

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: P197065

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-8030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197065  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)  
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-SL3-8030-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2788 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 34  
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

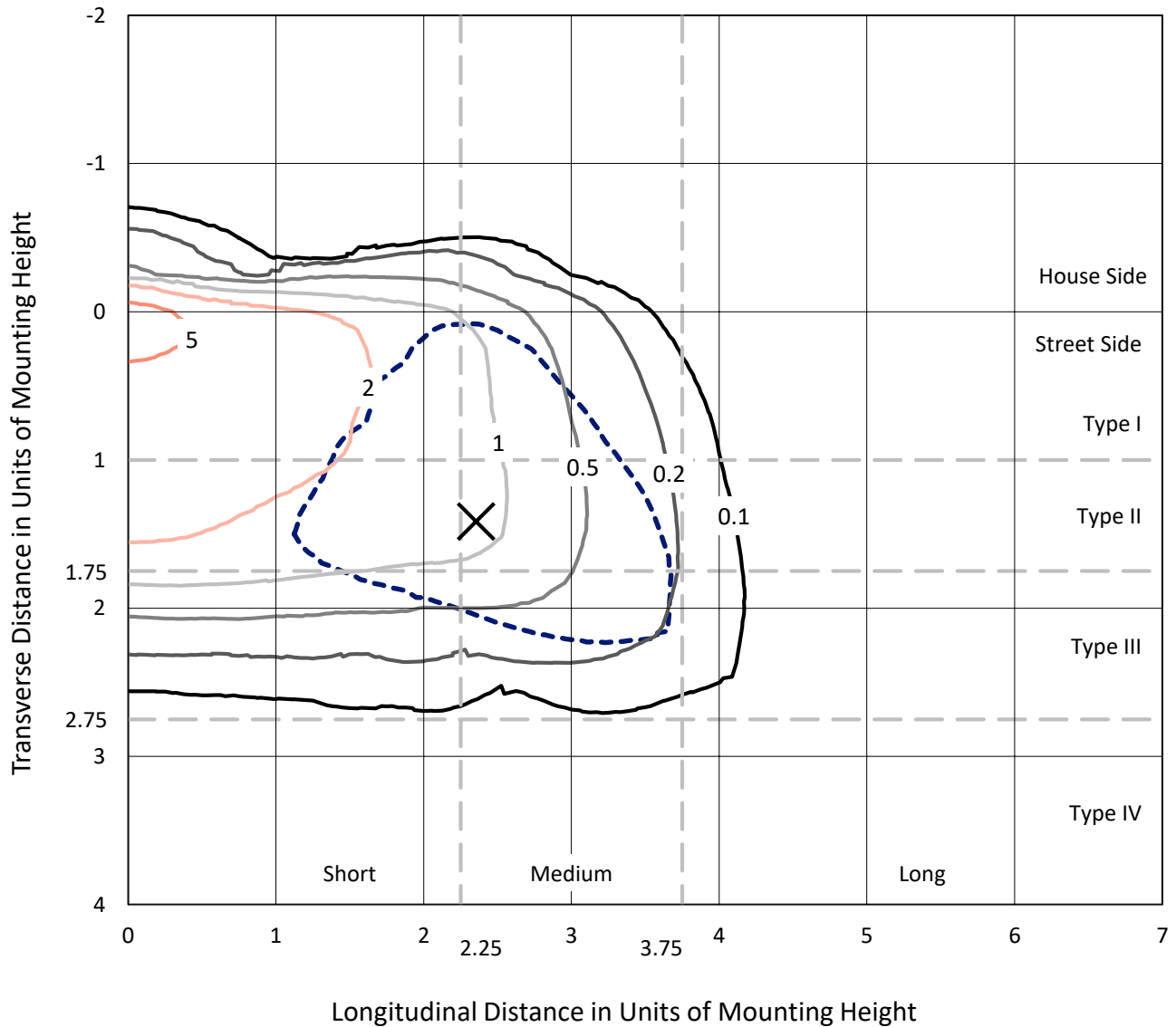


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### Iso-Footcandle Lines of Horizontal Illumination

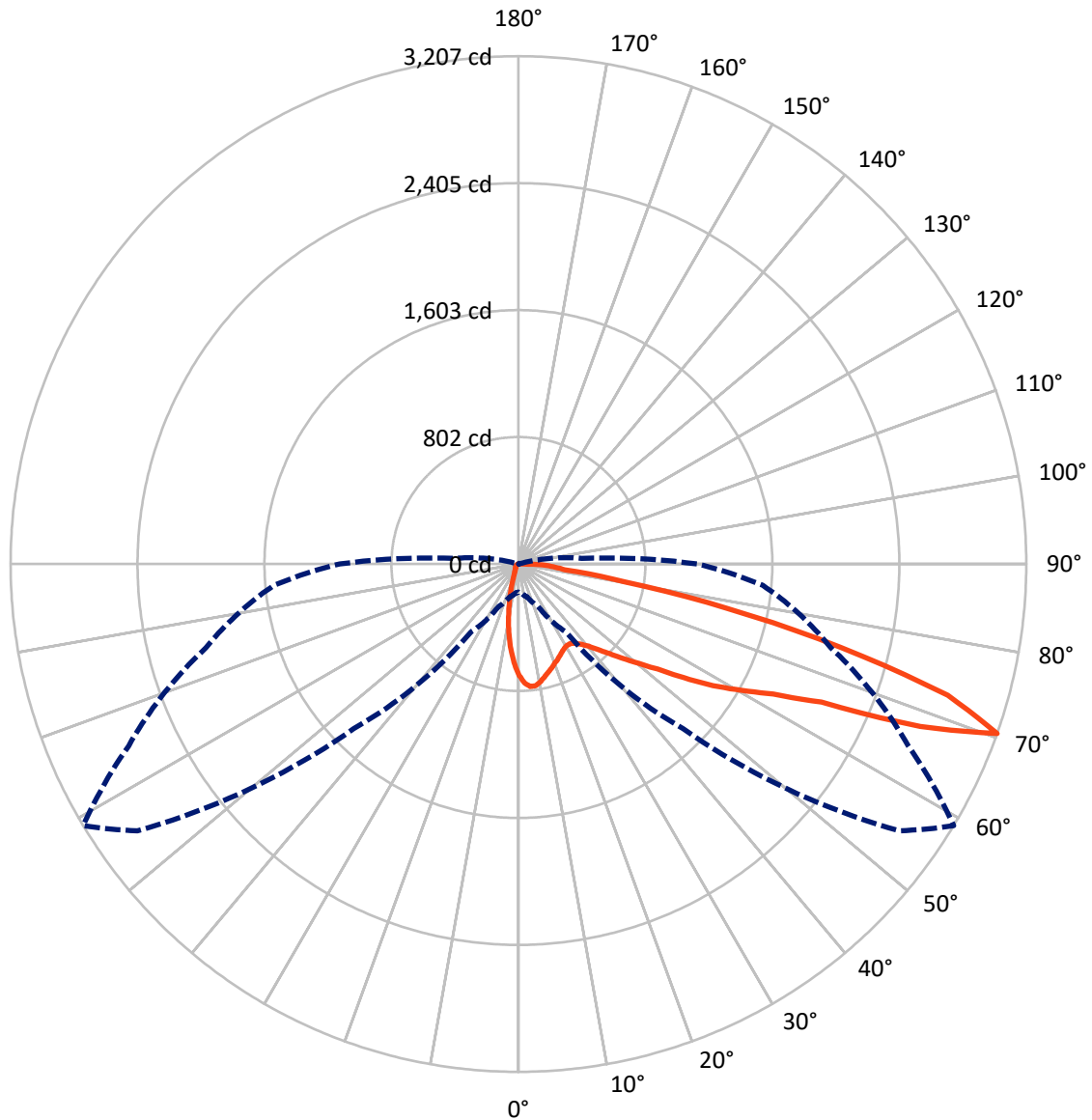
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.5 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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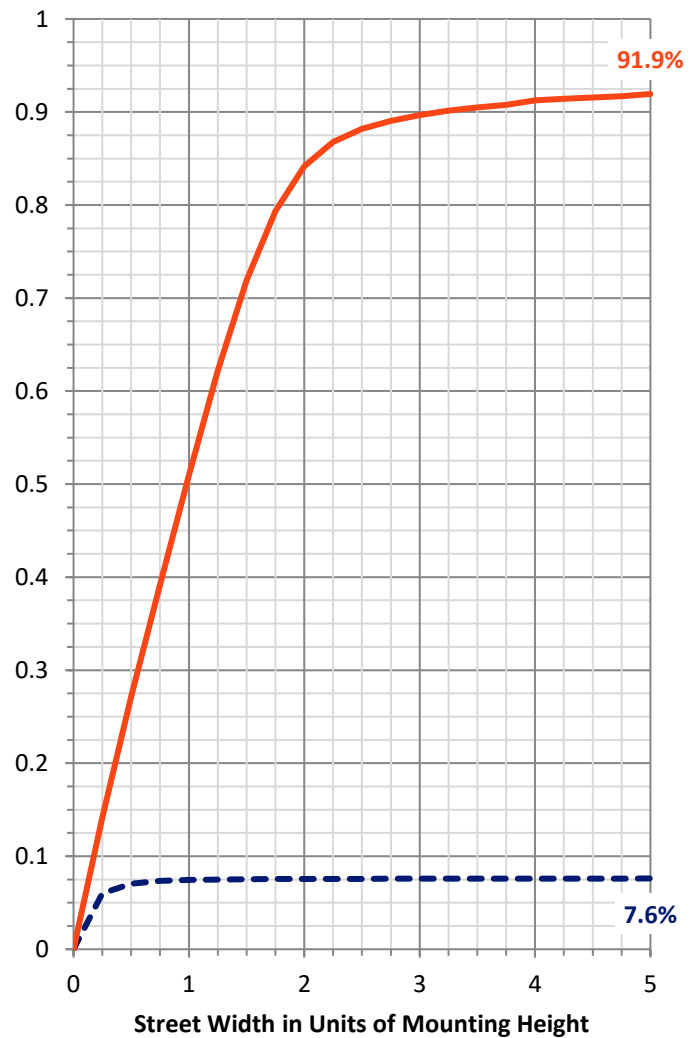
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	214.3	0.0	214.3
	% Fixture	7.7	0.0	7.7
<b>Street Side</b>	Lumens	2573.7	0.0	2573.7
	% Fixture	92.3	0.0	92.3
<b>Total</b>	Lumens	2788.0	0.0	2788.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.0	2.1
