

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: P143928

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143928  
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-E02-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (42) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5174.6 lumens  
Efficiency: N/A  
Efficacy: 99.3 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

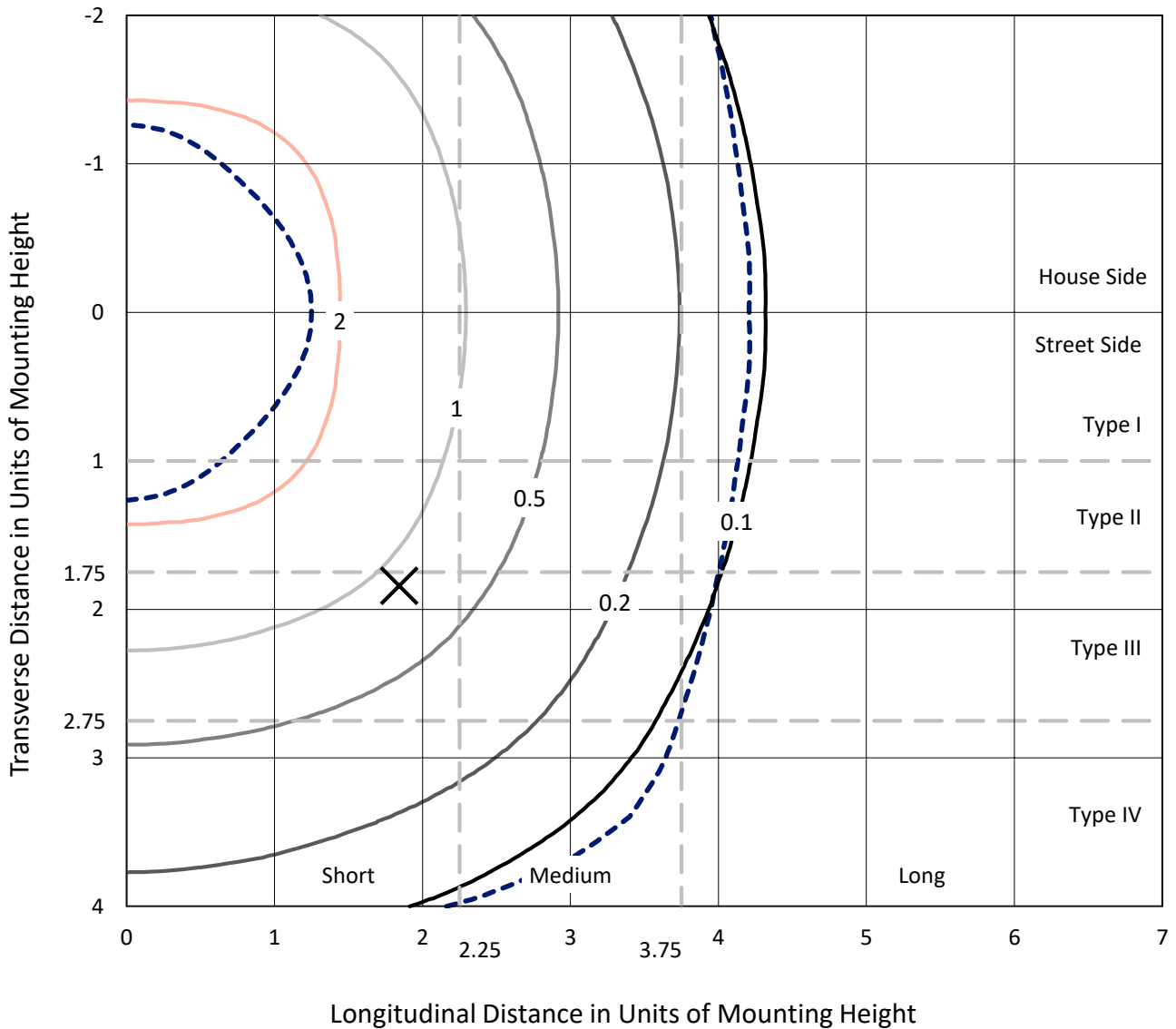
Input Watts (W): 52.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

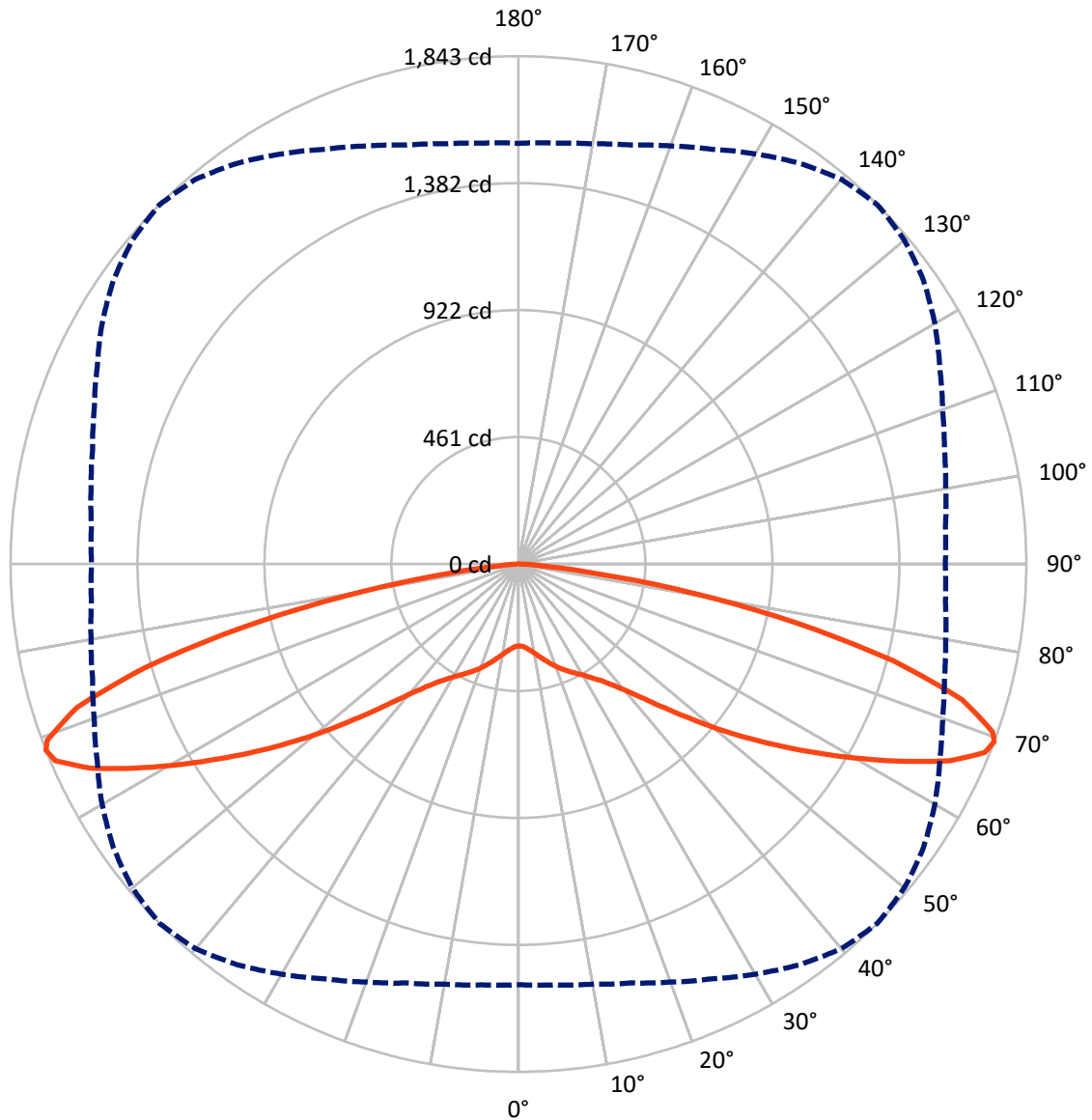
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.3 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	2587.3	0.0	2587.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2587.3	0.0	2587.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5174.6	0.0	5174.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.0	0.6
10°-20°	103.4	2.0
20°-30°	199.3	3.9
30°-40°	326.6	6.3
40°-50°	568.0	11.0
50°-60°	1008.9	19.5
60°-70°	1566.4	30.3
70°-80°	1248.0	24.1
80°-90°	124.1	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°	5174.6	100.0
0°-180°	5174.6	100.0



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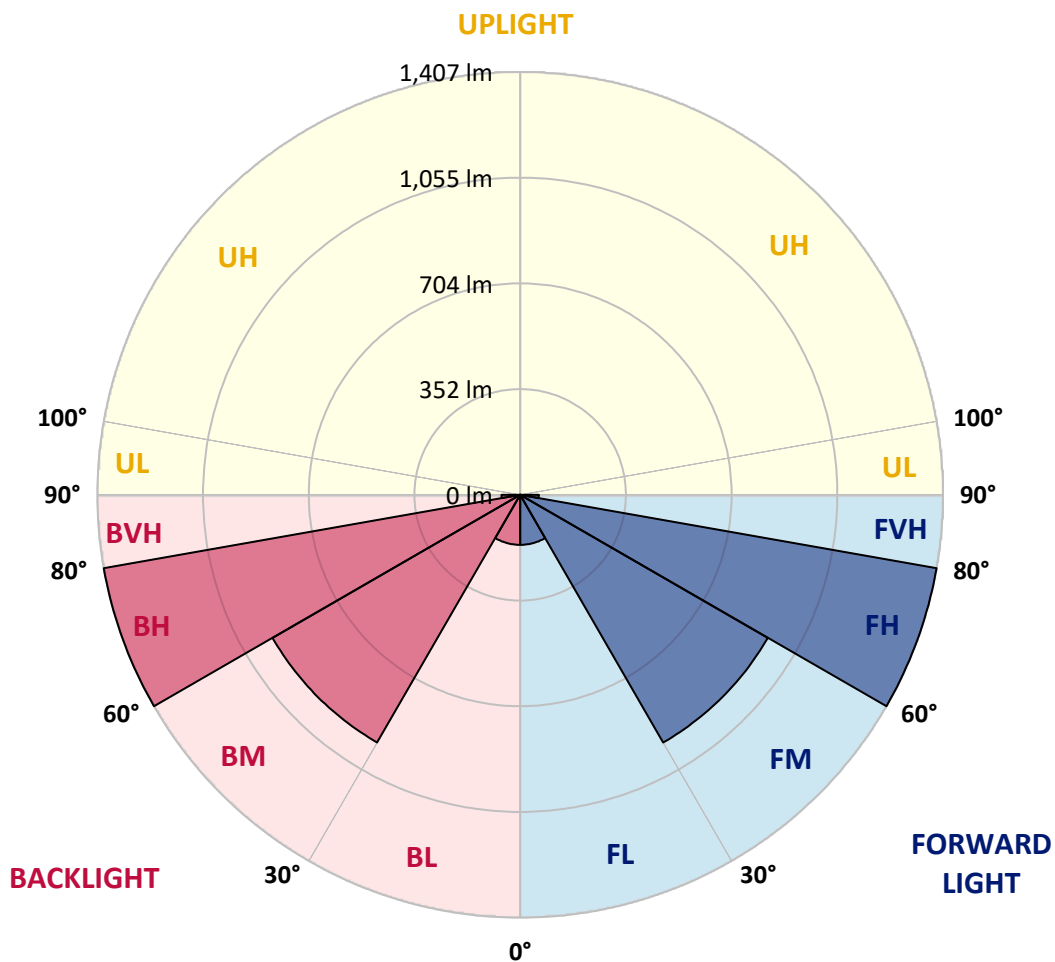
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	166.4	3.2			
