

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: P270307

Luminaire Tested: **NAV-AF-01-D-UNV-T3-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270307  
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-T3-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4289.1 lumens  
Efficiency: N/A  
Efficacy: 97.5 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

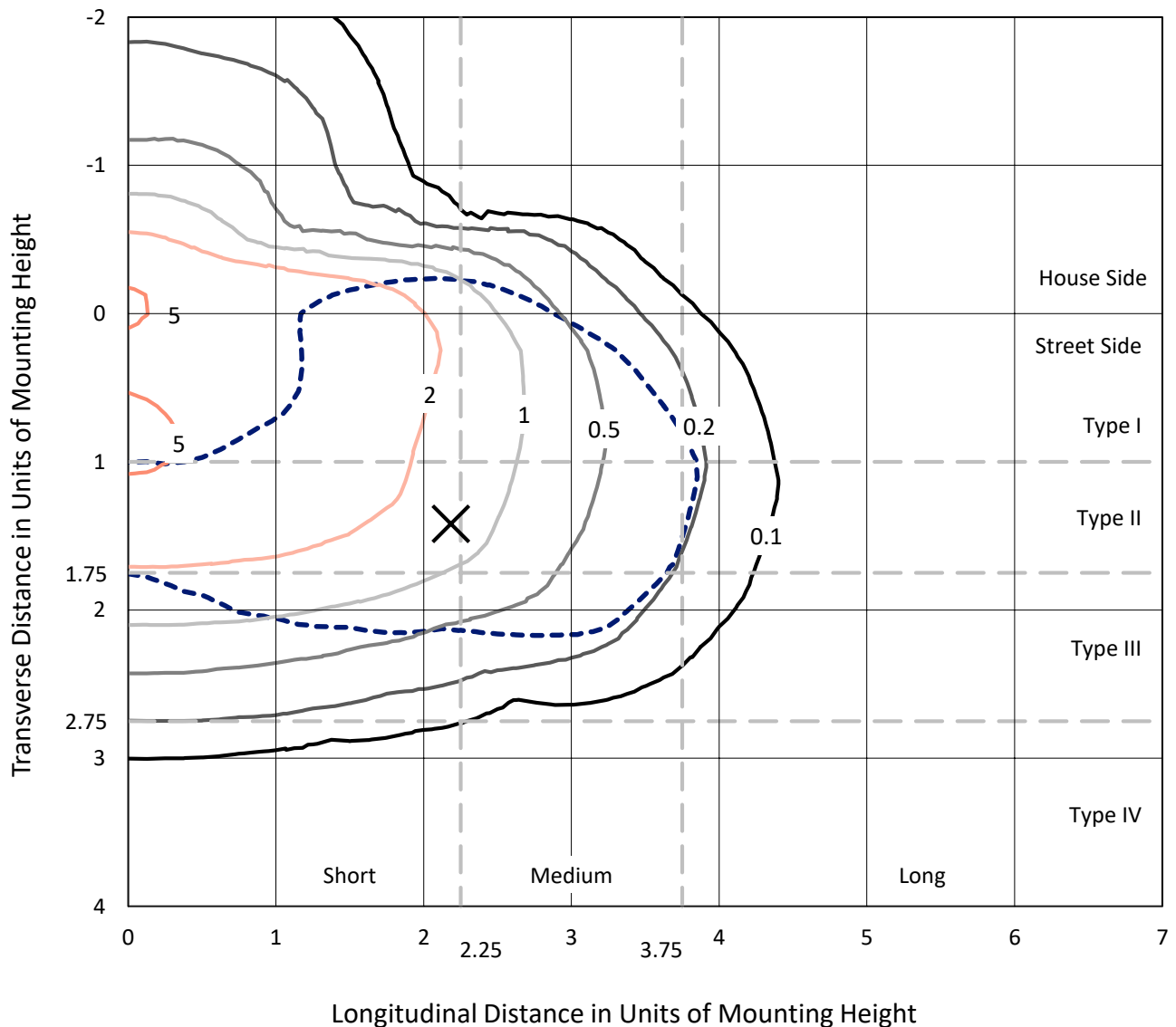
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

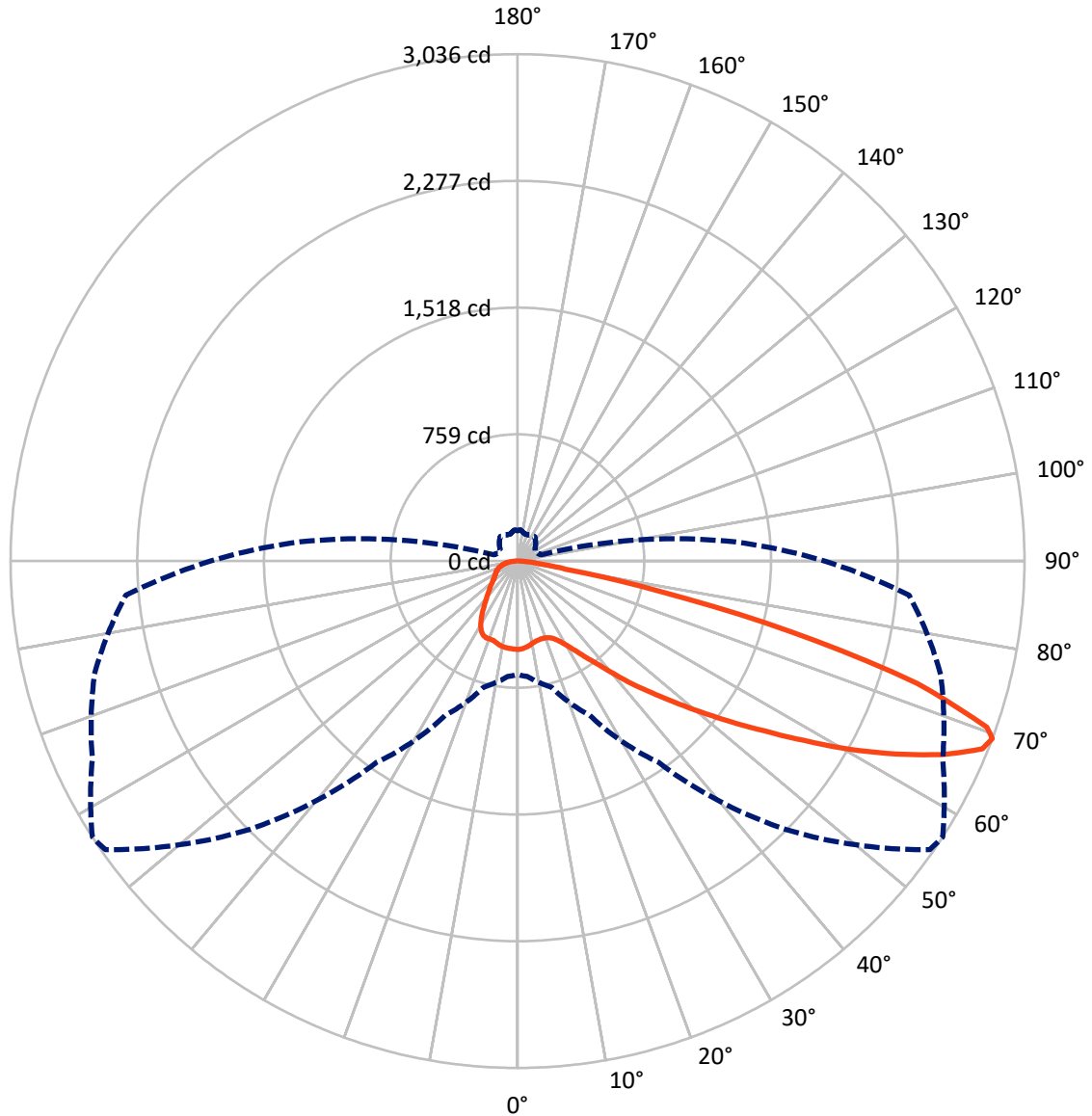
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 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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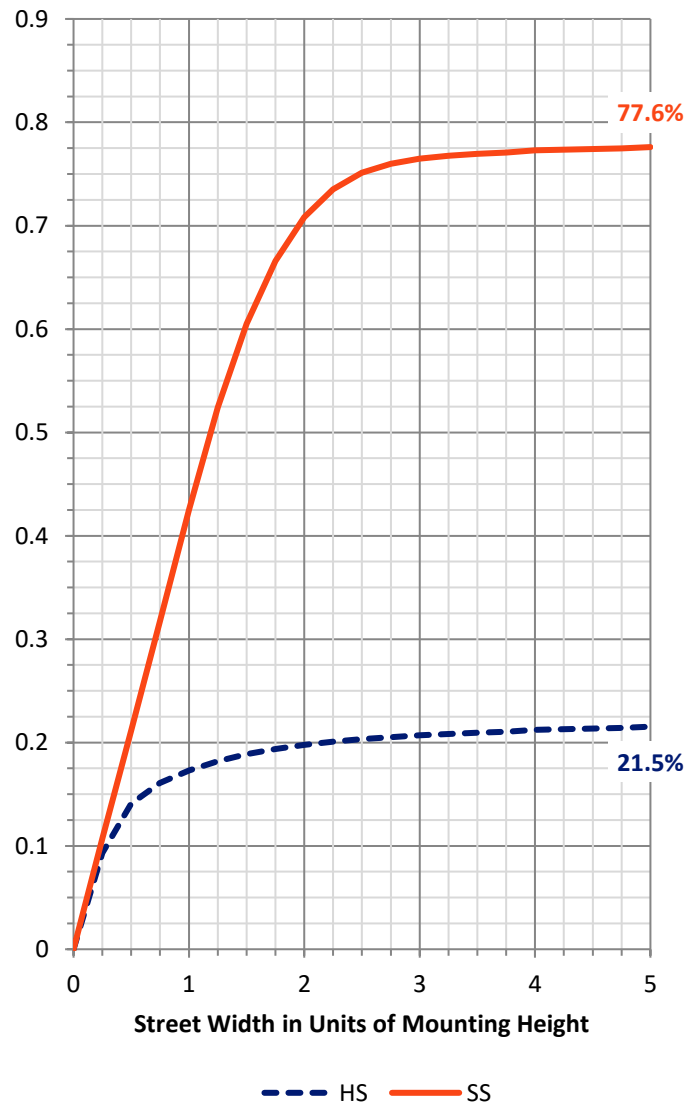
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	946.4	0.0	946.4
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	3342.6	0.0	3342.6
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	4289.1	0.0	4289.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.6	1.2
10°-20°	141.1	3.3
20°-30°	234.7	5.5
30°-40°	383.2	8.9
40°-50°	646.7	15.1
50°-60°	1006.0	23.5
60°-70°	1198.4	27.9
70°-80°	558.3	13.0
80°-90°	71.0	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°	4289.1	100.0
