

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: P270308

Luminaire Tested: **NAV-AF-01-D-UNV-T3-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270308
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-T3-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5824.1 lumens
Efficiency: N/A
Efficacy: 86.9 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

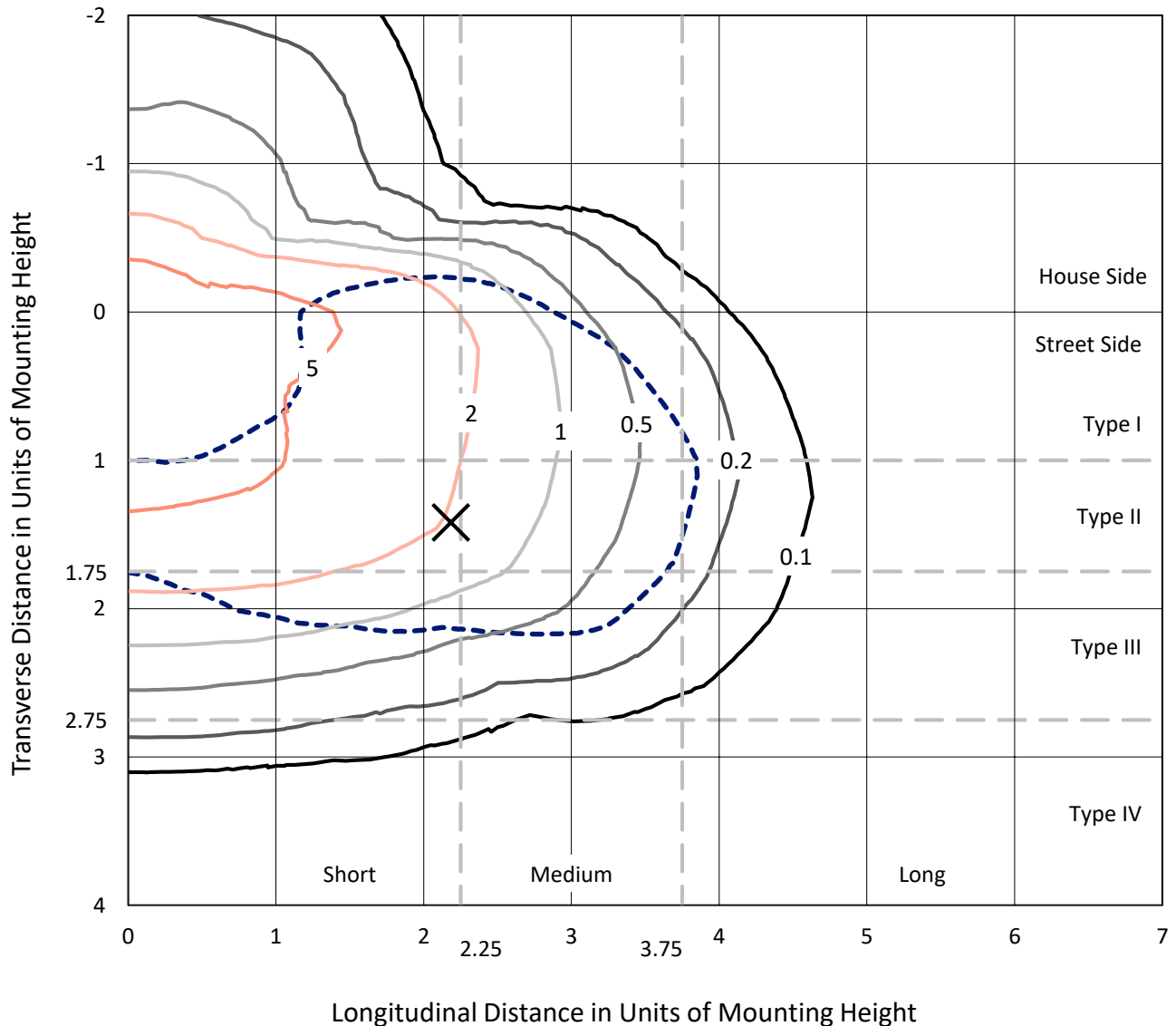


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Iso-Footcandle Lines of Horizontal Illumination

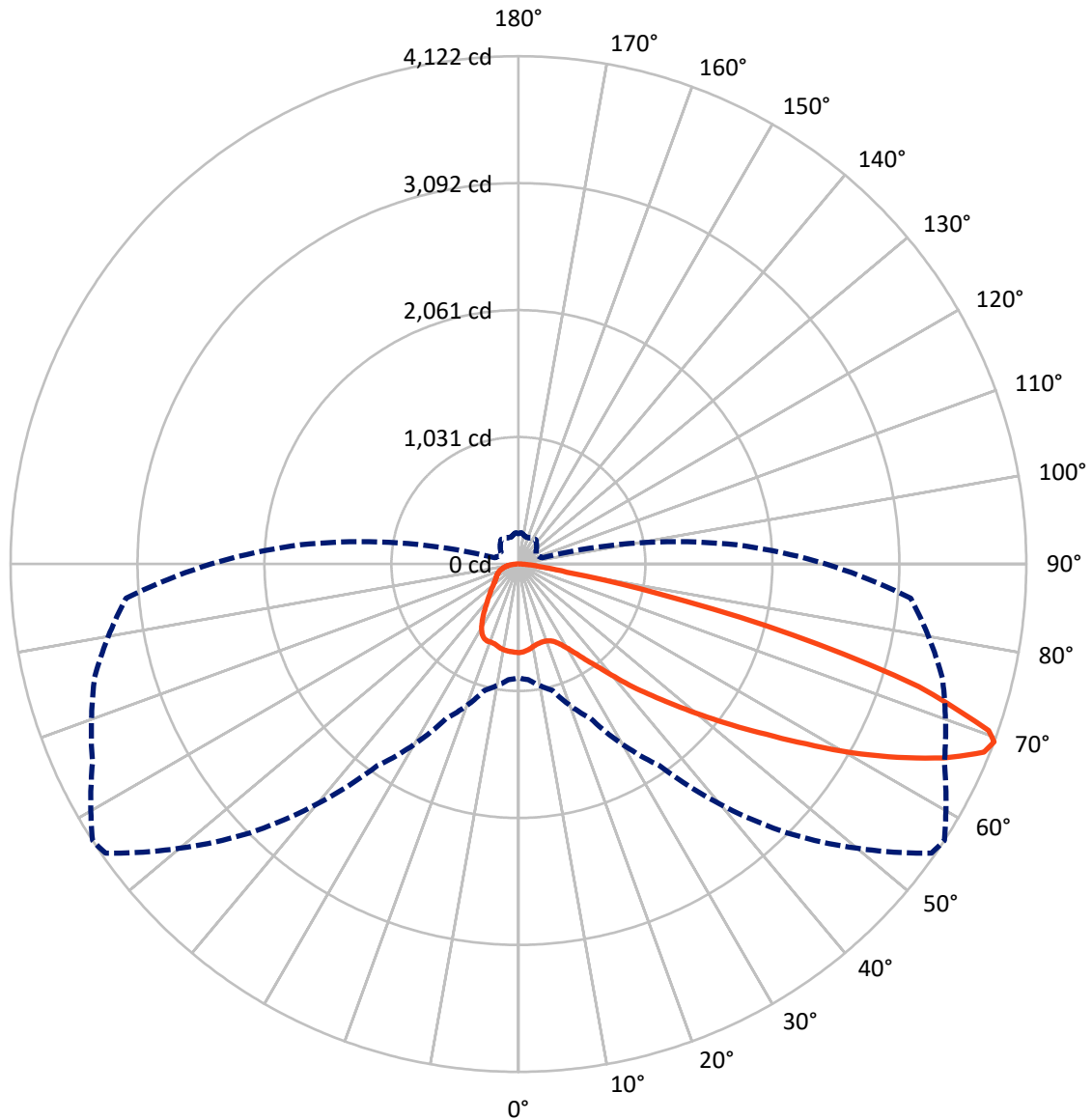
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 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
House Side	Lumens	1285.2	0.0	1285.2
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	4538.9	0.0	4538.9
	% Fixture	77.9	0.0	77.9
Total	Lumens	5824.1	0.0	5824.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	1.2
10°-20°	191.6	3.3
20°-30°	318.6	5.5
30°-40°	520.3	8.9
40°-50°	878.2	15.1
50°-60°	1366.1	23.5
60°-70°	1627.3	27.9
70°-80°	758.1	13.0
80°-90°	96.4	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°	5824.1	100.0
0°-180°	5824.1	100.0



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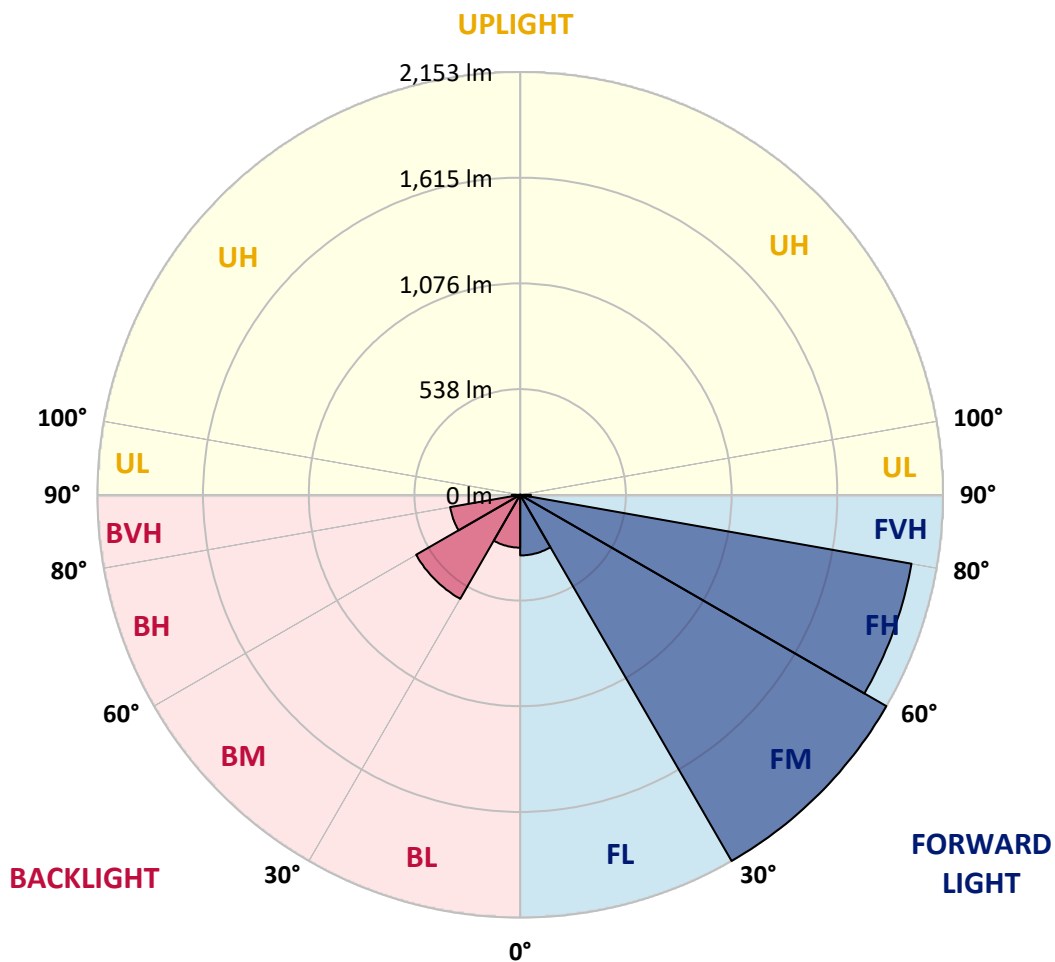
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	308.4	5.3			
FM	(30°-60°)	2153.0	37.0			
FH	(60°-80°)	2023.3	34.7			G2/5000
FVH	(80°-90°)	54.2	0.9			G1/100
BL	(0°-30°)	269.1	4.6	B1/500		
