

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: P270297

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270297  
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  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5195 lumens  
Efficiency: N/A  
Efficacy: 88.1 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): 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

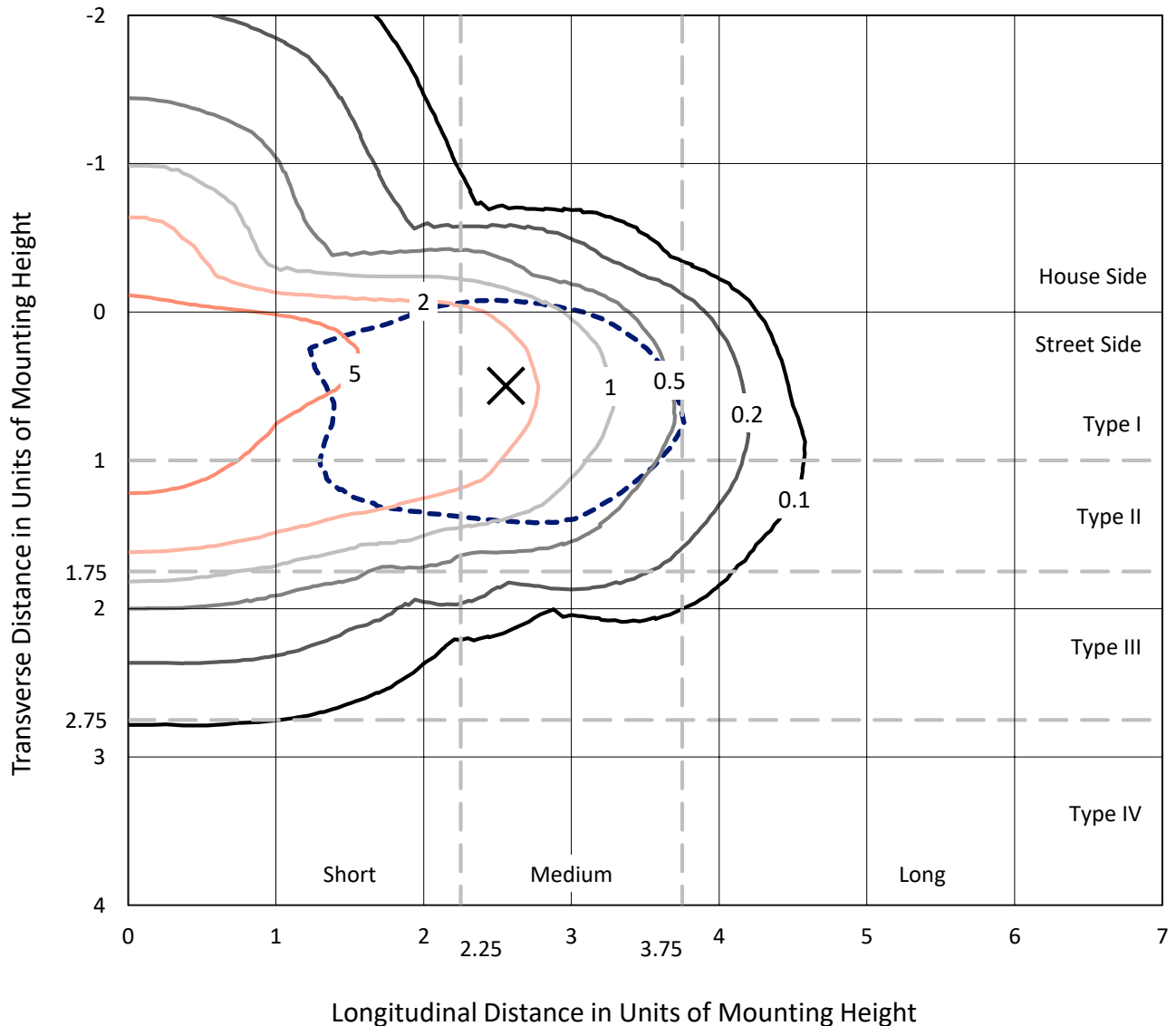


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### Iso-Footcandle Lines of Horizontal Illumination

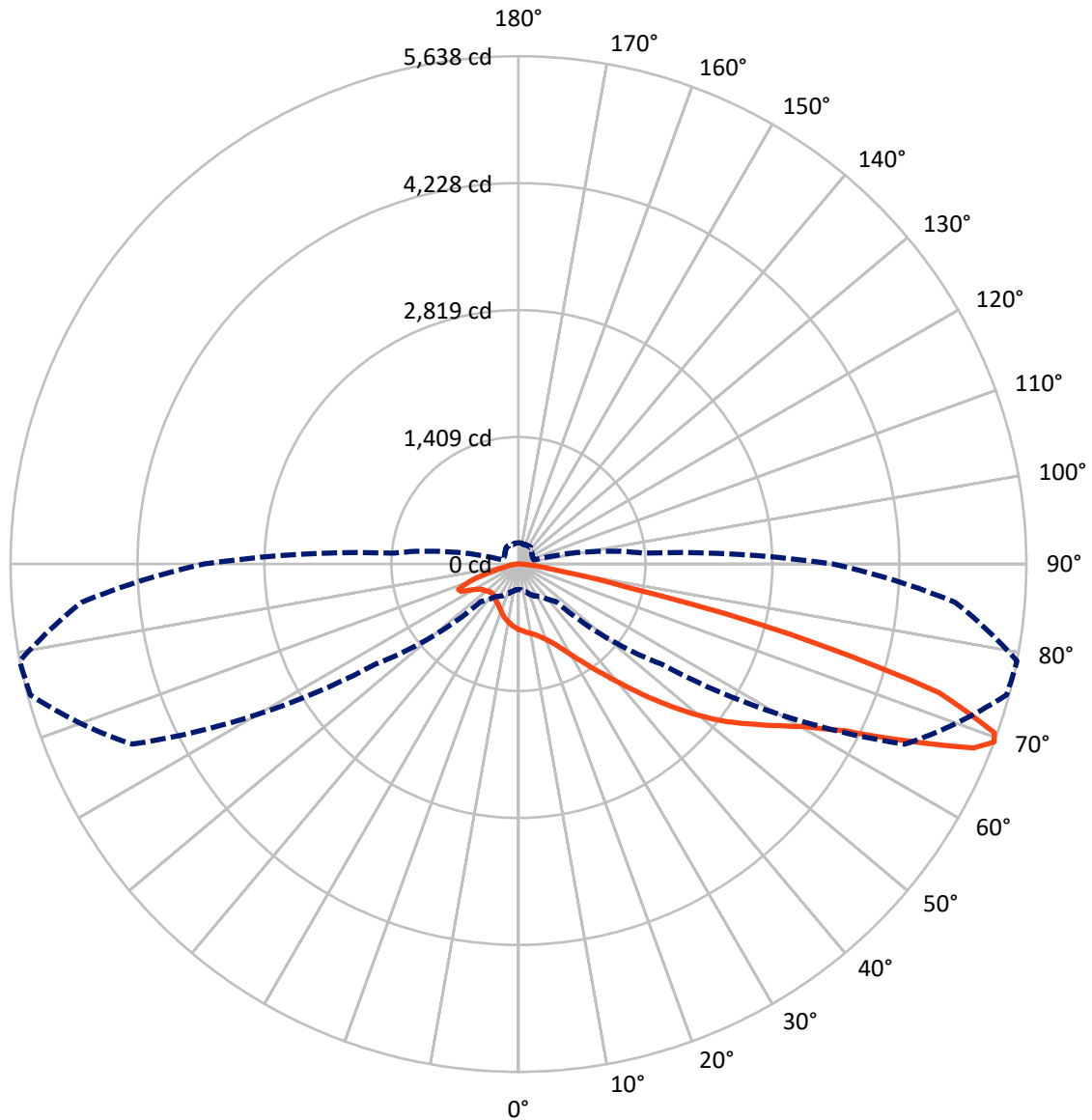
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 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	977.3	0.0	977.3
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	4217.7	0.0	4217.7
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	5195.0	0.0	5195.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	1.3
10°-20°	193.8	3.7
20°-30°	320.2	6.2
30°-40°	518.4	10.0
40°-50°	828.2	15.9
50°-60°	1186.1	22.8
60°-70°	1321.5	25.4
70°-80°	661.1	12.7
80°-90°	98.1	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°	5195.0	100.0
0°-180°	5195.0	100.0



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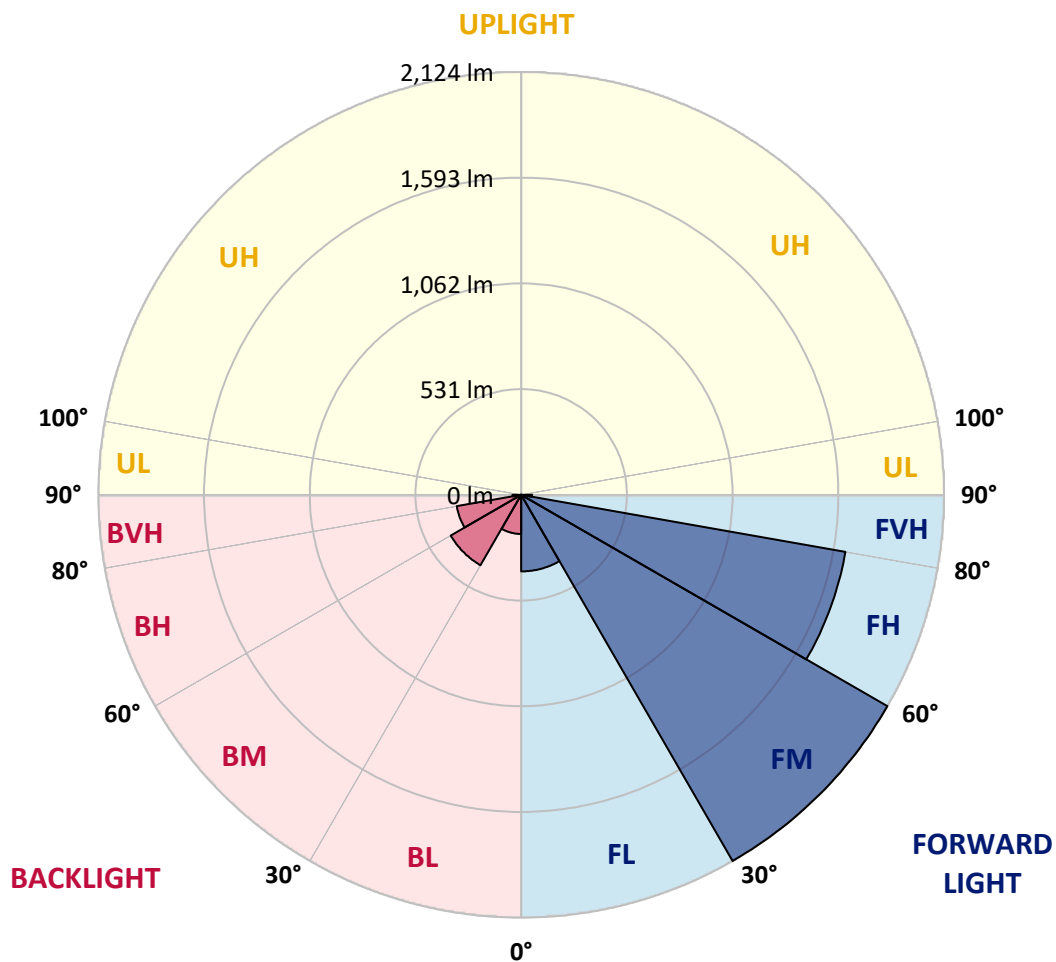
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	384.6	7.4			
FM (30°-60°)	2124.2	40.9			
FH (60°-80°)	1654.0	31.8			G1/1800
FVH (80°-90°)	54.8	1.1			G1/100