10°-20°	121.6	4.4
20°-30°	164.6	5.9
30°-40°	237.5	8.5
40°-50°	394.5	14.1
50°-60°	603.4	21.6
60°-70°	750.5	26.9
70°-80°	414.9	14.9
80°-90°	43.0	1.5
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°	2788.0	100.0
0°-180°	2788.0	100.0



--- HS    — SS

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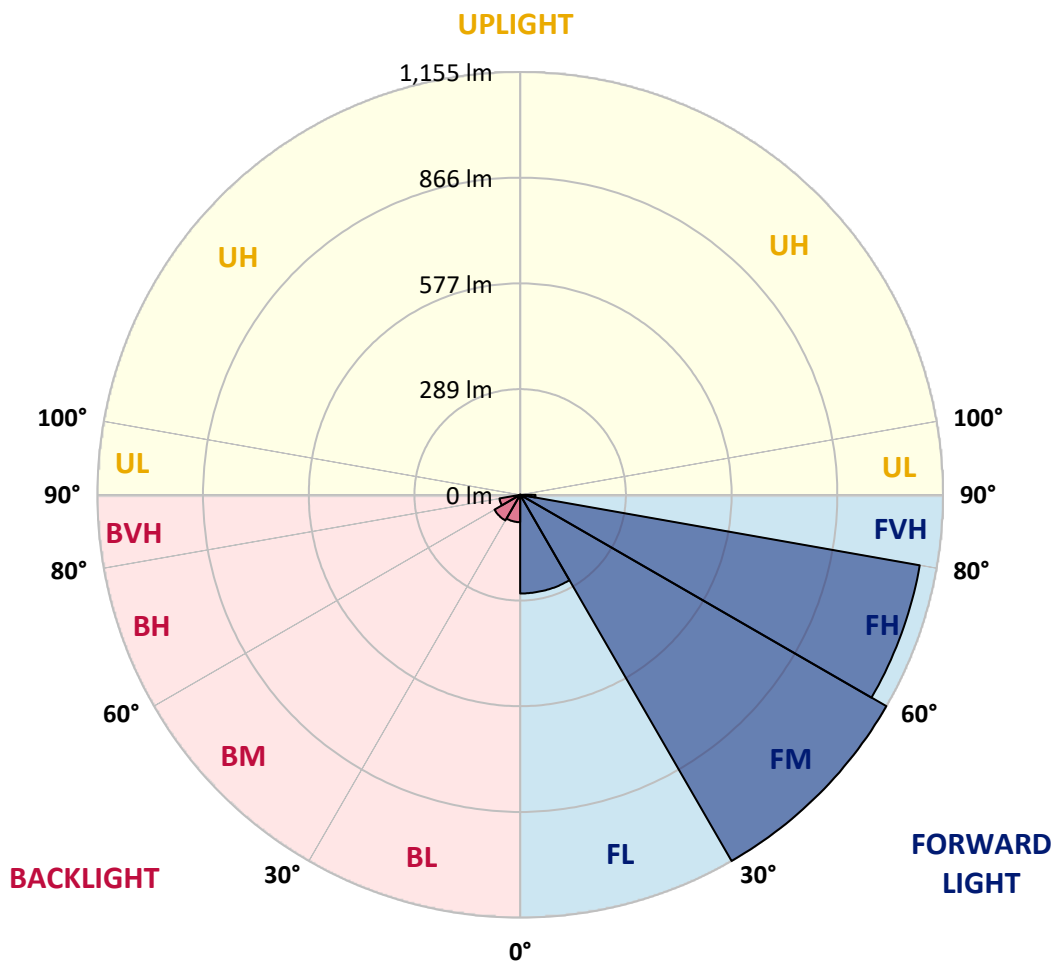
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	269.5	9.7			
FM	(30°-60°)	1154.5	41.4			
FH	(60°-80°)	1107.9	39.7			G1/1800
FVH	(80°-90°)	41.8	1.5			G1/100
BL	(0°-30°)	74.7	2.7	B0/110		
BM	(30°-60°)	80.9	2.9	B0/220		
BH	(60°-80°)	57.5	2.1	B0/110		G0/110
BVH	(80°-90°)	1.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
2.5°	796.9	795.6	790.4	789.3	783.4	771.7	758.0	752.5	741.4	723.7	704.1
5°	810.1	810.8	811.2	808.9	808.0	798.4	783.2	776.7	761.8	732.7	697.0
7.5°	760.5	762.2	767.4	769.8	779.9	783.6	780.5	776.3	764.5	730.2	680.0
10°	708.1	711.3	717.0	720.8	733.2	743.3	756.1	757.1	754.6	721.8	660.8
12.5°	663.1	666.1	672.4	680.0	692.6	705.6	724.8	731.5	739.9	716.3	647.1
15°	624.4	625.3	631.4	640.8	657.5	675.3	698.0	707.9	724.3	714.2	636.6