BM	(30°-60°)	611.7	10.5	B1/1000		
BH	(60°-80°)	362.1	6.2	B1/500		G1/500
BVH	(80°-90°)	42.2	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°	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6
2.5°	715.5	715.5	717.3	717.3	717.3	716.7	714.4	715.1	713.7	712.5	710.6
5°	700.9	701.8	703.9	704.7	705.8	706.2	706.2	705.8	706.2	706.2	705.1
7.5°	680.8	681.6	684.1	685.6	689.1	692.1	693.5	693.5	695.4	696.8	697.3
10°	668.6	668.6	670.0	670.0	672.7	674.2	678.9	678.6	683.8	688.7	690.9
12.5°	667.0	667.0	666.4	663.7	662.2	661.8	666.7	667.4	675.3	683.8	687.9
15°	671.9	671.9	669.6	664.4	658.8	656.2	661.2	662.6	671.2	681.3	687.6
17.5°	687.6	687.3	682.4	671.9	662.2	658.1	659.5	661.2	668.9	680.5	688.3
20°	722.2	722.2	711.7	692.9	676.1	666.4	664.0	665.1	670.8	681.6	691.6
22.5°	783.1	784.1	765.4	734.2	705.4	685.0	676.1	677.1	679.7	690.2	701.3
25°	872.6	869.5	843.0	798.7	753.9	718.9	700.6	701.8	701.8	711.4	723.0
27.5°	967.3	968.0	929.9	882.1	823.2	771.0	742.0	741.6	741.2	750.5	762.9
30°	1074.3	1074.6	1030.5	975.4	907.9	841.3	797.5	797.2	793.8	805.4	821.4
32.5°	1191.3	1191.0	1139.8	1077.5	1002.6	927.0	870.3	869.9	867.3	882.9	902.3
35°	1321.0	1321.0	1270.4	1193.6	1112.6	1028.4	962.8	962.4	963.8	985.1	1003.3
37.5°	1477.4	1480.6	1419.5	1326.3	1238.0	1148.0	1071.6	1069.3	1058.3	1094.0	1124.1
40°	1640.2	1649.6	1586.1	1477.4	1381.9	1289.0	1204.7	1203.2	1193.6	1231.5	1280.4
42.5°	1816.6	1837.8	1767.3	1656.2	1552.2	1451.9	1367.3	1363.2	1325.9	1385.1	1461.6