FM	(30°-60°)	951.7	18.4			
FH	(60°-80°)	1407.2	27.2			G1/1800
FVH	(80°-90°)	62.0	1.2			G1/100
BL	(0°-30°)	166.4	3.2	B1/500		
BM	(30°-60°)	951.7	18.4	B1/1000		
BH	(60°-80°)	1407.2	27.2	B3/2500		G1/1800
BVH	(80°-90°)	62.0	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°	297.4	297.4	297.4	297.4	297.4	297.4	297.4	297.4	297.4	297.4	297.4
2.5°	299.8	299.8	299.8	299.4	299.4	299.1	299.4	299.1	299.1	299.1	299.1
5°	307.6	306.9	306.9	306.5	307.2	307.2	306.5	306.9	306.5	306.9	306.9
7.5°	317.3	317.3	317.3	317.0	317.7	317.3	317.0	317.3	317.3	317.0	317.0
10°	329.5	329.8	329.5	329.5	330.5	330.2	330.5	330.5	330.8	330.5	330.5
12.5°	343.7	343.7	344.0	344.3	344.7	345.0	346.0	345.7	346.4	345.7	345.7
15°	360.2	360.9	360.2	360.2	361.2	361.9	362.2	362.2	362.9	362.6	361.9
17.5°	377.8	378.1	377.8	377.4	378.4	379.5	379.8	379.8	380.8	380.1	380.1
20°	395.7	396.0	395.3	395.0	396.3	396.3	397.0	397.4	398.4	398.7	397.7
22.5°	412.2	412.5	412.2	411.9	413.2	413.2	414.2	414.6	415.9	415.6	415.6
25°	428.4	428.4	428.1	428.1	429.4	429.8	430.8	431.4	432.8	432.8	432.8
27.5°	443.3	443.6	442.9	442.6	445.3	446.3	447.0	448.3	449.3	450.0	449.7
30°	460.1	460.1	459.8	460.8	462.5	463.9	465.2	467.2	469.3	468.6	468.6
32.5°	480.1	480.7	480.4	481.8	483.8	485.8	487.5	489.9	490.9	492.6	491.2
