

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: P197275

Luminaire Tested: **NAV-AF-01-D-UNV-T3-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197275  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
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-T3-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5470 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

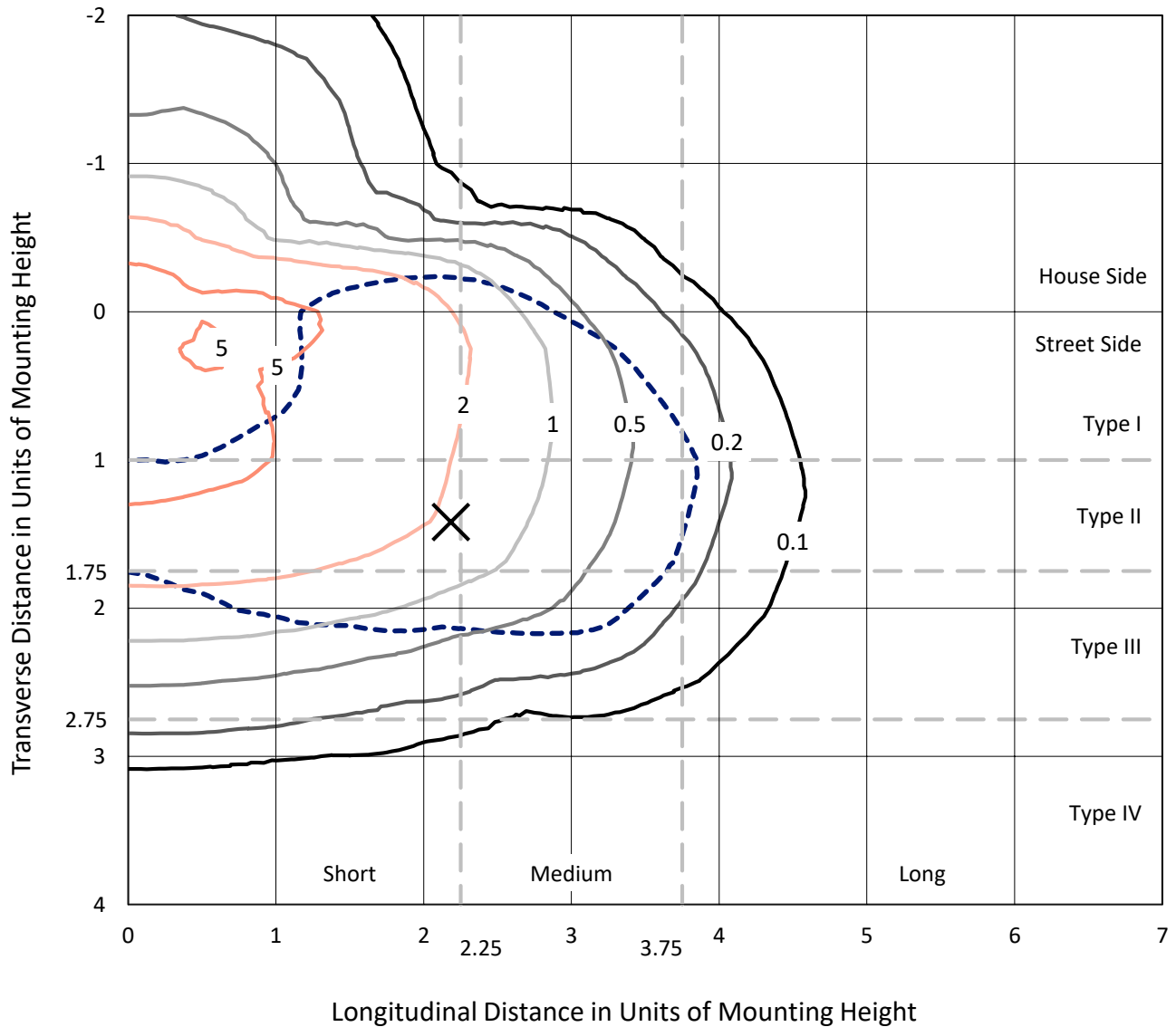
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

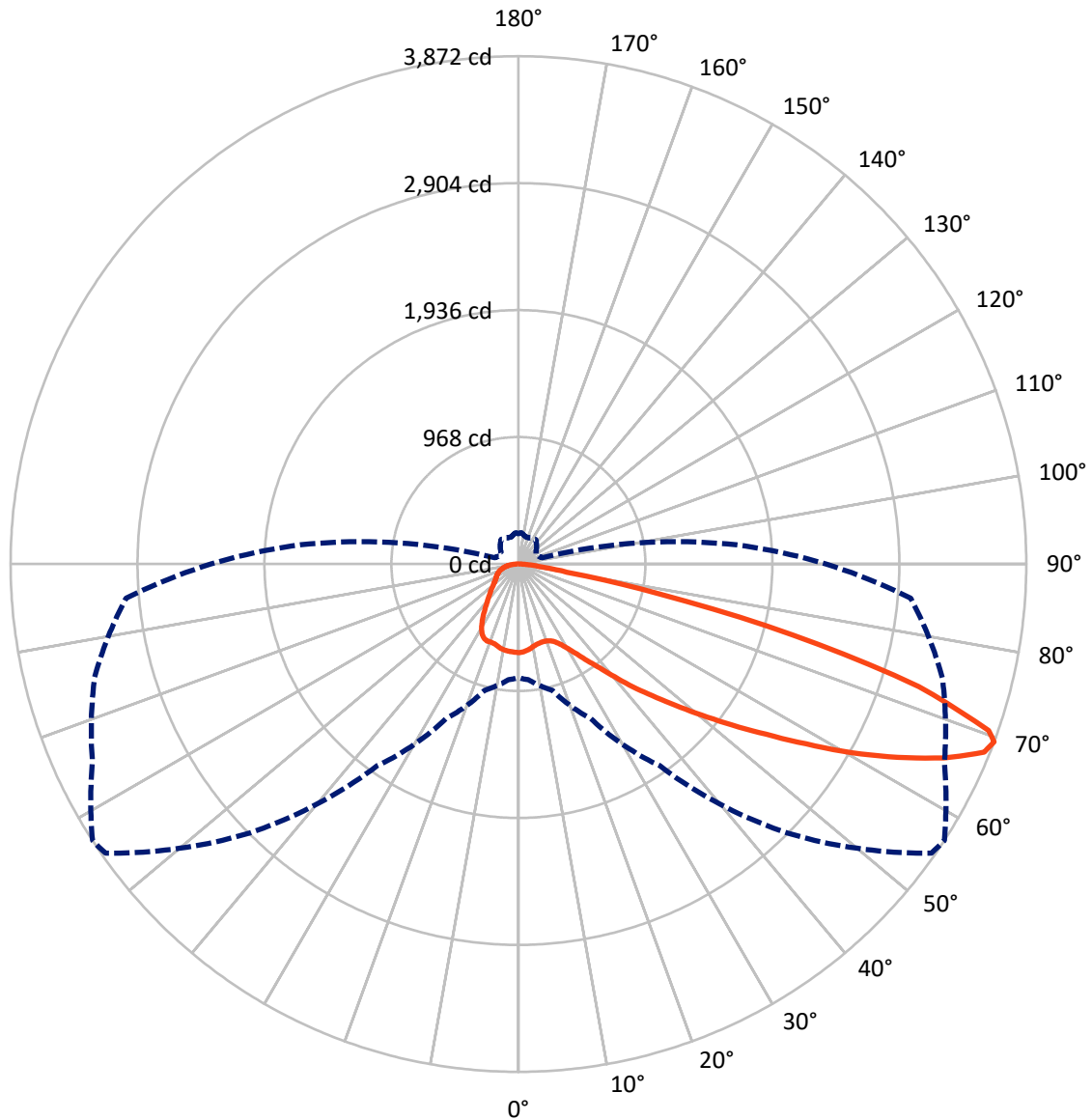
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1207.0	0.0	1207.0
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	4263.0	0.0	4263.0
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	5470.0	0.0	5470.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.3	1.2
10°-20°	179.9	3.3
20°-30°	299.3	5.5
30°-40°	488.7	8.9
40°-50°	824.8	15.1
50°-60°	1283.0	23.5
60°-70°	1528.4	27.9
70°-80°	712.0	13.0
80°-90°	90.6	1.7
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°	5470.0	100.0
0°-180°	5470.0	100.0



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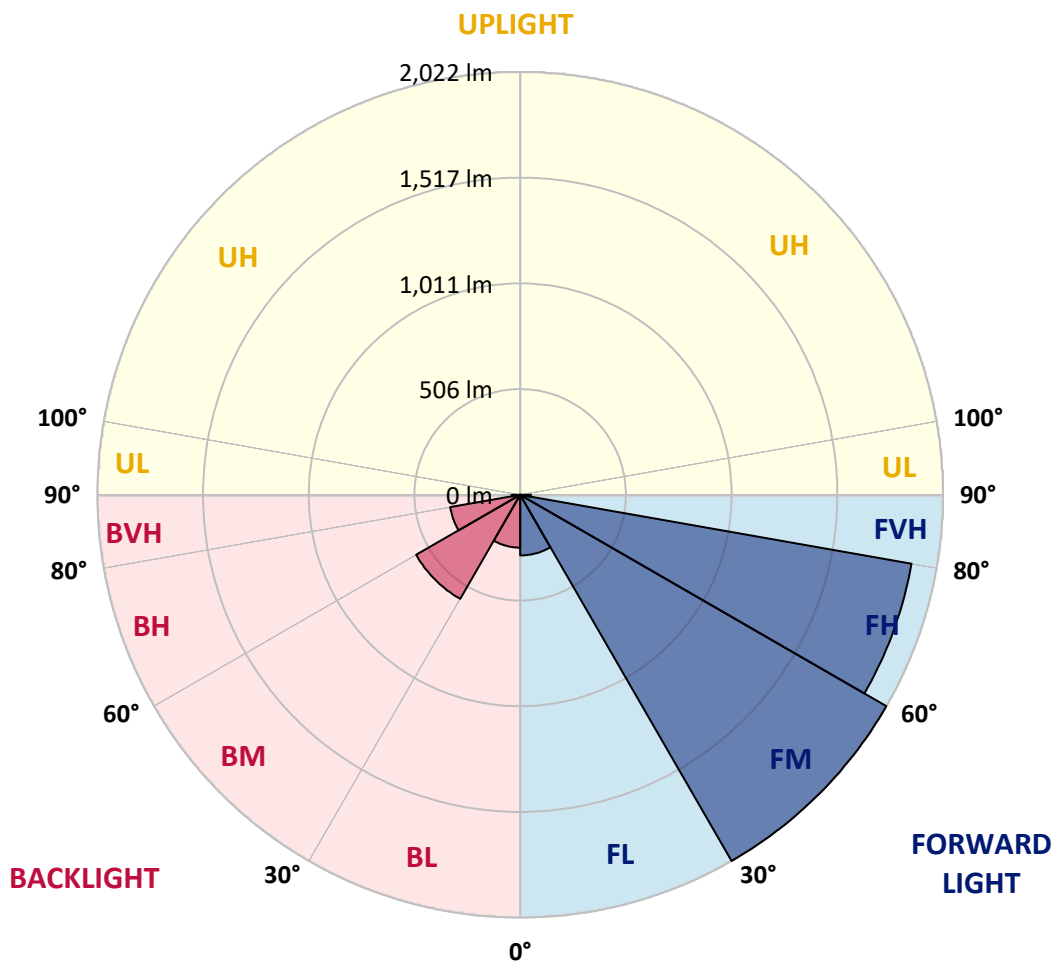
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	289.7	5.3			
FM	(30°-60°)	2022.1	37.0			
FH	(60°-80°)	1900.3	34.7			G2/5000
FVH	(80°-90°)	50.9	0.9			G1/100
BL	(0°-30°)	252.8	4.6	B1/500		
BM	(30°-60°)	574.5	10.5	B1/1000		
BH	(60°-80°)	340.1	6.2	B1/500		G1/500
