

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: P143934

Luminaire Tested: **LDRL-5WQ-F02-E-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143934  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5WQ-F02-E-7030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (14) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4622.8 lumens  
Efficiency: N/A  
Efficacy: 84.1 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

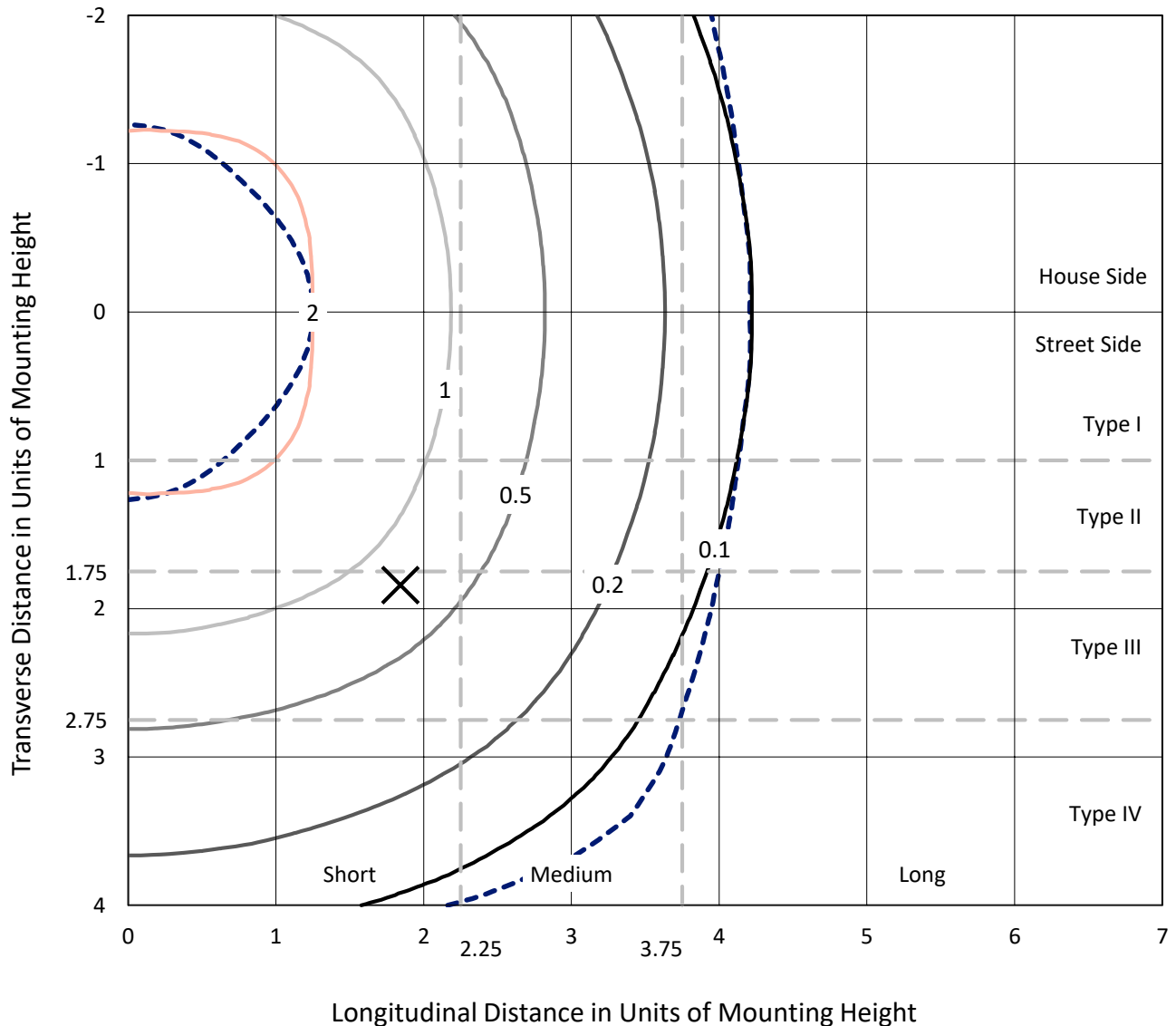
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

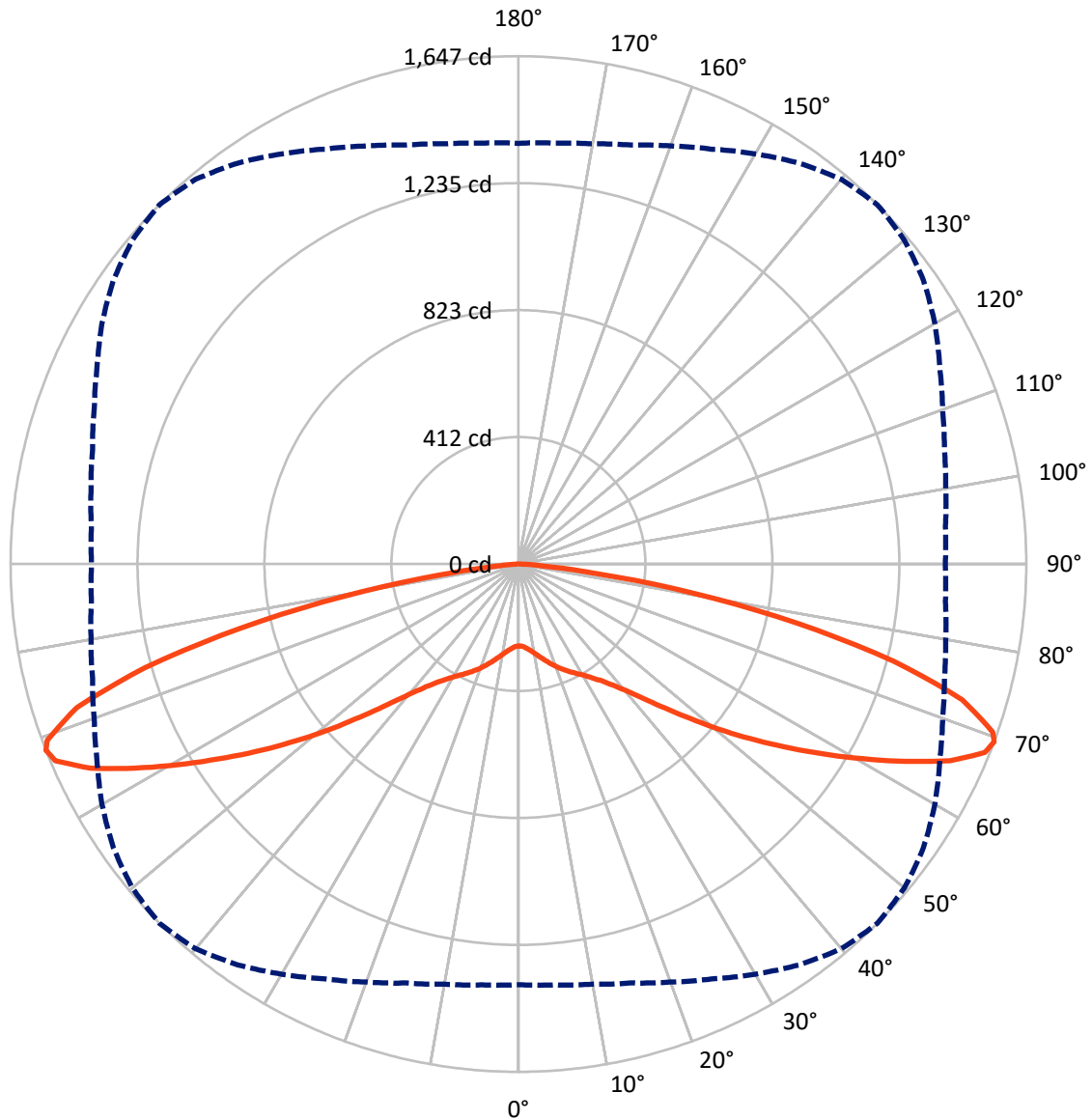
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2311.4	0.0	2311.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2311.4	0.0	2311.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	4622.8	0.0	4622.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.8	0.6
10°-20°	92.4	2.0
20°-30°	178.1	3.9
30°-40°	291.8	6.3
40°-50°	507.4	11.0
50°-60°	901.3	19.5
60°-70°	1399.3	30.3
70°-80°	1114.9	24.1
80°-90°	110.9	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°	4622.8	100.0
0°-180°	4622.8	100.0



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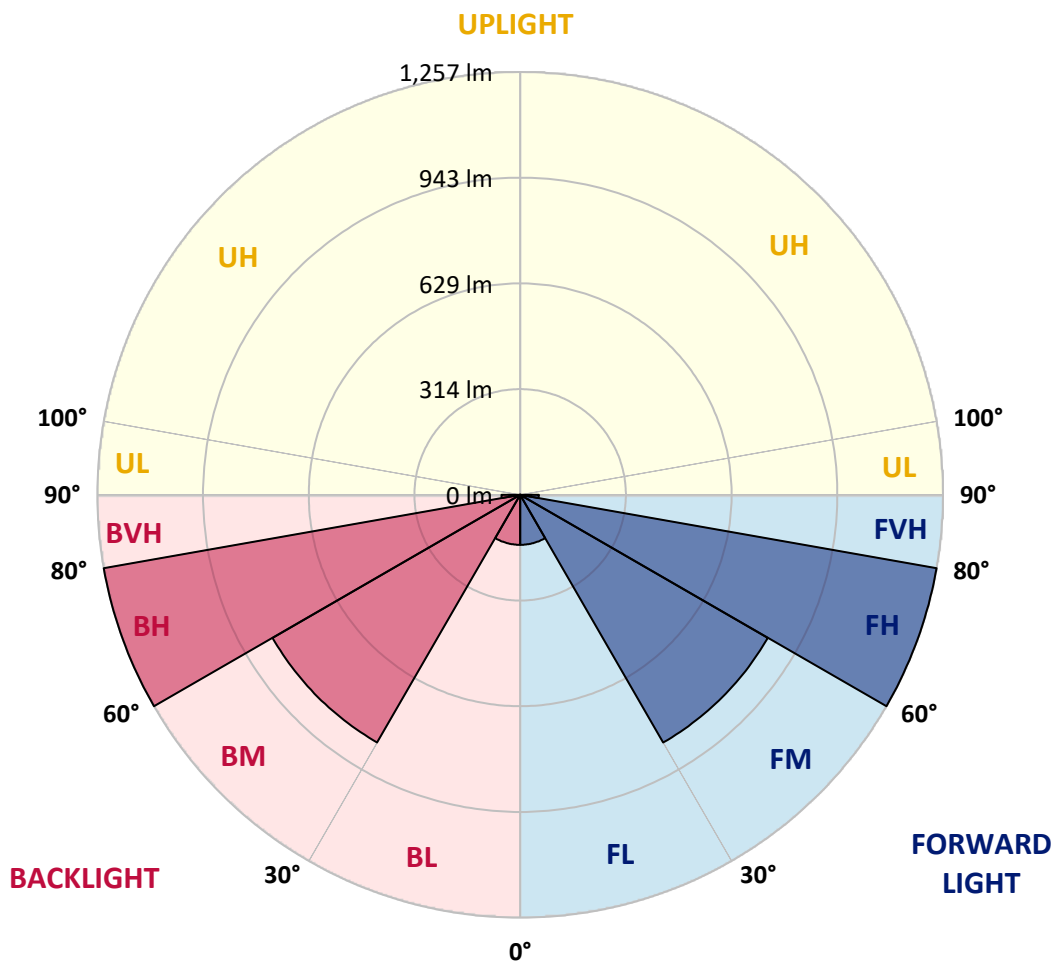
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	148.6	3.2			
FM	(30°-60°)	850.2	18.4			
