

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: P196615

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196615  
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-SL3-7030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 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: 4768.1 lumens  
Efficiency: N/A  
Efficacy: 108.4 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

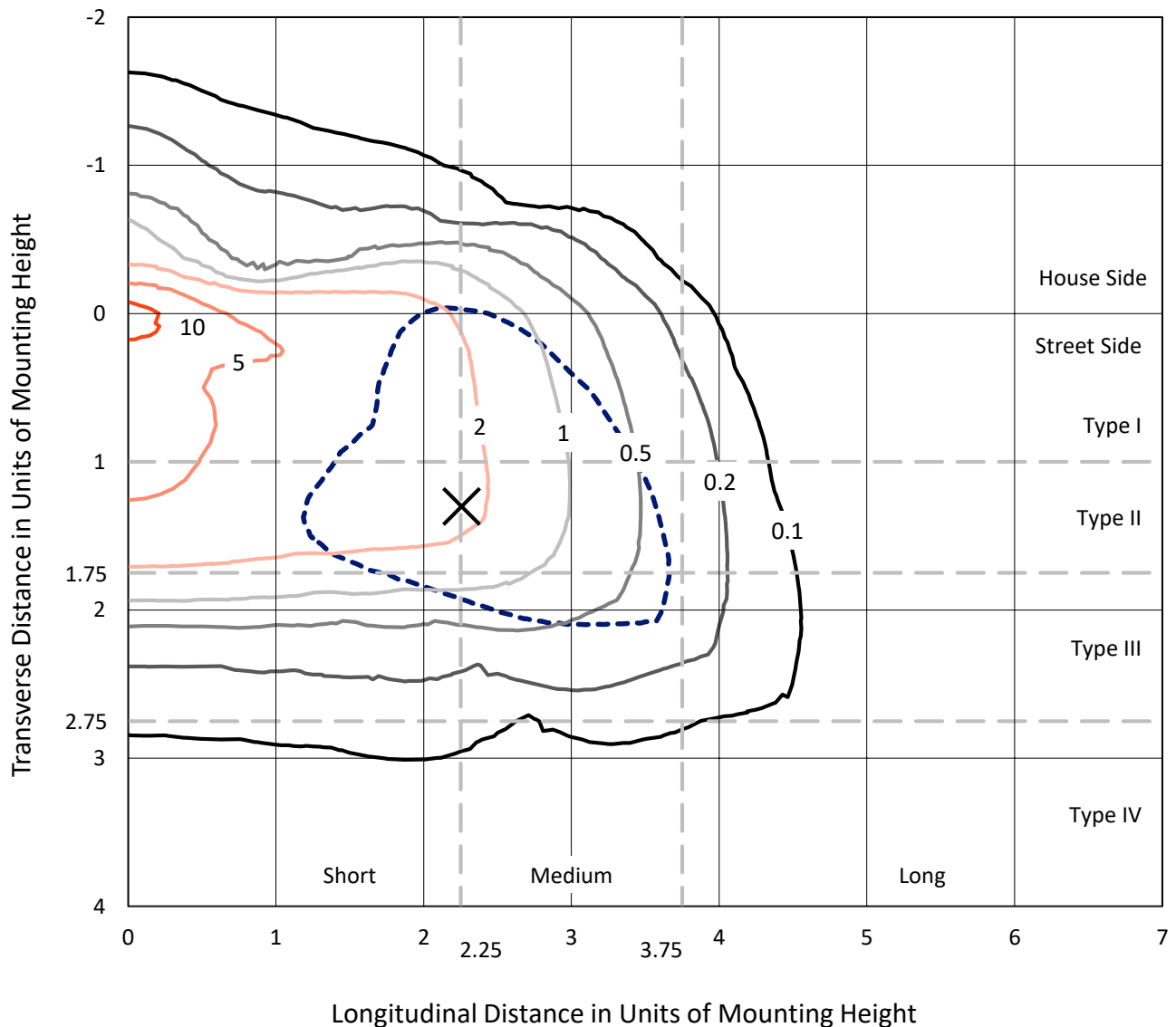
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