0°-180°	4289.1	100.0



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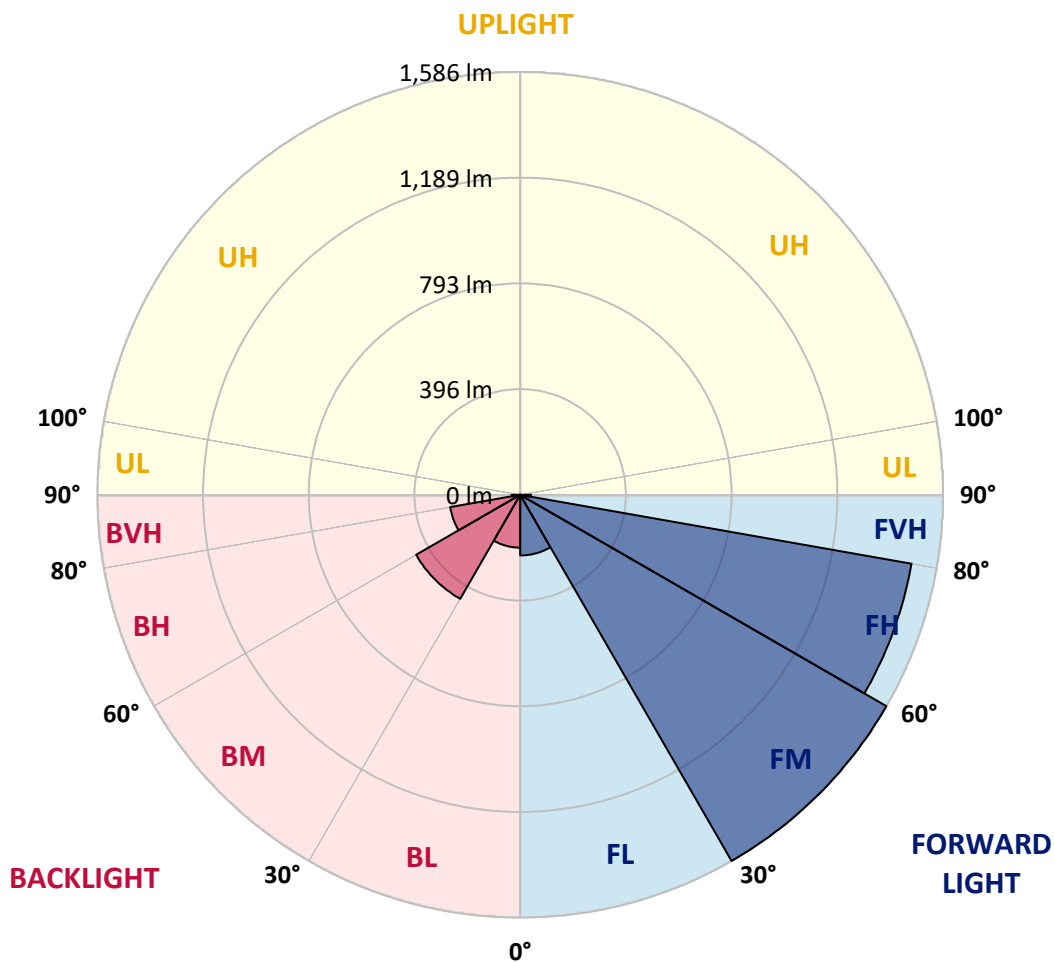
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	227.1	5.3			
FM	(30°-60°)	1585.5	37.0			
FH	(60°-80°)	1490.0	34.7			G1/1800
FVH	(80°-90°)	39.9	0.9			G1/100
BL	(0°-30°)	198.2	4.6	B1/500		
BM	(30°-60°)	450.4	10.5	B1/1000		
BH	(60°-80°)	266.7	6.2	B1/500		G1/500
BVH	(80°-90°)	31.1	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°	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0
2.5°	526.9	526.9	528.4	528.4	528.4	527.8	526.0	526.6	525.6	524.7	523.4
5°	516.3	516.7	518.4	519.0	519.8	520.1	520.1	519.8	520.1	520.1	519.2
7.5°	501.4	502.0	503.9	504.9	507.5	509.7	510.7	510.7	512.2	513.2	513.6
10°	492.4	492.4	493.3	493.3	495.3	496.5	500.0	499.7	503.6	507.2	508.8
12.5°	491.3	491.3	490.7	488.8	487.7	487.4	491.0	491.6	497.3	503.6	506.6
15°	494.7	494.7	493.2	489.3	485.3	483.3	486.8	488.0	494.2	501.7	506.4
17.5°	506.4	506.0	502.5	494.7	487.7	484.6	485.8	486.8	492.6	501.2	507.0
20°	531.8	531.8	524.3	510.1	497.8	490.7	489.0	489.8	494.0	502.0	509.3
22.5°	576.6	577.5	563.7	540.7	519.5	504.4	497.8	498.6	500.5	508.4	516.4
