

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: P195511

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195511
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
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-AFL-7050-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4143 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G0

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

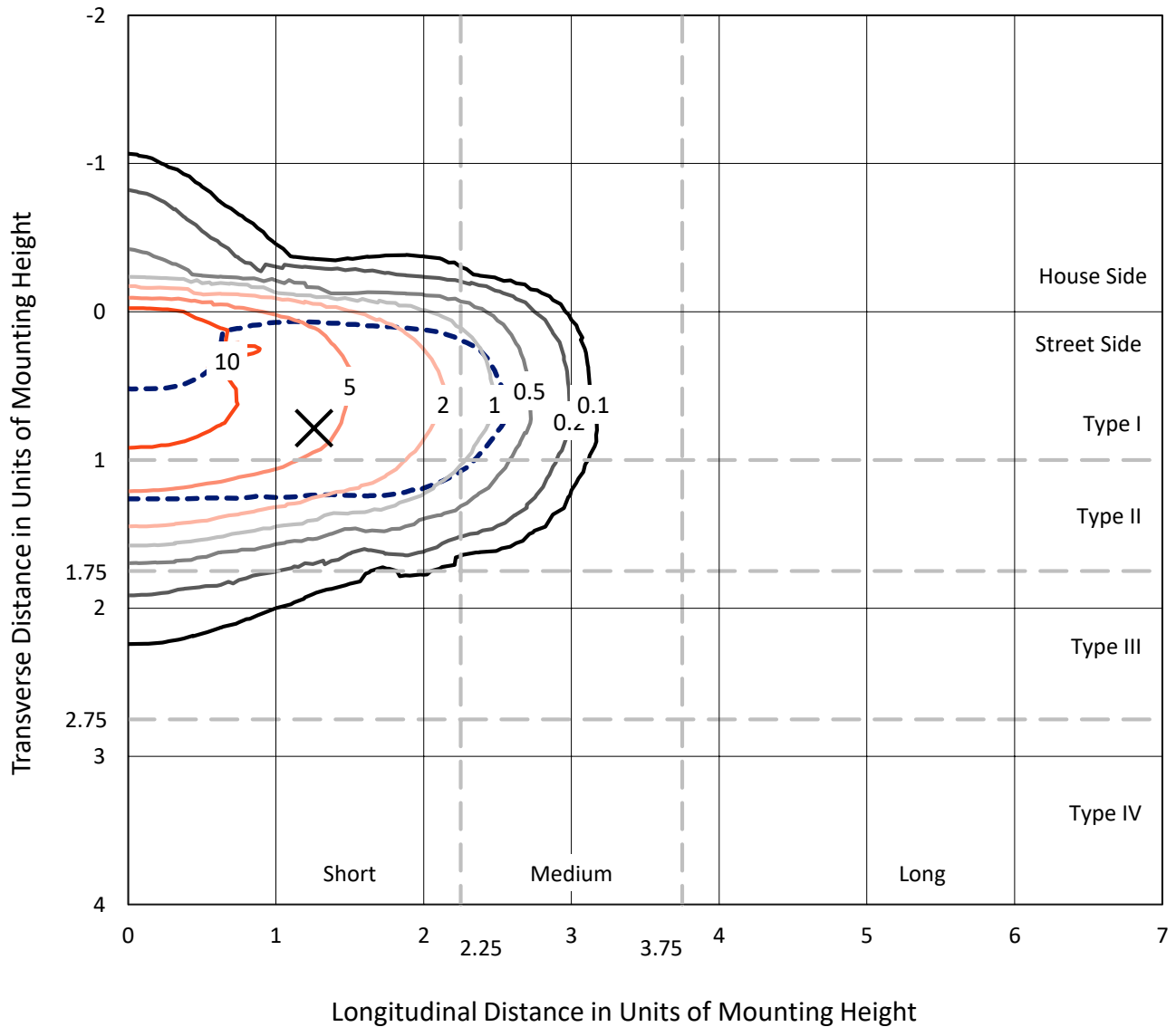


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

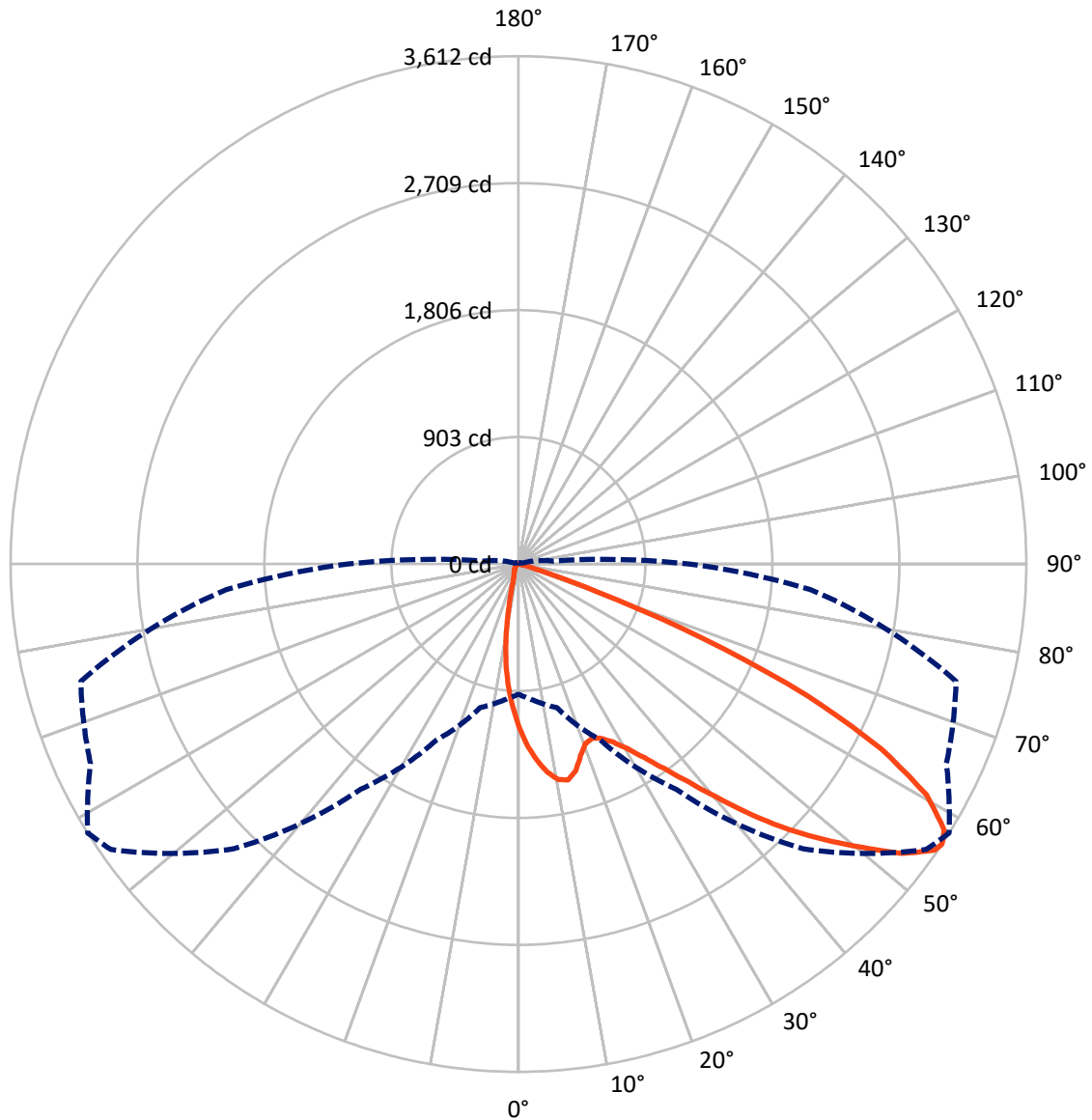


Based on 10 foot mounting height. Maximum calculated value = 14.6 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	258.6	0.0	258.6
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	3884.4	0.0	3884.4
	% Fixture	93.8	0.0	93.8
Total	Lumens	4143.0	0.0	4143.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.1	2.4
10°-20°	232.8	5.6
20°-30°	391.8	9.5
30°-40°	670.9	16.2
40°-50°	1012.4	24.4
50°-60°	1052.3	25.4
60°-70°	590.8	14.3
70°-80°	81.0	2.0
80°-90°	11.0	0.3
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°	4143.0	100.0
0°-180°	4143.0	100.0