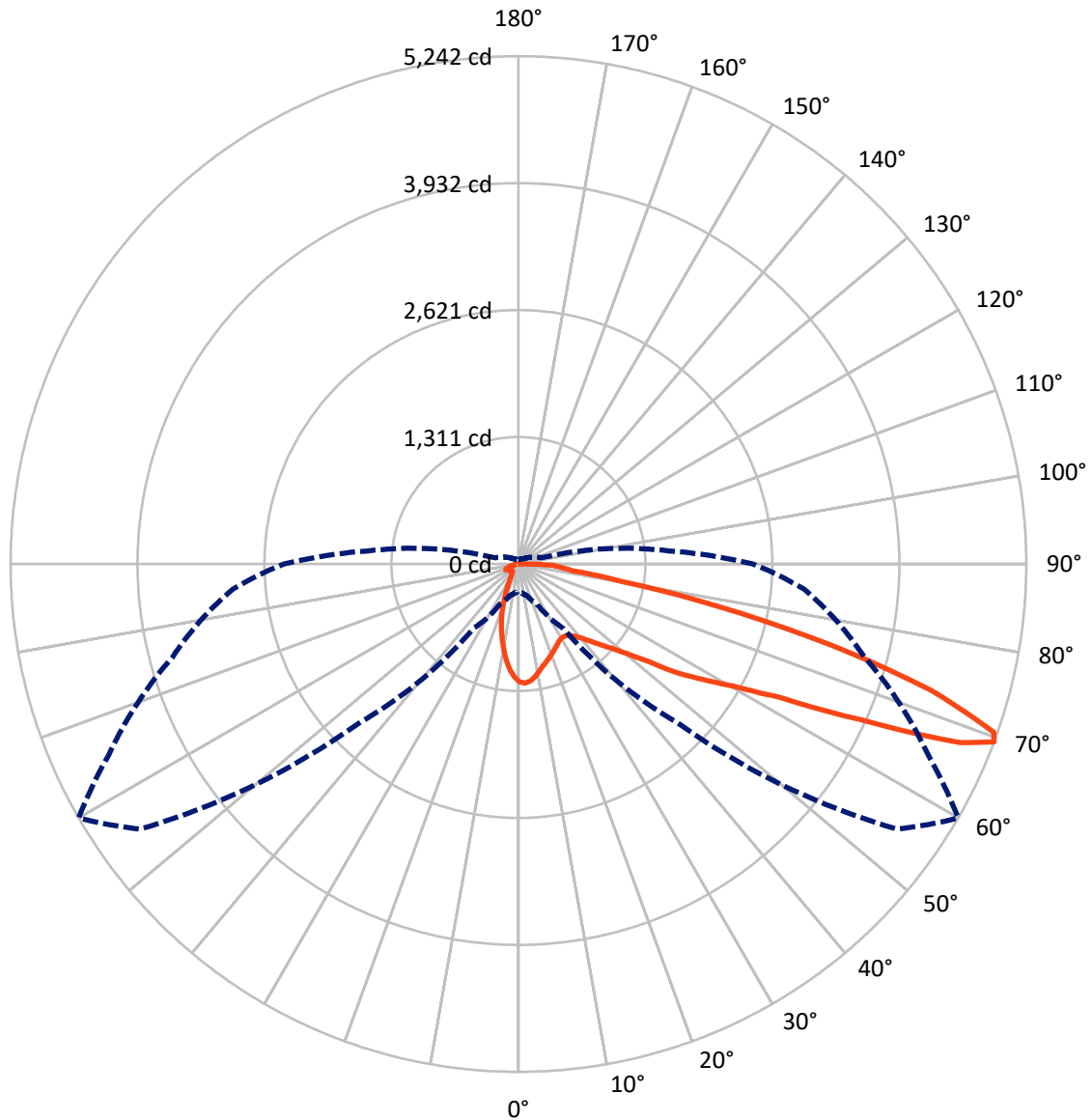
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.2 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P196615  
CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-800

### Luminous Intensity Polar Plot



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

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CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	680.1	0.0	680.1
	% Fixture	14.3	0.0	14.3
<b>Street Side</b>	Lumens	4088.0	0.0	4088.0
	% Fixture	85.7	0.0	85.7
<b>Total</b>	Lumens	4768.1	0.0	4768.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.2	2.2
10°-20°	221.0	4.6
20°-30°	281.9	5.9
30°-40°	387.9	8.1
40°-50°	628.4	13.2
50°-60°	986.2	20.7
60°-70°	1314.8	27.6
70°-80°	731.3	15.3
80°-90°	113.4	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°	4768.1	100.0
0°-180°	4768.1	100.0



