

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: P197041

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)
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-SL2-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3220 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

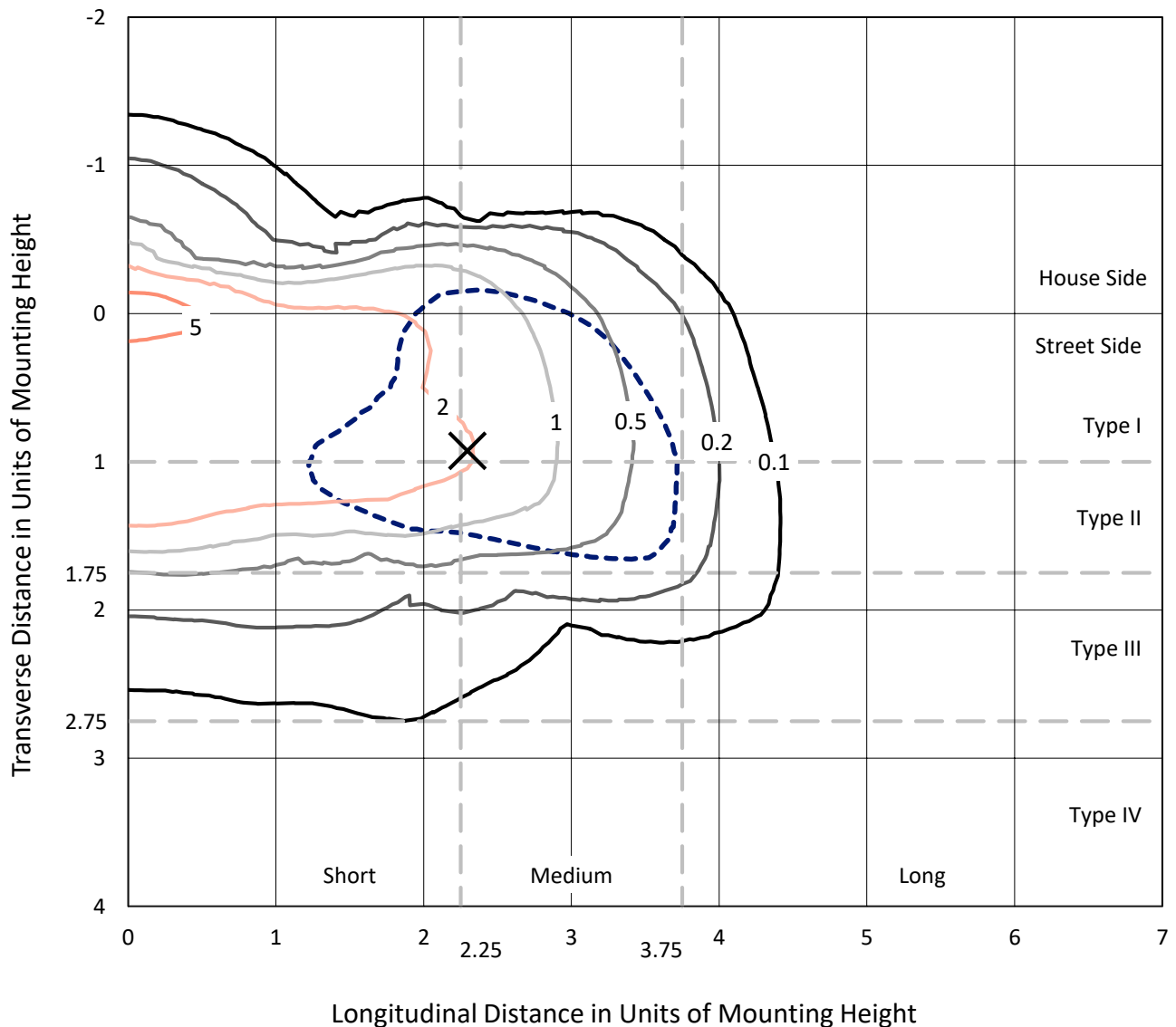
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197041
 CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-600

