

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: P195847

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195847  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)  
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-T3R-7050-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5021 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Full Cutoff  
BUG Rating: B1 - U0 - G2

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

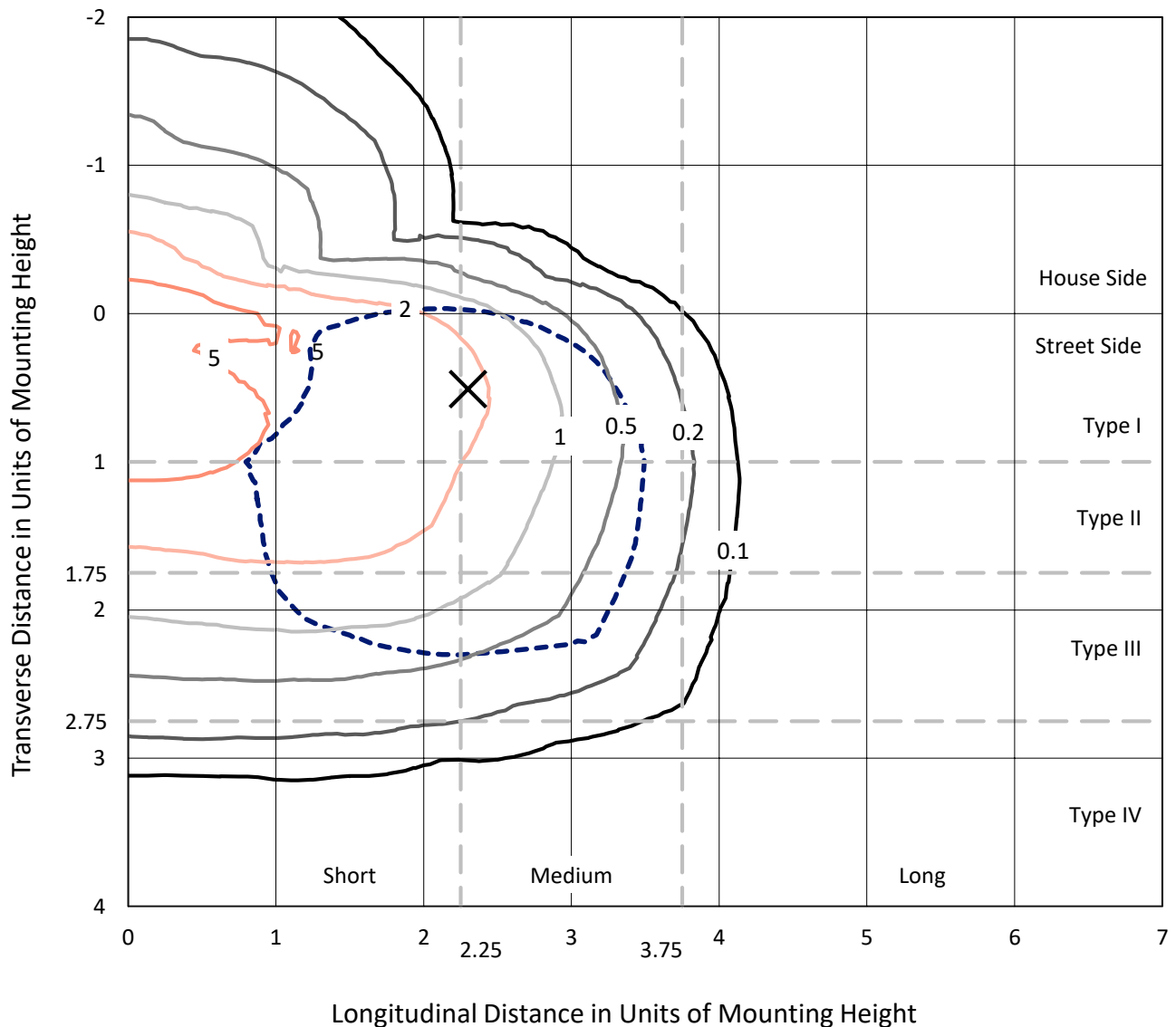


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### Iso-Footcandle Lines of Horizontal Illumination

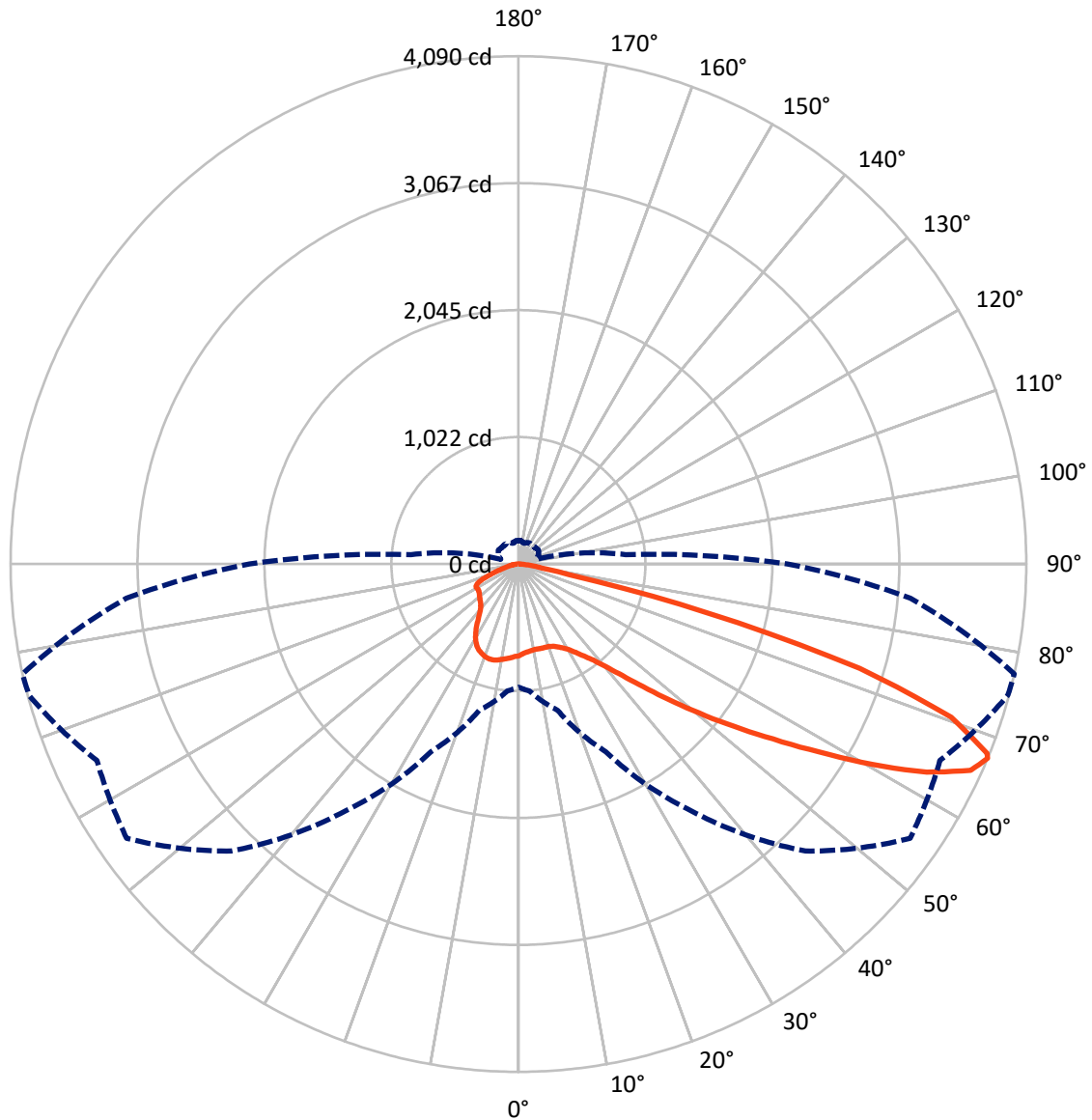
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 fc  
 Type III - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	862.9	0.0	862.9
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	4158.1	0.0	4158.1
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	5021.0	0.0	5021.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.8	1.3
10°-20°	182.3	3.6
20°-30°	309.7	6.2
30°-40°	495.4	9.9
40°-50°	762.7	15.2
50°-60°	1058.2	21.1
60°-70°	1411.6	28.1
70°-80°	671.8	13.4
80°-90°	63.6	1.3
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°	5021.0	100.0
0°-180°	5021.0	100.0



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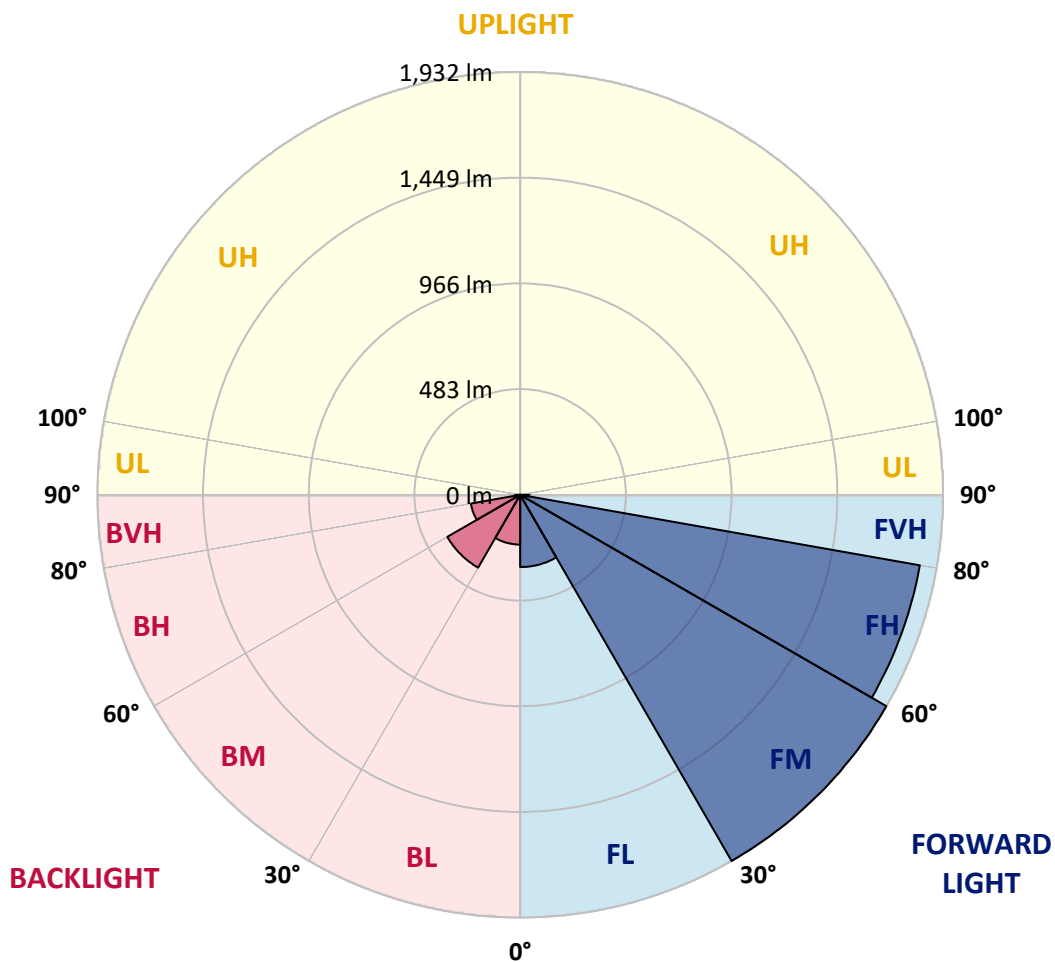
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	330.2	6.6			
FM	(30°-60°)	1932.1	38.5			
