

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: P197263

Luminaire Tested: **NAV-AF-01-D-UNV-T3-8030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197263  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
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-T3-8030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4029 lumens  
Efficiency: N/A  
Efficacy: 91.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

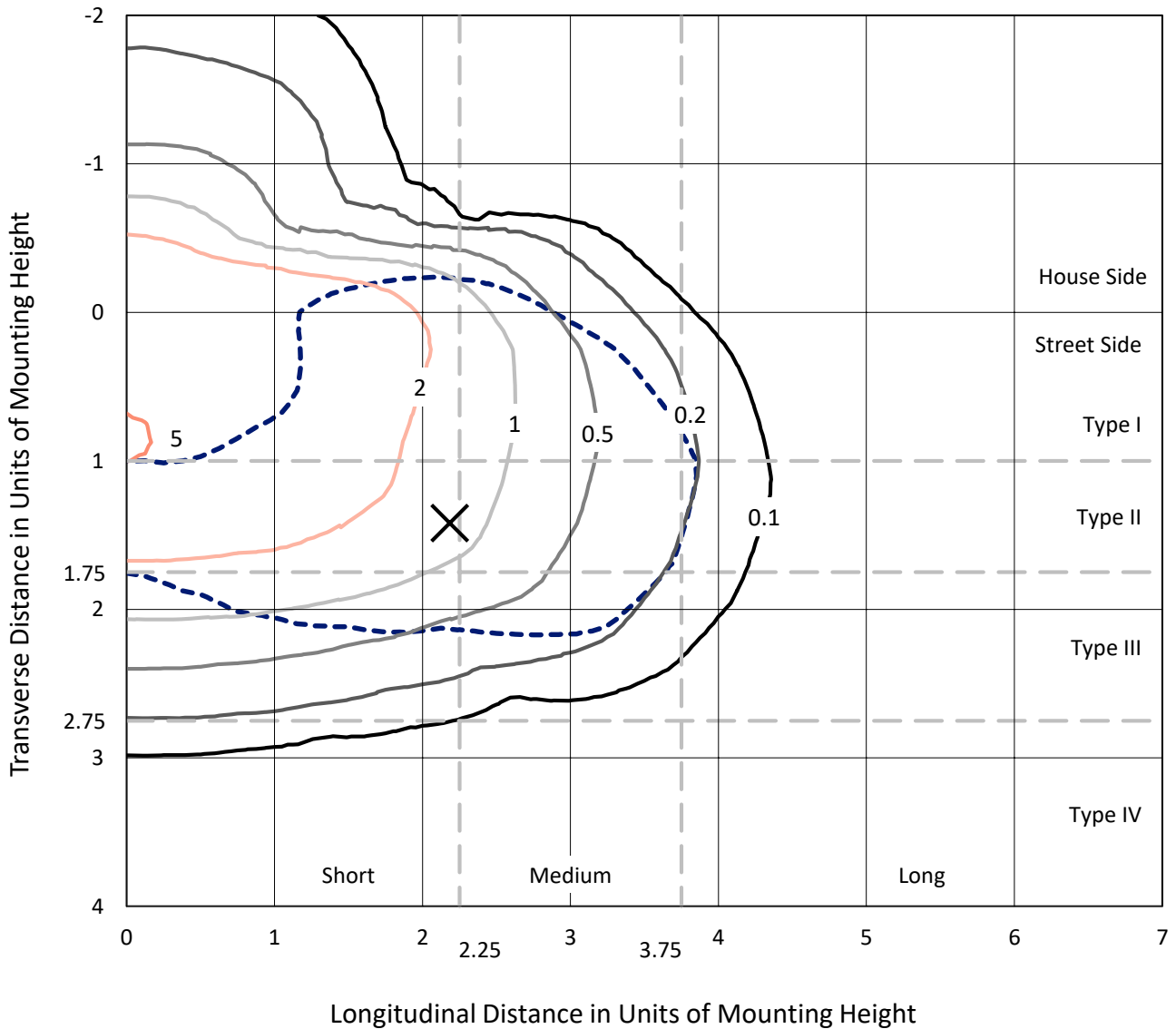
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

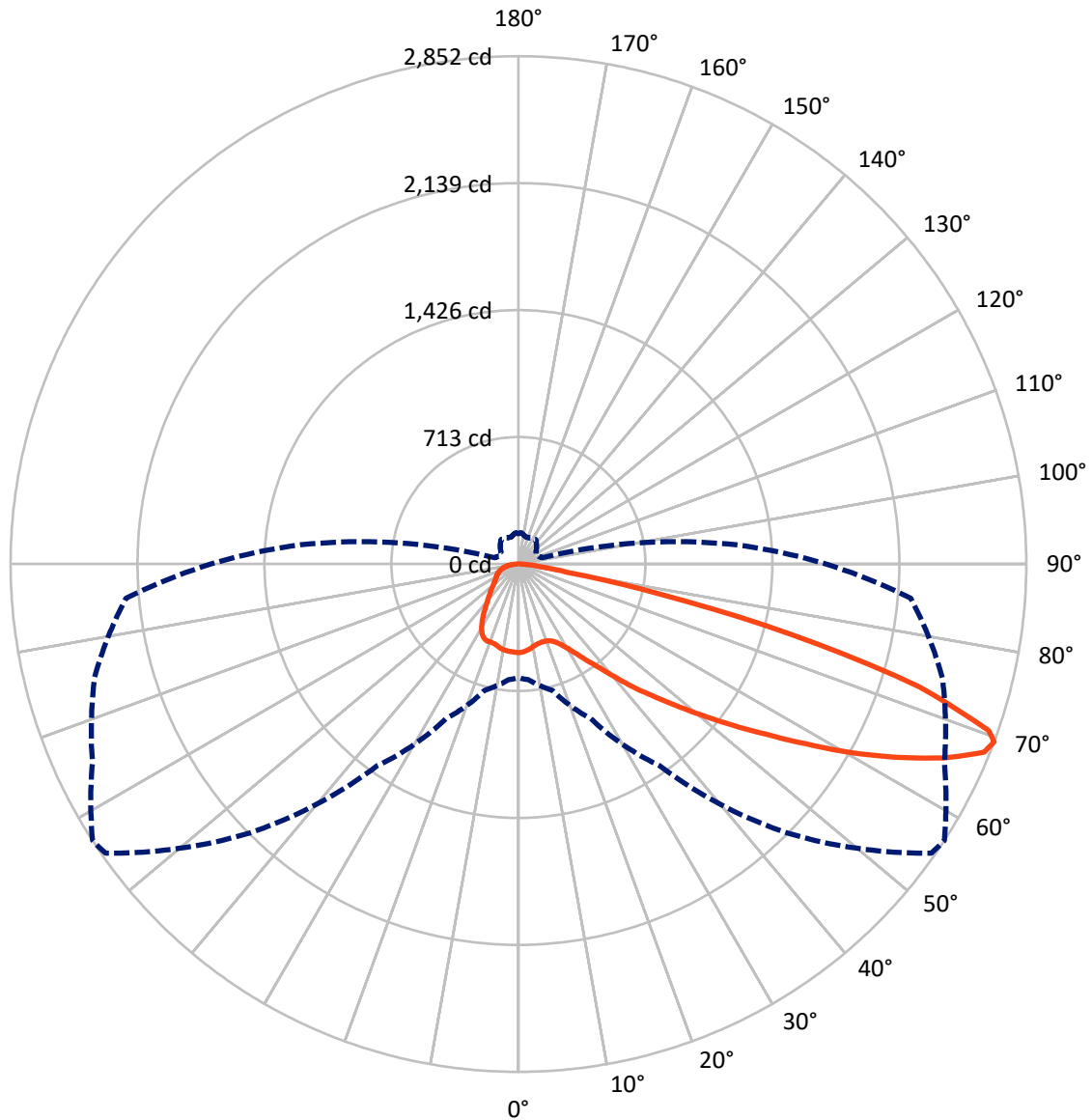
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	889.1	0.0	889.1
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	3139.9	0.0	3139.9
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	4029.0	0.0	4029.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.6	1.2
10°-20°	132.5	3.3
20°-30°	220.4	5.5
30°-40°	360.0	8.9
40°-50°	607.5	15.1
50°-60°	945.0	23.5
60°-70°	1125.8	27.9
70°-80°	524.5	13.0
80°-90°	66.7	1.7
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°	4029.0	100.0
0°-180°	4029.0	100.0



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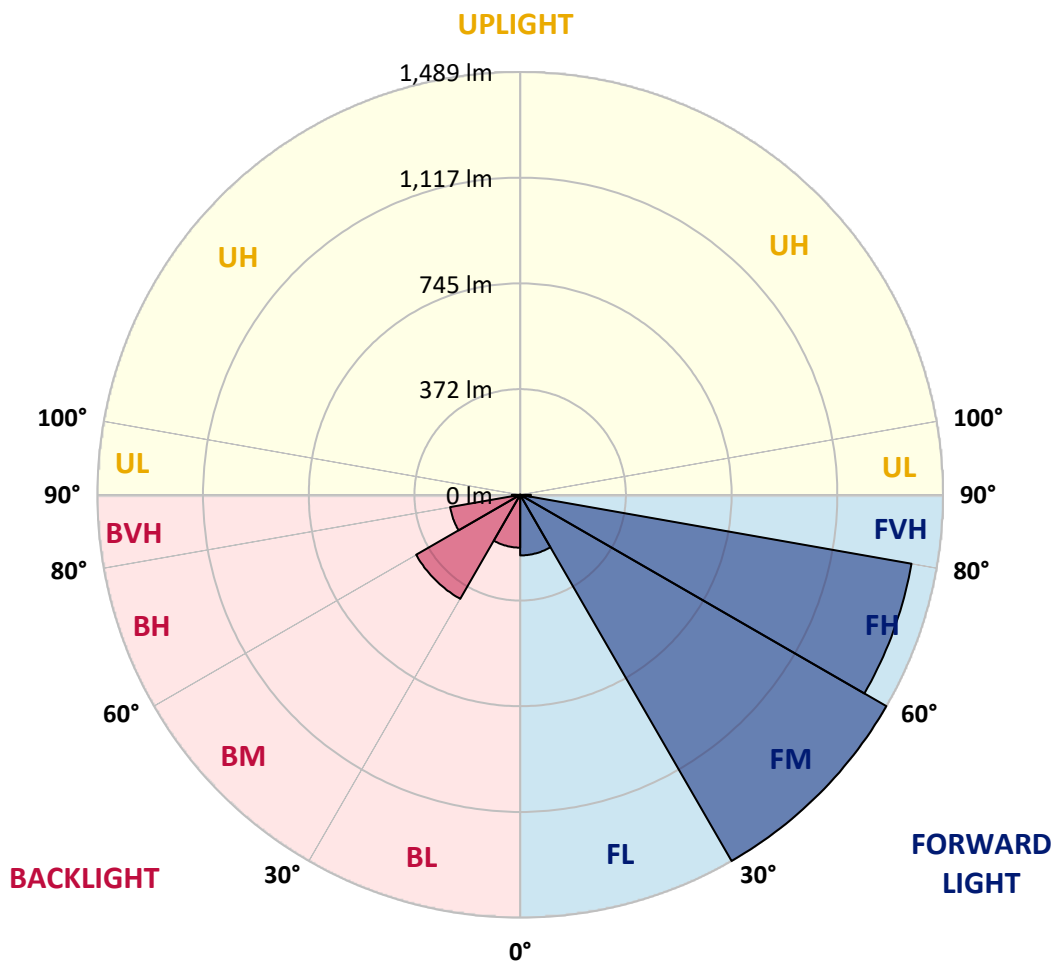
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	213.4	5.3			
FM	(30°-60°)	1489.4	37.0			
FH	(60°-80°)	1399.7	34.7			G1/1800
FVH	(80°-90°)	37.5	0.9			G1/100
BL	(0°-30°)	186.2	4.6	B1/500		
