

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: P270298

Luminaire Tested: **NAV-AF-01-D-UNV-T2-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270298  
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-T2-7027-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3423.4 lumens  
Efficiency: N/A  
Efficacy: 100.7 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

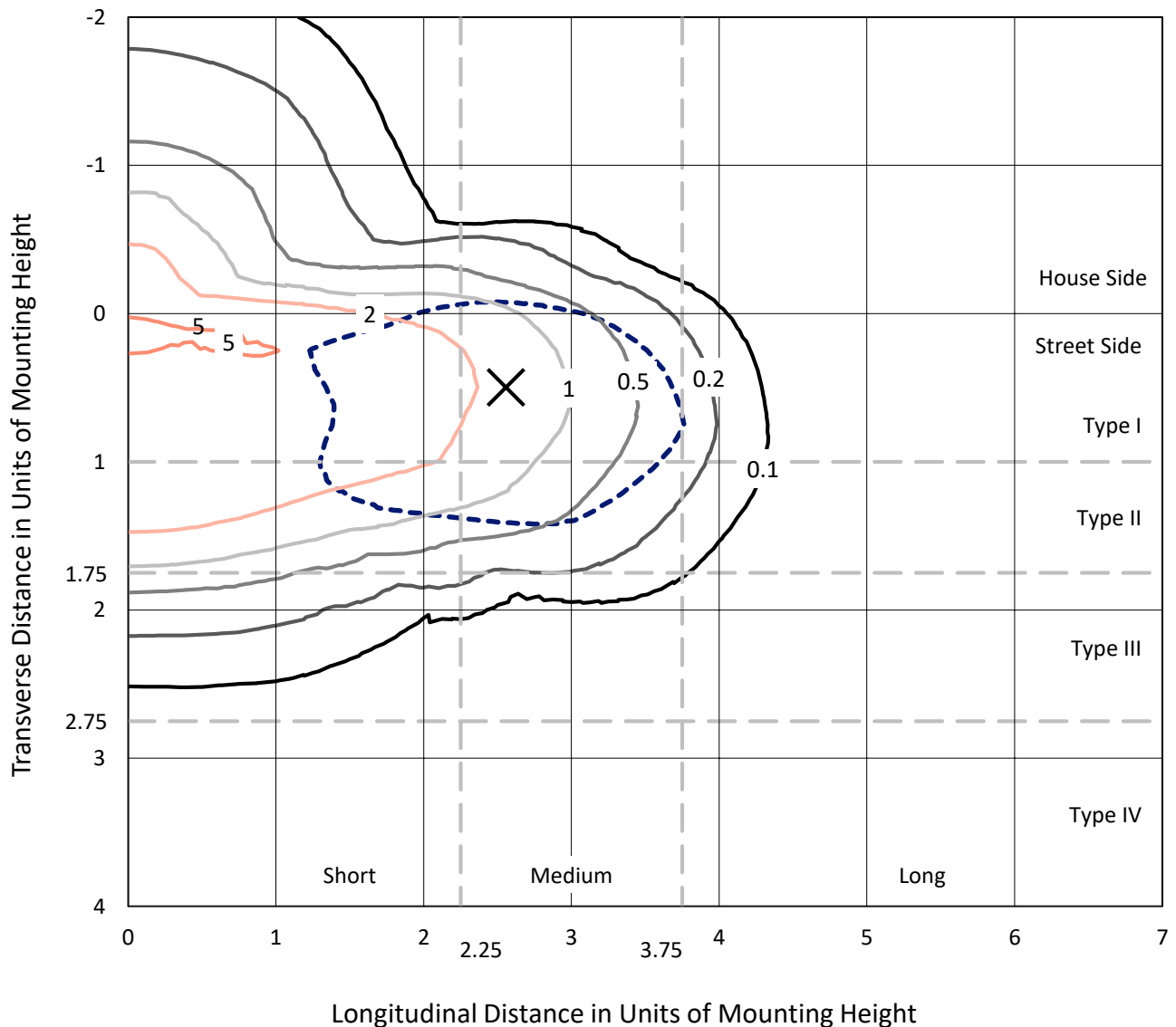
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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 CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7027-600

