

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: P195577

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7050-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195577  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
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-SL2-7050-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3283 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-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

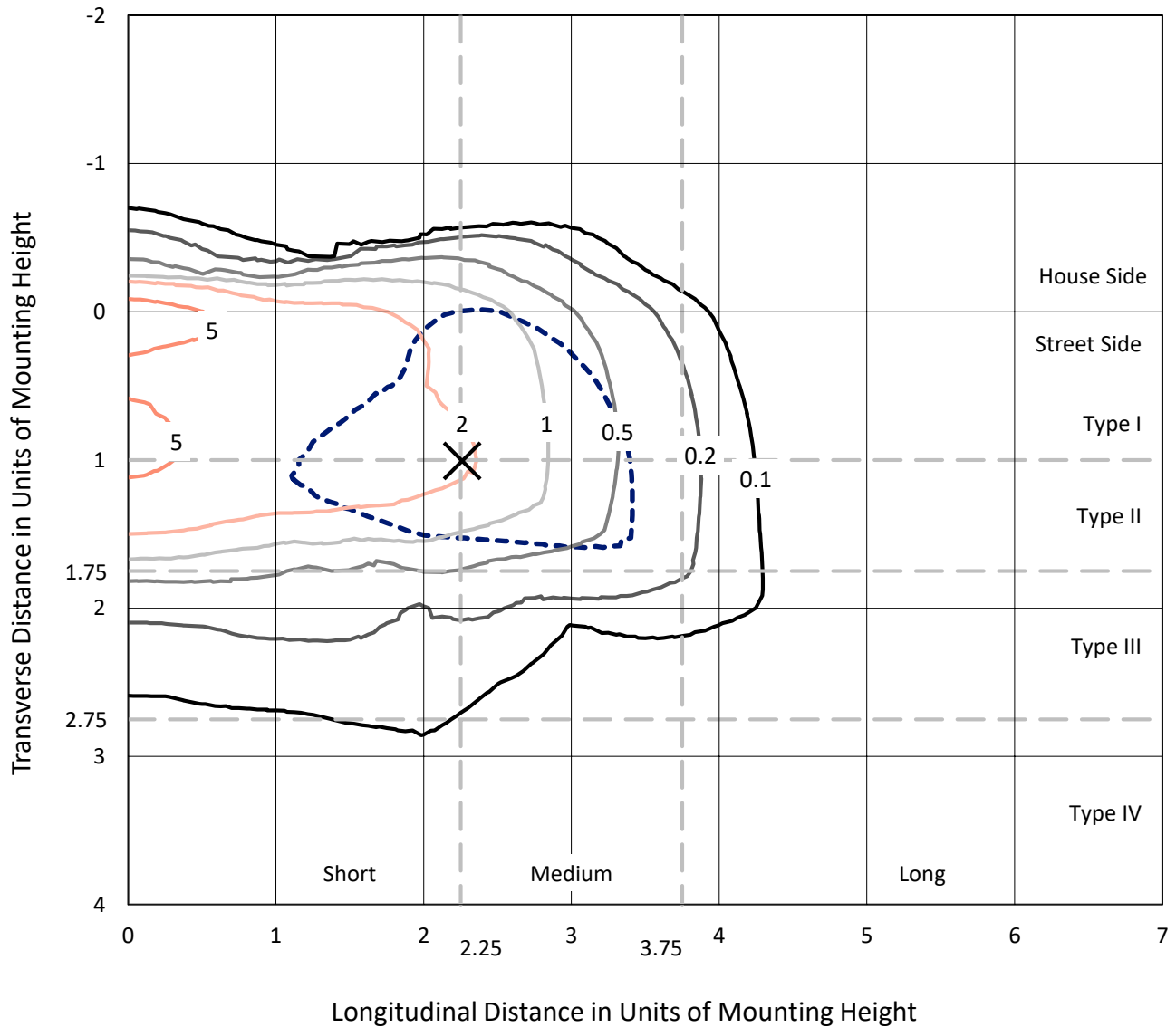


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

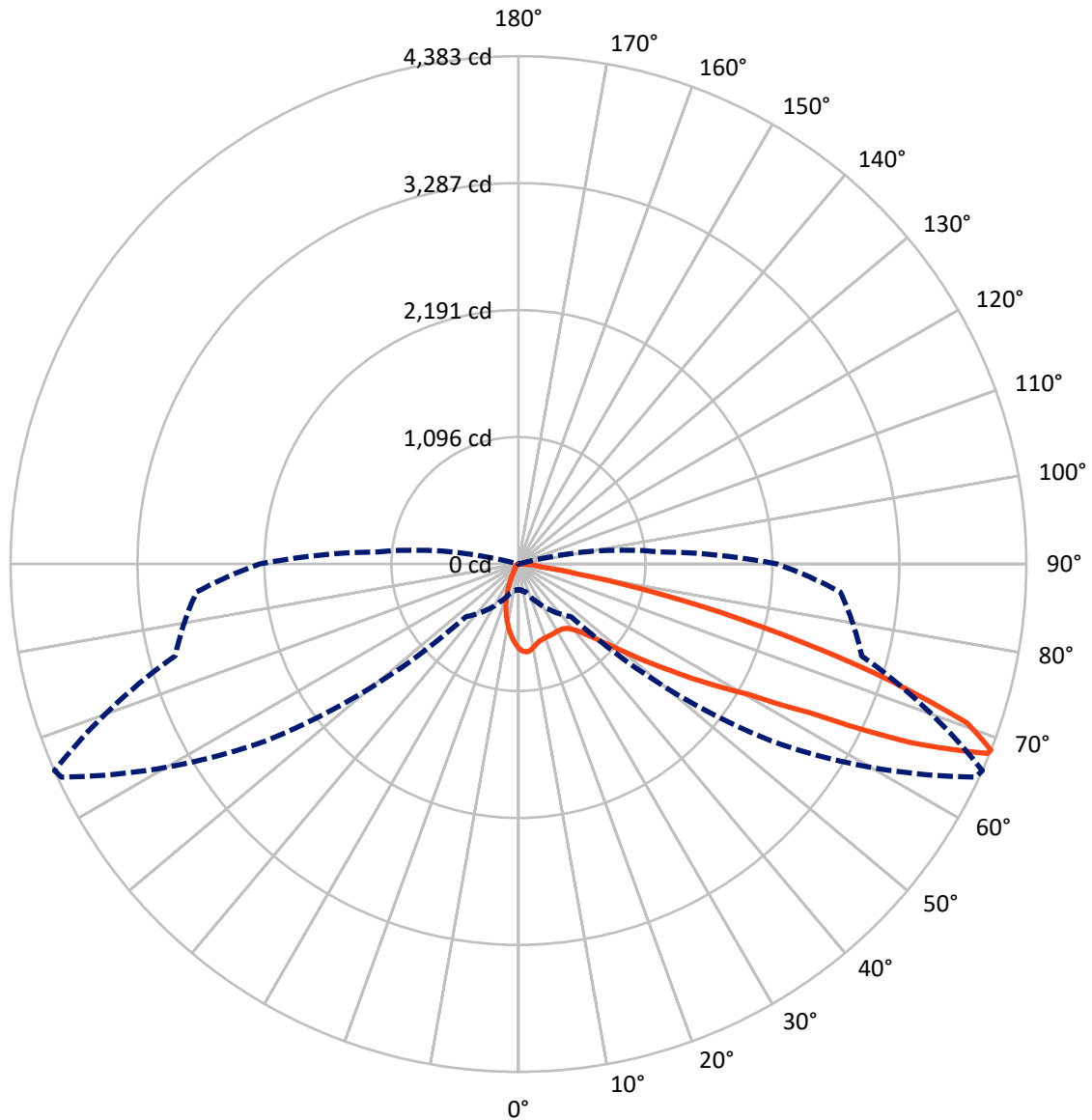


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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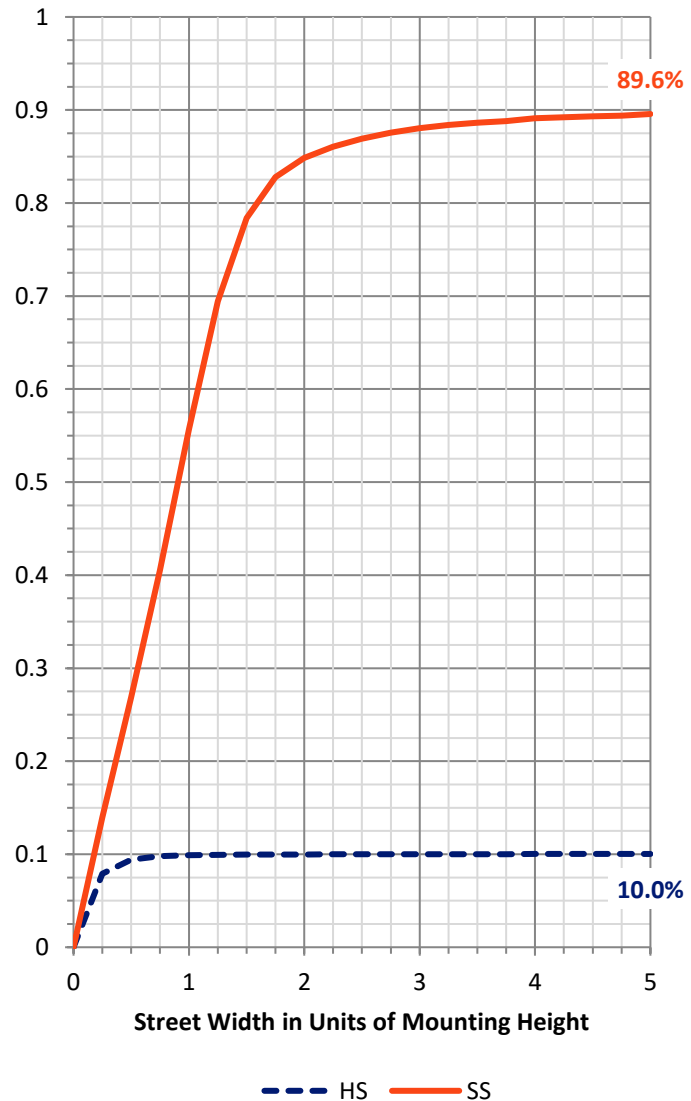
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	332.5	0.0	332.5
	% Fixture	10.1	0.0	10.1
<b>Street Side</b>	Lumens	2950.5	0.0	2950.5
	% Fixture	89.9	0.0	89.9
<b>Total</b>	Lumens	3283.0	0.0	3283.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.0	1.8
10°-20°	129.0	3.9
20°-30°	187.0	5.7
30°-40°	286.2	8.7
40°-50°	489.5	14.9
50°-60°	765.7	23.3
60°-70°	881.7	26.9