BM	(30°-60°)	423.1	10.5	B1/1000		
BH	(60°-80°)	250.5	6.2	B1/500		G1/500
BVH	(80°-90°)	29.2	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8
2.5°	495.0	495.0	496.3	496.3	496.3	495.8	494.2	494.7	493.7	492.9	491.6
5°	484.9	485.4	487.0	487.5	488.3	488.5	488.5	488.3	488.5	488.5	487.8
7.5°	471.0	471.5	473.3	474.3	476.7	478.7	479.8	479.8	481.1	482.1	482.3
10°	462.5	462.5	463.5	463.5	465.3	466.4	469.7	469.4	473.1	476.4	478.0
12.5°	461.5	461.5	460.9	459.1	458.1	457.8	461.2	461.7	467.1	473.1	475.9
15°	464.8	464.8	463.3	459.6	455.8	454.0	457.3	458.4	464.3	471.3	475.6
17.5°	475.6	475.4	472.0	464.8	458.1	455.3	456.3	457.3	462.7	470.7	476.2
20°	499.6	499.6	492.4	479.3	467.6	460.9	459.4	460.2	464.0	471.5	478.5
22.5°	541.7	542.4	529.5	507.9	488.0	473.8	467.6	468.4	470.2	477.4	485.2
25°	603.6	601.5	583.2	552.5	521.6	497.3	484.7	485.4	485.4	492.1	500.1
27.5°	669.1	669.6	643.3	610.3	569.5	533.4	513.3	513.0	512.8	519.2	527.7
30°	743.1	743.4	712.9	674.8	628.1	581.9	551.7	551.5	549.2	557.1	568.2
32.5°	824.1	823.9	788.5	745.4	693.6	641.2	602.0	601.8	600.0	610.8	624.2
35°	913.9	913.9	878.8	825.7	769.7	711.4	666.0	665.7	666.8	681.5	694.1
37.5°	1022.0	1024.3	982.0	917.5	856.4	794.2	741.3	739.8	732.0	756.8	777.7
40°	1134.7	1141.1	1097.3	1022.0	955.9	891.7	833.4	832.4	825.7	852.0	885.8
42.5°	1256.7	1271.4	1222.6	1145.8	1073.8	1004.4	945.9	943.0	917.2	958.2	1011.1
