

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: P197221

Luminaire Tested: **NAV-AF-01-D-UNV-T2-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197221  
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-T2-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4880 lumens  
Efficiency: N/A  
Efficacy: 82.7 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): 59  
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

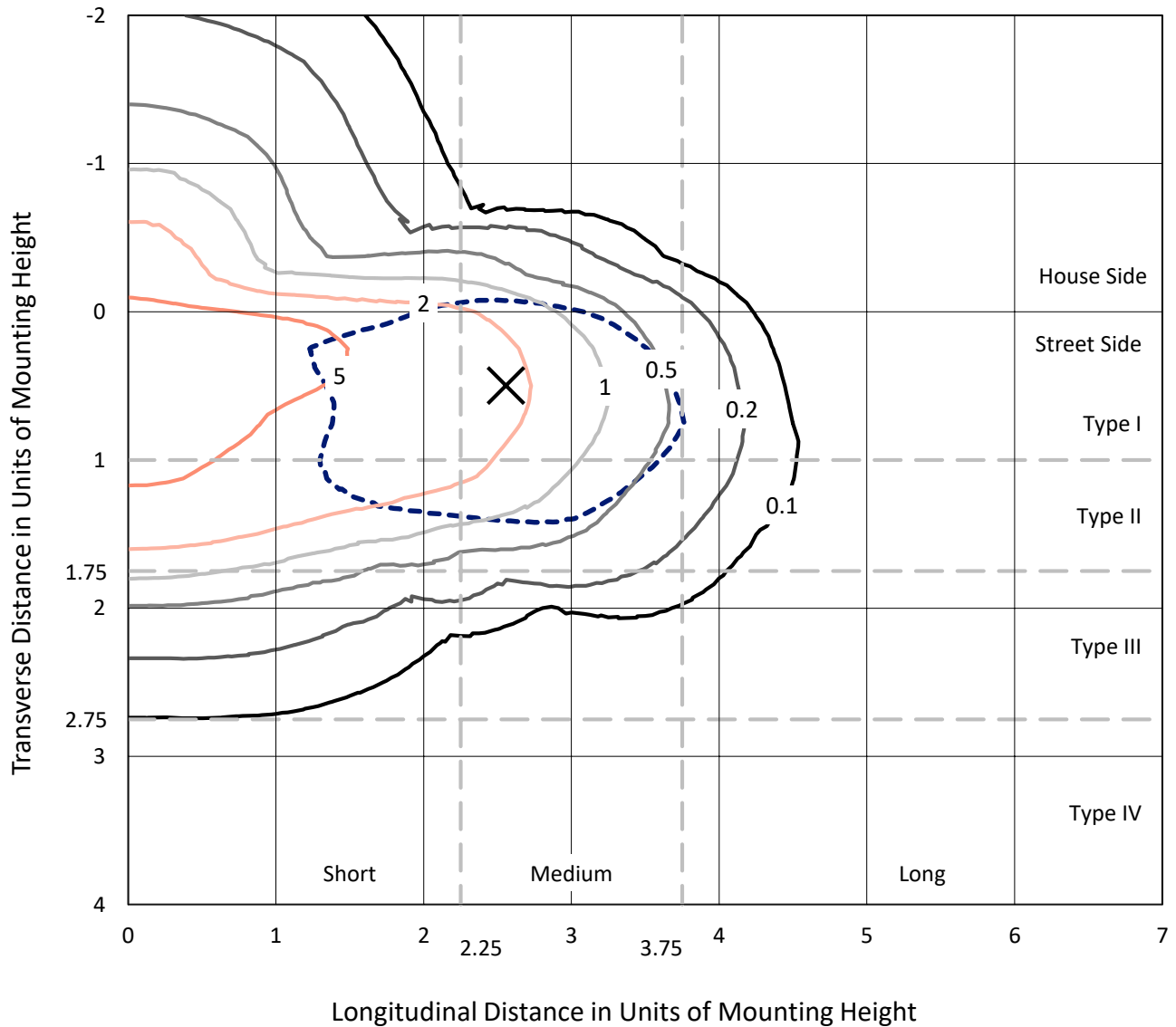


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### Iso-Footcandle Lines of Horizontal Illumination

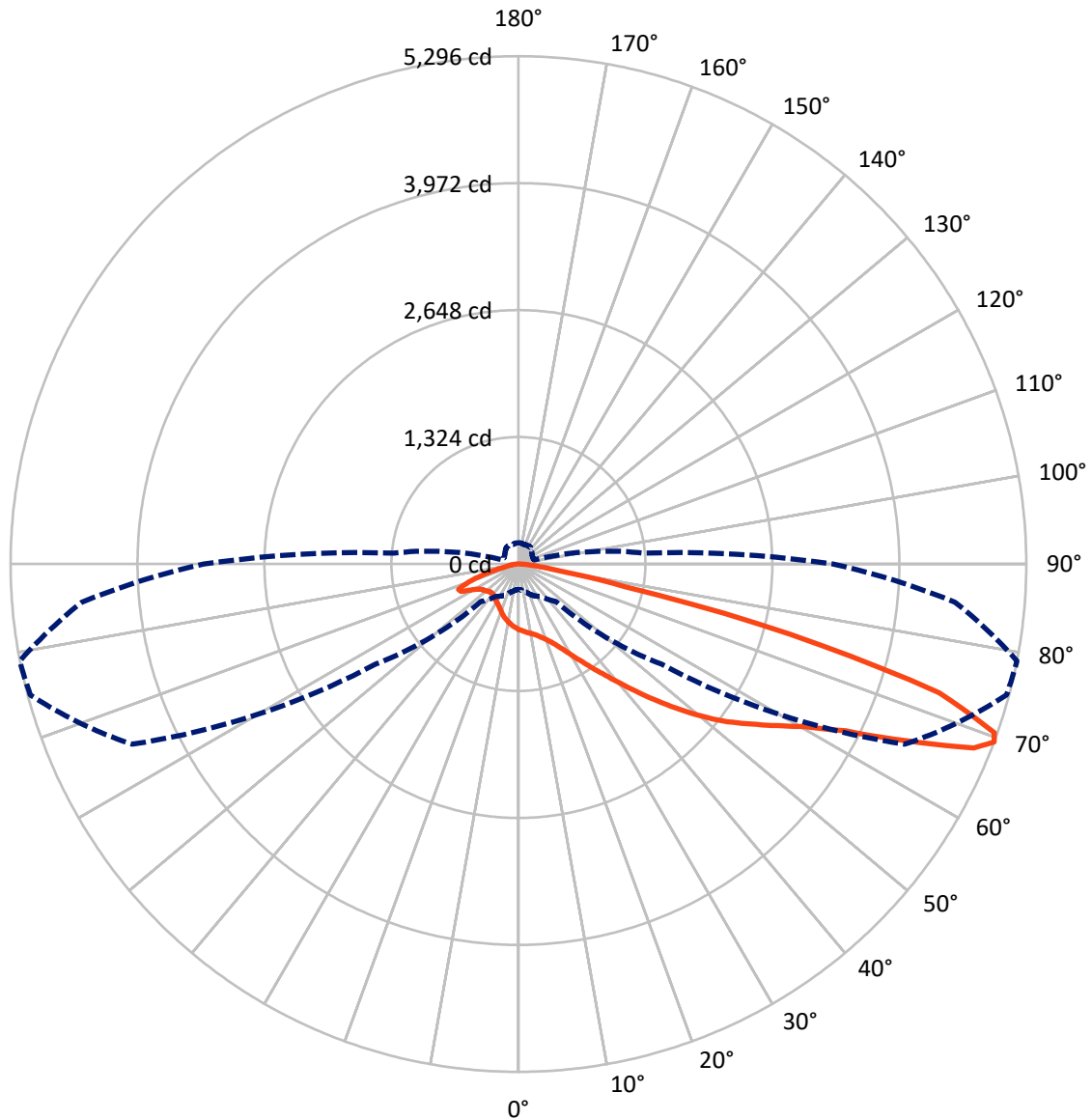
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.3 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	918.0	0.0	918.0
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	3962.0	0.0	3962.0
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	4880.0	0.0	4880.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.5	1.3
10°-20°	182.0	3.7
20°-30°	300.8	6.2
30°-40°	487.0	10.0
40°-50°	778.0	15.9
50°-60°	1114.2	22.8
60°-70°	1241.4	25.4
70°-80°	621.0	12.7
80°-90°	92.2	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°	4880.0	100.0
0°-180°	4880.0	100.0



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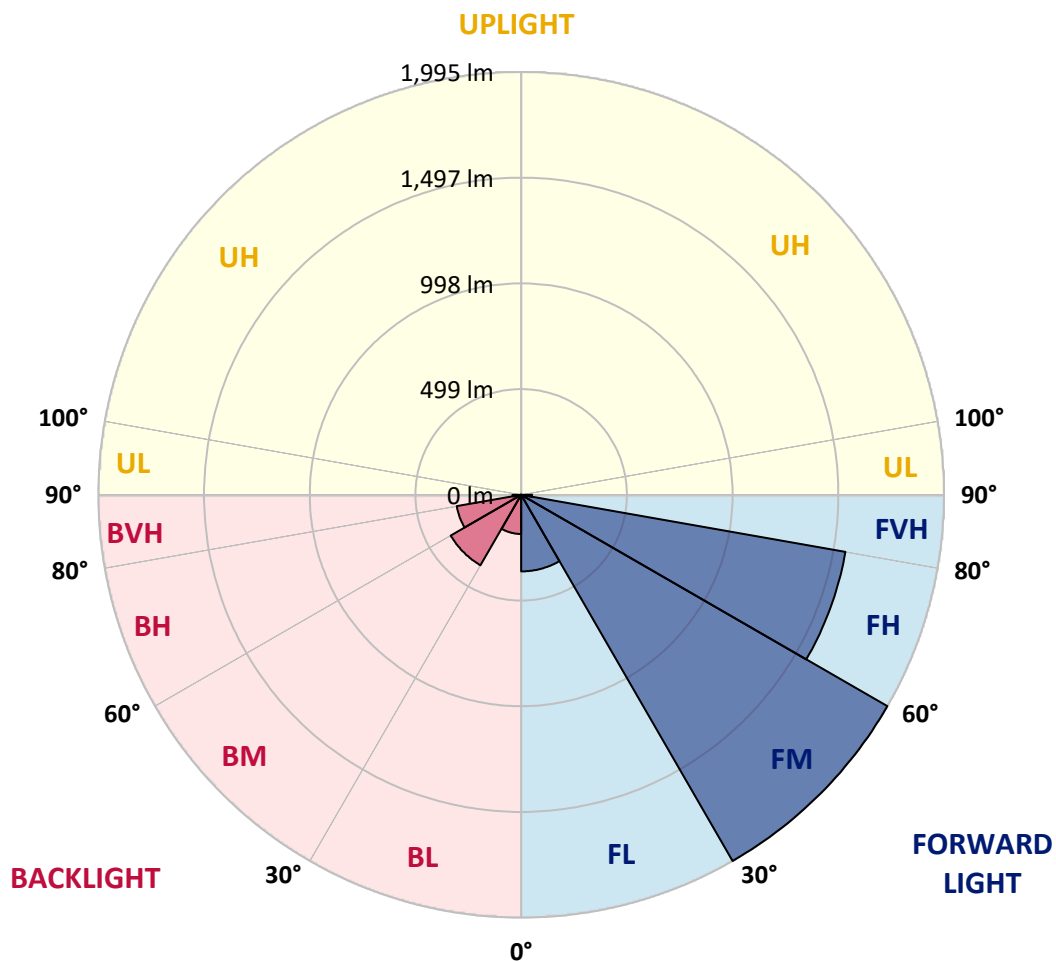
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	361.3	7.4			
FM (30°-60°)	1995.4	40.9			
FH (60°-80°)	1553.7	31.8			G1/1800
