

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: P196729

Luminaire Tested: **NAV-AF-01-D-UNV-T2-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196729
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)
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-T2-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3811 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G1

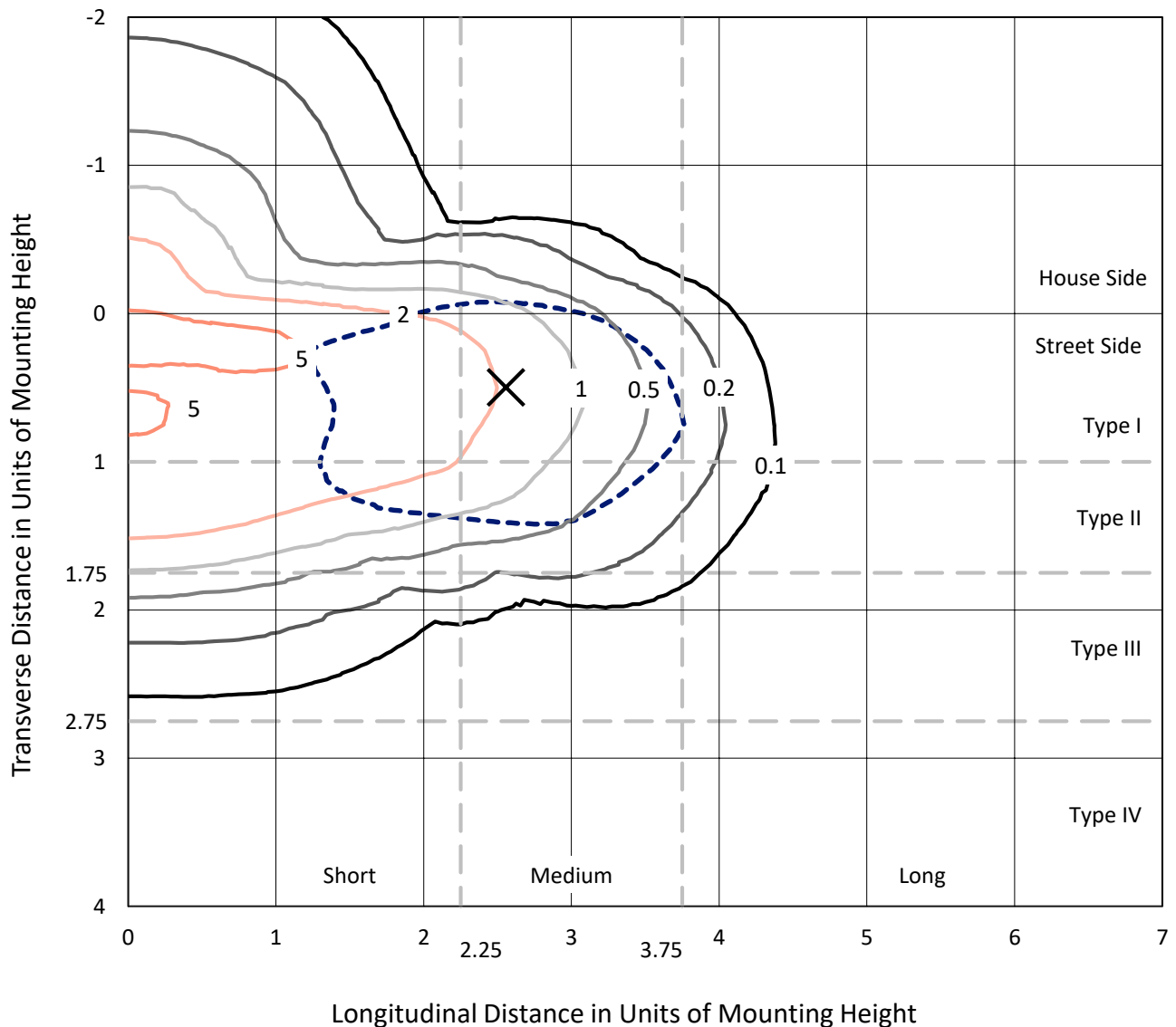
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

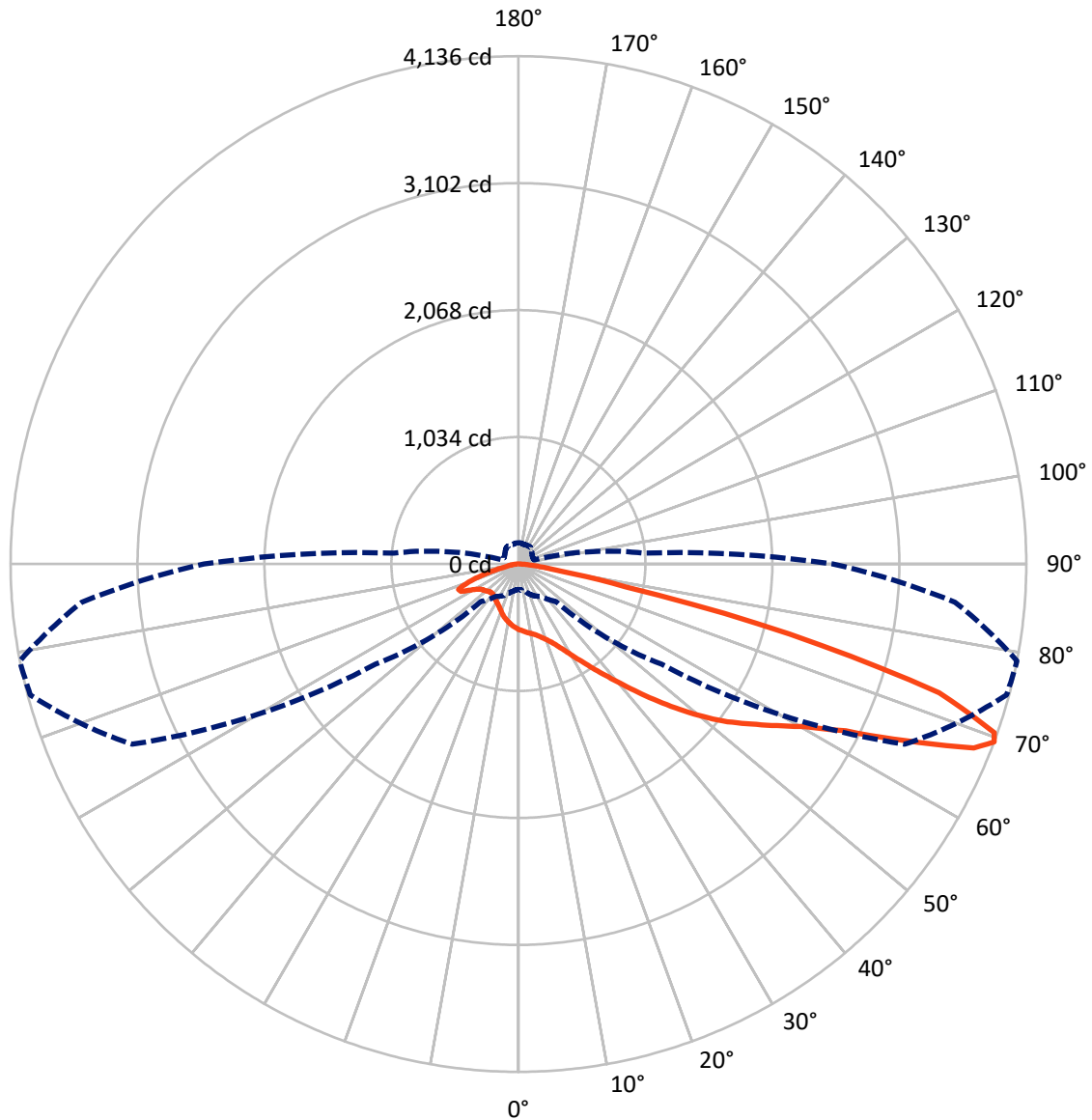
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	716.9	0.0	716.9
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	3094.0	0.0	3094.0
	% Fixture	81.2	0.0	81.2
Total	Lumens	3811.0	0.0	3811.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	1.3
10°-20°	142.1	3.7
20°-30°	234.9	6.2
30°-40°	380.3	10.0
40°-50°	607.6	15.9
50°-60°	870.1	22.8
60°-70°	969.4	25.4
70°-80°	485.0	12.7
80°-90°	72.0	1.9
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°	3811.0	100.0
0°-180°	3811.0	100.0



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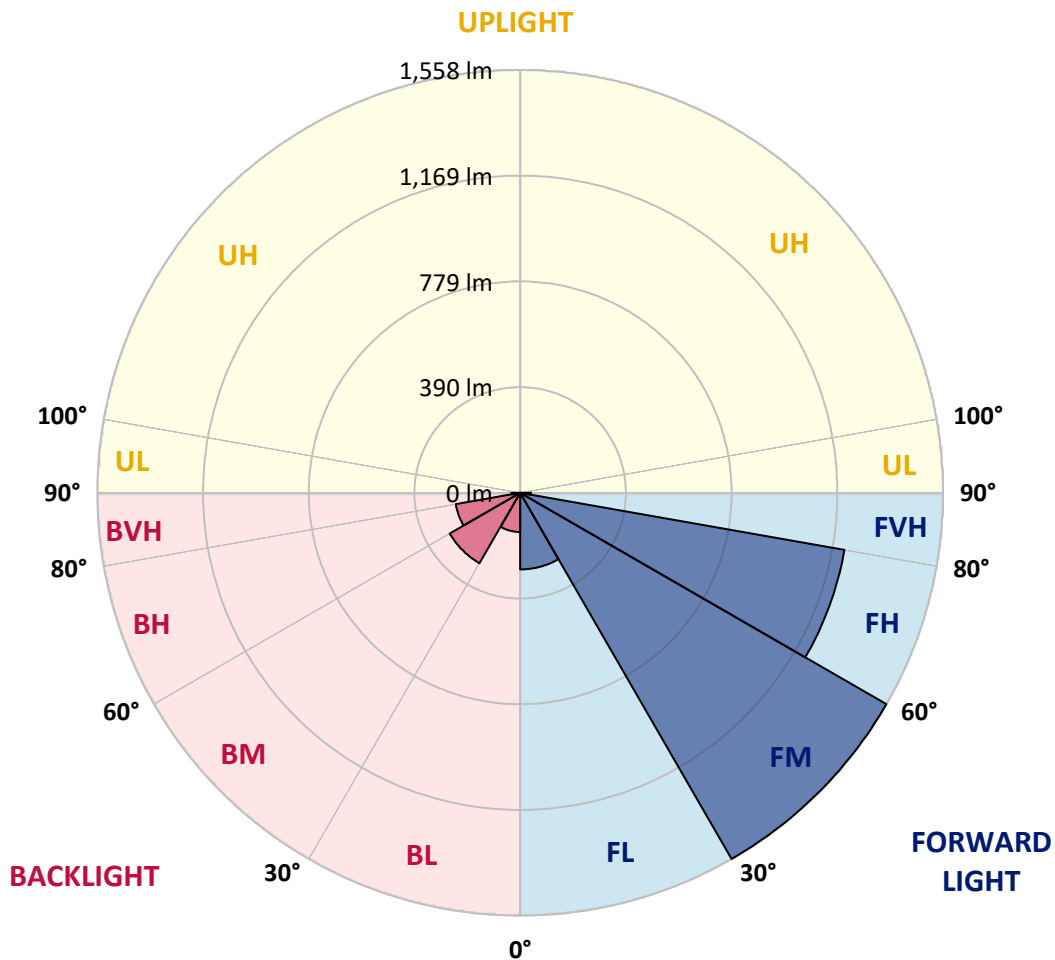
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	282.2	7.4			
FM (30°-60°)	1558.3	40.9			
FH (60°-80°)	1213.4	31.8			G1/1800
FVH (80°-90°)	40.2	1.1			G1/100
BL (0°-30°)	144.4	3.8	B1/500		
BM (30°-60°)	299.7	7.9	B1/1000		
BH (60°-80°)	241.1	6.3	B1/500		G1/500
