

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: P195475

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7050-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195475  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
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-5NQ-7050-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6889 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

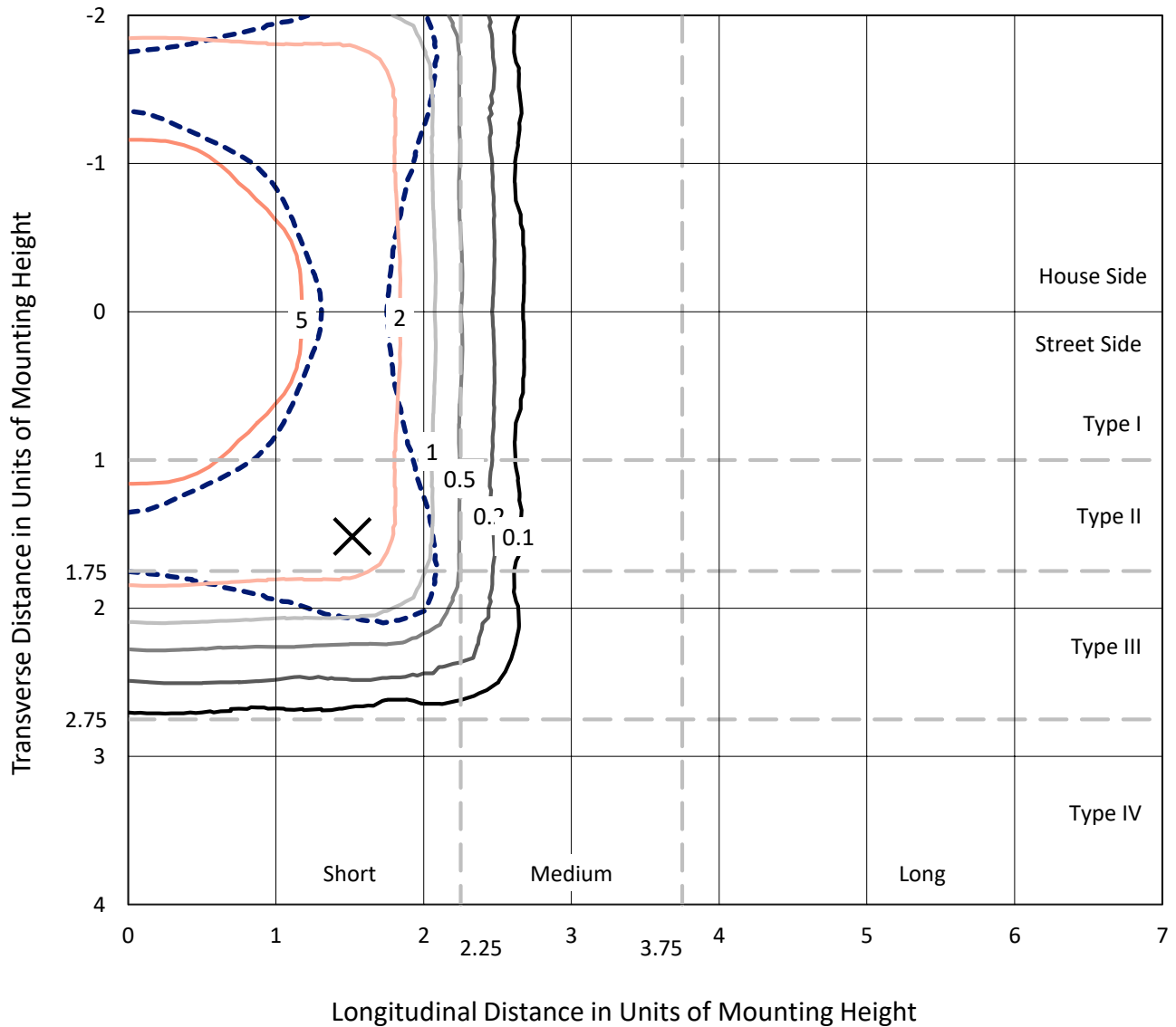
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

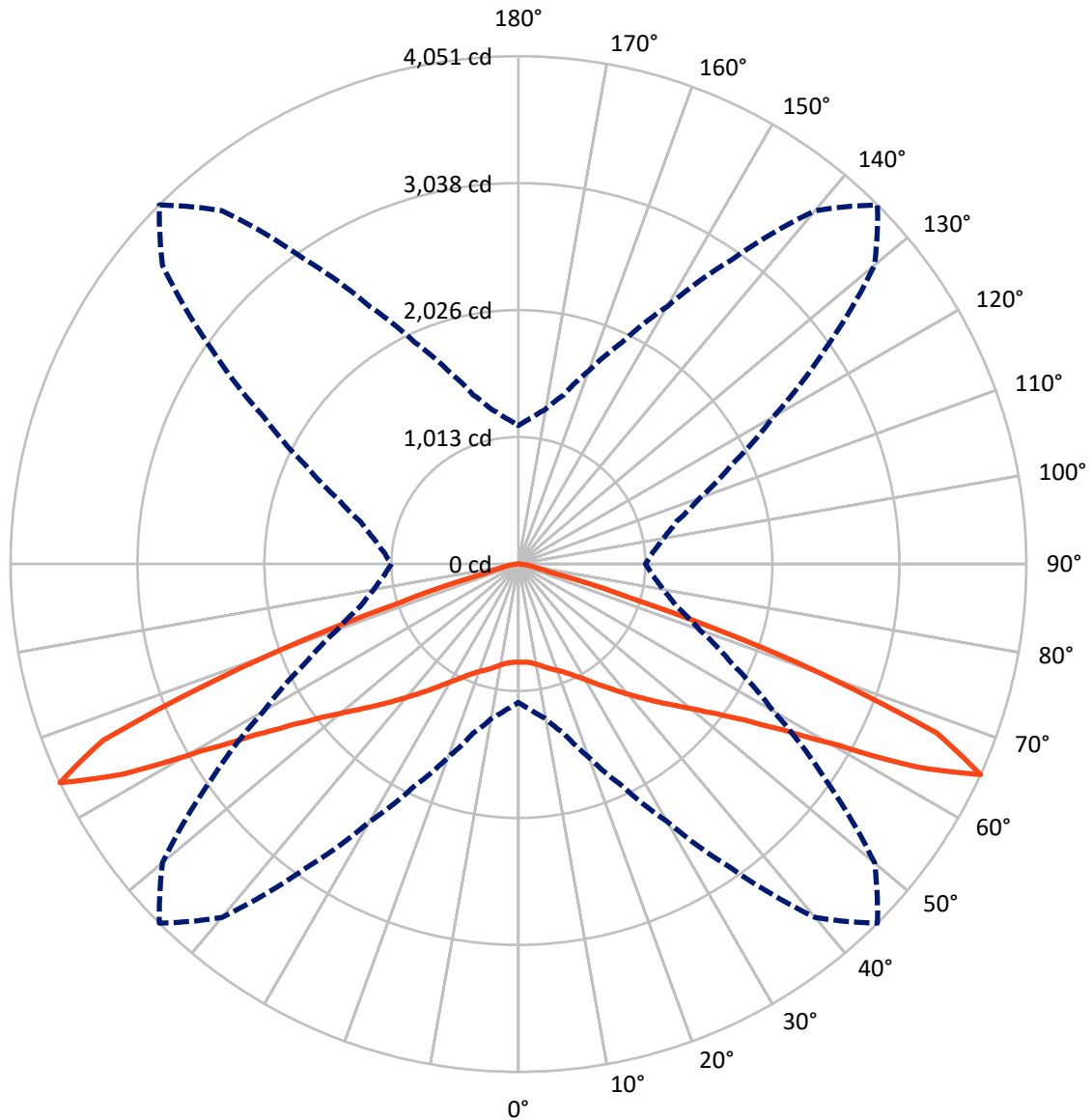
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.9 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3444.5	0.0	3444.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3444.5	0.0	3444.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6889.0	0.0	6889.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.3	1.1
10°-20°	244.6	3.6
20°-30°	456.2	6.6
30°-40°	769.3	11.2
40°-50°	1249.6	18.1
50°-60°	1957.9	28.4
60°-70°	1848.1	26.8
70°-80°	249.1	3.6
80°-90°	37.9	0.6
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°	6889.0	100.0
0°-180°	6889.0	100.0

**Coefficient of Utilization**



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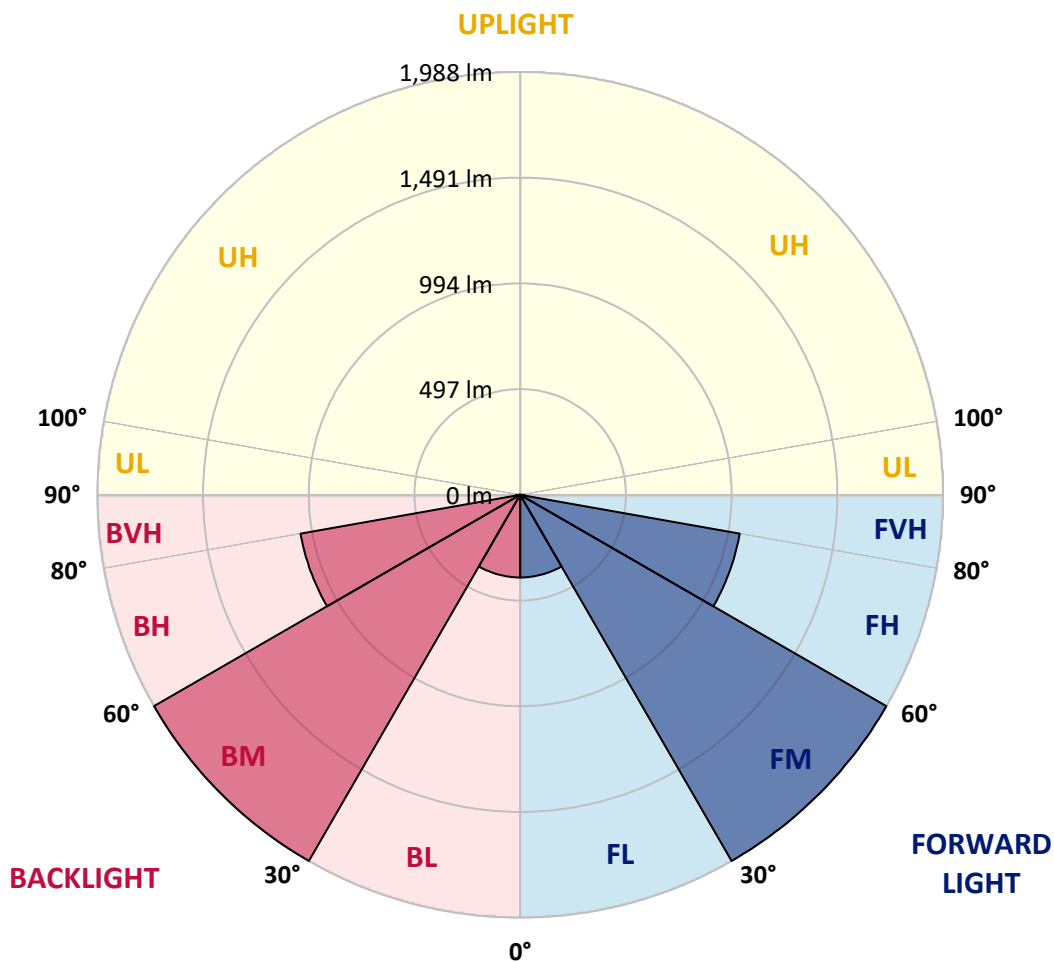