45°	2047.7	2061.6	1959.5	1858.8	1760.7	1646.2	1545.5	1523.5	1486.2	1562.3	1661.4
47.5°	2205.1	2198.4	2134.6	2067.2	2004.2	1894.5	1739.7	1711.8	1666.4	1767.0	1876.2
50°	2302.8	2307.7	2271.9	2268.5	2265.2	2188.7	1959.1	1925.4	1872.8	1992.3	2119.7
52.5°	2367.4	2345.4	2351.7	2427.7	2519.8	2483.3	2207.0	2169.6	2115.6	2235.0	2378.9
55°	2340.4	2311.3	2369.9	2519.8	2736.4	2744.6	2479.1	2440.8	2394.5	2492.9	2690.6
57.5°	2229.4	2243.8	2336.3	2544.8	2884.5	2978.8	2792.0	2752.9	2661.9	2761.7	2986.7
60°	2073.1	2102.6	2243.8	2505.3	2988.1	3161.1	3135.4	3109.4	2952.6	3023.5	3297.6
62.5°	1905.3	1934.4	2108.1	2437.8	2941.5	3322.7	3472.5	3456.5	3273.8	3275.6	3494.9
65°	1657.4	1669.3	1846.7	2253.6	2812.1	3468.4	3809.9	3795.8	3580.6	3490.8	3550.0
67.5°	1251.7	1266.6	1412.5	1779.0	2418.3	3389.3	4079.6	4077.2	3765.2	3570.6	3418.8
69°	924.4	942.6	1061.5	1381.1	1999.6	3088.1	4092.1	4122.4	3815.1	3562.3	3196.9
70°	676.3	697.3	807.2	1096.2	1665.5	2755.5	3983.7	4048.5	3796.1	3510.4	3024.0
72.5°	287.5	294.6	348.6	494.7	844.9	1661.4	3263.0	3399.4	3428.6	3145.4	2362.5
75°	180.1	182.4	203.6	254.0	375.9	687.3	2113.1	2299.1	2559.7	2440.3	1581.6
77.5°	135.7	137.6	149.8	174.9	233.4	256.6	980.3	1169.0	1466.2	1435.5	787.2
80°	104.1	105.1	113.4	127.1	164.4	160.6	318.1	399.7	611.8	539.9	278.6
82.5°	81.7	82.0	89.1	91.7	114.9	108.2	159.5	177.9	247.3	205.4	136.2