25°	642.6	640.3	620.9	588.2	555.2	529.5	515.9	516.7	516.7	523.9	532.4
27.5°	712.3	712.9	684.8	649.7	606.3	567.9	546.3	546.2	545.9	552.7	561.8
30°	791.0	791.3	759.0	718.4	668.6	619.6	587.3	587.0	584.5	593.2	604.9
32.5°	877.4	877.0	839.5	793.6	738.3	682.6	640.9	640.6	638.6	650.3	664.4
35°	972.9	972.9	935.6	878.9	819.3	757.4	709.0	708.8	709.8	725.6	738.9
37.5°	1087.8	1090.5	1045.4	976.6	911.6	845.5	789.3	787.5	779.3	805.6	827.9
40°	1208.0	1214.8	1168.1	1087.8	1017.6	949.2	887.2	886.1	878.9	907.0	943.0
42.5°	1337.8	1353.4	1301.6	1219.7	1143.2	1069.3	1006.9	1003.9	976.5	1020.0	1076.3
45°	1508.1	1518.1	1442.9	1368.8	1296.7	1212.4	1138.2	1122.0	1094.6	1150.5	1223.6
47.5°	1624.0	1618.9	1572.0	1522.3	1475.9	1395.2	1281.3	1260.6	1227.2	1301.3	1381.8
50°	1695.9	1699.5	1673.1	1670.6	1668.2	1611.7	1442.7	1418.0	1379.3	1467.1	1561.1
52.5°	1743.4	1727.3	1731.8	1787.8	1855.7	1828.8	1625.4	1597.8	1558.0	1645.9	1751.9
55°	1723.6	1702.2	1745.2	1855.7	2015.2	2021.2	1825.7	1797.5	1763.5	1835.9	1981.4
57.5°	1641.7	1652.5	1720.6	1874.0	2124.2	2193.8	2056.1	2027.3	1960.3	2033.9	2199.5
60°	1526.7	1548.4	1652.5	1844.9	2200.6	2328.0	2309.1	2289.8	2174.4	2226.7	2428.5