35°	506.7	508.1	507.4	508.8	510.4	511.8	515.5	517.9	519.6	520.6	519.9
37.5°	540.2	539.5	540.8	541.2	544.5	546.2	550.6	554.0	556.7	557.7	557.0
40°	581.7	580.7	582.4	584.0	588.4	590.1	595.2	600.2	604.0	605.3	604.6
42.5°	631.3	632.7	635.4	637.7	643.8	648.5	654.3	661.7	665.7	667.4	665.1
45°	696.5	694.1	699.2	705.2	708.6	719.1	728.5	736.3	743.0	745.8	743.0
47.5°	770.7	770.4	776.5	783.9	792.7	802.5	813.6	823.7	835.6	836.2	832.9
50°	852.8	859.5	862.9	870.3	886.5	898.7	912.9	928.1	938.9	942.2	936.2
52.5°	951.7	956.7	958.8	971.3	986.1	1001.0	1020.9	1039.1	1051.6	1053.0	1049.9
55°	1059.0	1063.1	1066.8	1082.0	1098.2	1111.4	1136.7	1154.6	1167.1	1171.8	1169.8
57.5°	1170.1	1173.8	1178.5	1195.1	1211.6	1230.2	1254.2	1275.1	1289.6	1298.4	1296.0
60°	1293.3	1293.3	1304.1	1320.7	1334.2	1356.1	1381.1	1405.4	1421.3	1435.1	1431.4
62.5°	1423.0	1426.7	1437.1	1450.7	1464.8	1485.1	1513.4	1542.5	1566.8	1577.3	1576.9
65°	1521.2	1528.0	1541.8	1557.3	1581.0	1604.9	1640.7	1676.8	1706.2	1721.4	1721.4
67.5°	1549.9	1554.3	1571.5	1595.1	1629.2	1667.4	1716.0	1766.3	1806.5	1826.4	1813.9
69°	1526.9	1533.4	1548.6	1574.2	1614.7	1661.3	1719.0	1776.1	1822.7	1843.3	1828.8
70°	1500.3	1507.4	1522.6	1547.9	1589.7	1639.4	1697.1	1758.5	1808.5	1826.1	1809.5
72.5°	1391.6	1400.3	1411.2	1433.1	1470.9	1517.5	1569.5	1623.5	1671.4	1685.3	1664.7
