

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: P144228

Luminaire Tested: **LDRL-5XQ-E02-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P144228  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33699)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5XQ-E02-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (42) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5219.4 lumens  
Efficiency: N/A  
Efficacy: 100.2 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G2

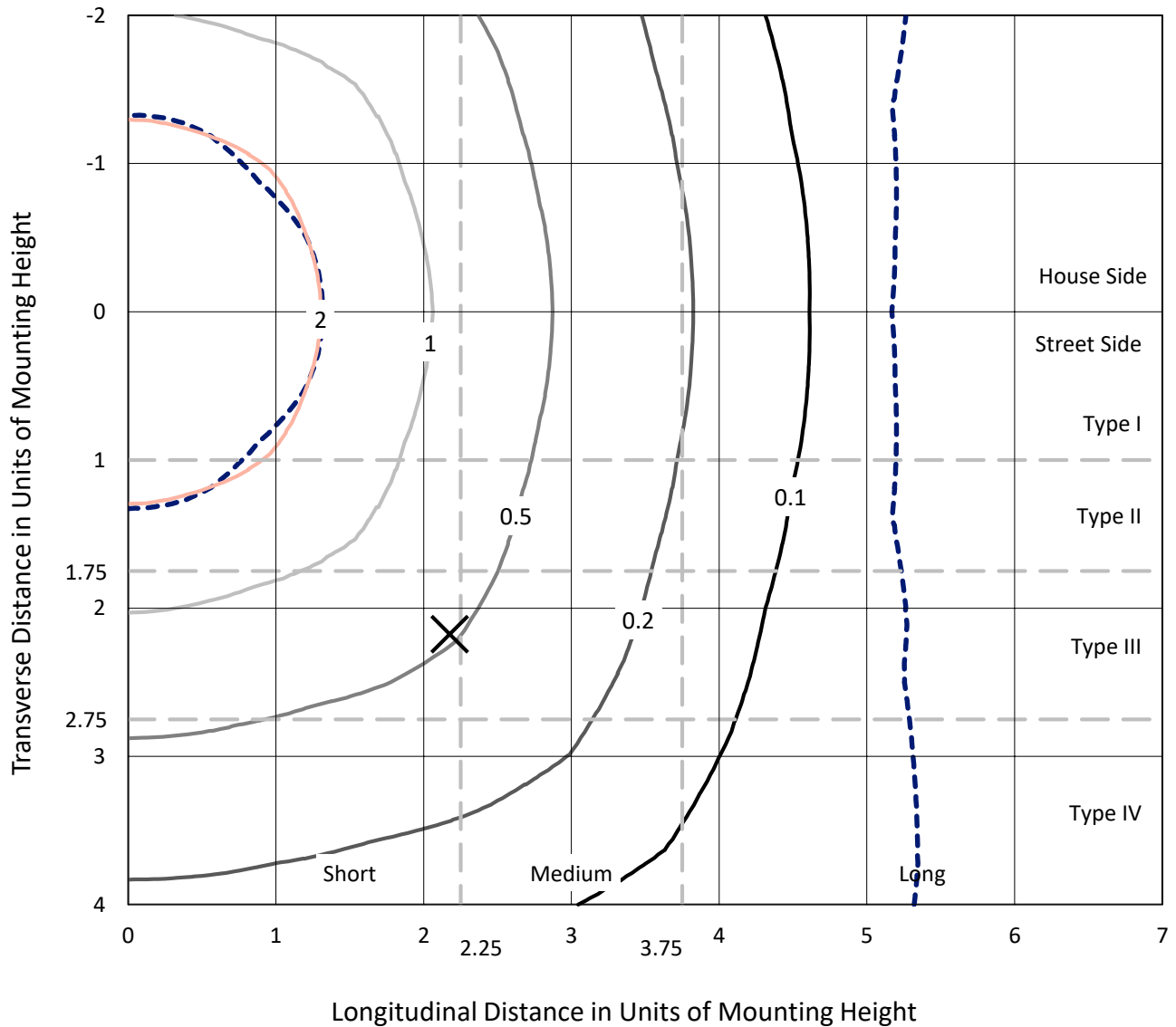
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

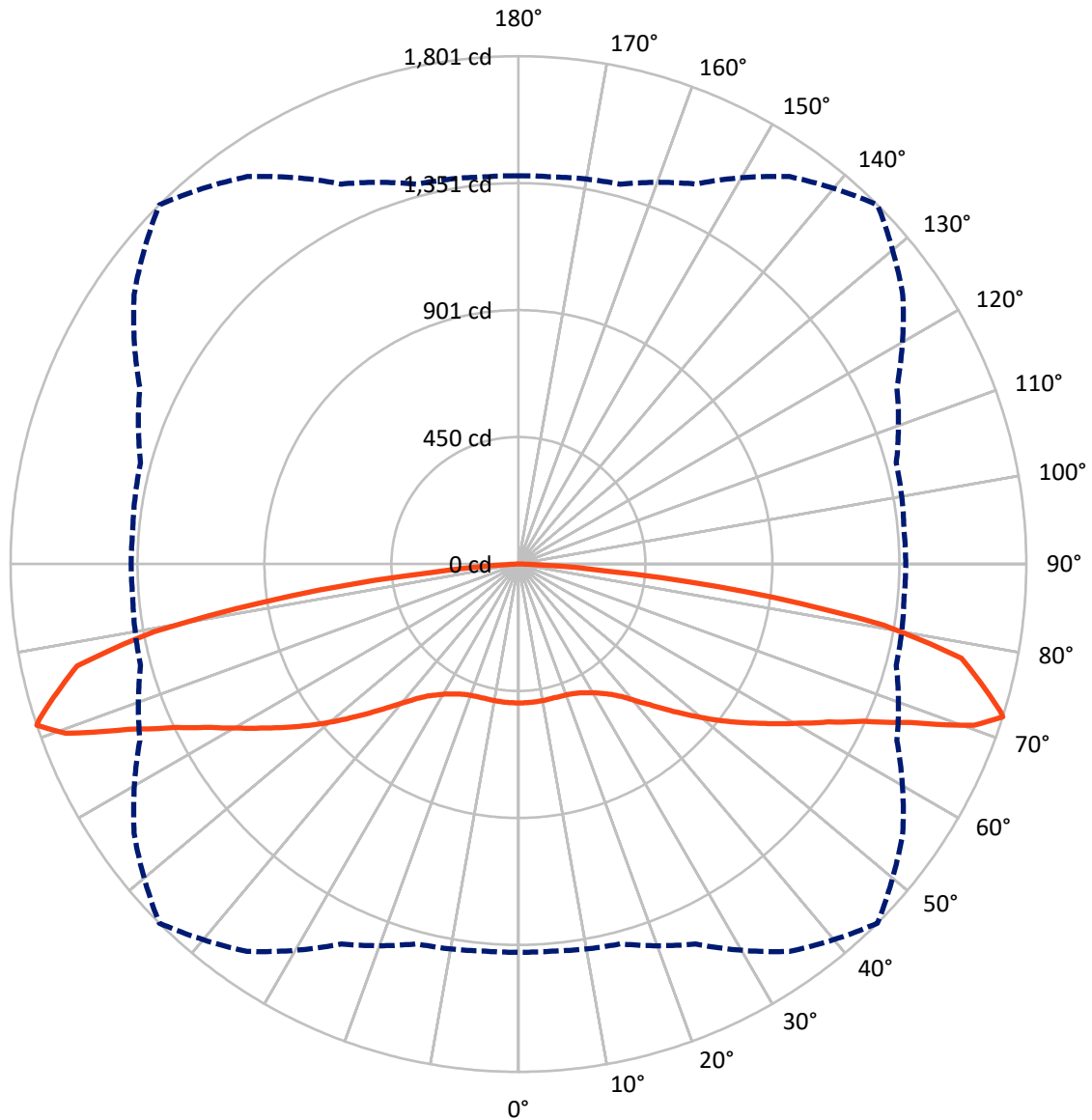


Based on 10 foot mounting height. Maximum calculated value = 4.9 fc  
 Type V - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2609.7	0.0	2609.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2609.7	0.0	2609.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5219.4	0.0	5219.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.0	0.9
10°-20°	139.7	2.7
20°-30°	234.7	4.5
30°-40°	357.3	6.8
40°-50°	564.8	10.8
50°-60°	862.6	16.5
60°-70°	1263.8	24.2
70°-80°	1435.8	27.5
80°-90°	313.6	6.0
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°	5219.4	100.0
0°-180°	5219.4	100.0



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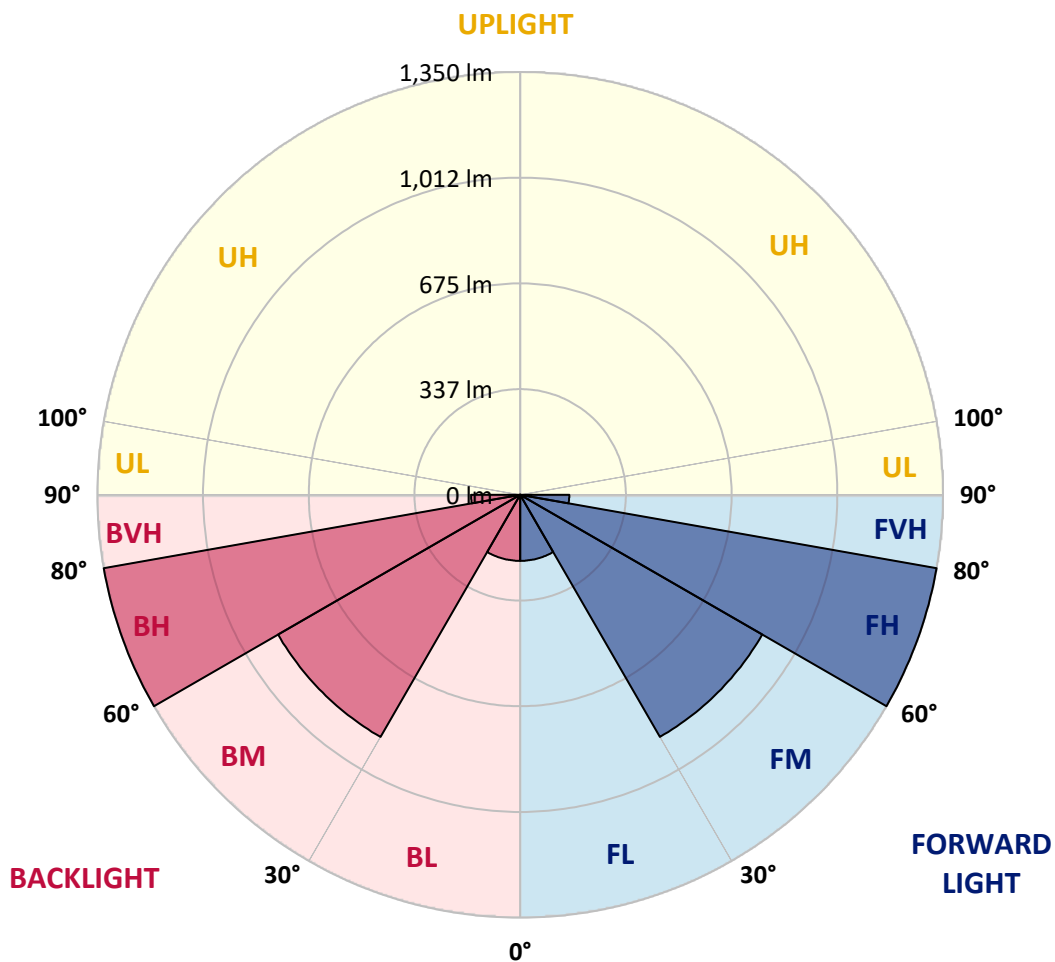