FH	(60°-80°)	1854.5	36.9			G2/5000
FVH	(80°-90°)	41.3	0.8			G1/100
BL	(0°-30°)	227.6	4.5	B1/500		
BM	(30°-60°)	384.2	7.7	B1/1000		
BH	(60°-80°)	228.8	4.6	B1/500		G1/500
BVH	(80°-90°)	22.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
2.5°	662.6	665.7	666.0	675.0	679.1	689.3	700.5	710.4	719.1	722.2	727.8
5°	596.2	596.2	597.1	603.0	614.5	631.0	654.2	679.7	706.4	712.9	729.3
7.5°	561.4	562.1	562.7	568.6	577.6	592.2	615.4	650.2	694.6	705.4	734.3
10°	564.5	563.6	560.5	559.3	563.0	572.3	592.5	628.2	684.6	701.4	743.3
12.5°	613.3	611.4	601.2	586.3	572.6	569.2	583.2	617.0	680.0	701.4	758.5
15°	696.8	698.0	677.8	646.8	611.1	586.9	585.0	613.0	678.4	703.3	776.2
17.5°	805.4	806.0	778.1	733.1	673.8	623.8	597.7	613.0	678.4	705.1	793.3
20°	920.8	916.5	884.8	828.3	751.4	675.0	621.0	616.7	680.3	707.9	809.4
22.5°	1019.8	1015.8	982.6	923.3	835.2	735.5	652.4	629.1	690.5	719.4	832.1
25°	1106.4	1108.9	1076.6	1009.9	918.7	803.8	699.2	657.6	712.0	740.2	860.0
27.5°	1211.6	1207.0	1169.7	1106.1	1004.6	874.6	757.9	693.6	737.4	765.3	894.1
30°	1333.3	1331.1	1280.8	1215.4	1099.3	953.7	815.9	732.4	770.6	799.8	937.0
32.5°	1481.0	1480.7	1426.7	1346.3	1205.7	1043.1	884.5	785.5	819.0	848.5	993.8
35°	1648.3	1648.0	1592.1	1486.0	1328.3	1142.1	965.2	850.1	878.9	910.0	1061.4
37.5°	1764.4	1762.5	1733.3	1630.3	1464.0	1257.3	1066.1	937.0	946.9	981.7	1143.0
40°	1786.7	1797.9	1823.0	1762.2	1612.0	1385.1	1167.3	1030.4	1039.7	1084.4	1245.8