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

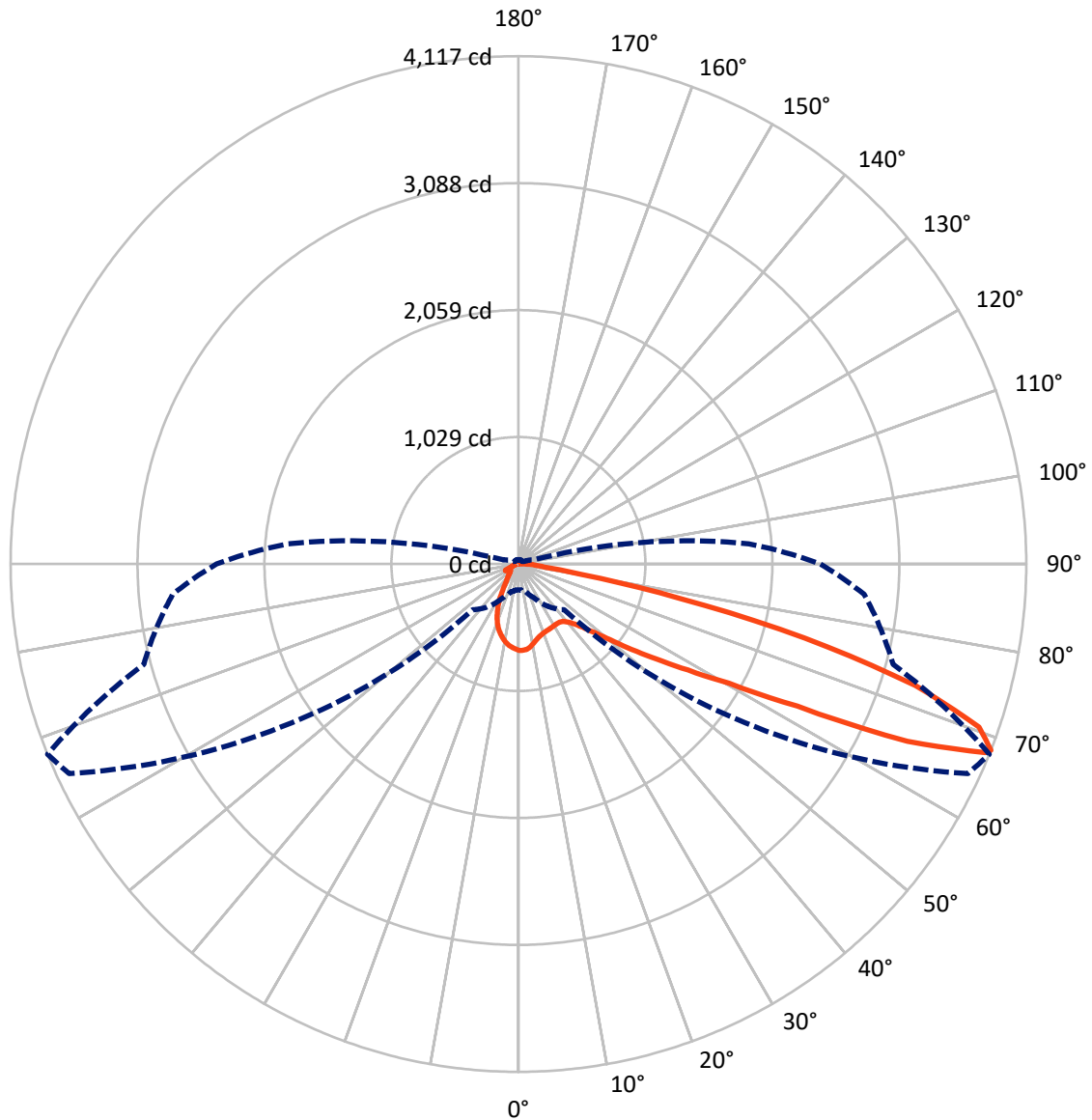


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P197041

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P197041

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	526.8	0.0	526.8
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	2693.2	0.0	2693.2
	% Fixture	83.6	0.0	83.6
Total	Lumens	3220.0	0.0	3220.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.0	1.9
10°-20°	139.2	4.3
20°-30°	188.3	5.8
30°-40°	265.5	8.2
40°-50°	436.6	13.6
50°-60°	676.8	21.0
60°-70°	877.5	27.3
70°-80°	503.6	15.6
80°-90°	72.5	2.3
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°	3220.0	100.0
0°-180°	3220.0	100.0



