

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: P197347

Luminaire Tested: **NAV-AF-01-D-UNV-T4W-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197347
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-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 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: 5404 lumens
Efficiency: N/A
Efficacy: 80.7 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

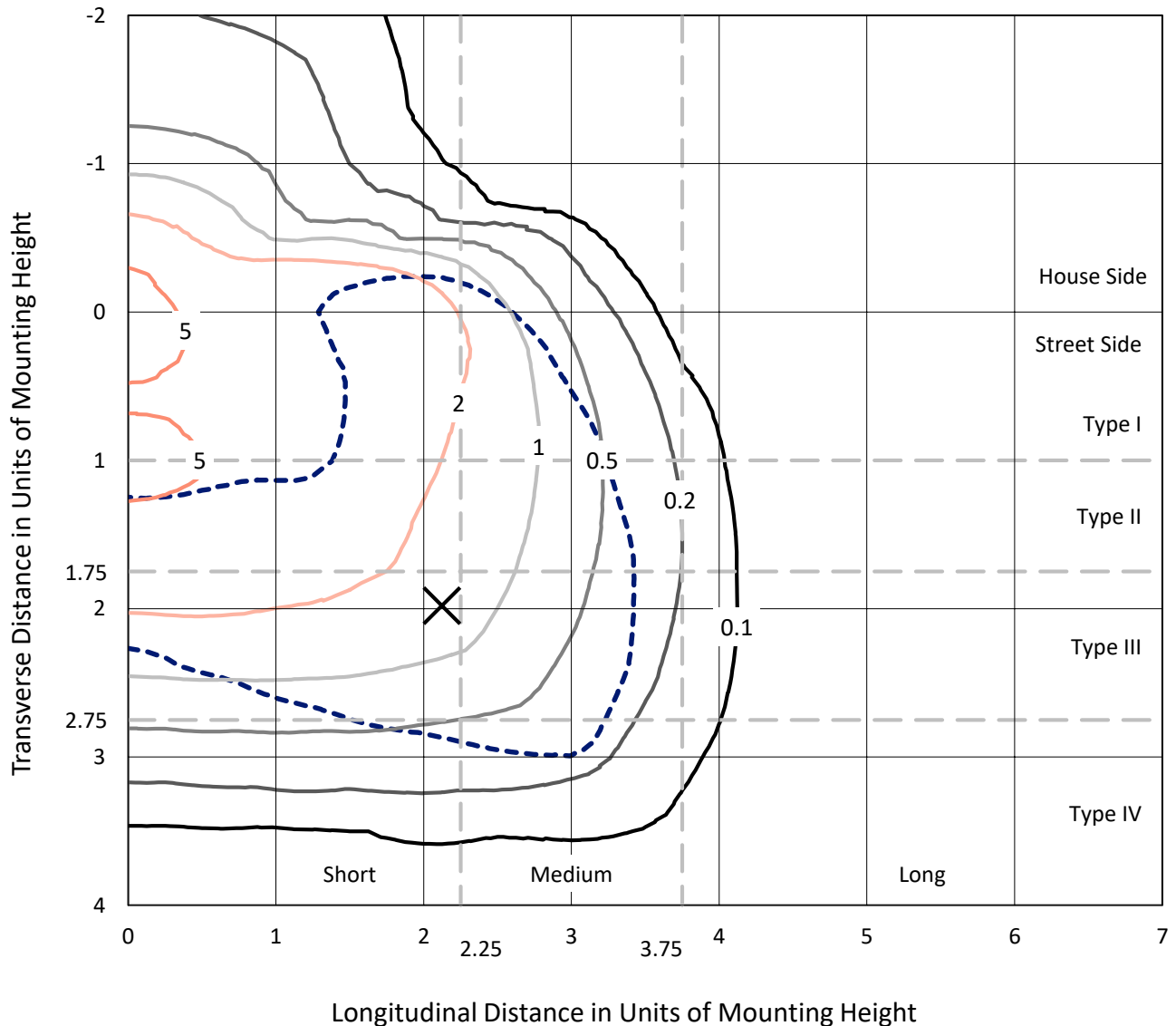
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197347
 CATALOG NUMBER: NAV-AF-01-D-UNV-T4W-8030-1200