42.5°	1762.5	1777.1	1860.6	1877.7	1760.0	1540.0	1293.9	1159.8	1171.6	1227.2	1366.5
45°	1741.4	1754.1	1858.7	1941.6	1906.2	1708.8	1451.8	1317.8	1340.1	1409.0	1504.3
47.5°	1705.4	1717.2	1822.1	1953.1	1989.7	1871.5	1642.1	1507.7	1546.2	1629.7	1661.3
50°	1703.5	1708.8	1772.1	1914.6	2018.6	1995.0	1852.8	1729.9	1788.9	1885.1	1835.1
52.5°	1656.4	1693.3	1750.7	1853.1	2019.2	2067.0	2060.5	1973.6	2064.5	2170.9	2025.7
55°	1367.7	1410.3	1679.3	1823.0	2015.5	2128.7	2250.1	2232.7	2374.8	2486.9	2239.2
57.5°	1277.1	1295.1	1473.3	1832.0	2046.5	2230.8	2439.7	2511.1	2729.9	2852.2	2495.3
60°	1252.3	1271.2	1432.0	1836.4	2130.6	2416.7	2697.0	2825.5	3147.3	3277.1	2786.1
62.5°	1224.7	1249.2	1435.1	1840.4	2278.3	2691.7	3038.4	3166.6	3575.9	3691.7	3058.6
65°	1144.0	1176.6	1377.7	1815.0	2440.0	3036.8	3489.7	3522.2	3930.0	4003.6	3223.1
67°	991.0	1026.7	1220.0	1667.9	2425.1	3269.3	3850.6	3744.8	4080.6	4089.6	3169.7
67.5°	942.6	979.5	1166.6	1606.7	2382.6	3299.7	3914.5	3775.5	4079.3	4069.4	3120.0
70°	634.7	676.3	826.2	1179.7	1911.2	3071.0	3899.0	3680.8	3811.8	3697.9	2680.6
72.5°	315.0	316.3	412.2	646.2	1157.9	2202.6	3252.5	3148.9	3089.9	2874.8	1967.0
75°	151.8	154.6	194.6	285.5	488.2	1137.1	2218.1	2124.7	1809.1	1566.4	984.5
77.5°	115.8	118.6	151.1	185.9	203.6	370.9	1098.7	887.9	524.2	418.7	277.5
80°	89.4	94.7	127.6	142.8	134.7	148.7	345.4	271.9	203.9	187.1	137.5
82.5°	69.8	72.9	108.3	108.3	93.1	99.6	160.8	157.0	126.6	114.2	73.9