### Iso-Footcandle Lines of Horizontal Illumination

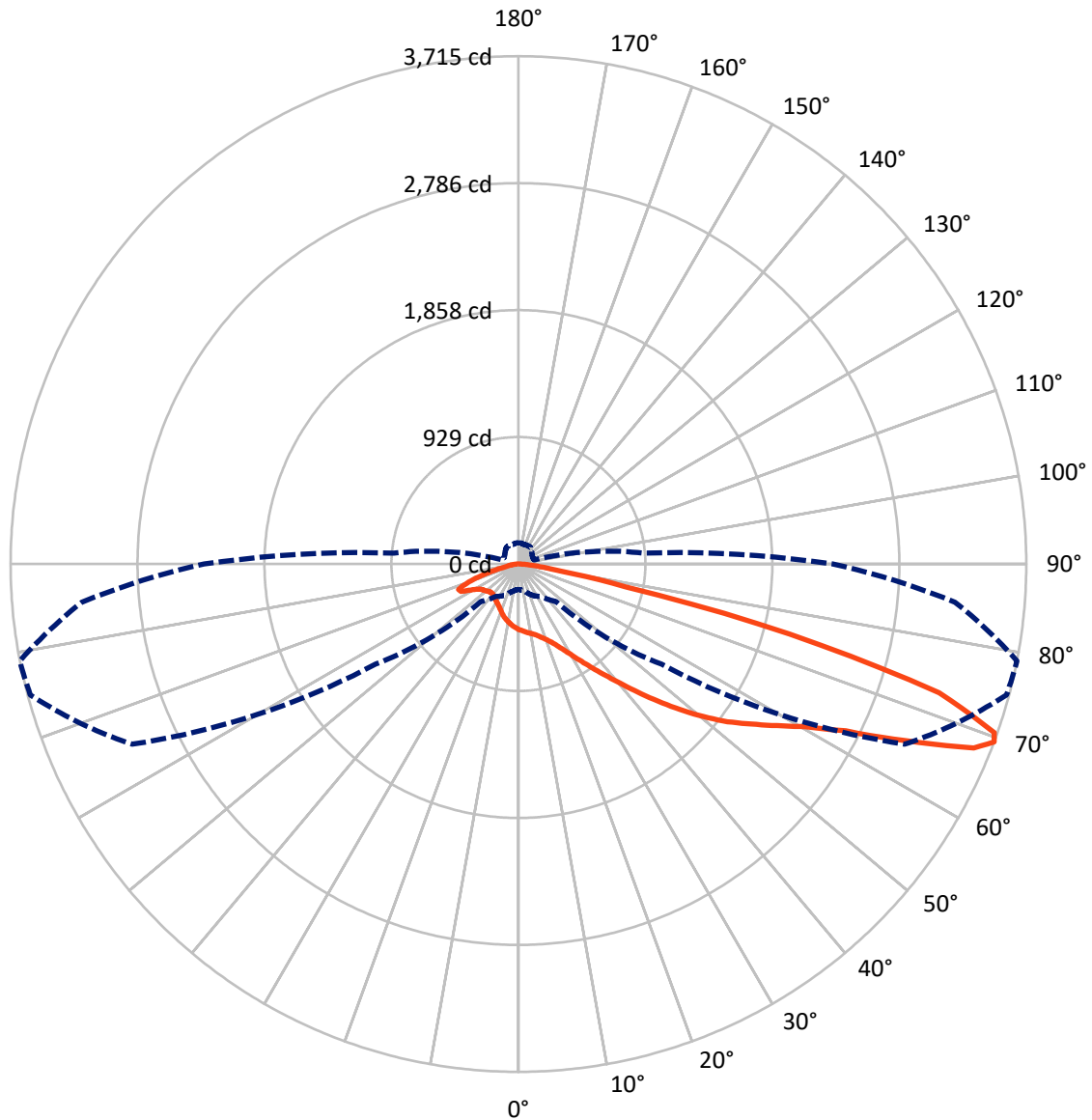
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.8 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270298  
CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7027-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P270298

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7027-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	644.0	0.0	644.0
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	2779.4	0.0	2779.4
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	3423.4	0.0	3423.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.5	1.3
10°-20°	127.7	3.7
20°-30°	211.0	6.2
30°-40°	341.6	10.0
40°-50°	545.8	15.9
50°-60°	781.6	22.8
60°-70°	870.8	25.4
70°-80°	435.7	12.7
80°-90°	64.7	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°	3423.4	100.0
0°-180°	3423.4	100.0



