

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: P197287

Luminaire Tested: **NAV-AF-01-D-UNV-T3R-8030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197287  
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-8030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 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: 4097 lumens  
Efficiency: N/A  
Efficacy: 93.1 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 - 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

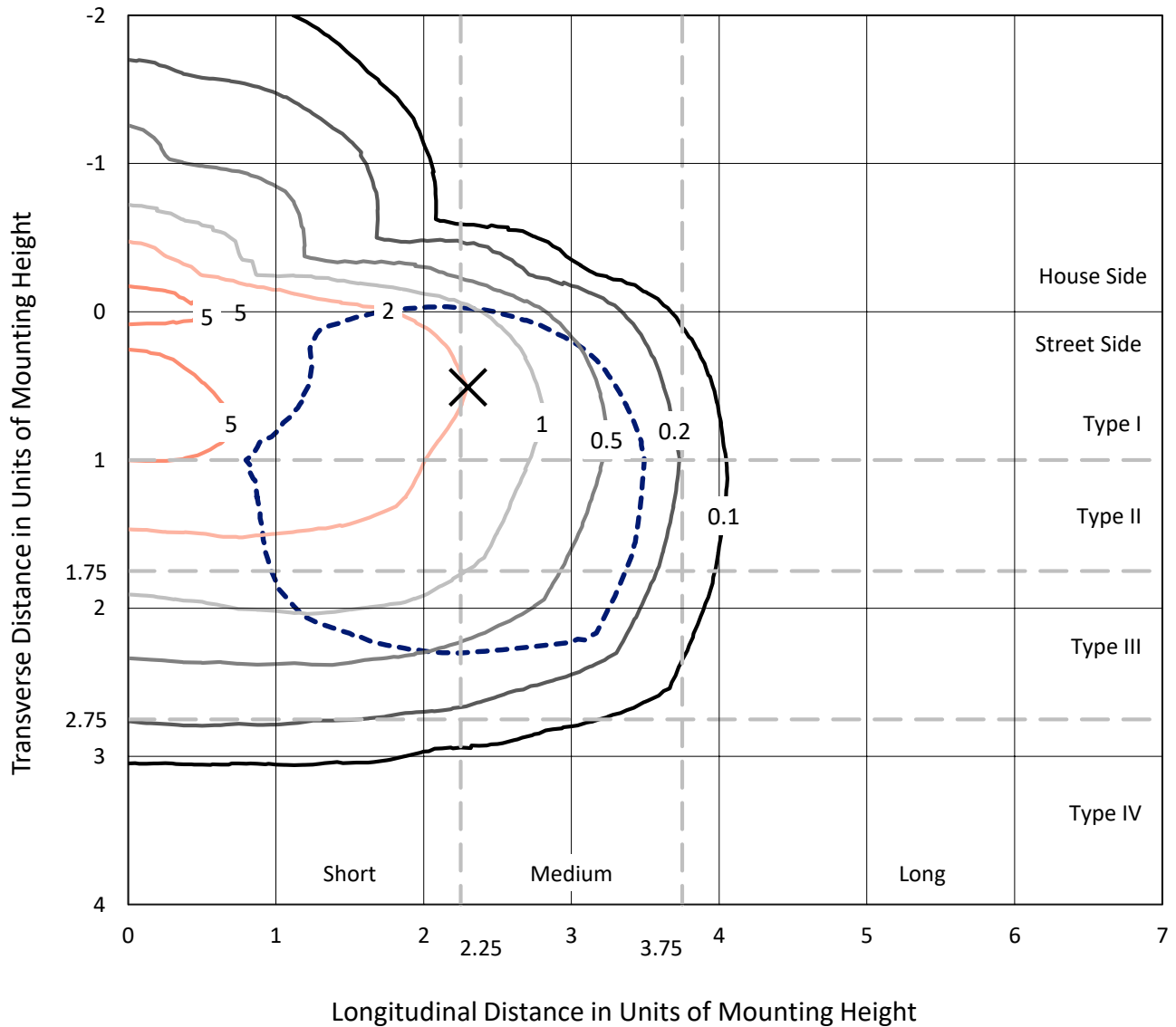


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### Iso-Footcandle Lines of Horizontal Illumination

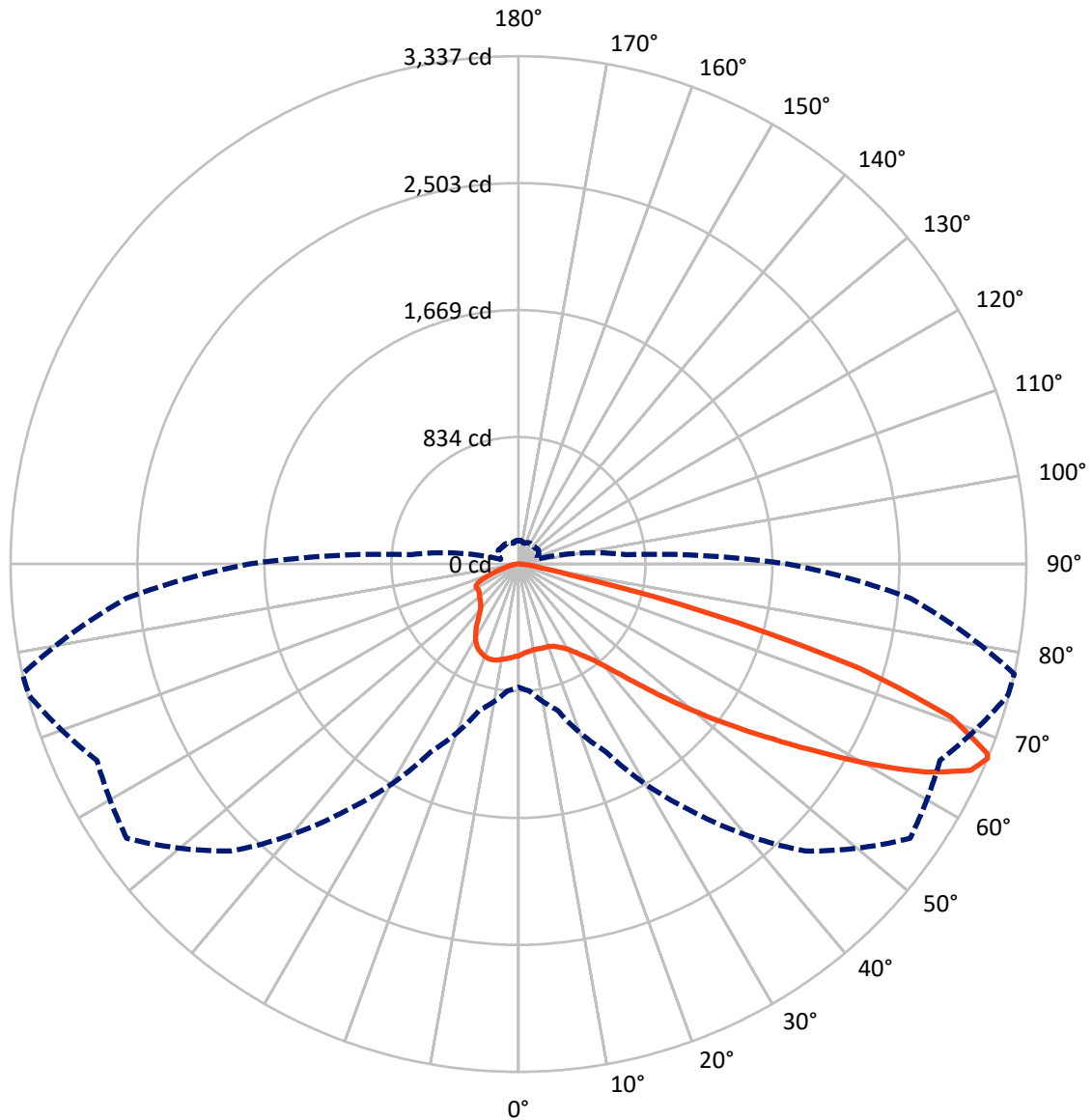
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.2 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	704.1	0.0	704.1
	% Fixture	17.2	0.0	17.2
<b>Street Side</b>	Lumens	3392.9	0.0	3392.9
	% Fixture	82.8	0.0	82.8
<b>Total</b>	Lumens	4097.0	0.0	4097.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.7	1.3
10°-20°	148.7	3.6
20°-30°	252.7	6.2
30°-40°	404.3	9.9
40°-50°	622.4	15.2
50°-60°	863.5	21.1
60°-70°	1151.8	28.1
70°-80°	548.1	13.4
80°-90°	51.9	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°	4097.0	100.0
0°-180°	4097.0	100.0



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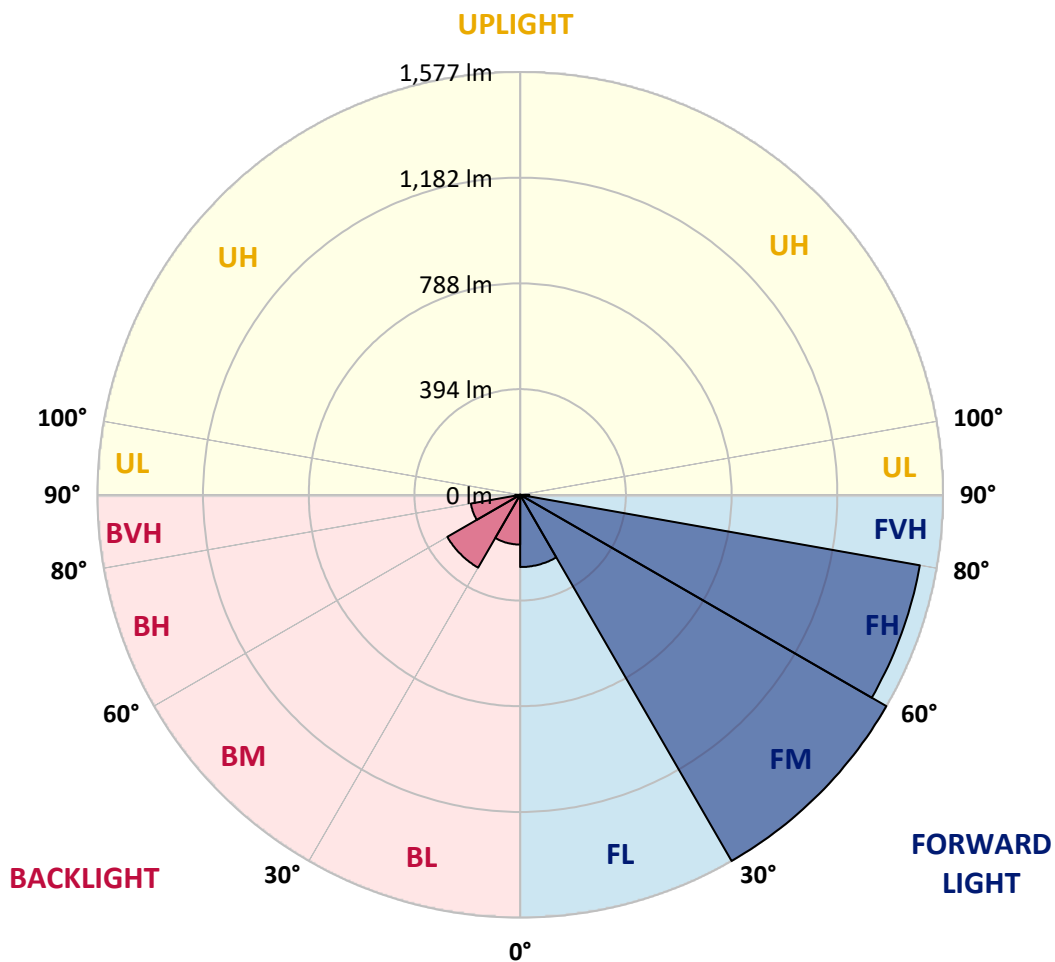
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	269.4	6.6			
FM	(30°-60°)	1576.6	38.5			