REPORT NUMBER: P197041

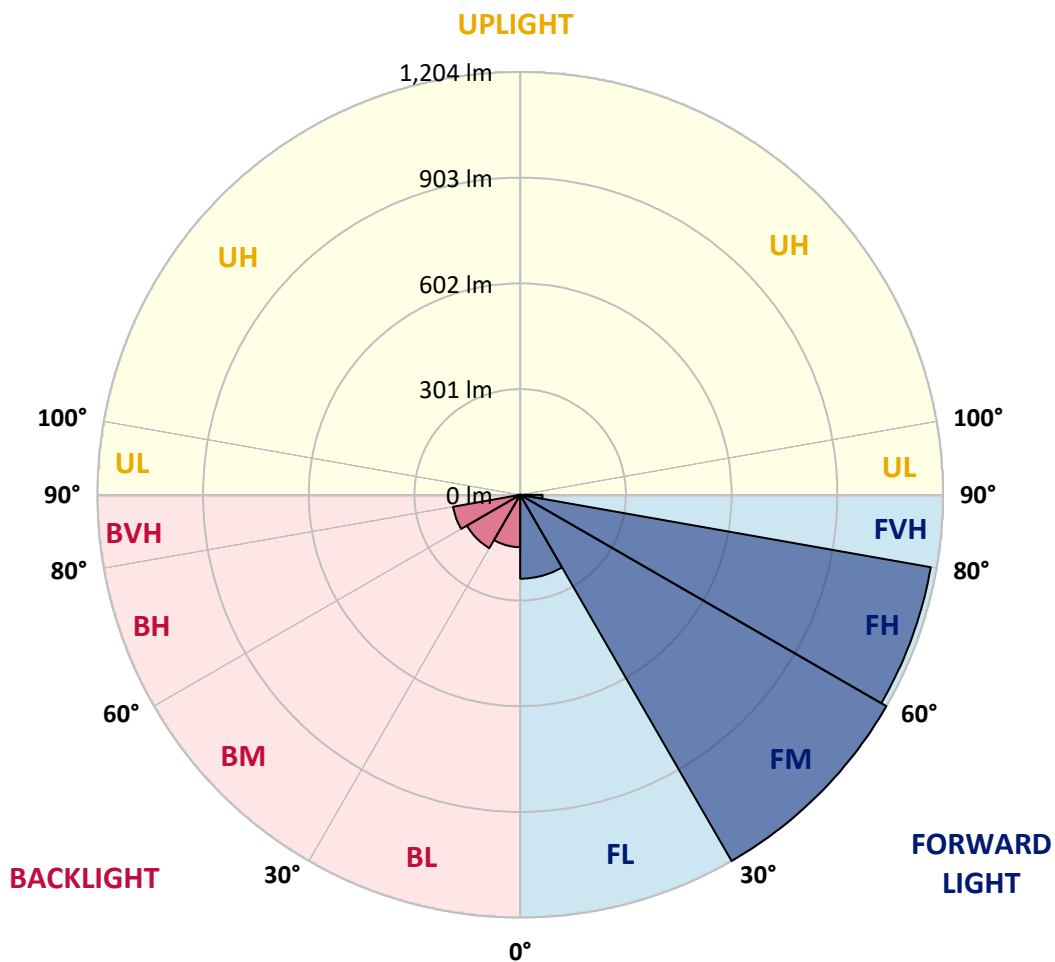
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	238.7	7.4			
FM (30°-60°)	1203.7	37.4			
FH (60°-80°)	1187.0	36.9			G1/1800
FVH (80°-90°)	63.8	2.0			G1/100
BL (0°-30°)	148.9	4.6	B1/500		
BM (30°-60°)	175.2	5.4	B0/220		
BH (60°-80°)	194.0	6.0	B1/500		G1/500
BVH (80°-90°)	8.6	0.3			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 II Medium