BVH	(80°-90°)	39.6	0.7			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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9
2.5°	672.0	672.0	673.8	673.8	673.8	673.1	671.0	671.7	670.3	669.2	667.5
5°	658.4	659.1	661.2	661.9	662.9	663.3	663.3	662.9	663.3	663.3	662.2
7.5°	639.5	640.2	642.6	644.0	647.2	650.0	651.4	651.4	653.1	654.5	654.9
10°	627.9	627.9	629.3	629.3	631.7	633.1	637.7	637.4	642.3	646.8	648.9
12.5°	626.5	626.5	625.8	623.3	621.9	621.6	626.1	626.8	634.2	642.3	646.1
15°	631.0	631.0	628.9	624.0	618.8	616.3	620.9	622.3	630.3	639.8	645.8
17.5°	645.8	645.4	640.9	631.0	621.9	618.1	619.5	620.9	628.2	639.1	646.5
20°	678.3	678.3	668.5	650.7	634.9	625.8	623.7	624.7	630.0	640.2	649.6
22.5°	735.4	736.5	718.9	689.5	662.6	643.3	634.9	635.9	638.4	648.2	658.7
25°	819.5	816.6	791.8	750.1	708.1	675.2	658.0	659.1	659.1	668.2	679.0
27.5°	908.4	909.1	873.4	828.6	773.2	724.2	696.9	696.5	696.2	704.9	716.5
30°	1008.9	1009.3	967.9	916.1	852.7	790.0	749.1	748.7	745.6	756.4	771.5
32.5°	1118.9	1118.5	1070.5	1012.1	941.7	870.6	817.3	817.0	814.5	829.3	847.5
35°	1240.7	1240.7	1193.1	1121.0	1045.0	965.8	904.2	903.8	905.2	925.2	942.4
37.5°	1387.5	1390.6	1333.2	1245.6	1162.6	1078.2	1006.5	1004.4	993.8	1027.5	1055.8
40°	1540.5	1549.3	1489.7	1387.5	1297.8	1210.6	1131.5	1130.1	1121.0	1156.7	1202.6
42.5°	1706.1	1726.1	1659.9	1555.6	1457.9	1363.7	1284.2	1280.3	1245.3	1301.0	1372.8