85°	72.4	73.4	80.6	67.2	73.4	65.2	87.7	95.1	131.2	123.7	51.5
87.5°	36.9	38.7	67.6	57.4	36.9	30.9	38.4	41.4	53.3	57.9	25.1
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°	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6	719.6
2.5°	711.1	711.4	712.5	714.4	717.3	721.1	725.7	730.1	732.7	734.5	733.7
5°	705.1	705.4	707.7	711.1	714.8	720.4	727.8	733.5	737.5	740.2	739.8
7.5°	697.7	698.7	703.3	707.0	712.1	716.7	722.5	727.8	731.8	734.5	734.2
10°	692.1	693.1	698.7	703.6	708.0	708.9	707.7	706.2	705.8	707.7	707.0
12.5°	689.4	691.6	696.8	700.1	698.3	691.2	683.2	679.7	678.6	682.4	682.7
15°	690.2	692.1	696.5	694.3	684.1	672.3	667.8	670.5	672.7	674.8	675.3
17.5°	692.1	693.1	694.3	686.0	671.9	664.0	662.6	660.0	653.2	649.6	649.1
20°	695.4	696.8	695.0	682.0	669.2	658.8	640.9	625.0	609.6	601.4	598.1
22.5°	707.0	708.0	702.5	689.8	670.5	636.4	600.2	572.7	549.3	536.6	531.6
25°	729.8	731.6	723.8	707.7	657.0	597.7	546.6	509.2	479.9	464.7	460.6
27.5°	769.6	771.5	762.9	721.1	625.7	545.9	483.9	447.0	421.8	408.6	406.8
30°	829.2	831.9	824.0	720.7	577.9	479.9	422.8	401.3	386.7	377.6	377.4
32.5°	912.0	921.8	889.6	708.0	519.0	413.1	376.6	369.2	362.0	356.1	356.1
35°	1017.2	1039.9	954.4	681.6	454.2	367.6	350.9	343.8	334.8	328.5	327.7
37.5°	1142.9	1178.2	1000.7	634.7	398.2	345.7	335.2	323.7	309.5	297.2	294.1
40°	1315.5	1323.7	1023.4	558.1	356.4	333.7	320.6	306.1	288.3	274.4	272.9
42.5°	1488.9	1462.0	1019.0	476.1	332.6	322.9	305.8	289.8	273.7	262.1	262.1
