

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: P195631

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7050-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195631
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-SL3-7050-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 800mA 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: 4190 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

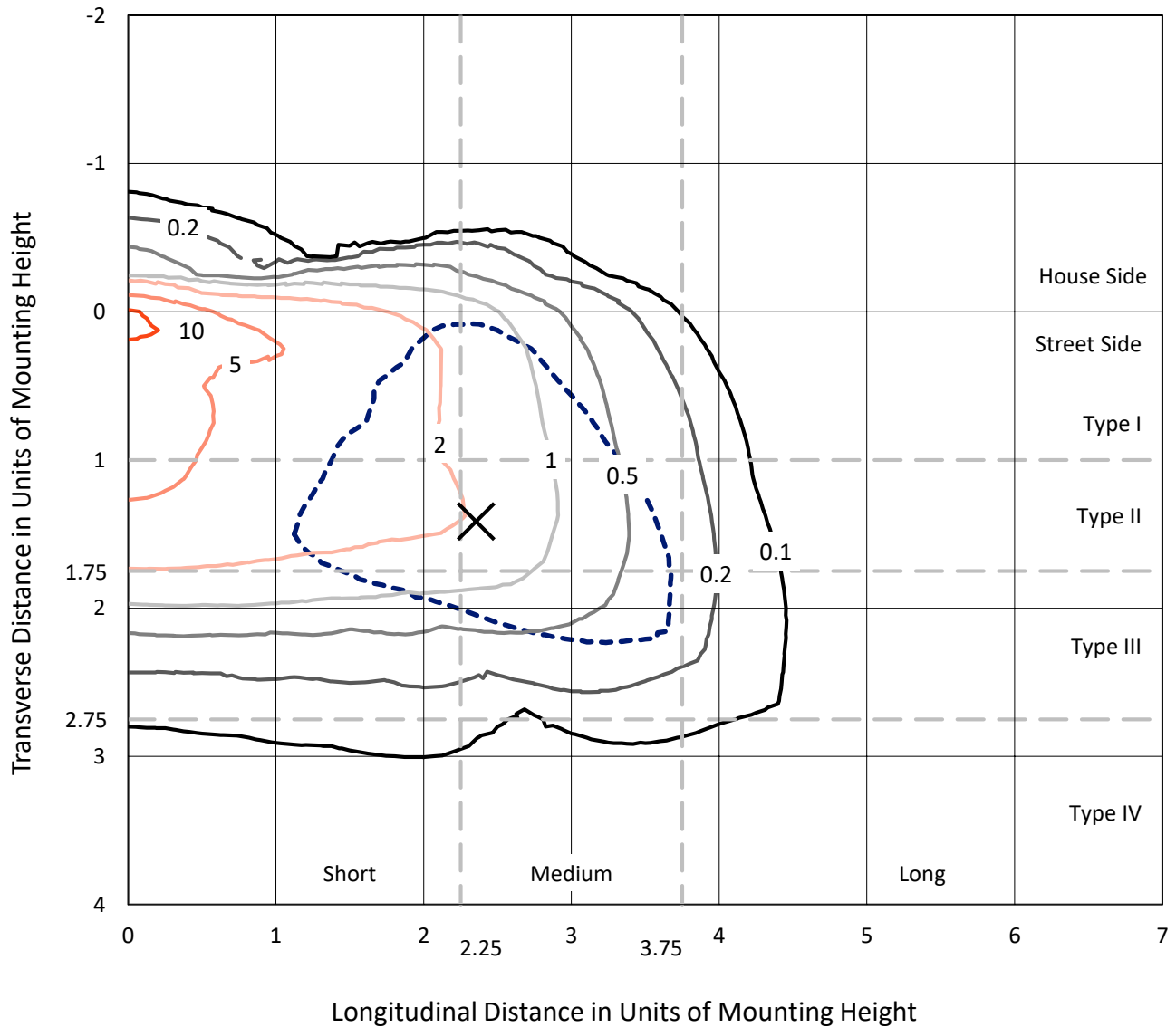
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

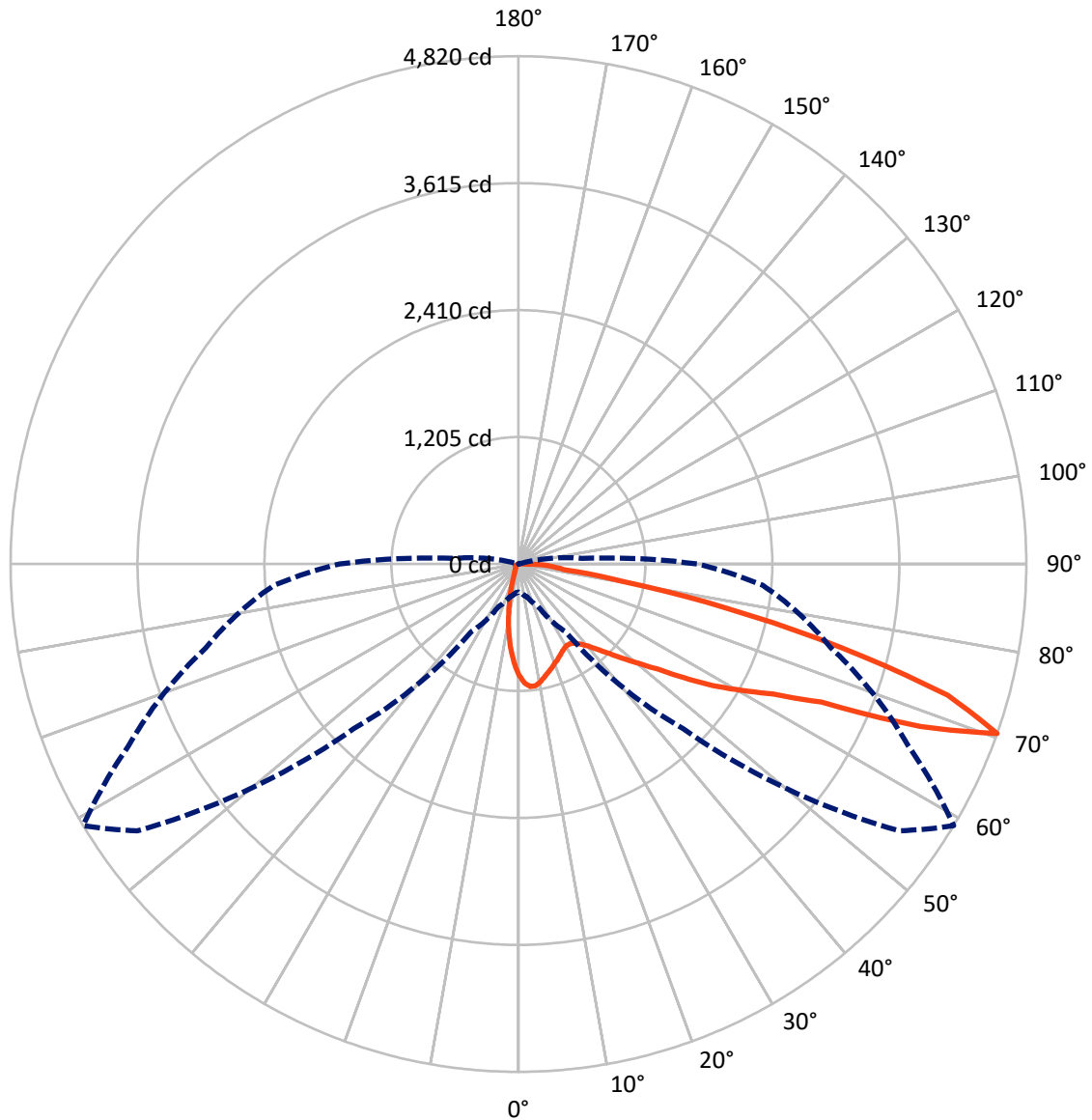


Based on 10 foot mounting height. Maximum calculated value = 11.3 fc
 Type III - Medium - Non-Cutoff

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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
House Side	Lumens	322.1	0.0	322.1
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	3867.9	0.0	3867.9
	% Fixture	92.3	0.0	92.3
Total	Lumens	4190.0	0.0	4190.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	2.1
10°-20°	182.7	4.4
20°-30°	247.4	5.9
30°-40°	357.0	8.5
40°-50°	592.9	14.1
50°-60°	906.9	21.6
60°-70°	1127.9	26.9
70°-80°	623.5	14.9
80°-90°	64.6	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°	4190.0	100.0
0°-180°	4190.0	100.0



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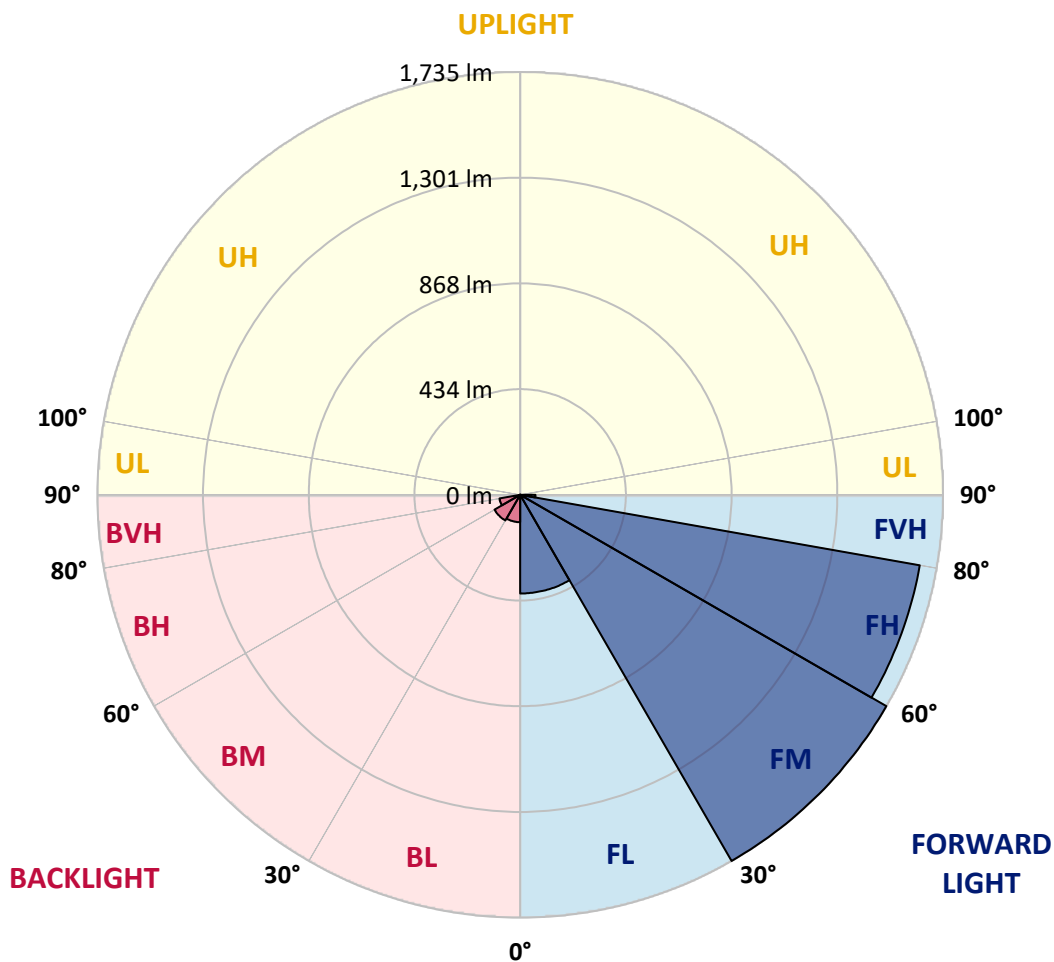