REPORT NUMBER: P270298

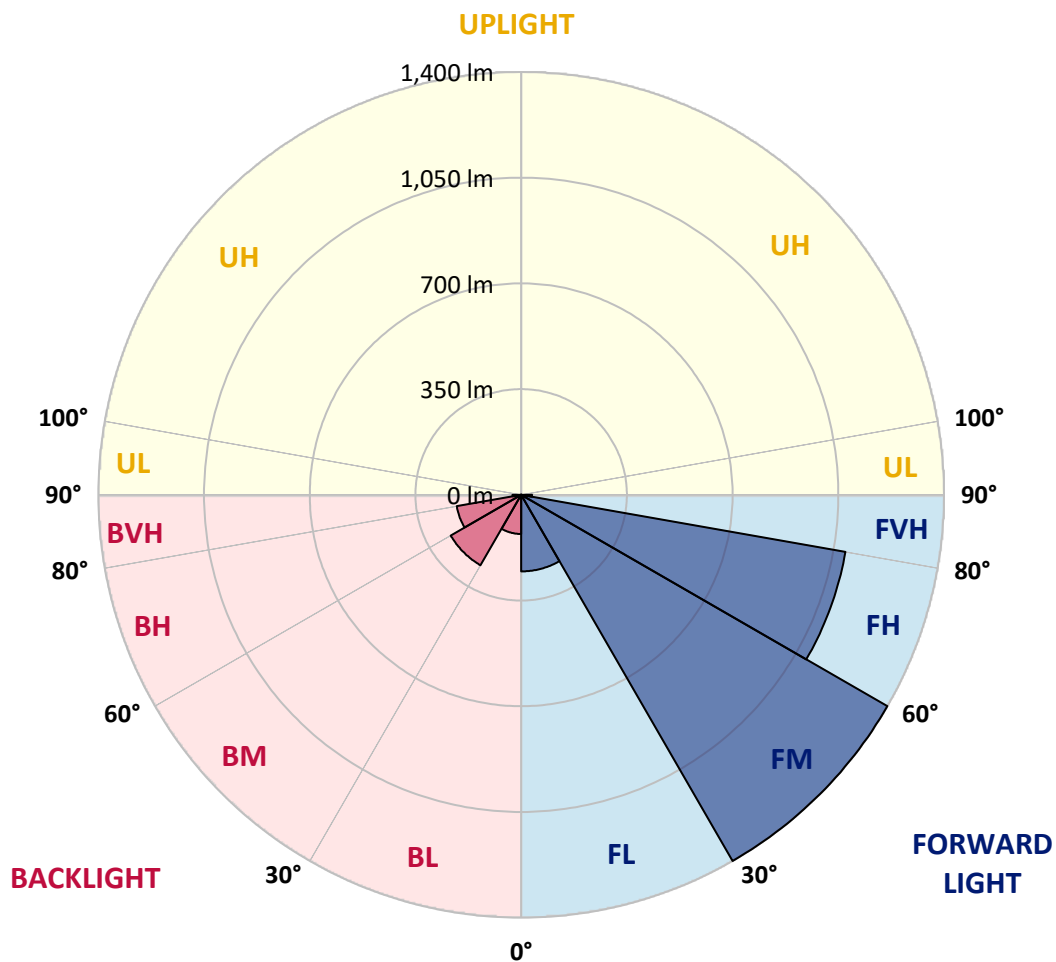
CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7027-600

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	253.5	7.4			
FM (30°-60°)	1399.8	40.9			
FH (60°-80°)	1090.0	31.8			G1/1800
FVH (80°-90°)	36.1	1.1			G1/100
BL (0°-30°)	129.7	3.8	B1/500		
BM (30°-60°)	269.2	7.9	B1/1000		
BH (60°-80°)	216.5	6.3	B1/500		G1/500
BVH (80°-90°)	28.5	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





