

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: P196735

Luminaire Tested: **NAV-AF-01-D-UNV-T2-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196735  
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-T2-7030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4671.9 lumens  
Efficiency: N/A  
Efficacy: 106.2 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

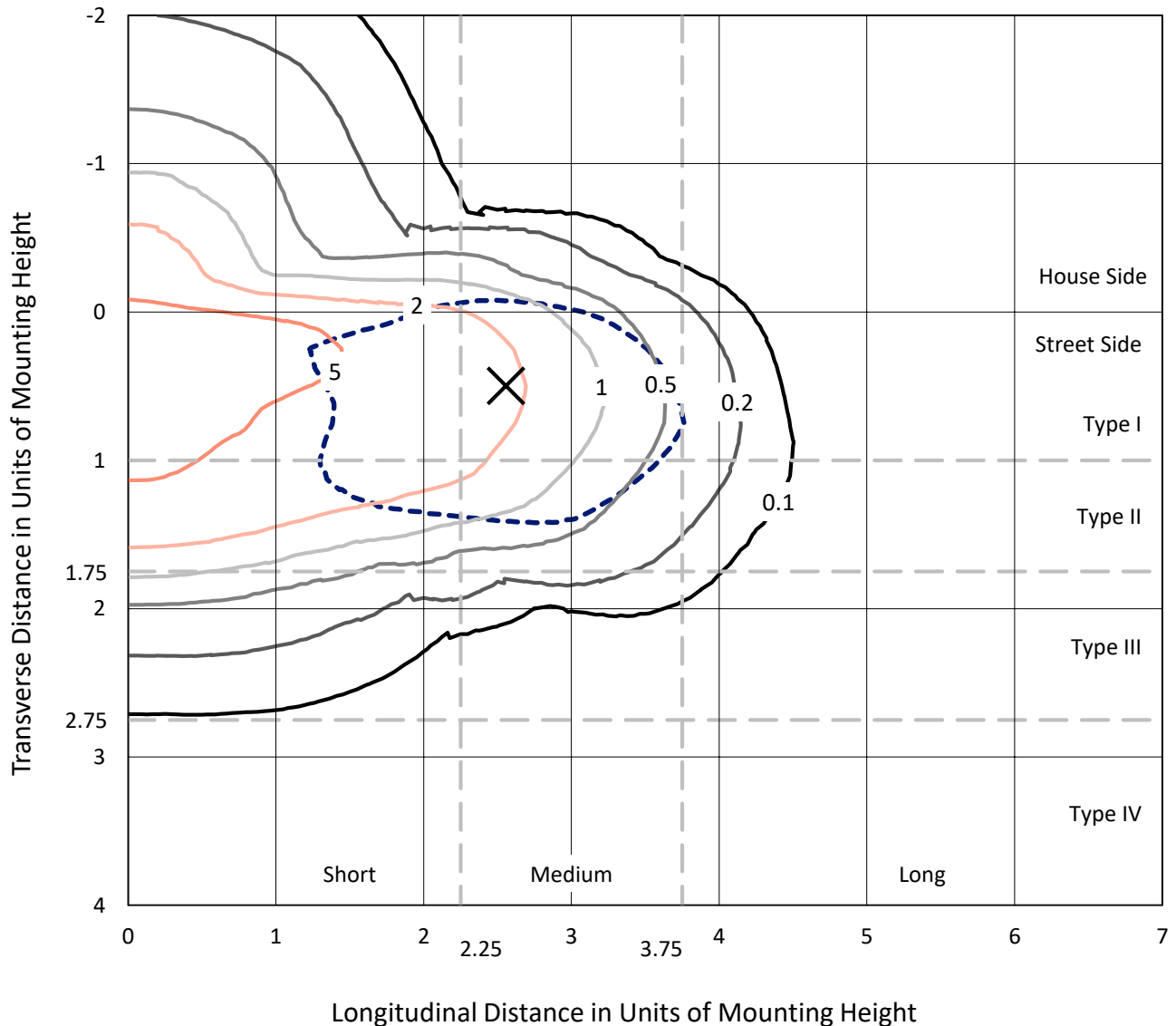
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

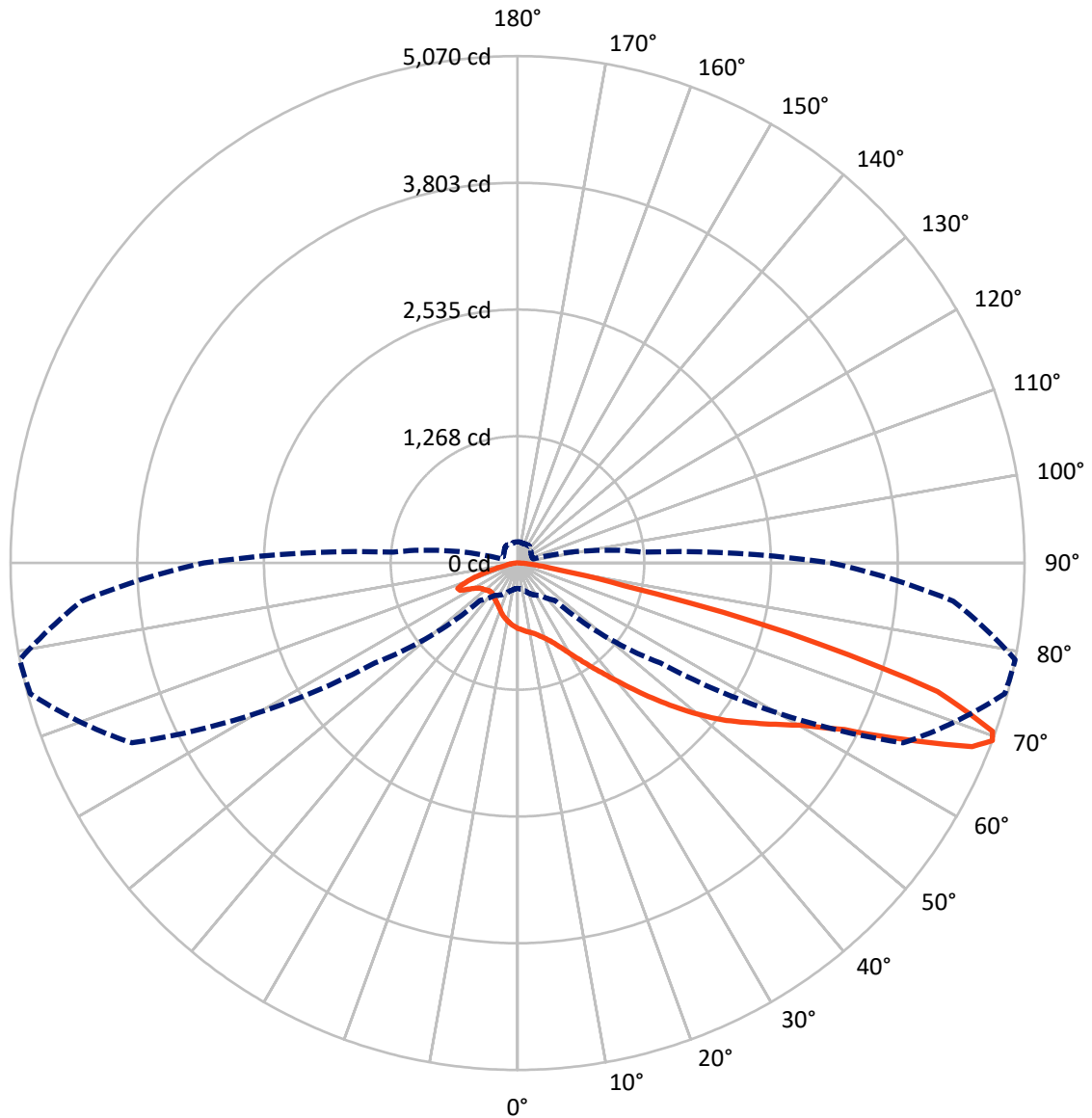
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.9 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
<b>House Side</b>	Lumens	878.9	0.0	878.9
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	3793.1	0.0	3793.1
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	4671.9	0.0	4671.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.8	1.3
10°-20°	174.3	3.7
20°-30°	287.9	6.2
30°-40°	466.2	10.0
40°-50°	744.8	15.9
50°-60°	1066.7	22.8
60°-70°	1188.4	25.4
70°-80°	594.6	12.7
80°-90°	88.2	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°	4671.9	100.0
0°-180°	4671.9	100.0



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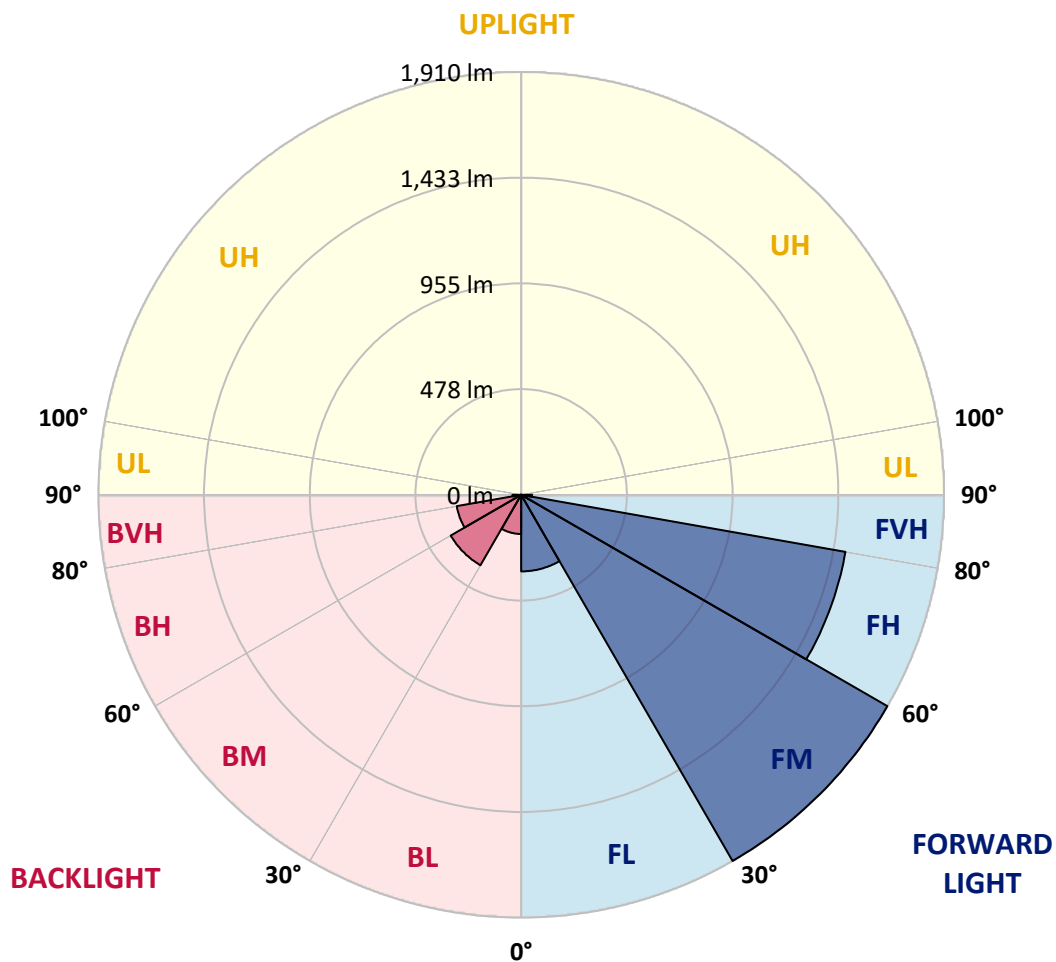
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	345.9	7.4			
FM	(30°-60°)	1910.4	40.9			
FH	(60°-80°)	1487.5	31.8			G1/1800
FVH	(80°-90°)	49.3	1.1			G1/100
BL	(0°-30°)	177.1	3.8	B1/500		