BL (0°-30°)	196.9	3.8	B1/500		
BM (30°-60°)	408.5	7.9	B1/1000		
BH (60°-80°)	328.6	6.3	B1/500		G1/500
BVH (80°-90°)	43.3	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°	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1
2.5°	800.4	798.8	798.4	793.3	790.6	784.8	771.1	757.2	744.3	737.5	730.4
5°	867.4	863.9	862.3	853.7	846.3	833.4	812.0	789.9	766.8	754.8	740.6
7.5°	907.7	908.1	908.1	901.3	893.9	878.3	851.1	820.8	786.5	770.8	748.4
10°	911.2	911.5	916.6	918.3	920.0	911.9	886.7	848.7	804.4	784.1	754.8
12.5°	877.6	879.9	888.5	900.6	918.0	926.8	915.9	878.5	827.6	802.7	767.2
15°	832.3	834.7	845.6	864.3	892.1	921.8	937.0	912.9	857.8	828.5	785.1
17.5°	810.2	813.0	820.4	835.5	862.6	902.3	948.3	949.6	893.5	859.9	806.5
20°	799.8	801.7	811.3	823.4	844.2	882.2	949.2	988.3	936.0	896.9	832.6
22.5°	823.8	824.6	829.2	836.1	850.1	879.3	948.6	1028.4	989.0	943.5	866.3
25°	894.5	890.1	886.7	878.3	881.6	902.3	959.5	1071.3	1056.9	1004.7	911.2
27.5°	978.2	977.4	968.6	948.9	936.4	949.6	990.4	1119.2	1140.3	1082.5	970.0
30°	1071.3	1071.6	1062.4	1038.4	1012.7	1014.1	1039.7	1174.7	1239.8	1176.3	1042.4
32.5°	1168.9	1175.0	1157.9	1133.8	1102.8	1093.0	1110.3	1241.5	1355.1	1287.1	1126.4
35°	1285.4	1286.5	1267.7	1232.4	1201.5	1185.9	1201.8	1325.2	1488.0	1417.3	1228.6
37.5°	1406.3	1407.0	1387.7	1342.4	1303.4	1293.2	1310.8	1426.8	1628.6	1565.4	1349.0
40°	1505.3	1512.4	1497.1	1454.6	1415.2	1409.1	1434.7	1548.5	1808.5	1740.8	1492.1