Iso-Footcandle Lines of Horizontal Illumination

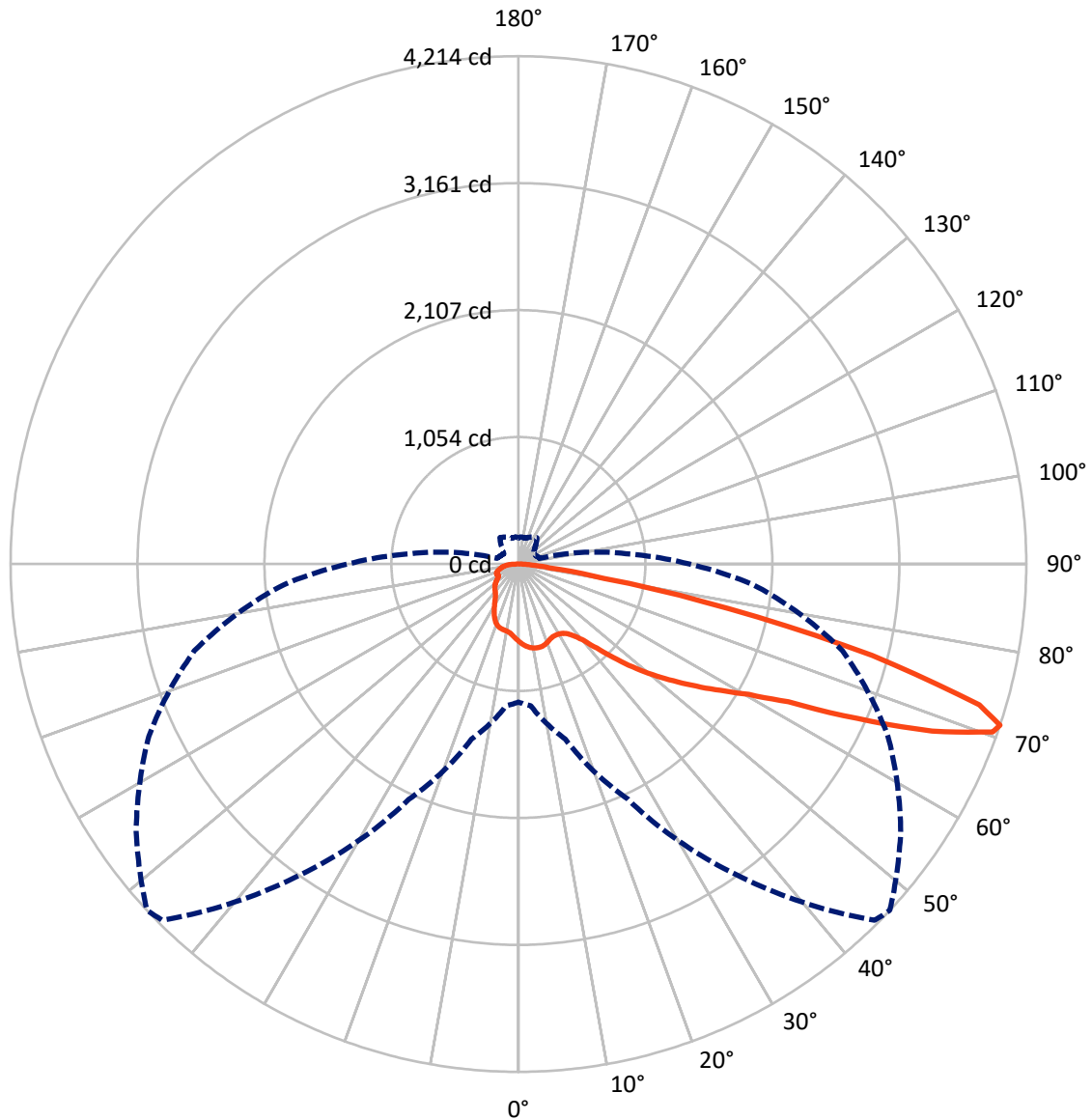
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P197347
CATALOG NUMBER: NAV-AF-01-D-UNV-T4W-8030-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P197347

CATALOG NUMBER: NAV-AF-01-D-UNV-T4W-8030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1158.2	0.0	1158.2
	% Fixture	21.4	0.0	21.4
Street Side	Lumens	4245.8	0.0	4245.8
	% Fixture	78.6	0.0	78.6
Total	Lumens	5404.0	0.0	5404.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.4	1.1
10°-20°	179.5	3.3
20°-30°	266.7	4.9
30°-40°	383.0	7.1
40°-50°	679.1	12.6
50°-60°	1162.0	21.5
60°-70°	1649.6	30.5
70°-80°	903.5	16.7
80°-90°	119.3	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°	5404.0	100.0
0°-180°	5404.0	100.0