REPORT NUMBER: P196615

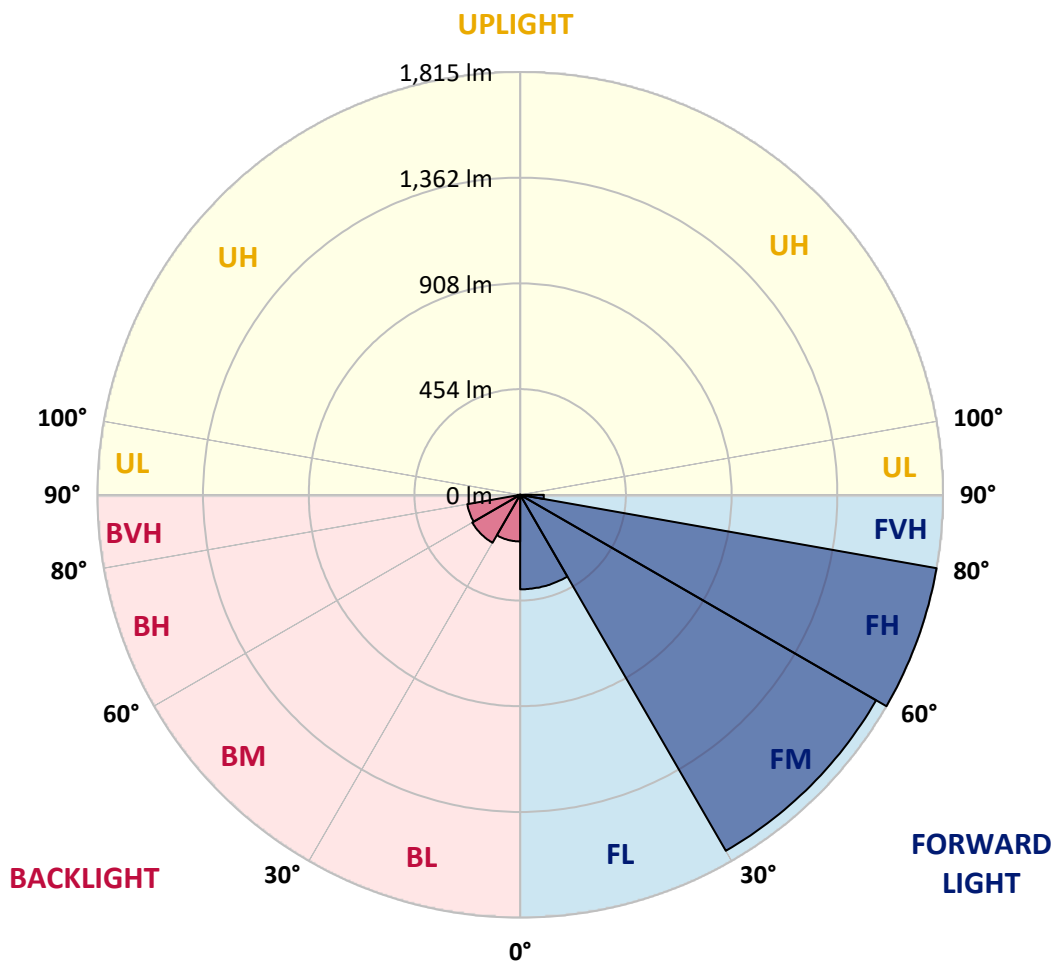
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	405.7	8.5			
FM (30°-60°)	1764.9	37.0			
FH (60°-80°)	1815.5	38.1			G2/5000
FVH (80°-90°)	101.9	2.1			G2/225
BL (0°-30°)	200.4	4.2	B1/500		
BM (30°-60°)	237.6	5.0	B1/1000		
BH (60°-80°)	230.6	4.8	B1/500		G1/500
BVH (80°-90°)	11.5	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





