

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: P140276

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P140276  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33686)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F02-LED-E1-5MQ-7050  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (14) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5173.5 lumens  
Efficiency: N/A  
Efficacy: 94.1 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

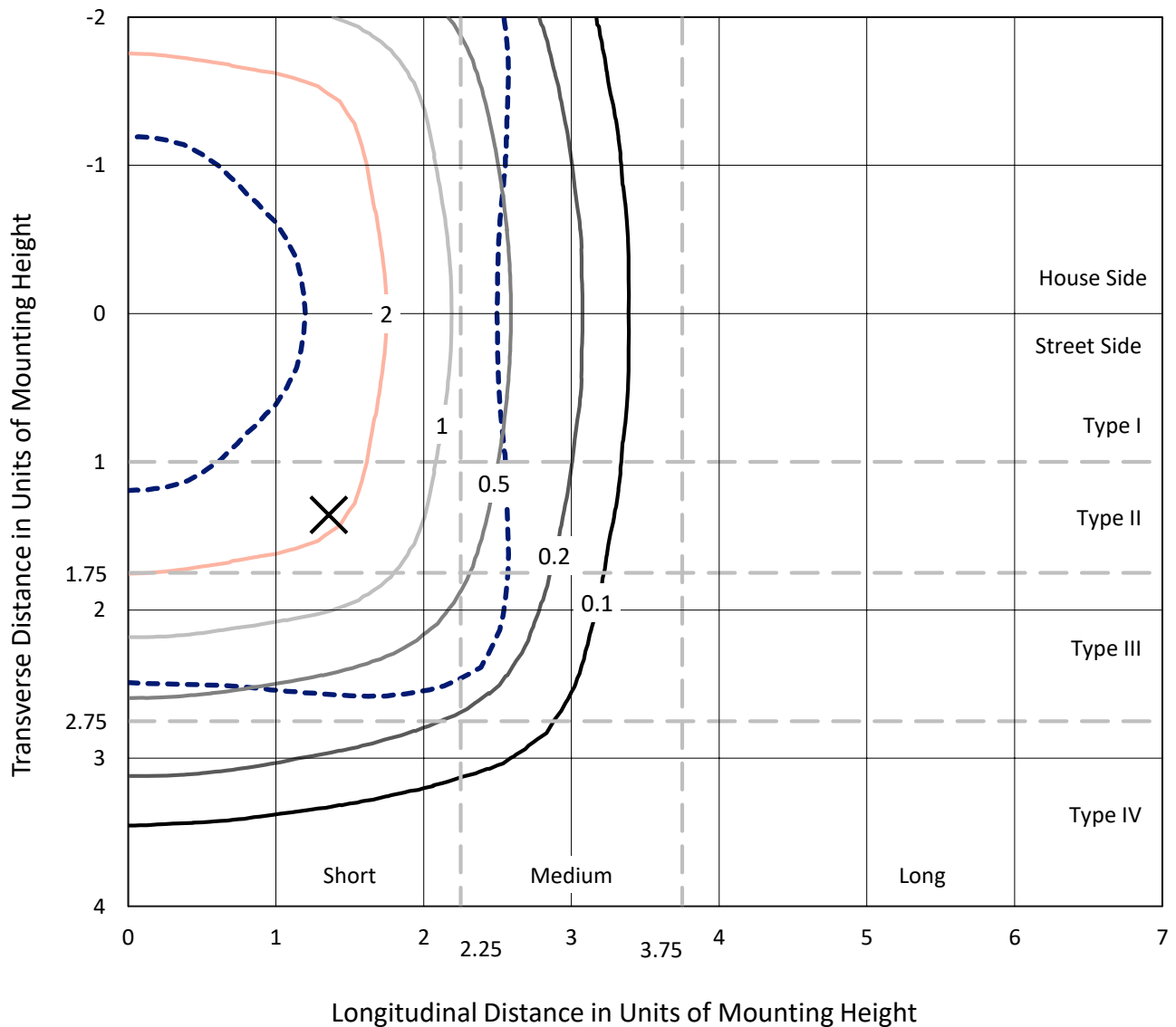
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

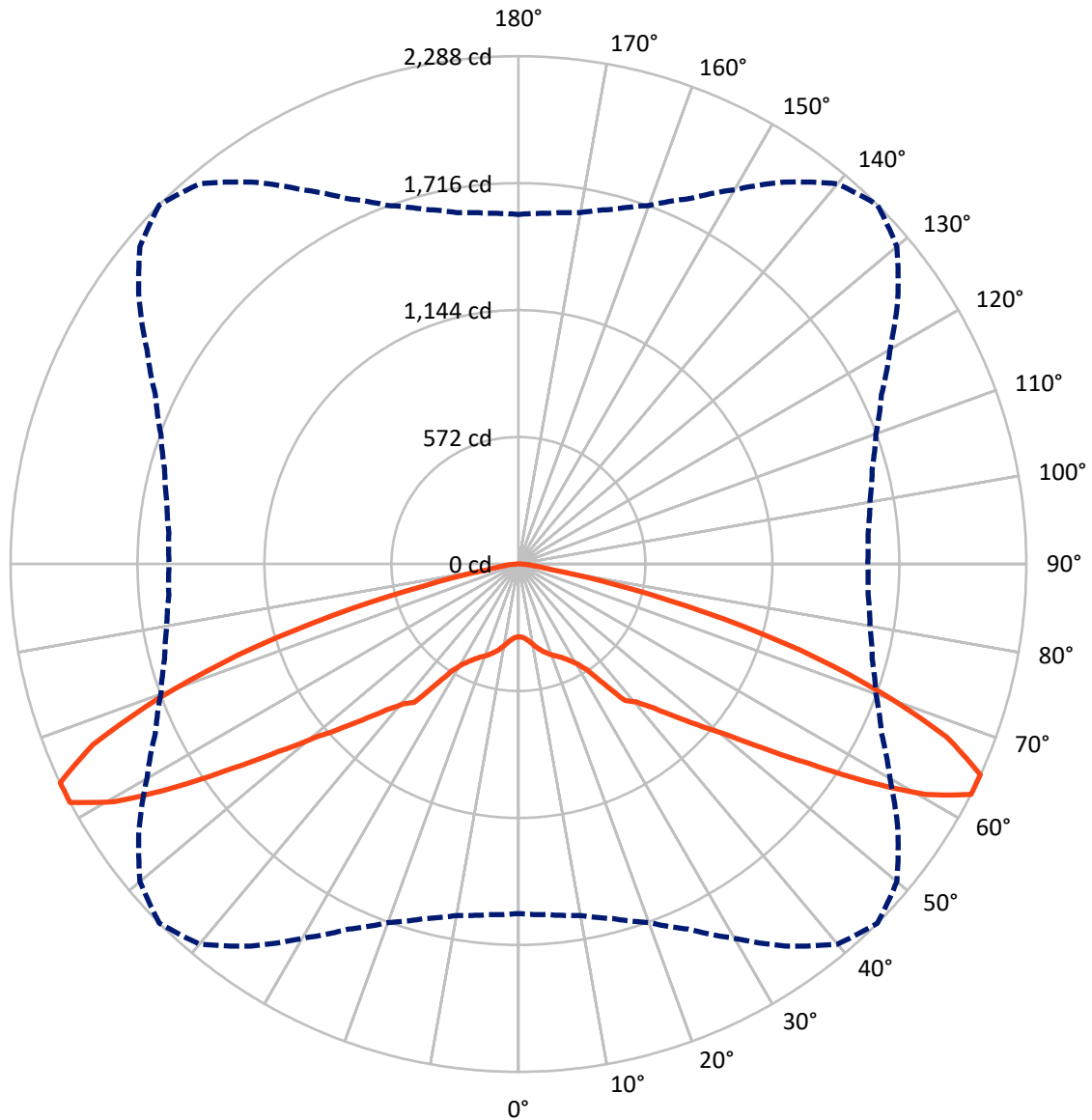
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2586.8	0.0	2586.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2586.8	0.0	2586.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5173.5	0.0	5173.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.4	0.6
10°-20°	116.2	2.2
20°-30°	223.3	4.3
30°-40°	429.6	8.3
40°-50°	747.7	14.5
50°-60°	1342.9	26.0
60°-70°	1646.2	31.8
70°-80°	580.5	11.2
80°-90°	53.7	1.0
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°	5173.5	100.0
0°-180°	5173.5	100.0



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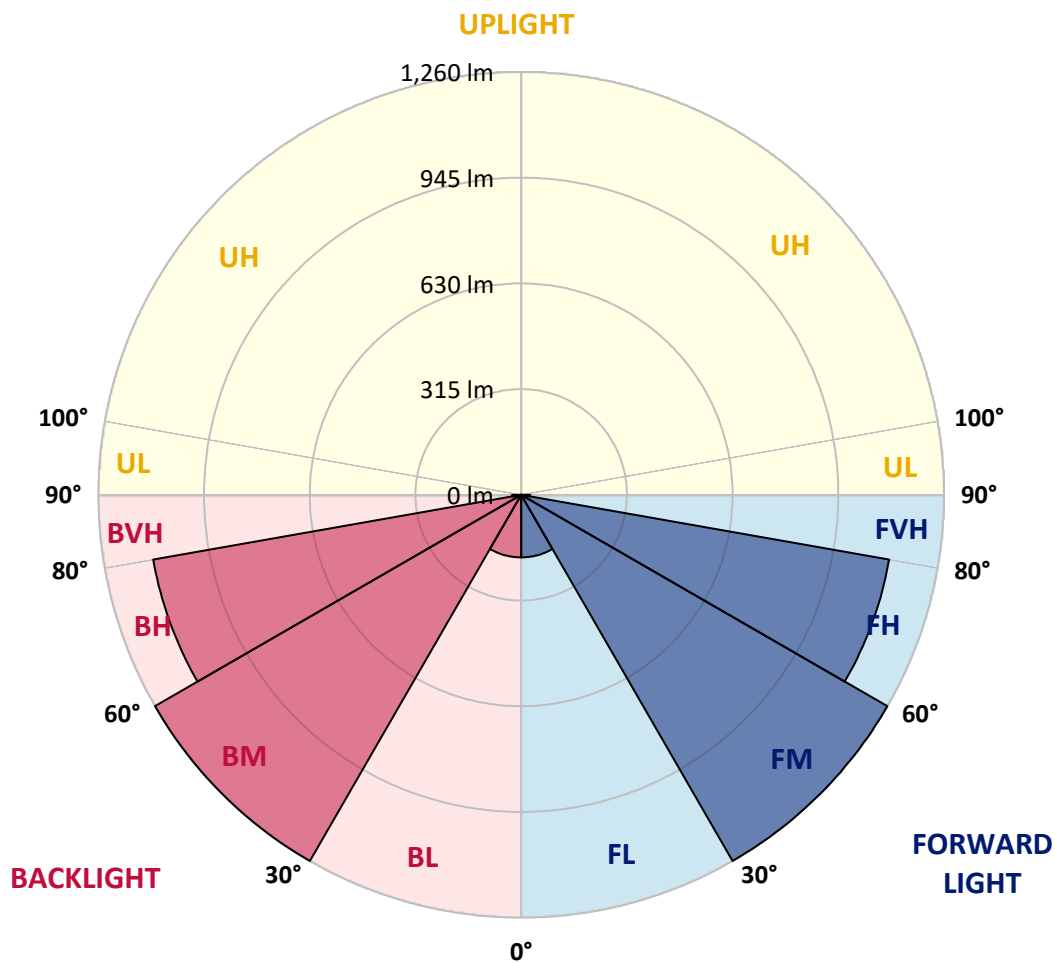