FH	(60°-80°)	1257.1	27.2			G1/1800
FVH	(80°-90°)	55.4	1.2			G1/100
BL	(0°-30°)	148.6	3.2	B1/500		
BM	(30°-60°)	850.2	18.4	B1/1000		
BH	(60°-80°)	1257.1	27.2	B3/2500		G1/1800
BVH	(80°-90°)	55.4	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°	265.7	265.7	265.7	265.7	265.7	265.7	265.7	265.7	265.7	265.7	265.7
2.5°	267.8	267.8	267.8	267.5	267.5	267.2	267.5	267.2	267.2	267.2	267.2
5°	274.8	274.2	274.2	273.9	274.5	274.5	273.9	274.2	273.9	274.2	274.2
7.5°	283.5	283.5	283.5	283.2	283.8	283.5	283.2	283.5	283.5	283.2	283.2
10°	294.4	294.7	294.4	294.4	295.3	295.0	295.3	295.3	295.6	295.3	295.3
12.5°	307.0	307.0	307.3	307.6	307.9	308.2	309.1	308.8	309.4	308.8	308.8
15°	321.8	322.4	321.8	321.8	322.7	323.3	323.6	323.6	324.2	323.9	323.3
17.5°	337.5	337.8	337.5	337.2	338.1	339.0	339.3	339.3	340.2	339.6	339.6
20°	353.5	353.8	353.2	352.9	354.1	354.1	354.7	355.0	355.9	356.2	355.3
22.5°	368.3	368.6	368.3	367.9	369.2	369.2	370.1	370.4	371.6	371.3	371.3
25°	382.7	382.7	382.4	382.4	383.6	383.9	384.8	385.4	386.6	386.6	386.6
27.5°	396.0	396.3	395.7	395.4	397.8	398.7	399.3	400.5	401.4	402.0	401.7
30°	411.1	411.1	410.8	411.7	413.2	414.4	415.6	417.4	419.2	418.6	418.6
32.5°	428.9	429.5	429.2	430.4	432.2	434.0	435.5	437.6	438.5	440.0	438.8
