

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: P195625

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7050-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195625  
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-SL3-7050-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 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: 3417 lumens  
Efficiency: N/A  
Efficacy: 100.5 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 (A<sub>in</sub>): 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

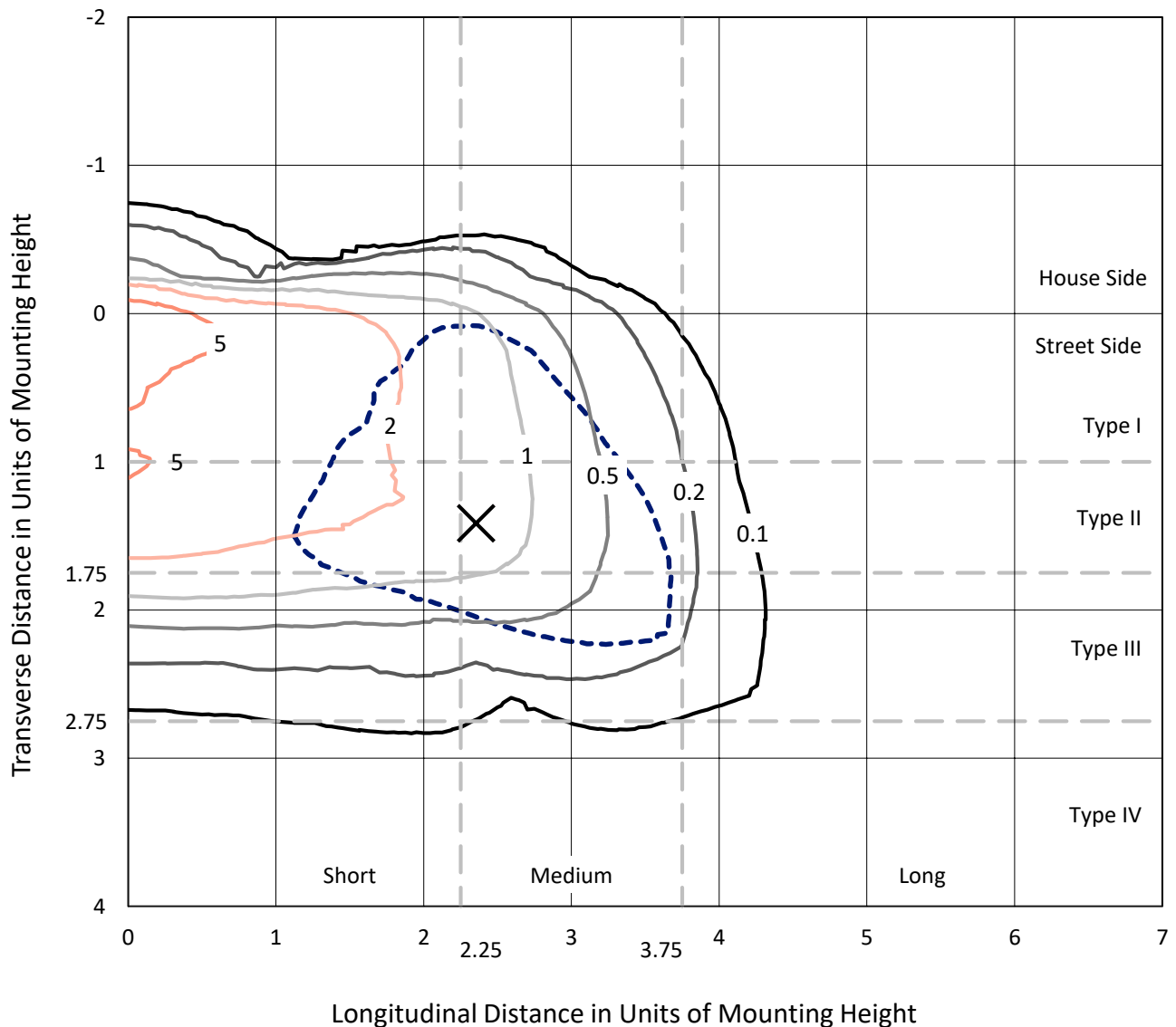


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### Iso-Footcandle Lines of Horizontal Illumination

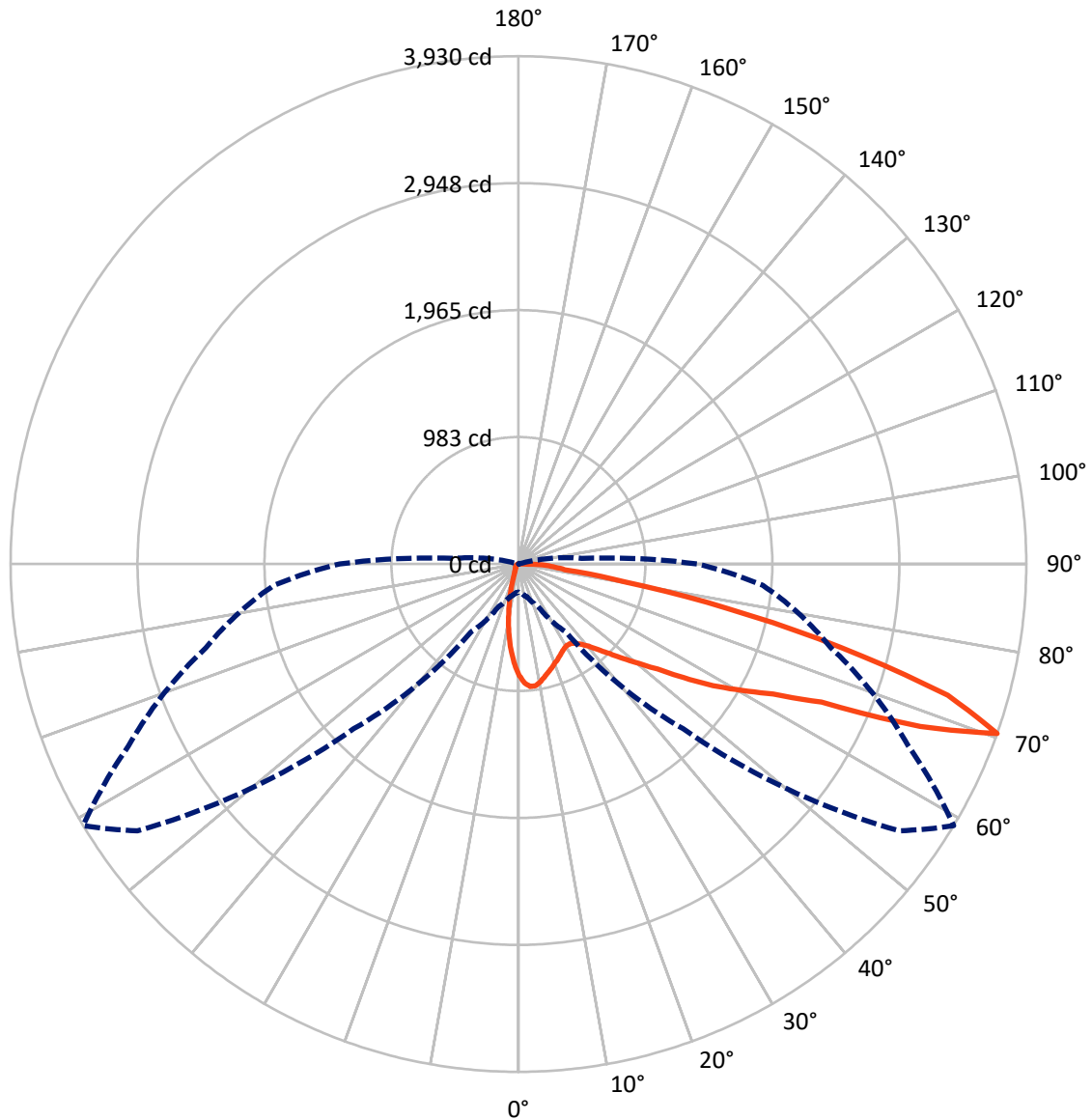
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 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	262.7	0.0	262.7
	% Fixture	7.7	0.0	7.7
<b>Street Side</b>	Lumens	3154.3	0.0	3154.3
	% Fixture	92.3	0.0	92.3
<b>Total</b>	Lumens	3417.0	0.0	3417.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.0	2.1
10°-20°	149.0	4.4
20°-30°	201.7	5.9
30°-40°	291.1	8.5
40°-50°	483.5	14.1
50°-60°	739.6	21.6
60°-70°	919.8	26.9
70°-80°	508.5	14.9
80°-90°	52.7	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°	3417.0	100.0
0°-180°	3417.0	100.0



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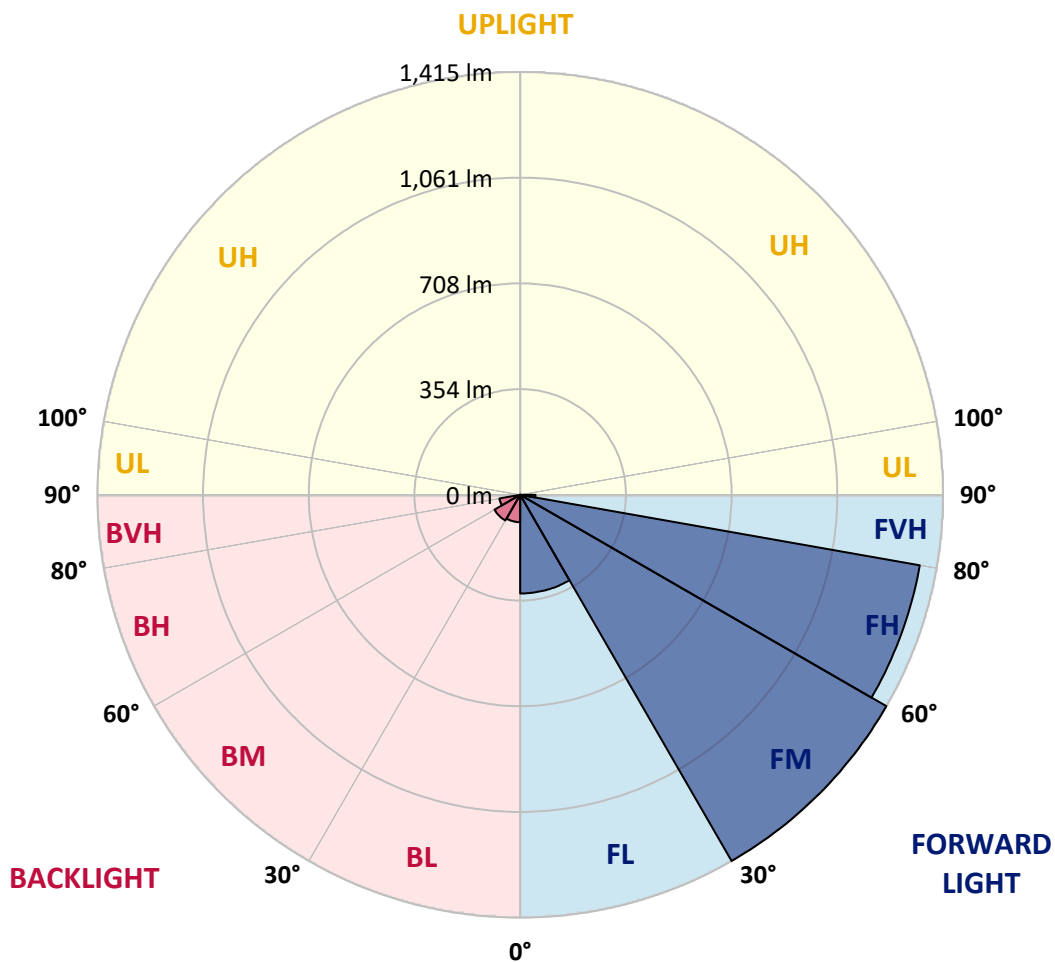