FVH (80°-90°)	51.5	1.1			G1/100
BL (0°-30°)	184.9	3.8	B1/500		
BM (30°-60°)	383.8	7.9	B1/1000		
BH (60°-80°)	308.7	6.3	B1/500		G1/500
BVH (80°-90°)	40.7	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°	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8
2.5°	751.9	750.3	749.9	745.2	742.6	737.2	724.4	711.3	699.2	692.8	686.1
5°	814.8	811.6	810.0	802.0	795.0	782.8	762.7	742.0	720.3	709.1	695.7
7.5°	852.8	853.1	853.1	846.7	839.7	825.0	799.4	771.0	738.8	724.1	703.0
10°	855.9	856.3	861.1	862.6	864.2	856.6	833.0	797.2	755.7	736.5	709.1
12.5°	824.3	826.6	834.6	846.0	862.3	870.6	860.4	825.3	777.4	754.1	720.6
15°	781.9	784.1	794.3	811.9	838.1	865.8	880.2	857.5	805.8	778.4	737.5
17.5°	761.1	763.7	770.7	784.7	810.3	847.6	890.7	892.0	839.3	807.7	757.6
20°	751.2	753.1	762.1	773.6	793.0	828.8	891.7	928.4	879.2	842.5	782.2
22.5°	773.9	774.5	779.0	785.4	798.5	825.9	891.1	966.1	929.1	886.3	813.8
25°	840.3	836.1	833.0	825.0	828.2	847.6	901.3	1006.3	992.9	943.7	855.9
27.5°	918.8	918.2	909.9	891.4	879.6	892.0	930.3	1051.3	1071.1	1016.9	911.2
30°	1006.3	1006.6	998.0	975.3	951.4	952.7	976.6	1103.4	1164.7	1105.0	979.2
32.5°	1097.9	1103.7	1087.7	1065.1	1036.0	1026.7	1043.0	1166.3	1272.9	1209.0	1058.0
35°	1207.5	1208.4	1190.8	1157.6	1128.6	1113.9	1128.9	1244.8	1397.7	1331.3	1154.1
37.5°	1321.1	1321.7	1303.5	1261.1	1224.4	1214.8	1231.4	1340.3	1529.9	1470.5	1267.2
40°	1414.0	1420.7	1406.4	1366.4	1329.4	1323.7	1347.6	1454.6	1698.8	1635.3	1401.6