45°	1416.6	1426.1	1355.5	1285.8	1218.0	1138.8	1069.2	1053.9	1028.1	1080.8	1149.4
47.5°	1525.5	1520.8	1476.7	1430.0	1386.4	1310.6	1203.5	1184.2	1152.7	1222.4	1297.9
50°	1593.0	1596.4	1571.6	1569.3	1567.0	1514.1	1355.2	1332.0	1295.6	1378.2	1466.4
52.5°	1637.7	1622.4	1626.8	1679.4	1743.2	1717.9	1526.7	1500.9	1463.5	1546.1	1645.7
55°	1619.1	1599.0	1639.5	1743.2	1893.0	1898.7	1715.0	1688.5	1656.5	1724.6	1861.3
57.5°	1542.2	1552.3	1616.2	1760.4	1995.4	2060.7	1931.4	1904.4	1841.4	1910.6	2066.1
60°	1434.1	1454.5	1552.3	1733.1	2067.1	2186.8	2169.0	2151.0	2042.6	2091.6	2281.2
62.5°	1318.1	1338.2	1458.4	1686.4	2034.9	2298.5	2402.2	2391.1	2264.7	2266.0	2417.7
65°	1146.5	1154.8	1277.6	1559.0	1945.4	2399.3	2635.6	2625.8	2477.0	2414.8	2455.8
67.5°	865.9	876.2	977.1	1230.6	1673.0	2344.7	2822.1	2820.6	2604.7	2470.0	2365.0
69°	639.4	652.1	734.4	955.4	1383.3	2136.3	2830.9	2851.8	2639.2	2464.3	2211.6
70°	467.9	482.3	558.4	758.3	1152.2	1906.2	2755.8	2800.7	2626.1	2428.5	2091.9
72.5°	198.9	203.8	241.2	342.3	584.5	1149.4	2257.2	2351.6	2371.7	2176.0	1634.3
75°	124.6	126.1	140.8	175.7	260.0	475.4	1461.7	1590.5	1770.8	1688.2	1094.2
77.5°	93.9	95.2	103.7	121.0	161.5	177.5	678.1	808.6	1014.2	993.1	544.5
80°	72.0	72.7	78.4	88.0	113.8	111.2	220.0	276.5	423.3	373.5	192.7
82.5°	56.5	56.7	61.6	63.5	79.4	74.8	110.4	123.0	171.0	142.1	94.1
85°	50.0	50.8	55.7	46.4	50.8	45.1	60.6	65.8	90.8	85.6	35.6