BM	(30°-60°)	367.4	7.9	B1/1000		
BH	(60°-80°)	295.5	6.3	B1/500		G1/500
BVH	(80°-90°)	38.9	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°	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7
2.5°	719.8	718.3	718.0	713.4	710.9	705.7	693.5	681.0	669.3	663.3	656.8
5°	780.0	777.0	775.4	767.8	761.1	749.4	730.2	710.3	689.5	678.8	666.1
7.5°	816.3	816.7	816.7	810.6	803.8	789.8	765.4	738.1	707.2	693.2	673.0
10°	819.5	819.8	824.4	825.9	827.4	820.1	797.5	763.1	723.6	705.2	678.8
12.5°	789.2	791.4	799.0	809.9	825.6	833.5	823.7	790.1	744.3	721.9	689.9
15°	748.5	750.7	760.5	777.3	802.3	829.0	842.7	821.0	771.5	745.1	706.1
17.5°	728.6	731.2	737.8	751.2	775.7	811.5	852.8	854.0	803.6	773.3	725.3
20°	719.2	721.0	729.7	740.6	759.3	793.4	853.7	888.9	841.8	806.7	748.9
22.5°	740.9	741.6	745.8	751.9	764.4	790.7	853.1	924.9	889.5	848.5	779.1
25°	804.4	800.6	797.5	789.8	792.9	811.5	862.8	963.4	950.5	903.5	819.5
27.5°	879.6	879.1	871.2	853.5	842.1	854.0	890.7	1006.5	1025.5	973.5	872.3
30°	963.4	963.6	955.5	933.7	910.7	912.1	934.9	1056.3	1115.0	1057.8	937.5
32.5°	1051.2	1056.6	1041.4	1019.6	991.8	983.0	998.5	1116.5	1218.7	1157.5	1013.0
35°	1156.0	1156.8	1140.1	1108.3	1080.5	1066.4	1080.8	1191.7	1338.1	1274.5	1104.9
37.5°	1264.7	1265.4	1248.0	1207.4	1172.2	1162.9	1178.9	1283.1	1464.6	1407.8	1213.1
40°	1353.7	1360.2	1346.4	1308.2	1272.8	1267.2	1290.2	1392.5	1626.4	1565.5	1341.8
