

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: INVUE

Report Number: P140436

Luminaire Tested: **ECM-F02-LED-E1-5WQ-7050**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140436  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33687)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F02-LED-E1-5WQ-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (14) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5061 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G1

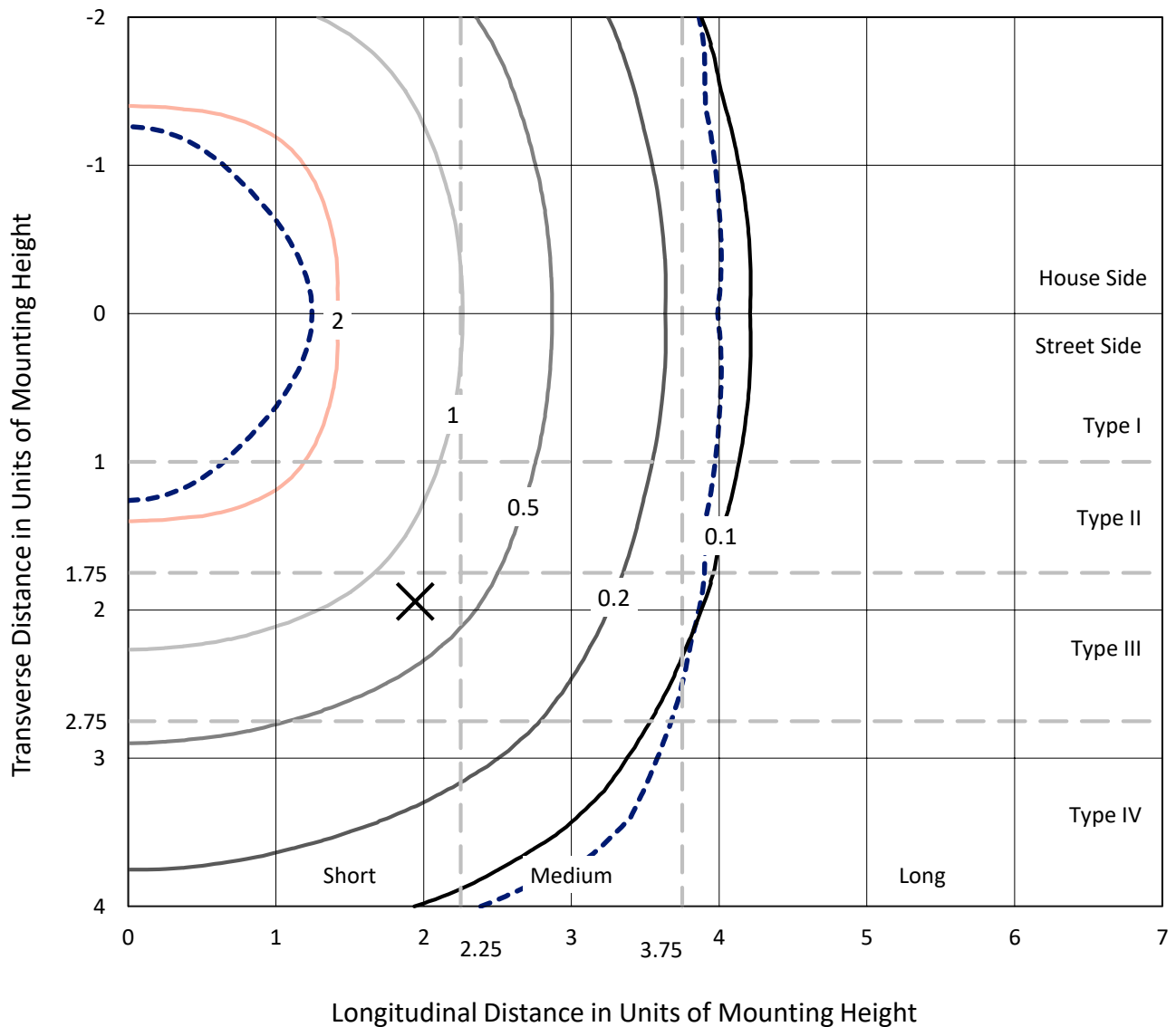
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

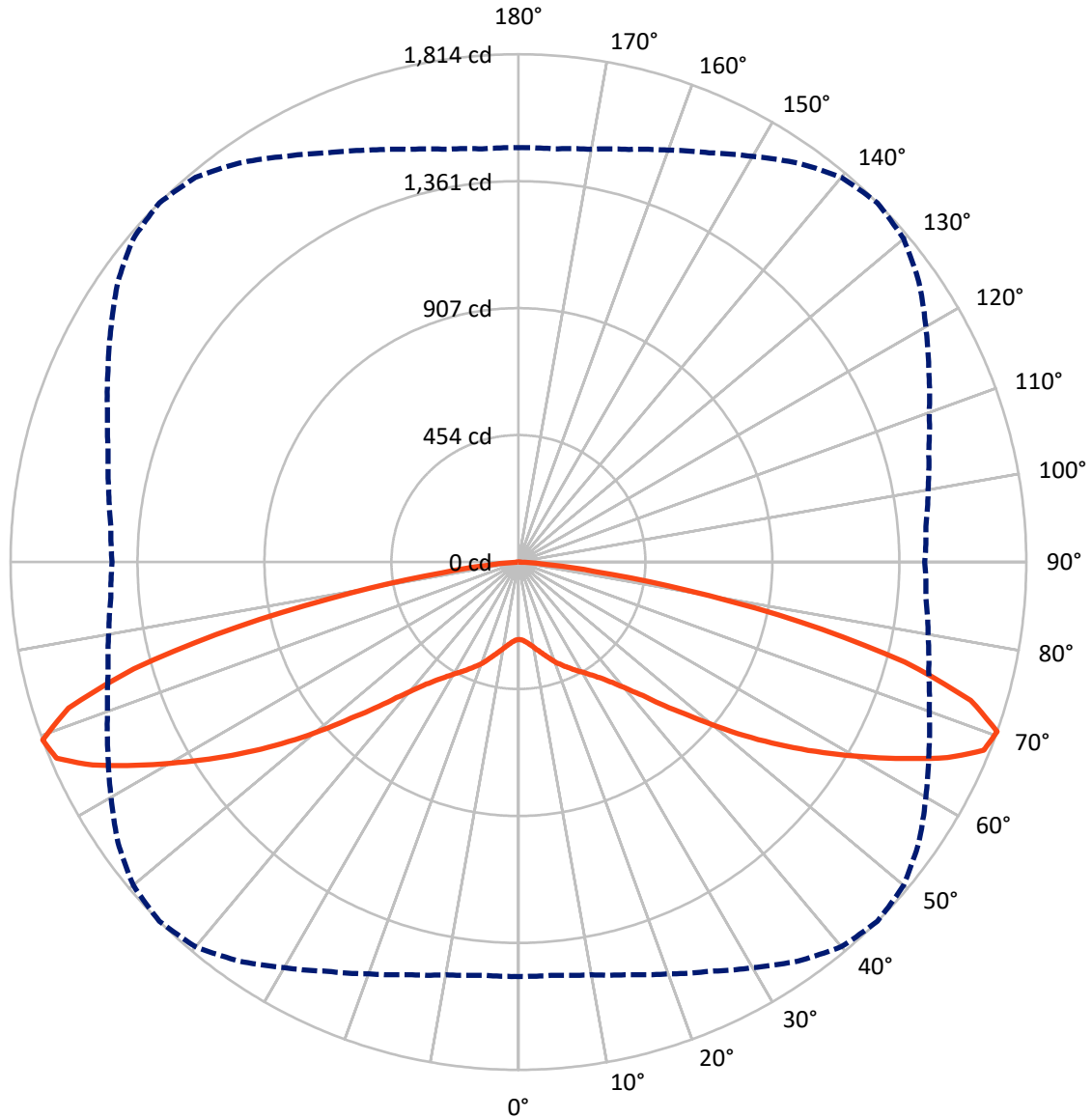
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2530.5	0.0	2530.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2530.5	0.0	2530.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5061.0	0.0	5061.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.1	0.6
10°-20°	98.0	1.9
20°-30°	192.6	3.8
30°-40°	318.6	6.3
40°-50°	557.7	11.0
50°-60°	994.8	19.7
60°-70°	1535.8	30.3
70°-80°	1215.7	24.0
80°-90°	119.6	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°	5061.0	100.0
0°-180°	5061.0	100.0



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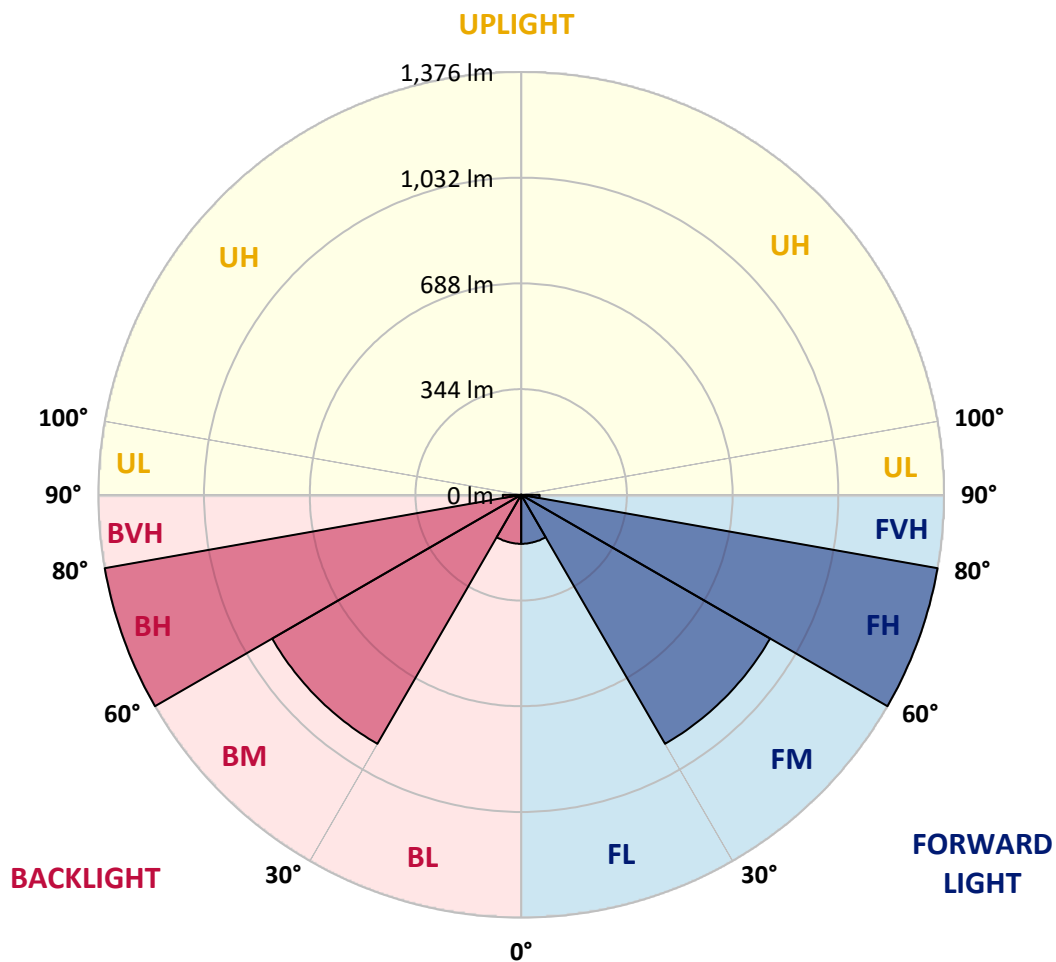