87.5°	25.5	26.8	46.7	39.7	25.5	21.4	26.6	28.6	36.9	40.0	17.3
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°	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8	497.8
2.5°	491.9	492.1	492.9	494.2	496.3	498.9	501.9	505.0	506.9	508.1	507.6
5°	487.8	488.0	489.6	491.9	494.5	498.3	503.5	507.4	510.2	512.0	511.8
7.5°	482.6	483.4	486.5	489.1	492.7	495.8	499.9	503.5	506.3	508.1	507.9
10°	478.7	479.5	483.4	486.7	489.8	490.3	489.6	488.5	488.3	489.6	489.1
12.5°	476.9	478.5	482.1	484.4	483.1	478.2	472.5	470.2	469.4	472.0	472.3
15°	477.4	478.7	481.8	480.3	473.3	465.1	462.0	463.8	465.3	466.9	467.1
17.5°	478.7	479.5	480.3	474.6	464.8	459.4	458.4	456.6	451.9	449.3	449.1
20°	481.1	482.1	480.8	471.8	463.0	455.8	443.4	432.3	421.7	416.1	413.7
22.5°	489.1	489.8	486.0	477.2	463.8	440.3	415.3	396.2	379.9	371.2	367.8
25°	504.8	506.1	500.7	489.6	454.5	413.5	378.1	352.3	332.0	321.4	318.6
27.5°	532.4	533.7	527.7	498.9	432.8	377.6	334.8	309.3	291.7	282.7	281.4
30°	573.7	575.5	570.0	498.6	399.8	332.0	292.5	277.5	267.5	261.3	261.0
32.5°	630.9	637.6	615.4	489.8	359.1	285.8	260.5	255.4	250.5	246.3	246.3
35°	703.7	719.4	660.3	471.5	314.2	254.3	242.7	237.8	231.6	227.2	226.7
37.5°	790.6	815.1	692.3	439.0	275.5	239.1	231.9	223.9	214.1	205.6	203.5
40°	910.0	915.7	708.0	386.1	246.6	230.9	221.8	211.8	199.4	189.8	188.8
42.5°	1030.0	1011.4	704.9	329.4	230.1	223.4	211.5	200.4	189.3	181.3	181.3