35°	452.7	453.9	453.3	454.5	456.0	457.2	460.5	462.7	464.2	465.1	464.5
37.5°	482.6	482.0	483.2	483.5	486.5	488.0	491.9	494.9	497.3	498.2	497.6
40°	519.7	518.7	520.3	521.8	525.7	527.2	531.7	536.2	539.6	540.8	540.2
42.5°	564.0	565.2	567.6	569.7	575.1	579.4	584.5	591.1	594.8	596.3	594.1
45°	622.2	620.1	624.6	630.0	633.1	642.4	650.8	657.8	663.8	666.2	663.8
47.5°	688.5	688.2	693.7	700.3	708.2	716.9	726.8	735.9	746.5	747.1	744.0
50°	761.8	767.9	770.9	777.5	792.0	802.9	815.5	829.1	838.7	841.8	836.3
52.5°	850.2	854.7	856.5	867.7	881.0	894.2	912.0	928.3	939.5	940.7	938.0
55°	946.1	949.7	953.0	966.6	981.1	992.9	1015.5	1031.5	1042.6	1046.8	1045.0
57.5°	1045.3	1048.7	1052.9	1067.7	1082.4	1099.0	1120.4	1139.1	1152.1	1159.9	1157.8
60°	1155.4	1155.4	1165.1	1179.8	1191.9	1211.5	1233.8	1255.5	1269.7	1282.1	1278.8
62.5°	1271.2	1274.6	1283.9	1296.0	1308.6	1326.7	1352.1	1378.0	1399.7	1409.1	1408.8
65°	1359.0	1365.0	1377.4	1391.3	1412.4	1433.8	1465.8	1498.0	1524.3	1537.8	1537.8
67.5°	1384.6	1388.6	1403.9	1425.0	1455.5	1489.6	1533.0	1578.0	1613.8	1631.6	1620.5
69°	1364.1	1369.9	1383.4	1406.3	1442.5	1484.2	1535.7	1586.7	1628.3	1646.7	1633.8
70°	1340.3	1346.6	1360.2	1382.8	1420.2	1464.6	1516.1	1571.0	1615.7	1631.3	1616.6
72.5°	1243.2	1251.0	1260.7	1280.3	1314.1	1355.7	1402.1	1450.4	1493.2	1505.6	1487.2