BVH (80°-90°)	31.8	0.8			G1/100
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9
2.5°	587.2	585.9	585.6	582.0	579.9	575.7	565.8	555.5	546.0	541.1	535.8
5°	636.3	633.8	632.5	626.3	620.8	611.3	595.7	579.4	562.4	553.7	543.2
7.5°	665.9	666.2	666.2	661.2	655.8	644.3	624.3	602.1	576.9	565.4	549.0
10°	668.4	668.6	672.4	673.7	674.9	668.8	650.5	622.6	590.1	575.1	553.7
12.5°	643.7	645.5	651.7	660.7	673.5	679.9	672.0	644.5	607.2	588.9	562.6
15°	610.5	612.3	620.3	634.0	654.5	676.2	687.4	669.6	629.4	607.8	575.9
17.5°	594.4	596.3	601.9	612.8	632.8	662.0	695.7	696.6	655.4	630.8	591.6
20°	586.6	588.2	595.1	604.1	619.3	647.3	696.3	725.1	686.5	658.0	610.9
22.5°	604.3	604.9	608.3	613.4	623.6	644.9	695.9	754.4	725.5	692.1	635.6
25°	656.2	653.0	650.5	644.3	646.7	662.0	703.8	785.9	775.4	737.0	668.4
27.5°	717.5	717.1	710.6	696.1	686.9	696.6	726.6	821.0	836.5	794.1	711.6
30°	785.9	786.1	779.3	761.6	743.0	743.9	762.6	861.6	909.6	862.9	764.7
32.5°	857.4	861.9	849.5	831.8	809.1	801.9	814.5	910.7	994.0	944.2	826.2
35°	942.9	943.7	930.1	904.0	881.4	869.9	881.6	972.1	1091.5	1039.7	901.3
37.5°	1031.7	1032.2	1018.0	984.9	956.1	948.7	961.6	1046.7	1194.8	1148.5	989.6
40°	1104.3	1109.5	1098.3	1067.1	1038.2	1033.7	1052.3	1136.0	1326.6	1277.0	1094.6
42.5°	1186.5	1192.6	1179.0	1146.6	1123.7	1122.2	1151.4	1237.7	1457.8	1425.9	1213.5