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	388.6	5.6			
FM (30°-60°)	1988.4	28.9			
FH (60°-80°)	1048.6	15.2			G1/1800
FVH (80°-90°)	19.0	0.3			G1/100
BL (0°-30°)	388.6	5.6	B1/500		
BM (30°-60°)	1988.4	28.9	B2/2500		
BH (60°-80°)	1048.6	15.2	B3/2500		G1/1800
BVH (80°-90°)	19.0	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	783.6	783.6	783.6	783.6	783.6	783.6	783.6	783.6	783.6	783.6	783.6
2.5°	790.1	790.1	791.3	790.9	789.2	787.9	786.6	784.9	784.0	783.2	782.8
5°	794.3	794.3	795.6	795.2	793.9	792.2	791.3	790.1	788.8	787.9	788.3
7.5°	805.1	805.5	805.9	805.5	804.2	802.9	801.2	800.8	799.1	797.8	798.6
10°	821.4	821.4	821.8	822.2	821.4	818.4	818.4	817.5	815.8	814.1	814.5
12.5°	839.4	839.4	839.8	839.8	839.8	838.1	838.5	838.1	836.0	835.1	836.0
15°	857.0	857.4	857.4	858.3	858.3	858.7	860.4	860.4	859.6	859.1	859.1
17.5°	877.6	878.5	878.9	880.2	880.6	881.5	883.2	883.6	884.0	882.7	883.2
20°	905.1	905.5	906.8	907.2	908.9	908.9	909.8	909.4	908.5	906.8	906.8
22.5°	936.0	936.8	939.4	939.4	941.5	940.3	940.7	939.4	937.2	936.4	935.5
25°	976.3	977.6	979.7	978.9	979.7	977.6	977.6	977.6	976.3	975.0	974.6
27.5°	1027.4	1025.2	1027.4	1025.7	1025.2	1023.5	1023.9	1023.1	1021.8	1021.4	1019.6
30°	1080.6	1078.0	1079.3	1079.7	1078.9	1078.4	1076.7	1075.4	1073.3	1073.7	1072.4