42.5°	1617.5	1625.7	1607.2	1563.1	1531.8	1529.8	1569.5	1687.0	1987.2	1943.8	1654.1
45°	1743.9	1755.4	1730.0	1680.3	1653.8	1698.7	1701.0	1840.7	2193.2	2170.8	1836.7
47.5°	1881.9	1891.4	1870.6	1817.4	1788.3	1853.4	1829.8	2007.0	2415.8	2414.0	2034.1
50°	1988.3	1998.8	2000.9	1977.3	1947.2	1955.3	1971.2	2181.7	2637.8	2664.3	2238.3
52.5°	1968.8	1979.1	2024.9	2086.5	2135.0	2114.0	2133.4	2367.3	2852.2	2908.3	2432.4
55°	1812.5	1818.0	1904.0	2050.1	2257.1	2357.7	2358.9	2569.1	3056.2	3134.6	2616.7
57.5°	1530.8	1531.4	1643.3	1858.8	2186.0	2515.8	2715.1	2822.7	3268.8	3384.8	2845.0
60°	1083.1	1086.0	1216.0	1497.8	1931.4	2496.7	3098.3	3276.4	3515.2	3665.9	3139.3
62.5°	643.0	649.1	747.4	973.5	1434.7	2252.1	3324.5	4083.5	3878.3	4078.0	3610.5
65°	418.4	423.6	482.3	595.8	847.6	1638.5	3250.2	4865.2	4565.1	4726.5	4287.4
67.5°	322.2	326.3	372.4	441.2	519.9	885.6	2598.6	5029.0	5401.1	5451.5	4858.8
69°	283.1	286.5	320.4	386.5	437.7	586.2	1936.6	4731.6	5610.3	5637.8	4865.8
70°	262.3	265.1	297.1	354.1	402.1	467.9	1482.2	4386.3	5533.7	5604.0	4725.5
72.5°	216.1	218.6	241.4	285.1	328.7	333.5	656.7	3202.9	4659.6	4884.7	3999.0
75°	180.5	181.8	196.8	228.7	266.1	265.4	335.4	1814.2	2843.3	3111.5	2469.1
77.5°	150.6	151.5	161.4	181.2	210.1	209.0	236.3	783.1	1255.6	1211.3	850.1
80°	132.9	133.6	138.7	143.8	162.1	161.1	175.0	359.6	510.9	472.1	321.6
82.5°	100.9	102.2	128.1	130.6	125.8	121.4	122.0	209.3	261.6	238.2	172.7