REPORT NUMBER: P197041

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6
2.5°	681.9	687.4	687.4	691.4	695.0	697.9	700.4	700.4	700.4	698.8	697.3
5°	610.2	617.6	618.6	628.7	642.0	658.2	676.2	692.2	695.4	701.3	703.6
7.5°	560.3	562.7	566.7	573.6	587.1	607.0	635.4	671.2	679.8	698.3	708.0
10°	525.0	526.9	530.3	537.2	549.4	567.5	595.5	642.0	656.3	689.1	708.2
12.5°	499.1	500.6	503.8	510.1	522.5	538.7	567.3	615.7	633.3	679.8	711.2
15°	478.9	481.5	484.0	490.1	502.7	518.3	547.3	596.5	615.7	672.5	716.6
17.5°	471.0	472.2	472.6	475.8	487.1	502.9	532.0	583.1	602.8	666.6	720.8
20°	476.0	476.2	472.0	469.9	476.4	490.9	519.1	573.0	593.2	661.3	722.5
22.5°	498.1	498.1	487.1	477.9	473.5	482.5	510.5	566.0	587.9	657.3	722.5
25°	540.2	538.3	521.2	502.9	483.4	479.6	505.0	561.6	583.9	655.2	719.8
27.5°	595.5	593.8	572.1	545.0	509.7	485.9	503.1	558.0	579.9	652.1	713.9
30°	662.8	661.3	636.7	601.2	549.0	505.9	507.6	555.5	576.8	646.8	704.0
32.5°	729.9	729.0	709.5	673.1	603.3	539.7	519.1	555.1	575.1	640.5	692.0
35°	797.4	797.4	785.4	754.7	676.2	590.6	543.3	562.9	578.2	637.1	681.7
37.5°	897.1	893.1	870.8	839.0	768.2	656.7	582.4	579.3	590.4	642.8	678.3
40°	1051.5	1039.9	984.2	930.8	868.5	741.2	639.6	611.0	617.8	662.2	686.3
42.5°	1213.0	1194.7	1120.9	1035.5	972.2	845.6	714.7	662.6	662.4	699.6	711.8
45°	1351.6	1342.2	1262.3	1153.9	1090.6	962.9	809.6	739.1	731.6	757.6	760.8
47.5°	1432.2	1425.9	1377.7	1279.3	1231.1	1101.6	929.9	845.4	831.1	846.6	841.8
50°	1409.9	1416.0	1402.1	1351.9	1382.1	1296.3	1083.3	990.9	963.8	979.3	967.6
52.5°	1292.5	1308.9	1321.4	1331.0	1469.0	1556.9	1275.9	1172.6	1150.1	1147.4	1136.0
55°	1081.1	1107.2	1146.4	1217.4	1445.7	1766.2	1612.5	1392.5	1359.6	1342.4	1346.8
57.5°	735.8	775.3	859.7	994.9	1324.3	1855.4	2110.1	1676.4	1620.9	1559.5	1573.8
60°	405.3	438.3	538.7	675.0	1047.3	1842.2	2551.2	2137.9	1963.1	1800.3	1829.7
62.5°	262.3	269.4	344.1	461.1	642.8	1626.4	2796.3	2909.2	2538.8	2117.9	2159.4
65°	210.8	215.8	252.4	371.9	447.8	1046.2	2807.2	3709.3	3465.1	2549.5	2550.8
67.5°	205.9	208.2	229.5	312.8	420.0	569.6	2426.5	4024.9	4081.4	3059.0	2812.7
68°	208.9	211.6	233.1	303.1	419.8	525.0	2242.6	4020.0	4117.0	3144.2	2812.7
70°	184.3	187.6	237.7	313.6	402.0	451.4	1535.7	3806.5	3962.6	3340.0	2668.8
72.5°	96.3	93.6	117.6	247.6	452.4	470.3	811.3	3180.1	3362.3	3093.3	2305.7
75°	75.1	68.4	65.8	97.8	398.0	487.8	471.2	2260.3	2397.9	2229.8	1541.2
77.5°	70.7	62.5	57.6	57.8	175.2	507.6	381.1	1330.2	1330.2	1063.7	491.8
80°	56.8	49.2	46.1	52.6	84.6	467.8	397.8	606.2	517.0	274.9	135.5
82.5°	37.4	33.4	33.7	42.7	64.2	312.4	460.6	299.3	224.9	121.8	79.7
85°	23.8	20.4	22.7	29.9	48.0	139.2	456.0	208.0	148.9	68.4	39.8
87.5°	12.0	9.3	11.4	15.6	29.2	40.0	375.5	185.7	110.4	28.4	21.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P197041

