

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: P195169

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195169  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)  
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-SL3-7060-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4020 lumens  
Efficiency: N/A  
Efficacy: 118.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1

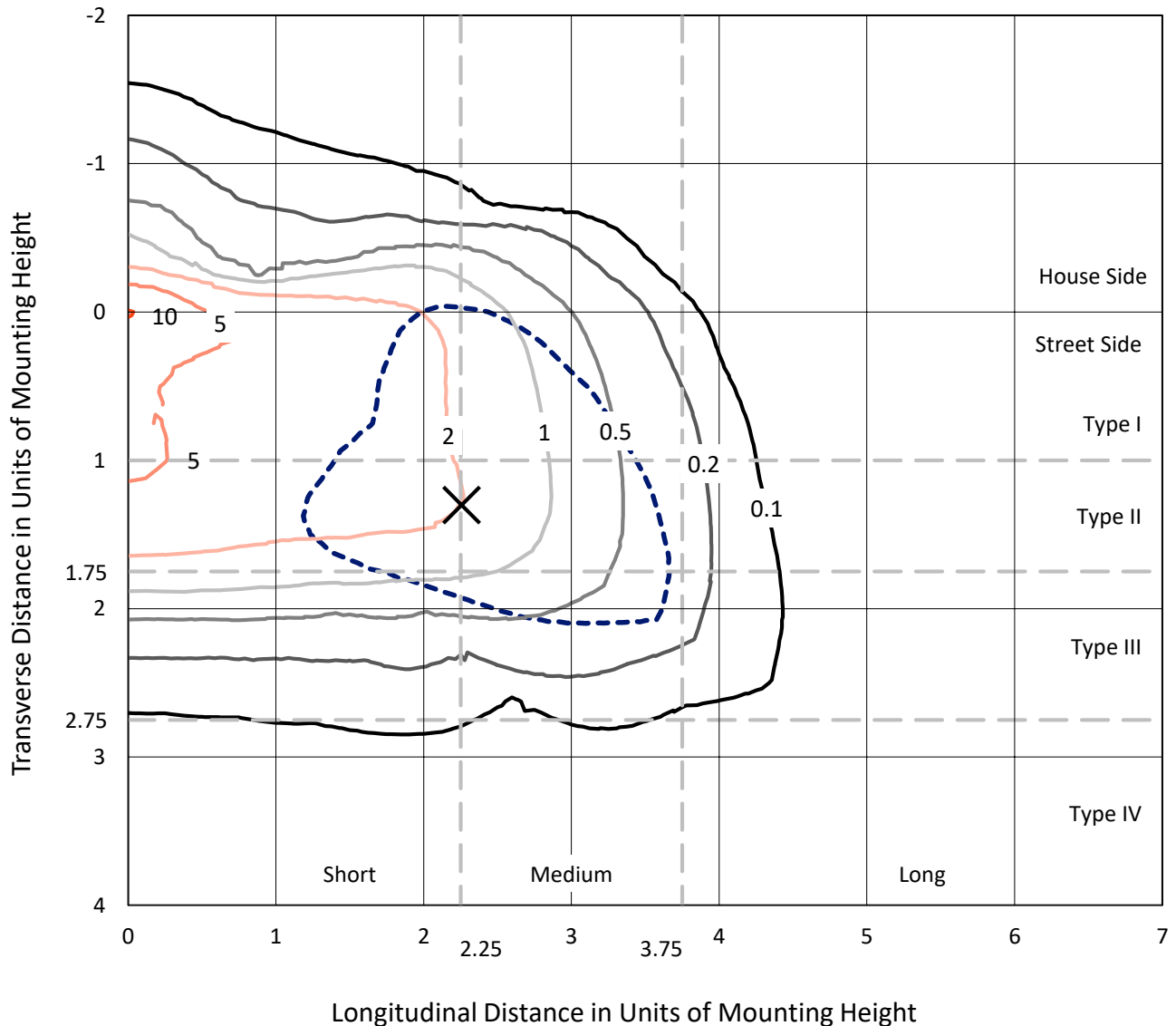
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

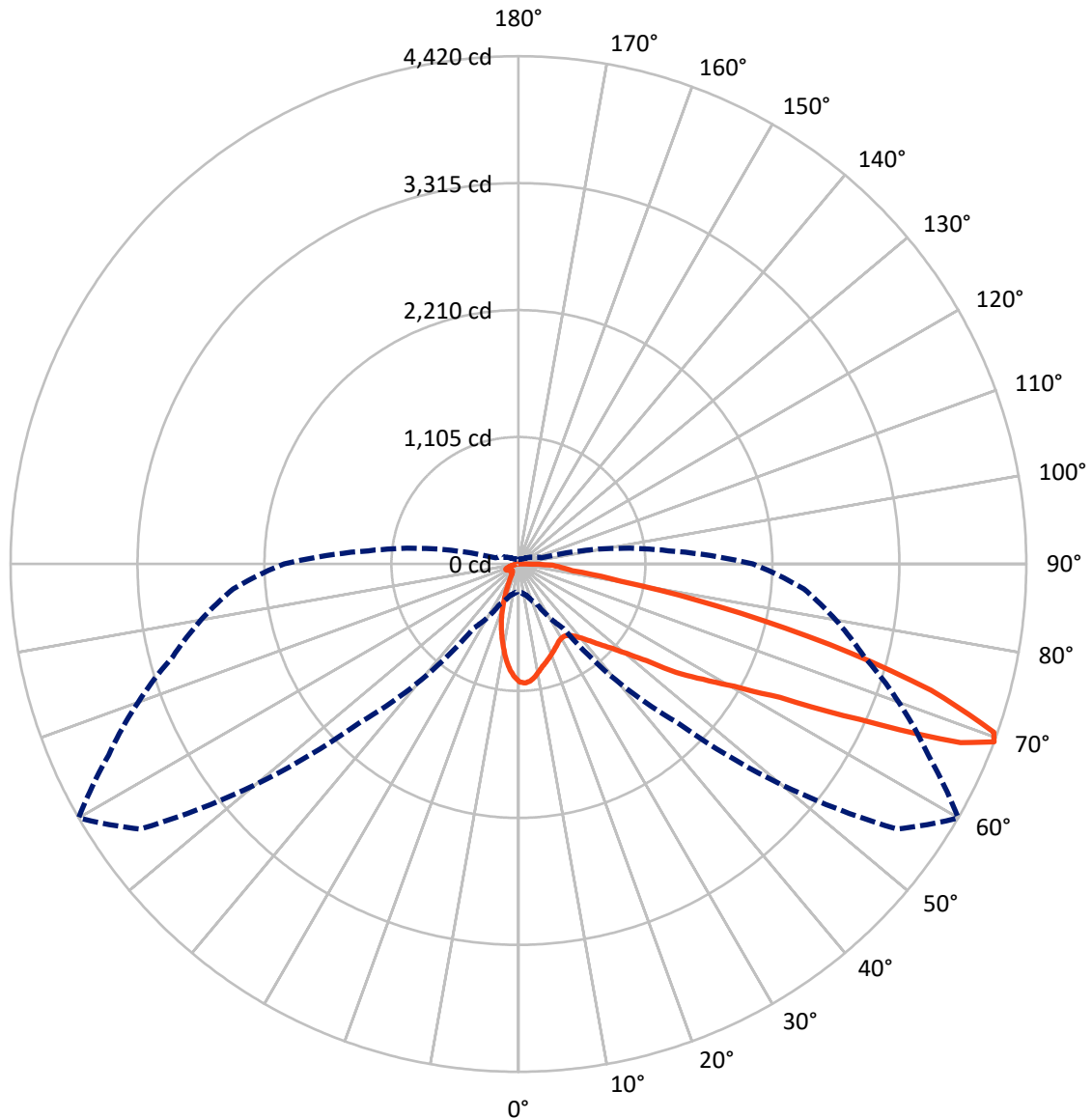
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	573.4	0.0	573.4
	% Fixture	14.3	0.0	14.3
<b>Street Side</b>	Lumens	3446.6	0.0	3446.6
	% Fixture	85.7	0.0	85.7
<b>Total</b>	Lumens	4020.0	0.0	4020.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.0	2.2
10°-20°	186.3	4.6
20°-30°	237.7	5.9
30°-40°	327.1	8.1
40°-50°	529.8	13.2
50°-60°	831.5	20.7
60°-70°	1108.5	27.6
70°-80°	616.6	15.3
80°-90°	95.6	2.4
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°	4020.0	100.0
0°-180°	4020.0	100.0



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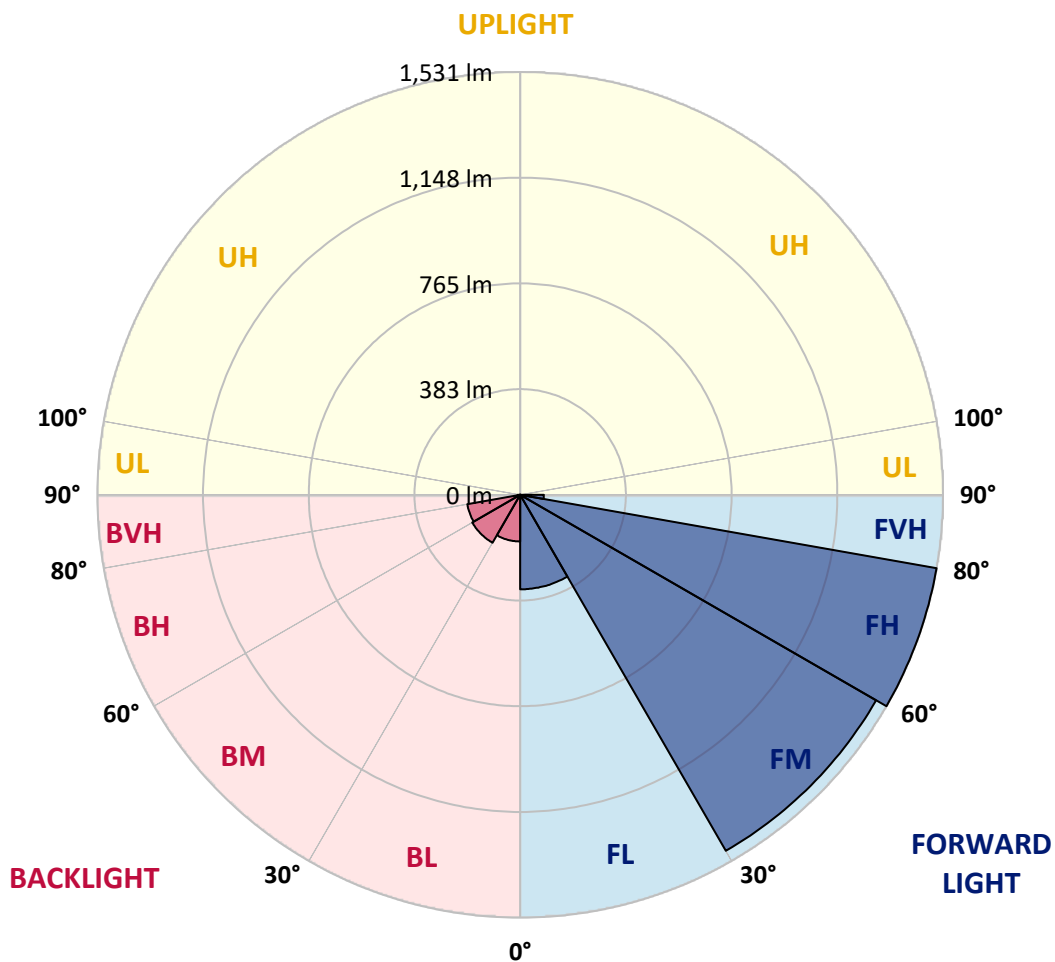
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	342.0	8.5			
FM	(30°-60°)	1488.0	37.0			
FH	(60°-80°)	1530.7	38.1			G1/1800
FVH	(80°-90°)	85.9	2.1			G1/100
BL	(0°-30°)	169.0	4.2	B1/500		
BM	(30°-60°)	200.3	5.0	B0/220		
