

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: P195655

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195655  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)  
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  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4930 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

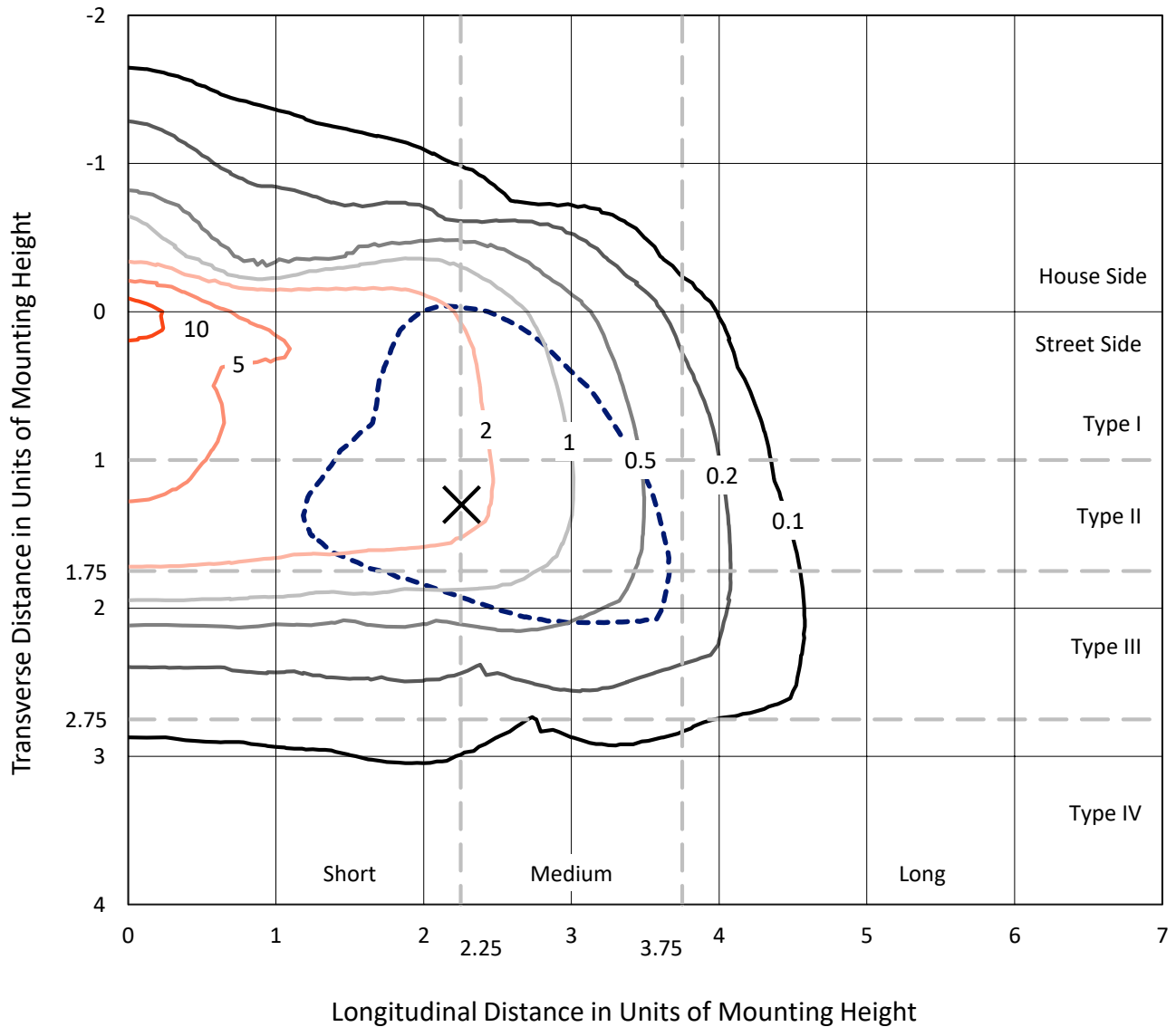
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

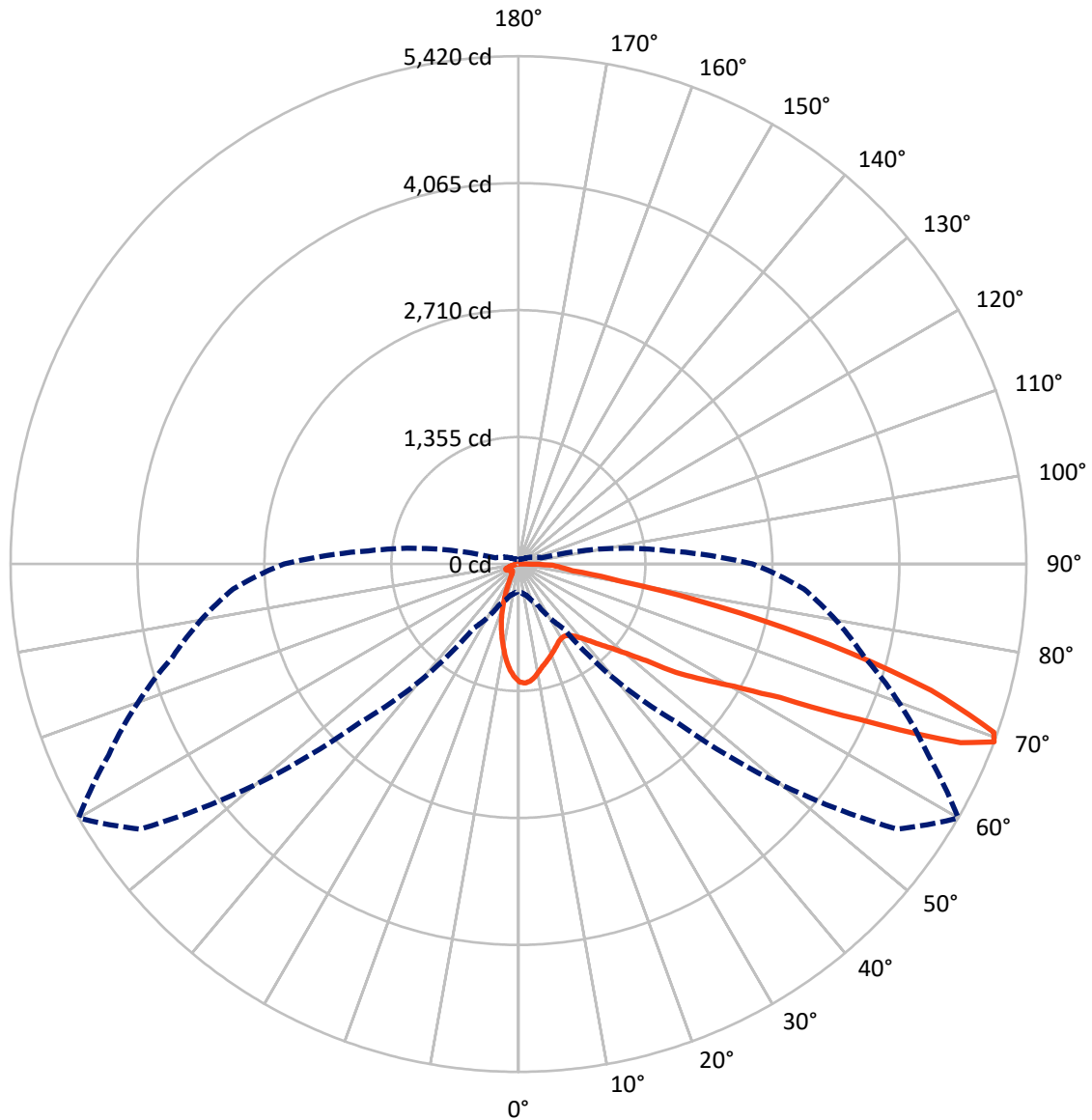
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.6 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	703.2	0.0	703.2
	% Fixture	14.3	0.0	14.3
<b>Street Side</b>	Lumens	4226.8	0.0	4226.8
	% Fixture	85.7	0.0	85.7
<b>Total</b>	Lumens	4930.0	0.0	4930.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.7	2.2
10°-20°	228.5	4.6
20°-30°	291.5	5.9
30°-40°	401.1	8.1
40°-50°	649.7	13.2
50°-60°	1019.7	20.7
60°-70°	1359.4	27.6
70°-80°	756.1	15.3
80°-90°	117.3	2.4
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°	4930.0	100.0
0°-180°	4930.0	100.0



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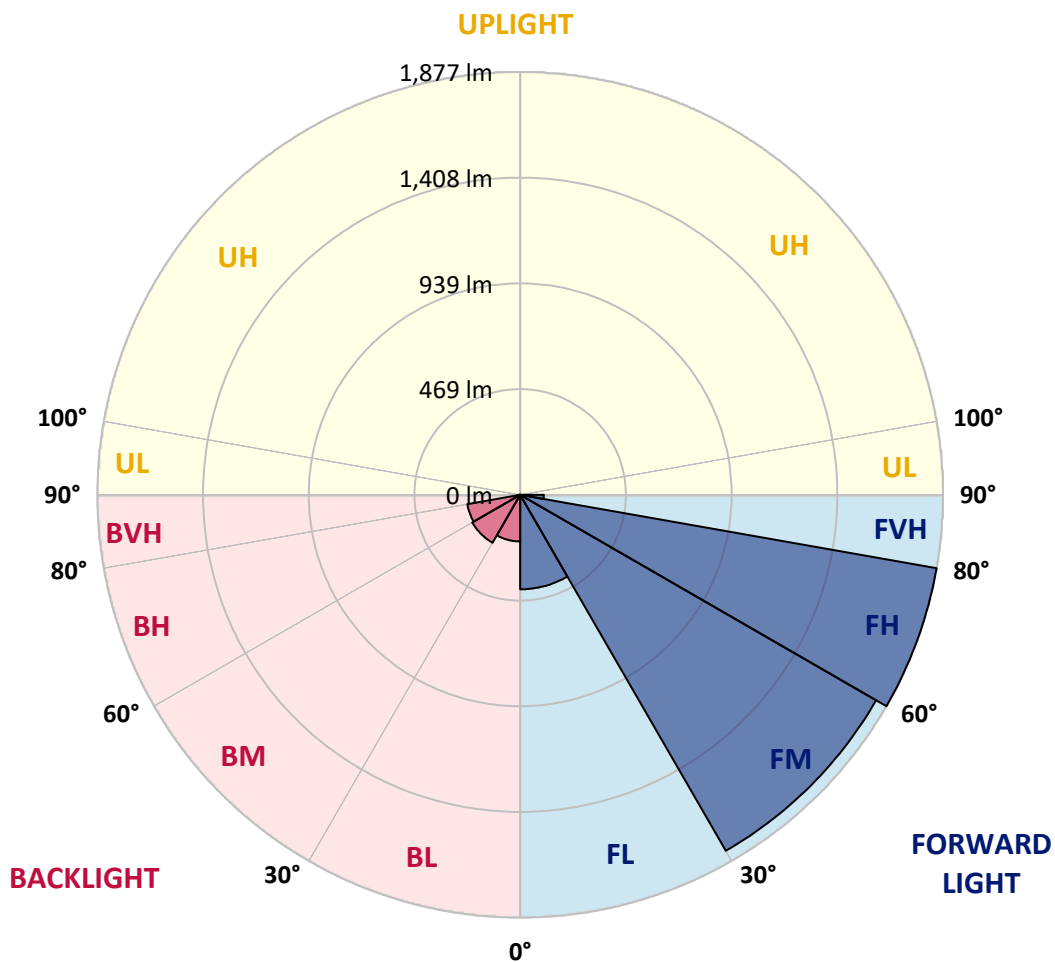
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	419.4	8.5			
FM	(30°-60°)	1824.8	37.0			
FH	(60°-80°)	1877.2	38.1			G2/5000
FVH	(80°-90°)	105.4	2.1			G2/225
BL	(0°-30°)	207.2	4.2	B1/500		
BM	(30°-60°)	245.7	5.0	B1/1000		
