

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: McGRAW-EDISON

Report Number: P299458

Luminaire Tested: **GLNA-AF-01-LED-E1-5NQ-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-01-LED-E1-5NQ-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4220.5 lumens  
Efficiency: N/A  
Efficacy: 124.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B2 - U0 - G1

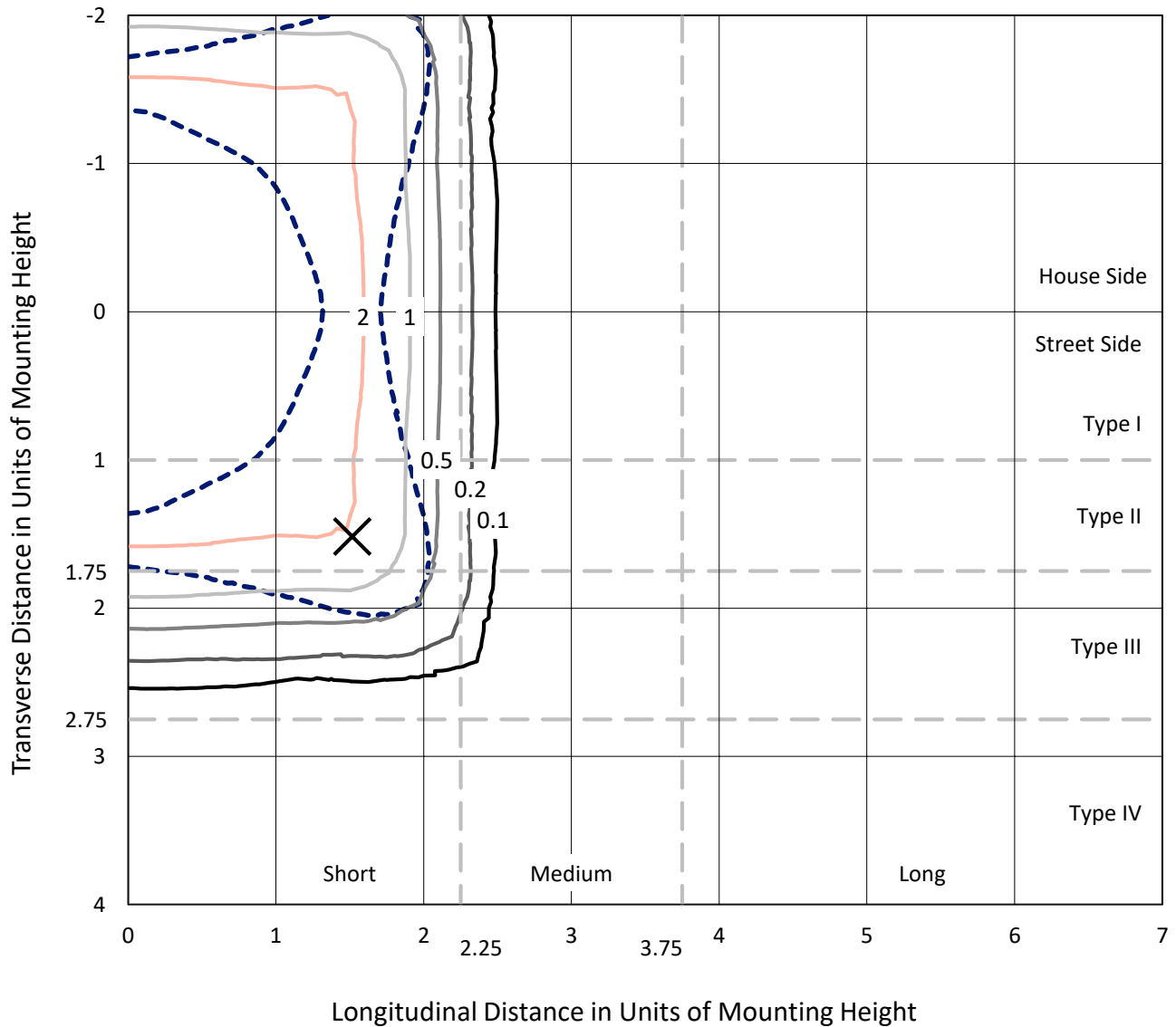
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P299458  
 CATALOG NUMBER: GLNA-AF-01-LED-E1-5NQ-600