45°	1923.3	1936.2	1840.3	1745.7	1653.6	1546.1	1451.5	1430.9	1395.9	1467.3	1560.5
47.5°	2071.0	2064.7	2004.9	1941.5	1882.3	1779.3	1634.0	1607.7	1565.0	1659.6	1762.2
50°	2162.8	2167.3	2133.7	2130.6	2127.4	2055.6	1839.9	1808.4	1759.0	1871.1	1990.8
52.5°	2223.4	2202.7	2208.7	2280.1	2366.6	2332.3	2072.8	2037.8	1987.0	2099.1	2234.2
55°	2198.2	2170.8	2225.8	2366.6	2570.1	2577.8	2328.4	2292.4	2248.9	2341.4	2527.0
57.5°	2093.8	2107.5	2194.3	2390.1	2709.1	2797.7	2622.2	2585.5	2500.0	2593.9	2805.0
60°	1947.1	1974.7	2107.5	2352.9	2806.4	2968.9	2944.8	2920.3	2773.2	2839.7	3097.1
62.5°	1789.5	1816.8	1980.0	2289.6	2762.7	3120.6	3261.3	3246.3	3074.7	3076.4	3282.4
65°	1556.6	1567.8	1734.5	2116.6	2641.2	3257.5	3578.3	3565.0	3362.9	3278.5	3334.2
67.5°	1175.6	1189.6	1326.5	1670.8	2271.3	3183.3	3831.5	3829.4	3536.2	3353.4	3210.9
69°	868.1	885.3	997.0	1297.1	1878.1	2900.3	3843.4	3871.7	3583.2	3345.7	3002.6
70°	635.2	654.9	758.2	1029.6	1564.3	2587.9	3741.5	3802.4	3565.3	3297.1	2840.1
72.5°	270.0	276.7	327.4	464.7	793.5	1560.5	3064.5	3192.7	3220.0	2954.2	2218.8
75°	169.1	171.2	191.2	238.5	353.0	645.4	1984.5	2159.3	2404.1	2292.0	1485.5
77.5°	127.5	129.2	140.8	164.2	219.2	240.9	920.7	1097.9	1377.0	1348.2	739.3
80°	97.7	98.8	106.5	119.4	154.4	150.9	298.7	375.4	574.7	507.1	261.6
82.5°	76.7	77.0	83.7	86.1	107.9	101.6	149.9	167.0	232.2	193.0	127.8
85°	67.9	69.0	75.6	63.0	69.0	61.3	82.3	89.3	123.3	116.3	48.3