70°-80°	441.2	13.4
80°-90°	42.7	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°	3283.0	100.0
0°-180°	3283.0	100.0

**Coefficient of Utilization**



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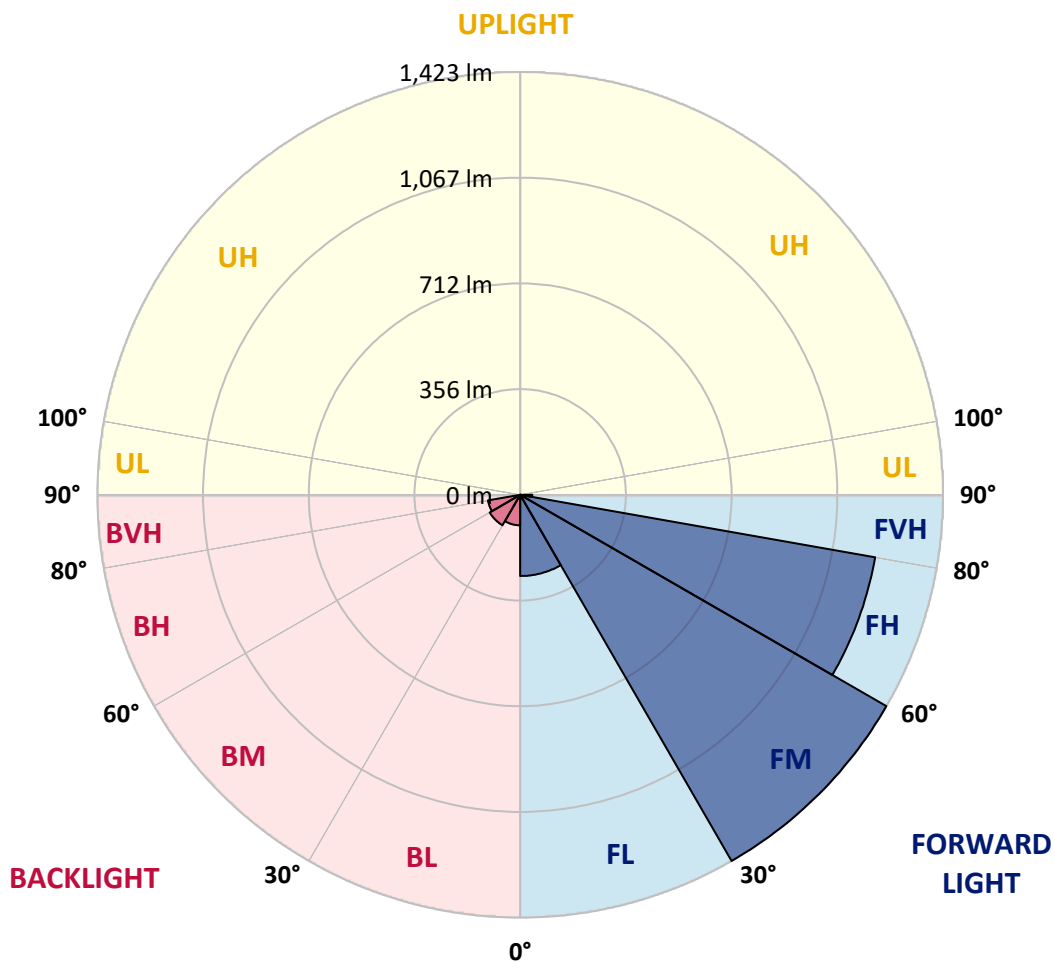
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	273.3	8.3			
FM (30°-60°)	1423.0	43.3			
FH (60°-80°)	1213.1	36.9			G1/1800
FVH (80°-90°)	41.1	1.3			G1/100
BL (0°-30°)	102.6	3.1	B0/110		
BM (30°-60°)	118.4	3.6	B0/220		
BH (60°-80°)	109.9	3.3	B0/110		G0/110
BVH (80°-90°)	1.6	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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4
2.5°	769.3	769.8	769.6	770.3	769.8	766.0	761.8	753.1	753.8	742.5	729.9
5°	715.2	719.6	723.9	728.3	738.9	748.2	759.3	761.8	761.8	752.0	733.5
7.5°	660.0	660.3	665.2	671.1	685.3	702.3	728.1	751.3	751.8	754.4	734.0
10°	618.5	619.8	623.2	629.6	643.8	660.5	689.4	725.8	728.6	747.7	728.8
12.5°	586.3	587.9	591.5	599.0	611.8	629.1	659.5	701.0	704.9	741.2	727.3
15°	561.6	563.6	566.5	574.0	587.9	606.2	639.4	684.5	689.2	738.6	732.2
17.5°	551.3	551.3	551.0	556.2	570.1	588.6	623.4	675.8	681.7	740.7	740.4