75°	1206.2	1207.9	1213.3	1229.5	1243.0	1276.1	1320.3	1363.2	1399.3	1407.4	1385.5
77.5°	853.8	844.7	835.6	849.4	860.2	902.7	950.7	985.8	1023.6	1035.1	1012.8
80°	374.4	371.0	383.8	402.1	449.7	478.0	525.0	575.3	607.3	644.8	604.6
82.5°	73.9	78.0	90.1	111.4	137.4	172.8	203.6	238.3	269.7	283.9	269.4
85°	30.0	32.7	37.1	41.5	44.6	50.0	58.7	72.9	80.3	81.4	77.3
87.5°	12.5	14.5	19.6	23.3	23.6	22.6	23.3	24.0	19.6	15.9	19.9
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°	297.4	297.4	297.4	297.4	297.4	297.4	297.4	297.4
2.5°	299.1	299.4	299.1	299.4	299.1	299.1	299.4	299.1
5°	306.5	306.9	306.5	306.2	305.9	306.2	306.2	306.2
7.5°	317.0	316.7	316.3	316.3	316.0	315.7	316.3	316.3
10°	329.8	329.5	328.8	328.8	328.5	328.5	328.5	328.5
12.5°	345.4	344.3	344.0	343.0	342.7	342.3	342.3	342.7
15°	361.6	360.6	360.2	358.5	358.5	358.2	358.2	358.2
17.5°	378.8	377.8	376.4	376.4	375.4	374.7	375.1	374.4
20°	396.3	395.0	394.3	394.0	392.6	392.6	392.6	392.3
22.5°	413.6	412.5	411.5	410.2	408.8	408.5	408.5	408.2
25°	431.1	429.4	427.4	426.0	424.7	423.7	423.7	423.7
27.5°	448.7	446.6	443.6	441.9	439.9	438.9	438.9	438.5
30°	467.2	464.9	462.2	459.8	457.1	456.1	455.8	455.1
32.5°	489.5	487.2	484.5	481.1	478.4	476.7	476.7	475.7
35°	517.9	515.2	513.1	508.8	505.4	502.7	503.0	503.7