### Iso-Footcandle Lines of Horizontal Illumination

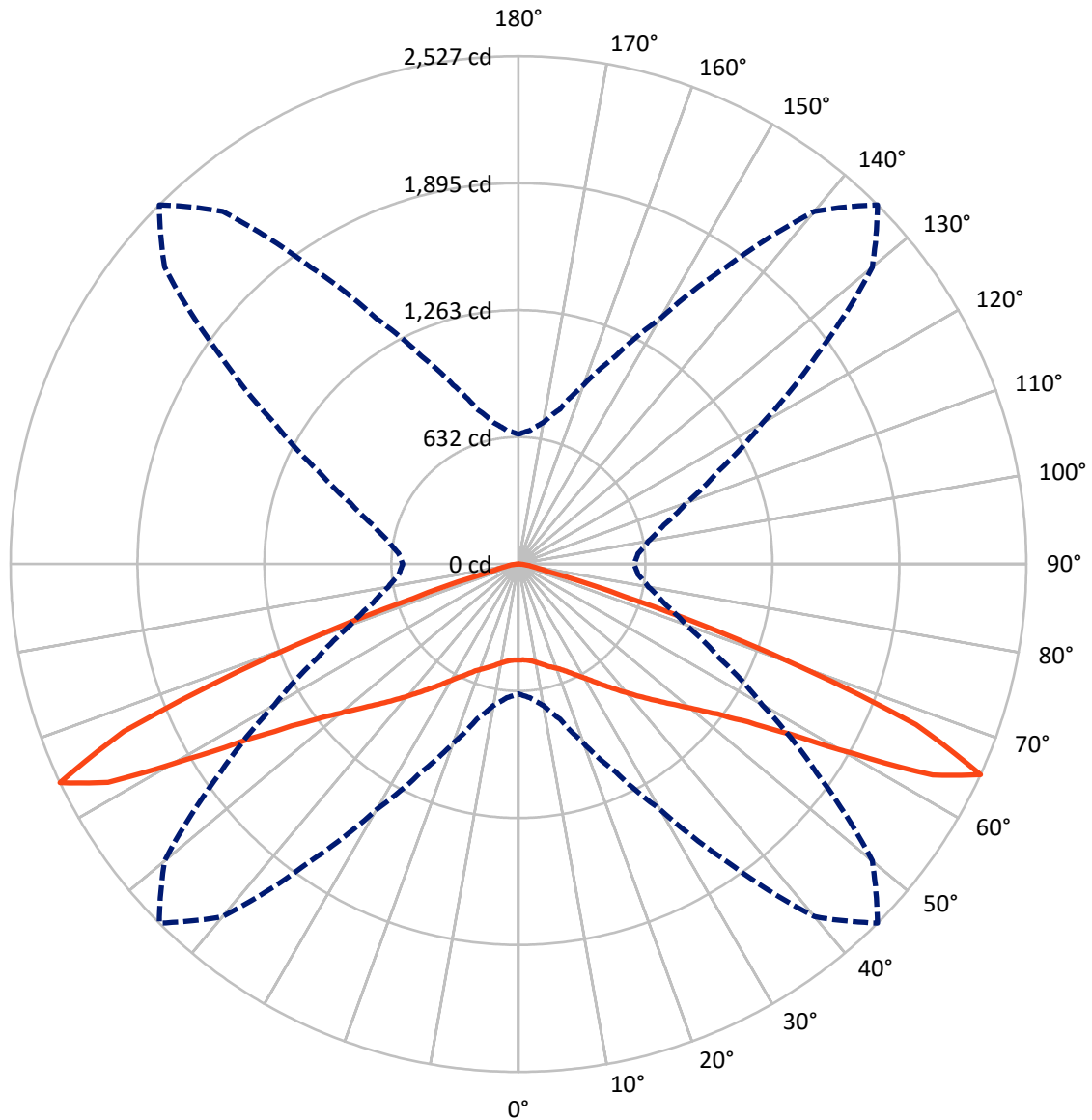
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P299458  
CATALOG NUMBER: GLNA-AF-01-LED-E1-5NQ-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P299458

