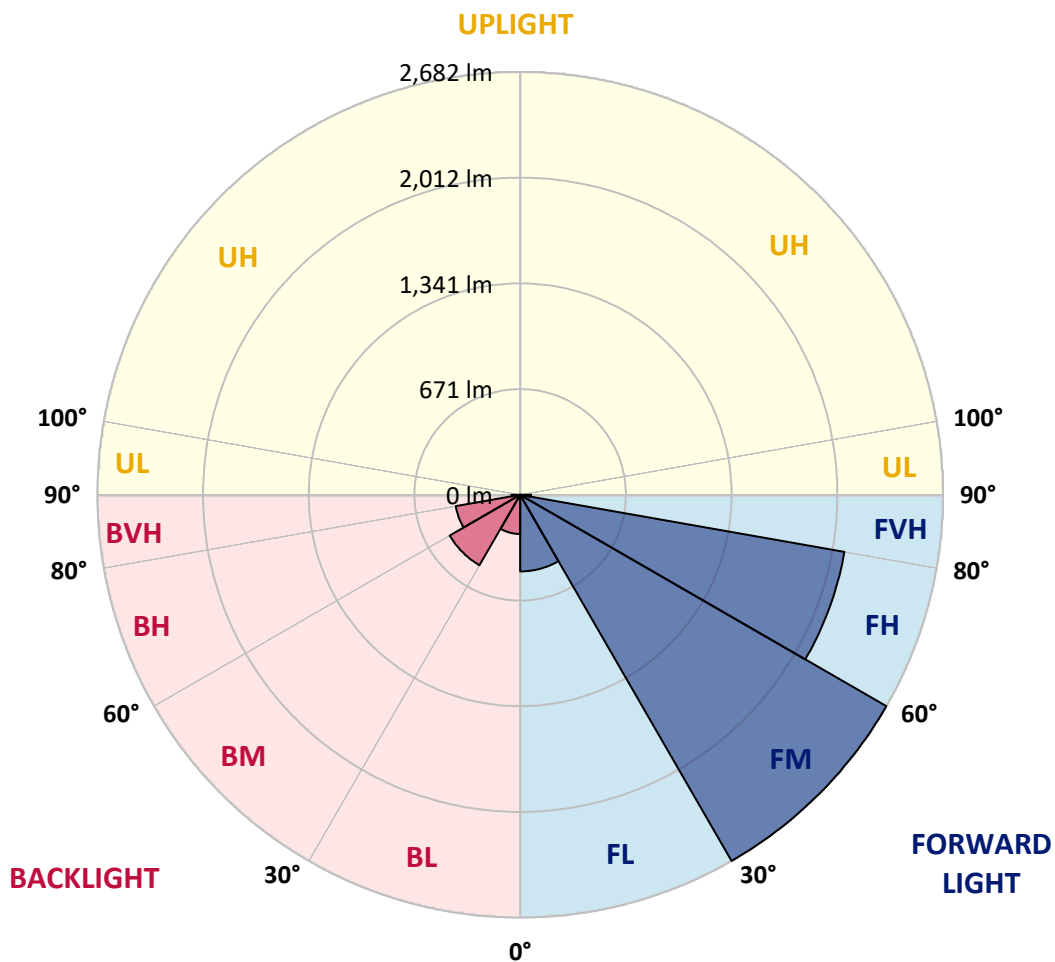
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.7	7.4			
FM (30°-60°)	2682.4	40.9			
FH (60°-80°)	2088.6	31.8			G2/5000
FVH (80°-90°)	69.2	1.1			G1/100
BL (0°-30°)	248.6	3.8	B1/500		
BM (30°-60°)	515.9	7.9	B1/1000		
BH (60°-80°)	414.9	6.3	B1/500		G1/500
BVH (80°-90°)	54.7	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°	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6
2.5°	1010.7	1008.6	1008.1	1001.7	998.3	991.0	973.8	956.2	939.9	931.3	922.3
5°	1095.2	1091.0	1088.8	1078.1	1068.6	1052.3	1025.3	997.4	968.2	953.2	935.2
7.5°	1146.3	1146.7	1146.7	1138.2	1128.7	1109.0	1074.6	1036.5	993.1	973.4	945.0
10°	1150.6	1151.0	1157.5	1159.6	1161.8	1151.5	1119.7	1071.6	1015.9	990.1	953.2
12.5°	1108.1	1111.1	1121.9	1137.3	1159.2	1170.4	1156.6	1109.4	1045.0	1013.7	968.6
15°	1051.0	1054.0	1067.8	1091.4	1126.6	1163.9	1183.2	1152.8	1083.2	1046.3	991.4
17.5°	1023.1	1026.6	1036.0	1054.9	1089.2	1139.5	1197.4	1199.1	1128.3	1085.8	1018.4
20°	1009.8	1012.4	1024.4	1039.9	1066.1	1114.1	1198.7	1248.0	1181.9	1132.6	1051.5
22.5°	1040.3	1041.2	1047.2	1055.8	1073.4	1110.3	1197.8	1298.7	1248.9	1191.4	1094.0
25°	1129.6	1124.0	1119.7	1109.0	1113.3	1139.5	1211.6	1352.8	1334.7	1268.6	1150.6
27.5°	1235.2	1234.3	1223.1	1198.3	1182.4	1199.1	1250.6	1413.3	1439.9	1366.9	1224.9
30°	1352.8	1353.2	1341.6	1311.1	1278.9	1280.7	1312.8	1483.2	1565.6	1485.4	1316.3
32.5°	1475.9	1483.6	1462.2	1431.7	1392.7	1380.2	1402.1	1567.8	1711.1	1625.3	1422.3
35°	1623.1	1624.4	1600.8	1556.2	1517.1	1497.4	1517.6	1673.3	1878.9	1789.6	1551.5
37.5°	1775.9	1776.8	1752.3	1695.2	1645.9	1633.0	1655.3	1801.7	2056.6	1976.8	1703.4
40°	1900.8	1909.8	1890.5	1836.9	1787.1	1779.3	1811.5	1955.3	2283.6	2198.2	1884.1
42.5°	2042.4	2052.7	2029.6	1973.8	1934.3	1931.7	1981.9	2130.4	2509.4	2454.4	2088.8
45°	2202.1	2216.7	2184.5	2121.8	2088.4	2145.0	2148.0	2324.4	2769.5	2741.1	2319.2
47.5°	2376.3	2388.3	2362.2	2294.8	2258.3	2340.3	2310.7	2534.3	3050.6	3048.4	2568.6