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	210.8	4.0			
FM (30°-60°)	892.4	17.1			
FH (60°-80°)	1349.8	25.9			G1/1800
FVH (80°-90°)	156.8	3.0			G2/225
BL (0°-30°)	210.8	4.0	B1/500		
BM (30°-60°)	892.4	17.1	B1/1000		
BH (60°-80°)	1349.8	25.9	B3/2500		G1/1800
BVH (80°-90°)	156.8	3.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	492.9	492.9	492.9	492.9	492.9	492.9	492.9	492.9	492.9	492.9	492.9
2.5°	493.9	493.7	493.4	493.0	492.9	492.7	492.7	492.7	492.6	492.6	492.6
5°	493.9	493.8	493.5	493.2	493.0	492.8	492.8	492.8	492.6	492.6	492.7
7.5°	493.2	493.4	493.2	492.9	492.8	492.7	492.6	492.6	492.4	492.2	492.3
10°	493.4	494.1	493.6	493.0	492.9	492.7	492.4	492.0	492.0	491.9	491.7
12.5°	493.8	494.4	493.8	493.2	493.0	492.7	492.4	492.0	491.8	491.6	491.3
15°	494.8	495.2	494.8	494.2	493.7	493.2	492.9	492.6	492.0	491.5	491.3
17.5°	495.4	496.2	495.7	495.1	494.5	493.9	493.6	493.2	492.9	492.6	492.1
20°	496.6	497.4	497.0	496.4	496.1	495.8	495.5	495.2	495.0	494.8	494.2
22.5°	498.8	499.5	499.3	499.2	499.2	499.3	499.4	499.4	499.3	499.2	498.6
25°	503.4	503.4	503.7	504.0	504.6	505.0	505.5	505.9	506.1	506.4	505.6
27.5°	511.3	512.0	512.2	512.4	513.3	514.2	515.1	516.0	516.5	517.0	516.3
30°	521.6	521.6	522.2	522.8	524.2	525.6	526.8	528.0	528.9	529.8	529.3