20°	555.7	554.9	549.5	548.2	556.7	575.2	610.8	670.1	676.8	744.6	750.5
22.5°	578.8	577.3	565.2	555.1	552.6	564.9	602.3	666.2	674.2	752.6	763.9
25°	628.1	623.4	606.7	584.0	563.6	562.4	596.4	664.2	672.7	761.8	778.6
27.5°	692.0	690.7	663.9	633.5	594.3	570.9	594.6	662.6	671.1	768.5	790.4
30°	771.4	771.9	741.0	701.3	642.0	594.8	600.2	661.8	670.6	769.0	795.6
32.5°	853.3	853.8	828.1	785.5	707.2	636.1	616.2	665.4	673.4	767.0	795.3
35°	932.2	933.0	917.5	883.2	794.3	693.3	646.4	677.8	683.5	768.3	794.8
37.5°	1031.9	1035.0	1015.9	984.0	903.6	777.3	695.6	702.8	707.5	778.8	798.7
40°	1202.0	1197.9	1143.3	1089.1	1022.1	879.6	766.7	745.9	747.4	806.2	813.4
42.5°	1400.2	1395.1	1301.5	1208.2	1144.0	1003.1	857.7	811.8	811.6	852.0	845.3
45°	1570.8	1567.7	1469.3	1344.8	1279.1	1139.4	969.8	906.9	903.8	931.4	903.6
47.5°	1692.0	1689.4	1614.9	1490.2	1435.3	1289.4	1109.8	1036.6	1030.1	1035.3	998.2
50°	1703.8	1701.0	1674.9	1594.8	1617.7	1509.5	1282.7	1206.4	1198.2	1190.2	1141.2
52.5°	1593.0	1592.7	1606.4	1601.2	1745.6	1792.7	1494.8	1416.5	1406.7	1386.3	1337.6
55°	1366.5	1365.2	1417.0	1492.2	1742.7	2085.0	1818.2	1666.4	1653.6	1612.8	1548.9