42.5°	1454.6	1461.9	1445.4	1405.7	1377.5	1375.7	1411.5	1517.3	1787.2	1748.0	1487.6
45°	1568.3	1578.7	1555.8	1511.2	1487.3	1527.7	1529.7	1655.4	1972.3	1952.1	1651.8
47.5°	1692.4	1700.9	1682.3	1634.3	1608.3	1666.7	1645.7	1804.9	2172.5	2171.0	1829.3
50°	1788.0	1797.6	1799.4	1778.3	1751.1	1758.4	1772.7	1962.0	2372.1	2395.9	2013.0
52.5°	1770.6	1779.9	1821.1	1876.4	1920.1	1901.1	1918.6	2128.8	2565.0	2615.4	2187.6
55°	1630.0	1634.9	1712.2	1843.6	2029.8	2120.2	2121.5	2310.4	2748.4	2819.0	2353.2
57.5°	1376.6	1377.2	1477.8	1671.5	1965.9	2262.4	2441.8	2538.4	2939.7	3044.0	2558.7
60°	974.1	976.6	1093.5	1346.9	1737.0	2245.3	2786.3	2946.5	3161.3	3296.8	2823.3
62.5°	578.3	583.8	672.2	875.3	1290.2	2025.2	2989.9	3672.4	3487.8	3667.5	3246.9
65°	376.3	380.9	433.8	535.8	762.3	1473.6	2922.9	4375.4	4105.5	4250.6	3855.8
67.5°	289.7	293.5	335.0	396.7	467.6	796.5	2336.9	4522.7	4857.3	4902.6	4369.6
69°	254.6	257.7	288.2	347.6	393.7	527.2	1741.6	4255.2	5045.4	5070.0	4376.0
70°	236.0	238.4	267.1	318.5	361.5	420.8	1333.0	3944.7	4976.5	5039.9	4249.7
72.5°	194.4	196.5	217.0	256.4	295.5	299.8	590.5	2880.4	4190.4	4392.8	3596.3
75°	162.2	163.6	177.0	205.7	239.3	238.7	301.7	1631.6	2557.1	2798.2	2220.5
77.5°	135.4	136.3	145.2	162.9	188.9	187.9	212.4	704.1	1129.0	1089.4	764.4
80°	119.5	120.0	124.7	129.3	145.8	144.9	157.5	323.4	459.4	424.6	289.1
82.5°	90.8	92.0	115.3	117.4	113.1	109.2	109.7	188.3	235.4	214.2	155.2
85°	51.4	51.7	74.0	86.6	98.5	74.0	71.2	97.2	116.2	101.8	67.8