85°	57.1	57.4	82.3	96.2	109.5	82.3	79.2	108.1	129.1	113.1	75.5
87.5°	25.5	26.5	39.4	45.5	59.2	48.2	45.3	45.9	55.8	46.3	30.0
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°	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1	729.1
2.5°	723.6	717.7	704.2	690.3	676.3	667.5	658.3	649.8	646.4	646.2	639.7
5°	726.6	713.1	682.2	648.1	615.9	590.6	569.6	556.1	542.8	540.4	534.6
7.5°	727.6	705.6	655.3	600.8	551.6	517.0	495.9	486.7	480.2	478.5	476.6
10°	727.3	696.0	625.4	550.9	494.8	468.6	460.9	462.8	465.6	466.9	466.9
12.5°	732.7	691.6	595.4	503.9	458.1	445.6	451.7	462.2	470.4	473.8	474.5
15°	742.5	688.9	562.5	463.3	432.4	435.4	450.3	465.6	477.2	482.3	483.6
17.5°	754.8	685.1	524.4	429.6	417.4	428.0	447.3	466.6	480.6	487.1	488.0
20°	768.4	679.7	484.9	404.4	404.1	417.4	436.8	458.5	473.4	480.6	480.2
22.5°	786.7	674.6	448.3	386.1	389.4	401.7	417.7	437.5	451.4	457.7	456.5
25°	811.3	669.9	415.3	369.8	372.8	381.1	392.2	407.1	417.1	420.4	418.0
27.5°	844.2	666.2	389.4	354.8	354.6	358.2	365.0	373.2	377.9	376.8	373.2
30°	884.7	662.4	370.5	341.5	336.9	336.4	339.5	344.3	347.4	341.3	338.2
32.5°	929.8	655.9	353.5	329.9	321.6	318.4	319.8	326.3	338.8	332.7	330.3
35°	983.3	648.4	336.4	317.5	311.0	305.2	306.2	320.2	358.2	353.8	351.4
37.5°	1047.5	641.7	320.9	303.8	303.4	296.4	295.7	312.3	363.4	353.8	351.7
40°	1124.6	640.3	307.0	288.9	294.4	291.6	289.3	299.4	335.1	315.8	312.0
42.5°	1217.7	646.4	296.7	274.6	283.8	290.2	285.8	288.1	302.8	285.5	282.4