REPORT NUMBER: P196615

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6
2.5°	1249.1	1252.3	1252.3	1249.6	1248.1	1239.2	1234.0	1230.4	1223.9	1212.0	1201.3
5°	1204.4	1210.8	1213.6	1214.8	1222.7	1220.0	1220.2	1217.8	1212.3	1199.4	1182.0
7.5°	1122.4	1123.6	1128.5	1136.8	1156.1	1169.5	1180.5	1182.6	1181.4	1172.0	1147.4
10°	1041.7	1043.9	1049.7	1063.7	1082.1	1101.4	1125.2	1134.9	1142.3	1139.2	1108.3
12.5°	974.7	975.0	981.4	997.6	1018.2	1042.4	1074.7	1090.0	1107.5	1114.5	1079.9
15°	910.2	914.5	920.6	940.1	965.6	996.1	1033.5	1054.6	1077.6	1097.6	1057.9
17.5°	861.3	864.7	868.3	884.6	913.9	952.0	998.3	1020.9	1051.2	1082.1	1035.2
20°	834.4	835.7	832.9	840.9	865.6	906.9	960.4	987.6	1023.6	1067.0	1012.1
22.5°	828.8	828.8	818.8	817.3	828.3	863.1	921.3	954.6	998.6	1056.6	991.2
25°	854.6	852.8	833.7	816.3	812.4	830.2	883.9	924.9	977.3	1056.4	975.6
27.5°	903.2	900.8	877.3	847.9	822.5	814.8	855.2	897.1	960.4	1066.8	967.7
30°	963.7	962.8	939.0	902.3	860.4	821.0	843.9	882.7	949.0	1086.0	967.4
32.5°	1030.1	1025.8	1011.0	974.5	920.0	854.9	850.6	883.4	945.9	1114.1	974.5
35°	1100.7	1097.6	1094.0	1057.0	995.8	914.8	880.3	904.4	960.9	1153.3	994.3
37.5°	1190.6	1187.2	1193.3	1153.0	1086.0	993.3	930.5	946.6	991.5	1210.1	1031.3
40°	1350.6	1340.7	1323.5	1261.5	1191.3	1089.8	1002.9	1005.3	1043.9	1286.3	1090.6
42.5°	1613.1	1581.6	1497.0	1382.9	1302.2	1201.7	1097.4	1085.7	1116.0	1386.9	1176.8
45°	1876.4	1840.9	1697.9	1515.3	1417.2	1321.8	1214.1	1186.3	1205.9	1504.0	1287.8
47.5°	2046.4	2029.0	1867.6	1647.7	1537.6	1452.6	1347.7	1302.0	1315.9	1636.7	1424.8
50°	2096.2	2081.3	1954.3	1751.3	1651.4	1610.7	1513.1	1452.3	1454.8	1791.8	1588.9
52.5°	2059.0	2052.9	1968.8	1815.6	1755.9	1777.3	1742.1	1657.5	1637.4	1961.7	1766.9
55°	2009.1	2011.3	1978.8	1880.1	1862.4	1932.7	2041.8	1973.7	1888.0	2138.8	1952.3
57.5°	1852.3	1853.8	1938.8	2002.9	2065.3	2150.3	2275.1	2246.4	2146.7	2329.9	2159.8
60°	1491.5	1503.4	1692.7	1977.6	2297.4	2579.3	2609.8	2560.4	2421.8	2550.0	2429.8
62.5°	1065.5	1076.2	1295.5	1716.8	2270.2	3064.8	3228.2	3031.2	2795.2	2879.3	2809.6
65°	559.9	558.0	727.6	1186.3	1912.1	3177.4	4202.2	3867.1	3424.0	3332.1	3176.5
67.5°	312.8	322.9	388.6	598.3	1246.2	2796.4	4824.5	4923.2	4298.6	3691.4	3160.6
69°	289.2	292.6	336.6	462.6	812.4	2307.2	4771.0	5242.2	4667.3	3692.9	2956.9
70°	281.1	284.6	324.7	426.2	682.5	1890.5	4576.3	5204.8	4756.9	3610.9	2771.7
72.5°	252.0	256.9	295.6	383.1	575.1	974.5	3686.2	4454.8	4308.9	3156.0	2149.1
75°	214.9	223.2	281.9	380.3	544.8	619.5	2458.3	3319.0	3207.1	2257.1	1219.4
77.5°	88.9	89.9	123.3	278.5	571.8	592.8	1321.2	2102.3	1861.1	989.7	367.2
80°	62.1	60.8	61.4	81.3	461.4	596.9	677.9	1069.2	831.0	261.1	171.9
82.5°	52.3	51.7	54.1	51.1	156.2	677.2	566.8	557.4	391.3	140.6	82.0
85°	34.5	33.7	44.4	46.4	74.3	537.8	609.6	438.1	291.7	75.2	34.9
87.5°	16.8	17.2	25.3	31.4	39.5	170.3	584.0	346.5	225.3	32.7	14.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196615