75°	1077.6	1079.1	1083.9	1098.4	1110.5	1140.0	1179.5	1217.9	1250.1	1257.4	1237.8
77.5°	762.7	754.6	746.5	758.8	768.5	806.5	849.3	880.7	914.4	924.7	904.8
80°	334.5	331.5	342.9	359.2	401.7	427.1	469.0	513.9	542.6	576.1	540.2
82.5°	66.0	69.7	80.5	99.5	122.8	154.4	181.9	212.9	241.0	253.6	240.7
85°	26.8	29.3	33.2	37.1	39.8	44.6	52.5	65.1	71.8	72.7	69.1
87.5°	11.2	13.0	17.5	20.8	21.1	20.2	20.8	21.4	17.5	14.2	17.8
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°	265.7	265.7	265.7	265.7	265.7	265.7	265.7	265.7
2.5°	267.2	267.5	267.2	267.5	267.2	267.2	267.5	267.2
5°	273.9	274.2	273.9	273.5	273.2	273.5	273.5	273.5
7.5°	283.2	282.9	282.6	282.6	282.3	282.0	282.6	282.6
10°	294.7	294.4	293.8	293.8	293.5	293.5	293.5	293.5
12.5°	308.5	307.6	307.3	306.4	306.1	305.8	305.8	306.1
15°	323.0	322.1	321.8	320.3	320.3	320.0	320.0	320.0
17.5°	338.4	337.5	336.3	336.3	335.4	334.8	335.1	334.5
20°	354.1	352.9	352.3	352.0	350.8	350.8	350.8	350.5
22.5°	369.5	368.6	367.6	366.4	365.2	364.9	364.9	364.6
25°	385.1	383.6	381.8	380.6	379.4	378.5	378.5	378.5
27.5°	400.8	399.0	396.3	394.8	393.0	392.1	392.1	391.8
30°	417.4	415.3	412.9	410.8	408.4	407.5	407.2	406.6
32.5°	437.3	435.2	432.8	429.8	427.4	425.9	425.9	425.0
35°	462.7	460.2	458.4	454.5	451.5	449.1	449.4	450.0