45°	1279.3	1287.7	1269.0	1232.7	1213.3	1246.1	1247.8	1350.3	1608.9	1592.5	1347.3
47.5°	1380.5	1387.5	1372.3	1333.2	1311.9	1359.5	1342.4	1472.3	1772.1	1771.0	1492.2
50°	1458.5	1466.3	1467.8	1450.5	1428.3	1434.3	1446.0	1600.4	1935.0	1954.4	1642.0
52.5°	1444.3	1451.8	1485.5	1530.6	1566.2	1550.8	1565.0	1736.5	2092.4	2133.5	1784.4
55°	1329.6	1333.6	1396.7	1504.0	1655.8	1729.6	1730.5	1884.6	2241.9	2299.5	1919.5
57.5°	1122.9	1123.4	1205.4	1363.5	1603.6	1845.5	1991.8	2070.7	2398.0	2483.0	2087.1
60°	794.7	796.6	892.1	1098.8	1416.9	1831.5	2272.8	2403.4	2578.7	2689.2	2302.9
62.5°	471.7	476.3	548.3	714.0	1052.3	1652.0	2438.8	2995.7	2845.0	2991.6	2648.6
65°	306.9	310.7	353.8	437.0	621.8	1202.0	2384.2	3569.1	3348.9	3467.4	3145.2
67.5°	236.3	239.4	273.2	323.6	381.5	649.8	1906.3	3689.2	3962.3	3999.1	3564.4
69°	207.7	210.3	235.1	283.5	321.1	430.1	1420.7	3471.0	4115.6	4135.8	3569.6
70°	192.6	194.5	217.9	259.8	295.0	343.3	1087.3	3217.8	4059.5	4111.1	3466.6
72.5°	158.5	160.3	177.0	209.2	241.1	244.6	481.8	2349.6	3418.1	3583.2	2933.5
75°	132.4	133.4	144.3	167.8	195.2	194.7	246.1	1330.9	2085.9	2282.5	1811.3
77.5°	110.5	111.2	118.4	132.9	154.0	153.3	173.2	574.4	920.9	888.6	623.6
80°	97.5	98.0	101.7	105.4	118.9	118.2	128.4	263.8	374.8	346.4	235.9
82.5°	74.1	75.1	94.0	95.7	92.3	89.0	89.5	153.6	192.0	174.9	126.6
85°	41.8	42.2	60.3	70.6	80.3	60.3	58.1	79.3	94.7	83.0	55.4