BH	(60°-80°)	194.4	4.8	B1/500		G1/500
BVH	(80°-90°)	9.7	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7
2.5°	1053.0	1055.9	1055.9	1053.6	1052.3	1044.8	1040.4	1037.3	1031.9	1021.8	1012.8
5°	1015.4	1020.8	1023.1	1024.2	1030.9	1028.6	1028.8	1026.7	1022.1	1011.3	996.6
7.5°	946.3	947.3	951.5	958.4	974.7	986.0	995.3	997.1	996.1	988.1	967.5
10°	878.3	880.1	885.0	896.8	912.3	928.5	948.6	956.9	963.1	960.5	934.5
12.5°	821.8	822.1	827.5	841.1	858.4	878.8	906.1	919.0	933.7	939.6	910.5
15°	767.4	771.0	776.2	792.7	814.1	839.9	871.3	889.1	908.4	925.4	891.9
17.5°	726.2	729.0	732.1	745.8	770.5	802.7	841.7	860.7	886.3	912.3	872.9
20°	703.5	704.5	702.2	708.9	729.8	764.6	809.7	832.6	863.1	899.7	853.3
22.5°	698.8	698.8	690.3	689.1	698.3	727.7	776.7	804.8	841.9	890.9	835.7
25°	720.5	719.0	703.0	688.3	684.9	699.9	745.2	779.8	823.9	890.6	822.6
27.5°	761.5	759.4	739.6	714.8	693.4	687.0	721.0	756.3	809.7	899.4	815.9
30°	812.5	811.8	791.6	760.7	725.4	692.1	711.5	744.2	800.2	915.6	815.6
32.5°	868.5	864.9	852.5	821.6	775.7	720.8	717.2	744.7	797.6	939.4	821.6
35°	928.0	925.4	922.3	891.2	839.6	771.3	742.2	762.5	810.2	972.4	838.3
37.5°	1003.8	1001.0	1006.1	972.1	915.6	837.5	784.4	798.1	836.0	1020.3	869.5
40°	1138.6	1130.4	1115.9	1063.6	1004.3	918.7	845.5	847.6	880.1	1084.5	919.5
42.5°	1360.1	1333.5	1262.1	1165.9	1097.9	1013.1	925.2	915.4	940.9	1169.3	992.2