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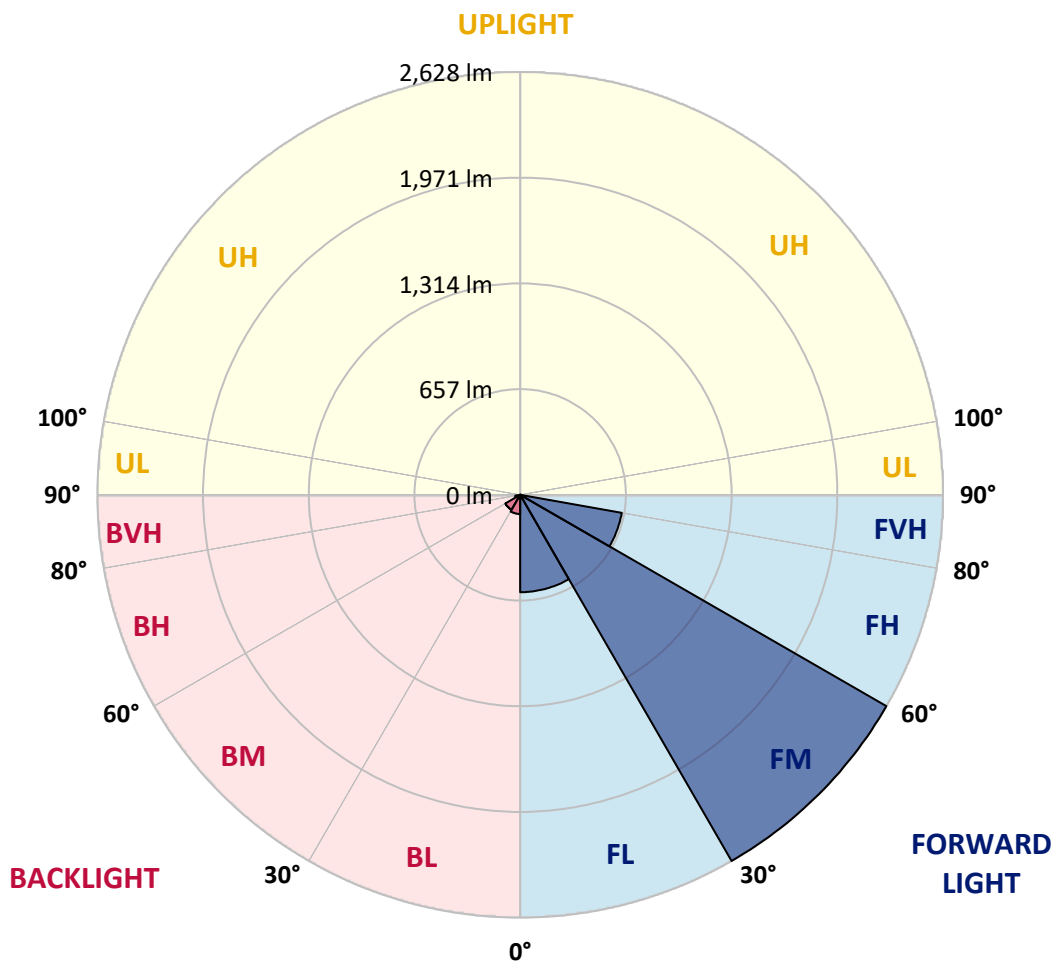
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	605.4	14.6			
FM	(30°-60°)	2628.5	63.4			
FH	(60°-80°)	641.1	15.5			G0/660
FVH	(80°-90°)	9.5	0.2			G0/10
BL	(0°-30°)	119.3	2.9	B1/500		
BM	(30°-60°)	107.1	2.6	B0/220		
BH	(60°-80°)	30.7	0.7	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: B1-U0-G0