87.5°	18.7	19.4	29.0	33.5	43.3	35.4	33.1	33.7	40.9	33.9	22.0
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°	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9
2.5°	530.8	526.5	516.6	506.4	496.1	489.7	482.9	476.7	474.1	473.9	469.3
5°	533.0	523.2	500.4	475.5	451.8	433.3	417.9	407.9	398.1	396.4	392.1
7.5°	533.8	517.6	480.7	440.8	404.7	379.2	363.8	357.1	352.3	351.0	349.5
10°	533.5	510.6	458.8	404.2	363.1	343.8	338.0	339.6	341.6	342.5	342.5
12.5°	537.5	507.4	436.8	369.8	336.1	326.9	331.4	339.0	345.0	347.6	348.1
15°	544.7	505.4	412.7	339.8	317.2	319.4	330.4	341.6	350.0	353.8	354.8
17.5°	553.7	502.6	384.7	315.1	306.2	313.9	328.1	342.3	352.6	357.3	358.1
20°	563.7	498.7	355.7	296.7	296.4	306.2	320.3	336.3	347.3	352.6	352.3
22.5°	577.2	495.0	328.9	283.2	285.7	294.7	306.5	320.9	331.0	335.9	334.9
25°	595.1	491.4	304.8	271.3	273.4	279.4	287.7	298.8	305.9	308.4	306.7
27.5°	619.3	488.7	285.7	260.2	260.0	262.8	267.8	273.8	277.3	276.5	273.8
30°	649.0	485.9	271.7	250.5	247.0	246.8	249.1	252.6	254.8	250.3	248.1
32.5°	682.1	481.2	259.3	242.1	235.9	233.6	234.6	239.4	248.6	244.0	242.3
35°	721.3	475.8	246.8	232.8	228.2	223.9	224.6	234.9	262.8	259.6	257.9
37.5°	768.4	470.7	235.4	222.9	222.7	217.4	216.9	229.1	266.5	259.6	258.1
40°	825.0	469.7	225.2	212.0	215.9	213.9	212.2	219.6	245.9	231.6	228.9
42.5°	893.3	474.1	217.7	201.5	208.1	212.9	209.7	211.4	222.2	209.4	207.1