FH	(60°-80°)	1513.2	36.9			G1/1800
FVH	(80°-90°)	33.7	0.8			G1/100
BL	(0°-30°)	185.7	4.5	B1/500		
BM	(30°-60°)	313.5	7.7	B1/1000		
BH	(60°-80°)	186.7	4.6	B1/500		G1/500
BVH	(80°-90°)	18.2	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-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
2.5°	540.7	543.2	543.5	550.8	554.1	562.5	571.6	579.7	586.8	589.3	593.9
5°	486.5	486.5	487.2	492.1	501.4	514.8	533.8	554.6	576.4	581.7	595.1
7.5°	458.1	458.6	459.1	463.9	471.3	483.2	502.2	530.5	566.8	575.6	599.2
10°	460.6	459.9	457.4	456.3	459.4	467.0	483.4	512.6	558.7	572.3	606.5
12.5°	500.4	498.9	490.5	478.4	467.2	464.4	475.8	503.4	554.9	572.3	618.9
15°	568.5	569.5	553.1	527.8	498.6	478.9	477.4	500.2	553.6	573.8	633.4
17.5°	657.2	657.7	634.9	598.2	549.8	509.0	487.7	500.2	553.6	575.4	647.3
20°	751.4	747.8	722.0	675.9	613.1	550.8	506.7	503.2	555.1	577.6	660.5
22.5°	832.2	828.9	801.8	753.4	681.5	600.2	532.3	513.3	563.5	587.0	678.9
25°	902.8	904.8	878.5	824.1	749.6	655.9	570.6	536.6	580.9	604.0	701.7
27.5°	988.7	984.9	954.5	902.6	819.7	713.6	618.4	566.0	601.7	624.5	729.6
30°	1087.9	1086.2	1045.1	991.7	897.0	778.2	665.8	597.7	628.8	652.6	764.5
32.5°	1208.5	1208.2	1164.2	1098.6	983.8	851.1	721.7	641.0	668.3	692.4	810.9
35°	1345.0	1344.7	1299.1	1212.5	1083.9	931.9	787.6	693.6	717.2	742.5	866.1
37.5°	1439.7	1438.2	1414.4	1330.3	1194.5	1025.9	869.9	764.5	772.6	801.0	932.7