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	159.3	3.1			
FM (30°-60°)	935.6	18.5			
FH (60°-80°)	1375.8	27.2			G1/1800
FVH (80°-90°)	59.8	1.2			G1/100
BL (0°-30°)	159.3	3.1	B1/500		
BM (30°-60°)	935.6	18.5	B1/1000		
BH (60°-80°)	1375.8	27.2	B3/2500		G1/1800
BVH (80°-90°)	59.8	1.2			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°	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7
2.5°	280.1	280.1	279.5	279.5	279.5	279.5	279.0	279.0	279.5	279.0	279.0
5°	286.9	287.4	287.4	286.9	286.9	286.9	286.9	286.9	287.4	286.9	286.9
7.5°	297.0	297.6	297.6	297.0	297.0	297.0	297.0	297.0	297.6	297.6	296.5
10°	309.5	310.0	310.0	309.5	309.5	310.0	310.0	310.0	310.6	310.6	310.0
12.5°	324.1	324.7	325.3	324.7	325.3	325.3	325.8	326.4	326.4	326.4	325.3
15°	341.1	342.8	341.7	341.7	342.2	342.8	342.8	344.5	343.9	343.3	342.8
17.5°	360.9	360.3	360.3	360.9	361.4	360.9	361.4	363.1	362.5	362.0	361.4
20°	379.5	379.5	379.5	378.9	380.1	380.1	380.6	381.2	381.2	382.3	380.6
22.5°	397.6	397.6	397.0	397.0	398.1	398.1	399.3	400.4	400.4	400.4	399.3
25°	414.5	414.5	415.1	414.5	415.1	415.6	416.8	417.9	418.5	418.5	418.5
27.5°	429.7	431.4	430.9	431.4	432.6	433.7	434.8	436.5	437.7	438.2	436.5
30°	449.0	449.0	448.4	449.0	450.1	451.8	454.0	456.9	456.9	457.4	457.4
