

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: P195907

Luminaire Tested: **NAV-AF-01-D-UNV-T4W-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195907
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)
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-T4W-7050-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6623 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

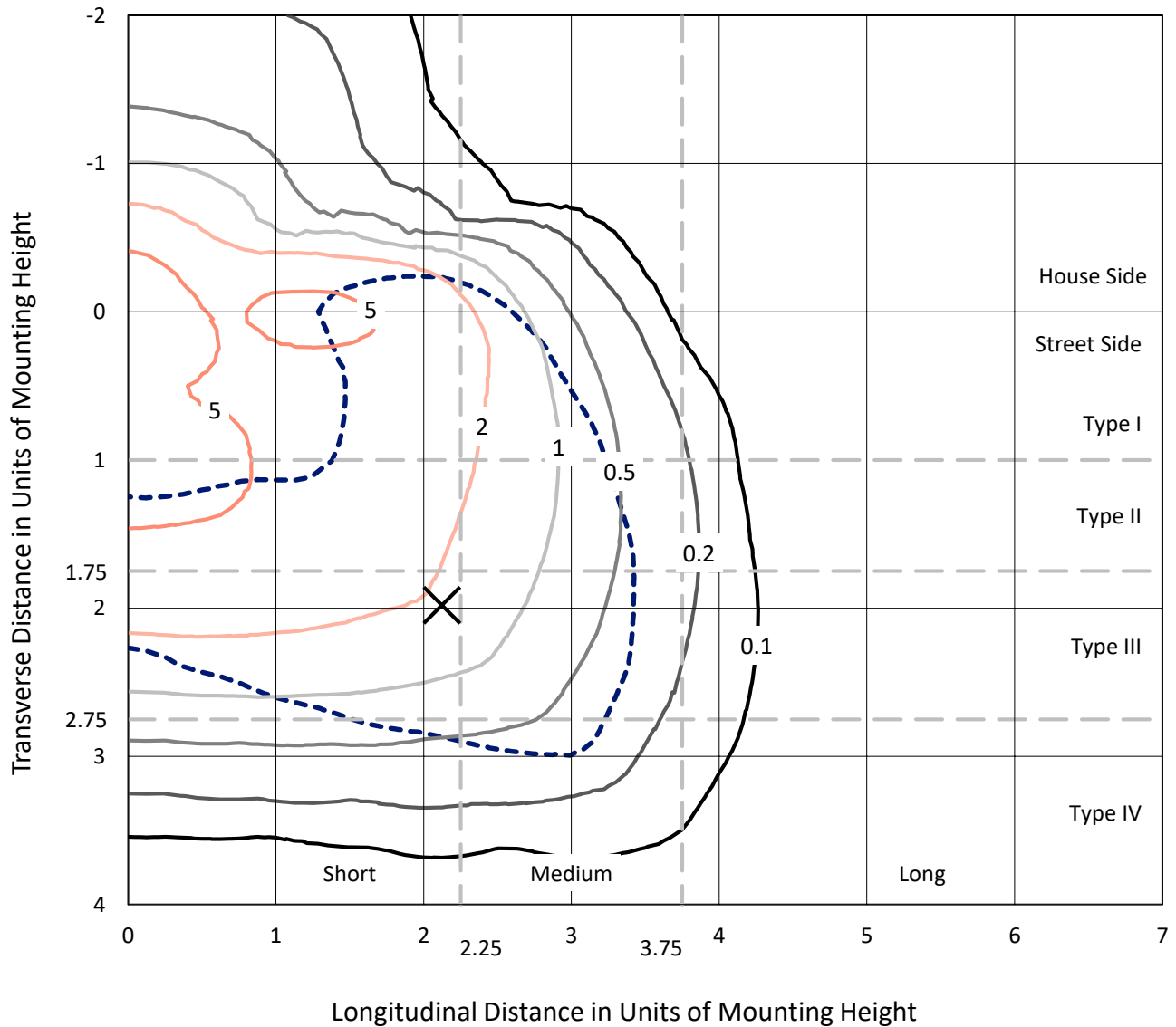
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

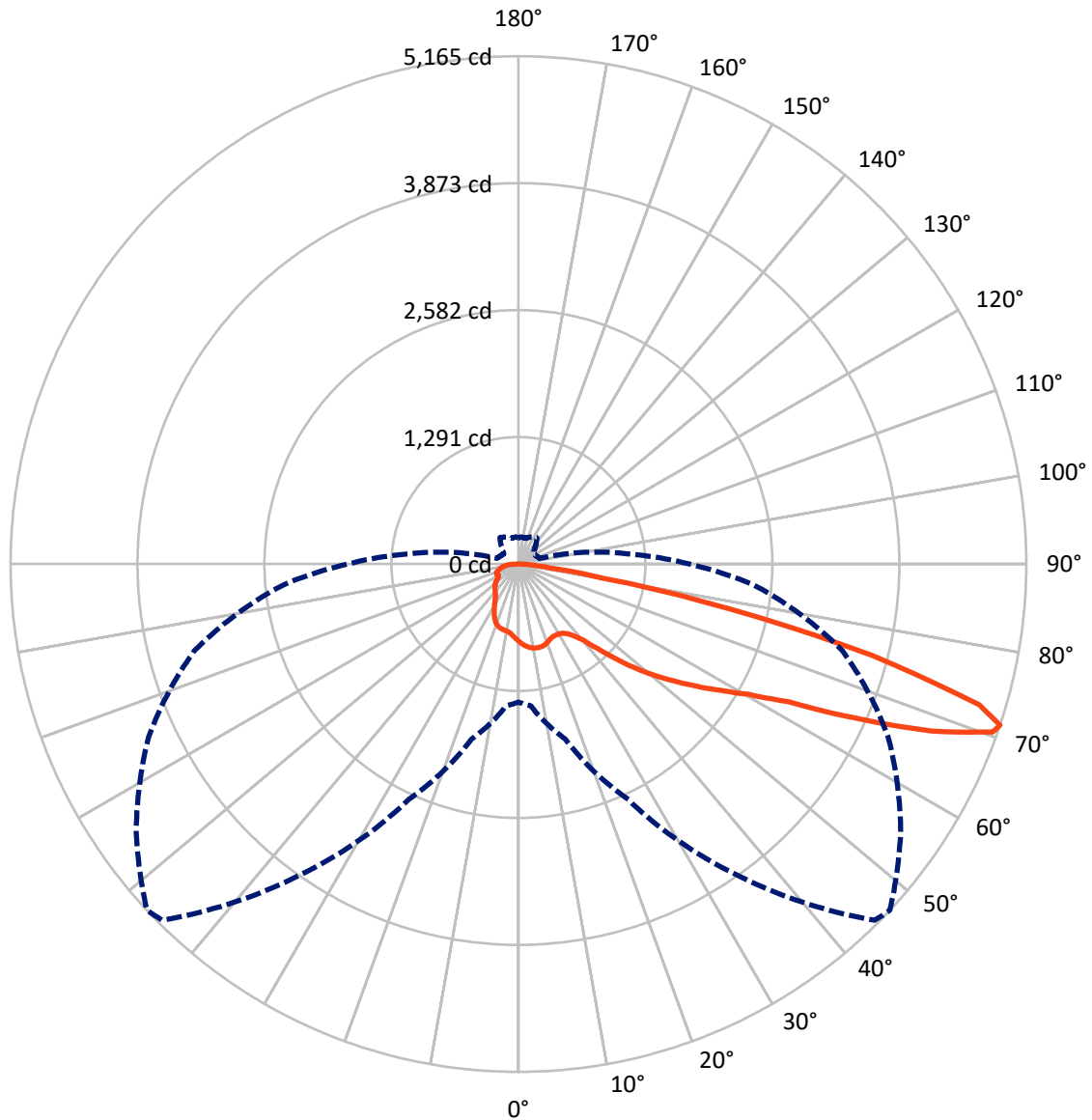
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1419.4	0.0	1419.4
	% Fixture	21.4	0.0	21.4
Street Side	Lumens	5203.6	0.0	5203.6
	% Fixture	78.6	0.0	78.6
Total	Lumens	6623.0	0.0	6623.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	1.1
10°-20°	220.0	3.3
20°-30°	326.9	4.9
30°-40°	469.4	7.1
40°-50°	832.2	12.6
50°-60°	1424.1	21.5
60°-70°	2021.7	30.5
70°-80°	1107.3	16.7
80°-90°	146.2	2.2
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°	6623.0	100.0
0°-180°	6623.0	100.0



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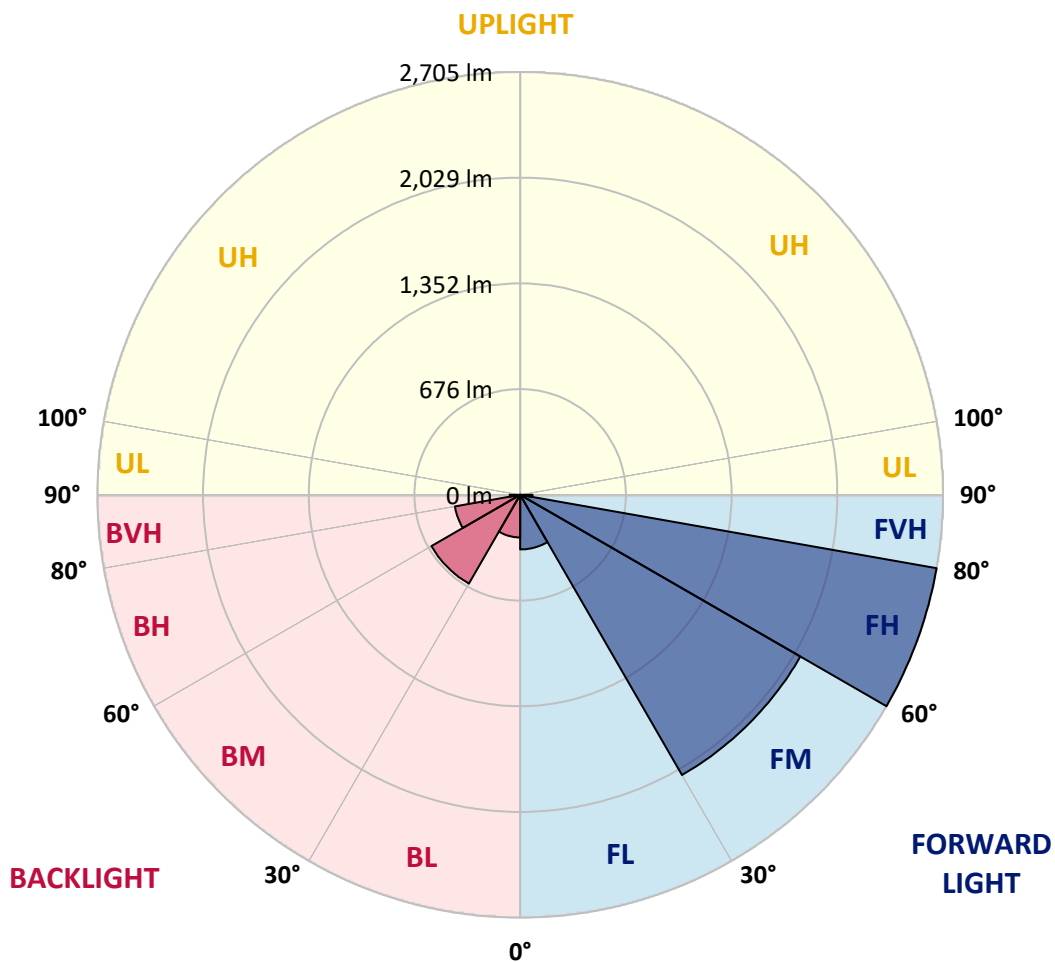
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	349.5	5.3			
FM	(30°-60°)	2069.9	31.3			
FH	(60°-80°)	2704.9	40.8			G2/5000
FVH	(80°-90°)	79.3	1.2			G1/100
BL	(0°-30°)	272.6	4.1	B1/500		
BM	(30°-60°)	655.8	9.9	B1/1000		
BH	(60°-80°)	424.1	6.4	B1/500		G1/500