32.5°	1141.5	1138.9	1140.2	1140.7	1139.8	1140.7	1140.2	1137.2	1134.7	1136.4	1136.4
35°	1214.0	1212.3	1215.8	1217.1	1214.5	1213.2	1211.5	1208.0	1204.2	1206.8	1207.2
37.5°	1301.2	1299.0	1301.6	1305.0	1300.3	1297.7	1290.9	1285.7	1283.1	1284.4	1286.1
40°	1391.7	1392.1	1399.4	1400.3	1395.1	1392.1	1385.3	1377.5	1370.3	1370.3	1372.4
42.5°	1487.0	1488.3	1496.9	1499.9	1498.1	1492.6	1483.1	1473.7	1464.2	1466.0	1468.5
45°	1594.7	1593.0	1602.0	1609.3	1608.0	1606.3	1597.3	1580.1	1571.5	1571.1	1575.4
47.5°	1708.0	1711.4	1720.9	1733.3	1732.9	1728.6	1717.0	1701.1	1685.2	1686.5	1691.7
50°	1840.2	1844.9	1860.8	1873.2	1874.9	1873.6	1859.9	1841.5	1819.1	1820.4	1827.3
52.5°	1958.6	1965.5	1983.9	2009.7	2025.6	2032.9	2023.8	2006.7	1983.9	1985.2	1992.5
55°	2065.9	2076.6	2104.1	2139.3	2171.0	2200.6	2213.9	2213.5	2196.8	2200.6	2210.1
57.5°	2133.3	2148.3	2189.9	2246.6	2309.6	2369.3	2420.8	2469.3	2480.0	2500.2	2500.2
60°	2042.7	2077.9	2133.3	2230.3	2354.3	2488.2	2633.2	2774.4	2865.4	2937.1	2898.4
62.5°	1705.8	1757.8	1835.4	1963.3	2156.4	2395.5	2686.9	3015.2	3357.6	3567.0	3413.4
65°	1103.8	1169.0	1253.5	1397.3	1640.6	1948.3	2372.7	2962.8	3679.5	4051.1	3707.8
67.5°	437.3	481.5	533.0	635.1	846.3	1148.4	1624.7	2352.6	3249.0	3599.7	3214.7
70°	209.0	216.3	226.2	248.0	300.8	406.0	652.7	1159.1	1992.5	2362.0	1944.9