40°	1457.9	1467.0	1487.5	1437.9	1315.3	1130.2	952.4	840.8	848.4	884.8	1016.5
42.5°	1438.2	1450.1	1518.2	1532.1	1436.1	1256.6	1055.8	946.4	956.0	1001.3	1115.0
45°	1420.9	1431.3	1516.7	1584.3	1555.4	1394.4	1184.7	1075.3	1093.5	1149.7	1227.5
47.5°	1391.6	1401.2	1486.8	1593.7	1623.5	1527.1	1339.9	1230.3	1261.7	1329.8	1355.6
50°	1390.0	1394.4	1446.0	1562.3	1647.1	1627.8	1511.9	1411.6	1459.7	1538.2	1497.4
52.5°	1351.6	1381.7	1428.5	1512.1	1647.6	1686.6	1681.3	1610.4	1684.6	1771.4	1652.9
55°	1116.0	1150.7	1370.3	1487.5	1644.6	1737.0	1836.0	1821.8	1937.8	2029.2	1827.1
57.5°	1042.1	1056.8	1202.1	1494.9	1669.9	1820.3	1990.7	2049.0	2227.5	2327.3	2036.1
60°	1021.8	1037.3	1168.5	1498.4	1738.5	1972.0	2200.7	2305.5	2568.1	2674.0	2273.4
62.5°	999.3	1019.3	1171.0	1501.7	1859.1	2196.4	2479.2	2583.8	2917.9	3012.3	2495.7
65°	933.5	960.0	1124.1	1481.0	1991.0	2478.0	2847.5	2874.1	3206.8	3266.8	2629.9
67°	808.6	837.7	995.5	1360.9	1978.8	2667.7	3142.0	3055.6	3329.6	3337.0	2586.4
67.5°	769.1	799.2	951.9	1311.0	1944.1	2692.5	3194.1	3080.7	3328.6	3320.5	2545.8
70°	517.9	551.8	674.1	962.6	1559.5	2505.8	3181.5	3003.5	3110.3	3017.4	2187.3
72.5°	257.0	258.1	336.3	527.3	944.8	1797.3	2654.0	2569.4	2521.3	2345.8	1605.1
75°	123.8	126.1	158.8	233.0	398.4	927.9	1809.9	1733.7	1476.2	1278.1	803.3
77.5°	94.5	96.7	123.3	151.7	166.1	302.6	896.5	724.5	427.7	341.6	226.4
80°	72.9	77.2	104.1	116.5	109.9	121.3	281.9	221.8	166.4	152.7	112.2