BH	(60°-80°)	238.4	4.8	B1/500		G1/500
BVH	(80°-90°)	11.9	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9
2.5°	1291.4	1294.9	1294.9	1292.0	1290.5	1281.3	1275.9	1272.1	1265.5	1253.2	1242.1
5°	1245.3	1251.9	1254.7	1256.0	1264.2	1261.4	1261.7	1259.2	1253.5	1240.2	1222.2
7.5°	1160.5	1161.8	1166.9	1175.4	1195.3	1209.2	1220.6	1222.8	1221.5	1211.7	1186.5
10°	1077.1	1079.3	1085.3	1099.8	1118.8	1138.7	1163.4	1173.5	1181.1	1177.9	1146.0
12.5°	1007.8	1008.2	1014.8	1031.6	1052.7	1077.7	1111.2	1127.0	1145.0	1152.3	1116.6
15°	941.1	945.6	951.9	972.1	998.4	1030.0	1068.5	1090.4	1114.1	1134.9	1093.8
17.5°	890.6	894.0	897.8	914.6	944.9	984.4	1032.2	1055.6	1086.9	1118.8	1070.4
20°	862.7	864.0	861.2	869.4	895.0	937.7	993.0	1021.1	1058.4	1103.3	1046.4
22.5°	857.0	857.0	846.6	845.0	856.4	892.5	952.5	987.0	1032.5	1092.6	1024.9
25°	883.6	881.7	862.1	844.1	840.0	858.3	913.9	956.3	1010.4	1092.2	1008.8
27.5°	933.9	931.3	907.0	876.6	850.4	842.5	884.2	927.5	993.0	1103.0	1000.6
30°	996.5	995.5	970.9	932.9	889.6	848.8	872.5	912.7	981.3	1122.9	1000.3
32.5°	1065.1	1060.6	1045.5	1007.5	951.3	883.9	879.5	913.3	978.1	1152.0	1007.5
35°	1138.1	1134.9	1131.1	1092.9	1029.7	945.9	910.2	935.1	993.6	1192.5	1028.1
37.5°	1231.0	1227.6	1233.9	1192.1	1122.9	1027.1	962.0	978.8	1025.2	1251.3	1066.3
40°	1396.4	1386.3	1368.6	1304.4	1231.7	1126.7	1036.9	1039.5	1079.3	1330.0	1127.7