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	330.3	9.7			
FM	(30°-60°)	1415.0	41.4			
FH	(60°-80°)	1357.8	39.7			G1/1800
FVH	(80°-90°)	51.2	1.5			G1/100
BL	(0°-30°)	91.5	2.7	B0/110		
BM	(30°-60°)	99.2	2.9	B0/220		
BH	(60°-80°)	70.5	2.1	B0/110		G0/110
BVH	(80°-90°)	1.5	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°	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0
2.5°	976.7	975.1	968.7	967.4	960.2	945.7	929.0	922.3	908.6	887.0	863.0
5°	992.9	993.7	994.2	991.4	990.3	978.5	959.9	951.9	933.6	898.1	854.2
7.5°	932.1	934.1	940.6	943.4	955.8	960.4	956.6	951.4	937.0	895.0	833.4
10°	867.9	871.8	878.7	883.4	898.6	911.0	926.7	928.0	924.9	884.7	809.9
12.5°	812.7	816.3	824.1	833.4	848.8	864.8	888.3	896.5	906.8	878.0	793.2
15°	765.3	766.3	773.8	785.4	805.8	827.7	855.5	867.6	887.8	875.4	780.3
17.5°	723.8	724.1	729.0	739.5	764.3	793.2	825.6	841.6	867.1	871.8	768.9
20°	696.5	696.2	696.5	702.2	724.1	758.4	797.8	814.5	847.3	867.4	757.3
22.5°	687.2	685.9	680.0	677.9	691.8	722.0	769.2	791.1	829.5	866.1	748.8
25°	698.5	697.8	685.1	673.3	674.6	693.4	740.1	766.9	815.6	870.7	746.8
27.5°	735.2	733.6	714.3	691.1	676.4	679.7	718.4	746.5	804.5	882.1	749.6
30°	783.1	783.4	762.7	734.6	700.1	681.0	706.8	733.3	797.0	899.1	755.8