87.5°	34.7	36.4	63.4	53.9	34.7	29.1	36.1	38.9	50.1	54.3	23.5
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°	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9	675.9
2.5°	667.8	668.2	669.2	671.0	673.8	677.3	681.5	685.7	688.1	689.9	689.2
5°	662.2	662.6	664.7	667.8	671.3	676.6	683.6	688.8	692.7	695.1	694.8
7.5°	655.2	656.3	660.5	664.0	668.9	673.1	678.7	683.6	687.4	689.9	689.5
10°	650.0	651.0	656.3	660.8	665.0	665.7	664.7	663.3	662.9	664.7	664.0
12.5°	647.5	649.6	654.5	657.7	655.9	649.3	641.6	638.4	637.4	640.9	641.2
15°	648.2	650.0	654.2	652.1	642.6	631.4	627.2	629.6	631.7	633.8	634.2
17.5°	650.0	651.0	652.1	644.4	631.0	623.7	622.3	619.8	613.5	610.0	609.7
20°	653.1	654.5	652.8	640.5	628.6	618.8	602.0	586.9	572.6	564.9	561.7
22.5°	664.0	665.0	659.8	647.9	629.6	597.8	563.8	537.9	515.8	503.9	499.4
25°	685.3	687.1	679.7	664.7	617.0	561.4	513.4	478.4	450.7	436.3	432.5
27.5°	722.8	724.5	716.5	677.3	587.6	512.7	454.6	419.9	396.1	383.8	382.1
30°	778.8	781.3	773.9	676.9	542.8	450.7	397.1	376.8	363.1	354.7	354.4
32.5°	856.6	865.7	835.6	665.0	487.5	388.0	353.7	346.7	340.0	334.4	334.4
35°	955.3	976.7	896.5	640.2	426.5	345.3	329.5	322.9	314.5	308.5	307.8
37.5°	1073.3	1106.6	939.9	596.0	374.0	324.6	314.8	304.0	290.7	279.1	276.3
40°	1235.5	1243.2	961.3	524.2	334.8	313.4	301.2	287.5	270.7	257.7	256.3
42.5°	1398.3	1373.1	957.1	447.2	312.4	303.3	287.2	272.1	257.0	246.2	246.2