82.5°	57.0	59.5	88.4	88.4	76.0	81.3	131.2	128.1	103.3	93.2	60.3
85°	40.3	45.3	71.2	65.8	49.9	50.4	78.5	75.2	53.2	42.8	23.6
87.5°	18.0	23.0	50.6	43.1	26.6	20.5	32.2	27.6	21.0	16.2	10.9
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°	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
2.5°	598.9	603.0	609.3	613.1	618.2	620.2	622.2	625.8	628.5	627.8	626.5
5°	604.5	611.3	619.2	621.7	621.7	619.2	617.7	617.9	617.2	616.6	615.1
7.5°	612.6	622.0	627.5	625.0	617.2	607.3	597.9	592.3	587.0	583.7	584.7
10°	624.0	634.4	634.6	623.5	604.7	583.2	564.7	552.8	541.4	536.4	537.9
12.5°	640.5	650.8	642.0	617.9	585.0	551.3	517.4	492.8	470.8	465.5	463.9
15°	658.2	666.3	646.5	606.0	556.6	501.2	444.2	407.5	382.9	378.6	377.1
17.5°	673.6	678.2	644.2	584.7	511.8	424.4	358.1	333.3	328.2	330.7	330.7
20°	687.3	685.8	634.4	551.8	441.1	339.3	300.9	300.6	307.4	313.8	314.3
22.5°	704.5	692.6	618.7	502.9	356.8	283.1	276.5	283.1	290.7	297.8	298.6
25°	725.0	700.2	597.7	433.3	286.9	257.0	259.8	265.4	270.2	275.8	276.0
27.5°	745.5	706.0	568.0	351.5	248.9	240.3	243.4	245.6	246.9	250.5	250.5
30°	769.4	710.6	525.2	281.6	231.5	225.6	223.9	222.9	223.9	228.7	228.9
32.5°	799.2	718.7	466.7	241.6	223.4	215.3	206.1	201.1	204.6	213.2	214.7
35°	833.2	728.3	396.6	225.6	220.6	210.2	193.5	185.6	186.9	194.7	196.0
37.5°	875.7	740.7	327.4	221.8	223.4	209.7	187.7	176.5	170.9	171.2	170.9
40°	930.2	753.1	272.7	222.9	229.4	211.0	184.9	167.4	155.7	156.3	157.3