BVH	(80°-90°)	66.9	1.0			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6
2.5°	835.7	833.9	834.8	831.8	824.5	816.8	816.8	808.6	800.0	791.4	782.0
5°	887.6	885.0	882.9	873.4	859.3	843.4	840.8	824.5	806.9	789.3	772.1
7.5°	930.9	928.4	921.9	904.8	884.2	860.5	857.5	836.1	812.9	788.4	764.4
10°	961.8	960.1	947.7	925.8	901.8	873.9	868.7	846.8	819.3	788.9	758.4
12.5°	979.0	976.4	961.4	935.7	907.3	879.0	873.9	852.8	821.5	788.0	752.4
15°	972.1	970.9	956.7	930.5	902.2	877.7	873.4	852.0	820.2	785.0	746.8
17.5°	943.0	946.0	934.8	909.0	885.9	868.7	864.0	843.8	813.8	777.7	738.2
20°	902.6	906.0	900.5	874.3	861.0	849.8	847.2	830.9	803.0	767.0	727.9
22.5°	859.7	862.7	863.1	838.7	834.4	830.1	827.9	816.3	793.6	760.5	721.1
25°	830.1	833.5	834.4	812.9	815.5	816.8	816.3	808.2	791.9	760.5	721.9
27.5°	822.4	824.1	823.2	803.5	808.2	815.5	815.9	814.2	798.7	769.1	733.9
30°	849.0	849.8	839.1	809.5	814.2	823.6	824.1	823.2	813.3	791.4	761.0
32.5°	964.0	963.1	926.2	849.8	833.5	836.9	838.2	846.0	846.8	828.4	800.0
35°	1139.1	1138.7	1095.8	965.3	888.4	870.4	872.1	884.2	894.9	882.4	866.1
37.5°	1331.8	1333.1	1306.9	1130.1	1006.9	931.8	930.1	939.1	958.4	962.7	964.8
40°	1545.6	1552.0	1550.7	1319.4	1173.0	1036.5	1019.4	1009.1	1046.4	1070.0	1100.5
42.5°	1789.8	1788.1	1788.9	1527.1	1362.7	1201.3	1169.6	1121.5	1164.9	1205.6	1272.6
45°	1999.7	2006.5	2011.7	1748.1	1575.2	1389.8	1357.6	1270.0	1309.1	1370.0	1472.2