17.5°	590.6	590.8	594.8	603.4	623.6	647.1	673.6	686.7	707.5	711.3	627.4
20°	568.3	568.1	568.3	572.9	590.8	618.8	650.9	664.6	691.3	707.7	617.9
22.5°	560.7	559.7	554.8	553.1	564.5	589.1	627.6	645.5	676.8	706.7	611.0
25°	570.0	569.3	559.0	549.3	550.4	565.8	603.8	625.7	665.4	710.5	609.3
27.5°	599.8	598.6	582.8	563.9	551.9	554.6	586.2	609.1	656.4	719.7	611.6
30°	638.9	639.2	622.3	599.4	571.2	555.7	576.7	598.4	650.3	733.6	616.7
32.5°	682.5	682.3	670.3	643.8	607.8	575.0	580.9	599.2	651.1	754.0	626.3
35°	727.5	725.2	721.2	697.8	655.8	608.9	600.0	613.5	660.0	780.9	642.7
37.5°	779.4	778.6	782.6	758.0	715.1	658.7	633.7	642.7	682.3	820.7	669.2
40°	862.1	857.5	859.4	825.9	782.0	725.8	680.8	683.1	717.8	873.2	711.1
42.5°	1019.6	1000.9	965.8	903.1	855.6	800.3	742.4	738.4	768.1	937.0	766.2
45°	1207.9	1186.4	1097.9	988.3	929.2	880.2	818.6	807.8	829.9	1012.9	837.3
47.5°	1365.0	1341.8	1224.5	1077.2	1004.1	962.6	902.9	890.3	903.9	1101.0	922.7
50°	1418.6	1405.8	1302.7	1151.3	1079.6	1055.2	1008.7	987.7	991.0	1196.1	1022.4
52.5°	1394.0	1389.6	1320.6	1202.0	1149.4	1157.4	1124.6	1102.5	1098.7	1300.0	1132.6