45°	973.1	486.4	212.2	192.2	200.0	212.2	208.4	206.9	208.6	201.7	200.2
47.5°	1066.2	508.2	208.4	184.5	192.2	210.3	207.9	205.0	204.2	200.2	199.2
50°	1165.6	537.3	206.0	177.5	185.2	206.7	207.7	203.4	202.2	200.5	200.0
52.5°	1264.3	568.9	203.0	171.5	179.5	202.4	207.9	201.9	200.2	199.2	198.8
55°	1362.6	601.9	197.4	166.3	175.3	197.4	207.7	200.0	198.0	198.0	198.0
57.5°	1490.0	651.9	190.2	162.0	169.8	190.9	204.5	197.8	194.9	195.2	195.5
60°	1674.0	736.0	182.3	157.4	162.6	183.5	199.5	193.7	190.4	191.5	191.7
62.5°	1981.4	882.9	171.3	150.6	155.0	175.5	193.0	188.3	185.2	187.0	187.3
65°	2391.2	1060.6	156.8	142.1	147.4	166.5	184.7	181.8	178.5	182.8	182.5
67.5°	2641.4	1112.7	141.6	133.2	139.9	157.2	174.5	173.2	171.0	178.5	178.0
69°	2559.3	1018.6	132.9	127.4	134.6	150.6	168.0	167.5	165.7	173.0	172.5
70°	2431.9	930.5	127.4	123.7	131.8	146.6	163.8	163.8	162.0	168.3	167.0
72.5°	1953.4	690.1	114.7	114.1	122.4	135.6	152.3	153.6	152.6	154.8	153.6
75°	1146.9	415.8	102.2	103.7	110.9	123.9	139.7	140.6	139.7	139.5	139.7
77.5°	397.7	186.5	90.2	92.6	98.8	112.0	125.6	127.7	126.2	124.4	124.9
80°	155.5	108.5	77.2	80.6	85.8	98.5	111.7	113.0	110.7	110.5	108.5
82.5°	93.5	66.1	60.1	65.3	71.8	85.5	96.4	96.0	94.3	104.5	91.4
85°	40.7	36.6	43.9	49.1	52.3	64.0	81.5	79.3	75.1	66.1	64.6
87.5°	16.5	18.9	24.1	29.2	31.4	41.4	55.8	53.9	54.6	44.9	44.6
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)