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7030-800

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6	1216.6
2.5°	1197.1	1187.8	1179.6	1169.2	1161.2	1154.6	1145.4	1145.0	1143.5	1145.7	1146.2
5°	1170.3	1155.1	1131.9	1105.9	1087.5	1063.4	1039.8	1032.0	1023.0	1022.1	1024.9
7.5°	1130.4	1106.5	1066.8	1027.0	987.2	946.6	908.1	888.5	869.6	863.8	866.5
10°	1085.7	1055.5	994.6	929.8	873.8	813.3	754.6	716.6	682.1	667.5	671.2
12.5°	1050.8	1012.4	926.7	842.6	759.0	672.1	594.7	519.7	463.3	437.8	439.3
15°	1020.9	971.7	863.1	751.2	646.4	527.4	420.1	333.2	283.7	265.4	264.7
17.5°	988.5	928.9	796.8	666.3	530.1	383.1	281.4	229.9	210.4	204.2	204.2
20°	954.0	884.9	727.3	573.6	407.9	267.5	211.6	191.7	184.3	182.6	182.3
22.5°	921.8	841.8	657.6	474.8	295.0	203.0	180.1	172.4	171.2	172.7	172.7
25°	896.5	803.8	587.0	370.8	214.5	170.0	160.2	159.3	163.9	169.4	170.3
27.5°	877.5	769.8	517.4	270.9	168.8	147.9	144.7	148.6	159.3	170.3	172.4
30°	864.4	740.9	433.9	194.8	140.6	129.7	131.2	138.2	154.4	171.2	175.8
32.5°	858.6	717.3	349.7	149.4	120.1	114.0	118.0	127.2	144.0	160.8	166.3
35°	864.0	700.2	272.2	124.1	105.2	100.6	105.2	114.6	125.6	134.0	137.2
37.5°	883.9	694.1	204.9	110.1	95.4	90.8	94.5	100.8	105.8	108.8	110.4
40°	925.9	700.5	160.5	102.7	89.9	84.6	85.7	88.7	92.0	94.5	94.8
42.5°	992.5	721.5	142.8	100.0	86.6	79.8	78.2	80.5	84.1	87.4	88.1
45°	1081.1	756.7	141.0	100.8	85.0	75.8	72.7	75.0	79.8	85.3	86.2
47.5°	1195.9	812.4	149.4	105.8	85.9	73.6	69.1	71.2	77.7	85.0	86.2
50°	1331.6	889.5	165.4	113.1	90.2	73.6	67.5	69.4	76.2	84.3	85.7
52.5°	1491.5	996.8	181.9	120.5	96.3	76.5	68.2	67.8	74.0	81.6	83.1
55°	1667.9	1130.1	197.9	126.8	99.7	80.1	69.7	66.0	70.9	77.0	78.2
57.5°	1875.4	1312.6	225.6	133.0	101.5	82.8	71.6	64.3	66.9	71.2	72.1
60°	2157.1	1580.8	279.8	143.3	104.9	84.1	71.9	62.4	62.1	65.1	65.4
62.5°	2524.3	1894.8	331.4	155.5	111.6	84.3	70.6	61.1	58.1	59.0	59.0
65°	2785.4	2010.4	316.5	166.1	117.7	84.1	69.4	60.2	55.0	53.5	53.5
67.5°	2636.9	1775.8	268.8	168.8	118.3	80.8	66.6	58.1	52.3	48.6	48.6
69°	2418.5	1556.6	246.7	163.9	113.4	76.7	63.6	55.9	50.5	46.2	46.2
70°	2240.6	1390.6	233.3	158.1	107.6	73.4	60.8	53.9	48.6	44.9	44.7
72.5°	1672.8	927.9	199.4	136.3	88.4	62.1	53.2	48.0	43.7	41.3	41.3
75°	882.7	465.0	163.3	111.3	68.2	49.5	43.7	40.3	37.9	37.5	37.2
77.5°	289.2	210.4	117.5	83.8	50.1	38.6	34.9	32.7	32.4	33.7	33.7
80°	156.2	125.6	75.5	56.6	34.9	28.7	26.9	26.6	27.6	29.4	29.4
82.5°	75.8	62.1	44.9	34.9	23.8	21.1	21.1	21.5	22.6	24.8	24.8
85°	32.7	29.4	26.0	19.5	14.6	13.1	15.0	16.5	17.5	19.0	19.5
87.5°	15.7	13.7	11.9	7.6	6.4	6.8	7.9	9.9	11.6	12.9	13.1
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)