45°	1166.4	1095.0	681.5	272.4	215.1	214.9	202.0	191.4	182.9	176.9	175.7
47.5°	1296.9	1170.0	641.0	230.3	199.6	206.4	195.8	187.3	179.5	173.9	172.8
50°	1455.3	1256.9	597.9	200.9	184.7	198.9	193.2	188.8	181.3	171.5	170.5
52.5°	1612.6	1358.6	564.6	178.8	171.5	192.9	194.7	195.3	188.3	169.2	167.9
55°	1781.6	1467.2	529.5	161.5	160.7	190.1	198.4	197.8	194.5	169.7	167.7
57.5°	1942.3	1576.3	477.2	149.3	152.2	187.3	199.1	190.9	184.9	172.3	169.0
60°	2075.4	1666.5	400.3	140.8	145.0	181.6	194.0	181.6	171.5	171.8	168.7
62.5°	2140.1	1691.8	306.2	131.0	139.0	172.3	186.5	174.6	165.3	172.8	171.0
65°	2090.9	1619.9	218.2	122.0	131.8	161.5	182.1	168.7	162.2	178.0	175.9
67.5°	1913.9	1423.8	158.4	114.0	124.8	150.4	173.9	163.3	159.1	181.8	177.2
69°	1725.9	1229.3	137.2	109.4	119.9	144.4	168.4	160.4	156.8	176.4	169.7
70°	1569.6	1079.5	126.6	106.5	115.8	141.1	164.3	158.6	154.5	170.0	162.0
72.5°	1125.4	697.7	106.5	98.0	105.0	133.6	155.3	151.9	145.7	153.5	148.3
75°	679.9	364.2	90.5	89.2	93.6	123.3	144.7	140.6	134.4	135.2	132.6
77.5°	312.4	168.2	75.8	78.9	81.8	110.4	131.8	127.2	121.5	119.4	119.7
80°	137.0	98.3	63.5	67.3	68.9	99.3	117.9	112.7	106.5	117.6	109.1
82.5°	74.0	57.0	49.5	52.1	56.5	86.4	102.4	95.7	89.8	104.5	84.3
85°	29.9	29.1	33.5	36.1	39.2	62.2	85.6	78.7	71.4	64.0	62.4
87.5°	12.9	13.9	16.5	17.5	20.9	38.7	57.5	50.3	50.6	43.3	42.6
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)