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	405.0	9.7			
FM	(30°-60°)	1735.1	41.4			
FH	(60°-80°)	1665.0	39.7			G1/1800
FVH	(80°-90°)	62.8	1.5			G1/100
BL	(0°-30°)	112.2	2.7	B1/500		
BM	(30°-60°)	121.6	2.9	B0/220		
BH	(60°-80°)	86.4	2.1	B0/110		G0/110
BVH	(80°-90°)	1.9	0.0			G0/10
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°	59°	65°	75°	85°
0°	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5
2.5°	1197.6	1195.7	1187.8	1186.2	1177.4	1159.7	1139.2	1130.9	1114.2	1087.6	1058.2
5°	1217.5	1218.5	1219.1	1215.6	1214.4	1199.8	1177.1	1167.3	1144.8	1101.2	1047.5
7.5°	1142.9	1145.5	1153.4	1156.9	1172.0	1177.7	1173.0	1166.7	1149.0	1097.4	1021.9
10°	1064.2	1069.0	1077.5	1083.2	1101.9	1117.0	1136.3	1137.9	1134.1	1084.8	993.1
12.5°	996.6	1001.0	1010.5	1021.9	1040.9	1060.4	1089.2	1099.3	1112.0	1076.6	972.6
15°	938.4	939.7	948.9	963.1	988.1	1014.9	1049.1	1063.9	1088.6	1073.4	956.8
17.5°	887.6	887.9	893.9	906.8	937.2	972.6	1012.4	1032.0	1063.3	1069.0	942.9
20°	854.0	853.7	854.0	861.0	887.9	929.9	978.3	998.8	1039.0	1063.6	928.6
22.5°	842.7	841.1	833.8	831.3	848.4	885.3	943.2	970.0	1017.1	1062.0	918.2
25°	856.6	855.6	840.1	825.6	827.2	850.3	907.5	940.3	1000.1	1067.7	915.7
27.5°	901.5	899.6	875.9	847.4	829.4	833.5	880.9	915.4	986.5	1081.6	919.2
30°	960.3	960.6	935.3	900.8	858.5	835.1	866.7	899.2	977.3	1102.5	926.7