42.5°	1519.4	1527.0	1509.8	1468.3	1438.9	1437.0	1474.4	1584.8	1866.7	1825.9	1553.9
45°	1638.1	1649.0	1625.0	1578.4	1553.5	1595.7	1597.9	1729.1	2060.2	2039.1	1725.3
47.5°	1767.8	1776.7	1757.2	1707.1	1680.0	1740.9	1718.9	1885.2	2269.3	2267.7	1910.8
50°	1867.7	1877.6	1879.5	1857.5	1829.1	1836.7	1851.7	2049.3	2477.8	2502.7	2102.7
52.5°	1849.5	1859.1	1902.2	1960.0	2005.6	1985.8	2004.0	2223.7	2679.3	2731.9	2285.0
55°	1702.6	1707.7	1788.5	1925.8	2120.2	2214.7	2216.0	2413.3	2870.8	2944.6	2458.0
57.5°	1438.0	1438.6	1543.6	1746.0	2053.5	2363.2	2550.6	2651.5	3070.7	3179.5	2672.5
60°	1017.5	1020.0	1142.3	1407.0	1814.4	2345.3	2910.4	3077.7	3302.1	3443.6	2949.0
62.5°	604.0	609.8	702.1	914.4	1347.6	2115.4	3123.0	3835.9	3643.1	3830.8	3391.5
65°	393.0	397.8	453.0	559.7	796.2	1539.2	3053.1	4570.2	4288.3	4440.0	4027.5
67.5°	302.7	306.5	349.9	414.4	488.5	832.0	2441.1	4724.1	5073.7	5121.0	4564.2
69°	265.9	269.1	301.1	363.0	411.2	550.7	1819.2	4444.8	5270.1	5295.9	4570.9
70°	246.5	249.0	279.0	332.7	377.7	439.6	1392.3	4120.4	5198.2	5264.3	4439.0
72.5°	203.1	205.3	226.7	267.9	308.7	313.2	616.8	3008.7	4377.1	4588.4	3756.4
75°	169.5	170.8	184.9	214.9	250.0	249.3	315.1	1704.2	2671.0	2922.8	2319.4
77.5°	141.4	142.4	151.6	170.2	197.3	196.3	221.9	735.6	1179.4	1137.9	798.5
80°	124.8	125.5	130.3	135.0	152.3	151.3	164.4	337.8	479.9	443.5	302.0
82.5°	94.8	96.1	120.4	122.6	118.1	114.0	114.6	196.7	245.8	223.8	162.2