72.5°	151.1	152.3	157.1	164.4	179.8	201.3	244.6	354.5	687.1	999.0	687.9
75°	114.6	116.3	118.9	122.7	130.9	141.2	157.5	188.8	235.2	271.2	234.7
77.5°	87.1	88.8	91.0	94.8	99.1	106.4	112.4	124.9	144.6	152.3	151.5
80°	63.5	66.5	70.0	73.4	76.4	79.8	80.2	86.3	97.4	104.7	102.6
82.5°	40.3	42.9	51.9	55.8	56.2	57.1	56.6	57.1	63.1	68.2	66.5
85°	25.7	27.5	32.2	36.5	35.6	37.3	37.3	36.5	33.9	29.2	34.8
87.5°	12.9	13.3	15.4	19.3	18.5	16.3	15.9	15.9	11.6	9.9	10.7
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	783.6	783.6	783.6	783.6	783.6	783.6	783.6	783.6
2.5°	781.5	782.3	781.0	781.0	780.6	781.5	780.2	780.2
5°	787.5	788.8	788.3	788.3	789.2	790.1	789.6	789.2
7.5°	798.2	799.1	799.9	800.4	801.2	800.8	801.6	801.2
10°	814.5	813.7	814.9	813.7	814.1	813.2	813.7	813.7
12.5°	835.1	833.8	833.0	832.1	832.1	830.4	830.4	830.8
15°	858.7	856.6	854.9	854.0	853.1	853.1	851.8	852.7
17.5°	881.9	879.7	876.7	876.7	875.5	874.6	873.7	875.9
20°	906.4	904.2	902.5	902.1	899.5	898.6	899.1	901.6
22.5°	934.7	933.4	933.4	932.5	930.8	929.5	929.5	932.5
25°	972.9	970.3	970.7	971.2	970.3	970.3	969.4	971.6
27.5°	1019.6	1017.5	1018.8	1019.6	1018.8	1020.1	1018.8	1020.5
30°	1074.6	1073.3	1074.6	1075.9	1073.7	1073.7	1072.9	1074.1
32.5°	1140.2	1138.5	1139.4	1139.4	1136.4	1133.8	1130.4	1132.9