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	186.5	3.6			
FM	(30°-60°)	1260.1	24.4			
FH	(60°-80°)	1113.4	21.5			G1/1800
FVH	(80°-90°)	26.8	0.5			G1/100
BL	(0°-30°)	186.5	3.6	B1/500		
BM	(30°-60°)	1260.1	24.4	B2/2500		
BH	(60°-80°)	1113.4	21.5	B3/2500		G1/1800
BVH	(80°-90°)	26.8	0.5			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°	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1
2.5°	332.1	332.1	331.5	330.9	330.9	330.9	330.4	330.4	330.9	329.8	329.8
5°	340.5	341.1	340.5	340.0	339.4	339.4	338.8	338.8	339.4	338.3	337.7
7.5°	356.3	356.9	355.8	355.2	354.6	354.1	353.5	352.9	353.5	351.8	351.8
10°	376.7	376.7	376.7	374.4	374.4	372.7	372.1	371.0	371.6	369.9	369.9
12.5°	397.0	397.0	396.4	395.3	394.7	393.6	392.5	392.5	391.3	389.1	388.0
15°	415.1	415.6	415.1	413.4	412.8	411.1	411.1	410.0	408.3	407.2	406.0
17.5°	432.0	432.6	430.9	430.3	428.6	427.5	426.4	425.8	424.7	423.0	422.4
20°	448.4	447.8	446.1	443.9	442.7	441.6	440.5	439.9	439.3	438.2	438.2
22.5°	464.2	464.2	462.5	459.1	456.9	455.7	454.0	452.9	451.8	451.2	452.3
25°	487.9	487.4	484.0	480.6	476.6	473.2	471.0	470.4	469.3	469.3	469.8
27.5°	518.4	517.3	512.2	507.7	503.2	498.6	495.8	493.6	493.0	492.4	492.4
30°	556.8	555.1	550.6	545.0	539.9	534.2	528.6	526.9	524.1	521.8	525.8