42.5°	1667.9	1635.4	1547.8	1429.9	1346.4	1242.4	1134.6	1122.6	1153.9	1434.0	1216.8
45°	1940.1	1903.5	1755.5	1566.8	1465.3	1366.7	1255.4	1226.6	1246.8	1555.1	1331.6
47.5°	2115.9	2097.9	1931.0	1703.7	1589.8	1502.0	1393.5	1346.1	1360.6	1692.3	1473.2
50°	2167.4	2151.9	2020.7	1810.8	1707.5	1665.4	1564.6	1501.6	1504.2	1852.6	1643.0
52.5°	2128.9	2122.5	2035.6	1877.2	1815.6	1837.7	1801.3	1713.8	1692.9	2028.3	1826.9
55°	2077.3	2079.5	2046.0	1943.9	1925.6	1998.3	2111.2	2040.7	1952.1	2211.4	2018.5
57.5°	1915.2	1916.7	2004.6	2071.0	2135.5	2223.4	2352.4	2322.7	2219.6	2409.0	2233.2
60°	1542.1	1554.4	1750.1	2044.8	2375.4	2666.9	2698.5	2647.3	2504.1	2636.6	2512.3
62.5°	1101.7	1112.8	1339.5	1775.1	2347.3	3168.9	3337.8	3134.2	2890.1	2977.1	2905.0
65°	578.8	576.9	752.4	1226.6	1977.1	3285.3	4345.0	3998.5	3540.4	3445.3	3284.3
67.5°	323.4	333.8	401.8	618.7	1288.6	2891.4	4988.3	5090.4	4444.6	3816.7	3267.9
69°	299.1	302.5	348.1	478.3	840.0	2385.6	4933.0	5420.2	4825.8	3818.3	3057.4
70°	290.5	294.3	335.7	440.7	705.6	1954.7	4731.6	5381.6	4918.4	3733.6	2865.8
72.5°	260.5	265.6	305.7	396.1	594.7	1007.5	3811.3	4606.1	4455.3	3263.2	2222.1
75°	222.2	230.8	291.5	393.3	563.4	640.5	2541.7	3431.7	3316.0	2333.7	1260.8
77.5°	92.0	92.9	127.4	288.0	591.2	613.0	1366.0	2173.8	1924.3	1023.3	379.7
80°	64.2	62.9	63.5	84.1	477.0	617.1	700.9	1105.5	859.3	270.0	177.7
82.5°	54.1	53.4	56.0	52.8	161.5	700.2	586.1	576.3	404.7	145.4	84.7