87.5°	23.0	23.8	35.5	41.0	53.2	43.3	40.7	41.3	50.1	41.5	26.9
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°	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7	655.7
2.5°	650.7	645.5	633.2	620.8	608.2	600.3	592.0	584.4	581.4	581.0	575.2
5°	653.5	641.3	613.5	582.9	553.8	531.2	512.3	500.1	488.2	485.9	480.7
7.5°	654.4	634.6	589.4	540.4	496.0	464.9	446.0	437.7	431.9	430.4	428.6
10°	654.1	625.9	562.3	495.5	445.0	421.5	414.4	416.3	418.8	420.0	420.0
12.5°	659.0	622.0	535.5	453.3	412.0	400.7	406.2	415.7	423.1	426.1	426.6
15°	667.8	619.5	505.9	416.6	388.8	391.5	405.1	418.8	429.2	433.8	435.0
17.5°	678.8	616.2	471.7	386.3	375.3	384.8	402.2	419.7	432.2	438.0	438.9
20°	691.1	611.3	436.2	363.8	363.4	375.3	392.8	412.4	425.8	432.2	431.9
22.5°	707.6	606.7	403.1	347.2	350.2	361.3	375.7	393.4	405.9	411.7	410.5
25°	729.7	602.4	373.5	332.5	335.3	342.6	352.7	366.1	375.0	378.0	376.0
27.5°	759.3	599.1	350.2	319.1	318.8	322.2	328.3	335.7	339.9	338.9	335.7
30°	795.6	595.7	333.1	307.1	302.8	302.5	305.4	309.6	312.4	306.9	304.1
32.5°	836.3	589.9	317.8	296.7	289.1	286.4	287.6	293.5	304.8	299.3	297.0
35°	884.2	583.2	302.5	285.5	279.7	274.5	275.5	287.9	322.2	318.2	316.1
37.5°	942.1	577.1	288.6	273.2	272.9	266.5	265.9	280.9	326.6	318.2	316.3
40°	1011.4	575.8	276.0	259.8	264.7	262.2	260.1	269.4	301.3	284.0	280.6
42.5°	1095.1	581.4	266.8	246.9	255.2	261.0	257.1	259.2	272.4	256.8	254.0