55°	1342.0	1339.9	1306.3	1230.1	1211.0	1251.0	1287.1	1268.0	1232.3	1410.4	1223.6
57.5°	1267.8	1275.8	1300.0	1284.4	1286.7	1349.8	1438.2	1448.0	1394.6	1498.3	1291.1
60°	1069.5	1090.9	1201.8	1342.7	1450.6	1514.3	1599.9	1618.4	1532.2	1558.5	1369.2
62.5°	790.6	821.3	979.2	1238.1	1540.8	1827.0	1815.0	1806.8	1663.4	1639.0	1511.1
65°	464.4	500.3	633.9	967.5	1404.7	2028.1	2216.7	2103.2	1863.4	1806.4	1737.2
67.5°	231.3	231.6	291.9	510.7	1038.1	1887.8	2803.1	2737.5	2288.7	2053.1	1826.4
70°	177.9	182.8	216.0	296.8	525.0	1470.3	2937.5	3206.9	2716.0	2042.2	1549.6
72.5°	150.8	154.0	192.2	258.3	392.5	807.2	2543.0	2834.7	2591.7	1725.4	1142.2
75°	108.5	111.0	170.1	234.3	361.3	400.4	1744.4	2102.3	1944.6	1213.7	628.6
77.5°	26.9	26.7	59.3	190.1	323.3	333.6	1000.9	1348.1	1115.7	497.0	161.5
80°	12.0	11.6	13.5	40.0	300.8	314.8	440.2	680.8	428.0	80.6	49.4
82.5°	8.4	8.0	8.4	14.7	100.5	292.1	266.1	295.1	156.7	27.6	21.0
85°	2.7	2.5	4.6	12.4	28.2	168.5	259.5	220.4	116.5	11.8	14.1
87.5°	0.4	0.4	1.7	6.7	8.2	56.2	152.3	152.7	52.4	6.9	6.3
