

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: P270312

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270312  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
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-T3R-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5922.3 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

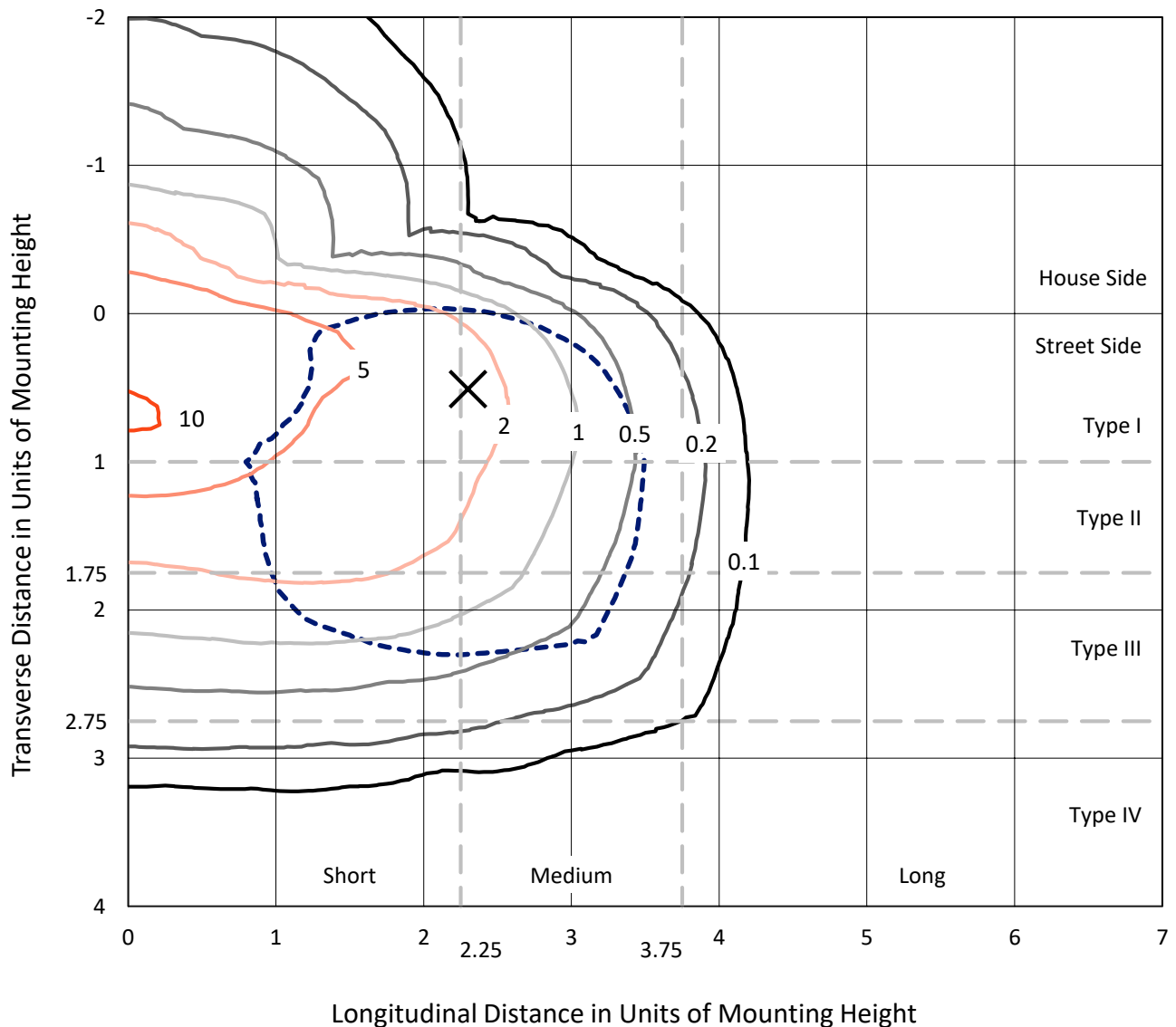
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

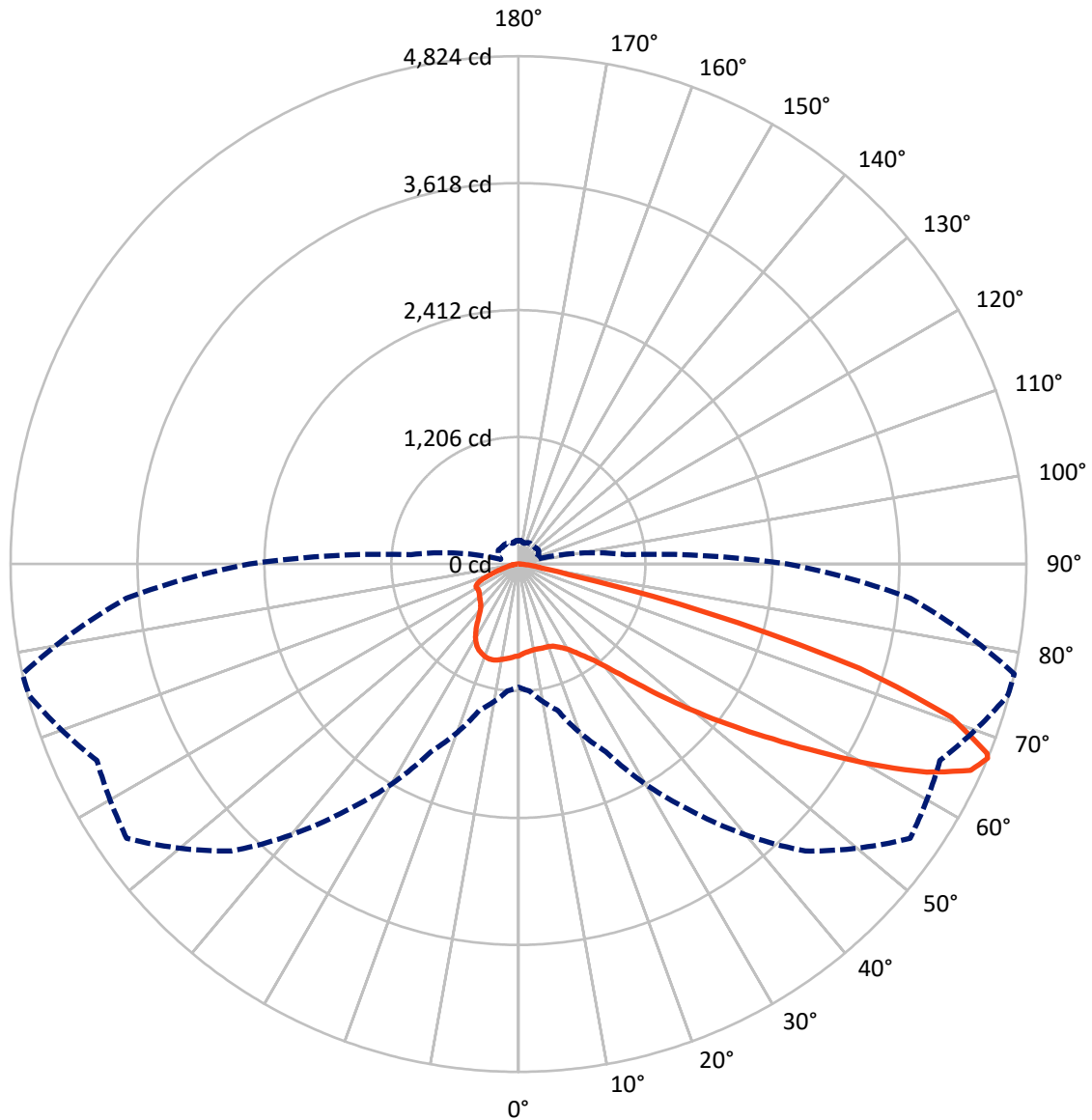
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1017.7	0.0	1017.7
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	4904.5	0.0	4904.5
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	5922.3	0.0	5922.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	1.3
10°-20°	215.0	3.6
20°-30°	365.3	6.2
30°-40°	584.4	9.9
40°-50°	899.6	15.2
50°-60°	1248.1	21.1
60°-70°	1664.9	28.1
70°-80°	792.3	13.4
80°-90°	75.0	1.3
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°	5922.3	100.0
0°-180°	5922.3	100.0



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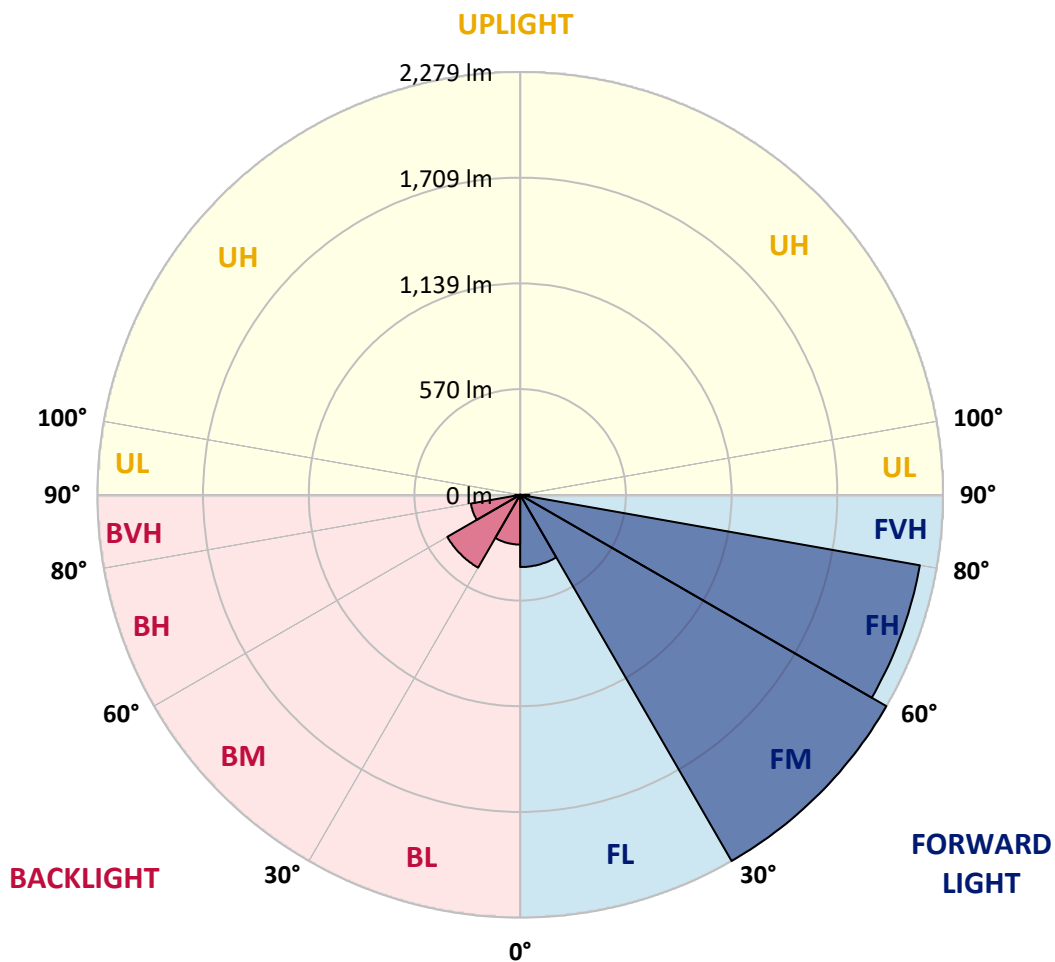
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	389.4	6.6			
FM	(30°-60°)	2278.9	38.5			
FH	(60°-80°)	2187.4	36.9			G2/5000
FVH	(80°-90°)	48.7	0.8			G1/100
BL	(0°-30°)	268.4	4.5	B1/500		
BM	(30°-60°)	453.2	7.7	B1/1000		
BH	(60°-80°)	269.9	4.6	B1/500		G1/500