57.5°	998.4	991.7	1100.0	1259.5	1620.3	2212.8	2331.9	1977.0	1955.6	1826.5	1728.0
60°	551.3	553.8	693.0	881.9	1330.4	2187.6	2804.6	2339.1	2282.9	2010.8	1911.5
62.5°	309.0	315.5	419.1	573.2	848.2	1982.7	3058.2	2962.3	2827.0	2225.7	2143.5
65°	233.8	237.6	289.7	442.3	534.8	1385.5	3098.6	3833.6	3716.9	2551.5	2512.8
67.5°	220.1	223.2	248.7	366.7	487.1	718.5	2794.0	4349.1	4363.8	2995.8	2798.9
68°	221.6	225.5	251.0	352.8	486.3	642.8	2664.1	4351.7	4382.9	3067.4	2789.1
70°	203.6	204.6	265.5	346.1	471.4	506.4	1927.3	4053.5	4109.4	3152.7	2531.9
72.5°	77.8	78.1	119.1	299.7	493.8	509.3	970.8	3203.8	3206.6	2743.7	1973.9
75°	40.5	34.0	37.4	93.8	471.6	496.4	487.1	2187.6	2173.9	1855.6	1209.5
77.5°	27.8	23.7	25.0	32.5	196.1	496.1	351.8	1258.0	1255.1	789.4	345.1
80°	15.7	13.7	14.9	27.3	68.8	465.7	327.8	540.7	509.5	138.7	55.9
82.5°	8.0	6.7	8.0	22.9	42.8	293.0	318.8	212.1	188.9	33.0	36.3
85°	2.1	2.1	3.9	16.0	26.5	96.1	285.8	153.1	137.6	14.4	25.8
87.5°	0.5	0.3	1.5	5.9	9.5	20.9	158.5	85.3	73.5	7.5	14.9
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°	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4	731.4