32.5°	469.3	469.8	468.7	469.8	471.5	473.8	476.1	478.3	479.4	481.7	481.1
35°	495.8	494.1	494.7	496.4	497.5	499.8	502.6	506.6	508.8	509.9	508.8
37.5°	526.3	525.8	526.9	526.9	530.8	533.1	538.2	541.6	543.3	546.1	545.0
40°	564.7	567.0	567.5	569.2	571.5	576.0	581.7	587.3	590.7	593.0	593.5
42.5°	616.7	617.8	615.5	621.8	628.0	630.8	637.6	645.5	650.6	652.2	652.8
45°	680.5	680.5	683.9	687.8	695.7	701.4	708.7	721.7	726.2	732.4	732.4
47.5°	756.7	759.0	759.0	768.0	774.2	785.5	799.6	810.4	820.0	817.1	826.7
50°	844.8	846.5	852.7	857.8	868.5	881.5	894.5	910.3	924.4	926.1	927.8
52.5°	936.9	939.1	944.2	956.1	969.1	983.7	1007.5	1021.0	1034.6	1041.9	1040.8
55°	1042.5	1041.3	1049.8	1058.8	1078.0	1097.8	1117.6	1136.8	1150.9	1161.1	1160.5
57.5°	1153.2	1157.1	1166.7	1178.0	1194.4	1211.9	1235.6	1254.8	1278.0	1284.2	1275.1
60°	1281.9	1278.0	1287.6	1305.1	1319.7	1342.3	1363.2	1388.1	1404.5	1411.8	1409.0
62.5°	1413.5	1410.1	1417.4	1440.0	1457.5	1473.9	1502.7	1529.8	1543.4	1546.2	1541.1
65°	1510.1	1511.2	1523.0	1542.8	1570.5	1595.3	1627.5	1660.3	1681.7	1685.1	1673.8
67.5°	1532.6	1534.9	1551.3	1576.7	1611.1	1652.4	1700.4	1748.9	1785.6	1793.5	1777.2
70°	1480.7	1481.8	1497.6	1526.4	1566.0	1613.4	1673.3	1740.5	1794.1	1814.4	1796.4
72.5°	1374.0	1378.5	1391.5	1415.7	1446.8	1493.7	1551.3	1611.1	1664.2	1690.2	1690.2