BVH	(80°-90°)	26.3	0.4			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5
2.5°	781.5	785.2	785.6	796.2	801.0	813.1	826.3	837.8	848.2	851.9	858.4
5°	703.3	703.3	704.4	711.3	724.8	744.2	771.6	801.6	833.2	840.9	860.2
7.5°	662.2	662.9	663.7	670.7	681.3	698.4	725.9	767.0	819.3	832.1	866.1
10°	665.9	664.7	661.2	659.6	664.0	675.0	698.8	740.9	807.5	827.2	876.7
12.5°	723.3	721.2	709.0	691.4	675.3	671.4	687.8	727.7	802.0	827.2	894.6
15°	821.8	823.2	799.5	762.9	720.8	692.2	690.1	723.0	800.2	829.6	915.6
17.5°	950.0	950.6	917.7	864.7	794.7	735.8	705.0	723.0	800.2	831.7	935.7
20°	1086.1	1081.0	1043.7	977.0	886.3	796.2	732.5	727.4	802.5	835.0	954.7
22.5°	1202.9	1198.1	1159.0	1089.0	985.1	867.6	769.5	742.0	814.6	848.4	981.4
25°	1305.0	1307.9	1269.8	1191.2	1083.5	948.2	824.7	775.6	839.7	873.1	1014.4
27.5°	1429.2	1423.6	1379.6	1304.7	1185.0	1031.6	894.0	818.1	869.7	902.6	1054.6
30°	1572.7	1570.1	1510.8	1433.5	1296.7	1124.9	962.4	863.9	908.9	943.3	1105.2
32.5°	1746.8	1746.5	1682.9	1588.1	1422.1	1230.4	1043.3	926.5	966.0	1000.8	1172.2
35°	1944.2	1943.8	1877.8	1752.8	1566.7	1347.1	1138.4	1002.7	1036.7	1073.4	1252.0
37.5°	2081.1	2078.9	2044.5	1922.9	1726.7	1482.9	1257.4	1105.2	1116.9	1157.8	1348.3
40°	2107.5	2120.5	2150.3	2078.5	1901.4	1633.7	1376.7	1215.3	1226.4	1279.0	1469.4
42.5°	2078.9	2096.0	2194.6	2214.7	2076.0	1816.5	1526.1	1367.9	1382.0	1447.3	1611.7
45°	2054.0	2068.9	2192.4	2290.0	2248.4	2015.5	1712.4	1554.2	1580.7	1662.0	1774.3