CATALOG NUMBER: GLNA-AF-01-LED-E1-5NQ-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2110.2	0.0	2110.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2110.2	0.0	2110.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4220.5	0.0	4220.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.5	1.1
10°-20°	149.3	3.5
20°-30°	279.1	6.6
30°-40°	472.1	11.2
40°-50°	771.9	18.3
50°-60°	1227.4	29.1
60°-70°	1109.5	26.3
70°-80°	140.4	3.3
80°-90°	24.2	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°	4220.5	100.0
0°-180°	4220.5	100.0



REPORT NUMBER: P299458

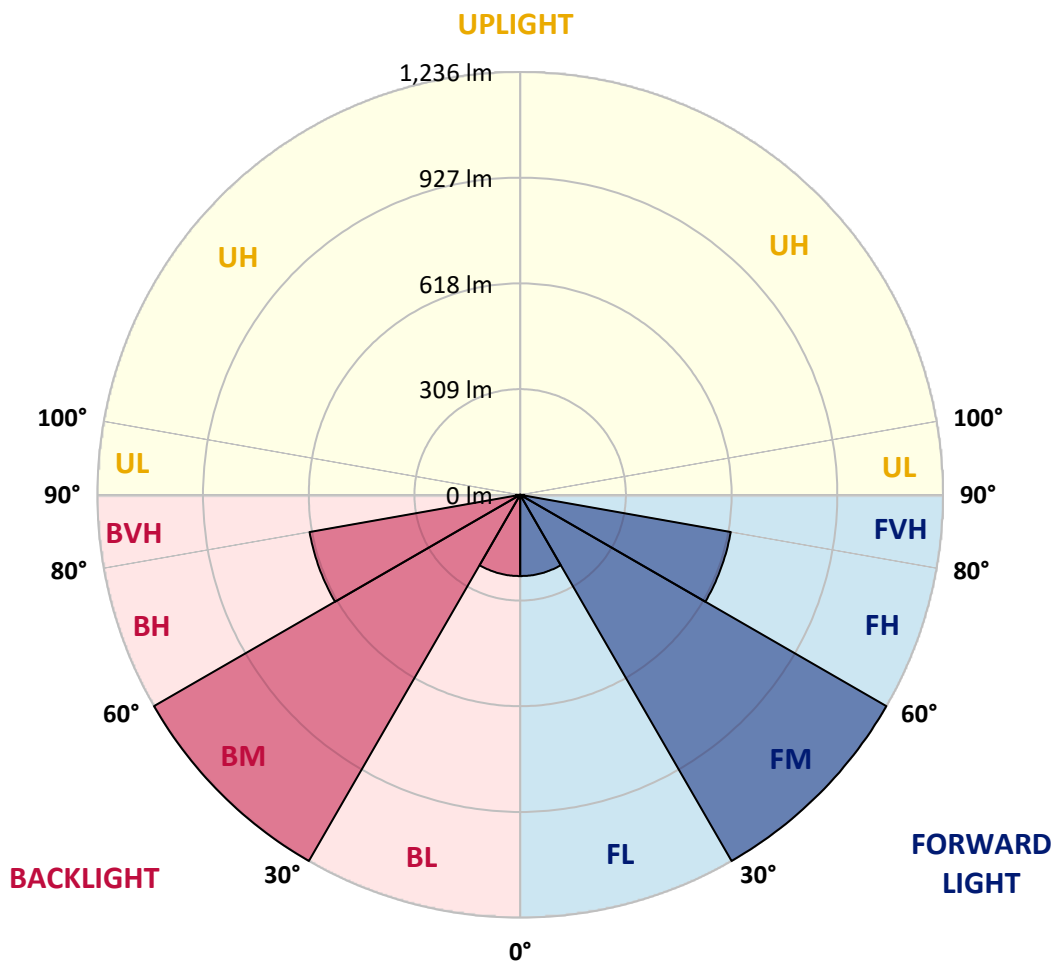
CATALOG NUMBER: GLNA-AF-01-LED-E1-5NQ-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	237.5	5.6			
FM	(30°-60°)	1235.7	29.3			
FH	(60°-80°)	625.0	14.8			G0/660
FVH	(80°-90°)	12.1	0.3			G1/100
BL	(0°-30°)	237.5	5.6	B1/500		
BM	(30°-60°)	1235.7	29.3	B2/2500		
BH	(60°-80°)	625.0	14.8	B2/1000		G0/660
BVH	(80°-90°)	12.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G1**