37.5°	555.0	551.6	549.9	544.5	540.2	537.5	537.5	537.1
40°	602.3	598.9	595.2	590.1	584.7	581.0	580.0	580.0
42.5°	662.4	659.3	654.3	647.2	640.8	636.7	633.3	633.7
45°	737.6	733.9	726.8	718.1	710.3	704.6	699.8	699.8
47.5°	829.1	821.4	811.6	803.8	790.7	781.9	778.5	777.8
50°	933.5	918.9	906.8	895.6	881.8	872.7	867.6	866.3
52.5°	1042.8	1027.6	1012.5	997.9	981.1	971.6	963.5	962.8
55°	1161.7	1142.4	1123.2	1109.0	1089.1	1079.3	1071.2	1066.5
57.5°	1282.9	1261.3	1247.4	1227.2	1206.2	1199.1	1191.4	1185.6
60°	1419.3	1395.6	1377.4	1356.1	1342.6	1327.4	1320.0	1315.6
62.5°	1558.7	1536.7	1513.4	1493.2	1474.3	1463.8	1453.7	1448.6
65°	1700.5	1664.4	1636.7	1608.6	1586.4	1567.5	1551.6	1549.6
67.5°	1787.6	1742.0	1695.7	1654.9	1622.2	1595.5	1579.3	1573.5
69°	1794.7	1745.0	1687.3	1638.4	1600.5	1574.9	1555.6	1549.6
70°	1775.1	1725.1	1664.4	1611.7	1572.5	1544.5	1528.6	1518.5
72.5°	1631.9	1588.1	1529.6	1477.7	1442.2	1409.5	1393.6	1389.5
75°	1346.3	1299.7	1246.1	1221.1	1196.4	1175.8	1165.0	1164.0
77.5°	956.1	908.5	867.6	834.9	808.2	795.0	798.1	786.9
80°	547.2	485.1	435.8	406.8	367.3	343.7	317.0	336.2
82.5°	235.3	190.1	144.8	117.8	89.8	71.2	58.7	54.7
85°	65.8	53.7	44.9	41.2	37.1	33.1	28.0	26.0
87.5°	22.3	21.3	18.9	18.9	17.2	14.5	10.1	9.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)