50°	2510.7	2524.0	2526.5	2496.9	2458.7	2469.0	2489.2	2754.9	3330.8	3364.3	2826.5
52.5°	2486.2	2499.1	2557.0	2634.7	2696.1	2669.5	2693.9	2989.2	3601.6	3672.4	3071.6
55°	2288.8	2295.6	2404.2	2588.8	2850.1	2977.2	2978.9	3244.1	3859.1	3958.3	3304.2
57.5°	1933.0	1933.9	2075.0	2347.1	2760.4	3176.7	3428.7	3564.3	4127.8	4274.1	3592.6
60°	1367.8	1371.2	1535.6	1891.4	2439.0	3152.7	3912.3	4137.2	4438.9	4629.1	3964.3
62.5°	812.0	819.7	943.8	1229.2	1811.5	2843.7	4198.2	5156.5	4897.3	5149.6	4559.1
65°	528.3	534.7	609.0	752.3	1070.4	2069.0	4104.2	6143.6	5764.6	5968.5	5414.0
67.5°	406.9	412.0	470.4	557.1	656.6	1118.4	3281.5	6350.5	6820.4	6883.9	6135.5
69°	357.5	361.8	404.7	488.0	552.8	740.3	2445.4	5974.9	7084.4	7119.1	6144.5
70°	331.3	334.8	375.1	447.2	507.7	591.0	1871.6	5538.9	6987.8	7076.6	5967.2
72.5°	273.0	276.0	304.7	360.1	415.0	421.0	829.2	4044.5	5884.0	6168.1	5049.6
75°	227.9	229.6	248.5	288.8	336.0	335.2	423.6	2290.9	3590.5	3929.1	3117.9
77.5°	190.1	191.4	203.9	228.7	265.2	263.9	298.3	988.8	1585.4	1529.6	1073.4
80°	167.8	168.7	175.1	181.5	204.7	203.4	221.0	454.1	645.0	596.1	406.0
82.5°	127.5	129.2	161.8	164.8	158.8	153.2	154.1	264.4	330.5	300.9	218.0
85°	72.1	72.5	103.9	121.5	138.2	103.9	100.0	136.5	163.1	142.9	95.3
87.5°	32.2	33.5	49.8	57.5	74.7	60.9	57.1	57.9	70.4	58.4	37.8
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°	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6	920.6
2.5°	913.7	906.4	889.2	871.6	854.1	842.9	831.3	820.6	816.3	815.9	807.7
5°	917.6	900.4	861.3	818.4	777.7	745.9	719.3	702.1	685.4	682.4	675.1
7.5°	918.9	891.0	827.4	758.8	696.5	652.8	626.2	614.6	606.4	604.3	601.7
10°	918.4	878.9	789.7	695.7	624.9	591.8	582.0	584.5	588.0	589.7	589.7
12.5°	925.3	873.4	751.9	636.5	578.5	562.6	570.4	583.7	594.0	598.3	599.1
15°	937.7	869.9	710.3	585.0	545.9	549.8	568.7	588.0	602.6	609.0	610.7
17.5°	953.2	865.2	662.2	542.5	527.0	540.3	564.8	589.3	606.9	615.0	616.3
20°	970.4	858.3	612.4	510.7	510.3	527.0	551.5	579.0	597.8	606.9	606.4
22.5°	993.5	851.9	566.1	487.5	491.8	507.3	527.5	552.3	569.9	578.1	576.4