Type V Short





REPORT NUMBER: P299458

CATALOG NUMBER: GLNA-AF-01-LED-E1-5NQ-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6
2.5°	477.9	478.3	478.7	478.3	478.7	478.1	477.7	478.3	477.7	477.2	477.6
5°	482.1	482.3	482.3	481.7	482.3	481.9	481.3	482.1	481.5	480.9	481.3
7.5°	489.0	489.8	489.2	488.6	489.0	488.6	488.2	488.4	488.2	487.6	487.8
10°	498.3	498.9	498.5	498.3	498.7	498.5	498.1	497.9	498.1	497.5	497.5
12.5°	509.6	509.4	509.2	509.4	510.0	510.0	509.8	510.0	510.4	510.6	510.2
15°	520.6	521.0	521.0	521.0	522.2	523.2	523.8	524.2	525.0	525.2	524.4
17.5°	534.5	534.5	534.3	534.5	535.7	537.2	537.8	538.6	539.4	540.0	539.0
20°	549.9	550.3	550.3	550.7	552.3	554.0	554.0	554.4	554.0	554.4	553.8
22.5°	568.7	569.9	569.9	570.1	571.6	573.8	573.2	573.8	572.8	573.6	572.8
25°	593.2	595.0	594.6	594.6	595.8	597.1	597.3	598.5	598.3	599.3	598.7
27.5°	620.9	623.6	624.4	624.2	625.0	626.4	626.8	628.2	627.4	628.2	627.8
30°	654.1	655.2	656.8	657.4	658.4	659.8	659.8	660.0	659.0	660.2	660.8
32.5°	688.5	690.6	692.2	695.8	697.5	698.5	698.3	698.7	697.7	699.3	700.5
35°	733.9	735.5	738.1	740.8	743.2	743.0	742.4	742.6	742.6	744.0	745.2
37.5°	788.7	789.1	792.4	796.4	797.6	796.4	792.8	792.0	790.3	792.0	794.0
40°	846.6	848.0	854.7	857.3	857.9	855.7	850.5	847.6	843.6	845.8	848.6
42.5°	907.3	910.0	916.2	920.7	922.7	921.3	914.2	909.6	904.5	905.7	908.5
45°	974.5	977.8	986.5	990.9	994.6	992.5	985.5	978.6	970.5	971.1	975.5
47.5°	1049.6	1052.9	1064.2	1071.5	1073.5	1073.1	1065.4	1055.9	1044.8	1044.4	1048.2
50°	1133.8	1137.2	1151.2	1162.5	1168.2	1167.6	1158.5	1145.1	1131.6	1131.8	1136.6
52.5°	1216.0	1220.2	1234.8	1254.2	1265.4	1273.5	1268.0	1255.4	1238.9	1239.3	1243.7
55°	1293.1	1300.0	1316.8	1343.1	1364.1	1386.8	1393.3	1392.9	1383.0	1385.8	1390.2
57.5°	1330.5	1340.7	1366.6	1408.1	1450.8	1497.1	1536.2	1565.5	1577.9	1596.7	1592.4
60°	1259.7	1276.1	1314.3	1375.3	1459.7	1556.2	1659.6	1760.6	1846.8	1911.8	1874.4
62.5°	1031.4	1052.7	1099.0	1177.3	1305.0	1459.3	1657.2	1896.0	2156.1	2313.0	2201.0
65°	645.4	667.5	714.5	798.4	947.8	1139.7	1408.1	1803.9	2289.9	2526.5	2298.4
67.5°	251.6	263.7	289.2	342.7	455.0	625.8	895.2	1344.3	1925.6	2133.0	1889.8
70°	126.1	127.3	132.0	141.9	166.0	215.6	328.1	623.2	1104.3	1333.8	1064.6
72.5°	91.1	91.3	93.7	98.0	105.7	116.8	138.2	190.7	359.2	548.9	336.6
75°	69.8	70.6	71.9	74.3	78.5	84.0	91.7	109.9	136.2	157.9	132.8
77.5°	53.8	55.3	56.3	58.5	61.1	64.8	67.0	73.9	86.0	90.5	89.1
80°	40.9	42.3	44.5	46.3	48.0	49.8	49.0	52.2	58.5	62.3	60.3
82.5°	26.1	27.7	34.0	35.6	36.4	37.6	36.2	36.4	39.1	41.5	39.1
85°	16.8	17.8	21.5	23.5	23.7	24.5	23.9	22.5	22.5	20.6	23.1
87.5°	7.7	7.9	9.7	11.5	11.9	10.7	10.5	10.1	8.1	7.7	8.3
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: P299458