45°	1686.1	1582.9	985.1	393.7	311.0	310.6	291.9	276.7	264.3	255.7	254.0
47.5°	1874.8	1691.2	926.5	332.9	288.5	298.2	283.0	270.7	259.5	251.3	249.8
50°	2103.7	1816.9	864.3	290.4	266.9	287.5	279.3	272.9	262.1	247.9	246.4
52.5°	2331.1	1963.9	816.2	258.4	247.9	279.0	281.4	282.2	272.1	244.6	242.7
55°	2575.4	2120.9	765.4	233.4	232.3	274.8	286.6	286.0	281.1	245.3	242.4
57.5°	2807.7	2278.6	689.8	216.0	219.9	270.7	287.8	275.9	267.3	249.1	244.2
60°	3000.1	2409.1	578.7	203.6	209.6	262.5	280.5	262.5	247.9	248.3	243.9
62.5°	3093.7	2445.6	442.5	189.5	201.0	249.1	269.6	252.5	238.9	249.8	247.3
65°	3022.4	2341.6	315.5	176.3	190.5	233.4	263.3	243.9	234.5	257.3	254.3
67.5°	2766.6	2058.1	229.0	164.7	180.5	217.4	251.3	236.1	230.1	262.8	256.1
69°	2494.9	1777.0	198.3	158.1	173.5	208.8	243.5	231.9	226.7	255.1	245.3
70°	2268.8	1560.4	183.1	154.0	167.4	203.9	237.5	229.2	223.4	245.7	234.2
72.5°	1626.8	1008.5	154.0	141.8	151.8	193.1	224.4	219.6	210.7	221.8	214.3
75°	982.8	526.4	130.9	128.9	135.4	178.3	209.1	203.1	194.3	195.4	191.7
77.5°	451.6	243.1	109.7	114.1	118.1	159.5	190.5	183.9	175.6	172.7	173.1
80°	197.9	142.0	91.7	97.3	99.5	143.5	170.4	163.0	154.0	170.0	157.7
82.5°	107.0	82.5	71.5	75.3	81.7	125.0	148.0	138.2	129.7	151.1	121.9
85°	43.3	42.1	48.5	52.2	56.7	89.9	123.7	113.7	103.2	92.4	90.2
87.5°	18.7	20.1	23.9	25.3	30.3	56.0	83.2	72.8	73.1	62.6	61.5
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)