Coefficient of Utilization



REPORT NUMBER: P197347

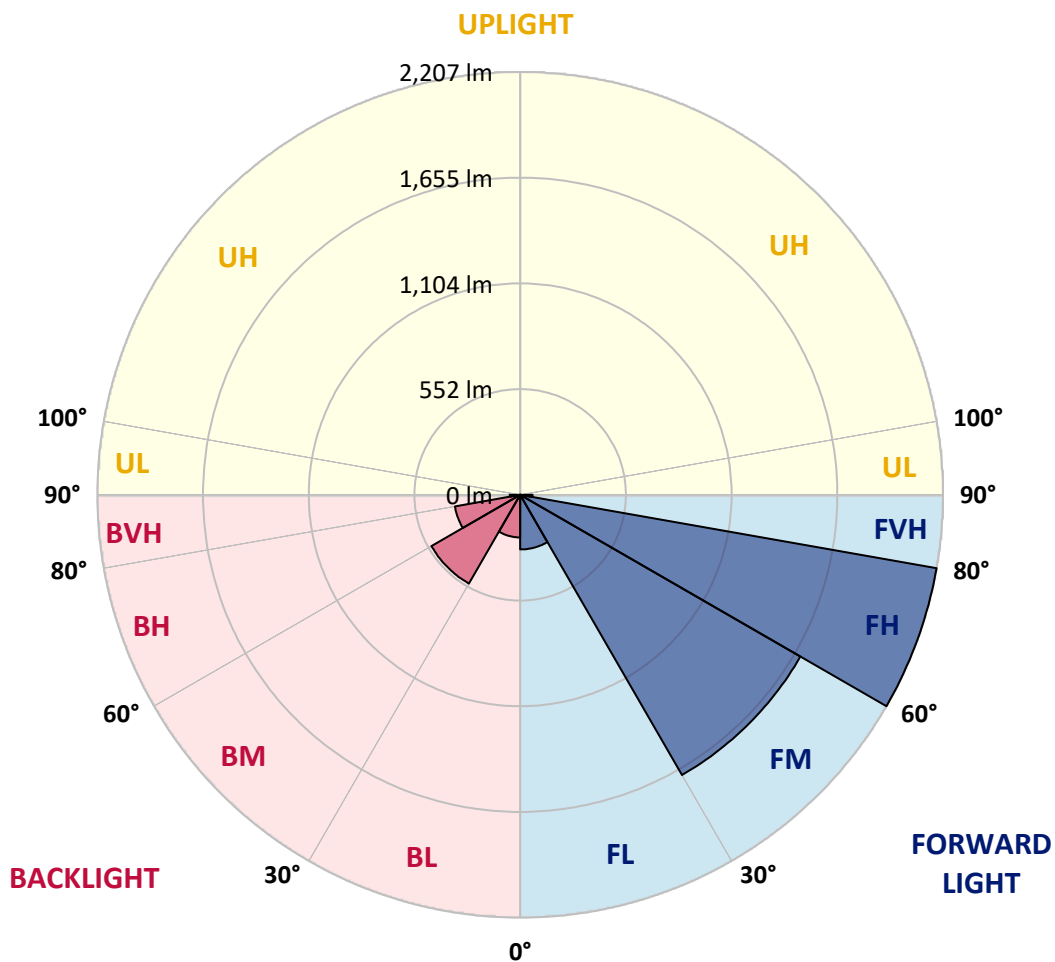
CATALOG NUMBER: NAV-AF-01-D-UNV-T4W-8030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	285.2	5.3			
FM	(30°-60°)	1688.9	31.3			
FH	(60°-80°)	2207.0	40.8			G2/5000
FVH	(80°-90°)	64.7	1.2			G1/100
BL	(0°-30°)	222.4	4.1	B1/500		
BM	(30°-60°)	535.1	9.9	B1/1000		
BH	(60°-80°)	346.0	6.4	B1/500		G1/500
BVH	(80°-90°)	54.6	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