85°	35.7	34.8	45.8	48.1	76.8	556.1	630.4	453.0	301.6	77.8	36.0
87.5°	17.4	17.7	26.2	32.6	40.8	176.1	603.8	358.2	233.0	33.8	14.5
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°	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9	1257.9
2.5°	1237.7	1228.2	1219.7	1208.9	1200.7	1193.7	1184.2	1183.9	1182.3	1184.6	1185.2
5°	1210.2	1194.4	1170.3	1143.5	1124.5	1099.5	1075.2	1067.0	1057.8	1056.8	1059.7
7.5°	1168.8	1144.1	1103.0	1061.9	1020.8	978.8	938.9	918.7	899.1	893.1	895.9
10°	1122.6	1091.3	1028.4	961.4	903.5	840.9	780.2	741.0	705.3	690.1	693.9
12.5°	1086.6	1046.7	958.2	871.3	784.6	694.9	614.9	537.4	478.9	452.7	454.3
15°	1055.6	1004.7	892.5	776.7	668.3	545.3	434.4	344.6	293.4	274.4	273.8
17.5°	1022.1	960.4	823.9	688.9	548.2	396.1	290.8	237.7	217.5	211.2	211.2
20°	986.3	914.9	752.1	593.1	421.7	276.6	218.8	198.2	190.6	188.7	188.4
22.5°	953.2	870.3	680.0	491.0	305.1	209.9	186.2	178.3	177.0	178.6	178.6
25°	926.9	831.1	607.0	383.5	221.9	175.8	165.7	164.7	169.4	175.1	176.1
27.5°	907.3	796.0	534.9	280.1	174.5	153.0	149.5	153.6	164.7	176.1	178.3
30°	893.7	766.0	448.6	201.4	145.4	134.0	135.6	142.9	159.6	177.0	181.8
32.5°	887.7	741.7	361.7	154.6	124.2	117.9	122.0	131.5	148.9	166.3	172.0
35°	893.4	724.0	281.4	128.4	108.8	104.0	108.8	118.6	129.9	138.5	141.9
37.5°	913.9	717.6	211.8	113.8	98.6	93.9	97.7	104.3	109.4	112.5	114.1
40°	957.3	724.3	166.0	106.2	92.9	87.6	88.5	91.7	95.2	97.7	98.0