32.5°	630.2	631.4	622.3	611.0	599.7	589.0	579.4	572.1	567.5	568.1	568.1
35°	711.0	711.5	707.6	703.1	699.7	693.5	682.7	673.7	666.9	659.6	663.0
37.5°	746.0	746.6	743.2	742.6	744.9	748.8	759.5	767.5	779.3	781.0	777.6
40°	807.5	804.7	800.2	799.1	797.4	803.0	807.5	811.5	813.2	816.6	813.2
42.5°	871.9	870.8	867.4	863.5	863.5	864.6	871.9	878.1	882.1	882.7	882.1
45°	944.2	942.5	939.7	939.1	940.8	945.9	951.0	958.9	971.3	971.9	971.3
47.5°	1023.8	1025.0	1020.4	1022.1	1025.0	1033.4	1047.6	1060.5	1074.1	1079.2	1073.0
50°	1132.8	1128.9	1128.9	1127.2	1134.5	1146.9	1163.9	1179.1	1198.3	1202.8	1193.2
52.5°	1280.8	1272.3	1274.0	1269.5	1273.4	1284.7	1312.4	1336.1	1360.4	1372.3	1353.6
55°	1458.7	1444.5	1446.2	1450.8	1454.1	1473.3	1508.4	1535.5	1581.2	1585.2	1563.7
57.5°	1604.4	1600.4	1602.7	1613.4	1634.9	1668.2	1712.2	1777.7	1834.2	1847.8	1824.6
60°	1657.4	1660.3	1676.1	1704.3	1745.0	1804.3	1890.1	1992.3	2082.1	2109.2	2074.2
62.5°	1575.0	1586.3	1607.7	1654.6	1719.0	1815.6	1947.1	2101.3	2235.7	2288.2	2225.6
65°	1414.1	1421.4	1456.4	1496.5	1579.5	1690.2	1851.7	2052.2	2217.6	2287.1	2217.1
67.5°	1202.8	1217.0	1247.5	1297.2	1368.9	1481.3	1650.7	1855.7	2021.7	2082.7	2021.1
70°	965.7	971.9	991.1	1030.0	1104.6	1204.0	1349.1	1532.6	1694.2	1732.6	1683.4