45°	1582.0	1552.1	1431.5	1277.6	1194.8	1114.4	1023.7	1000.2	1016.7	1268.0	1085.8
47.5°	1725.3	1710.6	1574.5	1389.2	1296.4	1224.7	1136.3	1097.6	1109.5	1379.9	1201.3
50°	1767.4	1754.7	1647.7	1476.6	1392.3	1358.0	1275.8	1224.5	1226.5	1510.6	1339.7
52.5°	1735.9	1730.8	1659.9	1530.7	1480.4	1498.5	1468.8	1397.4	1380.4	1653.9	1489.7
55°	1693.9	1695.7	1668.4	1585.1	1570.2	1629.4	1721.5	1664.0	1591.8	1803.2	1645.9
57.5°	1561.6	1562.9	1634.6	1688.7	1741.3	1813.0	1918.2	1893.9	1809.9	1964.3	1821.0
60°	1257.5	1267.5	1427.1	1667.3	1937.0	2174.7	2200.4	2158.7	2041.9	2149.9	2048.6
62.5°	898.4	907.4	1092.2	1447.4	1914.0	2584.0	2721.7	2555.7	2356.6	2427.5	2368.8
65°	472.0	470.5	613.5	1000.2	1612.2	2678.9	3543.0	3260.4	2886.9	2809.3	2678.1
67.5°	263.7	272.2	327.6	504.5	1050.7	2357.7	4067.5	4150.8	3624.2	3112.2	2664.7
69°	243.9	246.7	283.8	390.0	684.9	1945.2	4022.4	4419.7	3935.0	3113.5	2493.0
70°	236.9	240.0	273.8	359.3	575.4	1593.9	3858.2	4388.2	4010.6	3044.4	2336.8
72.5°	212.4	216.5	249.3	323.0	484.9	821.6	3107.8	3755.9	3632.9	2660.8	1812.0
75°	181.2	188.2	237.7	320.7	459.4	522.3	2072.6	2798.2	2703.9	1902.9	1028.0
77.5°	75.0	75.8	103.9	234.8	482.1	499.8	1113.9	1772.5	1569.1	834.4	309.6
80°	52.3	51.3	51.8	68.6	389.0	503.2	571.5	901.5	700.7	220.1	144.9
82.5°	44.1	43.6	45.6	43.0	131.7	571.0	477.9	469.9	330.0	118.6	69.1