25°	1024.4	845.9	524.4	466.9	470.8	481.1	495.3	514.1	526.6	530.9	527.9
27.5°	1066.1	841.2	491.8	448.1	447.6	452.3	460.9	471.2	477.2	476.0	471.2
30°	1117.1	836.5	467.8	431.3	425.3	424.9	428.7	434.8	438.6	430.9	427.0
32.5°	1174.2	828.3	446.3	416.7	406.0	402.1	403.9	412.0	427.9	420.2	417.2
35°	1241.6	818.9	424.9	400.8	392.7	385.4	386.7	404.3	452.3	446.8	443.8
37.5°	1322.7	810.3	405.1	383.7	383.3	374.2	373.4	394.4	458.8	446.8	444.2
40°	1420.1	808.6	387.5	364.8	371.7	368.2	365.2	378.1	423.2	398.7	394.0
42.5°	1537.7	816.3	374.7	346.8	358.4	366.5	360.9	363.9	382.4	360.5	356.6
45°	1675.1	837.3	365.2	330.9	344.2	365.2	358.8	356.2	359.2	347.2	344.6
47.5°	1835.1	874.7	358.8	317.6	330.9	361.8	357.9	352.8	351.5	344.6	342.9
50°	2006.4	924.9	354.5	305.6	318.9	355.8	357.5	350.2	348.1	345.1	344.2
52.5°	2176.3	979.4	349.3	295.3	309.0	348.5	357.9	347.6	344.6	342.9	342.1
55°	2345.4	1036.0	339.9	286.3	301.7	339.9	357.5	344.2	340.8	340.8	340.8
57.5°	2564.7	1122.3	327.5	279.0	292.3	328.7	351.9	340.3	335.6	336.0	336.5
60°	2881.5	1266.9	313.7	270.8	279.8	315.9	343.3	333.5	327.9	329.6	330.0
62.5°	3410.6	1519.7	294.8	259.2	266.9	302.1	332.2	324.0	318.9	321.9	322.3
65°	4116.2	1825.7	269.9	244.6	253.6	286.7	318.0	312.9	307.3	314.6	314.2
67.5°	4546.7	1915.4	243.8	229.2	240.8	270.4	300.4	298.3	294.4	307.3	306.4
69°	4405.5	1753.2	228.7	219.3	231.8	259.2	289.3	288.4	285.4	297.8	297.0
70°	4186.1	1601.7	219.3	212.9	227.0	252.4	282.0	282.0	279.0	289.7	287.5
72.5°	3362.6	1187.9	197.4	196.6	210.7	233.5	262.2	264.4	262.7	266.5	264.4
75°	1974.2	715.9	176.0	178.5	191.0	213.3	240.3	242.1	240.3	239.9	240.3
77.5°	684.5	321.0	155.4	159.2	170.0	192.7	216.3	219.7	217.2	214.2	215.0
80°	267.8	186.7	133.0	138.6	147.6	169.5	192.3	194.4	190.6	190.1	186.7
82.5°	160.9	113.7	103.4	112.4	123.6	147.2	166.1	165.2	162.2	179.8	157.5
85°	70.0	63.1	75.5	84.5	90.1	110.3	140.3	136.5	129.2	113.7	111.2
87.5°	28.3	32.6	41.6	50.2	54.1	71.2	96.1	92.7	94.0	77.3	76.8
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)