85°	49.3	55.6	87.2	80.7	61.1	61.8	96.2	92.2	65.2	52.5	28.9
87.5°	22.0	28.2	62.1	52.8	32.6	25.1	39.4	33.8	25.8	19.9	13.3
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°	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
2.5°	734.0	739.0	746.7	751.4	757.6	760.1	762.5	766.9	770.3	769.4	767.8
5°	740.8	749.2	758.8	761.9	761.9	758.8	757.0	757.3	756.3	755.7	753.9
7.5°	750.8	762.2	769.1	766.0	756.3	744.2	732.8	725.9	719.4	715.4	716.6
10°	764.7	777.4	777.8	764.1	741.1	714.8	692.1	677.5	663.5	657.3	659.2
12.5°	784.9	797.6	786.8	757.3	716.9	675.6	634.1	604.0	577.0	570.4	568.6
15°	806.6	816.5	792.3	742.7	682.2	614.2	544.4	499.4	469.3	464.0	462.1
17.5°	825.5	831.1	789.5	716.6	627.2	520.2	438.8	408.4	402.2	405.3	405.3
20°	842.3	840.4	777.4	676.3	540.6	415.9	368.7	368.4	376.8	384.5	385.2
22.5°	863.4	848.8	758.2	616.4	437.3	347.0	338.9	347.0	356.3	365.0	365.9
25°	888.6	858.1	732.4	531.0	351.6	315.0	318.4	325.3	331.2	338.0	338.3
27.5°	913.7	865.3	696.1	430.8	305.1	294.5	298.3	301.0	302.6	306.9	306.9
30°	942.9	870.9	643.7	345.1	283.7	276.5	274.4	273.1	274.4	280.3	280.6
32.5°	979.5	880.8	572.0	296.1	273.7	263.8	252.6	246.4	250.8	261.3	263.2
35°	1021.1	892.6	486.0	276.5	270.3	257.6	237.1	227.5	229.0	238.7	240.2
37.5°	1073.2	907.8	401.3	271.9	273.7	257.0	230.0	216.3	209.5	209.8	209.5
40°	1139.9	923.0	334.3	273.1	281.2	258.5	226.6	205.1	190.9	191.5	192.7