45°	1193.0	596.3	260.1	235.7	245.2	260.1	255.5	253.7	255.7	247.3	245.4
47.5°	1307.0	622.9	255.5	226.1	235.7	257.7	254.9	251.3	250.3	245.4	244.2
50°	1428.9	658.8	252.5	217.7	227.2	253.4	254.6	249.4	247.9	245.8	245.2
52.5°	1550.0	697.5	248.8	210.4	220.0	248.2	254.9	247.6	245.4	244.2	243.6
55°	1670.3	737.8	242.1	203.9	214.9	242.1	254.6	245.2	242.7	242.7	242.7
57.5°	1826.6	799.2	233.2	198.7	208.1	234.2	250.6	242.3	239.1	239.3	239.6
60°	2052.1	902.3	223.4	192.9	199.3	225.0	244.5	237.5	233.5	234.7	235.0
62.5°	2429.1	1082.3	210.0	184.6	190.1	215.1	236.5	230.7	227.2	229.2	229.6
65°	2931.5	1300.1	192.3	174.3	180.6	204.2	226.5	222.8	218.8	224.1	223.8
67.5°	3238.0	1364.1	173.6	163.3	171.4	192.6	213.9	212.4	209.7	218.8	218.2
69°	3137.5	1248.7	162.9	156.2	165.1	184.6	206.0	205.4	203.2	212.1	211.5
70°	2981.3	1140.6	156.2	151.7	161.7	179.7	200.8	200.8	198.7	206.3	204.8
72.5°	2394.8	846.0	140.6	140.0	150.1	166.3	186.8	188.3	187.1	189.8	188.3
75°	1405.9	509.8	125.3	127.2	136.0	151.9	171.2	172.4	171.2	170.9	171.2
77.5°	487.6	228.7	110.7	113.4	121.1	137.2	154.0	156.5	154.7	152.5	153.2
80°	190.7	133.0	94.7	98.8	105.1	120.7	136.9	138.4	135.7	135.4	133.0
82.5°	114.6	81.0	73.6	80.1	88.1	104.9	118.3	117.7	115.5	128.1	112.2
85°	49.8	44.9	53.7	60.2	64.1	78.5	100.0	97.2	92.0	81.0	79.2
87.5°	20.2	23.3	29.6	35.7	38.5	50.7	68.5	66.0	66.9	55.0	54.7
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)