47.5°	2011.6	2025.5	2149.1	2303.7	2346.8	2207.3	1936.8	1778.4	1823.6	1922.3	1959.6
50°	2009.2	2015.5	2090.3	2258.2	2380.9	2353.1	2185.3	2040.4	2109.9	2223.5	2164.6
52.5°	1953.8	1997.2	2064.9	2185.8	2381.6	2438.0	2430.4	2327.8	2435.0	2560.6	2389.3
55°	1613.3	1663.4	1980.9	2150.3	2377.3	2510.9	2654.0	2633.6	2801.2	2933.2	2641.1
57.5°	1506.4	1527.6	1737.7	2161.0	2413.8	2631.2	2877.6	2961.8	3220.0	3364.2	2943.1
60°	1477.1	1499.5	1689.1	2166.1	2513.1	2850.5	3181.1	3332.6	3712.2	3865.2	3286.2
62.5°	1444.5	1473.4	1692.6	2170.8	2687.3	3174.9	3583.8	3735.0	4217.8	4354.4	3607.6
65°	1349.3	1387.7	1624.9	2140.8	2878.0	3581.9	4116.0	4154.5	4635.4	4722.2	3801.5
67°	1168.9	1210.9	1439.1	1967.3	2860.5	3856.2	4541.8	4417.0	4812.9	4823.7	3738.7
67.5°	1111.7	1155.3	1376.1	1895.2	2810.3	3891.9	4617.2	4453.2	4811.5	4799.9	3680.0
70°	748.6	797.7	974.5	1391.5	2254.2	3622.2	4598.9	4341.5	4495.9	4361.7	3161.8
72.5°	371.5	373.1	486.2	762.1	1365.9	2598.0	3836.3	3714.1	3644.6	3390.8	2320.1
75°	179.0	182.3	229.5	336.8	575.9	1341.3	2616.3	2506.1	2133.8	1847.5	1161.1
77.5°	136.5	139.9	178.3	219.2	240.1	437.5	1295.8	1047.3	618.3	493.8	327.3
80°	105.5	111.7	150.5	168.4	158.9	175.3	407.4	320.6	240.4	220.8	162.1
82.5°	82.4	86.0	127.7	127.7	109.9	117.5	189.6	185.2	149.4	134.7	87.1
85°	58.2	65.5	102.9	95.2	72.1	72.9	113.5	108.8	76.8	61.9	34.0