32.5°	534.8	535.6	536.4	537.2	539.1	540.8	542.9	544.9	546.1	547.2	546.3
35°	554.8	555.8	556.7	557.6	559.4	561.2	563.5	565.8	566.8	567.8	567.2
37.5°	583.2	583.2	584.4	585.6	586.8	588.0	591.0	594.0	595.2	596.5	595.5
40°	621.5	621.7	622.0	622.2	623.3	624.3	628.1	631.8	634.0	636.2	634.1
42.5°	665.6	667.4	667.4	667.3	668.0	668.8	672.3	675.8	679.0	682.1	680.8
45°	717.6	717.2	716.6	715.9	718.2	720.4	725.5	730.6	733.4	736.2	733.5
47.5°	770.0	769.6	768.6	767.7	770.0	772.2	779.8	787.4	791.4	795.4	791.2
50°	822.4	824.4	823.2	822.0	825.4	828.8	838.4	848.0	853.8	859.6	854.8
52.5°	880.3	881.8	880.4	879.1	883.8	888.4	899.8	911.2	918.9	926.7	920.1
55°	940.2	938.4	939.1	939.8	944.2	948.6	962.7	976.7	986.0	995.2	987.8
57.5°	996.2	997.0	996.2	995.4	1002.3	1009.2	1026.9	1044.5	1056.2	1067.8	1058.5
60°	1053.6	1053.8	1052.1	1050.4	1057.9	1065.4	1090.8	1116.1	1131.2	1146.3	1133.6
62.5°	1117.8	1117.6	1114.6	1111.7	1120.6	1129.4	1160.8	1192.2	1213.0	1233.8	1218.2
65°	1196.4	1194.4	1192.8	1191.1	1201.2	1211.4	1250.4	1289.4	1317.5	1345.5	1325.5
67.5°	1312.4	1310.9	1307.4	1303.8	1315.2	1326.6	1376.5	1426.5	1462.7	1498.9	1472.5
70°	1440.1	1437.1	1439.6	1442.0	1468.4	1494.7	1561.7	1628.7	1671.6	1714.5	1670.1
72°	1377.0	1378.2	1386.4	1394.6	1440.8	1486.9	1582.1	1677.4	1739.4	1801.4	1732.8
72.5°	1355.1	1356.2	1365.4	1374.6	1418.7	1462.8	1561.0	1659.1	1723.3	1787.6	1717.0