62.5°	1403.2	1424.5	1552.5	1795.3	2166.3	2446.9	2557.3	2545.4	2411.0	2412.3	2573.7
65°	1220.5	1229.3	1360.0	1659.6	2071.0	2554.2	2805.8	2795.3	2636.9	2570.7	2614.3
67.5°	921.8	932.8	1040.1	1310.1	1781.0	2496.0	3004.3	3002.7	2772.8	2629.5	2517.7
69°	680.6	694.2	781.7	1017.2	1472.6	2274.1	3013.6	3035.8	2809.5	2623.4	2354.3
70°	498.1	513.6	594.5	807.2	1226.5	2029.2	2933.8	2981.5	2795.5	2585.2	2226.9
72.5°	211.7	216.9	256.7	364.4	622.3	1223.6	2403.0	2503.4	2524.9	2316.4	1739.7
75°	132.6	134.2	149.9	186.9	276.8	506.0	1556.1	1693.1	1885.1	1797.1	1164.8
77.5°	99.9	101.2	110.4	128.7	171.8	189.0	721.9	860.8	1079.8	1057.1	579.6
80°	76.6	77.4	83.5	93.7	121.1	118.3	234.2	294.4	450.6	397.6	205.2
82.5°	60.1	60.4	65.7	67.6	84.6	79.6	117.5	131.1	182.0	151.4	100.3
85°	53.3	54.1	59.3	49.4	54.1	48.1	64.5	70.0	96.7	91.2	37.9
87.5°	27.2	28.6	49.6	42.3	27.2	22.7	28.2	30.5	39.3	42.6	18.3
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°	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0	530.0
2.5°	523.6	523.9	524.7	526.0	528.4	531.1	534.3	537.6	539.5	540.9	540.4
5°	519.2	519.5	521.1	523.6	526.3	530.4	536.0	540.2	543.1	545.0	544.8
7.5°	513.7	514.5	517.9	520.6	524.5	527.8	532.2	536.0	539.1	540.9	540.7