47.5°	2210.8	2198.8	2208.2	1994.1	1811.7	1604.8	1563.2	1445.1	1481.6	1567.4	1722.8
50°	2456.8	2451.2	2408.3	2315.1	2097.5	1822.8	1768.3	1628.0	1681.2	1795.8	2032.3
52.5°	2677.4	2647.3	2613.8	2567.5	2378.6	2043.4	1974.3	1818.1	1916.0	2058.0	2416.4
55°	2758.1	2737.9	2778.2	2838.3	2676.1	2268.3	2191.1	2040.0	2180.8	2358.0	2868.4
57.5°	2843.9	2850.8	2941.8	3063.2	2957.6	2508.3	2424.6	2302.7	2471.3	2693.7	3373.5
60°	2886.8	2914.3	3095.8	3323.7	3225.5	2771.4	2691.1	2604.4	2793.7	3064.5	3877.4
62.5°	2894.1	2931.0	3188.1	3415.2	3594.1	3174.4	3081.7	2987.7	3196.3	3474.4	4242.2
65°	2760.2	2816.9	3180.0	3527.6	3930.2	3847.8	3789.0	3625.0	3735.3	3835.3	4304.5
67.5°	2366.6	2428.4	2865.4	3481.3	4199.7	4546.5	4535.4	4293.3	4151.7	3974.8	3843.1
70°	1737.0	1786.8	2206.5	2976.1	4082.1	5095.1	5114.8	4726.4	4268.0	3678.7	2857.6
71°	1404.8	1447.7	1843.4	2642.2	3852.9	5123.4	5164.6	4745.7	4146.9	3411.3	2392.4
72.5°	874.3	898.3	1224.1	1994.1	3317.7	4831.5	4901.1	4498.5	3765.8	2883.4	1691.1
75°	330.1	339.5	454.1	879.4	1980.3	3629.8	3713.9	3399.7	2645.6	1646.0	707.8
77.5°	177.3	182.0	225.3	365.7	793.6	2080.8	2188.9	1939.1	1269.2	576.0	289.3
80°	118.9	121.9	155.8	216.7	364.8	792.3	882.4	778.6	475.1	328.8	206.0
82.5°	76.8	78.5	106.0	142.5	235.6	278.6	318.0	332.2	296.6	235.6	124.5
85°	50.6	51.9	70.0	91.0	145.9	137.3	140.8	184.1	202.2	155.4	63.5
87.5°	29.2	30.0	42.1	46.8	65.7	51.5	55.8	87.6	120.2	101.3	36.5