2.5°	724.7	717.5	703.3	687.4	676.0	663.6	656.4	647.7	641.0	635.0	639.4
5°	722.1	708.2	676.8	641.5	611.8	583.5	562.4	542.3	527.0	517.5	521.4
7.5°	715.4	694.8	643.8	588.6	540.2	494.6	457.5	424.2	398.4	384.5	388.9
10°	704.1	675.0	606.4	529.9	462.1	397.7	342.5	293.0	255.7	238.1	242.3
12.5°	695.9	657.5	567.8	473.2	384.0	292.5	219.3	162.6	133.5	116.0	117.5
15°	692.2	643.8	531.7	413.4	298.7	187.9	118.6	85.8	75.8	72.2	72.4
17.5°	692.8	633.0	497.4	351.3	212.6	108.0	72.7	65.5	63.9	63.1	63.1
20°	694.1	622.1	461.8	286.6	136.1	69.6	60.6	58.2	57.5	56.4	56.7
22.5°	697.9	613.9	426.0	221.6	83.8	56.7	53.6	51.5	50.3	48.7	49.0
25°	703.8	607.7	390.7	159.5	59.0	49.5	46.6	43.8	41.5	39.7	39.9
27.5°	707.5	599.0	353.1	108.8	49.0	43.3	39.4	35.6	33.0	31.4	31.2
30°	704.9	584.8	310.3	71.4	43.3	37.4	32.7	28.3	25.8	24.5	24.5
32.5°	697.9	566.5	263.1	52.1	38.4	32.2	26.5	22.7	20.9	20.1	20.4
35°	689.9	547.4	212.9	44.1	34.5	27.3	21.6	18.6	17.8	17.5	17.5
37.5°	685.5	530.9	164.7	39.9	30.9	22.7	17.8	16.0	15.2	15.2	15.2
40°	690.4	518.3	121.9	36.9	27.3	18.8	14.9	13.7	13.4	13.4	13.4
42.5°	711.3	513.9	89.2	34.3	23.7	15.7	12.9	11.9	11.6	11.9	11.9