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6	700.6
2.5°	697.3	692.7	690.3	686.6	681.9	677.3	674.1	672.7	671.8	672.2	672.0
5°	702.3	696.2	686.3	672.2	657.7	642.4	630.6	621.6	615.9	614.2	613.8
7.5°	706.1	697.3	678.8	653.1	628.3	601.4	578.4	560.1	547.7	542.0	541.8
10°	705.5	694.1	664.9	627.0	590.6	551.1	515.1	484.4	462.1	451.4	451.0
12.5°	706.1	690.5	647.8	596.5	544.4	487.8	434.4	386.6	353.4	337.6	337.0
15°	708.6	686.8	630.4	562.4	490.3	410.4	334.0	274.1	243.8	233.5	233.5
17.5°	708.4	680.5	610.2	522.9	426.1	319.1	228.0	191.0	188.0	197.5	199.0
20°	704.2	670.4	584.1	476.0	350.8	220.9	154.6	149.3	172.9	199.0	201.9
22.5°	697.7	657.3	554.0	421.5	263.1	143.9	119.3	127.3	159.2	191.6	196.2
25°	688.7	641.5	519.5	358.2	175.0	103.5	99.5	109.4	131.9	153.5	156.9
27.5°	675.4	621.6	481.9	289.6	111.7	85.2	86.7	93.6	103.3	112.5	114.4
30°	658.8	598.2	440.9	213.7	84.8	76.1	78.7	82.9	87.1	93.0	94.2
32.5°	642.0	574.4	398.2	146.8	74.0	71.3	73.8	76.1	79.7	83.7	84.6
35°	626.8	552.4	354.2	102.4	69.4	68.2	69.4	70.9	74.5	78.5	78.9
37.5°	615.9	534.3	308.4	81.0	66.7	65.4	66.0	66.7	70.9	76.8	77.4
40°	614.4	522.3	261.9	72.8	64.6	62.9	62.5	62.9	68.4	75.1	75.7
42.5°	628.7	522.9	216.4	69.4	62.9	61.0	59.3	60.2	65.0	70.3	70.7
45°	662.6	537.6	177.1	67.9	61.4	59.9	57.4	57.8	60.2	62.9	63.3
47.5°	722.3	569.8	147.0	67.1	60.2	58.9	55.7	54.5	54.7	56.2	56.2
50°	817.8	623.7	128.7	66.3	59.1	56.8	53.2	50.7	50.1	50.9	51.1
52.5°	960.2	716.0	119.9	64.6	57.2	54.1	50.1	47.5	46.5	47.3	47.3
55°	1152.7	863.4	115.7	62.3	54.9	50.7	47.1	45.0	44.2	44.8	44.8
57.5°	1372.0	1055.1	122.8	59.1	52.0	47.1	44.6	43.1	42.5	43.1	43.3
60°	1632.7	1305.8	172.1	55.1	48.8	44.0	42.5	41.6	41.2	41.9	41.9
62.5°	1979.1	1639.4	266.3	52.0	45.4	41.0	40.6	40.2	39.8	40.4	40.4
65°	2353.1	1942.9	274.1	50.1	42.5	38.5	38.7	38.7	38.3	38.9	38.9
67.5°	2472.1	1916.6	153.1	47.7	38.9	36.0	36.8	36.8	36.6	37.2	37.0
68°	2446.9	1875.0	133.4	47.1	38.3	35.3	36.2	36.4	36.2	36.8	36.6
70°	2258.8	1646.1	87.7	43.5	35.5	33.2	34.5	34.7	34.5	35.3	35.1
72.5°	1864.7	1234.7	64.8	38.1	32.2	30.5	31.8	32.0	32.2	33.0	32.8
75°	1184.2	681.9	51.1	32.4	28.8	27.3	28.6	29.2	29.7	30.9	30.3
77.5°	324.3	207.0	41.4	27.6	24.8	24.2	25.0	25.9	26.3	27.8	26.7
80°	113.6	91.5	34.5	23.3	20.6	20.4	21.2	22.1	22.5	23.8	22.5
82.5°	69.0	59.7	27.6	18.3	16.2	16.0	17.0	17.9	18.3	18.3	17.5
85°	36.0	31.6	20.2	12.8	11.1	10.5	12.4	13.5	13.7	13.5	12.8
87.5°	20.2	17.9	10.7	6.1	5.0	5.3	6.5	8.0	8.6	8.4	8.0
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)