32.5°	1025.7	1025.4	1007.3	967.5	913.5	864.2	873.0	900.5	978.6	1133.1	941.3
35°	1093.3	1089.8	1083.8	1048.8	985.5	915.1	901.8	922.0	991.9	1173.6	965.9
37.5°	1171.4	1170.1	1176.1	1139.2	1074.7	990.0	952.3	965.9	1025.4	1233.3	1005.8
40°	1295.6	1288.7	1291.5	1241.2	1175.2	1090.8	1023.2	1026.6	1078.8	1312.4	1068.7
42.5°	1532.4	1504.2	1451.4	1357.2	1285.8	1202.7	1115.8	1109.8	1154.3	1408.1	1151.5
45°	1815.2	1783.0	1649.9	1485.3	1396.4	1322.8	1230.2	1214.1	1247.3	1522.2	1258.3
47.5°	2051.4	2016.6	1840.2	1619.0	1509.0	1446.7	1356.9	1338.0	1358.5	1654.7	1386.6
50°	2132.0	2112.7	1957.8	1730.2	1622.4	1585.8	1515.9	1484.3	1489.4	1797.5	1536.5
52.5°	2095.0	2088.3	1984.7	1806.4	1727.4	1739.4	1690.1	1656.9	1651.2	1953.7	1702.1
55°	2016.9	2013.7	1963.2	1848.8	1820.0	1880.0	1934.4	1905.6	1851.9	2119.6	1839.0
57.5°	1905.3	1917.3	1953.7	1930.3	1933.8	2028.6	2161.4	2176.2	2095.9	2251.8	1940.4
60°	1607.3	1639.5	1806.1	2017.9	2180.0	2275.8	2404.4	2432.2	2302.6	2342.2	2057.7
62.5°	1188.1	1234.3	1471.7	1860.8	2315.6	2745.8	2727.8	2715.4	2499.9	2463.2	2271.0
65°	697.9	752.0	952.7	1454.0	2111.1	3048.0	3331.5	3160.8	2800.5	2714.8	2610.8
67.5°	347.7	348.0	438.7	767.4	1560.2	2837.1	4212.7	4114.1	3439.6	3085.6	2744.8
70°	267.4	274.7	324.6	446.0	788.9	2209.7	4414.7	4819.6	4081.9	3069.1	2328.9
72.5°	226.6	231.4	288.9	388.1	589.8	1213.1	3821.7	4260.1	3895.1	2593.1	1716.6