REPORT NUMBER: P197347

CATALOG NUMBER: NAV-AF-01-D-UNV-T4W-8030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6
2.5°	681.8	680.4	681.1	678.7	672.7	666.4	666.4	659.8	652.8	645.8	638.1
5°	724.2	722.1	720.4	712.7	701.1	688.2	686.1	672.7	658.4	644.0	630.0
7.5°	759.6	757.5	752.2	738.2	721.4	702.2	699.7	682.2	663.3	643.3	623.7
10°	784.8	783.4	773.3	755.4	735.8	713.0	708.8	691.0	668.5	643.7	618.8
12.5°	798.8	796.7	784.5	763.4	740.3	717.2	713.0	695.9	670.3	643.0	613.9
15°	793.2	792.2	780.6	759.2	736.1	716.2	712.7	695.2	669.2	640.5	609.4
17.5°	769.4	771.9	762.7	741.7	722.8	708.8	705.0	688.5	664.0	634.6	602.4
20°	736.5	739.3	734.7	713.4	702.5	693.4	691.3	678.0	655.2	625.8	593.9
22.5°	701.5	703.9	704.3	684.3	680.8	677.3	675.5	666.1	647.5	620.6	588.3
25°	677.3	680.1	680.8	663.3	665.4	666.4	666.1	659.4	646.1	620.6	589.0
27.5°	671.0	672.4	671.7	655.6	659.4	665.4	665.7	664.3	651.7	627.6	598.9
30°	692.7	693.4	684.7	660.5	664.3	672.0	672.4	671.7	663.6	645.8	620.9
32.5°	786.6	785.9	755.7	693.4	680.1	682.9	684.0	690.3	691.0	675.9	652.8
35°	929.4	929.1	894.1	787.6	724.9	710.2	711.6	721.4	730.2	720.0	706.7
37.5°	1086.7	1087.7	1066.4	922.1	821.6	760.3	758.9	766.2	782.0	785.5	787.3
40°	1261.1	1266.3	1265.3	1076.5	957.1	845.7	831.7	823.3	853.8	873.1	897.9
42.5°	1460.4	1459.0	1459.7	1246.0	1111.9	980.2	954.3	915.1	950.5	983.7	1038.4
45°	1631.6	1637.2	1641.4	1426.4	1285.3	1134.0	1107.7	1036.3	1068.1	1117.9	1201.2
47.5°	1803.9	1794.1	1801.8	1627.1	1478.2	1309.4	1275.4	1179.1	1208.9	1278.9	1405.7
50°	2004.6	2000.0	1965.0	1889.0	1711.5	1487.3	1442.8	1328.3	1371.8	1465.3	1658.2
52.5°	2184.6	2160.1	2132.7	2094.9	1940.8	1667.3	1610.9	1483.5	1563.3	1679.2	1971.7
55°	2250.4	2234.0	2266.9	2315.9	2183.5	1850.8	1787.8	1664.5	1779.4	1924.0	2340.4
57.5°	2320.5	2326.1	2400.3	2499.4	2413.3	2046.6	1978.3	1878.8	2016.5	2197.9	2752.6
60°	2355.5	2377.9	2526.0	2712.0	2631.8	2261.3	2195.8	2125.0	2279.5	2500.5	3163.8
62.5°	2361.4	2391.5	2601.3	2786.6	2932.6	2590.1	2514.5	2437.8	2608.0	2834.9	3461.4
65°	2252.2	2298.4	2594.7	2878.3	3206.8	3139.6	3091.6	2957.8	3047.8	3129.4	3512.2
67.5°	1931.0	1981.5	2338.0	2840.5	3426.8	3709.7	3700.6	3503.1	3387.5	3243.2	3135.7
70°	1417.3	1457.9	1800.4	2428.3	3330.8	4157.3	4173.4	3856.5	3482.4	3001.6	2331.7
71°	1146.2	1181.2	1504.1	2155.9	3143.8	4180.4	4214.0	3872.2	3383.7	2783.4	1952.0
72.5°	713.4	733.0	998.8	1627.1	2707.1	3942.3	3999.0	3670.5	3072.7	2352.7	1379.8
75°	269.3	277.0	370.5	717.6	1615.8	2961.7	3030.3	2774.0	2158.7	1343.0	577.5
77.5°	144.6	148.5	183.9	298.4	647.5	1697.8	1786.0	1582.2	1035.6	470.0	236.0
80°	97.0	99.5	127.1	176.9	297.7	646.5	720.0	635.3	387.7	268.3	168.1
82.5°	62.7	64.1	86.5	116.3	192.3	227.3	259.5	271.1	242.0	192.3	101.6
85°	41.3	42.4	57.1	74.2	119.1	112.1	114.9	150.2	164.9	126.8	51.8
87.5°	23.8	24.5	34.3	38.2	53.6	42.0	45.5	71.4	98.1	82.6	29.8
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: P197347