35°	1212.3	1210.2	1211.9	1213.2	1209.8	1207.2	1202.0	1204.2
37.5°	1291.7	1292.6	1294.7	1300.3	1299.4	1295.2	1291.3	1293.0
40°	1380.6	1384.8	1394.3	1398.1	1397.3	1393.0	1387.8	1388.7
42.5°	1481.0	1486.6	1496.4	1502.9	1499.9	1493.8	1487.4	1490.0
45°	1590.4	1599.0	1611.9	1618.3	1614.4	1608.0	1599.0	1603.7
47.5°	1706.3	1723.4	1740.6	1749.2	1747.9	1738.9	1727.3	1728.6
50°	1844.9	1867.6	1889.5	1898.1	1891.7	1877.9	1861.6	1861.2
52.5°	2017.4	2041.9	2059.9	2057.7	2041.9	2020.4	2002.0	2001.1
55°	2232.8	2241.0	2238.4	2220.0	2192.1	2158.6	2135.0	2131.1
57.5°	2493.3	2465.9	2425.5	2369.7	2307.1	2243.6	2200.6	2184.8
60°	2811.7	2687.7	2543.5	2391.6	2253.0	2149.1	2083.5	2043.6
62.5°	3074.8	2715.6	2393.3	2129.4	1913.5	1785.2	1695.5	1640.2
65°	2984.7	2346.1	1879.2	1538.9	1303.3	1170.7	1075.9	1012.8
67.5°	2305.8	1567.7	1090.9	756.2	573.3	485.4	424.0	384.1
70°	1162.5	601.2	364.3	257.1	219.7	204.3	194.0	188.0
72.5°	341.2	227.9	189.3	167.4	154.1	144.6	138.6	135.6
75°	188.8	154.1	136.0	123.6	115.0	108.6	104.7	102.1
77.5°	130.0	112.0	103.0	94.8	88.0	83.3	80.2	77.7
80°	91.0	82.0	78.1	73.8	68.7	64.8	60.5	58.8
82.5°	60.5	56.6	55.8	52.4	49.4	45.1	37.3	34.8
85°	35.6	35.2	35.2	33.9	31.8	27.9	22.3	22.3
87.5°	12.4	12.9	13.3	14.2	13.7	11.6	9.4	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)