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°	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
2.5°	694.3	681.8	664.4	646.9	631.2	615.0	601.9	595.8	593.1	589.3	581.1
5°	678.3	655.8	617.5	579.8	544.7	511.1	482.3	465.9	448.2	447.3	438.7
7.5°	652.6	620.6	560.3	501.8	448.2	396.9	352.7	324.1	304.5	292.3	283.9
10°	624.0	583.0	503.1	420.8	347.9	279.3	222.5	185.5	163.0	151.6	145.1
12.5°	601.3	549.8	446.7	343.2	251.8	173.1	120.3	93.4	81.4	76.8	74.7
15°	581.7	519.3	393.9	273.8	168.0	99.5	69.6	60.8	58.9	58.9	58.7
17.5°	562.0	489.8	342.6	205.7	105.8	65.2	54.9	53.6	53.8	54.5	54.5
20°	543.3	461.9	293.2	146.6	69.4	52.2	49.8	49.4	50.1	50.9	50.7
22.5°	528.1	437.3	246.9	100.7	53.4	47.3	45.8	45.2	45.6	46.3	46.1
25°	517.4	416.2	204.4	70.2	46.5	43.1	41.4	40.6	40.2	40.6	40.4
27.5°	510.9	398.6	164.5	52.8	41.6	38.9	36.8	35.1	34.1	34.1	33.7
30°	506.7	381.9	128.9	43.7	37.6	34.7	31.8	29.4	27.8	27.3	27.1
32.5°	506.4	367.6	96.3	38.7	33.9	30.5	26.9	24.0	22.1	21.7	21.5
35°	511.7	356.1	70.9	34.9	30.5	26.5	22.5	19.3	17.7	17.7	17.5
37.5°	525.4	349.3	53.6	32.0	27.8	23.1	18.9	16.0	14.5	14.9	14.9
40°	550.8	348.1	43.7	29.7	25.4	20.2	15.4	13.0	12.4	13.0	13.0