75°	163.1	166.9	255.7	352.1	543.0	601.8	2621.6	3159.5	2922.5	1824.1	944.8
77.5°	40.5	40.1	89.1	285.7	485.8	501.3	1504.2	2026.1	1676.8	746.9	242.7
80°	18.0	17.4	20.2	60.1	452.0	473.2	661.6	1023.2	643.2	121.1	74.3
82.5°	12.6	12.0	12.6	22.1	151.1	439.0	399.8	443.5	235.5	41.4	31.6
85°	4.1	3.8	7.0	18.6	42.4	253.2	390.0	331.3	175.1	17.7	21.2
87.5°	0.6	0.6	2.5	10.1	12.3	84.4	228.8	229.5	78.7	10.4	9.5
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°	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5	1059.5
2.5°	1043.4	1024.7	998.5	972.3	948.6	924.2	904.6	895.5	891.3	885.7	873.3
5°	1019.4	985.5	928.0	871.4	818.6	768.1	724.8	700.1	673.6	672.3	659.3
7.5°	980.8	932.8	842.0	754.2	673.6	596.4	530.1	487.1	457.7	439.4	426.7
10°	937.8	876.2	756.1	632.5	522.8	419.8	334.4	278.8	245.0	227.9	218.1
12.5°	903.7	826.2	671.4	515.8	378.3	260.1	180.8	140.3	122.3	115.4	112.2
15°	874.3	780.4	592.0	411.5	252.5	149.5	104.6	91.3	88.5	88.5	88.2
17.5°	844.6	736.2	514.9	309.1	159.0	98.0	82.5	80.6	80.9	81.9	81.9
20°	816.4	694.1	440.6	220.3	104.3	78.4	74.9	74.3	75.2	76.5	76.2
22.5°	793.7	657.1	371.1	151.4	80.3	71.1	68.9	68.0	68.6	69.5	69.2
25°	777.6	625.5	307.2	105.6	69.9	64.8	62.3	61.0	60.4	61.0	60.7
27.5°	767.8	599.0	247.2	79.3	62.6	58.5	55.3	52.8	51.2	51.2	50.6
30°	761.4	574.0	193.8	65.7	56.6	52.2	47.7	44.3	41.7	41.1	40.8
32.5°	761.1	552.5	144.8	58.2	50.9	45.8	40.5	36.0	33.2	32.6	32.2