75°	1181.4	1191.6	1197.8	1205.7	1232.8	1270.6	1317.5	1364.9	1411.8	1426.5	1385.3
77.5°	843.1	826.2	830.1	874.2	868.0	910.9	962.8	996.7	1038.5	1032.3	973.0
80°	386.8	377.2	399.3	428.6	465.9	494.7	550.6	556.2	604.2	607.1	564.2
82.5°	77.4	81.3	97.1	119.7	149.1	181.3	210.6	235.5	268.2	274.5	254.7
85°	24.3	26.5	33.3	36.7	38.4	44.0	50.3	67.8	77.9	80.8	75.7
87.5°	5.1	7.9	13.0	14.7	15.2	14.7	14.7	14.1	11.3	9.0	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°	276.7	276.7	276.7	276.7	276.7	276.7	276.7	276.7
2.5°	278.4	278.4	279.0	279.0	279.0	278.4	277.8	278.4
5°	286.3	286.3	286.3	286.3	285.2	285.2	284.6	284.6
7.5°	296.5	295.9	295.9	295.3	294.8	294.8	294.2	294.8
10°	310.0	308.9	308.3	307.8	307.2	307.2	306.6	306.1
12.5°	324.7	324.1	323.6	322.5	321.9	320.8	320.8	320.8
15°	341.7	341.1	340.5	338.8	338.8	337.1	337.7	337.7
17.5°	360.3	359.2	357.5	356.9	356.3	354.6	354.6	354.6
20°	379.5	377.2	376.1	375.0	375.0	373.3	372.7	372.7
22.5°	398.1	395.9	393.6	392.5	391.3	390.8	389.7	389.1
25°	416.8	414.5	412.2	410.5	408.3	407.2	406.0	406.0
27.5°	435.4	433.1	429.7	427.5	425.2	423.0	421.8	422.4
30°	454.6	452.3	449.0	446.1	443.3	441.0	439.9	439.3
32.5°	478.9	476.1	472.1	469.3	464.2	461.9	460.8	461.4