REPORT NUMBER: P270298  
 CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7027-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5
2.5°	527.5	526.3	526.0	522.8	520.9	517.2	508.3	499.0	490.5	486.1	481.3
5°	571.6	569.3	568.2	562.6	557.7	549.1	535.1	520.5	505.2	497.4	488.0
7.5°	598.2	598.5	598.5	594.0	589.1	578.8	560.8	540.9	518.2	507.9	493.2
10°	600.4	600.6	604.0	605.2	606.3	600.8	584.3	559.3	530.1	516.6	497.4
12.5°	578.2	579.9	585.4	593.5	605.0	610.8	603.7	579.0	545.5	529.0	505.4
15°	548.4	550.0	557.2	569.5	587.9	607.4	617.5	601.5	565.4	546.0	517.3
17.5°	534.0	535.7	540.7	550.5	568.4	594.7	625.0	625.8	588.7	566.7	531.4
20°	526.9	528.4	534.6	542.7	556.3	581.5	625.5	651.4	616.7	591.1	548.8
22.5°	542.8	543.4	546.4	551.0	560.2	579.3	625.1	677.7	651.7	621.7	571.0
25°	589.5	586.6	584.3	578.8	580.9	594.7	632.2	706.0	696.5	662.1	600.4
27.5°	644.5	644.2	638.3	625.3	617.0	625.8	652.7	737.5	751.4	713.3	639.2
30°	706.0	706.2	700.0	684.1	667.4	668.2	685.0	774.0	817.1	775.1	686.9
32.5°	770.2	774.2	763.1	747.2	726.8	720.4	731.7	818.1	892.9	848.2	742.2
35°	847.0	847.7	835.5	812.1	791.8	781.4	791.9	873.2	980.5	934.0	809.6
37.5°	926.8	927.2	914.5	884.7	858.9	852.2	863.8	940.3	1073.3	1031.7	889.0
40°	992.0	996.7	986.6	958.6	932.6	928.6	945.3	1020.5	1191.7	1147.1	983.3
42.5°	1065.8	1071.3	1059.1	1030.0	1009.4	1008.1	1034.3	1111.8	1309.5	1280.9	1090.1
45°	1149.2	1156.7	1139.9	1107.3	1089.9	1119.4	1120.9	1213.0	1445.3	1430.6	1210.3
47.5°	1240.1	1246.4	1232.7	1197.6	1178.5	1221.2	1205.9	1322.6	1591.9	1590.9	1340.5
50°	1310.2	1317.2	1318.5	1303.0	1283.0	1288.4	1298.9	1437.6	1738.2	1755.6	1475.0
52.5°	1297.4	1304.2	1334.4	1374.9	1406.9	1393.1	1405.8	1559.9	1879.6	1916.5	1602.9
55°	1194.4	1198.0	1254.7	1351.1	1487.4	1553.7	1554.5	1692.9	2013.9	2065.7	1724.3
57.5°	1008.7	1009.2	1082.8	1224.8	1440.5	1657.8	1789.2	1860.1	2154.1	2230.5	1874.9
60°	713.9	715.6	801.4	987.1	1272.8	1645.2	2041.7	2159.0	2316.5	2415.7	2068.7
62.5°	423.7	427.9	492.5	641.4	945.3	1484.0	2190.8	2691.1	2555.7	2687.4	2379.3
65°	275.7	279.1	317.8	392.6	558.6	1079.8	2141.7	3206.1	3008.3	3114.8	2825.3
67.5°	212.3	215.1	245.4	290.7	342.7	583.7	1712.4	3314.0	3559.4	3592.4	3201.9
69°	186.6	188.9	211.2	254.7	288.4	386.4	1276.2	3118.0	3697.1	3715.2	3206.6
70°	173.0	174.7	195.7	233.4	265.0	308.4	976.7	2890.6	3646.7	3693.0	3114.1
72.5°	142.4	144.0	159.0	187.9	216.6	219.7	432.8	2110.7	3070.5	3218.8	2635.2
75°	118.9	119.8	129.6	150.7	175.3	174.9	221.1	1195.6	1873.8	2050.4	1627.1
77.5°	99.3	99.9	106.4	119.4	138.3	137.7	155.6	516.0	827.2	798.2	560.2
80°	87.6	88.0	91.4	94.7	106.8	106.2	115.3	237.0	336.7	311.2	211.9
82.5°	66.6	67.5	84.4	86.0	82.9	79.9	80.4	138.0	172.5	157.1	113.7
85°	37.5	37.9	54.2	63.4	72.1	54.2	52.2	71.2	85.1	74.6	49.8
87.5°	16.8	17.4	26.1	30.1	38.9	31.8	29.7	30.3	36.7	30.5	19.8
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: P270298