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°	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6	787.6
2.5°	777.7	774.3	766.6	761.8	759.7	758.8	758.0	759.7	759.7	758.8	757.1
5°	763.6	757.1	744.2	735.2	730.5	729.2	730.9	733.1	734.4	734.4	733.1
7.5°	753.2	743.8	726.6	714.2	706.9	704.7	709.5	717.2	722.3	724.9	725.4
10°	744.7	731.8	712.9	700.0	694.0	693.2	699.2	709.0	719.8	724.5	725.4
12.5°	736.9	722.3	701.7	689.7	685.4	687.6	695.7	704.7	717.2	724.1	724.5
15°	729.6	714.6	692.7	680.3	679.4	682.9	690.6	697.9	707.3	715.9	715.9
17.5°	721.1	704.7	682.0	670.4	670.4	673.4	678.6	682.4	688.4	696.6	696.2
20°	710.8	694.0	670.8	658.8	656.2	654.5	654.5	655.4	660.5	667.8	669.1
22.5°	703.0	685.9	661.4	646.8	635.2	624.1	619.3	617.6	622.3	629.2	630.9
25°	703.0	685.9	658.4	633.9	605.6	584.1	575.1	572.6	577.3	583.7	586.3
27.5°	714.6	697.5	665.3	622.3	570.4	536.1	525.3	523.2	527.5	532.6	535.2
30°	741.7	724.9	685.0	609.0	531.4	486.3	474.3	472.1	474.3	476.4	479.4
32.5°	786.7	772.6	717.2	597.0	491.9	441.2	426.6	423.2	424.1	424.5	427.1
35°	860.1	853.7	760.1	582.9	454.5	404.3	389.3	382.4	382.0	384.1	387.1
37.5°	972.6	976.4	815.5	562.3	423.6	378.1	363.1	356.2	352.8	357.1	360.5
40°	1131.4	1140.4	879.4	534.4	398.3	362.7	346.8	340.4	335.6	334.3	336.1
42.5°	1337.8	1335.2	944.7	498.7	370.8	352.4	335.6	328.8	321.0	311.2	309.0