87.5°	26.1	33.2	73.2	62.3	38.4	29.6	46.5	40.0	30.5	23.4	15.7
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°	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5	871.5
2.5°	865.7	871.5	880.8	886.3	893.5	896.5	899.5	904.6	908.5	907.5	905.6
5°	873.8	883.8	895.0	898.7	898.7	895.0	892.8	893.3	892.0	891.4	889.1
7.5°	885.5	899.1	907.1	903.4	892.0	877.9	864.3	856.3	848.4	843.8	845.2
10°	902.0	917.0	917.3	901.3	874.2	843.1	816.3	799.1	782.7	775.3	777.6
12.5°	925.8	940.7	927.9	893.3	845.7	796.9	747.8	712.4	680.6	672.8	670.7
15°	951.5	963.2	934.5	875.9	804.6	724.5	642.1	589.0	553.4	547.2	545.1
17.5°	973.8	980.3	931.3	845.2	739.8	613.5	517.7	481.8	474.5	478.1	478.1
20°	993.4	991.3	917.0	797.7	637.6	490.6	434.9	434.5	444.4	453.6	454.4
22.5°	1018.4	1001.3	894.4	727.0	515.7	409.3	399.7	409.3	420.2	430.5	431.5
25°	1048.1	1012.2	863.9	626.4	414.7	371.5	375.6	383.7	390.7	398.7	398.9
27.5°	1077.6	1020.6	821.1	508.1	359.9	347.5	351.7	355.1	356.8	362.0	362.0
30°	1112.1	1027.2	759.2	407.0	334.6	326.2	323.6	322.1	323.6	330.5	330.9
32.5°	1155.3	1038.9	674.6	349.3	322.9	311.2	298.0	290.6	295.8	308.2	310.5
35°	1204.4	1052.9	573.3	326.2	318.9	303.8	279.7	268.4	270.2	281.4	283.3
37.5°	1265.8	1070.7	473.3	320.6	322.9	303.1	271.3	255.2	247.2	247.5	247.2
40°	1344.6	1088.7	394.3	322.1	331.7	305.0	267.2	242.0	225.1	225.8	227.4
42.5°	1426.9	1100.5	344.1	326.5	342.3	307.5	265.8	229.2	214.5	226.9	238.3