75°	1262.0	1264.6	1275.4	1286.1	1330.7	1375.4	1474.4	1573.4	1634.9	1696.4	1625.8
77.5°	1109.8	1118.3	1129.2	1140.0	1193.2	1246.4	1358.3	1470.2	1538.2	1606.1	1525.9
80°	847.0	844.0	862.7	881.4	932.3	983.1	1069.7	1156.3	1234.5	1312.8	1222.6
82.5°	329.2	336.4	375.2	414.0	467.3	520.6	598.1	675.7	746.2	816.6	741.6
85°	33.9	38.6	52.6	66.5	95.5	124.5	171.8	219.1	265.4	311.8	261.5
87.5°	13.7	15.0	19.3	23.6	24.7	25.8	31.2	36.6	36.4	36.2	35.6
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°	492.9	492.9	492.9	492.9	492.9	492.9	492.9	492.9
2.5°	492.7	492.9	493.0	493.0	493.0	493.3	493.6	493.2
5°	492.9	493.0	493.0	493.0	493.0	493.3	493.6	493.2
7.5°	492.4	492.4	492.4	492.6	492.9	493.0	493.0	492.9
10°	491.6	491.6	491.7	492.0	492.2	492.5	492.8	492.9
12.5°	491.0	491.1	491.2	491.4	491.7	492.0	492.2	492.6
15°	491.0	491.1	491.2	491.4	491.6	491.9	492.2	492.6
17.5°	491.7	491.5	491.4	491.6	491.8	492.2	492.6	492.9
20°	493.6	493.3	493.0	493.1	493.1	493.5	493.9	493.9
22.5°	498.0	497.1	496.2	496.1	496.0	496.0	496.1	496.3
25°	504.8	503.5	502.2	501.8	501.4	501.2	501.0	501.3
27.5°	515.6	514.0	512.5	511.6	510.6	510.1	509.6	509.8
30°	528.7	526.9	525.2	523.6	522.1	521.4	520.8	520.9
32.5°	545.4	543.2	541.2	539.2	537.2	536.2	535.2	535.4
35°	566.6	564.2	561.8	560.1	558.4	557.0	555.6	556.7