CATALOG NUMBER: GLNA-AF-01-LED-E1-5NQ-600

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6
2.5°	477.4	477.7	477.9	478.5	478.7	478.7	478.9	479.3
5°	481.1	481.7	481.9	482.7	482.9	482.7	483.1	483.3
7.5°	487.8	488.8	489.2	490.0	489.4	490.2	490.4	490.4
10°	497.7	498.7	498.9	499.7	499.3	499.7	499.7	499.3
12.5°	510.8	511.0	510.4	511.0	510.2	510.6	510.0	509.6
15°	525.2	524.6	523.2	523.2	522.0	522.2	522.0	521.8
17.5°	539.2	538.0	537.0	536.7	535.7	535.5	534.9	534.9
20°	554.6	554.0	553.5	552.7	551.7	550.7	550.5	550.9
22.5°	573.2	573.0	573.0	572.6	571.2	570.3	569.7	569.7
25°	598.1	596.3	596.3	596.1	595.6	595.0	593.8	594.4
27.5°	626.2	625.2	626.0	625.8	625.2	625.2	624.4	624.4
30°	660.8	660.4	661.6	660.6	658.6	658.4	657.6	656.6
32.5°	700.7	700.3	702.1	700.9	697.7	696.0	694.4	693.6
35°	745.2	745.4	747.6	746.8	743.2	742.0	739.3	738.9
37.5°	793.8	797.0	800.7	801.5	798.6	797.8	794.8	793.2
40°	850.9	855.1	860.8	862.2	859.0	858.4	854.3	852.1
42.5°	911.8	918.9	926.0	927.2	924.1	920.9	917.0	915.4
45°	979.8	988.3	997.6	1000.0	995.2	991.5	986.3	986.3
47.5°	1056.1	1066.8	1077.3	1083.8	1079.4	1075.5	1069.4	1065.4
50°	1146.2	1160.9	1174.5	1181.2	1174.3	1166.8	1156.1	1152.6
52.5°	1259.3	1275.1	1287.0	1283.4	1272.7	1262.3	1250.6	1245.9
55°	1403.6	1408.9	1408.9	1395.5	1374.1	1356.6	1338.2	1332.0
57.5°	1584.1	1563.5	1531.9	1491.8	1441.4	1397.5	1367.8	1353.8
60°	1796.2	1697.3	1585.6	1475.9	1385.8	1311.5	1267.4	1247.2
62.5°	1937.5	1678.9	1455.2	1279.1	1149.4	1059.9	999.0	975.3
65°	1810.8	1400.2	1100.6	889.9	748.5	657.4	597.1	575.0
67.5°	1326.3	877.4	586.1	420.0	307.8	245.5	220.8	210.5
70°	595.4	308.9	189.4	147.9	127.5	117.0	112.5	110.9
72.5°	179.5	129.9	109.5	98.8	90.7	85.6	81.8	81.4
75°	108.3	90.1	80.1	73.7	68.6	64.4	62.5	61.9
77.5°	75.7	66.2	61.5	56.9	53.0	49.8	48.0	46.6
80°	53.2	48.6	46.5	43.9	41.3	38.3	35.8	34.6
82.5°	35.6	34.6	34.6	33.0	30.8	28.1	22.9	21.7
85°	22.9	22.7	23.1	22.5	21.0	18.0	14.8	14.0
87.5°	10.7	10.9	12.1	11.9	11.5	9.5	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)