10°	509.7	510.4	514.5	518.1	521.5	521.9	521.1	520.1	519.8	521.1	520.6
12.5°	507.7	509.3	513.2	515.6	514.3	509.1	503.1	500.5	499.7	502.5	502.8
15°	508.4	509.7	512.9	511.2	503.9	495.1	491.8	493.7	495.3	497.0	497.3
17.5°	509.7	510.4	511.2	505.2	494.7	489.0	488.0	486.1	481.1	478.3	478.1
20°	512.2	513.2	511.9	502.2	492.9	485.3	472.0	460.2	449.0	443.0	440.4
22.5°	520.6	521.5	517.3	508.0	493.7	468.7	442.1	421.8	404.4	395.2	391.7
25°	537.4	538.8	533.0	521.1	483.8	440.2	402.5	375.1	353.5	342.2	339.1
27.5°	566.7	568.1	561.8	531.1	460.8	402.0	356.4	329.1	310.5	300.9	299.6
30°	610.7	612.6	606.9	530.8	425.5	353.5	311.4	295.5	284.8	278.1	277.8
32.5°	671.7	678.8	655.1	521.5	382.1	304.3	277.3	271.8	266.6	262.2	262.2
35°	749.0	765.9	703.0	502.0	334.4	270.7	258.4	253.1	246.6	242.0	241.4
37.5°	841.6	867.8	737.0	467.4	293.2	254.5	246.9	238.3	227.9	218.8	216.6
40°	968.7	974.8	753.8	411.1	262.6	245.7	236.2	225.5	212.3	202.1	201.0
42.5°	1096.4	1076.7	750.4	350.7	245.0	237.8	225.1	213.3	201.6	193.0	193.0
45°	1241.6	1165.6	725.6	290.0	229.0	228.7	215.1	203.7	194.8	188.4	186.9
47.5°	1380.7	1245.5	682.4	245.1	212.4	219.6	208.3	199.3	191.1	185.1	184.0
50°	1549.2	1338.0	636.4	213.8	196.5	211.7	205.6	201.0	193.0	182.5	181.5