85°	53.6	54.0	77.3	90.4	102.8	77.3	74.4	101.5	121.3	106.3	70.9
87.5°	23.9	24.9	37.0	42.8	55.6	45.3	42.5	43.1	52.4	43.4	28.1
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°	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8
2.5°	679.7	674.3	661.5	648.4	635.3	627.0	618.4	610.4	607.2	606.9	600.9
5°	682.6	669.8	640.8	608.8	578.5	554.9	535.1	522.3	509.9	507.6	502.2
7.5°	683.5	662.8	615.5	564.5	518.2	485.6	465.8	457.2	451.1	449.5	447.6
10°	683.2	653.8	587.4	517.5	464.8	440.3	432.9	434.8	437.4	438.7	438.7
12.5°	688.3	649.7	559.3	473.5	430.4	418.6	424.3	434.2	441.9	445.1	445.7
15°	697.6	647.1	528.4	435.2	406.1	409.0	423.0	437.4	448.2	453.0	454.3
17.5°	709.1	643.6	492.6	403.5	392.1	402.0	420.1	438.3	451.4	457.5	458.5
20°	721.9	638.5	455.6	379.9	379.6	392.1	410.3	430.7	444.7	451.4	451.1
22.5°	739.1	633.7	421.1	362.7	365.9	377.4	392.4	410.9	424.0	430.0	428.8
25°	762.1	629.3	390.1	347.4	350.2	357.9	368.4	382.5	391.7	394.9	392.7
27.5°	793.0	625.8	365.9	333.3	333.0	336.5	342.9	350.6	355.0	354.1	350.6
30°	831.0	622.2	348.0	320.9	316.4	316.1	318.9	323.4	326.3	320.5	317.7
32.5°	873.5	616.2	332.0	310.0	302.0	299.1	300.4	306.5	318.3	312.6	310.3
35°	923.6	609.2	316.1	298.2	292.1	286.7	287.7	300.7	336.5	332.4	330.1
37.5°	984.0	602.8	301.4	285.4	285.1	278.4	277.8	293.4	341.3	332.4	330.4
40°	1056.4	601.5	288.3	271.4	276.5	273.9	271.7	281.3	314.8	296.6	293.1
42.5°	1143.9	607.2	278.7	258.0	266.6	272.7	268.5	270.7	284.5	268.2	265.3