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0
2.5°	1411.3	1402.8	1394.0	1377.5	1362.3	1339.0	1306.7	1298.8	1273.5	1231.8	1192.9
5°	1533.0	1531.5	1525.4	1512.2	1495.7	1467.3	1430.9	1406.6	1367.4	1301.7	1226.7
7.5°	1461.0	1474.2	1496.1	1527.0	1547.9	1545.0	1517.2	1496.1	1457.2	1367.4	1259.9
10°	1231.5	1234.0	1264.0	1329.2	1432.2	1528.3	1564.6	1559.0	1523.2	1424.9	1289.0
12.5°	1150.6	1152.1	1159.1	1180.0	1247.0	1381.0	1545.7	1575.4	1572.5	1479.9	1320.0
15°	1156.9	1157.8	1159.7	1166.4	1185.3	1252.7	1449.6	1525.1	1604.2	1532.1	1350.3
17.5°	1206.8	1206.2	1200.2	1193.9	1199.9	1222.0	1351.6	1431.3	1597.5	1576.0	1375.3
20°	1304.2	1307.3	1287.1	1259.0	1244.4	1245.4	1303.2	1363.0	1560.2	1610.2	1394.0
22.5°	1441.1	1443.3	1410.1	1361.4	1318.7	1297.2	1313.4	1345.0	1517.2	1641.8	1409.1
25°	1604.5	1604.5	1558.0	1488.8	1422.7	1375.6	1361.7	1373.7	1500.8	1677.5	1424.3
27.5°	1780.8	1787.2	1726.5	1635.8	1548.5	1479.6	1436.0	1433.8	1513.4	1722.4	1441.4
30°	1972.7	1978.4	1906.3	1795.4	1692.0	1603.8	1536.8	1522.3	1561.8	1782.7	1466.3
32.5°	2163.6	2168.4	2088.7	1975.6	1855.1	1751.5	1663.3	1640.2	1648.7	1870.9	1503.0
35°	2406.4	2407.3	2306.5	2171.9	2043.2	1921.5	1809.9	1787.2	1777.7	1982.2	1555.8
37.5°	2599.5	2591.9	2528.1	2400.7	2253.1	2126.0	1994.8	1965.1	1942.4	2138.7	1637.7
40°	2645.0	2645.0	2635.6	2597.3	2480.0	2357.7	2230.6	2186.4	2136.1	2322.9	1747.7
42.5°	2526.5	2534.1	2596.7	2679.8	2680.8	2602.4	2478.1	2440.8	2352.3	2532.8	1867.8
45°	2261.3	2263.5	2413.7	2638.1	2790.4	2835.3	2743.7	2692.1	2569.5	2750.9	1977.8
47.5°	2165.8	2172.8	2236.7	2511.0	2798.7	3024.0	2998.4	2927.6	2770.5	2950.1	2080.5
50°	2019.2	2027.7	2105.8	2323.9	2724.7	3145.1	3242.1	3166.3	2953.5	3116.0	2131.4
52.5°	1668.3	1681.6	1791.9	2076.4	2539.8	3150.1	3465.3	3419.8	3141.0	3204.8	2125.4
55°	1148.0	1157.8	1286.5	1620.9	2166.8	2995.6	3561.4	3592.7	3308.2	3224.7	2096.3
56°	926.1	962.8	1057.0	1381.0	1954.4	2864.1	3539.3	3611.6	3357.8	3221.6	2083.7
57.5°	612.3	619.2	721.9	1000.7	1569.4	2578.7	3439.4	3571.2	3421.7	3205.5	2074.5
60°	288.0	291.1	328.1	461.8	849.3	1879.2	3114.7	3333.5	3445.1	3171.6	2074.2
62.5°	187.8	188.4	192.8	220.3	347.4	1023.5	2582.1	2897.0	3251.3	3167.9	2068.2
65°	154.6	156.1	150.8	154.3	181.8	385.9	1821.3	2258.5	2796.4	3078.7	2000.5
67.5°	136.2	136.6	129.3	125.2	133.1	169.4	917.6	1424.6	2091.6	2616.0	1647.8
70°	124.2	123.9	115.7	106.2	106.5	112.5	299.0	591.7	1157.2	1553.3	946.1
72.5°	110.3	110.9	106.2	92.9	88.5	79.7	112.5	159.6	393.8	498.8	249.4
75°	96.7	95.5	90.7	82.2	74.0	53.4	56.6	68.0	102.7	101.8	53.7
77.5°	73.3	72.1	74.3	70.2	57.8	37.3	31.0	35.4	46.5	43.3	21.8