32.5°	836.5	836.2	821.5	789.0	744.9	704.7	712.0	734.4	798.0	924.1	767.6
35°	891.6	888.8	883.9	855.3	803.7	746.2	735.4	751.9	808.9	957.1	787.7
37.5°	955.3	954.3	959.2	929.0	876.4	807.3	776.7	787.7	836.2	1005.8	820.2
40°	1056.6	1050.9	1053.2	1012.3	958.4	889.6	834.4	837.2	879.8	1070.3	871.5
42.5°	1249.7	1226.7	1183.7	1106.9	1048.6	980.8	909.9	905.0	941.4	1148.4	939.0
45°	1480.4	1454.1	1345.5	1211.2	1138.8	1078.8	1003.2	990.1	1017.2	1241.4	1026.2
47.5°	1672.9	1644.6	1500.7	1320.3	1230.6	1179.8	1106.6	1091.1	1107.9	1349.4	1130.8
50°	1738.6	1722.9	1596.6	1411.0	1323.1	1293.2	1236.3	1210.5	1214.6	1465.9	1253.0
52.5°	1708.5	1703.1	1618.5	1473.1	1408.7	1418.5	1378.3	1351.2	1346.6	1593.3	1388.1
55°	1644.8	1642.2	1601.0	1507.7	1484.2	1533.2	1577.5	1554.1	1510.3	1728.6	1499.7
57.5°	1553.8	1563.6	1593.3	1574.2	1577.0	1654.4	1762.6	1774.7	1709.3	1836.3	1582.4
60°	1310.7	1337.0	1472.9	1645.6	1777.8	1855.9	1960.8	1983.5	1877.8	1910.1	1678.1
62.5°	968.9	1006.6	1200.2	1517.5	1888.4	2239.2	2224.5	2214.5	2038.7	2008.8	1852.1
65°	569.2	613.2	776.9	1185.7	1721.6	2485.7	2716.9	2577.7	2283.8	2214.0	2129.2
67.5°	283.5	283.8	357.8	625.9	1272.3	2313.7	3435.5	3355.1	2805.0	2516.3	2238.5
70°	218.1	224.0	264.7	363.7	643.4	1802.1	3600.2	3930.4	3328.8	2502.9	1899.2
72.5°	184.8	188.7	235.6	316.5	481.0	989.3	3116.7	3474.2	3176.5	2114.7	1399.9