45°	752.0	523.4	67.5	31.7	20.4	12.9	11.1	10.3	10.3	10.6	10.6
47.5°	821.1	547.9	55.4	29.1	17.0	10.8	9.5	9.0	9.0	9.3	9.3
50°	928.3	593.3	49.7	26.3	14.2	9.3	8.0	7.7	7.7	8.0	8.2
52.5°	1091.2	679.6	46.9	23.5	11.6	7.7	6.7	6.4	6.7	7.0	7.0
55°	1272.4	790.2	43.6	20.6	9.8	6.4	5.4	5.4	5.7	6.2	6.2
57.5°	1441.2	896.9	40.5	17.0	8.5	5.2	4.4	4.4	4.9	5.4	5.4
60°	1619.5	1001.5	36.3	13.7	7.2	4.1	3.6	3.6	4.4	4.9	5.2
62.5°	1839.9	1123.2	30.9	10.8	5.7	3.1	2.6	3.4	4.1	4.9	4.9
65°	2158.4	1274.4	24.2	8.5	4.4	2.3	2.1	3.1	3.9	4.6	4.9
67.5°	2274.2	1255.1	18.3	7.0	3.4	1.8	1.8	2.8	3.9	4.6	4.6
68°	2231.9	1212.9	17.5	6.7	3.1	1.8	1.8	2.8	3.9	4.6	4.6
70°	1944.8	991.5	14.4	5.2	2.6	1.5	1.5	2.6	3.9	4.4	4.6
72.5°	1456.1	658.7	12.4	3.4	2.3	1.5	1.3	2.6	3.6	4.4	4.4
75°	835.3	273.4	10.6	2.6	2.1	1.3	1.3	2.3	3.6	4.4	4.4
77.5°	236.1	63.9	8.5	2.1	1.8	1.3	1.0	2.3	3.4	4.1	4.1
80°	43.3	19.1	6.7	1.8	1.5	1.3	1.0	2.3	3.4	4.1	4.1
82.5°	28.6	9.0	4.9	1.8	1.5	1.3	1.0	2.1	3.1	3.9	3.9
85°	21.4	6.4	3.1	1.8	1.5	1.3	1.0	2.1	3.1	3.9	3.9
87.5°	11.9	2.8	2.3	2.1	1.8	1.3	1.0	1.8	2.8	3.6	3.6
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)