80°	55.9	55.3	50.6	60.1	52.8	28.1	21.2	21.8	25.3	23.1	10.7
82.5°	40.5	40.1	38.2	37.0	33.5	20.5	16.1	17.1	19.0	16.1	7.9
85°	15.5	15.5	30.0	25.3	23.1	13.9	11.4	12.3	14.5	11.7	5.4
87.5°	2.5	2.5	20.2	16.8	10.4	7.0	7.3	7.9	8.5	7.0	4.1
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°	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0	1173.0
2.5°	1169.8	1148.7	1102.2	1057.3	1018.1	975.1	953.3	928.0	918.6	899.6	901.5
5°	1181.9	1137.6	1044.4	946.1	856.0	764.3	699.2	637.9	603.7	569.9	569.9
7.5°	1194.2	1126.5	982.4	825.3	673.6	516.5	405.2	316.1	266.5	233.3	232.3
10°	1202.7	1112.3	911.9	685.3	461.5	266.1	160.6	126.4	114.1	108.7	108.4
12.5°	1213.8	1098.1	831.6	520.3	256.3	126.4	100.2	94.8	92.6	91.3	91.3
15°	1223.3	1077.9	734.3	349.9	134.7	94.8	86.3	84.4	84.1	83.8	84.1
17.5°	1225.5	1049.1	617.6	204.8	97.7	82.8	79.0	77.4	77.4	77.1	77.1
20°	1220.4	1011.2	488.7	126.4	84.4	76.2	72.1	70.2	69.9	69.9	69.9
22.5°	1210.0	962.8	361.3	95.8	76.8	70.2	64.8	62.9	62.9	63.2	63.5
25°	1197.0	905.6	248.1	82.5	71.1	63.9	58.5	56.6	57.2	57.8	58.2
27.5°	1180.6	837.3	162.5	71.4	63.5	57.5	52.8	51.5	52.8	54.1	54.7
30°	1164.2	762.4	110.0	62.0	55.0	50.6	47.7	47.4	49.3	52.2	52.5
32.5°	1153.4	685.6	83.1	55.6	48.4	44.6	43.3	43.9	46.8	49.9	50.6
35°	1152.5	610.7	70.8	50.6	43.9	40.5	39.8	41.7	44.9	47.4	48.0
37.5°	1167.3	540.5	64.2	46.8	40.5	37.0	36.0	39.5	42.4	44.9	45.5
40°	1197.3	477.6	59.7	43.3	37.6	33.5	32.9	35.7	38.6	41.4	42.4
42.5°	1235.0	418.8	54.7	39.8	34.5	29.7	29.1	31.3	34.1	38.2	38.9
45°	1267.5	364.1	49.3	36.0	31.0	25.6	25.3	27.8	30.0	33.8	34.5
47.5°	1295.0	318.6	44.3	31.9	26.6	22.8	22.4	23.7	25.0	28.4	29.1
50°	1280.5	280.1	39.2	26.2	21.5	19.6	19.3	19.3	20.9	24.3	25.0
52.5°	1244.8	256.0	34.5	21.8	17.7	16.8	15.8	16.1	17.7	19.3	19.6
55°	1216.0	244.7	30.3	19.3	14.9	13.9	13.0	12.6	13.0	12.3	11.7
56°	1209.0	243.4	29.4	18.6	14.2	13.0	11.7	11.1	10.7	9.5	9.2
57.5°	1205.9	243.4	27.8	17.4	13.3	11.7	10.1	8.9	7.6	6.6	6.6
60°	1203.4	245.0	25.9	15.2	11.4	9.5	7.3	5.4	4.4	4.4	4.4
62.5°	1198.0	244.3	23.7	12.6	9.8	7.3	4.4	3.5	3.2	3.5	3.8
65°	1137.6	227.0	20.9	10.1	7.6	5.1	2.5	2.5	2.8	3.5	3.8
67.5°	916.7	172.0	17.1	7.9	5.4	3.8	2.2	2.2	2.8	3.5	3.8
70°	503.5	90.7	14.5	5.7	4.1	3.2	2.2	1.9	2.8	3.5	3.8
72.5°	123.0	37.9	13.3	4.4	3.8	2.8	1.9	1.9	2.8	3.5	3.8
75°	30.3	28.4	10.7	3.5	3.2	2.5	1.9	1.9	2.8	3.5	3.8
77.5°	14.2	37.6	7.3	3.2	2.8	2.2	1.9	1.9	2.8	3.5	3.5
80°	8.5	28.4	4.4	2.8	2.5	2.2	1.9	1.9	2.8	3.5	3.8
82.5°	5.1	8.2	3.2	2.8	2.5	1.9	1.9	1.9	2.8	3.5	3.8
85°	4.4	4.1	3.2	2.8	2.5	2.2	1.9	1.9	3.2	3.8	3.8
87.5°	3.5	3.2	2.8	2.5	2.5	2.2	1.9	1.9	2.8	3.5	3.8
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)