45°	1583.6	1486.6	925.2	369.8	292.1	291.7	274.2	259.8	248.3	240.2	238.5
47.5°	1760.8	1588.5	870.2	312.7	271.0	280.2	265.8	254.2	243.7	236.0	234.6
50°	1975.8	1706.5	811.7	272.8	250.7	270.0	262.3	256.3	246.2	232.9	231.5
52.5°	2189.4	1844.5	766.6	242.7	232.9	261.9	264.4	265.1	255.6	229.7	228.0
55°	2418.8	1991.9	718.9	219.2	218.2	258.1	269.3	268.6	264.0	230.4	227.6
57.5°	2637.0	2140.0	647.9	202.8	206.6	254.2	270.3	259.1	251.1	233.9	229.4
60°	2817.7	2262.6	543.5	191.2	196.8	246.5	263.3	246.5	232.9	233.2	229.0
62.5°	2905.5	2296.9	415.7	177.9	188.8	233.9	253.2	237.1	224.5	234.6	232.2
65°	2838.7	2199.2	296.3	165.6	178.9	219.2	247.2	229.0	220.3	241.6	238.8
67.5°	2598.4	1933.1	215.0	154.8	169.5	204.2	236.0	221.7	216.1	246.9	240.6
69°	2343.1	1669.0	186.3	148.5	162.8	196.1	228.7	217.8	212.9	239.5	230.4
70°	2130.9	1465.6	171.9	144.6	157.2	191.6	223.1	215.4	209.8	230.8	219.9
72.5°	1527.9	947.3	144.6	133.1	142.5	181.4	210.8	206.3	197.9	208.4	201.4
75°	923.1	494.5	122.9	121.2	127.1	167.4	196.5	190.9	182.5	183.5	180.0
77.5°	424.1	228.3	103.0	107.2	111.0	149.9	178.9	172.6	164.9	162.1	162.5
80°	186.0	133.4	86.1	91.4	93.5	134.8	160.0	153.0	144.6	159.7	148.1
82.5°	100.5	77.4	67.2	70.7	76.7	117.3	139.0	129.9	121.9	141.8	114.5
85°	40.6	39.6	45.5	49.0	53.2	84.4	116.3	106.8	97.0	86.8	84.7
87.5°	17.5	18.9	22.4	23.8	28.4	52.5	78.1	68.3	68.6	58.8	57.8
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)