75°	133.0	136.1	208.5	287.2	442.8	490.8	2137.9	2576.6	2383.3	1487.6	770.5
77.5°	33.0	32.7	72.7	233.0	396.2	408.8	1226.7	1652.3	1367.5	609.1	198.0
80°	14.7	14.2	16.5	49.0	368.6	385.9	539.5	834.4	524.6	98.7	60.6
82.5°	10.3	9.8	10.3	18.0	123.2	358.0	326.1	361.6	192.0	33.8	25.8
85°	3.4	3.1	5.7	15.2	34.5	206.5	318.1	270.1	142.8	14.4	17.3
87.5°	0.5	0.5	2.1	8.2	10.1	68.8	186.6	187.1	64.2	8.5	7.7
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°	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0	864.0
2.5°	850.9	835.7	814.3	792.9	773.6	753.7	737.7	730.3	726.9	722.3	712.2
5°	831.3	803.7	756.8	710.7	667.6	626.4	591.1	571.0	549.3	548.3	537.7
7.5°	799.9	760.7	686.7	615.0	549.3	486.4	432.3	397.2	373.2	358.3	348.0
10°	764.8	714.5	616.6	515.8	426.3	342.3	272.7	227.4	199.8	185.9	177.9
12.5°	737.0	673.8	547.5	420.7	308.5	212.1	147.4	114.4	99.8	94.1	91.5
15°	713.0	636.4	482.8	335.6	206.0	121.9	85.3	74.5	72.2	72.2	71.9
17.5°	688.8	600.3	419.9	252.1	129.7	79.9	67.3	65.7	66.0	66.8	66.8
20°	665.8	566.1	359.3	179.7	85.1	63.9	61.1	60.6	61.3	62.4	62.1
22.5°	647.3	535.9	302.6	123.5	65.5	58.0	56.2	55.4	55.9	56.7	56.5
25°	634.1	510.1	250.5	86.1	57.0	52.8	50.8	49.7	49.2	49.7	49.5
27.5°	626.1	488.5	201.6	64.7	51.0	47.7	45.1	43.0	41.8	41.8	41.2
30°	621.0	468.1	158.0	53.6	46.1	42.5	38.9	36.1	34.0	33.5	33.3
32.5°	620.7	450.6	118.1	47.4	41.5	37.4	33.0	29.4	27.1	26.6	26.3