35°	769.0	535.1	106.5	52.5	45.8	39.8	33.8	29.1	26.6	26.6	26.2
37.5°	789.6	525.0	80.6	48.0	41.7	34.8	28.4	24.0	21.8	22.4	22.4
40°	827.8	523.1	65.7	44.6	38.2	30.3	23.1	19.6	18.6	19.6	19.6
42.5°	886.3	533.2	58.5	42.0	35.1	25.9	19.3	16.8	16.4	17.4	17.4
45°	962.5	553.1	54.4	39.8	31.6	21.5	16.1	14.5	14.2	15.5	15.5
47.5°	1054.8	580.0	50.6	37.3	28.1	17.7	13.6	12.3	12.3	13.6	13.9
50°	1164.1	616.4	46.8	34.8	25.3	14.9	11.4	10.4	10.7	12.0	12.3
52.5°	1289.9	660.9	43.3	32.6	22.1	12.0	9.5	8.9	9.2	10.4	10.7
55°	1398.3	699.8	39.2	30.3	18.0	9.8	7.9	7.6	7.9	9.5	9.5
57.5°	1492.8	737.1	35.4	26.9	14.2	7.9	6.3	6.3	7.0	8.5	8.9
60°	1618.3	795.9	32.2	22.8	10.7	6.0	5.1	5.4	6.3	7.6	7.9
62.5°	1840.5	895.8	28.1	19.0	7.9	4.7	4.1	4.4	5.7	7.3	7.6
65°	2118.7	990.3	23.4	15.8	6.0	3.5	3.2	4.1	5.7	7.3	7.6
67.5°	2090.2	861.3	18.3	12.6	4.4	2.8	2.5	3.8	5.4	7.3	7.6
70°	1695.1	603.7	13.6	8.5	3.5	2.5	2.5	3.8	5.4	7.0	7.3
72.5°	1175.8	336.0	10.4	5.7	3.2	2.5	2.2	3.5	5.1	7.0	7.3
75°	559.5	103.0	8.2	4.1	2.8	2.2	1.9	3.5	5.1	7.0	7.3
77.5°	107.5	26.2	6.6	3.5	2.5	2.2	1.9	3.2	5.1	6.6	7.0
80°	36.3	11.7	5.4	3.2	2.5	2.2	1.9	3.2	4.7	6.3	6.6
82.5°	19.9	6.6	4.7	2.8	2.5	1.9	1.6	2.8	4.4	6.3	6.6
85°	15.5	4.7	3.8	2.8	2.5	1.9	1.6	2.8	4.4	6.0	6.3
87.5°	7.9	3.5	3.2	2.8	2.5	1.9	1.6	2.5	4.1	5.7	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

(END OF REPORT)