35°	507.1	503.2	500.3	495.8	491.9	489.0	487.4	487.4
37.5°	543.3	539.9	537.0	532.5	526.9	523.5	521.2	522.9
40°	590.1	587.3	581.7	574.9	570.4	567.5	565.3	565.8
42.5°	650.0	644.3	639.3	635.3	628.5	624.6	618.4	620.6
45°	725.7	719.4	714.4	708.2	701.9	694.0	691.8	687.3
47.5°	817.1	812.6	801.3	795.7	787.8	776.5	770.8	766.3
50°	918.2	909.8	901.9	887.7	878.7	865.7	860.6	858.9
52.5°	1032.3	1018.2	1005.2	992.2	974.1	961.7	951.5	953.8
55°	1145.2	1128.9	1110.2	1096.1	1082.0	1066.8	1056.0	1049.8
57.5°	1264.4	1246.3	1226.6	1206.2	1194.4	1176.3	1169.5	1166.1
60°	1386.9	1370.6	1350.8	1332.2	1315.8	1294.9	1283.6	1279.1
62.5°	1522.5	1499.9	1476.2	1453.0	1434.9	1419.7	1407.8	1399.9
65°	1647.3	1616.2	1591.9	1562.6	1542.8	1520.8	1506.1	1503.3
67.5°	1740.5	1692.5	1650.1	1612.3	1581.8	1554.7	1536.0	1528.7
70°	1746.7	1680.6	1617.9	1562.0	1517.4	1486.3	1461.5	1451.9
72.5°	1625.8	1543.9	1459.2	1404.5	1357.0	1314.1	1296.6	1292.6
75°	1322.6	1254.2	1183.6	1121.5	1088.8	1067.3	1052.6	1031.2
77.5°	918.8	856.1	818.3	748.8	736.4	718.9	704.2	690.1
80°	514.5	459.7	417.3	373.8	347.3	332.6	317.4	308.9
82.5°	231.0	189.7	150.8	116.9	96.6	76.2	57.0	60.4
85°	57.6	48.6	37.3	31.1	28.2	26.0	20.9	18.6
87.5°	10.7	10.2	9.0	9.0	9.6	7.9	4.5	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)