72.5°	669.8	682.2	698.6	734.1	781.0	865.1	984.9	1119.8	1249.7	1329.3	1257.1
75°	288.6	272.2	308.3	343.9	401.5	479.4	573.2	683.9	812.6	865.7	794.6
77.5°	86.4	85.8	91.5	101.6	122.0	161.5	226.5	301.0	400.4	434.8	373.3
80°	70.6	72.8	75.1	77.4	79.6	82.4	87.5	102.2	125.4	148.0	120.3
82.5°	59.9	62.7	68.9	72.3	74.0	74.5	74.5	74.0	71.2	70.0	69.5
85°	45.2	49.7	58.2	63.2	63.2	63.2	63.2	61.6	57.6	50.8	56.5
87.5°	15.2	20.3	33.9	36.1	37.3	34.4	36.1	36.7	30.5	23.2	29.4
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°	328.1	328.1	328.1	328.1	328.1	328.1	328.1	328.1
2.5°	329.8	329.8	329.8	330.4	329.8	329.8	329.8	329.8
5°	338.3	337.7	338.3	337.7	338.3	338.3	337.7	338.3
7.5°	351.3	351.3	351.8	351.8	351.3	351.3	351.3	351.3
10°	368.8	367.6	368.2	368.2	368.2	367.6	367.6	367.1
12.5°	386.8	385.7	385.7	385.7	385.7	385.1	385.7	385.7
15°	403.8	402.6	401.5	401.5	402.1	402.6	402.6	402.1
17.5°	420.1	419.0	417.3	417.3	416.8	417.9	419.0	418.5
20°	436.5	436.0	433.1	433.1	433.1	434.3	434.8	436.5
22.5°	452.9	452.3	450.1	449.5	450.1	452.3	454.0	454.0
25°	470.4	471.5	471.0	471.0	472.1	475.5	477.2	479.4
27.5°	495.3	497.5	498.1	500.3	500.9	504.9	507.7	511.1
30°	527.4	531.4	533.7	537.6	540.4	542.7	546.6	549.5
32.5°	572.1	581.7	593.0	605.9	611.6	621.8	626.3	627.4