45°	1582.5	1545.6	999.2	455.0	339.5	342.5	325.3	315.9	303.9	289.3	287.6
47.5°	1871.3	1769.6	1032.7	408.2	310.3	329.6	313.7	299.2	281.6	272.1	270.8
50°	2219.4	2031.8	1056.3	360.5	284.1	313.3	297.4	278.1	261.0	258.4	258.0
52.5°	2631.4	2341.3	1085.5	317.6	263.5	292.3	281.1	261.4	247.6	248.9	248.9
55°	3069.7	2661.5	1086.3	283.7	245.5	267.8	269.1	253.2	242.5	246.8	248.1
57.5°	3469.2	2941.3	1000.9	259.7	228.3	248.5	265.2	256.2	248.1	263.1	264.4
60°	3817.8	3156.8	817.2	239.9	214.2	241.2	273.8	274.7	273.0	313.7	316.8
62.5°	3945.2	3158.9	580.3	223.2	206.4	245.5	291.9	293.1	293.1	330.9	336.5
65°	3766.7	2895.8	386.3	213.3	201.3	254.9	306.5	300.9	287.6	313.7	307.7
67.5°	3137.5	2254.2	282.4	206.9	194.0	255.4	319.3	305.2	282.4	304.7	294.4
70°	2156.3	1434.4	236.5	200.9	185.4	244.2	326.2	303.9	274.7	284.1	270.4
71°	1735.7	1144.7	224.5	198.7	182.0	237.8	327.1	302.2	270.8	276.8	264.4
72.5°	1143.4	705.2	209.9	194.0	176.8	226.6	324.9	298.3	265.7	266.1	258.0
75°	451.1	292.3	188.8	183.3	162.2	208.6	315.5	290.1	255.8	247.2	243.8
77.5°	227.9	191.0	166.1	168.2	145.1	190.1	302.2	276.8	242.1	230.5	227.9
80°	166.5	145.1	142.1	145.9	125.8	172.1	285.4	258.8	224.5	236.5	231.3
82.5°	101.3	88.4	111.2	120.6	105.2	153.7	265.7	237.8	202.2	186.3	180.3
85°	48.1	51.9	80.3	88.8	77.7	122.8	242.9	214.6	176.4	152.4	154.9
87.5°	23.6	28.8	45.9	53.2	51.1	90.1	183.3	166.5	139.1	114.6	112.0
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)