52.5°	1716.8	1446.2	601.1	190.4	182.5	205.4	207.2	207.9	200.4	180.1	178.8
55°	1896.6	1561.9	563.7	171.8	171.0	202.4	211.1	210.7	207.0	180.6	178.6
57.5°	2067.7	1678.0	508.0	159.0	162.1	199.3	212.0	203.1	196.9	183.4	179.8
60°	2209.3	1774.2	426.2	149.9	154.2	193.3	206.5	193.3	182.5	182.8	179.7
62.5°	2278.3	1801.0	325.9	139.4	148.0	183.4	198.5	185.9	176.0	184.0	182.0
65°	2225.8	1724.4	232.3	129.8	140.3	171.8	193.9	179.7	172.7	189.5	187.2
67.5°	2037.4	1515.7	168.6	121.5	132.9	160.1	185.1	173.8	169.4	193.6	188.6
69°	1837.3	1308.7	146.1	116.4	127.6	153.8	179.3	170.8	166.9	187.8	180.6
70°	1670.8	1149.1	134.8	113.4	123.2	150.1	174.9	168.9	164.5	181.0	172.5
72.5°	1198.0	742.8	113.4	104.4	111.7	142.2	165.3	161.8	155.1	163.4	157.9
75°	723.9	387.7	96.4	95.0	99.7	131.2	154.1	149.7	143.1	143.9	141.2
77.5°	332.6	179.0	80.8	84.0	87.0	117.5	140.3	135.4	129.4	127.1	127.4
80°	145.9	104.7	67.6	71.7	73.3	105.7	125.6	120.1	113.4	125.3	116.2
82.5°	78.8	60.6	52.7	55.4	60.1	91.9	109.1	101.9	95.6	111.2	89.8
85°	31.9	31.0	35.8	38.4	41.7	66.1	91.2	83.7	76.0	68.1	66.5
87.5°	13.7	14.8	17.5	18.7	22.3	41.2	61.3	53.5	53.8	46.2	45.4
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)