35°	674.8	685.0	694.6	700.2	698.0	700.8	700.8	703.1
37.5°	767.5	757.3	748.8	747.1	742.6	740.9	741.5	743.2
40°	810.4	805.3	801.9	803.6	801.3	799.6	800.8	801.3
42.5°	879.8	871.9	869.1	868.5	867.4	868.5	871.4	870.2
45°	961.1	951.0	947.0	946.5	944.8	944.2	945.3	947.6
47.5°	1058.8	1046.4	1034.0	1030.0	1030.0	1026.7	1028.9	1025.5
50°	1178.6	1158.2	1145.2	1137.9	1133.4	1128.3	1132.8	1125.5
52.5°	1336.1	1307.3	1293.2	1283.6	1270.6	1271.2	1272.3	1269.5
55°	1534.9	1503.3	1475.6	1457.0	1449.1	1444.5	1443.4	1452.5
57.5°	1763.6	1707.7	1663.7	1630.9	1618.5	1601.5	1593.6	1593.6
60°	1981.0	1879.4	1791.8	1737.1	1696.4	1667.6	1648.4	1642.8
62.5°	2087.2	1933.0	1804.8	1714.5	1650.1	1608.9	1581.2	1573.9
65°	2041.5	1845.5	1694.7	1593.1	1518.5	1465.4	1433.3	1424.2
67.5°	1857.4	1652.4	1493.7	1391.5	1311.3	1253.7	1229.4	1219.2
70°	1542.2	1354.2	1216.4	1116.4	1032.9	984.3	951.0	937.4
72.5°	1108.5	965.7	839.2	753.3	678.2	652.8	607.6	603.1
75°	655.1	530.8	426.4	360.9	293.7	256.9	236.1	213.5
77.5°	266.5	190.3	142.9	107.9	92.6	84.1	80.2	79.1
80°	90.9	81.3	76.8	75.1	72.8	71.7	68.9	66.6
82.5°	71.7	71.2	68.9	68.3	66.1	62.7	57.0	53.6
85°	59.9	58.7	55.9	55.3	53.6	49.1	42.9	39.0
87.5°	33.9	31.1	28.2	28.8	27.1	23.7	17.5	12.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)