45°	1326.4	663.0	289.3	262.0	272.5	289.3	284.1	282.1	284.5	274.9	272.9
47.5°	1453.3	692.7	284.1	251.4	262.0	286.5	283.4	279.4	278.4	272.9	271.6
50°	1588.9	732.4	280.7	242.1	252.6	281.8	283.1	277.3	275.6	273.3	272.5
52.5°	1723.5	775.5	276.7	233.7	244.7	276.0	283.4	275.3	272.9	271.6	270.8
55°	1857.3	820.4	269.2	226.7	238.9	269.2	283.1	272.5	269.9	269.9	269.9
57.5°	2031.1	888.8	259.3	221.0	231.5	260.4	278.7	269.5	265.8	266.1	266.4
60°	2281.9	1003.2	248.4	214.4	221.6	250.2	271.8	264.1	259.7	261.0	261.3
62.5°	2700.9	1203.5	233.5	205.4	211.5	239.3	263.1	256.6	252.6	254.8	255.3
65°	3259.7	1445.8	213.7	193.8	201.0	227.0	251.9	247.8	243.4	249.1	248.8
67.5°	3600.5	1516.9	193.0	181.5	190.7	214.2	238.0	236.3	233.1	243.4	242.6
69°	3488.7	1388.4	181.2	173.7	183.6	205.4	229.1	228.3	226.1	235.9	235.1
70°	3315.0	1268.3	173.7	168.6	179.8	199.9	223.3	223.3	221.0	229.3	227.7
72.5°	2662.8	940.7	156.3	155.6	166.8	185.0	207.7	209.3	208.0	211.0	209.3
75°	1563.4	566.9	139.3	141.5	151.3	168.9	190.4	191.7	190.4	190.0	190.4
77.5°	542.0	254.2	123.1	126.1	134.6	152.6	171.2	174.0	171.9	169.6	170.3
80°	212.1	147.9	105.3	109.8	116.9	134.2	152.3	154.0	150.8	150.6	147.9
82.5°	127.5	90.1	81.9	89.0	97.8	116.6	131.5	130.9	128.5	142.4	124.8
85°	55.3	49.9	59.7	67.0	71.3	87.3	111.1	108.1	102.2	90.1	88.0
87.5°	22.5	25.8	33.0	39.7	42.8	56.5	76.1	73.4	74.4	61.2	60.8
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)