37.5°	594.5	592.2	590.0	588.8	587.8	586.5	585.2	585.4
40°	632.0	629.6	627.2	626.3	625.4	623.8	622.2	622.5
42.5°	679.6	676.0	672.5	670.8	669.1	668.4	667.6	668.1
45°	730.9	727.3	723.8	722.4	721.0	718.9	716.9	718.7
47.5°	786.9	782.4	778.0	775.5	773.0	773.6	774.2	772.8
50°	849.9	842.4	834.9	831.9	829.0	829.0	829.0	828.8
52.5°	913.6	903.2	892.8	890.2	887.7	887.1	886.6	885.9
55°	980.4	967.6	954.9	950.2	945.4	946.1	946.8	948.6
57.5°	1049.2	1032.4	1015.6	1010.2	1004.8	1005.3	1005.7	1008.7
60°	1120.8	1099.2	1077.4	1071.4	1065.4	1067.1	1068.6	1070.5
62.5°	1202.6	1176.4	1150.2	1142.2	1134.2	1136.2	1138.2	1143.1
65°	1305.5	1272.7	1239.9	1231.6	1223.3	1224.2	1225.2	1233.6
67.5°	1446.1	1402.5	1358.8	1351.1	1343.4	1344.8	1346.2	1359.8
70°	1625.7	1561.1	1496.4	1464.6	1432.8	1427.8	1422.8	1430.1
72°	1664.2	1572.9	1481.6	1434.6	1387.7	1380.4	1373.0	1373.7
72.5°	1646.4	1554.1	1461.8	1416.2	1370.6	1364.7	1358.7	1357.5
75°	1555.1	1464.8	1374.6	1327.4	1280.4	1269.0	1257.6	1257.5
77.5°	1445.8	1331.9	1218.0	1167.2	1116.4	1104.6	1092.6	1083.3
80°	1132.4	1030.4	928.4	876.8	825.2	806.2	787.1	775.8
82.5°	666.6	572.7	478.9	413.4	347.9	328.2	308.5	281.2
85°	211.2	162.5	113.8	88.8	63.8	51.6	39.4	34.4
87.5°	35.1	28.5	22.0	21.2	20.4	16.0	11.6	9.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)