45°	1246.1	622.9	271.7	246.2	256.0	271.7	266.9	265.0	267.2	258.3	256.4
47.5°	1365.2	650.7	266.9	236.3	246.2	269.1	266.3	262.4	261.5	256.4	255.1
50°	1492.6	688.0	263.7	227.3	237.2	264.7	265.9	260.5	258.9	256.7	256.0
52.5°	1619.0	728.6	259.9	219.7	229.9	259.2	266.3	258.6	256.4	255.1	254.5
55°	1744.8	770.7	252.9	212.9	224.4	252.9	265.9	256.0	253.5	253.5	253.5
57.5°	1907.9	834.9	243.6	207.5	217.4	244.6	261.8	253.2	249.7	250.0	250.3
60°	2143.5	942.5	233.4	201.5	208.2	235.0	255.4	248.1	243.9	245.2	245.5
62.5°	2537.2	1130.5	219.3	192.8	198.6	224.8	247.1	241.0	237.2	239.4	239.8
65°	3062.0	1358.1	200.8	182.0	188.7	213.3	236.6	232.7	228.6	234.0	233.7
67.5°	3382.3	1424.9	181.3	170.5	179.1	201.1	223.5	221.9	219.0	228.6	228.0
69°	3277.2	1304.2	170.2	163.1	172.4	192.8	215.2	214.5	212.3	221.6	220.9
70°	3114.1	1191.5	163.1	158.4	168.9	187.7	209.8	209.8	207.5	215.5	213.9
72.5°	2501.4	883.7	146.9	146.2	156.8	173.7	195.1	196.7	195.4	198.3	196.7
75°	1468.6	532.5	130.9	132.8	142.1	158.7	178.8	180.1	178.8	178.5	178.8
77.5°	509.2	238.8	115.6	118.4	126.4	143.3	160.9	163.5	161.5	159.3	160.0
80°	199.2	138.9	99.0	103.1	109.8	126.1	143.0	144.6	141.8	141.4	138.9
82.5°	119.7	84.6	76.9	83.6	91.9	109.5	123.6	122.9	120.7	133.8	117.2
85°	52.0	46.9	56.2	62.9	67.0	82.1	104.4	101.5	96.1	84.6	82.7
87.5°	21.1	24.3	31.0	37.4	40.2	53.0	71.5	69.0	69.9	57.5	57.1
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)