42.5°	987.1	761.2	238.0	225.9	236.8	212.7	183.9	158.5	148.4	157.0	164.9
45°	1053.7	759.0	220.1	228.7	242.4	213.5	180.1	157.5	149.2	175.0	189.7
47.5°	1130.2	749.1	209.9	229.9	243.9	213.2	177.3	160.8	155.5	200.3	217.0
50°	1213.3	733.6	201.8	227.9	243.1	212.2	180.3	164.9	158.0	205.9	218.8
52.5°	1304.2	719.5	193.5	223.4	239.3	209.2	184.1	163.1	150.9	189.7	199.6
55°	1411.8	716.2	184.1	215.5	233.0	205.9	182.1	157.5	143.1	168.2	174.2
57.5°	1534.9	736.7	172.0	205.9	224.4	199.3	177.3	154.5	140.3	153.0	156.3
60°	1691.2	782.0	159.0	195.8	213.7	189.4	173.0	155.2	141.1	150.7	151.4
62.5°	1813.2	822.8	147.4	183.3	199.6	177.5	168.4	156.0	143.3	153.7	152.5
65°	1857.5	802.8	133.0	164.9	179.5	164.4	162.1	156.5	143.3	155.5	152.7
67°	1766.6	707.3	119.3	146.4	160.6	152.7	156.0	154.5	140.8	155.2	150.4
67.5°	1723.3	673.6	115.7	143.3	155.5	149.2	154.5	153.5	140.0	154.7	149.2
70°	1421.2	483.2	97.8	120.3	130.2	131.4	145.1	146.9	134.0	145.4	135.2
72.5°	1011.2	302.4	84.3	93.2	105.1	112.4	132.4	138.0	125.9	126.4	118.0
75°	500.4	162.3	75.2	71.9	81.8	93.7	115.5	125.9	114.0	105.3	102.6
77.5°	168.9	91.9	63.6	58.0	63.6	75.2	95.7	109.9	100.5	89.1	87.4
80°	87.4	66.9	49.6	46.6	50.1	58.2	75.0	91.4	85.8	86.4	71.2
82.5°	54.4	40.8	35.7	35.5	38.0	44.6	55.2	74.2	73.7	63.1	45.8
85°	25.3	23.6	22.8	23.6	24.3	25.3	36.0	52.9	56.0	33.9	30.1
87.5°	10.6	10.4	9.1	9.9	10.9	10.6	14.4	22.5	31.4	21.3	19.5
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)