37.5°	495.8	492.8	491.3	486.5	482.6	480.1	480.1	479.8
40°	538.0	535.0	531.7	527.2	522.4	519.0	518.1	518.1
42.5°	591.7	589.0	584.5	578.2	572.4	568.8	565.8	566.1
45°	659.0	655.7	649.3	641.5	634.6	629.4	625.2	625.2
47.5°	740.7	733.8	725.0	718.1	706.3	698.5	695.5	694.9
50°	833.9	820.9	810.1	800.1	787.8	779.6	775.1	773.9
52.5°	931.6	918.1	904.5	891.5	876.4	868.0	860.8	860.2
55°	1037.8	1020.6	1003.4	990.7	973.0	964.2	957.0	952.7
57.5°	1146.1	1126.8	1114.4	1096.3	1077.6	1071.3	1064.3	1059.2
60°	1267.9	1246.8	1230.5	1211.5	1199.5	1185.9	1179.2	1175.3
62.5°	1392.5	1372.9	1352.1	1334.0	1317.1	1307.7	1298.7	1294.2
65°	1519.1	1486.9	1462.1	1437.1	1417.2	1400.3	1386.1	1384.3
67.5°	1597.0	1556.2	1514.9	1478.4	1449.2	1425.3	1410.9	1405.7
69°	1603.3	1559.0	1507.4	1463.7	1429.9	1407.0	1389.8	1384.3
70°	1585.8	1541.2	1486.9	1439.8	1404.8	1379.8	1365.6	1356.6
72.5°	1457.9	1418.7	1366.5	1320.1	1288.4	1259.2	1245.0	1241.4
75°	1202.8	1161.1	1113.2	1090.9	1068.9	1050.5	1040.8	1039.9
77.5°	854.1	811.6	775.1	745.9	722.0	710.3	713.0	703.0
80°	488.9	433.4	389.4	363.4	328.1	307.0	283.2	300.4
82.5°	210.2	169.8	129.4	105.3	80.2	63.6	52.5	48.9
85°	58.8	48.0	40.1	36.8	33.2	29.6	25.0	23.2
87.5°	19.9	19.0	16.9	16.9	15.4	13.0	9.0	8.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)