45°	1523.2	1097.1	318.1	330.5	350.2	308.6	260.2	227.7	215.7	253.0	274.3
47.5°	1633.7	1082.8	303.4	332.5	352.6	308.2	256.2	232.4	224.8	289.6	313.7
50°	1753.9	1060.4	291.8	329.5	351.4	306.9	260.7	238.3	228.3	297.6	316.3
52.5°	1885.3	1040.0	279.7	322.9	345.9	302.4	266.2	235.7	218.2	274.3	288.4
55°	2040.8	1035.2	266.2	311.5	336.8	297.6	263.3	227.7	206.8	243.1	251.9
57.5°	2218.8	1064.9	248.6	297.6	324.4	288.0	256.2	223.3	202.7	221.2	225.8
60°	2444.6	1130.3	229.8	283.0	308.9	273.9	250.0	224.3	203.8	217.7	218.8
62.5°	2621.1	1189.4	213.1	265.0	288.4	256.6	243.4	225.6	207.1	222.2	220.4
65°	2685.0	1160.4	192.1	238.3	259.5	237.6	234.3	226.3	207.1	224.8	220.8
67°	2553.7	1022.5	172.5	211.6	232.1	220.8	225.6	223.3	203.6	224.3	217.4
67.5°	2491.1	973.8	167.3	207.1	224.8	215.7	223.3	221.8	202.5	223.7	215.7
70°	2054.3	698.4	141.4	173.9	188.1	190.0	209.8	212.3	193.7	210.2	195.6
72.5°	1461.7	437.0	121.9	134.7	152.0	162.6	191.5	199.6	181.9	182.6	170.6
75°	723.3	234.6	108.8	103.9	118.2	135.5	166.9	181.9	164.7	152.4	148.3
77.5°	244.2	132.9	91.8	83.8	91.8	108.8	138.3	158.9	145.3	128.8	126.3
80°	126.3	96.7	71.8	67.4	72.5	84.3	108.3	132.1	124.1	124.9	102.9
82.5°	78.7	58.8	51.7	51.3	54.8	64.4	79.8	107.3	106.4	91.2	66.3
85°	36.7	34.0	33.0	34.0	35.2	36.7	52.0	76.5	80.8	49.0	43.6
87.5°	15.5	15.0	13.1	14.3	15.7	15.5	20.9	32.6	45.4	30.7	28.1
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)