CATALOG NUMBER: NAV-AF-01-D-UNV-T4W-8030-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6
2.5°	634.6	631.8	625.5	621.6	619.9	619.2	618.5	619.9	619.9	619.2	617.8
5°	623.0	617.8	607.3	599.9	596.0	595.0	596.4	598.2	599.2	599.2	598.2
7.5°	614.6	606.9	592.9	582.7	576.8	575.0	578.9	585.2	589.4	591.5	591.8
10°	607.6	597.1	581.7	571.2	566.3	565.6	570.5	578.5	587.3	591.1	591.8
12.5°	601.3	589.4	572.6	562.8	559.3	561.0	567.7	575.0	585.2	590.8	591.1
15°	595.3	583.1	565.2	555.1	554.4	557.2	563.5	569.4	577.1	584.1	584.1
17.5°	588.3	575.0	556.5	547.0	547.0	549.5	553.7	556.8	561.7	568.4	568.0
20°	579.9	566.3	547.4	537.6	535.5	534.1	534.1	534.8	539.0	544.9	546.0
22.5°	573.6	559.6	539.7	527.8	518.3	509.2	505.3	503.9	507.8	513.4	514.8
25°	573.6	559.6	537.2	517.3	494.1	476.6	469.3	467.2	471.0	476.3	478.4
27.5°	583.1	569.1	542.8	507.8	465.4	437.4	428.7	426.9	430.4	434.6	436.7
30°	605.2	591.5	558.9	496.9	433.6	396.8	387.0	385.2	387.0	388.7	391.2
32.5°	641.9	630.4	585.2	487.1	401.3	360.0	348.1	345.3	346.0	346.4	348.5
35°	701.8	696.6	620.2	475.6	370.9	329.9	317.6	312.0	311.7	313.4	315.9
37.5°	793.6	796.7	665.4	458.8	345.7	308.5	296.3	290.7	287.9	291.4	294.2
40°	923.1	930.5	717.6	436.0	325.0	295.9	283.0	277.7	273.9	272.8	274.2
42.5°	1091.6	1089.5	770.8	406.9	302.6	287.5	273.9	268.3	262.0	253.9	252.1
45°	1291.2	1261.1	815.3	371.2	277.0	279.5	265.5	257.8	247.9	236.0	234.6
47.5°	1526.9	1443.9	842.6	333.0	253.2	269.0	256.0	244.1	229.7	222.0	221.0
50°	1810.9	1657.9	861.9	294.2	231.8	255.6	242.7	226.9	212.9	210.8	210.5
52.5°	2147.1	1910.4	885.7	259.2	215.0	238.5	229.4	213.3	202.1	203.1	203.1
55°	2504.7	2171.6	886.4	231.5	200.3	218.5	219.6	206.6	197.9	201.4	202.4
57.5°	2830.7	2400.0	816.7	211.9	186.3	202.8	216.4	209.1	202.4	214.7	215.7
60°	3115.1	2575.8	666.8	195.8	174.8	196.8	223.4	224.1	222.7	256.0	258.5
62.5°	3219.1	2577.5	473.5	182.1	168.4	200.3	238.1	239.2	239.2	270.0	274.6
65°	3073.4	2362.8	315.2	174.1	164.2	208.0	250.0	245.5	234.6	256.0	251.1
67.5°	2560.0	1839.3	230.4	168.8	158.3	208.4	260.6	249.0	230.4	248.6	240.2
70°	1759.4	1170.4	193.0	163.9	151.3	199.3	266.2	247.9	224.1	231.8	220.6
71°	1416.2	934.0	183.2	162.1	148.5	194.0	266.9	246.5	221.0	225.9	215.7
72.5°	932.9	575.4	171.3	158.3	144.3	184.9	265.1	243.4	216.8	217.1	210.5
75°	368.1	238.5	154.1	149.5	132.4	170.2	257.4	236.7	208.7	201.7	198.9
77.5°	186.0	155.8	135.5	137.3	118.4	155.1	246.5	225.9	197.5	188.1	186.0
80°	135.9	118.4	115.9	119.1	102.6	140.4	232.9	211.2	183.2	193.0	188.8
82.5°	82.6	72.1	90.7	98.4	85.8	125.4	216.8	194.0	164.9	152.0	147.1
85°	39.2	42.4	65.5	72.5	63.4	100.2	198.2	175.1	143.9	124.3	126.4
87.5°	19.3	23.5	37.5	43.4	41.7	73.5	149.5	135.9	113.5	93.5	91.4
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)