42.5°	1209.8	932.9	291.7	276.8	290.2	260.7	225.3	194.3	181.9	192.4	202.0
45°	1291.4	930.1	269.7	280.3	297.0	261.6	220.7	193.0	182.8	214.5	232.5
47.5°	1385.1	918.0	257.3	281.8	298.9	261.3	217.2	197.1	190.6	245.5	266.0
50°	1486.9	899.1	247.4	279.3	297.9	260.1	221.0	202.0	193.7	252.3	268.1
52.5°	1598.3	881.7	237.1	273.7	293.3	256.4	225.6	199.9	185.0	232.5	244.6
55°	1730.2	877.7	225.6	264.1	285.5	252.3	223.1	193.0	175.4	206.1	213.5
57.5°	1881.1	902.8	210.7	252.3	275.0	244.3	217.2	189.3	171.9	187.5	191.5
60°	2072.6	958.4	194.9	239.9	261.9	232.1	212.0	190.2	172.9	184.7	185.6
62.5°	2222.2	1008.3	180.6	224.7	244.6	217.6	206.4	191.2	175.7	188.4	186.8
65°	2276.5	983.8	162.9	202.0	220.0	201.4	198.6	191.8	175.7	190.6	187.1
67°	2165.0	866.8	146.2	179.4	196.8	187.1	191.2	189.3	172.6	190.2	184.4
67.5°	2112.0	825.5	141.8	175.7	190.6	182.8	189.3	188.1	171.6	189.6	182.8
70°	1741.7	592.2	119.8	147.4	159.5	161.1	177.8	180.0	164.2	178.1	165.7
72.5°	1239.3	370.6	103.3	114.2	128.8	137.8	162.3	169.1	154.2	154.9	144.6
75°	613.3	198.9	92.2	88.1	100.2	114.8	141.5	154.2	139.7	129.1	125.7
77.5°	207.0	112.7	77.9	71.1	77.9	92.2	117.3	134.7	123.2	109.2	107.1
80°	107.1	81.9	60.8	57.1	61.5	71.4	91.9	112.0	105.2	105.8	87.2
82.5°	66.7	50.0	43.8	43.4	46.6	54.6	67.7	90.9	90.3	77.3	56.2
85°	31.0	28.9	27.9	28.9	29.8	31.0	44.1	64.9	68.6	41.6	36.9
87.5°	13.0	12.7	11.2	12.1	13.3	13.0	17.7	27.6	38.5	26.1	23.9
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)