42.5°	1026.2	746.1	147.6	103.4	89.5	82.5	80.9	83.1	86.9	90.4	91.0
45°	1117.9	782.4	145.7	104.3	87.9	78.4	75.2	77.5	82.5	88.2	89.2
47.5°	1236.4	840.0	154.6	109.4	88.8	76.2	71.4	73.7	80.3	87.9	89.2
50°	1376.8	919.6	171.0	117.0	93.3	76.2	69.9	71.8	78.7	87.3	88.5
52.5°	1542.1	1030.6	188.1	124.6	99.6	79.0	70.5	70.2	76.5	84.4	86.0
55°	1724.5	1168.4	204.5	131.2	103.1	82.8	72.1	68.3	73.3	79.7	80.9
57.5°	1939.2	1357.2	233.3	137.5	105.0	85.7	74.0	66.4	69.2	73.7	74.6
60°	2230.3	1634.4	289.3	148.3	108.4	86.9	74.3	64.5	64.2	67.3	67.7
62.5°	2610.0	1959.1	342.7	160.9	115.4	87.3	73.0	63.2	60.1	61.0	61.0
65°	2880.0	2078.6	327.2	171.7	121.7	86.9	71.8	62.3	56.9	55.3	55.3
67.5°	2726.4	1836.1	277.9	174.5	122.3	83.5	68.9	60.1	54.1	50.3	50.3
69°	2500.6	1609.4	255.1	169.4	117.3	79.4	65.8	57.9	52.2	47.7	47.7
70°	2316.6	1437.8	241.2	163.4	111.3	75.9	62.9	55.6	50.3	46.5	46.2
72.5°	1729.6	959.5	206.1	141.0	91.4	64.2	55.0	49.6	45.2	42.7	42.7
75°	912.7	480.8	168.8	115.1	70.5	51.2	45.2	41.7	39.2	38.9	38.6
77.5°	299.1	217.5	121.4	86.6	51.8	39.8	36.0	33.8	33.5	34.8	34.8
80°	161.5	129.9	78.1	58.5	36.0	29.7	27.8	27.5	28.5	30.3	30.3
82.5°	78.4	64.2	46.5	36.0	24.7	21.8	21.8	22.1	23.4	25.6	25.6
85°	33.8	30.3	26.9	20.2	15.2	13.6	15.5	17.1	18.0	19.6	20.2
87.5°	16.1	14.2	12.3	7.9	6.6	7.0	8.2	10.1	12.0	13.3	13.6
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)