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-7027-600

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5	480.5
2.5°	476.8	473.0	464.1	454.9	445.6	439.9	433.8	428.2	425.9	425.7	421.6
5°	478.8	470.0	449.5	427.1	405.9	389.2	375.4	366.4	357.6	356.1	352.2
7.5°	479.5	465.0	431.8	396.0	363.5	340.6	326.8	320.8	316.5	315.3	314.0
10°	479.2	458.7	412.1	363.1	326.2	308.8	303.6	305.1	306.9	307.7	307.7
12.5°	482.8	455.8	392.4	332.2	301.9	293.7	297.7	304.5	309.9	312.3	312.7
15°	489.3	454.0	370.7	305.2	284.9	286.9	296.8	306.9	314.4	317.8	318.7
17.5°	497.4	451.5	345.6	283.1	275.1	282.0	294.7	307.5	316.7	321.0	321.7
20°	506.4	448.0	319.5	266.5	266.3	275.1	287.7	302.1	312.0	316.7	316.5
22.5°	518.5	444.7	295.5	254.4	256.6	264.7	275.3	288.3	297.3	301.7	300.8
25°	534.6	441.4	273.8	243.7	245.6	251.0	258.4	268.4	274.8	277.0	275.5
27.5°	556.3	439.0	256.6	233.7	233.6	236.1	240.6	246.0	249.1	248.4	246.0
30°	583.0	436.5	244.1	225.0	221.9	221.7	223.8	226.9	228.9	224.8	222.9
32.5°	612.7	432.3	232.9	217.5	211.9	209.8	210.7	215.1	223.3	219.2	217.7
35°	647.9	427.4	221.7	209.1	205.0	201.1	201.8	211.0	236.1	233.2	231.7
37.5°	690.3	422.8	211.5	200.2	200.1	195.3	194.8	205.8	239.4	233.2	231.9
40°	741.1	421.9	202.3	190.4	193.9	192.1	190.6	197.3	220.9	208.0	205.6
42.5°	802.5	425.9	195.6	181.0	186.9	191.2	188.4	189.9	199.6	188.1	186.0
45°	874.1	436.9	190.6	172.7	179.7	190.6	187.2	185.9	187.4	181.2	179.8
47.5°	957.8	456.5	187.2	165.7	172.7	188.9	186.8	184.2	183.4	179.8	178.9
50°	1047.1	482.7	185.1	159.4	166.4	185.7	186.6	182.7	181.6	180.1	179.7
52.5°	1135.7	511.0	182.4	154.1	161.2	181.8	186.8	181.4	179.8	178.9	178.6
55°	1224.0	540.7	177.3	149.4	157.5	177.3	186.6	179.7	177.9	177.9	177.9
57.5°	1338.5	585.6	170.9	145.5	152.5	171.5	183.7	177.7	175.1	175.3	175.6
60°	1503.8	661.2	163.8	141.4	146.1	164.8	179.2	174.0	171.0	172.0	172.2
62.5°	1779.9	793.1	153.9	135.3	139.2	157.7	173.4	169.2	166.4	168.0	168.3
65°	2148.0	952.7	140.9	127.6	132.4	149.6	165.9	163.3	160.3	164.2	163.9
67.5°	2372.8	999.5	127.2	119.7	125.7	141.2	156.8	155.6	153.6	160.3	159.9
69°	2299.0	915.0	119.4	114.4	120.9	135.3	150.9	150.5	148.8	155.4	155.0
70°	2184.6	835.9	114.4	111.1	118.4	131.7	147.1	147.1	145.5	151.2	150.0
72.5°	1754.7	619.9	103.0	102.5	110.0	121.8	136.8	138.0	137.1	139.1	138.0
75°	1030.3	373.5	91.8	93.2	99.6	111.3	125.5	126.3	125.5	125.3	125.5
77.5°	357.3	167.5	81.0	83.2	88.8	100.6	112.8	114.7	113.4	111.7	112.2
80°	139.7	97.5	69.3	72.4	77.1	88.5	100.3	101.5	99.4	99.3	97.5
82.5°	84.0	59.4	54.0	58.7	64.5	76.8	86.6	86.2	84.7	93.9	82.1
85°	36.6	32.9	39.4	44.1	47.0	57.5	73.2	71.2	67.5	59.4	58.0
87.5°	14.8	17.0	21.6	26.2	28.2	37.2	50.1	48.4	49.0	40.3	40.1
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)