35°	627.1	436.4	86.9	42.8	37.4	32.5	27.6	23.7	21.7	21.7	21.4
37.5°	643.9	428.2	65.7	39.2	34.0	28.4	23.2	19.6	17.8	18.3	18.3
40°	675.1	426.6	53.6	36.3	31.2	24.7	18.8	16.0	15.2	16.0	16.0
42.5°	722.8	434.9	47.7	34.3	28.6	21.1	15.7	13.7	13.4	14.2	14.2
45°	784.9	451.1	44.3	32.5	25.8	17.5	13.1	11.9	11.6	12.6	12.6
47.5°	860.2	473.0	41.2	30.4	22.9	14.4	11.1	10.1	10.1	11.1	11.3
50°	949.4	502.6	38.1	28.4	20.6	12.1	9.3	8.5	8.8	9.8	10.1
52.5°	1051.9	539.0	35.3	26.6	18.0	9.8	7.7	7.2	7.5	8.5	8.8
55°	1140.4	570.7	32.0	24.7	14.7	8.0	6.4	6.2	6.4	7.7	7.7
57.5°	1217.4	601.1	28.9	21.9	11.6	6.4	5.2	5.2	5.7	7.0	7.2
60°	1319.8	649.1	26.3	18.6	8.8	4.9	4.1	4.4	5.2	6.2	6.4
62.5°	1501.0	730.5	22.9	15.5	6.4	3.9	3.4	3.6	4.6	5.9	6.2
65°	1727.8	807.6	19.1	12.9	4.9	2.8	2.6	3.4	4.6	5.9	6.2
67.5°	1704.6	702.4	15.0	10.3	3.6	2.3	2.1	3.1	4.4	5.9	6.2
70°	1382.4	492.3	11.1	7.0	2.8	2.1	2.1	3.1	4.4	5.7	5.9
72.5°	958.9	274.0	8.5	4.6	2.6	2.1	1.8	2.8	4.1	5.7	5.9
75°	456.2	84.0	6.7	3.4	2.3	1.8	1.5	2.8	4.1	5.7	5.9
77.5°	87.6	21.4	5.4	2.8	2.1	1.8	1.5	2.6	4.1	5.4	5.7
80°	29.6	9.5	4.4	2.6	2.1	1.8	1.5	2.6	3.9	5.2	5.4
82.5°	16.2	5.4	3.9	2.3	2.1	1.5	1.3	2.3	3.6	5.2	5.4
85°	12.6	3.9	3.1	2.3	2.1	1.5	1.3	2.3	3.6	4.9	5.2
87.5°	6.4	2.8	2.6	2.3	2.1	1.5	1.3	2.1	3.4	4.6	5.2
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)