85°	29.1	28.4	37.4	39.2	62.6	453.4	514.0	369.4	245.9	63.4	29.4
87.5°	14.2	14.4	21.4	26.6	33.3	143.6	492.4	292.1	190.0	27.6	11.9
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°	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7	1025.7
2.5°	1009.2	1001.5	994.5	985.8	979.1	973.4	965.7	965.4	964.1	965.9	966.4
5°	986.8	973.9	954.3	932.4	916.9	896.6	876.7	870.0	862.5	861.8	864.1
7.5°	953.0	932.9	899.4	865.9	832.4	798.1	765.6	749.1	733.1	728.2	730.6
10°	915.4	889.9	838.6	783.9	736.7	685.7	636.2	604.2	575.1	562.7	565.8
12.5°	886.0	853.5	781.3	710.4	639.8	566.6	501.4	438.2	390.5	369.1	370.4
15°	860.7	819.2	727.7	633.4	545.0	444.7	354.2	281.0	239.2	223.8	223.2
17.5°	833.4	783.1	671.8	561.7	447.0	323.0	237.2	193.9	177.4	172.2	172.2
20°	804.3	746.0	613.3	483.6	343.9	225.6	178.4	161.6	155.4	153.9	153.6
22.5°	777.2	709.7	554.5	400.3	248.8	171.2	151.8	145.4	144.4	145.6	145.6
25°	755.8	677.7	494.9	312.7	181.0	143.3	135.1	134.3	138.2	142.8	143.6
27.5°	739.8	649.1	436.2	228.4	142.3	124.8	121.9	125.3	134.3	143.6	145.4
30°	728.8	624.6	365.8	164.2	118.6	109.3	110.6	116.5	130.2	144.4	148.2
32.5°	723.9	604.8	294.9	126.1	101.3	96.2	99.5	107.2	121.4	135.6	140.2
35°	728.5	590.3	229.4	104.7	88.7	84.8	88.7	96.7	105.9	112.9	115.7
37.5°	745.2	585.2	172.7	92.8	80.4	76.6	79.7	85.1	89.2	91.8	93.1
40°	780.6	590.6	135.3	86.6	75.8	71.4	72.2	74.8	77.6	79.7	79.9