42.5°	589.7	354.8	38.9	28.0	23.3	17.2	12.8	11.1	10.9	11.6	11.6
45°	640.4	368.1	36.2	26.5	21.0	14.3	10.7	9.7	9.5	10.3	10.3
47.5°	701.8	385.9	33.7	24.8	18.7	11.8	9.0	8.2	8.2	9.0	9.3
50°	774.6	410.1	31.1	23.1	16.8	9.9	7.6	6.9	7.2	8.0	8.2
52.5°	858.3	439.8	28.8	21.7	14.7	8.0	6.3	5.9	6.1	6.9	7.2
55°	930.4	465.6	26.1	20.2	12.0	6.5	5.3	5.0	5.3	6.3	6.3
57.5°	993.3	490.5	23.6	17.9	9.5	5.3	4.2	4.2	4.6	5.7	5.9
60°	1076.8	529.6	21.5	15.1	7.2	4.0	3.4	3.6	4.2	5.0	5.3
62.5°	1224.7	596.0	18.7	12.6	5.3	3.2	2.7	2.9	3.8	4.8	5.0
65°	1409.8	658.9	15.6	10.5	4.0	2.3	2.1	2.7	3.8	4.8	5.0
67.5°	1390.8	573.1	12.2	8.4	2.9	1.9	1.7	2.5	3.6	4.8	5.0
70°	1127.9	401.7	9.0	5.7	2.3	1.7	1.7	2.5	3.6	4.6	4.8
72.5°	782.4	223.6	6.9	3.8	2.1	1.7	1.5	2.3	3.4	4.6	4.8
75°	372.3	68.6	5.5	2.7	1.9	1.5	1.3	2.3	3.4	4.6	4.8
77.5°	71.5	17.5	4.4	2.3	1.7	1.5	1.3	2.1	3.4	4.4	4.6
80°	24.2	7.8	3.6	2.1	1.7	1.5	1.3	2.1	3.2	4.2	4.4
82.5°	13.3	4.4	3.2	1.9	1.7	1.3	1.1	1.9	2.9	4.2	4.4
85°	10.3	3.2	2.5	1.9	1.7	1.3	1.1	1.9	2.9	4.0	4.2
87.5°	5.3	2.3	2.1	1.9	1.7	1.3	1.1	1.7	2.7	3.8	4.2
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)