42.5°	836.8	608.4	120.4	84.3	73.0	67.3	66.0	67.8	70.9	73.7	74.2
45°	911.5	638.0	118.8	85.1	71.7	63.9	61.4	63.2	67.3	71.9	72.7
47.5°	1008.2	684.9	126.1	89.2	72.4	62.1	58.3	60.1	65.5	71.7	72.7
50°	1122.6	749.9	139.5	95.4	76.0	62.1	57.0	58.5	64.2	71.1	72.2
52.5°	1257.5	840.4	153.4	101.6	81.2	64.4	57.5	57.2	62.4	68.8	70.1
55°	1406.2	952.8	166.8	107.0	84.0	67.5	58.8	55.7	59.8	65.0	66.0
57.5°	1581.2	1106.7	190.2	112.1	85.6	69.9	60.3	54.1	56.5	60.1	60.8
60°	1818.7	1332.7	235.9	120.9	88.4	70.9	60.6	52.6	52.3	54.9	55.2
62.5°	2128.3	1597.5	279.4	131.2	94.1	71.1	59.5	51.6	49.0	49.8	49.8
65°	2348.4	1694.9	266.8	140.0	99.2	70.9	58.5	50.8	46.4	45.1	45.1
67.5°	2223.1	1497.2	226.6	142.3	99.8	68.1	56.2	49.0	44.1	41.0	41.0
69°	2039.1	1312.4	208.0	138.2	95.6	64.7	53.6	47.2	42.5	38.9	38.9
70°	1889.0	1172.4	196.7	133.3	90.7	61.9	51.3	45.4	41.0	37.9	37.6
72.5°	1410.3	782.4	168.1	115.0	74.5	52.3	44.9	40.5	36.9	34.8	34.8
75°	744.2	392.1	137.7	93.8	57.5	41.8	36.9	34.0	32.0	31.7	31.4
77.5°	243.9	177.4	99.0	70.6	42.3	32.5	29.4	27.6	27.3	28.4	28.4
80°	131.7	105.9	63.7	47.7	29.4	24.2	22.7	22.4	23.2	24.7	24.7
82.5°	63.9	52.3	37.9	29.4	20.1	17.8	17.8	18.0	19.1	20.9	20.9
85°	27.6	24.7	21.9	16.5	12.4	11.1	12.6	13.9	14.7	16.0	16.5
87.5°	13.1	11.6	10.1	6.4	5.4	5.7	6.7	8.2	9.8	10.8	11.1
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)